Technical Paper No. 388

Subsistence Harvests of Pacific Halibut in Alaska, 2012

by

James A. Fall

and

David S. Koster

January 2014

Alaska Department of Fish and Game **Division of Subsistence**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the reports by the Division of Subsistence. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols

alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

all commonly-accepted abbreviations; e.g., Mr., Mrs., AM, PM, etc.

all commonly-accepted professional titles; e.g., Dr., Ph.D., R.N., etc.

Alaska Administrative Code	AAC
Alaska Department of Fish and Game	ADF&G
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures):	first three letters (Jan,...,Dec)
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations

alternate hypothesis	H_A
approximately	~
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	log_2, etc.
mean	$\bar{x}$
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
plus or minus	±
population size	N
probability	P
sample size	n
second (angular)	"
standard deviation	σ or s
standard error (of the mean)	$s_{\bar{x}}$
type I error probability	P_a
type II error probability	P_b
variance	σ^2 or s^2

TECHNICAL PAPER NO. 388

SUBSISTENCE HARVESTS OF PACIFIC HALIBUT IN ALASKA, 2012

by

James A. Fall,
Alaska Department of Fish and Game, Division of Subsistence, Anchorage

and

David S. Koster
Alaska Department of Fish and Game, Division of Subsistence, Anchorage

Alaska Department of Fish and Game
Division of Subsistence
333 Raspberry Road, Anchorage, Alaska, 99518, USA

January 2014

Development and publication of this manuscript were partially financed by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, under award number NA11NMF4370059.

The Division of Subsistence Technical Paper series was established in 1979 and represents the most complete collection of information about customary and traditional uses of fish and wildlife resources in Alaska. The papers cover all regions of the state. Some papers were written in response to specific fish and game management issues. Others provide detailed, basic information on the subsistence uses of particular communities which pertain to a large number of scientific and policy questions.

Technical Paper series reports are available through the Alaska Resources Library and Information Services (ARLIS), the Alaska State Library and on the Internet: http://www.adfg.alaska.gov/sf/publications/. This publication has undergone editorial and professional review.

James A. Fall and David S. Koster,
Alaska Department of Fish and Game, Division of Subsistence,
333 Raspberry Road, Anchorage, Alaska, 99518, USA

This document should be cited as:
Fall, J.A. and D. S. Koster. 2014. Subsistence harvests of Pacific halibut in Alaska, 2012. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 388, Anchorage.

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act (ADA) of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility please write:
ADF&G ADA Coordinator, P.O. Box 115526, Juneau AK 99811-5526
U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington VA 22203
Office of Equal Opportunity, U.S. Department of the Interior, Washington DC 20240

The department's ADA Coordinator can be reached via phone at the following numbers:
(VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648, (Juneau TDD) 907-465-3646, or (FAX) 907-465-6078

For information on alternative formats and questions on this publication, please contact:
ADF&G, Division of Subsistence, Website: http://www.adfg.alaska.gov/index.cfm?adfg=contacts.anchorage

TABLE OF CONTENTS

Page

TABLE OF CONTENTS i
LIST OF TABLES ii
LIST OF FIGURES iii
LIST OF APPENDICES iv
ACKNOWLEDGEMENTS v
ABSTRACT vi
EXECUTIVE SUMMARY vii
CHAPTER 1: BACKGROUND AND METHODS 1
Background 1
Project Objectives 2
Data Collection Methods 2
Public Outreach 2
Postal Household Survey 2
Community Visits and In-Person Surveys 4
Sample Achievement 4
Data Analysis 5
Data Entry 5
Analysis: Development of Harvest Estimates 5
Products 7
CHAPTER 2: FINDINGS 9
Subsistence Halibut Harvests In 2012 9
Estimated Number of Subsistence Halibut Fishers 9
Estimated Alaska Subsistence Halibut Harvests in 2012 by SHARC Type and IPHC Regulatory Area 10
Estimated Alaska Subsistence Halibut Harvests in 2012 by Harvest Location 11
Subsistence Halibut Harvests by Place of Residence 14
Subsistence Harvests by Gear Type 14
Number of Hooks Fished with Setline Gear 15
Number of Subsistence Halibut Fishing Trips 15
Sport Harvests of Halibut by SHARC Holders 15
Estimated Average Net Weights of Subsistence- and Sport-Caught Halibut 16
Rockfish Harvests 16
Lingcod Harvests 17
CHAPTER 3: DISCUSSION 19

Comparisons With Other Harvest Estimates 19
Community Case Studies 20
Sitka (Regulatory Area 2C) 20
Petersburg (Regulatory Area 2C) 21
Cordova (Regulatory Area 3A) 22
Port Graham (Regulatory Area 3A) 23
Kodiak City and Road System (Regulatory Area 3A) 24
Sand Point (Regulatory Area 3B) 25
Unalaska–Dutch Harbor (Regulatory Area 4A) 26
Toksook Bay (Regulatory Area 4E) 27
Tununak (Regulatory Area 4E) 28
Comparisons With Nonsubsistence Removals In 2012 29
CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS 31
Summary And Conclusions 31
SHARC Expiration and Renewal Patterns, 2003–2012 33
Patterns of change in halibut removals, 2003–2012 34
Recommendations 35
REFERENCES CITED 37

LIST OF TABLES

Table **Page**

1.–Population of rural communities eligible to participate in the Alaska subsistence halibut fishery, 2000, 2010, and 2012. 39
2.–Project chronology, 2012 study year. 42
3.–Sample achievement, 2012. 43
4.–Estimated subsistence harvests of halibut, 2012, by SHARC type and regulatory area. 52
5.–Age of Subsistence Halibut Registration Certificate holders by SHARC type, 2012. 59
6.–Estimated harvests of halibut in numbers of fish and pounds net (dressed, head-off) weight by regulatory area and subarea, 2012. 60
7.–Alaska subsistence halibut harvests from 2003–2012 by geographic area fished. 61
8.–Number of hooks usually fished, setline (stationary) gear, Alaska halibut subsistence fishery, 2012. 62
9.–Average net weight of subsistence and sport harvested halibut by regulatory area fished, 2012. 63
10.–Estimated harvests of lingcod and rockfish by regulatory area and subarea, 2012. 63
11.–Estimated harvests of halibut by gear type and participation subsistence and sport fisheries, selected Alaska communities, 2003–2012. 64
12.–Estimated harvests of halibut for home use, Sitka, 1987 and 1996. 68
13.–Number of SHARCs issued, estimated number of subsistence halibut fishers, and estimated harvests by SHARC category, Sitka, 2003–2012. 68
14.–Estimated harvests of halibut for home use, Petersburg, 1987 and 2000. 68
15.–Estimated harvests of halibut for home use, Cordova, 1985, 1988, 1991–1993, and 1997. 69
16.–Estimated harvests of halibut for home use, Port Graham, 1987, 1989, 1990–1993, and 1997. 69
17.–Estimated harvests of halibut for home use, Kodiak road system, 1982, and 1991–1993.[a] 69
18.–Halibut removals in Alaska by regulatory area, 2012. 70
19.–Comparison of selected SHARC survey results, 2003–2012. 71
20.–Percentage of SHARCs that expired or were valid in 2012, by SHARC type. 72
21.–Removals of Pacific halibut in Alaska, 1993–2012. 72
22.–Population estimates of Pacific halibut, 1996–2013. 73

23.– Changes in estimated harvests, valid SHARCs, estimated number of fishers, and average harvest per fisher in the Alaska subsistence halibut fishery, in regulatory areas 2C and 4 and all Alaska, 2003–2012. 74

LIST OF FIGURES

Figure **Page**

1.–Regulatory areas for the Pacific halibut fishery.....75
2.–Number of surveys returned and return rates for subsistence halibut surveys, by SHARC type, 2012. 76
3.–SHARC survey return rates, communities with more than 100 SHARCs issued and tribes with more than 70 SHARCs issued, 2012. 77
4.–Return rate by place of residence, 2012.....78
5.–Number of survey responses by response category, 2012. 79
6.–Number of SHARCs issued and estimated number of subsistence halibut fishers by SHARC type, 2003–2012.....80
7.–Age of subsistence halibut registration certificate holders by SHARC type, 2012. 81
8.–Estimated number of subsistence halibut fishers by place of residence, 2003–2012, communities with 50 or more fishers in 2012. 82
9.–Estimated number of Alaska subsistence halibut fishers, 2003–2012 by regulatory area fished.....83
10.–Estimated subsistence halibut harvests, pounds net weight, by regulatory area of tribe and rural community, 2003–2012. 84
11.–Estimated Alaska subsistence halibut harvests in pounds net weight by SHARC type, 2003–2012. 85
12.–Percentage of tribal subsistence halibut harvest by tribe, 2012. 86
13.–Percentage of rural community subsistence halibut harvest by community, 2012. 87
14.–Percentage of subsistence halibut harvest by regulatory area fished, 2012. 88
15.–Alaska subsistence halibut harvests by geographic area, 2012. 89
16.–Percentage of Alaska subsistence halibut harvest by geographic area, 2012.....90
17.–Estimated subsistence halibut harvests, pounds net weight, by regulatory area fished, 2003–2012.....91
18.–Change in Alaska subsistence halibut harvests from 2011 through 2012 by regulatory area fished. 92
19.–Change in Alaska subsistence halibut harvests in 2012 compared to recent 9-year average (2003–2011) by regulatory area fished. 93
20.–Average subsistence harvest of halibut per fisher in Alaska by regulatory area, in pounds net weight, 2012.....94
21.–Average subsistence harvest of halibut per fisher in Alaska by regulatory area, in number of fish, 2012. 95
22.–Alaska subsistence halibut harvests by place of residence, 2012. 96
23.–Percentage of subsistence halibut harvest by gear type by regulatory area, 2012. 97
24.–Number of hooks usually fished, percentage of fishers using setline (stationary) gear, Alaska subsistence halibut fishery, 2012.....98
25.–Average number of subsistence fishing trips for halibut by regulatory area and SHARC type, 2012.....99
26.–Number of subsistence fishing trips for halibut, by percentage of total reported trips, 2012. 100
27.–Average number of halibut harvested per subsistence fishing trip by regulatory area and SHARC type, 2012.....101
28.–Estimated incidental harvests of rockfish in the Alaska subsistence halibut fishery, number of fish, by regulatory area fished, 2003–2012. 102
29.–Percentage of incidental harvest of rockfish by regulatory area fished, 2012. 103
30.–Estimated incidental harvests of lingcod in the Alaska subsistence halibut fishery, number of fish, by regulatory area fished, 2003–2012. 104
31.–Percentage of incidental harvest of lingcod by regulatory area fished, 2012.....105
32.–Estimated harvests of halibut for home use, Port Graham.....106
33.–Halibut removals, Alaska, 2012.....107
34.–Halibut removals in Alaska by regulatory area and removal category, 2012. 108
35.–Percentage of SHARC holders, and SHARC holders who fished for halibut, who did not renew their SHARC, by SHARC type, 2003–2012.....109
36.–Percentage of SHARCs that were not renewed by survey response type and SHARC type, 2003–2012.....110
37.–Halibut removals in Alaska, 1993–2012.....111
38.–Comparison of SHARC renewal patterns, Regulatory Area 2C, Area 4, and total Alaska.....112

LIST OF APPENDICES

Appendix **Page**

A.–List of eligible tribes and rural communities, 2003 (from Federal Register). 114
B.–Letter sent to tribes about the project. 117
C.–Survey instrument. 119
D.–Set of frequently asked questions and responses. 123
E.–Appendix tables. 125
F.–Comparison of mean harvests per respondent and participation rates by response category, 2005–2012. 166
G.–Project findings summary. 170

ACKNOWLEDGEMENTS

First and foremost, we thank the thousands of individuals who took the time to voluntarily respond to the mailed survey form or to be interviewed. This report would not be possible without their cooperation.

Thank you to Sally Bibb of the National Marine Fisheries Service (NMFS), who facilitated the grant that funded this project and also provided other project support. We also thank the staffs of the NMFS Restricted Access Management (RAM) Program and the Information Services Division, who initially implemented and currently administer the Subsistence Halibut Registration Certificate (SHARC) program and helped provide information to the public about the research.

We also thank the many tribal governments that granted approvals for the survey projects, and the local research assistants who helped with these projects. We especially thank the Sitka Tribe of Alaska (Jeff Feldpausch, Dan Williams, Jessica Gill, Catherine Wilson, and Heather Riggs), the Hydaburg Cooperative Association (Anthony Christianson, Christine Tolson, Joey Adams, Mona Peratrovich, and Jodi Sanderson), and Metlakatla Indian Community (Jeff Moran and Priscilla Berkeley) for assisting with survey administration in their communities. Matt Kookesh (Southeast Rural Consulting) organized the survey administration in Angoon and Ketchikan; Christel Silva in Angoon and Rose Johnson in Ketchikan helped complete the surveys.

In addition to the coauthor of this report, other Alaska Department of Fish and Game (ADF&G) Division of Subsistence staff who assisted with research, data management, and report preparation included Garrett Zimpelman, Margaret Cunningham, Theresa Quiner, Barbara Dodson, John Dwyer, Zayleen Kalalo, Maegan Smith, Lauren Sill, Meredith Marchioni, Rosalie Grant, Adam Knight, and Mary Lamb. Ana Lewis, Alejandra Rico, Michaela Silva, and Jennifer Bond provided project administrative support.

Heather Gilroy and Gregg Williams (staff to the International Pacific Halibut Commission) provided background information for this report. Several of the above-mentioned ADF&G staff also offered comments and suggestions on the preliminary draft.

ABSTRACT

This report describes the results of the tenth annual project to estimate the subsistence harvest of Pacific halibut *Hippoglossus stenolepis* in Alaska since the National Marine Fisheries Service adopted rules governing subsistence halibut fishing in 2003. Data were collected through a voluntary survey mailed to all holders of Subsistence Halibut Registration Certificates (SHARCs). The survey response rate was 71% (7,054 surveyed of 9,944 SHARC holders). An estimated 4,394 individuals participated in the subsistence fishery for halibut in 2012, the lowest total over the 10 study years; the previous low was 4,705 fishers in 2011 and the highest estimate was 5,984 fishers in 2004. The estimated harvest in 2012 was 37,093 halibut, comprising 686,991 lb (net weight; ±2.9%), the lowest totals for the 10 years of the project. This compares to a high of 55,875 fish and 1,178,222 lb (± 3.0%) in 2005 and a previous low of 38,162 fish and 697,656 lb (±2.7%) in 2011. Of the total subsistence halibut harvested in 2012, 78% were harvested with setline gear and 22% with hand-operated gear. As in 2003–2011, the largest portion of the Alaska subsistence halibut harvest in 2012 occurred in Regulatory Area 2C (Southeast Alaska), 58%, followed by Area 3A (Southcentral Alaska), 37%. Subsistence harvests represented about 1.7% of the total halibut removals in Alaska in 2012. The harvest estimates based on the surveys for 2003–2012 serve as a basis for understanding the overall harvest, annual variability in catch, and trends in harvests since implementation of the 2003 regulations. Due to budget constraints, a survey to estimate subsistence halibut harvests in Alaska in 2013 will not take place. The report recommends that monitoring of the subsistence harvest of halibut in Alaska be resumed in the future.

Key words: Pacific halibut, *Hippoglossus stenolepis*, subsistence harvests, Alaska, rockfish, *Sebastes*, lingcod, *Ophiodon elongatus.*

EXECUTIVE SUMMARY

This report presents findings of a project designed to estimate the subsistence harvest of Pacific halibut *Hippoglossus stenolepis* in Alaska in 2012. The Alaska Department of Fish and Game (ADF&G) Division of Subsistence conducted the project under National Oceanic and Atmospheric Administration (NOAA) award number NA11NMF4370059 from the U.S. Department of Commerce, NOAA National Marine Fisheries Service (NMFS). In May 2003, NMFS published federal regulations implementing a subsistence halibut fishery in Alaska for qualified individuals who are residents of 118 rural communities or members of 123 Alaska Native tribes with traditional uses of halibut. The year 2012 was the tenth in which subsistence halibut fishing took place under these regulations. Subsistence fishers are required to obtain a Subsistence Halibut Registration Certificate (SHARC) from NMFS before fishing. During 2012, 9,944 individuals held SHARCs, compared to a high of 15,047 at the end of 2007 and a previous low of 10,953 at the end of 2010. The number of valid SHARCs in 2012 was 22% below the previous 9-year average.

Harvest information was collected by means of a postal (mailed) survey. The 1-page survey form was mailed to all SHARC holders in early 2013, with 2 follow-up mailings. Household visits supplemented the mailings in 5 communities in Southeast Alaska. In total, 7,054 surveys were returned, a response rate of 71%, the highest of any study year. Participation in the survey was voluntary.

According to the project findings, an estimated 4,394 individuals participated in the subsistence halibut fishery in 2012. This was the lowest number of participants since the SHARC program began. The previous low was 4,705 subsistence halibut fishers in 2011, and the highest estimate was 5,984 in 2004.

The estimated harvest in 2012 was 37,093 halibut (±2.9%) comprising 686,991 lb (net weight; ±2.9%), the lowest totals for the 10 years of the project. ("Net weight" is 75% of "round" or live weight; the estimated harvest was 915,988 lb round weight.) This compares to an estimated high of 55,875 fish (±3.0%) comprising 1,178,222 lb (±3.0%) in 2005 and a previous low of 38,162 halibut (±2.8%) comprising 697,656 lb (±2.7%) in 2011. As measured in pounds, the 2012 harvest was about 2% lower than the estimated harvest in 2011, and 30% lower than the previous 9-year average from 2003–2011.

Of the total subsistence halibut harvested in 2012, 532,623 lb (78%) were harvested with setline (stationary) gear (i.e., longlines, or "skates") and 154,368 lb (22%) were harvested with hand-operated gear (i.e., rod and reel or handline). This was similar to the harvest by gear type in 2003–2011. Of those subsistence fishers using setline gear in 2012, the most (41%) usually fished with 30 hooks, the maximum number allowed by regulation in all areas except areas 4C, 4D, and 4E, where regulations establish no hook limit.

Subsistence fishers also harvested an estimated 9,568 rockfish *Sebastes* spp. and 2,247 lingcod *Ophiodon elongatus* in 2012 while fishing for halibut. These were the lowest estimates for any year of the study. The highest estimated harvests were 19,001 rockfish and 4,407 lingcod in 2004 and previous low harvests were 10,853 rockfish and 2,305lingcod in 2011.

Based upon fishing locations, the largest portion of the Alaska subsistence halibut harvest in 2012 occurred in Regulatory Area 2C (Southeast Alaska), with areas ranking as follows:

- Area 2C (Southeast Alaska), 58% (396,043 lb);
- Area 3A (Southcentral Alaska), 37% (253,516 lb);
- Area 3B (Alaska Peninsula), 2% (15,959 lb);
- Area 4A (Eastern Aleutian Islands), 1% (9,543 lb);
- Area 4E (East Bering Sea Coast), 1% (8,384 lb);
- Area 4B (Western Aleutian Islands), less than 1% (1,698 lb);

- Area 4C (Pribilof Islands), less than 1% (1,176 lb); and
- Area 4D (Central Bering Sea), less than 1% (672 lb).

In 2003–2011 as well, Area 2C and Area 3A accounted for over 85% of the subsistence halibut harvests. The proportion of the statewide subsistence halibut harvest occurring in Area 2C has ranged from an estimated high of 60% in 2003 to an estimated low of 51% in 2005 and 2007. Correspondingly, the portion occurring in Area 3A has ranged from an estimated high of 39% in 2010 to an estimated low of 27% in 2003.

Preliminary data from the International Pacific Halibut Commission (IPHC) combined with the findings of this project indicate that 42.491 million pounds (net weight) of halibut were removed from Alaska waters in 2012. Of this total, the subsistence harvest accounted for 1.7%. Commercial harvests took 59.9% of the halibut, followed by bycatch in other commercial fisheries (22.5%), sport harvests (12.6%), and wastage in the commercial fishery (3.3%).

This report describes the results of the tenth annual project to estimate the subsistence halibut harvest in Alaska since NMFS adopted rules governing subsistence halibut fishing in May 2003. The harvest estimates based on the SHARC surveys for the 2003–2012 fishing seasons serve as a basis for understanding the overall harvest, annual variability in catch, and trends in harvest since implementation of the new regulations. Demonstrating changes in the magnitude of the Alaska subsistence halibut harvest resulting from the new regulations using the results of the SHARC surveys for 2003–2012 is problematic, however, because of the limitations of earlier harvest estimates at the statewide level. The subsistence harvest estimates for 2003–2012 for some of the larger communities—such as Sitka, Petersburg, and Kodiak, which account for the majority of the harvest—are not markedly different from the range of harvest estimates based on household surveys prior to the new regulations. The higher overall harvest estimates for 2004–2006 compared to 2003 may be due to more thorough registration of subsistence fishers, hence better harvest documentation. The lower total Alaska harvest in net pounds in 2008–2012 compared to the previous 5 years appears to be the result of fewer registered SHARC holders, fewer estimated participants in the fishery, lower average harvests per fisher, and a decline in the average size of the harvested halibut over the 10 years of the study (i.e., from 23.7 lb per fish in 2003 to 18.5 lb per fish in 2012). In Area 4, substantial drops in SHARC registrations and survey responses may be resulting in an underestimate of subsistence halibut harvests in that area.

The report concludes that 686,991 net pounds is a sound estimate of the Alaska subsistence halibut harvest in 2012. The estimate is based upon a scientific sampling of SHARC holders and a relatively high response rate. The total estimated harvest falls below the 1.5 million net pounds estimated for the subsistence harvest when the current regulations were developed by the North Pacific Fishery Management Council (see http://www.fakr.noaa.gov/frules/70fr16742.pdf, page 16,748). The 2012 harvest estimate was 30% below the average for the previous 9 project years and continued a trend of lower statewide harvests that began in 2005. The causes of this decline in estimated harvests are complex, and there is no certainty that the trend will persist.

Due to budget constraints, a survey to estimate subsistence halibut harvests in Alaska will not occur for harvest year 2013. The report recommends that monitoring of the subsistence halibut harvest in Alaska resume in the future, based on an analysis of the data collected for 2003–2012 and an ethnographic study of subsistence halibut fishing in selected communities, so that trends in the fishery in terms of participation, location of harvests, and harvest quantities can be better understood.

CHAPTER 1: BACKGROUND AND METHODS

BACKGROUND

The primary goal of this project was to estimate the subsistence harvests of Pacific halibut *Hippoglossus stenolepis* in Alaska in 2012 through a survey mailed to registered subsistence halibut fishers; the survey was supplemented by interviews in selected communities. This was the tenth year for which this research was conducted. (See (Fall et al. 2004) for the results for 2003, (Fall, George, and Easley 2005) for the results for 2004, (Fall, Koster, and Davis 2006) for the results for 2005, (Fall, Koster, and Turek 2007) for the results for 2006, (Fall and Koster 2008) for the results for 2007, (Fall and Koster 2010) for the results for 2008, (Fall and Koster 2011) for the results for 2009, (Fall and Koster 2012) for the results for 2010, (Fall and Koster 2013) for the results for 2011.) The Division of Subsistence administered the project through a grant from the National Oceanic and Atmospheric Administration (NOAA) (award number NA11NMF4370059). In June 2013, NOAA notified the division that due to budget constraints, funding was not available to continue the project for the 2013 harvest year.

In Alaska's coastal areas, subsistence halibut fisheries are local, noncommercial, customary and traditional food fisheries, as noted by Wolfe (2002) and described in *Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis for a Regulatory Amendment for Defining a Halibut Subsistence Fishery Category* (an "EA/RIR/IRFA") by the North Pacific Fishery Management Council (NPFMC), ADF&G, IPHC, and the National Marine Fisheries Service (NMFS), August 11, 2000 (National Marine Fisheries Service 2000); see also (North Pacific Fishery Management Council 2003). The EA/RIR/IRFA summarizes information about the subsistence halibut fishery in Alaska. This background information is not repeated here but provided the basis for the NPFMC's recommendation for subsistence halibut fishing regulations in Alaska. Figure 1 illustrates IPHC halibut regulatory areas in Alaska.

In April 2003, the NMFS, Alaska Region, published federal regulations implementing a subsistence halibut fishery for qualified individuals in the waters in and off Alaska (68 FR 18145, April 15, 2003; see http://www.fakr.noaa.gov/frules/fr18145.pdf). Current regulations state that persons eligible to subsistence halibut fish include: 1) residents of rural communities with customary and traditional uses of halibut (rural); and 2) members of federally recognized Alaska Native tribes with customary and traditional uses of halibut (tribal). In total, residents of 118 rural communities and members of 123 Alaska Native tribes are eligible to participate in the fishery.[1] (See Appendix A for a list of eligible tribes and communities as they appeared in the Federal Register in 2003.) On November 4, 2009, the U.S. Department of Commerce published a final rule (74 FR 57105, November 4, 2009), effective December 4, 2009, modifying eligibility requirements for participation in the Alaska subsistence halibut fishery. The action allowed rural residents who live outside the boundaries of the specified 118 communities to participate if they live within the boundaries of rural areas defined in §300.65(g)(3).

Subsistence halibut fishers are required to obtain a SHARC from the Restricted Access Management (RAM) Program office of NMFS prior to fishing.[2] Federal regulations (50 CFR Part 300.65(h)(4)) also authorize periodic surveys of SHARC holders in order to estimate annual subsistence harvests and related

---

[1] In December 2004, the NPFMC adopted a recommendation to the Secretary of Commerce to add Naukati Bay to the original list of 117 eligible rural communities. Regulations implementing this change went into effect in 2008, resulting in 118 rural communities eligible for a portion of 2008 and all of 2009. Also, note that the Northern Pacific Halibut Act of 1982, under which the Alaska subsistence halibut fishery regulations are authorized, provides for fair and equitable allocations of halibut among U.S. fishers, but does not establish priorities for those allocations (see http://www.fakr.noaa.gov/frules/70fr16742.pdf, page 16,747).

[2] The subsistence rules were amended in 2005 by regulations published in the Federal Register at 70 FR 16742, April 1, 2005. Among other things, this amendment provides for obtaining Community Harvest Permits, Ceremonial Permits, and Educational Permits.

catch and effort information. The regulation states that, "Responding to a subsistence halibut harvest survey will be voluntary."

Table 1 provides population estimates for the eligible rural communities for 2000 and 2010 based on the federal decennial censuses. The total population of these communities in 2000 was 82,707, of which 38,990 were Alaska Natives (47%). For 2010, the federal census reported a total population of 84,353 for eligible rural communities and areas, including 39,164 Alaska Natives (46%) (U.S. Census Bureau 2011). In addition, the nonrural communities of Juneau and Ketchikan (excluding Saxman, whose residents are eligible) in 2010 had Alaska Native populations of 6,005 and 2,625, respectively (Alaska Department of Labor and Workforce Development 2011), most of whom were eligible to participate in the federal subsistence halibut fishery through their tribal membership. Also, an unknown number of eligible tribal members lived in other nonrural communities, such as Anchorage and places within the Kenai Peninsula Borough. Table 1 shows that Alaska Department of Labor and Workforce Development estimates for eligible communities and areas for 2012 total 87,171. Estimates of the Alaska Native population of these areas for 2012 are not available.

PROJECT OBJECTIVES

The primary goal of the project was to estimate the subsistence harvest of halibut in Alaska in the calendar year 2012. Funding for 2012 totaled $129,000, the same as study year 2011. In addition to 3 rounds of survey mailings, outreach and supplemental interviewing occurred in 5 communities in Area 2C. The project objectives for 2012, listed below, were identical to the first 9 years of the project:

1. Produce an estimate of the subsistence harvest of halibut in Alaska in 2012 by community, tribe, gear type, and IPHC regulatory area, along with an estimate of the number of individuals who subsistence fished for halibut in 2012.
2. Produce an estimate of the harvest of halibut by SHARC holders while sport fishing in 2012.
3. Produce an estimate of the number of lingcod and rockfish taken by subsistence fishers while subsistence fishing for halibut in 2012.

DATA COLLECTION METHODS

Public Outreach

In January 2013, the Division of Subsistence sent a short summary of the findings for 2011 to all eligible tribes and a letter informing them that the research would continue for the 2012 harvest year (Appendix B). Information about the project was available on the NMFS website for subsistence halibut fishing in Alaska (see http://www.fakr.noaa.gov/ram/subsistence/halibut.htm).

For additional outreach, division staff traveled to 5 Southeast Alaska (Area 2C) communities: Angoon, Hydaburg, Ketchikan, Metlakatla, and Sitka. Meetings took place with tribal officials about the importance of the survey as well as the SHARC program. In addition, staff produced a 2-page overview about the project and the SHARC program that was distributed during the household surveys.

Postal Household Survey

As noted, this was the tenth year of a harvest assessment program for the subsistence halibut fishery in Alaska. Because the subsistence halibut regulations came into effect in 2003, the first years of collecting harvest data were exploratory. Subsequent project years have built upon the lessons learned in the first years of the project and have benefited from outreach efforts to improve response rates.

As recommended by Wolfe (2002) survey methodology was based upon a registration system for subsistence halibut fishers, which requires fishers to obtain a SHARC before fishing under federal subsistence halibut regulations. In total, 9,943 individual SHARCs and 1 community permit were issued for 2012 (see section "Sample Achievement" below), for a total of 9,944 individuals or groups authorized

to participate in the subsistence halibut fishery. All 9,943 individuals who held a SHARC for any portion of 2012, as of December 31, 2012, were mailed a retrospective recall survey covering a 12-month harvest period: calendar year 2012. Data from the community permit were returned directly to the RAM Program, and are included in these study findings.

With one exception, the 2012 survey instrument was virtually identical to the form used for the 2003–2008 project years. It is based on recommendations by Wolfe (2002, Appendix A), with slight modifications, such as project year and return address. (See Appendix C in this report for a copy of the 2012 survey instrument.) Wolfe (2002, 15–18) provided justification for the kinds of data to be collected, which include name and address of the fisher; halibut harvests in numbers and pounds round (whole); weight by gear type in 2012; number of hooks usually set; and harvests of lingcod and rockfish taken while subsistence fishing for halibut. In 2003, a question addressing the water body fished (primary location) while subsistence fishing was added at the recommendation of NMFS staff. This question was retained for 2004–2012. Another survey question was added in 2004 to record the location of sport halibut fishing by SHARC holders. The survey was designed to reduce the potential double counting of halibut taken with rod and reel gear, which could be reported in both the subsistence survey and in the ADF&G Division of Sport Fish *Statewide Harvest Survey* (Wolfe 2002, 19). For 2009, a new question was added about the number of trips taken for subsistence halibut fishing in the study year. This question was retained for 2010–2012.

A short explanatory letter with instructions on the back for completing the survey was included in the mailings (Appendix C). The survey was designed so that it could be directly returned to the Division of Subsistence, postage paid.

Presently under IPHC regulations, Community Development Quota (CDQ) fishers may retain halibut under 32 inches (U32; formerly called "sublegal" or "shorts") while commercial CDQ fishing in areas 4D and 4E only. These regulations require the CDQ organization to report this harvest to the IPHC. To avoid double counting, subsistence fishers were instructed not to include these fish on their subsistence halibut survey.

During an October 2003 meeting of the Alaska Native Subsistence Halibut Working Group (ANSHWG), held before the mailed survey for the first project year, community representatives expressed concern that not all fishers would know which fish were to be included under the category "rockfish" for the incidental harvest question on the survey. This would have led to an overestimation of this harvest if fishers reported fish such as Pacific cod *Gadus macrocephalus* or various species of sculpins in response to this question. The instructions mailed with the survey provided guidance on this question.[3]

Table 2 provides a chronology of key activities during the project. Table 3 provides a summary of response rates by mailing, SHARC type (rural or tribal), and place of residence. The first mailing to 9,943 SHARC holders occurred on January 7, 2013. The second mailing to 5,552 SHARC holders occurred on February 15, 2013, and a third mailing to 3,744 SHARC holders occurred on March 27, 2013.

The Division of Subsistence created a dedicated e-mail address that recipients of the postal survey could use if they had questions about how to respond. Also, the RAM Program set up a toll-free telephone number (1-800-304-4846) to provide information about the subsistence halibut program, including the harvest assessment program. Both the e-mail address and toll-free telephone number appeared on the survey. A set of "frequently asked questions" and responses was developed by ADF&G and NMFS staff

[3] The principal investigators for this project are aware that more than 30 species of rockfish inhabit Alaska waters. (See Alaska Administrative Code 5 AAC 39.975 for definitions of management assemblages of rockfishes.) The goal of this project was to keep the questions about incidental harvests simple. As discussed in the recommendations section (see Chapter 4), if more precise harvest data for various rockfish are needed for particular areas, future research should be designed and funded to address these data needs.

members to guide staff responses to telephone calls and e-mail inquiries about how to fill out the survey form (Appendix D [FAQ]; Appendix C [survey]).

Community Visits and In-Person Surveys

Because the response rates to the postal survey vary by community and tribe, the mailings were again supplemented in selected communities with household surveys conducted by local research assistants hired through subcontracts with Alaska Native tribes. Because of the large number of eligible communities and tribes, it was not possible to conduct surveys in most communities.

In the 2012 project year, the interviews were administered in Metlakatla, Sitka, Hydaburg, Angoon, and Ketchikan. Cooperative agreements with the Metlakatla Indian Community, the Sitka Tribe of Alaska, and the Hydaburg Cooperative Association supported interviewing in those communities. A contract with the firm Admiralty Island Adventures supported interviewing in Angoon and Ketchikan (including Saxman). In each community, the surveys were administered face-to-face or by telephone. In addition, while engaged in other projects, division staff conducted interviews with SHARC holders from the southeast Alaska communities of Haines and Hoonah who had not returned the surveys by mail.

SAMPLE ACHIEVEMENT

Table 3 reports sample achievement by tribe, rural community, and community of residence. Overall, 7,054 surveys were returned by 9,944 SHARC holders (including the 1 special permit),[4] a response rate of 71% (Figure 2). For residents of the 118 eligible rural communities and eligible rural areas who did not register as tribal members, 5,011 of 6,519 surveys were returned (77%) (tables 3 and 4). As shown in Figure 3, in 2012 there were 11 communities with more than 100 nontribal SHARC holders, accounting in total for 85% of all nontribal SHARCs issued in rural communities. Return rates were 72% or more in all 11 of these communities.

Of the 3,425 tribal members who held SHARCs in 2012, 2,043 (60%) returned surveys. As shown in Figure 3, there were 16 tribes with more than 70 members who obtained SHARCs. Return rates for these 16 tribes varied widely, from 97% in Angoon (where household surveys were conducted to supplement the return of surveys by mail) to 25% for Pauloff Harbor (for which no directed outreach occurred). In total, these 16 tribes accounted for 70% of all tribal SHARCs.

Figure 4 illustrates survey response rates by place of residence of SHARC holders for the 21 communities with 100 or more SHARC holders in 2012. These communities accounted for 84% of all SHARCs and 85% of all returned surveys. Response rates were 50% or higher in all but 3 of these communities, and equaled or exceeded 60% in all but 5.

Figure 5 shows the survey return rate by response category (see also Table 3). After the first mailing, 5,050 surveys were returned—a response rate of 51%. Responses to the second mailing added 1,130 surveys, and the third mailing produced 440 responses, for a total response to the postal survey of 6,620 surveys, or 67% of the 9,944 SHARC holders. In addition, surveys administered by representatives of tribal and other organizations working with ADF&G (plus information from the 1 special permit returned directly to RAM Program), added 434 surveys. Most of these were in Metlakatla, Hydaburg, Sitka, Angoon, and Ketchikan. This brought the total response to 7,054 surveys, 71% of all SHARC holders in 2012.

The overall response rate for the survey for 2012 increased compared to 2011, from 68% to 71%. The return rate in 2012 was the highest for any year of the survey.[5] Several factors likely account for the high response rates in 2011 and 2012. These include restoration of the third survey mailing (only 2 mailings

---

[4] In this report, we use 9,944 as the number of SHARCs or "SHARC holders," a total that includes 9,943 individual SHARC holders and 1 community permit.

[5] See Table 19 for sample sizes and fractions and selected project findings for the 10 project years.

occurred for 2009 and 2010), outreach efforts, and adding Metlakatla to the set of communities in which face-to-face surveys took place.

The number of surveys returned as "undeliverable" was 552 in 2012 (Table 3). Subtracting "undeliverables" from the postal survey target gives a response rate by mail of 70% in 2012, the highest for any survey year; the previous high was 68% in 2011.

DATA ANALYSIS

Data Entry

All returned surveys were reviewed for completeness prior to data entry. Responses were coded following standardized conventions used by the Division of Subsistence. Staff within the Information Management Section of the division set up database structures within Microsoft SQL Server[6] at ADF&G in Anchorage to hold the survey data. The database structures included rules, constraints, and referential integrity to ensure that data were entered completely and accurately. Data entry screens were available on a secure Internet website. Daily incremental backups of the database occurred, and transaction logs were backed up hourly. Full backups of the database occurred twice weekly. This ensured that no more than 1 hour of data entry would be lost in the unlikely event of a catastrophic failure.

Survey responses were manually entered twice, and survey forms were electronically scanned. All data were compared programmatically for inconsistent data entry. Double data entry ensured a more accurate transfer of information from the coded survey forms into the database, and is a standard Division of Subsistence practice. Data did not pass to the processing phase until inconsistencies within the twice-entered data set were eliminated. The scanned survey forms also facilitated efficient data correction and editing.

Information was processed and analyzed using MS SQL programming. Initial processing included the performance of standardized logic checks of the data. Logic checks are often needed in complex data sets where rules, constraints, and referential integrity do not capture all of the possible inconsistencies that may appear.

Analysis: Development of Harvest Estimates

Analysis included review of raw data frequencies, cross tabulations, table generation, and estimates of population parameters. Missing information was dealt with on a case-by-case basis. The Division of Subsistence has standard practices for dealing with missing information, such as minimal value substitution or use of an average response for similarly characterized households or communities. Typically, missing data are an uncommon, randomly occurring phenomenon in household surveys conducted by the division, as was the case in this project.

In general, estimates of harvests, levels of participation, and other findings were calculated based upon the application of weighted means (Cochran 1977). These calculations are standard methods for extrapolating sampled data. In this project, each tribe and rural community was a separate stratum for purposes of estimating total harvests. In most cases, the mean for returned SHARC surveys was applied to the total number of SHARCs issued for the tribe or community to calculate the estimated harvest. (See Appendix Table E-1 for the reported harvests for each tribe and community.) The formula for standard expansion of community harvests is

$$H_t = \sum H_i \tag{1}$$

$$\text{where } H_i = h_i W_i \tag{2}$$

[6] Product names are included for scientific completeness and do not constitute an endorsement.

$$\text{and } W_i = \frac{N_i}{n_i} \text{ (Harvest weight factor per strata } i\text{)} \quad (3)$$

H_t = the total harvest (numbers of fish or pounds),

H_i = the total harvest, numbers or pounds, for tribe or community i

W_i = the weight factor for tribe or community i,

h_i = the total harvest, numbers or pounds, reported in returned surveys for tribe or community,

n_i = the number of returned surveys in each tribe or community, and

N_i = the number of SHARCs issued for tribe or community.

The following instances are exceptions. First, 97 SHARCs were held by eligible tribal members living outside of Alaska. Of these, 49 postal surveys were returned from this group, and only 4 of these returned surveys indicated any subsistence fishing activity. Rather than assign the mean value for their tribe (which would likely result in an overestimate of the harvest), all nonreturned surveys for SHARC holders with out-of-state addresses were coded as "did not fish."

Second, all SHARC holders were divided into 2 categories based upon the expiration date of their SHARC. SHARCs having an expiration date falling within the project period and that were not renewed were treated as separate strata from other SHARCs for the purpose of generating harvest estimates. This was done to account for potential bias and resulting overestimation of harvests for SHARCs that were fished for only part of the year. During 2012, 905 rural and 529 tribal SHARCs expired and were not renewed; of those, 514 (57%) rural SHARCs and 202 (38%) tribal SHARCs participated in the survey. Of those survey respondents with rural SHARCs that expired, 24% participated in the subsistence fishery, as did 25% of survey respondents with expired tribal SHARCs.

Third, as in 2009–2011, for tribal and rural SHARC holders from Nanwalek, comparisons of reported harvests with estimates from previous years, plus relatively low response rates, suggested that survey responses included all harvesters. Therefore, reported harvests were used as total harvest estimates for both the Nanwalek tribe and for Nanwalek rural SHARC holders.

The RAM Program issued 1 community permit for 2012. Harvests from this permit were added to the estimates for the tribe of the permit holder because they are not reported by individuals in their response to the SHARC postal survey. Data from this permit were returned directly to RAM Program, and RAM Program provided the data to ADF&G for the analysis.

It should also be noted that not every individual who obtained a SHARC as a tribal member resided in the community where his or her tribe's headquarters is located. Therefore, the sum of harvest estimates for tribal SHARC holders and rural resident SHARC holders does not necessarily equal the halibut harvest for particular communities of residence. Rather, an additional analysis was necessary to estimate harvests by community of residence that assigned tribal SHARC holders to a community based on their mailing addresses. Appendix tables E-4, E-5, and E-6 report project results by place of residence of the SHARC holders.

The standard deviation (*SD*; or Variance [*V*], which is the *SD* squared) of the harvest was calculated with the raw, unexpanded data. The standard error (*SE*), or *SD* of the mean, was also calculated for each community or tribe. This was used to calculate the relative precision of the mean, or the likelihood an unknown value falls within a certain distance from the mean. In this project, the relative precision of the mean is shown in the tables as a confidence interval (*CI*), expressed as a percentage. Once the standard error was calculated, the *CI* was determined by multiplying the *SE* by a constant that reflected the level of significance desired, based on a normal distribution. The constant for 95% confidence intervals is 1.96.

Though there are numerous ways to express the formula below, it contains the components of a *SD*, *V*, and *SE*.

Relative precision of the mean (*CI*%):

$$CI\%(\pm) = \frac{t_{\alpha/2} \times \frac{s}{\sqrt{n}} \times \sqrt{\frac{N-n}{N-1}}}{\bar{x}} \tag{4}$$

$$s = \sqrt{\sum_{i=1} \frac{\sum(x_i - \bar{x})^2}{n_i - 1}} \tag{5}$$

Where

s = sample standard deviation

x = reported amount harvested by individual SHARC holders

$\bar{x}$ = mean harvest

n = total sample size

N = total population size

n_i = tribal or community sample size

$t_{\alpha/2}$ = Student's *t*-statistic for alpha level (α=0.95) with *n*–1 degrees of freedom.

Project staff explored the possibility of nonresponse bias for returned mail-out surveys and its effect on harvest estimates (see Appendix F for further discussion). However, it was determined that responses to the survey, including harvest levels and involvement in the fishery, were not notably different between any of the response categories (responses to the first mailing, the second mailing, the third mailing, and staff-administered surveys; see Appendix Table E-2).

As noted above, survey respondents provided harvest estimates in pounds round (whole) weight. For ease of comparison with estimates of halibut removals in other fisheries, we have converted these estimates to pounds net (dressed, head off) weight, where 0.75 × round weight = net weight.[7]

Products

The public review draft of this final report was completed in November 2013 and circulated for review and comments. The draft report was also posted at the Division of Subsistence website. A presentation of the project findings and recommendations occurred at the December 2013 meeting of the NPFMC in

[7] The factor of 0.75 for converting halibut round weight to net weight is the standard used by the IPHC and ADF&G Division of Sport Fish. Division of Subsistence studies, as reported in the Technical Paper series and in the Community Subsistence Information System (CSIS)[a], generally use a factor of 0.72 for converting halibut round weights to net weights, based on Crapo et al. (1993, 7), who reported that, on average, the weight of a dressed halibut with the head removed is 72% of the round weight, with a range of 68% to 80%. In Division of Subsistence Technical Papers, "net" weight (dressed, head off) is usually referred to as "usable weight."

[a] CSIS: http://www.subsistence.adfg.state.ak.us/CSIS/. The CSIS was formerly the Community Profile Database (referred to as CPDB) (Scott et al. Unpublished).

Anchorage, Alaska. In study years 2003–2008, draft results were also reviewed during a December meeting of the ANSHWG, but a meeting of this advisory group did not take place in December 2013. The final report was revised in consideration of comments and suggestions received from reviewers of the public review draft. In addition to the final report, a short findings summary was prepared (Appendix G). The summary was sent to tribal government representatives and other interested individuals and groups. This report was posted on the Division of Subsistence website and the RAM Program website in PDF format for downloading and printing by the public. Printed copies of this report were sent to the Alaska Resources Library and Information Services as well as the Alaska State Library.

CHAPTER 2: FINDINGS

SUBSISTENCE HALIBUT HARVESTS IN 2012

Estimated Number of Subsistence Halibut Fishers

Of the 9,944 individuals who held valid SHARCs for any portion of 2012, an estimated 4,394 (44%) participated in the subsistence halibut fishery in 2012 (Table 4; Figure 6). Of the 3,425 individuals who held SHARCs as members of an eligible tribe, an estimated 1,232 participated in the fishery (36%). Of the 6,519 individuals who held SHARCs as residents of qualifying rural communities, an estimated 3,162 (49%) participated in the subsistence fishery for halibut in 2012. The estimated total of 4,394 subsistence halibut fishers in 2012 is the lowest estimate since the SHARC program began in 2003 (Figure 6).

In 2003–2007, differences in the demography of tribal SHARC holders and rural SHARC holders probably accounted for some of the differences in the rate of participation in the subsistence halibut fishery between these 2 groups. As a proportion of total SHARC holders, about twice as many tribal SHARC holders were under 20 years of age compared to rural SHARC holders. This may reflect a policy on the part of some eligible tribes in the first years after the regulations were adopted to register all or most tribal members, including younger people who were less likely to participate in the subsistence fishery than adults. Despite the substantial drop in the number of tribal SHARC holders in 2008–2012 (Figure 6), differences in the age structure of this group compared to rural SHARC holders remained. For example, in 2012, 23% of tribal SHARC holders were less than 30 years old, compared to 12% of rural SHARC holders (Table 5; Figure 7).

Alaska Native tribes with the most subsistence halibut fishers in 2012 included the Central Council of Tlingit and Haida Indians (147 subsistence halibut fishers), the Ketchikan Indian Corporation (115), the Sitka Tribe of Alaska (98), the Hydaburg Cooperative Association (65), the Sun'aq Tribe of Kodiak (62), the Hoonah Indian Association (53), Pauloff Harbor Village (38), the Angoon Community Association (36), the Seldovia Village Tribe (35), the Wrangell Cooperative Association (32), the Yakutat Tlingit Tribe (29), the Native Village of Nanwalek (29), Craig Community Association (27), the Metlakatla Indian Community (26), and the Qagan Toyagungin Tribe of Sand Point (26). Of the SHARC holders who registered as residents of eligible rural communities, the most subsistence fishers lived in Kodiak (696), followed by Sitka (596), Petersburg (357), Haines (226), Wrangell (210), Cordova (188), and Craig (141). Appendix Table E-3 provides details for each tribe and community regarding participation in the subsistence fishery and subsistence halibut harvests in 2012.

As noted above, not every tribal SHARC holder lives in his or her tribe's headquarters community. After assigning tribal members to a community based on their place of residence, an estimate of participation in the subsistence halibut fishery in 2012 by community can be obtained. Appendix Table E-4 provides project findings based on place of residence. Communities with 100 or more resident SHARC holders who participated in the subsistence halibut fishery in 2012 were Kodiak (769), Sitka (697), Petersburg (383), Wrangell (249), Haines (237), Craig (216), Cordova (202), Ketchikan (158), and Hoonah (111). Of the 9 Alaska communities with 100 or more subsistence halibut fishers in 2012, 6 had about the same or slightly more fishers than in 2011 (+1% to +8%) (Figure 8). The estimated number of subsistence halibut fishers in Kodiak, Sitka, and Haines decreased by 8%, 11%, and 12%, respectively (Figure 8) (see Chapter 3 for further discussion of Kodiak, Petersburg, Cordova, and Sand Point as case study communities.) Four non-Alaska-resident tribal SHARC holders subsistence fished for halibut in Alaska in 2011, compared to a high of 24 in 2005 and low of zero in 2004 and 2007.

As illustrated in Figure 9[8] (see also Table 6), the largest number of Alaska subsistence halibut fishers in 2012 fished in waters of Regulatory Area 2C (Southeast Alaska)—2,715 (62%).[9] There were 1,474

[8] In reports for study years prior to 2011, data in Figure 9 were based on the location of the tribe or place of residence of the SHARC holder. For reports for the 2011 and 2012 study years, we have revised Figure 9 to report fishers by location in which

subsistence halibut fishers (34%) who fished in Regulatory Area 3A (Southcentral Alaska); 137 (3%) in Regulatory Area 3B (Alaska Peninsula); 61 (1%) in Regulatory Area 4A (Eastern Aleutians); and 55 (1%) in Area 4E (East Bering Sea Coast). Additionally, there were 24 (1%) subsistence halibut fishers in the 3 other regulatory areas. As also shown in Figure 9, the distribution of subsistence fishers by regulatory area in 2012 was similar to that of 2003–2011, except, continuing the pattern established in 2008, there was a sharp decrease in the number of halibut fishers in Area 4E (from 393 in 2007 to 152 in 2008, 128 in 2009, 70 in 2010, 91 in 2011, and 55 in 2012). The estimated number of subsistence halibut fishers in Area 4C (Pribilof Islands) has dropped as well from 105 in 2003 to 9 in 2012. As discussed in Chapter 3, for the case study communities of Toksook Bay and Tununak these changes are more likely caused by subsistence fishers failing to renew SHARCs rather than a drop in subsistence halibut fishing.

Estimated Alaska Subsistence Halibut Harvests in 2012 by SHARC Type and IPHC Regulatory Area

Table 4 reports estimated Alaska subsistence halibut harvests for 2012 by SHARC type, IPHC regulatory area, and gear type. The total estimated subsistence halibut harvest in Alaska in 2012 was 37,093 fish (±3%) for 686,991 lb (net weight; ±3%).[10] As estimated in pounds net weight, 59% of the subsistence halibut harvest (405,596 lb [±3%]) was taken by fishers registered with tribes or rural communities in Regulatory Area 2C (Figure 10). (Note that because some SHARC holders may fish in a regulatory area different from the location of their tribal headquarters or rural community of registration, the area totals in Table 4 do not precisely represent harvest locations. See the section on harvests by location, below.) Fishers from Area 3A tribes and rural communities harvested 245,288 lb (±6%; 36% of the state total). Harvests totaled 18,357 lb (±19%; 3%) for communities and tribes of Regulatory Area 3B. For tribal and rural SHARC holders in Area 4A, the estimated harvest was 8,671 lb (±25%; 1% of the net harvest weight). For Regulatory Area 4E,[11] the estimated harvest for tribal and rural SHARC holders was 5,556 lb (±48%; 1% of the net harvest weight). For Regulatory Area 4C, the estimated harvest for tribal and rural SHARC holders was 2,009 lb (±110%; 0.3% of the net harvest weight). Tribes and communities in 4D harvested 791 lb (±46%; 0.1% of the net harvest weight) and those in 4B harvested 722 lb (±84%; 0.1%).

The estimated subsistence harvest of 686,991 lb of halibut in 2012 represents a decrease of 1.5% compared to the estimated harvest of 697,656 lb in 2011 (Figure 11). Harvests by tribal SHARC holders increased by 4.7% from 248,446 lb in 2011 to 260,118 lb in 2012. Tribal SHARC holders harvested 38% of the Alaska subsistence halibut harvest in 2012, compared to 36% in 2011. Subsistence halibut harvests by nontribal, rural resident SHARC holders decreased by 5.0%, from 449,210 lb in 2011 to 426,873 lb in 2012. This group accounted for 62% of the statewide subsistence halibut harvests in 2012, compared to 64% in 2011.

Members of 55 Alaska tribes harvested subsistence halibut in 2012. In 2 others, SHARC holders fished but had no harvest. In 24 others, tribal members obtained SHARCs and returned surveys, but no one fished. Members of 10 other tribes held SHARCS, but no one returned a survey form. No one in the remaining 32 eligible tribes held a valid SHARC in 2012. As shown in Figure 12, members of the 15

---

the fishing took place. Estimates of the number of subsistence halibut fishers fishing within each regulatory area are not available for 2003 or 2004. The data in Figure 9 for those years remain based on the location of the tribe or place of residence of the SHARC holder.

[9] Because some SHARC holders fished in more than one regulatory area, the sum of fishers for each area exceeds the state total.

[10] This approximates 915,988 lb round (live or whole) weight. See footnote 7 in Chapter 1 for an explanation of the factor used to convert round weight to net weight.

[11] Community Development Quota (CDQ) organizations operating exclusively in areas 4D and 4E may retain U32 halibut (under 32 inches in length) from their commercial catches for home use. In 2012, a total of 20,187 lb net weight of halibut was retained by 3 organizations: Coastal Villages Regional Fund (10,424 lb), Bristol Bay Economic Development Corporation (5,095 lb), and Norton Sound Economic Development Corporation (4,668 lb) (Williams 2011). The IPHC includes these fish within the "personal use" removal category, a category that also includes subsistence harvests (Gilroy 2005, 64). See also the section in Chapter 3, "Comparisons with Nonsubsistence Harvests."

tribes with harvests of 6,000 lb or more accounted for 76% of the total subsistence halibut harvest by tribal SHARC holders in 2012. These 15 tribes accounted for 63% of the tribal SHARCs (2,158 of 3,425) (Table 3). Members of the other 40 tribes with harvests accounted for about 24% of the total harvest by tribal members (Figure 12).

Residents of 52 eligible rural communities harvested subsistence halibut in 2012.[12] In 1 other, a SHARC holder fished without success. In 6 others, individuals obtained SHARCs but no one fished. Residents of 6 other eligible rural communities obtained SHARCs, but no one returned a survey form. No one in the remaining 53 eligible rural communities held a valid SHARC as a nontribal member in 2012.[13] As shown in Figure 13, 9 rural communities with harvests of over 10,000 lb accounted for 78% of the subsistence halibut harvest by the holders of rural (nontribal) SHARCs in 2012. Residents of the other 43 communities with harvests accounted for 22% of the total harvest by rural SHARC holders.

As also shown in Figure 13, rural SHARC holders from 2 communities accounted for 41% of the total harvest by this group in 2012: Kodiak (26%) and Sitka (15%). Adding Petersburg, the next highest rural community harvest at 10%, the top 3 rural communities accounted for 51% of the rural community (nontribal) subsistence halibut harvest in Alaska in 2012.

Estimated Alaska Subsistence Halibut Harvests in 2012 by Harvest Location

Survey respondents were asked to report the "water body, bay, or sound [that they] usually fished" for subsistence halibut in 2012. Multiple responses were permitted. In Table 6, estimated subsistence halibut harvests are reported for the 8 Alaska halibut regulatory areas and 22 subdivisions within these areas. It should be noted that regulatory area totals in Table 6 differ slightly from those reported in Table 4 because not all SHARC holders fished within the regulatory area in which their tribal headquarters or residence is located.

Subsistence halibut harvests in Regulatory Area 2C (Southeast Alaska) accounted for 58% of the Alaska subsistence halibut harvest in 2012 (396,043 lb [net weight]) (Figure 14; Table 6). Also, as shown in figures 15 and 16, the 3 geographic subareas with the largest subsistence halibut harvests in 2012 were in Area 2C: southern Southeast Alaska (237,905 lb [net weight]; 35% of the state total); the northern Southeast Alaska area other than the Sitka Local Area Management Plan (LAMP) area (83,624 lb; 12%), and the Sitka LAMP area (74,514 lb; 11%).[14] Regulatory Area 3A (Southcentral Alaska) ranked second, with 37% of the state's total subsistence halibut harvest (253,516 lb [net weight]). Waters bordering the Kodiak Island road system (including Chiniak Bay) ranked fourth among subareas, with a subsistence halibut harvest of 72,516 lb (11% of the state total), and other Kodiak Island waters not along the road system area ("Kodiak Island–Other") ranked fifth (67,914 lb; 10%). Harvests within Cook Inlet waters of Area 3A accounted for 9% of the state total (65,100 lb; ranking sixth), those within Prince William Sound added 27,873 lb (4% of the statewide total; ranking seventh), and the Yakutat Area added 20,113 lb (3%). Among regulatory areas, Area 3B (Alaska Peninsula, including the Chignik Area) ranked third with 2% of the Alaska total (15,959 lb). Area 4A (eastern Aleutian Islands) ranked fourth with 9,543 lb (1%), and Area 4E (East Bering Sea Coast) ranked fifth with 8,384 lb (1%). Most of the harvest in Area 4E came from the Yukon–Kuskokwim Delta area, with a smaller amount from Norton Sound and Bristol Bay.

---

[12] In this tally, Chiniak, listed separately in tables in this report, is counted as part of Kodiak, as it is for eligibility. Because some residents of eligible rural areas had mailing addresses in non-eligible communities, 3 non-eligible communities are listed as "rural communities" in Table 3. These were Juneau (6 SHARCs), Ketchikan (7 SHARCs), and Ward Cove (1 SHARC). These 3 places are not included in this count of participating communities.

[13] Note that residents of these communities may have obtained SHARCs as tribal members.

[14] For this project, "northern Southeast Alaska" includes those waters of Regulatory Area 2C north of Frederick Sound, including waters surrounding Baranof Island and excluding the Sitka LAMP area. For a description of the Sitka LAMP area, see FR 68 18156, April 15, 2003, § 300.65(d)(1). The remaining waters of Area 2C are referred to as "southern Southeast Alaska" in this report.

Area 4B (western Aleutian Islands) ranked sixth with 1,698 lb (less than 1%). Area 4C (Pribilof Islands) added 1,176 lb (less than 1%); and Area 4D (central Bering Sea) added 672 lb (less than 1%).

Figure 17 reports estimated harvests in pounds net weight by location fished at the regulatory area level in 2003–2012. Table 7 compares estimated subsistence halibut harvests by regulatory area and geographic area in 2012 with those estimated for 2003–2011 and for the 9-year average from 2003–2011. As noted previously, for the state overall, the estimated harvest in pounds decreased by about 1.5% in 2012 from 2011 (Figure 18; Table 7). The estimated harvest in 2012 was 30% lower than average for the first 9 years (2003–2011) of the subsistence halibut harvest monitoring program (Figure 19).

Estimated subsistence halibut harvests increased in 4 of the 8 regulatory areas in 2012 compared to 2011, and decreased in the other 4 (Figure 17; Figure 18; Table 7). As in the first 9 years of the project, Area 2C (Southeast Alaska) accounted for the most subsistence halibut harvests in 2012 (396,043 lb; 58% of the state total); this harvest represents an increase of 2% compared to 2011 (Table 7; Figure 17; Figure 18), but a 25% decrease compared to the 9-year average from 2003–2011 (Figure 19). Harvests decreased in 2 of the subareas within Area 2C in 2012 compared to 2011: the Sitka LAMP Area, down 11%; and the remainder of northern Southeast, down 16%. In contrast, harvests in the southern Southeast Alaska subarea increased 17%. Harvests were down in all 3 Southeast subareas compared to recent 9-year averages: 16% in southern Southeast Alaska, 38% in the Sitka LAMP area, and 31% in the remainder of northern Southeast Alaska. The reasons for these changes in Area 2C are likely complex and beyond the scope of this report.[15]

Estimated harvests in Area 3A (Southcentral Alaska) decreased for the seventh straight year. The 2012 harvest of 253,516 lb was a decline of 5% from the 2011 harvest of 266,104 lb. The estimated subsistence halibut harvest in Area 3A in 2012 was 27% lower than the previous 9-year average, and was the lowest estimate of any study year (Figure 19; Table 7). Area 3A accounted for 37% of the statewide subsistence halibut harvest in 2012, similar to other recent study years (Table 7). In Area 3A in 2012 compared to 2011, subsistence halibut harvests increased in 2 subareas: Yakutat, up 28%; and Cook Inlet, up 8%. Harvests dropped in the other 3 subareas; Prince William Sound, down 15%; the waters of Kodiak Island along the road system, down 9%; and the remainder of the Kodiak Island area, down 12%. Harvests in 2012 were lower than the previous 9-year averages in all Area 3A subareas except Yakutat, which showed a 7% increase.

In Area 3B (Alaska Peninsula), harvests declined from 22,011 lb in 2011 to 15,959 in 2012 (down 27%) (Figure 17; Figure 18; Table 7). In Area 3B, the 2012 estimated harvest was the lowest of the 10 years of the project, 55% below the previous 9-year average, and notably below the estimates for 2005 (46,225 lb), 2006 (48,547 lb), and 2007 (47,748 lb) (Table 7; Figure 17; Figure 19). Earlier reports (e.g., (Fall and Koster 2010, 12) suggested that improved participation in the SHARC program in 2005–2008 accounted for some of the increase in the estimated harvests in Area 3B in those years, compared to 2003 and 2004, the first 2 years of the harvest monitoring program. However, the number of SHARC holders for Area 3B tribes and rural communities decreased from 606 in 2008 to 309 in 2009, 369 in 2010, 358 in 2011, and 338 in 2012; this is a decline in program participation that may partially explain the lower harvest estimates for 2009–2012 (see discussion of Sand Point in Chapter 3) (Table 7).

Estimated subsistence halibut harvests in Area 4A (Eastern Aleutians) dropped 30% from 2011 (13,606 lb) to 2012 (9,543 lb). The harvest in Area 4A in 2012 was 59% lower than the previous 9-year average (Figure 19). There are only 3 communities in Area 4A: Akutan, Nikolski, and Unalaska–Dutch Harbor. Therefore, harvest estimates for individual communities strongly shape the area estimate. For example, previous reports have discussed how sampling achievement in Akutan evidently affected the area's harvest estimate (Fall and Koster 2010, 13). No Akutan residents returned SHARC surveys for 2012; therefore, there is no estimated subsistence halibut harvest for this community. For 2009, an increased

[15] Further discussion of differences between harvest estimates for 2003–2012 appears in Chapter 3 and Chapter 4.

harvest by SHARC holders living in Unalaska–Dutch Harbor, from 13,710 lb in 2008 to 29,306 lb in 2009, accounted for most of the change in the regulatory area's estimate between those 2 years, but estimated harvests in that community dropped to 13,081 lb for 2010, 12,257 lb for 2011, and 10,059 for 2012 (Table 7). (See below for more discussion of harvest estimates for Unalaska–Dutch Harbor.)

In Area 4B (Western Aleutians) there was a large increase of 216% in the estimated subsistence harvest of halibut in 2012 (1,698 lb) compared to 2011 (537 lb) (Table 7; Figure 17; Figure 18). Estimated harvests in this area dropped after 2008, when the estimate of 4,737 lb was 147% higher than the previous 5-year average (Fall and Koster 2010, 92). This increase in 2008 was likely due in part to the larger reported average size of halibut harvested in this area in that year (30.5 lb [net weight] per fish; see Table 9 in (Fall and Koster 2010, 66)) compared to earlier years (19.5 lb [net weight] per fish in 2007 [(Fall and Koster 2008, 71)]). The average weight of subsistence harvested halibut in Area 4B in 2009 was only 15.4 lb (see Table 9 in (Fall and Koster 2011)) and 12.6 lb in 2010 (see Table 9 in (Fall and Koster 2012)), but rose to 20.1 lb in both 2011 and 2012 (see Table 9 below). The estimated harvest for Area 4B was 7% below the previous 9-year average (Figure 19), but higher than any other year since 2008 (Table 7).

Estimated subsistence harvests of halibut in Area 4C (Pribilof Islands) dropped 29% in 2012, to 1,176 lb, from 1,648 lb in 2011 (Figure 17; Figure 18; Table 7). The 2012 estimate was 88% below the previous 9-year average and the lowest since the SHARC program began in 2003 (Figure 19; Table 7). As noted in reports for previous project years (Fall, George, and Easley 2005, 15; Fall and Koster 2008, 15), a high response rate to the survey, based upon follow-up household surveys and in-season data collection by the Central Bering Sea Fishermen's Association, likely produced very reliable harvest estimates for St. Paul, the largest community in Area 4C, after the first project year of 2003. However, due to funding reductions, this work did not take place for 2008–2012. The number of valid SHARCs held by St. Paul residents dropped from 246 in 2007 to an average of 43 for 2008–2011 and just 12 in 2012, and the response rate to the survey declined from 83% in 2007 to 45% in 2008, 34% in 2009, 29% in 2010, 35% in 2011, and 25% in 2012. The estimated number of subsistence halibut fishers in the community was 12 in 2012,[16] compared to a range of 14–19 in 2007–2010 that then dropped to 11 in 2011. In addition, only 2 residents of St. George held SHARCs in 2012, and no surveys were returned from this community. The extent to which the decline in the survey response rate has affected harvest estimates for Area 4C is uncertain.

In Area 4D (Central Bering Sea), the subsistence halibut harvest estimate for 2012 of 672 lb was 9% higher than the estimate of 615 lb for 2011. The 2012 estimate was 84% lower than the previous 9-year average for Area 4D, and the second-lowest annual estimate for the area since the SHARC program began in 2003 (Figure 17; Figure 18; Figure 19; Table 7). It is likely that this sharp drop in the harvest estimate for Area 4D since 2008 is the result of nonrenewal of SHARCs by subsistence fishers. The number of SHARCs held by residents of Savoonga, the principal halibut harvesting community in Area 4D, dropped from 43 in 2007, with an estimated 15 subsistence halibut fishers, to 17 SHARC holders in 2009, with an estimated 7 subsistence halibut fishers, 17 SHARC holders in 2010 with 6 fishers, 17 SHARC holders and 9 fishers in 2011, and 6 SHARC holders and 5 fishers in 2012.

For Area 4E (East Bering Sea Coast), the estimated subsistence harvest of halibut of 8,384 lb in 2012 was a 36% increase from the 6,168 lb estimated for 2011, but was 75% lower than the 9-year average from 2003–2011 (Figure 17; Figure 18; Figure 19; Table 7). The 2012 estimated harvest was the second-lowest for this area since the survey began in 2003. As in Area 4D, lower harvest estimates for Area 4E are likely in part attributable to the substantial drop in valid SHARCs held by tribal members and rural community residents of Area 4E over the last 5 years, from 1,191 in 2007 to 421 in 2008, 374 in 2009, 286 in 2010,

[16] All 3 of the survey respondents living in St. Paul (100%) reported that they fished, giving an estimate of 12 fishers for the community (100% of the 12 SHARC holders who lived in St. Paul). Because of the weighting factor assigned to survey responses from St. Paul tribal SHARC holders, the estimate of 12 subsistence halibut fishers living in St. Paul differs slightly from that reported in Appendix Table E-4.

291 in 2011, and 185 in 2012. Also, unlike 2003–2007, no outreach, face-to-face interviewing, or telephone calls took place in Area 4E communities in 2008–2012, resulting in lower response rates compared to previous years. For example, response rates dropped in Toksook Bay from 41% (218 of 533 SHARCs) in 2007 to 32% (11 of 34 SHARCs) in 2008, 39% in 2009 (13 of 33), 38% in 2010 (12 of 32), and 41% in 2011 (13 of 32). Only 7 Toksook Bay residents held SHARCs in 2012; 6 were returned. In in Tununak, response rates dropped from 64% (44 of 69 SHARCs) in 2007, to 10% (7 of 68) in 2008, 55% (6 of 11) in 2009, 17% (3 of 11) in 2010, 27% (3 of 11) in 2011, and 36% (4 of 11) in 2012. With the drop in SHARC renewals and survey response rates, subsistence halibut harvests in Area 4E have likely been underestimated since 2008.

Figure 20 illustrates the average subsistence halibut harvest in pounds net weight for those SHARC holders who subsistence fished in 2012. Figure 21 illustrates the average harvest per fisher in numbers of halibut. For the state overall, the average subsistence halibut fisher harvested 156 lb (net weight) or about 8.4 halibut in 2012. Average harvests per fisher at the regulatory area level ranged from 116 lb (net weight) in Area 3B to 172 lb per fisher in Area 3A and Area 4B. Average subsistence halibut harvests have ranged from 8.1halibut per fisher in 2011 to 9.9 halibut per fisher in 2005, and from 148 lb per fisher in 2011 to 211 lb per fisher in 2003 (Fall and Koster 2012, 14; Fall and Koster 2013, 14) see also Table 19).

Subsistence Halibut Harvests by Place of Residence

As shown in Figure 22, there were 22 Alaska communities whose residents had combined estimated subsistence halibut harvests of approximately 5,000 lb or more (net weight) in 2012. In this figure, community totals include harvests of all SHARC holders living in the community, regardless of type of SHARC (tribal or rural) or tribal affiliation.[17] Residents of these communities accounted for 87% of the total Alaska subsistence halibut harvest in 2012. Residents of Kodiak (Kodiak includes the city of Kodiak and other portions of the Kodiak Island Borough connected to it by roads) ranked first with 18% of the total Alaska harvest, and Sitka ranked second with about 11%. With 13,235 and 9,084 residents, respectively, these 2 communities included about 26% of the population of rural communities eligible to participate in the subsistence fishery. There were 84 other Alaska communities with at least 1 resident who participated in the subsistence halibut fishery in 2012. The total harvest for these other communities represented about 13% of the state total.

For 2012, 97 SHARC holders provided out-of-state addresses from 77 communities in 22 states, provinces, and territories.[18] Nine non-Alaska-resident SHARC holders subsistence fished for halibut in 2012, with a harvest of 128 fish and 1,657 lb (0.24% of the state total) (Appendix Table E-4). This level of involvement by non-Alaska residents in the subsistence halibut fishery in 2012 is similar to that of other study years (Fall and Koster 2012, 14).

Subsistence Harvests by Gear Type

Table 6 and Figure 23 report the estimated subsistence harvests of halibut in Alaska in 2012 by gear type and regulatory area fished. In total, 532,623 lb (78%) of halibut (net weight) were harvested using setline (stationary) gear (i.e., longlines, or "skates," sometimes set with a power winch attached to a vessel; the highest percentage of any of the 10 study years (Fall and Koster 2012, 15)) and 154,368 lb (22%) were harvested using hand-operated gear (i.e., handlines or lines attached to a rod or pole). As in past years, there were notable differences between regulatory areas (Table 6; Figure 23). Harvests using setline gear predominated in Area 2C (Southeast Alaska; 82% of the area's total subsistence harvest), 3A (Southcentral Alaska; 72%), 3B (Alaska Peninsula; 65%), 4B (Western Aleutian Islands; 92%) and Area

[17] Note that nonrural places, such as Anchorage, Juneau, Ketchikan, and Valdez, appear in Figure 22 and in Appendix tables E-4, E-5, and E-6, because members of eligible Alaska Native tribes may participate in the fishery regardless of where they live, and because some eligible residents of rural areas have mailing addresses in nonrural places.

[18] Note that members of eligible tribes may obtain SHARCs regardless of their place of residence.

4D (Central Bering Sea; 100%). Unusually, most halibut in Area 4E (East Bering Sea Coast; 72%) were harvested with setlines, unlike past years when handlines accounted for most of the harvest. Harvests were about evenly split between the 2 gear types in the remaining 2 regulatory areas (4A [Eastern Aleutian Islands] and 4C [Pribilof Islands]).

Number of Hooks Fished with Setline Gear

Respondents who fished with setline (stationary) gear (longline or skate) were asked to report how many hooks they "usually set." The findings by regulatory area are reported in Table 8. For the fishery overall, most setline fishers (41%) used 30 hooks, the maximum number allowed by regulation in areas 2C, 3A, 3B, 4A, and 4B (there is no hook limit in areas 4C, 4D, and 4E) (Figure 24). The next most frequently reported number was 20 hooks, usually used by 16% of the fishers who used setline gear. Fifteen hooks (13%) ranked third, followed by 25 hooks (7%) and 10 hooks (5%). This pattern is similar to that of all previous study years (Fall and Koster 2012, 15; Fall and Koster 2013, 15).

Thirty was the most frequently used number of hooks with setline gear in 7 regulatory areas (Table 8): 2C (Southeast Alaska), 38%; 3A (Southcentral Alaska), 46%; 3B (Alaska Peninsula), 54%; 4A (Eastern Aleutian Islands), 46%; 4C (Pribilof Islands), 50%; 4D (Central Bering Sea), 57%; and 4E (East Bering Sea Coast), 47%. In Area 4B (Western Aleutian Islands), 53% used 10 hooks, 24% used 20 hooks and 24% used 30 hooks.

Number of Subsistence Halibut Fishing Trips

For 2012, for the fourth time in the harvest survey program, respondents were asked to report the number of subsistence fishing trips they took for halibut in the study year. The average number of trips for subsistence halibut fishers was 4.3 (compared to 4.7 in both 2009 and 2010, and 4.4 for 2011 (Fall and Koster 2013, 15)]), with those holding tribal SHARCs averaging 4.6 trips (compared to 5.5 in 2009, 5.1 in 2010, and 4.8 trips in 2011) and those holding rural SHARCs averaging 4.2 trips (compared to 4.5 trips in 2009, 4.6 in 2010, and 4.3 in 2011). In most regulatory areas, the average subsistence fisher took between 4 and 5 trips, with a higher average in Area 4D (average of 15 trips by just 5 fishers; average of 6.3 trips in 2011) and a lower average Area 4E (average of 2.9 trips) (Figure 25). As shown in Figure 26, about 78% of fishers took 5 or fewer trips, and about 15% took between 6 and 10 trips. Six percent took between 11–20 trips, and about 1% took more than 20 trips.

The average number of subsistence halibut harvested per fishing trip in 2012 was 1.9 (compared to 1.8 in 2009, 2010, and 2011), with tribal SHARC holders averaging 2.5 fish and rural SHARC holders averaging 1.7 fish. The highest average harvests per trip occurred in Area 4E (2.8 fish per trip) and Area 4C (2.5 halibut per trip) (Figure 27).

Sport Harvests of Halibut by SHARC Holders

Survey respondents were asked to report the number of halibut and pounds of halibut they harvested "while sport fishing during 2012." They were instructed not to include fish they considered sport caught as part of their subsistence halibut harvest. The goal of this question was to avoid double counting harvested halibut in this survey and in the statewide survey of sport fishers administered by the Division of Sport Fish of ADF&G. Answering this question required respondents to classify their hand-operated gear (i.e., hook and line and rod and reel) harvests as either subsistence or sport; these gear types are legal gear for both sport fishing and subsistence fishing. Fish reported in the survey as "sport harvests" are not included in the estimated subsistence harvests discussed above. If SHARC holders also received the sport fish survey for 2012, they would be expected to report only their sport caught halibut and not include any halibut they reported as subsistence harvests, even if taken with rod and reel or handheld line with 2 or fewer hooks. Note that the project findings do not represent the total recreational halibut harvest by residents of eligible communities and tribes in 2012 because individuals from these tribes and communities who did not obtain SHARCs could have sport fished.

As shown in Table 4 and Table 6, the estimated total sport halibut harvest by holders of SHARCs in 2012 was 8,727 fish and 146,174 lb (net weight). By area fished, most of the sport halibut harvest by SHARC holders occurred in Area 2C (Southeast Alaska) (75,394 lb; 52%) and Area 3A (Southcentral Alaska) (63,565 lb; 43%) (Table 6). In total, an estimated 2,231 SHARC holders (22%) reported that they sport fished for halibut in 2012 (Table 4). A large proportion of these fishers fished in either Area 2C (1,312; 59%) or Area 3A (845; 38%) (Table 6). (See Appendix Table E-7 for estimated sport halibut harvests by tribe and nontribal rural community SHARC holders.)[19]

Estimated Average Net Weights of Subsistence- and Sport-Caught Halibut

Table 9 reports the average net weight of subsistence- and sport-caught halibut by SHARC holders in 2012, based upon estimates provided by survey respondents. For the state, the estimated average net weight of subsistence-caught halibut was 18.5 lb and the average net weight of sport-harvested halibut by SHARC holders was 16.7 lb. For the halibut reported as harvested in the SHARC program by SHARC holders in 2012, the average net weight per harvested halibut was 18.2 lb. Between regulatory areas, there was a range of average weights per halibut. The halibut harvested by the communities of Area 4D (Central Bering Sea), averaged 30.9 lb (net weight) per fish. Halibut harvested in the subsistence fishery in Area 4B were also larger than the state average, at 20.1 lb per fish, as were the halibut harvested in the subsistence fishery in 2C, at 20.0 lb per fish. In 2011 in Area 4E (East Bering Sea Coast), halibut harvested in the subsistence fishery averaged 8.2 lb (net weight), 45% of the statewide average (Fall and Koster 2013, 16); however, in 2012, halibut harvested in Area 4E averaged 19.1 lb, which is above the state average. Subsistence-harvested halibut in Area 3A (Southcentral Alaska) at 16.8 lb per fish were below the state average, as were the halibut harvested in Area 3B (14.7 lb), Area 4A (16.6 lb), and Area 4C (14.0 lb).

The average weight of halibut harvested in the Alaska subsistence fishery declined steadily over the first 6 years of this project, from 23.7 lb per fish in 2003 to 18.2 lb per fish in 2008. This decline leveled off in 2009 when the average subsistence-harvested halibut weighed 19.0 lb, then in 2010 averaged 18.4 lb per fish, and in 2011 averaged 18.3 lb per halibut (Fall and Koster 2013, 16). Thus the average of 18.5 lb per halibut in the subsistence fishery in 2012 suggests that, statewide, there has been little change in the average size since 2008.

ROCKFISH HARVESTS

Survey respondents were asked to estimate the number of rockfish they harvested while subsistence fishing for halibut in 2012. Harvest data at the species level were not collected as part of this survey.

Note that these survey results do not represent an estimate for the total subsistence rockfish harvest by SHARC holders in 2012 because they might have harvested rockfish while fishing for species other than halibut, and other fishers in the communities who did not obtain SHARCs might have harvested rockfish. The Division of Subsistence Community Subsistence Information System (CSIS)[20] includes estimates of rockfish harvests for communities in which comprehensive household surveys have been administered.

---

[19] The ADF&G postal survey did not investigate the criteria by which survey respondents classified their rod and reel (hook and line attached to a rod or pole) halibut harvests as subsistence or sport. However, a supplemental mailing to 1,098 SHARC holders from Kodiak and Sitka who fished for halibut in 2004 asked respondents to provide reasons for classifying their halibut harvests as sport or subsistence. For a discussion of the findings, see (Fall, Koster, and Davis 2006, 19, 20, 123–138). In short, the primary factor (for 69% of respondents) was the gear used to harvest the fish: respondents viewed rod and reel as "sport gear" and setline gear as "subsistence gear." Another factor, reported by 12%, concerned the composition of the fishing group. If the SHARC holders had fished with relatives or friends who did not possess a SHARC, they classified their fishing as recreational. Harvest amounts were also a consideration: harvests of 1 or 2 halibut with a rod and reel were considered "sport" by some respondents, but if they harvested more than 2 fish with rod and reel in 1 day, they classified the harvest as subsistence. Finally, about 19% of the respondents gave reasons related to the uses of the fish or other cultural and lifestyle explanations.

[20] Available online: http://www.subsistence.adfg.state.ak.us/CSIS. Hereinafter cited as CSIS; see footnote 7.

It should also be noted that the label "bycatch" for these harvests is misleading.[21] Rockfish are used for subsistence purposes in rural communities throughout their range in Alaska (CSIS). It is highly likely that most rockfish harvested incidentally in the subsistence halibut fishery are utilized as a subsistence food. It is highly unlikely that many incidentally caught rockfish are discarded in this subsistence fishery.

As shown in Table 10, the statewide estimated rockfish incidental harvest in the subsistence halibut fishery in 2012 was 9,568 fish by 1,161 fishers (12% of all SHARC holders, and 26% of all SHARC holders who subsistence fished for halibut in 2012). This is an average of about 2.2 rockfish per fisher for all subsistence halibut fishers in the SHARC program, and about 8.2 rockfish per fisher for those who had a rockfish harvest. Most of the subsistence halibut fishers who caught rockfish fished in Area 2C (Southeast Alaska) (874 fishers; 75%) and Area 3A (272 fishers; 23%). In Area 2C, about 32% of subsistence halibut fishers incidentally harvested rockfish, as did 18% in Area 3A (Southcentral Alaska). (See Appendix Table E-7 for estimated rockfish harvests by tribe and by nontribal rural community SHARC holders.)

As illustrated in figures 28 and 29, most of the incidental rockfish harvest in 2012 was harvested in Area 2C: 7,013 rockfish, 73% of the statewide total. Area 3A accounted for the second highest total: 2,316 rockfish, 24% of the total. Harvests were very small by SHARC holders fishing in other regulatory areas; their combined harvest of 239 rockfish was about 2% of the statewide total. The estimated incidental harvest of 9,568 rockfish in the subsistence halibut fishery in 2012 was the lowest total over the 10 years of the SHARC harvest survey; previous estimates ranged from a low of 10,853 rockfish in 2011 to a high of 19,001 rockfish in 2004.

Table 10 also reports location of incidental rockfish harvests in 2012 within geographic subareas. Most of the harvest occurred in southern Southeast Alaska (3,587 rockfish), the Sitka LAMP area (2,663 rockfish), the Kodiak Island road system (784 rockfish), the remainder of northern Southeast Alaska (764 rockfish), other Kodiak Island locations (583 rockfish), Cook Inlet (470 rockfish), and Prince William Sound (333 rockfish).

LINGCOD HARVESTS

Survey respondents were asked to estimate the number of lingcod they harvested while subsistence fishing for halibut in 2012. Note that these survey results do not provide an estimate of the total subsistence lingcod harvest by SHARC holders in 2012 because they might have harvested lingcod while fishing for species other than halibut. Also, other fishers in the communities who did not hold SHARCs might have fished for or harvested lingcod, so that these incidental harvests represent only a portion of the total 2012 subsistence harvest. The Division of Subsistence CSIS includes estimates of lingcod harvests for communities in which comprehensive household surveys have been administered.

It should also be noted that the label "bycatch" for these harvests might be misleading.[22] Lingcod are used for subsistence purposes throughout their range (CSIS). It is highly likely that most lingcod harvested incidentally in the subsistence halibut fishery are utilized as a subsistence food. It is very unlikely that many lingcod caught in this subsistence fishery are discarded.

---

[21] The Magnuson-Stevens Fishery Conservation and Management Act (Section 3) defines "bycatch" as "fish harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program." Federal regulations (50 CFR 679.2) define "bycatch" or "bycatch species" as fish caught and released while targeting another species or caught and released while targeting the same species; under 50 CFR 600.10 "discard" means to release or return fish to the sea, whether or not such fish are brought fully on board a fishing vessel. In all cases, "bycatch" means to discard fish and excludes retaining fish for use. The federal definition of "incidental catch" or "incidental species" is "fish caught and retained while targeting some other species, but does not include discard of fish that were returned to the sea" (50 CFR 679.2).

[22] See footnote 21 for definitions of "bycatch" and "incidental catch."

The statewide estimated incidental lingcod harvest in the subsistence halibut fishery in 2012 was 2,247 fish by 696 fishers (Table 10). This is an average of about 0.5 lingcod per fisher for all subsistence halibut fishers who participated in the SHARC program, and 3.2 lingcod per fisher for those who had a lingcod harvest. Of SHARC holders who subsistence fished for halibut in 2012, 16% harvested at least one lingcod while halibut fishing. Almost all of the subsistence halibut fishers who harvested lingcod fished in Area 2C (Southeast Alaska) (521; 75%) and Area 3A (Southcentral Alaska) (171; 25%). (See Appendix Table E-7 for estimated lingcod harvests by tribe and by nontribal rural community SHARC holders.)

As illustrated in figures 30 and 31, most of the incidental lingcod were harvested in Area 2C: 1,531 lingcod, 68%. Area 3A fishing locations accounted for the second highest total: 620 lingcod, 28%. The estimated incidental harvest of 2,247 lingcod in the subsistence halibut fishery in 2012 was the lowest total since the SHARC survey began in 2003; the previous lowest total was 2,305 lingcod in 2011 and the highest was 4,407 lingcod in 2004.

Table 10 also reports the location of incidental lingcod harvests by geographic subarea in 2012. Most of this harvest occurred in Area 2C (Southeast Alaska): the Sitka LAMP area (812 lingcod), southern Southeast Alaska (552 lingcod), and along the Kodiak Island road system (220) in Area 3A. The remainder of Kodiak Island, the non-LAMP portion of northern Southeast Alaska, the Yakutat area, and Cook Inlet all had an estimated incidental harvest of lingcod ranging between 90 and 167 fish.

CHAPTER 3: DISCUSSION

COMPARISONS WITH OTHER HARVEST ESTIMATES

As discussed in the first report for the SHARC survey project (Fall et al. 2004, 19–22), comparing the statewide subsistence halibut harvest estimates generated by the SHARC survey with subsistence halibut harvest estimates from projects conducted before 2003 is difficult. The primary reason, as noted in Chapter 1, is that the regulations that allow subsistence halibut fishing in Alaska waters using traditional gear, such as longlines with more than 2 hooks, and that removed the restrictive daily harvest limit of 2 fish, have only been in place since May 2003.

Although the ADF&G Division of Subsistence has conducted systematic household surveys in many rural Alaska communities that have traditional uses of halibut, these studies pertain to different harvest years. In addition, there are many communities, especially in Western Alaska, where such surveys have not been conducted. Also, these Division of Subsistence studies have attempted to estimate the total halibut harvest for home use by including harvests conducted under sport fishing rules and harvests removed from commercial fisheries for home use. Typically, these studies have also collected harvests by gear type, such as rod and reel or "other gear." When using these data sets, therefore, it is not possible to separate the "sport" harvest from the "subsistence" harvest for past harvest years, especially in larger rural communities with a diverse population where at least a segment of the population perceives some of their halibut fishing effort as recreational (see, for example, the discussions about Sitka and Kodiak, below).

Furthermore, the statewide subsistence halibut harvest estimates from the SHARC postal survey include only those subsistence harvests by individuals who obtained SHARCs. The estimates do not include total noncommercial harvests, such as those accomplished under sport fishing regulations, or halibut removed by commercial fishers for use by their households or for noncommercial sharing.[23] Thus they can be only partial estimates of the total harvest of halibut for home use by rural Alaska residents and cannot be compared to estimates from previous Division of Subsistence studies without caution.

The report for the first year of this project included a detailed discussion of previous efforts to develop an estimate of subsistence halibut harvests at the regional and statewide levels. The report suggested that the 2003 SHARC survey estimates were not markedly different from estimates based on Division of Subsistence household survey data as reported in the CSIS. We will not repeat that full discussion here.[24] However, the report also concluded that because of the limitations associated with the previous subsistence harvest estimates at the statewide level, until a time series was developed based upon the SHARC survey results, a discussion of harvest trends in the subsistence halibut fishery was speculative. Ten years of comprehensive data for the subsistence halibut fishery area are now available, and a discussion comparing the project findings for 2012 with those for 2003–2011 appears in Chapter 4.

---

[23] Since 1995, halibut removed for personal use by commercial fishers from their commercial harvests must be weighed and accounted for within the commercial quota share program (Gregg Williams, IPHC, personal communication).

[24] For example for 2000, the IPHC estimated 439,000 lb net weight for Alaska "personal use" (noncommercial, nonrecreational) harvests (Wolfe 2001). The IPHC estimate is based upon a methodology described by Trumble (n.d.). The IPHC method assumed that 50% of Alaska Native rod and reel halibut harvests, as reported in ADF&G household surveys, are "sport" and 50% "personal use," and that 75% of the non-Native rod and reel harvests are "sport" and 25% "personal use" (Trumble n.d., 62). No justification for these assumptions is provided, and changing these sport-to-personal-use ratios can result in a very different estimate for the "personal use" halibut harvest. In a report to the Alaska Board of Fisheries in May 2001, using the same data source as the IPHC, Wolfe (2001) estimated that the subsistence halibut harvest in Alaska "probably ranges between 400,000 and 1,000,000 pounds (round weight) annually," based on harvest data in the CSIS/CPDB. This is an estimated harvest of 300,000 to 750,000 lb net weight. See Fall et al. (2004, 19–21) for discussion of Wolfe's methods. In the original analysis for the subsistence halibut program, the NPFMC estimated the Alaska subsistence halibut harvest at 1.5 million pounds net weight (68 FR 18145, April 15, 2003, EA/RIR (North Pacific Fishery Management Council 2003)).

COMMUNITY CASE STUDIES

Despite the limitations discussed above, it is possible to compare some communities' previous noncommercial halibut harvest estimates with estimates generated from the SHARC survey, keeping in mind the different sampling methods, uncertainty in the separation of subsistence and recreational harvests, and the relative newness of the regulatory changes enacted in 2003. Prior Division of Subsistence research has suggested that such communities, presented here as case studies, can also be seen as representative of other communities of similar size and geographic location. In the following evaluation, emphasis is placed on larger communities, since, as discussed in Chapter 2, a small number of large communities have accounted for most of the statewide subsistence halibut harvest, according to the SHARC surveys. A comparison of the harvest estimates for these communities helps to determine the reliability of the statewide estimate generated by the SHARC survey, as well as survey performance. Because, as noted in Chapter 1, not all tribal SHARC holders live in the community where their tribal headquarters is located, the following comparisons are based upon place of residence of the SHARC holder in order to be consistent with earlier division studies. Table 11 reports selected project findings for 2003–2012 in the case study communities discussed below. Appendix tables E-4, E-5, and E-6 report project results for 2012 for all communities, based upon residence of SHARC holders.

Sitka (Regulatory Area 2C)

In 2010, Sitka's population was 8,881, including 2,184 Alaska Natives; the estimated population in 2012 was 9,084 (Table 1). Sitka was the second largest rural community eligible to participate in the SHARC halibut fishery in 2012, and had the highest number of SHARCs issued, at 1,570 (Table 11; about 16% of the Alaska total). Of these, 1,330 were issued to nontribal residents of Sitka, and 240 to tribal members living in Sitka; the latter total was down from 470 in 2007 (Fall and Koster 2010, 22). Members of the Sitka Tribe of Alaska (STA) held 264 SHARCs in 2012, compared to 485 in 2007. It is important to remember that some STA members live in communities other than Sitka and that members of other Alaska tribes live in Sitka. Because of the relatively large number of SHARC holders who live there, developing a reliable subsistence halibut harvest estimate for Sitka is essential for the success of this subsistence harvest assessment program. Sitka residents' response rates to the survey have also been substantial during the 10 years of the project, ranging from a low of 62% in 2010 to 75% in 2003 and 2012.

The Division of Subsistence has generated 2 estimates of noncommercial halibut harvests in Sitka for years prior to the 2003 authorization of subsistence halibut fishing (Table 12). One is for the 1987 study year, in which the estimated total noncommercial halibut harvest was 193,335 lb (net weight; ±22%), or 180,982 lb if fish removed from commercial harvests are excluded. This noncommercial total includes only harvests reported by surveyed persons as taken with rod and reel; data on harvests using "other methods" such as longlines, which were not allowed at that time in the subsistence fishery, were not collected. An estimated 1,252 Sitka households had at least one member who fished noncommercially for halibut in 1987. For 1996, the total estimated noncommercial harvest was 165,772 lb (net weight; ±28%), and 149,244 lb with commercial removals excluded. In 1996, an estimated 943 Sitka households had at least one member who fished noncommercially for halibut.

For 2012, the estimated subsistence harvest of halibut, by both tribal SHARC holders who live in Sitka (most, but not all, of whom are members of the STA) and by other residents of Sitka (1,570 SHARC holders), was 78,706 lb (net weight; 3,450 fish). This was the second highest of any community (behind Kodiak), and accounted for 11% of the statewide total subsistence halibut harvest. Of Sitka's total subsistence halibut harvest, 71,261 lb (91%) was taken with setline gear, and 7,445 lb (9%) was taken with hand-operated gear. Adding sport harvests by Sitka SHARC holders (9,096 lb) produces a noncommercial estimate of 87,802 lb (net weight). Of all SHARC holders from Sitka, an estimated 697 subsistence fished for halibut in 2012. Of these, 659 used setline gear and 168 used hand-operated gear. Also, an estimated 237 SHARC holders from Sitka sport fished for halibut in 2012. The estimated total

number of SHARC holders living in Sitka who fished for halibut in either the subsistence or recreational fishery in 2012 was 799 (Table 11).

The combined estimated subsistence and sport halibut harvest by Sitka SHARC holders in 2012 was down 13% from the estimate for 2011 (101,366 lb), and was lower than any other study year, which ranged from 91,985 lb in 2010 to 207,288 lb in 2003 (Table 11). A total of 1,570 Sitka residents had SHARCs in 2012, with the range from previous years from 1,635 in 2010 to 1,974 in 2005. According to the SHARC survey, fewer Sitka residents participated in the subsistence halibut fishery in 2012 (697) than any other study year (2010 with 755 fishers was the previous low), but this decline in participation has not matched the decline in harvests. There were 799 Sitka SHARC holders who participated in either the subsistence or sport fisheries for halibut in 2012, compared to the previous range of 849 in 2010 to 1,036 in 2006.[25]

In summary, subsistence halibut harvest estimates for Sitka, based on the SHARC survey for 2003–2007 were generally similar to those generated from previous face-to-face household surveys conducted in 1987 and 1996. However, the SHARC survey data for 2008– 2012 show a decline in halibut harvests in Sitka compared to previous project years. A decline in the number of SHARCs held by tribal members in Sitka may account, at least in part, for lower estimated harvests, although average harvests by nontribal SHARC holders in Sitka were also lower in 2008–2012 compared to 2003–2007 (Table 13). For example, nontribal SHARC holders from Sitka who fished for halibut in 2012 had an average harvest of 108 lb per fisher, the lowest of the 10 project years and 26% below the previous 9-year average of 145 lb per fisher. Tribal SHARC holders from Sitka who fished in 2012 also had lower harvests than most previous years (except 2009–2011): 145 lb per fisher, which is 30% below the previous 9-year average of 205 lb. These findings suggest that the estimates of declining harvests in Sitka are not a result of inadequate sampling or less participation in the SHARC program. Rather, the study findings show that subsistence halibut harvests in Sitka have declined from 2005 through 2012. The causes of this decline require further investigation.

Petersburg (Regulatory Area 2C)

In 2010, Petersburg had a population of 2,948, including 390 Alaska Natives (Table 1); the estimated population in 2012 was 2,972. Prior to the 2003 authorization of federal subsistence halibut fishing, the Division of Subsistence produced 2 estimates of noncommercial halibut harvests by Petersburg residents based on household surveys in 1987 and 2000 (Table 14). In the 1987 project, a random sample of 49 of the 1,123 households in Petersburg was interviewed (4%), which generated a subsistence harvest estimate of 119,176 lb of halibut (net weight; ±51%); of this, 11,728 lb were estimated to have been removed from commercial harvests, resulting in a total noncommercial harvest estimate of 107,448 lb. As with Sitka, the 1987 project in Petersburg collected noncommercial harvest data only for halibut taken with rod and reel. Of the 1,123 households in Petersburg, 54% were estimated to have at least one member who fished for halibut noncommercially in 1987, which was an estimated 604 halibut fishers (CSIS/CPDB). In 2000, Petersburg residents were estimated to have harvested 55,974 lb (net weight) of noncommercial halibut (±39%). Of this, 6,951 lb were estimated to have been removed from commercial harvests, for a subsistence harvest of 49,023 lb, all of which was taken with rod and reel. In 2000, it was estimated that 468 Petersburg households had at least one member who fished for halibut for home use.

For 2012, the estimated subsistence harvest of halibut by Petersburg residents with SHARCs (917 SHARC holders) was 44,912 lb (net weight), up 12% from the 2011 estimate of 40,087 lb, but the second-lowest estimate of any study year since the project began in 2003 (Table 11). The number of

[25] Following a recommendation from the first project year (Fall et al. 2004, 31), data from the ADF&G Division of Sport Fish *Statewide Harvest Survey* (SWHS) about sport halibut harvests by Sitka residents were analyzed for additional background on halibut fishing in the community and discussed in the report for the 2004 project year (Fall, George, and Easley 2005, 23–24). An updated analysis has not been prepared for this report.

SHARC holders from Petersburg has ranged from 917 in 2012 to 1,197 in 2005. Of the total 2012 subsistence halibut harvest, 34,066 lb (76%) was harvested with setline gear and 10,845 lb (24%) with hand-operated gear. This pattern was generally similar to other study years, in which between 64% (in 2009) and 75% (in 2003 and 2004) of the subsistence halibut was harvested with set line gear (Fall and Koster 2012, 24).

In 2012, Petersburg SHARC holders also harvested 14,936 lb of halibut that they classified as sport harvested, compared to 13,096 lb in 2011. This gives a total noncommercial halibut harvest estimate for Petersburg SHARC holders of 59,848 lb, the second-lowest total of the 10 years of the project; previous estimates ranged from 53,183 lb in 2011 to 98,192 lb in 2004 (Table 11).

In 2012, an estimated 383 Petersburg SHARC holders harvested halibut in the subsistence fishery (315 with setline gear and 175 with hand-operated gear). This was the second-lowest level of participation for the 10 years of the project; the lowest estimate was 370 subsistence halibut fishers in 2011 and the highest estimate was 482 fishers in 2004 (Table 11).

Because some Petersburg residents without SHARCs likely sport fished for and harvested halibut, the 2003–2012 estimates of noncommercial halibut harvests by Petersburg residents generated by the SHARC survey appear consistent with, although somewhat lower than, the 1987 estimate based on household interviews. SHARC survey estimates for all study years except 2011 were higher than the in-person estimate for 2000, the year that state regulations restricted subsistence fishing to handlines or rods and reels with no more than 2 hooks. In that year, no Petersburg households reported taking halibut for home use with any gear other than rod and reel. In contrast, between 271 (in 2011) and 338 (in 2005) Petersburg SHARC holders used setline gear since the new subsistence halibut regulations have been in place.

Cordova (Regulatory Area 3A)

Cordova's population in 2010 was 2,239, with 344 Alaska Natives (Table 1); the estimated population was 2,316 in 2012. Before 2003, there were 6 Division of Subsistence household surveys that estimated noncommercial halibut harvests in Cordova (Table 15). After subtracting fish removed from commercial harvests for home use, estimated noncommercial halibut harvests by Cordova residents ranged from 25,609 lb (net weight; ±33%) in 1991 to 120,221 lb (±62%) in 1988, with an average over the 6 project years of 57,285 lb. The estimated number of Cordova households with at least one member fishing noncommercially for halibut ranged from 228 in 1985 to 401 in 1992, with a mean of 325 households (CSIS).

SHARC survey subsistence halibut harvest estimates and participation estimates for Cordova residents for 2003, the first year in which the new subsistence halibut regulations were in place, were lower than might be expected from previous research (Fall et al. 2004, 24–25). In 2003, 358 residents of Cordova obtained SHARCs, 194 fished in either the subsistence or sport halibut fishery, and the total of 27,032 lb was about 47% of the average for previous project years (Table 11).

Based on these comparisons, the final report for 2003 suggested that the SHARC survey had underestimated the amount of halibut harvested by Cordova residents for home use, perhaps because not all subsistence fishers in Cordova obtained SHARCs in 2003. The results of the survey for 2004 supported this conclusion (Fall, George, and Easley 2005, 25–26). A total of 526 Cordova residents obtained SHARCs by the end of 2004 (an increase of 47%) (Table 11), and 325 fished for halibut. The total estimate of 52,789 lb of halibut harvested noncommercially (in the subsistence and sport fisheries) was an increase of 95% over 2003, and was about 92% of the average for the 6 survey years prior to 2003 (and exceeded the total for 3 of those 6 years). Given that some Cordova residents likely obtained halibut for home use exclusively in the sport fishery and without obtaining SHARCs, the SHARC survey estimate for 2004 appeared consistent with earlier estimates of subsistence halibut harvests in Cordova.

Findings for Cordova for 2005 were much like those for 2004 and supported the conclusions of the 2004 final report.

Between 2006 and 2010, halibut harvest estimates for Cordova were lower than for 2004 and 2005, ranging between 36,047 lb in 2006 and 27,232 lb in 2009, and below that 6-year average from the pre-2003 household surveys. The reasons for this decline in harvests are uncertain. SHARC numbers held relatively steady between about 550 to 600, and the estimated number of halibut fishers ranged from 261 (in 2010) to 315 (in 2007). The estimated subsistence halibut harvest for Cordova for 2011 was 21,789 lb, the lowest for any of the first 9 study years (Table 11).

The estimated subsistence halibut harvest for Cordova for 2012 dropped to was 19,417 lb, the lowest for any of the 10 study years (Table 11). Of the 2012 subsistence harvest, 83% (16,105 lb) was harvested with setline gear and the remaining 17% (3,312 lb) with hand-operated gear. Sport harvests of halibut by Cordova SHARC holders in 2012 added 3,017 lb. The 2012 total noncommercial harvest of halibut by Cordova SHARC holders was 22,434 lb, down 10% from 2011 (24,818 lb) and, again, the lowest of any study year. The 2012 estimated harvest was 39% of the annual average for pre-2003 project years, and lower than any of those 6 study years (Table 15).

Fewer Cordova residents held SHARCs in 2012 (470) than in any year since 2003 (358) and fewer participated in the subsistence halibut fishery (202) than any year except 2003 (102) and 2011 (198). However, these declines in the number of Cordova SHARC holders and halibut fishers were minor in comparison with the relatively lower estimated harvest levels in 2012 (Table 11).

Port Graham (Regulatory Area 3A)

Port Graham, which is located in Lower Cook Inlet, had a population of 177 in 2010, with 160 Alaska Natives (Table 1); the population was estimated at 168 in 2012. It is presented as a case example of the smaller, predominantly Alaska Native communities in regulatory areas 3A and 3B that depend heavily on subsistence harvests of fish and wildlife resources. The division has produced estimates of subsistence halibut harvests by Port Graham residents based on household surveys for 7 project years (Table 16). Excluding 1989, the year of the *Exxon Valdez* oil spill, Port Graham's noncommercial halibut harvests ranged from 4,451 lb (net weight; ±14%) in 1993 to 11,232 lb (±14%) in 1992, with a 6-year average of 7,591 lb (net weight; Figure 32). Again excluding 1989, an estimated average of 38 Port Graham households had at least one member who subsistence fished for halibut in the project years in the late 1980s and 1990s.

In 2012, a total of 32 Port Graham residents held SHARCs (excluding Port Graham tribal members who do not live in Port Graham), a notable drop from all years since 2003; the previous low was 46 SHARCs in 2011. In 2012, an estimated 18 Port Graham residents participated in the subsistence halibut fishery, with 10 using setline gear and 11 hand-operated gear; 5 reported they went sport fishing for halibut. In comparison, in 2010 (when 47 SHARCs were held by residents of the community), an estimated 30 Port Graham residents participated in the subsistence halibut fishery, with 23 using setline gear and 18 hand-operated gear; 5 said they went sport fishing for halibut. Levels of participation in the subsistence halibut fishery at Port Graham in 2012 were lower than any previous study year except 2011 (range 15 subsistence halibut fishers in 2011 to 42 in 2004) (Table 11). The findings for the 2003–2010 SHARC surveys, except 2005, were consistent with levels of participation found in the noncommercial halibut fisheries during previous studies in Port Graham; thus the levels of participation estimated for 2011 and 2012 were unusually low.

The subsistence halibut harvest estimate for Port Graham in 2012 was 3,460 lb (Table 11). Of this, 1,677 lb (48%) were harvested with setline gear and 1,783 lb (52%) with hand-operated gear. In addition, Port Graham SHARC holders reported "sport" harvests of 44 lb, for a noncommercial total harvest of 3,503 lb of halibut. Harvests at Port Graham in 2012 were the lowest of any study year, and down 53% from 2010. The lowest previous harvest estimate was 3,638 lb in 2011, and the highest was 11,615 lb in 2005.

Total noncommercial halibut harvest estimates for Port Graham (subsistence plus sport harvests reported by SHARC holders) for 2003–2005 were similar to the highest estimate generated prior to the SHARC survey (11,232 lb in 1992) (Table 11; Table 16), and they also exceeded the average of previous (pre-2003) project years of 7,591 lb. This finding was not unexpected: Port Graham has traditionally used setlines with multiple hooks to harvest halibut as well as hand-operated gear (Stanek 1985, 67–69, 151). With May 2003 regulations finally consistent with traditional harvest methods, residents of Port Graham and other communities with similar traditions could fish with setline gear and hand-operated gear, and thus their reported subsistence halibut harvests were probably similar to historical levels.[26] However, estimated harvests have dropped since 2006 and, as noted, the estimate for 2012 was the lowest on record, less than half the pre-2003 average (Table 15; Figure 32). The reasons for the lower harvests in 2006–2012 compared to 2003–2005 are uncertain; a decline in the community's population in the mid-2000s may be part of the explanation, although the population has been relatively stable in recent years.

Kodiak City and Road System (Regulatory Area 3A)

"Kodiak" in this report includes the city of Kodiak and those portions of the Kodiak Island Borough connected to the city of Kodiak by road. This area had a population 12,824 in 2010, with 983 Alaska Natives; the estimated population in 2012 was 13,235 (Table 1). This is the largest rural community eligible to participate in the Alaska subsistence halibut fishery.

Based on Division of Subsistence household surveys, estimates of halibut harvests for home use are available in the CSIS for the entire Kodiak road system population for 1982 and 1991. Estimates for Kodiak city residents alone are available for 1992 and 1993, and these can be expanded to produce a total for the entire road system population (Table 17). Excluding fish removed from commercial catches for home use, noncommercial halibut harvests by Kodiak road system residents ranged from 247,283 lb (usable weight; ±30%) in 1991 to 511,254 lb (±33%) in 1993. The average for the 4 available project years was 366,682 lb; of this, 338,476 lb (92%) was taken with rod and reel, most likely consistent with sport fishing regulations. On average for the 4 project years, 1,306 Kodiak road system households had at least one member who fished for halibut for home use.

Kodiak residents held 1,503 SHARCs during 2012, down from 1,660 SHARCs during 2011; 1,702 SHARCs during 2010; and 1,826 in 2009 (Table 11). In 2012, an estimated 769 Kodiak SHARC holders subsistence fished for halibut; most (619; 80%) used set gear. Fewer Kodiak SHARC holders participated in the subsistence halibut fishery in 2012 than in any other study year except 2003 (646); the highest estimate was 963 participants in 2008.

In 2012, an estimated 499 Kodiak SHARC holders sport fished for halibut, and 967 fished for halibut under noncommercial rules. This compares to 2011, when 513 Kodiak SHARC holders sport fished for halibut and 1,009 were involved in noncommercial halibut fishing. Since 2003, the lowest estimate of participation in either the subsistence or sport halibut fishery was 858 in 2003 and the highest was 1,213 in 2008 (Table 11). Given the likelihood that many Kodiak residents continued to fish for halibut under sport fishing regulations in 2003–2012 without obtaining SHARCs, the estimated level of participation in the subsistence fishery based on the SHARC survey appears reasonable when compared to the earlier household survey results.

The estimated subsistence harvest of halibut in 2012 for Kodiak road system area residents was 125,820 lb, with 93,417 lb (74%) harvested with set line gear and 32,403 (26%) taken with hand-operated gear. The 2012 subsistence halibut harvest estimate was 9% lower than the estimate for 2011 of 138,348 lb, and

[26] A cautionary note for Port Graham for 2005 concerns response rate. Only 16 of 52 SHARC holders responded to the 2005 survey (31%) (Fall, Koster, and Davis 2006, 52). Further outreach in this community was necessary to improve the response rate and build confidence in the harvest estimates. This outreach occurred in 2007 for the 2006 project year, and a response rate of 66% was achieved.

was the lowest estimate for any of the 10 years of the project; the previous low was 138,348 lb in 2011 and the highest estimate was 210,828 lb in 2005 (Table 11).

In addition, Kodiak road system SHARC holders harvested an estimated 44,041 lb (net weight) of halibut in 2012 that they classified as sport caught, which was below the range of harvests in other years, from 45,725 in 2011 to 82,455 lb in 2005. In total, Kodiak SHARC holders harvested 169,861 lb (net weight) of halibut in 2012; this is lower than all previous study years, which ranged from 184,073 lb in 2011 to 293,283 lb in 2005 (Table 11). Not surprisingly, the totals for all 10 years of the SHARC survey are lower than those based on household surveys for previous years (except that the 2004, 2005, 2006, 2007, and 2008 SHARC survey estimates are higher than the household survey estimate for 1991) because, as noted, many Kodiak road system residents who fish for halibut likely do not obtain SHARCs and continue to harvest halibut under sport fishing rules. Overall, the 2003–2012 subsistence harvest estimates for Kodiak appear reasonable, but they should be further evaluated using ADF&G Division of Sport Fish *Statewide Harvest Survey* data and with additional years of subsistence harvest survey data. Also, reasons for the trend toward lower estimated harvests, especially during 2010–2012, need investigation.

Sand Point (Regulatory Area 3B)

The population of Sand Point in 2010 was 976 with 417 Alaska Natives; the estimated population in 2012 was 983 (Table 1). The only estimate of halibut harvests for home use by Sand Point residents based on Division of Subsistence household surveys prior to 2003 is for 1992 (Fall et al. 1993), at 13,981 lb (net weight). Of this, 6,240 lb were removed from commercial harvests, 6,934 lb were taken with subsistence methods (setline or jigging with a hand-held line) and 807 lb were harvested with rod and reel. The total harvest with noncommercial methods was 7,741 lb. Of the 204 permanent households in the community, 122 harvested halibut for home use; 65 used "subsistence methods," 16 fished with rod and reel, and the rest obtained halibut for home use from their commercial harvests.

At the end of 2003, 73 residents of Sand Point had obtained SHARCs. The estimated subsistence halibut harvest for 2003 was 4,819 lb (net weight), based on the SHARC survey. Of this, 3,409 lb were harvested with setline gear and 1,410 lb with hand-operated gear. Twenty-one Sand Point residents reported that they subsistence fished for halibut in 2003. In addition, 11 Sand Point SHARC holders reported that they harvested an estimated 410 lb of halibut while sport fishing, for a total estimated noncommercial harvest of 5,229 lb of halibut (Table 11). These were lower harvests and levels of participation than might be expected, considering the 1992 survey findings.

By December 31, 2004, 351 Sand Point residents had obtained SHARCs, a very substantial increase over 2003. The estimated total subsistence halibut harvest was 11,355 lb (net weight). Of this total, 4,360 lb were harvested with setline gear (38%) and 6,996 lb (61%) with hand-operated gear. In total, an estimated 109 Sand Point SHARC holders subsistence fished for halibut in 2004, about 5 times the estimate for 2003. Also, an estimated 50 Sand Point SHARC holders sport fished for halibut, with an estimated total harvest of 1,384 lb. In total, 121 Sand Point SHARC holders fished for halibut noncommercially in 2004 and had a total estimated harvest of 12,739 lb (net weight; Table 11). This is more than double the 2003 estimate, and similar to the total community estimate for 1992 (which included halibut removed from commercial harvests). It is likely that the higher estimate for 2004 does not indicate an increased harvest by Sand Point residents over 2003, but rather a more complete estimate due to much larger number of participants in the SHARC program.

From 2005 through 2008, between 321 (in 2005) and 365 (in 2006) Sand Point residents held SHARCs. Estimated harvests by SHARC holders in the subsistence and sport fisheries ranged between 23,182 lb (2005) and 27,649 lb (2007) (Table 11). The increase in the total halibut harvest, especially the increase in setline harvests (which ranged between 7,406 lb and 15,766 lb), suggested that Sand Point residents were increasingly participating in the opportunities provided by the federal subsistence halibut fishery.

The majority of SHARCs issued to Sand Point residents expired during 2008 and were not renewed. The number of active SHARCs during 2009 was 137, down 60% from the 342 active SHARCs in 2008. Correspondingly, based on survey responses, estimates of participation in the subsistence halibut fishery in Sand Point in 2009 and estimated harvests were down substantially from 2005–2008. During 2009, an estimated 70 Sand Point residents participated in the subsistence halibut fishery, compared to 130 in 2008. In 2009, 28 Sand Point fishers used setlines, compared to 71 in 2008. In total, the noncommercial halibut harvest estimate for Sand Point in 2009 was 14,424 lb, with 70 people involved in this harvest; this harvest was 55% of the annual average of the previous 4 years (Table 11).

The survey findings for Sand Point for 2010 illustrated the pattern first noted for 2009 of declining estimates of harvests and participation in the subsistence halibut fishery that may be the result of lowered rates of participation in the SHARC program. In 2010, the number of active SHARCs in Sand Point dropped to 130, the lowest since 2003. An estimated 61 SHARC holders participated in the subsistence fishery, again the lowest numbers since 2003. The total noncommercial halibut harvest for Sand Point in 2010 was 8,435 lb, again lower than any year but 2003.

In 2011, 136 Sand Point residents held SHARCs, consistent with totals since 2009. An estimated 85 SHARC holders participated in the subsistence fishery; 23 sport-fished for halibut, resulting in an estimate of 87 halibut fishers in 2011, higher than either 2009 or 2010 but notably lower than the peak years of 2004–2008. The total harvest estimate of 14,640 lb of halibut in 2011 was a substantial increase of 74% over 2010, but remained much lower than the range of 23,182 lb to 27,649 lb from 2005 to 2008.

In 2012, 136 Sand Point residents held SHARCs, again consistent with totals since 2009. An estimated 61 SHARC holders participated in the subsistence fishery; 32 sport-fished for halibut, resulting in an estimate of 75 halibut fishers in 2012, higher than either 2009 or 2010 but notably lower than the peak years of 2004–2008. The total harvest estimate of 6,989 lb of halibut in 2012 was a substantial decrease of 52% from 2011, and was the lowest estimate since 2003, the first year of the harvest monitoring program. Outreach in Sand Point is necessary to determine if subsistence halibut harvests have declined since 2008 or whether the lower estimates are solely the result of decreased participation in the SHARC program.

Unalaska–Dutch Harbor (Regulatory Area 4A)

The city of Unalaska (which includes Dutch Harbor) had a population of 4,376 in 2010, including 355 Alaska Natives; the estimated 2012 population was 4,768 (Table 1). The Division of Subsistence conducted a household harvest survey in Unalaska–Dutch Harbor for the 1994 data year and estimated that the total halibut harvest was 97,601 lb (net weight; 3,049 fish; ±34%), excluding 10,606 lb (331 fish) removed from commercial catches for home use. Of the 700 households in the community, an estimated 391 (56%) had at least one member who fished for halibut in 1994. Most of the noncommercial harvest, 88,142 lb (90%), was taken with rod and reel (CSIS).

By the close of 2003, only 92 residents of Unalaska and Dutch Harbor had obtained SHARCs (Table 11). Notably, only 14 members of the Qawalangin Tribe of Unalaska obtained SHARCs in 2003. These numbers increased in subsequent years, peaking at 176 Unalaska–Dutch Harbor SHARC holders in 2007, including 46 Qawalangin Tribe members. In 2012, the total was 141 SHARCs for all residents of Unalaska-Dutch Harbor and 27 Qawalangin Tribe members.

In 2012, an estimated 62 Unalaska–Dutch Harbor SHARC holders participated in the subsistence halibut fishery, an estimated 44 sport fished, and an estimated 83 participated in either fishery. These were generally lower levels of participation than previous study years except 2003 and 2011. For example, in 2010, an estimated 92 Unalaska–Dutch Harbor SHARC holders subsistence-fished for halibut, and 103 engaged in either the subsistence or sport fishery (Table 11).

In 2012, SHARC holders in Unalaska–Dutch Harbor harvested an estimated 10,059 lb of halibut in the subsistence fishery. Of this, 5,342 lb was harvested with set lines (53%) and 4,717 lb (47%) with hand-

operated gear. Additionally, they harvested 4,221 lb of halibut in the sport fishery, for a total noncommercial harvest of 14,280 lb (Table 11).

The 2012 harvest was similar to, but slightly lower than, harvest estimates from 2003, 2004, 2007, 2008, 2010, and 2011, which ranged between about 15,000 lb and 18,000 lb. However, the 2012 harvest estimate was 54% below the highest estimate for the community, 31,167 lb in 2009, and was the lowest estimate of any study year (Table 11).

The 2009 noncommercial halibut harvest by Unalaska–Dutch Harbor SHARC holders, by far the highest for the 9 study years, represents just 32% of the harvest estimate for 1994. Similarly, the 2012 estimate was 15% of the 1994 estimate. There are at least 5 explanations for these differences. First, actual noncommercial halibut harvests in Unalaska may have declined since 1994, although a decline of this magnitude is probably unlikely. Second, if many fishers are not obtaining SHARCs, the SHARC survey may have underestimated the subsistence halibut harvest. A third explanation is that the 1994 survey may have overestimated the halibut harvest. A fourth explanation is that many halibut fishers in Unalaska may prefer to harvest halibut under sport fishing regulations and therefore do not obtain SHARCs. A fifth possibility that may account for a decline in subsistence halibut harvests is a decline in stock abundance. The IPHC has noted a decline in abundance in Area 4A since 1994 (Gregg Williams, IPHC, personal communication, 2005). A combination of all 5 factors could be responsible for the unexpectedly low subsistence halibut harvest estimated for Unalaska from the SHARC surveys in all 10 study years. Further outreach in Unalaska is clearly appropriate, as well as additional research to better understand patterns of halibut fishing in the community.

Toksook Bay (Regulatory Area 4E)

Toksook Bay had a population of 590 in 2010 and 638 in 2012 (Table 1). As discussed in Chapter 1, the number of valid SHARCs held by Toksook Bay residents dropped from 533 (approximating the community's total population) in 2007 to 34 in 2008 and just 7 in 2012. Very few SHARCs that had been obtained in 2003 and that expired at the close of 2007 were renewed. The Division of Subsistence has not conducted a household harvest survey in this community. Wolfe (2002) estimated a subsistence halibut harvest of 12,600 lb (net weight; 16,800 lb round weight) for this community for 2000, based upon a 1986 per capita estimate for the neighboring community of Tununak. During SHARC project years from 2003–2007, Division of Subsistence staff, with the assistance of the Toksook Bay tribal government, evaluated the list of SHARC holders in the community, estimated the total number of subsistence halibut fishers, and conducted interviews with likely fishers. Based on the results of this collaboration with the tribal government, it is highly likely that most community residents who subsistence fished for halibut in 2003–2007 provided harvest data through the SHARC survey. Therefore, harvest estimates for Toksook Bay for 2003–2007 represent the harvests reported by respondents to the survey, and are not expanded to the total number of SHARC holders in the community. Project staff consider harvest data for these years to be reliable. In 2008–2012, however, no outreach or interviewing occurred in Toksook Bay. Of 34 SHARC holders in 2008, 11 (32%) responded to the mailed survey, as did 13 (39%) of 33 in 2009, 12 (38%) of 32 in 2010, and 13 (41%) of 32 in 2011. Of the 7 SHARC holders in 2012, 6 (86%) returned the survey. Unlike 2003–2007, returned survey data were expanded to estimate 2008–2012 halibut harvests in Toksook Bay.

The annual report for study year 2010 (Fall and Koster 2012, 32–34) an overview of harvests and participation levels in the subsistence halibut fishery for Toksook Bay for 2003 through 2010, as well as U32 (under 32 inches in length) halibut retained for home use from commercial harvests by members of the Coastal Villages Regional Fund Community Development Quota (CDQ) group, the majority of which are landed at Toksook Bay. As summarized in Table 11, from 2003 through 2007, subsistence halibut harvests ranged widely, from 6,596 lb in 2004 to 36,481 lb in 2006. The number of subsistence halibut fishers in Toksook Bay ranged from 54 in 2003 to 113 in 2006. In all study years, hand-operated gear accounted for most of the harvest.

As noted above, the number of valid SHARCs for Toksook Bay dropped to 34 in 2008. Based on the SHARC survey returns (11 of 34; 32%), it is likely that many active halibut fishers in the community did not renew their SHARCs and therefore were not part of the SHARC survey, resulting in underestimates of participation in the fishery and in estimated harvests. For example, based on the survey results, just 9 Toksook Bay residents participated in the subsistence halibut fishery in 2008, compared to an average of 73 for the previous 5 years (range 54 to 113; Table 11). The estimated harvest was 2,143 lb in 2008, while the previous 5-year average was 18,074 lb (range 6,596 to 36,481 lb). Results for 2009 were similar to those of 2008 and results for 2010 and 2011continued trends observed for 2008 and 2009 (Table 11)

In 2012, only 7 SHARCs were active in Toksook Bay, again suggesting that many subsistence fishers are not participating in the program. Based on returned surveys (6 of 7; 86%), the estimated subsistence halibut harvest was 294 lb, with just 140 lb (48%) taken with hand-operated gear. This harvest was just 2% of the annual average from 2003–2007 (18,074 lb). The estimated number of subsistence halibut fishers in Toksook Bay in 2012 was 5, compared to 113 in 2006 and an average of 79 from 2003–2007.

In 2012, Toksook Bay obtained 43% of the U32 halibut retained by the Coastal Villages Regional Fund CDQ catch, about 4,482 lb (Williams 2013, 68).

Without renewed registrations in the SHARC program and outreach in the community, it is unlikely that a mail survey alone will provide reliable harvest estimates for the subsistence halibut fishery in Toksook Bay in the future.

Tununak (Regulatory Area 4E)

Tununak had a population of 327 in 2010, with 314 Alaska Natives; the population estimate was 354 in 2012 (Table 1). The Division of Subsistence conducted a comprehensive household harvest survey in Tununak in 1986, which provides the only estimate of subsistence halibut harvests for the community prior to the adoption of the 2003 subsistence regulations. The harvest estimate for 1986 was 1,532 fish and 30,643 lb (net [dressed] weight), with a 95% confidence limit of ±26%. The harvest per capita was 93 lb (net weight) (CSIS).

No residents of Tununak obtained SHARCs in 2003,[27] and the Traditional Elders' Council in Tununak did not approve Division of Subsistence plans to conduct interviews with potential subsistence halibut fishers for 2003. Therefore, there is no subsistence halibut harvest estimate for this community for 2003. By the close of 2004, however, 70 residents of Tununak had obtained SHARCs (Table 11). Because only 9 SHARC holders responded to the postal survey (13%), harvest estimates for Tununak for 2004 are based on a very low sample achievement. The estimated total subsistence halibut harvest was 1,954 lb (net weight) by 31 fishers, 878 lb harvested with setline gear and 1,076 lb with hand-operated gear. No Tununak SHARC holders reported sport fishing activity in any study year.

The tribal government supported Division of Subsistence interviewing of subsistence halibut fishers in Tununak for the 2005 project year (Fall, Koster, and Davis 2006, 5). Thirty-three of 70 SHARC holders were interviewed (47%). As in Toksook Bay, reported harvests were not expanded for Tununak for the 2005 project year because most known halibut fishers were interviewed. The total subsistence harvest of halibut was 2,661 lb by 20 fishers. Most of the harvest (88%) was taken with hand-operated gear (Table 11).

In 2006, 70 Tununak residents held SHARCs. No interviewing took place in the community, but division staff attempted to contact SHARC holders by telephone. Sample achievement was low (10 of 70 SHARC holders; 14%). Based on this limited sample, the estimated subsistence halibut harvest at Tununak in 2006 was 4,032 lb by 33 subsistence fishers. Almost all of this harvest (3,808 lb; 94%) was with hand-operated gear (Table 11).

[27] One tribal member obtained a SHARC, but this person was not a resident of Tununak.

In 2007, 69 Tununak residents held SHARCs for a part of the year. With the support of a short-term contract with the division, staff of the Tununak IRA council conducted interviews in their community in order to supplement SHARC survey data. The estimated subsistence harvest in Tununak in 2007 was 7,015 lb by 38 fishers. Most of this harvest (5,479 lb; 78%) was taken with hand-operated gear (Table 11).

In 2008, 68 Tununak residents held SHARCs. No outreach or supplemental interviewing took place in the community in 2008. The response rate to the mailed survey was 10% (7 of 68 SHARC holders). Estimated harvested based on this sample were by far the lowest of any project year up to that point: 2,143 lb, all with hand-operated gear by an estimated 8 fishers (Table 11). This was almost certainly a large underestimation of the subsistence harvest of halibut in Tununak in 2008.

Few of the SHARCs active in 2008 in Tununak were renewed and only 11 were active in 2009; 6 (55%) responded to the survey. An estimated 7 subsistence fishers harvested 488 lb of halibut in 2009, all with hand-operated gear (Table 11). Due to the very limited participation in the SHARC program and based on results from 2004–2007, it is highly likely that a reliable estimate of subsistence halibut harvests in Tununak was not obtained for 2009.

As in 2009, only 11 SHARCs were active in Tununak in 2010; 3 (27%) responded to the survey. An estimated 9 subsistence fishers harvested 576 lb of halibut in 2010, all with hand-operated gear (Table 11). Due to the very limited participation in the SHARC program and based on results from 2004–2007, it is highly likely that, as for 2009, a reliable estimate of subsistence halibut harvests in Tununak was not obtained for 2010.

Similarly, only 11 SHARCs were active in Tununak in 2011. An estimated 4 SHARC holders fished, for an estimated harvest of 84 lb, all with hand-operated gear. In 2012, 11 Tununak residents had SHARCs. An estimated 3 SHARC holders fished for halibut, with an estimated harvest of 173 lb, all with hand-operated gear (Table 11). As for 2008–2010, it is unlikely that study results for 2011 and 2012 provide a reliable estimate of subsistence halibut harvests in the community.

Also, compared to the results of the 1986 survey, the harvest estimates for Tununak for 2004 through 2007 appear low. The reasons for this difference are uncertain. As just noted, the low response to the mailed SHARC survey plus a lack of outreach or follow-up interviews likely resulted in a large underestimation of the 2008–2012 harvests. Several additional years of harvest data collection plus renewed outreach and community support will be necessary to adequately document subsistence halibut harvest trends in this community.

COMPARISONS WITH NONSUBSISTENCE REMOVALS IN 2012

As reported in Table 18, the preliminary estimated total halibut removal in Alaskan waters in 2012 was 42,491,178 lb (net weight) based on data compiled by the IPHC (International Pacific Halibut Commission 2012; Williams 2013) and this project. In this total, the removal of 20,187 lb of U32 (under 32 inches in length) halibut for personal use by CDQ organizations in Area 4D and Area 4E has been added to the subsistence harvest category. Commercial harvests accounted for 59.9% of halibut removals in Alaska in 2012 (Figure 33).[28] Bycatch mortality of halibut in various other commercial fisheries ranked second, with 22.5% of the statewide removals. Sport harvests ranked third, with 12.6%. Wastage in the commercial halibut fishery added 3.3% to the total halibut removals. Finally, the subsistence fishery accounted for 1.7% of the total removals of halibut in Alaska waters in 2012.

Halibut harvests by fishery in 2012 at the regulatory area level did not differ substantially from the statewide pattern (Table 18; Figure 34). In all regulatory areas, commercial harvests accounted for 47% or

[28] The commercial harvest category includes 605,000 lb of halibut harvested in the IPHC research program, which represents about 2.4% of the category, and 1.4% of halibut removals in Alaska in 2012 (International Pacific Halibut Commission 2013a).

more of the total pounds net weight of halibut removals. In Area 2C (Southeast Alaska) and Area 3A (Southcentral Alaska), sport fisheries took 30.7% and 21.0%, respectively, of the halibut harvest in 2012; however, sport fisheries were just 0.2% of the total harvest in Area 3B (compared to 0.2% for the subsistence harvest) and in Area 4 just 0.1%, compared to subsistence harvests of 0.3%. Commercial bycatch accounted for 50.5% of halibut removals in Area 4. As a percentage of the total removal, subsistence halibut harvests were largest in Area 2C at 8.6% of the total (although they were 28% of the sport harvest and about 15% of the commercial harvest) and in Area 3A at 1.4%.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

SUMMARY AND CONCLUSIONS

New federal regulations governing subsistence halibut fishing in Alaska went into effect in May 2003. The 2012 calendar year was the tenth for which a program was implemented to estimate the subsistence harvest of halibut under these regulations. Based upon survey return rates, the program was a success. Of 9,944 SHARC holders, 7,054 (71%) voluntarily provided information about their subsistence halibut fishing activities in 2012 by responding to the survey. This was the highest response rate for any year of the program, which ranged from 58% in 2007 to 68% in 2011.

However, in 2012, the number of valid SHARCs (9,944) dropped 11% from 2011, and was 22% lower than the 9-year average from 2003–2011 (Table 19). Nonrenewed SHARCs account for most of this decline. The largest portion of this decline in the number of SHARC holders was in the tribal segment: 3,425 SHARCs in 2012 compared to 7,446 in 2007, a decline of 54%. Tribal SHARCs are valid for 4 years, so those issued in 2003, the first year of the new fishery, expired in 2007. In comparison, the number of nontribal SHARC holders dropped 5% from 2007 (7,601 SHARCs) to 2008 (7,249 SHARCs), increased to 7,724 in 2009, and decreased to 7,047 in 2010, 7,010 in 2011, and 6,519 in 2012, a decline of 14% since 2007. Nontribal SHARCs are valid for 2 years, so, in contrast to the tribal SHARC group, there have been several rounds of expirations and renewals since 2003. The next section of the report discusses SHARC expiration and renewal patterns and identifies some implications of these patterns for future harvest estimates.

Based on the survey returns, an estimated 4,394 individuals participated in the Alaska subsistence halibut fishery in 2012. This is the lowest estimate since the new regulations came into effect in 2003, and is 19% lower than the 9-year average from 2003–2011. The estimated subsistence harvest of halibut in Alaska in 2012 is 37,093 fish and 686,991 lb (±2.9%). As measured in pounds, the 2012 subsistence halibut harvest was the lowest of any study year and 30% lower than the 9-year average from 2003–2011 (Table 19). The total estimated harvests for 2003–2012 are below the 1.5 million net pounds estimated for the Alaska subsistence halibut harvest when the current regulations were developed by the North Pacific Fishery Management Council (see http://www.fakr.noaa.gov/frules/70fr16742.pdf, page 16748; (North Pacific Fishery Management Council 2003). The larger estimated harvest in 2004 compared to 2003 most likely corresponded to the greater number of individuals who held SHARCs through December 2004 and a proportional increase in the number of individuals who subsistence fished for halibut. The leveling off and slight decline in the harvests in 2006 and 2005, compared to 2004, are consistent with the leveling-off of the number of individuals who held SHARCs for at least a portion of these years. However, harvests as estimated in pounds dropped in 2007 despite an increase in individuals who held a SHARC for at least part of the year. In 2008, estimated harvests dropped by 14% and the number of SHARC holders dropped by 23%; in 2009, the number of SHARC holders rose slightly (1.5%) while the harvest dropped by 0.1%; in 2010 both the number of SHARC holders and the harvest dropped by about 7% compared to the previous year. Study year 2011 continued the trend of lower harvests begun in 2004, and was 12% below the estimated harvest for 2010 despite a 2% increase in the number of SHARC holders. In 2012, the number of SHARCs dropped 11% while the estimated harvest declined 2%.

Average harvests per fisher in the subsistence halibut fishery in 2012 at 8.4 fish and 156 lb rose slightly from the 8.1 fish and 148 lb estimated for 2011 (the lowest over the 10 years of the project). The average harvest per fisher in pounds was 13% below the average of the previous 9 years, during which on average subsistence fishers harvested between 148 lb (in 2011) and 211 lb (in 2003) (Table 19).

Over the 10 project years, the average weight of subsistence-caught halibut declined from 23.7 lb in 2003 to 18.2 lb in 2008 (a decline of 23%), rose slightly to 19.0 lb in 2009, and then leveled off at 18.4 lb per fish in 2010, 18.3 lb in 2011, and 18.5 lb in 2012 (Table 19). The average weight of a subsistence-caught halibut dropped 8% from 2003 to 2012.

After 10 years of the harvest assessment program, it appears likely that the overall larger statewide harvest estimates in 2004, 2005, and 2006, compared to 2003, were, at least in part, a consequence of increased participation of subsistence fishers in the SHARC program after 2003 and, perhaps, an increase in trust on the part of subsistence fishers in the survey. The lower harvest estimates for 2008–2012 may in part be a consequence of reduced participation in the SHARC program, especially among eligible tribal members and especially in Area 4. As the community case studies demonstrate, however, a number of factors appear to have caused the differences in harvest estimates over the 10 project years, and these differ by community. Some were methodological (St. Paul, for example), while other factors were probably linked to more thorough and accurate documentation of harvests (Cordova and Sand Point, for example), for some study years at least, rather than a true increase. On the other hand, decreases in subsistence halibut harvests in Area 2C appear to reflect declining success in harvests, with declines in Sitka (down 55% from 2003 to 2012) particularly notable. (See below for additional discussion of changes in harvest estimates.)

In 2012, most subsistence halibut were harvested with setline (stationary) gear (78%) and the rest with hand-operated gear (22%) (Figure 23). The portion of the subsistence halibut harvested with set lines has ranged since 2003 from 69% in 2007 to 77% in 2010 and 2011 and 78% in 2012.

The largest portion of the Alaska subsistence halibut harvest in 2012 occurred in Regulatory Area 2C (Southeast Alaska), at 58% (396,043 lb), followed by Area 3A (Southcentral Alaska) at 37% (253,516 lb), Area 3B (Alaska Peninsula) at 2% (15,959 lb), Area 4A (Eastern Aleutian Islands) at 1% (9,543 lb), Area 4E (East Bering Sea Coast) at 1% (8,384 lb), Area 4B (Western Aleutian Islands) at less than 1% (1,698 lb), Area 4C (Pribilof Islands) less than 1% (1,176 lb), and Area 4D (Central Bering Sea) at less than 1% (672 lb) (Table 6; Figure 14). In 2003–2011, Area 2C (Southeast Alaska) and Area 3A (Southcentral Alaska) also accounted for most of the subsistence harvests.

The proportion of the statewide subsistence halibut harvest occurring in Area 2C (Southeast Alaska) ranged from 60% in 2003, 58% in 2012, and 57% in 2004, to between 51% and 55% from 2005 through 2011. The portion occurring in Area 3A (Southcentral Alaska) ranged from 27% in 2003 to between 34% and 39% from 2004 through 2012. Subsistence harvests accounted for 1.7% of the total halibut removals in Alaska waters in 2012, compared to between 1.2% (in 2009) and 1.5% (in 2004, 2005, and 2006).

Subsistence halibut fishers had an estimated incidental harvest of 9,568 rockfish in 2012. This was the lowest estimate of any study year and a decrease of 34% compared to the 9-year average from 2003–2011 (Table 19). There were 1,161 SHARC holders who harvested rockfish while subsistence halibut fishing in 2012, compared to a range since 2003 of 1,220 (in 2011) to 1,616 (in 2004). Most of the incidental rockfish harvests in 2012 occurred in Area 2C (73%), similar to all previous study years.

In 2012, subsistence halibut fishers harvested an estimated 2,247 lingcod in the subsistence halibut fishery. This was the lowest estimate of any study year and 30% below the 9-year average from 2003–2011. In total, 696 SHARC holders harvested lingcod while subsistence halibut fishing in 2012; this number has ranged in previous study years from 699 in 2003 to 959 in 2007. As with rockfish, most of the incidental lingcod harvests took place in Area 2C in 2012 (68%), similar to all previous study years.

As discussed above, although comparisons of the 2003–2012 harvest estimates with those from previous research by the Division of Subsistence are complicated by different research methods, such comparisons may still be instructive. Subsistence harvest estimates for most of the larger communities (combining tribal and rural SHARC holders) such as Sitka, Petersburg, and Kodiak for the first several years of the SHARC surveys were not markedly different from range of earlier estimates based on household surveys. This is significant in that these communities account for a very large percentage of the total harvest. On the other hand, registration in the SHARC program and survey response rates have declined in several key halibut-fishing communities in Area 4, perhaps resulting in underestimated subsistence harvests for that regulatory area. Declining numbers of SHARCs issued in the other regulatory areas also raise questions about trends in participation in the SHARC program, including the survey. We conclude,

however, that the 10 years of the survey of SHARC holders produced sound estimates of subsistence harvests of halibut in Alaska based on a scientific sample and a relatively high response rate in Areas 2C and 3A, where approximately 90% of the subsistence halibut fishing in the state occurs. Future documentation of the subsistence harvests will be necessary for any meaningful discussion of long-term trends in the fishery.

SHARC EXPIRATION AND RENEWAL PATTERNS, 2003–2012[29]

Since the current federal subsistence halibut regulations came into effect in 2003 through 2012, 21,835 individuals had obtained SHARCs.[30] SHARCs must be renewed periodically: rural SHARCs every 2 years and tribal SHARCs every 4 years. Continuing participation in the SHARC program by subsistence halibut fishers is essential for achieving reliable harvest estimates.

Of the 21,835 SHARC holders, 11,865 (54%) did not have valid SHARCs for 2012 (classified as "did not renew" in this analysis), including 60% of tribal SHARC holders and 51% of rural SHARC holders (Figure 35). The remaining 9,970 SHARCs were active in 2012[31] (46% of all SHARCs ever issued), either being renewed one or more times or not yet being subject to renewal. This includes 3,430 tribal SHARCs (40% of all tribal SHARCs that have been issued) and 6,540 rural SHARCs (49%) (Table 20).

SHARC holders who did not renew their SHARCs were more likely than currently (in 2012) active SHARC holders to have never responded to the harvest survey or to never have participated in the subsistence halibut fishery (Table 20; Figure 36). Of all SHARC holders, 24% of nonrenewals had never responded to the survey, compared to 9% of currently active SHARC holders. Additionally, 26% of expired SHARCs had not been fished; 8% of active SHARC holders have never fished. This pattern exists within each SHARC type as well. Of tribal SHARC holders, 26% who did not renew their SHARC never responded to the survey, compared to 14% of currently active tribal SHARC holders. Also, 37% of expired tribal SHARCs never were fished, compared to 15% of active tribal SHARCs. Of all rural SHARC holders whose SHARCs expired, 22% never responded to the survey and 18% did not fish. Of active rural SHARCs, 7% have not responded to the survey and 5% have never fished.

This finding suggests that over time, the set of active SHARC holders has become more likely to include individuals who will respond to the survey and participate in the subsistence halibut fishery. The trend is more pronounced for tribal SHARC holders, most likely because, as discussed above, this group initially included a large percentage of young tribal members and elders who did not actively participate in the fishery.

However, 49% of expired SHARCs were held by individuals who had participated in the subsistence halibut fishery, including 37% of expired tribal SHARCs and 60% of expired rural SHARCs (Table 20). Of all SHARC holders that reported some subsistence fishing activity, 42% did not renew their SHARC, including 44% of tribal SHARC holders who fished and 41% of rural SHARC holders who fished (Figure 35). The reasons why subsistence halibut fishers did not renew their SHARCs are unknown. If a substantial number of these individuals have continued to participate in the subsistence halibut fishery without renewing their SHARC, an underestimate of future subsistence halibut harvests will result.

There were 37 tribes with 12 or more individuals who obtained SHARCs from 2003 through 2012 that had SHARC renewal rates of less than 50%. In total, 5,531 members of these tribes obtained SHARCs, 65% of all tribal SHARC holders, and 3,819 of these SHARCs (69%) were not renewed, which is 75% of all nonrenewed tribal SHARCs. Of the 2,612 members of these tribes who held SHARCs and participated

---

[29] The following is an update of the analysis that was summarized in the report for study year 2009 (Fall and Koster 2011, 35–36), which was based on SHARC renewal patterns for 2003–2009.

[30] This total includes individual SHARC holders only; it does not include educational, ceremonial, or community permits.

[31] This total includes 26 SHARC holders who passed away in 2012 and are not included in the total of 9,944 SHARCs used to develop harvest estimates in this report.

in the subsistence halibut fishery, 52% did not renew their SHARCs. Nonrenewal rates for subsistence fishers among this group of tribes ranged from 31% to 100%. This finding suggests a trend in at least some tribes of subsistence fishers dropping out of the SHARC program, which may result in an underestimate of the subsistence halibut harvest in the future.

In summary, this analysis of renewal patterns for SHARC holders from 2003 through 2012 suggests 2 trends that may have opposite effects on subsistence halibut harvest estimates. First, it appears that individuals who did not respond to the survey or did not participate in the fishery were less likely than those who fished to renew their SHARCs. Thus nonfishers may have been overrepresented in the first several years of the harvest survey, and been overrepresented in the nonrespondent group. If so, harvests for the early years of the program may have been overestimated. Second, it appears that a notable portion of SHARC holders who participated in the subsistence fishery have not renewed their SHARCs. If these individuals have continued to fish for halibut for subsistence use, future estimates of subsistence halibut harvests will be too low, because they are based solely on responses to the survey that is mailed to SHARC holders.

PATTERNS OF CHANGE IN HALIBUT REMOVALS, 2003–2012

As noted, subsistence harvests of halibut in Alaska in 2012 were 30% lower than the previous 9-year average, a decline that exceeded the 22% drop in SHARCs issued and the 19% drop in the estimated number of subsistence halibut fishers (Table 19). In comparison, commercial harvests of halibut in Alaska were 50% lower in 2012 than the average from 2003–2011, sport harvests were 31% lower, and total removals (which also include wastage and bycatch in commercial fisheries) were 42% lower (Table 21; Figure 37). From 2003 to 2012, the Alaska subsistence harvest declined at an annual rate of -3.4%, compared to -5.8% average annual decline in the commercial fishery, -3.0% in the sport fishery, and -4.9% for total halibut removals (Table 21). Also, population estimates for Pacific halibut over the entire range, as estimated in net pounds, indicate a decline of 19% in biomass (average annual rate of decline of -2.9%) and a decline of 29% in exploitable biomass[32] (average annual rate of decline of -5.3%) in 2012 compared to the previous 9-year average (Table 22), a result "of decreasing size-at-age, as well as relatively poor recruitment strengths" (Stewart et al. 2012, 101). Thus the declines in Alaska subsistence halibut harvests documented by the survey of SHARC holders reflect lower harvests in other halibut fisheries in Alaska as well as declines in biomass and size at age in halibut stocks over the same time period.

Although drops in subsistence halibut harvests in Alaska correspond to declines in the stock and other halibut fisheries, as noted earlier, changes in subsistence harvest levels, especially at the regulatory area and community level, likely have complex causes. In this regard, a comparison of harvest and participation patterns in the subsistence halibut fisheries in Area 2C (Southeast Alaska) and Area 4 (Western Alaska) is instructive. As noted in the previous section, 54% of the SHARCs issued for the Alaska subsistence halibut fishery from 2003–2012 had expired (were not renewed) by 2012 (Figure 35). Renewal rates in Area 4 were much lower. During this 10-year period, 2,093 members of eligible tribes and rural communities in Area 4 held SHARCs. Of these, 1,737 (83%) had expired by the end of 2012, and 356 (17%) were active. Of the 1,026 SHARC holders from Area 4 who are known to have fished (had returned a survey indicating an attempt to harvest), only 27% (274) held valid SHARCs in 2012; 73% (752) had expired. This compares to 42% of all SHARC holders who fished (Figure 38). Subsistence halibut harvests in Area 4 in 2012 were down 70% compared to the previous 9-year average, and declined at an annual rate of -8.0% over the 10-year period, compared to -3.4% for the Alaska subsistence fishery overall. Similarly, the estimated number of subsistence halibut fishers in Area 4 declined at a much higher rate, -7.4%, compared to all the regulatory areas of Alaska combined, -1.1% (Table 23). In summary,

[32] "Exploitable biomass" or "Ebio" is "the fraction of the total biomass exploited by the directed fisheries and for which the harvest policy is defined" (International Pacific Halibut Commission 2013b, 6).

while halibut populations have declined, subsistence harvests in Area 4 account for only 0.3% of total removals, suggesting that drops in subsistence harvest estimates in Area 4 are more likely a result of declines in participation in the SHARC program by fishers than solely the result of decreased fishing effort or success.

Patterns in Area 2C exhibit some contrasts to those of Area 4. In total, 12,880 SHARCs were held by tribes and rural communities of Area 2C from 2003–2012. Of these 50% (6,452) had expired and 50% (6,428) were valid in 2012, slightly higher rates of renewal than in Alaska overall and much higher than Area 4 (Figure 38). Of the 8,549 SHARC holders from Area 2C that had indicated fishing, 63% (5,346) held valid SHARCs in 2012 and 37% (3,203) had expired. Again, renewal rates exceeded those of all Alaska SHARC holders and SHARC holders from Area 4. Subsistence harvests in Area 2C in 2012 were 25% lower than the previous 9-year average for that area, lower than the 30% decline for Alaska and the 70% decline for Area 4. The subsistence halibut harvest in Area 2C declined by an average annual rate of -3.7% from 2003–2012, compared to -3.4% for Alaska and -8.0% for Area 4. Also, the estimated number of subsistence halibut fishers in Area 2C dropped at a lower rate of -1.2% from 2003–2012 than either SHARCs (-1.3%) or harvests (-3.7%) (Table 22). Given that subsistence harvests represented 8.6% of halibut removals in Area 2C in 2012 (more than any other regulatory area), lower abundance of halibut and smaller halibut may account for more of the decline in estimated harvests in this area than a drop in participation in the SHARC program, in contrast to Area 4. Clearly, however, until additional research is undertaken, the reasons for lower harvest estimates in the Alaska subsistence halibut fishery will remain uncertain.

RECOMMENDATIONS

As noted in Chapter 1, 2012 marked the tenth consecutive year of documentation of the subsistence halibut harvests in Alaska, but due to budget constraints, the project will not continue for the 2013 harvest year. We conclude this report with the following recommendations for potential future research based on experiences during the 10 years of this project.

1. The estimates of subsistence halibut harvests in Alaska documented by this program should be updated in the future. As discussed, these harvest estimates declined over the 10-year monitoring program, but the reasons for the lower estimates are likely complex and have not been explored thoroughly. For example, the number of valid SHARCs has declined, and analysis suggests that a significant number of subsistence halibut fishers may have not renewed their SHARCs. This may have resulted in underestimated harvests in the later years of the program in some communities, but may also be evidence that fewer people are participating in the fishery. Declines in the harvestable surplus of halibut leading to lower catch rates is an additional possible explanation for lower harvests.

2. Over the 10 years of the project, 77,363 SHARC surveys were returned. Analysis of this database could reveal patterns in renewals, participation in the fishery, and harvest levels that could be applied to future harvest monitoring efforts. Linked to this analysis could be a systematic survey of a sample of SHARC holders and harvest survey respondents to explore topics such as reasons for renewing or not renewing SHARCs, factors affecting participation in the fishery, and factors influencing harvest rates.

3. Linked to this quantitative analysis, ethnographic investigations should take place in a sample of key halibut fishing communities to evaluate the effects of the new subsistence fishing regulations on fishing patterns as well as patterns of involvement during the first 10 years that the regulations were in effect. These studies would entail more detailed interviewing of fishers regarding changes in gear choice, fishing effort, harvest amounts, or other fishing activities that have resulted from the regulatory changes, as well as reasons for renewing or not renewing SHARCs. These interviews could also investigate traditional and local knowledge about halibut stocks that might prove useful to agencies, communities, and tribes

for future management of the subsistence, sport, and commercial halibut fisheries in Alaska. In addition, participant observation of subsistence halibut fishing could provide important information about the fishery. Findings of these ethnographic investigations should be applied to assist in designing future harvest monitoring programs for the fishery.

4. A recommendation in the final report for the third year of the program was that "implementation of a program to collect harvest data in season in selected communities should be considered on a trial basis to help supplement and evaluate the data collected through the postal survey" (Fall, Koster, and Davis 2006, 37). The Division of Subsistence conducted an in-season harvest monitoring project for the subsistence halibut fishery in Sitka and Kodiak in 2006 with funding provided by NMFS. Findings were presented in Special Publication No. 2009-06 (Fall, Koster, and Turek 2009, 37). Consideration should be given in the future to in-season monitoring programs in other communities as a method to compare harvest estimates with those from mailed surveys.

5. Further evaluation of several years of sport fishing harvest data achieved through the postal *Statewide Harvest Survey* administered by the Division of Sport Fish could take place for the larger rural communities participating in the subsistence halibut fishery. (Analysis of these data for Sitka was conducted as a pilot effort for 2004. See Fall, George, and Easley (2005, 22–24).) As discussed in Chapter 2 and Chapter 3, many SHARC holders also reported that they sport fished for halibut in 2003–2012. It would be instructive to learn if a shift in harvest from the "sport" category to the "subsistence" category, or in the other direction from subsistence to sport, has occurred, in order to evaluate trends in the subsistence fishery and the effect of the new subsistence halibut regulations on fishing patterns.

6. Even without harvest monitoring, additional or renewed outreach is needed in a number of communities with historically high subsistence harvests of halibut but low or declining numbers of SHARCs issued. Contracts with tribal governments could facilitate this outreach.

7. In summary, the results of a quantitative analysis of the 10 years of survey data, systematic interviews, ethnographic research, and in-season harvest monitoring should be evaluated to design a sustainable harvest monitoring program for the Alaska subsistence halibut fishery consistent with available long-term funding. Such a program could be based on a postal survey linked with other data gathering methods in selected communities or regulatory areas, such as face-to-face interviews, calendars, or limited in-season monitoring. Outreach about the subsistence halibut regulations, including the requirement to obtain a SHARC, should be part of any future harvest monitoring program.

REFERENCES CITED

Alaska Department of Labor and Workforce Development. 2011. "2010 Census Demographic Profiles." Juneau: Alaska Department of Labor and Workforce Development, Research and Analysis Section. http://live.laborstats.alaska.gov/cen/dparea.cfm.

———. 2013. "Alaska Population Estimates by Borough, Census Area, City and Census Designated Place (CDP), 2010-2012." Alaska Department of Labor and Workforce Development, Research and Analysis Section. http://laborstats.alaska.gov/pop/popest.htm.

Cochran, William G. 1977. *Sampling Techniques.* 3rd ed. New York: John Wiley & Sons.

Crapo, Chuck, Brian Paust, and Jerry Babbitt. 1993. "Recoveries and Yields from Pacific Fish and Shellfish." Fairbanks: Marine advisory bulletin #37. University of Alaska Fairbanks Alaska Sea Grant College Program.

Fall, James A., David B. Andersen, Louis Brown, Michael Coffing, Gretchen Jennings, Craig Mishler, Amy Paige, Charles J. Utermohle, and Vicki Vanek. 1993. "Noncommercial Harvests and Uses of Wild Resources in Sand Point, Alaska, 1992." Juneau: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 226. http://www.subsistence.adfg.state.ak.us/techpap/tp226.pdf.

Fall, James A., Mykel George, and Bridget Easley. 2005. "Subsistence Harvests of Pacific Halibut in Alaska, 2004." Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 304.

Fall, James A., Madel Kerlin, Bridget Easley, and Robert J. Walker. 2004. "Subsistence Harvests of Pacific Halibut in Alaska, 2003." Juneau: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 288.

Fall, James A., David Koster, and Brian Davis. 2006. "Subsistence Harvests of Pacific Halibut in Alaska, 2005." Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 320.

Fall, James A., and David S. Koster. 2008. "Subsistence Harvests of Pacific Halibut in Alaska, 2007." Anchorage: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 342.

———. 2010. "Subsistence Harvests of Pacific Halibut in Alaska, 2008." Anchorage: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 348.

———. 2011. "Subsistence Harvests of Pacific Halibut in Alaska, 2009." Anchorage: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 357.

———. 2012. "Subsistence Harvests of Pacific Halibut in Alaska, 2010." Anchorage: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 367.

———. 2013. "Subsistence Harvests of Pacific Halibut in Alaska, 2011." Anchorage: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 378.

Fall, James A., David S. Koster, and Michael Turek. 2007. "Subsistence Harvests of Pacific Halibut in Alaska, 2006." Juneau: Alaska Department of Fish and Game, Division of Subsistence, Technical Paper No. 333.

Fall, James A., David Koster, and Michael Turek. 2009. "Estimates of Subsistence Harvests of Pacific Halibut in Kodiak and Sitka, Alaska, 2006." Anchorage: Alaska Department of Fish and Game, Division of Subsistence, Special Publication No. 2009-06.

Gilroy, Heather L. 2005. "The Pacific Halibut Fishery, 2004." Victoria, British Columbia: Pages 5–18 in the proceedings of the International Pacific Halibut Commission Eighty-First Annual Meeting, January 17–21, 2005. International Pacific Halibut Commission. http://www.iphc.washington.edu/halcom/pubs/annmeet/2005/bluebook/Bluebook2005.pdf.

———. 2013. "The Pacific Halibut Fishery, 2012." In *International Pacific Halibut Commission Eighty-Ninth Annual Meeting Handout*, 9–27. Seattle, WA: International Pacific Halibut Commission. http://www.iphc.int/publications/bluebooks/IPHC_bluebook_2013.pdf.

International Pacific Halibut Commission. 2012. "International Pacific Halibut Commission Annual Report 2011." Seattle, WA: Prepared by Eric Chastain and International Pacific Halibut Commission. http://www.iphc.int/publications/annual/ar2011.pdf.

———. 2013a. "2012 Sector Removals by Regulatory Area." International Pacific Halibut Commission. http://www.iphc.int/commercial/catch-data/350-sector-removals2012.html.

———. 2013b. "Internal Pacific Halibut Commission Eighty-Ninth Annual Meeting Handout." International Pacific Halibut Commission. http://www.iphc.int/publications/bluebooks/IPHC_bluebook_2013.pdf.

National Marine Fisheries Service. 2000. "Environmental Assessment/regulatory Impact Review/initial Regulatory Flexibility Analysis for a Regulatory Amendment for Defining a Halibut Subsistence Fishery Category (EA/RIR/RFA)." Anchorage: North Pacific Fishery Management Council, Alaska Department of Fish and Game, International Pacific Halibut Commission, and National Marine Fisheries Service.

North Pacific Fishery Management Council. 2003. "Environmental Assessment and Regulatory Impact Review for a Regulatory Amendment to Define a Halibut Subsistence Fishery Category in Convention Waters." Anchorage: National Marine Fisheries Service, Juneau and the North Pacific Fishery Management Council. http://www.fakr.noaa.gov/analyses/subsistence/halibut0403.pdf.

Scott, Cheryl, Louis B. Brown, Gretchen B. Jennings, and Charles Utermohle. Unpublished. "Community Profile Database, 2001, for Microsoft Access. Version 3.12." Juneau: Alaska Department of Fish and Game, Division of Subsistence.

Stanek, Ronald T. 1985. "Patterns of Wild Resource Use in English Bay and Port Graham, Alaska." Technical paper 104. Anchorage: Alaska Department of Fish and Game, Division of Subsistence. http://www.adfg.alaska.gov/techpap/tp104.pdf.

Stewart, Ian J., Bruce M. Leaman, Steven Martell, and Raymond A. Webster. 2012. "Assessment of the Pacific Halibut Stock at the End of 2012." In *IPHC Report of Assessment and Research Activities, 2011*, 93–186. Seattle, WA: International Pacific Halibut Commission.

Trumble, Robert J. n.d. "1998 Estimates of Personal Use Halibut." In *Report of Assessment and Research Activities 1998*, 61–64. Seattle, WA: International Pacific Halibut Commission.

U.S. Census Bureau. 2001. "Profiles of General Demographic Characteristics, Alaska: 2000." Washington, D.C.: U.S. Department of Commerce.

———. 2011. "2010 Census". Washington, D.C.: U.S. Census Bureau. http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

Williams, Gregg H. 2011. "Retention of U32 Halibut in the 2010 Area 4D/4E CDQ Fishery." In *IPHC Report of Assessment and Research Activities, 2010*, 63–66. Seattle, WA: International Pacific Halibut Commission. http://www.iphc.washington.edu/publications/rara/2010/2010.63.RetentionofU32halibutinthe2010Area4D_4ECDQfishery.pdf.

———. 2013. "Retention of U32 Halibut in the 2012 Area 4D/4E CDQ Fishery." In *International Pacific Halibut Commission Report of Assessment and Research Activities 2012*, 67–69. Seattle, WA: International Pacific Halibut Commission.

Wolfe, Robert J. 2001. "Subsistence Halibut Fishing in Alaska–harvest Patterns." Presentation to the Alaska Board of Fisheries. May 2001 (RC 8).Alaska Department of Fish and Game, Division of Subsistence.

———. 2002. "Subsistence Halibut Harvest Assessment Methodologies." San Marcos, CA: Report prepared for the National Marine Fisheries Service, Sustainable Fisheries Division, Robert J. Wolfe and Associates.

Table 1.–Population of rural communities eligible to participate in the Alaska subsistence halibut fishery, 2000, 2010, and 2012.

		Population				
	Regulatory	2000		2010		2012
Community[a]	area	Total	Alaska Native	Total	Alaska Native	Total
Angoon	2C	572	419	459	405	456
Coffman Cove	2C	199	12	176	10	181
Craig	2C	1,397	432	1,201	378	1,243
Edna Bay	2C	49	2	42	0	39
Elfin Cove	2C	32	0	20	6	20
Gustavus	2C	429	32	442	30	489
Haines	2C	1,811	332	1,713	278	1,832
Hollis	2C	139	13	112	10	109
Hoonah	2C	860	597	760	502	777
Hydaburg	2C	382	342	376	324	367
Hyder	2C	97	4	87	5	98
Kake	2C	710	530	557	449	598
Kasaan	2C	39	19	49	22	69
Klawock	2C	854	496	755	446	799
Klukwan	2C	139	123	95	86	93
Metlakatla	2C	1,375	1,125	1,405	1,245	1,463
Meyers Chuck	2C	21	2			
Naukati Bay	2C	135	13	113	9	115
Pelican	2C	163	42	88	36	82
Petersburg	2C	3,224	388	2,948	390	2,972
Point Baker	2C	35	3	15	2	16
Port Alexander	2C	81	11	52	3	66
Port Protection	2C	63	7	48	13	42
Saxman	2C	431	302	411	276	432
Sitka	2C	8,835	2,178	8,881	2,184	9,084
Skagway	2C	862	44	920	52	911
Tenakee Springs	2C	104	5	131	5	152
Thorne Bay	2C	552	27	471	23	508
Whale Pass	2C	58	2	31	1	39
Wrangell	2C	2,308	550	2,369	582	2,448
Census area balances[d]	2C			1,230		1,290
Subtotal, Area 2C[e]		**25,956**	**8,052**	**25,957**	**7,772**	**26,790**
Akhiok	3A	80	75	71	62	87
Chenega Bay	3A	86	67	76	46	68
Cordova	3A	2,454	368	2,239	344	2,316
Karluk	3A	27	26	37	35	41
Kodiak[b]	3A	12,973	1,697	12,824	983	13,235
Larsen Bay	3A	115	91	87	66	93
Nanwalek	3A	177	165	254	227	287
Old Harbor	3A	237	203	218	194	206
Ouzinkie	3A	225	197	161	140	178
Port Graham	3A	171	151	177	160	168
Port Lions	3A	253	163	194	119	201
Seldovia	3A	286	66	420	121	401
Tatitlek	3A	107	91	88	58	83
Yakutat	3A	680	375	662	330	622
Census area balances[d]	3A					
Subtotal, Area 3A		**17,871**	**3,735**	**17,508**	**2,885**	**17,986**

- continued -

Table 1.–Page 2 of 3.

Community[a]	Regulatory area	Population 2000 Total	2000 Alaska Native	2010 Total	2010 Alaska Native	2012 Total
Chignik	3B	79	48	91	56	91
Chignik Lagoon	3B	103	85	78	58	82
Chignik Lake	3B	145	127	73	70	70
Cold Bay	3B	88	15	108	20	98
False Pass	3B	64	42	35	27	26
Ivanof Bay	3B	22	21	7	7	7
King Cove	3B	792	379	938	384	963
Nelson Lagoon	3B	83	68	52	40	46
Perryville	3B	107	105	113	110	112
Sand Point	3B	952	421	976	417	983
Census area balances[d]	3B			5		5
Subtotal, Area 3B		**2,435**	**1,311**	**2,476**	**1,189**	**2,483**
Akutan	4A	713	117	1,027	76	1,106
Nikolski	4A	39	27	18	17	16
Unalaska	4A	4,283	397	4,376	355	4,768
Census area balances[d]	4A			178		178
Subtotal, Area 4A		**5,035**	**541**	**5,599**	**448**	**6,068**
Adak	4B	316	118	326	46	321
Atka	4B	92	84	61	58	59
Census area balances[d]	4B					
Subtotal, Area 4B		**408**	**202**	**387**	**104**	**380**
St George Island	4C	152	140	102	92	86
St Paul Island	4C	532	460	479	417	453
Census area balances[d]	4C					
Subtotal, Area 4C		**684**	**600**	**581**	**509**	**539**
Gambell	4D	649	622	681	654	696
Savoonga	4D	643	614	671	637	713
Diomede	4D	146	137	115	110	121
Census area balances[d]	4D					
Subtotal, Area 4D		**1,438**	**1,373**	**1,467**	**1,401**	**1,530**
Alakanuk	4E	652	638	677	660	707
Aleknagik	4E	221	187	219	185	204
Brevig Mission	4E	276	254	388	366	417
Bethel	4E	5,471	3,719	6,080	4,334	6,113
Chefornak	4E	394	386	418	403	434
Chevak	4E	765	734	938	912	970
Clark's Point	4E	75	69	62	55	59
Council ANVSA[c]	4E	0	0	0	0	0
Dillingham	4E	2,466	1,503	2,329	1,549	2,406
Eek	4E	280	271	296	289	339
Egegik	4E	116	89	109	51	106
Elim	4E	313	297	330	305	365
Emmonak	4E	767	720	762	737	755
Golovin	4E	144	133	156	148	173
Goodnews Bay	4E	230	216	243	232	258
Hooper Bay	4E	1,014	971	1,093	1,070	1,114
King Salmon	4E	442	133	374	132	357
Kipnuk	4E	644	631	639	626	641
Kongiganak	4E	359	349	439	430	464
Kotlik	4E	591	568	577	563	628

- continued -

Table 1.–Page 3 of 3.

Community[a]	Regulatory area	Population 2000 Total	2000 Alaska Native	2010 Total	2010 Alaska Native	2012 Total
Koyuk	4E	297	280	332	319	338
Kwigillingok	4E	338	331	321	310	317
Levelock	4E	122	116	69	62	88
Manokotak	4E	399	378	442	425	449
Mekoryuk	4E	210	203	191	185	210
Naknek	4E	678	319	544	283	550
Napakiak	4E	353	341	354	344	358
Napaskiak	4E	390	383	405	393	434
Newtok	4E	321	311	354	343	377
Nightmute	4E	208	197	280	266	294
Nome	4E	3,505	2,057	3,598	2,348	3,759
Oscarville	4E	61	61	70	67	69
Pilot Point	4E	100	86	68	57	68
Platinum	4E	41	38	61	57	74
Port Heiden	4E	119	93	102	87	123
Quinhagak	4E	555	540	669	650	689
Scammon Bay	4E	465	453	474	472	536
Saint Michael	4E	368	343	401	379	404
Shaktoolik	4E	230	218	251	242	276
Nunam Iqua	4E	164	154	187	174	185
Shishmaref	4E	562	531	563	540	580
Solomon Anvsa	4E	4	3	0	0	0
South Naknek	4E	137	115	79	66	80
Stebbins	4E	547	518	556	530	566
Teller	4E	268	248	229	220	250
Togiak	4E	809	750	817	767	871
Toksook Bay	4E	532	519	590	555	638
Tuntutuliak	4E	370	366	408	396	420
Tununak	4E	325	315	327	314	354
Twin Hills	4E	69	65	74	72	83
Ugashik	4E	11	9	12	9	13
Unalakleet	4E	747	655	688	574	700
Wales	4E	152	137	145	136	152
White Mountain	4E	203	175	190	167	188
Census area balances[d]	4E			398		392
Subtotal, Area 4E		**28,880**	**23,176**	**30,378**	**24,856**	**31,395**
Total		**82,707**	**38,990**	**84,353**	**39,164**	**87,171**

Sources U.S. Census Bureau 2001; U.S. Census Bureau 2011; Alaska Department of Labor and Workforce Development 2013.

a. Alaska Native Village statistical Area populations were used whenever no city or census designated place (CDP) populations were present in the census.

b. Total population for Kodiak Island road system area; includes Kodiak City, Kodiak Station, Chiniak, and other areas on the road system.

c. There is no census table for a Council CDP or municipality in 2000. The Council ANVSA table indicated that all 40 housing units were vacant in 2000.

d. Population living outside incorporated places and census designated places but eligible for participation in the subsistence halibut fishery as of December 4, 2009.

e. Non-tribal residents of Naukati Bay were not eligible for SHARCs until 2008. This community was not included in population estimates for previous study years.

Table 2.–Project chronology, 2012 study year.

Date	Event/Action
October 1, 2012	NOAA Grant Award No. NA11NMF4370059, as amended, between NMFS and ADF&G in effect to support the research for study year 2012
December 5, 2012	Presentation of 2011 study findings at NPFMC meeting, Anchorage, AK
January 7, 2013	First mailing of survey forms
January 14, 2013	Distribution of final report and 4 page summary for study year 2011
January 23, 2013	Presentation of 2011 study findings at IPHC annual meeting, Victoria, BC
February 15, 2013	Second mailing of survey forms
March 27, 2013	Third mailing of survey forms
April through June, 2013	Administration of surveys in Angoon, Hydaburg, Ketchikan, Metlakatla, and Sitka
April 16, 2013	Submission of semi-annual report on project progress to NMFS
October 25, 2012	Submission of semi-annual report on project progress to NMFS
November 25, 2013	Release of public review draft of final report
December 11, 2013	Presentation of study findings, NPFMC, Anchorage
January 10, 2014	Completion of revised, final report; distribution of findings summary
January 15, 2014	Presentation of 2012 study findings at IPHC annual meeting, Seattle, WA

Table 3.–Sample achievement, 2012.

		First mailing			Second mailing			Third mailing			Totals					
Tribal name	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
Angoon Community Association	2C	74	20	0	54	7	2	46	3	0	74	30	42	72	97.3%	2
Aukquan Traditional Council	2C										1					
Central Council Tlingit and Haida Indian Tribes	2C	485	160	57	313	55	16	228	20	6	485	235	9	244	50.3%	71
Chilkat Indian Village	2C	12	9	0	4	2	0	2	0	0	12	11	1	12	100.0%	0
Chilkoot Indian Association	2C	50	25	3	27	7	1	18	1	1	50	33	4	37	74.0%	4
Craig Community Association	2C	59	25	6	34	7	0	25	1	0	59	33	0	33	55.9%	6
Douglas Indian Association	2C	11	4	2	7	0	0	6	0	0	11	4	0	4	36.4%	2
Hoonah Indian Association	2C	110	42	2	78	14	0	54	9	0	110	65	2	67	60.9%	2
Hydaburg Cooperative Association	2C	108	19	7	92	4	0	80	2	0	108	25	21	46	42.6%	7
Ketchikan Indian Corporation	2C	454	150	26	317	36	6	259	15	6	454	201	117	318	70.0%	38
Klawock Cooperative Association	2C	63	24	2	42	8	0	31	6	0	63	38	1	39	61.9%	2
Metlakatla Indian Community, Annette Island Reserve	2C	119	40	0	84	10	0	69	1	0	119	51	43	94	79.0%	0
Organized Village of Kake	2C	72	34	3	41	16	1	22	3	0	72	53	0	53	73.6%	3
Organized Village of Kasaan	2C										5					
Organized Village of Saxman	2C	30	11	1	20	4	0	18	1	0	30	16	7	23	76.7%	1
Petersburg Indian Association	2C	68	31	2	48	13	0	29	3	0	68	47	1	48	70.6%	2
Sitka Tribe of Alaska	2C	263	81	34	160	30	2	118	12	1	264	123	31	154	58.3%	36
Skagway Village	2C										3					
Wrangell Cooperative Association	2C	82	54	0	35	10	0	28	4	0	82	68	0	68	82.9%	0
Subtotal, Area 2C		**2,069**	**734**	**145**	**1,362**	**224**	**28**	**1,036**	**81**	**14**	**2,070**	**1,039**	**280**	**1,319**	**63.7%**	**176**
Kenaitze Indian Tribe	3A	132	56	9	77	14	3	60	5	2	132	75	0	75	56.8%	12
Lesnoi Village (Woody Island)	3A	34	15	2	22	5	0	13	1	1	34	21	0	21	61.8%	3
Native Village of Afognak	3A	20	8	2	11	2	0	9	1	0	20	11	0	11	55.0%	2
Native Village of Akhiok	3A	7	4	1	2	0	0	2	0	0	7	4	0	4	57.1%	1
Native Village of Chenega	3A	18	10	1	15	1	1	12	0	1	18	11	0	11	61.1%	1
Native Village of Eyak	3A	71	29	6	35	12	0	26	2	1	71	43	0	43	60.6%	7
Native Village of Karluk	3A										4					

- continued -

Table 3.–Page 2 of 9.

Tribal name	Regulatory area	First mailing: Surveys mailed	First mailing: Surveys returned	First mailing: Surveys returned undeliverable	Second mailing: Surveys mailed	Second mailing: Surveys returned	Second mailing: Surveys returned undeliverable	Third mailing: Surveys mailed	Third mailing: Surveys returned	Third mailing: Surveys returned undeliverable	Totals: SHARCs issued	Totals: Returned by mail	Totals: Returned through staff	Totals: Response	Totals: Response rate	Totals: Undeliverable
Native Village of Larsen Bay	3A	31	10	1	22	4	1	18	0	0	31	14	0	14	45.2%	1
Native Village of Nanwalek	3A	71	19	4	52	2	1	46	6	0	71	27	2	29	40.8%	4
Native Village of Ouzinkie	3A	28	9	1	18	6	0	13	1	0	28	16	0	16	57.1%	1
Native Village of Port Graham	3A	34	17	0	18	3	0	14	1	0	34	21	2	23	67.6%	0
Native Village of Port Lions	3A	28	14	1	13	1	0	12	1	0	28	16	0	16	57.1%	1
Native Village of Tatitlek	3A	25	11	0	18	2	1	9	2	0	25	15	1	16	64.0%	1
Ninilchik Village	3A	73	29	3	51	8	1	36	4	0	73	41	0	41	56.2%	4
Seldovia Village Tribe	3A	58	27	3	35	7	0	25	5	0	58	39	0	39	67.2%	3
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	112	54	3	66	7	1	49	7	0	112	68	0	68	60.7%	4
Village of Kanatak	3A	19	2	4	14	1	0	13	0	5	19	3	0	3	15.8%	9
Village of Old Harbor	3A	43	15	2	33	6	2	19	0	3	43	21	0	21	48.8%	6
Village of Salamatoff	3A	25	17	0	14	3	0	8	0	0	25	20	0	20	80.0%	0
Yakutat Tlingit Tribe	3A	43	19	2	24	2	0	19	0	0	43	21	0	21	48.8%	2
Subtotal, Area 3A		**876**	**366**	**45**	**543**	**86**	**11**	**406**	**37**	**13**	**876**	**489**	**5**	**494**	**56.4%**	**62**
Agdaagux Tribe of King Cove	3B	53	20	1	36	6	1	28	4	1	53	30	0	30	56.6%	2
Chignik Lake Village	3B	11	1	0	11	0	0	10	2	0	11	3	0	3	27.3%	0
Ivanoff Bay Village	3B										4					
Native Village of Belkofski	3B										5					
Native Village of Chignik	3B										4					
Native Village of Chignik Lagoon	3B	16	5	0	13	5	0	6	0	0	16	10	0	10	62.5%	0
Native Village of False Pass	3B										1					
Native Village of Nelson Lagoon	3B										3					
Native Village of Perryville	3B	18	11	2	7	1	0	3	1	0	18	13	1	14	77.8%	2
Native Village of Unga	3B										1					
Pauloff Harbor Village	3B	79	16	11	58	2	1	50	1	3	79	19	1	20	25.3%	13
Qagan Toyagungin Tribe of Sand Point Village	3B	82	31	3	57	15	4	32	3	4	82	49	0	49	59.8%	7
Subtotal, Area 3B		**277**	**92**	**17**	**193**	**33**	**7**	**135**	**11**	**8**	**277**	**136**	**2**	**138**	**49.8%**	**25**
Native Village of Akutan	4A	11	4	0	8	0	0	8	0	0	11	4	0	4	36.4%	0
Qawalingin Tribe of Unalaska	4A	27	8	0	21	2	1	18	0	0	27	10	1	11	40.7%	1
Subtotal, Area 4A		**38**	**12**	**0**	**29**	**2**	**1**	**26**	**0**	**0**	**38**	**14**	**1**	**15**	**39.5%**	**1**
Native Village of Atka	4B										4					
Subtotal, Area 4B		**4**	**1**	**1**	**2**	**1**	**0**	**1**	**0**	**0**	**4**	**2**	**0**	**2**	**50.0%**	**1**

- continued -

Table 3.–Page 3 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Tribal name	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
Pribilof Islands Aleut Community of St. George	4C										5					
Pribilof Islands Aleut Community of St. Paul	4C	15	2	1	11	0	0	11	1	0	15	3	0	3	20.0%	1
Subtotal, Area 4C		**20**	**3**	**2**	**15**	**0**	**0**	**15**	**1**	**0**	**20**	**4**	**0**	**4**	**20.0%**	**2**
Native Village of Diomede (Inalik)	4D										1					
Native Village of Savoonga	4D										5					
Subtotal, Area 4D		**6**	**3**	**0**	**4**	**1**	**0**	**2**	**1**	**0**	**6**	**5**	**0**	**5**	**83.3%**	**0**
Chevak Native Village (Kashunamiut)	4E										1					
Egegik Village	4E										4					
King Island Native Community	4E										2					
Manokotak Village	4E										1					
Naknek Native Village	4E	8	1	1	6	0	0	6	0	0	8	1	0	1	12.5%	1
Native Village of Aleknagik	4E										4					
Native Village of Brevig Mission	4E										1					
Native Village of Council	4E										4					
Native Village of Dillingham (Curyung)	4E	12	2	0	10	2	0	8	2	0	12	6	0	6	50.0%	0
Native Village of Eek	4E	7	3	0	3	1	0	2	0	0	7	4	0	4	57.1%	0
Native Village of Hooper Bay	4E										2					
Native Village of Kipnuk	4E										5					
Native Village of Kongiganak	4E										3					
Native Village of Koyuk	4E										1					
Native Village of Kwigillingok	4E										1					
Native Village of Kwinhagak	4E	6	0	0	6	0	0	6	1	0	6	1	0	1	16.7%	0
Native Village of Mekoryuk	4E										4					
Native Village of Scammon Bay	4E										3					
Native Village of Shaktoolik	4E										1					
Native Village of Toksook Bay (Nunakauyak)	4E	9	8	0	1	0	0	1	0	0	9	8	0	8	88.9%	0

- continued -

Table 3.–Page 4 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Tribal name	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
Native Village of Tununak	4E	12	4	0	8	0	0	8	0	0	12	4	0	4	33.3%	0
Native Village of Unalakleet	4E										1					
Native Village of Wales	4E										1					
Newtok Village	4E										1					
Nome Eskimo Community	4E	12	3	2	8	1	1	5	0	0	12	4	0	4	33.3%	3
Orutsararmuit Native Village	4E	13	3	2	8	2	0	6	5	0	13	10	0	10	76.9%	2
Platinum Traditional Village	4E										1					
South Naknek Village	4E										2					
Traditional Village of Togiak	4E										2					
Ugashik Village	4E										2					
Village of Chefornak	4E										4					
Village of Clark's Point	4E										3					
Village of Kotlik	4E										1					
Subtotal, Area 4E		**134**	**39**	**6**	**91**	**16**	**2**	**73**	**11**	**0**	**134**	**66**	**0**	**66**	**49.3%**	**8**
Tribal subtotal		**3,424**	**1,250**	**216**	**2,239**	**363**	**49**	**1,694**	**142**	**35**	**3,425**	**1,755**	**288**	**2,043**	**59.6%**	**275**

- continued -

Table 3.–Page 5 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Rural community	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
Angoon	2C	14	6	0	8	2	1	5	0	0	14	8	5	13	92.9%	1
Coffman Cove	2C	50	27	2	28	7	2	18	3	0	50	37	1	38	76.0%	4
Craig	2C	303	187	6	161	32	4	97	11	0	303	230	0	230	75.9%	10
Edna Bay	2C	34	18	1	26	7	0	19	3	0	34	28	0	28	82.4%	1
Elfin Cove	2C	18	9	0	11	4	0	6	0	0	18	13	0	13	72.2%	0
Gustavus	2C	64	42	0	27	4	0	19	4	0	64	50	1	51	79.7%	0
Haines	2C	407	268	9	181	53	2	101	12	1	407	333	2	335	82.3%	10
Hollis	2C	48	30	1	23	4	0	14	1	0	48	35	0	35	72.9%	1
Hoonah	2C	93	54	0	48	17	0	28	3	0	93	74	2	76	81.7%	0
Hydaburg	2C	8	4	0	5	1	0	4	0	0	8	5	0	5	62.5%	0
Hyder	2C	22	18	0	12	1	0	5	1	0	22	20	0	20	90.9%	0
Juneau	2C										5					
Kake	2C	33	19	0	19	2	0	13	0	1	33	21	0	21	63.6%	1
Kasaan	2C	10	8	0	3	1	0	1	1	0	10	10	0	10	100.0%	0
Ketchikan	2C	8	5	1	4	1	0	1	0	0	8	6	1	7	87.5%	1
Klawock	2C	141	76	4	78	15	3	52	10	1	141	101	1	102	72.3%	8
Metlakatla	2C	20	9	0	12	2	0	10	1	2	20	12	2	14	70.0%	2
Meyers Chuck	2C	9	5	0	6	1	0	4	1	0	9	7	0	7	77.8%	0
Naukati Bay	2C	48	30	2	28	7	1	13	4	0	48	41	0	41	85.4%	2
Pelican	2C	35	17	0	26	5	0	18	4	0	35	26	0	26	74.3%	0
Petersburg	2C	843	532	11	418	93	6	248	36	10	843	661	1	662	78.5%	24
Port Alexander	2C	16	12	0	6	1	0	4	1	0	16	14	0	14	87.5%	0
Port Protection	2C	11	7	0	6	3	0	1	0	0	11	10	0	10	90.9%	0
Pt. Baker	2C	16	9	0	10	0	0	8	3	0	16	12	0	12	75.0%	0
Saxman	2C	8	1	1	7	2	0	4	0	0	8	3	1	4	50.0%	1
Sitka	2C	1,330	733	49	696	137	16	434	47	2	1,330	917	123	1,040	78.2%	65
Skagway	2C	51	36	0	20	10	0	9	1	0	51	47	0	47	92.2%	0
Tenakee Springs	2C	58	39	2	25	6	0	15	2	0	58	47	0	47	81.0%	2
Thorne Bay	2C	118	72	4	57	17	1	30	8	1	118	97	0	97	82.2%	4
Ward Cove	2C										2					
Whale Pass	2C	17	9	1	8	3	0	8	2	0	17	14	0	14	82.4%	1
Wrangell	2C	382	232	10	191	46	5	117	23	5	382	301	0	301	78.8%	16
Subtotal, Area 2C		**4,222**	**2,516**	**104**	**2,156**	**486**	**41**	**1,310**	**182**	**23**	**4,222**	**3,184**	**140**	**3,324**	**78.7%**	**154**
Akhiok	3A	6	4	0	3	0	0	2	1	0	6	5	0	5	83.3%	0
Chenega Bay	3A	8	5	0	3	2	0	1	1	0	8	8	0	8	100.0%	0
Chiniak	3A	7	3	0	4	2	0	2	0	0	7	5	0	5	71.4%	0
Cordova	3A	416	235	13	201	61	2	123	22	5	416	318	0	318	76.4%	20
Karluk	3A	6	6	0	6	0	0	0	0	0	6	6	0	6	100.0%	0
Kodiak	3A	1,360	742	64	700	162	16	456	71	11	1,360	975	3	978	71.9%	87
Nanwalek	3A										5					
Old Harbor	3A										5					
Ouzinkie	3A	16	7	0	8	2	0	6	1	0	16	10	0	10	62.5%	0
Port Graham	3A										5					
Port Lions	3A	17	11	0	7	2	0	5	1	0	17	14	0	14	82.4%	0
Seldovia	3A	126	85	2	47	12	2	26	4	0	126	101	0	101	80.2%	4
Tatitlek	3A	11	6	0	9	2	0	6	0	0	11	8	0	8	72.7%	0
Yakutat	3A	72	38	1	36	10	0	29	0	0	72	48	1	49	68.1%	1
Subtotal, Area 3A		**2,060**	**1,150**	**81**	**1,030**	**255**	**20**	**662**	**104**	**16**	**2,060**	**1,509**	**5**	**1,514**	**73.5%**	**113**
Chignik	3B										1					
Cold Bay	3B	33	26	5	6	1	0	2	0	0	33	27	0	27	81.8%	5

- continued -

Table 3.–Page 6 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Rural community	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
False Pass	3B										2					
King Cove	3B	19	14	1	9	3	0	2	1	0	19	18	0	18	94.7%	1
Sand Point	3B	6	0	0	5	2	1	3	0	0	6	2	0	2	33.3%	1
Subtotal, Area 3B		**61**	**42**	**6**	**21**	**6**	**1**	**8**	**1**	**0**	**61**	**49**	**0**	**49**	**80.3%**	**7**
Unalaska	4A	114	63	2	68	16	0	39	4	0	114	83	0	83	72.8%	2
Subtotal, Area 4A		**114**	**63**	**2**	**68**	**16**	**0**	**39**	**4**	**0**	**114**	**83**	**0**	**83**	**72.8%**	**2**
Adak	4B	8	4	0	4	0	0	4	0	0	8	4	1	5	62.5%	0
Subtotal, Area 4B		**8**	**4**	**0**	**4**	**0**	**0**	**4**	**0**	**0**	**8**	**4**	**1**	**5**	**62.5%**	**0**
St. George Island	4C										1					
St. Paul Island	4C										1					
Subtotal, Area 4C		**2**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**2**	**1**	**0**	**1**	**50.0%**	**0**
Savoonga	4D										1					
Subtotal, Area 4D		**1**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**1**	**1**	**0**	**1**	**100.0%**	**0**
Bethel	4E										1					
Chevak	4E										1					
Dillingham	4E	21	12	0	10	2	0	8	2	0	21	16	0	16	76.2%	0
Egegik	4E										1					
King Salmon	4E										3					
Kotlik	4E										1					
Koyuk	4E										1					
Manokotak	4E										2					
Naknek	4E										3					
Nightmute	4E										1					
Nome	4E	13	5	0	10	1	0	9	2	1	13	8	0	8	61.5%	1
Port Heiden	4E										1					
Togiak	4E										2					
Subtotal, Area 4E		**51**	**24**	**0**	**32**	**4**	**0**	**25**	**6**	**1**	**51**	**34**	**0**	**34**	**66.7%**	**1**
Rural community subtotal		**6,519**	**3,800**	**193**	**3,313**	**767**	**62**	**2,050**	**298**	**40**	**6,519**	**4,865**	**146**	**5,011**	**76.9%**	**277**
Total (tribal and rural)		**9,943**	**5,050**	**409**	**5,552**	**1,130**	**111**	**3,744**	**440**	**75**	**9,944**	**6,620**	**434**	**7,054**	**70.9%**	**552**

- continued -

Table 3.–Page 7 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Community of residence	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
Adak	AK	7	2	0	5	0	0	5	0	0	7	2	1	3	42.9%	0
Akhiok	AK										4					
Akutan	AK	6	0	0	6	0	0	6	0	0	6	0	0	0	0.0%	0
Anchor Point	AK	16	7	0	9	0	0	9	0	0	16	7	0	7	43.8%	0
Anchorage	AK	198	92	23	101	18	7	64	5	3	198	115	0	115	58.1%	30
Angoon	AK	97	27	1	69	8	4	57	3	1	97	38	54	92	94.8%	6
Auke Bay	AK										4					
Barrow	AK										2					
Bethel	AK	13	3	0	10	2	0	8	5	0	13	10	0	10	76.9%	0
Chefornak	AK										3					
Chenega Bay	AK	10	7	0	4	2	0	2	1	0	10	10	0	10	100.0%	0
Chevak	AK										1					
Chignik	AK	6	1	0	5	3	0	2	0	0	6	4	0	4	66.7%	0
Chignik Lagoon	AK	9	4	0	7	1	0	4	0	0	9	5	0	5	55.6%	0
Chignik Lake	AK										1					
Chiniak	AK	13	6	0	7	5	0	4	0	0	13	11	0	11	84.6%	0
Chugiak	AK										4					
Clarks Point	AK										3					
Coffman Cove	AK	49	26	1	29	8	1	18	4	0	49	38	1	39	79.6%	2
Cold Bay	AK	37	28	5	8	2	0	4	0	0	37	30	0	30	81.1%	5
Cordova	AK	470	255	16	232	72	1	148	24	6	470	351	0	351	74.7%	23
Craig	AK	450	273	13	235	45	5	144	15	1	450	333	0	333	74.0%	19
Dillingham	AK	25	12	0	14	4	0	10	2	0	25	18	0	18	72.0%	0
Douglas	AK	11	4	3	6	0	0	6	0	0	11	4	0	4	36.4%	3
Dutch Harbor	AK	70	31	1	46	14	0	28	2	0	70	47	0	47	67.1%	1
Eagle River	AK	9	5	0	4	0	0	4	0	0	9	5	0	5	55.6%	0
Edna Bay	AK	26	13	1	20	7	0	15	0	0	26	20	0	20	76.9%	1
Eek	AK										5					
Egegik	AK										1					
Elfin Cove	AK	17	8	0	11	4	0	6	0	0	17	12	0	12	70.6%	0
Excursion Inlet	AK										4					
Fairbanks	AK	6	3	0	4	0	1	2	1	0	6	4	0	4	66.7%	1
False Pass	AK										2					
Fritz Creek	AK										1					
Gakona	AK										1					
Girdwood	AK										1					
Gustavus	AK	64	41	1	28	4	0	19	4	0	64	49	1	50	78.1%	1
Haines	AK	455	291	11	205	64	2	117	14	1	455	369	2	371	81.5%	12
Homer	AK	30	13	2	17	9	0	9	0	0	30	22	1	23	76.7%	2
Hoonah	AK	199	95	1	126	32	3	79	11	1	199	138	4	142	71.4%	3
Hydaburg	AK	105	23	2	90	3	0	78	2	0	105	28	21	49	46.7%	2
Hyder	AK	22	18	0	12	1	0	5	1	0	22	20	0	20	90.9%	0
Juneau	AK	338	98	48	221	38	11	168	12	6	338	148	1	149	44.1%	60
Kake	AK	103	58	0	60	19	0	31	1	1	103	78	0	78	75.7%	1
Karluk	AK	9	6	0	9	0	0	3	1	0	9	7	0	7	77.8%	0
Kasaan	AK	9	8	0	2	0	0	1	1	0	9	9	0	9	100.0%	0
Kasilof	AK	14	4	1	11	3	1	7	0	0	14	7	0	7	50.0%	2
Kenai	AK	106	43	6	67	11	3	53	6	1	106	60	0	60	56.6%	9
Ketchikan	AK	524	179	30	362	47	4	285	22	6	524	248	133	381	72.7%	40
King Cove	AK	73	32	2	48	6	5	37	6	6	73	44	0	44	60.3%	6

- continued -

Table 3.–Page 8 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Community of residence	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
King Salmon	AK										2					
Kipnuk	AK										5					
Klawock	AK	212	94	13	126	24	1	93	16	1	212	134	2	136	64.2%	15
Klukwan	AK										1					
Kodiak	AK	1,503	808	68	791	173	17	521	75	11	1,503	1,056	3	1,059	70.5%	92
Kongiganak	AK										3					
Kotzebue	AK										1					
Koyuk	AK										1					
Kwigillingok	AK										1					
Larsen Bay	AK	22	6	1	17	4	1	13	0	0	22	10	0	10	45.5%	1
Manokotak	AK										2					
Mekoryuk	AK										3					
Metlakatla	AK	128	47	0	87	10	0	72	1	2	128	58	44	102	79.7%	2
Meyers Chuck	AK	8	4	0	6	1	0	4	1	0	8	6	0	6	75.0%	0
Naknek	AK	9	2	0	7	0	0	7	0	0	9	2	0	2	22.2%	0
Nanwalek	AK	74	21	4	52	2	0	47	8	0	74	31	3	34	45.9%	4
Naukati	AK	23	14	1	17	4	1	6	1	0	23	19	0	19	81.8%	1
Nelson Lagoon	AK										1					
Nightmute	AK										1					
Nikiski	AK	7	3	1	5	0	0	3	0	0	7	3	0	3	42.9%	1
Ninilchik	AK	28	10	0	19	2	0	16	2	0	28	14	0	14	50.0%	0
Nome	AK	18	7	0	14	1	1	11	2	1	18	10	0	10	55.6%	2
North Pole	AK										2					
Old Harbor	AK	37	18	2	23	3	1	14	2	0	37	23	0	23	62.2%	2
Ouzinkie	AK	35	15	0	19	6	0	14	2	0	35	23	0	23	65.7%	0
Palmer	AK	10	4	0	8	1	0	6	1	0	10	6	0	6	60.0%	0
Pelican	AK	44	21	0	32	5	0	24	7	0	44	33	0	33	75.0%	0
Perryville	AK	15	11	1	6	1	0	2	1	0	15	13	0	13	86.7%	1
Petersburg	AK	917	560	12	473	110	6	283	40	10	917	710	1	711	77.5%	24
Point Baker	AK	22	12	0	15	2	0	9	3	0	22	17	0	17	77.3%	0
Port Alexander	AK	16	12	0	6	1	0	4	1	0	16	14	0	14	87.5%	0
Port Graham	AK	32	14	0	18	4	0	13	1	0	32	19	2	21	65.6%	0
Port Heiden	AK										1					
Port Lions	AK	43	22	0	22	2	0	20	4	0	43	28	0	28	65.1%	0
Port William	AK										1					
Quinhagak	AK	8	0	0	6	0	0	6	1	0	8	1	0	1	12.5%	0
Sand Point	AK	136	37	12	96	19	1	67	3	1	136	59	1	60	44.1%	14
Savoonga	AK	6	2	0	5	1	0	3	2	0	6	5	0	5	83.3%	0
Saxman	AK	6	2	0	4	2	0	3	0	0	6	4	1	5	83.3%	0
Seldovia	AK	139	87	5	60	15	3	35	8	0	139	110	0	110	79.1%	7
Seward	AK	10	3	1	7	4	0	2	0	0	10	7	0	7	70.0%	1
Sitka	AK	1,569	807	78	846	166	17	547	55	4	1,570	1,028	153	1,181	75.2%	95
Skagway	AK	57	40	0	22	11	0	10	1	0	57	52	0	52	91.2%	0
Soldotna	AK	51	28	1	34	7	0	19	3	0	51	38	0	38	74.5%	1
St. George Island	AK										2					
St. Paul Island	AK	12	2	0	10	0	0	10	1	0	12	3	0	3	25.0%	0
Sterling	AK										2					
Tatitlek	AK	22	12	0	18	2	0	10	2	0	22	16	1	17	77.3%	0
Tenakee Springs	AK	58	39	2	25	6	0	15	2	0	58	47	0	47	81.0%	2
Thorne Bay	AK	116	72	5	54	15	1	29	8	1	116	95	0	95	81.9%	5

- continued -

Table 3.–Page 9 of 9.

		First mailing			Second mailing			Third mailing			Totals					
Community of residence	Regulatory area	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	Surveys mailed	Surveys returned	Surveys returned undeliverable	SHARCs issued	Returned by mail	Returned through staff	Response	Response rate	Undeliverable
Togiak	AK										4					
Toksook Bay	AK	7	6	0	1	0	0	1	0	0	7	6	0	6	85.7%	0
Trapper Creek	AK										1					
Tununak	AK	11	4	0	7	0	0	7	0	0	11	4	0	4	36.4%	0
Twin Hills	AK										1					
Unalakleet	AK										1					
Unalaska	AK	71	40	1	42	5	0	28	2	0	71	47	1	48	67.6%	1
Valdez	AK	33	17	0	26	2	0	19	0	0	33	19	0	19	57.6%	0
Ward Cove	AK	37	13	0	25	5	2	21	4	0	37	22	0	22	59.5%	2
Wasilla	AK	35	5	6	23	0	0	23	1	4	35	6	0	6	17.1%	10
Whale Pass	AK	7	3	0	5	2	0	5	2	0	7	7	0	7	100.0%	0
Willow	AK										2					
Wrangell	AK	469	289	10	228	55	4	148	28	5	469	372	0	372	79.3%	15
Yakutat	AK	112	54	1	63	13	0	51	0	0	112	67	0	67	59.8%	1
Subtotal, Alaska		**9,846**	**5,009**	**398**	**5,509**	**1,126**	**106**	**3,715**	**439**	**74**	**9,847**	**6,574**	**431**	**7,005**	**71.1%**	**535**
Subtotal, non-Alaska		**97**	**41**	**11**	**43**	**4**	**5**	**29**	**1**	**1**	**97**	**46**	**3**	**49**	**50.5%**	**17**
Total		**9,943**	**5,050**	**409**	**5,552**	**1,130**	**111**	**3,744**	**440**	**75**	**9,944**	**6,620**	**434**	**7,054**	**70.9%**	**552**

Note To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities.

Table 4.–Estimated subsistence harvests of halibut, 2012, by SHARC type and regulatory area.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Tribal[b] name	Regulatory area	SHARCs[a] issued	Surveys returned	Percent of SHARCs[a]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Angoon Community Association	2C	74	72	97.3%	36	48.6%	481	9,000	4	5.5%	10	143	0	0	11	57
Aukquan Traditional Council	2C	1														
Central Council Tlingit and Haida Indian Tribes	2C	485	244	50.3%	147	30.4%	1,523	31,840	87	17.9%	353	4,765	12	40	40	333
Chilkat Indian Village	2C	12	12	100.0%	1	8.3%	0	0	2	16.7%	7	74	0	0	0	0
Chilkoot Indian Association	2C	50	37	74.0%	18	35.8%	52	1,154	4	8.3%	0	0	3	3	3	6
Craig Community Association	2C	59	33	55.9%	27	45.9%	277	6,526	8	13.5%	5	190	5	8	13	120
Douglas Indian Association	2C	11	4	36.4%	2	18.2%	4	133	2	18.2%	2	63	0	0	0	0
Hoonah Indian Association	2C	110	67	60.9%	53	48.6%	700	8,466	16	14.4%	44	662	0	0	2	13
Hydaburg Cooperative Association	2C	108	46	42.6%	65	59.9%	980	26,122	9	8.7%	13	667	14	65	27	562
Ketchikan Indian Corporation	2C	454	318	70.0%	115	25.3%	1,727	30,483	61	13.4%	250	5,038	19	70	41	494
Klawock Cooperative Association	2C	63	39	61.9%	19	30.2%	162	5,109	2	2.5%	8	166	3	6	6	44
Metlakatla Indian Community, Annette Island Reserve	2C	119	94	79.0%	26	22.0%	140	2,789	8	6.3%	11	272	1	3	3	20
Organized Village of Kake	2C	72	53	73.6%	24	33.5%	211	6,597	1	1.8%	6	67	3	4	4	75
Organized Village of Kasaan	2C	5														
Organized Village of Saxman	2C	30	23	76.7%	20	65.0%	271	4,318	4	12.5%	56	319	1	3	1	10
Petersburg Indian Association	2C	68	48	70.6%	24	34.9%	179	2,903	16	22.9%	45	909	0	0	5	12
Sitka Tribe of Alaska	2C	264	154	58.3%	98	37.2%	587	14,421	11	4.3%	10	317	32	130	33	252
Skagway Village	2C	3														
Wrangell Cooperative Association	2C	82	68	82.9%	32	39.0%	283	7,744	18	21.7%	66	2,334	0	0	4	56
Subtotal, Area 2C		**2,070**	**1,319**	**63.7%**	**710**	**34.3%**	**7,592**	**157,963**	**255**	**12.3%**	**890**	**16,059**	**95**	**334**	**195**	**2,061**
Kenaitze Indian Tribe	3A	132	75	56.8%	23	17.2%	572	8,823	19	14.5%	80	767	2	3	2	16
Lesnoi Village (Woody Island)	3A	34	21	61.8%	5	15.9%	50	884	0	0.0%	0	0	1	1	1	4
Native Village of Afognak	3A	20	11	55.0%	10	49.0%	77	1,446	0	0.0%	0	0	0	0	0	0
Native Village of Akhiok	3A	7	4	57.1%	3	42.9%	43	804	0	0.0%	0	0	0	0	0	0
Native Village of Chenega	3A	18	11	61.1%	5	30.3%	49	1,145	4	22.7%	7	210	1	3	3	34
Native Village of Eyak	3A	71	43	60.6%	20	27.9%	102	1,779	13	17.7%	27	579	2	3	2	19

- continued -

Table 4.–Page 2 of 7.

Tribal[b] name	Regulatory area	Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
		SHARCs[a] issued	Surveys returned	Percent of SHARCs[a]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Native Village of Karluk	3A	4														
Native Village of Larsen Bay	3A	31	14	45.2%	17	54.8%	180	4,319	3	9.7%	22	168	4	6	6	78
Native Village of Nanwalek	3A	71	29	40.8%	29	40.8%	569	7,275	0	0.0%	0	0	4	64	10	127
Native Village of Ouzinkie	3A	28	16	57.1%	13	46.2%	114	1,964	8	29.9%	28	519	0	0	2	37
Native Village of Port Graham	3A	34	23	67.6%	20	58.0%	504	9,427	6	16.6%	6	59	4	8	4	63
Native Village of Port Lions	3A	28	16	57.1%	16	58.0%	94	2,437	15	52.2%	42	908	0	0	0	0
Native Village of Tatitlek	3A	25	16	64.0%	9	36.0%	106	2,375	0	0.0%	0	0	0	0	2	8
Ninilchik Village	3A	73	41	56.2%	19	26.3%	866	5,255	12	16.5%	72	958	0	0	0	0
Seldovia Village Tribe	3A	58	39	67.2%	35	60.7%	497	6,739	19	32.5%	90	1,372	5	16	4	51
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	112	68	60.7%	62	55.4%	567	12,758	20	17.5%	51	1,182	16	50	6	60
Village of Kanatak	3A	19	3	15.8%	0	0.0%	0	0	6	33.3%	13	89	0	0	0	0
Village of Old Harbor	3A	43	21	48.8%	21	49.3%	163	1,778	3	7.6%	23	308	2	10	7	42
Village of Salamatoff	3A	25	20	80.0%	7	27.8%	184	1,799	7	27.8%	25	276	0	0	0	0
Yakutat Tlingit Tribe	3A	43	21	48.8%	29	68.1%	428	11,054	2	4.5%	0	0	2	39	2	37
Subtotal, Area 3A		**876**	**494**	**56.4%**	**348**	**39.7%**	**5,213**	**82,641**	**136**	**15.6%**	**487**	**7,396**	**44**	**204**	**54**	**600**
Agdaagux Tribe of King Cove	3B	53	30	56.6%	15	27.5%	188	2,657	8	15.4%	46	880	0	0	3	11
Chignik Lake Village	3B	11	3	27.3%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Ivanoff Bay Village	3B	4														
Native Village of Belkofski	3B	5														
Native Village of Chignik	3B	4														
Native Village of Chignik Lagoon	3B	16	10	62.5%	10	63.5%	63	839	4	22.9%	15	295	1	4	5	65
Native Village of False Pass	3B	1														
Native Village of Nelson Lagoon	3B	3														
Native Village of Perryville	3B	18	14	77.8%	15	80.6%	120	2,188	1	5.6%	0	0	0	0	3	13
Native Village of Unga	3B	1														
Pauloff Harbor Village	3B	79	20	25.3%	38	48.0%	231	3,869	10	13.1%	38	507	0	0	3	7
Qagan Toyagungin Tribe of Sand Point Village	3B	82	49	59.8%	26	31.4%	179	2,780	20	23.9%	78	773	1	1	3	37
Subtotal, Area 3B		**277**	**138**	**49.8%**	**105**	**37.9%**	**795**	**12,515**	**51**	**18.3%**	**186**	**2,630**	**2**	**5**	**18**	**136**
Native Village of Akutan	4A	11	4	36.4%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Qawalingin Tribe of Unalaska	4A	27	11	40.7%	11	41.2%	31	260	4	16.5%	18	202	0	0	4	53

- continued -

Table 4.–Page 3 of 7.

Tribal[b] name	Regulatory area	Return rate: SHARCs[a] issued	Return rate: Surveys returned	Return rate: Percent of SHARCs[a]	Subsistence fished halibut: Estimated number respondents	Subsistence fished halibut: Percent of SHARCs[a]	Subsistence halibut harvest: Estimated number fish	Subsistence halibut harvest: Estimated number pounds[c]	Sport fished halibut: Estimated number respondents	Sport fished halibut: Percent of SHARCs[a]	Sport halibut harvest: Estimated number fish	Sport halibut harvest: Estimated number pounds[c]	Lingcod bycatch: Estimated number respondents	Lingcod bycatch: Estimated number fish	Rockfish bycatch: Estimated number respondents	Rockfish bycatch: Estimated number fish
Subtotal, Area 4A		**38**	**15**	**39.5%**	**11**	**29.2%**	**31**	**260**	**4**	**11.7%**	**18**	**202**	**0**	**0**	**4**	**53**
Native Village of Atka	4B	4														
Subtotal, Area 4B		**4**														
Pribilof Islands Aleut Community of St. George	4C	5														
Pribilof Islands Aleut Community of St. Paul	4C	15	3	20.0%	14	93.3%	149	2,009	0	0.0%	0	0	0	0	0	0
Subtotal, Area 4C		**20**	**4**	**20.0%**	**14**	**70.0%**	**149**	**2,009**	**0**	**0.0%**	**0**	**0**	**0**	**0**	**0**	**0**
Native Village of Diomede (Inalik)	4D	1														
Native Village of Savoonga	4D	5														
Subtotal, Area 4D		**6**	**5**	**83.3%**	**5**	**79.2%**	**27**	**777**	**0**	**0.0%**	**0**	**0**	**0**	**0**	**0**	**0**
Chevak Native Village (Kashunamiut)	4E	1														
Egegik Village	4E	4														
King Island Native Community	4E	2														
Manokotak Village	4E	1														
Naknek Native Village	4E	8	1	12.5%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Native Village of Aleknagik	4E	4														
Native Village of Brevig Mission	4E	1														
Native Village of Council	4E	4														
Native Village of Dillingham (Curyung)	4E	12	6	50.0%	3	25.0%	24	516	2	16.7%	12	259	0	0	0	0
Native Village of Eek	4E	7	4	57.1%	5	75.0%	21	698	0	0.0%	0	0	0	0	0	0
Native Village of Hooper Bay	4E	2														
Native Village of Kipnuk	4E	5														
Native Village of Kongiganak	4E	3														
Native Village of Koyuk	4E	1														
Native Village of Kwigillingok	4E	1														
Native Village of Kwinhagak	4E	6	1	16.7%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Native Village of Mekoryuk	4E	4														
Native Village of Scammon Bay	4E	3														
Native Village of Shaktoolik	4E	1														

- continued -

Table 4.–Page 4 of 7.

Tribal[b] name	Regulatory area	Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
		SHARCs[a] issued	Surveys returned	Percent of SHARCs[a]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Native Village of Toksook Bay (Nunakauyak)	4E	9	8	88.9%	5	55.6%	42	294	0	0.0%	0	0	0	0	0	0
Native Village of Tununak	4E	12	4	33.3%	3	22.9%	28	173	0	0.0%	0	0	0	0	0	0
Native Village of Unalakleet	4E	1														
Native Village of Wales	4E	1														
Newtok Village	4E	1														
Nome Eskimo Community	4E	12	4	33.3%	5	41.7%	34	910	0	0.0%	0	0	0	0	2	6
Orutsararmuit Native Village	4E	13	10	76.9%	5	41.9%	0	0	0	0.0%	0	0	0	0	0	0
Platinum Traditional Village	4E	1														
South Naknek Village	4E	2														
Traditional Village of Togiak	4E	2														
Ugashik Village	4E	2														
Village of Chefornak	4E	4														
Village of Clark's Point	4E	3														
Village of Kotlik	4E	1														
Subtotal, Area 4E		**134**	**66**	**49.3%**	**37**	**27.9%**	**259**	**3,785**	**11**	**8.2%**	**34**	**622**	**1**	**24**	**2**	**6**
Tribal subtotal		**3,425**	**2,043**	**59.6%**	**1,232**	**36.0%**	**14,079**	**260,118**	**457**	**13.4%**	**1,614**	**26,908**	**142**	**567**	**273**	**2,857**

- continued -

Table 4.–Page 5 of 7.

Rural[b] community	Regulatory area	Return rate: SHARCs[a] issued	Return rate: Surveys returned	Return rate: Percent of SHARCs[a]	Subsistence fished halibut: Estimated number respondents	Subsistence fished halibut: Percent of SHARCs[a]	Subsistence halibut harvest: Estimated number fish	Subsistence halibut harvest: Estimated number pounds[c]	Sport fished halibut: Estimated number respondents	Sport fished halibut: Percent of SHARCs[a]	Sport halibut harvest: Estimated number fish	Sport halibut harvest: Estimated number pounds[c]	Lingcod bycatch: Estimated number respondents	Lingcod bycatch: Estimated number fish	Rockfish bycatch: Estimated number respondents	Rockfish bycatch: Estimated number fish
Angoon	2C	14	13	92.9%	9	61.3%	135	2,429	3	23.2%	41	406	2	13	4	90
Coffman Cove	2C	50	38	76.0%	29	58.5%	154	2,715	27	53.3%	152	2,273	0	0	10	97
Craig	2C	303	230	75.9%	141	46.5%	1,114	19,862	89	29.5%	493	6,211	40	91	63	521
Edna Bay	2C	34	28	82.4%	17	48.5%	85	2,397	4	10.4%	2	99	4	5	7	19
Elfin Cove	2C	18	13	72.2%	7	39.4%	41	1,055	4	21.3%	29	616	1	14	4	45
Gustavus	2C	64	51	79.7%	32	50.4%	202	4,277	31	48.0%	148	3,364	0	0	3	8
Haines	2C	407	335	82.3%	226	55.6%	1,158	22,623	75	18.5%	117	1,808	12	31	25	53
Hollis	2C	48	35	72.9%	23	47.9%	121	4,293	4	8.6%	11	366	3	3	9	52
Hoonah	2C	93	76	81.7%	52	56.3%	568	6,443	31	33.7%	176	2,360	2	26	10	51
Hydaburg	2C	8	5	62.5%	6	70.0%	57	2,084	4	52.5%	6	98	4	10	4	24
Hyder	2C	22	20	90.9%	14	65.0%	56	1,115	7	30.0%	2	37	1	7	2	14
Juneau	2C	5														
Kake	2C	33	21	63.6%	14	42.3%	116	2,765	16	47.0%	40	1,261	3	16	2	19
Kasaan	2C	10	10	100.0%	5	50.0%	24	466	3	30.0%	5	60	0	0	3	15
Ketchikan	2C	8	7	87.5%	5	57.1%	25	517	5	57.1%	0	0	1	2	3	26
Klawock	2C	141	102	72.3%	60	42.6%	735	12,213	55	39.1%	261	3,989	19	50	31	273
Metlakatla	2C	20	14	70.0%	10	51.7%	57	1,092	4	20.0%	11	173	3	4	1	8
Meyers Chuck	2C	9	7	77.8%	5	55.6%	15	322	1	11.1%	1	42	1	1	2	11
Naukati Bay	2C	48	41	85.4%	26	53.3%	150	2,997	16	33.2%	63	1,552	12	17	16	138
Pelican	2C	35	26	74.3%	21	59.0%	89	1,768	6	18.5%	14	335	10	14	12	93
Petersburg	2C	843	662	78.5%	357	42.4%	2,255	42,292	245	29.0%	834	13,952	12	54	42	221
Port Alexander	2C	16	14	87.5%	13	80.2%	129	2,429	4	26.6%	7	181	10	27	10	74
Port Protection	2C	11	10	90.9%	8	70.1%	65	1,095	0	0.0%	0	0	3	7	7	43
Pt. Baker	2C	16	12	75.0%	8	46.9%	35	585	1	7.8%	0	0	0	0	4	26
Saxman	2C	8	4	50.0%	4	46.9%	45	683	3	31.3%	14	306	4	11	3	44
Sitka	2C	1,330	1,040	78.2%	596	44.8%	2,940	64,152	230	17.3%	563	9,485	255	721	334	2,572
Skagway	2C	51	47	92.2%	23	45.9%	56	1,531	14	27.0%	37	485	0	0	1	1
Tenakee Springs	2C	58	47	81.0%	31	53.0%	198	3,298	21	35.5%	77	1,025	2	2	14	74
Thorne Bay	2C	118	97	82.2%	53	45.1%	339	8,743	44	37.3%	351	3,510	13	51	24	148
Ward Cove	2C	2														
Whale Pass	2C	17	14	82.4%	11	67.2%	79	3,213	7	40.3%	7	204	1	2	2	41
Wrangell	2C	382	301	78.8%	210	54.9%	1,533	28,083	101	26.4%	289	5,805	11	26	30	184
Subtotal, Area 2C		**4,222**	**3,324**	**78.7%**	**2,016**	**47.8%**	**12,576**	**247,633**	**1,053**	**24.9%**	**3,751**	**60,002**	**430**	**1,206**	**683**	**4,989**
Akhiok	3A	6	5	83.3%	2	40.0%	19	193	2	40.0%	4	101	0	0	0	0
Chenega Bay	3A	8	8	100.0%	6	75.0%	89	1,225	3	37.5%	25	305	2	20	4	72
Chiniak	3A	7	5	71.4%	7	100.0%	62	519	4	60.0%	18	470	0	0	0	0
Cordova	3A	416	318	76.4%	188	45.2%	1,032	18,008	89	21.4%	169	2,913	5	8	31	154
Karluk	3A	6	6	100.0%	4	66.7%	35	497	0	0.0%	0	0	0	0	0	0
Kodiak	3A	1,360	978	71.9%	696	51.2%	6,088	110,362	483	35.5%	2,382	43,133	91	275	134	1,085
Nanwalek	3A	5														
Old Harbor	3A	5														
Ouzinkie	3A	16	10	62.5%	14	84.4%	84	896	5	28.1%	12	153	0	0	0	0
Port Graham	3A	5														
Port Lions	3A	17	14	82.4%	10	61.1%	120	1,442	10	61.1%	69	1,128	0	0	0	0
Seldovia	3A	126	101	80.2%	77	61.2%	1,108	14,360	40	31.4%	274	3,969	5	35	16	167
Tatitlek	3A	11	8	72.7%	8	75.0%	56	1,261	6	50.0%	33	727	0	0	4	30
Yakutat	3A	72	49	68.1%	28	39.0%	382	8,188	15	20.3%	88	1,243	11	42	6	76
Subtotal, Area 3A		**2,060**	**1,514**	**73.5%**	**1,050**	**51.0%**	**9,395**	**162,647**	**658**	**31.9%**	**3,077**	**54,200**	**117**	**400**	**197**	**1,615**
Chignik	3B	1														

- continued -

Table 4.–Page 6 of 7.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Rural[b] community	Regulatory area	SHARCs[a] issued	Surveys returned	Percent of SHARCs[a]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Cold Bay	3B	33	27	81.8%	20	59.2%	270	3,811	12	37.2%	21	527	3	64	0	0
False Pass	3B	2														
King Cove	3B	19	18	94.7%	10	52.6%	78	1,471	4	21.1%	10	225	0	0	0	0
Sand Point	3B	6	2	33.3%	2	33.3%	42	490	2	33.3%	0	0	0	0	2	40
Subtotal, Area 3B		**61**	**49**	**80.3%**	**33**	**53.3%**	**394**	**5,842**	**18**	**29.9%**	**31**	**752**	**3**	**64**	**2**	**40**
Unalaska	4A	114	83	72.8%	46	40.8%	499	8,412	40	34.9%	225	4,019	1	4	4	23
Subtotal, Area 4A		**114**	**83**	**72.8%**	**46**	**40.8%**	**499**	**8,412**	**40**	**34.9%**	**225**	**4,019**	**1**	**4**	**4**	**23**
Adak	4B	8	5	62.5%	5	60.0%	16	554	2	20.0%	0	0	2	3	2	40
Subtotal, Area 4B		**8**	**5**	**62.5%**	**5**	**60.0%**	**16**	**554**	**2**	**20.0%**	**0**	**0**	**2**	**3**	**2**	**40**
St. George Island	4C	1														
St. Paul Island	4C	1														
Subtotal, Area 4C		**2**														
Savoonga	4D	1														
Subtotal, Area 4D		**1**														
Bethel	4E	1														
Chevak	4E	1														
Dillingham	4E	21	16	76.2%	1	6.3%	0	0	1	6.3%	3	59	0	0	0	0
Egegik	4E	1														
King Salmon	4E	3														
Kotlik	4E	1														
Koyuk	4E	1														
Manokotak	4E	2														
Naknek	4E	3														
Nightmute	4E	1														
Nome	4E	13	8	61.5%	8	57.7%	35	704	0	0.0%	0	0	0	0	0	0
Port Heiden	4E	1														
Togiak	4E	2														
Subtotal, Area 4E		**51**	**34**	**66.7%**	**11**	**21.2%**	**134**	**1,771**	**2**	**4.5%**	**9**	**83**	**1**	**2**	**1**	**5**
Rural community subtotal		**6,519**	**5,011**	**76.9%**	**3,162**	**48.5%**	**23,014**	**426,873**	**1,774**	**27.2%**	**7,113**	**119,266**	**554**	**1,680**	**888**	**6,712**

- continued -

Table 4.–Page 7 of 7.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Total	Regulatory area	SHARCs[a] issued	Surveys returned	Percent of SHARCs[a]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Percent of SHARCs[a]	Estimated number fish	Estimated number pounds[c]	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Tribal total		3,425	2,043	59.6%	1,232	36.0%	14,079	260,118	457	13.4%	1,614	26,908	142	567	273	2,857
Rural community total		6,519	5,011	76.9%	3,162	48.5%	23,014	426,873	1,774	27.2%	7,113	119,266	554	1,680	888	6,712
Total		**9,944**	**7,054**	**70.9%**	**4,394**	**44.2%**	**37,093**	**686,991**	**2,231**	**22.4%**	**8,727**	**146,174**	**696**	**2,247**	**1,161**	**9,568**

Source ADF&G Division of Subsistence SHARC[a] surveys, 2013.

Note To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs[a] issued are not reported in this table. Subtotals include all tribes and communities.

a. Subsistence Halibut Registration Certificate (SHARC).

b. "Tribal" = individuals who obtained SHARCs as members of an eligible tribe, sorted by location of tribal headquarters. “Rural” = individuals who obtained SHARCs as residents of an eligible rural community. “All” = sum of tribal and rural SHARC holders for a regulatory area based on location of tribal headquarters or rural community. Because some SHARC holders may fish in regulatory areas other than the location of the area of their tribal headquarters or rural residence, area totals in this table differ slightly from those in tables 6, 7, and 9.

c. Pounds net (dressed) weight = 75% of round (whole) weight.

Table 5.–Age of Subsistence Halibut Registration Certificate holders by SHARC type, 2012.

SHARC type	Age cohort (years) Number of SHARC holders																				Total
	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85–89	90–94	95+	
Tribal	9	53	109	158	222	246	245	259	262	345	404	376	300	192	121	77	29	12	3	1	3,425
	0.3%	1.6%	3.2%	4.6%	6.5%	7.2%	7.2%	7.6%	7.7%	10.1%	11.8%	11.0%	8.7%	5.6%	3.5%	2.3%	0.8%	0.4%	0.1%	0.0%	
Rural	11	38	93	160	152	321	441	517	565	623	884	925	771	525	294	133	49	13	3	1	6,519
	0.2%	0.6%	1.4%	2.5%	2.3%	4.9%	6.8%	7.9%	8.7%	9.6%	13.6%	14.2%	11.8%	8.1%	4.5%	2.0%	0.8%	0.2%	0.0%	0.0%	
Total	**20**	**91**	**202**	**319**	**375**	**567**	**686**	**776**	**827**	**968**	**1,287**	**1,300**	**1,071**	**717**	**415**	**210**	**78**	**25**	**6**	**2**	**9,944**
	0.2%	**0.9%**	**2.0%**	**3.2%**	**3.8%**	**5.7%**	**6.9%**	**7.8%**	**8.3%**	**9.7%**	**12.9%**	**13.1%**	**10.8%**	**7.2%**	**4.2%**	**2.1%**	**0.8%**	**0.3%**	**0.1%**	**0.0%**	

Source SHARC database, Restricted Access Management Program, NMFS, Juneau, as of 12/31/2012.

Table 6.–Estimated harvests of halibut in numbers of fish and pounds net (dressed, head-off) weight by regulatory area and subarea, 2012.

			Estimated subsistence harvest by gear type[a]											
			Set hook gear			Hook and line or handline			All gear			Estimated sport harvest		
Subarea	Regulatory area	Number of SHARCs subsistence fished[c]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]
Northern Southeast Alaska	2C	687	613	3,813	68,658	238	983	14,966	687	4,796	83,624	311	1,018	15,859
Sitka LAMP Area	2C	690	651	2,813	67,374	179	452	7,140	690	3,266	74,514	248	533	9,637
Southern Southeast Alaska	2C	1,436	1,216	8,887	190,217	559	2,806	47,688	1,436	11,694	237,905	802	3,036	49,898
Subtotal, Area 2C		**2,715**	**2,387**	**15,514**	**326,249**	**940**	**4,241**	**69,794**	**2,715**	**19,755**	**396,043**	**1,312**	**4,587**	**75,394**
Cook Inlet	3A	262	167	2,468	37,940	168	2,534	27,161	262	5,002	65,100	141	649	9,133
Kodiak Island Other	3A	553	434	2,530	48,027	265	1,234	19,887	553	3,765	67,914	300	987	16,571
Kodiak Island Road System	3A	553	453	2,786	54,545	255	1,091	17,971	553	3,877	72,516	391	1,650	30,704
Prince William Sound	3A	262	234	1,293	23,693	96	253	4,179	262	1,545	27,873	138	278	4,680
Yakutat Area	3A	70	57	738	17,902	27	121	2,210	70	859	20,113	31	133	2,476
Subtotal, Area 3A		**1,474**	**1,151**	**9,814**	**182,107**	**690**	**5,233**	**71,409**	**1,474**	**15,047**	**253,516**	**845**	**3,697**	**63,565**
Chignik Area	3B	26	19	109	1,617	18	68	1,178	26	177	2,795	4	7	103
Lower Alaska Peninsula	3B	112	69	580	8,730	77	328	4,434	112	907	13,164	58	193	2,892
Subtotal, Area 3B		**137**	**88**	**689**	**10,347**	**94**	**395**	**5,612**	**137**	**1,085**	**15,959**	**62**	**200**	**2,994**
Eastern Aleutians–East	4A	60	40	282	4,512	39	272	4,548	60	554	9,061	38	205	3,614
Eastern Aleutians–West	4A	6	5	19	445	5	3	37	6	22	482	9	27	450
Subtotal, Area 4A		**61**	**40**	**301**	**4,957**	**41**	**275**	**4,586**	**61**	**576**	**9,543**	**44**	**232**	**4,064**
Western Aleutians–East	4B	10	6	79	1,558	7	6	141	10	84	1,698	2	0	0
Subtotal, Area 4B		**10**	**6**	**79**	**1,558**	**7**	**6**	**141**	**10**	**84**	**1,698**	**2**	**0**	**0**
St. Paul Island	4C	9	5	65	686	5	19	490	9	84	1,176	0	0	0
Subtotal, Area 4C		**9**	**5**	**65**	**686**	**5**	**19**	**490**	**9**	**84**	**1,176**	**0**	**0**	**0**
St. Lawrence Island	4D	5	5	22	672	0	0	0	5	22	672	0	0	0
Subtotal, Area 4D		**5**	**5**	**22**	**672**	**0**	**0**	**0**	**5**	**22**	**672**	**0**	**0**	**0**
Bristol Bay	4E	6	5	14	259	6	5	70	6	18	329	1	0	0
Norton Sound	4E	9	9	41	816	0	0	0	9	41	816	0	0	0
Yukon Delta	4E	41	19	198	4,973	26	183	2,266	41	381	7,239	3	11	158
Subtotal, Area 4E		**55**	**32**	**252**	**6,048**	**32**	**187**	**2,336**	**55**	**440**	**8,384**	**4**	**11**	**158**
Total		**4,394**	**3,655**	**26,736**	**532,623**	**1,775**	**10,357**	**154,368**	**4,394**	**37,093**	**686,991**	**2,231**	**8,727**	**146,174**

Source ADF&G Division of Subsistence SHARC survey, 2013.

a. "Setline" = longline or skate. "Hand-operated gear" = rod and reel, or handline.

b. Weights given are "net weight." Pounds net (dressed, head off) weight = 75% of round (whole) weight.

c. Because fishers may fish in more than one area, subtotals for regulatory areas and the state total might exceed the sum of the subarea values. Includes subsistence and sport fishing.

Table 7.–Alaska subsistence halibut harvests from 2003–2012 by geographic area fished.

	Subsistence halibut harvests, net weight (pounds)										Percent change between years		Percentage of state total									
Geographic area	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 to 2012	9-Year average to 2012	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Southern Southeast Alaska	290,443	369,319	328,658	307,921	283,422	254,510	262,046	254,366	204,062	237,905	16.6%	-16.2%	27.9%	31.0%	27.9%	27.4%	27.5%	28.7%	30.4%	31.9%	29.2%	34.6%
Sitka LAMP Area	173,323	147,312	133,545	147,526	132,190	104,973	89,812	76,988	83,436	74,514	-10.7%	-38.4%	16.6%	12.3%	11.3%	13.1%	12.8%	11.8%	10.4%	9.7%	12.0%	10.8%
Northern Southeast Alaska	159,772	160,453	135,869	124,670	109,286	98,877	105,139	93,464	99,470	83,624	-15.9%	-30.8%	15.3%	13.4%	11.5%	11.1%	10.6%	11.1%	12.2%	11.7%	14.3%	12.2%
Subtotal, Area 2C	623,538	677,084	598,072	580,117	524,897	458,360	456,997	424,818	386,967	396,043	2.3%	-24.7%	59.9%	56.7%	50.8%	51.6%	50.8%	51.7%	53.1%	53.3%	55.5%	57.6%
Yakutat Area	11,198	20,153	36,515	19,187	17,516	16,084	14,390	18,064	15,762	20,113	27.6%	7.2%	1.1%	1.7%	3.1%	1.7%	1.7%	1.8%	1.7%	2.3%	2.3%	2.9%
Prince William Sound	28,409	58,429	68,063	47,965	52,407	47,112	33,796	42,279	32,822	27,873	-15.1%	-39.0%	2.7%	4.9%	5.8%	4.3%	5.1%	5.3%	3.9%	5.3%	4.7%	4.1%
Cook Inlet	52,609	83,939	79,024	59,965	75,623	76,795	81,043	65,809	60,337	65,100	7.9%	-7.8%	5.1%	7.0%	6.7%	5.3%	7.3%	8.7%	9.4%	8.3%	8.6%	9.5%
Kodiak Island Road System	114,028	129,145	134,849	140,388	130,538	96,872	108,049	103,066	79,907	72,516	-9.2%	-37.1%	11.0%	10.8%	11.4%	12.5%	12.6%	10.9%	12.5%	12.9%	11.5%	10.6%
Kodiak Island Other	79,256	111,944	110,824	111,752	96,206	100,540	91,202	83,432	77,276	67,914	-12.1%	-29.1%	7.6%	9.4%	9.4%	9.9%	9.3%	11.3%	10.6%	10.5%	11.1%	9.9%
Subtotal, Area 3A	285,500	403,610	429,275	379,258	372,289	337,403	328,480	312,650	266,104	253,516	-4.7%	-26.7%	27.4%	33.8%	36.4%	33.7%	36.1%	38.0%	38.1%	39.2%	38.1%	36.9%
Chignik Area	10,500	12,053	14,783	17,780	15,397	11,842	5,889	5,857	3,621	2,795	-22.8%	-74.3%	1.0%	1.0%	1.3%	1.6%	1.5%	1.3%	0.7%	0.7%	0.5%	0.4%
Lower Alaska Peninsula	16,977	21,467	31,442	30,767	32,351	30,406	19,603	17,152	18,390	13,164	-28.4%	-45.8%	1.6%	1.8%	2.7%	2.7%	3.1%	3.4%	2.3%	2.2%	2.6%	1.9%
Subtotal, Area 3B	27,477	33,519	46,225	48,547	47,748	42,248	25,492	23,009	22,011	15,959	-27.5%	-54.6%	2.6%	2.8%	3.9%	4.3%	4.6%	4.8%	3.0%	2.9%	3.2%	2.3%
Eastern Aleutians–East	19,345	26,715	33,882	25,993	12,753	19,043	33,090	13,343	12,816	9,061	-29.3%	-58.6%	1.9%	2.2%	2.9%	2.3%	1.2%	2.1%	3.8%	1.7%	1.8%	1.3%
Eastern Aleutians–West	1,852	2,162	1,734	1,069	2,193	509	409	1,205	790	482	-39.0%	-63.6%	0.2%	0.2%	0.1%	0.1%	0.2%	0.1%	0.0%	0.2%	0.1%	0.1%
Subtotal, Area 4A	21,197	28,877	35,615	27,062	14,946	19,553	33,499	14,548	13,606	9,543	-29.9%	-58.9%	2.0%	2.4%	3.0%	2.4%	1.4%	2.2%	3.9%	1.8%	2.0%	1.4%
Western Aleutians–East	2,582	916	1,351	2,761	1,997	4,737	1,175	450	537	1,698	216.5%	-7.4%	0.2%	0.1%	0.1%	0.2%	0.2%	0.5%	0.1%	0.1%	0.1%	0.2%
Western Aleutians–Other	0	0	0	0	0	0	0	0	0	0			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Subtotal, Area 4B	2,582	916	1,351	2,761	1,997	4,737	1,175	450	537	1,698	216.5%	-7.4%	0.2%	0.1%	0.1%	0.2%	0.2%	0.5%	0.1%	0.1%	0.1%	0.2%
St. George Island	2,042	1,823	2,145	3,443	3,736	1,150	700	720	490	0	-100.0%	-100.0%	0.2%	0.2%	0.2%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%	0.0%
St. Paul Island	20,839	7,911	5,571	5,085	11,342	4,507	5,623	10,139	1,158	1,176	1.5%	-85.3%	2.0%	0.7%	0.5%	0.5%	1.1%	0.5%	0.7%	1.3%	0.2%	0.2%
Subtotal, Area 4C	22,881	9,734	7,716	8,527	15,077	5,657	6,323	10,859	1,648	1,176	-28.6%	-88.0%	2.2%	0.8%	0.7%	0.8%	1.5%	0.6%	0.7%	1.4%	0.2%	0.2%
St. Lawrence Island	4,380	10,923	5,848	8,297	3,204	3,131	644	1,171	615	672	9.2%	-84.2%	0.4%	0.9%	0.5%	0.7%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%
Area 4D, Other	0	0	0	0	0	0	0	0	0	0			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Subtotal, Area 4D	4,380	10,923	5,848	8,297	3,204	3,131	644	1,171	615	672	9.2%	-84.2%	0.4%	0.9%	0.5%	0.7%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%
Bristol Bay	435	203	2,169	1,336	2,116	84	0	0	403	329	-18.3%	-56.1%	0.0%	0.0%	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%	0.0%
YK Delta	53,284	28,298	51,950	69,407	50,019	14,669	7,468	9,484	5,283	7,239	37.0%	-77.5%	5.1%	2.4%	4.4%	6.2%	4.8%	1.7%	0.9%	1.2%	0.8%	1.1%
Norton Sound	56	0	0	0	0	1,145	1,281	571	482	816	69.3%	107.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%
Subtotal, Area 4E	53,775	28,501	54,119	70,743	52,135	15,898	8,749	10,055	6,168	8,384	35.9%	-74.9%	5.2%	2.4%	4.6%	6.3%	5.1%	1.8%	1.0%	1.3%	0.9%	1.2%
Total[a]	1,041,330	1,193,162	1,178,222	1,125,312	1,032,293	886,988	861,359	797,560	697,656	686,991	-1.5%	-29.9%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

a. The sum of the harvests by geographic areas for 2003 reported here differs slightly from that reported in Table 8 in Fall et al. (2004, 50) due to rounding.

Table 8.–Number of hooks usually fished, setline (stationary) gear, Alaska halibut subsistence fishery, 2012.

			Number of hooks[b]																															
Regulatory area	SHARC holders		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Missing	Total[a]
2C	No.	6,292	13	10	5	0	16	9	2	17	4	120	3	47	6	13	424	10	0	11	2	371	2	6	0	13	144	25	12	78	28	907	94	2,392
	Pct.		0.5	0.4	0.2	0.0	0.7	0.4	0.1	0.7	0.2	5.0	0.1	2.0	0.3	0.6	17.7	0.4	0.0	0.5	0.1	15.5	0.1	0.2	0.0	0.5	6.0	1.1	0.5	3.2	1.1	37.9	3.6	
3A	No.	2,936	1	9	4	4	4	5	3	4	1	65	0	11	1	0	44	4	1	8	1	187	1	0	1	3	118	7	6	34	11	500	50	1,091
	Pct.		0.1	0.8	0.4	0.4	0.4	0.5	0.3	0.4	0.1	6.0	0.0	1.0	0.1	0.0	4.1	0.4	0.1	0.8	0.1	17.2	0.1	0.0	0.1	0.2	10.8	0.6	0.5	3.1	1.0	45.8	6.7	
3B	No.	338	0	1	0	0	0	2	2	0	0	5	0	7	0	0	3	0	0	0	0	10	0	0	0	0	1	0	0	0	1	47	7	87
	Pct.		0.0	1.4	0.0	0.0	0.0	2.8	2.5	0.0	0.0	5.3	0.0	7.9	0.0	0.0	3.6	0.0	0.0	0.0	0.0	11.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.6	54.2	10.9	
4A	No.	152	2	0	0	0	0	0	0	0	0	1	0	0	0	1	3	0	0	0	0	6	0	1	0	0	2	0	0	0	1	17	2	37
	Pct.		6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	3.7	7.3	0.0	0.0	0.0	0.0	16.1	0.0	3.7	0.0	0.0	4.1	0.0	0.0	0.0	3.7	45.8	5.3	
4B	No.	12	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	7
	Pct.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	0.0	
4C	No.	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	9
	Pct.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	10.4	
4D	No.	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	6
	Pct.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7	0.0	0.0	0.0	0.0	21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.5	0.0	
4E	No.	185	1	1	0	0	0	0	0	3	0	3	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	13	3	27
	Pct.		3.7	3.7	0.0	0.0	0.0	0.0	0.0	11.2	0.0	11.2	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	4.1	
Alaska	No.	9,944	17	21	9	4	20	17	8	24	5	198	3	66	7	15	478	14	1	20	4	577	3	7	1	15	264	32	18	111	42	1,493	162	3,655
	Pct.		0.5	0.6	0.3	0.1	0.5	0.5	0.2	0.6	0.1	5.4	0.1	1.8	0.2	0.4	13.1	0.4	0.0	0.5	0.1	15.8	0.1	0.2	0.0	0.4	7.2	0.9	0.5	3.0	1.1	40.8	4.4	

Source ADF&G Division of Subsistence, SHARC surveys, 2013.

a. Number of fishers using setline (fixed) gear. Based on location of tribe or rural community of SHARC holder.

b. The column for 30 hooks includes those fishers who reported using more than 30. There is no 30-hook limit in Areas 4C, 4D, or 4E.

Table 9.–Average net weight of subsistence and sport harvested halibut by regulatory area fished, 2012.

	Subsistence methods			Sport harvest[a]			Total halibut			Percentage of sport harvest
Area[b]	Number	Net weight (lb)	Average per fish	Number	Net weight (lb)	Average per fish	Number	Net weight (lb)	Average per fish	
2C	19,755	396,043	20.0	4,587	75,394	16.4	24,342	471,438	19.4	51.6%
3A	15,047	253,516	16.8	3,697	63,565	17.2	18,744	317,080	16.9	43.5%
3B	1,085	15,959	14.7	200	2,994	14.9	1,285	18,953	14.7	2.0%
4A	576	9,543	16.6	232	4,064	17.5	807	13,606	16.9	2.8%
4B	84	1,698	20.1	0	0		84	1,698	20.1	0.0%
4C	84	1,176	14.0	0	0		84	1,176	14.0	0.0%
4D	22	672	30.9	0	0		22	672	30.9	0.0%
4E	440	8,384	19.1	11	158	14.0	451	8,541	18.9	0.1%
Alaska	37,093	686,991	18.5	8,727	146,174	16.7	45,820	833,165	18.2	100.0%

Source ADF&G Division of Subsistence, SHARC survey, 2013.

a. Sport harvest of halibut by SHARC holders.

b. Area totals are based on the location of the harvest (see also Table 6 and Table 7).

Table 10.–Estimated harvests of lingcod and rockfish by regulatory area and subarea, 2012.

			Lingcod		Rockfish	
Subarea	Regulatory area	Estimated number SHARCs fished	Estimated number respondents harvested	Estimated number lingcod harvested	Estimated number respondents harvested	Estimated number rockfish harvested
Northern Southeast Alaska	2C	687	57	167	141	764
Sitka LAMP Area	2C	690	299	812	378	2,663
Southern Southeast Alaska	2C	1,436	196	552	396	3,587
Subtotal, Area 2C		**2,715**	**521**	**1,531**	**874**	**7,013**
Cook Inlet	3A	262	23	148	46	470
Kodiak Island Other	3A	553	69	126	102	583
Kodiak Island Road System	3A	553	87	220	119	784
Prince William Sound	3A	262	13	36	53	333
Yakutat Area	3A	70	19	90	15	147
Subtotal, Area 3A		**1,474**	**171**	**620**	**272**	**2,316**
Chignik Area	3B	26	1	4	9	80
Lower Alaska Peninsula	3B	112	3	64	11	81
Subtotal, Area 3B		**137**	**4**	**68**	**20**	**161**
Eastern Aleutians–East	4A	60	1	4	8	68
Eastern Aleutians–West	4A	6	0	0	1	1
Subtotal, Area 4A		**61**	**1**	**4**	**8**	**69**
Western Aleutians–East	4B	10	0	0	1	3
Subtotal, Area 4B		**10**	**0**	**0**	**1**	**3**
St. Paul Island	4C	9	0	0	0	0
Subtotal, Area 4C		**5**	**0**	**0**	**0**	**0**
St. Lawrence Island	4D	5	0	0	0	0
Subtotal, Area 4D		**9**	**0**	**0**	**0**	**0**
Bristol Bay	4E	6	0	0	0	0
Norton Sound	4E	9	0	0	0	0
Yukon Delta	4E	41	1	24	1	7
Subtotal, Area 4E		**55**	**1**	**24**	**1**	**7**
Total		**4,394**	**696**	**2,247**	**1,161**	**9,568**

Source ADF&G Division of Subsistence SHARC surveys, 2013.

Table 11.–Estimated harvests of halibut by gear type and participation subsistence and sport fisheries, selected Alaska communities, 2003–2012.

			Subsistence harvests									
			Setline (fixed) gear		Hand-operated gear		Total subsistence harvest		Sport harvest[d]		All harvests	
Community	Year	Number of SHARC holders[b]	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested
Cordova	2003	358	68	7,613	40	7,885	102	15,498	144	11,534	194	27,032
	2004	526	174	29,693	97	10,946	262	40,640	174	12,149	325	52,789
	2005	602	238	34,907	104	12,234	281	47,141	179	10,519	358	57,660
	2006	607	202	21,059	125	7,968	248	29,027	152	7,020	301	36,047
	2007	615	233	21,683	128	7,033	282	28,716	123	4,203	315	32,919
	2008	587	231	22,301	95	5,246	254	27,547	126	5,562	292	33,109
	2009	599	201	17,766	103	5,598	234	23,364	118	3,868	269	27,232
	2010	557	207	22,579	121	5,849	235	28,428	106	5,837	261	34,265
	2011	529	175	17,023	79	4,765	198	21,789	175	3,029	228	24,818
	2012	470	185	16,105	75	3,312	202	19,417	95	3,017	227	22,434
Kodiak	2003	1,320	438	101,575	278	51,678	646	153,254	498	68,170	858	221,424
	2004	1,561	554	131,719	335	55,605	802	187,214	581	73,181	971	260,395
	2005	1,741	650	146,781	398	64,047	871	210,828	669	82,455	1,116	293,283
	2006	1,716	684	142,326	497	63,496	961	205,822	562	64,320	1,092	270,142
	2007	1,880	707	135,351	486	58,282	945	193,633	648	68,556	1,157	262,189
	2008	1,725	763	128,226	479	49,108	963	177,334	693	72,915	1,213	250,249
	2009	1,826	749	130,802	433	46,966	923	177,769	619	64,034	1,139	241,803
	2010	1,702	747	127,816	374	36,275	900	164,092	539	47,646	1,074	211,738
	2011	1,660	686	106,609	378	31,739	837	138,348	513	45,725	1,009	184,073
	2012	1,503	619	93,417	345	32,403	769	125,820	499	44,041	967	169,861
Petersburg	2003	1,047	330	41,704	138	14,013	415	55,718	268	19,611	523	75,329
	2004	1,187	322	53,885	206	17,900	482	71,784	351	26,408	617	98,192
	2005	1,197	338	44,050	175	17,321	436	61,372	312	23,289	569	84,661
	2006	1,082	300	35,608	222	18,075	426	53,682	246	17,351	529	71,033
	2007	1,123	274	32,026	191	15,491	386	47,517	264	15,177	516	62,694
	2008	985	285	31,077	207	15,523	393	46,600	279	17,506	515	64,106
	2009	1,041	323	30,105	224	16,661	418	46,766	247	13,619	513	60,385
	2010	961	323	33,951	209	13,315	409	47,266	256	13,251	501	60,517
	2011	976	271	27,775	194	12,312	370	40,087	209	13,096	459	53,183
	2012	917	315	34,066	175	10,845	383	44,912	263	14,936	510	59,848

- continued -

Table 11.–Page 2 of 4.

			Subsistence harvests									
			Setline (fixed) gear		Hand-operated gear		Total subsistence harvest		Sport harvest[d]		All harvests	
Community	Year	Number of SHARC holders[b]	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested
Port Graham	2003	52	10	4,398	28	7,056	35	11,454	3	156	36	11,610
	2004	57	15	4,425	31	4,755	42	9,181	11	850	42	10,031
	2005	52	8	7,938	18	3,190	18	11,127	9	488	18	11,615
	2006	50	9	2,397	24	3,797	30	6,194	2	0	30	6,194
	2007	59	22	5,347	28	3,146	36	8,493	4	233	36	8,726
	2008	48	13	6,896	23	2,200	30	9,097	2	51	30	9,148
	2009	47	22	1,454	31	4,973	35	6,426	9	197	35	6,623
	2010	47	23	5,011	18	2,211	30	7,222	5	267	30	7,489
	2011	46	13	2,569	9	1,059	15	3,638	0	0	15	3,638
	2012	32	10	1,677	11	1,783	18	3,460	5	44	19	3,503
Sand Point	2003	73	15	3,409	11	1,410	21	4,819	11	410	21	5,229
	2004	351	25	4,360	74	6,996	109	11,355	50	1,384	121	12,739
	2005	321	35	12,201	77	9,700	100	21,901	23	1,281	105	23,182
	2006	365	59	7,406	87	12,809	133	20,214	29	6,300	140	26,514
	2007	364	49	13,278	113	11,337	138	24,615	16	3,034	138	27,649
	2008	342	71	15,766	88	9,247	130	25,013	19	2,195	132	27,208
	2009	137	28	3,987	58	7,772	70	11,759	19	2,665	70	14,424
	2010	130	22	3,408	50	3,898	61	7,306	18	1,129	67	8,435
	2011	136	51	7,358	74	6,039	85	13,397	23	1,243	87	14,640
	2012	136	30	3,401	46	2,307	61	5,708	32	1,280	75	6,989
Sitka	2003	1,639	760	155,276	160	19,604	821	174,880	401	32,408	956	207,288
	2004	1,871	714	151,660	147	14,739	904	166,474	412	25,829	1,026	192,303
	2005	1,974	738	126,426	172	19,893	814	146,319	417	55,913	987	202,232
	2006	1,895	809	145,542	297	17,830	915	163,372	395	23,032	1,036	186,404
	2007	1,954	839	115,162	270	26,886	921	142,049	315	16,200	1,010	158,249
	2008	1,662	784	96,314	232	13,266	845	109,581	307	13,055	932	122,636
	2009	1,731	774	86,219	265	11,205	844	97,424	265	10,516	941	107,940
	2010	1,635	700	74,394	218	8,334	755	82,728	228	9,257	849	91,985
	2011	1,658	739	84,426	159	8,604	784	93,030	249	8,336	867	101,366
	2012	1,570	659	71,261	168	7,445	697	78,706	237	9,096	799	87,802

- continued -

Table 11.–Page 3 of 4.

			Subsistence harvests									
			Setline (fixed) gear		Hand-operated gear		Total subsistence harvest		Sport harvest[d]		All harvests	
Community	Year	Number of SHARC holders[b]	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested
Toksook Bay	2003	532	8	3,790	47	20,709	54	24,500	0	0	54	24,500
	2004	529	7	859	44	5,737	56	6,596	0	0	56	6,596
	2005	522	5	602	60	14,269	61	14,870	2	98	62	14,968
	2006	533	6	2,333	112	34,149	113	36,481	0	0	113	36,481
	2007	533	17	1,451	100	6,469	112	7,921	0	0	112	7,921
	2008	34	6	707	8	1,436	9	2,143	0	0	9	2,143
	2009	33	3	266	10	789	10	1,055	0	0	10	1,055
	2010	32	5	315	10	560	10	875	0	0	10	875
	2011	32	2	378	7	219	8	597	0	0	8	597
	2012	7	1	140	4	154	5	294	0	0	5	294
Tununak	2003	0										
	2004	70	16	878	23	1,076	31	1,954	0	0	31	1,954
	2005	70	3	332	18	2,329	20	2,661	0	0	20	2,661
	2006	70	7	224	33	3,808	33	4,032	0	0	33	4,032
	2007	69	14	1,536	38	5,479	38	7,015	0	0	38	7,015
	2008	68	0	0	8	1,296	8	1,296	0	0	8	1,296
	2009	11	0	0	7	488	7	488	0	0	7	488
	2010	11	0	0	9	576	9	576	0	0	9	576
	2011	11	0	0	4	84	4	84	0	0	4	84
	2012	11	0	0	3	173	3	173	0	0	3	173
Unalaska[c]	2003	92	39	6,713	31	4,146	50	10,860	33	5,519	70	16,379
	2004	131	43	9,557	39	5,973	81	15,530	34	2,165	93	17,695
	2005	150	60	9,573	57	8,535	88	18,108	28	2,439	97	20,547
	2006	171	53	7,526	47	8,805	81	16,331	50	3,768	101	20,100
	2007	176	67	9,012	38	4,238	83	13,250	33	2,287	92	15,537
	2008	173	59	7,293	42	6,417	87	13,710	43	2,962	101	16,672
	2009	164	56	19,204	54	10,102	76	29,306	45	1,861	98	31,167
	2010	155	58	7,417	60	5,663	92	13,081	54	2,730	103	15,811
	2011	141	33	4,449	50	7,808	65	12,257	27	3,030	75	15,287
	2012	141	41	5,342	41	4,717	62	10,059	44	4,221	83	14,280

- continued -

Table 11.–Page 4 of 4.

			Subsistence harvests									
			Setline (fixed) gear		Hand-operated gear		Total subsistence harvest		Sport harvest[d]		All harvests	
Community	Year	Number of SHARC holders[b]	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested	Estimated number fished	Estimated pounds harvested

Source ADF&G Division of Subsistence SHARC surveys, 2004–2013.

a. For data on all communities for 2009, see Appendix Tables A-4, A-5, and A-6.

b. SHARC = Subsistence halibut registration certificate; includes all SHARC holders living in the community.

c. Includes Dutch Harbor.

d. Sport harvests by SHARC holders only.

Table 12.–Estimated harvests of halibut for home use, Sitka, 1987 and 1996.

		Pounds usable (net) weight					
Year	Number of fishing households	Removed from commercial harvests	Rod and reel	Other methods[a]	Total	Total w/o commercial removal	95% confidence range (±%)[b]
1987	1,252	12,353	180,982		193,335	180,982	22
1996	943	16,528	135,048	14,196	165,772	149,244	28
Annual average	1,098	14,441	158,015	14,196	179,554	165,113	

Source ADF&G Community Subsistence Information System (CSIS).

a. Harvest data not collected for "other methods" in 1987.

b. Pertains to estimate of total harvests.

Table 13.–Number of SHARCs issued, estimated number of subsistence halibut fishers, and estimated harvests by SHARC category, Sitka, 2003–2012.

	Rural SHARCs				Tribal SHARCs				All SHARC holders residing in Sitka			
Year	SHARCs	Subsistence fished	Harvest	Average harvest per fisher (pounds)	SHARCs	Subsistence fished	Harvest	Average harvest per fisher (pounds)	SHARCs	Subsistence fished	Harvest	Average harvest per fisher (pounds)
2003	1,224	679	128,489	189.2	415	142	46,391	326.7	1,639	821	174,880	213.0
2004	1,464	785	135,532	172.7	407	119	30,942	260.0	1,871	904	166,474	184.2
2005	1,578	654	114,632	175.3	396	160	31,687	198.1	1,974	814	146,319	179.8
2006	1,429	759	120,735	159.1	466	156	42,637	273.6	1,895	915	163,372	178.6
2007	1,484	754	104,530	138.6	470	167	37,519	224.7	1,954	921	142,049	154.2
2008	1,388	722	87,945	121.8	274	123	21,636	175.9	1,662	845	109,581	129.7
2009	1,446	717	82,246	114.7	285	127	15,178	119.5	1,731	844	97,424	115.4
2010	1,363	632	69,779	110.5	272	124	12,949	104.6	1,635	755	82,728	109.5
2011	1,370	663	77,544	117.0	288	121	15,486	128.0	1,658	784	93,030	118.7
2012	1,330	596	64,152	107.6	240	101	14,555	144.5	1,570	697	78,706	112.9
Previous 9-year average (2003–2011)	1,416	707	102,381	144.8	364	138	28,269	205.4	1,780	845	130,651	154.7
10-year average (2003–2012)	1,408	696	98,558	141.6	351	134	26,898	200.8	1,759	830	125,456	151.1

Table 14.–Estimated harvests of halibut for home use, Petersburg, 1987 and 2000.

		Pounds usable (net) weight					
Year	Number of fishing households	Removed from commercial harvests	Rod and reel	Other methods[a]	Total	Total without commercial removal	95% confidence range (±%)[b]
1987	604	11,728	107,448		119,176	107,448	51
2000	468	6,951	49,023	0	55,974	49,023	39
Annual average	536	9,339	78,236	0	87,575	78,236	

Sources ADF&G Community Subsistence Information System (CSIS); ADF&G Division of Subsistence household survey, 2001.

a. Harvest data not collected for “other methods” in 1987.

b. Pertains to estimate of total harvests.

Table 15.–Estimated harvests of halibut for home use, Cordova, 1985, 1988, 1991–1993, and 1997.

		Pounds usable (net) weight					
Year	Number of fishing households	Removed from commercial harvests	Rod and reel	Other methods	Total	Total without commercial removal	95% confidence range (±%)[a]
1985	228	3,776	31,002	1,752	36,530	32,754	29%
1988	343	18,701	119,873	348	138,922	120,221	62%
1991	272	25,107	25,493	116	50,716	25,609	33%
1992	401	11,383	60,612	0	71,995	60,612	48%
1993	382	3,762	39,556	2,056	45,374	41,612	32%
1997	321	3,551	58,647	4,252	66,450	62,899	41%
Annual average	325	11,047	55,864	1,421	68,331	57,285	

Source ADF&G Community Subsistence Information System (CSIS).

a. Pertains to estimate of total harvests.

Table 16.–Estimated harvests of halibut for home use, Port Graham, 1987, 1989, 1990–1993, and 1997.

		Pounds usable (net) weight					
Year	Number of fishing households	Removed from commercial harvests	Rod and reel	Other methods	Total	Total without commercial removal	95% confidence range (±%)[b]
1987	42	1,237	3,809	3,389	8,435	7,198	14%
1989	29	3,217	1,482	1,222	5,921	2,704	47%
1990	32	3,003	4,106	3,171	10,280	7,277	22%
1991	35	1,663	2,332	4,846	8,841	7,178	17%
1992	42	24	7,867	3,365	11,256	11,232	14%
1993	42	86	3,105	1,346	4,537	4,451	14%
1997	36	79	2,881	5,326	8,286	8,207	28%
Annual average[a]	38	1,015	4,017	3,574	8,606	7,591	

Source ADF&G Community Subsistence Information System (CSIS).

a. Excludes 1989, the year of the *Exxon Valdez* Oil Spill.

b. Pertains to estimate of total harvests.

Table 17.–Estimated harvests of halibut for home use, Kodiak road system, 1982, and 1991–1993.[a]

		Pounds usable (net) weight					
Year	Number of fishing households	Removed from commercial harvests	Rod and reel	Other methods	Total	Total without commercial removal	95% confidence range (±%)[b]
1982	1,404	NA	NA	NA	451,223	360,113	45%
1991	1,178	48,245	206,692	40,591	295,528	247,283	30%
1992	1,178	89,625	329,345	18,732	437,702	348,077	33%
1993	1,336	142,108	479,391	31,863	653,362	511,254	33%
Annual average	1,306	93,326	338,476	30,395	462,197	366,682	

Source ADF&G Community Subsistence Information System (CSIS).

a. Harvest data are available based on random samples drawn from the entire road system population for 1982 and 1991. Only Kodiak City was sampled in 1992 and 1993. Estimates for the entire road system population were developed for this table based on the known portion of the total road system harvest harvested by city residents in 1982 and 1991.

b. Pertains to estimate of total harvests.

Table 18.–Halibut removals in Alaska by regulatory area, 2012.

	Pounds net weight						
Area	Commercial[a]	Sport[b]	Subsistence[c]	Wastage	Bycatch	IPHC research	Total
2C	2,575,000	1,405,000	396,043	78,000	7,000	119,000	4,580,043
3A	11,735,000	3,938,000	253,516	591,000	1,940,000	297,000	18,754,516
3B	4,932,000	13,000	15,959	524,000	1,579,000	113,000	7,176,959
4	5,586,000	16,000	41,660	213,000	6,047,000	76,000	11,979,660
Alaska	24,828,000	5,372,000	707,178	1,406,000	9,573,000	605,000	42,491,178

Sources International Pacific Halibut Commission 2013a; Williams 2013; ADF&G Division of Subsistence, SHARC surveys, 2013.

a. Commercial catch includes the Metlakatla fishery catch in Area 2C.

b. Projected harvests.

c. Includes 20,187 pounds of U32 (sublegal) halibut legally retained by CDQ organizations in areas 4D and 4E for personal use. The subsistence harvest by SHARC holders was 686,991 pounds, including 21,473 pounds in Area 4.

Table 19.–Comparison of selected SHARC survey results, 2003–2012.

	Study years										Percent change: 2012 compared to…	
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011	Previous 9-year average
Response to survey												
Number of SHARCs issued	11,635	13,813	14,306	14,206	15,047	11,565	11,733	10,953	11,145	9,944	-10.8%	-21.8%
Number of surveys returned	7,593	8,524	8,565	8,426	8,682	7,316	6,944	6,670	7,589	7,054	-7.0%	-9.7%
Response rate	65.3%	61.7%	59.9%	59.3%	57.7%	63.3%	59.2%	60.9%	68.1%	70.9%	4.2%	15.0%
Subsistence halibut fishing												
Estimated number of subsistence halibut fishers	4,942	5,984	5,621	5,909	5,933	5,303	5,296	4,991	4,705	4,394	-6.6%	-18.8%
Percent of all SHARC holders subsistence fishing	42.5%	43.3%	39.3%	41.6%	39.4%	45.9%	45.1%	45.6%	42.2%	44.2%	4.7%	3.3%
Estimated number of subsistence halibut	43,926	52,412	55,875	54,089	53,697	48,604	45,434	43,332	38,162	37,093	-2.8%	-23.4%
Estimated net pounds of subsistence halibut	1,041,330	1,193,162	1,178,222	1,125,312	1,032,293	886,988	861,359	797,560	697,656	686,991	-1.5%	-29.9%
Average weight of subsistence-harvested halibut	23.7	22.8	21.1	20.8	19.2	18.2	19.0	18.4	18.3	18.5	1.3%	-8.2%
Average harvest per fisher, fish	8.9	8.8	9.9	9.2	9.1	9.2	8.6	8.7	8.1	8.4	4.1%	-5.4%
Average harvest per fisher, net pounds	210.7	199.4	209.6	190.4	174.0	167.3	162.6	159.8	148.3	156.3	5.4%	-13.3%
Sport halibut fishing by SHARC holders												
Estimated number of sport halibut fishers	2,580	3,107	3,147	2,894	2,566	2,609	2,528	2,297	2,070	2,231	7.8%	-15.6%
Percent of all SHARC holders sport fishing	22.2%	22.5%	22.0%	20.4%	17.1%	22.6%	21.5%	21.0%	18.6%	22.4%	20.8%	7.6%
Estimated number of sport halibut	10,784	12,530	14,096	11,219	10,959	11,427	9,938	8,651	8,235	8,727	6.0%	-19.7%
Estimated net pounds of sport halibut	245,947	251,092	293,415	223,639	196,198	197,760	165,318	149,241	135,224	146,174	8.1%	-29.2%
Average weight of sport-harvested halibut	22.8	20.0	20.8	19.9	17.9	17.3	16.6	17.3	16.4	16.7	2.0%	-10.9%
Average harvest per fisher, fish	4.2	4.0	4.5	3.9	4.3	4.4	3.9	3.8	4.0	3.9	-1.7%	-4.6%
Average harvest per fisher, net pounds	95.3	80.8	93.2	77.3	76.5	75.8	65.4	65.0	65.3	65.5	0.3%	-15.1%
Total number of halibut fishers												
Estimated number of fishers, subsistence or sport	5,941	6,980	6,876	6,899	6,787	6,202	6,153	5,835	5,496	5,358	-2.5%	-15.6%
Percent of total SHARC holders who fished	51.1%	50.5%	48.1%	48.6%	45.1%	53.6%	52.4%	53.3%	49.3%	53.9%	9.3%	7.3%
Incidental rockfish harvests												
Number of rockfish harvesters	1,239	1,616	1,544	1,529	1,568	1,404	1,427	1,322	1,220	1,161	-4.8%	-18.8%
Percent of all SHARC holders	10.6%	11.7%	10.8%	10.8%	10.4%	12.1%	12.2%	12.1%	10.9%	11.7%	6.7%	3.4%
Percent of all subsistence halibut fishers	25.1%	27.0%	27.5%	25.9%	26.4%	26.5%	27.0%	26.5%	25.9%	26.4%	1.9%	0.0%
Number of rockfish harvested	14,870	19,001	12,395	16,945	15,266	14,346	13,315	12,851	10,853	9,568	-11.8%	-33.7%
Average number of rockfish harvested, all subsistence halibut fishers	3.0	3.2	2.2	2.9	2.6	2.7	2.5	2.6	2.3	2.2	-5.6%	-18.1%
Average number of rockfish harvested, subsistence halibut fishers who harvested rockfish	12.0	11.8	8.0	11.1	9.7	10.2	9.3	9.7	8.9	8.2	-7.4%	-18.3%
Incidental lingcod harvests												
Number of lingcod harvesters	699	953	862	927	959	854	900	732	730	696	-4.6%	-17.8%
Percent of all SHARC holders	6.0%	6.9%	6.0%	6.5%	6.4%	7.4%	7.7%	6.7%	6.5%	7.0%	6.9%	4.8%
Percent of all subsistence halibut fishers	14.1%	15.9%	15.3%	15.7%	16.2%	16.1%	17.0%	14.7%	15.5%	15.8%	2.1%	1.4%
Number of lingcod harvested	3,298	4,407	2,355	3,486	3,402	3,479	3,390	2,864	2,305	2,247	-2.5%	-30.2%
Average number of lingcod harvested, all subsistence halibut fishers	0.7	0.7	0.4	0.6	0.6	0.7	0.6	0.6	0.5	0.5	4.4%	-13.9%
Average number of lingcod harvested, subsistence halibut fishers who harvested lingcod	4.7	4.6	2.7	3.8	3.5	4.1	3.8	3.9	3.2	3.2	2.3%	-15.3%

Sources Fall and Koster 2013; ADF&G Division of Subsistence, SHARC surveys, 2013.

Table 20.–Percentage of SHARCs that expired or were valid in 2012, by SHARC type.

	Percentage of SHARCs					
	Tribal		Rural		All	
	Expired	Active	Expired	Active	Expired	Active
Never responded to harvest survey	26.0%	14.46%	22.1%	6.7%	23.8%	9.4%
Never subsistence fished for halibut	37.2%	14.9%	18.3%	4.6%	26.5%	8.1%
Never harvested halibut	6.8%	15.9%	12.4%	13.9%	10.0%	14.6%
Harvest: low (1 to 100 lb)	15.2%	25.2%	22.9%	33.0%	19.5%	30.3%
Harvest: medium (101 to 1000 lb)	14.0%	27.8%	23.5%	40.9%	19.4%	36.4%
Harvest: high (>1000 lb)	0.9%	1.7%	0.8%	0.8%	0.8%	1.1%
All harvesters (any amount)	30.0%	54.8%	47.2%	74.7%	39.8%	67.9%
All fishers (includes never harvested)	36.8%	70.7%	59.6%	88.7%	49.8%	82.5%
All SHARC holders	59.9%	40.1%	50.8%	49.2%	54.3%	45.7%

Table 21.–Removals of Pacific halibut in Alaska, 1993–2012.

	Removals of Pacific halibut (million lb, net weight)			
Year	Total removals[a]	Commercial harvests	Sport harvests	Subsistence harvests[b]
1993	71.410	49.309	7.151	
1994	69.040	46.003	6.551	
1995	55.000	34.450	6.339	
1996	59.100	38.080	6.967	
1997	74.090	52.988	7.783	
1998	77.230	56.844	7.316	
1999	81.830	61.904	6.182	
2000	78.580	57.661	7.644	
2001	80.400	60.572	6.643	
2002	81.870	62.754	6.353	
2003	83.030	61.458	7.725	1.041
2004	83.650	61.022	8.603	1.193
2005	82.680	58.659	8.534	1.178
2006	78.140	55.997	7.923	1.125
2007	76.280	53.151	9.401	1.032
2008	73.180	50.852	8.650	0.887
2009	66.140	45.471	7.195	0.861
2010	62.650	43.028	6.296	0.798
2011	50.220	32.835	5.468	0.698
2012	42.470	25.881	5.372	0.687
2012 compared to previous 9-year average	-41.7%	-49.6%	-30.7%	-29.9%
Average annual change, 2003–2012	-4.9%	-5.8%	-3.0%	-3.4%

Sources Stewart et al. 2012, 183, 184; Gilroy 2013, 24.
a. Total removals includes commercial harvests, IPHC research, sport harvests, subsistence harvests, wastage, and bycatch.
b. Subsistence harvests authorized beginning 2003. No annual statewide harvest data available for prior years.

Table 22.–Population estimates of Pacific halibut, 1996–2013.

	Million lb net weight	
Year	Total biomass	Exploitable biomass
1996	1,225.510	518.760
1997	1,270.410	569.700
1998	1,243.760	575.370
1999	1,174.190	555.380
2000	1,062.680	503.880
2001	941.560	445.440
2002	927.200	418.530
2003	893.570	380.420
2004	837.310	339.080
2005	781.800	300.620
2006	772.500	268.460
2007	795.460	236.330
2008	788.500	210.100
2009	750.720	191.320
2010	716.080	180.560
2011	667.250	173.910
2012	632.770	178.840
2013	598.030	186.490
2012 compared to previous 9 year average	-18.68%	-29.43%
Annual change 2003–2012	-2.9%	-5.3%

Source Stewart et al. 2012, 113.

Table 23.– Changes in estimated harvests, valid SHARCs, estimated number of fishers, and average harvest per fisher in the Alaska subsistence halibut fishery, in regulatory areas 2C and 4 and all Alaska, 2003–2012.

	Estimated harvests			Valid SHARCs[a]			Estimated fishers			Average harvest per fisher		
Year	Area 4	Area 2C	Alaska	Area 4	Area 2C	Alaska	Area 4	Area 2C	Alaska	Area 4	Area 2C	Alaska
2003	104,815	623,538	1,041,330	1,535	7,227	11,635	541	3,082	4,942	193.7	202.3	210.7
2004	78,950	677,084	1,193,162	1,692	8,295	13,813	547	3,552	5,984	144.3	190.6	199.4
2005	104,649	598,072	1,178,222	1,746	8,484	14,306	686	3,245	5,621	152.5	184.3	209.6
2006	117,390	580,117	1,125,312	1,744	8,335	14,206	590	3,298	5,909	199.1	175.9	190.4
2007	87,359	524,897	1,032,293	1,804	8,756	15,047	554	3,349	5,933	157.7	156.7	174.0
2008	48,976	458,360	886,988	721	6,912	11,565	304	3,060	5,303	161.2	149.8	167.3
2009	50,391	456,997	861,359	664	7,190	11,733	252	3,216	5,296	200.2	142.1	162.6
2010	37,084	424,818	797,560	541	6,755	10,953	210	3,013	4,991	176.5	141.0	159.8
2011	22,574	386,967	697,656	542	6,969	11,145	188	2,859	4,705	120.0	135.3	148.3
2012	21,473	396,043	686,991	378	6,292	9,944	140	2,715	4,394	153.0	145.9	156.3
2012 compared to previous 9-year average	-70.4%	-24.7%	-29.9%	-69.0%	-17.8%	-21.8%	-67.4%	-14.8%	-18.8%	-9.2%	-11.6%	-13.6%
Annual percentage change	-7.95%	-3.65%	-3.40%	-7.54%	-1.29%	-1.45%	-7.41%	-1.19%	-1.11%	-2.11%	-2.79%	-2.58%

a. Valid SHARCs = SHARCs held by members of tribes and rural places in the regulatory area.

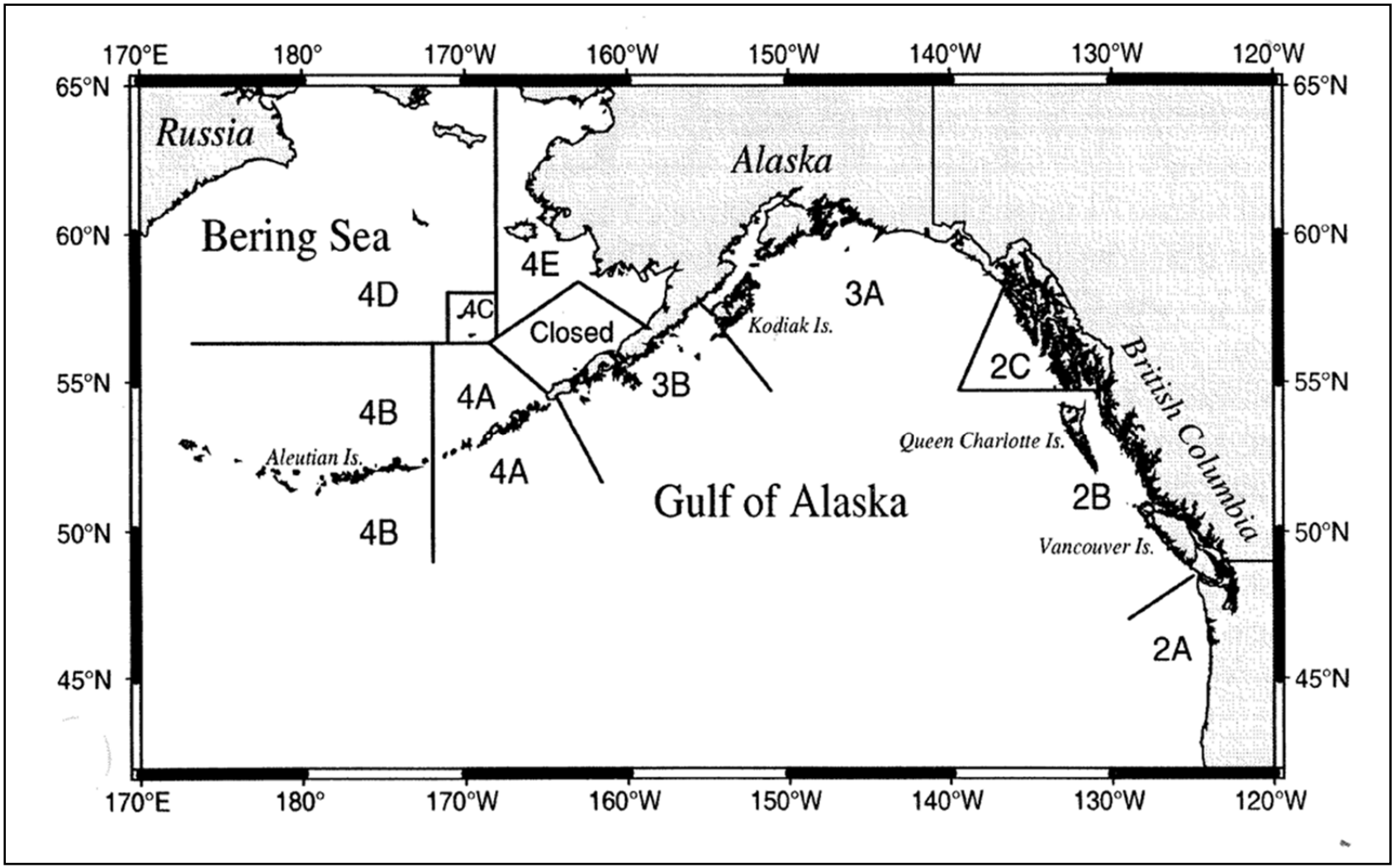


Figure 1.–Regulatory areas for the Pacific halibut fishery.

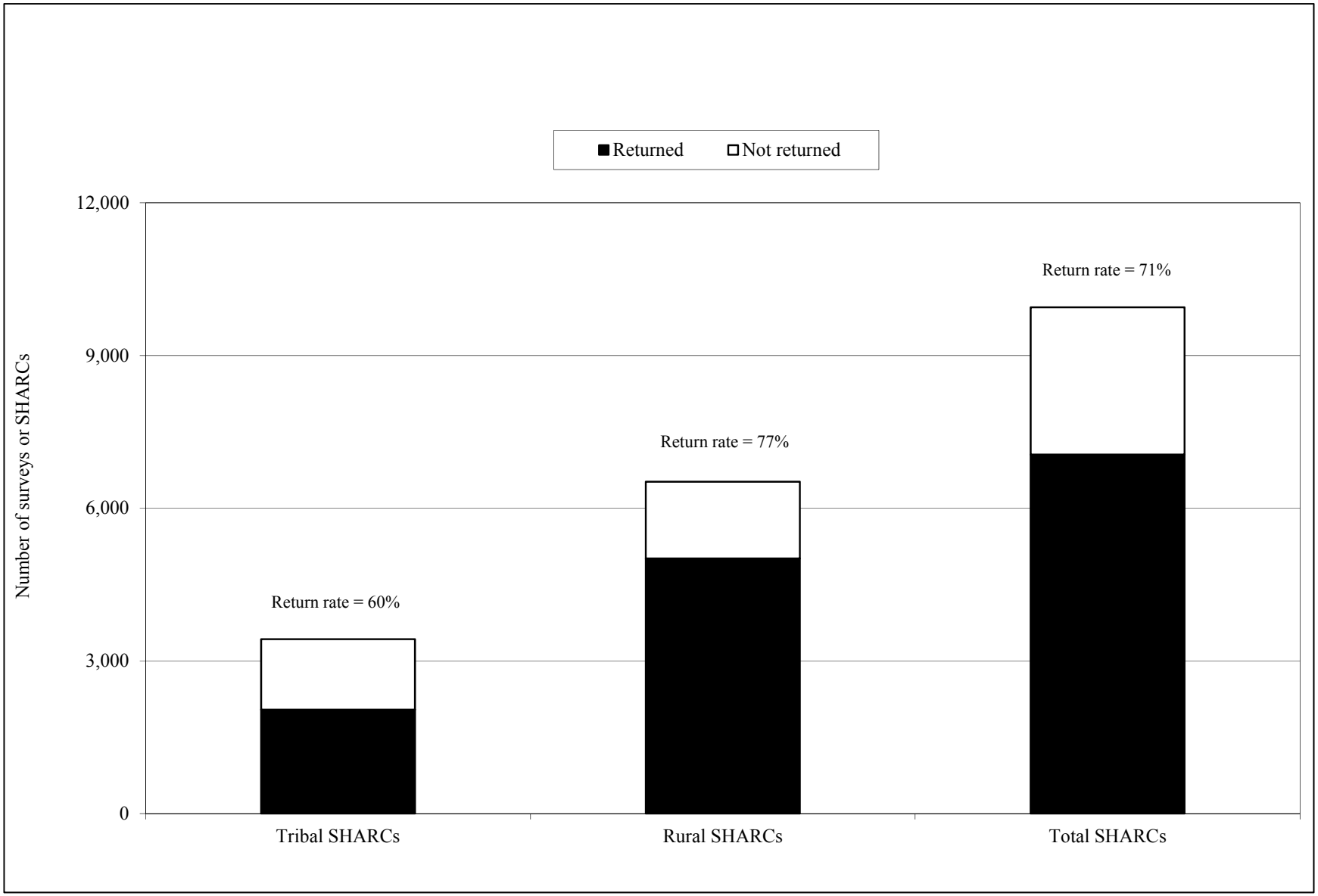


Figure 2.–Number of surveys returned and return rates for subsistence halibut surveys, by SHARC type, 2012.

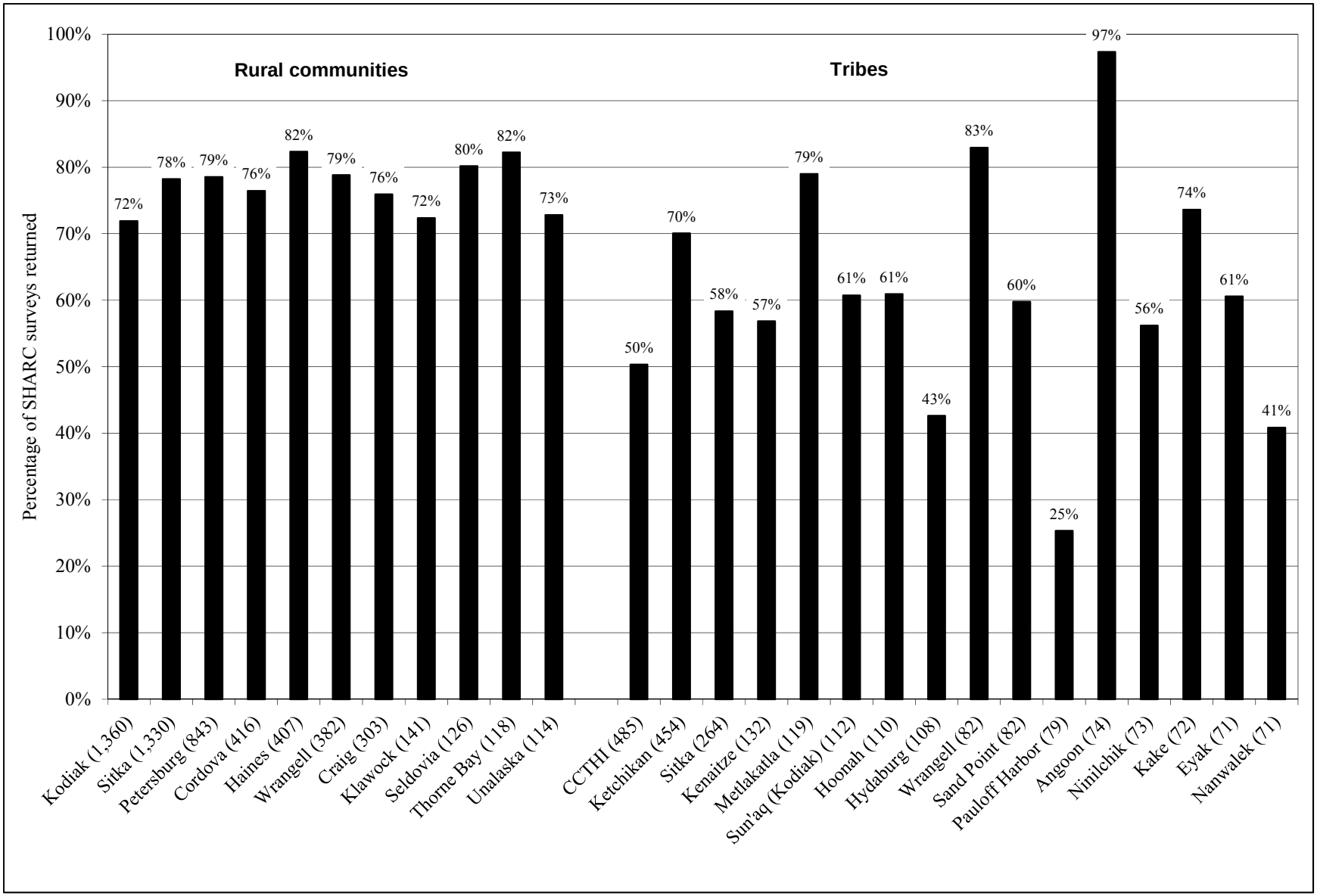


Figure 3.–SHARC survey return rates, communities with more than 100 SHARCs issued and tribes with more than 70 SHARCs issued, 2012.

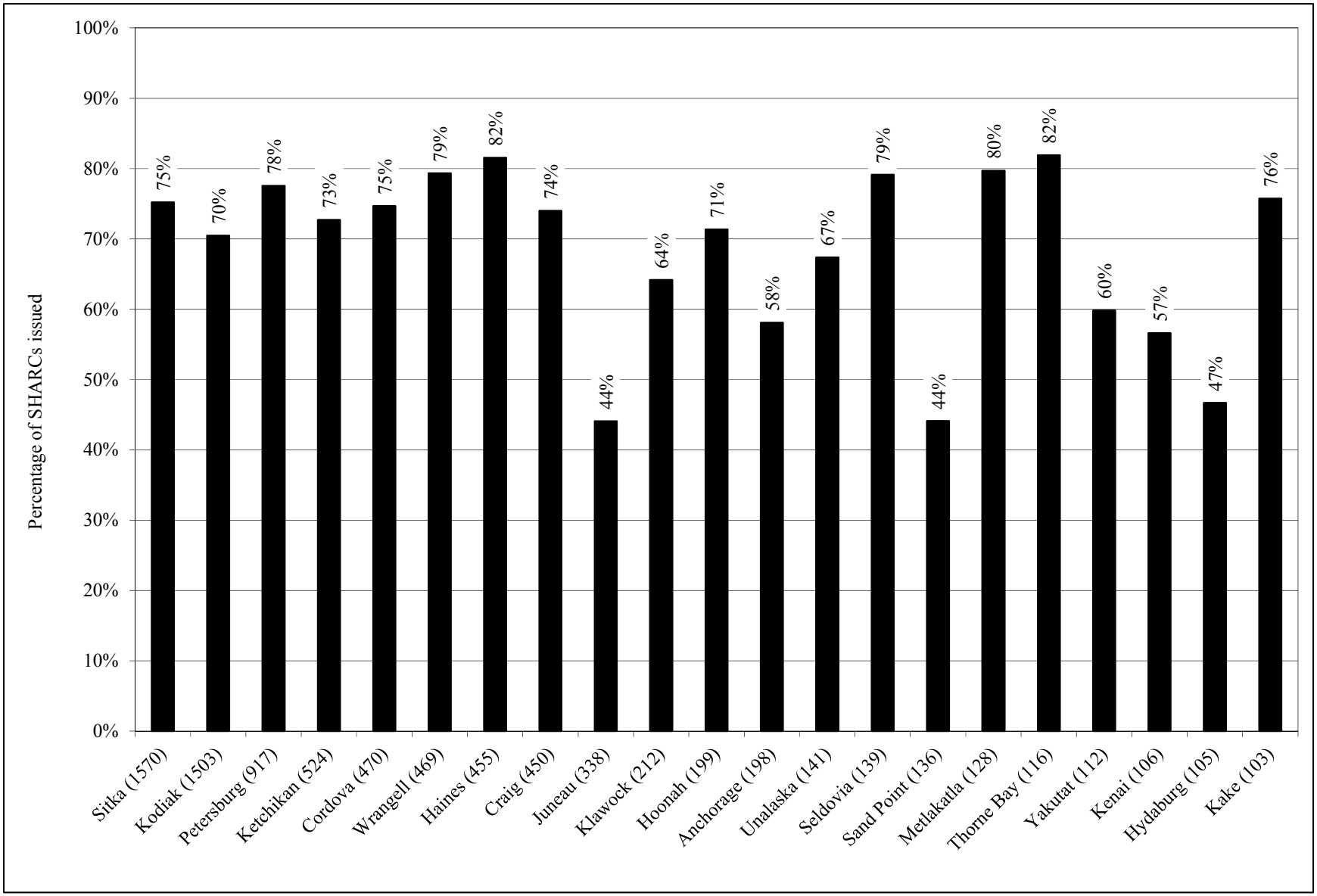


Figure 4.–Return rate by place of residence, 2012.

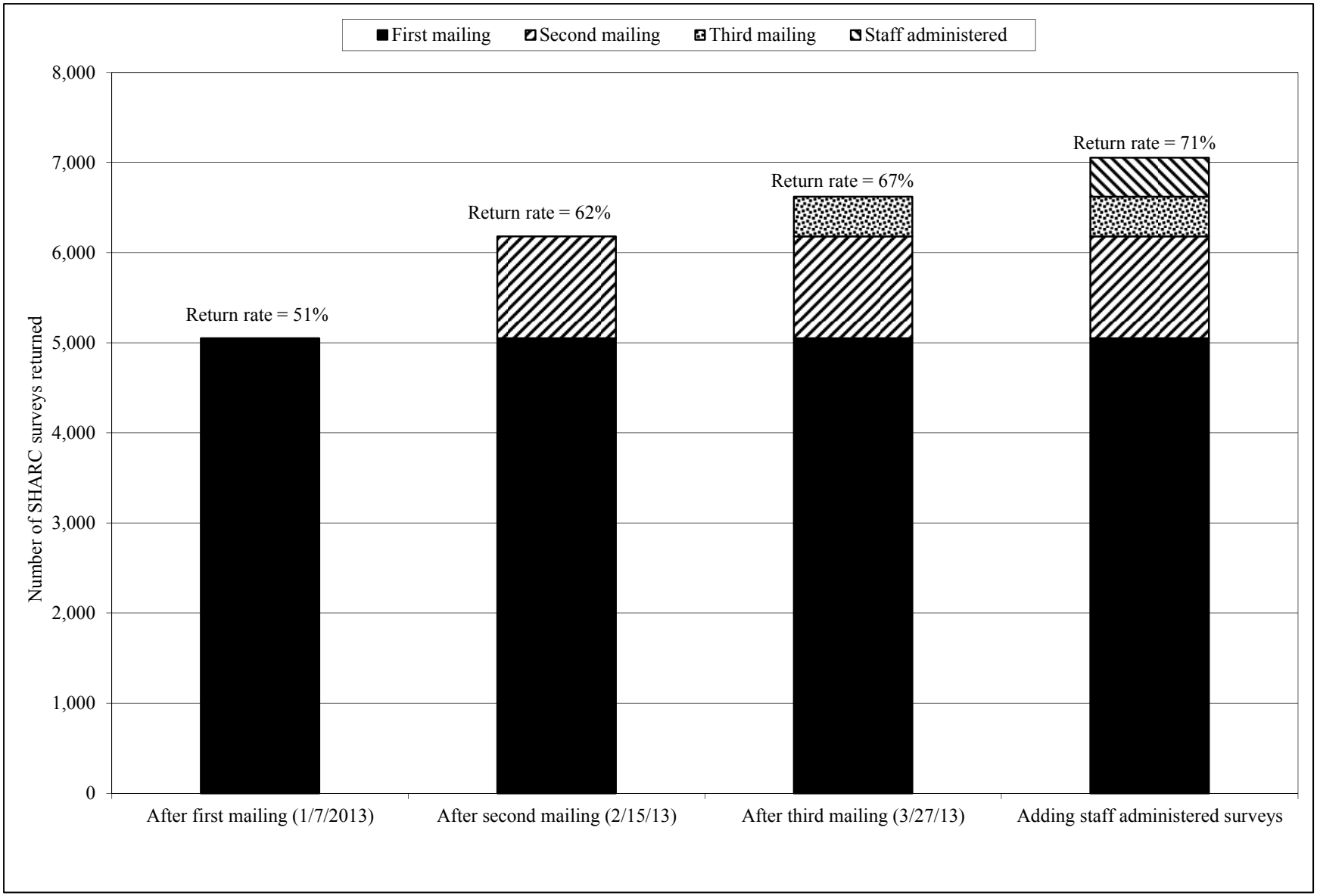


Figure 5.–Number of survey responses by response category, 2012.

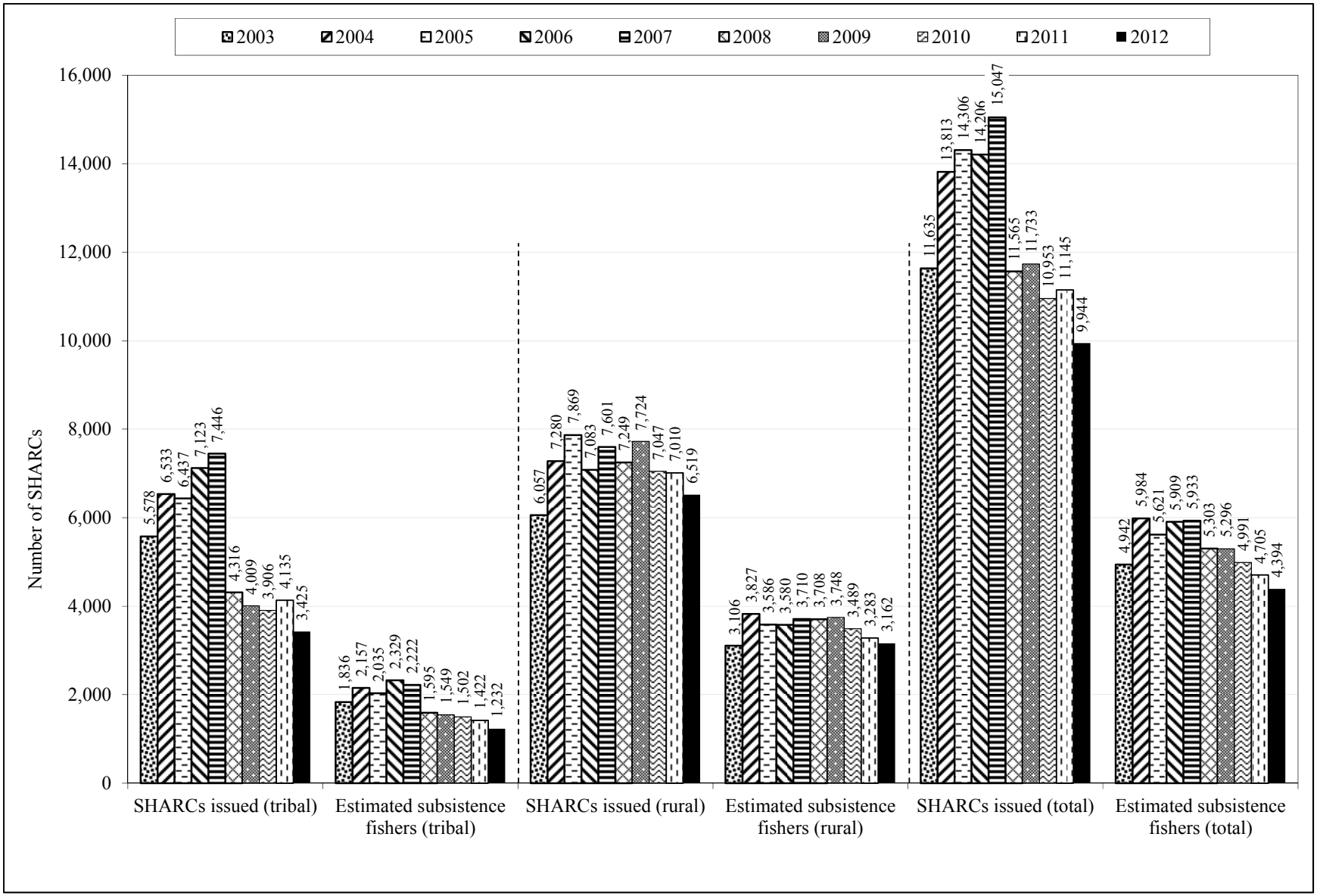


Figure 6.–Number of SHARCs issued and estimated number of subsistence halibut fishers by SHARC type, 2003–2012.

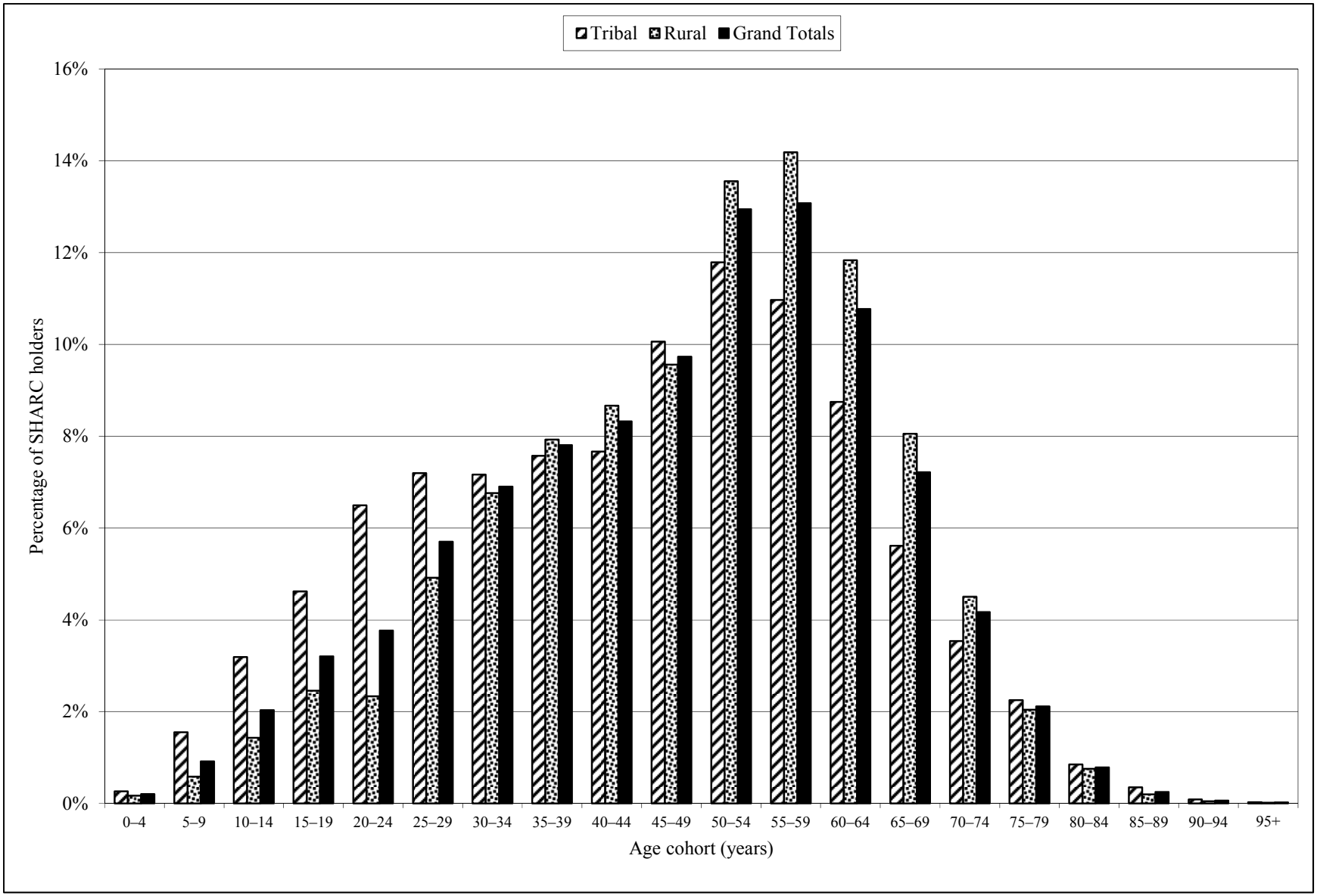


Figure 7.–Age of subsistence halibut registration certificate holders by SHARC type, 2012.

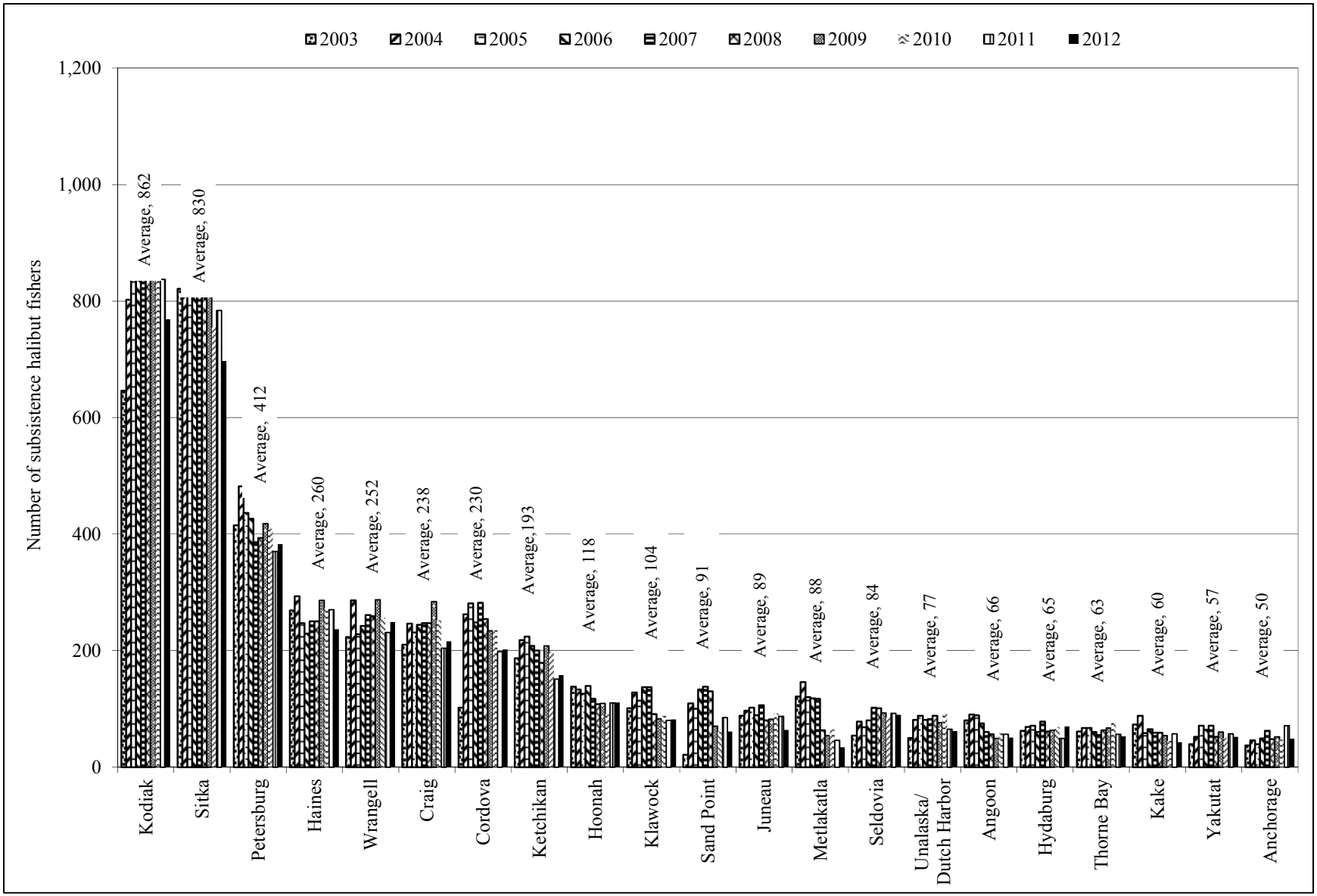


Figure 8.–Estimated number of subsistence halibut fishers by place of residence, 2003–2012, communities with 50 or more fishers in 2012.

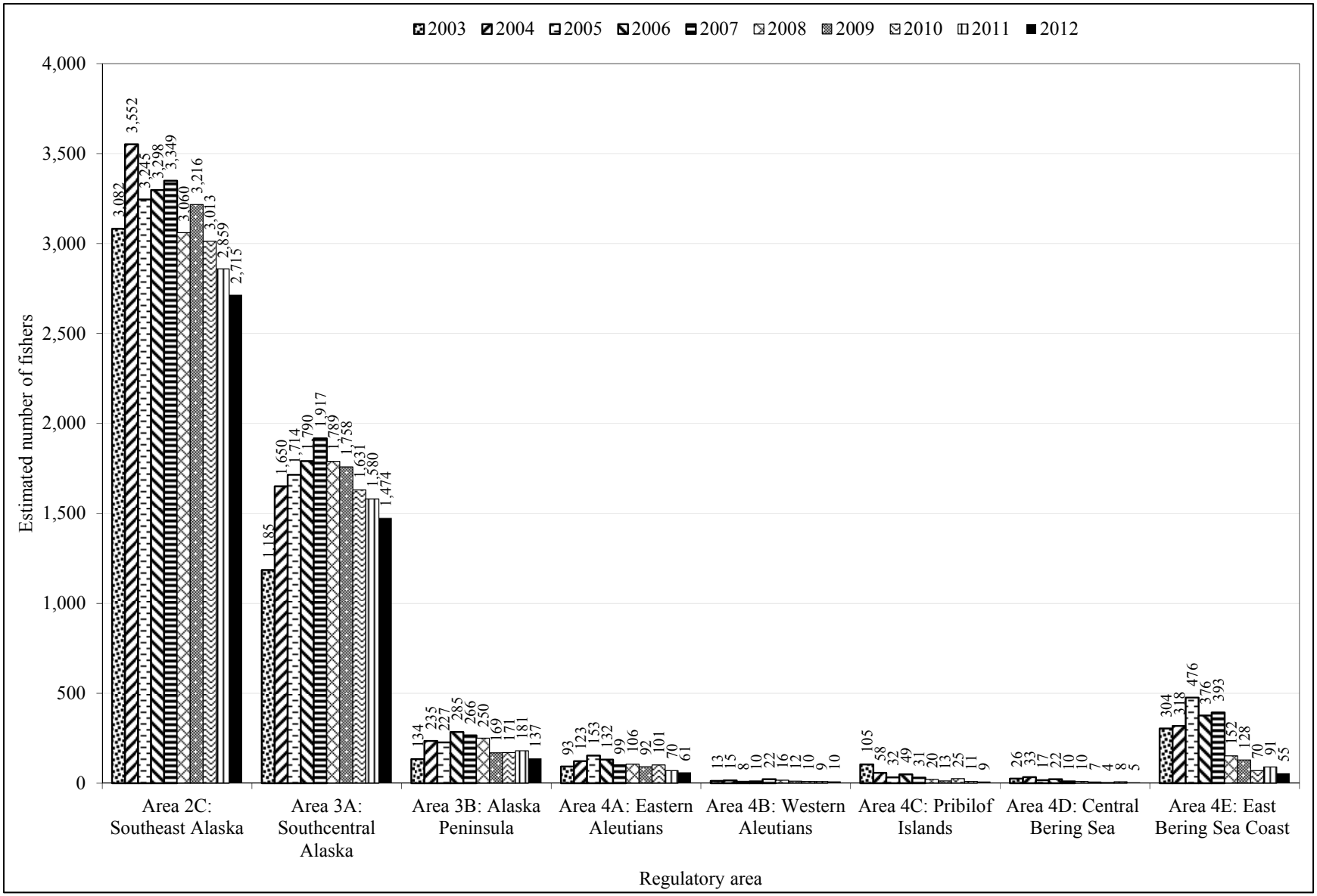


Figure 9.–Estimated number of Alaska subsistence halibut fishers, 2003–2012 by regulatory area fished.

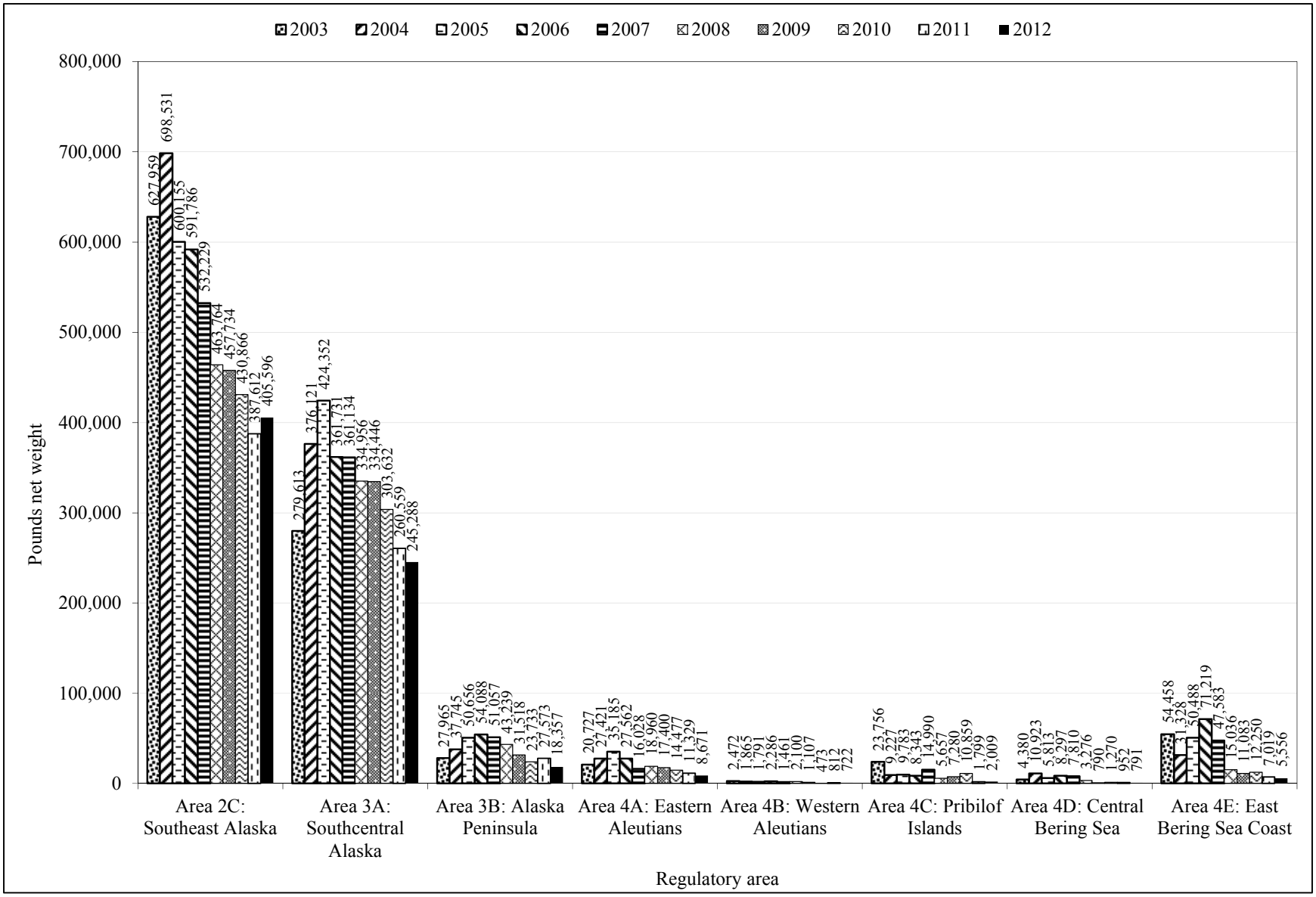


Figure 10.–Estimated subsistence halibut harvests, pounds net weight, by regulatory area of tribe and rural community, 2003–2012.

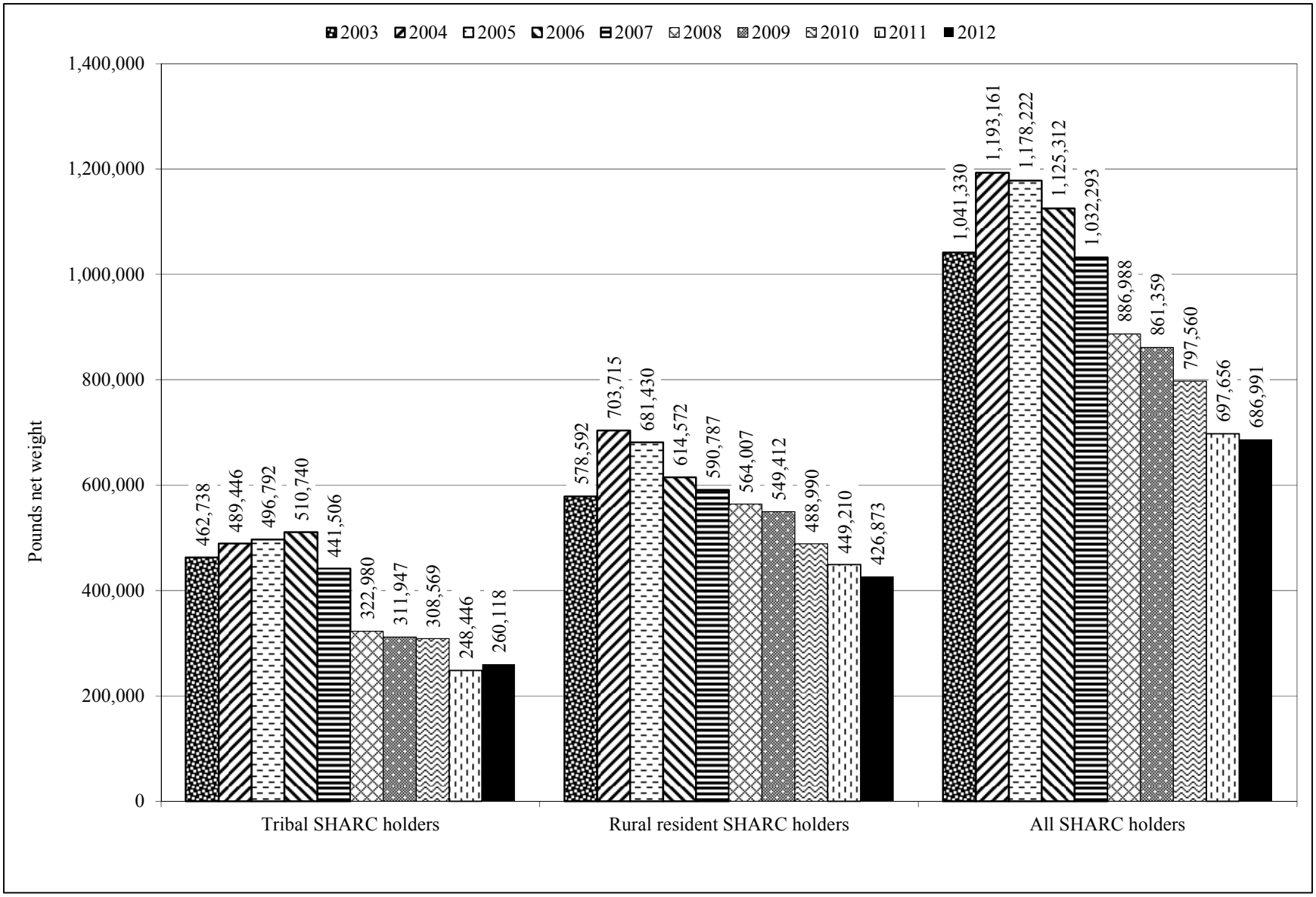


Figure 11.–Estimated Alaska subsistence halibut harvests in pounds net weight by SHARC type, 2003–2012.

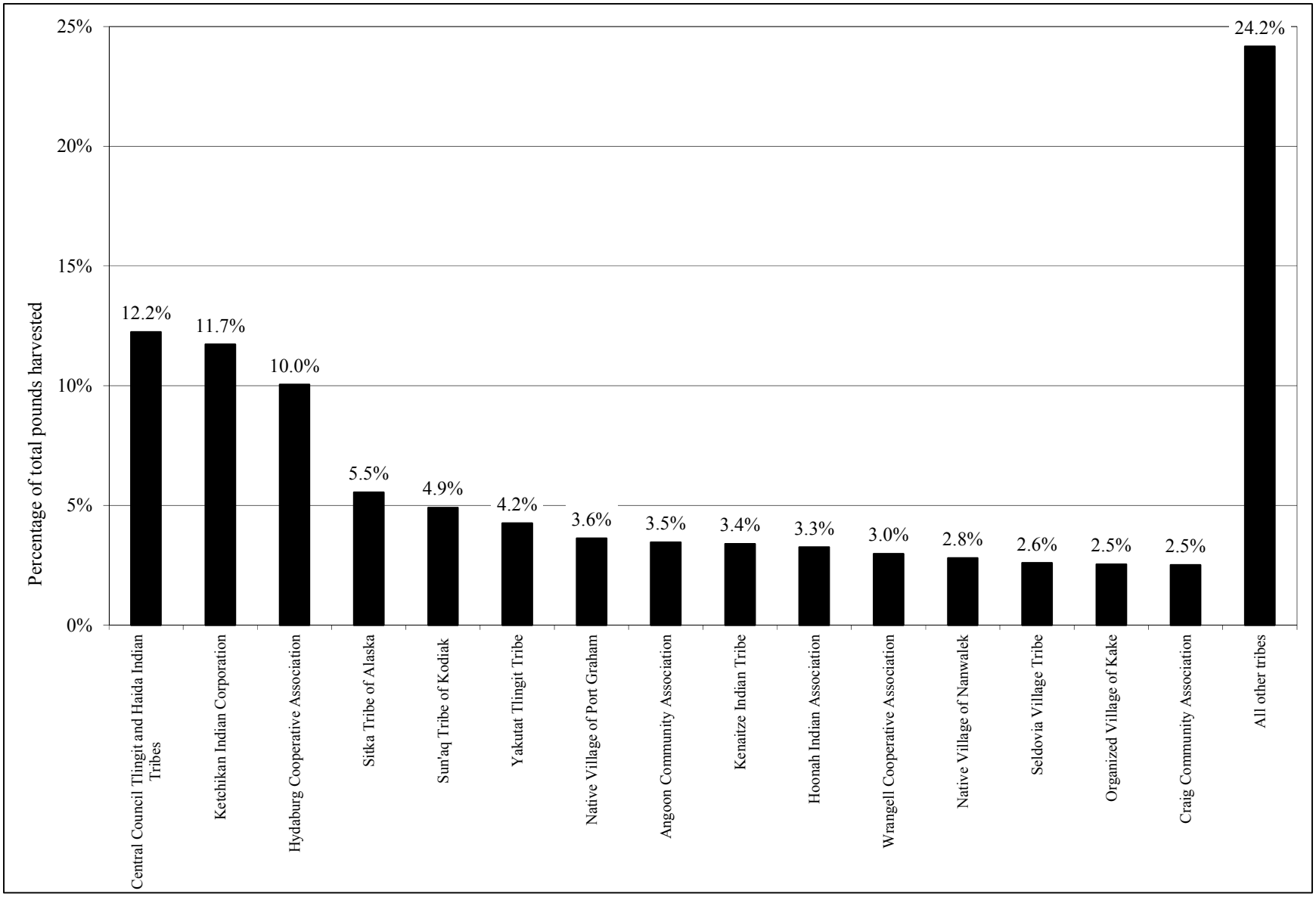


Figure 12.–Percentage of tribal subsistence halibut harvest by tribe, 2012.

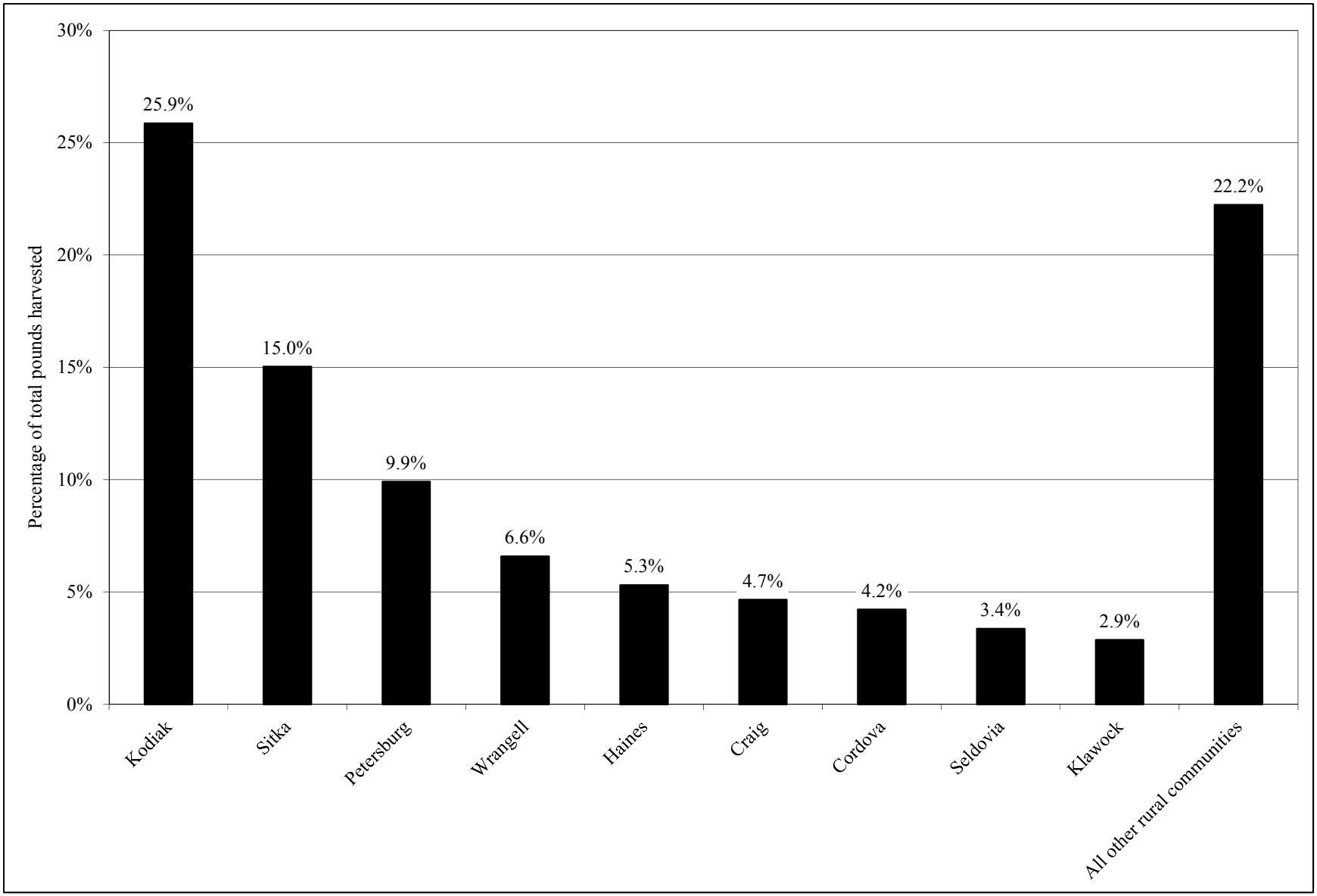


Figure 13.–Percentage of rural community subsistence halibut harvest by community, 2012.

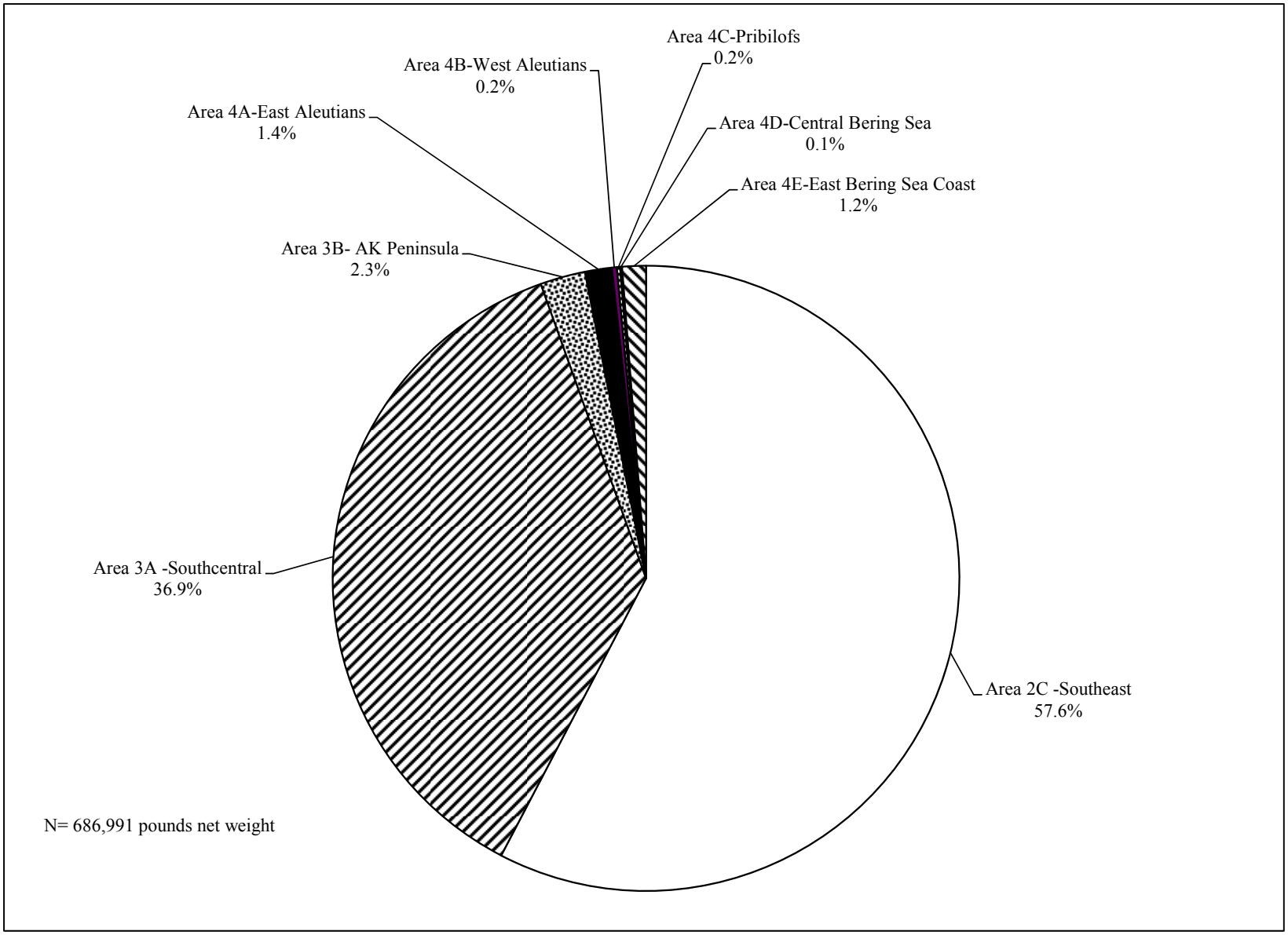


Figure 14.–Percentage of subsistence halibut harvest by regulatory area fished, 2012.

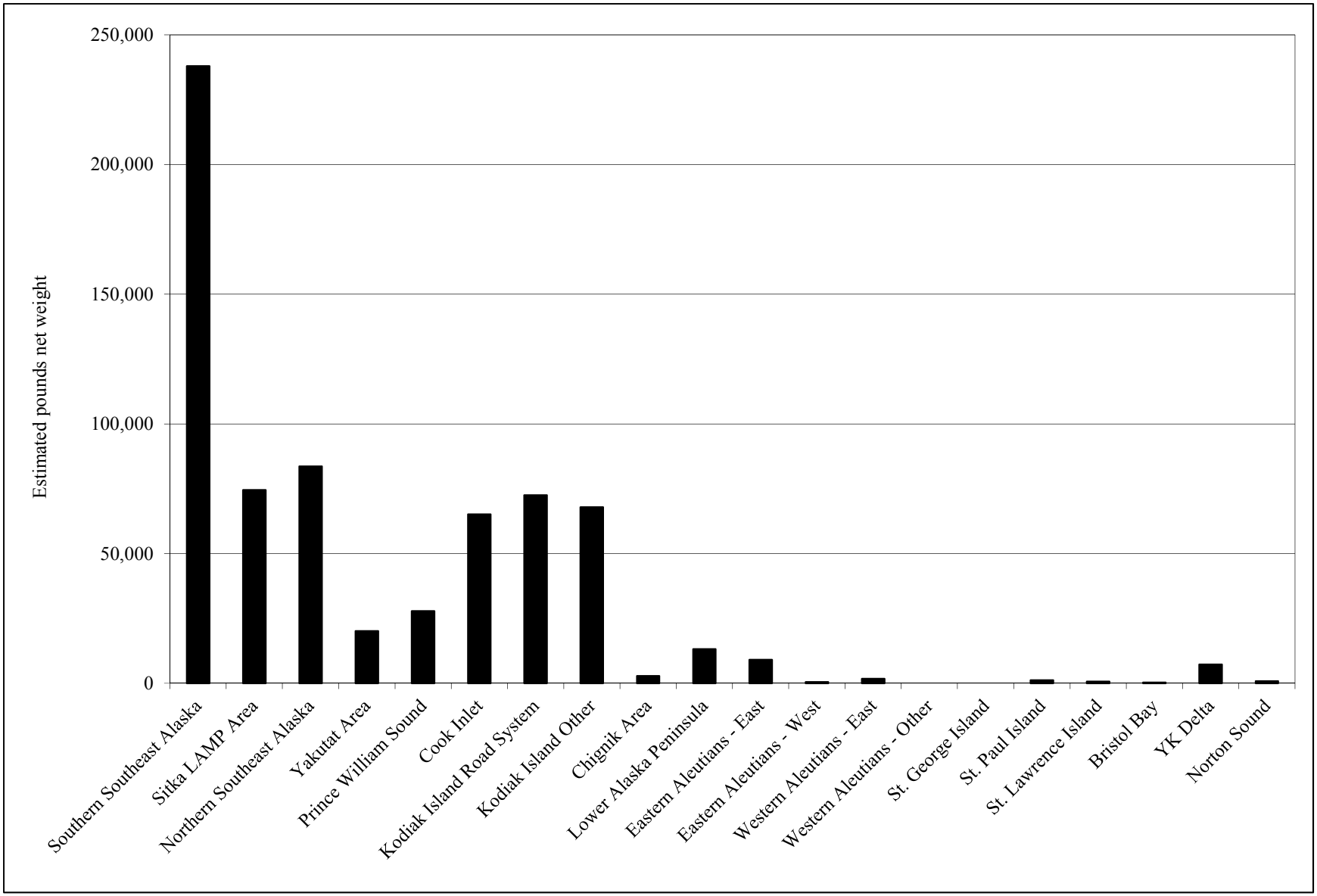


Figure 15.–Alaska subsistence halibut harvests by geographic area, 2012.

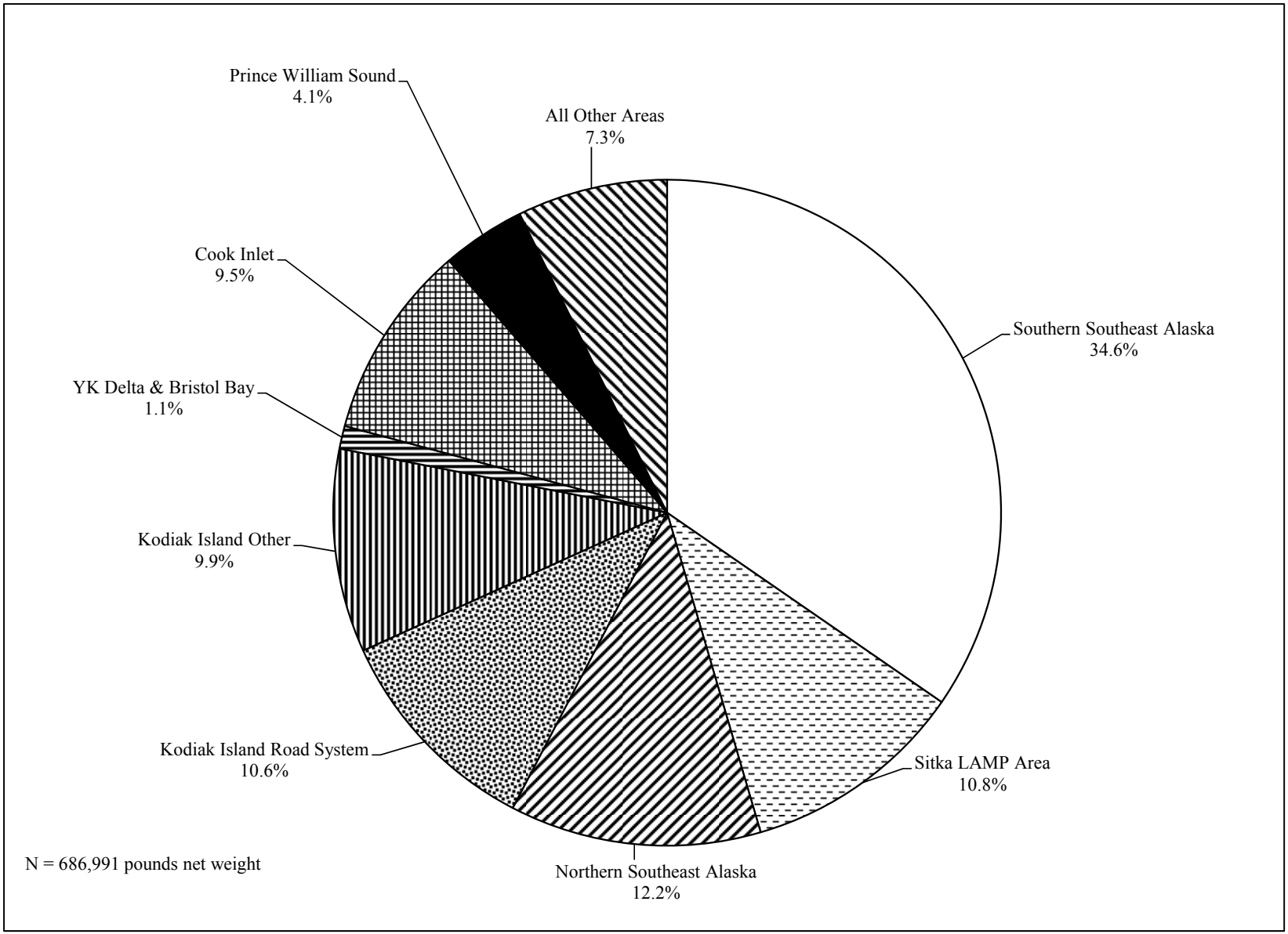


Figure 16.–Percentage of Alaska subsistence halibut harvest by geographic area, 2012.

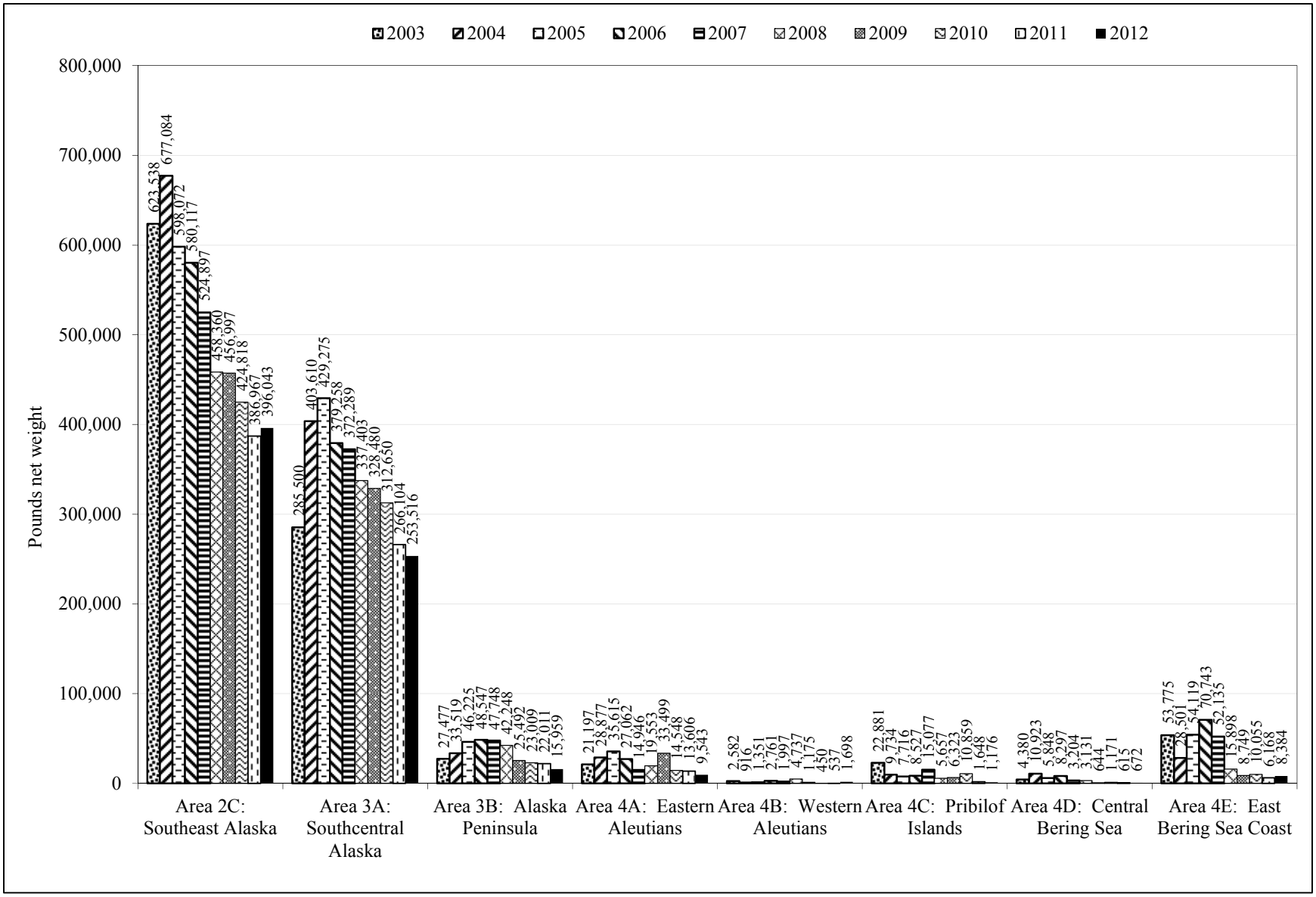


Figure 17.–Estimated subsistence halibut harvests, pounds net weight, by regulatory area fished, 2003–2012.

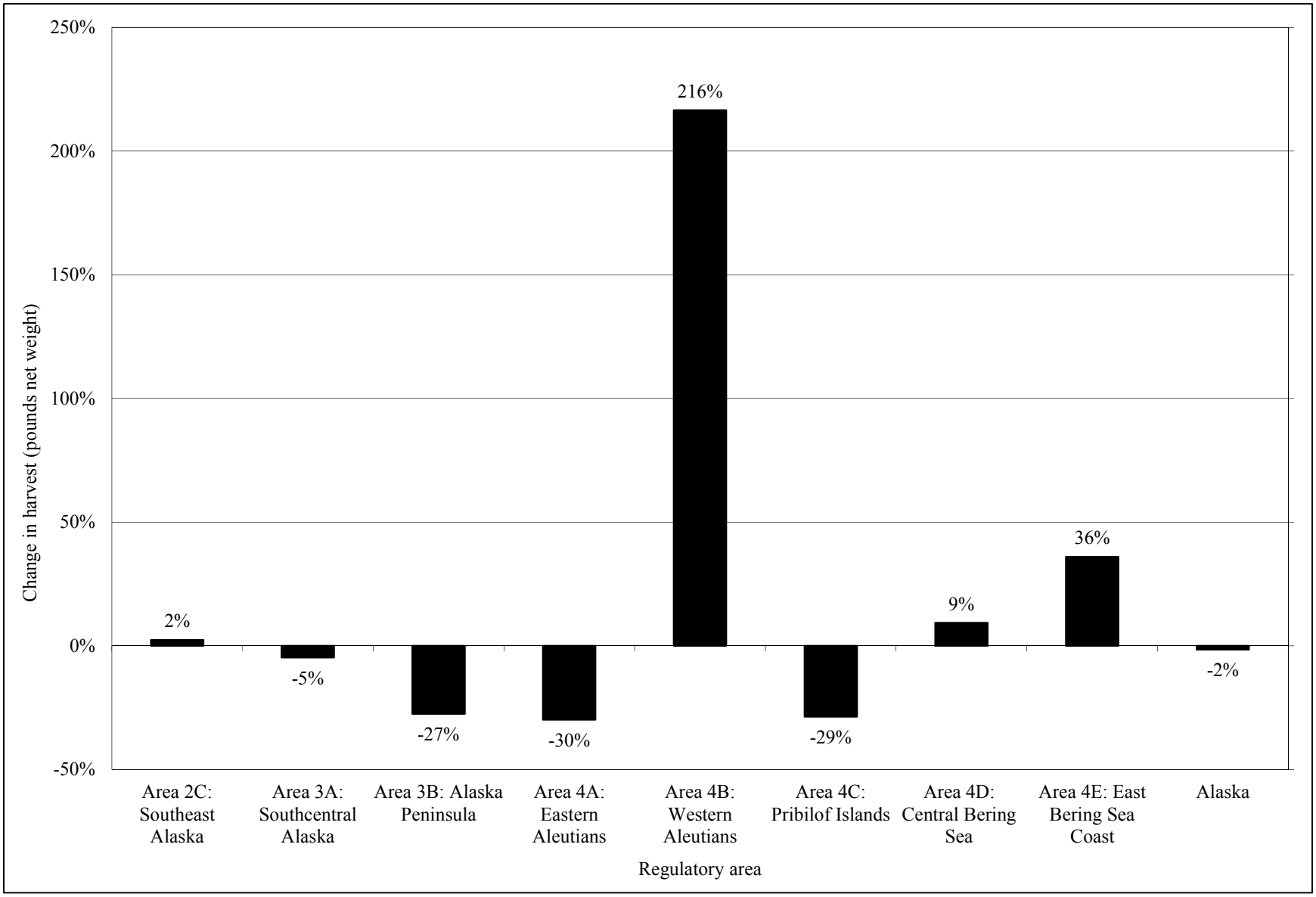


Figure 18.–Change in Alaska subsistence halibut harvests from 2011 through 2012 by regulatory area fished.

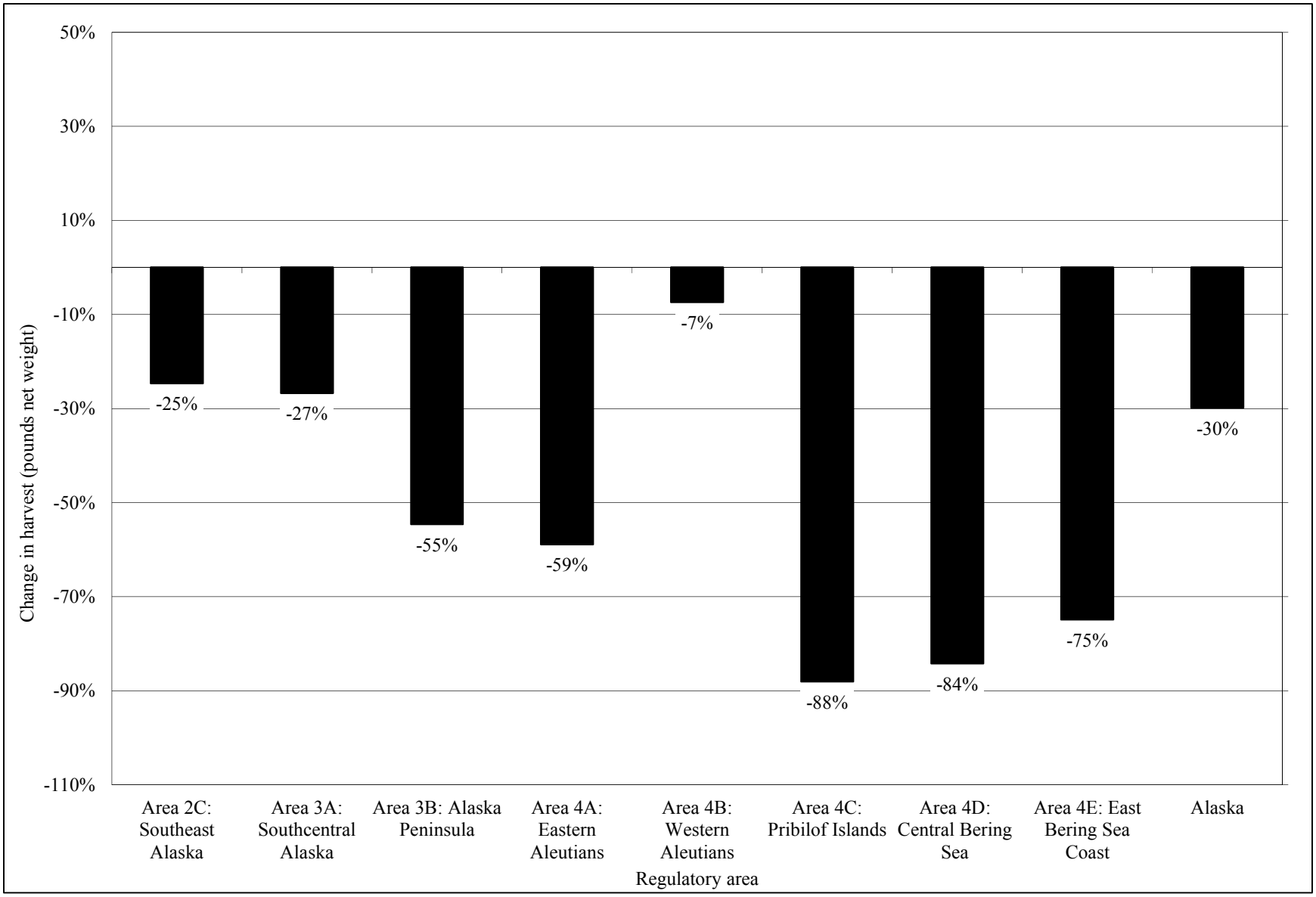


Figure 19.–Change in Alaska subsistence halibut harvests in 2012 compared to recent 9-year average (2003–2011) by regulatory area fished.

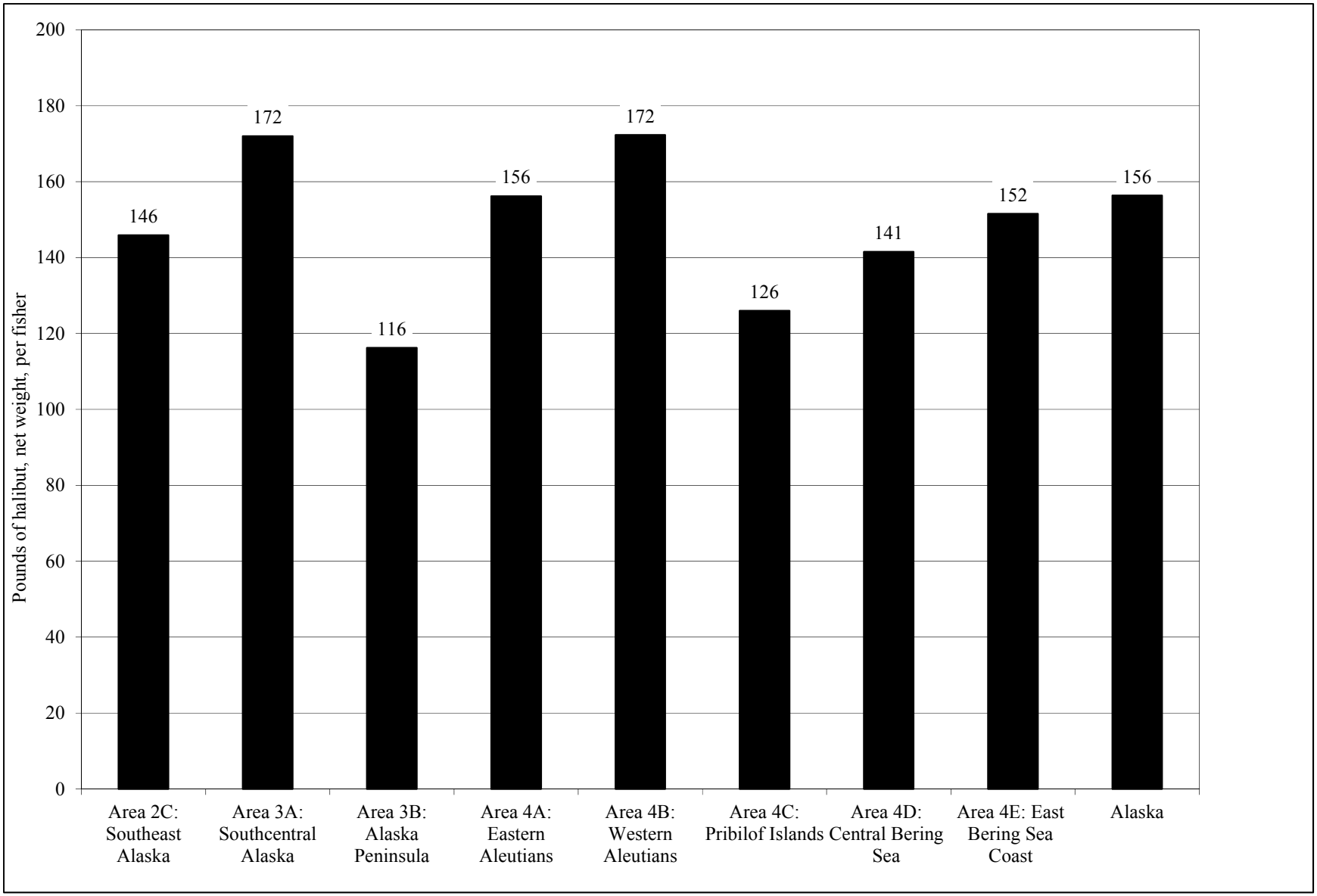


Figure 20.–Average subsistence harvest of halibut per fisher in Alaska by regulatory area, in pounds net weight, 2012.

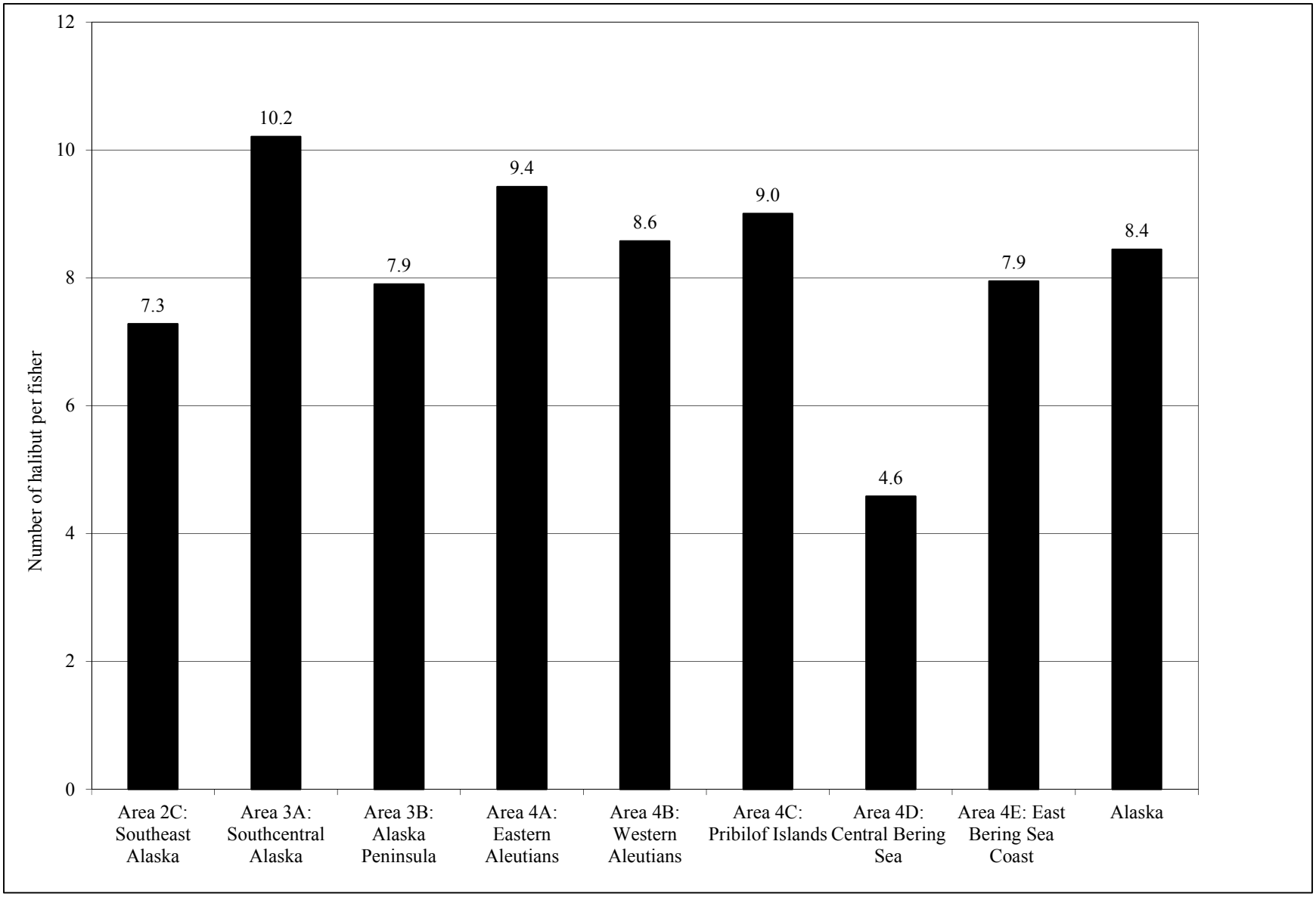


Figure 21.–Average subsistence harvest of halibut per fisher in Alaska by regulatory area, in number of fish, 2012.

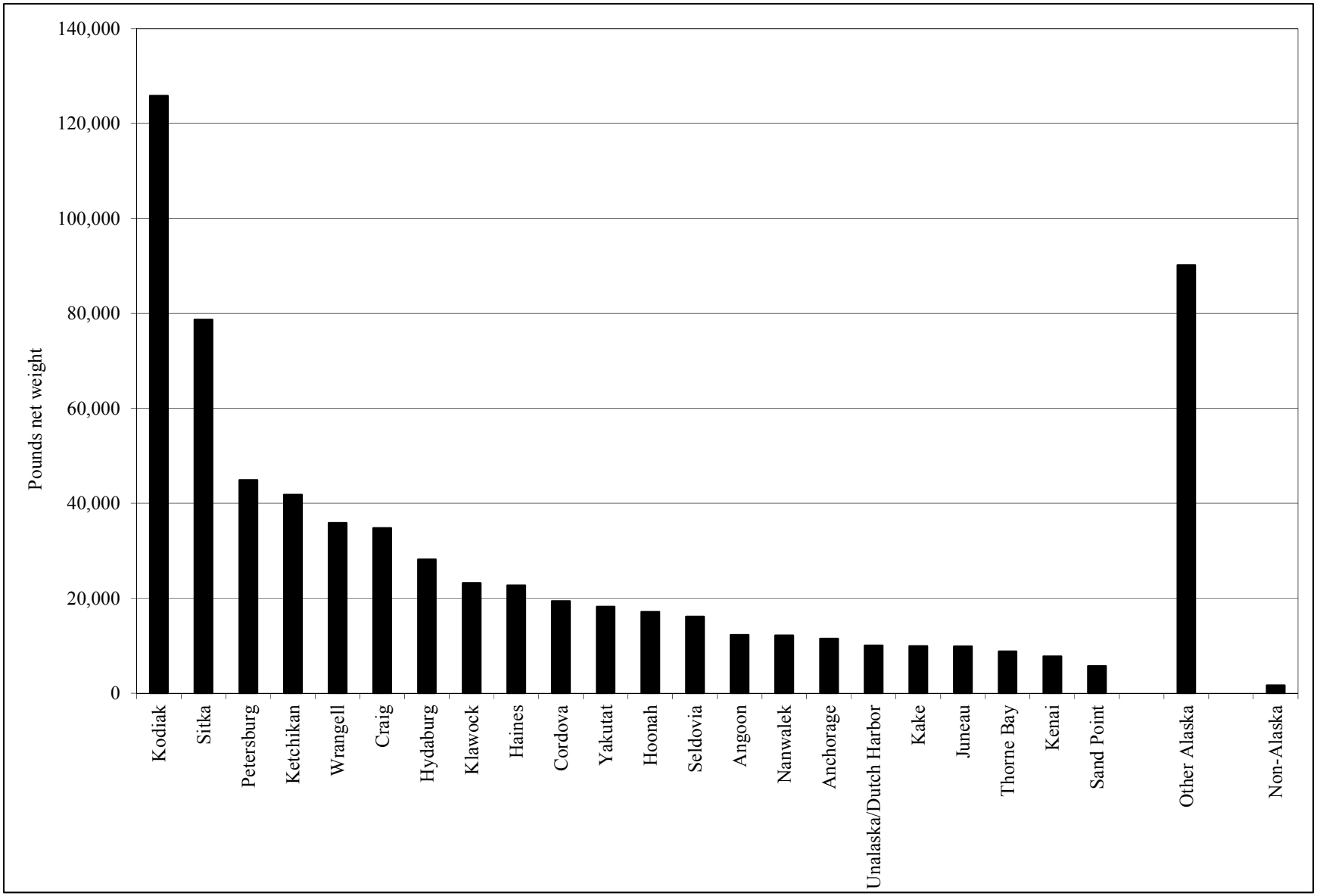


Figure 22.–Alaska subsistence halibut harvests by place of residence, 2012.

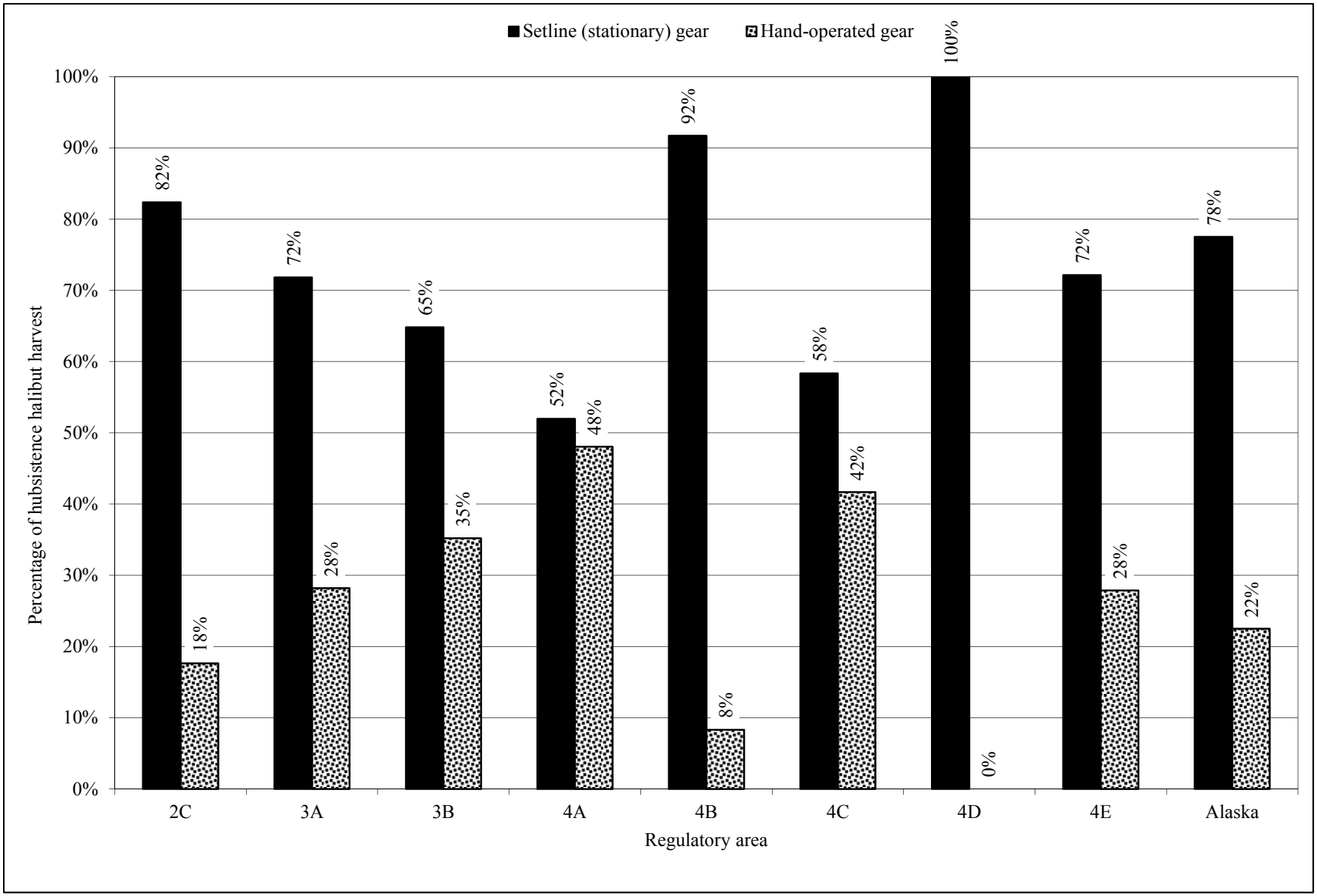


Figure 23.–Percentage of subsistence halibut harvest by gear type by regulatory area, 2012.

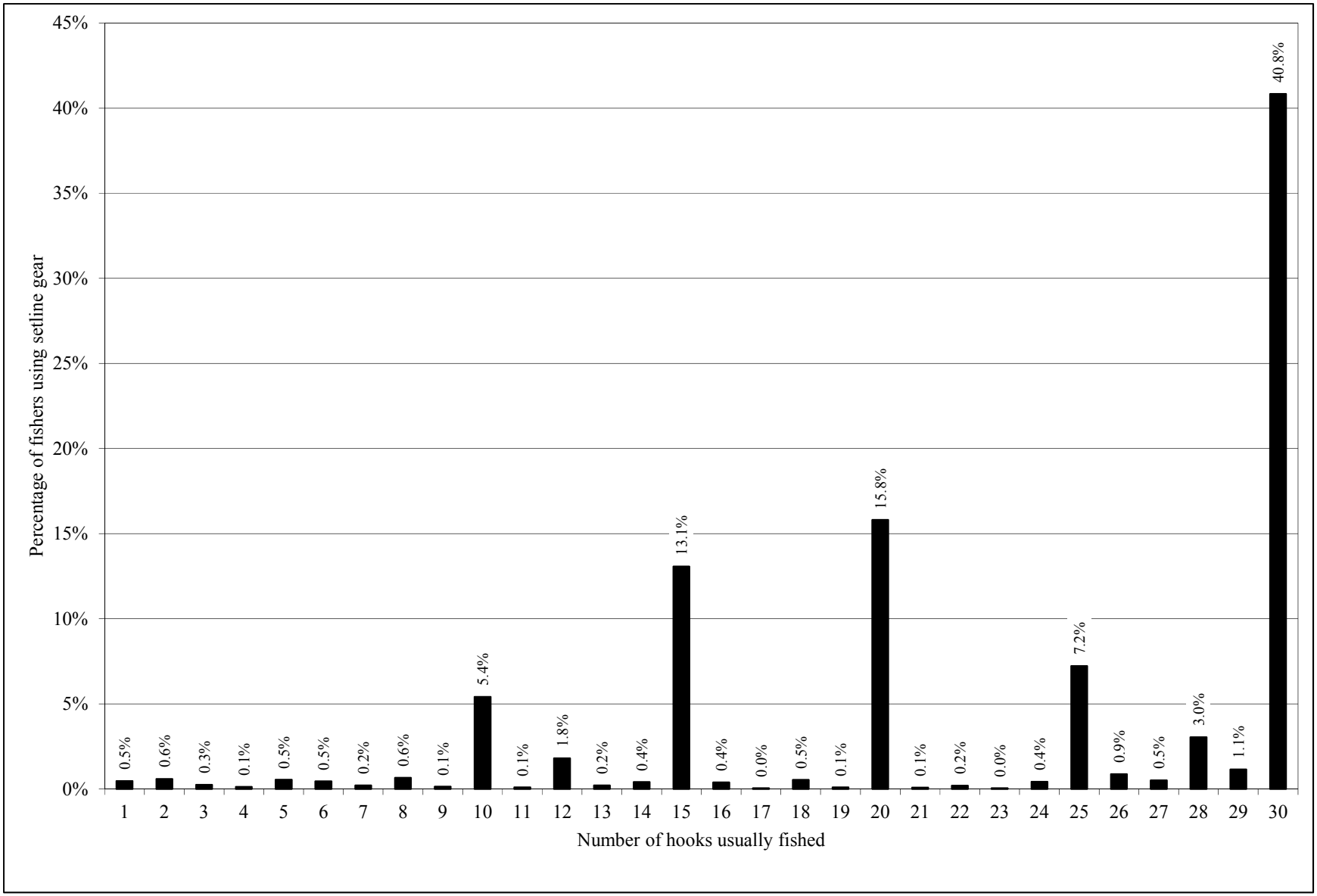


Figure 24.–Number of hooks usually fished, percentage of fishers using setline (stationary) gear, Alaska subsistence halibut fishery, 2012.

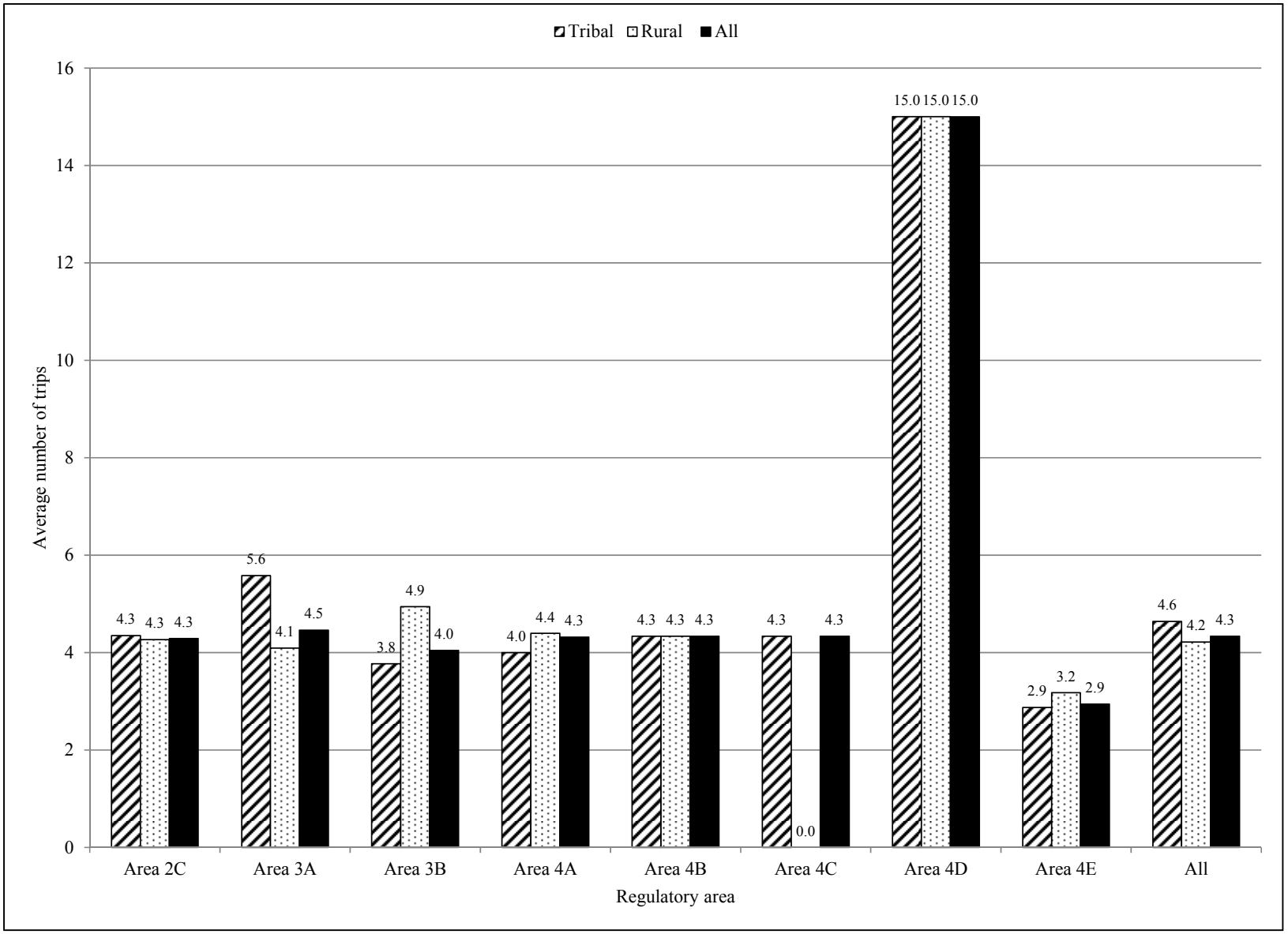


Figure 25.–Average number of subsistence fishing trips for halibut by regulatory area and SHARC type, 2012.

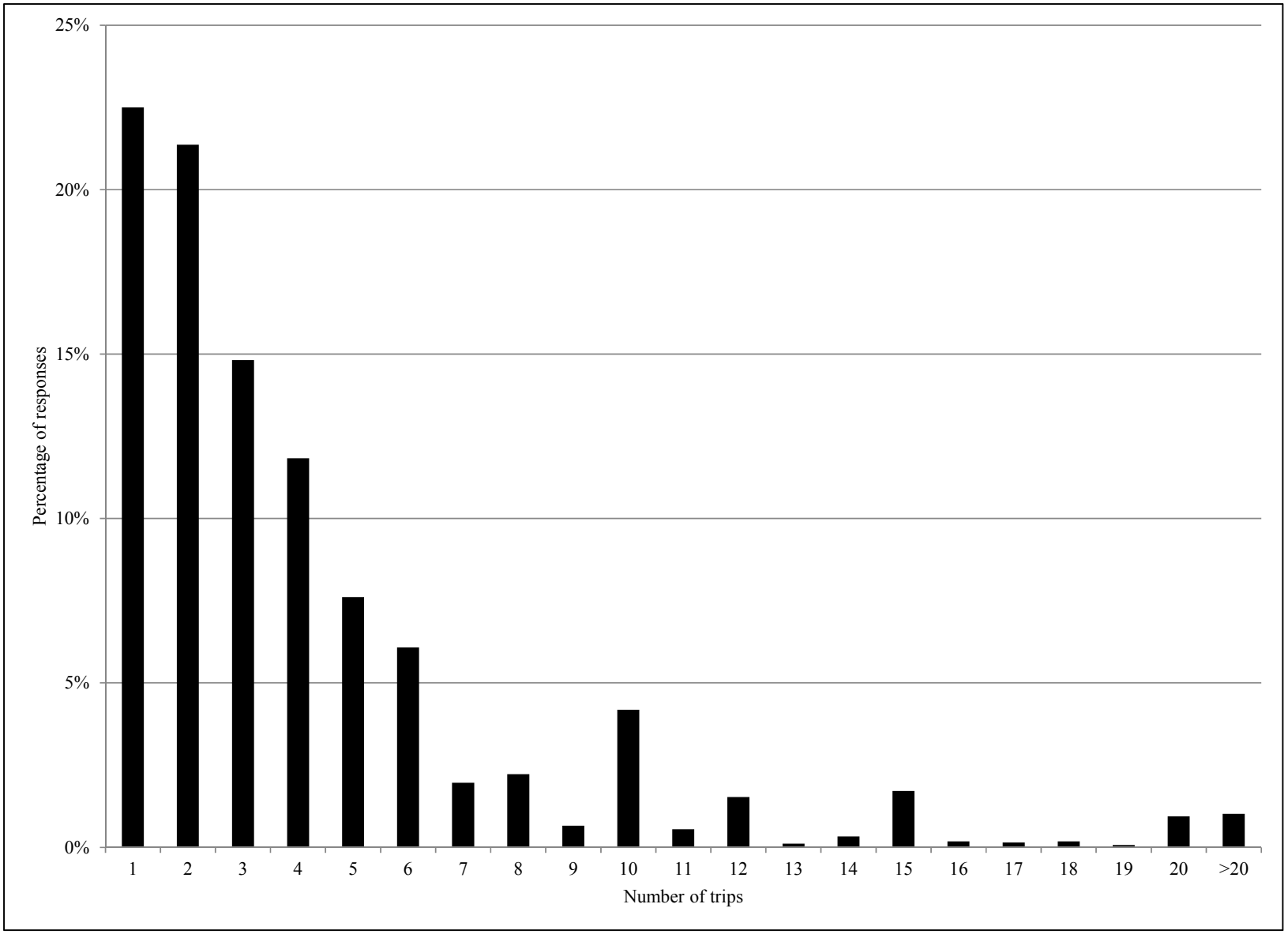


Figure 26.–Number of subsistence fishing trips for halibut, by percentage of total reported trips, 2012.

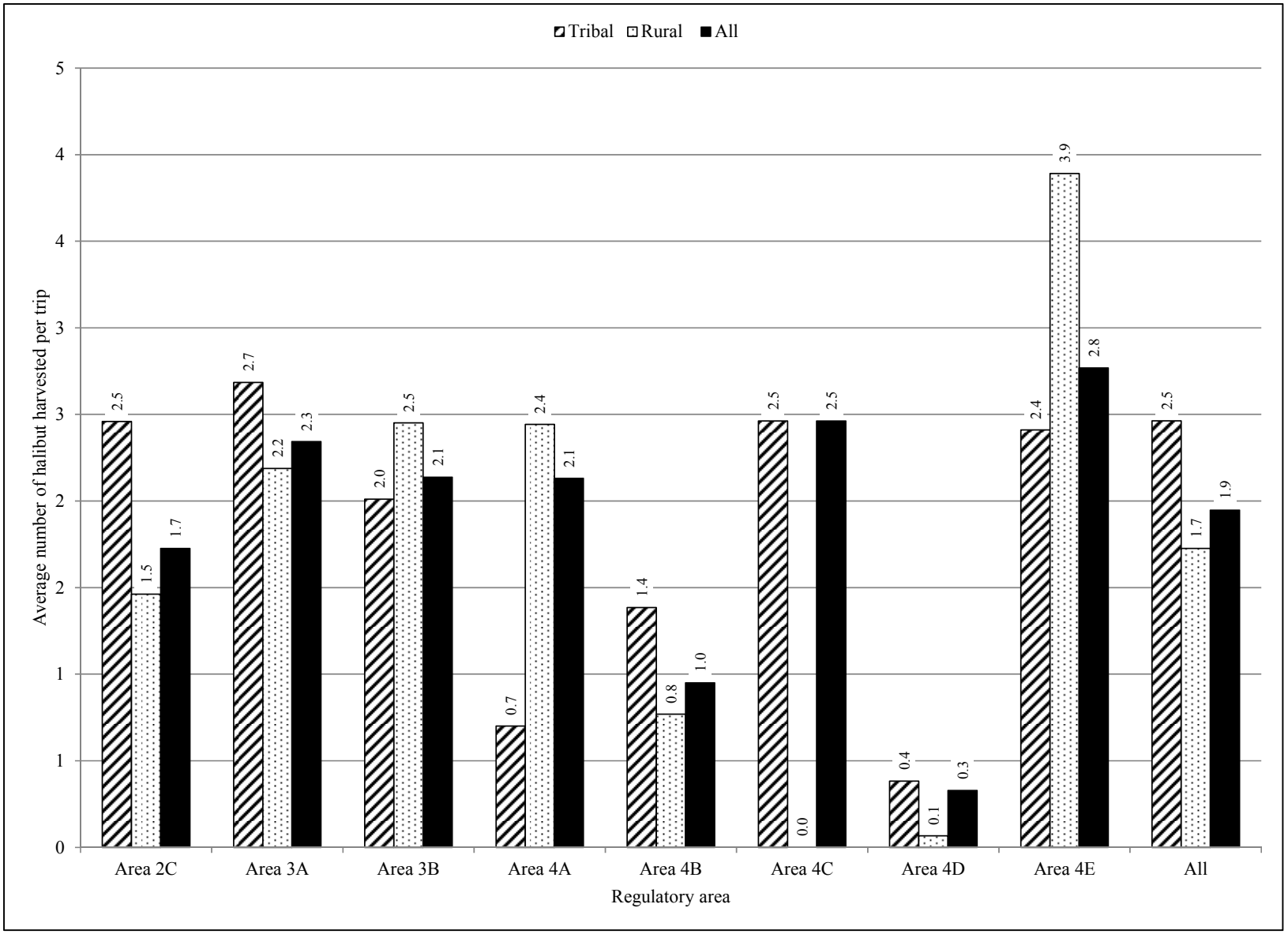


Figure 27.–Average number of halibut harvested per subsistence fishing trip by regulatory area and SHARC type, 2012.

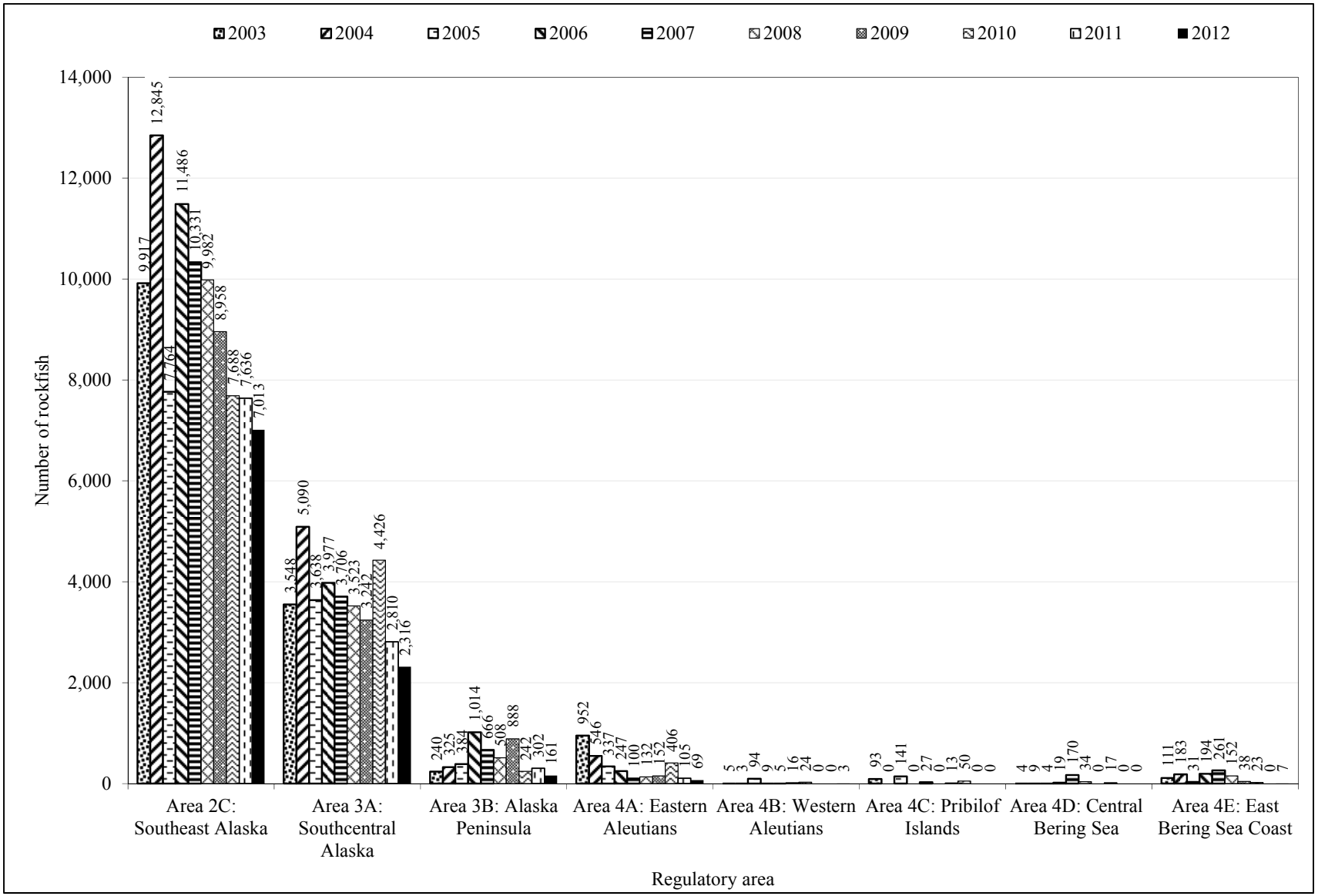


Figure 28.–Estimated incidental harvests of rockfish in the Alaska subsistence halibut fishery, number of fish, by regulatory area fished, 2003–2012.

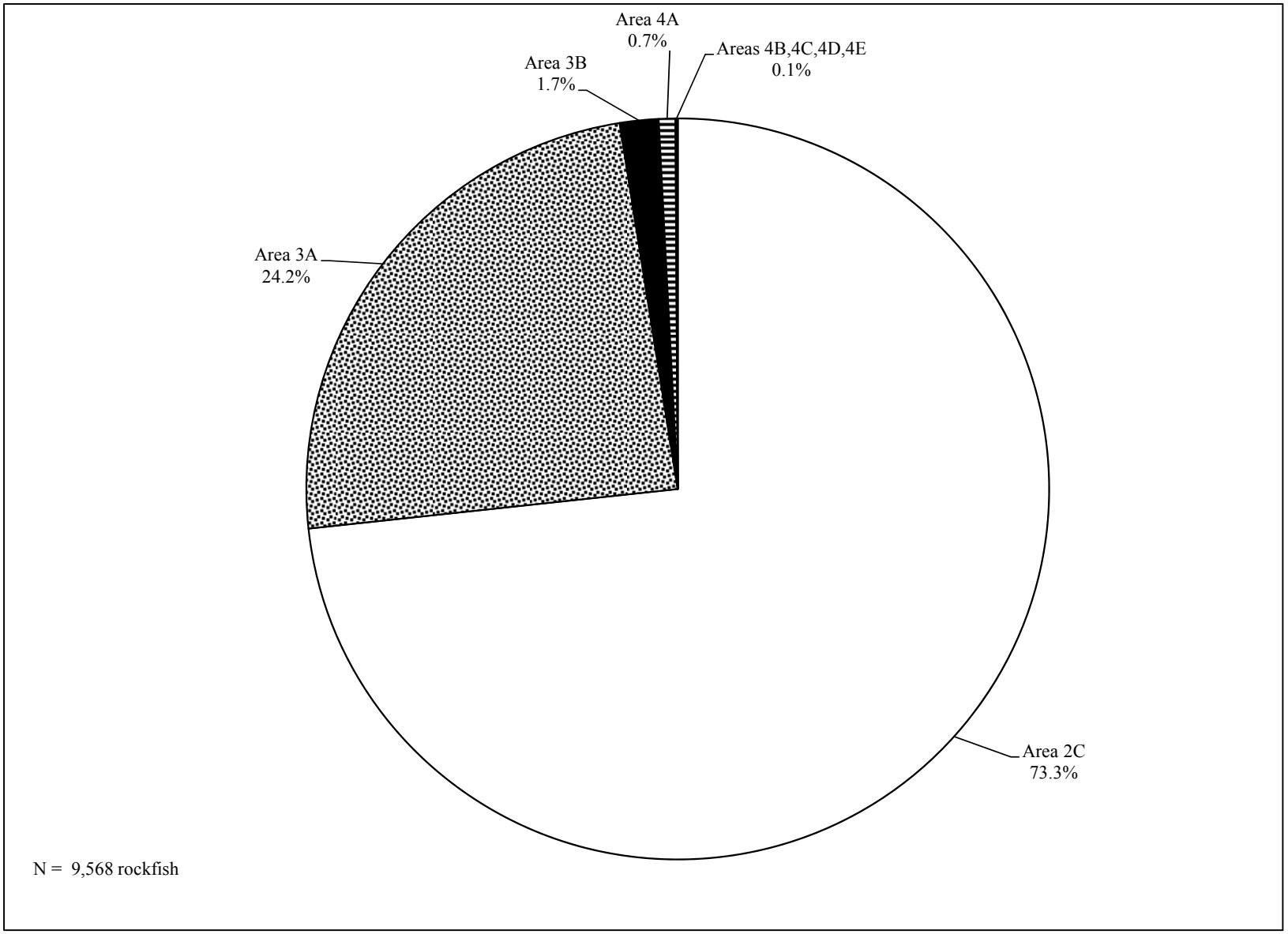


Figure 29.–Percentage of incidental harvest of rockfish by regulatory area fished, 2012.

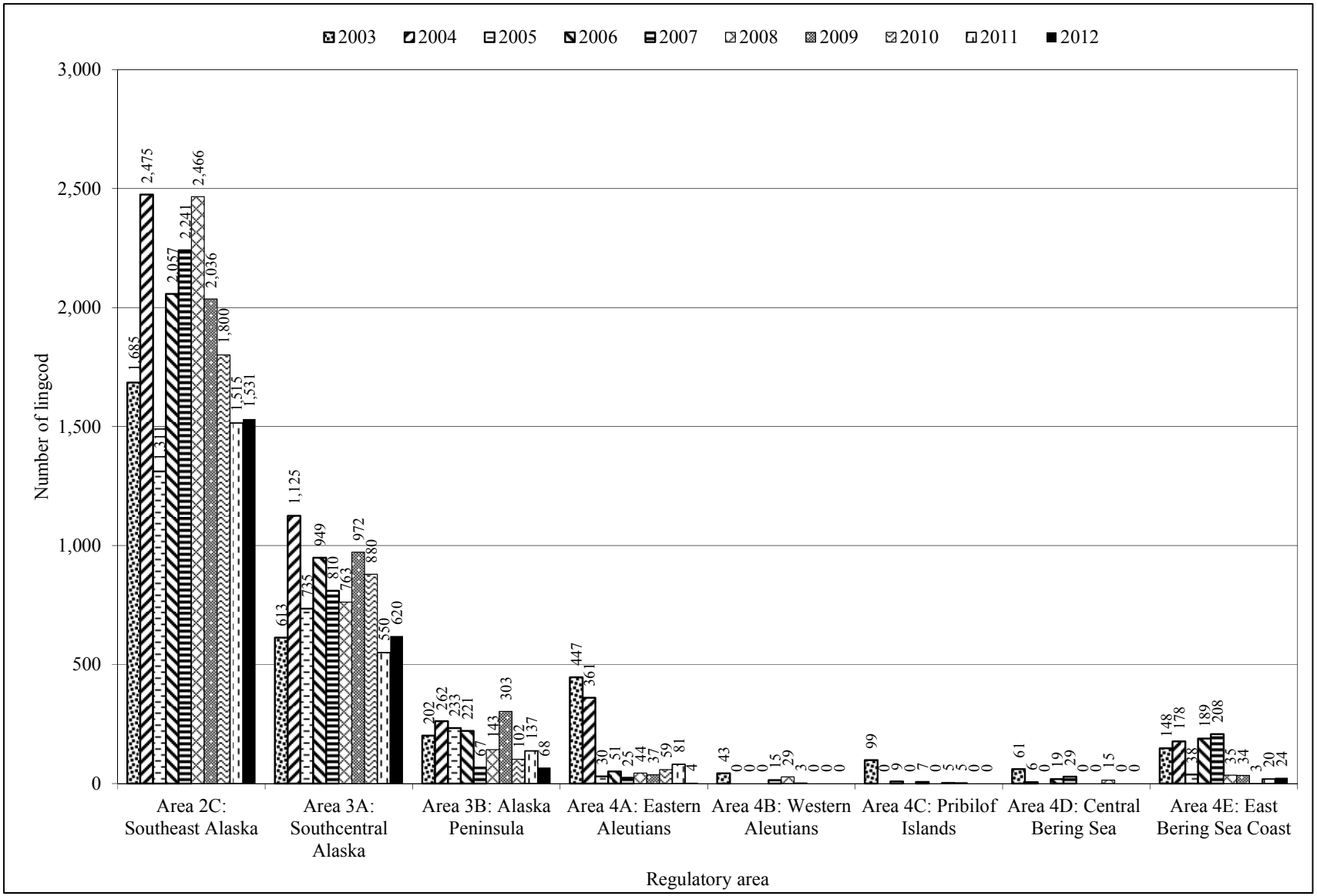


Figure 30.–Estimated incidental harvests of lingcod in the Alaska subsistence halibut fishery, number of fish, by regulatory area fished, 2003–2012.

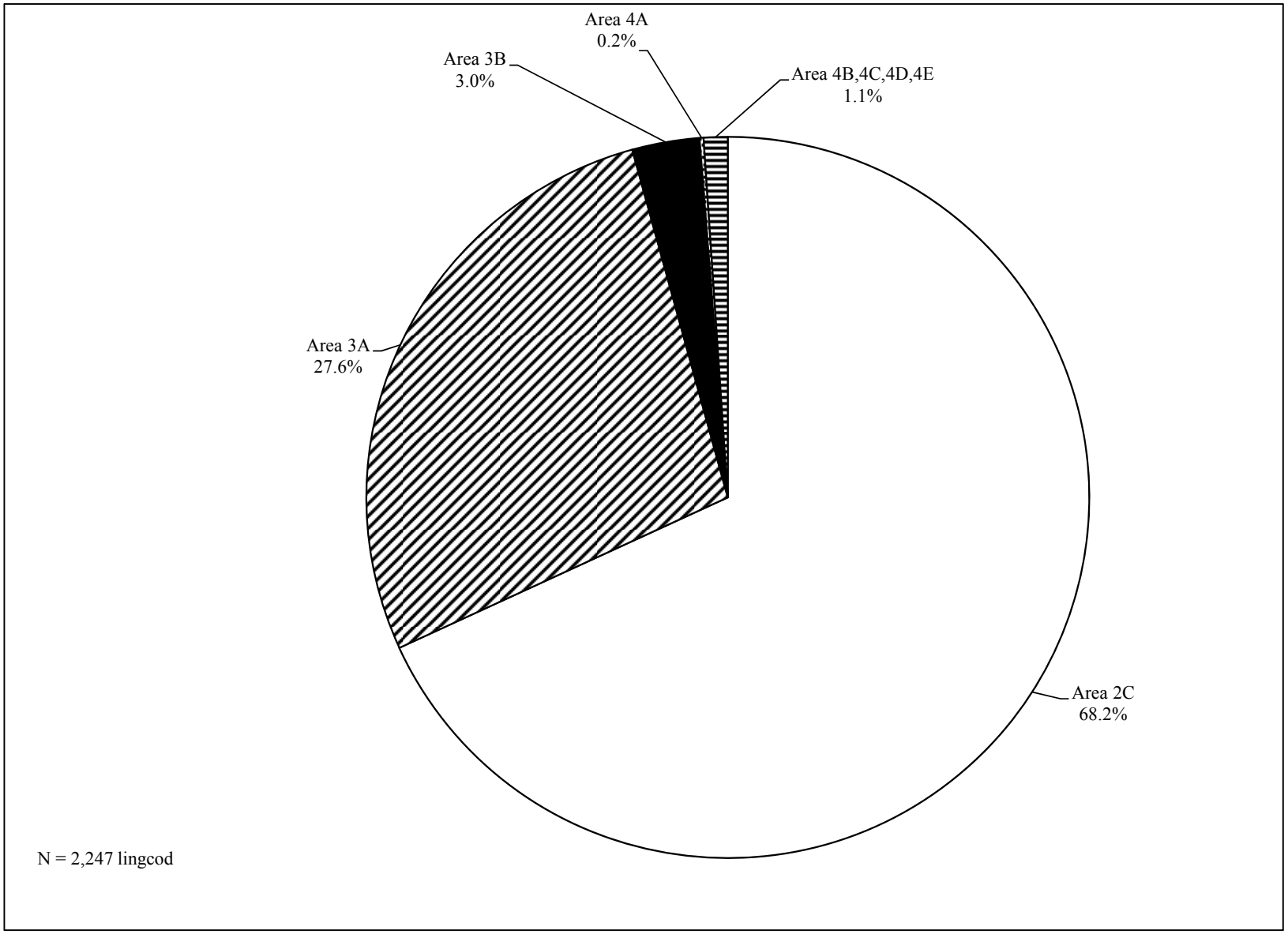


Figure 31.–Percentage of incidental harvest of lingcod by regulatory area fished, 2012.

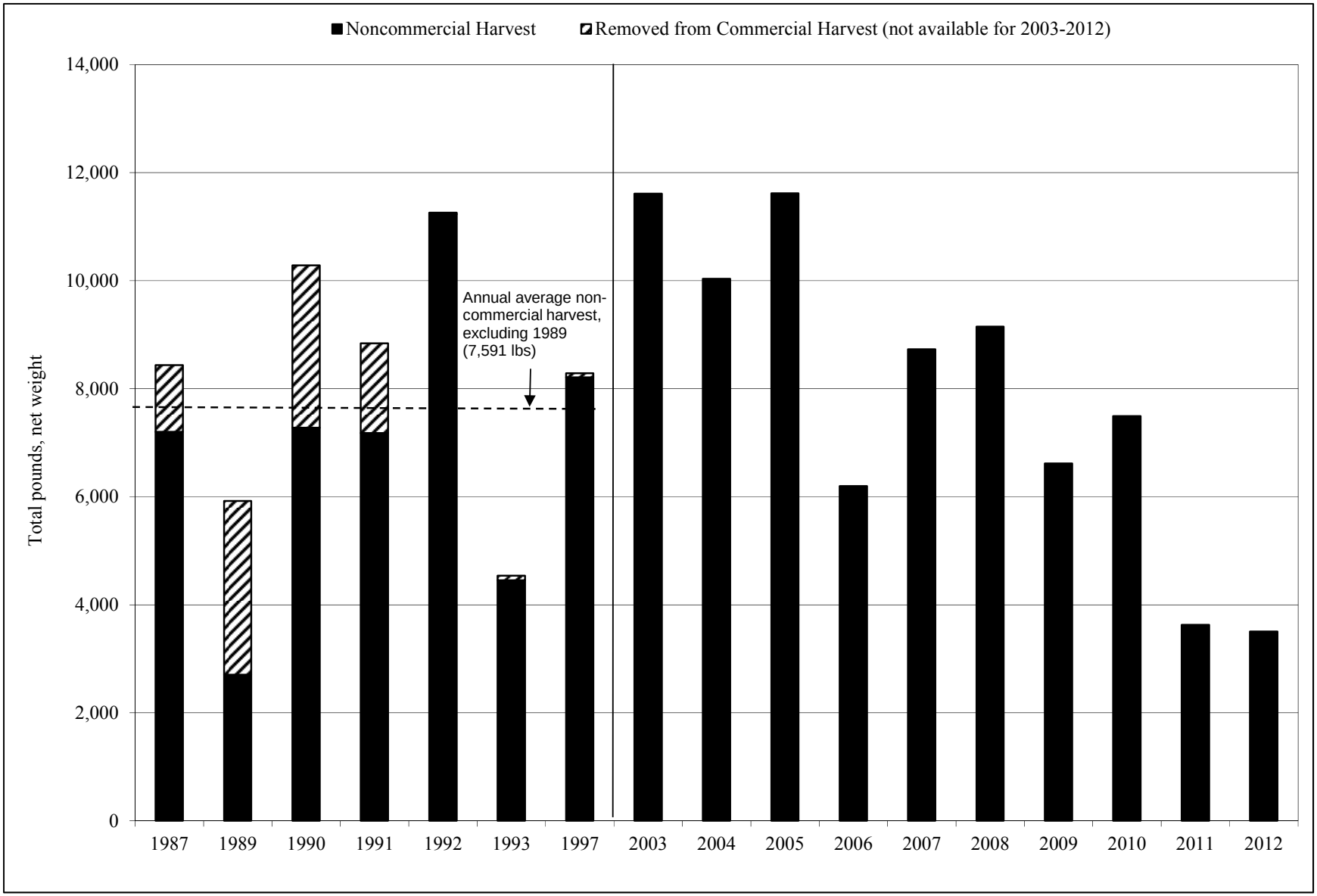


Figure 32.–Estimated harvests of halibut for home use, Port Graham.

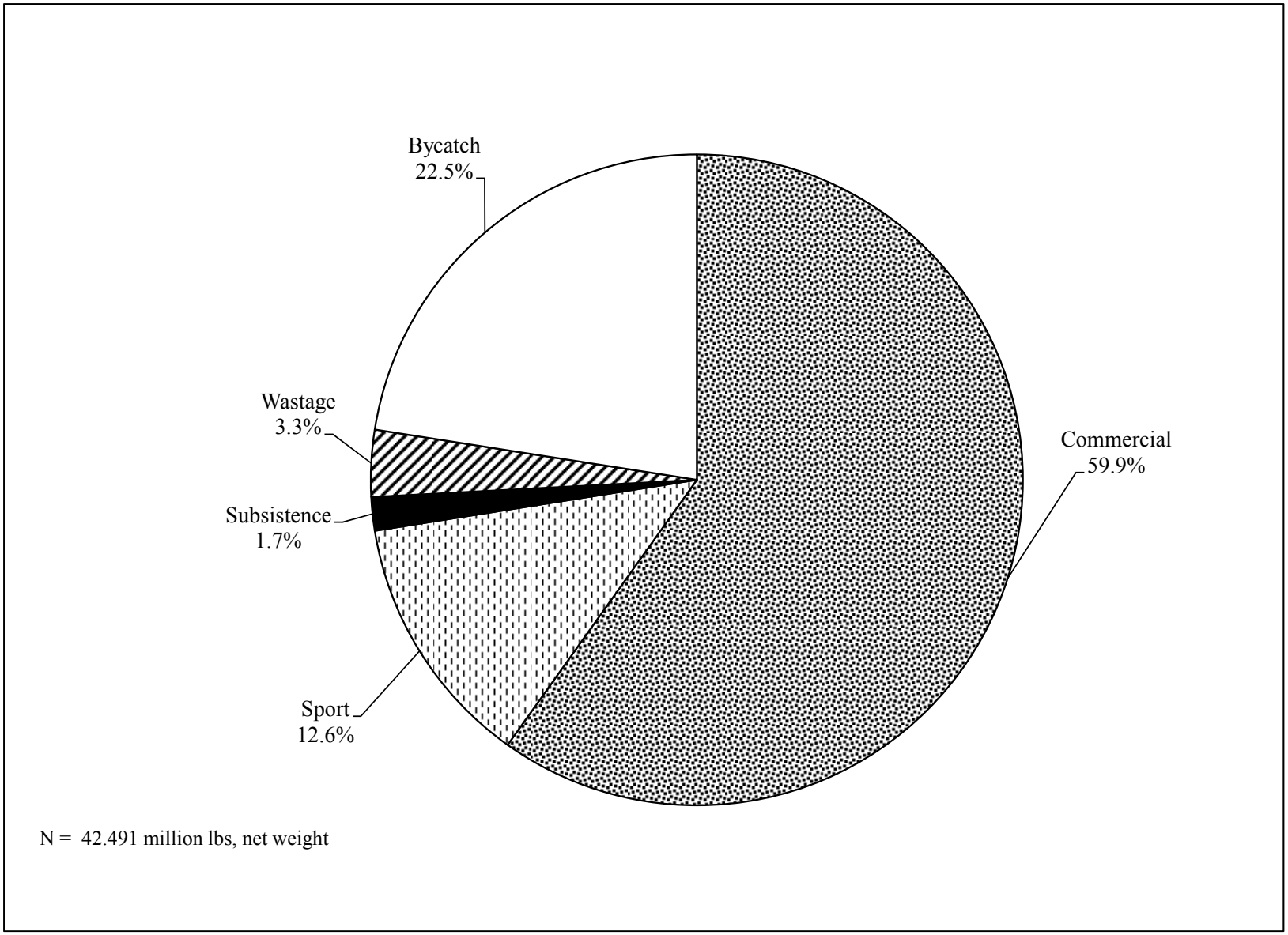


Figure 33.–Halibut removals, Alaska, 2012.

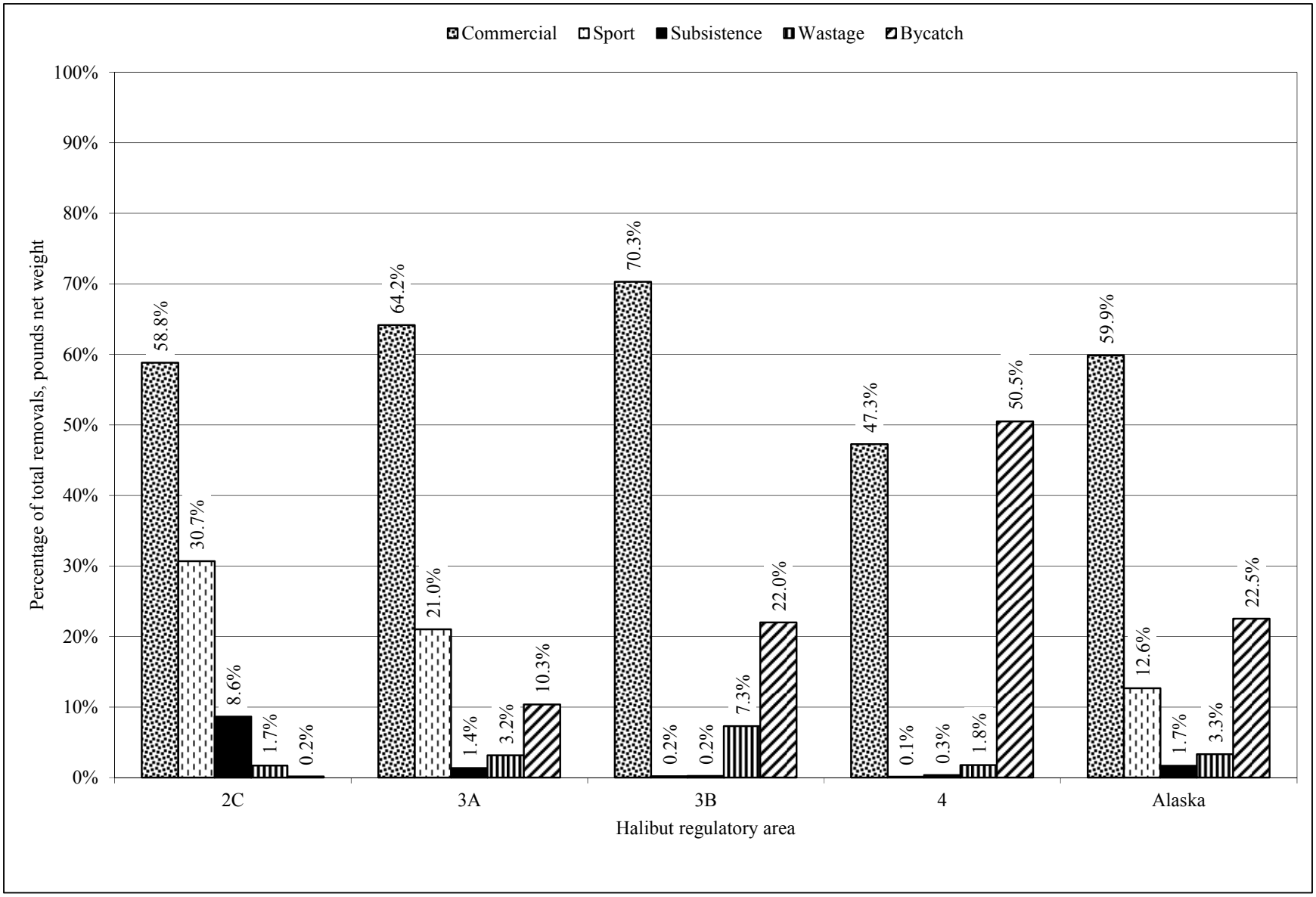


Figure 34.–Halibut removals in Alaska by regulatory area and removal category, 2012.

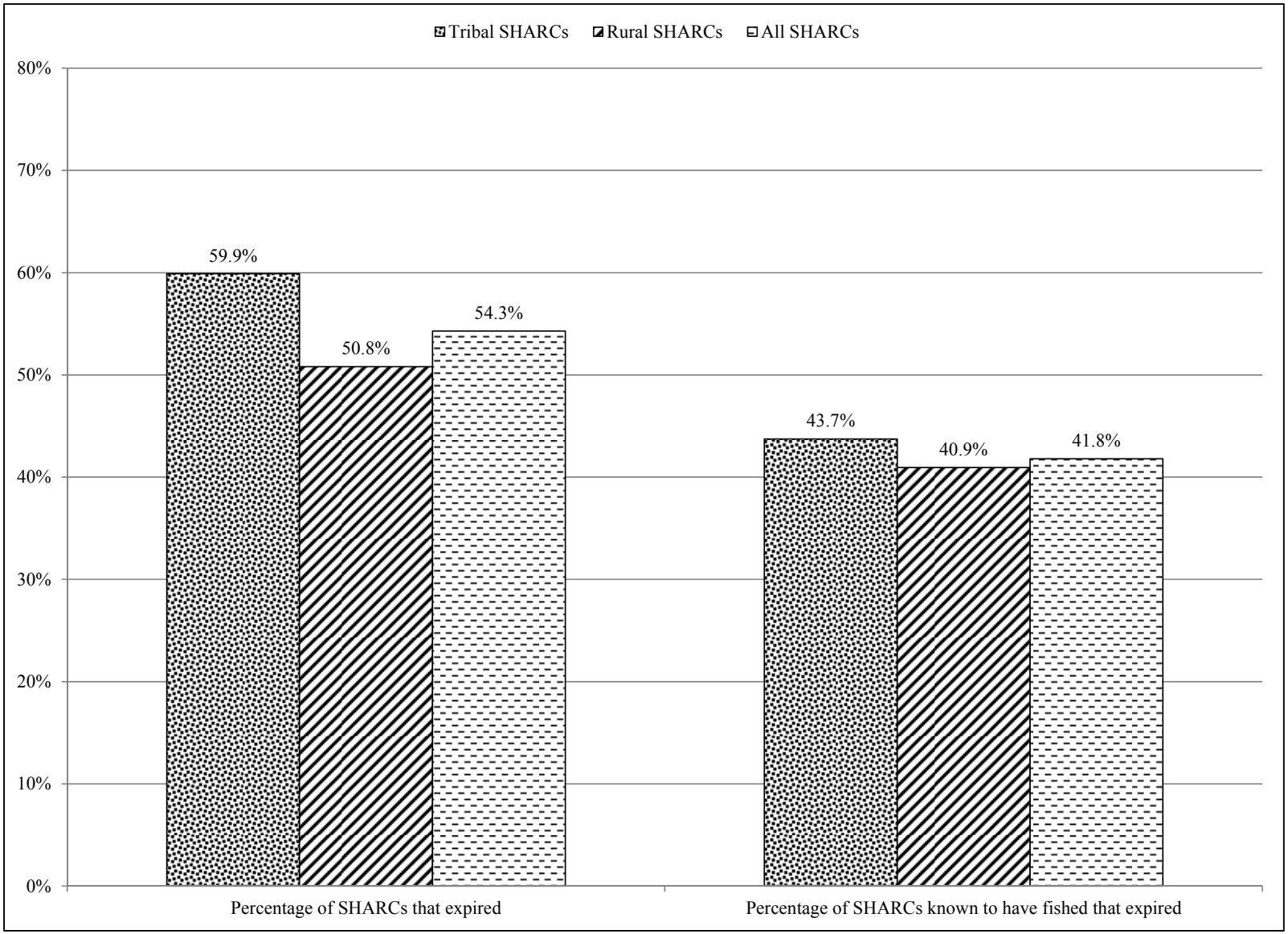


Figure 35.–Percentage of SHARC holders, and SHARC holders who fished for halibut, who did not renew their SHARC, by SHARC type, 2003–2012.

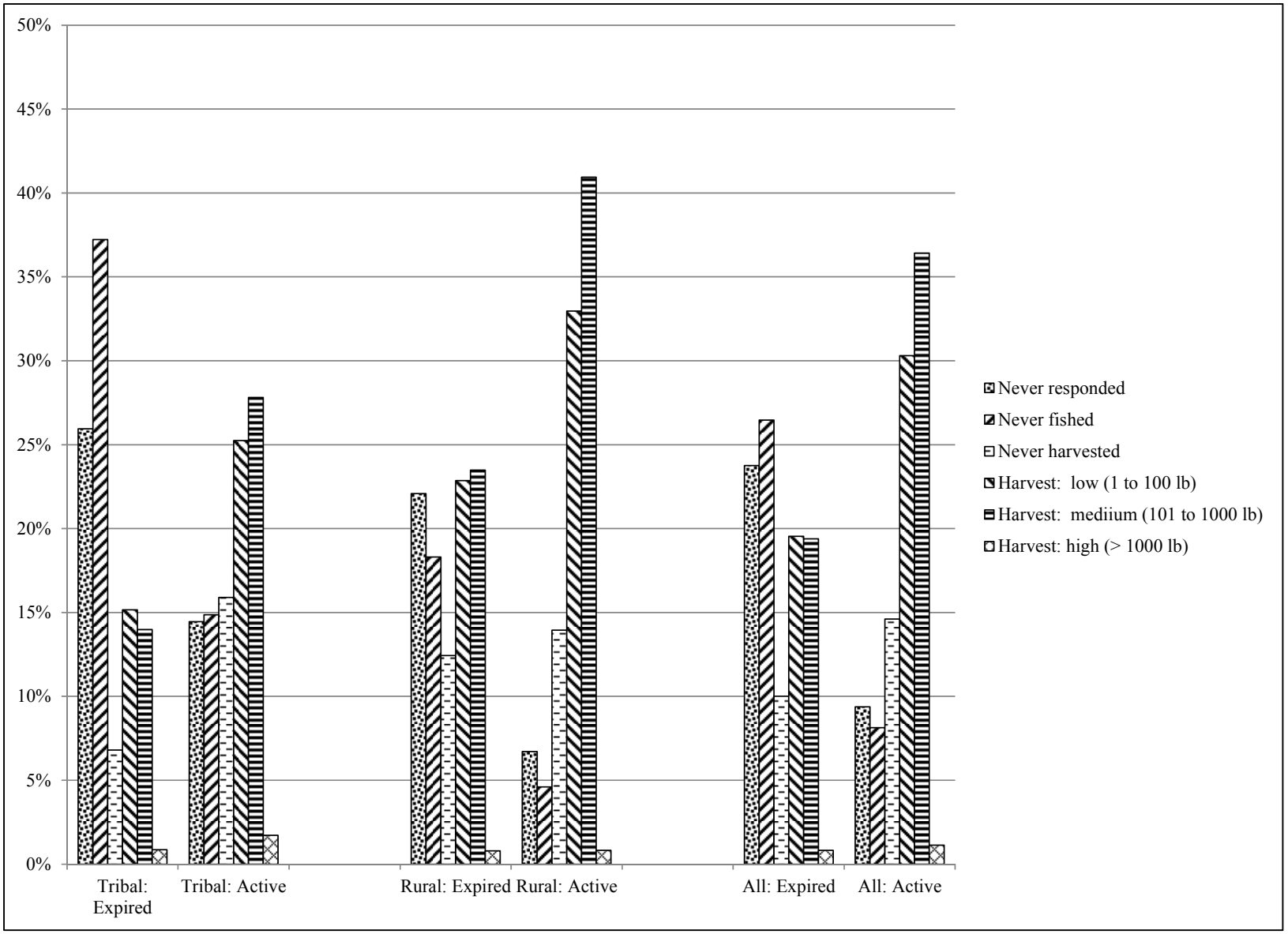


Figure 36.–Percentage of SHARCs that were not renewed by survey response type and SHARC type, 2003–2012.

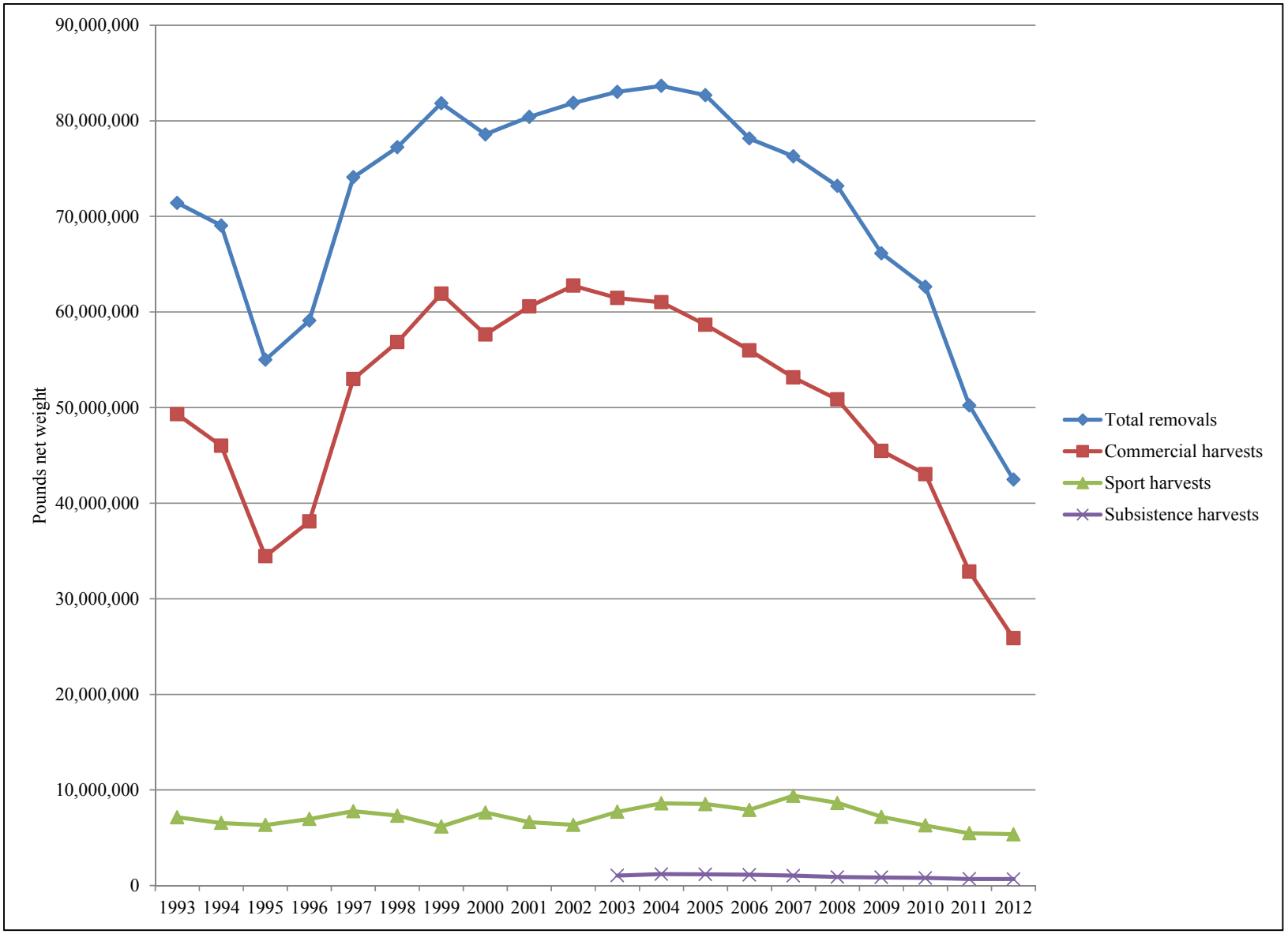


Figure 37.–Halibut removals in Alaska, 1993–2012.

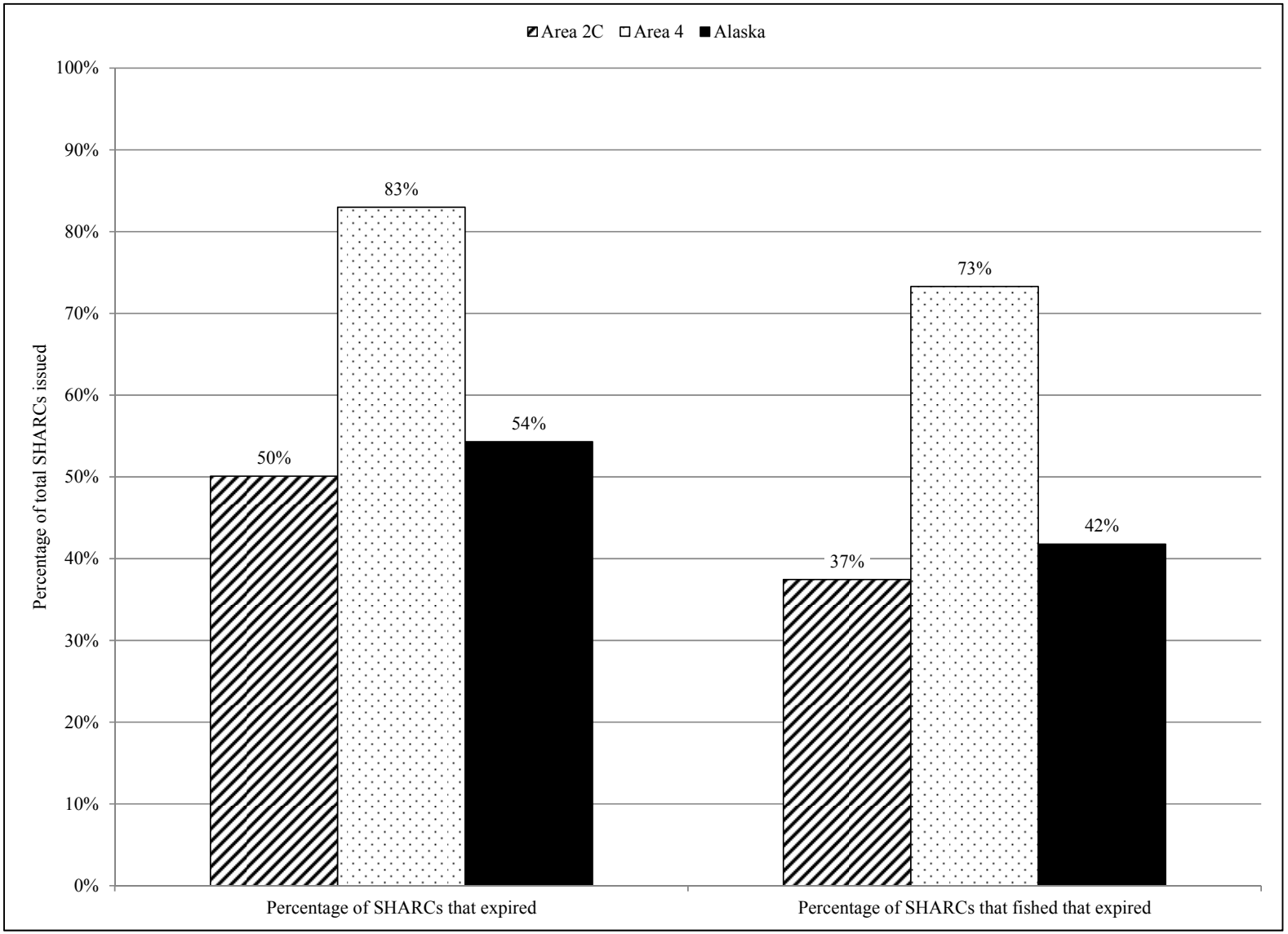


Figure 38.–Comparison of SHARC renewal patterns, Regulatory Area 2C, Area 4, and total Alaska.

APPENDICES

Appendix A.–List of eligible tribes and rural communities, 2003 (from Federal Register).

Chichagof Island at 57°22′03″ N. lat., 135°43′00″ W. long., and

(B) A line from Chichagof Island at 57°22′35″ N. lat., 135°41′18″ W. long. to Baranof Island at 57°22′17″ N. lat., 135°40′57″ W. lat.; and

(C) That is enclosed on the south and west by a line from Sitka Point at 56°59′23″ N. lat., 135°49′34″ W. long., to Hanus Point at 56°51′55″ N. lat., 135°30′30″ W. long.,

(D) To the green day marker in Dorothy Narrows at 56°49′17″ N. lat., 135°22′45″ W. long. to Baranof Island at 56°49′17″ N. lat., 135°22′36″ W. long.

(2) A person using a vessel greater than 35 ft (10.7 m) in overall length, as defined at 50 CFR 300.61, is prohibited from fishing for IFQ halibut with setline gear, as defined at 50 CFR 300.61, within Sitka Sound as defined in paragraph (d)(1)(i) of this section.

(3) A person using a vessel less than or equal to 35 ft (10.7 m) in overall length, as defined at 50 CFR 300.61:

(i) Is prohibited from fishing for IFQ halibut with setline gear within Sitka Sound, as defined in paragraph (d)(1)(ii) of this section, from June 1 through August 31; and

(ii) Is prohibited, during the remainder of the designated IFQ season, from retaining more than 2,000 lb (0.91 mt) of IFQ halibut within Sitka Sound, as defined in paragraph (d)(1)(ii) of this section, per IFQ fishing trip, as defined in 50 CFR 300.61.

(4) No charter vessel, as defined at 50 CFR 300.61, shall engage in sport fishing, as defined at 50 CFR 300.61(b), for halibut within Sitka Sound, as defined in paragraph (d)(1)(ii) of this section, from June 1 through August 31.

(i) No charter vessel shall retain halibut caught while engaged in sport fishing, as defined at 50 CFR 300.61(b), for other species, within Sitka Sound, as defined in paragraph (d)(1)(ii) of this section, from June 1 through August 31.

(ii) Notwithstanding paragraphs (d)(4) and (d)(4)(i) of this section, halibut harvested outside Sitka Sound, as defined in (d)(1)(ii) of this section, may be retained onboard a charter vessel engaged in sport fishing, as defined in 50 CFR 300.61(b), for other species within Sitka Sound, as defined in paragraph (d)(1)(ii) of this section, from June 1 through August 31.

(e) Sitka Pinnacles Marine Reserve. (1) For purposes of this paragraph (e), the Sitka Pinnacles Marine Reserve means an area totaling 2.5 square nm off Cape Edgecumbe, defined by straight lines connecting the following points in a counterclockwise manner:

56°55.5′N lat., 135°54.0′W long;
56°57.0′N lat., 135°54.0′W long;
56°57.0′N lat., 135°57.0′W long;
56°55.5′N lat., 135°57.0′W long.

(2) No person shall engage in commercial, sport or subsistence fishing, as defined at § 300.61, for halibut within the Sitka Pinnacles Marine Reserve.

(3) No person shall anchor a vessel within the Sitka Pinnacles Marine Reserve if halibut is on board.

(f) *Subsistence fishing in and off Alaska.* No person shall engage in subsistence fishing for halibut unless that person meets the requirements in paragraphs (f)(1) or (f)(2) of this section.

(1) A person is eligible to harvest subsistence halibut if he or she is a rural resident of a community with customary and traditional uses of halibut listed in the following table:

HALIBUT REGULATORY AREA 2C

Rural Community	Organized Entity
Angoon	Municipality
Coffman Cove	Municipality
Craig	Municipality
Edna Bay	Census Designated Place
Elfin Cove	Census Designated Place
Gustavus	Census Designated Place
Haines	Municipality
Hollis	Census Designated Place
Hoonah	Municipality
Hydaburg	Municipality
Hyder	Census Designated Place
Kake	Municipality
Kasaan	Municipality
Klawock	Municipality
Klukwan	Census Designated Place
Metlakatla	Census Designated Place
Meyers Chuck	Census Designated Place
Pelican	Municipality
Petersburg	Municipality
Point Baker	Census Designated Place
Port Alexander	Municipality
Port Protection	Census Designated Place
Saxman	Municipality
Sitka	Municipality
Skagway	Municipality
Tenakee Springs	Municipality
Thorne Bay	Municipality
Whale Pass	Census Designated Place
Wrangell	Municipality

HALIBUT REGULATORY AREA 3A

Rural Community	Organized Entity
Akhiok	Municipality
Chenega Bay	Census Designated Place
Cordova	Municipality

HALIBUT REGULATORY AREA 3A—Continued

Rural Community	Organized Entity
Karluk	Census Designated Place
Kodiak City	Municipality
Larsen Bay	Municipality
Nanwalek	Census Designated Place
Old Harbor	Municipality
Ouzinkie	Municipality
Port Graham	Census Designated Place
Port Lions	Municipality
Seldovia	Municipality
Tatitlek	Census Designated Place
Yakutat	Municipality

HALIBUT REGULATORY AREA 3B

Rural Community	Organized Entity
Chignik Bay	Municipality
Chignik Lagoon	Census Designated Place
Chignik Lake	Census Designated Place
Cold Bay	Municipality
False Pass	Municipality
Ivanof Bay	Census Designated Place
King Cove	Municipality
Nelson Lagoon	Census Designated Place
Perryville	Census Designated Place
Sand Point	Municipality

HALIBUT REGULATORY AREA 4A

Rural Community	Organized Entity
Akutan	Municipality
Nikolski	Census Designated Place
Unalaska	Municipality

HALIBUT REGULATORY AREA 4B

Rural Community	Organized Entity
Adak	Census Designated Place
Atka	Municipality

HALIBUT REGULATORY AREA 4C

Rural Community	Organized Entity
St. George	Municipality
St. Paul	Municipality

HALIBUT REGULATORY AREA 4D

Rural Community	Organized Entity
Gambell	Municipality
Savoonga	Municipality

HALIBUT REGULATORY AREA 4D—Continued

Rural Community	Organized Entity
Diomede (Inalik)	Municipality

HALIBUT REGULATORY AREA 4E

Rural Community	Organized Entity
Alakanuk	Municipality
Aleknegik	Municipality
Bethel	Municipality
Brevig Mission	Municipality
Chefornak	Municipality
Chevak	Municipality
Clark's Point	Municipality
Council	Census Designated Place
Dillingham	Municipality
Eek	Municipality
Egegik	Municipality
Elim	Municipality
Emmonak	Municipality
Golovin	Municipality
Goodnews Bay	Municipality
Hooper Bay	Municipality
King Salmon	Census Designated Place
Kipnuk	Census Designated Place
Kongiganak	Census Designated Place
Kotlik	Municipality
Koyuk	Municipality
Kwigillingok	Census Designated Place
Levelock	Census Designated Place
Manokotak	Municipality
Mekoryak	Municipality
Naknek	Census Designated Place
Napakiak	Municipality
Napaskiak	Municipality
Newtok	Census Designated Place
Nightmute	Municipality
Nome	Municipality
Oscarville	Census Designated Place
Pilot Point	Municipality
Platinum	Municipality
Port Heiden	Municipality
Quinhagak	Municipality
Scammon Bay	Municipality
Shaktoolik	Municipality
Sheldon Point (Nunam Iqua).	Municipality
Shishmaref	Municipality
Solomon	Census Designated Place
South Naknek	Census Designated Place
St. Michael	Municipality
Stebbins	Municipality
Teller	Municipality
Togiak	Municipality
Toksook Bay	Municipality
Tuntutuliak	Census Designated Place
Tununak	Census Designated Place

HALIBUT REGULATORY AREA 4E—Continued

Rural Community	Organized Entity
Twin Hills	Census Designated Place
Ugashik	Census Designated Place
Unalakleet	Municipality
Wales	Municipality
White Mountain	Municipality

(2) A person is eligible to harvest subsistence halibut if he or she is a member of an Alaska Native tribe with customary and traditional uses of halibut listed in the following table:

HALIBUT REGULATORY AREA 2C

Place with Tribal Headquarters	Organized Tribal Entity
Angoon	Angoon Community Association
Craig	Craig Community Association
Haines	Chilkoot Indian Association
Hoonah	Hoonah Indian Association
Hydaburg	Hydaburg Cooperative Association
Juneau	Aukquan Traditional Council
	Central Council Tlingit and Haida Indian Tribes
	Douglas Indian Association
Kake	Organized Village of Kake
Kasaan	Organized Village of Kasaan
Ketchikan	Ketchikan Indian Corporation
Klawock	Klawock Cooperative Association
Klukwan	Chilkat Indian Village
Metlakatla	Metlakatla Indian Community, Annette Island Reserve
Petersburg	Petersburg Indian Association
Saxman	Organized Village of Saxman
Sitka	Sitka Tribe of Alaska
Skagway	Skagway Village
Wrangell	Wrangell Cooperative Association

HALIBUT REGULATORY AREA 3A

Place with Tribal Headquarters	Organized Tribal Entity
Akhiok	Native Village of Akhiok
Chenega Bay	Native Village of Chanega

HALIBUT REGULATORY AREA 3A—Continued

Place with Tribal Headquarters	Organized Tribal Entity
Cordova	Native Village of Eyak
Karluk	Native Village of Karluk
Kenai-Soldotna	Kenaitze Indian Tribe
	Village of Salamatoff
Kodiak City	Lesnoi Village (Woody Island)
	Native Village of Afognak
	Shoonaq' Tribe of Kodiak
Larsen Bay	Native Village of Larsen Bay
Nanwalek	Native Village of Nanwalek
Ninilchik	Ninilchik Village
Old Harbor	Village of Old Harbor
Ouzinkie	Native Village of Ouzinkie
Port Graham	Native Village of Port Graham
Port Lions	Native Village of Port Lions
Seldovia	Seldovia Village Tribe
Tatitlek	Native Village of Tatitlek
Yakutat	Yakutat Tlingit Tribe

HALIBUT REGULATORY AREA 3B

Place with Tribal Headquarters	Organized Tribal Entity
Chignik Bay	Native Village of Chignik
Chignik Lagoon	Native Village of Chignik Lagoon
Chignik Lake	Chignik Lake Village
False Pass	Native Village of False Pass
Ivanof Bay	Ivanoff Bay Village
King Cove	Agdaagux Tribe of King Cove
	Native Village of Belkofski
Nelson Lagoon	Native Village of Nelson Lagoon
Perryville	Native Village of Perryville
Sand Point	Pauloff Harbor Village
	Native Village of Unga
	Qagan Toyagungin Tribe of Sand Point Village

HALIBUT REGULATORY AREA 4A

Place with Tribal Headquarters	Organized Tribal Entity
Akutan	Native Village of Akutan
Nikolski	Native Village of Nikolski
Unalaska	Qawalingin Tribe of Unalaska

HALIBUT REGULATORY AREA 4B

Place with Tribal Headquarters	Organized Tribal Entity
Atka	Native Village of Atka

HALIBUT REGULATORY AREA 4C

Place with Tribal Headquarters	Organized Tribal Entity
St. George	Pribilof Islands Aleut Communities of St. Paul Island and St. George Island
St. Paul	

HALIBUT REGULATORY AREA 4D

Place with Tribal Headquarters	Organized Tribal Entity
Gambell	Native Village of Gambell
Savoonga	Native Village of Savoonga
Diomede (Inalik)	Native Village of Diomede (Inalik)

HALIBUT REGULATORY AREA 4E

Place with Tribal Headquarters	Organized Tribal Entity
Alakanuk	Village of Alakanuk
Aleknagik	Native Village of Aleknagik
Bethel	Orutsararmuit Native Village
Brevig Mission	Native Village of Brevig Mission
Chefornak	Village of Chefornak
Chevak	Chevak Native Village
Clark's Point	Village of Clark's Point
Council	Native Village of Council
Dillingham	Native Village of Dillingham
	Native Village of Ekuk
	Native Village of Kanakanak
Eek	Native Village of Eek
Egegik	Egegik Village
	Village of Kanatak

HALIBUT REGULATORY AREA 4E—Continued

Place with Tribal Headquarters	Organized Tribal Entity
Elim	Native Village of Elim
Emmonak	Chuloonawick Native Village
	Emmonak Village
Golovin	Chinik Eskimo Community
Goodnews Bay	Native Village of Goodnews Bay
Hooper Bay	Native Village of Hooper Bay
	Native Village of Paimiut
King Salmon	King Salmon Tribal Council
Kipnuk	Native Village of Kipnuk
Kongiganak	Native Village of Kongiganak
Kotlik	Native Village of Hamilton
	Village of Bill Moore's Slough
	Village of Kotlik
Koyuk	Native Village of Koyuk
Kwigillingok	Native Village of Kwigillingok
Levelock	Levelock Village
Manokotak	Manokotak Village
Mekoryak	Native Village of Mekoryak
Naknek	Naknek Native Village
Napakiak	Native Village of Napakiak
Napaskiak	Native Village of Napaskiak
Newtok	Newtok Village
Nightmute	Native Village of Nightmute
	Umkumiute Native Village
Nome	King Island Native Community
	Nome Eskimo Community
Oscarville	Oscarville Traditional Village
Pilot Point	Native Village of Pilot Point
Platinum	Platinum Traditional Village
Port Heiden	Native Village of Port Heiden
Quinhagak	Native Village of Kwinhagak
Scammon Bay	Native Village of Scammon Bay
Shaktoolik	Native Village of Shaktoolik
Sheldon Point (Nuna Iqua).	Native Village of Sheldon's Point
Shishmaref	Native Village of Shishmaref
Solomon	Village of Solomon
South Naknek	South Naknek Village
St. Michael	Native Village of Saint Michael

HALIBUT REGULATORY AREA 4E—Continued

Place with Tribal Headquarters	Organized Tribal Entity
Stebbins	Stebbins Community Association
Teller	Native Village of Mary's Igloo
	Native Village of Teller
Togiak	Traditional Village of Togiak
Toksook Bay	Native Village of Toksook Bay
Tuntutuliak	Native Village of Tuntutuliak
Tununak	Native Village of Tununak
Twin Hills	Twin Hills Village
Ugashik	Ugashik Village
Unalakleet	Native Village of Unalakleet
Wales	Native Village of Wales
White Mountain	Native Village of White Mountain

(g) *Limitations on subsistence fishing.* Subsistence fishing for halibut may be conducted only by persons who qualify for such fishing pursuant to paragraph (f) of this section and who hold a valid subsistence halibut registration certificate in that person's name issued by NMFS pursuant to paragraph (h) of this section, provided that such fishing is consistent with the following limitations.

(1) Subsistence fishing is limited to setline gear and hand-held gear, including longline, handline, rod and reel, spear, jig and hand-troll gear.

(i) Subsistence fishing gear must not have more than 30 hooks per person registered in accordance with paragraph (h) of this section and on board the vessel from which gear is being set or retrieved.

(ii) All setline gear marker buoys carried on board or used by any vessel regulated under this section shall be marked with the following: first initial, last name, and address (street, city, and state), followed by the letter "S" to indicate that it is used to harvest subsistence halibut.

(iii) Markings on setline marker buoys shall be in characters at least 4 inches (10.16 cm) in height and 0.5 inch (1.27 cm) in width in a contrasting color visible above the water line and shall be maintained so the markings are clearly visible.

(2) The daily retention of subsistence halibut in rural areas is limited to no more than 20 fish per person eligible to conduct subsistence fishing for halibut under paragraph (g) of this section,

Appendix B.–Letter sent to tribes about the project.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

DIVISION OF SUBSISTENCE

SEAN PARNELL, GOVERNOR

333 Raspberry Road
ANCHORAGE, AK 99518-1599
PHONE: (907) 267-2353
FAX: (907) 267-2450

January 14, 2013

SUBJECT: Subsistence Halibut Fishing Report and Harvest Survey

In January 2012, we informed you about the ninth year of the project conducted by the Division of Subsistence of ADF&G to estimate the subsistence harvests of halibut in Alaska. As part of a contract with the National Marine Fisheries Service (NMFS), in early 2012 we mailed a short (one-page) questionnaire to every person who obtained a subsistence halibut registration certificate (called a "SHARC") from NMFS. Through the survey, we collected information about participation in the fishery and the number of halibut, rockfish, and lingcod harvested for subsistence use in 2011. Participation in the survey was voluntary. Of the 11,145 SHARC holders, 7,589 (68%) completed the survey – an outstanding response.

We have completed the final report for the project as part of our Technical Paper Series (No. 378). Enclosed is a copy of a short overview of the study findings. You can obtain the complete report at the Division of Subsistence website at http://www.adfg.alaska.gov/techpap/TP%20378.pdf . If you would like a paper copy of the technical paper, please let us know. Please contact us if you have questions.

We also wanted to let you know that we will be doing the survey again beginning in January 2013 to collect information about subsistence halibut harvests in 2012. Again, we'll be mailing a short questionnaire to every SHARC holder, and asking them to voluntarily fill it out and send it back to us (we pay the postage). We will again compile the harvest information in a report to NMFS that will be available to tribes and to the public in late 2013. In our view, collecting and reporting accurate information about subsistence halibut harvests is important in supporting this fishery.

In addition to mailing out the survey forms, Division of Subsistence staff plan to visit some communities in 2013 to provide information about the subsistence halibut fishery program, and to encourage subsistence fishers to obtain registration cards (SHARCs) and return the surveys. We will, of course, coordinate these visits with tribal governments. We will also coordinate collection of subsistence halibut harvest information with other subsistence projects taking place in some communities.

1

As we noted, an important feature of the subsistence halibut regulations is that eligible people who want to subsistence fish need to obtain a subsistence halibut registration certificate (called a "SHARC" for short). Applications are available from NMFS at the address below. People can also submit applications on the Internet by logging on to: www.fakr.noaa.gov/ram and following the links to the subsistence halibut program. We encourage you to get the word out about this program to your tribal members who subsistence fish for halibut. More information about the subsistence halibut fishing program is available from NMFS as follows:

On the Internet:	www.fakr.noaa.gov/ram/subsistence/halibut.htm
By e-mail:	RAM.Alaska@noaa.gov
By phone:	800-304-4846 (option #2)
By mail:	Alaska Region, National Marine Fisheries Service Restricted Access Management (RAM) Program PO Box 21668 Juneau, AK 99802

In February, we will be contacting tribes in communities that we would like to visit. Again, the survey form itself will be mailed in early January. In the meantime, if you have questions about our project, please contact me (see below), Dave Koster (david.koster@alaska.gov; 907-267-2371), or Lauren Sill (lauren.sill@alaska.gov; 907-465-3617).

Sincerely,

James Fall
Statewide Program Manager
907-267-2359
jim.fall@alaska.gov

Enclosures: "Subsistence Harvests of Pacific Halibut in Alaska, 2011"

Appendix C.–Survey instrument.

<BARCODE>

Fold on the dotted lines to mail in your survey

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT # 37 ANCHORAGE AK

POSTAGE WILL BE PAID BY ADDRESSEE

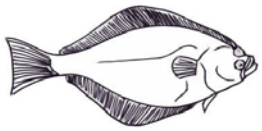
AK DEPT OF FISH AND GAME
SUBSISTENCE DIVISION
333 RASPBERRY RD
ANCHORAGE AK 99518-9961

<BARCODE>

Tape Closed

SUBSISTENCE HALIBUT HARVEST SURVEY 2012

National Marine Fisheries Service &
AK Dept. Fish & Game/Division of Subsistence
(please make address changes as needed)



2012

SHARC Holder's Name First Name M.I. Last Name	Date of Birth Mo. Day Year
Mailing Address Number and street or PO Box City State Zip code	
Community of Residence / Daytime Telephone	SHARC Number
Tribe (if you are on a tribal role)	Exp. Date:

Please answer each question to the best of your knowledge

1. Did you **subsistence** fish for halibut during 2012? ☐ Yes ☐ No
   (Please check one. If No, skip to question #6)

2. How many halibut did you harvest with set hook gear (long-line, skate) while subsistence fishing during 2012?
   ("Set hook gear" is hook-and-line set with anchors and buoys. Please write in both the number and pounds of halibut. Pounds should be round (live) weight.)
   2a. Number of halibut ____ 2b. Pounds of halibut ____ 2c. How many hooks did you usually set? ____ 2d. Water body, bay or sound usually fished ____

3. How many halibut did you harvest with hook-and-rod or hand-held lines while subsistence fishing during 2012?
   (Please write in both the number and pounds of halibut. Do not count fish reported in Question 7. Pounds should be round (live) weight.)
   3a. Number of halibut ____ 3b. Pounds of halibut ____ 3c. Water body, bay or sound usually fished ____

4. How many lingcod and rockfish did you harvest while subsistence halibut fishing during 2012?
   (Please write in numbers of fish only.)
   4a. Number of lingcod ____ 4b. Number of rockfish ____

5. How many trips did you take to fish for subsistence halibut in 2012? ____
   (Please include trips where halibut was targeted but none were caught)

6. Did you sport fish for halibut during 2012? (Please check one) ☐ Yes ☐ No

7. How many halibut did you harvest while **sport fishing** during 2012?
   (Please write in both the number and pounds of halibut. Do not count fish reported in Question 3. Pounds should be round (live) weight.)
   7a. Number of Halibut ____ 7b. Pounds of Halibut ____ 7c. Water body, bay or sound usually fished ____

THANK YOU!

Please mail the completed survey to:
Subsistence Halibut Harvest Survey
Alaska Dept. Fish & Game/Div. of Subsistence
333 Raspberry Road
Anchorage AK 99518-1599

QUESTIONS?

Regarding the survey: ADF&G 1-907-267-2353
Regarding your SHARC card: NMFS at 1-800-304-4846
(option 2) dfg.sub.halibut@alaska.gov

Under AS 16.05.815, Alaska state law prevents the transfer of certain information based on confidentiality. Such information includes, but is not limited to, personal information contained in fish and wildlife harvest and usage data; fish tickets; fish ticket computer runs; intents to operate; processor annual reports; log books or other catch records; and individual or vessel harvest records that are correlated to their harvest or effort. Individual data collected in this survey is confidential under this statute.

INSTRUCTIONS FOR SUBSISTENCE HALIBUT HARVEST SURVEY, 2012

TO AVOID FUTURE NOTIFICATIONS, PLEASE RESPOND NOW. PLEASE COMPLETE AND RETURN THE SURVEY EVEN IF YOUR SHARC HAS EXPIRED.

Question 1.

- Mark "yes" even if you fished but were unsuccessful

Questions 2 and 3.

- Include only those fish harvested by you, the individual fisher (SHARC holder). If you fished with someone else and split the catch, count only your share of the catch. Other household members who harvested halibut should fill out their own forms.
- Include fish that you harvested and kept for your household's use AND fish you harvested and gave away or traded. DO NOT include fish that you received from someone else.
- Identify both the number and pounds of halibut harvested; if you cannot provide both, please provide what you are able. Pounds should be **ROUND (LIVE) WEIGHT**. If you only know the dressed weight of your halibut harvest, record that number and make a note of "dressed, head on" (equals about 88% of round weight) or "dressed, head off" (equals about 75% of round weight).
- Number of hooks: write in the number that you use most often each time you set a line. That is, the number of hooks you usually have on your longline/skate.
- Water body, bay, or sound: record the general location where you did most of your subsistence halibut fishing (for example, "Chiniak Bay," "Sitka Sound"). If you used more than one general area for a significant portion of your catch, please provide the portion of your harvest from each.

Question 4.

- DO NOT include all the lingcod and rockfish you harvested, <u>but just those you harvested while subsistence halibut fishing.</u>
- "Rockfish" means all fish of the genus *Sebastes*. These include fish with common English names such as red snapper, black bass, and sea bass.
- "Rockfish" DO NOT include sculpin, greenling, sablefish (black cod), tomcod, or Pacific cod. Please DO NOT include these other fish in your harvest estimates for rockfish.

Question 5.

- Enter the number of trips taken for subsistence halibut. Please include all trips where you subsistence fished for halibut, even if you were not successful.

Questions 6 and 7.

- Sport fishing for halibut requires an Alaska sport fishing license. Sport fishers for halibut must fish with a line attached to a rod or pole. There is a limit of two hooks. The daily bag limit is two halibut and the possession limit is four halibut.

Do you still have questions?

Call the National Marine Fisheries Service at: 1-800-304-4846 (option 2);
Or visit http://www.fakr.noaa.gov/ram/subsistence/halibut.htm;
Or call ADF&G Division of Subsistence at: 907-267-2353;
Or contact the Division of Subsistence via e-mail at: dfg.sub.halibut@alaska.gov

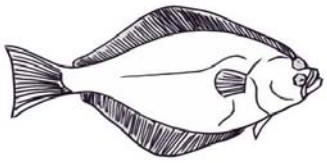
THANK YOU FOR PARTICIPATING IN THIS SURVEY!

ALASKA DEPARTMENT OF FISH & GAME
Subsistence Halibut Survey
Division of Subsistence
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

PRESORTED
FIRST CLASS MAIL
U.S. POSTAGE
PAID
ANCHORAGE, AK
PERMIT NO. 265

«FIRST_NAME» «MIDDLE_INITIAL» «LAST_NAME» «NAME_SUFFIX»
«MAILING_ADDRESS» «MAILING_ADDRESS2»
«CITY» «STATE» «ZIP»

SUBSISTENCE HALIBUT HARVEST SURVEY 2012
NATIONAL MARINE FISHERIES SERVICE &
AK DEPT. OF FISH & GAME/DIVISION OF SUBSISTENCE



2012

Appendix D.–Set of frequently asked questions and responses.

RAM: FAQ's for Subsistence Halibut Harvest Survey

The following is a list of standard responses that may be given to common questions regarding the Subsistence Halibut Harvest Survey. Any question that cannot be answered by the responses below or by other personnel in RAM division may be directed to ADF&G Division of Subsistence at the phone number(s) indicated at the bottom of the page.

1. I got my SHARC from NMFS. Why is this survey being done by ADF&G?

- NMFS contracted with ADF&G Division of Subsistence to conduct this survey because the Division of Subsistence has a lot of experience in collecting and analyzing subsistence harvest data. They have staff who are familiar with local communities and subsistence harvest patterns.

2. What happens to this information after I send it in?

- The survey responses are entered into a database by ADF&G. They will use the responses to estimate and report subsistence harvests at a community level. NMFS will receive a report from ADF&G with the survey results. The report will not include individual responses.

3. Why do you need my birth date?

- ADF&G needs birth date only to distinguish between individuals who may have the same name. For instance, there may be many John Smith's in area 2C. Providing birth date prevents ADF&G from counting the same person more than once or even counting multiple people as the same person. However, ADF&G is required to maintain birth date confidential under the Privacy Act.

4. I live in an isolated area near [insert]. What do I put down as my Community of Residence?

- Your Community of Residence is defined as the geographical location of your home. If you live in a remote location, you may list the community nearest your home. "Community of residence" is not necessarily the same as where you receive your mail.

5. The survey asks me to put down Pounds of Halibut. Does this mean I should weigh all my halibut on a scale?

- No. While an actual weight using a scale would be helpful to ADF&G, you only need to estimate the total pounds of halibut you harvested. If you know how many halibut you harvested, but have no idea how much they weighed, leave the "pounds" area blank. If you know about how many pounds you harvested but have no idea how many fish you caught, leave the "number" area blank. We will calculate the pounds or number based on standard conversion factors. However, we prefer that you do your best to provide an estimate of both numbers and pounds, because this information is lacking for the subsistence fishery.

6. Should I record the weight of my halibut before or after I process them?

- The survey asks for **ROUND WEIGHT**, which is the weight of the fish BEFORE it is gutted and beheaded. If you only know the approximate weight of the fish after you gutted them, write "dressed, head on" next to the weight (this equals about 88% of round/live weight). If you only know the approximate weight of the fish after you gutted and beheaded them, write "dressed, head off" next to the weight (this equals about 72% of round/live weight).

7. I fish near [insert]. What is the water body, bay, or sound?

- The water body, bay, or sound is the area in which you subsistence fished for halibut. For instance, a subsistence fisher from Sitka might put down that he subsistence fished for halibut in Sitka *Sound* or a subsistence fisher from Kodiak might put down that he subsistence fished for halibut in Chiniak *Bay*. However, a subsistence fisher from Akutan might put down that he subsistence fished for halibut in Unimak Pass, which is neither a bay nor sound but would be classified as a *water body*. Likewise, a subsistence fisher from St. Paul might put down that he subsistence fished for halibut in the Bering Sea, which is also a *water body*. However, the more specific the description, the more helpful it will be to ADF&G.

8. What is a lingcod?

- A lingcod is a relatively long fish that ranges from black, to grey, to greenish, to bluish-purple, usually with dark brown or copper blotches arranged in clusters, and has a large mouth with 18 large teeth. For a more accurate description and local or tribal names, you can refer to the sheet distributed by ADF&G in the original mailing that also contained your Subsistence Halibut Harvest Survey or visit the NMFS website http://www.afsc.noaa.gov/race/media/photo_gallery/fish_by_family.htm.

9. What is a rockfish?

- These fish are characterized by having bony plates or spines on the head and body and a large mouth. Some species are brightly colored, and many are difficult to distinguish from one another. They are also known as sea bass, black bass, and red snapper. For a more accurate description and local or tribal names, you can refer to the instruction sheet distributed by ADF&G in the original mailing that also contained your Subsistence Halibut Harvest Survey or visit the NMFS website http://www.afsc.noaa.gov/race/media/photo_gallery/fish_by_family.htm.

10. What is "sport fishing"?

- Sport fishing is defined as all fishing other than commercial fishing, personal use fishing, and subsistence fishing. Typically, sport fishing is conducted with a rod and reel using no more than 2 hooks under ADF&G regulations.

11. Why do I need to report my sport-caught halibut on this subsistence harvest survey form (Question 6)?

APPENDIX E.–APPENDIX TABLES.

Appendix E-1.–Results from returned surveys, 2012.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Tribal name	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
Angoon Community Association	2C	74	72	97.3%	35	48.6%	404	12,500	4	5.6%	10	200	0	0	11	55
Aukquan Traditional Council	2C	1														
Central Council Tlingit and Haida Indian Tribes	2C	485	244	50.3%	78	32.0%	819	24,297	47	19.3%	191	3,704	7	22	22	185
Chilkat Indian Village	2C	12	12	100.0%	1	8.3%	0	0	2	16.7%	7	105	0	0	0	0
Chilkoot Indian Association	2C	50	37	74.0%	13	35.1%	38	1,199	3	8.1%	0	0	2	2	2	4
Craig Community Association	2C	59	33	55.9%	17	51.5%	174	5,850	5	15.2%	3	170	3	5	8	75
Douglas Indian Association	2C	11	4	36.4%	1	25.0%	2	95	1	25.0%	1	45	0	0	0	0
Hoonah Indian Association	2C	110	67	60.9%	34	50.7%	396	7,691	10	14.9%	28	598	0	0	1	8
Hydaburg Cooperative Association	2C	108	46	42.6%	31	67.4%	465	19,727	5	10.9%	7	510	8	37	15	308
Ketchikan Indian Corporation	2C	454	318	70.0%	83	26.1%	1,165	31,400	44	13.8%	186	5,438	14	51	29	353
Klawock Cooperative Association	2C	63	39	61.9%	12	30.8%	102	4,610	1	2.6%	5	150	2	4	4	28
Metlakatla Indian Community, Annette Island Reserve	2C	119	94	79.0%	21	22.3%	112	3,050	6	6.4%	9	310	1	2	2	16
Organized Village of Kake	2C	72	53	73.6%	19	35.8%	166	7,425	1	1.9%	5	75	2	3	3	59
Organized Village of Kasaan	2C	5														
Organized Village of Saxman	2C	30	23	76.7%	16	69.6%	221	5,095	3	13.0%	45	365	1	2	1	8
Petersburg Indian Association	2C	68	48	70.6%	17	35.4%	129	3,004	12	25.0%	35	1,002	0	0	4	9
Sitka Tribe of Alaska	2C	264	154	58.3%	61	39.6%	358	12,491	7	4.5%	6	280	20	81	21	159
Skagway Village	2C	3														
Wrangell Cooperative Association	2C	82	68	82.9%	27	39.7%	239	9,339	15	22.1%	56	2,815	0	0	3	47
Subtotal, Area 2C		**2,070**	**1,319**	**63.7%**	**469**	**35.6%**	**4,797**	**148,283**	**169**	**12.8%**	**597**	**15,872**	**62**	**212**	**128**	**1,323**
Kenaitze Indian Tribe	3A	132	75	56.8%	13	17.3%	328	7,076	11	14.7%	46	629	1	2	1	9
Lesnoi Village (Woody Island)	3A	34	21	61.8%	4	19.0%	37	935	0	0.0%	0	0	1	1	1	3
Native Village of Afognak	3A	20	11	55.0%	7	63.6%	55	1,475	0	0.0%	0	0	0	0	0	0
Native Village of Akhiok	3A	7	4	57.1%	2	50.0%	33	898	0	0.0%	0	0	0	0	0	0
Native Village of Chenega	3A	18	11	61.1%	4	36.4%	36	1,200	3	27.3%	5	220	1	2	2	25
Native Village of Eyak	3A	71	43	60.6%	13	30.2%	66	1,485	8	18.6%	17	528	1	2	1	12
Native Village of Karluk	3A	4														
Native Village of Larsen Bay	3A	31	14	45.2%	9	64.3%	91	3,120	2	14.3%	12	140	2	3	3	39
Native Village of Nanwalek	3A	71	29	40.8%	29	100.0%	569	10,393	0	0.0%	0	0	4	64	10	127
Native Village of Ouzinkie	3A	28	16	57.1%	7	43.8%	62	1,520	5	31.3%	17	445	0	0	1	20
Native Village of Port Graham	3A	34	23	67.6%	14	60.9%	358	8,375	4	17.4%	4	60	3	6	3	45
Native Village of Port Lions	3A	28	16	57.1%	10	62.5%	58	2,142	9	56.3%	26	798	0	0	0	0
Native Village of Tatitlek	3A	25	16	64.0%	6	37.5%	74	980	0	0.0%	0	0	0	0	1	5
Ninilchik Village	3A	73	41	56.2%	11	26.8%	503	4,359	7	17.1%	42	795	0	0	0	0
Seldovia Village Tribe	3A	58	39	67.2%	24	61.5%	338	6,503	13	33.3%	62	1,327	4	11	3	34
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	112	68	60.7%	36	52.9%	382	9,972	14	20.6%	36	1,182	4	13	4	42
Village of Kanatak	3A	19	3	15.8%	0	0.0%	0	0	1	33.3%	2	20	0	0	0	0
Village of Old Harbor	3A	43	21	48.8%	13	61.9%	100	1,557	2	9.5%	14	270	1	6	4	26
Village of Salamatoff	3A	25	20	80.0%	6	30.0%	159	2,220	6	30.0%	22	340	0	0	0	0
Yakutat Tlingit Tribe	3A	43	21	48.8%	15	71.4%	219	8,088	1	4.8%	0	0	1	20	1	19
Subtotal, Area 3A		**876**	**494**	**56.4%**	**225**	**45.5%**	**3,491**	**72,713**	**86**	**17.4%**	**305**	**6,754**	**23**	**130**	**37**	**418**

- continued -

Appendix E-1.–Page 2 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Tribal name	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
Agdaagux Tribe of King Cove	3B	53	30	56.6%	11	36.7%	140	2,814	6	20.0%	34	926	0	0	2	8
Chignik Lake Village	3B	11	3	27.3%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Ivanoff Bay Village	3B	4														
Native Village of Belkofski	3B	5														
Native Village of Chignik	3B	4														
Native Village of Chignik Lagoon	3B	16	10	62.5%	6	60.0%	36	745	2	20.0%	8	230	1	4	3	40
Native Village of False Pass	3B	1														
Native Village of Nelson Lagoon	3B	3														
Native Village of Perryville	3B	18	14	77.8%	11	78.6%	90	1,915	1	7.1%	0	0	0	0	2	10
Native Village of Unga	3B	1														
Pauloff Harbor Village	3B	79	20	25.3%	11	55.0%	67	1,602	3	15.0%	11	210	0	0	1	2
Qagan Toyagungin Tribe of Sand Point Village	3B	82	49	59.8%	17	34.7%	115	2,660	7	14.3%	26	240	1	1	2	28
Subtotal, Area 3B		**277**	**138**	**49.8%**	**57**	**41.3%**	**455**	**9,866**	**22**	**15.9%**	**86**	**1,816**	**2**	**5**	**11**	**90**
Native Village of Akutan	4A	11	4	36.4%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Qawalingin Tribe of Unalaska	4A	27	11	40.7%	5	45.5%	14	167	2	18.2%	8	130	0	0	2	24
Subtotal, Area 4A		**38**	**15**	**39.5%**	**5**	**33.3%**	**14**	**167**	**2**	**13.3%**	**8**	**130**	**0**	**0**	**2**	**24**
Native Village of Atka	4B	4														
Subtotal, Area 4B		**4**														
Pribilof Islands Aleut Community of St. George	4C	5														
Pribilof Islands Aleut Community of St. Paul	4C	15	3	20.0%	3	100.0%	32	615	0	0.0%	0	0	0	0	0	0
Subtotal, Area 4C		**20**	**4**	**20.0%**	**3**	**75.0%**	**32**	**615**	**0**	**0.0%**	**0**	**0**	**0**	**0**	**0**	**0**
Native Village of Diomede (Inalik)	4D	1														
Native Village of Savoonga	4D	5														
Subtotal, Area 4D		**6**	**5**	**83.3%**	**4**	**80.0%**	**23**	**920**	**0**	**0.0%**	**0**	**0**	**0**	**0**	**0**	**0**
Chevak Native Village (Kashunamiut)	4E	1														
Egegik Village	4E	4														
King Island Native Community	4E	2														
Manokotak Village	4E	1														
Naknek Native Village	4E	8	1	12.5%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Native Village of Aleknagik	4E	4														
Native Village of Brevig Mission	4E	1														
Native Village of Council	4E	4														
Native Village of Dillingham (Curyung)	4E	12	6	50.0%	2	33.3%	16	491	1	16.7%	6	185	0	0	0	0
Native Village of Eek	4E	7	4	57.1%	3	75.0%	12	570	0	0.0%	0	0	0	0	0	0
Native Village of Hooper Bay	4E	2														
Native Village of Kipnuk	4E	5														
Native Village of Kongiganak	4E	3														
Native Village of Koyuk	4E	1														
Native Village of Kwigillingok	4E	1														
Native Village of Kwinhagak	4E	6	1	16.7%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Native Village of Mekoryuk	4E	4														

- continued -

Appendix E-1.–Page 3 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Tribal name	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
Native Village of Scammon Bay	4E	3														
Native Village of Shaktoolik	4E	1														
Native Village of Toksook Bay (Nunakauyak)	4E	9	8	88.9%	5	62.5%	42	420	0	0.0%	0	0	0	0	0	0
Native Village of Tununak	4E	12	4	33.3%	1	25.0%	10	90	0	0.0%	0	0	0	0	0	0
Native Village of Unalakleet	4E	1														
Native Village of Wales	4E	1														
Newtok Village	4E	1														
Nome Eskimo Community	4E	12	4	33.3%	2	50.0%	12	525	0	0.0%	0	0	0	0	1	3
Orutsararmuit Native Village	4E	13	10	76.9%	5	50.0%	0	0	0	0.0%	0	0	0	0	0	0
Platinum Traditional Village	4E	1														
South Naknek Village	4E	2														
Traditional Village of Togiak	4E	2														
Ugashik Village	4E	2														
Village of Chefornak	4E	4														
Village of Clark's Point	4E	3														
Village of Kotlik	4E	1														
Subtotal, Area 4E		**134**	**66**	**49.3%**	**25**	**37.9%**	**145**	**3,081**	**8**	**12.1%**	**28**	**703**	**1**	**24**	**1**	**3**
Tribal subtotal		**3,425**	**2,043**	**59.6%**	**789**	**38.6%**	**8,963**	**235,765**	**287**	**14.0%**	**1,024**	**25,275**	**88**	**371**	**179**	**1,858**

- continued -

Appendix E-1.–Page 4 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Rural community	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
Angoon	2C	14	13	92.9%	8	61.5%	125	3,209	3	23.1%	38	535	2	12	4	83
Coffman Cove	2C	50	38	76.0%	23	60.5%	121	3,047	21	55.3%	127	2,571	0	0	8	76
Craig	2C	303	230	75.9%	110	47.8%	877	22,255	70	30.4%	390	6,982	32	73	49	414
Edna Bay	2C	34	28	82.4%	14	50.0%	72	2,905	3	10.7%	2	120	3	4	6	16
Elfin Cove	2C	18	13	72.2%	5	38.5%	29	1,064	3	23.1%	22	680	1	10	3	32
Gustavus	2C	64	51	79.7%	26	51.0%	162	4,908	25	49.0%	123	3,945	0	0	2	6
Haines	2C	407	335	82.3%	189	56.4%	956	26,934	62	18.5%	94	2,114	10	26	21	44
Hollis	2C	48	35	72.9%	17	48.6%	90	4,515	3	8.6%	8	380	2	2	7	38
Hoonah	2C	93	76	81.7%	43	56.6%	465	7,531	26	34.2%	146	2,828	2	21	8	42
Hydaburg	2C	8	5	62.5%	4	80.0%	41	2,127	3	60.0%	4	100	3	7	3	17
Hyder	2C	22	20	90.9%	13	65.0%	51	1,448	6	30.0%	2	48	1	6	2	13
Juneau	2C	5														
Kake	2C	33	21	63.6%	9	42.9%	75	1,670	10	47.6%	26	1,162	2	10	1	12
Kasaan	2C	10	10	100.0%	5	50.0%	24	665	3	30.0%	5	85	0	0	3	15
Ketchikan	2C	8	7	87.5%	4	57.1%	22	646	4	57.1%	0	0	1	2	3	23
Klawock	2C	141	102	72.3%	46	45.1%	577	13,422	44	43.1%	209	4,559	13	36	23	198
Metlakatla	2C	20	14	70.0%	8	57.1%	47	1,276	3	21.4%	8	185	2	3	1	6
Meyers Chuck	2C	9	7	77.8%	5	71.4%	15	460	1	14.3%	1	60	1	1	2	11
Naukati Bay	2C	48	41	85.4%	22	53.7%	129	3,684	14	34.1%	55	1,938	10	15	14	119
Pelican	2C	35	26	74.3%	16	61.5%	69	1,595	5	19.2%	11	370	8	11	9	72
Petersburg	2C	843	662	78.5%	289	43.7%	1,827	48,855	194	29.3%	658	16,006	10	44	34	179
Port Alexander	2C	16	14	87.5%	12	85.7%	120	3,242	4	28.6%	7	250	9	25	9	69
Port Protection	2C	11	10	90.9%	7	70.0%	57	1,380	0	0.0%	0	0	3	6	6	40
Pt. Baker	2C	16	12	75.0%	6	50.0%	28	669	1	8.3%	0	0	0	0	3	21
Saxman	2C	8	4	50.0%	3	75.0%	36	780	2	50.0%	11	350	3	9	2	35
Sitka	2C	1,330	1,040	78.2%	481	46.3%	2,373	74,261	183	17.6%	452	10,922	205	583	269	2,082
Skagway	2C	51	47	92.2%	22	46.8%	52	2,045	13	27.7%	35	648	0	0	1	1
Tenakee Springs	2C	58	47	81.0%	25	53.2%	160	3,823	17	36.2%	63	1,212	2	2	11	60
Thorne Bay	2C	118	97	82.2%	45	46.4%	294	9,995	36	37.1%	302	4,245	9	43	19	126
Ward Cove	2C	2														
Whale Pass	2C	17	14	82.4%	10	71.4%	69	2,980	6	42.9%	6	255	1	2	2	36
Wrangell	2C	382	301	78.8%	168	55.8%	1,208	32,216	81	26.9%	233	6,716	8	18	23	131
Subtotal, Area 2C		**4,222**	**3,324**	**78.7%**	**1,636**	**49.2%**	**10,173**	**283,747**	**846**	**25.5%**	**3,038**	**69,266**	**344**	**972**	**549**	**4,021**
Akhiok	3A	6	5	83.3%	2	40.0%	16	230	2	40.0%	3	120	0	0	0	0
Chenega Bay	3A	8	8	100.0%	6	75.0%	89	1,750	3	37.5%	25	435	2	20	4	72
Chiniak	3A	7	5	71.4%	5	100.0%	44	530	3	60.0%	13	480	0	0	0	0
Cordova	3A	416	318	76.4%	146	45.9%	804	20,031	68	21.4%	132	3,244	4	6	24	118
Karluk	3A	6	6	100.0%	4	66.7%	35	710	0	0.0%	0	0	0	0	0	0
Kodiak	3A	1,360	978	71.9%	516	52.8%	4,589	118,471	352	36.0%	1,747	45,533	68	206	101	815
Nanwalek	3A	5														
Old Harbor	3A	5														
Ouzinkie	3A	16	10	62.5%	9	90.0%	56	853	3	30.0%	8	146	0	0	0	0
Port Graham	3A	5														
Port Lions	3A	17	14	82.4%	9	64.3%	104	1,785	9	64.3%	60	1,397	0	0	0	0
Seldovia	3A	126	101	80.2%	63	62.4%	912	16,881	33	32.7%	228	4,714	4	29	13	138
Tatitlek	3A	11	8	72.7%	6	75.0%	41	1,310	4	50.0%	24	755	0	0	3	22
Yakutat	3A	72	49	68.1%	20	40.8%	272	8,327	11	22.4%	70	1,310	8	30	4	54
Subtotal, Area 3A		**2,060**	**1,514**	**73.5%**	**794**	**52.4%**	**7,256**	**178,638**	**490**	**32.4%**	**2,313**	**58,204**	**88**	**312**	**151**	**8,460**
Chignik	3B	1														
Cold Bay	3B	33	27	81.8%	17	63.0%	234	4,725	11	40.7%	18	650	3	55	0	0
False Pass	3B	2														

- continued -

Appendix E-1.–Page 5 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Rural community	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
King Cove	3B	19	18	94.7%	10	55.6%	78	2,101	4	22.2%	10	321	0	0	0	0
Sand Point	3B	6	2	33.3%	1	50.0%	21	350	1	50.0%	0	0	0	0	1	20
Subtotal, Area 3B		**61**	**49**	**80.3%**	**29**	**59.2%**	**337**	**7,276**	**16**	**32.7%**	**28**	**971**	**3**	**55**	**1**	**20**
Unalaska	4A	114	83	72.8%	35	42.2%	373	9,073	30	36.1%	167	4,260	1	3	3	18
Subtotal, Area 4A		**114**	**83**	**72.8%**	**35**	**42.2%**	**373**	**9,073**	**30**	**36.1%**	**167**	**4,260**	**1**	**3**	**3**	**18**
Adak	4B	8	5	62.5%	3	60.0%	10	495	1	20.0%	0	0	1	2	1	25
Subtotal, Area 4B		**8**	**5**	**62.5%**	**3**	**60.0%**	**10**	**495**	**1**	**20.0%**	**0**	**0**	**1**	**2**	**1**	**25**
St. George Island	4C	1														
St. Paul Island	4C	1														
Subtotal, Area 4C		**2**														
Savoonga	4D	1														
Subtotal, Area 4D		**1**														
Bethel	4E	1														
Chevak	4E	1														
Dillingham	4E	21	16	76.2%	1	6.3%	0	0	1	6.3%	2	64	0	0	0	0
Egegik	4E	1														
King Salmon	4E	3														
Kotlik	4E	1														
Koyuk	4E	1														
Manokotak	4E	2														
Naknek	4E	3														
Nightmute	4E	1														
Nome	4E	13	8	61.5%	4	50.0%	17	545	0	0.0%	0	0	0	0	0	0
Port Heiden	4E	1														
Togiak	4E	2														
Subtotal, Area 4E		**51**	**34**	**66.7%**	**7**	**20.6%**	**116**	**2,070**	**2**	**5.9%**	**8**	**99**	**1**	**2**	**1**	**5**
Rural community subtotal		**6,519**	**5,011**	**76.9%**	**2,505**	**50.0%**	**18,266**	**481,319**	**1,386**	**27.7%**	**5,574**	**133,100**	**438**	**1,346**	**706**	**12,549**
Total (tribal and rural)		**9,944**	**7,054**	**70.9%**	**3,294**	**46.7%**	**27,229**	**717,084**	**1,673**	**23.7%**	**6,598**	**158,375**	**526**	**1,717**	**885**	**14,407**

- continued -

Appendix E-1.–Page 6 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Community of residence	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
Adak	AK	7	3	42.9%	1	33.3%	1	155	1	33.3%	0	0	0	0	0	0
Akhiok	AK	4														
Akutan	AK	6	0	0.0%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Anchor Point	AK	16	7	43.8%	6	85.7%	108	2,040	1	14.3%	4	80	0	0	0	0
Anchorage	AK	198	115	58.1%	31	27.0%	371	10,927	26	22.6%	60	1,530	4	7	10	63
Angoon	AK	97	92	94.8%	47	51.1%	565	16,464	7	7.6%	48	735	2	12	16	140
Auke Bay	AK	4														
Barrow	AK	2														
Bethel	AK	13	10	76.9%	5	50.0%	4	160	0	0.0%	0	0	0	0	0	0
Chefornak	AK	3														
Chenega Bay	AK	10	10	100.0%	7	70.0%	99	2,450	4	40.0%	26	475	3	22	5	92
Chevak	AK	1														
Chignik	AK	6	4	66.7%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Chignik Lagoon	AK	9	5	55.6%	2	40.0%	26	470	1	20.0%	4	80	0	0	2	30
Chignik Lake	AK	1														
Chiniak	AK	13	11	84.6%	8	72.7%	52	825	4	36.4%	13	480	0	0	0	0
Chugiak	AK	4														
Clarks Point	AK	3														
Coffman Cove	AK	49	39	79.6%	22	56.4%	113	2,791	21	53.8%	127	2,571	0	0	8	76
Cold Bay	AK	37	30	81.1%	17	56.7%	234	4,725	12	40.0%	23	820	3	55	0	0
Cordova	AK	470	351	74.7%	155	44.2%	862	21,166	72	20.5%	135	3,339	5	8	25	130
Craig	AK	450	333	74.0%	161	48.3%	1,309	36,184	88	26.4%	417	7,977	43	95	77	624
Dillingham	AK	25	18	72.0%	3	16.7%	16	491	1	5.6%	2	64	0	0	0	0
Douglas	AK	11	4	36.4%	2	50.0%	8	200	2	50.0%	2	40	0	0	0	0
Dutch Harbor	AK	70	47	67.1%	22	46.8%	262	6,256	19	40.4%	99	3,035	0	0	2	8
Eagle River	AK	9	5	55.6%	3	60.0%	43	705	2	40.0%	6	120	0	0	0	0
Edna Bay	AK	26	20	76.9%	10	50.0%	55	2,240	2	10.0%	2	120	2	3	3	7
Eek	AK	5														
Egegik	AK	1														
Elfin Cove	AK	17	12	70.6%	5	41.7%	29	1,064	3	25.0%	22	680	1	10	3	32
Excursion Inlet	AK	4														
Fairbanks	AK	6	4	66.7%	1	25.0%	6	200	0	0.0%	0	0	0	0	0	0
False Pass	AK	2														
Fritz Creek	AK	1														
Gakona	AK	1														
Girdwood	AK	1														
Gustavus	AK	64	50	78.1%	25	50.0%	157	4,788	24	48.0%	117	3,795	0	0	2	6
Haines	AK	455	371	81.5%	196	52.8%	951	26,823	62	16.7%	76	1,729	10	26	21	44
Homer	AK	30	23	76.7%	7	30.4%	114	2,255	7	30.4%	30	685	2	4	2	31
Hoonah	AK	199	142	71.4%	79	55.6%	951	16,912	36	25.4%	174	3,426	2	21	9	50
Hydaburg	AK	105	49	46.7%	35	71.4%	506	21,854	7	14.3%	7	510	11	44	18	325
Hyder	AK	22	20	90.9%	13	65.0%	51	1,448	6	30.0%	2	48	1	6	2	13
Juneau	AK	338	149	44.1%	37	24.8%	316	8,175	33	22.1%	158	3,014	1	2	10	51
Kake	AK	103	78	75.7%	31	39.7%	248	9,725	11	14.1%	27	1,242	4	13	5	73
Karluk	AK	9	7	77.8%	5	71.4%	55	1,085	0	0.0%	0	0	0	0	1	10
Kasaan	AK	9	9	100.0%	7	77.8%	30	915	3	33.3%	8	190	2	3	4	22
Kasilof	AK	14	7	50.0%	3	42.9%	61	1,455	3	42.9%	12	230	0	0	1	6
Kaukati	AK	1														
Kenai	AK	106	60	56.6%	9	15.0%	284	6,983	11	18.3%	47	744	1	2	1	9
Ketchikan	AK	524	381	72.7%	117	30.7%	1,538	44,052	67	17.6%	298	7,618	24	84	44	614
King Cove	AK	73	44	60.3%	20	45.5%	215	4,618	9	20.5%	37	1,062	0	0	1	6

- continued -

Appendix E-1.–Page 7 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Community of residence	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
King Salmon	AK	2														
Kipnuk	AK	5														
Klawock	AK	212	136	64.2%	59	43.4%	705	22,538	41	30.1%	218	4,532	16	35	24	172
Klukwan	AK	1														
Kodiak	AK	1,503	1,059	70.5%	558	52.7%	4,997	130,328	364	34.4%	1,794	46,435	74	223	107	883
Kongiganak	AK	3														
Kotzebue	AK	1														
Koyuk	AK	1														
Kwigillingok	AK	1														
Larsen Bay	AK	22	10	45.5%	7	70.0%	67	1,370	2	20.0%	12	140	1	1	2	14
Manokotak	AK	2														
Mekoryuk	AK	3														
Metlakatla	AK	128	102	79.7%	27	26.5%	132	3,726	9	8.8%	17	495	3	5	3	22
Meyers Chuck	AK	8	6	75.0%	5	83.3%	15	460	1	16.7%	1	60	1	1	2	11
Naknek	AK	9	2	22.2%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Nanwalek	AK	74	34	45.9%	33	97.1%	824	17,393	0	0.0%	0	0	6	85	12	157
Naukati	AK	22	18	81.8%	10	55.6%	77	1,857	4	22.2%	19	675	4	6	5	36
Nelson Lagoon	AK	1														
Nightmute	AK	1														
Nikiski	AK	7	3	42.9%	1	33.3%	20	450	1	33.3%	4	60	0	0	0	0
Ninilchik	AK	28	14	50.0%	1	7.1%	32	512	3	21.4%	22	320	0	0	0	0
Nome	AK	18	10	55.6%	5	50.0%	23	705	0	0.0%	0	0	0	0	0	0
North Pole	AK	2														
Old Harbor	AK	37	23	62.2%	16	69.6%	132	2,565	3	13.0%	15	320	1	6	3	21
Ouzinkie	AK	35	23	65.7%	15	65.2%	106	1,858	5	21.7%	18	376	0	0	1	20
Palmer	AK	10	6	60.0%	1	16.7%	1	22	1	16.7%	1	88	0	0	0	0
Pelican	AK	44	33	75.0%	23	69.7%	112	3,442	7	21.2%	12	395	10	14	14	93
Perryville	AK	15	13	86.7%	8	61.5%	65	1,355	1	7.7%	0	0	0	0	2	10
Petersburg	AK	917	711	77.5%	305	42.9%	1,985	51,241	208	29.3%	699	17,083	10	49	37	197
Point Baker	AK	22	17	77.3%	11	64.7%	55	1,391	1	5.9%	0	0	1	2	7	50
Port Alexander	AK	16	14	87.5%	12	85.7%	120	3,242	4	28.6%	7	250	9	25	9	69
Port Graham	AK	32	21	65.6%	12	57.1%	144	2,213	4	19.0%	4	50	2	2	0	0
Port Heiden	AK	1														
Port Lions	AK	43	28	65.1%	18	64.3%	158	3,547	17	60.7%	85	1,970	0	0	0	0
Port William	AK	1														
Quinhagak	AK	8	1	12.5%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Sand Point	AK	136	60	44.1%	28	46.7%	176	3,989	11	18.3%	37	450	1	1	4	50
Savoonga	AK	6	5	83.3%	4	80.0%	18	780	0	0.0%	0	0	0	0	0	0
Saxman	AK	6	5	83.3%	4	80.0%	29	695	0	0.0%	0	0	1	2	1	8
Seldovia	AK	139	110	79.1%	72	65.5%	990	18,606	34	30.9%	242	4,874	5	35	14	141
Seward	AK	10	7	70.0%	1	14.3%	4	200	1	14.3%	3	110	1	4	1	10
Sitka	AK	1,570	1,181	75.2%	544	46.1%	2,681	86,815	187	15.8%	412	10,397	226	661	290	2,247
Skagway	AK	57	52	91.2%	24	46.2%	69	2,370	14	26.9%	35	648	0	0	1	1
Soldotna	AK	51	38	74.5%	13	34.2%	547	3,720	8	21.1%	48	1,020	0	0	0	0
St. George Island	AK	2														
St. Paul Island	AK	12	3	25.0%	3	100.0%	32	615	0	0.0%	0	0	0	0	0	0
Sterling	AK	2														
Tatitlek	AK	22	17	77.3%	9	52.9%	98	1,895	1	5.9%	15	500	0	0	3	17
Tenakee Springs	AK	58	47	81.0%	25	53.2%	160	3,823	17	36.2%	63	1,212	2	2	11	60
Thorne Bay	AK	116	95	81.9%	45	47.4%	298	10,051	35	36.8%	302	4,245	9	43	19	126
Togiak	AK	4														

- continued -

Appendix E-1.–Page 8 of 8.

		Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
Community of residence	Regulatory area	SHARCs issued[a]	Surveys returned	Percent returned	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Percent respondents	Number halibut	Pounds halibut[b]	Number respondents	Number lingcod	Number respondents	Number rockfish
Toksook Bay	AK	7	6	85.7%	5	83.3%	42	420	0	0.0%	0	0	0	0	0	0
Trapper Creek	AK	1														
Tununak	AK	11	4	36.4%	1	25.0%	10	90	0	0.0%	0	0	0	0	0	0
Twin Hills	AK	1														
Unalakleet	AK	1														
Unalaska	AK	71	48	67.6%	21	43.8%	175	4,324	13	27.1%	76	1,355	1	3	3	34
Valdez	AK	33	19	57.6%	10	52.6%	165	3,025	5	26.3%	17	605	1	1	3	23
Ward Cove	AK	37	22	59.5%	5	22.7%	25	1,405	1	4.5%	1	35	1	1	3	20
Wasilla	AK	35	6	17.1%	3	50.0%	92	1,130	2	33.3%	4	80	1	1	1	15
Whale Pass	AK	7	7	100.0%	6	85.7%	22	150	2	28.6%	1	40	0	0	0	0
Willow	AK	2														
Wrangell	AK	469	372	79.3%	199	53.5%	1,467	41,305	96	25.8%	289	9,441	8	18	26	154
Yakutat	AK	112	67	59.8%	32	47.8%	468	15,675	12	17.9%	70	1,310	9	50	5	73
Alaska subtotal		**9,847**	**7,005**	**71.1%**	**3,290**	**47.0%**	**27,179**	**716,190**	**1,663**	**23.7%**	**6,535**	**156,380**	**526**	**1,717**	**885**	**7,196**
Non-Alaska subtotal		**97**	**49**	**50.5%**	**4**	**8.2%**	**50**	**894**	**10**	**20.4%**	**63**	**1,995**	**0**	**0**	**0**	**0**
Total		**9,944**	**7,054**	**70.9%**	**3,294**	**46.7%**	**27,229**	**717,084**	**1,673**	**23.7%**	**6,598**	**158,375**	**526**	**1,717**	**885**	**7,196**

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities. Blank cells indicate redacted data.

b. Pounds of halibut are reported in round weight.

Appendix E-2.–Harvests by return category.

		First mailing response					Second mailing response					Third mailing response					Staff administered				
Tribal name	Regulatory area	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Angoon Community Association	2C	20	8	108	5.4	13.5	7	3	63	9.0	21.0	3	2	0	0.0	0.0	42	22	233	5.5	10.6
Aukquan Traditional Council	2C																				
Central Council Tlingit and Haida Indian Tribes	2C	160	43	528	3.3	12.3	55	21	178	3.2	8.5	20	8	63	3.2	7.9	9	6	50	5.6	8.3
Chilkat Indian Village	2C	9	1	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Chilkoot Indian Association	2C	25	10	32	1.3	3.2	7	3	6	0.9	2.0	1	0	0	0.0	0.0	4	0	0	0.0	0.0
Craig Community Association	2C	25	14	150	6.0	10.7	7	2	20	2.9	10.0	1	1	4	4.0	4.0	0	0	0	0.0	0.0
Douglas Indian Association	2C	4	1	2	0.5	2.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Hoonah Indian Association	2C	42	23	260	6.2	11.3	14	6	122	8.7	20.3	9	3	14	1.6	4.7	2	2	0	0.0	0.0
Hydaburg Cooperative Association	2C	19	12	90	4.7	7.5	4	3	58	14.5	19.3	2	2	25	12.5	12.5	21	14	292	13.9	20.9
Ketchikan Indian Corporation	2C	150	49	849	5.7	17.3	36	7	123	3.4	17.6	15	5	26	1.7	5.2	117	22	167	1.4	7.6
Klawock Cooperative Association	2C	24	9	85	3.5	9.4	8	1	10	1.3	10.0	6	2	7	1.2	3.5	1	0	0	0.0	0.0
Metlakatla Indian Community, Annette Island Reserve	2C	40	8	29	0.7	3.6	10	6	27	2.7	4.5	1	1	4	4.0	4.0	43	6	52	1.2	8.7
Organized Village of Kake	2C	34	13	107	3.1	8.2	16	4	37	2.3	9.3	3	2	22	7.3	11.0	0	0	0	0.0	0.0
Organized Village of Kasaan	2C																				
Organized Village of Saxman	2C	11	6	138	12.5	23.0	4	4	23	5.8	5.8	1	1	4	4.0	4.0	7	5	56	8.0	11.2
Petersburg Indian Association	2C	31	16	124	4.0	7.8	13	0	0	0.0	0.0	3	1	5	1.7	5.0	1	0	0	0.0	0.0
Sitka Tribe of Alaska	2C	81	32	196	2.4	6.1	30	14	78	2.6	5.6	12	5	35	2.9	7.0	31	10	49	1.6	4.9
Skagway Village	2C																				
Wrangell Cooperative Association	2C	54	19	161	3.0	8.5	10	7	68	6.8	9.7	4	1	10	2.5	10.0	0	0	0	0.0	0.0
Subtotal, Area 2C		**734**	**266**	**2,866**	**3.9**	**10.8**	**224**	**81**	**813**	**3.6**	**10.0**	**81**	**34**	**219**	**2.7**	**6.4**	**280**	**88**	**899**	**3.2**	**10.2**
Kenaitze Indian Tribe	3A	56	6	80	1.4	13.3	14	6	233	16.6	38.8	5	1	15	3.0	15.0	0	0	0	0.0	0.0
Lesnoi Village (Woody Island)	3A	15	3	36	2.4	12.0	5	1	1	0.2	1.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Afognak	3A	8	6	50	6.3	8.3	2	1	5	2.5	5.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Akhiok	3A	4	2	33	8.3	16.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Chenega	3A	10	3	36	3.6	12.0	1	0	0	0.0	0.0	0	1	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Eyak	3A	29	9	43	1.5	4.8	12	4	23	1.9	5.8	2	0	0	0.0	0.0	0	0	0	0.0	0.0

- continued -

Appendix E-2.–Page 2 of 9.

Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Native Village of Karluk	3A																				
Native Village of Larsen Bay	3A	10	8	77	7.7	9.6	4	1	14	3.5	14.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Nanwalek	3A	19	19	254	13.4	13.4	2	2	27	13.5	13.5	6	6	88	14.7	14.7	2	2	200	100.0	100.0
Native Village of Ouzinkie	3A	9	4	37	4.1	9.3	6	3	25	4.2	8.3	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Port Graham	3A	17	11	353	20.8	32.1	3	1	4	1.3	4.0	1	2	1	1.0	0.5	2	0	0	0.0	0.0
Native Village of Port Lions	3A	14	10	58	4.1	5.8	1	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Tatitlek	3A	11	3	62	5.6	20.7	2	2	9	4.5	4.5	2	1	3	1.5	3.0	1	0	0	0.0	0.0
Ninilchik Village	3A	29	8	448	15.4	56.0	8	3	55	6.9	18.3	4	0	0	0.0	0.0	0	0	0	0.0	0.0
Seldovia Village Tribe	3A	27	14	270	10.0	19.3	7	6	60	8.6	10.0	5	4	8	1.6	2.0	0	0	0	0.0	0.0
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	54	30	322	6.0	10.7	7	2	12	1.7	6.0	7	4	48	6.9	12.0	0	0	0	0.0	0.0
Village of Kanatak	3A	2	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Village of Old Harbor	3A	15	11	95	6.3	8.6	6	2	5	0.8	2.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Village of Salamatoff	3A	17	6	159	9.4	26.5	3	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Yakutat Tlingit Tribe	3A	19	14	212	11.2	15.1	2	1	7	3.5	7.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 3A		**366**	**168**	**2,628**	**7.2**	**15.6**	**86**	**35**	**480**	**5.6**	**13.7**	**37**	**20**	**183**	**4.9**	**9.2**	**5**	**2**	**200**	**40.0**	**100.0**
Agdaagux Tribe of King Cove	3B	20	9	130	6.5	14.4	6	2	10	1.7	5.0	4	0	0	0.0	0.0	0	0	0	0.0	0.0
Chignik Lake Village	3B	1	0	0	0.0	0.0	0	0	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Ivanoff Bay Village	3B																				
Native Village of Belkofski	3B																				
Native Village of Chignik	3B																				
Native Village of Chignik Lagoon	3B	5	3	32	6.4	10.7	5	3	4	0.8	1.3	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of False Pass	3B																				
Native Village of Nelson Lagoon	3B																				
Native Village of Perryville	3B	11	8	67	6.1	8.4	1	1	16	16.0	16.0	1	1	2	2.0	2.0	1	1	5	5.0	5.0
Native Village of Unga	3B																				
Pauloff Harbor Village	3B	16	8	56	3.5	7.0	2	1	1	0.5	1.0	1	1	5	5.0	5.0	1	1	5	5.0	5.0
Qagan Toyagungin Tribe of Sand Point Village	3B	31	9	44	1.4	4.9	15	7	63	4.2	9.0	3	1	8	2.7	8.0	0	0	0	0.0	0.0
Subtotal, Area 3B		**92**	**38**	**336**	**3.7**	**8.8**	**33**	**14**	**94**	**2.8**	**6.7**	**11**	**3**	**15**	**1.4**	**5.0**	**2**	**2**	**10**	**5.0**	**5.0**
Native Village of Akutan	4A	4	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0

- continued -

Appendix E-2.–Page 3 of 9.

Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Qawalingin Tribe of Unalaska	4A	8	3	14	1.8	4.7	2	2	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Subtotal, Area 4A		**12**	**3**	**14**	**1.2**	**4.7**	**2**	**2**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**	**1**	**0**	**0**	**0.0**	**0.0**
Native Village of Atka	4B																				
Subtotal, Area 4B		**1**	**0**	**0**	**0.0**	**0.0**	**1**	**1**	**6**	**6.0**	**6.0**	**0**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**
Pribilof Islands Aleut Community of St George	4C																				
Pribilof Islands Aleut Community of St Paul	4C	2	2	11	5.5	5.5	0	0	0	0.0	0.0	1	1	21	21.0	21.0	0	0	0	0.0	0.0
Subtotal, Area 4C		**3**	**2**	**11**	**3.7**	**5.5**	**0**	**0**	**0**	**0.0**	**0.0**	**1**	**1**	**21**	**21.0**	**21.0**	**0**	**0**	**0**	**0.0**	**0.0**
Native Village of Diomede (Inalik)	4D																				
Native Village of Savoonga	4D																				
Subtotal, Area 4D		**3**	**3**	**21**	**7.0**	**7.0**	**1**	**0**	**0**	**0.0**	**0.0**	**1**	**1**	**2**	**2.0**	**2.0**	**0**	**0**	**0**	**0.0**	**0.0**
Chevak Native Village (Kashunamiut)	4E																				
Egegik Village	4E																				
King Island Native Community	4E																				
Manokotak Village	4E																				
Naknek Native Village	4E	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Aleknagik	4E																				
Native Village of Brevig Mission	4E																				
Native Village of Council	4E																				
Native Village of Dillingham (Curyung)	4E	2	0	0	0.0	0.0	2	2	16	8.0	8.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Eek	4E	3	3	12	4.0	4.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Hooper Bay	4E																				
Native Village of Kipnuk	4E																				
Native Village of Kongiganak	4E																				
Native Village of Koyuk	4E																				
Native Village of Kwigillingok	4E																				
Native Village of Kwinhagak	4E	0	0	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Mekoryuk	4E																				

- continued -

Appendix E-2.–Page 4 of 9.

Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Native Village of Scammon Bay	4E																				
Native Village of Shaktoolik	4E																				
Native Village of Toksook Bay (nunakauyak)	4E	8	5	42	5.3	8.4	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Tununak	4E	4	1	10	2.5	10.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Unalakleet	4E																				
Native Village of Wales	4E																				
Newtok Village	4E																				
Nome Eskimo Community	4E	3	1	2	0.7	2.0	1	1	10	10.0	10.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Orutsararmuit Native Village	4E	3	2	0	0.0	0.0	2	0	0	0.0	0.0	5	3	0	0.0	0.0	0	0	0	0.0	0.0
Platinum Traditional Village	4E																				
South Naknek Village	4E																				
Traditional Village of Togiak	4E																				
Ugashik Village	4E																				
Village of Chefornak	4E																				
Village of Clark's Point	4E																				
Village of Kotlik	4E																				
Subtotal, Area 4E		**39**	**18**	**119**	**3.1**	**6.6**	**16**	**3**	**26**	**1.6**	**8.7**	**11**	**4**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**
Tribal subtotal		**1,250**	**498**	**5,995**	**4.8**	**12.0**	**363**	**136**	**1,419**	**3.9**	**10.4**	**142**	**63**	**440**	**3.1**	**7.0**	**288**	**92**	**1,109**	**3.9**	**12.1**

- continued -

Appendix E-2.–Page 5 of 9.

		First mailing response					Second mailing response					Third mailing response					Staff administered				
Rural community	Regulatory area	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Angoon	2C	6	4	94	15.7	23.5	2	1	10	5.0	10.0	0	0	0	0.0	0.0	5	3	21	4.2	7.0
Coffman Cove	2C	27	20	98	3.6	4.9	7	2	15	2.1	7.5	3	1	8	2.7	8.0	1	0	0	0.0	0.0
Craig	2C	187	93	738	3.9	7.9	32	14	100	3.1	7.1	11	3	39	3.5	13.0	0	0	0	0.0	0.0
Edna Bay	2C	18	12	58	3.2	4.8	7	2	14	2.0	7.0	3	0	0	0.0	0.0	0	0	0	0.0	0.0
Elfin Cove	2C	9	4	27	3.0	6.8	4	1	2	0.5	2.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Gustavus	2C	42	22	156	3.7	7.1	4	2	4	1.0	2.0	4	2	2	0.5	1.0	1	0	0	0.0	0.0
Haines	2C	268	158	792	3.0	5.0	53	22	140	2.6	6.4	12	7	20	1.7	2.9	2	2	4	2.0	2.0
Hollis	2C	30	16	90	3.0	5.6	4	1	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Hoonah	2C	54	35	343	6.4	9.8	17	5	89	5.2	17.8	3	2	23	7.7	11.5	2	1	10	5.0	10.0
Hydaburg	2C	4	4	41	10.3	10.3	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Hyder	2C	18	13	51	2.8	3.9	1	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Juneau	2C																				
Kake	2C	19	8	69	3.6	8.6	2	1	6	3.0	6.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Kasaan	2C	8	4	24	3.0	6.0	1	0	0	0.0	0.0	1	1	0	0.0	0.0	0	0	0	0.0	0.0
Ketchikan	2C	5	4	22	4.4	5.5	1	0	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Klawock	2C	76	37	463	6.1	12.5	15	6	69	4.6	11.5	10	3	45	4.5	15.0	1	0	0	0.0	0.0
Metlakatla	2C	9	5	26	2.9	5.2	2	1	0	0.0	0.0	1	1	4	4.0	4.0	2	1	17	8.5	17.0
Meyers Chuck	2C	5	3	8	1.6	2.7	1	1	3	3.0	3.0	1	1	4	4.0	4.0	0	0	0	0.0	0.0
Naukati Bay	2C	30	18	73	2.4	4.1	7	1	20	2.9	20.0	4	2	6	1.5	3.0	0	1	30	0.0	30.0
Pelican	2C	17	11	39	2.3	3.5	5	3	16	3.2	5.3	4	2	14	3.5	7.0	0	0	0	0.0	0.0
Petersburg	2C	532	240	1,454	2.7	6.1	93	38	294	3.2	7.7	36	11	79	2.2	7.2	1	0	0	0.0	0.0
Port Alexander	2C	12	10	96	8.0	9.6	1	1	19	19.0	19.0	1	1	5	5.0	5.0	0	0	0	0.0	0.0
Port Protection	2C	7	5	44	6.3	8.8	3	2	13	4.3	6.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Pt. Baker	2C	9	4	24	2.7	6.0	0	0	0	0.0	0.0	3	2	4	1.3	2.0	0	0	0	0.0	0.0
Saxman	2C	1	1	20	20.0	20.0	2	2	16	8.0	8.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Sitka	2C	733	342	1,623	2.2	4.7	137	68	440	3.2	6.5	47	30	156	3.3	5.2	123	41	154	1.3	3.8
Skagway	2C	36	14	28	0.8	2.0	10	7	16	1.6	2.3	1	1	8	8.0	8.0	0	0	0	0.0	0.0
Tenakee Springs	2C	39	24	157	4.0	6.5	6	1	3	0.5	3.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Thorne Bay	2C	72	35	247	3.4	7.1	17	7	33	1.9	4.7	8	3	14	1.8	4.7	0	0	0	0.0	0.0
Ward Cove	2C																				
Whale Pass	2C	9	5	49	5.4	9.8	3	2	0	0.0	0.0	2	2	0	0.0	0.0	0	1	20	0.0	20.0
Wrangell	2C	232	132	926	4.0	7.0	46	26	216	4.7	8.3	23	10	66	2.9	6.6	0	0	0	0.0	0.0
Subtotal, Area 2C		**2,516**	**1,283**	**7,880**	**3.1**	**6.1**	**486**	**218**	**1,540**	**3.2**	**7.1**	**182**	**85**	**497**	**2.7**	**5.8**	**140**	**50**	**256**	**1.8**	**5.1**
Akhiok	3A	4	2	16	4.0	8.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Chenega Bay	3A	5	5	83	16.6	16.6	2	1	6	3.0	6.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Chiniak	3A	3	3	35	11.7	11.7	2	2	9	4.5	4.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Cordova	3A	235	114	637	2.7	5.6	61	23	133	2.2	5.8	22	9	34	1.5	3.8	0	0	0	0.0	0.0
Karluk	3A	6	4	35	5.8	8.8	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Kodiak	3A	742	390	3,658	4.9	9.4	162	89	658	4.1	7.4	71	35	267	3.8	7.6	3	2	6	2.0	3.0
Nanwalek	3A																				
Old Harbor	3A																				
Ouzinkie	3A	7	8	52	7.4	6.5	2	1	4	2.0	4.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Port Graham	3A																				
Port Lions	3A	11	8	95	8.6	11.9	2	1	9	4.5	9.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Seldovia	3A	85	51	772	9.1	15.1	12	10	116	9.7	11.6	4	2	24	6.0	12.0	0	0	0	0.0	0.0
Tatitlek	3A	6	5	38	6.3	7.6	2	1	3	1.5	3.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Yakutat	3A	38	14	199	5.2	14.2	10	6	73	7.3	12.2	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Subtotal, Area 3A		**1,150**	**610**	**5,714**	**5.0**	**9.4**	**255**	**134**	**1,011**	**4.0**	**7.5**	**104**	**47**	**375**	**3.6**	**8.0**	**5**	**3**	**156**	**31.2**	**52.0**

- continued -

Appendix E-2.–Page 6 of 9.

Rural community	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Chignik	3B																				
Cold Bay	3B	26	17	234	9.0	13.8	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
False Pass	3B																				
King Cove	3B	14	8	74	5.3	9.3	3	2	4	1.3	2.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Sand Point	3B	0	0	0	0.0	0.0	2	1	21	10.5	21.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 3B		**42**	**26**	**312**	**7.4**	**12.0**	**6**	**3**	**25**	**4.2**	**8.3**	**1**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**
Unalaska	4A	63	29	310	4.9	10.7	16	6	63	3.9	10.5	4	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 4A		**63**	**29**	**310**	**4.9**	**10.7**	**16**	**6**	**63**	**3.9**	**10.5**	**4**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**
Adak	4B	4	3	10	2.5	3.3	0	0	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Subtotal, Area 4B		**4**	**3**	**10**	**2.5**	**3.3**	**0**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**	**1**	**0**	**0**	**0.0**	**0.0**
St George Island	4C																				
St Paul Island	4C																				
Subtotal, Area 4C		**1**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**
Savoonga	4D																				
Subtotal, Area 4D		**0**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**	**1**	**1**	**1**	**1.0**	**1.0**	**0**	**0**	**0**	**0.0**	**0.0**
Bethel	4E																				
Chevak	4E																				
Dillingham	4E	12	0	0	0.0	0.0	2	1	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Egegik	4E																				
King Salmon	4E																				
Kotlik	4E																				
Koyuk	4E																				
Manokotak	4E																				
Naknek	4E																				
Nightmute	4E																				
Nome	4E	5	3	17	3.4	5.7	1	1	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Port Heiden	4E																				
Togiak	4E																				
Subtotal, Area 4E		**24**	**5**	**116**	**4.8**	**23.2**	**4**	**2**	**0**	**0.0**	**0.0**	**6**	**0**	**0**	**0.0**	**0.0**	**0**	**0**	**0**	**0.0**	**0.0**
Rural community subtotal		**3,800**	**1,956**	**14,342**	**3.8**	**7.3**	**767**	**363**	**2,639**	**3.4**	**7.3**	**298**	**133**	**873**	**2.9**	**6.6**	**146**	**53**	**412**	**2.8**	**7.8**
Total (tribal and rural)		**5,050**	**2,454**	**20,337**	**4.0**	**8.3**	**1,130**	**499**	**4,058**	**3.6**	**8.1**	**440**	**196**	**1,313**	**3.0**	**6.7**	**434**	**145**	**1,521**	**3.5**	**10.5**

- continued -

Appendix E-2.–Page 7 of 9.

Community of residence	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Adak	AK	2	1	1	0.5	1.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Akhiok	AK																				
Akutan	AK	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Anchor Point	AK	7	6	108	15.4	18.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Anchorage	AK	92	23	309	3.4	13.4	18	8	62	3.4	7.8	5	0	0	0.0	0.0	0	0	0	0.0	0.0
Angoon	AK	27	12	202	7.5	16.8	8	4	73	9.1	18.3	3	2	0	0.0	0.0	54	29	290	5.4	10.0
Auke Bay	AK																				
Barrow	AK																				
Bethel	AK	3	2	4	1.3	2.0	2	0	0	0.0	0.0	5	3	0	0.0	0.0	0	0	0	0.0	0.0
Chefornak	AK																				
Chenega Bay	AK	7	6	93	13.3	15.5	2	1	6	3.0	6.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Chevak	AK																				
Chignik	AK	1	0	0	0.0	0.0	3	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chignik Lagoon	AK	4	2	26	6.5	13.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chignik Lake	AK																				
Chiniak	AK	6	5	43	7.2	8.6	5	3	9	1.8	3.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chugiak	AK																				
Clarks Point	AK																				
Coffman Cove	AK	26	19	90	3.5	4.7	8	2	15	1.9	7.5	4	1	8	2.0	8.0	1	0	0	0.0	0.0
Cold Bay	AK	28	17	234	8.4	13.8	2	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Cordova	AK	255	119	672	2.6	5.6	72	27	156	2.2	5.8	24	9	34	1.4	3.8	0	0	0	0.0	0.0
Craig	AK	273	139	1,133	4.2	8.2	45	18	126	2.8	7.0	15	4	50	3.3	12.5	0	0	0	0.0	0.0
Dillingham	AK	12	0	0	0.0	0.0	4	3	16	4.0	5.3	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Douglas	AK	4	2	8	2.0	4.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Dutch Harbor	AK	31	16	199	6.4	12.4	14	6	63	4.5	10.5	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Eagle River	AK	5	3	43	8.6	14.3	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Edna Bay	AK	13	8	41	3.2	5.1	7	2	14	2.0	7.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Eek	AK																				
Egegik	AK																				
Elfin Cove	AK	8	4	27	3.4	6.8	4	1	2	0.5	2.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Excursion Inlet	AK																				
Fairbanks	AK	3	1	6	2.0	6.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
False Pass	AK																				
Fritz Creek	AK																				
Gakona	AK																				
Girdwood	AK																				
Gustavus	AK	41	21	151	3.7	7.2	4	2	4	1.0	2.0	4	2	2	0.5	1.0	1	0	0	0.0	0.0
Haines	AK	291	162	781	2.7	4.8	64	25	146	2.3	5.8	14	7	20	1.4	2.9	2	2	4	2.0	2.0
Homer	AK	13	5	64	4.9	12.8	9	2	50	5.6	25.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0
Hoonah	AK	95	60	683	7.2	11.4	32	11	221	6.9	20.1	11	5	37	3.4	7.4	4	3	10	2.5	3.3
Hydaburg	AK	23	16	131	5.7	8.2	3	3	58	19.3	19.3	2	2	25	12.5	12.5	21	14	292	13.9	20.9
Hyder	AK	18	13	51	2.8	3.9	1	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Juneau	AK	98	23	169	1.7	7.3	38	12	116	3.1	9.7	12	1	12	1.0	12.0	1	1	19	19.0	19.0
Kake	AK	58	24	192	3.3	8.0	19	6	44	2.3	7.3	1	1	12	12.0	12.0	0	0	0	0.0	0.0
Karluk	AK	6	4	35	5.8	8.8	0	0	0	0.0	0.0	1	1	20	20.0	20.0	0	0	0	0.0	0.0
Kasaan	AK	8	6	30	3.8	5.0	0	0	0	0.0	0.0	1	1	0	0.0	0.0	0	0	0	0.0	0.0
Kasilof	AK	4	1	12	3.0	12.0	3	2	49	16.3	24.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Kenai	AK	43	5	135	3.1	27.0	11	3	134	12.2	44.7	6	1	15	2.5	15.0	0	0	0	0.0	0.0
Ketchikan	AK	179	66	1,095	6.1	16.6	47	14	181	3.9	12.9	22	8	35	1.6	4.4	133	29	227	1.7	7.8

- continued -

Appendix E-2.–Page 8 of 9.

Community of residence	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
King Cove	AK	32	16	198	6.2	12.4	6	3	9	1.5	3.0	6	1	8	1.3	8.0	0	0	0	0.0	0.0
King Salmon	AK																				
Kipnuk	AK																				
Klawock	AK	94	44	558	5.9	12.7	24	8	77	3.2	9.6	16	7	70	4.4	10.0	2	0	0	0.0	0.0
Klukwan	AK																				
Kodiak	AK	808	423	3,981	4.9	9.4	173	93	690	4.0	7.4	75	39	315	4.2	8.1	3	3	11	3.7	3.7
Kongiganak	AK																				
Kotzebue	AK																				
Koyuk	AK																				
Kwigillingok	AK																				
Larsen Bay	AK	6	6	53	8.8	8.8	4	1	14	3.5	14.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Manokotak	AK																				
Mekoryuk	AK																				
Metlakatla	AK	47	13	55	1.2	4.2	10	6	13	1.3	2.2	1	2	8	8.0	4.0	44	6	56	1.3	9.3
Meyers Chuck	AK	4	3	8	2.0	2.7	1	1	3	3.0	3.0	1	1	4	4.0	4.0	0	0	0	0.0	0.0
Naknek	AK	2	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Nanwalek	AK	21	21	309	14.7	14.7	2	2	27	13.5	13.5	8	7	138	17.3	19.7	3	3	350	116.7	116.7
Naukati	AK	14	8	43	3.1	5.4	4	0	0	0.0	0.0	1	1	4	4.0	4.0	0	1	30	0.0	30.0
Nelson Lagoon	AK																				
Nightmute	AK																				
Nikiski	AK	3	1	20	6.7	20.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Ninilchik	AK	10	1	32	3.2	32.0	2	0	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Nome	AK	7	4	23	3.3	5.8	1	1	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
North Pole	AK																				
Old Harbor	AK	18	14	127	7.1	9.1	3	2	5	1.7	2.5	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Ouzinkie	AK	15	12	91	6.1	7.6	6	3	15	2.5	5.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Palmer	AK	4	1	1	0.3	1.0	1	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Pelican	AK	21	14	57	2.7	4.1	5	4	22	4.4	5.5	7	5	33	4.7	6.6	0	0	0	0.0	0.0
Perryville	AK	11	6	47	4.3	7.8	1	1	16	16.0	16.0	1	1	2	2.0	2.0	0	0	0	0.0	0.0
Petersburg	AK	560	253	1,598	2.9	6.3	110	40	303	2.8	7.6	40	12	84	2.1	7.0	1	0	0	0.0	0.0
Point Baker	AK	12	7	38	3.2	5.4	2	2	13	6.5	6.5	3	2	4	1.3	2.0	0	0	0	0.0	0.0
Port Alexander	AK	12	10	96	8.0	9.6	1	1	19	19.0	19.0	1	1	5	5.0	5.0	0	0	0	0.0	0.0
Port Graham	AK	14	8	136	9.7	17.0	4	2	7	1.8	3.5	1	2	1	1.0	0.5	2	0	0	0.0	0.0
Port Heiden	AK																				
Port Lions	AK	22	17	149	6.8	8.8	2	1	9	4.5	9.0	4	0	0	0.0	0.0	0	0	0	0.0	0.0
Port William	AK																				
Quinhagak	AK	0	0	0	0.0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Sand Point	AK	37	16	76	2.1	4.8	19	10	90	4.7	9.0	3	1	5	1.7	5.0	1	1	5	5.0	5.0
Savoonga	AK	2	2	15	7.5	7.5	1	0	0	0.0	0.0	2	2	3	1.5	1.5	0	0	0	0.0	0.0
Saxman	AK	2	1	8	4.0	8.0	2	2	17	8.5	8.5	0	0	0	0.0	0.0	1	1	4	4.0	4.0
Seldovia	AK	87	52	799	9.2	15.4	15	14	159	10.6	11.4	8	6	32	4.0	5.3	0	0	0	0.0	0.0
Seward	AK	3	0	0	0.0	0.0	4	1	4	1.0	4.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Sitka	AK	807	379	1,804	2.2	4.8	166	80	491	3.0	6.1	55	34	183	3.3	5.4	153	51	203	1.3	4.0
Skagway	AK	40	16	45	1.1	2.8	11	7	16	1.5	2.3	1	1	8	8.0	8.0	0	0	0	0.0	0.0
Soldotna	AK	28	11	475	17.0	43.2	7	2	72	10.3	36.0	3	0	0	0.0	0.0	0	0	0	0.0	0.0
St George Island	AK																				
St Paul Island	AK	2	2	11	5.5	5.5	0	0	0	0.0	0.0	1	1	21	21.0	21.0	0	0	0	0.0	0.0
Sterling	AK																				
Tatitlek	AK	12	6	86	7.2	14.3	2	2	9	4.5	4.5	2	1	3	1.5	3.0	1	0	0	0.0	0.0

- continued -

Appendix E-2.–Page 9 of 9.

Community of residence	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, all returned	Mean, those who fished
Tenakee Springs	AK	39	24	157	4.0	6.5	6	1	3	0.5	3.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
Thorne Bay	AK	72	36	255	3.5	7.1	15	6	29	1.9	4.8	8	3	14	1.8	4.7	0	0	0	0.0	0.0
Togiak	AK																				
Toksook Bay	AK	6	5	42	7.0	8.4	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Trapper Creek	AK																				
Tununak	AK	4	1	10	2.5	10.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Twin Hills	AK																				
Unalakleet	AK																				
Unalaska	AK	40	18	169	4.2	9.4	5	3	6	1.2	2.0	2	0	0	0.0	0.0	1	0	0	0.0	0.0
Valdez	AK	17	8	162	9.5	20.3	2	1	3	1.5	3.0	0	1	0	0.0	0.0	0	0	0	0.0	0.0
Ward Cove	AK	13	4	23	1.8	5.8	5	1	2	0.4	2.0	4	0	0	0.0	0.0	0	0	0	0.0	0.0
Wasilla	AK	5	3	92	18.4	30.7	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Whale Pass	AK	3	1	2	0.7	2.0	2	2	0	0.0	0.0	2	2	0	0.0	0.0	0	1	20	0.0	20.0
Willow	AK																				
Wrangell	AK	289	153	1,089	3.8	7.1	55	33	284	5.2	8.6	28	13	94	3.4	7.2	0	0	0	0.0	0.0
Yakutat	AK	54	25	388	7.2	15.5	13	7	80	6.2	11.4	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Alaska		**5,009**	**2,451**	**20,291**	**4**	**8**	**1,126**	**499**	**4,058**	**4**	**8**	**439**	**195**	**1,309**	**3**	**7**	**431**	**145**	**1,521**	**4**	**10**
Subtotal, non-Alaska		**41**	**3**	**46**	**1**	**15**	**4**	**0**	**0**	**0**	**0**	**1**	**1**	**4**	**4**	**4**	**3**	**0**	**0**	**0**	**0**
Total		**5,050**	**2,454**	**20,337**	**4.0**	**8.3**	**1,130**	**499**	**4,058**	**3.6**	**8.1**	**440**	**196**	**1,313**	**3.0**	**6.7**	**434**	**145**	**1,521**	**3.5**	**10.5**

a. To protect confidentiality, data for tribes and communities where 5 or fewer SHARCs were issued are not reported in this table. Subtotals and totals include data for all tribes and communities. Blank cells indicate redacted data.

Appendix E-3.–Estimated subsistence harvests of halibut by gear type, 2012.

			Set hook gear			Hook and line or handline			All gear				
Tribal name	Regulatory area	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Confidence interval for number of halibut	Estimated pounds halibut harvested	Confidence interval for pounds of halibut
Angoon Community Association	2C	74	33	415	7,732	10	66	1,268	36	481	6.2%	9,000	6.3%
Aukquan Traditional Council	2C	1											
Central Council Tlingit and Haida Indian Tribes	2C	485	121	1,095	25,793	50	428	6,047	147	1,523	25.7%	31,840	29.5%
Chilkat Indian Village	2C	12	1	0	0	0	0	0	1	0	0.0%	0	0.0%
Chilkoot Indian Association	2C	50	18	50	1,111	1	3	43	18	52	32.4%	1,154	34.0%
Craig Community Association	2C	59	22	242	5,639	14	35	887	27	277	48.5%	6,526	48.8%
Douglas Indian Association	2C	11	0	0	0	2	4	133	2	4	349.1%	133	349.1%
Hoonah Indian Association	2C	110	47	585	7,094	24	115	1,372	53	700	34.1%	8,466	26.1%
Hydaburg Cooperative Association	2C	108	63	916	24,026	20	64	2,095	65	980	75.5%	26,122	39.6%
Ketchikan Indian Corporation	2C	454	89	1,159	21,152	46	568	9,331	115	1,727	21.9%	30,483	19.4%
Klawock Cooperative Association	2C	63	16	143	4,389	3	19	720	19	162	39.6%	5,109	48.3%
Metlakatla Indian Community, Annette Island Reserve	2C	119	20	96	2,226	8	44	563	26	140	24.8%	2,789	26.0%
Organized Village of Kake	2C	72	22	187	5,970	6	24	626	24	211	24.1%	6,597	28.3%
Organized Village of Kasaan	2C	5											
Organized Village of Saxman	2C	30	16	205	3,154	9	66	1,164	20	271	43.9%	4,318	38.2%
Petersburg Indian Association	2C	68	19	151	2,207	8	29	696	24	179	36.4%	2,903	26.5%
Sitka Tribe of Alaska	2C	264	92	545	13,605	24	42	816	98	587	24.9%	14,421	24.1%
Skagway Village	2C	3											
Wrangell Cooperative Association	2C	82	27	242	6,869	11	41	875	32	283	16.9%	7,744	21.8%
Subtotal, Area 2C		**2,070**	**608**	**6,042**	**131,305**	**237**	**1,550**	**26,658**	**710**	**7,592**	**10.1%**	**157,963**	**8.7%**
Kenaitze Indian Tribe	3A	132	12	246	1,793	16	326	7,031	23	572	48.0%	8,823	78.0%
Lesnoi Village (Woody Island)	3A	34	4	49	851	3	1	33	5	50	102.0%	884	100.8%
Native Village of Afognak	3A	20	8	63	1,137	4	14	309	10	77	65.0%	1,446	54.2%
Native Village of Akhiok	3A	7	1	20	448	3	23	356	3	43	184.9%	804	194.3%
Native Village of Chenega	3A	18	5	49	1,145	3	0	0	5	49	99.3%	1,145	106.0%
Native Village of Eyak	3A	71	20	88	1,549	6	14	230	20	102	44.7%	1,779	44.6%
Native Village of Karluk	3A	4											
Native Village of Larsen Bay	3A	31	8	56	2,940	17	124	1,379	17	180	55.4%	4,319	91.4%
Native Village of Nanwalek	3A	71	12	353	5,184	24	216	2,092	29	569	0.0%	7,275	0.0%
Native Village of Ouzinkie	3A	28	11	81	1,628	6	33	336	13	114	50.2%	1,964	46.5%
Native Village of Port Graham	3A	34	11	262	6,196	14	242	3,230	20	504	53.2%	9,427	62.5%
Native Village of Port Lions	3A	28	16	88	2,311	3	7	125	16	94	37.1%	2,437	36.8%
Native Village of Tatitlek	3A	25	9	106	2,375	0	0	0	9	106	72.2%	2,375	75.2%
Ninilchik Village	3A	73	7	188	2,389	14	679	2,866	19	866	48.9%	5,255	47.4%
Seldovia Village Tribe	3A	58	26	316	4,873	23	182	1,866	35	497	24.3%	6,739	23.1%
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	112	55	503	11,484	20	64	1,274	62	567	25.5%	12,758	21.0%
Village of Kanatak	3A	19	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Village of Old Harbor	3A	43	13	126	1,125	13	38	653	21	163	94.5%	1,778	53.4%
Village of Salamatoff	3A	25	1	0	0	7	184	1,799	7	184	46.6%	1,799	43.3%
Yakutat Tlingit Tribe	3A	43	27	414	10,827	6	14	227	29	428	65.2%	11,054	61.7%
Subtotal, Area 3A		**876**	**248**	**3,007**	**58,254**	**186**	**2,206**	**24,387**	**348**	**5,213**	**14.8%**	**82,641**	**16.8%**
Agdaagux Tribe of King Cove	3B	53	10	111	1,734	11	77	923	15	188	56.1%	2,657	52.1%

- continued -

Appendix E-3.–Page 2 of 6.

			Set hook gear			Hook and line or handline			All gear				
Tribal name	Regulatory area	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Confidence interval for number of halibut	Estimated pounds halibut harvested	Confidence interval for pounds of halibut
Chignik Lake Village	3B	11	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Ivanoff Bay Village	3B	4											
Native Village of Belkofski	3B	5											
Native Village of Chignik	3B	4											
Native Village of Chignik Lagoon	3B	16	7	26	390	7	37	449	10	63	73.4%	839	77.7%
Native Village of False Pass	3B	1											
Native Village of Nelson Lagoon	3B	3											
Native Village of Perryville	3B	18	12	95	1,537	6	24	652	15	120	27.4%	2,188	26.4%
Native Village of Unga	3B	1											
Pauloff Harbor Village	3B	79	21	145	2,500	31	86	1,369	38	231	74.9%	3,869	68.9%
Qagan Toyagungin Tribe of Sand Point Village	3B	82	11	101	1,588	17	78	1,193	26	179	38.8%	2,780	47.0%
Subtotal, Area 3B		**277**	**62**	**486**	**7,853**	**75**	**309**	**4,663**	**105**	**795**	**24.5%**	**12,515**	**23.8%**
Native Village of Akutan	4A	11	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Qawalingin Tribe of Unalaska	4A	27	9	31	260	7	0	0	11	31	140.6%	260	127.2%
Subtotal, Area 4A		**38**	**9**	**31**	**260**	**7**	**0**	**0**	**11**	**31**	**142.7%**	**260**	**129.7%**
Native Village of Atka	4B	4											
Subtotal, Area 4B		**4**											
Pribilof Islands Aleut Community of St. George	4C	5											
Pribilof Islands Aleut Community of St. Paul	4C	15	9	131	1,519	5	19	490	14	149	202.5%	2,009	110.6%
Subtotal, Area 4C		**20**	**9**	**131**	**1,519**	**19**	**19**	**490**	**14**	**149**	**174.0%**	**2,009**	**127.6%**
Native Village of Diomede (Inalik)	4D	1											
Native Village of Savoonga	4D	5											
Subtotal, Area 4D		**6**	**5**	**27**	**777**	**0**	**0**	**0**	**5**	**27**	**42.9%**	**777**	**53.0%**
Chevak Native Village (Kashunamiut)	4E	1											
Egegik Village	4E	4											
King Island Native Community	4E	2											
Manokotak Village	4E	1											
Naknek Native Village	4E	8	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Native Village of Aleknagik	4E	4											
Native Village of Brevig Mission	4E	1											
Native Village of Council	4E	4											
Native Village of Dillingham (Curyung)	4E	12	3	14	259	3	11	256	3	24	155.1%	516	154.2%
Native Village of Eek	4E	7	2	0	0	5	21	698	5	21	75.0%	698	112.0%
Native Village of Hooper Bay	4E	2											
Native Village of Kipnuk	4E	5											
Native Village of Kongiganak	4E	3											
Native Village of Koyuk	4E	1											
Native Village of Kwigillingok	4E	1											
Native Village of Kwinhagak	4E	6	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Native Village of Mekoryuk	4E	4											

- continued -

Appendix E-3.–Page 3 of 6.

			Set hook gear			Hook and line or handline			All gear				
Tribal name	Regulatory area	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Confidence interval for number of halibut	Estimated pounds halibut harvested	Confidence interval for pounds of halibut
Native Village of Scammon Bay	4E	3											
Native Village of Shaktoolik	4E	1											
Native Village of Toksook Bay (Nunakauyak)	4E	9	1	20	140	4	22	154	5	42	44.2%	294	44.2%
Native Village of Tununak	4E	12	0	0	0	3	28	173	3	28	253.9%	173	253.9%
Native Village of Unalakleet	4E	1											
Native Village of Wales	4E	1											
Newtok Village	4E	1											
Nome Eskimo Community	4E	12	5	34	910	0	0	0	5	34	218.3%	910	182.2%
Orutsararmuit Native Village	4E	13	1	0	0	4	0	0	5	0	0.0%	0	0.0%
Platinum Traditional Village	4E	1											
South Naknek Village	4E	2											
Traditional Village of Togiak	4E	2											
Ugashik Village	4E	2											
Village of Chefornak	4E	4											
Village of Clark's Point	4E	3											
Village of Kotlik	4E	1											
Subtotal, Area 4E		**134**	**17**	**100**	**1,673**	**28**	**160**	**2,111**	**37**	**259**	**44.0%**	**3,785**	**39.4%**
Tribal subtotal		**3,425**	**960**	**9,827**	**201,697**	**539**	**4,252**	**58,421**	**1,232**	**14,079**	**8.0%**	**260,118**	**7.7%**

- continued -

Appendix E-3.–Page 4 of 6.

			Set hook gear			Hook and line or handline			All gear				
Rural community	Regulatory area	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Confidence interval for number of halibut	Estimated pounds halibut harvested	Confidence interval for pounds of halibut
Angoon	2C	14	7	49	925	5	86	1,503	9	135	22.0%	2,429	21.3%
Coffman Cove	2C	50	23	88	1,787	18	66	927	29	154	22.3%	2,715	19.5%
Craig	2C	303	117	854	16,319	44	260	3,543	141	1,114	10.5%	19,862	10.6%
Edna Bay	2C	34	15	79	2,083	5	6	314	17	85	29.3%	2,397	22.5%
Elfin Cove	2C	18	7	34	792	3	7	263	7	41	63.0%	1,055	68.6%
Gustavus	2C	64	25	135	2,635	16	66	1,642	32	202	25.0%	4,277	24.9%
Haines	2C	407	219	1,093	21,408	56	66	1,215	226	1,158	7.6%	22,623	8.3%
Hollis	2C	48	20	104	3,509	7	17	784	23	121	30.1%	4,293	40.6%
Hoonah	2C	93	43	367	4,117	25	202	2,326	52	568	15.0%	6,443	13.8%
Hydaburg	2C	8	6	55	1,986	3	3	98	6	57	94.0%	2,084	90.5%
Hyder	2C	22	14	51	1,036	7	6	79	14	56	31.3%	1,115	22.6%
Juneau	2C	5											
Kake	2C	33	12	91	1,959	6	25	806	14	116	39.7%	2,765	40.0%
Kasaan	2C	10	4	22	396	2	2	70	5	24	0.0%	466	0.0%
Ketchikan	2C	8	5	16	301	5	9	216	5	25	43.1%	517	41.2%
Klawock	2C	141	39	373	7,767	30	362	4,446	60	735	19.4%	12,213	18.0%
Metlakatla	2C	20	9	50	1,035	3	7	57	10	57	57.5%	1,092	56.7%
Meyers Chuck	2C	9	5	14	294	1	1	28	5	15	46.4%	322	46.0%
Naukati Bay	2C	48	24	102	2,472	13	48	525	26	150	22.0%	2,997	16.6%
Pelican	2C	35	18	59	1,248	12	30	520	21	89	31.3%	1,768	26.8%
Petersburg	2C	843	297	1,665	32,358	164	589	9,934	357	2,255	6.8%	42,292	7.4%
Port Alexander	2C	16	13	129	2,429	0	0	0	13	129	24.1%	2,429	23.9%
Port Protection	2C	11	7	50	872	3	15	223	8	65	29.5%	1,095	29.4%
Pt. Baker	2C	16	6	34	560	3	1	25	8	35	82.7%	585	86.3%
Saxman	2C	8	3	13	114	3	33	569	4	45	168.2%	683	157.5%
Sitka	2C	1,330	561	2,496	57,443	149	444	6,708	596	2,940	6.3%	64,152	6.3%
Skagway	2C	51	21	39	1,314	9	17	217	23	56	16.0%	1,531	14.6%
Tenakee Springs	2C	58	28	151	2,751	14	47	548	31	198	17.1%	3,298	17.5%
Thorne Bay	2C	118	48	274	7,427	20	65	1,315	53	339	15.8%	8,743	14.8%
Ward Cove	2C	2											
Whale Pass	2C	17	8	62	2,532	10	17	681	11	79	49.6%	3,213	56.5%
Wrangell	2C	382	180	1,167	21,961	73	365	6,122	210	1,533	9.4%	28,083	8.6%
Subtotal, Area 2C		**4,222**	**1,784**	**9,716**	**201,928**	**707**	**2,860**	**45,706**	**2,016**	**12,576**	**3.0%**	**247,633**	**3.1%**
Akhiok	3A	6	1	1	42	1	18	151	2	19	104.7%	193	85.9%
Chenega Bay	3A	8	4	57	791	5	32	434	6	89	0.0%	1,225	0.0%
Chiniak	3A	7	7	62	519	3	0	0	7	62	63.4%	519	37.2%
Cordova	3A	416	170	847	14,838	72	186	3,171	188	1,032	10.6%	18,008	10.7%
Karluk	3A	6	0	0	0	4	35	497	4	35	0.0%	497	0.0%
Kodiak	3A	1,360	559	4,257	79,575	319	1,831	30,786	696	6,088	5.9%	110,362	6.4%
Nanwalek	3A	5											
Old Harbor	3A	5											
Ouzinkie	3A	16	3	15	238	12	69	657	14	84	33.4%	896	24.7%
Port Graham	3A	5											
Port Lions	3A	17	7	45	755	3	75	687	10	120	30.7%	1,442	31.9%
Seldovia	3A	126	59	682	9,532	40	426	4,827	77	1,108	15.2%	14,360	15.1%
Tatitlek	3A	11	7	56	1,261	1	0	0	8	56	56.4%	1,261	42.1%
Yakutat	3A	72	21	287	6,547	10	96	1,641	28	382	32.1%	8,188	45.7%
Chignik	3B	1											
Subtotal, Area 3B		**2,060**	**843**	**6,538**	**118,789**	**477**	**2,856**	**43,858**	**1,050**	**9,395**	**4.8%**	**162,647**	**5.1%**

- continued -

Appendix E-3.–Page 5 of 6.

			Set hook gear			Hook and line or handline			All gear				
Rural community	Regulatory area	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Confidence interval for number of halibut	Estimated pounds halibut harvested	Confidence interval for pounds of halibut
Cold Bay	3B	33	20	260	3,637	6	10	174	20	270	21.6%	3,811	19.5%
False Pass	3B	2											
King Cove	3B	19	4	14	189	9	64	1,282	10	78	17.4%	1,471	21.2%
Sand Point	3B	6	2	22	280	2	20	210	2	42	1270.6%	490	1270.6%
Subtotal, Area 3B		**61**	**26**	**296**	**4,106**	**18**	**98**	**1,735**	**33**	**394**	**18.0%**	**5,842**	**17.9%**
Unalaska	4A	114	28	244	4,157	29	255	4,255	46	499	20.0%	8,412	19.6%
Subtotal, Area 4A		**114**	**28**	**244**	**4,157**	**29**	**255**	**4,255**	**46**	**499**	**20.0%**	**8,412**	**19.6%**
Adak	4B	8	5	14	532	2	2	22	5	16	128.9%	554	107.1%
Subtotal, Area 4B		**8**	**5**	**14**	**532**	**2**	**2**	**22**	**5**	**16**	**128.9%**	**554**	**107.1%**
St. George Island	4C	1											
St. Paul Island	4C	1											
Subtotal, Area 4C		**2**											
Savoonga	4D	1											
Subtotal, Area 4D		**1**											
Bethel	4E	1											
Chevak	4E	1											
Dillingham	4E	21	0	0	0	1	0	0	1	0	0.0%	0	0.0%
Egegik	4E	1											
King Salmon	4E	3											
Kotlik	4E	1											
Koyuk	4E	1											
Manokotak	4E	2											
Naknek	4E	3											
Nightmute	4E	1											
Nome	4E	13	8	35	704	0	0	0	8	35	63.0%	704	68.9%
Port Heiden	4E	1											
Togiak	4E	2											
Subtotal, Area 4E		**51**	**10**	**100**	**1,400**	**3**	**34**	**371**	**11**	**134**	**106.3%**	**1,771**	**97.6%**
Rural community subtotal		**6,519**	**2,696**	**16,909**	**330,926**	**1,236**	**6,105**	**95,947**	**3,162**	**23,014**	**2.6%**	**426,873**	**2.6%**
Tribal subtotal	All	6,519	2,696	16,909	330,926	1,236	6,105	95,947	3,162	23,014	2.6%	426,873	2.6%
Rural community subtotal	All	3,425	960	9,827	201,697	539	4,252	58,421	1,232	14,079	8.0%	260,118	7.7%
Total	**All**	**9,944**	**3,655**	**26,736**	**532,623**	**1,775**	**10,357**	**154,368**	**4,394**	**37,093**	**2.9%**	**686,991**	**2.9%**

- continued -

Appendix E-3.–Page 6 of 6.

			Set hook gear			Hook and line or handline			All gear				
	Regulatory area	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested	Estimated number respondents fished	Estimated number halibut harvested	Confidence interval for number of halibut	Estimated pounds halibut harvested	Confidence interval for pounds of halibut
	2C	6,292	2,392	15,758	333,232	944	4,411	72,364	2,726	20,168	3.6%	405,596	3.3%
	3A	2,936	1,091	9,545	177,043	663	5,063	68,245	1,398	14,608	5.1%	245,288	5.6%
	3B	338	87	782	11,959	92	407	6,398	137	1,189	19.5%	18,357	19.0%
	4A	152	37	275	4,416	36	255	4,255	58	530	24.9%	8,671	25.1%
	4B	12	7	18	588	4	10	134	7	28	84.5%	722	83.7%
	4C	22	9	131	1,519	5	19	490	14	149	139.5%	2,009	109.6%
	4D	7	6	28	791	0	0	0	6	28	36.8%	791	45.6%
	4E	185	27	199	3,073	32	194	2,482	48	393	55.4%	5,556	48.3%
Total		**9,944**	**3,655**	**26,736**	**532,623**	**1,775**	**10,357**	**154,368**	**4,394**	**37,093**	**2.9%**	**686,991**	**2.9%**

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities. Blank cells indicate redacted data.

Appendix E-4.–Estimated subsistence harvests of halibut by place of residence, 2012.

			Subsistence fished	Subsistence harvest		Sport fished	Sport harvest		Lingcod bycatch		Rockfish bycatch	
City	State	Number of SHARCs issued[a]	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number lingcod	Estimated number respondents	Estimated number rockfish
Adak	AK	7	2	2	174	2	0	0	0	0	0	0
Akhiok	AK	4										
Akutan	AK	6	0	0	0	0	0	0	0	0	0	0
Anchor Point	AK	16	9	175	2,304	2	7	96	0	0	0	0
Anchorage	AK	198	49	564	11,502	44	97	1,615	5	9	15	92
Angoon	AK	97	51	675	12,288	7	51	549	2	13	17	150
Auke Bay	AK	4										
Barrow	AK	2										
Bethel	AK	13	6	7	196	0	0	0	0	0	0	0
Chefornak	AK	3										
Chenega Bay	AK	10	7	103	1,893	4	26	343	3	23	5	99
Chevak	AK	1										
Chignik	AK	6	0	0	0	0	0	0	0	0	0	0
Chignik Lagoon	AK	9	4	48	603	2	7	103	0	0	4	55
Chignik Lake	AK	1										
Chiniak	AK	13	11	72	790	6	18	470	0	0	0	0
Chugiak	AK	4										
Clarks Point	AK	3										
Coffman Cove	AK	49	28	144	2,487	27	152	2,273	0	0	10	97
Cold Bay	AK	37	20	270	3,811	13	26	646	3	64	0	0
Cordova	AK	470	202	1,121	19,417	95	173	3,017	7	11	33	173
Craig	AK	450	216	1,803	34,777	114	527	7,108	56	123	103	828
Dillingham	AK	25	4	24	516	1	3	59	0	0	0	0
Douglas	AK	11	4	15	262	7	4	52	0	0	0	0
Dutch Harbor	AK	70	29	351	5,802	25	134	2,879	0	0	2	10
Eagle River	AK	9	5	75	871	3	10	145	0	0	0	0
Edna Bay	AK	26	12	65	1,848	2	2	99	2	4	4	8
Eek	AK	5										
Egegik	AK	1										
Elfin Cove	AK	17	7	41	1,055	4	29	616	1	14	4	45
Excursion Inlet	AK	4										
Fairbanks	AK	6	2	11	262	0	0	0	0	0	0	0
False Pass	AK	2										
Fritz Creek	AK	1										
Gakona	AK	1										
Girdwood	AK	1										
Gustavus	AK	64	31	195	4,172	30	141	3,233	0	0	3	8

- continued -

Appendix E-4.–Page 2 of 4.

City	State	Number of SHARCs issued[a]	Subsistence fished: Estimated number respondents	Subsistence harvest: Estimated number halibut	Subsistence harvest: Estimated pounds halibut	Sport fished: Estimated number respondents	Sport harvest: Estimated number halibut	Sport harvest: Estimated pounds halibut	Lingcod bycatch: Estimated number respondents	Lingcod bycatch: Estimated number lingcod	Rockfish bycatch: Estimated number respondents	Rockfish bycatch: Estimated number rockfish
Haines	AK	455	237	1,160	22,718	75	95	1,478	12	31	25	53
Homer	AK	30	12	199	2,767	10	46	735	3	6	3	46
Hoonah	AK	199	111	1,440	17,145	47	220	3,022	2	26	11	64
Hydaburg	AK	105	70	1,038	28,206	12	13	667	18	75	31	586
Hyder	AK	22	14	56	1,115	7	2	37	1	7	2	14
Juneau	AK	338	64	551	9,887	60	286	3,791	2	4	18	93
Kake	AK	103	43	336	9,947	18	42	1,373	6	19	7	96
Karluk	AK	9	6	75	1,022	0	0	0	0	0	2	20
Kasaan	AK	9	8	30	641	3	8	133	2	3	4	22
Kasilof	AK	14	5	112	1,867	5	22	294	0	0	2	11
Kaukati	AK	1										
Kenai	AK	106	14	423	7,785	17	74	835	2	3	2	16
Ketchikan	AK	524	158	2,183	41,808	89	397	7,019	32	117	58	843
King Cove	AK	73	24	270	3,981	11	47	929	0	0	1	8
King Salmon	AK	2										
Kipnuk	AK	5										
Klawock	AK	212	82	953	23,231	52	274	4,007	23	50	33	247
Klukwan	AK	1										
Kodiak	AK	1,503	769	6,704	125,820	500	2,444	44,110	111	331	144	1,196
Kongiganak	AK	3										
Kotzebue	AK	1										
Koyuk	AK	1										
Kwigillingok	AK	1										
Larsen Bay	AK	22	13	132	1,869	3	22	168	2	2	4	28
Manokotak	AK	2										
Mekoryuk	AK	3										
Metlakatla	AK	128	34	163	3,354	12	22	445	4	7	4	28
Meyers Chuck	AK	8	5	15	322	1	1	42	1	1	2	11
Naknek	AK	9	0	0	0	0	0	0	0	0	0	0
Nanwalek	AK	74	33	824	12,175	0	0	0	6	85	12	157
Naukati	AK	22	12	91	1,536	4	22	536	5	7	6	42
Nelson Lagoon	AK	1										
Nightmute	AK	1										
Nikiski	AK	7	2	35	549	1	5	49	0	0	0	0
Ninilchik	AK	28	2	55	617	5	37	378	0	0	0	0
Nome	AK	18	9	41	816	0	0	0	0	0	0	0
North Pole	AK	2										

- continued -

Appendix E-4.–Page 3 of 4.

City	State	Number of SHARCs issued[a]	Subsistence fished	Subsistence harvest		Sport fished	Sport harvest		Lingcod bycatch		Rockfish bycatch	
			Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number lingcod	Estimated number respondents	Estimated number rockfish
Old Harbor	AK	37	24	194	2,507	5	24	352	2	10	5	34
Ouzinkie	AK	35	24	173	2,151	8	27	394	0	0	2	37
Palmer	AK	10	2	2	29	1	1	62	0	0	0	0
Pelican	AK	44	33	164	4,048	10	16	367	14	20	20	130
Perryville	AK	15	10	85	1,640	1	0	0	0	0	3	13
Petersburg	AK	917	383	2,494	44,912	263	889	14,958	13	63	47	251
Point Baker	AK	22	13	68	1,195	1	0	0	1	2	8	57
Port Alexander	AK	16	13	129	2,429	4	7	181	10	27	10	74
Port Graham	AK	32	18	215	3,460	5	5	44	3	3	0	0
Port Heiden	AK	1										
Port Lions	AK	43	25	208	3,446	23	107	1,727	0	0	0	0
Port William	AK	1										
Quinhagak	AK	8	0	0	0	0	0	0	0	0	0	0
Sand Point	AK	136	61	357	5,708	32	116	1,280	1	1	8	84
Savoonga	AK	6	5	22	679	0	0	0	0	0	0	0
Saxman	AK	6	5	37	624	0	0	0	1	3	1	11
Seldovia	AK	139	90	1,220	16,147	41	293	4,126	6	44	17	172
Seward	AK	10	1	4	140	1	4	114	1	4	1	10
Sitka	AK	1,570	697	3,450	78,706	237	515	9,096	288	845	368	2,835
Skagway	AK	57	26	83	1,900	15	37	485	0	0	1	1
Soldotna	AK	51	21	898	4,271	12	69	1,032	0	0	0	0
St. George Island	AK	2										
St. Paul Island	AK	12	14	149	2,009	0	0	0	0	0	0	0
Sterling	AK	2										
Tatitlek	AK	22	13	139	3,249	1	21	481	0	0	4	25
Tenakee Springs	AK	58	31	198	3,298	21	77	1,025	2	2	14	74
Thorne Bay	AK	116	53	344	8,813	43	351	3,510	13	51	24	148
Togiak	AK	4										
Toksook Bay	AK	7	5	42	294	0	0	0	0	0	0	0
Trapper Creek	AK	1										
Tununak	AK	11	3	28	173	0	0	0	0	0	0	0
Twin Hills	AK	1										
Unalakleet	AK	1										
Unalaska	AK	71	33	253	4,258	19	108	1,342	1	4	6	67
Valdez	AK	33	14	230	2,942	7	25	608	1	1	4	32
Ward Cove	AK	37	7	34	1,316	1	1	30	1	1	4	26
Wasilla	AK	35	4	148	1,241	3	4	56	1	1	1	15

- continued -

Appendix E-4.–Page 4 of 4.

			Subsistence fished	Subsistence harvest		Sport fished	Sport harvest		Lingcod bycatch		Rockfish bycatch	
City	State	Number of SHARCs issued[a]	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number lingcod	Estimated number respondents	Estimated number rockfish
Whale Pass	AK	7	7	25	949	2	1	32	0	0	0	0
Willow	AK	2										
Wrangell	AK	469	249	1,857	35,885	121	358	8,133	11	26	34	216
Yakutat	AK	112	52	765	18,230	17	88	1,243	13	81	8	113
Alaska Subtotal		**9,847**	**4,386**	**36,965**	**685,334**	**2,218**	**8,647**	**144,379**	**696**	**2,247**	**1,161**	**9,568**
Non-Alaska Subtotal		**97**	**9**	**128**	**1,657**	**13**	**80**	**1,795**	**0**	**0**	**0**	**0**
Total		**9,944**	**4,394**	**37,093**	**686,991**	**2,231**	**8,727**	**146,174**	**696**	**2,247**	**1,161**	**9,568**

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities. Blank cells indicate redacted data.

Appendix E-5.–Estimated subsistence harvests of halibut by gear type and place of residence.

			Estimated harvest by gear type								
			Set hook gear			Hook and line or handline			All gear		
City	State	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested
Adak	AK	7	2	2	174	0	0	0	2	2	174
Akhiok	AK	4									
Akutan	AK	6	0	0	0	0	0	0	0	0	0
Anchor Point	AK	16	5	125	1,713	8	49	590	9	175	2,304
Anchorage	AK	198	36	468	10,007	23	96	1,495	49	564	11,502
Angoon	AK	97	41	466	8,677	21	209	3,611	51	675	12,288
Auke Bay	AK	4									
Barrow	AK	2									
Bethel	AK	13	0	0	0	6	7	196	6	7	196
Chefornak	AK	3									
Chenega Bay	AK	10	5	71	1,459	6	32	434	7	103	1,893
Chevak	AK	1									
Chignik	AK	6	0	0	0	0	0	0	0	0	0
Chignik Lagoon	AK	9	4	11	154	4	37	449	4	48	603
Chignik Lake	AK	1									
Chiniak	AK	13	11	72	790	4	0	0	11	72	790
Chugiak	AK	4									
Clarks Point	AK	3									
Coffman Cove	AK	49	23	88	1,787	17	56	699	28	144	2,487
Cold Bay	AK	37	20	260	3,637	6	10	174	20	270	3,811
Cordova	AK	470	185	923	16,105	75	198	3,312	202	1,121	19,417
Craig	AK	450	180	1,474	29,031	73	329	5,747	216	1,803	34,777
Dillingham	AK	25	3	14	259	4	11	256	4	24	516
Douglas	AK	11	0	0	0	4	15	262	4	15	262
Dutch Harbor	AK	70	15	157	2,893	18	195	2,909	29	351	5,802
Eagle River	AK	9	4	28	521	2	47	350	5	75	871
Edna Bay	AK	26	11	59	1,535	4	6	314	12	65	1,848
Eek	AK	5									
Egegik	AK	1									
Elfin Cove	AK	17	7	34	792	3	7	263	7	41	1,055
Excursion Inlet	AK	4									
Fairbanks	AK	6	2	11	262	0	0	0	2	11	262
False Pass	AK	2									
Fritz Creek	AK	1									
Gakona	AK	1									

- continued -

Appendix E-5.–Page 2 of 4.

			Estimated harvest by gear type								
			Set hook gear			Hook and line or handline			All gear		
City	State	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested
Girdwood	AK	1									
Gustavus	AK	64	24	129	2,530	16	66	1,642	31	195	4,172
Haines	AK	455	230	1,097	21,569	56	64	1,150	237	1,160	22,718
Homer	AK	30	9	164	2,511	6	36	256	12	199	2,767
Hoonah	AK	199	93	1,117	13,293	54	323	3,852	111	1,440	17,145
Hydaburg	AK	105	68	971	26,013	23	67	2,193	70	1,038	28,206
Hyder	AK	22	14	51	1,036	7	6	79	14	56	1,115
Juneau	AK	338	53	416	8,371	23	135	1,515	64	551	9,887
Kake	AK	103	38	287	8,514	13	49	1,433	43	336	9,947
Karluk	AK	9	0	0	0	6	75	1,022	6	75	1,022
Kasaan	AK	9	8	29	592	1	1	49	8	30	641
Kasilof	AK	14	4	71	1,022	4	41	845	5	112	1,867
Kaukati	AK	1									
Kenai	AK	106	2	24	293	12	399	7,492	14	423	7,785
Ketchikan	AK	524	127	1,433	29,178	74	751	12,631	158	2,183	41,808
King Cove	AK	73	12	117	1,505	21	153	2,476	24	270	3,981
King Salmon	AK	2									
Kipnuk	AK	5									
Klawock	AK	212	61	597	18,693	30	356	4,538	82	953	23,231
Klukwan	AK	1									
Kodiak	AK	1,503	619	4,795	93,417	345	1,909	32,403	769	6,704	125,820
Kongiganak	AK	3									
Kotzebue	AK	1									
Koyuk	AK	1									
Kwigillingok	AK	1									
Larsen Bay	AK	22	6	36	840	13	96	1,029	13	132	1,869
Manokotak	AK	2									
Mekoryuk	AK	3									
Metlakatla	AK	128	28	129	2,997	9	34	357	34	163	3,354
Meyers Chuck	AK	8	5	14	294	1	1	28	5	15	322
Naknek	AK	9	0	0	0	0	0	0	0	0	0
Nanwalek	AK	74	15	543	9,524	27	281	2,652	33	824	12,175
Naukati	AK	22	11	51	1,155	5	40	381	12	91	1,536
Nelson Lagoon	AK	1									
Nightmute	AK	1									
Nikiski	AK	7	0	0	0	2	35	549	2	35	549

- continued -

Appendix E-5.–Page 3 of 4.

			Estimated harvest by gear type								
			Set hook gear			Hook and line or handline			All gear		
City	State	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested
Ninilchik	AK	28	0	0	0	2	55	617	2	55	617
Nome	AK	18	9	41	816	0	0	0	9	41	816
North Pole	AK	2									
Old Harbor	AK	37	14	146	1,573	16	48	934	24	194	2,507
Ouzinkie	AK	35	12	71	1,157	18	102	993	24	173	2,151
Palmer	AK	10	2	2	29	0	0	0	2	2	29
Pelican	AK	44	31	131	3,416	13	33	631	33	164	4,048
Perryville	AK	15	8	66	1,027	5	19	613	10	85	1,640
Petersburg	AK	917	315	1,867	34,066	175	627	10,845	383	2,494	44,912
Point Baker	AK	22	12	64	1,138	5	3	56	13	68	1,195
Port Alexander	AK	16	13	129	2,429	0	0	0	13	129	2,429
Port Graham	AK	32	10	116	1,677	11	99	1,783	18	215	3,460
Port Heiden	AK	1									
Port Lions	AK	43	22	126	2,634	7	82	812	25	208	3,446
Port William	AK	1									
Quinhagak	AK	8	0	0	0	0	0	0	0	0	0
Sand Point	AK	136	30	199	3,401	46	159	2,307	61	357	5,708
Savoonga	AK	6	5	22	679	0	0	0	5	22	679
Saxman	AK	6	4	24	376	3	14	248	5	37	624
Seldovia	AK	139	68	752	10,814	47	468	5,332	90	1,220	16,147
Seward	AK	10	1	4	140	0	0	0	1	4	140
Sitka	AK	1,570	659	2,970	71,261	168	480	7,445	697	3,450	78,706
Skagway	AK	57	23	47	1,421	11	36	479	26	83	1,900
Soldotna	AK	51	11	213	1,465	17	686	2,806	21	898	4,271
St. George Island	AK	2									
St. Paul Island	AK	12	9	131	1,519	5	19	490	14	149	2,009
Sterling	AK	2									
Tatitlek	AK	22	13	139	3,249	0	0	0	13	139	3,249
Tenakee Springs	AK	58	28	151	2,751	14	47	548	31	198	3,298
Thorne Bay	AK	116	47	269	7,270	21	75	1,543	53	344	8,813
Togiak	AK	4									
Toksook Bay	AK	7	1	20	140	4	22	154	5	42	294
Trapper Creek	AK	1									
Tununak	AK	11	0	0	0	3	28	173	3	28	173
Twin Hills	AK	1									
Unalakleet	AK	1									

- continued -

Appendix E-5.–Page 4 of 4.

			Estimated harvest by gear type								
			Set hook gear			Hook and line or handline			All gear		
City	State	Number of SHARCs issued[a]	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested	Estimated number respondents fished	Estimated number fish harvested	Estimated pounds fish harvested
Unalaska	AK	71	27	165	2,450	23	88	1,808	33	253	4,258
Valdez	AK	33	11	89	1,462	7	141	1,480	14	230	2,942
Ward Cove	AK	37	7	34	1,316	0	0	0	7	34	1,316
Wasilla	AK	35	2	30	284	3	118	956	4	148	1,241
Whale Pass	AK	7	3	11	360	7	14	589	7	25	949
Willow	AK	2									
Wrangell	AK	469	214	1,454	29,013	84	403	6,873	249	1,857	35,885
Yakutat	AK	112	43	656	16,362	16	109	1,868	52	765	18,230
Alaska subtotal		**9,847**	**3,647**	**26,622**	**531,159**	**1,771**	**10,343**	**154,175**	**4,386**	**36,965**	**685,334**
Non-Alaska subtotal		**97**	**9**	**114**	**1,463**	**3**	**14**	**193**	**9**	**128**	**1,657**
Total		**9,944**	**3,655**	**26,736**	**532,623**	**1,775**	**10,357**	**154,368**	**4,394**	**37,093**	**686,991**

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities. Blank cells indicate redacted data.

Appendix E-6.–Estimated number of respondents that subsistence or sport fished, by place of residence.

City	State	Number of SHARCs issued[a]	Estimated number subsistence or sport fished
Adak	AK	7	2
Akhiok	AK	4	
Akutan	AK	6	0
Anchor Point	AK	16	9
Anchorage	AK	198	78
Angoon	AK	97	54
Auke Bay	AK	4	
Barrow	AK	2	
Bethel	AK	13	6
Chefornak	AK	3	
Chenega Bay	AK	10	8
Chevak	AK	1	
Chignik	AK	6	0
Chignik Lagoon	AK	9	4
Chignik Lake	AK	1	
Chiniak	AK	13	11
Chugiak	AK	4	
Clarks Point	AK	3	
Coffman Cove	AK	49	41
Cold Bay	AK	37	24
Cordova	AK	470	227
Craig	AK	450	259
Dillingham	AK	25	6
Douglas	AK	11	9
Dutch Harbor	AK	70	40
Eagle River	AK	9	5
Edna Bay	AK	26	13
Eek	AK	5	
Egegik	AK	1	
Elfin Cove	AK	17	10
Excursion Inlet	AK	4	
Fairbanks	AK	6	2
False Pass	AK	2	
Fritz Creek	AK	1	
Gakona	AK	1	
Girdwood	AK	1	
Gustavus	AK	64	48
Haines	AK	455	267
Homer	AK	30	18
Hoonah	AK	199	133
Hydaburg	AK	105	70
Hyder	AK	22	14

- continued -

Appendix E-6.–Page 2 of 3.

City	State	Number of SHARCs issued[a]	Estimated number subsistence or sport fished
Juneau	AK	338	105
Kake	AK	103	52
Karluk	AK	9	6
Kasaan	AK	9	9
Kasilof	AK	14	7
Kaukati	AK	1	
Kenai	AK	106	26
Ketchikan	AK	524	201
King Cove	AK	73	31
King Salmon	AK	2	
Kipnuk	AK	5	
Klawock	AK	212	102
Klukwan	AK	1	
Kodiak	AK	1,503	967
Kongiganak	AK	3	
Kotzebue	AK	1	
Koyuk	AK	1	
Kwigillingok	AK	1	
Larsen Bay	AK	22	13
Manokotak	AK	2	
Mekoryuk	AK	3	
Metlakatla	AK	128	38
Meyers Chuck	AK	8	5
Naknek	AK	9	0
Nanwalek	AK	74	33
Naukati	AK	22	14
Nelson Lagoon	AK	1	
Nightmute	AK	1	
Nikiski	AK	7	3
Ninilchik	AK	28	6
Nome	AK	18	9
North Pole	AK	2	
Old Harbor	AK	37	26
Ouzinkie	AK	35	25
Palmer	AK	10	3
Pelican	AK	44	36
Perryville	AK	15	11
Petersburg	AK	917	510
Point Baker	AK	22	13
Port Alexander	AK	16	15
Port Graham	AK	32	19
Port Heiden	AK	1	
Port Lions	AK	43	34

- continued -

Appendix E-6.–Page 3 of 3.

City	State	Number of SHARCs issued[a]	Estimated number subsistence or sport fished
Port William	AK	1	
Quinhagak	AK	8	0
Sand Point	AK	136	75
Savoonga	AK	6	5
Saxman	AK	6	5
Seldovia	AK	139	112
Seward	AK	10	2
Sitka	AK	1,570	799
Skagway	AK	57	33
Soldotna	AK	51	23
St. George Island	AK	2	
St. Paul Island	AK	12	14
Sterling	AK	2	
Tatitlek	AK	22	14
Tenakee Springs	AK	58	41
Thorne Bay	AK	116	72
Togiak	AK	4	
Toksook Bay	AK	7	5
Trapper Creek	AK	1	
Tununak	AK	11	3
Twin Hills	AK	1	
Unalakleet	AK	1	
Unalaska	AK	71	42
Valdez	AK	33	15
Ward Cove	AK	37	8
Wasilla	AK	35	4
Whale Pass	AK	7	7
Willow	AK	2	
Wrangell	AK	469	290
Yakutat	AK	112	62
Alaska subtotal		**9,847**	**5,337**
Non-Alaska subtotal		**97**	**22**
Total		**9,944**	**5,358**

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities. Blank cells indicate redacted data.

Appendix E-7.–Estimated subsistence harvests of halibut and sport harvests of halibut, pounds (net weight), and incidental harvests of lingcod and rockfish, by eligible Alaska tribe and eligible Alaska rural community, 2012.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Tribal name	Regulatory area	SHARCs issued[a]	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Angoon Community Association	2C	74	72	97.3%	36	48.6%	481	9,000	4	5.5%	10	143	0	0	11	57
Aukquan Traditional Council	2C	1														
Central Council Tlingit and Haida Indian Tribes	2C	485	244	50.3%	147	30.4%	1,523	31,840	87	17.9%	353	4,765	12	40	40	333
Chilkat Indian Village	2C	12	12	100.0%	1	8.3%	0	0	2	16.7%	7	74	0	0	0	0
Chilkoot Indian Association	2C	50	37	74.0%	18	35.8%	52	1,154	4	8.3%	0	0	3	3	3	6
Craig Community Association	2C	59	33	55.9%	27	45.9%	277	6,526	8	13.5%	5	190	5	8	13	120
Douglas Indian Association	2C	11	4	36.4%	2	18.2%	4	133	2	18.2%	2	63	0	0	0	0
Hoonah Indian Association	2C	110	67	60.9%	53	48.6%	700	8,466	16	14.4%	44	662	0	0	2	13
Hydaburg Cooperative Association	2C	108	46	42.6%	65	59.9%	980	26,122	9	8.7%	13	667	14	65	27	562
Ketchikan Indian Corporation	2C	454	318	70.0%	115	25.3%	1,727	30,483	61	13.4%	250	5,038	19	70	41	494
Klawock Cooperative Association	2C	63	39	61.9%	19	30.2%	162	5,109	2	2.5%	8	166	3	6	6	44
Metlakatla Indian Community, Annette Island Reserve	2C	119	94	79.0%	26	22.0%	140	2,789	8	6.3%	11	272	1	3	3	20
Organized Village of Kake	2C	72	53	73.6%	24	33.5%	211	6,597	1	1.8%	6	67	3	4	4	75
Organized Village of Kasaan	2C	5														
Organized Village of Saxman	2C	30	23	76.7%	20	65.0%	271	4,318	4	12.5%	56	319	1	3	1	10
Petersburg Indian Association	2C	68	48	70.6%	24	34.9%	179	2,903	16	22.9%	45	909	0	0	5	12
Sitka Tribe of Alaska	2C	264	154	58.3%	98	37.2%	587	14,421	11	4.3%	10	317	32	130	33	252
Skagway Village	2C	3														
Wrangell Cooperative Association	2C	82	68	82.9%	32	39.0%	283	7,744	18	21.7%	66	2,334	0	0	4	56
Subtotal, Area 2C		**2,070**	**1,319**	**63.7%**	**710**	**34.3%**	**7,592**	**157,963**	**255**	**12.3%**	**890**	**16,059**	**95**	**334**	**195**	**2,061**
Kenaitze Indian Tribe	3A	132	75	56.8%	23	17.2%	572	8,823	19	14.5%	80	767	2	3	2	16
Lesnoi Village (Woody Island)	3A	34	21	61.8%	5	15.9%	50	884	0	0.0%	0	0	1	1	1	4
Native Village of Afognak	3A	20	11	55.0%	10	49.0%	77	1,446	0	0.0%	0	0	0	0	0	0
Native Village of Akhiok	3A	7	4	57.1%	3	42.9%	43	804	0	0.0%	0	0	0	0	0	0
Native Village of Chenega	3A	18	11	61.1%	5	30.3%	49	1,145	4	22.7%	7	210	1	3	3	34
Native Village of Eyak	3A	71	43	60.6%	20	27.9%	102	1,779	13	17.7%	27	579	2	3	2	19
Native Village of Karluk	3A	4														
Native Village of Larsen Bay	3A	31	14	45.2%	17	54.8%	180	4,319	3	9.7%	22	168	4	6	6	78
Native Village of Nanwalek	3A	71	29	40.8%	29	40.8%	569	7,275	0	0.0%	0	0	4	64	10	127
Native Village of Ouzinkie	3A	28	16	57.1%	13	46.2%	114	1,964	8	29.9%	28	519	0	0	2	37
Native Village of Port Graham	3A	34	23	67.6%	20	58.0%	504	9,427	6	16.6%	6	59	4	8	4	63
Native Village of Port Lions	3A	28	16	57.1%	16	58.0%	94	2,437	15	52.2%	42	908	0	0	0	0
Native Village of Tatitlek	3A	25	16	64.0%	9	36.0%	106	2,375	0	0.0%	0	0	0	0	2	8
Ninilchik Village	3A	73	41	56.2%	19	26.3%	866	5,255	12	16.5%	72	958	0	0	0	0
Seldovia Village Tribe	3A	58	39	67.2%	35	60.7%	497	6,739	19	32.5%	90	1,372	5	16	4	51
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	112	68	60.7%	62	55.4%	567	12,758	20	17.5%	51	1,182	16	50	6	60

- continued -

Appendix E-7.–Page 2 of 6.

Tribal name	Regulatory area	Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
		SHARCs issued[a]	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Village of Kanatak	3A	19	3	15.8%	0	0.0%	0	0	6	33.3%	13	89	0	0	0	0
Village of Old Harbor	3A	43	21	48.8%	21	49.3%	163	1,778	3	7.6%	23	308	2	10	7	42
Village of Salamatoff	3A	25	20	80.0%	7	27.8%	184	1,799	7	27.8%	25	276	0	0	0	0
Yakutat Tlingit Tribe	3A	43	21	48.8%	29	68.1%	428	11,054	2	4.5%	0	0	2	39	2	37
Subtotal, Area 3A		**876**	**494**	**56.4%**	**348**	**39.7%**	**5,213**	**82,641**	**136**	**15.6%**	**487**	**7,396**	**44**	**204**	**54**	**600**
Agdaagux Tribe of King Cove	3B	53	30	56.6%	15	27.5%	188	2,657	8	15.4%	46	880	0	0	3	11
Chignik Lake Village	3B	11	3	27.3%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Ivanoff Bay Village	3B	4														
Native Village of Belkofski	3B	5														
Native Village of Chignik	3B	4														
Native Village of Chignik Lagoon	3B	16	10	62.5%	10	63.5%	63	839	4	22.9%	15	295	1	4	5	65
Native Village of False Pass	3B	1														
Native Village of Nelson Lagoon	3B	3														
Native Village of Perryville	3B	18	14	77.8%	15	80.6%	120	2,188	1	5.6%	0	0	0	0	3	13
Native Village of Unga	3B	1														
Pauloff Harbor Village	3B	79	20	25.3%	38	48.0%	231	3,869	10	13.1%	38	507	0	0	3	7
Qagan Toyagungin Tribe of Sand Point Village	3B	82	49	59.8%	26	31.4%	179	2,780	20	23.9%	78	773	1	1	3	37
Subtotal, Area 3B		**277**	**138**	**49.8%**	**105**	**37.9%**	**795**	**12,515**	**51**	**18.3%**	**186**	**2,630**	**2**	**5**	**18**	**136**
Native Village of Akutan	4A	11	4	36.4%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Qawalingin Tribe of Unalaska	4A	27	11	40.7%	11	41.2%	31	260	4	16.5%	18	202	0	0	4	53
Subtotal, Area 4A		**38**	**15**	**39.5%**	**11**	**29.2%**	**31**	**260**	**4**	**11.7%**	**18**	**202**	**0**	**0**	**4**	**53**
Native Village of Atka	4B	4														
Subtotal, Area 4B		**4**														
Pribilof Islands Aleut Community of St. George	4C	5														
Pribilof Islands Aleut Community of St. Paul	4C	15	3	20.0%	14	93.3%	149	2,009	0	0.0%	0	0	0	0	0	0
Subtotal, Area 4C		**20**	**4**	**20.0%**	**14**	**70.0%**	**149**	**2,009**	**0**	**0.0%**	**0**	**0**	**0**	**0**	**0**	**0**
Native Village of Diomede (Inalik)	4D	1														
Native Village of Savoonga	4D	5														
Subtotal, Area 4D		**6**	**5**	**83.3%**	**5**	**79.2%**	**27**	**777**	**0**	**0.0%**	**0**	**0**	**0**	**0**	**0**	**0**
Chevak Native Village (Kashunamiut)	4E	1														
Egegik Village	4E	4														
King Island Native Community	4E	2														
Manokotak Village	4E	1														
Naknek Native Village	4E	8	1	12.5%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Native Village of Aleknagik	4E	4														
Native Village of Brevig Mission	4E	1														
Native Village of Council	4E	4														

- continued -

Appendix E-7.–Page 3 of 6.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Tribal name	Regulatory area	SHARCs issued[a]	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Native Village of Dillingham (Curyung)	4E	12	6	50.0%	3	25.0%	24	516	2	16.7%	12	259	0	0	0	0
Native Village of Eek	4E	7	4	57.1%	5	75.0%	21	698	0	0.0%	0	0	0	0	0	0
Native Village of Hooper Bay	4E	2														
Native Village of Kipnuk	4E	5														
Native Village of Kongiganak	4E	3														
Native Village of Koyuk	4E	1														
Native Village of Kwigillingok	4E	1														
Native Village of Kwinhagak	4E	6	1	16.7%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Native Village of Mekoryuk	4E	4														
Native Village of Scammon Bay	4E	3														
Native Village of Shaktoolik	4E	1														
Native Village of Toksook Bay (Nunakauyak)	4E	9	8	88.9%	5	55.6%	42	294	0	0.0%	0	0	0	0	0	0
Native Village of Tununak	4E	12	4	33.3%	3	22.9%	28	173	0	0.0%	0	0	0	0	0	0
Native Village of Unalakleet	4E	1														
Native Village of Wales	4E	1														
Newtok Village	4E	1														
Nome Eskimo Community	4E	12	4	33.3%	5	41.7%	34	910	0	0.0%	0	0	0	0	2	6
Orutsararmuit Native Village	4E	13	10	76.9%	5	41.9%	0	0	0	0.0%	0	0	0	0	0	0
Platinum Traditional Village	4E	1														
South Naknek Village	4E	2														
Traditional Village of Togiak	4E	2														
Ugashik Village	4E	2														
Village of Chefornak	4E	4														
Village of Clark's Point	4E	3														
Village of Kotlik	4E	1														
Subtotal, Area 4E		**134**	**66**	**49.3%**	**37**	**27.9%**	**259**	**3,785**	**11**	**8.2%**	**34**	**622**	**1**	**24**	**2**	**6**
Tribal subtotal		**3,425**	**2,043**	**59.6%**	**1,232**	**36.0%**	**14,079**	**260,118**	**457**	**13.4%**	**1,614**	**26,908**	**142**	**567**	**273**	**2,857**

- continued -

Appendix E-7.–Page 4 of 6.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Rural community	Regulatory area	SHARCs issued[a]	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Angoon	2C	14	13	92.9%	9	61.3%	135	2,429	3	23.2%	41	406	2	13	4	90
Coffman Cove	2C	50	38	76.0%	29	58.5%	154	2,715	27	53.3%	152	2,273	0	0	10	97
Craig	2C	303	230	75.9%	141	46.5%	1,114	19,862	89	29.5%	493	6,211	40	91	63	521
Edna Bay	2C	34	28	82.4%	17	48.5%	85	2,397	4	10.4%	2	99	4	5	7	19
Elfin Cove	2C	18	13	72.2%	7	39.4%	41	1,055	4	21.3%	29	616	1	14	4	45
Gustavus	2C	64	51	79.7%	32	50.4%	202	4,277	31	48.0%	148	3,364	0	0	3	8
Haines	2C	407	335	82.3%	226	55.6%	1,158	22,623	75	18.5%	117	1,808	12	31	25	53
Hollis	2C	48	35	72.9%	23	47.9%	121	4,293	4	8.6%	11	366	3	3	9	52
Hoonah	2C	93	76	81.7%	52	56.3%	568	6,443	31	33.7%	176	2,360	2	26	10	51
Hydaburg	2C	8	5	62.5%	6	70.0%	57	2,084	4	52.5%	6	98	4	10	4	24
Hyder	2C	22	20	90.9%	14	65.0%	56	1,115	7	30.0%	2	37	1	7	2	14
Juneau	2C	5														
Kake	2C	33	21	63.6%	14	42.3%	116	2,765	16	47.0%	40	1,261	3	16	2	19
Kasaan	2C	10	10	100.0%	5	50.0%	24	466	3	30.0%	5	60	0	0	3	15
Ketchikan	2C	8	7	87.5%	5	57.1%	25	517	5	57.1%	0	0	1	2	3	26
Klawock	2C	141	102	72.3%	60	42.6%	735	12,213	55	39.1%	261	3,989	19	50	31	273
Metlakatla	2C	20	14	70.0%	10	51.7%	57	1,092	4	20.0%	11	173	3	4	1	8
Meyers Chuck	2C	9	7	77.8%	5	55.6%	15	322	1	11.1%	1	42	1	1	2	11
Naukati Bay	2C	48	41	85.4%	26	53.3%	150	2,997	16	33.2%	63	1,552	12	17	16	138
Pelican	2C	35	26	74.3%	21	59.0%	89	1,768	6	18.5%	14	335	10	14	12	93
Petersburg	2C	843	662	78.5%	357	42.4%	2,255	42,292	245	29.0%	834	13,952	12	54	42	221
Port Alexander	2C	16	14	87.5%	13	80.2%	129	2,429	4	26.6%	7	181	10	27	10	74
Port Protection	2C	11	10	90.9%	8	70.1%	65	1,095	0	0.0%	0	0	3	7	7	43
Pt. Baker	2C	16	12	75.0%	8	46.9%	35	585	1	7.8%	0	0	0	0	4	26
Saxman	2C	8	4	50.0%	4	46.9%	45	683	3	31.3%	14	306	4	11	3	44
Sitka	2C	1,330	1,040	78.2%	596	44.8%	2,940	64,152	230	17.3%	563	9,485	255	721	334	2,572
Skagway	2C	51	47	92.2%	23	45.9%	56	1,531	14	27.0%	37	485	0	0	1	1
Tenakee Springs	2C	58	47	81.0%	31	53.0%	198	3,298	21	35.5%	77	1,025	2	2	14	74
Thorne Bay	2C	118	97	82.2%	53	45.1%	339	8,743	44	37.3%	351	3,510	13	51	24	148
Ward Cove	2C	2														
Whale Pass	2C	17	14	82.4%	11	67.2%	79	3,213	7	40.3%	7	204	1	2	2	41
Wrangell	2C	382	301	78.8%	210	54.9%	1,533	28,083	101	26.4%	289	5,805	11	26	30	184
Subtotal, Area 2C		**4,222**	**3,324**	**78.7%**	**2,016**	**47.8%**	**12,576**	**247,633**	**1,053**	**24.9%**	**3,751**	**60,002**	**430**	**1,206**	**683**	**4,989**
Akhiok	3A	6	5	83.3%	2	40.0%	19	193	2	40.0%	4	101	0	0	0	0
Chenega Bay	3A	8	8	100.0%	6	75.0%	89	1,225	3	37.5%	25	305	2	20	4	72
Chiniak	3A	7	5	71.4%	7	100.0%	62	519	4	60.0%	18	470	0	0	0	0
Cordova	3A	416	318	76.4%	188	45.2%	1,032	18,008	89	21.4%	169	2,913	5	8	31	154
Karluk	3A	6	6	100.0%	4	66.7%	35	497	0	0.0%	0	0	0	0	0	0
Kodiak	3A	1,360	978	71.9%	696	51.2%	6,088	110,362	483	35.5%	2,382	43,133	91	275	134	1,085
Nanwalek	3A	5														
Old Harbor	3A	5														
Ouzinkie	3A	16	10	62.5%	14	84.4%	84	896	5	28.1%	12	153	0	0	0	0
Port Graham	3A	5														
Port Lions	3A	17	14	82.4%	10	61.1%	120	1,442	10	61.1%	69	1,128	0	0	0	0
Seldovia	3A	126	101	80.2%	77	61.2%	1,108	14,360	40	31.4%	274	3,969	5	35	16	167
Tatitlek	3A	11	8	72.7%	8	75.0%	56	1,261	6	50.0%	33	727	0	0	4	30
Yakutat	3A	72	49	68.1%	28	39.0%	382	8,188	15	20.3%	88	1,243	11	42	6	76
Subtotal, Area 3A		**2,060**	**1,514**	**73.5%**	**1,050**	**51.0%**	**9,395**	**162,647**	**658**	**31.9%**	**3,077**	**54,200**	**117**	**400**	**197**	**1,615**
Chignik	3B	1														

- continued -

Appendix E-7.–Page 5 of 6.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Rural community	Regulatory area	SHARCs issued[a]	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Cold Bay	3B	33	27	81.8%	20	59.2%	270	3,811	12	37.2%	21	527	3	64	0	0
False Pass	3B	2														
King Cove	3B	19	18	94.7%	10	52.6%	78	1,471	4	21.1%	10	225	0	0	0	0
Sand Point	3B	6	2	33.3%	2	33.3%	42	490	2	33.3%	0	0	0	0	2	40
Subtotal, Area 3B		**61**	**49**	**80.3%**	**33**	**53.3%**	**394**	**5,842**	**18**	**29.9%**	**31**	**752**	**3**	**64**	**2**	**40**
Unalaska	4A	114	83	72.8%	46	40.8%	499	8,412	40	34.9%	225	4,019	1	4	4	23
Subtotal, Area 4A		**114**	**83**	**72.8%**	**46**	**40.8%**	**499**	**8,412**	**40**	**34.9%**	**225**	**4,019**	**1**	**4**	**4**	**23**
Adak	4B	8	5	62.5%	5	60.0%	16	554	2	20.0%	0	0	2	3	2	40
Subtotal, Area 4B		**8**	**5**	**62.5%**	**5**	**60.0%**	**16**	**554**	**2**	**20.0%**	**0**	**0**	**2**	**3**	**2**	**40**
St. George Island	4C	1														
St. Paul Island	4C	1														
Subtotal, Area 4C		**2**														
Savoonga	4D	1														
Subtotal, Area 4D		**1**														
Bethel	4E	1														
Chevak	4E	1														
Dillingham	4E	21	16	76.2%	1	6.3%	0	0	1	6.3%	3	59	0	0	0	0
Egegik	4E	1														
King Salmon	4E	3														
Kotlik	4E	1														
Koyuk	4E	1														
Manokotak	4E	2														
Naknek	4E	3														
Nightmute	4E	1														
Nome	4E	13	8	61.5%	8	57.7%	35	704	0	0.0%	0	0	0	0	0	0
Port Heiden	4E	1														
Togiak	4E	2														
Subtotal, Area 4E		**51**	**34**	**66.7%**	**11**	**21.2%**	**134**	**1,771**	**2**	**4.5%**	**9**	**83**	**1**	**2**	**1**	**5**
Rural community subtotal		**6,519**	**5,011**	**76.9%**	**3,162**	**48.5%**	**23,014**	**426,873**	**1,774**	**27.2%**	**7,113**	**119,266**	**554**	**1,680**	**888**	**6,712**

- continued -

Appendix E-7.–Page 6 of 6.

		Return rate			Subsistence fished halibut		Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
Rural community	Regulatory area	SHARCs issued[a]	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Tribal name subtotal	All	3,425	2,043	59.6%	1,232	36.0%	14,079	260,118	457	13.4%	1,614	26,908	142	567	273	2,857
Rural community subtotal	All	6,519	5,011	76.9%	3,162	48.5%	23,014	426,873	1,774	27.2%	7,113	119,266	554	1,680	888	6,712
Total	**All**	**9,944**	**7,054**	**70.9%**	**4,394**	**44.2%**	**37,093**	**686,991**	**2,231**	**22.4%**	**8,727**	**146,174**	**696**	**2,247**	**1,161**	**9,568**

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued are not reported in this table. Subtotals include all tribes and communities. Blank cells indicate redacted data.

Appendix F.–Comparison of mean harvests per respondent and participation rates by response category, 2005–2012.

Project staff explored the possibility of nonresponse bias for the mailed surveys in 2012 by reviewing average reported harvests in usable pounds per respondent for each of the 3 mailings. Also reviewed was the average number of respondents per mailing who reported that they participated in the subsistence fishery in 2012.

For survey respondents overall (6,620 responded by mail), average harvests did not differ significantly between mailings (Appendix Table F-1; Appendix Figure F-1). On average, respondents to the first mailing averaged harvests of 73.3 lb (±3.2), respondents to the second mailing averaged 65.2 lb (±7.2), and average harvests for respondents to the third mailing were 60.3 lb (±11.9). Thus, no evidence supported different harvests based on response category. The same relationships were found for respondents from Area 2C (4,223 respondents by mail) and 3A (1,998 respondents), which, together, account for 94.0% of mailed survey responses in 2012. Response patterns for Area 3B (185 responses) showed a notably lower harvest rate for responses to the third mailing**.** In Area 4 (189 responses by mail), harvest rates declined over the 3 mailings, with a significant difference between the average for the first and third mailings.

In 2012, a similar but not identical pattern occurred based on the percentage of respondents that reported participation in the subsistence fishery (Appendix Table F-2; Appendix Figure F-2). The average was 49% (±1.0%) for respondents for the first mailing, and dropped significantly to 45% (±2.0%) for respondents to the second mailing. However, 42% (±4.0) of respondents to the third mailing participated in the fishery, a rate that was not significantly different from the set of respondents to the second mailing. Virtually the same pattern occurred for respondents from Area 2C. In Area 3A, Area 3B, and Area 4, there were no significant differences in participation rates for the 3 sets of respondents, although there was a notable drop in fishery participation for the respondents to the third mailing in Area 3B and Area 4. Thus the analysis did not uncover strong evidence that later respondents to the survey were less likely to participate in the subsistence halibut fishery than those who responded to earlier mailings.

Based on these findings, project staff made no adjustments to data analysis. Because there was little evidence for lower harvest rates or fishery participation for later respondents to the mailed surveys, non-respondents (except for the few exceptions discussed in Chapter 1) were assigned mean values for their tribe or rural residence for estimating total harvests and participation rates.

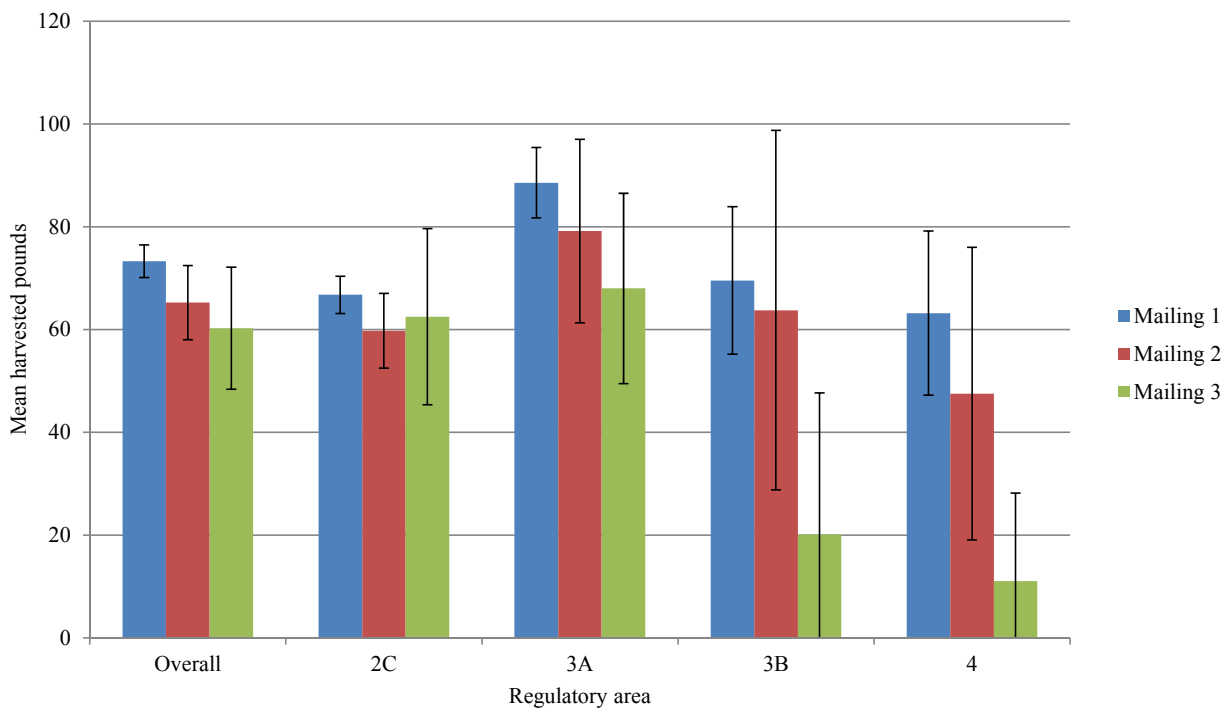
Appendix Figure F-3 shows results for study years 2005 to 2012 for average harvests by response category, with all SHARC holders from all regulatory areas combined. Three mailings took place for 2005–2008, and 2011-2012. Except for 2006 and 2011, no significant differences were found between the mean harvests for respondents to each mailing. In 2006, average harvests for respondents to the second and third mailings were significantly lower than those for the first mailing, but were not different from each other. In 2011, average harvests for the second mailing were significantly lower than those for the first, but the average for respondents for the third mailing increased and was not significantly different from those for either of the other mailings. In 2009 and 2010 just 2 mailings occurred. In 2009, mean harvests for respondents for the second mailing were significantly lower than the mean for the first mailing. In 2010, there were no significant differences in harvest levels reported by respondents to the first mailing compared to the results for respondents to the second mailing.

Appendix Figure F-4 shows results for study years 2005 to 2012 for percentage of respondents who participated in the subsistence fishery by response category, with SHARC holders from all regulatory areas combined. From 2005 to 2008 and again in 2012, there was a small but significant drop in the percentage of respondents who participated in the fishery from the first set of responses compared to the second and third set, but no meaningful difference between the second and third sets. In 2011,

participation in the fishery dropped significantly from the first to the second mailing, but jumped back up among respondents to the third mailing. In 2009 and 2010, when only 2 mailings occurred, a small but significant drop in fishery participation took place between the first and second sets of respondents.

Appendix Table F-1.–Mean subsistence pounds harvested comparison by mailing, 2012.

	Mailing 1		Mailing 2		Mailing 3	
Regulatory area	Mean	CI	Mean	CI	Mean	CI
Overall	73.3	3.2	65.2	7.2	60.3	11.9
2C	66.8	3.6	59.8	7.3	62.5	17.1
3A	88.6	6.9	79.2	17.9	68.0	18.5
3B	69.6	14.3	63.8	35.0	20.1	27.5
4	63.2	16.0	47.5	28.5	11.1	17.1

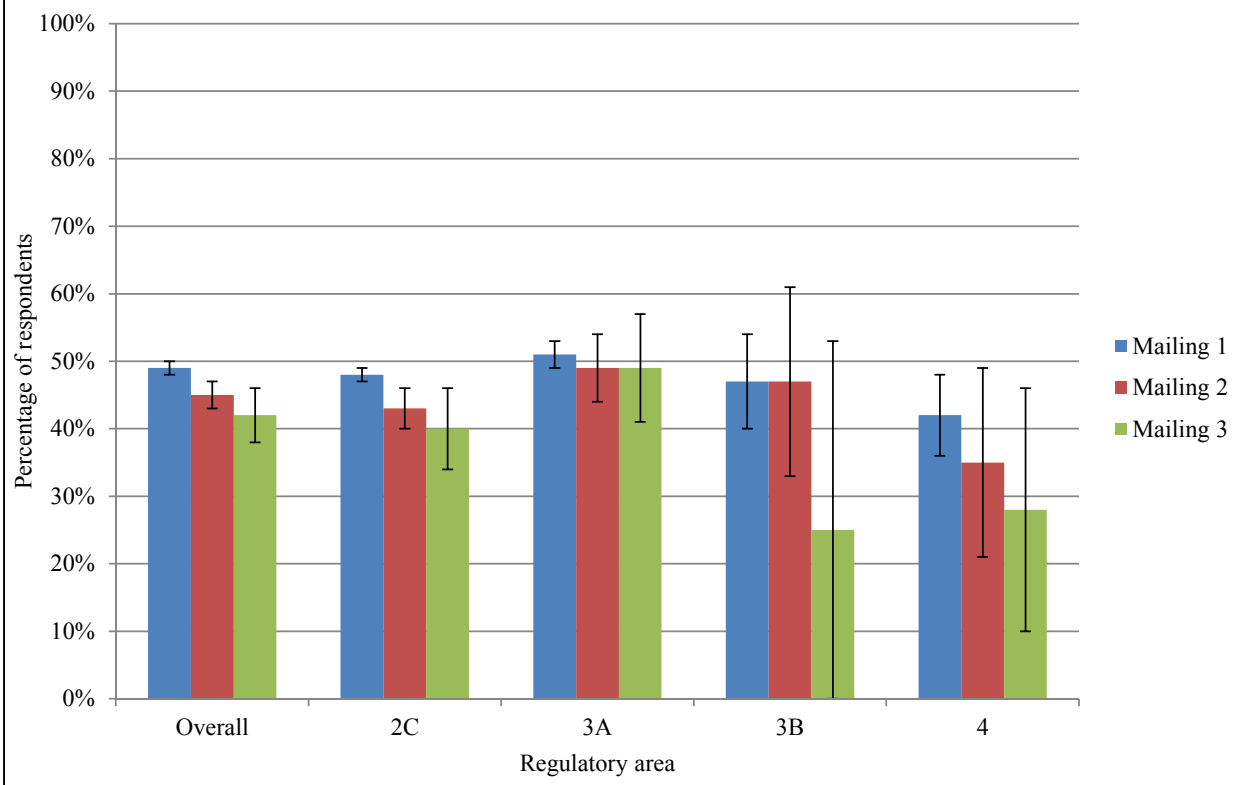


Note Areas of overlapping error bars indicate differences in the means are not statistically significant.

Appendix Figure F-1.–Mean subsistence pounds harvested comparison by mailing, 2012.

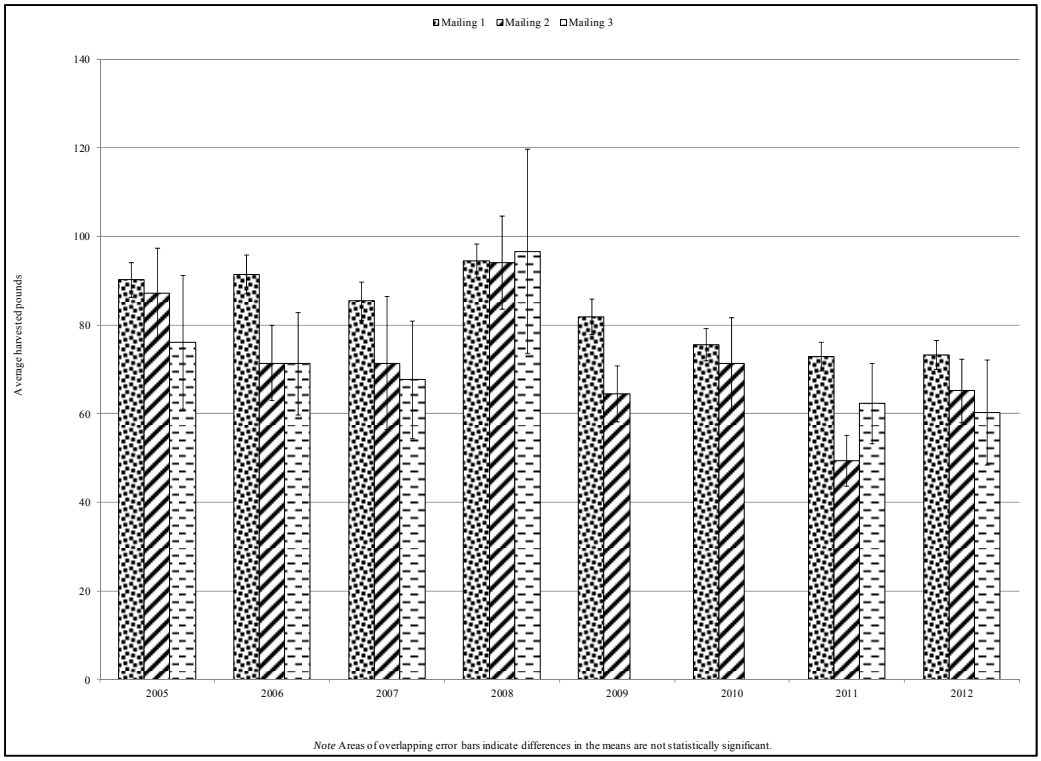
Appendix Table F-2.–Participation in subsistence fishing comparison by mailing, 2012.

	Mailing 1		Mailing 2		Mailing 3	
Regulatory area	Percentage fishing	CI	Percentage fishing	CI	Percentage fishing	CI
Overall	49.0%	1.0%	45.0%	2.0%	42.0%	4.0%
2C	48.0%	1.0%	43.0%	3.0%	40.0%	6.0%
3A	51.0%	2.0%	49.0%	5.0%	49.0%	8.0%
3B	47.0%	7.0%	47.0%	14.0%	25.0%	28.0%
4	42.0%	6.0%	35.0%	14.0%	28.0%	18.0%

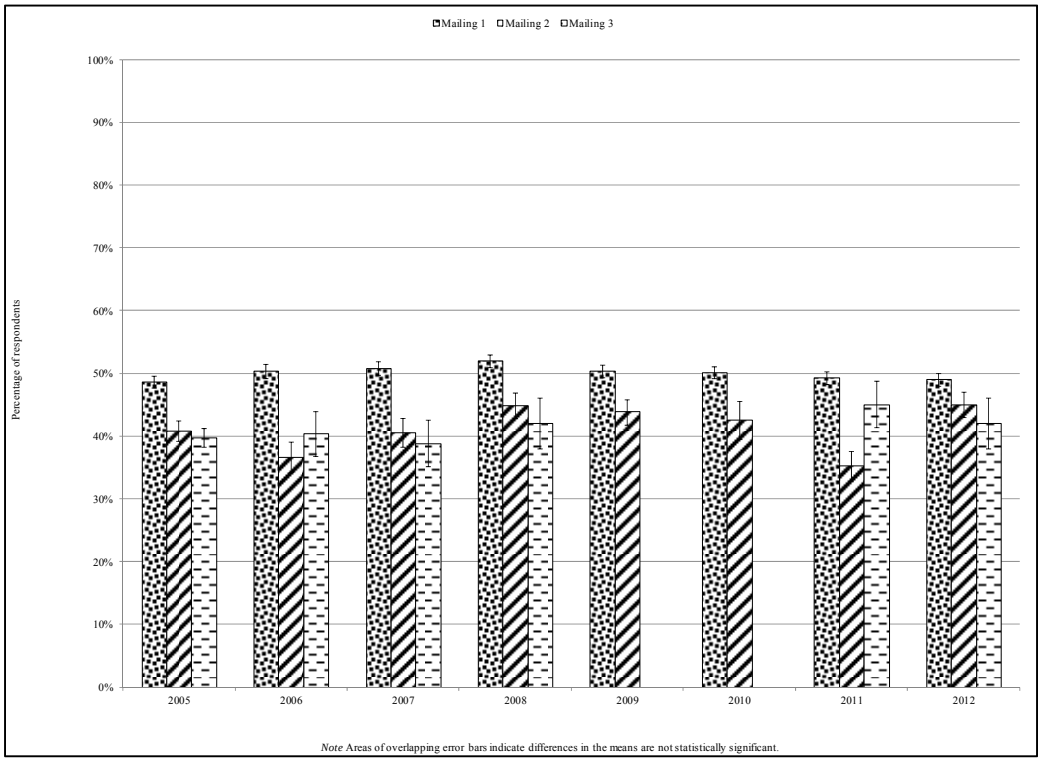


Note Areas of overlapping error bars indicate differences in the means are not statistically significant.

Appendix Figure F-2.–Participation in subsistence fishing comparison by mailing, 2012.



Appendix Figure F-3.–Mean subsistence harvest of halibut, pounds net weight, by response category, 2005–2012.



Appendix Figure F-4.–Percentage of respondents who participated in the subsistence halibut fishery by response category, 2005–2012.

Appendix G.–Project findings summary.

SUBSISTENCE HARVESTS OF PACIFIC HALIBUT IN ALASKA, 2012

Division of Subsistence, Alaska Department of Fish and Game
333 Raspberry Road, Anchorage, AK 99518
January 2014

Through a grant from the National Marine Fisheries Service (NMFS), the Alaska Department of Fish and Game (ADF&G) Division of Subsistence conducted a study to estimate the subsistence harvests of Pacific halibut in Alaska in 2012. The full results of the study appear in the Division's Technical Paper No. 388, "Subsistence Harvests of Pacific Halibut in Alaska, 2012" (January 2014). Key points in the report include the following:

- In May 2003, the NMFS published final federal regulations for a subsistence halibut fishery in Alaska. Residents of 118 rural communities and designated rural areas, and members of 123 tribes are eligible to participate. Fishers must obtain a subsistence halibut registration certificate (SHARC) from NMFS before fishing (www.fakr.noaa.gov/ram/subsistence/halibut.htm; 800-304-4846).
- 2012 was the tenth year in which subsistence halibut fishing took place under these regulations. Information about subsistence halibut harvests in 2003–2011 is reported in Division of Subsistence Technical Papers 288, 304, 320, 333, 342, 348, 357, 367, and 378, respectively.
- To estimate the 2012 harvests, a one-page survey form was mailed to SHARC holders in early 2013 or administered in person. After three mailings and community visits, 7,054 of 9,944 SHARC holders (71%) responded. Participation in the survey was voluntary.
- An estimated 4,394 individuals subsistence fished for halibut in 2012 (Figure 9).
- The estimated subsistence harvest was 37,093 halibut for 686,991 pounds net weight.
- Of this total, 78% was harvested with setline (stationary) gear (longline or skate) and 22% was harvested with hand-operated gear (handline or rod and reel).
- The largest subsistence harvests occurred in Southeast Alaska (Halibut Regulatory Area 2C), at 58% of the total, followed by Southcentral Alaska (Area 3A) at 37%. Table 6 and Figure 17 from the final report give more details on harvests by gear type and area.
- Based on place of residence of SHARC holders, communities with the largest subsistence halibut harvests in 2012 were Kodiak and Sitka (the largest eligible communities) (Figure 22).
- An estimated 9,568 rockfish were harvested by 1,161 fishers in the subsistence halibut fishery in 2012. Most (73%) were harvested in Southeast Alaska. An estimated 2,247 lingcod were harvested by 696 fishers in the subsistence halibut fishery in 2012. Most (68%) were harvested in Southeast Alaska.
- Based on preliminary data from the International Pacific Halibut Commission and this study, the estimated halibut removal in Alaska in 2012 was 42.491 million pounds, net weight. Subsistence harvests accounted for 1.7% of this total (Figure 33).
- The report concludes that the project was, overall, a success, with good response rates and a reliable estimate of subsistence halibut harvests. However, analysis suggests that fishers in some communities may not have renewed their SHARCs. Additional outreach among eligible tribes and rural areas is necessary to maximize enrollment of fishers in the SHARC program.
- Due to budget constraints, a survey to estimate subsistence halibut harvests in Alaska in 2013 will not take place. The report recommends that monitoring of the Alaska subsistence halibut harvest resume in the future to evaluate trends in the fishery.

For a copy of the full report, go to http://www.adfg.alaska.gov/sf/publications/, or call the Division of Subsistence of ADF&G at 907-267-2353 (Anchorage) or 907-465-4147 (Juneau).

1

Table 6.–Estimated harvests of halibut in numbers of fish and pounds net (dressed, head-off) weight by regulatory area and subarea, 2012.

			Estimated subsistence harvest by gear type[a]											
			Set hook gear			Hook and line or handline			All gear			Estimated sport harvest		
Subarea	Regulatory area	Number of SHARCs subsistence fished[c]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]	Estimated number respondents fished	Estimated number halibut harvested	Estimated pounds halibut harvested[b]
Southern Southeast Alaska	2C	1,454	1,183	7,497	163,184	616	2,667	40,878	1,454	10,164	204,062	735	2,541	43,043
Sitka Lamp Area	2C	736	693	3,346	75,770	163	456	7,666	736	3,803	83,436	259	522	8,295
Northern Southeast Alaska	2C	770	677	4,316	86,936	244	812	12,533	770	5,128	99,470	256	905	12,935
Subtotal, Area 2C		**2,859**	**2,462**	**15,160**	**325,890**	**977**	**3,935**	**61,078**	**2,859**	**19,095**	**386,967**	**1,200**	**3,967**	**64,274**
Yakutat Area	3A	88	69	545	11,949	41	253	3,813	88	798	15,762	29	141	2,345
Prince William Sound	3A	273	239	1,398	26,079	105	394	6,743	273	1,791	32,822	136	327	5,372
Cook Inlet	3A	258	167	2,210	34,026	169	2,109	26,310	258	4,319	60,337	116	536	7,246
Kodiak Island road system	3A	575	484	3,440	61,258	274	1,354	18,649	575	4,794	79,907	414	1,865	31,503
Kodiak Island–Other	3A	592	466	3,112	55,344	279	1,120	21,932	592	4,233	77,276	285	1,073	19,398
Subtotal, Area 3A		**1,580**	**1,237**	**10,705**	**188,657**	**774**	**5,231**	**77,447**	**1,580**	**15,936**	**266,104**	**839**	**3,942**	**65,864**
Chignik Area	3B	35	20	159	1,988	29	111	1,632	35	271	3,621	3	11	56
Lower Alaska Peninsula	3B	146	95	685	9,442	115	464	8,948	146	1,149	18,390	47	89	1,796
Subtotal, Area 3B		**181**	**114**	**844**	**11,430**	**142**	**575**	**10,581**	**181**	**1,419**	**22,011**	**50**	**100**	**1,852**
Eastern Aleutians–East	4A	67	38	355	4,972	50	459	7,844	67	814	12,816	25	200	2,714
Eastern Aleutians–West	4A	5	4	14	330	4	20	460	5	33	790	7	11	255
Subtotal, Area 4A		**70**	**39**	**369**	**5,302**	**52**	**478**	**8,304**	**70**	**847**	**13,606**	**32**	**211**	**2,969**
Western Aleutians–East	4B	9	9	12	280	6	15	257	9	27	537	6	0	0
Subtotal, Area 4B		**9**	**9**	**12**	**280**	**6**	**15**	**257**	**9**	**27**	**537**	**6**	**0**	**0**
St. George Island	4C	4	4	20	490	0	0	0	4	20	490	0	0	0
St. Paul Island	4C	7	4	35	346	4	11	812	7	46	1,158	0	0	0
Subtotal, Area 4C		**11**	**8**	**55**	**836**	**4**	**11**	**812**	**11**	**66**	**1,648**	**0**	**0**	**0**
St. Lawrence Island	4D	8	7	22	556	3	1	60	8	23	615	0	0	0
Subtotal, Area 4D		**8**	**7**	**22**	**556**	**3**	**1**	**60**	**8**	**23**	**615**	**0**	**0**	**0**
Bristol Bay	4E	10	5	0	0	10	34	403	10	34	403	3	0	0
Yukon Delta	4E	78	26	198	2,089	65	497	3,194	78	695	5,283	6	14	264
Norton Sound	4E	5	5	21	482	0	0	0	5	21	482	0	0	0
Subtotal, Area 4E		**91**	**35**	**220**	**2,571**	**72**	**531**	**3,597**	**91**	**750**	**6,168**	**9**	**14**	**264**
Total, Alaska[c]		**4,705**	**3,821**	**27,385**	**535,521**	**1,977**	**10,777**	**162,136**	**4,705**	**38,162**	**697,656**	**2,070**	**8,235**	**135,224**

Source ADF&G Division of Subsistence SHARC survey, 2011.

a. "Setline" = longline or skate. "Hand-operated gear" = rod and reel, or handline.

b. Weights given are "net weight." Pounds net (dressed, head off) weight = 75% of round (whole) weight.

c. Because fishers may fish in more than one area, subtotals for regulatory areas and the state total might exceed the sum of the subarea values. Includes subsistence and sport fishing.

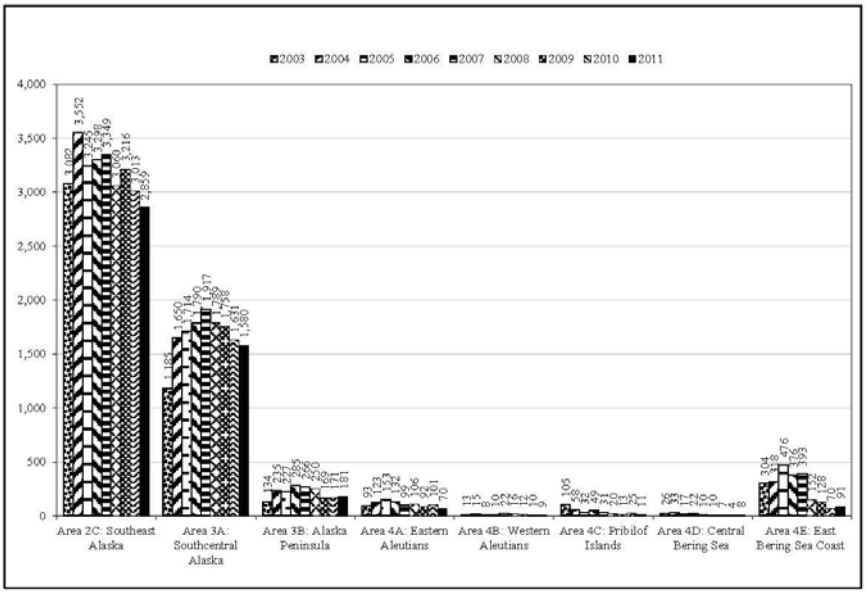


Figure 9.–Estimated number of Alaska subsistence halibut fishers, 2003–2012 by regulatory area fished.

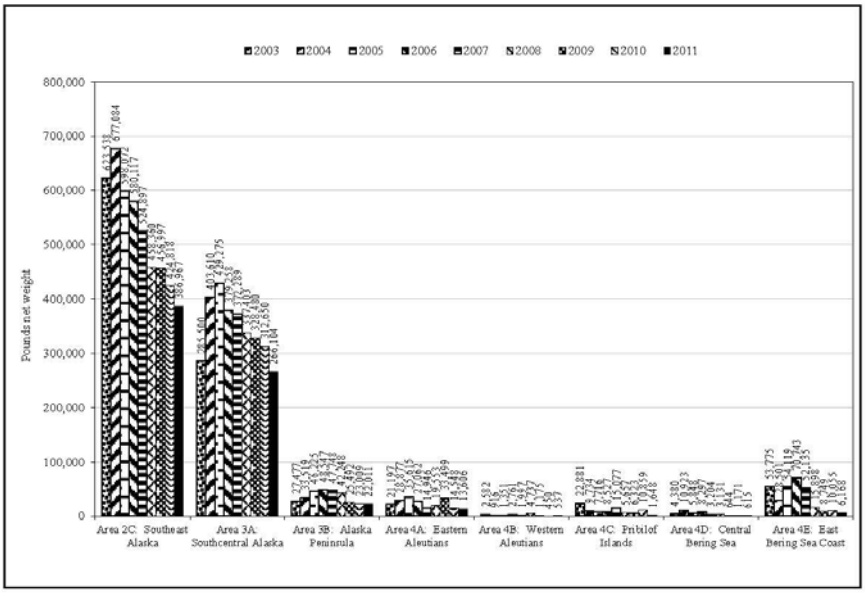


Figure 17.–Estimated subsistence halibut harvests, pounds net weight, by regulatory area fished, 2003–2012.

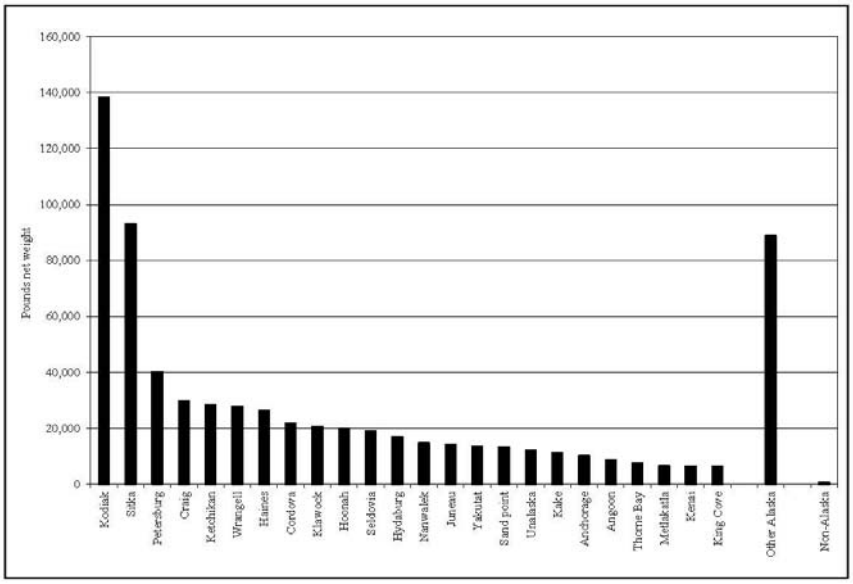


Figure 22.–Alaska subsistence halibut harvests by place of residence, 2012.

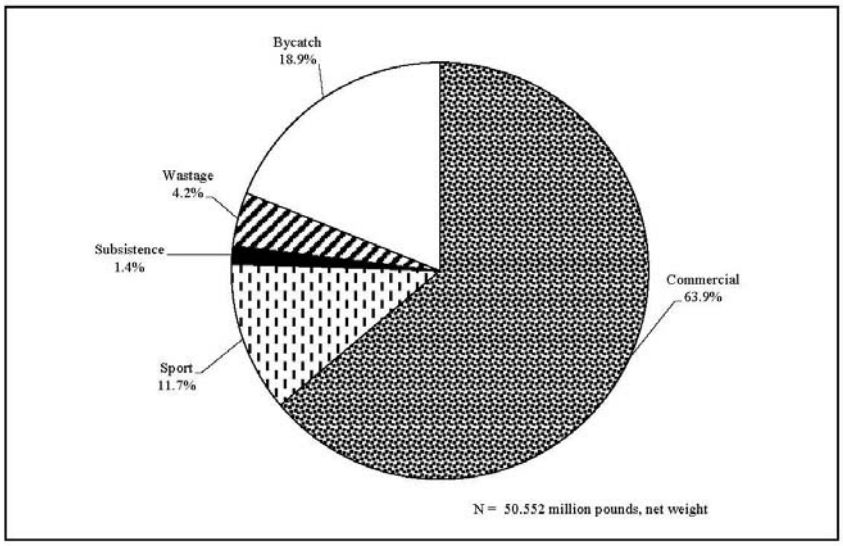


Figure 33.–Halibut removals, Alaska, 2012.

The Alaska Department of Fish and Game administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972. If you believe you have been discriminated against in any program, activity, or facility please write ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK 99811-5526. The department's ADA Coordinator can be reached via phone at the following numbers: (VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648, (Juneau TDD) 907-465-3646, or (FAX) 907-465-6078. Or contact the U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington, VA 22203; or the Office of Equal Opportunity, U.S. Department of the Interior, Washington DC 20240. For information on alternative formats and questions on this publication, please contact ADF&G, Division of Subsistence, Website: http://www.adfg.alaska.gov/index.cfm?adfg=contacts.anchorage.