

Subsistence Harvests of Pacific Halibut in Alaska, 2011

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by

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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	

Physics and chemistry

<i>all atomic symbols</i>	
alternating current	AC
ampere	
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

<i>all commonly-accepted abbreviations;</i> <i>e.g., Mr., Mrs., AM, PM, etc.</i>	
<i>all commonly-accepted professional</i> <i>titles; e.g., Dr., Ph.D., R.N., etc.</i>	
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.
<i>et alii</i> (and others)	et al.
<i>et cetera</i> (and so forth)	etc.
<i>exempli gratia</i> (for example)	e.g.
Federal Information Code	FIC
<i>id est</i> (that is)	i.e.
latitude	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
mid-eye-to-fork	MEF
mid-eye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

<i>all standard mathematical signs, symbols and abbreviations</i>	
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 ₀
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

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DRAFT

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ABSTRACT

This report describes the results of the ninth 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 68% (7,589 surveyed of 11,145 SHARC holders). An estimated 4,705 individuals participated in the subsistence fishery for halibut in 2011, the lowest total over the 9 study years; the previous low was 4,942 fishers in 2003 and the highest estimate was 5,984 fishers in 2004. The estimated harvest in 2011 was 43,332 halibut, comprising 697,656 lb (net weight; $\pm 2.7\%$), the lowest totals for the 9 years of the project. This compares to a high of 55,875 fish and 1,178,222 lb ($\pm 3.0\%$) in 2005 and a previous low of 43,332 fish and 797,560 lb ($\pm 3.4\%$) in 2010. Of the total subsistence halibut harvested in 2011, 77% were harvested with setline gear and 23% with hand-operated gear. As in 2003–2010, the largest portion of the Alaska subsistence halibut harvest in 2011 occurred in Regulatory Area 2C (Southeast Alaska), 55%, followed by Area 3A (Southcentral Alaska), 38%. Subsistence harvests represented about 1.4% of the total halibut removals in Alaska in 2011. The harvest estimates based on the surveys for 2003–2011 serve as a basis for understanding the overall harvest, annual variability in catch, and trends in harvests since implementation of the 2003 regulations. The report recommends that monitoring of the subsistence harvest of halibut in Alaska be continued.

Key words: Pacific halibut, *Hippoglossus stenolepis*, subsistence harvest, 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 2011. 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 2011 was the ninth 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 2011, 11,145 individuals held SHARCs, compared to a high of 15,047 at the end of 2007 and a low of 10,953 at the end of 2010. The number of valid SHARCs in 2011 was 14% below the previous 8-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 2012, with 2 follow-up mailings. Household visits supplemented the mailings in 5 communities in Southeast Alaska. In total, 7,589 surveys were returned, a response rate of 68%, the highest of any study year. Participation in the survey was voluntary.

According to the project findings, an estimated 4,705 individuals participated in the subsistence halibut fishery in 2011. This was the lowest number of participants since the SHARC program began. The previous low was 4,942 subsistence halibut fishers in 2003, and the highest estimate was 5,984 in 2004.

The estimated harvest in 2011 was 38,162 halibut ($\pm 2.8\%$ comprising 697,656 lb (net weight; $\pm 2.7\%$), the lowest totals for the 9 years of the project (“Net weight” is 75% of “round” or live weight; the estimated harvest was 930,208 lb round weight). This compares to an estimated high of 55,875 fish ($\pm 3.0\%$) comprising 1,178,222 lb ($\pm 3.0\%$) in 2005 and previous low of 43,332 halibut comprising 797,560 lb ($\pm 3.4\%$) in 2010. As measured in pounds the 2011 harvest was about 13% lower than the estimated harvest in 2010, and 31% lower than the previous 8-year average from 2003–2010.

Of the total subsistence halibut harvest in 2011 535,521 lb (77%) were harvested with setline (stationary) gear (i.e., longlines, or “skates”) and 162,366 lb (23%) were harvested with hand-operated gear (i.e., rod and reel or handline). This was similar to the harvest by gear type in 2003–2010. Of those subsistence fishers using setline gear in 2011, the most (39%) 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 10,853 rockfish *Sebastes* spp. and 2,305 lingcod *Ophiodon elongatus* in 2011 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 12,395 rockfish and 2,355 lingcod in 2005.

Based upon fishing locations, the largest portion of the Alaska subsistence halibut harvest in 2011 occurred in Regulatory Area 2C (Southeast Alaska), 55% (386,967 lb); followed by:

- Area 3A (Southcentral Alaska), 38% (266,104 lb);
- Area 3B (Alaska Peninsula), 3% (22,011 lb);
- Area 4A (Eastern Aleutian Islands), 2% (13,606 lb);
- Area 4E (East Bering Sea Coast), 1% (6,168 lb);
- Area 4C (Pribilof Islands), less than 1% (1,648 lb);
- Area 4D (Central Bering Sea), less than 1% (615 lb); and
- Area 4B (Western Aleutian Islands), less than 1% (537 lb).

In 2003–2010 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 50.552 million pounds (net weight) of halibut were removed from Alaska waters in 2011. Of this total, the subsistence harvest accounted for 1.4%. Commercial harvests took 63.9% of the halibut, followed by bycatch in other commercial fisheries (18.9%), sport harvests (11.7%), and wastage in the commercial fishery (4.2%).

This report describes the results of the ninth 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 2003–2011 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 2003–2011 is problematic, however, because of the limitations of earlier harvest estimates at the statewide level. The subsistence harvest estimates for 2003–2011 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 2008–2011 compared to the previous 5 years appears to be a result of fewer registered SHARC holders, fewer estimated participants in the fishery, lower average harvest per fisher, and a decline in the average size of the harvested halibut over the 9 years of the study, from 23.7 pounds per fish in 2003 to 18.3 lb per fish in 2011. In Area 4, substantial drops in SHARC registrations and survey responses may be resulting in an underestimate of subsistence halibut harvests in that area. Additional years of harvest data will be necessary to shed light on these and other factors that may shape the subsistence halibut harvest in Alaska.

The report concludes that 697,650 net pounds is a sound estimate of the Alaska subsistence halibut harvest in 2011. 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 16748). The 2011 harvest estimate was 31% below the average for the previous 8 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. The report recommends that monitoring of the subsistence halibut harvest in Alaska continue 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 2011 through a survey mailed to registered subsistence halibut fishers; the survey was supplemented by interviews in selected communities. This was the ninth year for which this research was conducted. (See Fall et al. 2004 for the results for 2003, Fall et al. 2005 for the results for 2004, Fall et al. 2006 for the results for 2005, Fall et al. 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, and Fall and Koster 2012 for the results for 2010.) The Division of Subsistence administered the project through a grant from NMFS (award number NA11NMF4370059).

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* (a "EA/RIR/IRFA") by the North Pacific Fishery Management Council (NPFMC), ADF&G, IPHC, and NMFS, August 11, 2000 (NMFS 2000; see also NPFMC 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 fishery 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 (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 RAM Program office of NMFS prior to fishing.² Federal regulations (30 CFR Part 300.65(h)(4)) also authorize periodic surveys of SHARC holders in order to estimate annual subsistence harvests and related 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

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 16747).

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.

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 (ADLWD 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 the Kenai Peninsula Borough. Also, Table 1 shows that Alaska Department of Labor and Workforce Development estimates for eligible communities and areas for 2011 total 86,376. Estimates of the Alaska Native population of these areas for 2011 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 2011. Funding for 2010 totaled \$129,000, an increase from the \$103,000 available for study years 2008, 2009, and 2010. As a consequence, a third mailing of harvest surveys was restored (these had not occurred since study year 2008). In addition, outreach and supplemental interviewing occurred in 5 communities in Area 2C. Therefore, the project objectives for 2011, listed below, were identical to the first 8 years of the project:

1. Produce an estimate of the subsistence harvest of halibut in Alaska in 2011 by community, tribe, gear type, and IPHC regulatory area, along with an estimate of the number of individuals who subsistence fished for halibut in 2011.
2. Produce an estimate of the harvest of halibut by SHARC holders while sport fishing in 2011.
3. Produce an estimate of the number of lingcod and rockfish taken by subsistence fishers while subsistence fishing for halibut in 2011.

DATA COLLECTION METHODS

Public Outreach

In January 2012, the Division of Subsistence sent the report for project year 2010 (Fall and Koster 2011) to all eligible tribes, along with a short summary of the findings for 2010 and a letter informing them that the research would continue for the 2011 harvest year (Appendix B). Before 2009, the division published announcements in local newspapers about the upcoming mailing of halibut survey forms to SHARC holders. Due to rising costs and the reduced budget, these announcements were not published for the 2009, 2010, or 2011 study years. 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 ninth 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, 11,138 SHARCs and 7 ceremonial, educational, or community permits were issued for 2011 (see section "Sample achievement" below), for a total of 11,145 individuals or groups authorized to participate in the subsistence halibut fishery. All 11,138 individuals who held a

SHARC for any portion of 2011, as of December 31, 2011, were mailed a retrospective recall survey covering a 12-month harvest period: calendar year 2011. Data from the 7 permits were returned directly to the RAM Program.

With one exception, the 2010 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 2010 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 2011; 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 2004–2011. 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 and 2011.

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 11,138 SHARC holders occurred on January 6, 2012. The second mailing to 6,087 SHARC holders occurred on February 23, and a third mailing to 4,473 SHARC holders occurred on April 4.

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 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]).

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.

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 2011 project year, the interviews were administered in Metlakatka, 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 Chignik Area (Regulatory Area 3B) communities of Chignik Lake, Chignik Lagoon, and Perryville who had not returned the surveys by mail.

SAMPLE ACHIEVEMENT

Table 3 reports sample achievement by tribe, rural community, and community of residence. Overall, 7,589 surveys were returned by 11,145 SHARC holders (including the 7 special permits),⁴ a response rate of 68% (Figure 2). For residents of the 118 eligible rural communities and eligible rural areas who did not register as tribal members, 5,208 of 7,010 surveys were returned (74%) (tables 3 and 4). As shown in Figure 3, in 2011 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 70% or more in 10 of these communities; the return rate for Kodiak, the rural community with the most SHARC holders, was 67%.

Of the 4,135 tribal members who held SHARCs in 2011, 2,811 (58%) returned surveys. As shown in Figure 3, there were 18 tribes with more than 70 members who obtained SHARCs. Return rates for these 18 tribes varied widely, from 85% in Angoon (where household surveys were conducted to supplement the return of surveys by mail) to 43% for Nainwalek (where no directed outreach occurred). In total, these 18 tribes accounted for 71% of all tribal SHARCs.

Figure 4 illustrates survey response rates by place of residence of SHARC holders for the 22 communities with 100 or more SHARC holders in 2011. These communities accounted for 84% of all SHARCs and 86% of all returned surveys. Response rates were 50% or higher in all but 3 of these communities, and topped 60% in all but 5.

Figure 5 shows the survey return rate by response category (see also Table 3). After the first mailing, 5,291 surveys were returned, for a response rate of 48%. Responses to the second mailing added 1,148 surveys, and the third mailing produced 585 responses, for a total response to the postal survey of 7,024 surveys, 63% of the 11,145 SHARC holders. In addition, surveys administered by representatives of tribal and other organizations working with ADF&G (plus information from the 7 special permits returned directly to RAM Program), added 565 surveys. Most of these were in Metlakatla, Hydaburg, Sitka, Angoon, and Ketchikan. This brought the total response to 7,589 surveys, 68% of all SHARC holders in 2011.

The overall response rate for the survey for 2011 increased compared to 2010, from 61% to 68%. The return rate in 2011 was the highest for any year of the survey, topping the 65% response rate achieved in 2003⁵. Several factors likely account for the high response rate in 2011. These include restoration of the

⁴ In this report, we use 11,145 as the number of SHARCs or "SHARC holders," a total that includes 11,138 individual SHARC holders and 7 special permits.

⁵ See Table 19 for sample sizes and fractions and selected project findings for the 9 project years.

third survey mailing (only 2 mailings 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 784 in 2011 (Table 3). Subtracting “undeliverables” from the postal survey target gives a response rate by mail of 68% in 2011, the highest for any survey year; the previous high was 64% in 2008.

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 Server⁶ 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

$$H_t = \sum H_i \quad (1)$$

$$\text{where } H_i = h_i W_i \quad (2)$$

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

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

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, 130 SHARCs were held by eligible tribal members living outside of Alaska. Of these, 84 postal surveys were returned from this group, and very few 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 2011, 1,459 rural and 1,160 tribal SHARCs expired and were not renewed; of those, 732 (50%) rural SHARCs and 537 (46%) tribal SHARCs participated in the survey. Of those survey respondents with rural SHARCs that expired 26% participated in the subsistence fishery, and did 22% of survey respondents with expired tribal SHARCs.

Third, as in 2009 and 2010, 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 7 community, educational, or ceremonial permits for 2011. Harvests from these permits 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 the permits 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%*):

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

$$s = \sqrt{\sum_{i=1}^t \frac{\Sigma(x - \bar{x}_i)^2}{n_i - 1}} \quad (5)$$

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

N_i = tribal or community population size

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

Project staff explored the possibility of non response 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 $0.75 \times \text{round weight} = \text{net weight}$.⁷

⁷ The factor of 0.75 for converting halibut round weight to net weight is the standard used by the IPHC and the ADF&G Division of Sport Fish. Division of Subsistence studies, as reported in the Technical Paper series and in the Community Subsistence Information System (<http://www.subsistence.adfg.state.ak.us/CSIS/>, hereinafter referred to as CSIS, and formerly the Community Profile Database [Scott, C.L., B. Brown, G.B. Jennings, and C. Utermohle. *Unpublished*. Community Profile Database, 2001, for Microsoft Access 2000. Version 3.12. Alaska Department of Fish and Game Division of Subsistence, Juneau, hereinafter referred to as CPDB.]), generally use a factor of 0.72 for converting halibut round weights to net weights, based on Crapo et al. 1993:7), who reports 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."

Products

The public review draft of this final report was completed in November 2012 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 2012 meeting of the NPFMC in Anchorage, Alaska. In past study years, draft results were also reviewed during a meeting of the ANSHWG, but a meeting of this advisory group did not take place in December 2012. 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.

DRAFT

CHAPTER 2: FINDINGS

SUBSISTENCE HALIBUT HARVESTS IN 2011

Estimated Number of Subsistence Halibut Fishers

Of the 11,145 individuals who held valid SHARCs for any portion of 2011, an estimated 4,705 (42%) participated in the subsistence halibut fishery in 2011 (Table 4, Figure 6). Of the 4,135 individuals who held SHARCs as members of an eligible tribe, an estimated 1,422 participated in the fishery (34%). Of the 7,010 individuals who held SHARCs as residents of qualifying rural communities, an estimated 3,283 (47%) participated in the subsistence fishery for halibut in 2011. The estimated total of 4,705 subsistence halibut fishers in 2011 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 2008–2011 (Figure 6), differences in the age structure of this group compared to rural SHARC holders remained. For example, in 2011, 22% of tribal SHARC holders were less than 30 years old, compared to 13% of rural SHARC holders (Table 5, Figure 7).

Alaska Native tribes with the most subsistence halibut fishers in 2011 included the Central Council of Tlingit and Haida Indians (152 subsistence halibut fishers), the Sitka Tribe of Alaska (124), the Ketchikan Indian Corporation (112), the Sun'aq Tribe of Kodiak (72), the Hoonah Indian Association (55), the Hydaburg Cooperative Association (47), the Wrangell Cooperative Association (44), the Angoon Community Association (42), Pauloff Harbor Village (40), the Agdaagux Tribe of King Cove (39), the Metlakatla Indian Community (38), the Qagan Toyagungin Tribe of Sand Point (38), the Seldovia Village Tribe (38), the Kenaitze Indian Tribe (37) and the Petersburg Indian Association (30). Of the SHARC holders who registered as residents of eligible rural communities, the most subsistence fishers lived in Kodiak (743), followed by Sitka (663), Petersburg (341), Haines (260), Wrangell (184), Cordova (179), and Craig (129). Appendix E-3 provides details for each tribe and community regarding participation in the subsistence fishery and subsistence halibut harvests in 2011.

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 2011 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 2011 were Kodiak (837), Sitka (784), Petersburg (370), Haines (270), Wrangell (231), Craig (204), Cordova (198), Ketchikan (151), and Hoonah (110). Of the 9 Alaska communities with 100 or more subsistence halibut fishers in 2011, 5 had about the same or fewer fishers than in 2009 ($\pm 10\%$) (Figure 8). The estimated number of subsistence halibut fishers in Craig, Cordova, and Ketchikan decreased by 16% to 24% (Figure 8). The number of subsistence halibut fishers in Hoonah increased by 21% in 2011 after a steady decline since 2006 (see Chapter 3 for further discussion of Kodiak, Petersburg, Cordova, and Sand Point as case study communities.) Five 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 9⁸ (see also Table 6), the largest number of Alaska subsistence halibut fishers in 2011 fished in waters of Regulatory Area 2C (Southeast Alaska), 2,859 (61%).⁹ There were 1,580 subsistence halibut fishers (34%) who fished in Regulatory Area 3A (Southcentral Alaska); 181 (4%) in Regulatory Area 3B (Alaska Peninsula); 70 (1%) in Regulatory Area 4A (Eastern Aleutians); and 91 (2%) in Area 4E (East Bering Sea Coast). Additionally, there were 28 (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 2011 was similar to that of 2003–2010, 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, and 91 in 2011. The estimated number of subsistence halibut fishers in Area 4C (Pribilof Islands) has dropped as well, from 105 in 2003 to 11 in 2011.

Estimated Alaska Subsistence Halibut Harvests in 2011 by SHARC Type and IPHC Regulatory Area

Table 4 reports estimated Alaska subsistence halibut harvests for 2011 by SHARC type, IPHC regulatory area, and gear type. The total estimated subsistence halibut harvest in Alaska in 2011 was 38,162 fish ($\pm 3\%$) for 697,656 lb (net weight; $\pm 3\%$).¹⁰ As estimated in pounds net weight, 56% of the subsistence halibut harvest (387,612 lb [$\pm 4\%$]) 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 2,055 lb ($\pm 5\%$; 37% of the state total). Harvests totaled 27,573 lb ($\pm 14\%$; 4%) for communities and tribes of Regulatory Area 3B. For tribal and rural SHARC holders in Area 4A, the estimated harvest was 11,329 lb ($\pm 19\%$; 2% of the net harvest weight). For Regulatory Area 4E,¹¹ the estimated harvest for tribal and rural SHARC holders was 7,019 lb ($\pm 37\%$; 1% of the net harvest weight). For Regulatory Area 4C the estimated harvest for tribal and rural SHARC holders was 1,799 lb ($\pm 90\%$; 0.3% of the net harvest weight). Tribes and communities in 4D harvested 952 lb ($\pm 88\%$; 0.1% of the net harvest weight) and those in 4B harvested 812 lb ($\pm 65\%$; 0.1%).

The estimated subsistence harvest of 679,566 lb of halibut in 2011 represents a decrease of 12.5% compared to the estimated harvest of 797,560 lb in 2010 (Figure 11). Harvests by tribal SHARC holders decreased by 19.5% from 30,699 lb in 2010 to 248,446 lb in 2011. Tribal SHARC holders harvested 36% of the Alaska subsistence halibut harvest in 2011, compared to 39% in 2010. Subsistence halibut harvests by nontribal, rural resident SHARC holders decreased by 8.1%, from 488,990 lb in 2010 to 449,210 lb in 2011. This group accounted for 64% of the statewide subsistence halibut harvests in 2011, compared to 61% in 2010.

Members of 67 Alaska tribes harvested subsistence halibut in 2011. In one other, SHARC holders fished but had no harvest. In 17 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

⁸ In past reports, data in Figure 9 were based on the location of the tribe or place of residence of the SHARC holder. In this report, we have revised Figure 9 to report fishers by location in which 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 930,208 pounds round (live or whole) weight. See footnote 6 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 2011, a total of 16,866 lb net weight of halibut was retained by 3 organizations: Coastal Villages Regional Fund (9,909 lb), Bristol Bay Economic Development Corporation (2,752 lb), and Norton Sound Economic Development Corporation (4,206 lb; Williams 2011:2). 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.”

remaining 28 eligible tribes held a valid SHARC in 2011. As shown in Figure 12, members of the 14 tribes with harvests of 6,000 lb or more accounted for 67% of the total subsistence halibut harvest by tribal SHARC holders in 2010. These 14 tribes accounted for 58% of the tribal SHARCs (2,411 of 4,135) (Table 3). Members of the other 53 tribes with harvests accounted for about 33% of the total harvest by tribal members (Figure 12).

Residents of 51 eligible rural communities harvested subsistence halibut in 2011.¹² In 10 others, individuals obtained SHARCs but no one fished. Residents of 4 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 2011.¹³ 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 2011. Residents of the other 42 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 44% of the total harvest by this group in 2011: Kodiak (27%) and Sitka (17%). Adding Petersburg, the next highest rural community harvest at over 8%, the top 3 rural communities accounted for 53% of the rural community (nontribal) subsistence halibut harvest in Alaska in 2011.

Estimated Alaska Subsistence Halibut Harvests in 2011 by Harvest Location

Survey respondents were asked to report the “water body bay, or sound [that they] usually fished” for subsistence halibut in 2011. 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 55% of the Alaska subsistence halibut harvest in 2011 (386,966 lb [net weight]; Figure 14, Table 6). Also, as shown in figures 15 and 16, the 3 geographical subareas with the largest subsistence halibut harvests in 2011 were in Area 2C: southern Southeast Alaska (204,062 lb [net weight]; 29% of the state total); the northern Southeast Alaska other than the Sitka Local Area Management Plan (LAMP) area (99,470 lb; 14%), and the Sitka LAMP area (83,436 lb; 11%).¹⁴ Regulatory Area 3A (Southcentral Alaska) ranked second, with 38% of the state’s total subsistence halibut harvest (266,104 lb [net weight]). Waters bordering the Kodiak Island road system (including Chiniak Bay) ranked fourth among subareas, with a subsistence halibut harvest of 79,907 lb (11% of the state total), and other Kodiak Island waters not along the road system area (“Kodiak Island–Other”) ranked fifth (77,276 lb; 11%). Harvests within Cook Inlet waters of Area 3A accounted for 9% of the state total (60,337 lb; ranking sixth), those within Prince William Sound added 32,822 lb (5% of the statewide total; ranking seventh), and the Yakutat Area added 15,762 lb (2%). Among regulatory areas, Area 3B (Alaska Peninsula, including the Chignik Area) ranked third with 3% of the Alaska total (22,011 lb). Area 4A (eastern Aleutian Islands) ranked fourth with 13,606 lb (2%), and Area 4E (East Bering Sea Coast) ranked fifth with 6,168 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 75 (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 4C (Pribilof Islands) ranked sixth with 1,648 lb (less than 1%). Area 4D (St. Lawrence Island) added 615 lb (less than 1%); and Area 4B (western Aleutian Islands) added 537 lb (less than 1%).

Figure 17 reports estimated harvests in pounds net weight by location fished at the regulatory area level in 2003–2011. Table 7 compares estimated subsistence halibut harvests by regulatory area and geographic area in 2011 with those estimated for 2003–2010 and for the 8-year average from 2003–2010. As noted previously, for the state overall, the estimated harvest in pounds decreased by about 13% in 2011 from 2010 (Figure 18). The estimated harvest in 2011 was 31% lower than average for the first 8 years of the subsistence halibut harvest monitoring program (2003–2010; Figure 19).

Estimated subsistence halibut harvests decreased in 7 of the 8 regulatory areas in 2011 compared to 2010 (Figure 17; Figure 18; Table 7). As in the first 8 years of the project, Area 2C (Southeast Alaska) accounted for the most subsistence halibut harvests in 2011 (386,967 lb; 55% of the state total); this harvest represents a decrease of 9% compared to 2010 (Table 7; Figure 17; Figure 18), and a 29% decrease compared to the 8-year average from 2003–2010 (Figure 19). Harvests increased in the 2 of the subareas within Area 2C in 2011 compared to 2010: the Sitka LAMP Area, up 8%; and the remainder of northern Southeast, up 6%. In contrast, harvests in the southern Southeast Alaska subarea decreased 20%. Harvests were down in all 3 Southeast subareas compared to recent 8-year averages: 31% in southern Southeast Alaska, 34% in the Sitka LAMP, and 19% 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 sixth straight year. The 2011 harvest of 266,104 lb was a decline of 15% from the 2010 harvest of 312,650 lb. The estimated subsistence halibut harvest in Area 3A in 2011 was 25% lower than the previous 8-year average, and was the lowest estimate of any study year (Figure 19 Table 7). Area 3A accounted for 38% of the statewide subsistence halibut harvest in 2011, similar to other recent study years (Table 7). In Area 3A in 2011 compared to 2010, subsistence halibut harvests decreased in all 5 subareas; Yakutat, down 13%; Prince William Sound, down 22%; Cook Inlet down 8% the waters of Kodiak Island along the road system, down 23%; and the remainder of the Kodiak Island area, down 7%. Also, harvests in 2011 were lower than the previous 8-year averages in all 5 Area 3A subareas.

In Area 3B (Alaska Peninsula), harvest declined from 23,009 lb in 2010 to 22,011 in 2011 (down 4%; Figure 17, Figure 18, and Table 7). In Area 3B, the 2011 estimated harvest was the lowest of the 9 years of the project, 40% below the previous 8-year average, and notably below the estimates for 2005 (46,225 lb), 2006 (48,547 lb), and 2007 (47,788 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, and 358 in 2011, a decline in program participation that may partially explain the lower harvest estimates for 2009, 2010, and 2011 (see discussion of Sand Point in Chapter 3).

Estimated subsistence halibut harvests in Area 4A (Eastern Aleutians) dropped 6% from 2010 (14,548 lb) to 2011 (13,606 lb). The harvest in Area 4A in 2010 was 44% lower than the previous 8-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). For 2009, an increased 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

¹⁵ Further discussion of differences between harvest estimates for 2003–2011 appears in Chapter 3 and Chapter 4.

to 13,081 lb for 2010 and 12,257 lb for 2011. (See below for more discussion of harvest estimates for Unalaska–Dutch Harbor.)

In Area 4B (Western Aleutians) there was a modest increase of 19% in the estimated subsistence harvest of halibut in 2011 (537 lb) compared to 2010 (450 lb; Table 7; Figure 17; Figure 18). Estimated harvests in this area have dropped since 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 2011 (see Table 9 below). The estimated harvest for Area 4B was 73% below the previous 8-year average (Figure 19), and lower than any other year since the program began in 2003 except 2010.

Estimated subsistence harvests of halibut in Area 4C (Pribilof Islands) dropped 85% in 2011 to 1,648 lb, from 10,859 lb in 2010 (Figure 17, Figure 18, Table 7). The 2011 estimate was 85% below the previous 8-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 et al. 2005:15; Fall and Koster 2008:15), a high response rate to the survey, based upon follow-up household surveys and in-sea snail 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 2008–2011. The number of valid SHARCs held by St. Paul residents dropped from 246 in 2007 to an average of 43 for 2008–2011, and the response rate to the survey declined from 83% in 2007 to 45% in 2008, 34% in 2009, 29% in 2010, and 35% in 2011. The estimated number of subsistence halibut fishers in the community dropped to 11 in 2011, compared to 14 in 2007, 15 in 2008, 16 in 2009, and 19 in 2010. 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 2011 of 615 lb was 47% lower than the estimate of 1,171 lb for 2010. The 2011 estimate was 87% lower than the previous 8-year average for Area 4D, and the 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 no renewal 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, and 17 SHARC holders and 9 fishers in 2011.

For Area 4E (East Bering Sea Coast), the estimated subsistence harvest of halibut of 6,168 lb in 2011 was a 39% decrease from the 10,055 lb estimated for 2010, and was 83% lower than the 8-year average from 2003–2011 (figures 17, 18, and 19, and Table 7). The 2011 estimated harvest was the 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 4 years, from 1,191 in 2007 to 421 in 2008, 374 in 2009, 286 in 2010, and 291 in 2011. Also, unlike 2003–2007, no outreach, face-to-face interviewing, or telephone calls took place in Area 4E communities in 2008–2011, 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); and in Tununak, 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, and 27% (3 of 11) in 2011. 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 2011. Figure 21 illustrates the average harvest per fisher in numbers of halibut. For the state overall, the average subsistence halibut fisher harvested 148 lb (net weight) or about 8.1 halibut in 2011. Average harvests per fisher at the regulatory area level ranged from 60 lb (net weight) in Area 4B to 194 lb per fisher in Area 4A. Average subsistence halibut harvests were lower in 2011 than in any of the previous 8 years, which have ranged from 8.6 halibut per fisher in 2009 to 9.9 halibut per fisher in 2005, and from 160 lb per fisher in 2010 to 211 lb per fisher in 2003 (Fall and Koster 2012:14).

Subsistence Halibut Harvests by Place of Residence

As shown in Figure 22, there were 24 Alaska communities whose residents had combined estimated subsistence halibut harvests of approximately 6,000 lb or more (net weight) in 2011. 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.¹⁶ Residents of these communities accounted for 87% of the total Alaska subsistence halibut harvest in 2011. 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 20% of the total Alaska harvest, and Sitka ranked second with about 13%. With 13,072 and 8,985 residents, respectively, these 2 communities included about 26% of the population of rural communities eligible to participate in the subsistence fishery. There were 94 other Alaska communities with at least 1 resident who participated in the subsistence halibut fishery in 2011. The total harvest for these other communities represented about 13% of the state total.

For 2011, 130 SHARC holders provided out-of-state addresses from 117 communities in 24 states, provinces, and territories.¹⁷ Five non-Alaska resident SHARC holders subsistence fished for halibut in 2011, with a harvest of 28 fish and 551 lb (0.08% of the state total; see Appendix Table E-4). This level of involvement by non-Alaska residents in the subsistence halibut fishery in 2011 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 2011 by gear type and regulatory area fished. In total, 55,521 lb (77%) of halibut (net weight) were harvested using setline (stationary) gear (i.e., longline or “skates,” sometimes set with a power winch attached to a vessel; the highest percentage, along with 2010 of any of the 9 study years [Fall and Koster 2012:15) and 162,136 lb (23%) were harvested using hand-operated gear (i.e., handlines or lines attached to a rod or pole). As in past years, there were not ble differences between regulatory areas (Table 6, Figure 23). Harvests using setline gear predominated in Area 2C (Southeast Alaska; 84% of the area’s total subsistence harvest), 3A (Southcentral Alaska; 71%), and Area 4D (Central Bering Sea; 90%). In contrast, hand-operated gear accounted for most of the subsistence halibut harvests in Area 4A (Eastern Aleutian Islands; 61%) and Area 4E (East Bering Sea Coast; 58%). Harvests were about evenly split between the 2 gear types in the remaining 3 regulatory areas (3B, Alaska Peninsula; 4B, Western 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 (39%) 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

¹⁶ 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.

¹⁷ Note that members of eligible tribes may obtain SHARCs regardless of their place of residence.

reported number was 20 hooks, usually used by 17% of the fishers who used setline gear. Fifteen hooks (13%) ranked third, followed by 25 hooks (8%) and 10 hooks (6%). This pattern is similar to that of all previous study years (Fall and Koster 2012:15).

Thirty was the most frequently used number of hooks with setline gear in all 8 regulatory areas (Table 8): 2C (Southeast Alaska), 37%; 3A (Southcentral Alaska), 44%; 3B (Alaska Peninsula), 50%; 4A (Eastern Aleutian Islands), 27%; 4B (Western Aleutian Islands), 85%; 4C (Pribilof Islands), 64%; 4D (Central Bering Sea), 49%; and 4E (East Bering Sea Coast), 33% (tied with 20 hooks).

Number of Subsistence Halibut Fishing Trips

For 2011, for the third 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 4.4 (compared to 4.7 in both 2009 and 2010 [Fall and Koster 2012:15–16]), with those holding tribal SHARCs averaging 4.8 trips (compared to 5.5 in 2009 and 5.1 in 2010) and those holding rural SHARCs averaging 4.3 trips (compared to 4.5 trips in 2009 and 4.6 in 2010). In most regulatory areas, the average subsistence fisher took between 4 and 5 trips, with a higher average in Area 4D (average of 6.3 trips) and a lower average Area 4B (average of 1.7 trips; Figure 25). As shown in Figure 26, about 77% of fishers took 5 or fewer trips, and about 7% took between 6 and 10 trips. Five 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 2010 was 1.8 (the same as in 2009 and 2010), with tribal SHARC holders averaging 2.1 fish and rural SHARC holders averaging 1.7 fish. The highest average harvests per trip occurred among SHARC holders in Area 4B (3.0 halibut per trip) and Area 3A (2.3 halibut per trip; Figure 27).

Sport Harvests of Halibut by SHARC Holder

Survey respondents were asked to report the number of halibut and pounds of halibut they harvested “while sport fishing during 2011.” 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 stratified 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 2010, 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 two or fewer hooks. Note that the project findings do not represent the total recreational halibut harvest by residents of eligible communities and tribes in 2011, 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 2011 was 8,235 fish and 135,224 lb (net weight). By area fished, most of the sport halibut harvest by SHARC holders occurred in Area 3A (Southcentral Alaska; 65,864 lb; 49%) and Area 2C (Southeast Alaska; 64,274 lb; 48%; Table 6). In total, an estimated 2,070 SHARC holders (19%) reported that they sport fished for halibut in 2011. A large proportion of these fishers fished in either Area 2C (1,200; 58%) or Area 3A (839; 41%; Table 6). (See Appendix Table E-7 for estimated sport halibut harvests by tribe and nontribal rural community SHARC holders.)¹⁸

¹⁸ 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 et al. 2006:19–20, 123–138. In short, the primary

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 2011, based upon estimates provided by survey respondents. For the state, the estimated average net weight of subsistence caught halibut was 18.3 lb and the average net weight of sport harvested halibut by SHARC holders was 16.4 lb. For the halibut reported as harvested in the SHARC program by SHARC holders in 2011, the average net weight per harvested halibut was 18.0 lb. Between regulatory areas, there was a range of average weights per halibut. The halibut harvested by the communities of Area 4D (St. Lawrence Island), averaged 26.9 lb (net weight) per fish. Halibut harvested in the subsistence fishery in Area 4C were also larger than the state average, at 25.0 lb per fish, as were the halibut harvested in the subsistence fishery in 2C, at 20.3 lb per fish. In contrast, in Area 4E, halibut harvested in the subsistence fishery averaged 8.2 lb (net weight), 45% of the statewide average. Subsistence-harvested halibut in Area 3A (Southcentral Alaska) at 16.7 lb per fish, were also below the state average.

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 and 2010, with an average of 18.4 lb per fish (Fall and Koster 2012:17). Thus the average of 18.3 lb per halibut in the subsistence fishery in 2011 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 2011. 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 2011 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)¹⁹ includes estimates of rockfish harvests for communities in which comprehensive household surveys have been administered.

It should also be noted that the label “bycatch” for these harvests is misleading.²⁰ 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 2011 was 10,853 fish by 4,220 fishers (11% of all SHARC holders, and 26% of all SHARC holders who subsistence fished for halibut in 2011). This is an average of about 2.3 rockfish per fisher for all subsistence halibut fishers in the SHARC program, and about 8.9 rockfish per fisher for those who had

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 one or two 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 one 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.

¹⁹ <http://www.subsistence.adfg.state.ak.us/CSIS>. Hereinafter cited as CSIS; see footnote 7.

²⁰ 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 on some other species, but does not include discard of fish that were returned to the sea” (50 CFR 679.2).

a rockfish harvest. Most of the subsistence halibut fishers who caught rockfish fished in Area 2C (Southeast Alaska; 894 fishers; 73%) and Area 3A (328 fishers; 27%). In Area 2C, about 31% of subsistence halibut fishers incidentally harvested rockfish, as did 21% 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 2011 was harvested in Area 2C: 7,636 rockfish, 70% of the statewide total. Area 3A accounted for the second highest total: 2,810 rockfish, 26% of the total. Harvests were very small by SHARC holders fishing in other regulatory areas; their combined harvest of 407 rockfish was about 4% of the statewide total. The estimated incidental harvest of 10,853 rockfish in the subsistence halibut fishery in 2011 was the lowest total over the 9 years of the SHARC harvest survey; previous estimates ranged from a low of 12,395 rockfish in 2005 to a high of 19,001 rockfish in 2004.

Table 10 also reports location of incidental rockfish harvests in 2011 within geographic subareas. Most of the harvest occurred in southern Southeast Alaska (3,717 rockfish) the Sitka LAMP area (3,227 rockfish), the Kodiak Island road system (1,089 rockfish), other Kodiak Island locations (767 rockfish), the remainder of northern Southeast Alaska (692 rockfish), Cook Inlet (480 rockfish), Prince William Sound (352 rockfish), and the lower Alaska Peninsula subarea (284 rockfish).

LINGCOD HARVESTS

Survey respondents were asked to estimate the number of lingcod they harvested while subsistence fishing for halibut in 2011. Note that these survey results do not provide an estimate of the total subsistence lingcod harvest by SHARC holders in 2011 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 2010 subsistence harvest. The Division of Subsistence Community Subsistence Information System (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.²¹ 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.

The statewide estimated incidental lingcod harvest in the subsistence halibut fishery in 2011 was 2,305 fish by 730 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 2011, 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; 514; 70%) and Area 3A (Southcentral Alaska; 199; 27%). (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: 1,515 lingcod, 66%. Area 3A fishing locations accounted for the second highest total: 550 lingcod, 24%. The estimated incidental harvest of 2,305 lingcod in the subsistence halibut fishery in 2011 was the lowest total since the SHARC survey began in 2003; the previous lowest total of 2,355 lingcod in 2005 and the highest was 4,407 lingcod in 2004.

Table 10 also reports the location of incidental lingcod harvests by geographic subarea in 2011. Most of this harvest occurred in Area 2C (Southeast Alaska): the Sitka LAMP area (855 lingcod), southern

²¹ See footnote 20 for definitions of “bycatch” and “incidental catch.”

Southeast Alaska (533 lingcod), and along the Kodiak Island road system (152) in Area 3A. The remainder of Kodiak Island, and the non-LAMP portion of northern Southeast Alaska, the Yakutat area, Cook Inlet, and Lower Alaska Peninsula all had an estimated incidental harvest of lingcod ranging between 100 and 150 fish.

DRAFT

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 HARC permits. 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.²² 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 reported in the CSIS. We will not repeat that full discussion here.²³ 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. Nine years of comprehensive data for the subsistence halibut fishery area are now available, and a discussion comparing the project findings for 2011 with those for 2003–2010 appears in Chapter 4.

²² 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).

²³ For example for 2000, the IPHC estimated 439,000 pounds net weight for Alaska “personal use” (noncommercial, nonrecreational) harvests (in 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 pounds 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 [NPFMC 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 2003–2011 in the case study communities discussed below. Appendix tables E-4, E-5, and E-6 report project results for 2011 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 2011 was 8,985 (Table 1). Sitka was the second largest rural community eligible to participate in the SHARC halibut fishery in 2011, and had the second highest number of SHARCs issued, at 1,658 (Table 11; about 15% of the Alaska total). Of these, 1,370 were issued to non-tribal residents of Sitka, and 288 to tribal members; the latter total was down from 470 in 2007 (Fall and Koster 2008:22). Members of the Sitka Tribe of Alaska (STA) held 314 SHARCs in 2011 compared to 45 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 9 years of the project, ranging from a low of 62% in 2010 to 75% in 2003; the response rate in 2011 was 69%.

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 estimate total noncommercial halibut harvest was 193,335 lb (net weight; $\pm 22\%$), 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; $\pm 28\%$), 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 2011, 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 (1,658 SHARC holders), was 93,030 lb (net weight; 4,179 fish). This was the second highest of any community (behind Kodiak), and accounted for 13% of the statewide total subsistence halibut harvest. Of Sitka's total subsistence halibut harvest, 84,426 lb (91%) was taken with setline gear, and 8,604 lb (9%) was taken with hand-operated gear. Adding sport harvests by Sitka SHARC holders (8,336 lb) produces a noncommercial estimate of 101,366 lb (net weight). Of all SHARC holders from Sitka, an estimated 784 subsistence fished for halibut in 2011. Of these, 739 used setline gear and 159 used hand-operated gear. Also, an estimated 249 SHARC holders from Sitka sport fished for halibut in 2011. The estimated total

number of SHARC holders living in Sitka who fished for halibut in either the subsistence or recreational fishery in 2011 was 867 (Table 11).

The combined estimated subsistence and sport halibut harvest by Sitka SHARC holders in 2011 was up 10% from the estimate for 2010 (91,985 lb), but was lower than any other study year, which ranged from 107,940 lb in 2009 to 207,288 lb in 2003 (Table 11). A total of 1,658 Sitka residents had SHARCs in 2011, 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 2011 (784) than any other study year but 2010 (755 fishers), but this decline in participation has not matched the decline in harvests. There were 867 SHARC holders who participated in either the subsistence or sport fisheries for halibut in 2011, compared to a range of 849 in 2010 to 1,036 in 2006.²⁴

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 2008–2011 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 2008–2011 compared to 2003–2007 (Table 13). For example, nontribal SHARC holders from Sitka who fished for halibut in 2011 had an average harvest of 117 lb per fisher, the third-lowest of the 9 project years and 21% below the previous 8-year average of 148 lb per fisher. Tribal SHARC holders from Sitka who fished in 2011 also had lower harvests than previous years (except 2009 and 2010): 128 lb per fisher, which is 40% below the previous 8-year average of 214 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 2003 through 2011. The causes of this decline require further investigation.

Petersburg (Regulatory Area 2C)

In 2010, Petersburg had a population of 2,248, including 390 Alaska Natives (Table 1); the estimated population in 2011 was 3,030. Prior to the 2003 authorization of federal subsistence halibut fishing, the Division of Subsistence produced 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; $\pm 1\%$); 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 (CPDB). In 2000, Petersburg residents were estimated to have harvested 55,974 lb (net weight) of noncommercial halibut ($\pm 39\%$). 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 2011, the estimated subsistence harvest of halibut by Petersburg residents with SHARCs (976 SHARC holders) was 40,087 lb (net weight), down 15% from the 2010 estimate of 47,266 lb and the lowest of any study year since the project began in 2003 (Table 11). The number of SHARC holders from Petersburg has ranged from 961 in 2010 to 1,197 in 2005. Of the total 2011 subsistence halibut harvest,

²⁴ 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 et al. 2005:23-24). An updated analysis has not been prepared for this report.

27,775 lb (69%) was harvested with setline gear and 12,312 lb (31%) 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 2011, Petersburg SHARC holders also harvested 13,096 lb of halibut that they classified as sport harvested, compared to 13,251 lb in 2010. This gives a total noncommercial halibut harvest estimate for Petersburg SHARC holders of 53,183 lb, the lowest total of the 9 years of the project; previous estimates ranged from 60,385 lb in 2009 to 98,192 lb in 2004 (Table 11).

In 2011, an estimated 370 Petersburg SHARC holders harvested halibut in the subsistence fishery (271 with setline gear and 194 with hand-operated gear). This was the lowest level of participation for the 9 years of the project; the previous low was 386 subsistence halibut fishers in 2007 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 2003–2011 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 2,289 in 2011. Before 2003, there were 6 Division of Subsistence household surveys that estimated noncommercial halibut harvests in Cordova (Table 5). After subtracting fish removed from commercial harvests for home use, estimated noncommercial halibut harvests by Cordova residents ranged from 25,609 lb (net weight; $\pm 33\%$) in 1991 to 12,221 lb ($\pm 62\%$) 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 et al. 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) (Table 11).

The estimated subsistence halibut harvest for Cordova for 2011 was 21,789 lb, the lowest for any of the 9 study years (Table 11). Of the 2011 subsistence harvest, 78% (17,023 lb) was harvested with setline gear and the remaining 22% (4,765 lb) with hand-operated gear. Sport harvests of halibut by Cordova SHARC holders in 2011 added 3,029 lb. The 2011 total noncommercial harvest of halibut by Cordova SHARC holders was 24,818 lb, down 27% from 2010 (34,265 lb) and, again the lowest of any study year. The 2011 estimated harvest was 57% 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 2011 (529) than in any year since 2004 (526) and fewer participated in the subsistence halibut fishery (198) than any year since 2003. 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 2011 (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 169 in 2011. 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; $\pm 14\%$) in 1991 to 11,232 lb ($\pm 14\%$) 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 2011, a total of 46 Port Graham residents held SHARCs (excluding Port Graham tribal members who do not live in Port Graham), similar to totals since 2008. In 2011, an estimated 15 Port Graham residents participated in the subsistence halibut fishery, with 13 using setline gear and 9 hand-operated gear; none said they went sport fishing for halibut. In comparison, in 2010, 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 2011 were lower than any previous study year (range 18 subsistence halibut fishers in 2005 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 level of participation estimated for 2011 was unusually low.

The subsistence halibut harvest estimate for Port Graham in 2011 was 3,638 lb (Table 11). Of this, 2,569 lb (71%) were harvested with setline gear and 1,059 lb (29%) with hand-operated gear. There were no halibut harvests that Port Graham SHARC holders classified as “sport.” Harvests at Port Graham in 2011 were by far the lowest of any study year, and down 51% from 2010. The lowest previous harvest estimate was 6,194 lb in 2006, 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), 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.²⁵ However, estimated harvests have dropped since 2006 and, as noted, the estimate for 2011 was the lowest on record, less than half the pre-2003 average (Table 15, Figure 32). The reasons for the lower harvests in 2006–2011 compared to 2003–2005 are uncertain, but a decline in the community’s population in the mid-2000s may be part of the explanation.

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 2011 was 13,072 (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; $\pm 30\%$) in 1991 to 511,254 lb ($\pm 33\%$) 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 1,660 SHARCs during 2011, down slightly from 1,702 SHARCs during 2010 and 1,826 in 2009 (Table 11). In 2011, an estimated 837 Kodiak SHARC holders subsistence fished for halibut; most (686; 82%) used set gear. Fewer Kodiak SHARC holders participated in the subsistence halibut fishery in 2011 than in any other study year except 2003 (646) and 2004 (802); the highest estimate was 963 participants in 2008.

In 2011, an estimated 513 Kodiak SHARC holders sport fished for halibut, and 1,009 fished for halibut under noncommercial rules. This compares to 2010, when 539 Kodiak SHARC holders sport fished for halibut and 1,074 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 regulation in 2003–2011 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 2011 for Kodiak road system area residents was 138,348 lb, with 106,609 lb (77%) harvested with set line gear and 31,739 (23%) taken with hand-operated gear. The 2011 subsistence halibut harvest estimate was 16% lower than the estimate for 2010 of 164,092 lb, and was the lowest estimate for any of the 9 years of the project; the previous low was 153,254 lb in 2003 and the highest estimate was 210,828 lb in 2005 (Table 11).

In addition, Kodiak road system SHARC holders harvested an estimated 45,725 lb (net weight) of halibut in 2011 that they classified as sport caught, which was below the range of harvests in other years, from 47,646 in 2010 to 82,455 lb in 2005. In total, Kodiak SHARC holders harvested 184,073 lb (net weight) of halibut in 2011; this is lower than all previous study years, which ranged from 211,738 lb in 2010 to 293,283 lb in 2005 (Table 11). Not surprisingly, the totals for all 9 years of the SHARC survey are lower

²⁵ A cautionary note for Port Graham for 2005 concerns response rate. Only 16 of 52 SHARC holders responded to the 2005 survey (31%; Fall et al. 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.

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 2003–2011 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.

Sand Point (Regulatory Area 3B)

The population of Sand Point in 2010 was 976 with 417 Alaska Natives; the estimated population in 2011 was 1,016 (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 harvest 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 12,799 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. Outreach in Sand Point is likely necessary to determine if subsistence halibut harvests have declined or whether the recent 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 2011 population was 4,364 (Table). 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; 3,099 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 77 Unalaska-Dutch Harbor SHARC holders in 2007, including 46 Qawalangin Tribe members. In 2011 the total was 141 SHARCs for all residents of Unalaska-Dutch Harbor and 27 Qawalangin Tribe members.

In 2011, an estimated 65 Unalaska–Dutch Harbor SHARC holders participated in the subsistence halibut fishery, an estimated 27 sport fished, and an estimated 75 participated in either fishery. These were generally lower levels of participation than previous study years except 2003. 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 2011, SHARC holders in Unalaska–Dutch Harbor harvested an estimated 12,257 lb of halibut in the subsistence fishery. Of this, 4,449 lb was harvested with set lines (36%) and 7,808 lb (64%) with hand-operated gear. Additionally, they harvested 3,030 lb of halibut in the sport fishery, for a total noncommercial harvest of 15,287 lb (Table 11).

The 2011 harvest was similar to harvest estimates from 2003, 2004, 2007, 2008, and 2010, which ranged between about 15,000 lb and 18,000 lb. However, the 2011 harvest estimate was 51% 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 2011 estimate was 17% 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 9 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 598 in 2011 (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, 33 in 2009, 32 in 2010, and 32 in 2011. 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 2008–2011, 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. Unlike 2003–2007, returned survey data were expanded to estimate 2008–2011 halibut harvests in Toksook Bay.

The annual report for study year 2010 (Fall and Koste 2012:32–34) provides 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 4 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 continued trends observed for 2008 and 2009 (Table 11)

In 2011, only 32 SHARCs were active in Toksook Bay, again suggesting that many subsistence fishers are not participating in the program. Based on returned surveys (13 of 32; 41%), the estimated subsistence halibut harvest was 597 lb, with just 219 lb (37%) taken with hand-operated gear. This harvest was less than one-half of that of 2008 and just 3% of the annual average from 2003–2007 (18,074 lb). The estimated number of subsistence halibut fishers in Toksook Bay in 2011 was 8, compared to 113 in 2006 and an average of 79 from 2003–2007. In 2011, Toksook Bay obtained 44% of the U32 halibut retained by the Coastal Villages Regional Fund CDQ catch, about 4,360 lb (Williams 2012:68).

Without renewed registrations in the SHARC program and outreach in the community, it is unlikely that the 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 342 (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 $\pm 26\%$. The harvest per capita was 93 lb (net weight; CSIS).

No residents of Tununak obtained SHARCs in 2003,²⁶ 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 a study year.

The tribal government supported Division of Subsistence interviewing of subsistence halibut fishers in Tununak for the 2005 project year (Fall et al. 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 (94%) 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 did attempt 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).

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.

²⁶ One tribal member obtained a SHARC, but this person was not a resident of Tununak.

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 (Table 11). As for 2008–2010, this is likely not 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 2008–2011 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 HARVESTS IN 2011

As reported in Table 18, the preliminary estimated total halibut removal in Alaskan waters in 2011 was 50,551,522 lb (net weight) based on data compiled by the IPHC (IPHC and Geiger 2012; Williams 2012) and this project. In this total, the removal of 16,866 lb of U32 (under 32 inches in length) halibut for personal use by CDQ organizations in Areas 4D and 4E has been added to the subsistence harvest category. Commercial harvests accounted for 63.9% of halibut removals in Alaska in 2011 (Figure 33). Bycatch mortality of halibut in various other commercial fisheries ranked second, with 18.9% of the statewide removals. Sport harvests ranked third, with 11.7%. Waste stage in the commercial halibut fishery added 4.2% to the total halibut removals. Finally, the subsistence fishery accounted for 1.4% of the total removals of halibut in Alaska waters in 2011.

Halibut harvests by fishery in 2011 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 54% or more of the total pounds net weight of halibut removals. In Area 2C (Southeast Alaska) and Area 3A (Southcentral Alaska), sport fisheries took 28.8% and 19.5%, respectively, of the halibut harvest in 2011; however, sport fisheries were just 0.3% of the total harvest in Area 3B (compared to 0.2% for the subsistence harvest) and just 0.1%, compared to subsistence harvests of 0.3%, in Area 4. Commercial bycatch accounted for 3.3% of halibut removals in Area 4. As a percentage of the total removal, subsistence halibut harvests were largest in Area 2C at 8.5% of the total (although they were 29% of the sport harvest and about 16% of the commercial harvest) and in Area 3A at 1.1%.

CHAPTER 4: CONCLUSIONS AND RECOMMENDATIONS

SUMMARY AND CONCLUSIONS

New federal regulations governing subsistence halibut fishing in Alaska went into effect in May 2003. The 2011 calendar year was the ninth for which a program was implemented to estimate the subsistence harvest of halibut under these regulations. By several measures, the program is a success. Of 11,145 SHARC holders, 7,589 (68%) voluntarily provided information about their subsistence halibut fishing activities in 2011 by responding to the survey. This was the highest response rate for any year of the program, which ranged from 58% in 2007 to 65% in 2003. In 2011, the number of valid SHARCs (11,145) was up 2% from 2010, but was 14% lower than the 8-year average from 2003–2010 (Table 19). Nonrenewed SHARCs probably account for most of this decline. The largest portion of this decline in the number of SHARC holders was in the tribal segment: 4,135 SHARCs in 2011 compared to 7,446 in 2007, a decline of 44%. 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 and 7,010 in 2011. Nontribal SHARCs are valid for 2 years, so there have been several rounds of expirations and renewals since 2003, in contrast to the tribal SHARC group. The next section of the report discusses an analysis of SHARC expiration and renewal patterns and identifies some implications of these patterns for future harvest estimates.

Based on the survey returns, an estimated 4,705 individuals participated in the Alaska subsistence halibut fishery in 2011. This is the lowest estimate since the new regulations came into effect in 2003, and is 14% lower than the 8-year average from 2003–2010. The estimated subsistence harvest of halibut in Alaska in 2011 is 38,162 fish and 697,656 lb ($\pm 2.7\%$). As measured in pounds, the 2011 subsistence halibut harvest was the lowest of any study year and 31% lower than the 8-year average from 2003–2010 (Table 19). The total estimated harvests for 2003–2011 are below the 0.5 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; NPFMC 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%) 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.

Average harvests per fisher in the subsistence halibut fishery in 2011 were the lowest since 2003, at 8.1 fish per fisher and 148 lb per fisher. The average harvest in pounds was 20% below the average of the previous 8 years, during which on average subsistence fishers harvested between 160 lb (in 2010) and 211 lb (in 2003) (Table 19).

Over the 9 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 dropped slightly to 18.4 lb per fish in 2010 and 18.3 lb in 2011 (Table 19). The average weight of a subsistence-caught halibut dropped 10% from 2003 to 2011, although the decline in average weights at the statewide level appears to have leveled off after 2008.

After 9 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 2008–2011 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 9 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) 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 47% from 2003 to 2011) particularly notable.

In 2011, most subsistence halibut were harvested with setline (stationary) gear (77%) and the rest with hand-operated gear (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.

The largest portion of the Alaska subsistence halibut harvest in 2011 occurred in Regulatory Area 2C (Southeast Alaska), at 55% (386,967 lb), followed by Area 3A (Southcentral Alaska) at 38% (266,104 lb), Area 3B (Alaska Peninsula) at 3% (22,011 lb), Area 4A (Eastern Aleutian Islands) at 2% (13,606 lb), Area 4E (East Bering Sea Coast) at 1% (6,168 lb), Area 4C (Pribilof Islands) less than 1% (1,648 lb), Area 4D (Central Bering Sea) at less than 1% (615 lb), and Area 4B (Western Aleutian Islands) at less than 1% (537 lb). In 2003–2010, 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) declined from 60% in 2003 and 57% in 2004 to between 51% and 55% from 2005 through 2011. Correspondingly, the portion occurring in Area 3A (Southcentral Alaska) increased from 27% in 2003 to between 34% and 39% from 2004 through 2011. Subsistence harvests accounted for 1.4% of the total halibut removals in Alaska waters in 2011 compared to between 1.2% (in 2009) and 1.5% (in 2004, 2005, and 2006).

Subsistence halibut fishers had an estimated incidental harvest of 10,853 rockfish in 2011. This was the lowest estimate of any study year and a decrease of 27% compared to the 8-year average from 2003–2010 (Table 19). There were 1,220 SHARC holders who harvested rockfish while subsistence halibut fishing in 2011, compared to a range since 2003 of 1,239 (in 2003) to 1,616 (in 2004). Most of the incidental rockfish harvests in 2011 occurred in Area 2C (70%), similar to all previous study years.

In 2011, subsistence halibut fishers harvested an estimated 2,305 lingcod in the subsistence halibut fishery. This was the lowest estimate of any study year and 31% below the 8-year average from 2003–2010. In total, 730 SHARC holders harvested lingcod while subsistence halibut fishing in 2011; 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 2011 (66%), similar to all previous study years.

As discussed above, although comparisons of the 2003–2011 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 2003–2011 are 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, probably resulting in underestimated subsistence harvests for that regulatory area. We conclude, however, that the 9 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 3, where approximately 90% of the subsistence halibut fishing in the state occurs. The estimates can

be further evaluated as additional years of harvest data are collected. Continued documentation of the subsistence harvests is also necessary for any meaningful discussion of long-term trends in the fishery.

SHARC EXPIRATION AND RENEWAL PATTERNS, 2003–2011²⁷

Since the current federal subsistence halibut regulations came into effect in 2003 through 2011, 21,097 individuals had obtained SHARCs.²⁸ 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 21,097 SHARC holders, 9,942 (47%) did not have valid SHARCs for 2011 (classified as “did not renew” in this analysis), including 50% of tribal SHARC holders and 45% of rural SHARC holders (Figure 35). The remaining 11,155 SHARCs were active in 2011 (53% of all SHARCs ever issued), either being renewed one or more times or not yet being subject to renewal. This includes 4,133 tribal SHARCs (50% of all tribal SHARCs that have been issued) and 7,022 rural SHARCs (55%; Table 20).

SHARC holders who did not renew their SHARCs were more likely than currently (in 2011) 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, 26% of nonrenewals had never responded to the survey, compared to 10% of currently active SHARC holders. Additionally, 29% of expired SHARCs had not been fished; 10% of active SHARC holders have not fished. This pattern exists within each SHARC type as well. Of tribal SHARC holders, 30% who did not renew their SHARC never responded to the survey, compared to 14% of currently active tribal SHARC holders. Also, 40% of expired tribal SHARCs never were fished, compared to 18% of active tribal SHARCs. Of all rural SHARC holders whose SHARCs expired, 23% never responded to the survey and 21% did not fish. Of active rural SHARCs, 8% have not responded to the survey and 1% 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, 45% of expired SHARCs were held by individuals who had participated in the subsistence halibut fishery, including 30% of expired tribal SHARCs and 56% of expired rural SHARCs (Table 20). Of all SHARC holders that reported some subsistence fishing activity, 34% did not renew their SHARC, including 31% of tribal SHARC holders who fished and 35% 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 may result.

There were 23 tribes with 12 or more individuals who obtained SHARCs from 2003 through 2011 that had SHARC renewal rates of less than 50%. In total, 2,634 members of these tribes obtained SHARCs, 32% of all tribal SHARC holders, and 1,953 of these SHARCs (74%) were not renewed, which is 46% of all nonrenewed tribal SHARCs. Of the 1,006 members of these tribes who held SHARCs and participated in the subsistence halibut fishery, 57% did not renew their SHARCs. Nonrenewal rates for subsistence fishers among this group of tribes ranged from 22% 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.

²⁷ 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.

²⁸ This total includes individual SHARC holders only; it does not include educational, ceremonial, or community permits.

In summary, this analysis of renewal patterns for SHARC holders from 2003 through 2011 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.

RECOMMENDATIONS

We conclude this report with the following recommendations based on experiences during the 9 years of this project. These suggestions are similar to those that were offered at the conclusion of the earlier years' reports (Fall et al. 2004:30–31; Fall et al. 2005:34–36; Fall et al. 2006:37–38; Fall et al. 2007:39–40; Fall and Koster 2008:39–40; Fall and Koster 2010:35–36; Fall and Koster 2011:36–38; Fall and Koster 2012:40–42).

1. The harvest assessment program for the Alaska subsistence halibut fishery should continue.²⁹ The 9-year effort just completed developed a time series for assessment of harvest trends in the future. As discussed above, the methods used for 2003–2011 (a short postal survey with at least one follow-up mailing, supplemented by community outreach, interviewing in selected communities, and partnerships with tribal governments), were successful and should be retained to facilitate comparisons across project years. 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 et al. 2006:37). The Division of Subsistence conducted an inseason harvest monitoring project for the subsistence halibut fishery in Sitka and Kodiak in 2006 with funding provided by NMFS. Findings were presented in Fall et al. (2009). Consideration should be given in the future to inseason monitoring programs in other communities as a method to compare harvest estimates with those from the mailed surveys.
2. As noted in Chapter 1, most likely due to expirations and nonrenewals, total valid SHARCs declined from 15,047 in 2007 to 11,565 in 2008, 11,733 in 2009, 10,953 in 2010, and 11,145 in 2011, with most of this decline occurring in the tribal segment of SHARC holders. Such changes in the registration of potential subsistence halibut fishers has implications for future harvest estimates and are another reason why monitoring of the harvests should continue.
3. Additionally, analysis suggests that a significant number of subsistence halibut fishers may not have renewed their SHARCs in some communities, perhaps most notably in Area 4. This finding suggests that additional outreach among eligible tribes and rural areas is necessary to maximize enrollment of fishers in the SHARC program.
4. Specifically, additional or renewed outreach is needed in several communities outside of Area 2C (the only area where outreach took place in the last 3 study years), including Unalaska–Dutch Harbor, Atka, Tununak, Toksook Bay, St. Paul, Sand Point, and Savoonga, based on relatively low response rates or unexpectedly low numbers of SHARCs issued, especially if more reliable harvest estimates are desired in areas 3B and 4. Contracts with tribal

²⁹ Through an amendment to the current grant, the Division of Subsistence received funding in 2012 from NOAA to conduct a tenth year of surveys to document subsistence harvests that occurred in 2012, along with limited outreach activities.

governments or local hiring in communities of Area 2C should be continued in future harvest monitoring efforts in those communities.

5. Given the drop in SHARC registrations, community outreach is also necessary in Area 4E (East Bering Sea Coast) if reliable harvest estimates are to be produced. There are many communities in this very large geographic area but, compared to areas 2C and 3A, relatively few SHARCs have been issued and a smaller percentage of the statewide subsistence halibut harvest occurs in Area 4E. Through the 2007 project year, the focus of outreach in Area 4E was on those communities that are known to have relatively large traditional harvests of halibut. Harvests in many other communities in this area are likely to be small. However, due to funding cuts, no outreach or supplemental surveys took place in any Area 4E community for 2009, 2010, or 2011. Although a major outreach effort that would include most of communities of 4E would be expensive and probably unnecessary, communications with tribal governments could result in more enrollments in the SHARC program and more confidence in the survey results.
6. If rockfish or lingcod incidental harvests in the halibut subsistence fishery continue to be of interest to managers in some areas, more specific data collection tools need to be developed to collect rockfish harvest data at the species level in particular communities. This should be done only in selected areas of concern given the additional costs to data collection and analysis that this will entail (see Wolfe 2002 for more discussion of collection of rockfish harvest data through the SHARC survey). Such research should occur only through partnerships with local communities and tribes and should include a combination of participant observation, key respondent interviewing, and survey methods. A model is the study of subsistence harvests of rockfish in Nanwaluk Port Graham, Chenega Bay, and Sitka conducted by the Division of Subsistence with funding from the North Pacific Research Board (Turek et al. 2009).
7. Further evaluation of several years of sport fishing harvest data achieved through the postal *Statewide Harvest Survey* administered by the Division of Sport Fish should 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 et al. 2005:22–24.) As discussed in Chapter 2 and Chapter 3, many SHARC holders also reported that they sport fished for halibut in 2000–2011. It will be important to try to determine if a shift in harvest from the “sport” category to the “subsistence” category, or in the other direction from subsistence to sport, is occurring, in order to evaluate trends in the subsistence fishery and the effect of the new subsistence halibut regulations on fishing patterns. Also, as noted in Chapter 3, comparisons of community harvest estimates from previous research require consideration of sport harvests as well as harvests under the new subsistence regulations. Such comparisons are also important for evaluating the subsistence harvest assessment program and the performance of the new subsistence regulations.
8. Consideration should be given to funding and implementing ethnographic investigations in key halibut fishing communities to evaluate the effects of the new subsistence fishing regulations on fishing patterns. These studies would entail more detailed interviewing of fishers regarding changes in gear choice, fishing effort, harvest amounts, incidental harvests of rockfish or lingcod, or other fishing activities that have resulted from the regulatory changes. These interviews could also investigate traditional knowledge about local halibut stocks (as well as local stocks of rockfish and lingcod) that might prove useful to management agencies, communities, and tribes for future management of the subsistence, sport, and commercial halibut fisheries in Alaska.

9. Results of the 9 years of survey data and the inseason project 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 inseason monitoring. Outreach about the subsistence halibut regulations, including the requirement to obtain a SHARC, should be part of any continuing harvest monitoring program. Steps toward evaluating and enhancing the current program took place under the current grant (award number NA11NMF4370059) included a modest budget increase to support enhanced outreach activities.

DRAFT

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TABLES AND FIGURES

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Table 1.—Population of rural communities eligible to participate in the Alaska subsistence halibut fishery, 2000, 2010, and 2011.

Community ^a	Regulatory area	Population: 2000		Population: 2010		Population: 2011
		Total	Alaska Native	Total	Alaska Native	Total
Angoon	2C	572	419	459	405	466
Coffman Cove	2C	199	12	176	10	170
Craig	2C	1,397	432	1,201	378	1,240
Edna Bay	2C	49	2	42	0	50
Elfin Cove	2C	32	0	20	6	18
Gustavus	2C	429	32	442	30	460
Haines	2C	1,811	332	1,713	278	1,806
Hollis	2C	139	13	112	10	106
Hoonah	2C	860	597	760	502	753
Hydaburg	2C	382	342	376	324	406
Hyder	2C	97	4	87	5	94
Kake	2C	710	530	57	449	579
Kasaan	2C	39	19	49	22	66
Klawock	2C	854	496	75	446	813
Klukwan	2C	139	123	95	86	98
Metlakatla	2C	1,375	1,125	1,405	1,245	1,419
Meyers Chuck	2C	21	2			
Naukati Bay	2C	135		113	9	117
Pelican	2C	163	42	88	36	83
Petersburg	2C	3,224	388	2,948	390	3,030
Point Baker	2C	35	3	15	2	14
Port Alexander	2C	81	1	52	3	62
Port Protection	2C	63	7	48	13	53
Saxman	2C	41	302	411	276	436
Sitka	2C	8,831	1,178	8,881	2,184	8,985
Skagway	2C	2	44	920	52	914
Tenakee Springs	2C	104	5	131	5	145
Thorne Bay	2C	552	27	471	23	496
Whale Pass	2C	58	2	31	1	31
Wrangell	2C	2,308	550	2,369	582	2,411
Census area balances ^d	2C			1,230		1,321
Subtotal, Area 2C^e		25,956	8,052	25,957	7,772	26,642
Akhiok	3A	80	75	71	62	82
Chenega Bay	3A	86	67	76	46	83
Cordova	3A	2,454	368	2,239	344	2,289
Karluk	3A	27	26	37	35	37
Kodiak ^b	3A	12,973	1,697	12,824	983	13,072
Larsen Bay	3A	115	91	87	66	89
Nanwalek	3A	177	165	254	227	276
Old Harbor	3A	237	203	218	194	208
Ouzinkie	3A	225	197	161	140	178
Port Graham	3A	171	151	177	160	169
Port Lions	3A	253	163	194	119	204
Seldovia	3A	286	66	420	121	404
Tatitlek	3A	107	91	88	58	86
Yakutat	3A	680	375	662	330	656
Census area balances ^d	3A					
Subtotal, Area 3A		17,871	3,735	17,508	2,885	17,833

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Table 1.–Page 2 of 3.

Community ^a	Regulatory area	Population: 2000		Population: 2010		Population: 2011
		Total	Alaska Native	Total	Alaska Native	Total
Chignik	3B	79	48	91	56	102
Chignik Lagoon	3B	103	85	78	58	77
Chignik Lake	3B	145	127	73	70	69
Cold Bay	3B	88	15	108	20	95
False Pass	3B	64	42	35	27	28
Ivanof Bay	3B	22	21	7	7	7
King Cove	3B	792	379	938	384	948
Nelson Lagoon	3B	83	68	52	40	45
Perryville	3B	107	105	113	110	130
Sand Point	3B	952	421	976	417	1,016
Census area balances ^d	3B			5		0
Subtotal, Area 3B		2,435	1,311	2,476	1,189	2,517
Akutan	4A	713	117	1,277	76	1,040
Nikolski	4A	39	27	18	17	16
Unalaska	4A	4,283	397	4,366	355	4,364
Census area balances ⁴				178		178
Subtotal, Area 4A		5,035	541	5,599	448	5,598
Adak	4B	316	18	326	46	331
Atka	4B	92	4	61	58	58
Census area balances ^d						
Subtotal, Area 4B		408	202	387	104	389
St George Island	4C	152	140	102	92	97
St Paul Island	4C	532	40	479	417	481
Census area balances ^d						
Subtotal, Area 4C		684	600	581	509	578
Gambell	4D	64	622	681	654	677
Savoonga	4D	63	614	671	637	704
Diomedes	4D	146	137	115	110	107
Census area balances ^d						
Subtotal, Area 4D		1,438	1,373	1,467	1,401	1,488
Alakanuk	4E	652	638	677	660	683
Aleknagik	4E	221	187	219	185	227
Brevig Mission	4	276	254	388	366	414
Bethel	4E	5,471	3,719	6,080	4,334	6,228
Chefornak	4E	394	386	418	403	437
Chevak	4E	765	734	938	912	966
Clark's Point	4E	75	69	62	55	60
Council ANVSA ^c	4E	0	0	0	0	0
Dillingham	4E	2,466	1,503	2,329	1,549	2,376
Eek	4E	280	271	296	289	318
Egegik	4E	116	89	109	51	113
Elim	4E	313	297	330	305	332
Emmonak	4E	767	720	762	737	796
Golovin	4E	144	133	156	148	171
Goodnews Bay	4E	230	216	243	232	246
Hooper Bay	4E	1,014	971	1,093	1,070	1,137
King Salmon	4E	442	133	374	132	391
Kipnuk	4E	644	631	639	626	663
Kongiganak	4E	359	349	439	430	462

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Table 1.–Page 2 of 3.

Community ^a	Regulatory area	Population: 2000		Population: 2010		Population: 2011
		Total	Alaska Native	Total	Alaska Native	Total
Kotlik	4E	591	568	577	563	601
Koyuk	4E	297	280	332	319	347
Kwigillingok	4E	338	331	321	310	342
Levelock	4E	122	116	69	62	81
Manokotak	4E	399	378	442	425	450
Mekoryuk	4E	210	203	191	185	215
Naknek	4E	678	319	544	283	571
Napakiak	4E	353	341	354	344	359
Napaskiak	4E	390	383	405	393	428
Newtok	4E	321	311	354	343	370
Nightmute	4E	208	197	280	266	289
Nome	4E	3,505	2,057	3,598	2,348	3,695
Oscarville	4E	61	61	70	67	71
Pilot Point	4E	100	86	68	57	88
Platinum	4E	41	38	1	57	67
Port Heiden	4E	119	93	102	87	101
Quinhagak	4E	555	540	669	650	675
Scammon Bay	4E	465	4 3	474	472	498
Saint Michael	4E	368	3 3	401	379	411
Shaktoolik	4E	230	218	251	242	258
Nunam Iqua	4E	164	154	187	174	190
Shishmaref	4E	562	531	563	540	573
Solomon ANVSA	4E	4	3	0	0	0
South Naknek	4E	137	115	79	66	73
Stebbins	4E	5 7	518	556	530	585
Teller	4E	26	248	229	220	245
Togiak	4E	8 9	750	817	767	842
Toksook Bay	4E	532	519	590	555	598
Tuntutuliak	4E	370	366	408	396	428
Tununak	E	325	315	327	314	342
Twin Hills	4E	69	65	74	72	79
Ugashik	4E	11	9	12	9	12
Unalakleet	4	747	655	688	574	692
Wales	4E	152	137	145	136	154
White Mountain	4E	203	175	190	167	199
Census area balances ^d				398		382
Subtotal, Area 4E		28,880	23,176	30,378	24,856	31,331
Total		82,707	38,990	84,353	39,164	86,376

Source U.S. Census Bureau 2001, 2011; Alaska Department of Labor and Workforce Development 2012.

a. Alaska Native village statistical area (ANVSA) 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 CDPs but eligible for participation in the subsistence halibut fishery as of December 4, 2009.

e. Nontribal 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, 2011 study year.

Date	Event/Action
October 1, 2011	NOAA Grant Award No. NA11NMF4370059 between NMFS and ADF&G in effect to support the research for study year 2011
December 7, 2011	Presentation of 2010 study findings at NPFMC meeting, Anchorage, AK
January 6, 2012	First mailing of survey forms
January 19, 2012	Distribution of final report and 4 page summary for study year 2010
January 25, 2012	Presentation of 2010 study findings at IPHC annual meeting, Anchorage, AK
February 23, 2012	Second mailing of survey forms
April 4, 2012	Third mailing of survey forms
April 2012	Administration of surveys in Chignik Area communities
April through June 2012	Administration of surveys in Angoon, Hydaburg, Ketchikan, Metlakatka, and Sitka
April 23, 2012	Submission of semi-annual report on project progress to NMFS
October 24, 2012	Submission of semi-annual report on project progress to NMFS
November 15, 2012	Release of public review draft of final report
December 5, 2012	Presentation of study findings, NPFMC, Anchorage
December 31, 2012	Completion of revised, final report

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Table 3.–Sample achievement, 2011.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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	94	18	9	66	1	1	62	2	0	94	21	59	80	85.1%	10
Aukquan Traditional Council	2C	1														
Central Council Tlingit and Haida Indian Tribes	2C	512	167	42	338	48	18	267	30	14	513	245	11	256	49.9%	69
Chilkat Indian Village	2C	21	15	1	4	2	0	0	0	1	21	17	0	17	81.0%	2
Chilkoot Indian Association	2C	55	28	2	26	4	3	20	3	0	56	35	5	40	71.4%	5
Craig Community Association	2C	65	23	8	38	4	2	29	1	2	65	28	0	28	43.1%	11
Douglas Indian Association	2C	16	5	1	10	0	0	10	1	0	16	6	0	6	37.5%	1
Hoonah Indian Association	2C	151	65	10	83	9	2	67	10	1	151	84	0	84	55.6%	13
Hydaburg Cooperative Association	2C	132	25	7	102		0	94	6	2	132	32	69	101	76.5%	9
Ketchikan Indian Corporation	2C	526	142	8	359	4	6	316	19	10	526	195	164	359	68.3%	44
Klawock Cooperative Association	2C	89	24	3	67	3	1	58	14	0	90	41	2	43	47.8%	4
Metlakatla Indian Community, Annette Island Reserve	2C	178	40	2	137	3	2	117	4	0	178	47	99	146	82.0%	4

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Table 3.–Page 2 of 14.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Rate	Response rate	Undeliverable
Organized Village of Kake	2C	89	29	1	61	14	0	47	7	0	89	50	0	50	56.2%	1
Organized Village of Kasaan	2C	6	3	1	3	1	0	1	0	0	6	4	0	4	66.7%	1
Organized Village of Saxman	2C	42	4	3	37	1	8	30		2	42	6	20	26	61.9%	9
Petersburg Indian Association	2C	85	34	6	48	6	0	41	5	0	85	45	0	45	52.9%	6
Sitka Tribe of Alaska	2C	313	106	23	197	22	8	162	20	13	314	148	29	177	56.4%	41
Skagway Village	2C	3														
Wrangell Cooperative Association	2C	98	58	5	39	6	0	27	3	0	98	67	2	69	70.4%	5
Subtotal, Area 2C		2,476	788	152	1,617	9	51	353	127	45	2,480	1,074	460	1,534	61.9%	235
Kenaitze Indian Tribe	3A	127	59	4	74	8	5	57	4	2	127	71	0	71	55.9%	10
Lesnoi Village (Woody Island)	3A	74	30	8		5	2	30	3	1	74	38	0	38	51.4%	11
Native Village of Afognak	3A	25	9	2	15	5	0	10	3	0	26	17	1	18	69.2%	2
Native Village of Akhiok	3A	10	4	1	5	0	0	5	1	1	10	5	0	5	50.0%	2
Native Village of Chenega	3A	20	5	0	1	4	0	11	2	0	20	11	0	11	55.0%	0
Native Village of Eyak	3A	81	34	7	45	7	1	38	6	1	82	47	1	48	58.5%	8

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Table 3.–Page 3 of 14.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Rate	Response rate	Undeliverable
Native Village of Karluk	3A	4														
Native Village of Larsen Bay	3A	36	11	3	22	3	0	21	1	0	36	15	0	15	41.7%	3
Native Village of Nanwalek	3A	75	19	4	60	8	1	50	5	4	75	32	0	32	42.7%	7
Native Village of Ouzinkie	3A	35	15	0	22	3	1	13		1	35	23	0	23	65.7%	2
Native Village of Port Graham	3A	45	13	3	32	5	0	25	3	3	45	21	0	21	46.7%	6
Native Village of Port Lions	3A	34	16	1	18	9	0	14	0	0	34	25	0	25	73.5%	1
Native Village of Tatitlek	3A	30	12	1	23	2	0	17	0	0	30	14	0	14	46.7%	1
Ninilchik Village	3A	86	32	11	44	6		3	7	0	86	45	0	45	52.3%	11
Seldovia Village Tribe	3A	61	32	3	28	2	1	24	2	0	61	36	0	36	59.0%	4
Sun'aq Tribe of Kodiak (Formerly Shoonaq')	3A	133	51	9	83	15	2	66	5	1	133	71	0	71	53.4%	11
Village of Kanatak	3A	24	3	7	14	0	0	14	1	0	25	4	1	5	20.0%	7
Village of Old Harbor	3A	51	20		29		0	25	1	0	51	25	0	25	49.0%	5
Village of Salamatoff	3A	22	14	0	9	1	0	7	1	0	22	16	0	16	72.7%	0
Yakutat Tlingit Tribe	3A	48	16	2	32	5	0	29	3	0	48	24	0	24	50.0%	2
Subtotal, Area 3A		1,021	396	71	612	92	13	498	54	14	1,024	542	3	545	53.2%	93
Agdaagux Tribe of King Cove	3B	64	24	1	46	7	1	34	5	0	64	36	0	36	56.3%	2
Chignik Lake Village	3B	11	1	0	11	1	0	10	0	0	11	2	3	5	45.5%	0

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Table 3.–Page 4 of 14.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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
Ivanoff Bay Village	3B	8	2	0	7	1	0	6	0	0	8	3	0	3	37.5%	0
Native Village of Belkofski	3B	5														
Native Village of Chignik	3B	7	4	0	3	2	0	1	1	0	7	7	0	7	100.0%	0
Native Village of Chignik Lagoon	3B	19	8	0	14	9	0	3	0	0	19	17	1	18	94.7%	0
Native Village of False Pass	3B	1														
Native Village of Nelson Lagoon	3B	3														
Native Village of Perryville	3B	21	11	3	12	0	2	6	2	0	21	13	2	15	71.4%	4
Native Village of Unga	3B	8	3	2	4	1	0	2	1	0	8	5	0	5	62.5%	2
Pauloff Harbor Village	3B	50	11	14	32	3	1	24	0	0	50	14	0	14	28.0%	14
Qagan Toyagungin Tribe of Sand Point Village	3B	88	37	3	51	9	2	38	7	0	88	53	0	53	60.2%	5
Subtotal, Area 3B		285	105	24	184	33	6	128	16	0	285	154	6	160	56.1%	28
Native Village of Akutan	4A	22	6		17	2	0	15	2	0	22	10	0	10	45.5%	0
Qawalingin Tribe of Unalaska	4A	27	8	0	21	3	0	16	4	0	27	15	0	15	55.6%	0
Subtotal, Area 4A		49	14	0	38	5	0	31	6	0	49	25	0	25	51.0%	0
Native Village of Atka	4B	6	2	1	3	1	0	2	0	0	6	3	0	3	50.0%	1
Subtotal, Area 4B		6	2	1	3	1	0	2	0	0	6	3	0	3	50.0%	1

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Table 3.–Page 5 of 14.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Rate	Response rate	Undeliverable
Pribilof Islands Aleut Community of St. George	4C	6	2	0	4	1	1	2	0	0	6	3	0	3	50.0%	1
Pribilof Islands Aleut Community of St. Paul	4C	45	11	1	34	4	0	30	0	1	45	15	0	15	33.3%	2
Subtotal, Area 4C		51	13	1	38	5	1	32	0	1	51	18	0	18	35.3%	3
Native Village of Diomedea (Inalik)	4D	1														
Native Village of Gambell	4D	1														
Native Village of Savoonga	4D	17	9	0	8	0	0	8		0	17	9	0	9	52.9%	0
Subtotal, Area 4D		19	10	0	9	0	0	8	0	0	19	10	0	10	52.6%	0
Chevak Native Village (Kashunamiut)	4E	3														
Chinik Eskimo Community	4E	1														
Egegik Village	4E	5														
King Island Native Community	4E	2														
Levelock Village	4E	1														
Manokotak Village	4E	1														
Naknek Native Village	4E	9	2	1	6	0	0	6	1	1	9	3	0	3	33.3%	2
Native Village of Aleknagik	4E	5														

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Table 3.–Page 6 of 14.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Rate	Undeliverable	
Native Village of Brevig Mission	4E	1														
Native Village of Council	4E	4														
Native Village of Dillingham (Curyung)	4E	18	7	0	13	1	0	11	2	0	18	10	0	10	55.6%	0
Native Village of Eek	4E	8	4	0	5	1	0	3	0		8	5	0	5	62.5%	1
Native Village of Goodnews Bay (Mumtraq)	4E	4														
Native Village of Hooper Bay	4E	16	3	0	14	1	0	12		0	16	5	0	5	31.3%	0
Native Village of Kipnuk	4E	15	0	0	15	1		1	1	0	15	2	0	2	13.3%	0
Native Village of Kongiganak	4E	5														
Native Village of Koyuk	4E	1														
Native Village of Kwigillingok	4E	2														
Native Village of Kwinhagak	4E	7	0	0	7	0	0	7	2	0	7	2	0	2	28.6%	0
Native Village of Mekoryuk	4E	6	3	0	4	0	0	3	0	0	6	3	0	3	50.0%	0
Native Village of Nightmute	4E	1														
Native Village of Scammon Bay	4E	3														
Native Village of Shaktoolik	4E	1														

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Table 3.–Page 7 of 14.

Tribal name	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Toksook Bay (Nunakauyak)	4E	35	7	0	28	7	0	21	0	0	35	14	0	14	40.0%	0
Native Village of Tununak	4E	13	4	0	11	0	0	10	0	0	13	4	0	4	30.8%	0
Native Village of Unalakleet	4E	3														
Native Village of Wales	4E	1														
Newtok Village	4E	2														
Nome Eskimo Community	4E	16	3	2	11	0	0	11	1	3	16	4	0	4	25.0%	5
Orutsararmuit Native Village	4E	9	4	1	4	0		4	0	0	9	4	0	4	44.4%	1
South Naknek Village	4E	2														
Traditional Village of Togiak	4E	3														
Ugashik Village	4E	2														
Village of Chefornek	4E	14	4	0	10		0	8	1	0	14	6	0	6	42.9%	0
Village of Clark's Point	4E	1														
Village of Kotlik	4E	1														
Subtotal, Area 4E		221	60	8	62	15	0	140	10	8	221	85	1	86	38.9%	16
Tribal name subtotals		4,128	1,388	257	2,663	310	71	2,193	213	68	4,135	1,911	470	2,381	57.6%	376

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Table 3.–Page 8 of 14.

Rural community	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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	13	10	0	5	0	0	3	0	0	13	10	3	13	100.0%	0
Coffman Cove	2C	51	33	1	29	5	1	18	5	1	51	43	0	43	84.3%	1
Craig	2C	358	206	16	171	47	6	102	18	5	358	271	0	271	75.7%	21
Edna Bay	2C	38	19	0	30	6	1	17	2	0	38	27	0	27	71.1%	1
Elfin Cove	2C	21	10	1	14	1	0	10	2	0	21	13	0	13	61.9%	1
Gustavus	2C	67	38	1	30	12	0	22	3	0	67	53	0	53	79.1%	1
Haines	2C	448	294	8	189	49	4	117	2	6	448	366	0	366	81.7%	18
Hollis	2C	49	30	1	21	10	0	11	3	0	49	43	0	43	87.8%	1
Hoonah	2C	99	64	1	36	11	0	25	4	1	99	79	0	79	79.8%	2
Hydaburg	2C	12	4	1	8	0	0		1	0	12	5	4	9	75.0%	1
Hyder	2C	32	13	0	24	6	0	1		1	32	25	0	25	78.1%	1
Juneau	2C	6	1	0	5	1	0	5	0	0	6	2	0	2	33.3%	0
Kake	2C	35	17	2	19	8	0	11	1	0	35	26	0	26	74.3%	2
Kasaan	2C	7	4	0	3	0	0	3		0	7	4	0	4	57.1%	0
Ketchikan	2C	7	3	1	4	0			0	0	7	3	1	4	57.1%	1
Klawock	2C	160	86	4	83	22	1	60	5	1	160	113	0	113	70.6%	5
Klukwan	2C	2														
Metlakatla	2C	24	8	0	17	1	1	12	0	1	24	9	9	18	75.0%	2
Meyers Chuck	2C	9	7	0	5	0	0	3	0	0	9	7	0	7	77.8%	0
Naukati Bay	2C	46	24	3	25	9	0	11	3	1	46	36	0	36	78.3%	4
Pelican	2C	36	19	1	25		0	15	2	0	36	25	0	25	69.4%	1
Petersburg	2C	888	549	19	385	111	5	254	38	8	888	698	1	699	78.7%	31
Port Alexander	2C	26	12	1	18	3	0	10	2	2	26	17	0	17	65.4%	3
Port Protection	2C	16	9		10	0	0	6	0	0	16	9	3	12	75.0%	1
Pt. Baker	2C	16	9	0	9	1	0	6	5	0	16	15	0	15	93.8%	0
Saxman	2C	15	7	3	4	0	0	4	1	0	15	8	1	9	60.0%	3
Sitka	2C	1,370	732	46	67	126	11	474	62	12	1,370	920	71	991	72.3%	68
Skagway	2C	53	31	2	25	7	0	17	1	0	53	39	0	39	73.6%	2
Tenakee Springs	2C	60	42	0	31	7	1	17	3	1	60	52	0	52	86.7%	1
Thorne Bay	2C	121	78	2	51	20	0	29	9	0	121	107	0	107	88.4%	2
Ward Cove	2C	1														
Whale Pass	2C	16	14	1	3	1	0	2	0	0	16	15	0	15	93.8%	1

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Table 3.–Page 9 of 14.

Rural community	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Rate	Response rate	Undeliverable
Wrangell	2C	387	231	18	170	52	6	102	24	8	387	307	0	307	79.3%	26
Subtotal, Area 2C		4,489	2,607	134	2,121	520	37	1,389	223	48	4,489	3,350	93	3,443	76.7%	201
Chenega Bay	3A	8	8	0	2	0	0	0	0	0	8	8	0	8	100.0%	0
Chiniak	3A	7	4	0	4	2	0	1	0	0	7	6	0	6	85.7%	0
Cordova	3A	471	242	20	255	64	5	168	38	9	471	344	0	344	73.0%	30
Karluk	3A	6	5	0	4	0	0	4	1	0	6	6	0	6	100.0%	0
Kodiak	3A	1,483	733	89	772	181	23	550	81	35	1,483	995	0	995	67.1%	144
Larsen Bay	3A	4														
Nanwalek	3A	6	4	0	3	1	0	1	0	0	6	5	0	5	83.3%	0
Old Harbor	3A	5														
Ouzinkie	3A	18	13	0	6	1	0	0		0	18	17	0	17	94.4%	0
Port Graham	3A	7	2	1	4	1	1	3	1	0	7	4	0	4	57.1%	2
Port Lions	3A	17	12	0	7	3	0	2	0	0	17	15	0	15	88.2%	0
Seldovia	3A	136	88	8	50	12	3	31		2	136	104	0	104	76.5%	8
Tatitlek	3A	12	5	0	9	5		0		0	12	10	0	10	83.3%	1
Yakutat	3A	72	39	1	40	11	0	24	4	1	72	54	0	54	75.0%	2
Subtotal, Area 3A		2,252	1,160	120	1,161	28	33	795	132	47	2,252	1,575	0	1,575	69.9%	188
Chignik	3B	1														
Chignik Lake	3B	1														
Cold Bay	3B	34	25	2	10	3	0	6	1	0	34	29	0	29	85.3%	2
False Pass	3B	1														
King Cove	3B	21	12	2	9	3	0	5	1	0	21	16	0	16	76.2%	2
Sand Point	3B	15	3		10	1	0	9	1	0	15	5	0	5	33.3%	2
Subtotal, Area 3B		73	41	0	31	7	0	22	3	0	73	51	1	52	71.2%	6
Unalaska	4A	115	61	2	69	5	1	45	9	2	115	85	0	85	73.9%	5
Subtotal, Area 4A		115	61	2	69	15	1	45	9	2	115	85	0	85	73.9%	5
Adak	4B	10	3	2	2		0	4	0	0	10	5	1	6	60.0%	2
Subtotal, Area 4B		10	3	2	6	2	0	4	0	0	10	5	1	6	60.0%	2
St. George Island	4C	1														
Subtotal, Area 4C		1	0	0	1	0	0	0	0	0	1	0	0	0	0.0%	0

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Table 3.–Page 10 of 14.

Rural community	Regulatory areas	First Mailing			Second Mailing			Third Mailing			Totals					
		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 Rate	Response rate	Undeliverable
Bethel	4E	1														
Chefornak	4E	1														
Dillingham	4E	26	13	3	11	3	0	8	2	0	26	18	0	18	69.2%	3
Egegik	4E	1														
King Salmon	4E	3														
Kotlik	4E	1														
Manokotak	4E	2														
Naknek	4E	5														
Nightmute	4E	1														
Nome	4E	17	9	2	6	1	0		1	1	17	11	0	11	64.7%	3
South Naknek	4E	1														
Teller	4E	9	2	0	7	2	0	5	1	0	9	5	0	5	55.6%	0
Togiak	4E	2														
Subtotal, Area 4E		70	30	5	36	11	0	25	5	1	70	46	0	46	65.7%	6
Rural community subtotals		7,010	3,903	269	3,424	838	7	2,28	372	98	7,010	5,113	95	5,208	74.3%	408
Tribal–Rural Totals		11,138	5,291	526	6,087	1,148	142	4,473	585	166	11,145	7,024	565	7589	68.1%	784

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City of residence	State of residence	First Mailing			Second Mailing			Third Mailing			Totals					
		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	9	2	2	6	1	0	4	0	0	9	3	1	4	44.4%	2
Akhiok	AK	8	3	0	5	0	0	5	1	1	8	4	0	4	50.0%	1
Akutan	AK	16	2	0	15	1	0	13	2	0	16	5	0	5	31.3%	0
Aleknagik	AK	1														
Anchor Point	AK	15	8	0	7	1	0	6	0	0	15	9	0	9	60.0%	0
Anchorage	AK	225	98	26	120	15	4	90	9	7	225	122	0	122	54.2%	36
Angoon	AK	112	29	8	76	1	2	68		0	112	32	67	99	88.4%	10
Atka	AK	1														
Auke Bay	AK	4														
Barrow	AK	2														
Bethel	AK	8	3	0	6	0	0			0	8	3	0	3	37.5%	0
Chefornak	AK	14	4	0	10	1	0	8	1	0	14	6	0	6	42.9%	0
Chenegas Bay	AK	11	9	0	4	0	0	2	2	0	11	11	0	11	100.0%	0
Chevak	AK	2														
Chignik	AK	9	4	0	5	2			1	0	9	7	2	9	100.0%	0
Chignik Lagoon	AK	13	3	0	10	8	0	2	0	0	13	11	1	12	92.3%	0
Chignik Lake	AK	3														
Chiniak	AK	11	6	0	6	4	0	2	0	0	11	10	0	10	90.9%	0
Chugiak	AK	3														
Clark's Point	AK	1														
Coffman Cove	AK	52	32	2	31		1	19	5	1	52	43	0	43	82.7%	2
Cold Bay	AK	39	28	2	12	3	0	8	3	0	39	34	0	34	87.2%	2
Cordova	AK	528	267		293	70	6	198	42	9	529	379	1	380	71.8%	30
Craig	AK	516	289	7	249	3	6	150	23	6	516	375	0	375	72.7%	33
Dillingham	AK	32	14	2	18	3	0	14	2	0	32	19	1	20	62.5%	2
Douglas	AK	12	2	3	7	1	0	6	0	1	12	3	0	3	25.0%	4
Dutch Harbor	AK	73	39	2	4	13	1	22	0	1	73	52	0	52	71.2%	4
Eagle River	AK	10	6	1	3	1	0	3	0	0	10	7	0	7	70.0%	1
Edna Bay	AK	28	15	0	22	4	1	13	1	0	28	20	0	20	71.4%	1
Eek	AK	6	3	0	4	1	0	2	0	0	6	4	0	4	66.7%	0
Egegik	AK	2														
Elfin Cove	AK	20	10	1	13	0	0	10	2	0	20	12	0	12	60.0%	1
Elmendorf AFB	AK	1														

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Table 3.–Page 12 of 14.

City of residence	State of residence	First Mailing			Second Mailing			Third Mailing			Totals						
		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 Rate	Response rate	Undeliverable	
Excursion Inlet	AK	4															
Fairbanks	AK	6	2	2	2	2	0	0	0	0	6	4	0	4	66.7%	2	
Fritz Creek	AK	1															
Gakona	AK	1															
Gambell	AK	1															
Girdwood	AK	1															
Glennallen	AK	1															
Golovin	AK	1															
Goodnews Bay	AK	4															
Gustavus	AK	65	37	1	29	11	0	2	3	0	65	51	0	51	78.5%	1	
Haines	AK	506	324	11	212	59	6	13	2	6	507	408	1	409	80.7%	23	
Homer	AK	30	19	3	11	2	1	7	0	0	30	21	0	21	70.0%	4	
Hoonah	AK	246	128	12	117	19	2	90	15	1	246	162	0	162	65.9%	15	
Hooper Bay	AK	14	3	0	12	1	0	10		0	14	5	0	5	35.7%	0	
Hydaburg	AK	129	28	4	99	1		9	4	1	129	33	69	102	79.1%	5	
Hyder	AK	32	13	0	24	6	0	14	6	1	32	25	0	25	78.1%	1	
Juneau	AK	362	104	38	239	29	16	194	20	11	363	153	2	155	42.7%	62	
Kake	AK	128	52	3	79	27	0	57	8	0	128	87	0	87	68.0%	3	
Karluk	AK	9	5	0	7	0	0	7	2	0	9	7	0	7	77.8%	0	
Kasaan	AK	10	5	1	5	1	0	3	0	0	10	6	0	6	60.0%	1	
Kasilof	AK	16	6	3	9		0	7	0	0	16	6	0	6	37.5%	3	
Kenai	AK	112	46	10	63	8	2	49	0	1	112	54	0	54	48.2%	13	
Ketchikan	AK	610	167	3	421	38	17	360	20	12	610	225	194	419	68.7%	60	
King Cove	AK	80	32		56	0	3	38	5	0	80	47	0	47	58.8%	4	
King Salmon	AK	3															
Kipnuk	AK	14	0	0	14	1	0	13	1	0	14	2	0	2	14.3%	0	
Klawock	AK	255	98	11	1	27	2	133	22	1	256	147	2	149	58.2%	13	
Klukwan	AK	3															
Kodiak	AK	1659	798	102	875	202	24	639	88	36	1660	1088	1	1089	65.6%	158	
Kongiganak	AK	5															
Kotzebue	AK	1															

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Table 3.–Page 13 of 14.

City of residence	State of residence	First Mailing			Second Mailing			Third Mailing			Totals						
		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	
Kwigillingok	AK	1															
Larsen Bay	AK	31	8	3	20	5	0	17	0	0	31	13	0	13	41.9%	3	
Manokotak	AK	2															
Mekoryuk	AK	5															
Metlakatla	AK	188	45	0	145	2	0	125	3	2	188	50	108	158	84.0%	2	
Meyers Chuck	AK	8	6	0	5	0	0	3	0	0	8	6	0	6	75.0%	0	
Naknek	AK	10	4	0	6	0	0	6	1	0	10	5	0	5	50.0%	0	
Nanwalek	AK	78	23	3	61	9	1	49	5	4	78	37	0	37	47.4%	6	
Napakiak	AK	1															
Naukati Bay	AK	22	11	0	14	4	0		3	0	22	18	0	18	81.8%	0	
Nelson Lagoon	AK	1															
Newtok	AK	1															
Nightmute	AK	2															
Nikiski	AK	7	3	1	3	0	0	3		0	7	4	0	4	57.1%	1	
Ninilchik	AK	36	18	1	17	3		1	1	0	36	22	0	22	61.1%	1	
Nome	AK	19	10	1	8	1	0	7	2	1	19	13	0	13	68.4%	2	
North Pole	AK	2															
Old Harbor	AK	41	19	3	23	3	0	18	1	0	41	23	0	23	56.1%	3	
Ouzinkie	AK	49	23	0	28	4	1	18	9	1	49	36	0	36	73.5%	2	
Palmer	AK	13	3	3	8	2	1	6	0	2	13	5	0	5	38.5%	5	
Pelican	AK	46	24	1	32		0	20	4	0	46	32	0	32	69.6%	1	
Perryville	AK	18	11	1	10	0	1	5	2	0	18	13	2	15	83.3%	2	
Petersburg	AK	976	591		433	12	4	294	47	8	976	750	1	751	76.9%	32	
Point Baker	AK	21	13		13		0	8	5	0	21	19	0	19	90.5%	1	
Port Alexander	AK	24	12	0	18	3	0	10	2	1	24	17	0	17	70.8%	1	
Port Graham	AK	46	11	4	33	5	1	27	4	3	46	20	0	20	43.5%	8	
Port Lions	AK	49	28	0	2	11	0	15	0	0	49	39	0	39	79.6%	0	
Port Protection	AK	1															
Port Williams	AK	1															
Quinhagak	AK	8	0	0	8	0	0	8	2	0	8	2	0	2	25.0%	0	
Sand Point	AK	136	48	15	83	10	0	66	8	0	136	66	0	66	48.5%	15	
Savoonga	AK	17	9	0	8	0	0	8	0	0	17	9	0	9	52.9%	0	
Saxman	AK	12	1	2	9	0	0	9	0	0	12	1	6	7	58.3%	2	

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Table 3.–Page 14 of 14.

City of residence	State of residence	First Mailing			Second Mailing			Third Mailing			Totals					
		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
Seldovia	AK	151	93	9	60	11	3	41	6	2	151	110	0	110	72.8%	9
Seward	AK	12	4	3	6	0	0	5	0	0	12	4	0	4	33.3%	3
Sitka	AK	1657	817	65	863	145	20	635	80	25	1658	1042	100	1142	68.9%	105
Skagway	AK	57	32	3	27	8	0	18	1	0	57	41	0	41	71.9%	3
Soldotna	AK	44	18	0	28	3	0	26	5	1	44	26	0	26	59.1%	1
St George Island	AK	4														
St Paul Island	AK	43	11	0	33	4	0	29		1	43	15	0	15	34.9%	1
Sterling	AK	3														
Tatitlek	AK	23	9	0	20	6	1	11	0	0	23	15	0	15	65.2%	1
Teller	AK	9	2	0	7	2	0		1	0	9	5	0	5	55.6%	0
Tenakee Springs	AK	60	42	0	31	7	1	1		1	60	52	0	52	86.7%	1
Thorne Bay	AK	117	75	3	48	19	0	28	9	0	117	103	0	103	88.0%	3
Togiak	AK	5														
Toksook Bay	AK	32	7	0	25	6	0	19		0	32	13	0	13	40.6%	0
Trapper Creek	AK	1														
Tununak	AK	11	3	0	9	0	0	8	0	0	11	3	0	3	27.3%	0
Twin Hills	AK	1														
Unalakleet	AK	1														
Unalaska	AK	68	32	1	48	5	0	35	13	0	68	50	0	50	73.5%	1
Valdez	AK	40	12	2	29	6	0	23	1	0	40	19	0	19	47.5%	2
Ward Cove	AK	37	16	1	19		0	16	3	0	37	24	0	24	64.9%	1
Wasilla	AK	46	9	11	26	2	0	25	2	0	47	13	2	15	31.9%	11
Whale Pass	AK	7	6		1	1	0	0	0	0	7	7	0	7	100.0%	0
Willow	AK	2														
Wrangell	AK	493	291	21	217	0	6	134	26	9	493	377	2	379	76.9%	30
Yakutat	AK	116	52	2	73	16	0	54	9	1	116	77	0	77	66.4%	3
Subtotal, AK		11,008	5,221	516	6,03	1,142	135	4,433	577	162	11,015	6,940	565	7,505	68.1%	764
Subtotal, non-Alaska residents		127	68	10	53	6	7	39	8	3	127	82	0	82	64.6%	19
City of residence totals		11,138	5,291	526	6,087	1,148	142	4,473	585	166	11,145	7,024	565	7,589	68.1%	784

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

Table 4.–Estimated subsistence harvests of halibut, 2011, by SHARC type and regulatory area.

SHARC ^a type	Regulatory area	Return rate		Subsistence fished halibut			Subsistence halibut harvest		Sport fished halibut		Sport halibut harvest		Lingcod bycatch		Rockfish bycatch	
		SHARCs issued	Surveys returned	Percent of SHARCs	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number of pounds ^c	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated number of pounds ^c	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
		Tribal ^b	2C	2,480	1,534	61.9%	755	30.5%	6,762	133,455	230	9.3%	915	15,009	115	364
Tribal	3A	1,024	545	53.2%	391	38.2%	5,055	81,183	145	14.2%	500	7,861	42	166	77	725
Tribal	3B	285	160	56.1%	155	54.4%	1,190	20,935	38	13.4%	124	2,257	14	68	15	90
Tribal	4A	49	25	51.0%	20	40.8%	180	3,766	2	3 %	5	70	8	68	7	100
Tribal	4B	6	3	50.0%	2	33.3%	10	140	0	.0%	0	0	0	0	0	0
Tribal	4C	51	18	35.3%	13	26.4%	65	1,704	5	9.2%	14	203	0	0	0	0
Tribal	4D	19	10	52.6%	10	52.6%	44	952	0	0%	0	0	0	0	0	0
Tribal	4E	221	86	38.9%	75	33.9%	726	6,310	13	6. %	82	1,404	7	31	0	0
Subtotal, tribal		4,135	2,381	57.6%	1,422	59.7%	14,033	248,446	34	10.5%	1,640	26,803	186	697	293	2,817
Rural ^b	2C	4,489	3,443	76.7%	2,085	46.4%	12,512	254,157	956	21.3%	3,052	49,852	395	1,165	693	5,748
Rural	3A	2,252	1,575	69.9%	1,093	48.5%	10,559	179,376	630	28.0%	3,286	54,812	141	355	220	2,030
Rural	3B	73	52	71.2%	41	55.9%	414	6,638	19	26.7%	20	366	5	74	8	233
Rural	4A	115	85	73.9%	50	43.6%	564	7,563	212	23.5%	212	3,030	4	14	2	5
Rural	4B	10	6	60.0%	7	66.7%	33	672	1	13.3%	0	0	0	0	1	9
Rural	4C	1	1	100.0%	1	100.0%	6	95	1	100.0%	20	280	0	0	1	10
Rural	4E	70	46	65.7%	7	9.7%	42	9	1	1.4%	6	81	0	0	0	0
Subtotal, rural		7,010	5,208	74.3%	3,283	63.0%	24,129	9,210	1,636	23.3%	6,595	108,421	544	1,608	926	8,036
All ^b	2C	6,969	4,977	138.6%	2,840	76.9%	19,274	376,12	1,662	30.6%	3,968	64,861	509	1,529	887	7,650
All	3A	3,276	2,120	123.2%	1,484	86.7%	15,614	26,555	776	42.2%	3,786	62,673	183	521	297	2,755
All	3B	358	212	127.4%	196	110.2%	1,190	27,733	58	40.1%	144	2,623	19	142	23	323
All	4A	164	110	124.9%	70	84.4%	74	11,399	29	26.9%	217	3,100	12	81	9	105
All	4B	16	9	110.0%	9	100.0%	3	81	1	13.3%	0	0	0	0	1	9
All	4C	52	19	135.3%	14	126.4%	71	799	6	109.2%	34	483	0	0	1	10
All	4D	19	10	52.6%	10	52.6%	44	952	0	0.0%	0	0	0	0	0	0
All	4E	291	132	104.6%	82	37.7%	769	7,019	14	7.5%	88	1,484	7	31	0	0
Total		11,145	7,589	68.1%	4,703	42.2%	33,162	697,656	2,070	18.6%	8,235	135,224	730	2,305	1,220	10,853

Source ADF&G Division of Subsistence SHARC survey, 2012

- Subsistence Halibut Registration Certificate (SHARC).
- “Tribal” = individuals who obtained SHARC 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.
- Pounds net (dressed) weight = 75% of round (whole) weight.

Table 5.–Age of Subsistence Halibut Registration Certificate holders by SHARC type, 2011.

SHARC Type	Age (years)																				Totals
	Number of SHARC Holders																				
	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	11	63	121	166	278	286	287	282	328	448	483	456	356	239	175	91	41	17	4	1	4,135
	0.3%	1.5%	2.9%	4.0%	6.7%	6.9%	6.9%	6.8%	7.9%	10.8%	11.7%	11.0%	8.6%	5.8%	4.2%	2.2%	1.0%	0.4%	0.1%	0.0%	
Rural	9	46	108	179	228	348	500	524	621	735	949	955	785	526	282	143	49	16	4	1	7,010
	0.1%	0.7%	1.5%	2.6%	3.3%	5.0%	7.1%	7.5%	8.9%	10.5%	13.5%	13.6%	11.2%	7.5%	4.0%	2.0%	0.7%	0.2%	0.1%	0.0%	
Total	20	109	229	345	507	634	787	806	949	1,183	1,432	1,411	1,142	765	458	234	90	33	8	2	11,145
	0.2%	1.0%	2.1%	3.1%	4.5%	5.7%	7.1%	7.2%	8.5%	10.6%	12.8%	12.7%	10.2%	6.9%	4.1%	2.1%	0.8%	0.3%	0.1%	0.0%	

Source SHARC database, Restricted Access Management Program, NMFS, Juneau, of 12 1/2011.

Table 6.—Estimated harvests of halibut in numbers of fish and pounds net (dressed, head-off) weight by regulatory area and subarea, 2011.

Subarea	Regulatory area	Estimated subsistence harvest by gear type ^a											Estimated sport harvest		
		Number of SHARCs subsistence fished ^c	Set hook gear		Hook and line or handline			All gear			Estimated number respondents	Estimated number halibut	Estimated pounds halibut		
			Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number halibut				Estimated pounds halibut	
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	12,53	770	5,128	99,470	256	905	12,935	
Subtotal, Area 2C		2,859	2,462	15,160	325,890	977	3,935	61 78	2,859	19,095	386,967	1,200	3,967	64,274	
Yakutat Area	3A	88	69	545	11,949	41	253	813	88	798	15,762	29	141	2,345	
Prince William Sound	3A	273	239	1,398	26,079	105	394	6, 3	273	1,791	32,822	136	327	5,372	
Cook Inlet	3A	258	167	2,210	34,026	169	2,109	26,31	258	4,319	60,337	116	536	7,246	
Kodiak Island road system	3A	575	484	3,440	61,258	274	1 54	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	4 4	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	9	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	5	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	0	0	0	0	4	20	490	0	0	0	
St. Paul Island	4C	7	4	3	4	11	812	7	46	1,158	0	0	0		
Subtotal, Area 4C		11	8	55	6	4	11	812	11	66	1,648	0	0	0	
St. Lawrence Island	4D	8	7	2	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	98	089	65	497	3,194	78	695	5,283	6	14	264	
Norton Sound	4E	5	5	82	82	0	0	0	5	21	482	0	0	0	
Subtotal, Area 4E		91	35	22	2,571	72	531	3,597	91	750	6,168	9	14	264	
Total, Alaska^c		4,705	3,8	27,38	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 20 1.

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 2003–2011 by geographic area fished.

Geographic area	Subsistence halibut harvests, net weight (pounds)										Percent change between years		Percentage of state total									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010 to 2011	8-year average to 2011	2003	2004	2005	2006	2007	2008	2009	2010	2011		
Southern Southeast Alaska	290,443	369,319	328,658	307,921	283,422	254,510	262,046	254,366	204,062	-19.8%	-30.6%	27.9%	31.0%	27.9%	27.4%	27.5%	28.7%	30.4%	31.9%	29.2%		
Sitka LAMP Area	173,323	147,312	133,545	147,526	132,190	104,973	89,812	76,988	83,436	8.4%	-33.6%	16.6%	12.3%	11.3%	13.1%	12.8%	11.8%	10.4%	9.7%	12.0%		
Northern Southeast Alaska	159,772	160,453	135,869	124,670	109,286	98,877	105,139	93,464	99,470	6.4%	19.4	15.3%	13.4%	11.5%	11.1%	10.6%	11.1%	12.2%	11.7%	14.3%		
Subtotal, Area 2C	623,538	677,084	598,072	580,117	524,897	458,360	456,997	424,818	386,967	8.9%	-28.7%	5.9%	56.7%	50.8%	51.6%	50.8%	51.7%	53.1%	53.3%	55.5%		
Yakutat Area	11,198	20,153	36,515	19,187	17,516	16,084	14,390	18,064	15,762	-12.7%	17.6%	1.1%	1.7%	3.1%	1.7%	1.7%	1.8%	1.7%	2.3%	2.3%		
Prince William Sound	28,409	58,429	68,063	47,965	52,407	47,112	33,796	42,279	32,822	22.4%	-30.6%	2.7%	4.9%	5.8%	4.3%	5.1%	5.3%	3.9%	5.3%	4.7%		
Cook Inlet	52,609	83,939	79,024	59,965	75,623	76,795	81,043	65,809	60,337	-8%	-16.0%	5.1%	7.0%	6.7%	5.3%	7.3%	8.7%	9.4%	8.3%	8.6%		
Kodiak Island road system	114,028	129,145	134,849	140,388	130,538	96,872	108,049	103,0	907	-22.5%	-33.2%	11.0%	10.8%	11.4%	12.5%	12.6%	10.9%	12.5%	12.9%	11.5%		
Kodiak Island—Other	79,256	111,944	110,824	111,752	96,206	100,540	91,202	83,432	77,276	%	-21.3%	7.6%	9.4%	9.4%	9.9%	9.3%	11.3%	10.6%	10.5%	11.1%		
Subtotal, Area 3A	285,500	403,610	429,275	379,258	372,289	337,403	324,880	12,650	26,104	-14.9%	-25.3%	27.4%	33.8%	36.4%	33.7%	36.1%	38.0%	38.1%	39.2%	38.1%		
Chignik Area	10,500	12,053	14,783	17,780	15,397	11,84	5,889	,857	3,21	-38.2%	-69.2%	1.0%	1.0%	1.3%	1.6%	1.5%	1.3%	0.7%	0.7%	0.5%		
Lower Alaska Peninsula	16,977	21,467	31,442	30,767	32,351	30,46	19,603		18,390	7.2%	-26.5%	1.6%	1.8%	2.7%	2.7%	3.1%	3.4%	2.3%	2.2%	2.6%		
Subtotal, Area 3B	27,477	33,519	46,225	48,547	47,748	42,248	2,492	23,009	22,011	-4.3%	-40.2%	2.6%	2.8%	3.9%	4.3%	4.6%	4.8%	3.0%	2.9%	3.2%		
Eastern Aleutians—East	19,345	26,715	33,882	25,993	2,753	19,04	33,090	13,343	12,816	-4.0%	-44.3%	1.9%	2.2%	2.9%	2.3%	1.2%	2.1%	3.8%	1.7%	1.8%		
Eastern Aleutians—West	1,852	2,162	1,734	1,069	193	509	409	1,205	790	-34.5%	-43.2%	0.2%	0.2%	0.1%	0.1%	0.2%	0.1%	0.0%	0.2%	0.1%		
Subtotal, Area 4A	21,197	28,877	35,615	27,062	14,946	9,33	33,499	14,548	13,606	-6.5%	-44.3%	2.0%	2.4%	3.0%	2.4%	1.4%	2.2%	3.9%	1.8%	2.0%		
Western Aleutians—East	2,582	916	1,351	2,761	1,997	4,737	1,175	450	537	19.3%	-73.1%	0.2%	0.1%	0.1%	0.2%	0.2%	0.5%	0.1%	0.1%	0.1%		
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%		
Subtotal, Area 4B	2,582	916	1,351	2,761	1,997	4,737	1,175	450	537	19.3%	-73.1%	0.2%	0.1%	0.1%	0.2%	0.2%	0.5%	0.1%	0.1%	0.1%		

-continued-

Table 7.–Page 2 of 2.

Geographic area	Subsistence halibut harvests, net weight (pounds)									Percent change between years		Percentage of state total									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2010 to 2011	8-year average to 2011	2003	2004	2005	2006	2007	2008	2009	2010	2011	
St. George Island	2,042	1,823	2,145	3,443	3,736	1,150	700	720	490	-32.0%	-75.1%	0.2%	0.2%	0.2%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%	
St. Paul Island	20,839	7,911	5,571	5,085	11,342	4,507	5,623	10,139	1,158	-88.6%	-87.0%	2.0%	0.7%	0.5%	0.5%	1.1%	0.5%	0.7%	1.3%	0.2%	
Subtotal, Area 4C	22,881	9,734	7,716	8,527	15,077	5,657	6,323	10,859	1,648	-84.8%	-84.8%	2.2%	0.8%	0.7%	0.8%	1.5%	0.6%	0.7%	1.4%	0.2%	
St. Lawrence Island	4,380	10,923	5,848	8,297	3,204	3,131	644	1,171	615	-47.5%	-86.9%	0.4%	0.9%	0.5%	0.7%	0.3%	0.4%	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%	
Subtotal, Area 4D	4,380	10,923	5,848	8,297	3,204	3,131	644	1,171	615	-47.5%	-86.9%	0.4%	0.9%	0.5%	0.7%	0.3%	0.4%	0.1%	0.1%	0.1%	
Bristol Bay	435	203	2,169	1,336	2,116	84	0	0	403	-49.1%	-85.1%	0.0%	0.0%	0.2%	0.1%	0.2%	0.0%	0.0%	0.0%	0.1%	
YK Delta	53,284	28,298	51,950	69,407	50,019	14,669	7,468	9,484	5,283	-44.3%	-85.1%	5.1%	2.4%	4.4%	6.2%	4.8%	1.7%	0.9%	1.2%	0.8%	
Norton Sound	56	0	0	0	0	1,145	1,281	571	482	15.7%	26.2%	0.0%	0.0%	0.0%	0.0%	0.0%	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	-3.0%	-83.2%	5.2%	2.4%	4.6%	6.3%	5.1%	1.8%	1.0%	1.3%	0.9%	
Total, Alaska^a	1,041,330	1,193,162	1,178,222	1,125,312	1,032,293	886,988	861,359	797,566	97,656	-12.5%	-31.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Source ADF&G Division of Subsistence SHARC surveys, 2004–2012.

a. The sum of the harvests by geographic areas for 2003 reported here differs slightly from 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, 2011.

Regulatory area (No. of SHARC holders)	Number of hooks ^b																														Missing	Total ^a	
	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			
2C (6,969)	No.	11	16	2	2	14	13	1	14	5	149	5	37	3	9	436	4	5	9	1	408	1	6	3	11	174	18	13	73	26	900	78	2,448
	Pct.	0.4	0.7	0.1	0.1	0.6	0.5	0.1	0.6	0.2	6.1	0.2	1.5	0.1	0.4	17.8	0.1	0.2	0.4	0.1	16.7	0.1	0.2	0.1	0.4	7.1	0.7	0.5	3.0	1.1	36.8	3.0	
3A (3,276)	No.	6	10	3	16	7	13	0	3	1	71	1	19	3	0	59	1	1	5	0	216	0	0	2	5	115	9	4	25	17	504	36	1,154
	Pct.	0.6	0.9	0.3	1.4	0.6	1.1	0.0	0.3	0.1	6.1	0.1	1.6	0.2	0.0	5.1	0.1	0.1	0.5	0.0	18.7	0.0	0.0	0.1	0.5	10.0	0.8	0.3	2.2	1.5	43.7	4.8	
3B (358)	No.	5	0	5	5	0	0	0	0	0	7	0	2	0	0	3	0	0	1	0	9	0	0	0	0	5	3	0	0	1	62	15	123
	Pct.	4.2	0.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	1.3	0.0	0.0	2.7	0.0	0.0	0.8	0.0	7.5	0.0	0.0	0.0	0.0	4.2	2.2	0.0	0.0	0.9	50.0	23.1	
4A (164)	No.	0	3	0	0	2	0	0	0	0	2	0	3	0	1	4	0	0	0	0	4	0	0	2	0	8	0	0	0	0	11	1	39
	Pct.	0.0	6.4	0.0	0.0	3.8	0.0	0.0	0.0	0.0	4.3	0.0	8.6	0.0	3.2	9.5	0.0	0.0	0.0	0.0	9	0.0	0.0	4.3	0.0	20.2	0.0	0.0	0.0	0.0	27.0	3.0	
4B (16)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	0	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	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	84.6	0.0	
4C (52)	No.	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	7	4	11
	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	63.9	8.9	
4D (19)	No.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0	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	14.3	0	0.0	0.0	0.0	37.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.6	0.0	
4E (291)	No.	3	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9	2	29
	Pct.	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.1	0.0	0.0	0	0.0	0	0.0	0.0	0.0	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5	2.8		
Alaska (11,145)	No.	25	28	10	24	23	25	1	17	6	23	7	61	5	10	50	5	6	15	1	651	1	6	6	16	302	30	17	98	45	1,504	137	3,821
	Pct.	0.7	0.7	0.3	0.6	0.6	0.7	0.0	0.4	0.2	6.1	0.2	1	0.1	0	13.2	0.1	0.2	0.4	0.0	17.0	0.0	0.2	0.2	0.4	7.9	0.8	0.4	2.6	1.2	39.4	3.6	

Source ADF&G Division of Subsistence SHARC survey 2012.

- 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, 2011.

Area ^b	Subsistence methods			Sport harvest ^a			Total halibut			Percentage of sport harvest
	Number	Net weight (lb)	Average per fish	Number	Net weight (lb)	Average per fish	Number	Net weight (lb)	Average per fish	
2C	19,095	386,967	20.3	3,967	64,274	16.2	23,062	451,241	19.6	47.5%
3A	15,936	266,104	16.7	3,942	65,864	16.7	19,878	331,968	16.7	48.7%
3B	1,419	22,011	15.5	100	1,852	18.4	1,520	23,864	15.7	1.4%
4A	847	13,606	16.1	211	2,969	14.1	1,058	16,575	15.7	2.2%
4B	27	537	20.1	0	0		27	537	20.1	0.0%
4C	66	1,648	25.0	0	0		66	1,648	25.0	0.0%
4D	23	615	26.9	0	0		23	615	26.9	0.0%
4E	750	6,168	8.2	14	264	18.3	765	6,431	8.4	0.2%
Alaska	38,162	697,656	18.3	8,235	135,224	16.4	46,398	832,880	18.0	100.0%

Source ADF&G Division of Subsistence SHARC survey, 2012.

- Sport harvest of halibut by SHARC holders.
- 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, 2011.

Subarea	Regulatory area	Estimated number SH RCs fished	Lingcod		Rockfish	
			Estimated number respondents harvested	Estimated number lingcod harvested	Estimated number respondents harvested	Estimated number rockfish harvested
Southern Southeast Alaska	2C	454	180	533	417	3,717
Sitka Lamp Area	2C	3	307	855	381	3,227
Northern Southeast Alaska	2C	70	62	127	144	692
Subtotal, Area 2C		2,85	514	1,515	894	7,636
Yakutat Area	3A	88	27	130	19	122
Prince William Sound	3	273	17	41	57	352
Cook Inlet	3A	258	29	101	47	480
Kodiak Island Road System	A	575	89	152	152	1,089
Kodiak Island Other	3	592	67	127	107	767
Subtotal, Area 3A		1,580	199	550	328	2,810
Chignik Area	3B	35	3	5	4	17
Lower Alaska Peninsula	3B	146	11	133	17	284
Subtotal, Area 3B		181	14	137	21	302
Eastern Aleutians—East	4A	67	12	81	9	104
Eastern Aleutians—West	4A	5	0	0	1	1
Subtotal, Area 4A		70	12	81	9	105
Western Aleutians—East	4B	9	0	0	0	0
Subtotal, Area 4B		9	0	0	0	0
St. George Island	4C	4	0	0	0	0
St. Paul Island	4C	7	0	0	0	0
Subtotal, Area 4C		11	0	0	0	0
St. Lawrence Island	4D	8	0	0	0	0
Subtotal, Area 4D		8	0	0	0	0
Bristol Bay	4E	10	2	4	0	0
Yukon Delta	4E	78	2	16	0	0
Norton Sound	4E	5	0	0	0	0
Subtotal, Area 4E		91	4	20	0	0
Totals		4,705	730	2,305	1,220	10,853

Source ADF&G Division of Subsistence SHARC survey, 2012.

Table 11.–Estimated harvests of halibut by gear type and participation subsistence and sport fisheries, selected Alaska communities, 2003–2011.

Community ^a	Year	Number of SHARC holders ^b	Subsistence harvests								Sport harvest ^d		All harvests	
			Setline (fixed) gear		Hand-operated gear		Total subsistence harvest		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	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	2	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	428	106	5,837	261	34,265		
	2011	529	175	17,023	79	4,765	198	21, 89	175	3,029	228	24,818		
	Kodiak	2003	1,320	438	101,575	278	51,678	46	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	49,1	63	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	6,27	900	164,092	539	47,646	1,074	211,738		
2011		1,660	686	106,609		39	837	138,348	513	45,725	1,009	184,073		
Petersburg		2003	1,047	330	41,704	138	1 013	415	55,718	268	19,611	523	75,329	
		2004	1,187	322	53,885	206	17, 00	482	71,784	351	26,408	617	98,192	
	2005	1,197	338	44,050	17	17,321	436	61,372	312	23,289	569	84,661		
	2006	1,082	300	35,608	22	8,075	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	,07	207	15,523	393	46,600	279	17,506	515	64,106		
	2009	1,041	323	30,105	2	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		
	Port Graham	2003	52	10	4,398	28	7,056	35	11,454	3	156	36	11,610	
		2004	57	15	425	31	4,755	42	9,181	11	850	42	10,031	
2005		52	8	7, 8	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		
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	

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Community ^a	Year	Number of SHARC holders ^b	Subsistence harvests						Sport harvest ^d		All harvests	
			Setline (fixed) gear		Hand-operated gear		Total subsistence harvest		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				
	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		13,397	23	1,243	87	14,640
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	66,474	412	25,829	1,026	192,303
	2005	1,974	738	126,426	172	19,893	814	1 319	417	55,913	987	202,232
	2006	1,895	809	145,542	297	17,830	915	163, 72	395	23,032	1,036	186,404
	2007	1,954	839	115,162	270	26,886	21	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
Toksook Bay	2003	532	8	3,790	47	20,7	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	4,2	61	14,870	2	98	62	14,968
	2006	533	6	2,333		149	113	36,481	0	0	113	36,481
	2007	533	17	1,451	100	69	112	7,921	0	0	112	7,921
	2008	34	6	707	8	1, 36	9	2,143	0	0	9	2,143
	2009	33	3	266	1	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
Tununak	2003	0										
	2004	70	16	878		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		9	576	9	576	0	0	9	576
	2011	11	0	0	4	84	4	84	0	0	4	84
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

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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

Source ADF&G Division of Subsistence SHARC surveys, 2004–2012.

a. For data on all communities for 2009, see appendix tables E-4, E-5, and E-6.

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- 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.

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

Year	Number of fishing households	Pounds usable (net) weight				Total without commercial removal	95% confidence range (\pm) ^b
		Removed from commercial harvests	Rod and reel	Other methods ^a	Total		
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, 2003–2011.

Year	Rural SHARCs				Tribal SHARCs				All SHARC holders residing in Sitka			
	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	4 91	326.7	1 39	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	6	273.6	1,895	915	163,372	178.6
2007	1,484	754	104,530	138.6	470	167	37,5 9	224.7	1,954	921	142,049	154.2
2008	1,388	722	87,945	121.8	274	3	21,636	175.9	1,662	845	109,581	129.7
2009	1,446	717	82,246	114.7	285	127	5 178	119.5	1,731	844	97,424	115.4
2010	1,363	632	69,779	110.5	272	124	12,94	104.6	1,635	755	82,728	109.5
2011	1,370	663	77,544	117.0	88		15,486	128.0	1,658	784	93,030	118.7
Previous 8-year average (2003–2010)	1,422	713	105,486	1 8 0	3	140	29,867	213.8	1,795	852	135,353	158.8

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

Year	Number of fishing households	Pounds usable (net) weight				Total without commercial removal	95% confidence range (\pm) ^b
		Removed from commercial harvests	Rod and reel	Other methods ^a	Total		
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.

Year	Number of fishing households	Pounds usable (net) weight				Total	Total without commercial removal	95% confidence range (±%) ^a
		Removed from commercial harvests	Rod and reel	Other methods				
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.

Year	Number of fishing households	Pounds usable (net) weight				Total	Total without commercial removal	95% confidence range (±%) ^b
		Removed from commercial harvests	Rod and reel	Other methods				
1987	42	1,237	3,809	3,389	8,435	7,198	14%	
1989	29	3,217	1,482	222	5,921	2,704	47%	
1990	32	3,003	4,106	3,1	10,280	7,277	22%	
1991	35	1,663	2, 32	4,846	8,841	7,178	17%	
1992	42	24	7,8 7	3 365	11,256	11,232	14%	
1993	42	86	3,10	1,34	4,537	4,451	14%	
1997	36	2,881	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

Year	Number of fishing households	Pounds usable (net) weight				Total	Total without commercial removal	95% confidence range (±%) ^b
		Removed from commercial harvests	Rod and reel	Other methods				
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, 2011.

Area	Pounds net weight					Total
	Commercial ^a	Sport ^b	Subsistence ^c	Wastage	Bycatch	
2C	2,454,000	1,313,000	386,967	70,000	341,000	4,564,967
3A	14,669,000	4,541,000	266,104	910,000	2,898,000	23,284,104
3B	7,321,000	25,000	22,011	759,000	1,185,000	9,312,011
4	7,834,000	18,000	39,440	364,000	5,135,000	13,390,440
Alaska	32,278,000	5,897,000	714,522	2,103,000	9,559,000	50,551,522

Sources Gilroy 2012; Williams 2012; Division of Subsistence, ADF&G, SHARC Survey, 2012.

- a. Commercial catch includes IPHC research catch and in Area 2C, the Metlakatla fishery catch.
- b. Projected harvests.
- c. Includes 16,866 lb of U32 (under 32 inches in length) halibut legally retained by CDQ organizations in areas 4D and 4E for personal use. The subsistence harvest by SHARC holders was 697,656 lb, including 22,574 lb in Area 4.

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Table 19.—Comparison of selected SHARC survey results, 2003–2011.

	Study years									Percent change	
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2011 compared to 2010	2011 compared to previous 8-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	1.8%	-13.7%
Number of surveys returned	7,593	8,524	8,565	8,426	8,682	7,316	6,944	6,670	7,589	13.8%	-3.2%
Response rate	65.3%	61.7%	59.9%	59.3%	57.7%	63.3%	59.2%	60.9%	68.1%	11.8%	11.8%
Subsistence halibut fishing											
Estimated number of subsistence halibut fishers	4,942	5,984	5,621	5,909	9,933	5,303	5,296	4,991	4,705	-5.7%	-14.4%
Percent of all SHARC holders subsistence fishing	42.5%	43.3%	39.3%	41.6%	39.4%	45 %	45.1%	45.6%	42.2%	-7.3%	-1.4%
Estimated number of subsistence halibut	43,926	52,412	55,875	54,089	53,697	48,60	45,434	43,332	38,162	-11.9%	-23.2%
Estimated net pounds of subsistence halibut	1,041,330	1,193,162	1,178,222	1,125 3 2	1,032 293	886,988	861,359	797,560	697,656	-12.5%	-31.2%
Average weight of subsistence-harvested halibut	23.7	22.8	21.1	2 8	19.2	18.2	19.0	18.4	18.3	-0.7%	-10.4%
Average harvest per fisher, fish	8.9	8.8	9.9	9.2	9.1	9.2	8.6	8.7	8.1	-6.6%	-10.1%
Average harvest per fisher, net pounds	210.7	199.4	209 6	190.4	174.0	167.3	162.6	159.8	148.3	-7.2%	-19.5%
Sport halibut fishing by SHARC holders											
Estimated number of sport halibut fishers	2,580	3,107	3,147	2	2,566	2,609	2,528	2,297	2,070	-9.9%	-23.8%
Percent of all SHARC holders sport fishing	22.2%	22.5%	22.0%	.4%	17.1%	22.6%	21.5%	21.0%	18.6%	-11.5%	-12.2%
Estimated number of sport halibut	10,784	12,530	4,096	11,219	10,959	11,427	9,938	8,651	8,235	-4.8%	-26.5%
Estimated net pounds of sport halibut	245,947	251 92	2 ,415	23,639	196,198	197,760	165,318	149,241	135,224	-9.4%	-37.2%
Average weight of sport-harvested halibut	22.8	20.0	20 8	19.9	17.9	17.3	16.6	17.3	16.4	-4.8%	-14.0%
Average harvest per fisher, fish	4.2	0	4.5	3.9	4.3	4.4	3.9	3.8	4.0	5.7%	-3.3%
Average harvest per fisher, net pounds	95 3	80.	93.2	77.3	76.5	75.8	65.4	65.0	65.3	0.6%	-16.9%
Total number of halibut fishers											
Estimated number of fishers, subsistence or sport	5,941	6 80	6,876	6,899	6,787	6,202	6,153	5,835	5,496	-5.8%	-14.9%
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%	-7.4%	-2.0%
Incidental rockfish harvests											
Number of rockfish harvesters	1,239	616	1,544	1,529	1,568	1,404	1,427	1,322	1,220	-7.8%	-16.3%
Percent of all SHARC holders	10.6%	11.7%	10.8%	10.8%	10.4%	12.1%	12.2%	12.1%	10.9%	-9.4%	-3.5%
Percent of all subsistence halibut fishers	25.1%	27.0%	27.5%	25.9%	26.4%	26.5%	27.0%	26.5%	25.9%	-2.2%	-2.1%
Number of rockfish harvested	14,870	19,001	12,395	16,945	15,266	14,346	13,315	12,851	10,853	-15.6%	-27.0%
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	-10.4%	-14.7%
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	-8.4%	-13.0%

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Table 19.–Page 2 of 2.

	Study years									Percent change	
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2011 compared to 2010	2011 compared to previous 8-year average
Incidental lingcod harvests											
Number of lingcod harvesters	699	953	862	927	959	854	900	732	730	-0.2%	-15.2%
Percent of all SHARC holders	6.0%	6.9%	6.0%	6.5%	6.4%	7.4%	7.7%	6.7%	6.5%	-2.0%	-2.2%
Percent of all subsistence halibut fishers	14.1%	15.9%	15.3%	15.7%	16.2%	16.1%	17.0%	14.7%	15.5%	5.8%	-0.8%
Number of lingcod harvested	3,298	4,407	2,355	3,486	3,422	3,479	3,390	2,864	2,305	-19.5%	-30.9%
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	-14.6%	-19.3%
Average number of lingcod harvested, subsistence halibut fishers who harvested lingcod	4.7	4.6	2.7	3	3.5	4.1	3.8	3.9	3.2	-19.3%	-18.9%

Sources: Fall et al. 2004, 2005, 2006, 2007; Fall and Koster 2008, 2009, 2010; 2011; ADF&G Division of Subsistence SHARC survey, 2012.

Table 20.—Percentage of SHARCs that expired or were valid in 2011, by SHARC type.

	Percentage of SHARCs					
	Tribal		Rural		All	
	Expired	Active	Expired	Active	Expired	Active
Never responded to harvest survey	29.8%	13.6%	22.9%	8.4%	25.8%	10.3%
Never subsistence fished for halibut	40.0%	18.3%	20.6%	5.6%	28.8%	10.3%
Never harvested halibut	5.3%	14.3%	11.1%	13.8%	8.7%	14.0%
Harvest: low (1 to 100 pounds)	12.1%	25.5%	21.5%	31.4%	17.5%	29.2%
Harvest: medium (101 to 1,000 pounds)	12.2%	26.5%	23.0%	39.9%	18.4%	35.0%
Harvest: high (>1,000 pounds)	0.6%	1.8%	0.8%	0.9%	0.7%	1.2%
All harvesters (any amount)	24.9%	53.8%	45.3%	72.2%	36.7%	65.4%
All fishers (includes never harvested)	30.1%	68.0%	56.4%	86.0%	45.3%	79.3%
All SHARC holders	50.4%	49.6%	45.0%	55.0%	47.1%	52.9%

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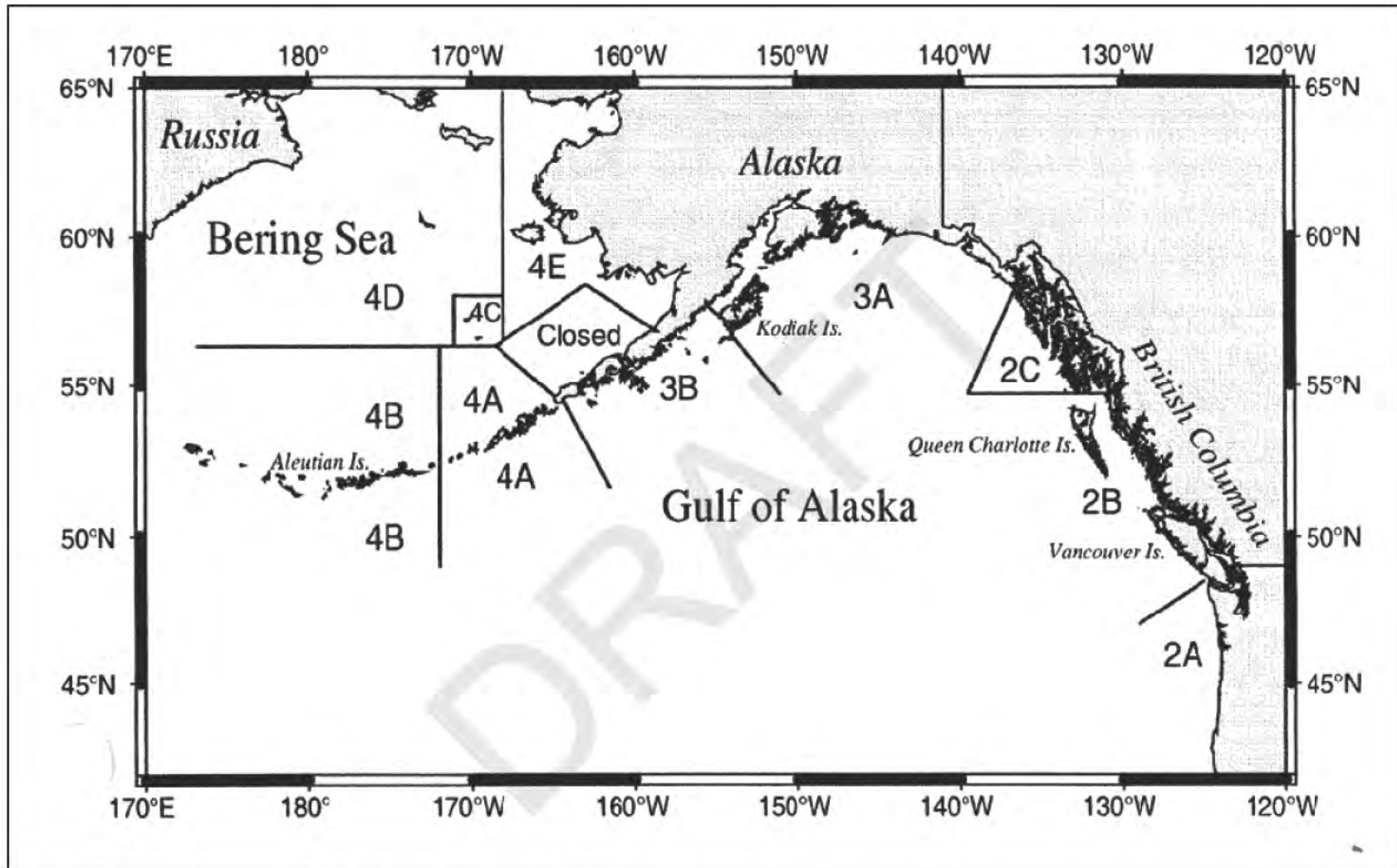


Figure 1.—Regulatory areas for the Pacific halibut fishery.

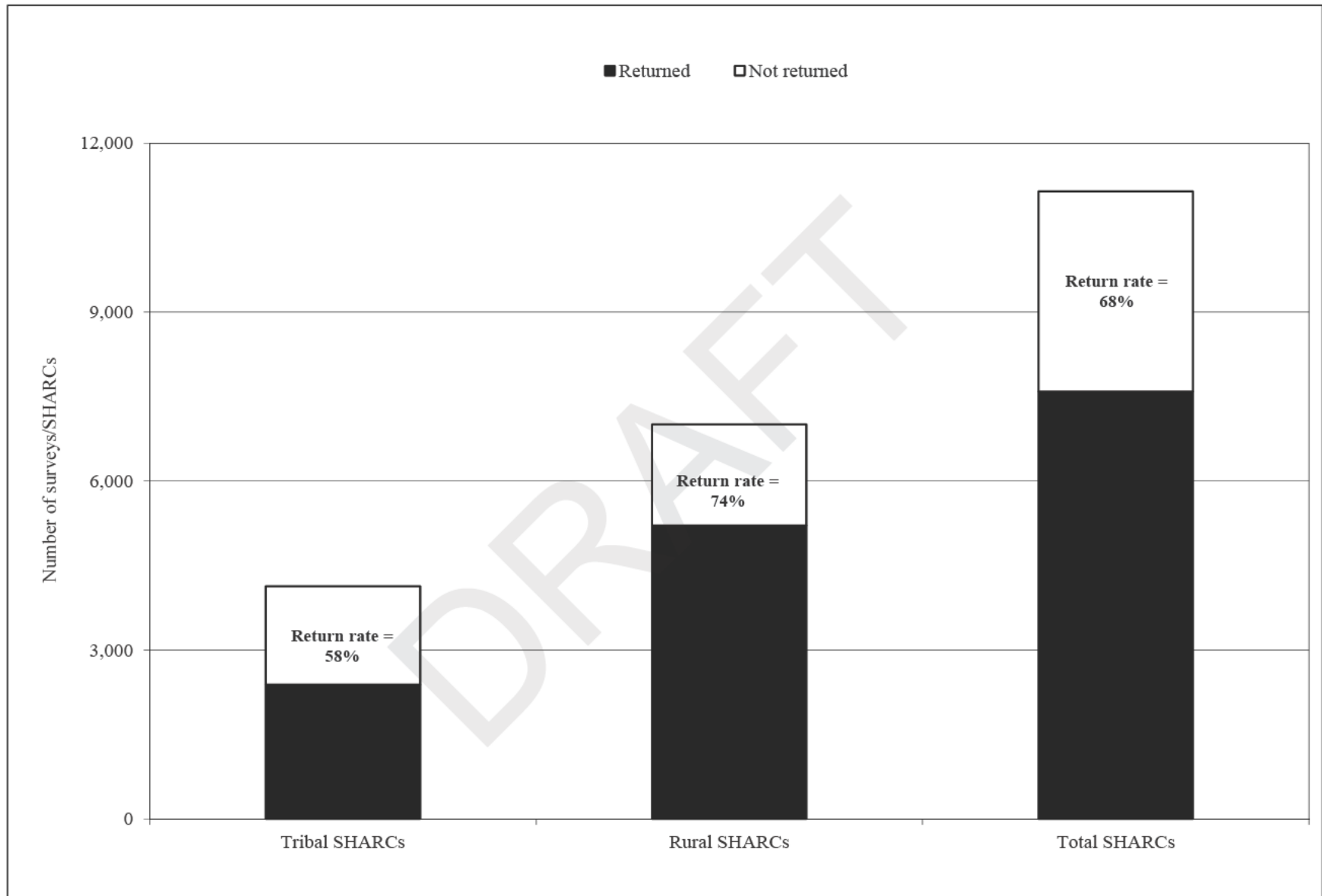


Figure 2.—Number of surveys returned and return rates for subsistence halibut surveys, by SHARC type, 2011.

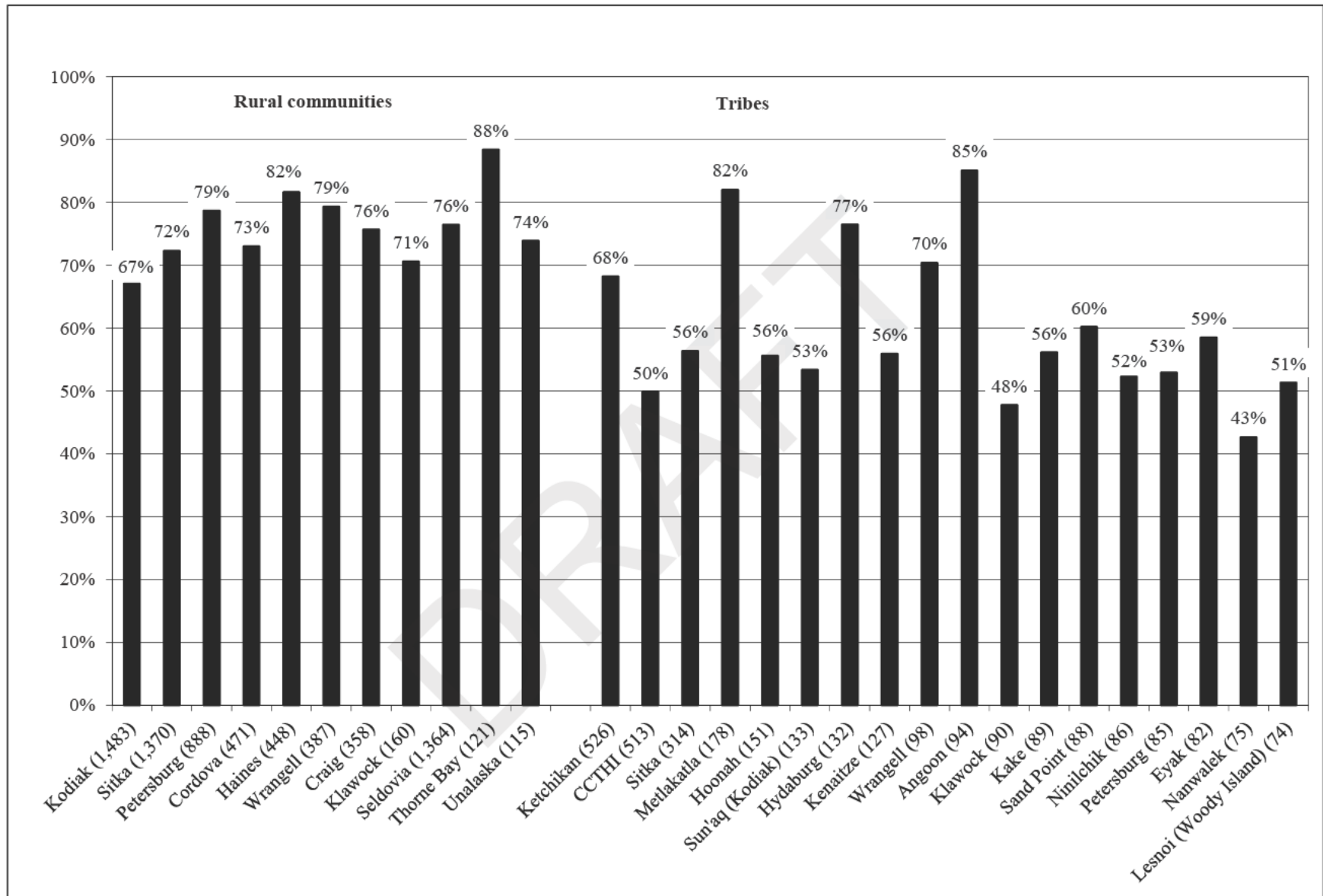


Figure 3.—SHARC survey return rates, communities with more than 100 SHARCs issued and tribes with more than 70 SHARCs issued, 2011.

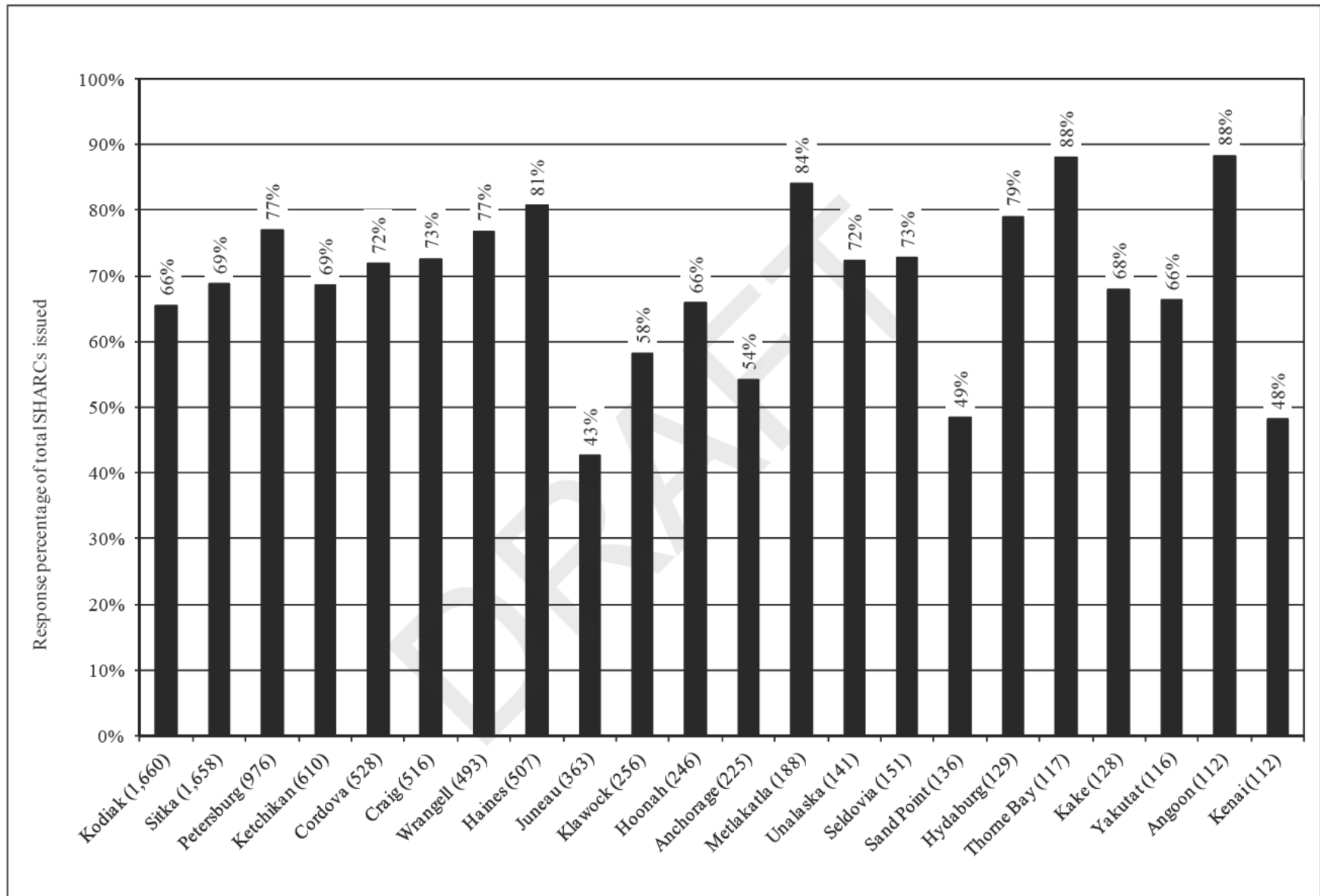


Figure 4.—Return rate by place of residence, 2011.

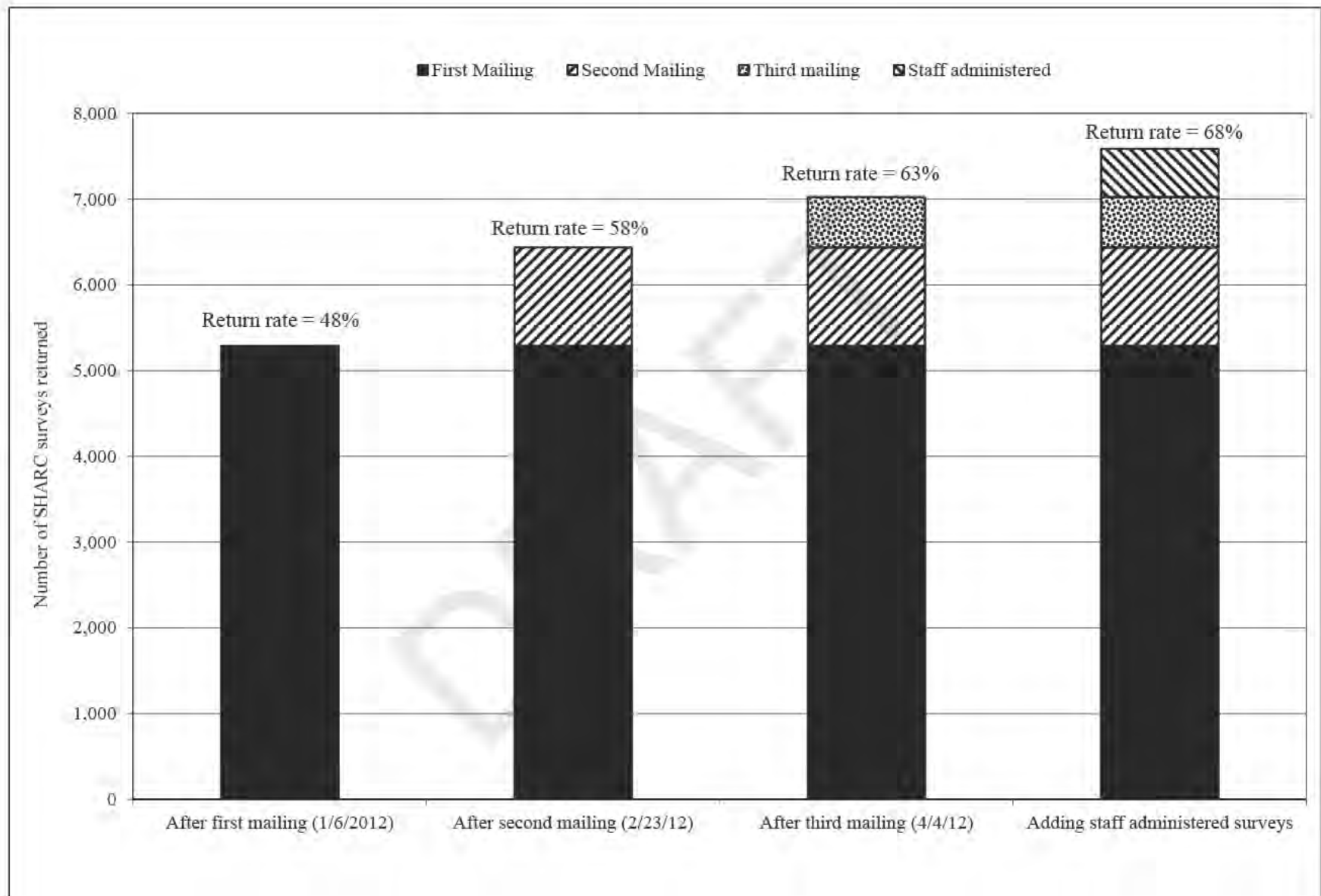


Figure 5.—Number of survey responses by response category, 2011.

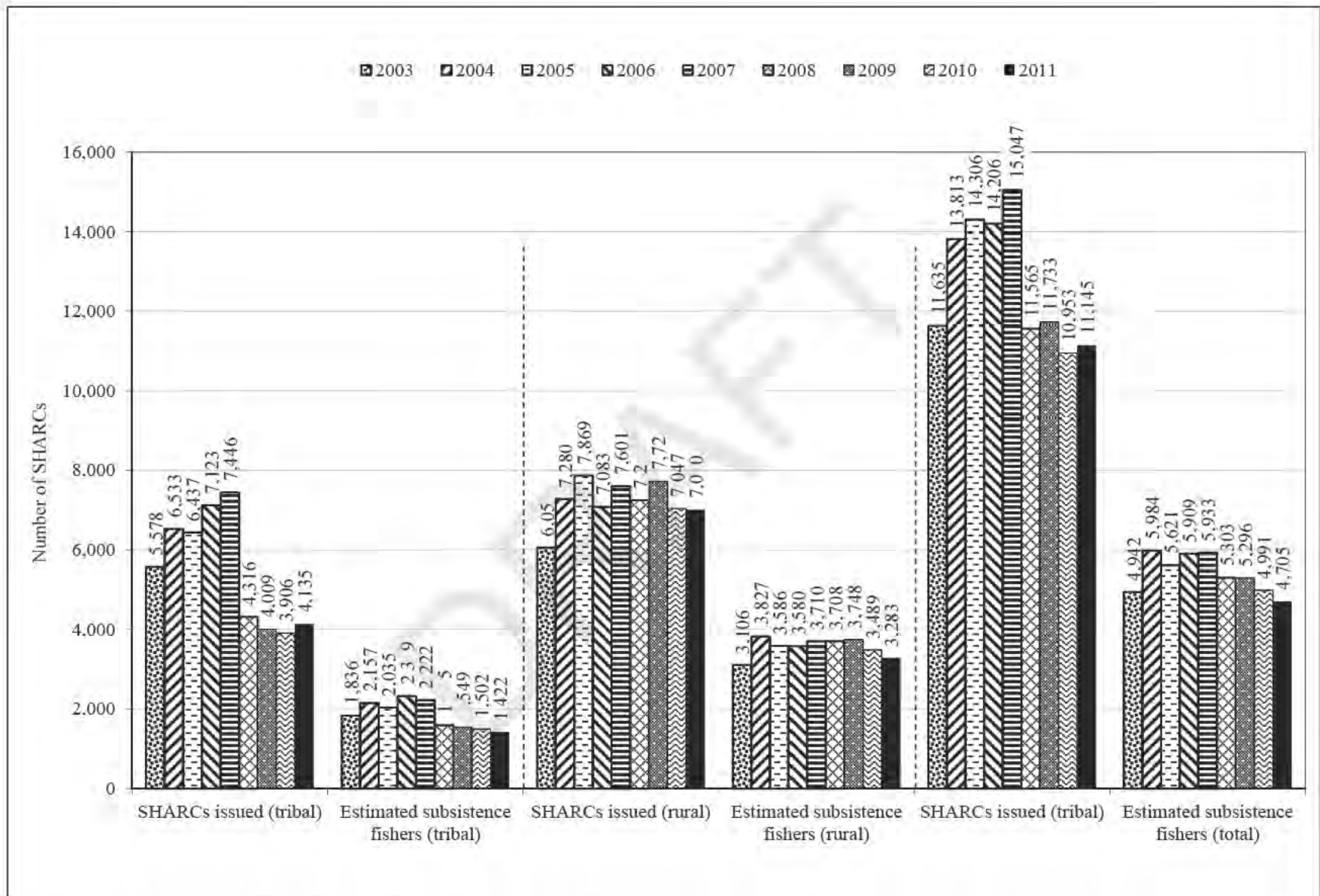


Figure 6.—Number of SHARCs issued and estimated number of subsistence halibut fishers by SHARC type, 2003–2011.

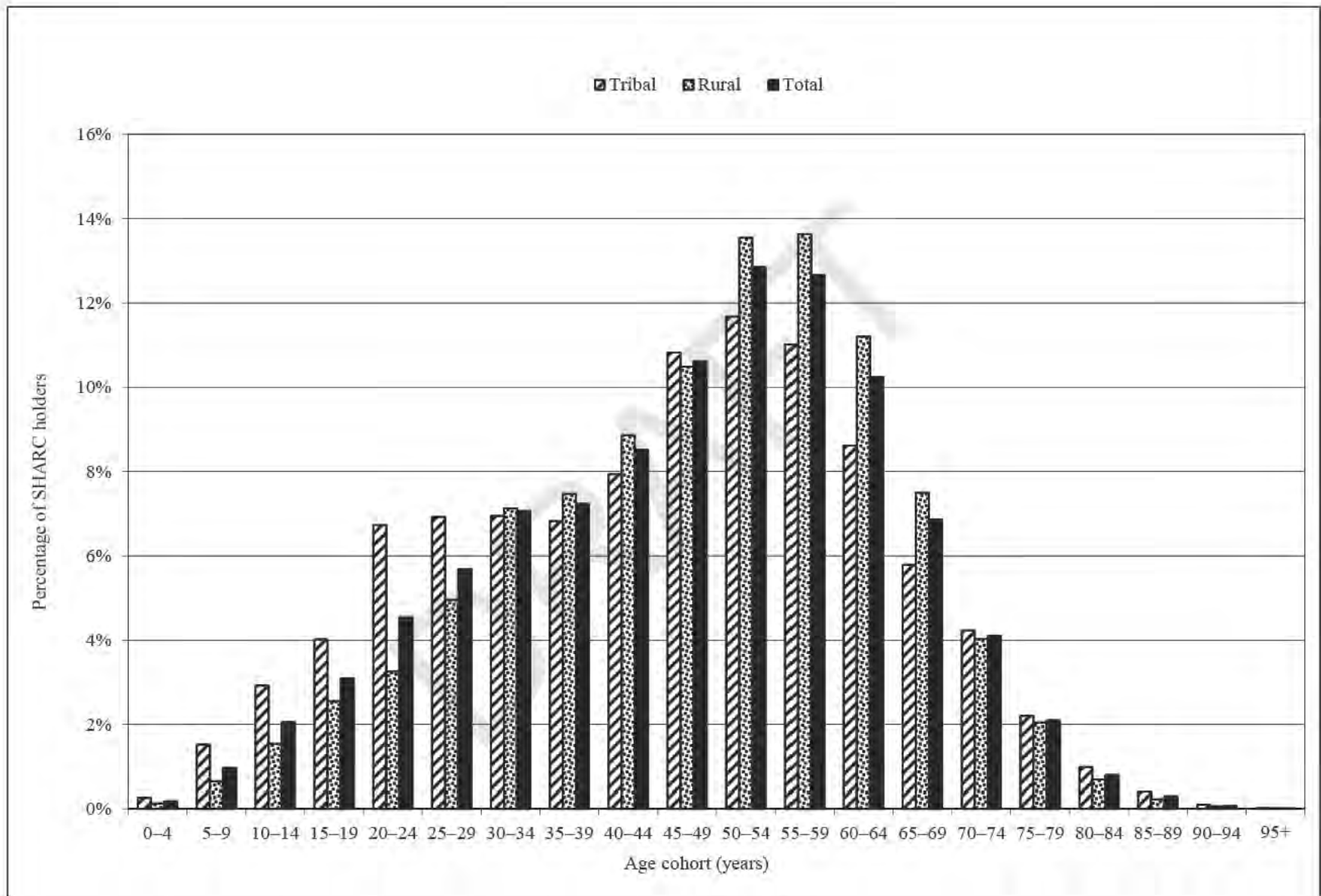


Figure 7.-Age of subsistence halibut registration certificate holders by SHARC type, 2011.

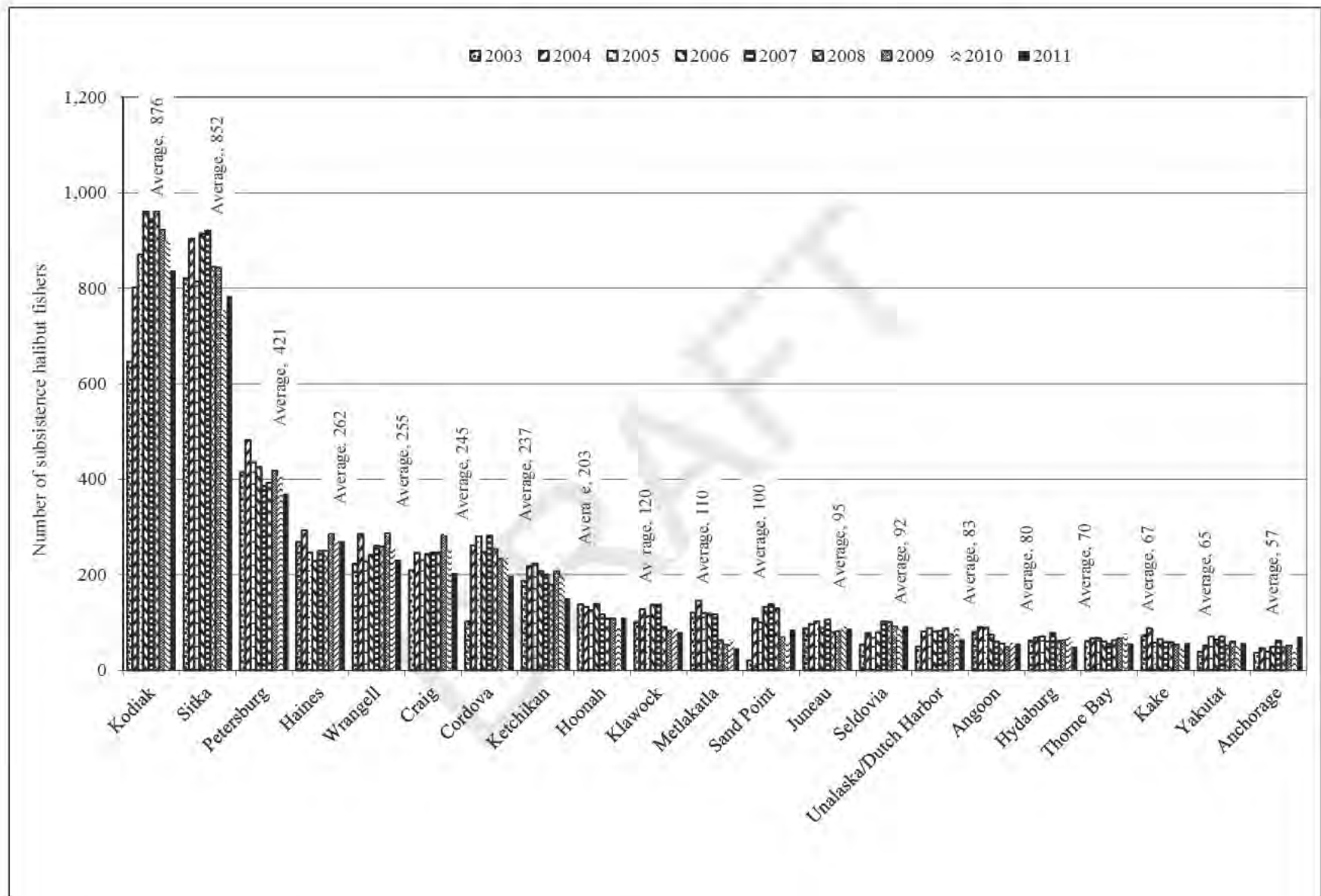


Figure 8.—Estimated number of subsistence halibut fishers by place of residence, 2003–2011, communities with 50 or more fishers in 2011.

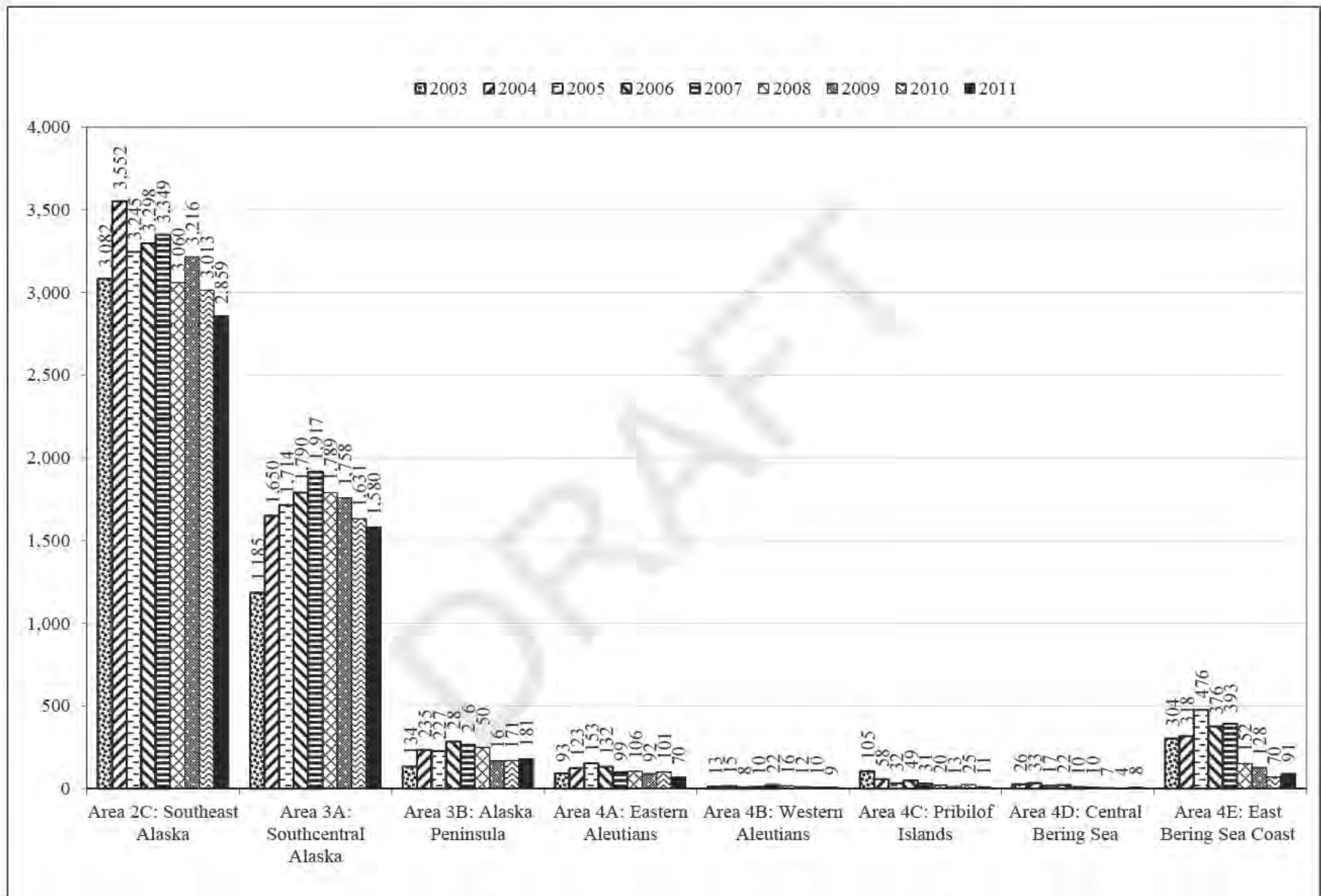


Figure 9.—Estimated number of Alaska subsistence halibut fishers, 2003–2011 by regulatory area fished.

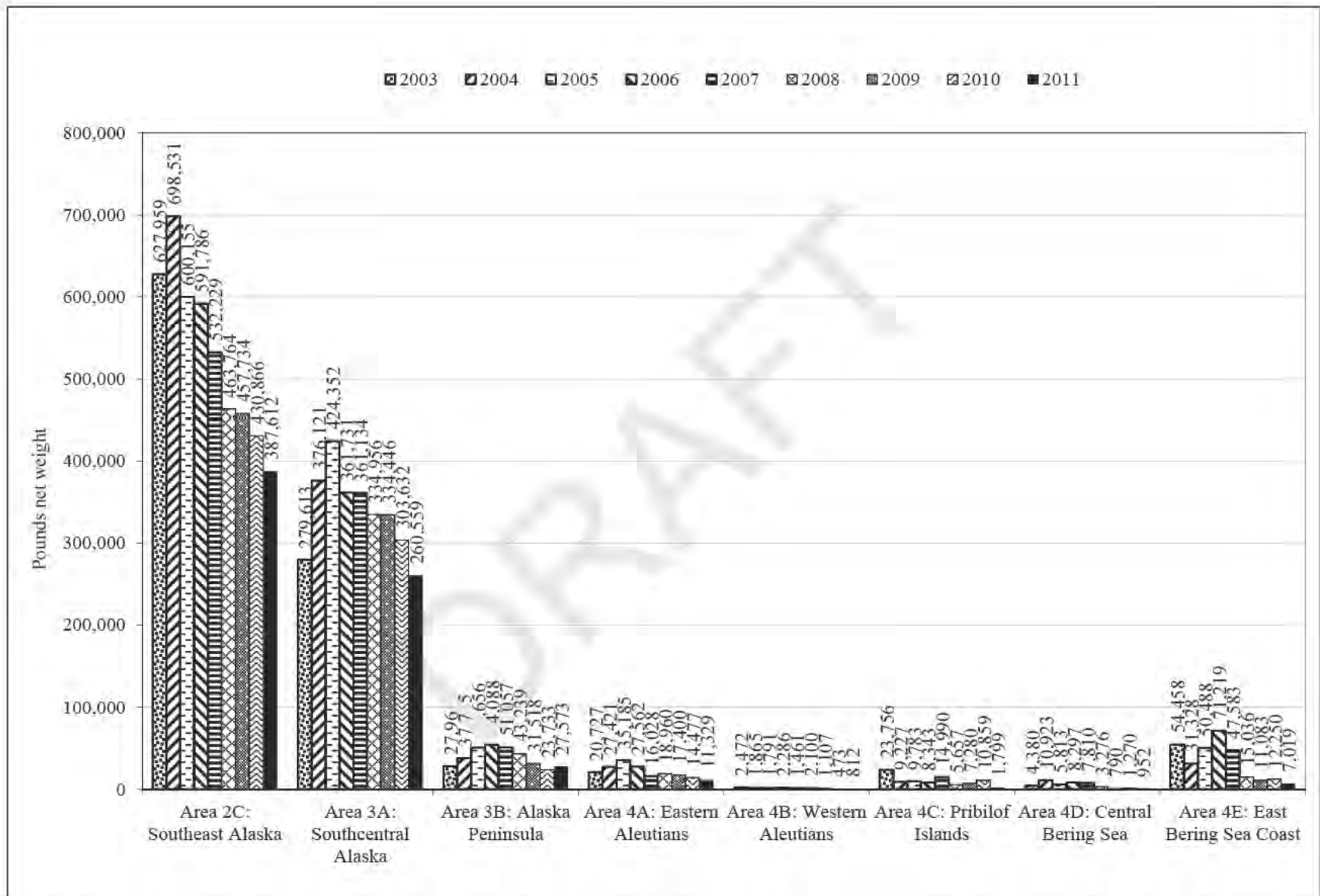


Figure 10.—Estimated subsistence halibut harvests, pounds net weight, by regulatory area of tribe and rural community, 2003–2011.

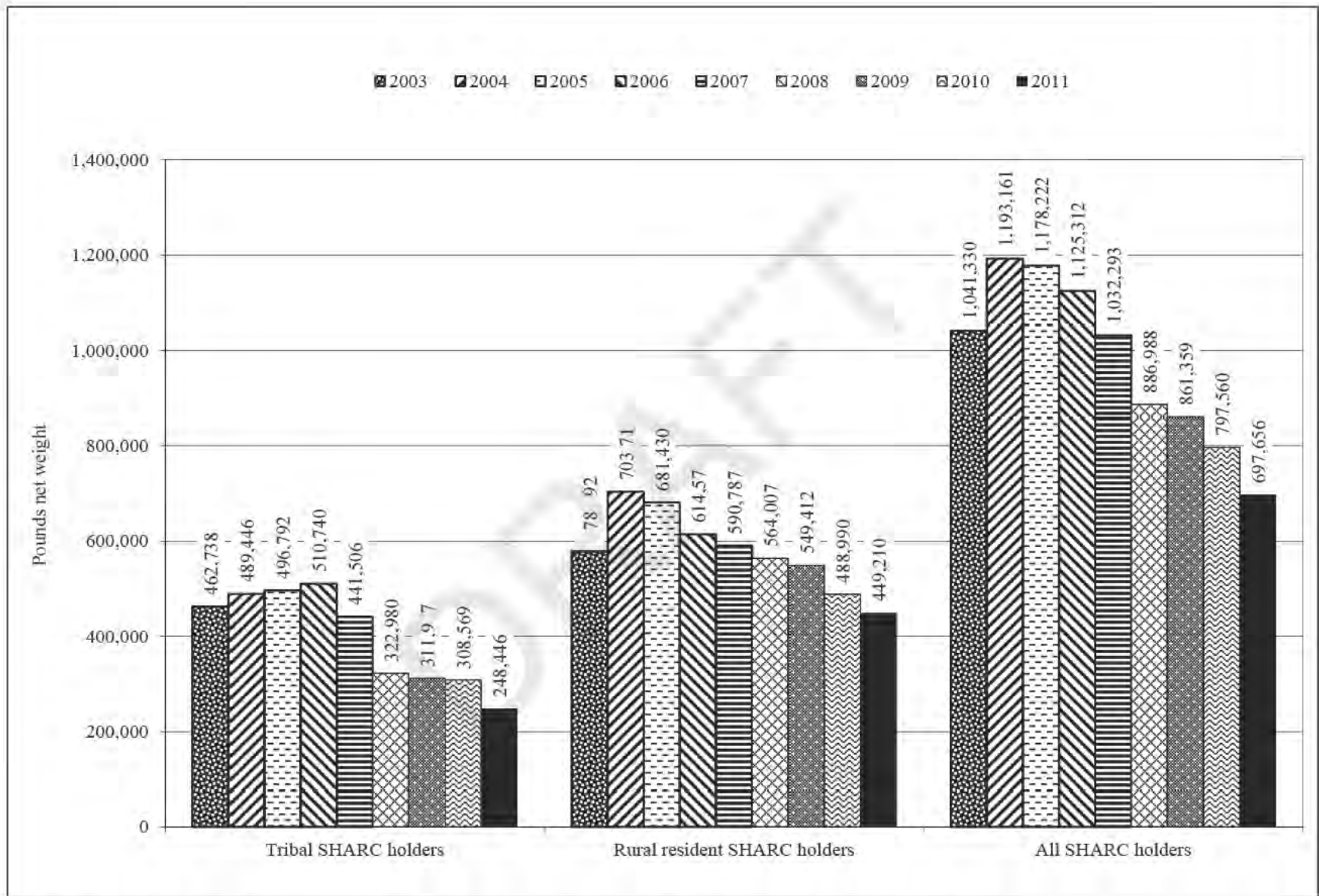


Figure 11.—Estimated Alaska subsistence halibut harvests in pounds net weight by SHARC type, 2003–2011.

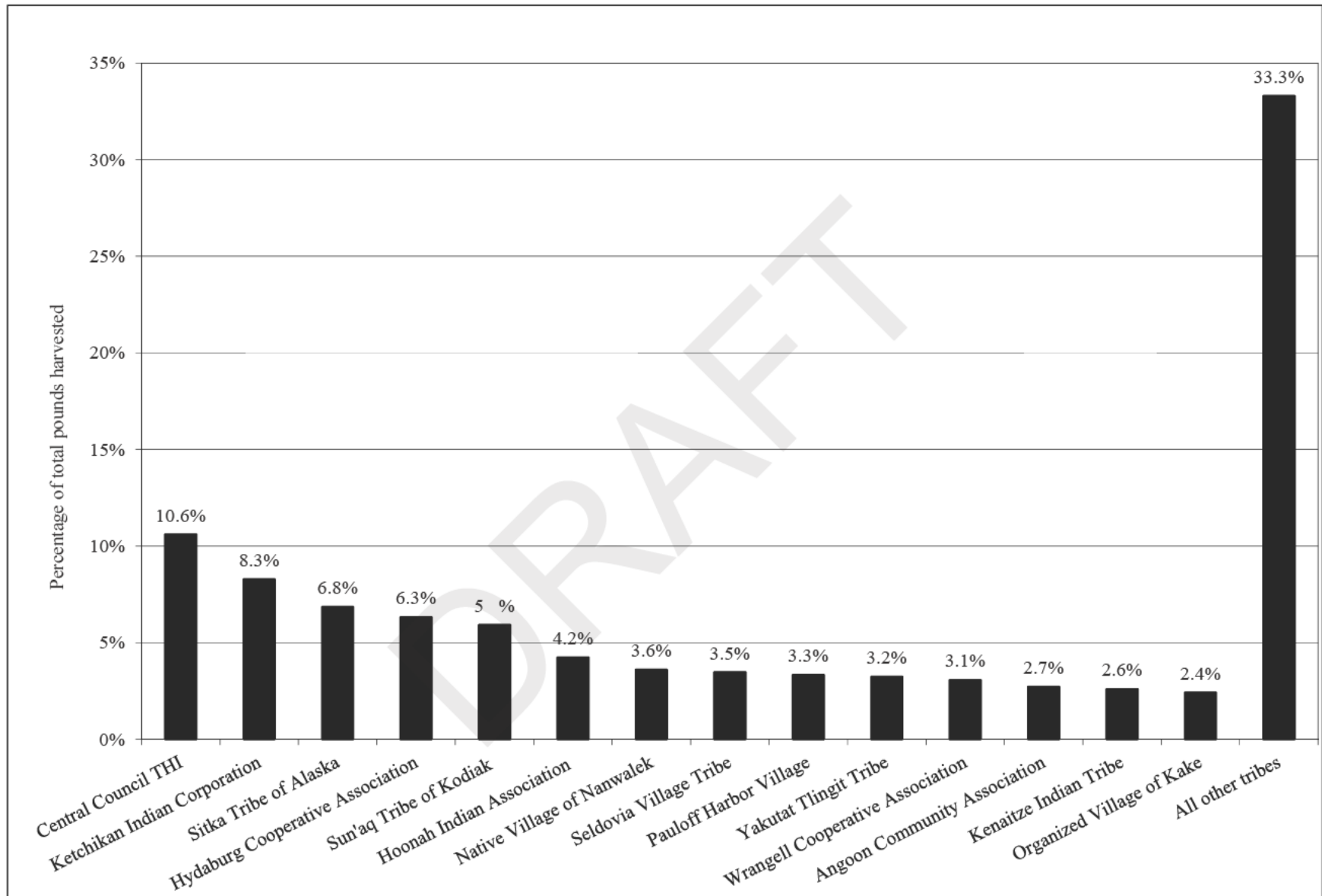


Figure 12.—Percentage of tribal subsistence halibut harvest by tribe, 2011.

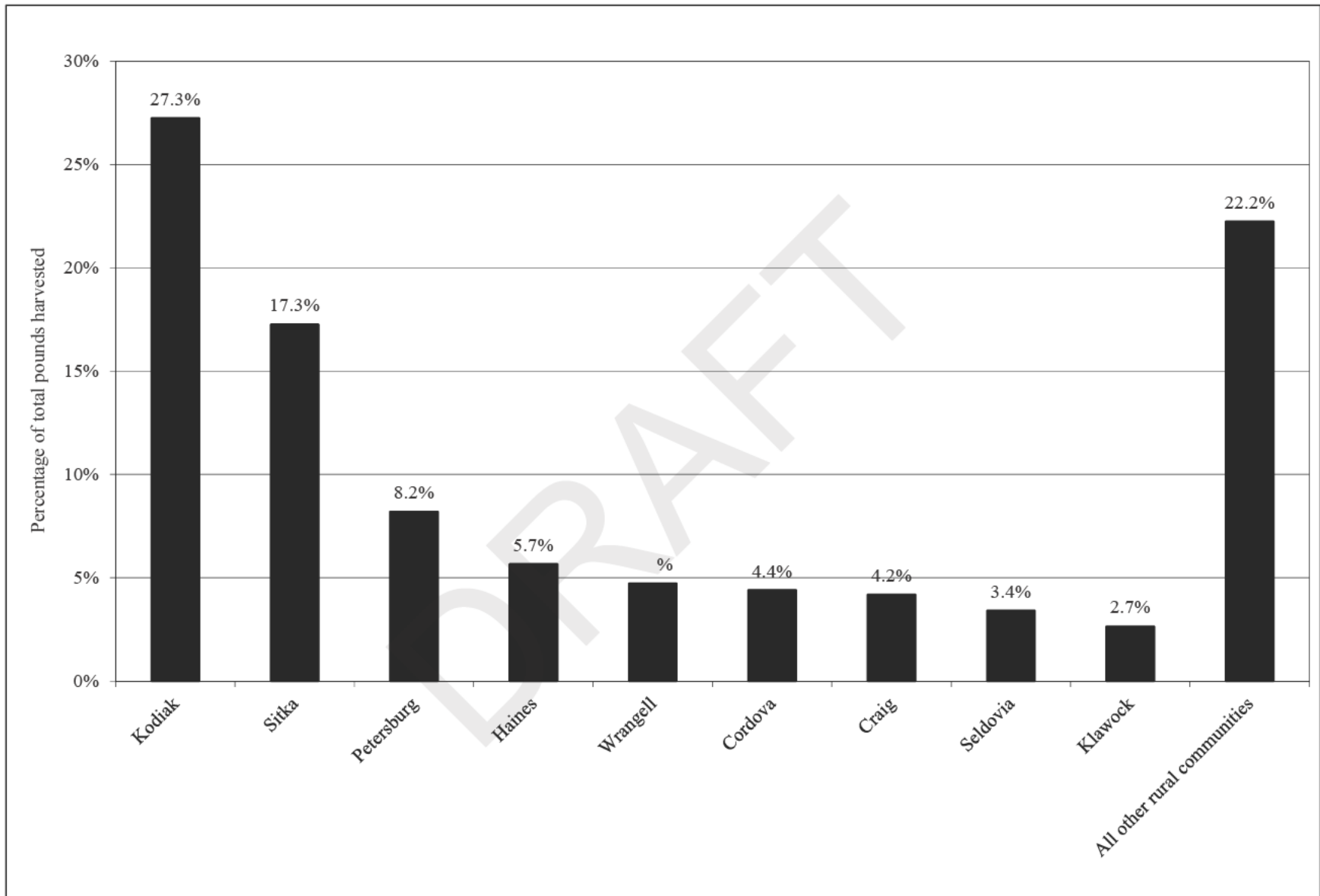


Figure 13.—Percentage of rural community subsistence halibut harvest by community, 2011.

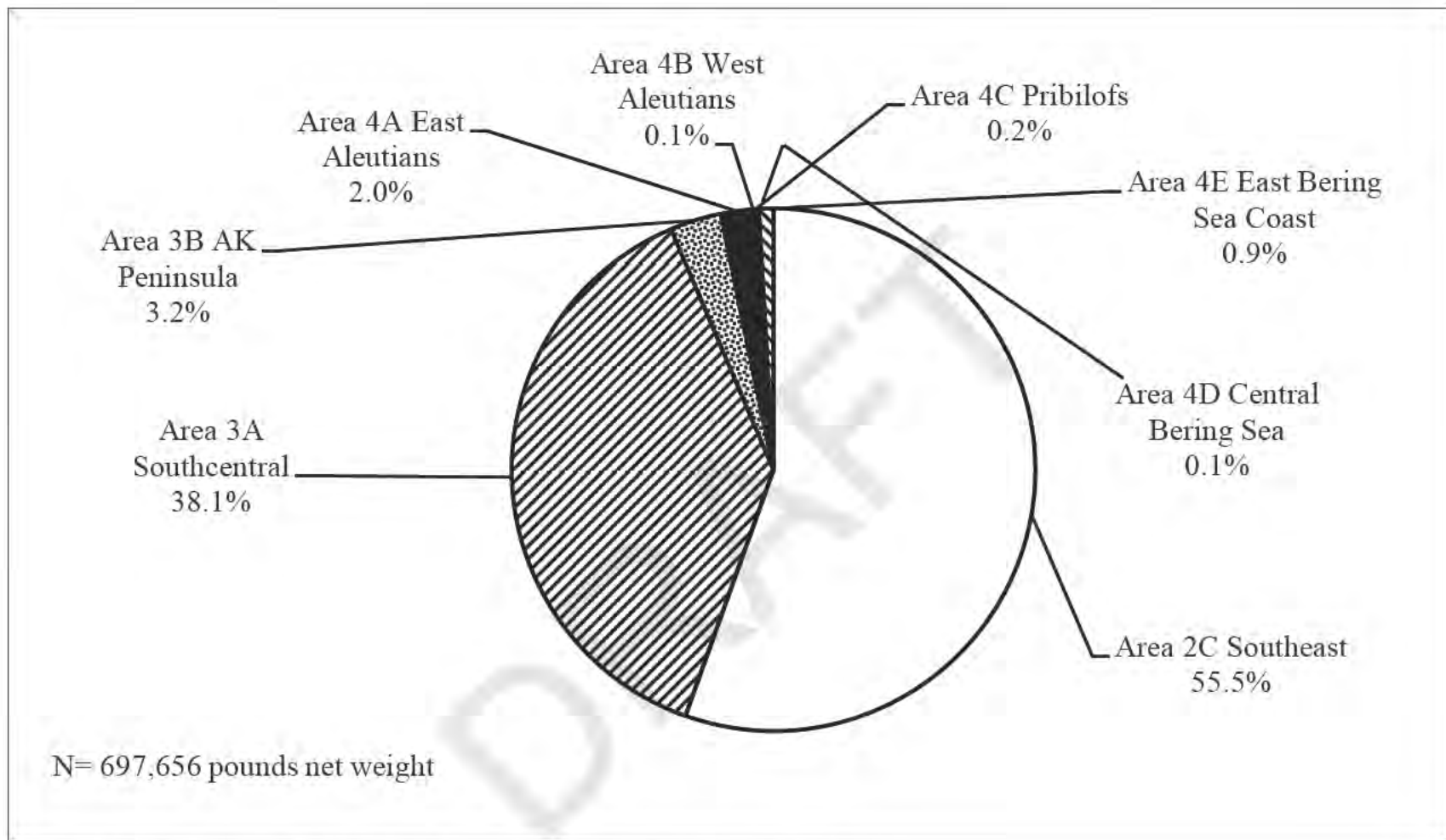


Figure 14.—Percentage of subsistence halibut harvest by regulatory area fished, 2011.

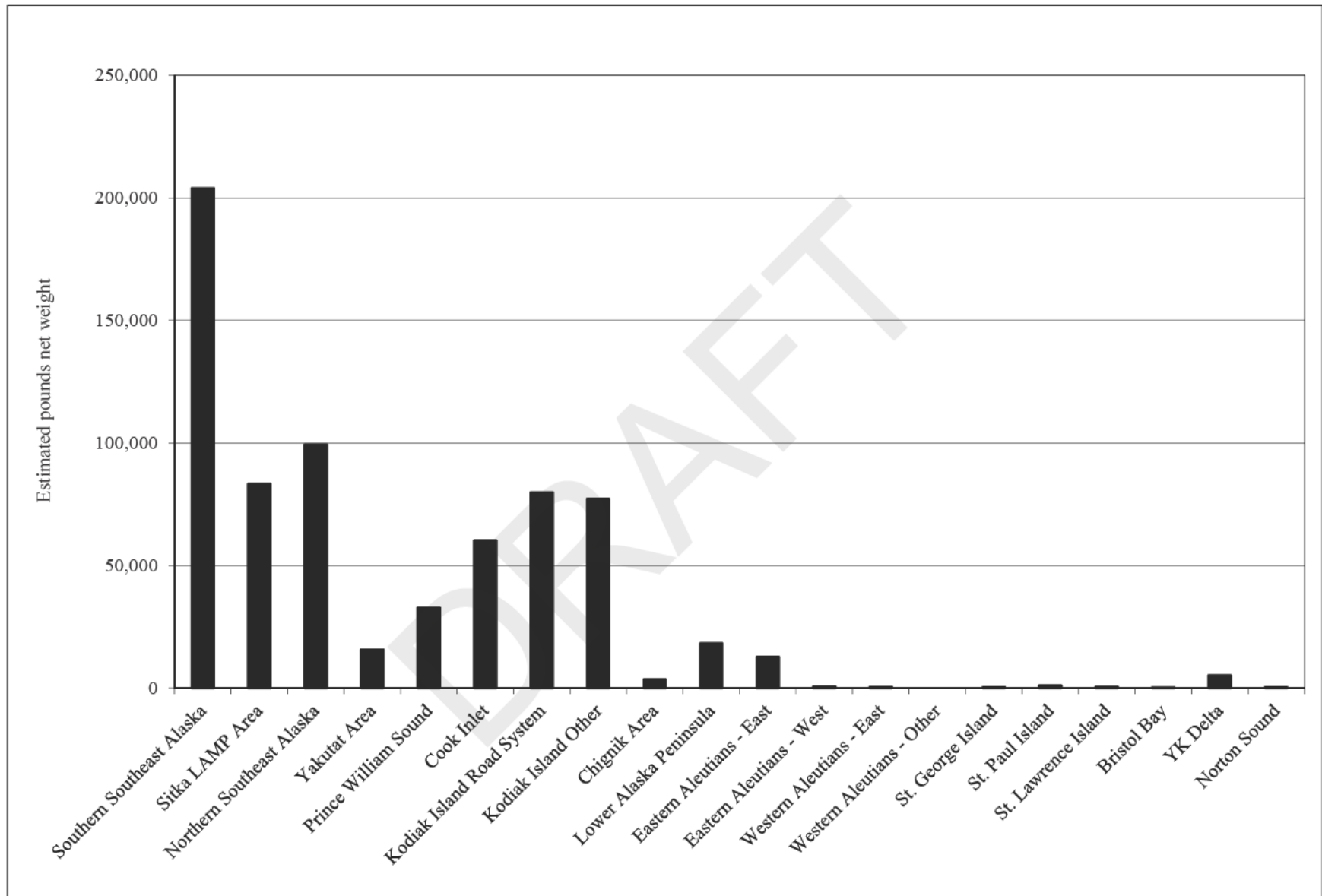


Figure 15.—Alaska subsistence halibut harvests by geographic area, 2011.

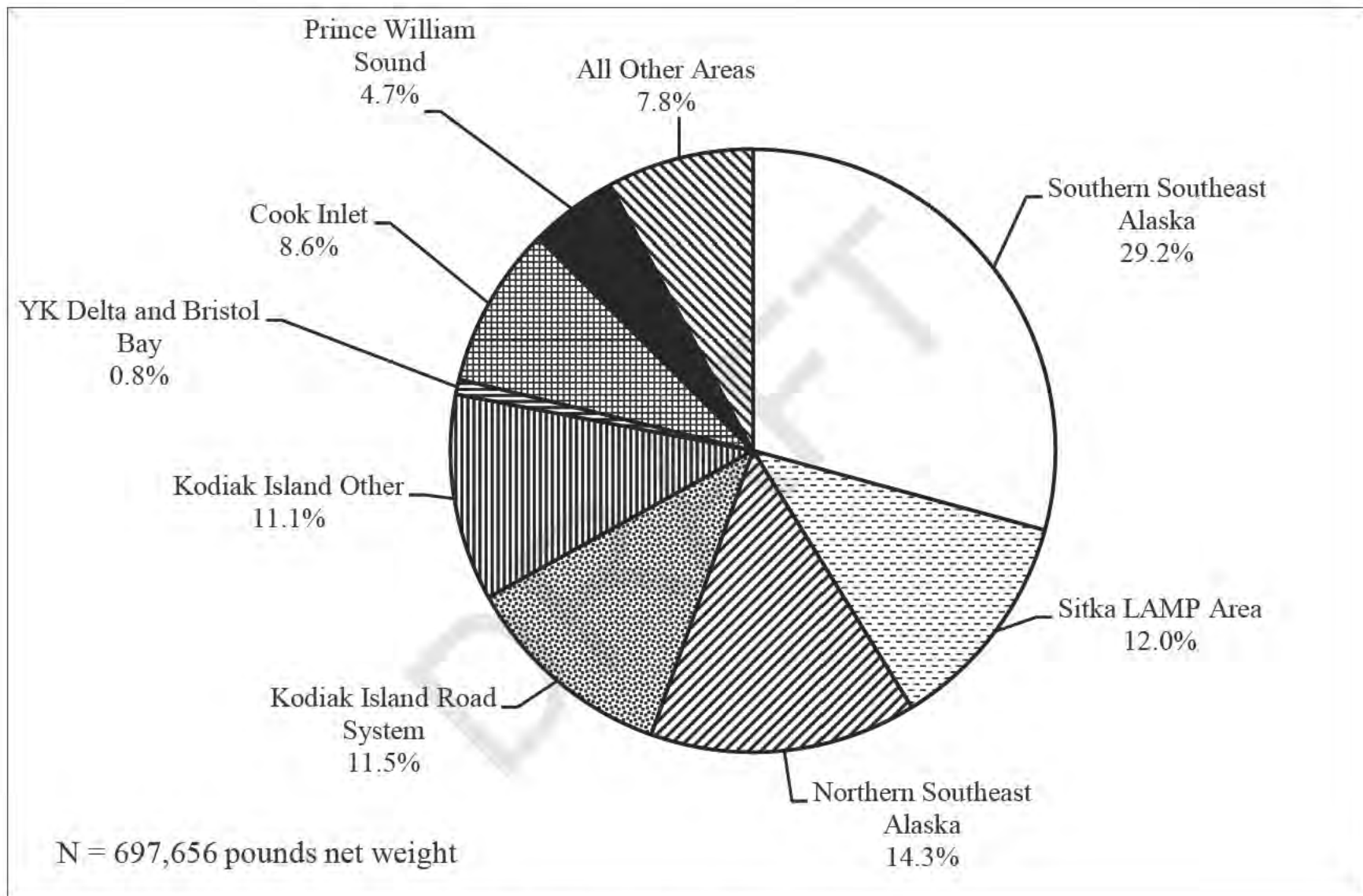


Figure 16.—Percentage of Alaska subsistence halibut harvest by geographic area, 2011.

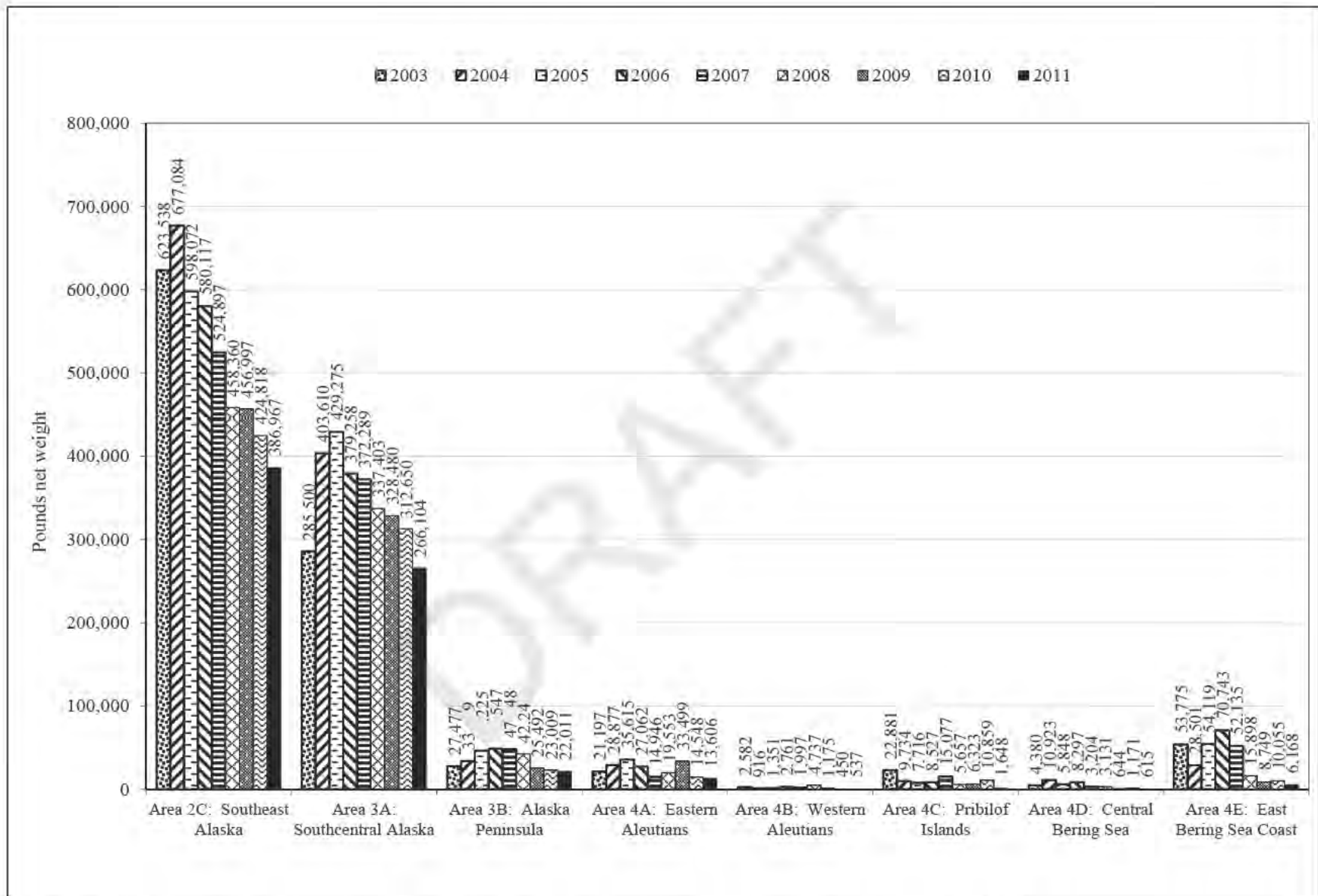


Figure 17.—Estimated subsistence halibut harvests, pounds net weight, by regulatory area fished, 2003–2011.

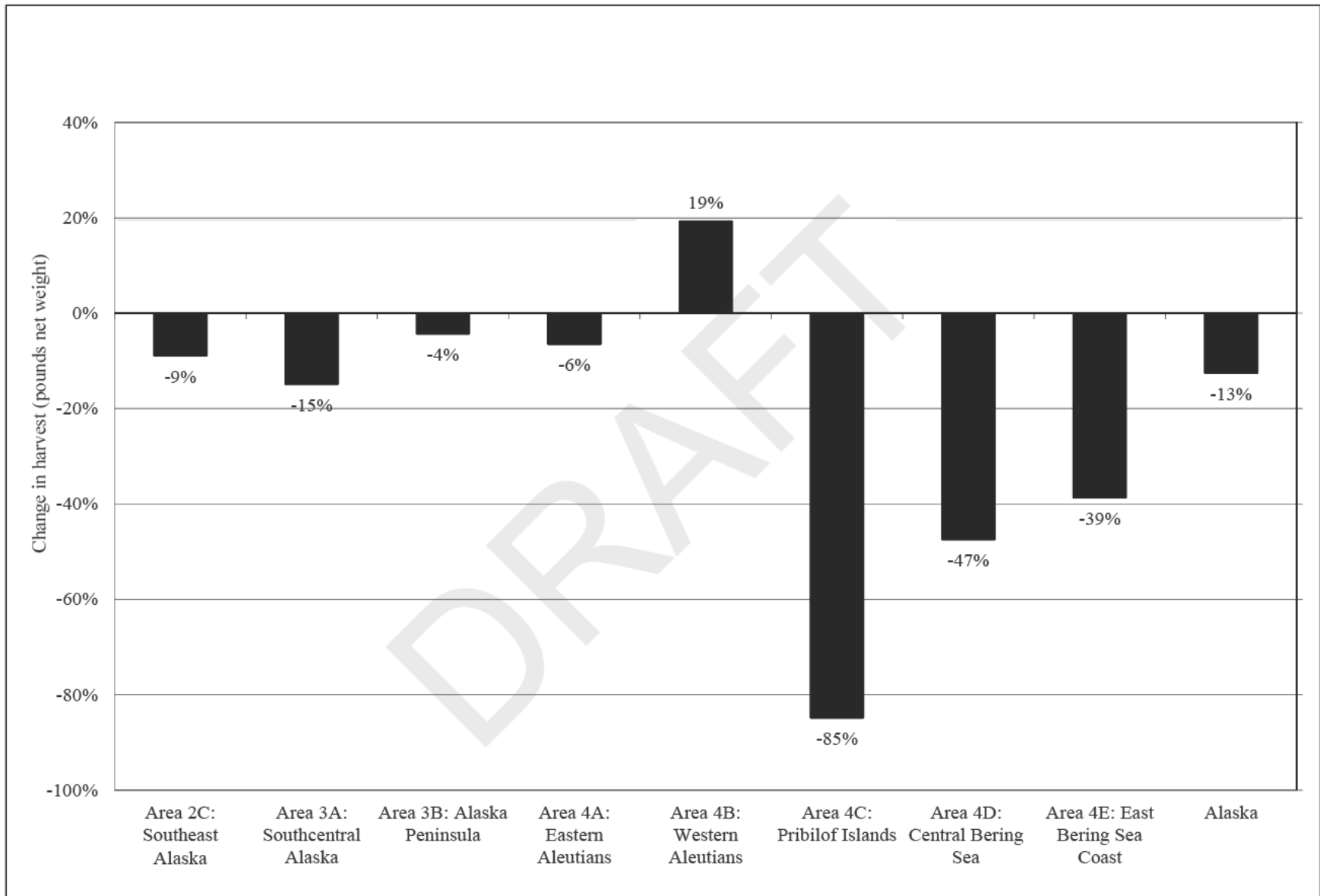


Figure 18.—Change in Alaska subsistence halibut harvests from 2010 through 2011 by regulatory area fished.

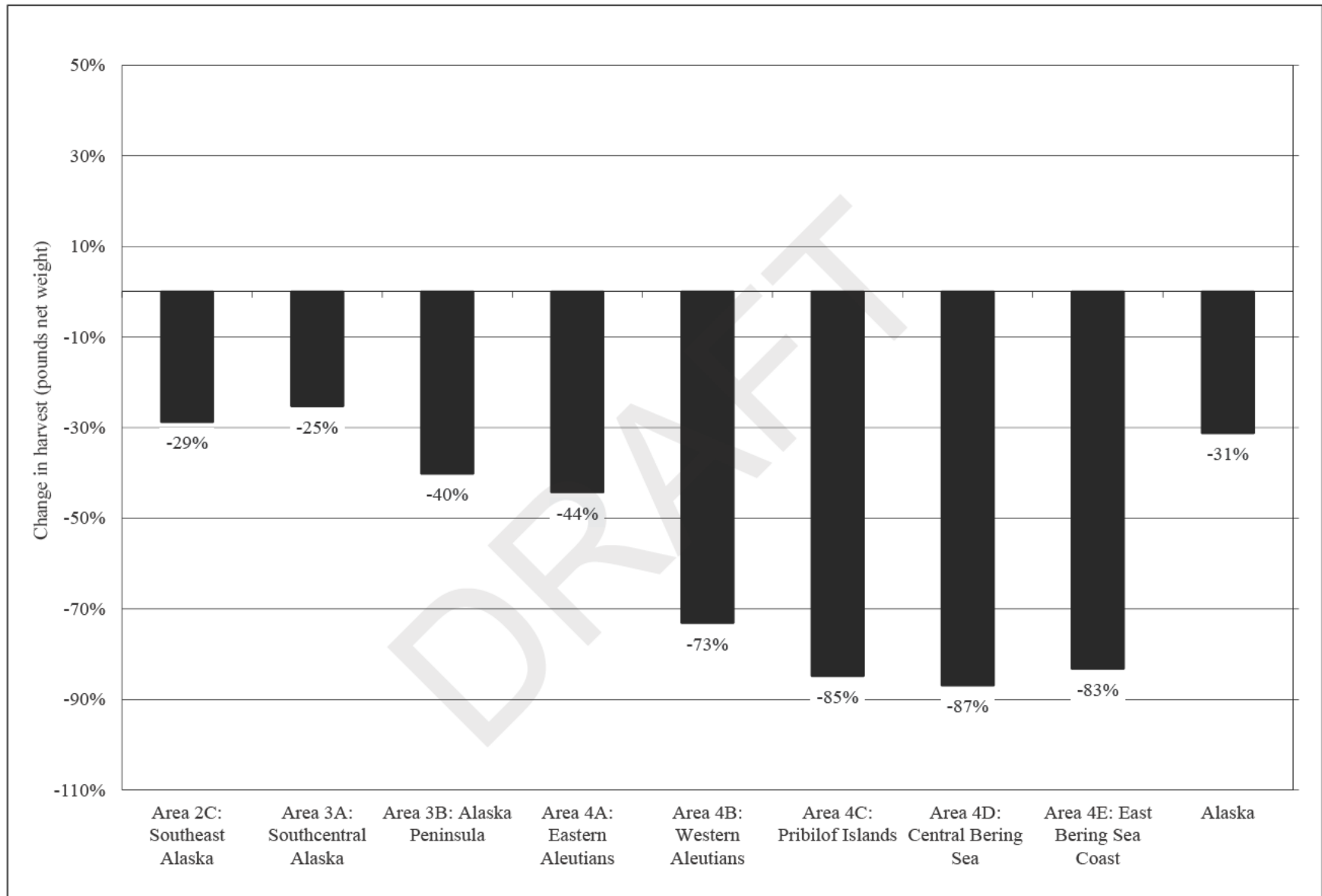


Figure 19.—Change in Alaska subsistence halibut harvests in 2011 compared to recent 8-year average (2003–2010) by regulatory area fished.

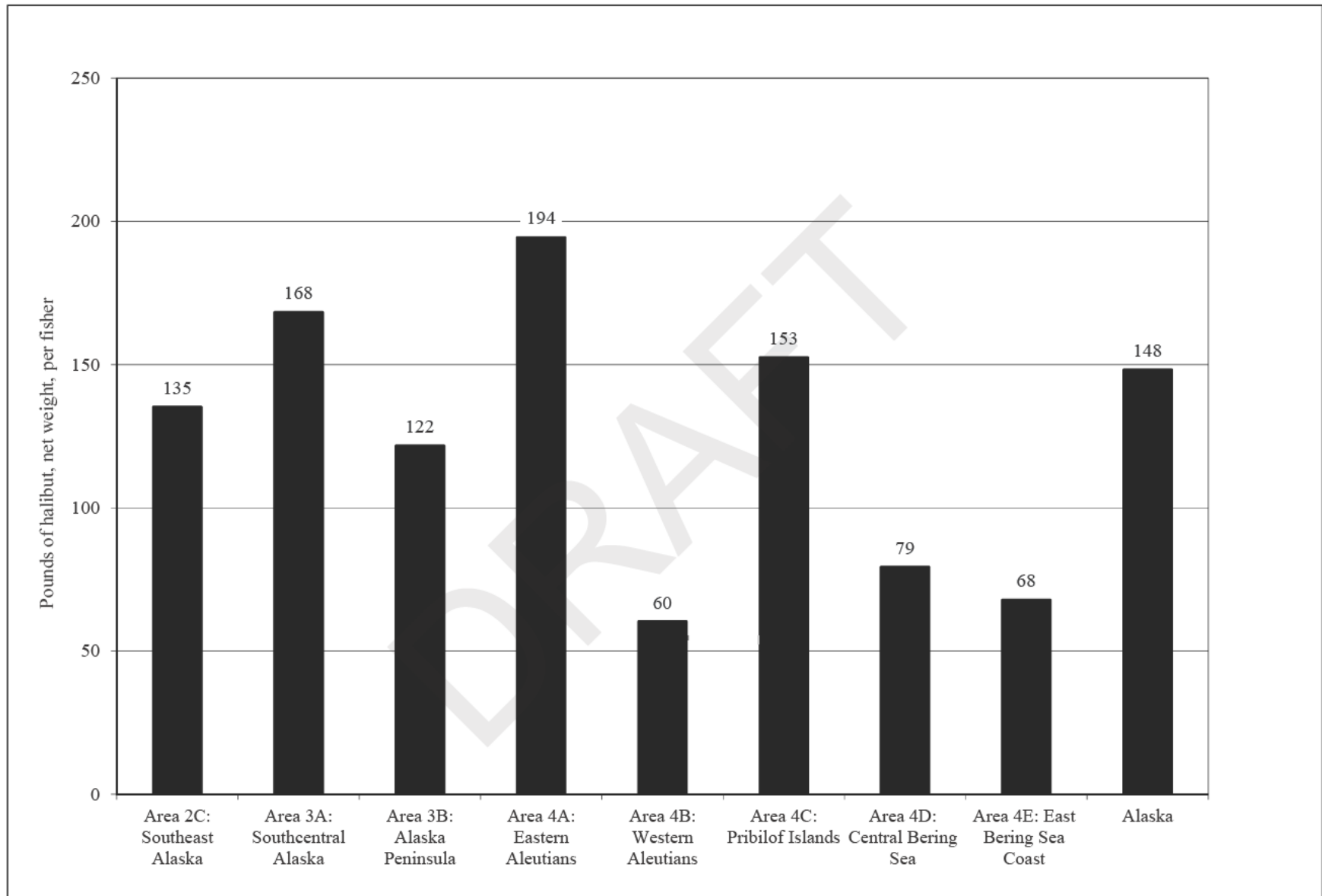


Figure 20.—Average subsistence harvest of halibut per fisher in Alaska by regulatory area, in pounds net weight, 2011.

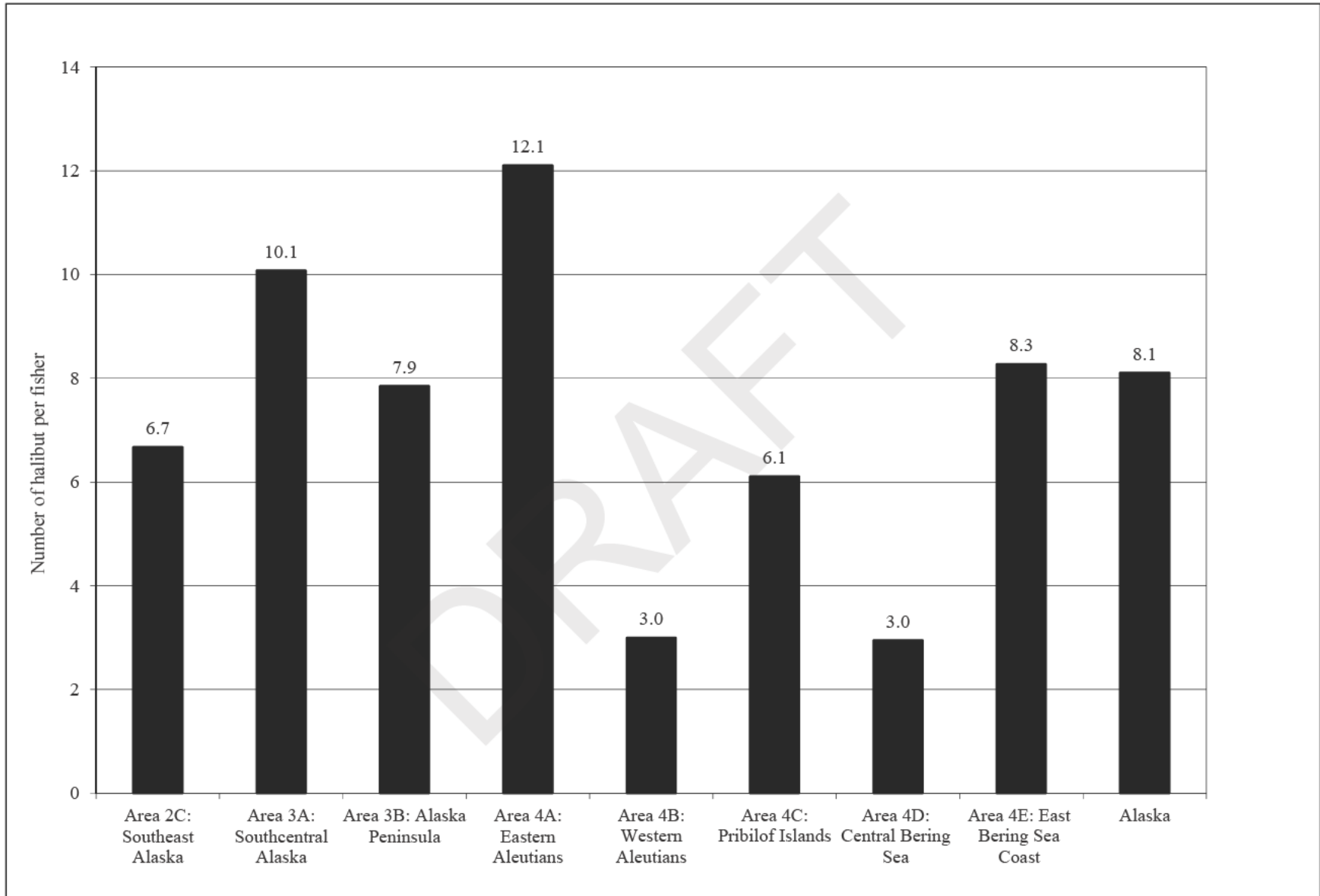


Figure 21.—Average subsistence harvest of halibut per fisher in Alaska by regulatory area, in number of fish, 2011.

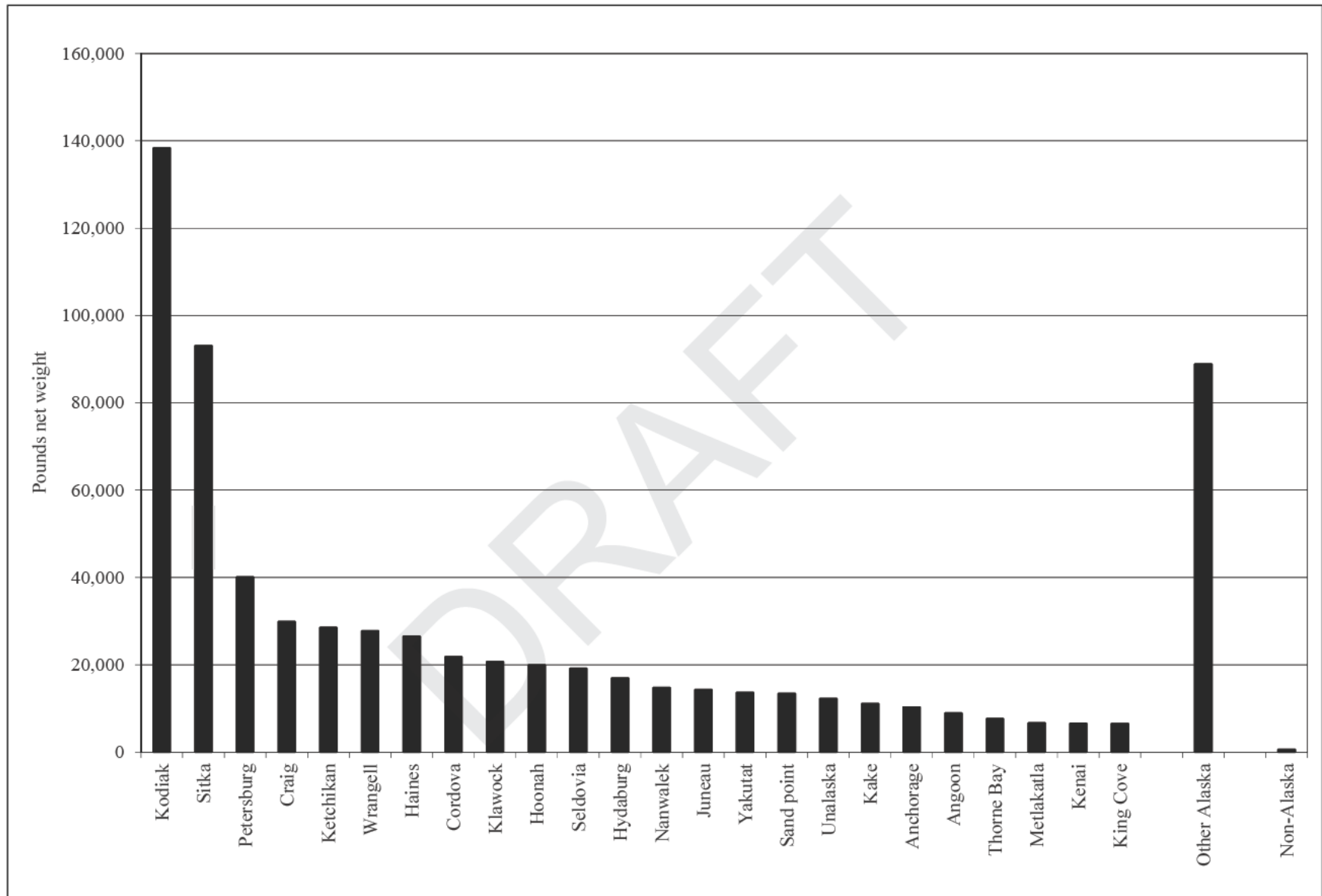


Figure 22.—Alaska subsistence halibut harvests by place of residence, 2011.

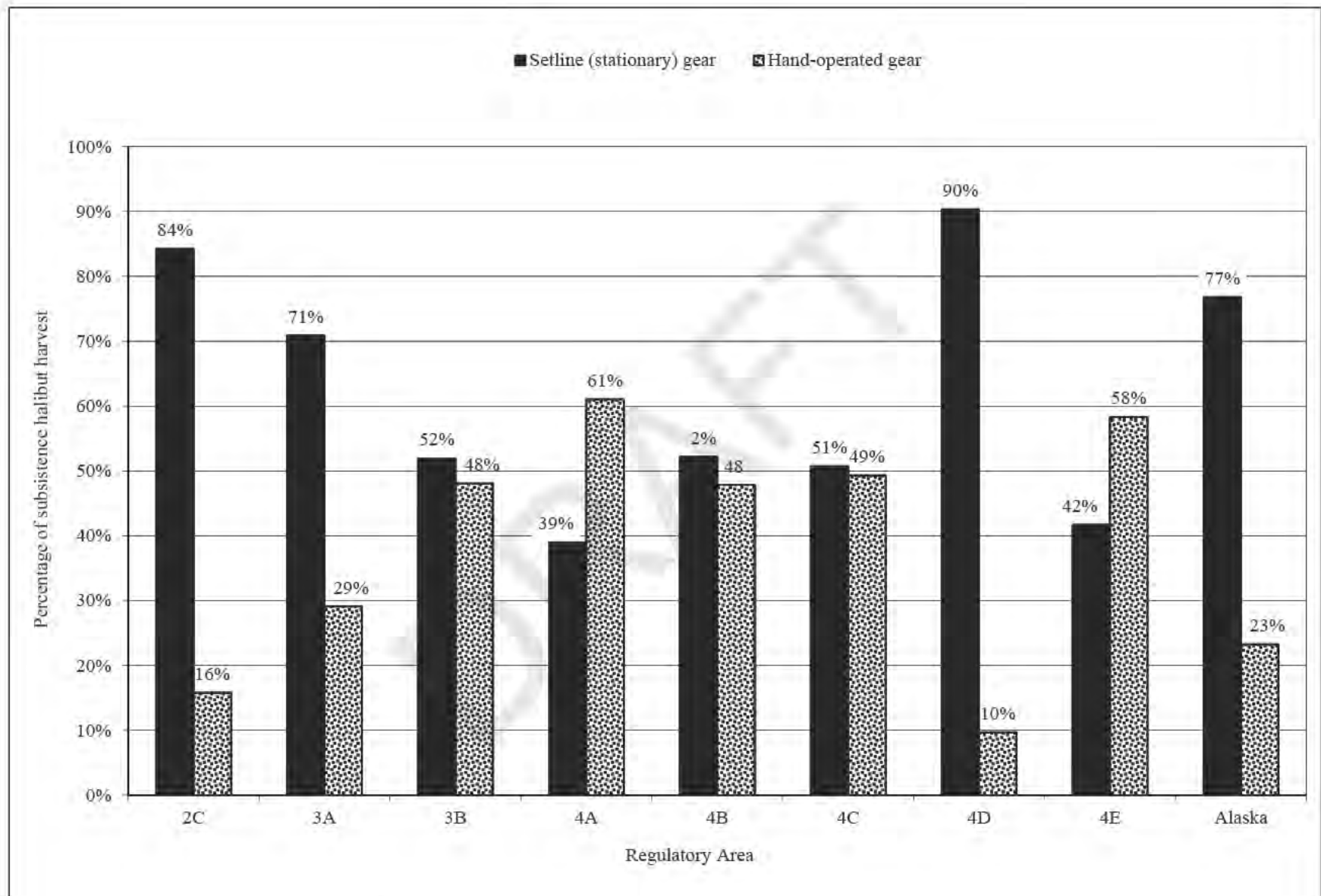


Figure 23.—Percentage of subsistence halibut harvest by gear type by regulatory area, 2011.

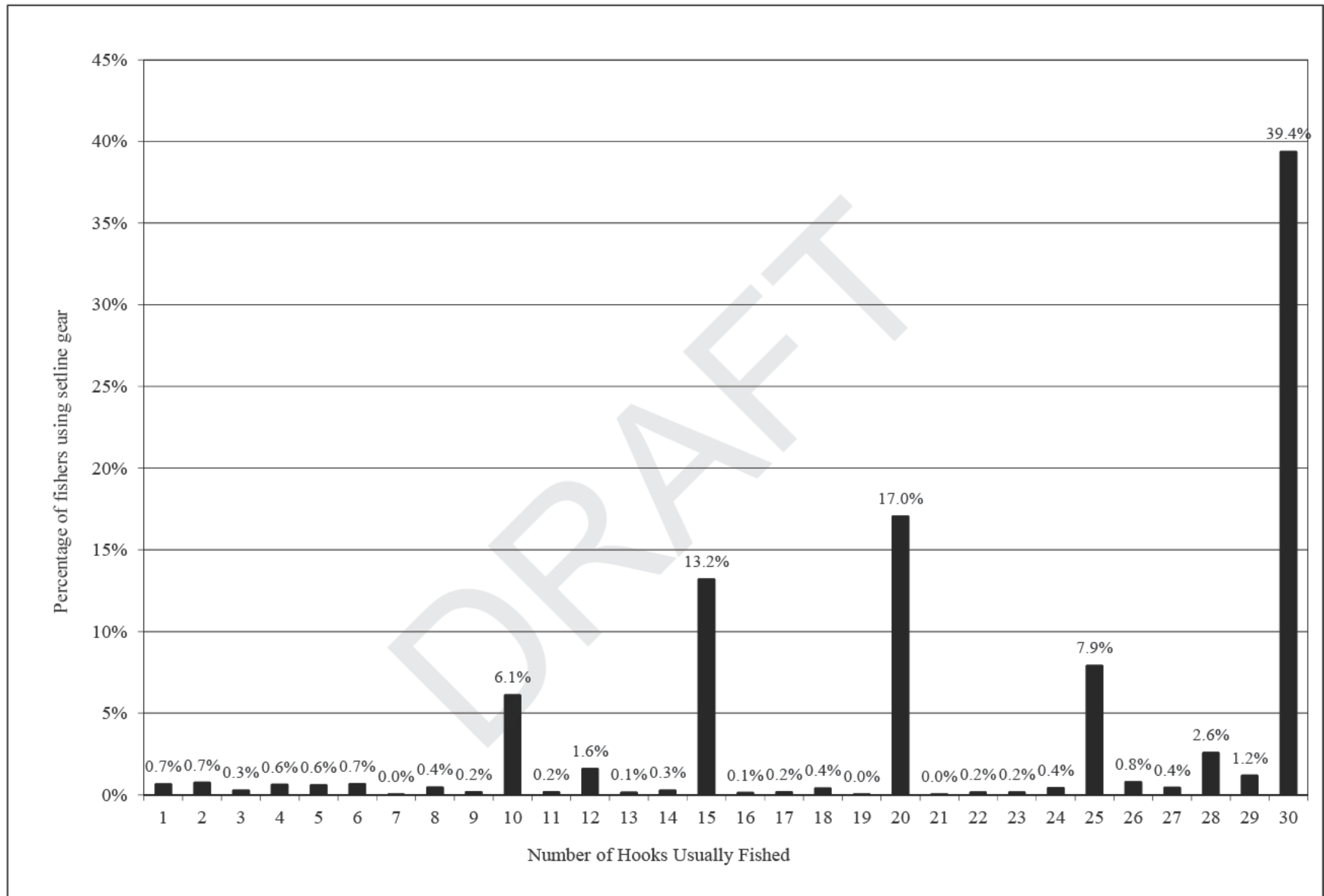


Figure 24.—Number of hooks usually fished, percentage of fishers using setline (stationary) gear, Alaska subsistence halibut fishery, 2011.

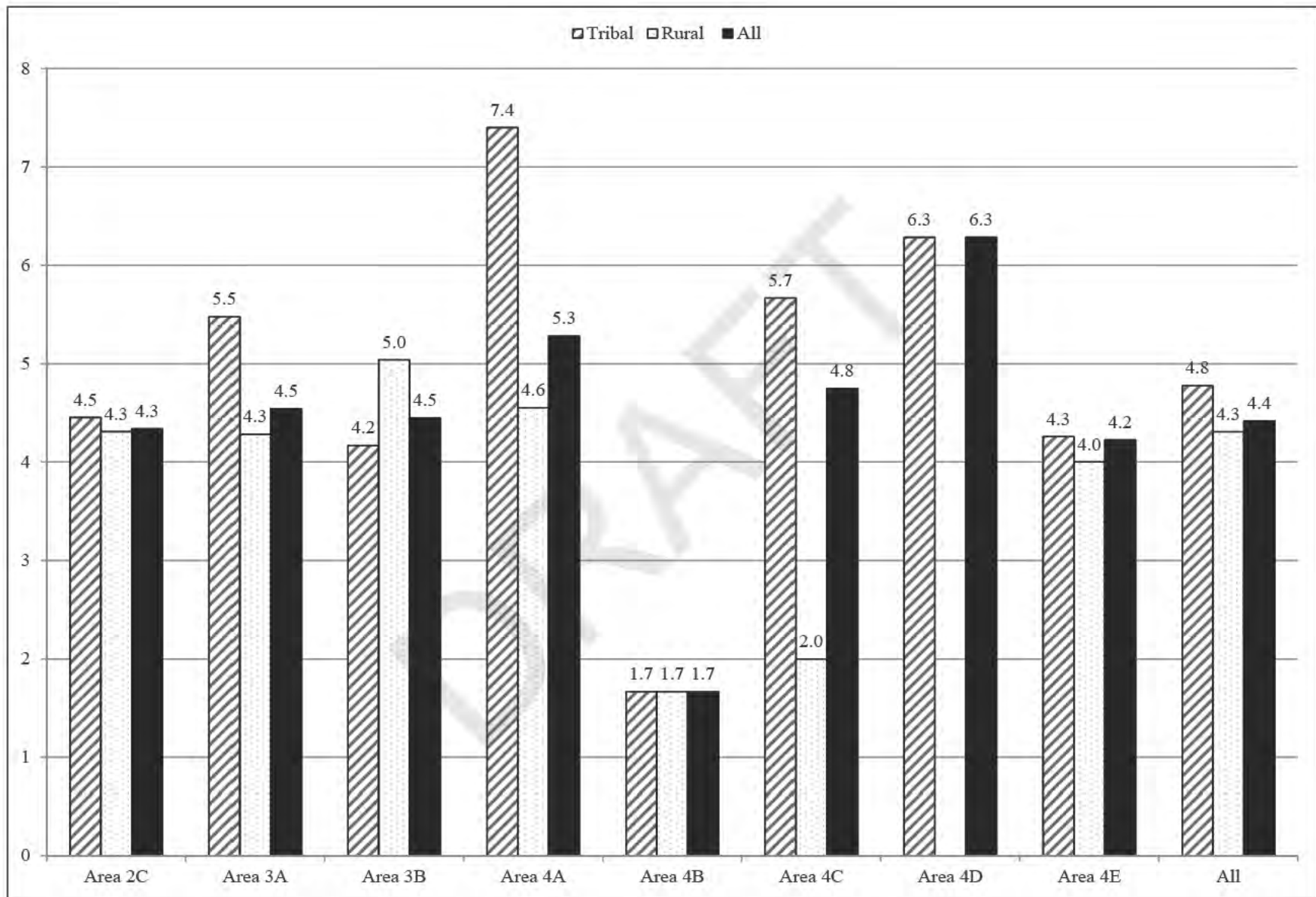


Figure 25.—Average number of subsistence fishing trips for halibut by regulatory area and SHARC type, 2011.

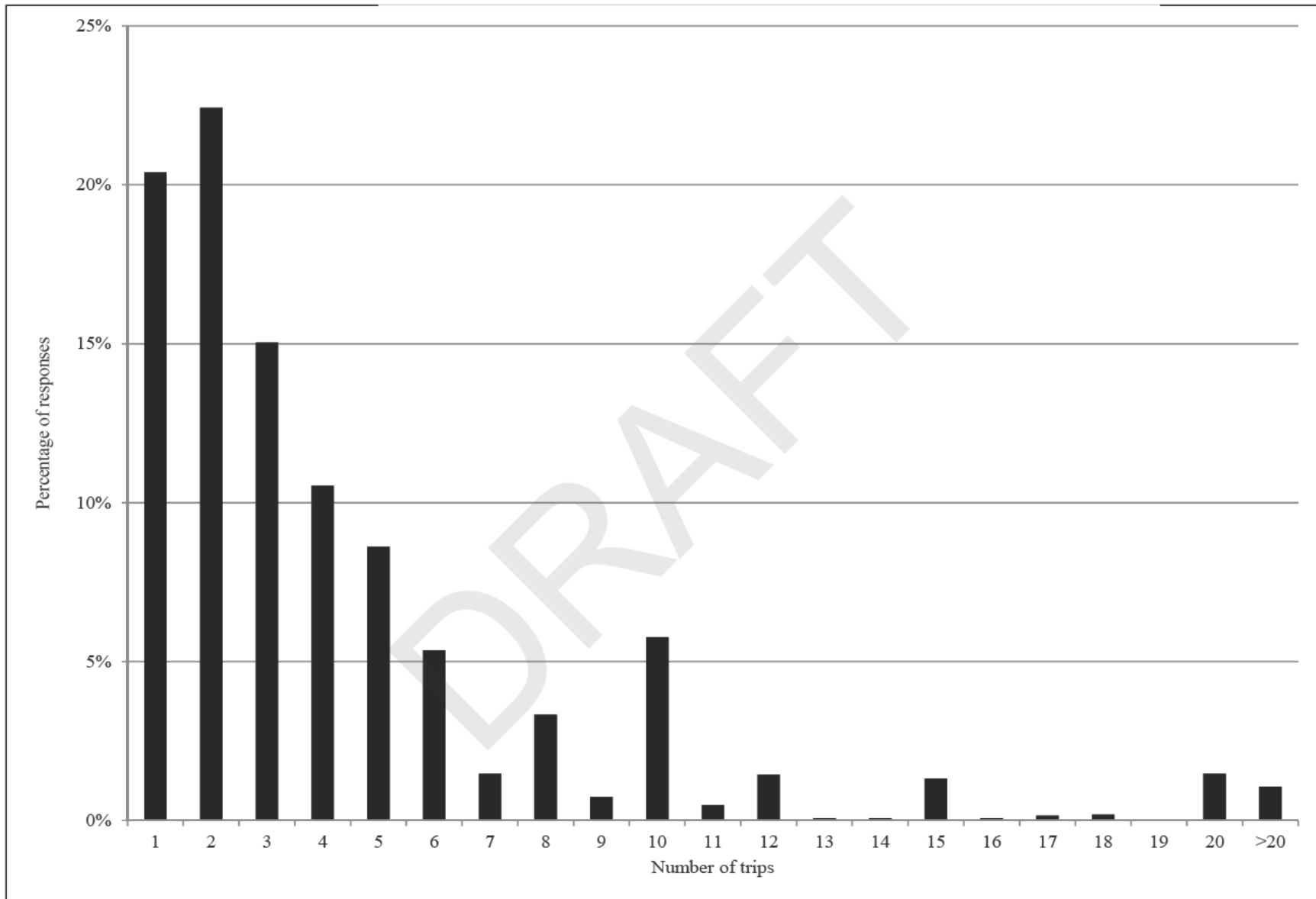


Figure 26.—Number of subsistence fishing trips for halibut, by percentage of total reported trips, 2011.

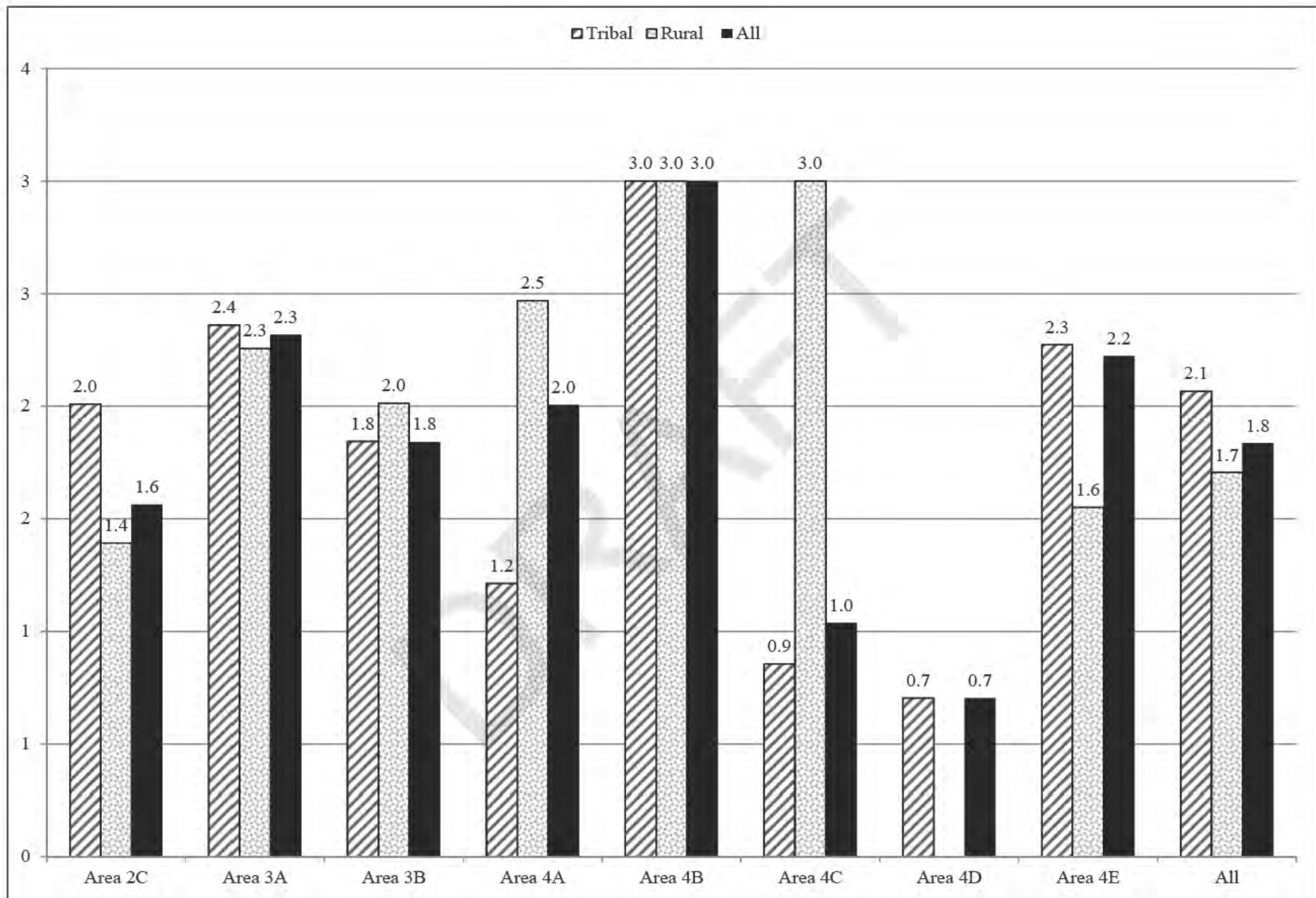


Figure 27.—Average number of halibut harvested per subsistence fishing trip by regulatory area and SHARC type, 2011.

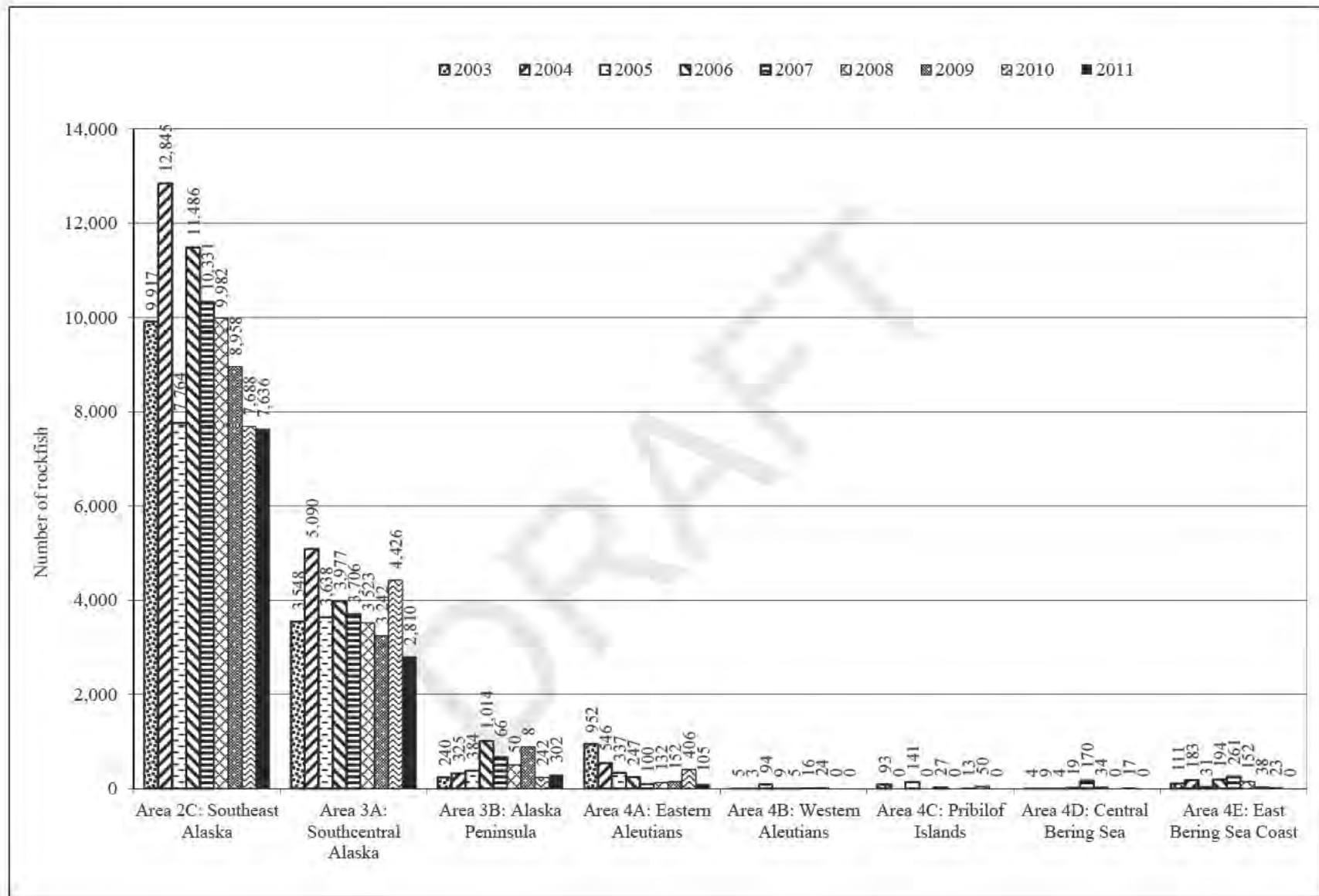


Figure 28.—Estimated incidental harvests of rockfish in the Alaska subsistence halibut fishery, number of fish, by regulatory area fished, 2003–2011.

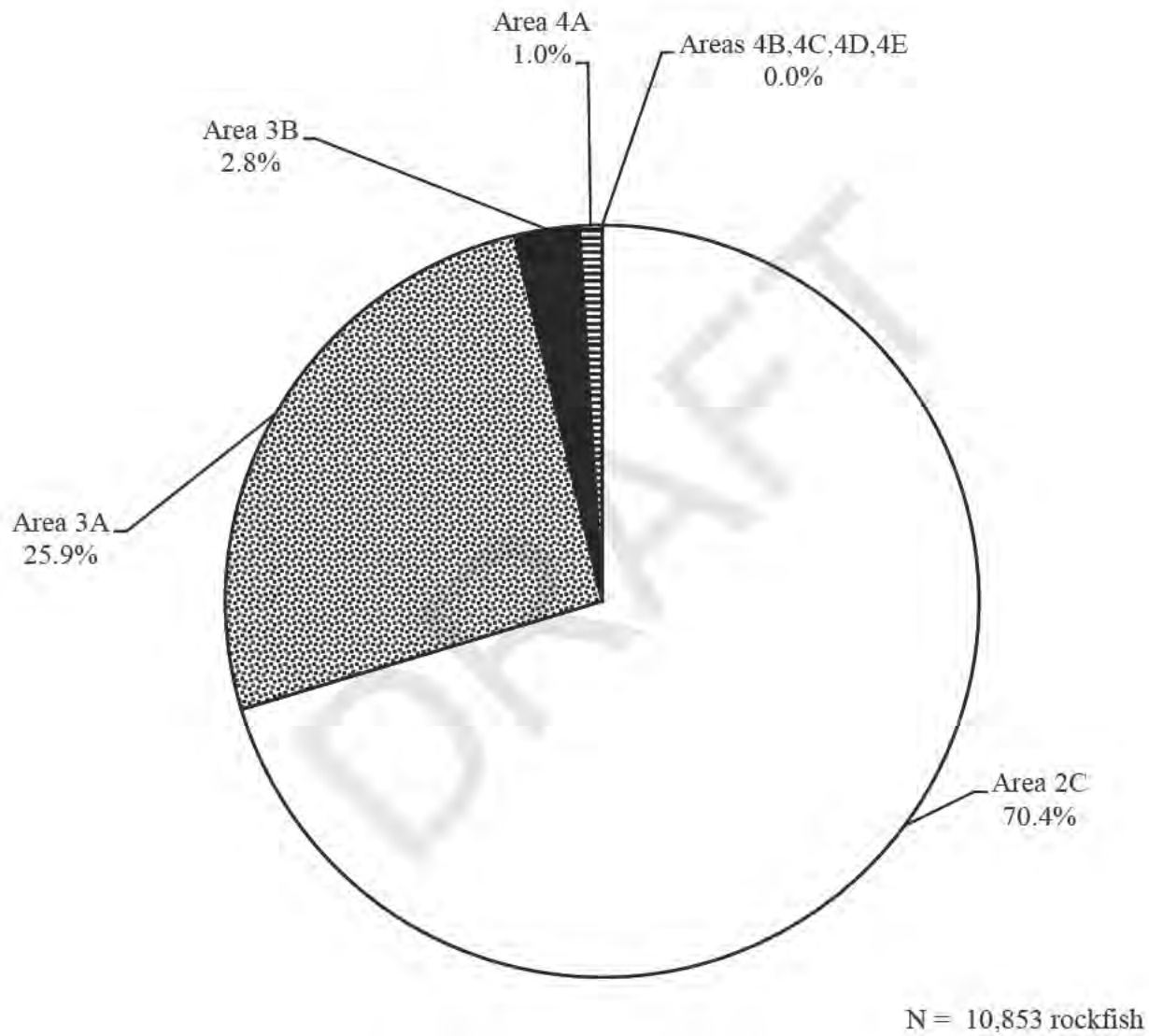


Figure 29.—Percentage of incidental harvest of rockfish by regulatory area fished, 2011.

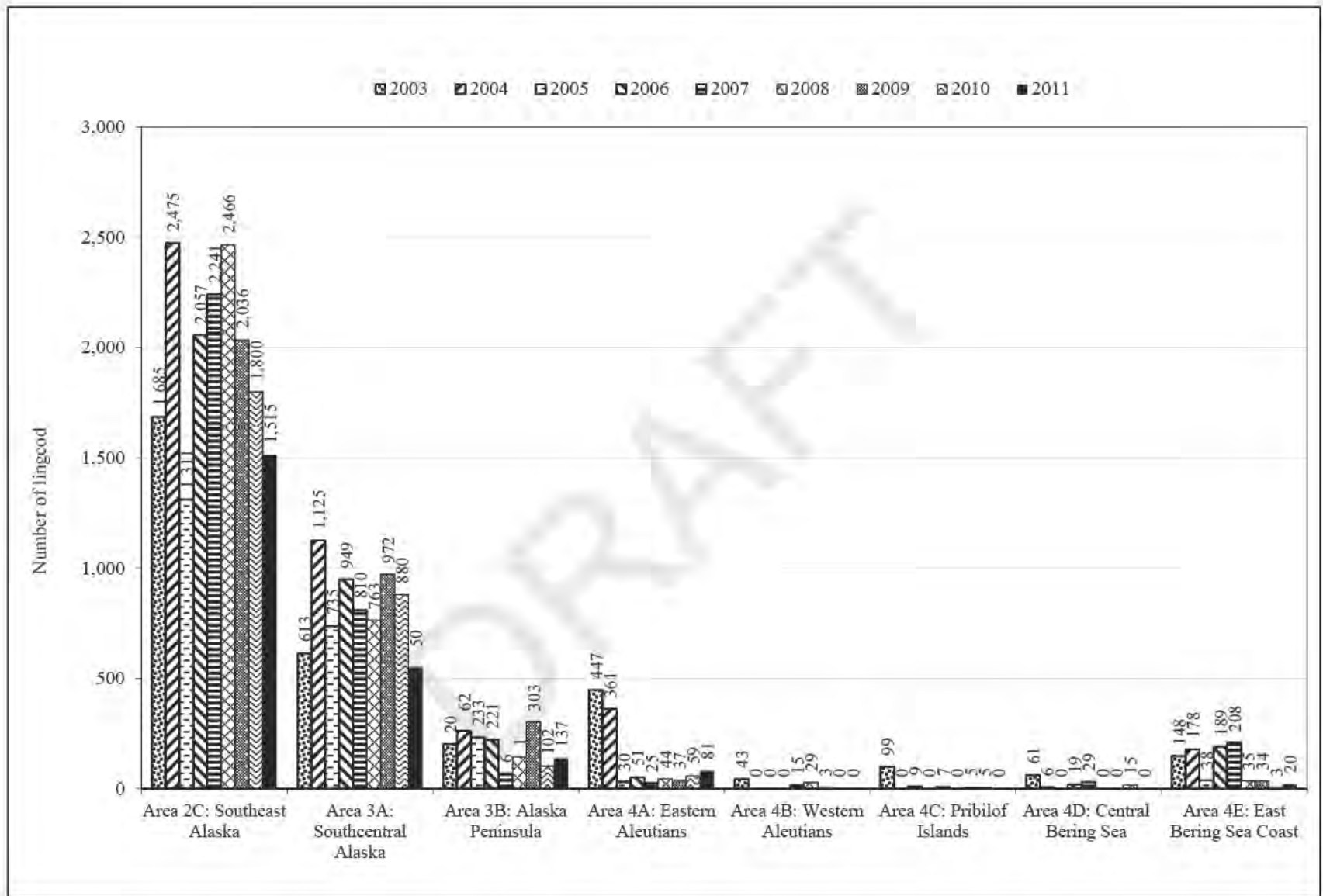


Figure 30.—Estimated incidental harvests of lingcod in the Alaska subsistence halibut fishery, number of fish, by regulatory area fished, 2003–2011.

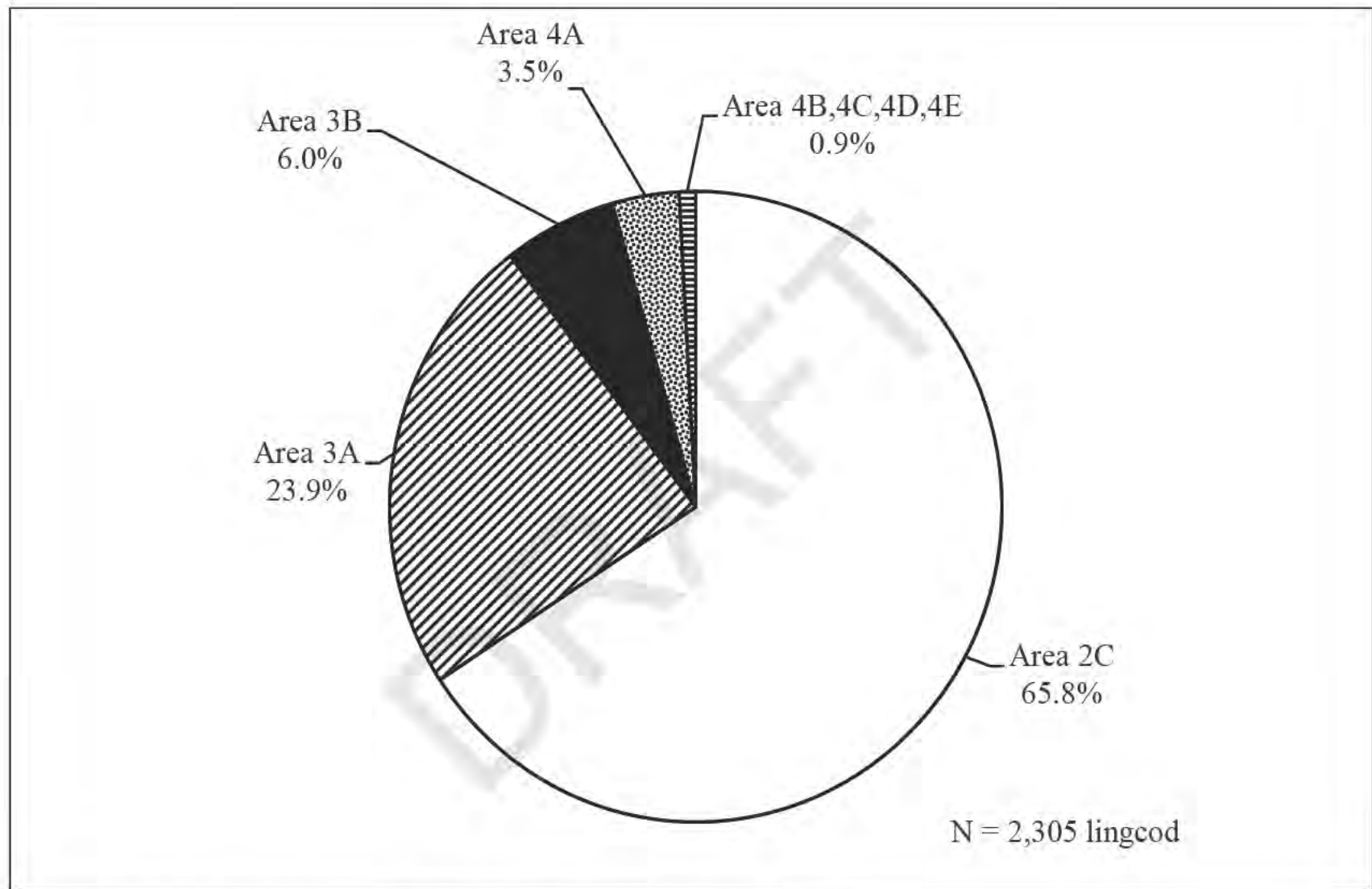


Figure 31.—Percentage of incidental harvest of lingcod by regulatory area fished, 2011.

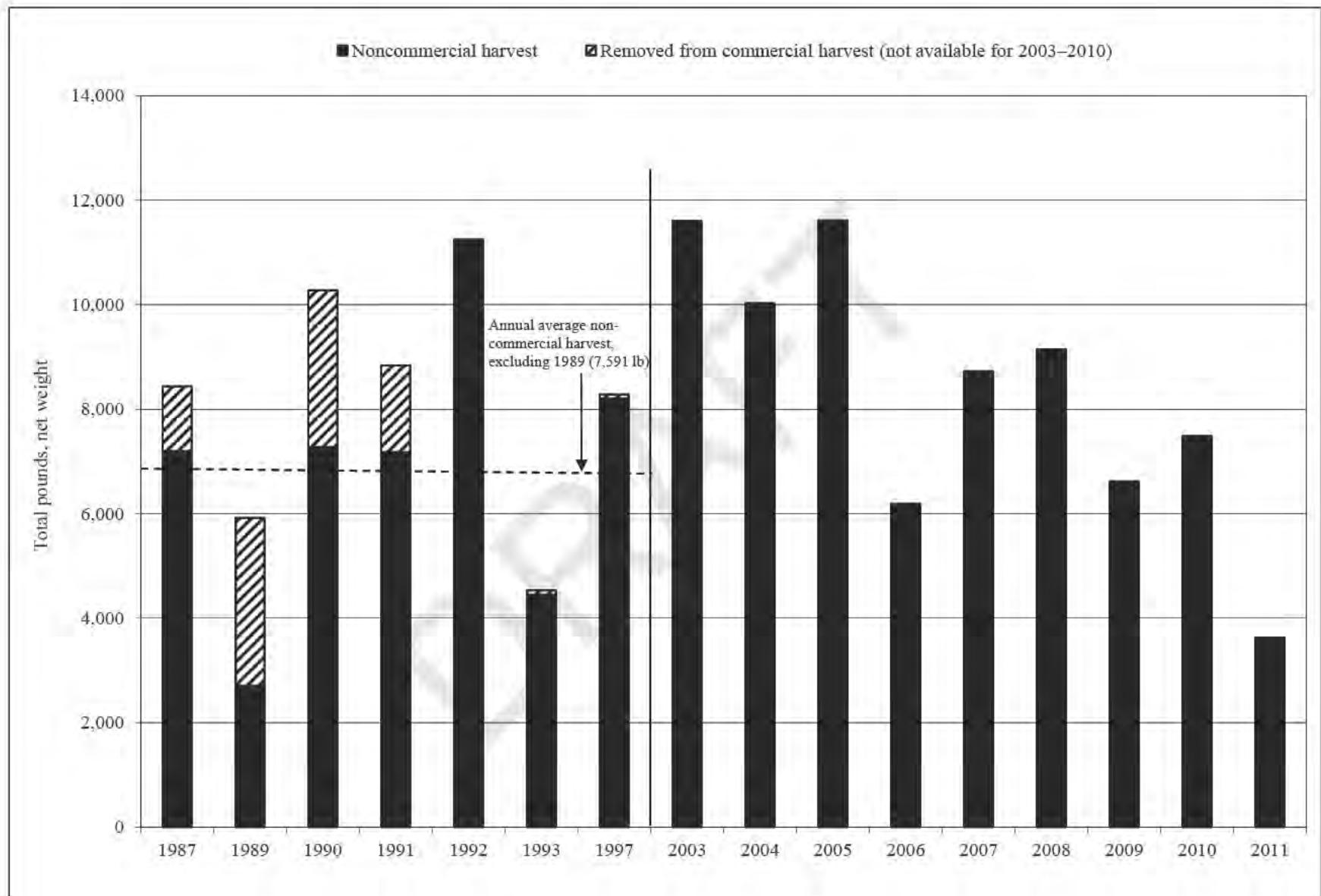


Figure 32.—Estimated harvests of halibut for home use, Port Graham.

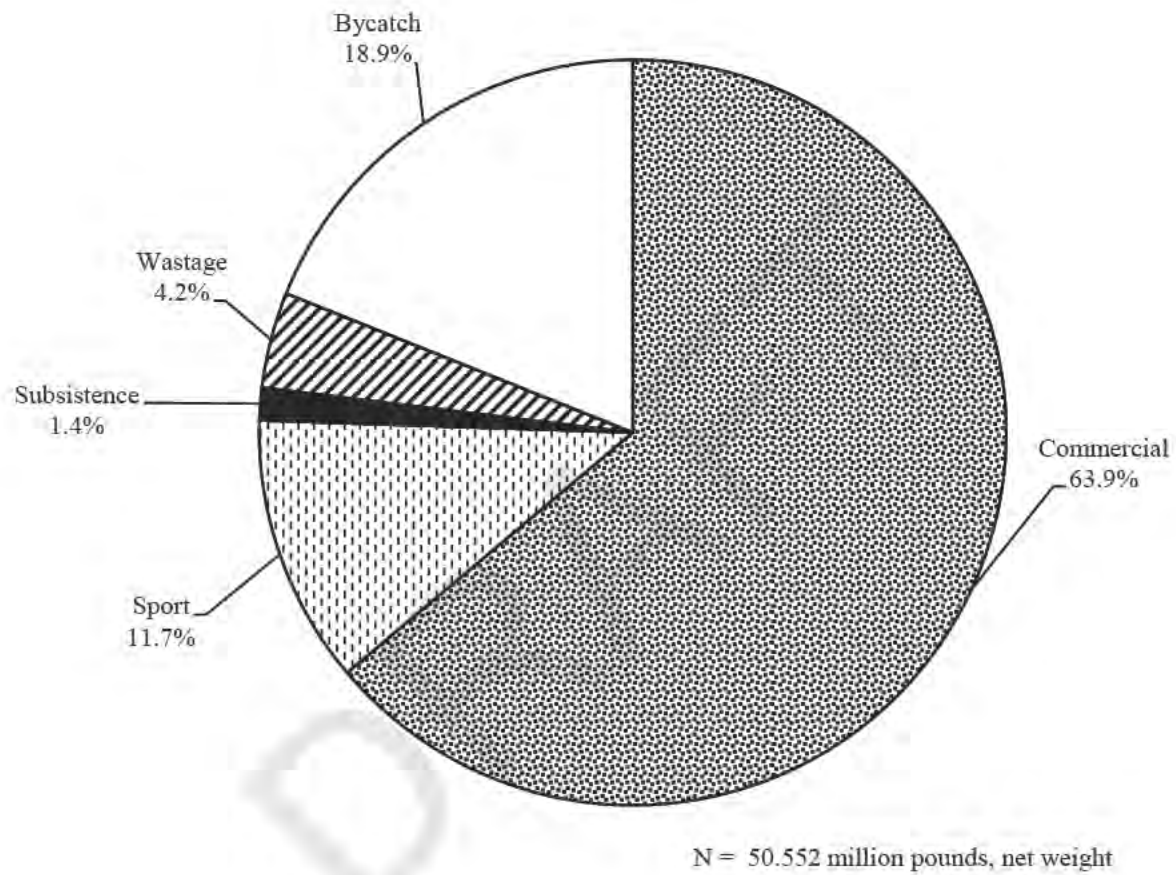


Figure 33.—Halibut removals, Alaska, 2011.

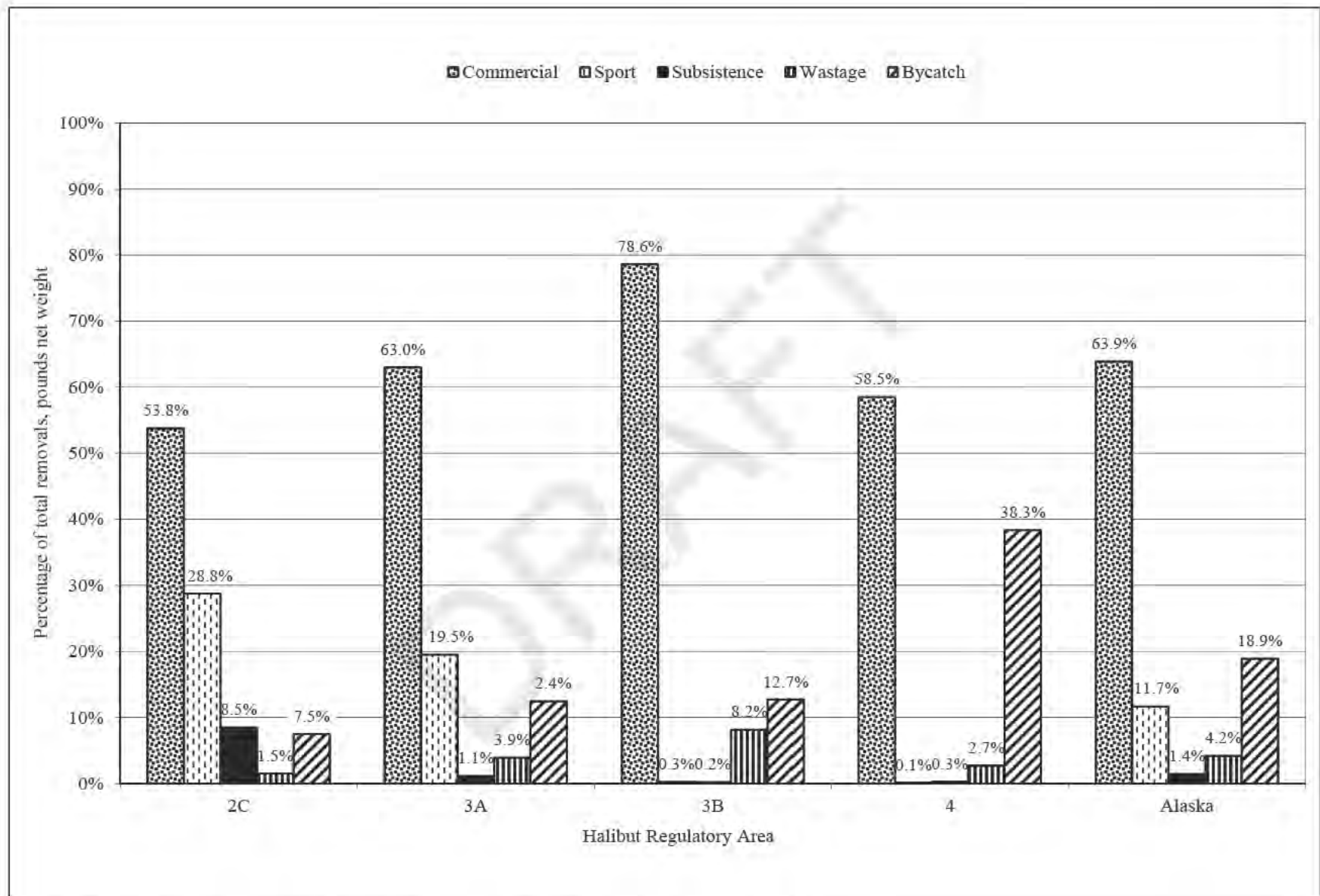


Figure 34.—Halibut removals in Alaska by regulatory area and removal category, 2011.

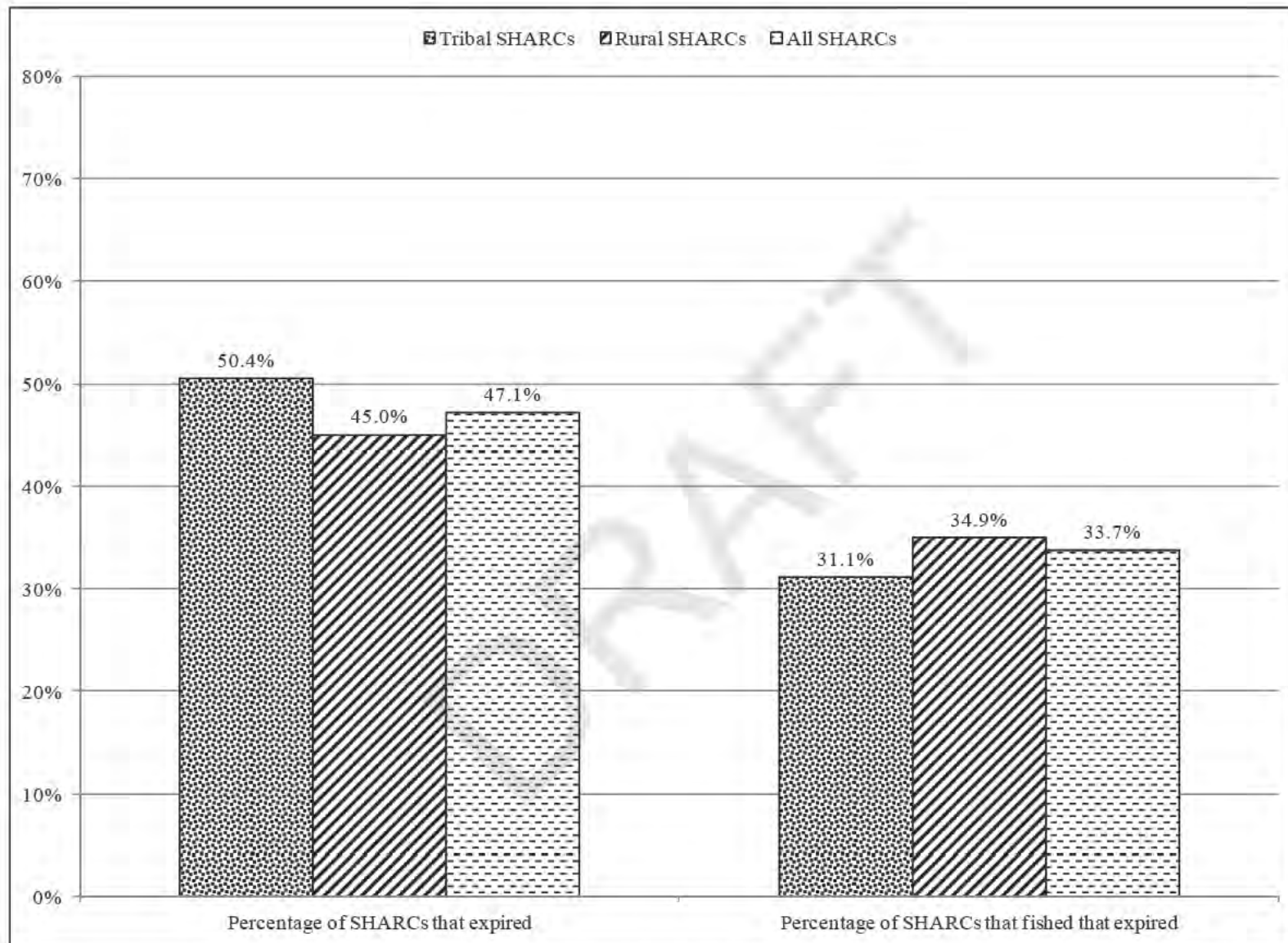


Figure 35.—Percentage of SHARC holders, and SHARC holders who fished for halibut, who did not renew their SHARC, by SHARC type, 2003–2011.

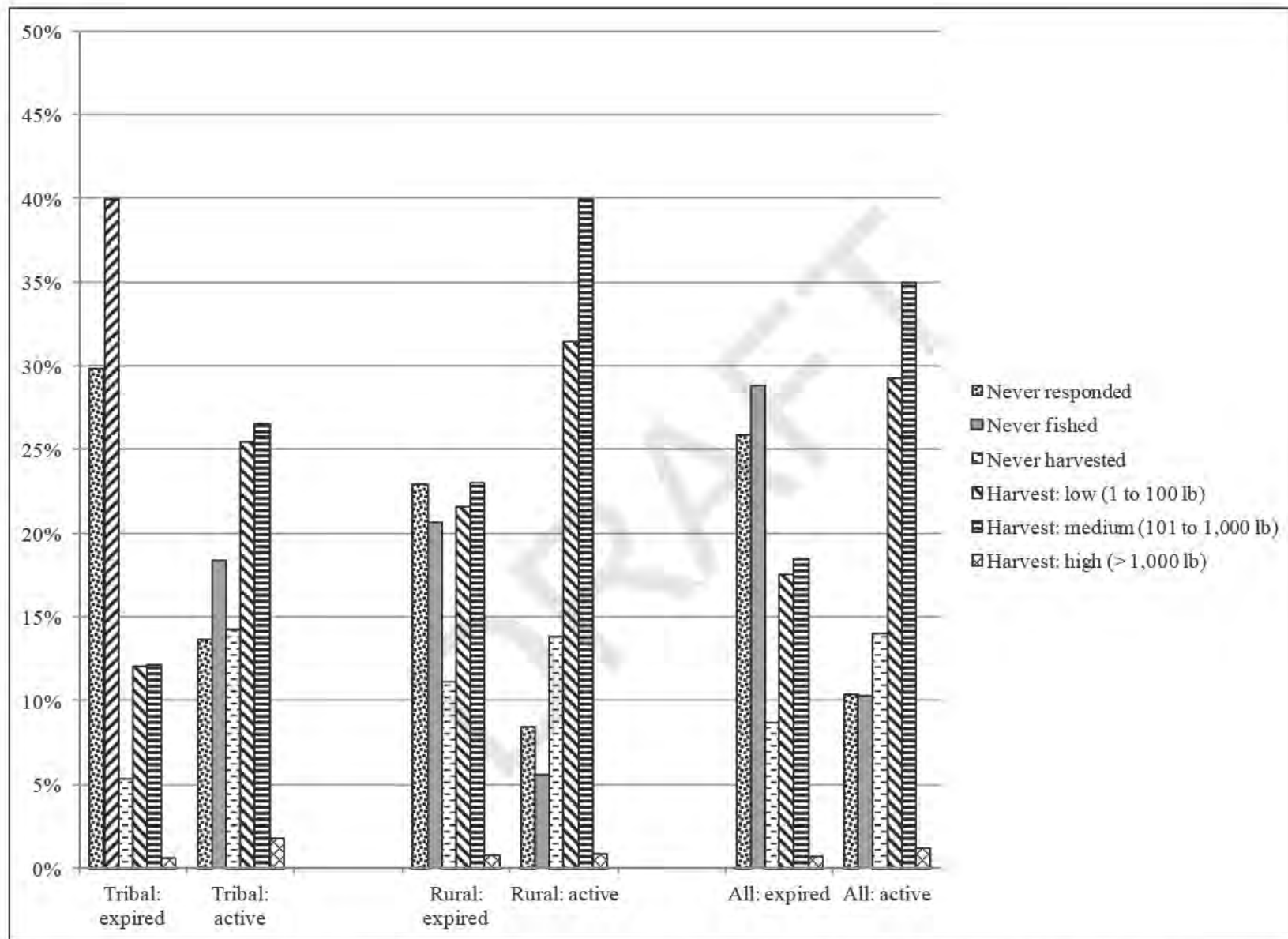


Figure 36.—Percentage of SHARCs that were not renewed by survey response type and SHARC type, 2003–2011.

APPENDICES

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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
Angeon	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
Thome 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
Tattilek	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		HALIBUT REGULATORY AREA 4E— Continued		HALIBUT REGULATORY AREA 3A— Continued	
Rural Community	Organized Entity	Rural Community	Organized Entity	Place with Tribal Headquarters	Organized Tribal Entity
Diomedes (Inalik)	Municipality	Twin Hills	Census Designated Place	Cordova	Native Village of Eyak
HALIBUT REGULATORY AREA 4E		Ugashik	Census Designated Place	Karluk	Native Village of Karluk
Rural Community	Organized Entity	Unalakleet	Municipality	Kenai-Soldotna	Kenaitze Indian Tribe
Alakanuk	Municipality	Wales	Municipality		Village of Salamatoff
Aleknegik	Municipality	White Mountain	Municipality	Kodiak City	Lesnoi Village (Woody Island)
Bethel	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:			Native Village of Afognak
Brevig Mission	Municipality				Shoonaq Tribe of Kodiak
Chefornak	Municipality	HALIBUT REGULATORY AREA 2C		Larsen Bay	Native Village of Larsen Bay
Chevak	Municipality	Place with Tribal Headquarters	Organized Tribal Entity	Nanwalek	Native Village of Nanwalek
Clark's Point	Municipality	Angoon	Angoon Community Association	Ninilchik	Ninilchik Village
Council	Census Designated Place	Craig	Craig Community Association	Old Harbor	Village of Old Harbor
Dillingham	Municipality	Haines	Chilkoot Indian Association	Ouzinkie	Native Village of Ouzinkie
Eek	Municipality	Hoonah	Hoonah Indian Association	Port Graham	Native Village of Port Graham
Egegik	Municipality	Hydaburg	Hydaburg Cooperative Association	Port Lions	Native Village of Port Lions
Elim	Municipality	Juneau	Aukquan Traditional Council	Seldovia	Seldovia Village
Emmonak	Municipality		Central Council		Tribe
Golovin	Municipality		Tlingit and Haida Indian Tribes	Tatitlek	Native Village of Tatitlek
Goodnews Bay	Municipality		Douglas Indian Association	Yakutat	Yakutat Tlingit Tribe
Hooper Bay	Municipality	Kake	Organized Village of Kake	HALIBUT REGULATORY AREA 3B	
King Salmon	Census Designated Place	Kasaan	Organized Village of Kasaan	Place with Tribal Headquarters	Organized Tribal Entity
Kipnuk	Census Designated Place	Ketchikan	Ketchikan Indian Corporation	Chignik Bay	Native Village of Chignik
Kongiganak	Census Designated Place	Klawock	Klawock Cooperative Association	Chignik Lagoon	Native Village of Chignik Lagoon
Kotlik	Municipality	Klukwan	Chilkat Indian Village	Chignik Lake	Chignik Lake Village
Koyuk	Municipality	Metlakatla	Metlakatla Indian Community, Annette Island Reserve	False Pass	Native Village of False Pass
Kwigillingok	Census Designated Place	Petersburg	Petersburg Indian Association	Ivanof Bay	Ivanof Bay Village
Levelock	Census Designated Place	Saxman	Organized Village of Saxman	King Cove	Agdaagux Tribe of King Cove
Manokotak	Municipality	Sitka	Sitka Tribe of Alaska	Nelson Lagoon	Native Village of Belkofski
Mekoryak	Municipality	Skagway	Skagway Village	Perryville	Native Village of Nelson Lagoon
Naknek	Census Designated Place	Wrangell	Wrangell Cooperative Association	Sand Point	Native Village of Perryville
Napakiaik	Municipality	HALIBUT REGULATORY AREA 3A			Pauloff Harbor Village
Napasklak	Municipality	Place with Tribal Headquarters	Organized Tribal Entity		Native Village of Unga
Newtok	Census Designated Place	Akhiok	Native Village of Akhiok		Qagan Toyagungin Tribe of Sand Point Village
Nightmute	Municipality	Chenega Bay	Native Village of Chenega		
Nome	Municipality				
Oscarville	Census Designated Place				
Pilot Point	Municipality				
Platinum	Municipality				
Port Heiden	Municipality				
Quinhagak	Municipality				
Scammon Bay	Municipality				
Shaktolik	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 4A		HALIBUT REGULATORY AREA 4E— Continued		HALIBUT REGULATORY AREA 4E— Continued	
Place with Tribal Headquarters	Organized Tribal Entity	Place with Tribal Headquarters	Organized Tribal Entity	Place with Tribal Headquarters	Organized Tribal Entity
Akutan	Native Village of Akutan	Elim	Native Village of Elim	Stebbins	Stebbins Community Association
Nikolski	Native Village of Nikolski	Emmonak	Chuloonawick Native Village	Teller	Native Village of Mary's Igloo
Unalaska	Qawalingin Tribe of Unalaska		Emmonak Village		Native Village of Teller
HALIBUT REGULATORY AREA 4B		Golovin	Chinik Eskimo Community	Togiak	Traditional Village of Togiak
		Goodnews Bay	Native Village of Goodnews Bay	Toksook Bay	Native Village of Toksook Bay
		Hooper Bay	Native Village of Hooper Bay	Tuntutuliak	Native Village of Tuntutuliak
Atka	Native Village of Atka		Native Village of Paimiut	Tununak	Native Village of Tununak
HALIBUT REGULATORY AREA 4C		King Salmon	King Salmon Tribal Council	Twin Hills	Twin Hills Village
		Kipnuk	Native Village of Kipnuk	Ugashik	Ugashik Village
		Kongiganak	Native Village of Kongiganak	Unalakleet	Native Village of Unalakleet
		Kotlik	Native Village of Hamilton	Wales	Native Village of Wales
St. George	Pribilof Islands Aleut		Village of Bill Moore's Slough	White Mountain	Native Village of White Mountain
St. Paul	Communities of St. Paul Island and St. George Island	Koyuk	Native Village of Koyuk		
HALIBUT REGULATORY AREA 4D		Kwigillingok	Native Village of Kwigillingok		
		Levelock	Levelock Village		
		Manokotak	Manokotak Village		
		Mekoryak	Native Village of Mekoryak		
Gambell	Native Village of Gambell	Naknek	Naknek Native Village		
Savoonga	Native Village of Savoonga	Napaklak	Native Village of Napaklak		
Diomed (Inalik)	Native Village of Diomed (Inalik)	Napaskiak	Native Village of Napaskiak		
HALIBUT REGULATORY AREA 4E		Newtok	Newtok Village		
		Nightmute	Native Village of Nightmute		
			Umkumiute Native Village		
		Nome	King Island Native Community		
Alakanuk	Village of Alakanuk		Nome Eskimo Community		
Aleknagik	Native Village of Aleknagik	Oscarville	Oscarville Traditional Village		
Bethel	Orutsaramuit Native Village	Pilot Point	Native Village of Pilot Point		
Brevig Mission	Native Village of Brevig Mission	Platinum	Platinum Traditional Village		
Chefornak	Village of Chefornak	Port Heiden	Native Village of Port Heiden		
Chevak	Chevak Native Village	Quinhagak	Native Village of Quinhagak		
Clark's Point	Village of Clark's Point	Scammon Bay	Native Village of Scammon Bay		
Council	Native Village of Council	Shaktolik	Native Village of Shaktolik		
Dillingham	Native Village of Dillingham	Sheldon Point (Nuna Iqua)	Native Village of Sheldon's Point		
	Native Village of Ekuak	Shishmaref	Native Village of Shishmaref		
	Native Village of Kanakanak	Solomon	Village of Solomon		
Eek	Native Village of Eek	South Naknek	South Naknek Village		
Egegik	Egegik Village	St. Michael	Native Village of Saint Michael		
	Village of Kanatak				

(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,

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 19, 2012

SUBJECT: Subsistence Halibut Fishing Report and Harvest Survey

In February 2011, we informed you about the eighth 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 2011 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 2010. Participation in the survey was voluntary. Of the 10,953 SHARC holders, 6,670 (61%) completed the survey – an excellent response.

We have completed the final report for the project as part of our Technical Paper Series (No. 367). A copy is enclosed. Also enclosed is a copy of a short overview of the study findings. You can also obtain the overview and the complete report at the Division of Subsistence website at www.subsistence.adfg.state.ak.us. 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 2012 to collect information about subsistence halibut harvests in 2011. 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 2012. 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 2012 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.

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 February. 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, 2010"; Technical Paper 367.

<BARCODE>


Fold on the dotted lines to mail in your survey


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Tape Closed

**SUBSISTENCE HALIBUT
HARVEST SURVEY 2011**
National Marine Fisheries Service &
AK Dept. Fish & Game/Division of Subsistence
(please make address changes as needed)



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SHARC Holder's Name		Date of Birth	
First Name	M.I.	Last Name	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)			

Please answer each question to the best of your knowledge

1. Did you subsistence fish for halibut during 2011? (Please check one) Yes No

2. How many halibut did you harvest with set hook gear (long-line, skate) while subsistence fishing during 2011?
("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 2011?
(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 2011?
(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 2011?
(Please include trips where halibut was targeted but none were caught)

6. Did you sport fish for halibut during 2011? (Please check one) Yes No

7. How many halibut did you harvest while **sport fishing** during 2011?
(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

<p>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</p>	<p>QUESTIONS? ADF&G 1-907-267-2353 NMFS at 1-800-304-4846 (option 2) dfg.sub.halibut@alaska.gov</p>
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Under AS 16.05.015, 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, 2011

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, but just those you harvested while subsistence halibut fishing.
- "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

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«CITY» «STATE» «ZIP»

SUBSISTENCE HALIBUT HARVEST SURVEY 2011
NATIONAL MARINE FISHERIES SERVICE &
AK DEPT. OF FISH & GAME/DIVISION OF SUBSISTENCE



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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)?*

- The survey is designed to prevent double-counting of harvested halibut. If you fish for halibut with a rod and reel and have a sport fishing license, you may include your harvests in Question 2 if you consider your activity to be subsistence fishing, or under Question 6 if you consider it sport fishing. **DO NOT INCLUDE THE SAME FISH IN YOUR RESPONSES TO QUESTIONS 2 AND 6.** We will exclude responses to Question 6 from our estimate of subsistence halibut harvests. Holders of sport fishing licenses may receive a survey from ADF&G about their sport harvests. If you do, you should report the halibut you record in Question 6 in that survey too, but do not include the halibut you record in Question 2.

All other inquiries regarding the survey should be directed to ADF&G Division of Subsistence at (907) 267-2353 (Anchorage) or 907-465-3617, or e-mail at subsistence_hallbut@fishgame.state.ak.us

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Appendix E-1.—Results from returned surveys.

Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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	94	80	85.1%	38	47.5%	429	8,687	5	6.3%	27	390	0	0	6	33
Aukquan Traditional Council	2C	1														
Central Council																
Tlingit and Haida Indian Tribes	2C	513	256	49.9%	84	32.8%	783	20,966	35	13.7%	154	3,560	7	16	14	103
Chilkat Indian Village	2C	21	17	81.0%	2	11.8%	14	410	1	5.9%	130	500	0	0	0	0
Chilkoot Indian Association	2C	56	40	71.4%	8	20.0%	89	1,555	3	7.5%	9	230	0	0	1	2
Craig Community Association	2C	65	28	43.1%	14	50.0%	129	4,000	0	0.0%	0	0	1	20	4	86
Douglas Indian Association	2C	16	6	37.5%	1	16.7%	2	67	0	0.0%	0	0	0	0	0	0
Hoonah Indian Association	2C	151	84	55.6%	32	38.1%	402	9,000	6	7.1%	22	526	2	5	3	37
Hydaburg Cooperative Association	2C	132	101	76.5%	40	6%	3	18,897	4	4.0%	14	700	9	54	15	257
Ketchikan Indian Corporation	2C	526	359	68.3%	9	22 %	787	20,615	50	13.9%	165	4,762	10	19	27	207
Klawock Cooperative Association	2C	90	43	47.8%	11	25.6%	72	3,020	0	0.0%	0	0	5	10	6	44
Metlakatla Indian Community, Annette Island Reserve	2C	178	146	2.0%	32	21.9%	188	4,592	18	12.3%	33	827	5	20	9	262
Organized Village of Kake	2C	89	50	56.2%	1	26.0%	152	5,113	1	2.0%	6	110	6	20	5	33
Organized Village of Kasaan	2C	6	4	66.7%	1	25.0%	49	540	0	0.0%	0	0	1	11	1	25
Organized Village of Saxman	2C	42	26	61.9%	8	30.8%	113	1,095	2	7.7%	0	0	2	5	2	12
Petersburg Indian Association	2C	85	45	52.9%	16	35.6%	104	2,515	5	11.1%	18	540	0	0	3	10
Sitka Tribe of Alaska	2C	314	177	56.4%	73	41.2%	445	14,624	11	6.2%	23	455	25	61	26	158

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Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		SHARCs issued ^d	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
Skagway Village	2C	3														
Wrangell Cooperative Association	2C	98	69	70.4%	31	44.9%	256	7,674	10	14.5%	36	1,515	0	0	5	42
Subtotal, Area 2C	2C	2,480	1,534	61.9%	483	31.5%	4,401	123,539	152	9.9%	637	14,115	73	241	127	
Kenaitze Indian Tribe	3A	127	71	55.9%	22	31.0%	271	5,412	9	12.7%	22	376	1	2	2	15
Lesnoi Village (Woody Island)	3A	74	38	51.4%	5	13.2%	27	765	5	13.2%	20	475	0	0	2	12
Native Village of Afognak	3A	26	18	69.2%	6	33.3%	64	1,350	4	22.2%	7	195	0	0	0	0
Native Village of Akhiok	3A	10	5	50.0%	4	80.0%	20	520	0	0%	0	0	0	0	0	0
Native Village of Chenega	3A	20	11	55.0%	6	54.5%	39	475	2	18.2%	2	0	1	1	2	25
Native Village of Eyak	3A	82	48	58.5%	14	29.2%	89	1,89	9	18.8%	13	455	2	4	2	13
Native Village of Karluk	3A	4														
Native Village of Larsen Bay	3A	36	15	41.7%	12	80.0%	01	035	3	20.0%	10	280	1	1	3	24
Native Village of Nanwalek	3A	75	32	42.7%	28	8 %	6	12,519	3	9.4%	16	330	8	30	7	88
Native Village of Ouzinkie	3A	35	23	65.7%	8	34 %	80	2,299	4	17.4%	20	540	1	2	3	32
Native Village of Port Graham	3A	45	21	46.7%	9	2.9%	270	4,000	0	0.0%	0	0	2	5	5	104
Native Village of Port Lions	3A	34	25	73.5	17	8.0%	131	3,715	10	40.0%	32	905	1	7	3	11
Native Village of Tatitlek	3A	30	14	6.7%	5	35.7%	85	2,185	0	0.0%	0	0	0	0	1	4
Nimilchik Village	3A	86	45	52. %	9	20.0%	186	3,691	9	20.0%	28	525	1	3	1	7
Seldovia Village Tribe	3A	61	36	59.0%		63.9%	313	7,419	7	19.4%	26	413	1	1	5	27
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	133	71	53.4%	41	57.7%	414	11,203	15	21.1%	65	1,490	4	8	8	46
Village of Kanatak	3A	25	5	20.0%	0	0.0%	0	0	1	20.0%	2	30	0	0	0	0
Village of Old Harbor	3A	51	25	49.0%	11	44.0%	98	1,855	3	12.0%	19	545	0	0	1	12
Village of Salamatoff	3A	22	16	72.7%	6	37.5%	137	2,215	3	18.8%	19	280	0	0	1	15
Yakutat Tlingit Tribe	3A	48	24	50.0%	13	54.2%	190	5,242	1	4.2%	0	0	4	38	2	21
Subtotal, Area 3A	3A	1,024	545	53.2%	241	44.2%	3,143	71,093	88	16.1%	301	6,839	27	102	48	

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Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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	64	36	56.3%	24	66.7%	209	3,994	5	13.9%	26	485	4	36	2	17
Chignik Lake Village	3B	11	5	45.5%	4	80.0%	15	210	1	20.0%	2	35	0	0	0	0
Ivanoff Bay Village	3B	8	3	37.5%	3	100.0%	20	345	0	0.0%	0	0	0	0	0	0
Native Village of Belkofski	3B	5														
Native Village of Chignik	3B	7	7	100.0%	1	14.3%	25	195	0	0.0%	0	0	0	0	0	0
Native Village of Chignik Lagoon	3B	19	18	94.7%	7	38.9%	74	1,715	2	11.1%	8	310	0	0	2	18
Native Village of False Pass	3B	1														
Native Village of Nelson Lagoon	3B	3														
Native Village of Perryville	3B	21	15	71.4%	9	60.0%	83	1,520	2	13.3%	14	245	1	2	1	3
Native Village of Unga	3B	8	5	62.5%	2	40.0%	9	70	1	20.0%	1	20	0	0	1	1
Pauloff Harbor Village	3B	50	14	28.0%	9	64.3%	3	2,580	5	35.7%	9	320	1	1	0	0
Qagan Toyagungin Tribe of Sand Point Village	3B	88	53	60.2%		47.2%	184	3,776	3	5.7%	10	200	1	1	5	25
Subtotal, Area 3B		285	160	56.1%	8	2.5%	682	14,605	19	11.9%	70	1,615	7	40	11	64
Native Village of Akutan	4A	22	10	45.5%	4	40.0%	29	1,135	1	10.0%	3	60	0	0	0	0
Qawalingin Tribe of Unalaska	4A	27	15	55.6%		46.3%	73	1,835	0	0.0%	0	0	5	40	4	59
Subtotal, Area 4A		49	25	51.0%	11	44.0%	102	2,970	1	4.0%	3	60	5	40	4	59
Native Village of Atka	4B	6	3	50.0%	1	33.3%	5	100	0	0.0%	0	0	0	0	0	0
Subtotal, Area 4B		6	3	50.0%	1	33.3%	5	100	0	0.0%	0	0	0	0	0	0
Pribilof Islands Aleut Community of St. George	4C	6	3	50.0%	2	66.7%	10	350	0	0.0%	0	0	0	0	0	0
Pribilof Islands Aleut Community of St. Paul	4C	45	15	33.3%	3	20.0%	17	666	1	6.7%	3	62	0	0	0	0

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Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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
Subtotal, Area 4C		51	18	35.3%	5	27.8%	27	1,016	1	5.6%	3	62	0	0	0	0
Native Village of Diomed (Inalik)	4D	1														
Native Village of Gambell	4D	1														
Native Village of Savoonga	4D	17	9	52.9%	6	66.7%	23	815		0.0%	0	0	0	0	0	0
Subtotal, Area 4D		19	10	52.6%	7	70.0%	31	1,065	0	0.0%	0	0	0	0	0	0
Chevak Native Village (Kashunamiut)	4E	3														
Chinik Eskimo Community	4E	1														
Egegik Village	4E	5														
King Island Native Community	4E	2														
Levelock Village	4E	1														
Manokotak Village	4E	1														
Naknek Native Village	4E	9	3	33.3%	2	66.7%	0	0	1	33.3%	0	0	0	0	0	0
Native Village of Aleknagik	4E	5														
Native Village of Brevig Mission	4E	1														
Native Village of Council	4E	4														
Native Village of Dillingham (Curyung)	4E	18	10	56%	2	20.0%	13	623	1	10.0%	6	180	1	2	0	0
Native Village of Eek	4E	8	5	62.5%	2	40.0%	7	250	0	0.0%	0	0	0	0	0	0
Native Village of Goodnews Bay (Mumtraq)	4E	4														
Native Village of Hooper Bay	4E	16	5	31.3%	2	40.0%	8	130	0	0.0%	0	0	0	0	0	0
Native Village of Kipnuk	4E	15	2	13.3%	1	50.0%	17	220	0	0.0%	0	0	0	0	0	0

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Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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 Kongiganak	4E	5														
Native Village of Koyuk	4E	1														
Native Village of Kwigillingok	4E	2														
Native Village of Kwinhagak	4E	7	2	28.6%	2	100.0%	3	34	0	0.0%	0	0	0	0	0	0
Native Village of Mekoryuk	4E	6	3	50.0%	2	66.7%	37	230	1	33.3%	6	180	1	8	0	0
Native Village of Nightmute	4E	1														
Native Village of Scammon Bay	4E	3														
Native Village of Shaktoolik	4E	1														
Native Village of Toksook Bay (Nunakauyak)	4E	35	14	40.0%	9	64.3%	80	696	0	0.0%	0	0	0	0	0	0
Native Village of Tununak	4E	13	4	30.8%	2	0.0%	2	230	0	0.0%	0	0	0	0	0	0
Native Village of Unalakleet	4E	3														
Native Village of Wales	4E	1														
Newtok Village	4E	2														
Nome Eskimo Community	4E	16	4	25 %	2	5.0%	12	450	0	0.0%	0	0	1	4	0	0
Orutsararmuit Native Village	4E	9	4	4%	2	50.0%	21	705	1	25.0%	5	80	0	0	0	0
South Naknek Village	4E	2														
Traditional Village of Togiak	4E	3														
Ugashik Village	4E	2														
Village of Chefornek	4E	14	6	42.9%	5	83.3%	85	350	0	0.0%	0	0	0	0	0	0
Village of Clark's Point	4E	1														
Village of Kotlik	4E	1														
Subtotal, Area 4E		221	86	38.9%	38	44.2%	330	4,144	9	10.5%	54	1,285	3	14	0	0

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Tribal name	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch		
	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
Tribal name subtotals		4,135	2,381	57.6%	870	36.5%	8,721	218,532	270	11.3%	1,068	23,976	115	437	190	1,890
Rural																
Angoon	2C	13	13	100.0%	10	76.9%	103	2,832	1	7.7%	4	100	1	5	2	9
Coffman Cove	2C	51	43	84.3%	19	44.2%	131	3,368	21	48.8%	133	2,875	2	3	9	119
Craig	2C	358	271	75.7%	103	38.0%	952	21,902	6	24.0%	260	4,870	26	67	49	383
Edna Bay	2C	38	27	71.1%	9	33.3%	36	1,344	4	14.8%	7	210	3	9	4	32
Elfin Cove	2C	21	13	61.9%	7	53.8%	43	1,335	3	23.1%	17	550	2	8	4	37
Gustavus	2C	67	53	79.1%	27	50.9%	219	6,333	18	34.0%	89	2,505	0	0	0	0
Haines	2C	448	366	81.7%	223	60.9%	979	31,52	52	1 2%	89	2,497	11	23	17	61
Hollis	2C	49	43	87.8%	26	60.5%	120	4 65	6	14.0%	7	275	1	1	7	50
Hoonah	2C	99	79	79.8%	45	57.0%	440	726	21	26.6%	92	2,016	1	4	7	39
Hydaburg	2C	12	9	75.0%	3	33.3%	27	1,85	6	66.7%	16	478	1	3	2	11
Hyder	2C	32	25	78.1%	18	72.0%	62	2,048	4	16.0%	0	0	1	2	4	28
Juneau	2C	6	2	33.3%	1	50.0%		65	0	0.0%	0	0	0	0	1	2
Kake	2C	35	26	74.3%	14	53.8%	108		9	34.6%	24	703	5	7	7	52
Kasaan	2C	7	4	57.1%	2	50.0%	8	330	2	50.0%	0	0	0	0	0	0
Ketchikan	2C	7	4	57.1%	2	5 %		218	2	50.0%	0	0	0	0	1	11
Klawock	2C	160	113	70.6%	47	41.6	462	13,171	33	29.2%	161	2,867	14	36	24	182
Klukwan	2C	2														
Metlakatla	2C	24	18	75.0%		8.9%	2	1,595	6	33.3%	17	675	0	0	1	4
Meyers Chuck	2C	9	7	77.8%	6	85.7%	23	889	0	0.0%	0	0	0	0	3	11
Naukatl Bay	2C	46	36	78.3	25	9.4%	123	4,256	12	33.3%	57	1,542	4	10	14	138
Pelican	2C	36	25	69.4%	1	64 %	72	2,915	6	24.0%	3	100	6	15	9	95
Petersburg	2C	888	699	79%	277	39.6%	1,776	42,353	167	23.9%	621	14,451	4	12	32	188
Port Alexander	2C	26	17	65.4%	15	88.2%	136	5,158	4	23.5%	8	205	9	34	9	95
Port Protection	2C	16	12	75.0%		58.3%	57	1,493	1	8.3%	0	0	1	1	6	31
Pt. Baker	2C	16	15	93.8%	8	53.3%	27	878	2	13.3%	1	40	0	0	4	45
Saxman	2C	15	9	60.0%	2	22.2%	75	860	2	22.2%	40	500	2	22	2	120
Sitka	2C	1,370	991	72.3%	499	50.4%	2,651	84,133	182	18.4%	421	9,513	196	578	262	2,242
Skagway	2C	53	39	73.6%	19	48.7%	47	1,627	12	30.8%	37	922	1	1	3	8
Tenakee Springs	2C	60	52	86.7%	25	48.1%	164	4,759	11	21.2%	26	513	1	2	11	68
Thorne Bay	2C	121	107	88.4%	52	48.6%	255	9,894	37	34.6%	105	2,908	8	34	28	247
Ward Cove	2C	1														

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Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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
Whale Pass	2C	16	15	93.8%	10	66.7%	50	4,640	6	40.0%	12	470	0	0	1	5
Wrangell	2C	387	307	79.3%	153	49.8%	886	24,907	61	19.9%	152	4,600	5	18	23	127
Subtotal, Area 2C		4,489	3,443	76.7%	1,677	48.7%	10,082	291,637	756	22.0%	2,399	56,385	305	895	546	4,440
Chenega Bay	3A	8	8	100.0%	4	50.0%	118	1,517	3	37.5%	49	920	2	12	2	65
Chiniak	3A	7	6	85.7%	4	66.7%	70	1,250	2	33.3%	3	90	0	0	0	0
Cordova	3A	471	344	73.0%	136	39.5%	812	21,278	9	17.2%	144	3,507	4	7	20	91
Karluk	3A	6	6	100.0%	5	83.3%	75	2,067		0.0%	0	0	3	16	0	0
Kodiak	3A	1,483	995	67.1%	525	52.8%	5,012	123,733	336	33.8%	1,890	45,949	74	167	110	1,099
Larsen Bay	3A	4														
Nanwalek	3A	6	5	83.3%	3	60.0%	234	8,2	2	40 %	8	200	0	0	1	10
Old Harbor	3A	5														
Ouzinkie	3A	18	17	94.4%	13	76.5%	46	1, 70	2	11.8%	10	200	1	2	0	0
Port Graham	3A	7	4	57.1%	4	100.0%	57	1,630	0	0.0%	0	0	1	12	2	7
Port Lions	3A	17	15	88.2%	7	46.7%	62	1,739	10	66.7%	62	1,035	0	0	2	15
Seldovia	3A	136	104	76.5%	63	60.6%	957	7,089	23	22.1%	179	3,222	5	15	9	92
Tatitlek	3A	12	10	83.3%	8	80.0%	57	1,73	3	30.0%	9	155	2	5	6	41
Yakutat	3A	72	54	75.0%	24	44.4%	2 4	6,507	10	18.5%	60	1,625	11	30	5	47
Subtotal, Area 3A		2,252	1,575	69.9%	801	50.9%	7,83	190,077	453	28.8%	2,422	57,053	103	266	157	1,467
Chignik	3B	1														
Chignik Lake	3B	1														
Cold Bay	3B	34	29	85.3%	1	2.1%	198	3,612	12	41.4%	9	224	3	55	0	0
False Pass	3B	1														
King Cove	3B	21	16	76 %	0	5%	93	2,776	3	18.8%	6	180	1	10	1	100
Sand Point	3B	15	5	3.3%	4	80. %	32	940	1	20.0%	1	25	0	0	3	52
Subtotal, Area 3B		73	52	7 2%	33	63.5%	330	7,628	16	30.8%	16	429	4	65	4	152
Unalaska	4A	115	85	73.9%	41	48.2%	462	8,783	22	25.9%	171	3,497	3	11	2	4
Subtotal, Area 4A		115	85	73.9%	41	48.2%	462	8,783	22	25.9%	171	3,497	3	11	2	4
Adak	4B	10	6	60.0%	5	83.3%	25	720	1	16.7%	0	0	0	0	1	7
Subtotal, Area 4B		10	6	60.0%	5	83.3%	25	720	1	16.7%	0	0	0	0	1	7
St. George Island	4C	1														
Subtotal, Area 4C		1														
Bethel	4E	1														
Chefornak	4E	1														
Dillingham	4E	26	18	69.2%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Egegik	4E	1														

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Tribal name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		SHARCs issued ^d	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	4E	3														
Kotlik	4E	1														
Manokotak	4E	2														
Naknek	4E	5														
Nightmute	4E	1														
Nome	4E	17	11	64.7%	4	36.4%	11	365	0	0.0%	0	0	0	0	0	0
South Naknek	4E	1														
Teller	4E	9	5	55.6%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Togiak	4E	2														
Subtotal, Area 4E		70	46	65.7%	6	13.0%	40	9	1	2 %	6	115	0	0	0	0
Rural community subtotals		7,010	5,208	74.3%	2,564	49.2%	18,783	499,92	1,250	24.0%	5,034	117,879	415	1,237	711	6,080
Total (tribal and rural)		11,145	7,589	68.1%	3,434	45.2%	2 504 718		1,520	20.0%	6,102	141,855	530	1,674	901	7,970

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Community name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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	9	4	44.4%	3	75.0%	9	300	1	25.0%	0	0	0	0	0	0
Akhiok	AK	8	4	50.0%	4	100.0%	20	520	0	0.0%	0	0	0	0	0	0
Akutan	AK	16	5	31.3%	3	60.0%	26	1,120	0	0.0%	0	0	0	0	0	0
Aleknagik	AK	1														
Anchor Point	AK	15	9	60.0%	5	55.6%	65	1,210	0	0.0%	0	0	0	0	0	0
Anchorage	AK	225	122	54.2%	40	32.8%	362	8,694	7	22.1%	84	2,207	3	8	7	89
Angoon	AK	112	99	88.4%	50	50.5%	539	11,639		6.1%	31	490	1	5	8	42
Atka	AK	1														
Auke Bay	AK	4														
Barrow	AK	2														
Bethel	AK	8	3	37.5%	1	33.3%	12	200	0	0.0%	0	0	0	0	0	0
Chefornak	AK	14	6	42.9%	5	83.3%	85	0	0	0.0%	0	0	0	0	0	0
Chenega Bay	AK	11	11	100.0%	5	45.5%	135	2,337	3	27.3%	49	920	3	13	3	85
Chevak	AK	2														
Chignik	AK	9	9	100.0%	1	11.1%	25	195	0	0.0%	0	0	0	0	0	0
Chignik Lagoon	AK	13	12	92.3%	4	33.3%	51	135	0	0.0%	0	0	0	0	2	18
Chignik Lake	AK	3														
Chiniak	AK	11	10	90.9%	7	70. %	8	2,170	3	30.0%	6	260	0	0	1	14
Chugiak	AK	3														
Clark's Point	AK	1														
Coffman Cove	AK	52	43	82.7%	19	44.2%	131	3,368	20	46.5%	125	2,675	2	3	9	119
Cold Bay	AK	39	34	87.2%	20	58.8%	252	3,712	12	35.3%	9	224	3	55	0	0
Cordova	AK	529	380	71 %	1 8	3 9%	902	23,111	66	17.4%	133	3,232	6	11	23	116
Craig	AK	516	375	2.7%	153	40.8%	1,286	31,375	80	21.3%	272	5,410	30	89	71	598
Dillingham	AK	32	20	6 5%	1	5.0%	5	143	0	0.0%	0	0	1	2	0	0
Douglas	AK	12	3	25.0%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Dutch Harbor	AK	73	52	71.2%	8	53.8%	326	7,000	16	30.8%	115	2,794	1	2	1	2
Eagle River	AK	10	7	70.0%	5	71.4%	49	1,315	2	28.6%	5	80	0	0	0	0
Edna Bay	AK	28	20	71.4%	7	35.0%	28	911	2	10.0%	1	10	2	8	2	22
Eek	AK	6	4	66.7%	2	50.0%	7	250	0	0.0%	0	0	0	0	0	0
Egegik	AK	2														
Elfin Cove	AK	20	12	60.0%	7	58.3%	43	1,335	3	25.0%	17	550	2	8	4	37

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Community name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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
Elmendorf AFB	AK	1														
Excursion Inlet	AK	4														
Fairbanks	AK	6	4	66.7%	1	25.0%	5	200	0	0.0%	0	0	0	0	0	
Fritz Creek	AK	1														
Gakona	AK	1														
Gambell	AK	1														
Girdwood	AK	1														
Glennallen	AK	1														
Golovin	AK	1														
Goodnews Bay	AK	4														
Gustavus	AK	65	51	78.5%	27	52.9%	219	333	17	33.3%	77	2,335	0	0	0	0
Haines	AK	507	409	80.7%	229	56.0%	1,027	32,9	46	11.2%	188	2,430	11	23	18	63
Homer	AK	30	21	70.0%	7	33.3%	106	2,062	8	38.1%	28	403	1	4	1	10
Hoonah	AK	246	162	65.9%	78	48.1%	919	18,834	27	16.7%	106	2,317	3	9	11	86
Hooper Bay	AK	14	5	35.7%	2	40.0%	8	130	0	0.0%	0	0	0	0	0	0
Hydaburg	AK	129	102	79.1%	42	41.2%	11	2,687	8	7.8%	18	918	10	57	17	268
Hyder	AK	32	25	78.1%	18	72.0%	2	2,048	4	16.0%	0	0	1	2	4	28
Juneau	AK	363	155	42.7%	49	31. %	42	12,214	31	20.0%	140	2,655	1	2	5	25
Kake	AK	128	87	68.0%	3	41.4%	279	8,777	11	12.6%	30	813	12	29	12	85
Karluk	AK	9	7	77.8%	6	8 %	85	2,367	0	0.0%	0	0	3	16	0	0
Kasaan	AK	10	6	60.0%	2	33.3%	55	820	1	16.7%	0	0	1	11	1	25
Kasilof	AK	16	6	37.5%	5	83.3%	77	1,895	2	33.3%	8	130	2	10	2	19
Kenai	AK	112	54	48 %	8	3 3%	277	5,612	8	14.8%	31	561	0	0	1	5
Ketchikan	AK	610	419	8.7%	106	25.3%	1,132	29,662	69	16.5%	265	6,701	17	51	40	414
King Cove	AK	80	47	5 8%	31	66.0%	244	6,381	7	14.9%	25	505	5	46	2	115
King Salmon	AK	3														
Kipnuk	AK	14	2	14.3%	1	50.0%	17	220	0	0.0%	0	0	0	0	0	0
Klawock	AK	256	149	58.2%	59	39.6%	593	20,571	30	20.1%	166	2,860	20	52	28	219
Klukwan	AK	3														
Kodiak	AK	1,660	1,089	65.6%	578	53.1%	5,463	135,680	354	32.5%	1,920	46,546	79	176	117	1,111
Kongiganak	AK	5														
Kotzebue	AK	1														
Kwigillingok	AK	1														
Larsen Bay	AK	31	13	41.9%	9	69.2%	78	2,055	4	30.8%	9	285	1	1	3	24

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Community name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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
Manokotak	AK	2														
Mekoryuk	AK	5														
Metlakatla	AK	188	158	84.0%	38	24.1%	224	6,043	22	13.9%	47	1,427	5	20	10	266
Meyers Chuck	AK	8	6	75.0%	6	100.0%	23	889	0	0.0%	0	0	0	0	3	11
Naknek	AK	10	5	50.0%	2	40.0%	0	0	1	20.0%	0	0	0	0	0	0
Nanwalek	AK	78	37	47.4%	31	83.8%	852	20,809	5	13.5%	24	530	8	30	8	98
Napakiak	AK	1														
Naukati Bay		22	18	81.8%	12	66.7%	41	1,674	6	33.3%	33	1,128	2	4	5	48
Nelson Lagoon	AK	1														
Newtok	AK	1														
Nightmute	AK	2														
Nikiski	AK	7	4	57.1%	1	25.0%	40	0	1	25.0%	4	130	0	0	1	15
Nimilchik	AK	36	22	61.1%	1	4.5%	5	40	4	18.2%	11	230	0	0	0	0
Nome	AK	19	13	68.4%	5	38.5%	19	615	0	0.0%	0	0	0	0	0	0
North Pole	AK	2														
Old Harbor	AK	41	23	56.1%	15	65.2%	65	770	4	17.4%	23	590	0	0	1	12
Ouzinkie	AK	49	36	73.5%	19	52.8%	17	2,890	5	13.9%	26	580	1	2	2	22
Palmer	AK	13	5	38.5%	1	20. %		105	0	0.0%	0	0	0	0	0	0
Pelican	AK	46	32	69.6%		65. %	104	4,340	8	25.0%	18	800	7	16	11	109
Perryville	AK	18	15	83.3%	9	6 %	83	1,520	1	6.7%	10	60	1	2	1	3
Petersburg	AK	976	751	76.9%	292	38.9%	1,874	44,856	168	22.4%	629	14,740	4	12	35	209
Point Baker	AK	21	19	90.5%	12	63.2%	46	1,275	3	15.8%	1	40	1	1	9	73
Port Alexander	AK	24	17	70 %	6	9 1%	138	5,208	4	23.5%	8	205	9	34	9	95
Port Graham	AK	46	20	3.5%	10	50.0%	241	3,456	0	0.0%	0	0	2	13	5	63
Port Lions	AK	49	39	7 6%	22	56.4%	159	4,444	19	48.7%	93	1,800	1	7	5	26
Port Protection	AK	1														
Port William	AK	1														
Quinhagak	AK	8	2	25.0%	2	100.0%	3	34	0	0.0%	0	0	0	0	0	0
Sand Point	AK	136	66	48.5%	38	57.6%	278	7,289	9	13.6%	21	565	1	1	9	78
Savoonga	AK	17	9	52.9%	6	66.7%	23	815	0	0.0%	0	0	0	0	0	0
Saxman	AK	12	7	58.3%	1	14.3%	4	80	0	0.0%	0	0	0	0	1	10
Seldovia	AK	151	110	72.8%	69	62.7%	1,050	20,309	22	20.0%	149	2,672	5	15	11	98

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Community name	Regulatory area	Return rate			Subsistence fished		Subsistence harvest		Sport fished		Sport harvest		Lingcod bycatch		Rockfish bycatch	
		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
Seward	AK	12	4	33.3%	1	25.0%	6	250	1	25.0%	2	50	0	0	0	0
Sitka	AK	1,658	1,142	68.9%	569	49.8%	3,054	97,322	180	15.8%	390	8,743	221	639	286	2,374
Skagway	AK	57	41	71.9%	20	48.8%	56	1,752	12	29.3%	25	682	1	1	3	8
Soldotna	AK	44	26	59.1%	5	19.2%	140	2,600	4	15.4%	30	510	0	0	0	0
St. George Island	AK	4														
St. Paul Island	AK	43	15	34.9%	4	26.7%	22	766	0	0.0%	0	0	0	0	0	0
Sterling	AK	3														
Tatitlek	AK	23	15	65.2%	9	60.0%	101	3,142	1	6.7%	4	80	1	4	5	29
Teller	AK	9	5	55.6%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Tenakee Springs	AK	60	52	86.7%	23	44.2%	162	4 6 4	11	21 %	26	513	0	0	11	68
Thorne Bay	AK	117	103	88.0%	51	49.5%	257	834	34	33.0%	101	2,788	7	32	28	279
Togiak	AK	5														
Toksook Bay	AK	32	13	40.6%	8	61.5%	79	683	0	0.0%	0	0	0	0	0	0
Trapper Creek	AK	1														
Tununak	AK	11	3	27.3%	1	33.3%	20	30	0	0.0%	0	0	0	0	0	0
Twin Hills	AK	1														
Unalakleet	AK	1														
Unalaska	AK	68	50	73.5%	22	44. %	28	5,718	6	12.0%	56	703	7	49	5	61
Valdez	AK	40	19	47.5%		42.1%	92	1,330	4	21.1%	7	225	1	1	4	41
Ward Cove	AK	37	24	64.9%	7	2 %	38	1,355	3	12.5%	9	220	1	1	4	20
Wasilla	AK	47	15	31.9%		40.0%	56	780	0	0.0%	0	0	2	2	1	1
Whale Pass	AK	7	7	100.0%	6	85.7%	7	505	2	28.6%	7	300	0	0	0	0
Willow	AK	2														
Wrangell	AK	493	379	6.9%	184	48.5%	1,110	31,201	71	18.7%	186	5,960	6	20	27	136
Yakutat	AK	116	77	6 %	36	46.8%	411	11,459	11	14.3%	60	1,625	14	67	7	68
Alaska subtotal	All	11,015	7,505	68.1%	3,4	45.7%	27,488	718,013	1,494	19.9%	5,869	136,487	530	1,674	901	7,970
Non-Alaska subtotal	All	130	84	64.6%	3	3.6%	16	439	26	31.0%	233	5,368	0	0	0	0
Total	All	11,145	7,589	68.1%	3,434	45.2%	27,504	718,452	1,520	20.0%	6,102	141,855	530	1,674	901	7,970

- 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.

Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number of		Mean, those		Number returned	Number of		Mean, those		Number returned	Number of		Mean, those		Number returned	Number of		Mean, those	
			subsistence	halibut	harvested	returned		fishes	subsistence	halibut	harvested		returned	fishes	subsistence	halibut		harvested	returned	fishes	subsistence
Angoon Community Association	2C	18	9	119	6.6	13.2	1	1	0	0.0	0.0	2	2	8	4.0	4.0	59	26	302	5.1	11.6
Aukquan Traditional Council	2C	0																			
Central Council Tlingit and Haida Indian Tribes	2C	167	63	650	3.9	10.3	48	12	80	1.7	6.7	0	5	24	0.8	4.8	11	4	29	2.6	7.3
Chilkat Indian Village	2C	15	2	14	0.9	7.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chilkoot Indian Association	2C	28	6	71	2.5	11.8	4	2	18	4.5	9.0	3	0	0	0.0	0.0	5	0	0	0.0	0.0
Craig Community Association	2C	23	13	126	5.5	9.7	4	1	3	8	3.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Douglas Indian Association	2C	5	1	2	0.4	2.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Hoonah Indian Association	2C	65	27	365	5.6	13.5	9	1	6	0	6.0	10	4	31	3.1	7.8	0	0	0	0.0	0.0
Hydaburg Cooperative Association	2C	25	15	119	4.8	7.9	1	6	16	16.0	16.0	6	4	27	4.5	6.8	69	20	225	3.3	11.3
Ketchikan Indian Corporation	2C	142	37	502	3.5	13.6	34	9	78	2	8.7	19	4	26	1.4	6.5	164	29	181	1.1	6.2
Klawock Cooperative Association	2C	24	7	57	2.4	8.1	3	0	0	0.0	0.0	14	4	15	1.1	3.8	2	0	0	0.0	0.0
Metlakatla Indian Community, Annette Island Reserve	2C	40	9	63	1.6	7.0	3	2	2	2.0	3.0	4	3	23	5.8	7.7	99	18	96	1.0	5.3
Organized Village of Kake	2C	29	7	72	2.5	10.3	14	2	17	1.2	8.5	7	4	63	9.0	15.8	0	0	0	0.0	0.0
Organized Village of Kasaan	2C	3	1	49			0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Organized Village of Saxman	2C	4	4	8	20.8	20.8	1	0	0	0.0	0.0	1	0	0	0.0	0.0	20	4	30	1.5	7.5
Petersburg Indian Association	2C	34	14	89	2.6	6.4	6	0	0	0.0	0.0	5	2	15	3.0	7.5	0	0	0	0.0	0.0
Sitka Tribe of Alaska	2C	106	47	262	5	5.6	22	7	44	2.0	6.3	20	8	41	2.1	5.1	29	11	98	3.4	8.9
Skagway Village	2C	2																			
Wrangell Cooperative Association	2C	58	27	213	3.7	7.9	6	3	33	5.5	11.0	3	1	10	3.3	10.0	2	0	0	0.0	0.0
Subtotal, Area 2C		788	289	2,856	3.6	9.9	159	41	301	1.9	7.3	127	41	283	2.2	6.9	460	112	961	2.1	8.6
Kenaitze Indian Tribe	3A	59	22	271	4.6	12.3	8	0	0	0.0	0.0	4	0	0	0.0	0.0	0	0	0	0.0	0.0
Lesnoi Village (Woody Island)	3A	30	4	14	0.5	3.5	5	1	13	2.6	13.0	3	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Afognak	3A	9	4	18	2.0	4.5	5	1	5	1.0	5.0	3	1	41	13.7	41.0	1	0	0	0.0	0.0

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Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished
Native Village of Akhiok	3A	4	3	16	4.0	5.3	0	0	0	0.0	0.0	1	1	4	4.0	4.0	0	0	0	0.0	0.0
Native Village of Chenega	3A	5	4	20	4.0	5.0	4	1	2	0.5	2.0	2	1	17	8.5	17.0	0	0	0	0.0	0.0
Native Village of Eyak	3A	34	11	63	1.9	5.7	7	2	22	3.1	11.0	6	1	4	0.7	4.0	1	0	0	0.0	0.0
Native Village of Karluk	3A	1																			
Native Village of Larsen Bay	3A	11	10	89	8.1	8.9	3	2	12	4.0	6.0	0	0	0.0	0.0	0	0	0	0.0	0.0	
Native Village of Nanwalek	3A	19	19	338	17.8	17.8	8	6	90	11.3	5.0	5	3	190	38.0	63.3	0	0	0	0.0	0.0
Native Village of Ouzinkie	3A	15	8	80	5.3	10.0	3	0	0	0.0	0.0	5	0	0.0	0.0	0	0	0	0.0	0.0	
Native Village of Port Graham	3A	13	7	253	19.5	36.1	5	1	7	1.4	7.0	3	1	10	3.3	10.0	0	0	0	0.0	0.0
Native Village of Port Lions	3A	16	10	59	3.7	5.9	9	7	72	8.0	0.3	0	0	0.0	0.0	0	0	0	0.0	0.0	
Native Village of Tatitlek	3A	12	4	55	4.6	13.8	2		30	15.0	3.0	0	0	0.0	0.0	0	0	0	0.0	0.0	
Ninilchik Village	3A	32	9	186	5.8	20.7	6	0	0	0.0	0.0	7	0	0.0	0.0	0	0	0	0.0	0.0	
Seldovia Village Tribe	3A	32	21	257	8.0	12.2	2	1	25	12.5	0	2	1	31	15.5	31.0	0	0	0	0.0	0.0
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	51	27	308	6.0	11.4	15	9	3	4.2	7.0	5	5	43	8.6	8.6	0	0	0	0.0	0.0
Village of Kanatak	3A	3	0	0	0.0	0.0	0	0	0.0	0.0	0	1	0	0.0	0.0	1	0	0	0.0	0.0	
Village of Old Harbor	3A	20	8	28	1.4	3.5	4		62	15.5	31.0	1	1	8	8.0	8.0	0	0	0	0.0	0.0
Village of Salamatoff	3A	14	5	97	6.9	19.4		0	0.0	0.0	0	1	1	40	40.0	40.0	0	0	0	0.0	0.0
Yakutat Tlingit Tribe	3A	16	10	156			5	2	16	3.2	8.0	3	1	18	6.0	18.0	0	0	0	0.0	0.0
Subtotal, Area 3A		396	187	2,308	5.8	12.3	92	36	419	4.6	11.6	54	18	416	7.7	23.1	3	0	0	0.0	0.0
Agdaagux Tribe of King Cove	3B	24	18	142	5.9	7.9	7	1	4	0.6	4.0	5	5	63	12.6	12.6	0	0	0	0.0	0.0
Chignik Lake Village	3B	1	1	5	5.0		1	3	10	10.0	3.3	0	0	0.0	0.0	3	0	0	0.0	0.0	
Ivanoff Bay Village	3B	2	2	20	10.0		1	1	0	0.0	0.0	0	0	0.0	0.0	0	0	0	0.0	0.0	
Native Village of Belkofski	3B	0																			
Native Village of Chignik	3B	4	1	25	6.3	25.0	2	0	0	0.0	0.0	1	0	0.0	0.0	0	0	0	0.0	0.0	
Native Village of Chignik Lagoon	3B	8	6	69	8.6	11.5	9	0	0	0.0	0.0	0	0	0.0	0.0	1	1	5	5.0	5.0	
Native Village of False Pass	3B	1																			

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Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number of subsistence halibut	Number of halibut harvested	Mean, those returned	Mean, those who	Number returned	Number of subsistence halibut	Number of halibut harvested	Mean, those returned	Mean, those who	Number returned	Number of subsistence halibut	Number of halibut harvested	Mean, those returned	Mean, those who	Number returned	Number of subsistence halibut	Number of halibut harvested	Mean, those returned	Mean, those who
Native Village of Nelson Lagoon	3B	3																			
Native Village of Perryville	3B	11	6	60	5.5	10.0	0	0	0	0.0	0.0	2	2	17	8.5	8.5	2	1	6	3.0	6.0
Native Village of Unga	3B	3	2	9	3.0	4.5	1	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Pauloff Harbor Village	3B	11	7	49	4.5	7.0	3	2	14	4.7	7.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Qagan Toyagungin Tribe of Sand Point Village	3B	37	18	146	3.9	8.1	9	2	11	1.2	5.5	7	5	27	3.9	5.4	0	0	0	0.0	0.0
Subtotal, Area 3B		105	61	525	5.0	8.6	33	9	39	1	4.3	16	12	107	6.7	8.9	6	2	11	1.8	5.5
Native Village of Akutan	4A	6	1	4	0.7	4.0	2	2	17	8.5	8.5	2	1	8	4.0	8.0	0	0	0	0.0	0.0
Qawalingin Tribe of Unalaska	4A	8	4	28	3.5	7.0	3	1	16	0	0	4	2	29	7.3	14.5	0	0	0	0.0	0.0
Subtotal, Area 4A		14	5	32	2.3	6.4	5	3	33	6.6	0	6	3	37	6.2	12.3	0	0	0	0.0	0.0
Native Village of Atka	4B	2	1	5	2.5	5.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 4B		2	1	5	2.5	5.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Pribilof Islands Aleut Community of St George	4C	2	2	10	5.0	5.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Pribilof Islands Aleut Community of St Paul	4C	11	2	5	0.5	2.5	4	1	12	3.0	12.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 4C		13	4	15	1.2	3.0	5	1	12	2.4	12.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Native Village of Diomed (Inalik)	4D	1																			
Native Village of Gambell	4D	0																			
Native Village of Savoonga	4D	9	6	23	2	3.8	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 4D		10	7	31	3.1	4.4	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chevak Native Village (Kashunamiut)	4E	0																			
Chinik Eskimo Community	4E	1																			
Egegik Village	4E	4																			

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Tribal name	First mailing response						Second mailing response						Third mailing response						Staff administered					
	Regulatory area	Number returned ^a	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished			
King Island Native Community	4E	1																						
Levelock Village	4E	1																						
Manokotak Village	4E	0																						
Naknek Native Village	4E	2	1	0	00	00	0	0	0	00	00	1	1	0	00	00	0	0	0	00	00			
Native Village of Aleknagik	4E	3																						
Native Village of Council	4E	1																						
Native Village of Dillingham (Curyung)	4E	7	1	5	07	50	1	0	0	00	00	2	1	8	40	80	0	0	0	00	00			
Native Village of Eek	4E	4	2	7	18	35	1	0	0	0	00	0	0	0	00	00	0	0	0	00	00			
Native Village of Goodnews Bay (Mumtraq)	4E	0																						
Native Village of Hooper Bay	4E	3	0	0	00	00	1	1	4	40	40	1	1	4	40	40	0	0	0	00	00			
Native Village of Kipnuk	4E	0	0	0	00	00	1	0	0	00	00	1	1	17	170	170	0	0	0	00	00			
Native Village of Kongiganak	4E	1																						
Native Village of Koyuk	4E	0																						
Native Village of Kwigillingok	4E	0																						
Native Village of Kwinhagak	4E	0	0	0	0	0	0	0	00	00	00	2	2	3	15	15	0	0	0	00	00			
Native Village of Mekoryuk	4E	3	2	3	12.3	18.5	0	0	0	00	00	0	0	0	00	00	0	0	0	00	00			
Native Village of Nightmute	4E	0																						
Native Village of Scammon Bay	4E	0																						
Native Village of Shaktoolik	4E	1																						
Native Village of Toksook Bay (Nunakaayak)	4E	7	3	47	67	157	7	6	33	47	55	0	0	0	00	00	0	0	0	00	00			
Native Village of Tununak	4E	4	2	32	80	160	0	0	0	00	00	0	0	0	00	00	0	0	0	00	00			
Native Village of Unalakleet	4E	1																						

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Tribal name	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished
Native Village of Wales	4E	1																			
Newtok Village	4E	1																			
Nome Eskimo Community	4E	3	2	12	4.0	6.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Orutsararmuit Native Village	4E	4	2	21	5.3	10.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
South Naknek Village	4E	0																			
Traditional Village of Togiak	4E	1																			
Twin Hills Village	4E	1																			
Ugashik Village	4E	4	4	65	16.3	16.3	1	0	0	0.0	0.0	1	1	20	20.0	20.0	0	0	0	0.0	0.0
Village of Cheformak	4E	1																			
Village of Clark's Point	4E	0																			
Village of Kotlik	4E	1																			
Subtotal, 4E		60	22	236	3.9	10.7	15	8	3	2.5	4.8	10	8	56	5.6	7.0	1	0	0	0.0	0.0
Tribal subtotals		1,388	576	6,008	4.3	10.4	310	98	84	2.7	8.6	213	82	899	4.2	11.0	470	114	972	2.1	8.5

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Rural community	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished
Angoon	2C	10	8	99	9.9	12.4	0	1	2	0.0	2.0	0	0	0	0.0	0.0	3	1	2	0.7	2.0
Coffman Cove	2C	33	15	115	3.5	7.7	5	4	16	3.2	4.0	5	0	0	0.0	0.0	0	0	0	0.0	0.0
Craig	2C	206	91	812	3.9	8.9	47	7	87	1.9	12.4	18	5	53	2.9	10.6	0	0	0	0.0	0.0
Edna Bay	2C	19	6	27	1.4	4.5	6	2	9	1.5	4.5	1	0	0.0	0.0	0	0	0	0.0	0.0	
Elfin Cove	2C	10	6	33	3.3	5.5	1	0	0	0.0	0.0	2	1	10	5.0	10.0	0	0	0	0.0	0.0
Gustavus	2C	38	19	153	4.0	8.1	12	6	54	4.5	9.0	2	12	40	6.0	6.0	0	0	0	0.0	0.0
Haines	2C	294	189	842	2.9	4.5	49	23	101	2.1	4.4	23	11	36	1.6	3.3	0	0	0	0.0	0.0
Hollis	2C	30	17	61	2.0	3.6	10	6	32	3	5.3	3	3	27	9.0	9.0	0	0	0	0.0	0.0
Hoonah	2C	64	39	376	5.9	9.6	11	4	47	3	11.8	4	17	43	8.5	8.5	0	0	0	0.0	0.0
Hydaburg	2C	4	2	24	6.0	12.0	0	0	0	0.0	0.0	1	1	3	3.0	3.0	4	0	0	0.0	0.0
Hyder	2C	13	12	52	4.0	4.3	6	5	10	7	0	6	1	0	0.0	0.0	0	0	0	0.0	0.0
Juneau	2C	1	0	0	0.0	0.0	1	1	2	2.0	2.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Kake	2C	17	9	43	2.5	4.8	8	61	7.6	15	1	1	4	4.0	4.0	0	0	0	0.0	0.0	
Kasaan	2C	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
Ketchikan	2C	3	2	6	2.0	3.0	0	0	0	0.0	0	0	0	0.0	0.0	1	0	0	0.0	0.0	
Klawock	2C	86	40	398	4.6	10.0	22	4	2.2	12.3	5	3	15	3.0	5.0	0	0	0	0.0	0.0	
Klukwan	2C	2																			
Metlakatla	2C	8	4	21	2.6	5.3	1	0	0.0	0.0	0	2	19	0.0	9.5	9	1	2	0.2	2.0	
Meyers Chuck	2C	7	6	23	3.3	3.8	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	
Naukatli Bay	2C	24	19	85	3.5	4.5		3	16	1.8	5.3	3	3	22	7.3	7.3	0	0	0	0.0	0.0
Pelican	2C	19	10	39				4	24	6.0	6.0	2	2	9	4.5	4.5	0	0	0	0.0	0.0
Petersburg	2C	549	229	1,471	2.7	6.4	111	36	226	2.0	6.3	38	12	79	2.1	6.6	1	0	0	0.0	0.0
Port Alexander	2C	12	10		7.6	9.1	3	3	13	4.3	4.3	2	2	32	16.0	16.0	0	0	0	0.0	0.0
Port Protection	2C	9	6	31	3.4	5.2	0	1	26	0.0	26.0	0	0	0	0.0	0.0	3	0	0	0.0	0.0
Pt Baker	2C	9	5	14	6	2.8	1	0	0	0.0	0.0	5	3	13	2.6	4.3	0	0	0	0.0	0.0
Saxman	2C	7	2	75	10.7	7.5	0	0	0	0.0	0.0	1	0	0	0.0	0.0	1	0	0	0.0	0.0
Sitka	2C	732	398	2,191	3.0	5.5	126	49	190	1.5	3.9	62	30	130	2.1	4.3	71	22	140	2.0	6.4
Skagway	2C	31	16	42	1.4	2.6	7	3	5	0.7	1.7	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Tenakee Springs	2C	42	21	123	2.9	5.9	7	2	23	3.3	11.5	3	2	18	6.0	9.0	0	0	0	0.0	0.0
Thorne Bay	2C	78	42	211	2.7	5.0	20	5	27	1.4	5.4	9	5	17	1.9	3.4	0	0	0	0.0	0.0
Ward Cove	2C	1																			
Whale Pass	2C	14	9	50	3.6	5.6	1	1	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0

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Rural community	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those fished
Wrangell	2C	231	128	744	3.2	5.8	52	14	75	1.4	5.4	24	11	67	2.8	6.1	0	0	0	0.0	0.0
Subtotal, Area 2C		2,607	1,362	8,260	3.2	6.1	520	188	1,095	2.1	5.8	223	103	583	0.5	5.7	93	24	144	1.5	6.0
Chenega Bay	3A	8	4	118	14.8	29.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chiniak	3A	4	4	70	17.5	17.5	2	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Cordova	3A	242	110	677	2.8	6.2	64	14	75	1.2	5.4	3	12	60	1.6	5.0	0	0	0	0.0	0.0
Karluk	3A	5	4	67	13.4	16.8	0	0	0	0.0	0.0	1	1	8	8.0	8.0	0	0	0	0.0	0.0
Kodiak	3A	733	415	4,120	5.6	9.9	181	57	579	3.2	10.2	81	53	313	3.9	5.9	0	0	0	0.0	0.0
Larsen Bay	3A	0																			
Nanwalek	3A	4	2	214	53.5	107.0	1	1	20	20.0	20.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Old Harbor	3A	5																			
Ouzinkie	3A	13	9	37	2.8	4.1	1	1	0	0.0	0.0	3	3	9	3.0	3.0	0	0	0	0.0	0.0
Port Graham	3A	2	2	15	7.5	7.5	1		35	35.0	3	1	7	7.0	7.0	0	0	0	0.0	0.0	
Port Lions	3A	12	5	42	3.5	8.4	3	2	20	6.7	10.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Seldovia	3A	88	57	869	9.9	15.2	12	3	34	2.8	3	4	3	54	13.5	18.0	0	0	0	0.0	0.0
Tatitlek	3A	5	4	40	8.0	10.0	5	4	1	3.4	4.3	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Yakutat	3A	39	18	173	4.4	9.6	1	3	8	5.3	19.3	4	3	33	8.3	11.0	0	0	0	0.0	0.0
Subtotal, Area 3A		1,160	639	6,516	5.6	10.2	283	86	83	3.0	9.7	132	76	484	3.7	6.4	0	0	0	0.0	0.0
Chignik	3B	0																			
Chignik Lake	3B	0																			
Cold Bay	3B	25	17	173	6.9	10.2	3	1	25	8.3	25.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
False Pass	3B	1																			
King Cove	3B	12	9	63	5.3	7.0	3	1	30	10.0	30.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Sand Point	3B	3	3	23	7.7	7.7	1	1	9	9.0	9.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Subtotal, Area 3B		41	30	266	6.5	8.9	7	3	64	9.1	21.3	3	0	0	0.0	0.0	1	0	0	0.0	0.0
Unalaska	4A	61	36	380	6.2	10.6	15	1	35	2.3	35.0	9	4	47	5.2	11.8	0	0	0	0.0	0.0
Subtotal, Area 4A		61	36	380	6.2	10.6	15	1	35	2.3	35.0	9	4	47	5.2	11.8	0	0	0	0.0	0.0
Adak	4B	3	2	9	3.0	4.5	2	2	16	8.0	8.0	0	0	0	0.0	0.0	1	1	0	0.0	0.0
Subtotal, Area 4B		3	2	9	3.0	4.5	2	2	16	8.0	8.0	0	0	0	0.0	0.0	1	1	0	0.0	0.0

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Rural community	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number of subsistence halibut fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number of subsistence halibut fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number of subsistence halibut fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number of subsistence halibut fished	Number of halibut harvested	Mean, those returned	Mean, those who fished
St George Island	4C	1																			
Subtotal, Area 4C		1																			
Bethel	4E	1																			
Cheformak	4E	0																			
Dillingham	4E	13	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
Egegik	4E	0																			
King Salmon	4E	2																			
Kotlik	4E	0																			
Manokotak	4E	0																			
Naknek	4E	2																			
Nightmute	4E	0																			
Nome	4E	9	4	11	1.2	2.8	1	0	0.0		1	0	0	0.0	0.0	0	0	0	0.0	0.0	
South Naknek	4E	0																			
Teller	4E	2	0	0	0.0	0.0	2	0	0	0.0	0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Togiak	4E	1																			
Subtotal, Area 4E		30	4	11	0.4	2.8	11	1	1.9	21.0	5	1	8	0.2	0	0	0	0.0	0.0		
Rural community subtotal		3,903	2,074	15,448	4.0	7.4	838	281	2,069	0.3	7.4	372	184	1,122	3.0	6.1	95	25	144	1.5	5.8
Total (tribal and rural)		5,291	2,650	21,456	4.1	8.1	148	379	2,911	2.5	7.7	585	266	2,021	3.5	7.6	565	139	1,116	2.0	8.0

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City	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, all who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, all who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, all who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, all who fished
Adak	AK	2	1	3	1.5	3.0	1	1	6	6.0	6.0	0	0	0	0.0	0.0	1	1	0	0.0	0.0
Akhiok	AK	3	3	16	5.3	5.3	0	0	0	0.0	0.0	1	1	4	4.0	4.0	0	0	0	0.0	0.0
Akutan	AK	2	1	4	2.0	4.0	1	1	14	14.0	14.0	2	1	8	4.0	8.0	0	0	0	0.0	0.0
Aleknagik	AK	1																			
Anchor Point	AK	8	5	65	8.1	13.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Anchorage	AK	98	36	323	3.3	9.0	15	2	25	1.7	12.5	2	14	1.6	7.0	0	0	0	0.0	0.0	
Angoon	AK	29	17	218	7.5	12.8	1	2	2	2.0	1.0	2	2	8	4.0	4.0	67	29	311	4.6	10.7
Atka	AK	0																			
Auke Bay	AK	0																			
Barrow	AK	2																			
Bethel	AK	3	1	12	4.0	12.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Cheformak	AK	4	4	65	16.3	16.3	1	0	0	0.0	0.0	1	1	20	20.0	20.0	0	0	0	0.0	0.0
Chenegas Bay	AK	9	4	118	13.1	29.5	0	0	0	0.0	0.0	2	1	17	8.5	17.0	0	0	0	0.0	0.0
Chevak	AK	0																			
Chignik	AK	4	1	25	6.3	25.0	2	0	0	0.0	0.0	1	0	0	0.0	0.0	2	0	0	0.0	0.0
Chignik Lagoon	AK	3	3	46	15.3	15.3	8	0	0	0.0	0.0	0	0	0	0.0	0.0	1	1	5	5.0	5.0
Chignik Lake	AK	0																			
Chiniak	AK	6	6	82	13.7	13.7	4	1	10	10.0	4.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Chugiak	AK	1																			
Clark's Point	AK	1																			
Coffman Cove	AK	32	15	115			6	4	16	2.7	4.0	5	0	0	0.0	0.0	0	0	0	0.0	0.0
Cold Bay	AK	28	17	173	6.2	10.2	3	1	25	8.3	25.0	3	2	54	18.0	27.0	0	0	0	0.0	0.0
Cordova	AK	267	119	7	2.8	6.2	70	16	97	1.4	6.1	42	13	64	1.5	4.9	1	0	0	0.0	0.0
Craig	AK	289	133	1,083	3.7	8.1	3	13	121	1.9	9.3	23	7	82	3.6	11.7	0	0	0	0.0	0.0
Dillingham	AK	14	1	5	4	5.0	3	0	0	0.0	0.0	2	0	0	0.0	0.0	1	0	0	0.0	0.0
Douglas	AK	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
Dutch Harbor	AK	39	27	291	7.5	10.8	13	1	35	2.7	35.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Eagle River	AK	6	4	47	7.8	11.8	1	1	2	2.0	2.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Edna Bay	AK	15	5	26	1.7	5.2	4	1	2	0.5	2.0	1	1	0	0.0	0.0	0	0	0	0.0	0.0
Eek	AK	3	2	7	2.3	3.5	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Egegik	AK	0																			
Elfin Cove	AK	10	6	33	3.3	5.5	0	0	0	0.0	0.0	2	1	10	5.0	10.0	0	0	0	0.0	0.0

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City	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number of subsistence fished	Number of halibut harvested	Mean, all those returned	Mean, those who fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, all those returned	Mean, those who fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, all those returned	Mean, those who fished	Number returned	Number of subsistence fished	Number of halibut harvested	Mean, all those returned	Mean, those who fished
Elmemdorf AFB	AK	0																			
Excursion Inlet	AK	0																			
Fairbanks	AK	2	1	5	2.5	5.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Fritz Creek	AK	1																			
Gakona	AK	0																			
Gambell	AK	0																			
Girdwood	AK	1																			
Glennallen	AK	1																			
Golovin	AK	1																			
Goodnews Bay	AK	0																			
Gustavus	AK	37	19	153	4.1	8.1	11	6	54	9.0	0.0	3	2	12	4.0	6.0	0	0	0	0.0	0.0
Haines	AK	324	192	865	2.7	4.5	59	25	119	2.0	4.8	25	12	43	1.7	3.6	1	0	0	0.0	0.0
Homer	AK	19	7	106	5.6	15.1	2		0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Hoonah	AK	128	67	821	6.4	12.3	19	4	44	2.3	11.0	15	7	54	3.6	7.7	0	0	0	0.0	0.0
Hooper Bay	AK	3	0	0	0.0	0.0	1	1	4	4.0	0.0	1	1	4	4.0	4.0	0	0	0	0.0	0.0
Hydaburg	AK	28	16	140	5.0	8.8	1	1		16.0	16.0	4	5	30	7.5	6.0	69	20	225	3.3	11.3
Hyder	AK	13	12	52	4.0	4.3	6	5	0	1.7	2.0	6	1	0	0.0	0.0	0	0	0	0.0	0.0
Juneau	AK	104	38	353	3.4	9.3	29	8	5	1.8	6.6	20	2	11	0.6	5.5	2	1	12	6.0	12.0
Kake	AK	52	20	131	2.5	6.6	27		81	3.0	7.4	8	5	67	8.4	13.4	0	0	0	0.0	0.0
Karluk	AK	5	4	67	13.4	16.8		0	0	0.0	0.0	2	2	18	9.0	9.0	0	0	0	0.0	0.0
Kasaan	AK	5	2	55				0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Kasilof	AK	6	5	77	12.8	15.4	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Kenai	AK	46	18	2	6.0	15.4	8	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Ketchikan	AK	167	55	767	4.6	13.9	8	14	127	3.3	9.1	20	4	21	1.1	5.3	194	33	217	1.1	6.6
King Cove	AK	32	25	193	0	7.7	10	2	34	3.4	17.0	5	4	17	3.4	4.3	0	0	0	0.0	0.0
King Salmon	AK	2																			
Kipnuk	AK	0	0	0	0.0	0.0	1	0	0	0.0	0.0	1	1	17	17.0	17.0	0	0	0	0.0	0.0
Klawock	AK	98	46	496	5.1	10.8	27	5	57	2.1	11.4	22	8	40	1.8	5.0	2	0	0	0.0	0.0
Klukwan	AK	2																			
Kodiak	AK	798	450	4,417	5.5	9.8	202	70	694	3.4	9.9	88	58	352	4.0	6.1	1	0	0	0.0	0.0
Kongiganak	AK	1																			
Kotzebue	AK	0																			
Kwigillingok	AK	0																			

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City	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished
Larsen Bay	AK	8	7	66	8.3	9.4	5	2	12	2.4	6.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Manokotak	AK	0																			
Mekoryuk	AK	2																			
Metlakatla	AK	45	13	84	1.9	6.5	2	2	6	3.0	3.0	4	36	12.0	9.0	108	19	98	0.9	5.2	
Meyers Chuck	AK	6	6	23	3.8	3.8	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Naknek	AK	4	1	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	
Nanwalek	AK	23	21	552	24.0	26.3	9	7	110	12.2	15.7	5	3	190	38.0	63.3	0	0	0	0.0	0.0
Napkiak		0																			
Naukati Bay	AK	11	8	26	2.4	3.3	4	1	3	8	3.0	3	12	4.0	4.0	0	0	0	0.0	0.0	
Nelson Lagoon	AK	0																			
Newtok	AK	1																			
Nightmute	AK	0																			
Nikiski	AK	3	0	0	0.0	0.0	0	0	0	0.0	0.0	1	1	40	40.0	40.0	0	0	0	0.0	0.0
Ninilchik	AK	18	1	5	0.3	5.0	3	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Nome	AK	10	5	19	1.9	3.8	1	0	0	0.0	0.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0
North Pole	AK	0																			
Old Harbor	AK	19	13	102	5.4	7.8	3	1	5	18.3	55.0	1	1	8	8.0	8.0	0	0	0	0.0	0.0
Ouzinkie	AK	23	14	77	3.3	5.5	4	1	0	0.0	0.0	9	4	50	5.6	12.5	0	0	0	0.0	0.0
Palmer	AK	3	1	7	2.3	7.0	2	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Pelican	AK	24	14	71	3.0	5.1	4	24	6.0	6.0	4	3	9	2.3	3.0	0	0	0	0.0	0.0	
Perryville	AK	11	6	60			0	0	0	0.0	0.0	2	2	17	8.5	8.5	2	1	6	3.0	6.0
Petersburg	AK	591	247	1,557	2.6	6.3	112	31	223	2.0	7.2	47	14	94	2.0	6.7	1	0	0	0.0	0.0
Point Baker	AK	13	9		2.5	3.7	1	0	0	0.0	0.0	5	3	13	2.6	4.3	0	0	0	0.0	0.0
Port Alexander	AK	12	11	93	7.8	8.5	3	3	13	4.3	4.3	2	2	32	16.0	16.0	0	0	0	0.0	0.0
Port Graham	AK	11	6	182	5	30.3	5	2	42	8.4	21.0	4	2	17	4.3	8.5	0	0	0	0.0	0.0
Port Lions	AK	28	14	88	3.1	6.3	11	8	71	6.5	8.9	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Port Protection	AK	0																			
Port William	AK	1																			
Quinhagak	AK	0	0	0	0.0	0.0	0	0	0	0.0	0.0	2	2	3	1.5	1.5	0	0	0	0.0	0.0
Sand Point	AK	48	29	225	4.7	7.8	10	5	34	3.4	6.8	8	4	19	2.4	4.8	0	0	0	0.0	0.0

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City	Regulatory area	First mailing response					Second mailing response					Third mailing response					Staff administered				
		Number returned ^a	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished	Number returned	Number subsistence fished	Number of halibut harvested	Mean, those returned	Mean, those who fished
Savoonga	AK	9	6	23	2.6	3.8	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Saxman	AK	1	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	6	1	4	0.7	4.0
Seldovia	AK	93	62	931	10.0	15.0	11	3	34	3.1	11.3	6	4	85	14.2	21.3	0	0	0	0.0	0.0
Seward	AK	4	1	6	1.5	6.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Sitka	AK	817	443	2,421	3.0	5.5	145	56	234	1.6	4.2	0	37	161	2.0	4.4	100	33	238	2.4	7.2
Skagway	AK	32	16	42	1.3	2.6	8	4	14	1.8	3.5	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Soldotna	AK	18	5	140	7.8	28.0	3	0	0	0.0	0.0	5	0	0	0.0	0.0	0	0	0	0.0	0.0
St George Island	AK	2																			
St Paul Island	AK	11	3	10	0.9	3.3	4	1	12	0	12.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Sterling	AK	1																			
Tatitlek	AK	9	4	54	6.0	13.5	6	5	47	8	4	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Teller	AK	2	0	0	0.0	0.0	2	0	0	0.0	0.0	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Tenakee Springs	AK	42	19	121	2.9	6.4	7		23	3.3	11	3	2	18	6.0	9.0	0	0	0	0.0	0.0
Thorne Bay	AK	75	41	213	2.8	5.2	19	5	27	1.4	5.4	9	5	17	1.9	3.4	0	0	0	0.0	0.0
Togiak	AK	2																			
Toksook Bay	AK	7	3	47	6.7	15.7	6	5		5.3	6.4	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Trapper Creek	AK	1																			
Tununak	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
Twin Hills	AK	1																			
Unalakleet	AK	0																			
Unalaska	AK	32	15	192			5	1	16	3.2	16.0	13	6	76	5.8	12.7	0	0	0	0.0	0.0
Valdez	AK	12	6	87	7.3	14.5	6	2	5	0.8	2.5	1	0	0	0.0	0.0	0	0	0	0.0	0.0
Ward Cove	AK	16	5		1.3	4.2	5	1	2	0.4	2.0	3	1	15	5.0	15.0	0	0	0	0.0	0.0
Wasilla	AK	9	6	56	6.2	9.3	2	0	0	0.0	0.0	2	0	0	0.0	0.0	2	0	0	0.0	0.0
Whale Pass	AK	6	5	7	2	1.4	1	1	0	0.0	0.0	0	0	0	0.0	0.0	0	0	0	0.0	0.0
Willow	AK	1																			
Wrangell	AK	291	155	927	3.2	6.0	60	17	106	1.8	6.2	26	12	77	3.0	6.4	2	0	0	0.0	0.0
Yakutat	AK	52	26	276	5.3	10.6	16	5	74	4.6	14.8	9	5	61	6.8	12.2	0	0	0	0.0	0.0
Subtotal, Alaska		5,221	2,648	21,443	4.1	8.1	1,142	378	2,908	2.5	7.7	577	266	2,021	3.5	7.6	565	139	1,116	2.0	8.0
Subtotal, non-Alaska		70	2	13	0.2	6.5	6	1	3	0.5	3.0	8	0	0	0.0	0.0	0	0	0	0.0	0.0
Total		5,291	2,650	21,456	4.1	8.1	1,148	379	2,911	2.5	7.7	585	266	2,021	3.5	7.6	565	139	1,116	2.0	8.0

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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-3.—Estimated subsistence harvests of halibut by gear type, 2011.

Tribal name	Regulatory area	Number of SHARCs issued ^a	Set hook gear			Hook and line or handline			All gear				
			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	94	29	397	5,551	23	97	1,216	42	494	16.2%	6,768	15.3%
Aukquan Traditional Council	2C	1											
Central Council Tlingit and Haida Indian Tribes	2C	513	127	1,041	22,502	54	359	3,85	152	1,400	25.8%	26,360	30.8%
Chilkat Indian Village	2C	21	2	15	311	0	0	0	2	15	73.1%	311	90.4%
Chilkoot Indian Association	2C	56	9	114	1,581	2	6	263	11	121	63.9%	1,843	41.6%
Craig Community Association	2C	65	28	242	5,334	8	16	308	28	258	57.3%	5,642	55.4%
Douglas Indian Association	2C	16	4	7	172	0	0	0	4	7	147.8%	172	147.8%
Hoonah Indian Association	2C	151	45	587	8 800	1	106	1,726	55	693	35.8%	10,526	34.6%
Hydaburg Cooperative Association	2C	132	45	405	14,15		61	1,545	47	466	22.5%	15,699	23.1%
Ketchikan Indian Corporation	2C	526	81	776	1 118	49	341	5,466	112	1,118	20.4%	20,583	20.7%
Klawock Cooperative Association	2C	90	1	112	3,4	7	44	1,027	25	156	45.8%	4,511	51.6%
Metlakatla Indian Community, Annette Island Reserve	2C	178	37	206	5,144	4	17	185	38	223	21.1%	5,329	19.5%
Organized Village of Kake	2C	89	25	243	5,831	6	10	170	25	253	44.1%	6,000	46.4%
Organized Village of Kasaan	2C	6	1	40	266	1	9	112	1	49	275.6%	378	275.6%
Organized Village of Saxman	2C	42	9	147	1,098	7	63	333	15	211	75.7%	1,431	44.6%
Petersburg Indian Association	2C	85	22	142	2,219	15	50	1,035	30	192	34.9%	3,254	35.0%

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Tribal name	Regulatory area	Number of SHARCs issued ^a	Set hook gear			Hook and line or handline			All gear				
			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
Sitka Tribe of Alaska	2C	314	124	715	16,580	12	25	437	124	740	21.1%	17,018	17.8%
Skagway Village	2C	3											
Wrangell Cooperative Association	2C	98	39	320	6,779	21	46	850	44	366	24.7%	7,629	28.7%
Subtotal, Area 2C		2,480	645	5,512	114,924	244	1,250	18,531	755	6,762	8.6%	133,455	8.9%
Kenaitze Indian Tribe	3A	127	19	153	1,862	31	311	609	37	464	33.5%	6,471	38.0%
Lesnoi Village (Woody Island)	3A	74	6	50	1,040	5	7	9	10	57	66.1%	1,132	69.5%
Native Village of Afognak	3A	26	7	27	646	4	66	726	9	93	76.6%	1,372	60.5%
Native Village of Akhiok	3A	10	1	12	168	6	3	551	7	35	85.1%	719	77.8%
Native Village of Chenega	3A	20	8	53	1,492	3	6	142	9	59	82.2%	1,634	98.4%
Native Village of Eyak	3A	82	21	93	1,625	12	52	537	22	145	45.0%	2,162	43.2%
Native Village of Karluk	3A	4											
Native Village of Larsen Bay	3A	36	13	127	2,071	0	88	2,374	25	215	47.1%	4,445	54.8%
Native Village of Nanwalek	3A	75	16	405	5	20	221	3,275	28	626	0.0%	8,938	0.0%
Native Village of Ouzinkie	3A	35	11	89	1,814	4	26	436	11	114	47.9%	2,250	47.9%
Native Village of Port Graham	3A	45	1	229	3,34	9	236	1,478	16	465	69.2%	4,822	73.9%
Native Village of Port Lions	3A	34	17	125	2,634	12	30	473	20	155	27.8%	3,107	25.3%
Native Village of Tatitlek	3A	30	9	157	2,824	0	0	0	9	157	84.2%	2,824	76.8%
Ninilchik Village	3A	86	9	9	635	12	207	3,757	15	316	63.4%	4,392	78.8%
Seldovia Village Tribe	3A	61	32	363	6,653	18	155	1,986	38	518	31.2%	8,639	41.1%

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Tribal name	Regulatory area	Number of SHARCs issued ^a	Set hook gear			Hook and line or handline			All gear				
			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
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	133	59	595	10,526	25	204	4,193	72	799	28.4%	14,719	28.7%
Village of Kanatak	3A	25	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Village of Old Harbor	3A	51	16	72	1,416	15	134	1,409	22	205	80.1%	2,825	46.7%
Village of Salamatoff	3A	22	3	44	305	9	156	1,950	9	199	53.4%	2,255	60.2%
Yakutat Tlingit Tribe	3A	48	24	401	7,837	8	12	220	28	413	42.8%	8,058	44.7%
Subtotal, Area 3A		1,024	282	3,102	52,556	218	1,954	28,622	391	5,055	12.0%	81,183	12.4%
Agdaagux Tribe of King Cove	3B	64	28	201	2,042	27	140	2,549	39	340	41.4%	4,590	33.4%
Chignik Lake Village	3B	11	0	0	0	10	3	389	10	36	68.6%	389	46.6%
Ivanoff Bay Village	3B	8	5	36	399	6	15	200	6	51	216.4%	599	206.9%
Native Village of Belkofski	3B	5											
Native Village of Chignik	3B	7	1	25	137	0	0	0	1	25	0.0%	137	0.0%
Native Village of Chignik Lagoon	3B	19	4	39	578	5	39	695	7	79	19.8%	1,273	18.1%
Native Village of False Pass	3B	1											
Native Village of Nelson Lagoon	3B	3											
Native Village of Perryville	3B	21	7	53	5	10	49	672	11	102	43.9%	1,457	44.0%
Native Village of Unga	3B	8		4	88	2	5	102	2	9	236.1%	189	247.6%
Pauloff Harbor Village	3B	50	29	137	4,415	40	132	3,870	40	269	37.4%	8,285	36.8%
Qagan Toyagungin Tribe of Sand Point Village	3B	88	17	158	2,400	26	122	1,617	38	280	48.3%	4,018	49.9%
Subtotal, Area 3B		285	92	652	10,842	127	538	10,092	155	1,190	19.7%	20,935	15.8%
Native Village of Akutan	4A	22	6	27	648	7	29	945	8	56	101.6%	1,593	108.2%

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Tribal name	Regulatory	Number of	Set hook gear	Hook and line or handline	All gear
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area	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	
Qawalingin Tribe of Unalaska	4A	27	10	98	1,611	10	25	563	12	124	57.8%	2,174	64.7%
Subtotal, Area 4A		49	16	125	2,259	17	54	1,508	20	180	50.0%	3,766	52.8%
Native Village of Atka	4B	6	2	6	84	2	4	56	2	10	304.2%	140	304.2%
Subtotal, Area 4B		6	2	6	84	2	4	56	2	10	304.2%	140	304.2%
Pribilof Islands Aleut Community of St. George	4C	6	4	20	490	0	0	0	4	20	161.0%	490	156.7%
Pribilof Islands Aleut Community of St. Paul	4C	45	7	38	458	7		56	9	45	140.8%	1,214	140.5%
Subtotal, Area 4C		48	51	11	58	948	7	7	756	13	65	98.3%	1,704
Native Village of Diomedes (Inalik)	4D	1	1										
Native Village of Gambell	4D	1	1										
Native Village of Savoonga	4D	17	8	35	718	3	1	60	9	36	81.2%	777	100.7%
Subtotal, Area 4D		19	9	43	893	3	1	60	10	44	74.9%	952	88.0%
Chevak Native Village (Kashunamiut)	4E	3											
Chinik Eskimo Community	4E	1											
Egegik Village	4E	5											
King Island Native Community	4E	2											
Levelock Village	4E	1											
Manokotak Village	4E	1											
Naknek Native Village	4E	9	5	0	0	5	0	0	5	0	0.0%	0	0.0%
Native Village of Aleknagik	4E	5											
Native Village of Brevig Mission	4E	1											
Native Village of Council	4E	4											

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Tribal name	Regulatory	Number of	Set hook gear	Hook and line or handline	All gear
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	area	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 Dillingham (Curyung)	4E	18	2	16	672	2	10	200	4	26	93.4%	872	105.7%
Native Village of Eek	4E	8	1	0	0	3	9	217	3	9	131.8%	217	134.5%
Native Village of Goodnews Bay (Mumtraq)	4E	4											
Native Village of Hooper Bay	4E	16	0	0	0	3	11	121	3	11	338.3%	121	353.0%
Native Village of Kipnuk	4E	15	0	0	0	5	85	0	5	85	1774.3%	770	1774.3%
Native Village of Kongiganak	4E	5											
Native Village of Koyuk	4E	1											
Native Village of Kwigillingok	4E	2											
Native Village of Kwinhagak	4E	7	0	0	0	7		59	7	8	469.8%	59	626.4%
Native Village of Mekoryuk	4E	6	4	70	301	2	4	21	4	74	160.1%	322	247.1%
Native Village of Nightmute	4E	1											
Native Village of Scammon Bay	4E	3											
Native Village of Shaktoolik	4E	1											
Native Village of Toksook Bay (Nunakaulyak)	4E	35		54	3	8	26	228	9	80	232.2%	606	213.4%
Native Village of Tununak	4E	13	0	0	0	5	92	224	5	92	183.3%	224	516.6%
Native Village of Unalakleet	4E	3											
Native Village of Wales	4E	1											
Newtok Village	4E	2											
Nome Eskimo Community	4E	16	6	17	520	3	17	347	6	33	318.1%	866	262.4%

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Tribal name	Regulatory	Number of	Set hook gear	Hook and line or handline	All gear
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Metlakatla	2C	24	6	41	1,228	3	13	186	9	53	52.5%	1,414	55.2%
Meyers Chuck	2C	9	7	22	627	1	5	84	7	26	43.7%	711	44.2%
Naukatli Bay	2C	46	25	116	2,949	12	31	645	30	147	20.3%	3,595	18.2%
Pelican	2C	36	21	75	2,249	10	23	587	22	98	24.1%	2,836	27.7%
Petersburg	2C	888	252	1,484	25,875	182	716	10,961	341	2,200	7.1%	36,836	6.9%
Port Alexander	2C	26	15	146	3,903	3	8	185	17	154	30.6%	4,088	33.4%
Port Protection	2C	16	4	47	840	7	15	310	8	63	66.1%	1,150	67.8%
Pt. Baker	2C	16	6	26	569	2	3	93	9	29	16.8%	662	18.5%
Saxman	2C	15	2	32	269	3	88	694	3	120	107.4%	963	102.2%
Sitka	2C	1,370	619	3,036	69,307	149	467	8,237	663	3,503	6.1%	77,544	6.0%
Skagway	2C	53	22	51	1,289	7	11	206	24	62	27.3%	1,495	28.0%
Tenakee Springs	2C	60	24	141	3,077	17	49	774	30	190	17.9%	3,851	18.1%
Thorne Bay	2C	121	52	233	6,495	19	48	1,147	57	282	12.0%	7,642	13.4%
Ward Cove	2C	1											
Whale Pass	2C	16	7	51	3,407	9		04	11	54	43.5%	3,511	46.9%
Wrangell	2C	387	151	795	16,215	77	290	5,0	184	1,085	9.6%	21,225	9.4%
Subtotal, Area 2C		4,489	1,802	9,724	210,933	709	2,788	43,224	2,085	12,512	3.2%	254,157	3.3%
Chenega Bay	3A	8	3	83	735	3	35	327	4	118	0.0%	1,062	0.0%
Chiniak	3A	7	4	65	770	2	5	105	4	70	58.0%	875	45.7%
Cordova	3A	471	157	847	15,536	68	2	4,229	179	1,073	11.0%	19,765	10.7%
Karluk	3A	6	0	0	0	5	75	1,447	5	75	0.0%	1,447	0.0%
Kodiak	3A	1,483	602	5,208	92,986	346	852	29,425	743	7,061	6.6%	122,411	6.1%

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Rural community	Regulatory area	Number of SHARCs issued ^a	Set hook gear			Hook and line or handline			All gear					
			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	
Larsen Bay	3A	4												
Nanwalek	3A	6	3	229	5,0	2	5	63	3	234	0.0%	5,803	0.0%	
Old Harbor	3A	5												
Ouzinkie	3A	18	7	33	695	8	16	300	14	49	17.2%	995	13.5%	
Port Graham	3A	7	3	54	1,243	3	18	184	5	71	107.1%	1,426	143.7%	
Port Lions	3A	17	3	18	578	6	53	819	8	72	26.4%	1,397	24.5%	
Seldovia	3A	136	59	614	8,802	45	629	6,526	82	1,243	15.5%	15,328	14.3%	
Tatitlek	3A	12	7		1,166	3	12	180	9	63	37.3%	1,346	34.3%	
Yakutat	3A	72	22	160	3,022	19	195	3,117	32	356	27.1%	6,139	27.0%	
Subtotal, Area 3A		2,252	871	7,392	131,656	513	3,166	47,720	1,093	10,559	5.3%	179,376	4.7%	
Chignik	3B	1												
Chignik Lake	3B	1												
Cold Bay	3B	34	21	207	2,590	13	19	299	21	226	21.3%	2,890	22.1%	
False Pass	3B	1												
King Cove	3B	21	5	42	686	11	75	1,659	11	117	38.1%	2,345	42.4%	
Sand Point	3B	15	6	20	455	7	44	739	8	64	110.5%	1,194	136.6%	
Subtotal, Area 3B		73	31	269	3,732	32	145	2,907	41	414	22.8%	6,638	24.3%	
Unalaska	4A	115	23	230	2,838	36	333	4,725	50	564	19.2%	7,563	19.3%	
Subtotal, Area 4A		115	23	230	2,838	36	333	4,725	50	564	19.2%	7,563	19.3%	

Adak	4B	10	7	33	672	1	0	0	7	33	64.1%	672	63.9%
Subtotal, Area 4B		10	7	33	672	1	0	0	7	33	64.1%	672	63.9%
St. George Island	4C	1											
Subtotal, Area 4C		1											
Bethel	4E	1											
Chefornak	4E	1											
Dillingham	4E	26	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Egegik	4E	1											
King Salmon	4E	3											
Kotlik	4E	1											
Manokotak	4E	2											
Naknek	4E	5											
Nightmute	4E	1											
Nome	4E	17	5	13	307	0	0	0	5	13	110.6%	307	110.6%
South Naknek	4E	1											
Teller	4E	9	0	0	0	0	0	0	0	0	0.0%	0	0.0%
Togiak	4E	2											

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Rural community	Regulatory area	Number of SHARCs issued ^a	Set hook gear			Hook and line or handline			All gear				
			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
Subtotal, Area 4E		70	7	42	9	0	0	0	7	42	98.1%	709	83.4%
Rural SHARC subtotal	All regulatory areas	7,010	2,741	17,69	350,41	1,293	6,439	98,669	3,283	24,129	2.8%	449,210	2.7%
Tribal subtotal	All	4,135	1,080	9,695	184,980	684	4,338	63,466	1,422	14,033	6.4%	248,446	6.6%
Rural community subtotal	All	7,010	2,741	17,690	350,541	1,293	6,439	98,669	3,283	24,129	2.8%	449,210	2.7%
Total	All	11,145	3,821	27	535,521	1,977	10,777	162,136	4,705	38,162	2.8%	697,656	2.7%
Regulatory area	Number of SHARCs issued ^a	Set hook gear			Hook and line or handline			All gear					
		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	6,969	2,448	15,236	325,858	953	4,038	61,755	2,840	19,274	3.4%	387,612	3.5%	
3A	3,276	1,154	10,494	184,213	731	5,120	76,346	1,484	15,614	5.0%	260,559	4.7%	
3B	358	123	921	14,574	158	683	12,999	196	1,604	15.8%	27,573	13.8%	
4A	164	39	355	5,097	53	388	6,233	70	743	19.3%	11,329	18.9%	
4B	16	9	39	756	3	4	56	9	43	61.3%	812	64.8%	
4C	52	11	58	948	8	13	851	14	71	90.4%	1,799	90.0%	

	4D	19	9	43	893	3	1	60	10	44	74.9%	952	88.0%
	4E	291	29	239	3,183	67	530	3,837	82	769	33.1%	7,019	36.6%
Total	All	11,145	3,821	27,385	535,521	1,977	10,777	162,136	4,705	38,162	2.8%	697,656	2.7%

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.

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Appendix E-4.—Estimated subsistence harvests of halibut by place of residence.

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
Adak	AK	9	4	12	280	1	0	0	0	0	0	0
Akhiok	AK	8	7	35	719	0	0	0	0	0	0	0
Akutan	AK	16	7	51	1,575	0	0	0	0	0	0	0
Aleknagik	AK	1										
Anchor Point	AK	15	8	110	1,429	0	0	0	0	0	0	0
Anchorage	AK	225	71	619	10,283	55	16	844	5	14	11	135
Angoon	AK	112	56	609	8,900	7	33	7	1	5	9	45
Atka	AK	1										
Auke Bay	AK	4										
Barrow	AK	2										
Bethel	AK	8	1	12	140	0	0	0	0	0	0	0
Chefornak	AK	14	12	257	1,139	0	0	0	0	0	0	0
Chenega Bay	AK	11	6	144	1,923			644	4	14	4	95
Chevak	AK	2										
Chignik	AK	9	1	25	137	0	0	0	0	0	0	0
Chignik Lagoon	AK	13	4	54	838	0	0	0	0	0	2	19
Chignik Lake	AK	3										
Chiniak	AK	11	8	91	1,72	3	7	220	0	0	1	19
Chugiak	AK	3										
Clark's Point	AK	1										
Coffman Cove	AK	52	23	155	2,4	24	146	2,185	2	4	11	143
Cold Bay	AK	39	2	316	3,016	14	10	179	3	63	0	0
Cordova	AK	529	198	1,216	21,789	89	175	3,029	8	15	31	154
Craig	AK	516	204	1,745	29,871	100	354	4,886	37	123	89	795
Dillingham	AK	32	2	10	200	0	0	0	2	4	0	0
Douglas	AK	12	0		0	0	0	0	0	0	0	0
Dutch Harbor	AK	73	34	401	6,053	20	142	2,420	1	2	1	2
Eagle River	AK	10	9	69	1,246	2	5	56	0	0	0	0
Edna Bay	AK	28	9	35	791	2	1	9	2	10	2	27
Eek	AK	6	3	9	217	0	0	0	0	0	0	0
Egegik	AK	2										

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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
Elfin Cove	AK	20	11	64	1,363	4	20	469	3	12	7	56
Elmemdorf AFB	AK	1										
Excursion Inlet	AK	4										
Fairbanks	AK	6	2	9	250	0	0	0	0	0	0	0
Fritz Creek	AK	1										
Gakona	AK	1										
Gambell	AK	1										
Girdwood	AK	1										
Glennallen	AK	1										
Golovin	AK	1										
Goodnews Bay	AK	4										
Gustavus	AK	65	35	271	5,541	22	97	2,055	0	0	0	0
Haines	AK	507	270	1,208	26,471		21	1,971	12	26	20	71
Homer	AK	30	12	175	2,407	12	47	470	3	11	2	17
Hoonah	AK	246	110	1,351	19,933	5	140	2,142	5	17	16	133
Hooper Bay	AK	14	3	11	121	0	0	0	0	0	0	0
Hydaburg	AK	129	49	489	16,944	9	21	737	12	67	20	318
Hyder	AK	32	20	65	1,50	4	0	0	1	2	4	29
Juneau	AK	363	87	713	14,58	53	238	3,184	2	4	10	43
Kake	AK	128	57	438	084	15	41	779	18	43	18	124
Karluk	AK	9	7	95	1,7	0	0	0	3	16	0	0
Kasaan	AK	10	3	60	721	2	0	0	1	11	1	25
Kasilof	AK	16	9	134	2,297	3	14	158	3	17	3	31
Kenai	AK	112	30	460	6,527	13	50	645	0	0	2	9
Ketchikan	AK	610	151	625	28,523	98	392	6,842	25	77	56	605
King Cove	AK	80	45	3	6,477	9	35	473	8	70	3	138
King Salmon	AK	3										
Kipnuk	AK	14	5	85	770	0	0	0	0	0	0	0
Klawock	AK	256	80	791	20,680	40	211	2,563	28	70	39	297
Klukwan	AK	3										
Kodiak	AK	1,660	837	7,953	138,348	513	2,681	45,725	114	252	174	1,621

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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
Kongiganak	AK	5										
Kotzebue	AK	1										
Kwigillingok	AK	1										
Larsen Bay	AK	31	18	162	2,862	5	12	227	2	2	7	55
Manokotak	AK	2										
Mekoryuk	AK	5										
Metlakatla	AK	188	46	269	6,631	27	59	1, 1	6	25	13	327
Meyers Chuck	AK	8	7	26	711	0	0	0	0	0	3	13
Naknek	AK	10	5	0	0	2	0	0	0	0	0	0
Nanwalek	AK	78	31	860	14,741	5	24	371	8	30	8	98
Napakiak	AK	1										
Naukati Bay	AK	22	15	51	1,448	7	41	976	2	5	6	59
Nelson Lagoon	AK	1										
Newtok	AK	1										
Nightmute	AK	2										
Nikiski	AK	7	1	58	458	1	6	132	0	0	1	22
Ninilchik	AK	36	1	7	41	7	19	274	0	0	0	0
Nome	AK	19	6	21	48	0	0	0	0	0	0	0
North Pole	AK	2										
Old Harbor	AK	41	25	264	113	6	43	845	0	0	2	27
Ouzinkie	AK	49	23	170	2, 9	7	35	527	1	2	3	35
Palmer	AK	13		13	131	0	0	0	0	0	0	0
Pelican	AK	46	31	149	4,444	11	31	978	11	25	16	165
Perryville	AK	18	11	102	1,457	1	10	42	1	3	1	4
Petersburg	AK	976	370	385	40,087	209	790	13,096	5	14	45	303
Point Baker	AK	21	13		970	3	1	30	1	1	10	79
Port Alexander	AK	24	18	156	4,133	5	9	163	10	39	10	107
Port Graham	AK	46	15	388	3,628	0	0	0	3	17	8	105
Port Lions	AK	49	26	187	3,661	23	108	1,496	1	8	6	31
Port Protection	AK	1										
Port William	AK	1										

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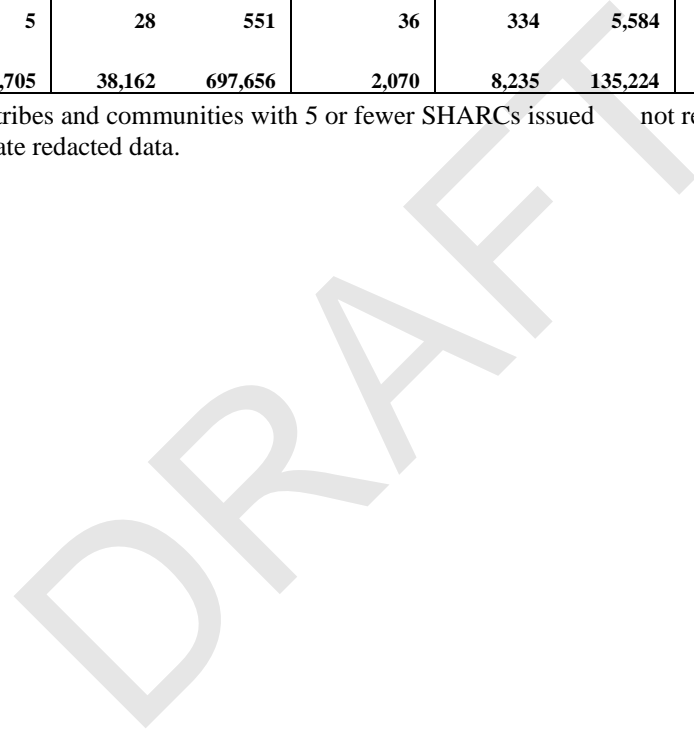
City	State	Number of SHARCs Issued ^a	Subsistence fished	Subsistence harvest		Sport fished	Sport harvest		Lingcod bycatch		Rockfish bycatch	
			Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number halibut	Estimated pounds halibut	Estimated number respondents	Estimated number lingcod	Estimated number respondents	Estimated number rockfish
Quinhagak	AK	8	7	8	59	0	0	0	0	0	0	0
Sand Point	AK	136	85	607	13,397	23	55	1,243	5	5	16	159
Savoonga	AK	17	9	36	777	0	0	0	0	0	0	0
Saxman	AK	12	2	7	105	0	0	0	0	0	2	19
Seldovia	AK	151	92	1,400	19,132	28	186	2,324	6	19	15	127
Seward	AK	12	1	6	188	2	4	63	0	0	0	0
Sitka	AK	1,658	784	4,179	93,030	249	536	8, 6	303	872	390	3,255
Skagway	AK	57	25	72	1,597	18	31	603	1	1	4	11
Soldotna	AK	44	8	233	3,025	6	4	453	0	0	0	0
St. George Island	AK	4										
St. Paul Island	AK	43	11	55	1,354	0	0	0	0	0	0	0
Sterling	AK	3										
Tatitlek	AK	23	13	168	3,433			63	1	4	6	34
Teller	AK	9	0	0	0	0	0	0	0	0	0	0
Tenakee Springs	AK	60	27	188	3,743	3	30	413	0	0	13	78
Thorne Bay	AK	117	56	283	7,592	38	112	2,158	8	35	31	307
Togiak	AK	5										
Toksook Bay	AK	32	8	79	59	0	0	0	0	0	0	0
Trapper Creek	AK	1										
Tununak	AK	11	4	80	84	0	0	0	0	0	0	0
Twin Hills	AK	1										
Unalakleet	AK	1										
Unalaska	AK	68	31	415	6,204	7	69	610	11	79	8	102
Valdez	AK	40	12	138	1,483	5	9	230	1	1	5	60
Ward Cove	AK	37	13	88	1,802	5	17	271	3	3	5	27
Wasilla	AK	47	10		932	0	0	0	3	3	2	2
Whale Pass	AK	7	7	8	383	2	8	228	0	0	0	0
Willow	AK	2										
Wrangell	AK	493	231	1,415	27,721	87	226	5,091	8	26	35	166
Yakutat	AK	116	57	668	13,615	14	80	1,521	21	121	11	109

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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
Alaska subtotal		11,015	4,699	38,134	697,105	2,034	7,901	129,640	730	2,305	1,220	10,853
Non-Alaska subtotal		130	5	28	551	36	334	5,584	0	0	0	0
Total		11,145	4,705	38,162	697,656	2,070	8,235	135,224	730	2,305	1,220	10,853

a. To protect confidentiality, data for tribes and communities with 5 or fewer SHARCs issued 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.

City	State	Number of SHARCs issued ^a	Estimated harvests by gear type								
			Set hook gear			Hook and line or handline			All gear		
			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	9	4	12	280	1	0	0	4	12	280
Akhiok	AK	8	1	12	168	6	2	551	7	35	719
Akutan	AK	16	4	22	630	7	29	945	7	51	1,575
Aleknagik	AK	1									
Anchor Point	AK	15	5	95	1,153	5	15	27	8	110	1,429
Anchorage	AK	225	47	382	6,673	4	27	3,610	71	619	10,283
Angoon	AK	112	34	438	6,615	34	171	2,285	56	609	8,900
Atka	AK	1									
Auke Bay	AK	4									
Barrow	AK	2									
Bethel	AK	8	0	0	0		12	140	1	12	140
Chefornak	AK	14	2	30	358	12	227	781	12	257	1,139
Chenega Bay	AK	11	5	104	1,000	5	40	453	6	144	1,923
Chevak	AK	2									
Chignik	AK	9	1		7	0	0	0	1	25	137
Chignik Lagoon	AK	13	3	26	443	3	28	395	4	54	838
Chignik Lake	AK	3									
Chiniak	AK	11	7		436	5	13	290	8	91	1,726
Chugiak	AK	3									
Clark's Point	AK	1									
Coffman Cove	AK	52	17	77	1,825	9	78	998	23	155	2,824
Cold Bay	AK	39	24	29	2,717	13	19	299	24	316	3,016
Cordova	AK	529	175	38	17,023	79	279	4,765	198	1,216	21,789
Craig	AK	516	169	1,371	24,940	71	374	4,931	204	1,745	29,871
Dillingham	AK	32	0	0	0	2	10	200	2	10	200
Douglas	AK	12	0	0	0	0	0	0	0	0	0
Dutch Harbor	AK	73	16	162	2,148	22	238	3,905	34	401	6,053
Eagle River	AK	10	4	31	611	7	37	634	9	69	1,246

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City	State	Number of SHARCs issued ^a	Estimated harvests by gear type								
			Set hook gear			Hook and line or handline			All gear		
			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
Edna Bay	AK	28	9	31	674	2	4	117	9	35	791
Eek	AK	6	1	0	0	3		217	3	9	217
Egegik	AK	2									
Elfin Cove	AK	20	9	55	1,169	3	9	94	11	64	1,363
Elmemdorf AFB	AK	1									
Excursion Inlet	AK	4									
Fairbanks	AK	6	2	9	250	0	0	0	2	9	250
Fritz Creek	AK	1									
Gakona	AK	1									
Gambell	AK	1									
Girdwood	AK	1									
Glennallen	AK	1									
Golovin	AK	1									
Goodnews Bay	AK	4									
Gustavus	AK	65	24	17	486	17	84	1,455	35	271	5,541
Haines	AK	507	261	1,154	5,372	56	54	1,099	270	1,208	26,471
Homer	AK	30	8	75	935	10	100	1,472	12	175	2,407
Hoonah	AK	246	93	1,111	993	38	204	2,940	110	1,351	19,933
Hooper Bay	AK	14	0	0	0	3	11	121	3	11	121
Hydaburg	AK	129		429	15,400	15	61	1,545	49	489	16,944
Hyder	AK	32	20	45	1,270	8	20	239	20	65	1,509
Juneau	AK	363	75	54	12,429	30	167	1,829	87	713	14,258
Kake	AK	128	54	23	10,760	17	16	324	57	438	11,084
Karluk	AK	9	0	0	0	7	95	1,867	7	95	1,867
Kasaan	AK	10	3	51	609	3	9	112	3	60	721
Kasilof	AK	16	5	33	440	7	101	1,857	9	134	2,297
Kenai	AK	112	14	93	1,095	29	367	5,432	30	460	6,527

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City	State	Number of SHARCs issued ^d	Estimated harvests by gear type								
			Set hook gear			Hook and line or handline			All gear		
			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
Ketchikan	AK	610	112	1,108	21,592	68	518	6,931	151	1,625	28,523
King Cove	AK	80	28	143	2,321	38	21	4,155	45	360	6,477
King Salmon	AK	3									
Kipnuk	AK	14	0	0	0	5	85	770	5	85	770
Klawock	AK	256	65	498	16,538	29	293	4,14	80	791	20,680
Klukwan	AK	3									
Kodiak	AK	1,660	686	6,002	106,609	378	,950	31,739	837	7,953	138,348
Kongiganak	AK	5									
Kotzebue	AK	1									
Kwigillingok	AK	1									
Larsen Bay	AK	31	6	81	1,021	1	81	1,841	18	162	2,862
Manokotak	AK	2									
Mekoryuk	AK	5									
Metlakatla	AK	188	42	240	6,2	7	29	372	46	269	6,631
Meyers Chuck	AK	8	7		7	1	5	84	7	26	711
Naknek	AK	10	5	0	0	5	0	0	5	0	0
Nanwalek	AK	78	19	634	11,404	22	226	3,338	31	860	14,741
Napakiak		1									
Naukati Bay	AK	22	11	41	1,214	6	10	234	15	51	1,448
Nelson Lagoon	AK	1									
Newtok	AK	1									
Nightmute	AK	2									
Nikiski	AK	7	1	44	305	1	15	153	1	58	458
Ninilchik	AK	36	0	0	0	1	7	41	1	7	41
Nome	AK	19	6	21	482	0	0	0	6	21	482
North Pole	AK	2									
Old Harbor	AK	41	15	93	1,746	17	171	2,367	25	264	4,113

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City	State	Number of SHARCs issued ^d	Estimated harvests by gear type								
			Set hook gear			Hook and line or handline			All gear		
			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
Ouzinkie	AK	49	16	76	1,463	11	94	1,197	23	170	2,659
Palmer	AK	13	2	13	131	0		0	2	13	131
Pelican	AK	46	29	125	3,819	15	25	625	31	149	4,444
Perryville	AK	18	7	53	785	10	49	72	11	102	1,457
Petersburg	AK	976	271	1,598	27,775	194	786	12,311	370	2,385	40,087
Point Baker	AK	21	9	40	775		0	194	13	50	970
Port Alexander	AK	24	16	149	3,948	3	8	185	18	156	4,133
Port Graham	AK	46	13	204	2,569	9	185	1,059	15	388	3,628
Port Lions	AK	49	16	107	2,403	18	80	1,258	26	187	3,661
Port Protection	AK	1									
Port William	AK	1									
Quinhagak	AK	8	0	0	0	7	8	59	7	8	59
Sand Point	AK	136	51	319	7,388	74	288	6,039	85	607	13,397
Savoonga	AK	17	8	35	77	3	1	60	9	36	777
Saxman	AK	12	2	7	55	0	0	0	2	7	105
Seldovia	AK	151	69	761	2,440	48	639	6,692	92	1,400	19,132
Seward	AK	12	0	0	0	1	6	188	1	6	188
Sitka	AK	1,658	739	3,698	8,426	159	481	8,604	784	4,179	93,030
Skagway	AK	57	23	62	1,391	7	11	206	25	72	1,597
Soldotna	AK	44		102	476	3	131	2,549	8	233	3,025
St. George Island	AK	4									
St. Paul Island	AK	43	9	4	542	9	11	812	11	55	1,354
Sterling	AK	3									
Tatitlek	AK	23	12	166	3,415	1	2	19	13	168	3,433
Teller	AK	9	0	0	0	0	0	0	0	0	0
Tenakee Springs	AK	60	23	138	2,968	15	49	774	27	188	3,743
Thorne Bay	AK	117	51	240	6,486	18	43	1,105	56	283	7,592
Togiak	AK	5									
Toksook Bay	AK	32	2	54	378	7	25	219	8	79	597

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City	State	Number of SHARCs issued ^a	Estimated harvests by gear type											
			Set hook gear			Hook and line or handline			All gear					
			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			
Trapper Creek	AK	1												
Tununak	AK	11	0	0	0	4	8	84	4	80	84			
Twin Hills	AK	1												
Unalakleet	AK	1												
Unalaska	AK	68	17	166	2,301	28	249	3,90	31	415	6,204			
Valdez	AK	40	7	50	678		8	805	12	138	1,483			
Ward Cove	AK	37	9	62	1,417	7	26	385	13	88	1,802			
Wasilla	AK	47	8	27	744	2	72	188	10	99	932			
Whale Pass	AK	7	3	5	303	5	2	80	7	8	383			
Willow	AK	2												
Wrangell	AK	493	194	1,088	22,142	9	327	5,580	231	1,415	27,721			
Yakutat	AK	116	42	461	10,278	27	208	3,338	57	668	13,615			
Alaska subtotal		11,015	3,815	27,367	535,12	,975	10,767	161,993	4,699	38,134	697,105			
Non-Alaska subtotal		130	5	8		2	10	143	5	28	551			
Total		11,145	3,821	7,385	35,521	1,977	10,777	162,136	4,705	38,162	697,656			

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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	9	4
Akhiok	AK	8	7
Akutan	AK	16	7
Aleknagik	AK	1	
Anchor Point	AK	15	8
Anchorage	AK	225	103
Angoon	AK	112	59
Atka	AK	1	
Auke Bay	AK	4	
Barrow	AK	2	
Bethel	AK	8	
Chefornak	AK	14	12
Chenega Bay	AK	11	8
Chevak	AK	2	
Chignik	AK	9	1
Chignik Lagoon	AK	13	4
Chignik Lake	AK	3	
Chiniak	AK	11	8
Chugiak	AK		
Clark's Point	AK	1	
Coffman Cove	AK	5	32
Cold Bay	AK	9	25
Cordova	AK	52	228
Craig	A	516	251
Dillingham	AK	32	2
Douglas	K	12	0
Dutch Harbor	AK	73	42
Eagle River	AK	10	9
Edna Bay	AK	28	10
Eek	AK	6	3
Egegik	K	2	
Elfin Cove	AK	20	13
Elmemdorf AFB	AK	1	
Excursion Inlet	AK	4	
Fairbanks	AK	6	2
Fritz Creek	AK	1	
Gakona	AK	1	
Gambell	AK	1	
Girdwood	AK	1	
Glennallen	AK	1	
Golovin	AK	1	
Goodnews Bay	AK	4	
Gustavus	AK	65	46

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City	State	Number of SHARCs issued ^a	Estimated number subsistence or sport fished
Haines	AK	507	281
Homer	AK	30	19
Hoonah	AK	246	115
Hooper Bay	AK	14	3
Hydaburg	AK	129	51
Hyder	AK	32	20
Juneau	AK	363	114
Take	AK	128	64
Karluk	AK	9	7
Kasaan	AK	10	3
Kasilof	AK	16	9
Kenai	AK	112	3
Ketchikan	AK	610	197
King Cove	AK	80	45
King Salmon	AK	3	
Kipnuk	AK	14	5
Klawock	AK	256	99
Klukwan	AK	3	
Kodiak	AK	1,660	1,009
Kongiganak	AK	5	
Kotzebue	AK	1	
Kwigillingok	AK		
Larsen Bay	AK	1	20
Manokotak	AK		
Mekoryuk	A	5	
Metlakatla	AK	188	66
Meyers Chuck	K	8	7
Naknek	AK	10	5
Nanwalek	AK	78	32
Napakiak		1	
Naukati Bay	AK	22	16
Nelson Lagoon	K	1	
Newtok	AK	1	
Nightmute	AK	2	
Nikiski	AK	7	3
Ninilchik	AK	36	8
Nome	AK	19	6
North Pole	AK	2	
Old Harbor	AK	41	25
Ouzinkie	AK	49	24
Palmer	AK	13	2
Pelican	AK	46	35
Perryville	AK	18	11
Petersburg	AK	976	459
Point Baker	AK	21	14
Port Alexander	AK	24	18

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City	State	Number of SHARCs issued ^a	Estimated number subsistence or sport fished
Port Graham	AK	46	15
Port Lions	AK	49	37
Port Protection	AK	1	
Port William	AK	1	
Quinhagak	AK	8	7
Sand Point	AK	136	87
Savoonga	AK	17	9
Saxman	AK	12	2
Seldovia	AK	151	98
Seward	AK	12	3
Sitka	AK	1,658	867
Skagway	AK	57	3
Soldotna	AK	44	13
St. George Island	AK	4	
St. Paul Island	AK	43	11
Sterling	AK	3	
Tatitlek	AK	23	14
Teller	AK	9	0
Tenakee Springs	AK	60	32
Thorne Bay	AK	17	73
Togiak	AK	5	
Toksook Bay	AK	3	8
Trapper Creek	AK	1	
Tununak	AK		4
Twin Hills	AK	1	
Unalakleet	AK	1	
Unalaska	AK	68	33
Valdez	AK	40	15
Ward Cove	AK	37	14
Wasilla	AK	47	10
Whale Pass	AK	7	8
Willow	AK	2	
Wrangell	AK	493	252
Yakutat	AK	116	61
Alaska subtotal		11,015	5,455
Non-Alaska subtotal		130	41
Total		11,145	5,496

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, 2010.

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	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Angoon Community Association	2C	94	80	85.1%	42	45.0%	494	6,768	6	5.9%	29	287	0	0	7	36
Aukquan Traditional Council	2C	1														
Central Council Tlingit and Haida Indian Tribes	2C	513	256	49.9%	152	29.7%	1,400	26,360	64	12.5%	279	4,507	13	29	26	186
Chilkat Indian Village	2C	21	17	81.0%	2	10.3%	15	311	1	5.2%	141	379	0	0	0	0
Chilkoot Indian Association	2C	56	40	71.4%	11	19.3%	12	1,843	4	7.5%	13	225	0	0	1	3
Craig Community Association	2C	65	28	43.1%	28	43.1%	258	5,64	0	0.0%	0	0	2	40	8	172
Douglas Indian Association	2C	16	6	37.5%	4	22.9%	7	172	0	0.0%	0	0	0	0	0	0
Hoonah Indian Association	2C	151	84	55.6%	55	6.5%	693	1 526	10	6.7%	37	624	3	9	5	64
Hydaburg Cooperative Association	2C	132	101	76.5%	47	9%	466	15,699	5	3.6%	17	584	11	64	18	307
Ketchikan Indian Corporation	2C	526	359	68.3%	112	21.2%	1,118	20,583	69	13.2%	227	4,592	14	26	37	286
Klawock Cooperative Association	2C	90	43	47.8%	25	2.9%	156	4,511	0	0.0%	0	0	10	19	11	83
Metlakatla Indian Community, Annette Island Reserve	2C	178	146	82.0%		21.4%	223	5,329	22	12.6%	41	995	6	25	12	322
Organized Village of Kake	2C	89	50	56.2%	25	28.0%	253	6,000	2	1.8%	10	124	9	31	8	50
Organized Village of Kasaan	2C	6	4	66.7%	1	16.7%	49	378	0	0.0%	0	0	1	11	1	25

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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	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Organized Village of Saxman	2C	42	26	61.9%	15	35.6%	211	1,431	4	8.9%	0	0	4	9	4	22
Petersburg Indian Association	2C	85	45	52.9%	30	34.8%	192	3,254	9	10.6%	33	699	0	0	6	18
Sitka Tribe of Alaska	2C	314	177	56.4%	124	39.4%	740	17,018	19	5.9%	39	540	42	100	44	271
Skagway Village Wrangell Cooperative Association	2C	98	69	70.4%	44	45.4%	366	7,629	14	14.6%	50	1,453	0	0	7	57
Subtotal, Area 2C		2,480	1,534	61.9%	755	30.5%	6,762	133,45	30	9.3%	915	15,009	115	364	194	1,902
Kenaitze Indian Tribe	3A	127	71	55.9%	37	29.5%	464	6,471	16	12.2%	40	491	2	3	3	24
Lesnoi Village (Woody Island)	3A	74	38	51.4%	10	13.0%		1,132	10	14.1%	41	687	0	0	3	20
Native Village of Afognak	3A	26	18	69.2%	9	33.2%	93	1,37	6	22.0%	10	194	0	0	0	0
Native Village of Akhiok	3A	10	5	50.0%	7	70.0%	35	719	0	0.0%	0	0	0	0	0	0
Native Village of Chenega	3A	20	11	55.0%	9	45.0%	59	634	3	15.0%	3	0	2	2	3	38
Native Village of Eyak	3A	82	48	58.5%	22	7.1%	145	2,162	14	17.1%	21	511	3	7	3	21
Native Village of Karluk	3A	4														
Native Village of Larsen Bay	3A	36	15	41.7%	25	7%	215	4,445	6	15.6%	19	315	2	2	7	55
Native Village of Nanwalek	3A	75	32	42.7%	28	3.3%	626	8,938	3	4.0%	16	231	8	30	7	88
Native Village of Ouzinkie	3A	35	23	65.7%	11	31.8%	114	2,250	6	16.4%	30	529	1	3	4	48
Native Village of Port Graham	3A	45	21	46.7%	16	34.4%	465	4,822	0	0.0%	0	0	3	9	9	179
Native Village of Port Lions	3A	34	25	73.5%	20	58.7%	155	3,107	12	35.6%	39	767	1	8	4	13

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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	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Native Village of Tatitlek	3A	30	14	46.7%	9	30.8%	157	2,824	0	0.0%	0	0	0	0	2	7
Ninilchik Village	3A	86	45	52.3%	15	17.8%	316	4,392	16	18.1%	48	629	2	5	2	12
Seldovia Village Tribe	3A	61	36	59.0%	38	62.5%	518	8,639	13	21.5%	47	520	2	2	8	46
Sun'aq Tribe of Kodiak (formerly Shoonaq')	3A	133	71	53.4%	72	54.1%	799	14,719	26	1%	111	1,788	7	14	14	79
Village of Kanatak	3A	25	5	20.0%	0	0.0%	0	0	5	19.0%	10	100	0	0	0	0
Village of Old Harbor	3A	51	25	49.0%	22	43.4%	205	2,822	5	10.7%	39	814	0	0	2	27
Village of Salamatoff	3A	22	16	72.7%	9	39.7%	199	2,255	4	19.8%	28	285	0	0	1	22
Yakutat Tlingit Tribe	3A	48	24	50.0%	28	58.4%	41	8,888	1	2.6%	0	0	9	83	4	46
Subtotal, Area 3A		1,024	545	53.2%	391	38.2%	5,055	81,133	145	14.2%	500	7,861	42	166	77	725
Agdaagux Tribe of King Cove	3B	64	36	56.3%	39	61.1%	340	5,900	8	11.7%	40	512	7	59	3	28
Chignik Lake Village	3B	11	5	45.5%	10	90.9%	36	389	4	36.4%	8	98	0	0	0	0
Ivanoff Bay Village	3B	8	3	37.5%	6	0%	51	599	0	0.0%	0	0	0	0	0	0
Native Village of Belkofski	3B	5														
Native Village of Chignik	3B	7	7	100.0%	1	13%	25	137	0	0.0%	0	0	0	0	0	0
Native Village of Chignik Lagoon	3B	19	18	94.7%	7	37%	79	1,273	2	11.3%	9	233	0	0	2	19
Native Village of False Pass	3B	1														
Native Village of Nelson Lagoon	3B	3														
Native Village of Perryville	3B	21	15	71.4%	11	54.0%	102	1,457	2	11.1%	15	215	1	3	1	4

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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	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Native Village of Unga	3B	8	5	62.5%	2	25.0%	9	189	1	12.5%	1	14	0	0	1	1
Pauloff Harbor Village	3B	50	14	28.0%	40	80.2%	269	8,285	17	3.3%	36	973	5	5	0	0
Qagan Toyagungin Tribe of Sand Point Village	3B	88	53	60.2%	38	43.2%	280	4,018		5.2%	15	213	2	2	8	38
Subtotal, Area 3B		285	160	56.1%	155	54.4%	1,190	20,935	38	13. %	124	2,257	14	68	15	90
Native Village of Akutan	4A	22	10	45.5%	8	37.1%	56	1,593	2	7.6%	5	70	0	0	0	0
Qawalingin Tribe of Unalaska	4A	27	15	55.6%	12	43.9%	124	2,17	0	0.0%	0	0	8	68	7	100
Subtotal, Area 4A		49	25	51.0%	20	40.8%	180	3,766	2	3.4%	5	70	8	68	7	100
Native Village of Atka	4B	6	3	50.0%	2	33.3%	1	140	0	0.0%	0	0	0	0	0	0
Subtotal, Area 4B		6	3	50.0%	2	33.3%	10	14	0	0.0%	0	0	0	0	0	0
Pribilof Islands Aleut Community of St. George	4C	6	3	50.0%	4	66.7%	20	490	0	0.0%	0	0	0	0	0	0
Pribilof Islands Aleut Community of St. Paul	4C	45	15	33.3%	9	20%	45	1,214	5	10.4%	14	203	0	0	0	0
Subtotal, Area 4C		51	18	35.3%	13	26.4%	65	1,704	5	9.2%	14	203	0	0	0	0
Native Village of Diomed (Inalik)	4D	1														
Native Village of Gambell	4D	1														
Native Village of Savoonga	4D	17	9	52.9%	9	52.9%	36	777	0	0.0%	0	0	0	0	0	0
Subtotal, Area 4D		19	10	52.6%	10	52.6%	44	952	0	0.0%	0	0	0	0	0	0
Chevak Native Village (Kashunamiut)	4E	3														
Chinik Eskimo Community	4E	1														

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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	Estimated number of respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Egegik Village	4E	5														
King Island Native Community	4E	2														
Levelock Village	4E	1														
Manokotak Village	4E	1														
Naknek Native Village	4E	9	3	33.3%	5	51.9%	0	0	2	9%	0	0	0	0	0	0
Native Village of Aleknagik	4E	5														
Native Village of Brevig Mission	4E	1														
Native Village of Council	4E	4														
Native Village of Dillingham (Curyung)	4E	18	10	55.6%	4	22.2%	2	872	2	11.1%	12	252	2	4	0	0
Native Village of Eek	4E	8	5	62.5%	3	31.3%	9	17	0	0.0%	0	0	0	0	0	0
Native Village of Goodnews Bay (Mumtraq)	4E	4														
Native Village of Hooper Bay	4E	16	5	31.3%	3	7%	11	121	0	0.0%	0	0	0	0	0	0
Native Village of Kipnuk	4E	15	2	13.3%		33.3%	85	770	0	0.0%	0	0	0	0	0	0
Native Village of Kongiganak	4E	5														
Native Village of Koyuk	4E	1														
Native Village of Kwigillingok	4E	2														
Native Village of Kwinhagak	4E	7	2	28.6%	7	100.0%	8	59	0	0.0%	0	0	0	0	0	0
Native Village of Mekoryuk	4E	6	3	50.0%	4	66.7%	74	322	2	33.3%	12	252	2	16	0	0
Native Village of Nightmute	4E	1														

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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	Estimated number of respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Native Village of Scammon Bay	4E	3														
Native Village of Shaktoolik	4E	1														
Native Village of Toksook Bay (Nunakauyak)	4E	35	14	40.0%	9	25.7%	80	606	0	0.0%	0	0	0	0	0	0
Native Village of Tununak	4E	13	4	30.8%	5	38.5%	92	224	0	0.0	0	0	0	0	0	0
Native Village of Unalakleet	4E	3														
Native Village of Wales	4E	1														
Newtok Village	4E	2														
Nome Eskimo Community	4E	16	4	25.0%	6	34.4%	33	8	0	0.0%	0	0	3	11	0	0
Orutsararmuit Native Village	4E	9	4	44.4%	7	77.8%	31	861	1	11.1%	5	56	0	0	0	0
South Naknek Village	4E	2														
Traditional Village of Togiak	4E	3														
Ugashik Village	4E	2														
Village of Chefornek	4E	14	6	42.9%	12	3.3%	257	1,139	0	0.0%	0	0	0	0	0	0
Village of Clark's Point	4E	1														
Village of Kotlik	4E	1														
Subtotal, Area 4E		221	86	38.9%		33.9%	726	6,310	13	6.0%	82	1,404	7	31	0	0
Tribal subtotal		4,135	2,381	57.6%	1,422	34.4%	14,033	248,446	434	10.5%	1,640	26,803	186	697	293	2,817

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Rural community	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	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Angoon	2C	13	13	100.0%	10	76.9%	103	1,982	1	7.7%	4	70	1	5	2	9
Coffman Cove	2C	51	43	84.3%	23	44.3%	155	2,824	25	48.6%	155	2,353	2	4	11	143
Craig	2C	358	271	75.7%	129	36.1%	1,182	18,830	83	22.2%	352	4,631	31	79	59	457
Edna Bay	2C	38	27	71.1%	11	29.4%	45	1,167	5	12.4%	8	177	4	11	5	40
Elfin Cove	2C	21	13	61.9%	11	50.0%	64	1,363		16.7%	20	469	3	12	7	56
Gustavus	2C	67	53	79.1%	35	51.6%	271	5,541	23	33.6%	112	2,205	0	0	0	0
Haines	2C	448	366	81.7%	260	58.1%	1,127	25,441	61	13.7%	109	2,039	12	26	19	69
Hollis	2C	49	43	87.8%	28	58.0%	132	3,350	7	13.4%	8	211	1	1	8	55
Hoonah	2C	99	79	79.8%	53	53.4%	518	6,455	5	25.5%	112	1,701	2	8	9	51
Hydaburg	2C	12	9	75.0%	3	25.0%	27	1,295	6	50.0%	16	335	1	3	2	11
Hyder	2C	32	25	78.1%	20	62.2%	65	1,509	4	13.2%	0	0	1	2	4	29
Juneau	2C	6	2	33.3%	3	50.0%		137	0	0.0%	0	0	0	0	3	6
Kake	2C	35	26	74.3%	20	56.8%	15	4,055	2	35.3%	32	655	7	10	10	74
Kasaan	2C	7	4	57.1%	4	50.0%	14	40	4	50.0%	0	0	0	0	0	0
Ketchikan	2C	7	4	57.1%	4	50.0%	11	67	4	50.0%	0	0	0	0	2	19
Klawock	2C	160	113	70.6%	58	36.2%	573	9,905	46	28.5%	210	2,620	17	45	29	225
Klukwan	2C	2														
Metlakatla	2C	24	18	75.0%	9	36.9%	53	1,414	7	29.4%	21	585	0	0	1	5
Meyers Chuck	2C	9	7	77.8%	7	77.8%	26	711	0	0.0%	0	0	0	0	3	13
Naukatli Bay	2C	46	36	78.3%	30	66.0%	147	3,595	15	32.2%	70	1,333	5	12	17	162
Pelican	2C	36	25	69.4%	22	62.2%	98	2,836	8	23.2%	4	102	9	23	13	142
Petersburg	2C	888	699	78.7%	341	38.3%	2,200	36,836	205	23.1%	771	12,663	5	14	40	265
Port Alexander	2C	26	17	65.4%	17	65.4%	154	4,088	5	17.4%	9	163	10	39	10	107
Port Protection	2C	16	12	75.0%	8	50.0%	63	1,150	1	6.9%	0	0	1	1	7	34
Pt. Baker	2C	16	15	93.8%	9	53.8%	29	662	2	13.5%	1	30	0	0	4	48
Saxman	2C	15	9	60.0%		21.3%	120	963	3	21.3%	64	560	3	35	3	192
Sitka	2C	1,370	991	72.3%	663	48.4%	3,503	77,544	251	18.3%	590	9,355	261	771	348	3,016
Skagway	2C	53	39	73.6%	24	45.3%	62	1,495	18	34.2%	47	823	1	1	4	11
Tenakee Springs	2C	60	52	86.7%	30	49.3%	190	3,851	13	21.1%	30	413	1	2	13	78
Thorne Bay	2C	121	107	88.4%	57	47.5%	282	7,642	41	34.0%	115	2,234	9	37	31	276
Ward Cove	2C	1														
Whale Pass	2C	16	15	93.8%	11	66.7%	54	3,511	6	40.1%	13	356	0	0	1	5

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Rural community	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	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Wrangell	2C	387	307	79.3%	184	47.5%	1,085	21,225	71	18.5%	178	3,768	7	23	28	151
Subtotal, Area 2C		4,489	3,443	76.7%	2,085	46.4%	12,512	254,157	956	21.3%	3,052	49,852	395	1,165	693	5,748
Chenega Bay	3A	8	8	100.0%	4	50.0%	118	1,062	3	3.5%	49	644	2	12	2	65
Chiniak	3A	7	6	85.7%	4	57.1%	70	875	2	28.6%	3	63	0	0	0	0
Cordova	3A	471	344	73.0%	179	38.0%	1,073	19,765	7	16.7%	189	3,310	5	9	26	117
Karluk	3A	6	6	100.0%	5	83.3%	75	1,447	0	0%	0	0	3	16	0	0
Kodiak	3A	1,483	995	67.1%	743	50.1%	7,061	122,411	483	32.5	2,634	45,119	105	236	162	1,587
Larsen Bay	3A	4														
Nanwalek	3A	6	5	83.3%	3	50.0%	234	5,80	2	33.3%	8	140	0	0	1	10
Old Harbor	3A	5														
Ouzinkie	3A	18	17	94.4%	14	77.0%	49	995	2	11.9%	11	150	1	2	0	0
Port Graham	3A	7	4	57.1%	5	71.4%	7	1,426	0	0.0%	0	0	1	15	3	9
Port Lions	3A	17	15	88.2%	8	47.1%	7	1, 7	1	66.7%	70	826	0	0	2	18
Seldovia	3A	136	104	76.5%	82	60.4%	1,243	15,32	29	21.3%	224	2,812	6	19	11	117
Tatitlek	3A	12	10	83.3%	9	72.9%	63	1 46	3	28.1%	10	122	2	5	7	45
Yakutat	3A	72	54	75.0%	32	44 %	356	6,139	13	18.2%	80	1,521	15	40	7	63
Subtotal, Area 3A		2,252	1,575	69.9%	1,093	8.5%	5,559	17 376	630	28.0%	3,286	54,812	141	355	220	2,030
Chignik	3B	1														
Chignik Lake	3B	1														
Cold Bay	3B	34	29	85.3%	21	60. %	226	2,890	14	40.3%	10	179	3	63	0	0
False Pass	3B	1														
King Cove	3B	21	16	76.2%	11	3%	117	2,345	3	15.6%	7	143	1	11	1	113
Sand Point	3B	15	5	33.3%	8	5 3%	64	1,194	3	16.7%	3	44	0	0	7	120
Subtotal, Area 3B		73	52	71.2%	41	5 9%	414	6,638	19	26.7%	20	366	5	74	8	233
Unalaska	4A	115	85	73.9%	50	43.6%	564	7,563	27	23.5%	212	3,030	4	14	2	5
Subtotal, Area 4A		115	85	73.9%	43.6%	564	7,563	27	23.5%	212	3,030	4	14	2	5	
Adak	4B	10	6	60.0%	7	66.7%	33	672	1	13.3%	0	0	0	0	1	9
Subtotal, Area 4B		10	6	60.0%	7	66.7%	33	672	1	13.3%	0	0	0	0	1	9
St. George Island	4C	1														
Subtotal, Area 4C		1														

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	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	Estimated number of respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Percent of SHARCs	Estimated number fish	Estimated pounds	Estimated number respondents	Estimated number fish	Estimated number respondents	Estimated number fish
Bethel	4E	1														
Chefornak	4E	1														
Dillingham	4E	26	18	69.2%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Egegik	4E	1														
King Salmon	4E	3														
Kotlik	4E	1														
Manokotak	4E	2														
Naknek	4E	5														
Nightmute	4E	1														
Nome	4E	17	11	64.7%	5	28.2%	13	307	0	0.0%	0	0	0	0	0	0
South Naknek	4E	1														
Teller	4E	9	5	55.6%	0	0.0%	0	0	0	0.0%	0	0	0	0	0	0
Togiak	4E	2														
Subtotal, Area 4E		70	46	65.7%	7	9.7%	42	70	1	1.4%	6	81	0	0	0	0
Rural community subtotal	All	7,010	5,208	74.3%	3,283	46 %	129,421	4,210	1,636	23.3%	6,595	108,421	544	1,608	926	8,036
Tribal subtotal	All	4,135	2,381	57.6%	1,422	4.4%	14,033	48,446	434	10.5%	1,640	26,803	186	697	293	2,817
Rural community subtotal	All	7,010	5,208	74.3%	3,283	46.8 %	129,421	449,210	1,636	23.3%	6,595	108,421	544	1,608	926	8,036
Total	All	11,145	7,589	68.1%	4,705	2.2%	38,162	697,656	2,070	18.6%	8,235	135,224	730	2,305	1,220	10,853

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, 2005–2011.

Project staff explored the possibility of nonresponse bias for the mailed surveys in 2011 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 2011.

For survey respondents overall (7,024 responded by mail), average harvests differed significantly as reported by respondents to the first (5,291 respondents) and second (1,148 respondents) mailings (Appendix F-1 and Appendix F-2). On average, respondents to the first mailing averaged harvests of 72.9 lb (± 3.2) and respondents to the second mailing averaged 49.4 lb (± 5.7). However, average harvests for respondents to the third mailing (585 respondents) increased to 62.3 lb (± 9.1) and were not significantly different from the averages for either of the first 2 mailings, thus failing to provide evidence of lower harvests based on response category. In other words, respondents to the last mailing did not, on average, have significantly different harvests from respondents to the first mailing. The same relationships were found for respondents from Area 2C (4,424 respondents by mail) and 3A (2,117 respondents), which, together, account for 93.1% of mailed survey responses in 2011. Response patterns for Area 3B (205 responses) showed declining harvest rates over the 3 mailings. In Area 4 (178 responses by mail), there were no significant differences in harvest rates for the 3 mailings.

In 2011, a similar pattern occurred based on the percentage of respondents that reported participation in the subsistence fishery in 2011 (Appendix F-3, Appendix F-4). The average was 49% ($\pm 1.0\%$) for respondents for the first mailing, and dropped significantly to 35% (± 2.4) for respondents to the second mailing. However, 45% of respondents to the third mailing participated in the fishery, a significantly higher rate than for respondents to the second mailing and not significantly different from the set of respondents to the first mailing. Virtually the same pattern occurred for respondents from Areas 2C, 3A, and 3B. In Area 4, there were no significant differences in participation rates for the 3 sets of respondents. Thus the analysis did not uncover 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 no 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 One) were assigned mean values for their tribe or rural residence for estimating total harvests and participation rates.

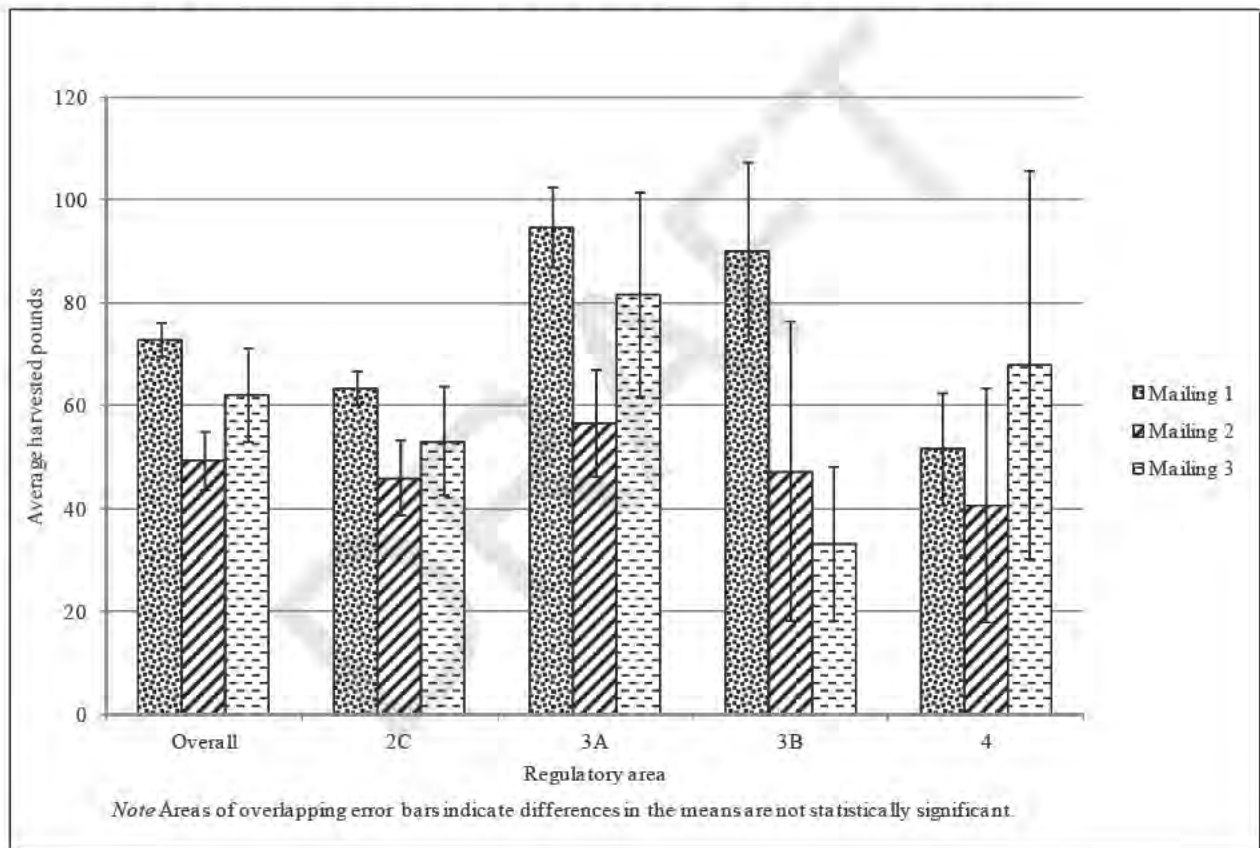
Appendix F-5 shows results for study years 2005 to 2010 for average harvests by response category, with all SHARC holders from all regulatory areas combined. Three mailings took place for 2005–2008. Except for 2006, no significant differences were found between the mean harvests for respondents to each 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 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 F-6 shows results for study years 2005 to 2011 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, 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 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 F-1.—Mean subsistence pounds harvested comparison by mailing, 2011.

Regulatory area	Mailing 1		Mailing 2		Mailing 3	
	Mean	CI	Mean	CI	Mean	CI
Overall	72.9	3.2	49.37	5.73	62.3	9.13
2C	63.4	3.3	46.1	7.3	53.2	10.5
3A	94.8	7.7	56.7	10.6	81.7	19.9
3B	90.1	17.4	47.3	29.2	33.3	14.9
4	51.7	10.9	40.8	22.8	68.1	37.7

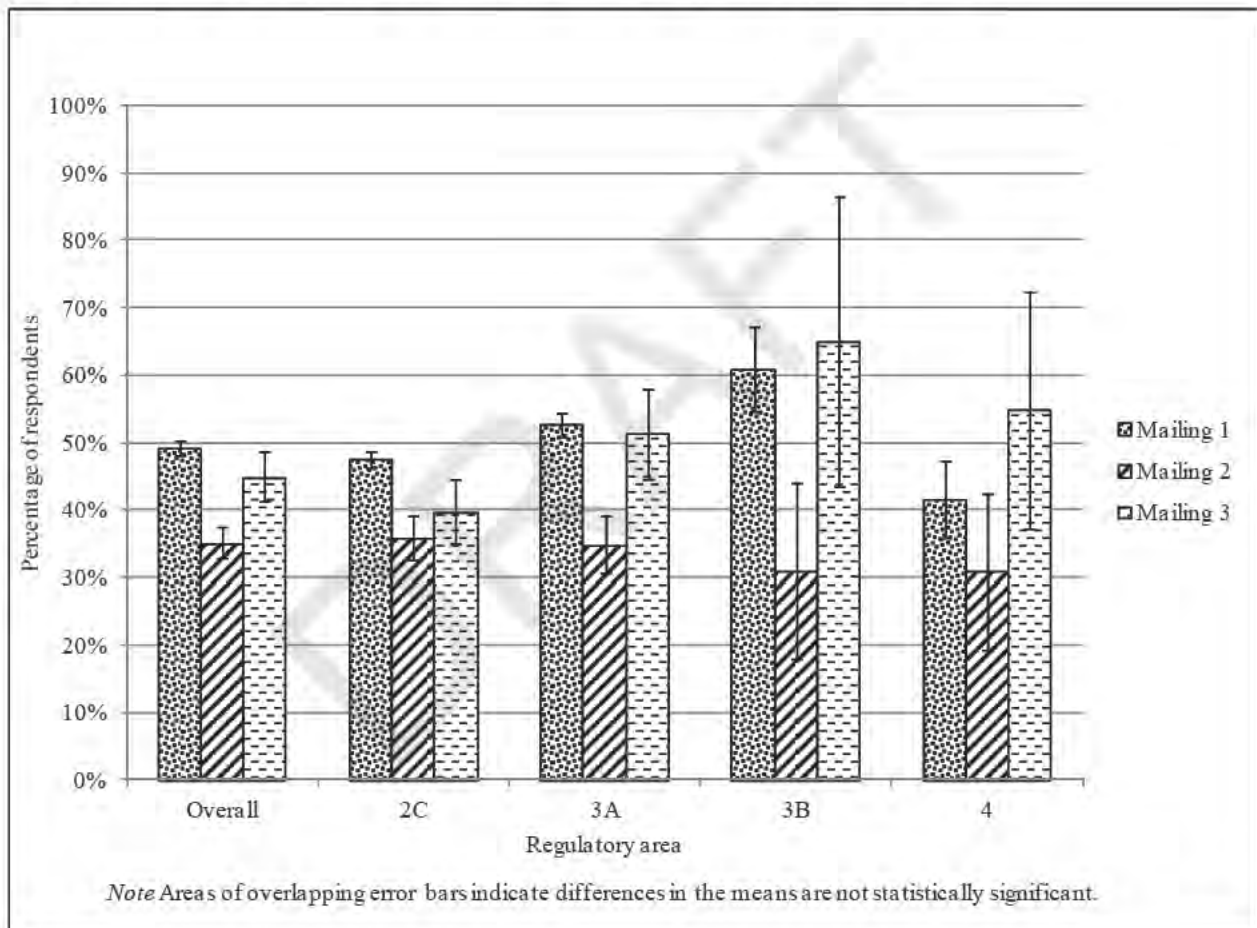
Appendix F-2.—Mean subsistence pounds harvested comparison by mailing, 2011.



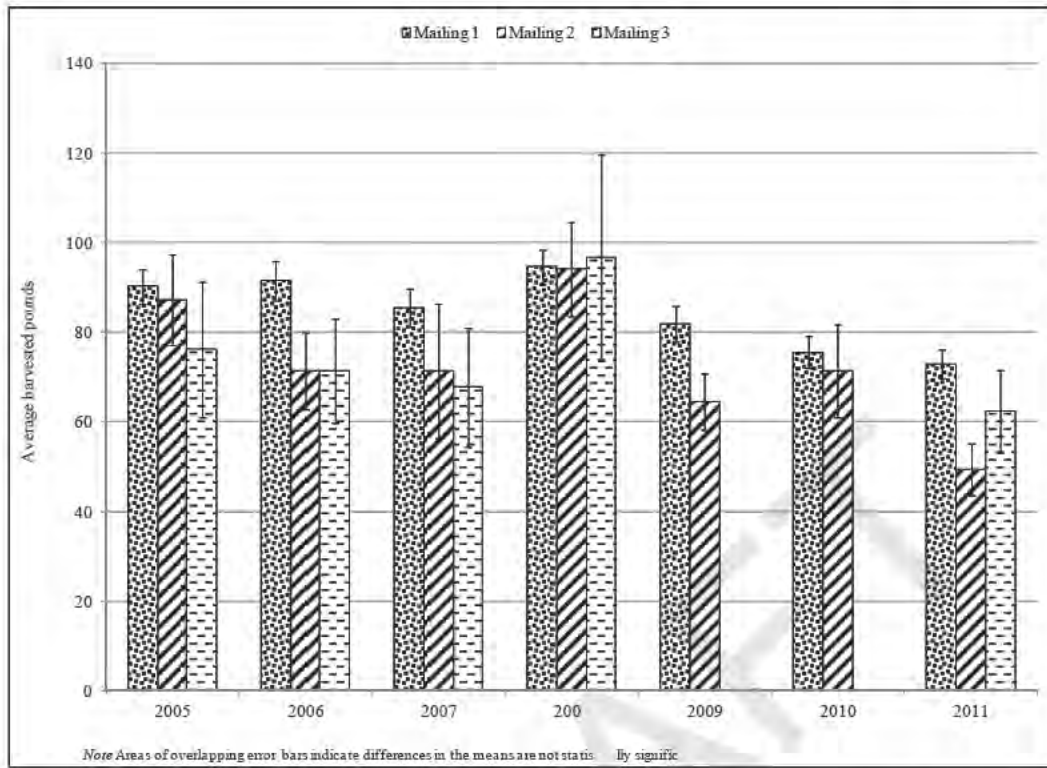
Appendix F-3.–Participation in subsistence fishing comparison by mailing, 2011.

Regulatory area	Mailing 1		Mailing 2		Mailing 3	
	Percentage fishing	CI	Percentage fishing	CI	Percentage fishing	CI
Overall	49.2%	1.0%	35.2%	2.4%	45.0%	3.7%
2C	47.6%	1.2%	35.9%	3.2%	39.7%	4.8%
3A	52.7%	1.8%	34.9%	4.1%	51.3%	6.7%
3B	60.8%	6.3%	31.0%	13.1%	65.0%	21.5%
4	41.7%	5.7%	30.9%	11.6%	54.8%	17.6%

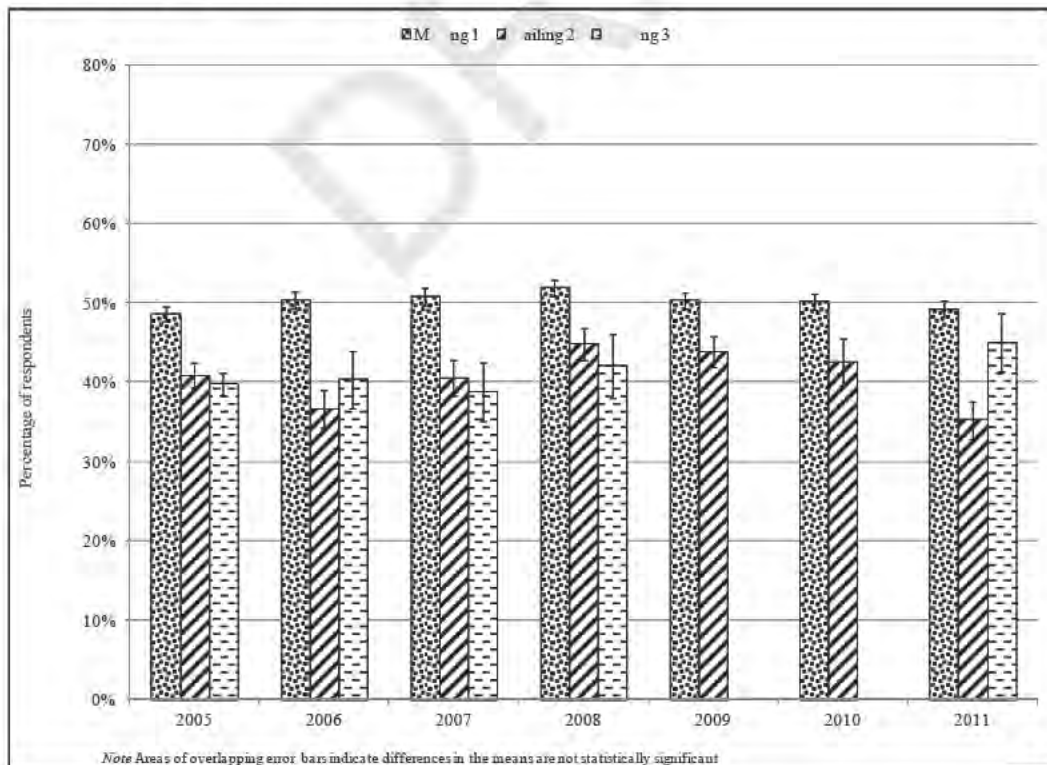
Appendix F-4.–Participation in subsistence fishing comparison by mailing, 2011.



Appendix F-5.—Mean subsistence harvest of halibut, pounds net weight, by response category, 2005–2011.



Appendix F-6.—Percentage of respondents who participated in the subsistence halibut fishery by response category, 2005–2011.





SUBSISTENCE HARVESTS OF PACIFIC HALIBUT IN ALASKA, 2011

Division of Subsistence, Alaska Department of Fish and Game
333 Raspberry Road, Anchorage, AK 99518
January 2013

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 2011. The full results of the study appear in the Division's Technical Paper No. 378, "Subsistence Harvests of Pacific Halibut in Alaska, 2011" (January 2013). 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).
- 2011 was the ninth year in which subsistence halibut fishing took place under these regulations. Information about subsistence halibut harvests in 2003–2010 is reported in Division of Subsistence Technical Papers 288, 304, 320, 333, 342, 348, 357, and 367, respectively.
- To estimate the 2011 harvests, a one-page survey form was mailed to SHARC holders in early 2011 or administered in person. After three mailings and community visits, 7,589 of 11,145 SHARC holders (68%) responded. Participation in the survey was voluntary.
- An estimated 4,705 individuals subsistence fished for halibut in 2011 (Figure 9).
- The estimated subsistence harvest was 38,162 halibut for 697,656 pounds net weight.
- Of this total, 77% was harvested with setline (stationary) gear (longline or skate) and 23% was harvested with hand-operated gear (handline or rod and reel).
- The largest subsistence harvests occurred in Southeast Alaska (Halibut Regulatory Area 2C), at 55% of the total, followed by Southcentral Alaska (Area 3A) at 38%. 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 2011 were Kodiak and Sitka (the largest eligible communities) (Figure 22).
- An estimated 10,853 rockfish were harvested by 1,220 fishers in the subsistence halibut fishery in 2010. Most (70%) were harvested in Southeast Alaska.
- An estimated 2,305 lingcod were harvested by 730 fishers in the subsistence halibut fishery in 2010. Most (66%) 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 2011 was 50.552 million pounds, net weight. Subsistence harvests accounted for 1.4% 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.
- The report also recommends that monitoring of the Alaska subsistence halibut harvest continue in order 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).

Table 1.—Estimated harvests of halibut in numbers of fish and pounds net (dressed, head-off) weight by regulatory area and subarea, 2011.

Subarea	Regulatory area	Number of SHARCs fished ^a	Estimated subsistence harvest by gear type ^a									Estimated sport harvest		
			Set hook gear			Hook and line or handline			All gear			Estimated number fished	Estimated number harvested	Estimated pounds harvested ^b
			Estimated number respondents	Estimated number halibut harvested	Estimated pounds halibut harvested ^b	Estimated number respondents	Estimated number halibut harvested	Estimated pounds halibut harvested ^b	Estimated number respondents	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.

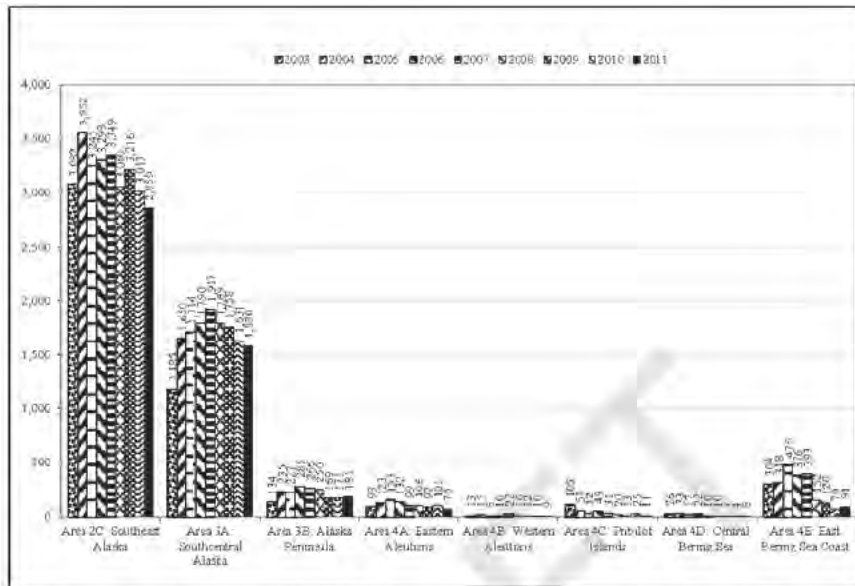


Figure 9. Estimated number of Alaska subsistence halibut fishers, 2003-2011 by regulatory area fished.

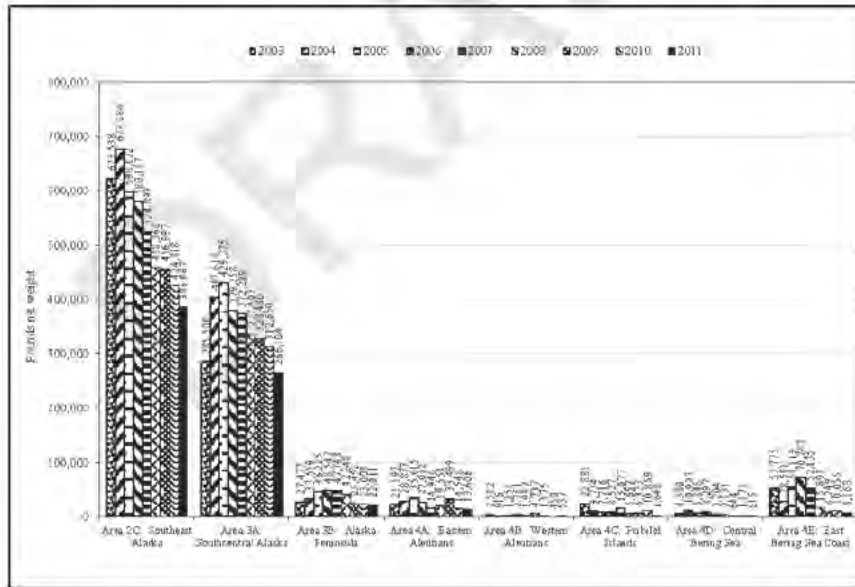


Figure 1. Estimated subsistence halibut harvests, pounds net weight, by regulatory area fished, 2003-2011.

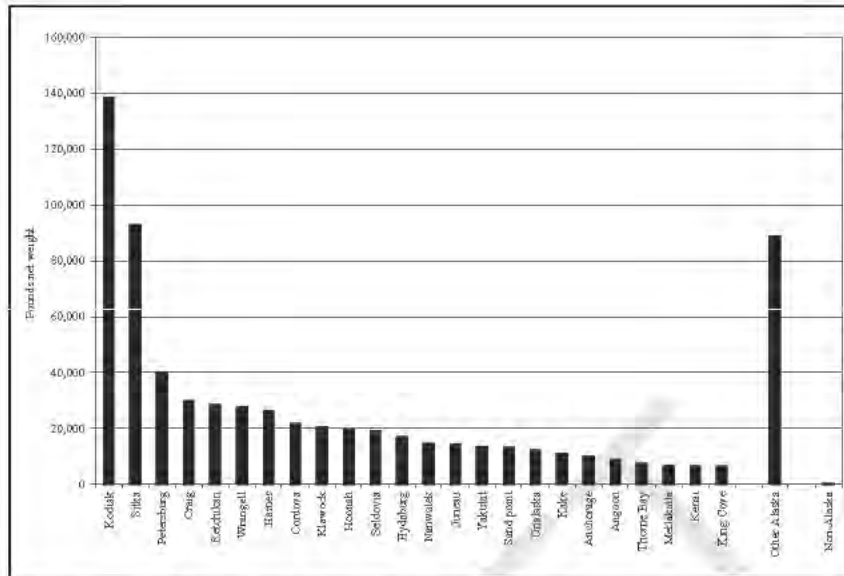


Figure 2.—Alaska subsistence halibut harvests by place of residence, 2011.

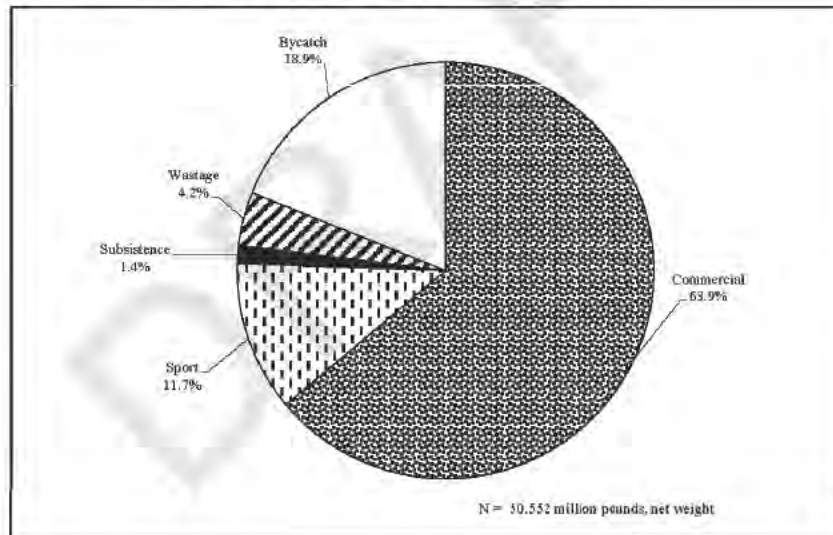


Figure 3.—Halibut removals, Alaska, 2011.

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