

STOCK ASSESSMENT AND FISHERY EVALUATION REPORT
FOR THE GROUNDFISH FISHERIES OF THE GULF OF ALASKA AND BERING
SEA/ALEUTIAN ISLAND AREA:

ECONOMIC STATUS OF THE GROUNDFISH FISHERIES OFF ALASKA, 2001

by

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ABSTRACT

The domestic groundfish fishery off Alaska is an important segment of the U.S. fishing industry. This report contains figures and tables which summarize various aspects of the economic performance of the fishery. Generally, data are presented for the domestic groundfish fishery for 1997 through 2001. Limited catch and ex-vessel value data are reported for earlier years in order to depict the rapid development of the domestic groundfish fishery in the 1980s and to provide a more complete historical perspective on catch. Pacific halibut (*Hippoglossus stenolepis*) is not included in data for the groundfish fishery in this report because for management purposes halibut is not part of the groundfish complex.

The report provides estimates of total groundfish catch, groundfish discards and discard rates, prohibited species bycatch and bycatch rates, the ex-vessel value of the groundfish catch, the ex-vessel value of the catch in other Alaska fisheries, the gross product value (F.O.B. Alaska) of the resulting groundfish seafood products, the number and sizes of vessels that participated in the Alaska groundfish fisheries, vessel activity, and employment on at-sea processors.

In addition, this report contains data on some of the external factors which, in part, determine the economic status of the fisheries. Such factors include foreign exchange rates, the prices and price indexes of products that compete with products from these fisheries, cold storage holdings, domestic per capita consumption of seafood products, and fishery imports.

The estimates in this report are intended both to provide information that can be used to describe the Alaska groundfish fisheries and to provide industry and others an opportunity to comment on the validity of these estimates.

This report also includes a summary of recent estimates of capacity, capacity utilization, and fishery utilization for the vessels that participated in federally managed commercial fisheries off Alaska in 2001 (Felthoven et al. 2002).

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INTRODUCTION

The domestic groundfish fishery off Alaska is an important segment of the U.S. fishing industry. With a total catch of 2.0 million metric tons (t), a retained catch of 1.9 million t, and an ex-vessel value of \$543 million in 2001, it accounted for 47% of the weight and 17% of the ex-vessel value of total U.S. domestic landings as reported in Fisheries of the United States, 2001. The value of the 2001 catch after primary processing was approximately \$1.4 billion (F.O.B. Alaska).

All but a small part of the commercial groundfish catch off Alaska occurs in the groundfish fisheries managed under the Fishery Management Plans (FMP) for the Gulf of Alaska (GOA) and the Bering Sea/Aleutian Islands area (BSAI) groundfish fisheries. In 2001, other fisheries accounted for only 3,800 t of the catch reported above. The footnotes for each table indicate if the estimates provided in that table are only for the fisheries with catch that is counted against Federal TACs or if they also include other Alaska groundfish fisheries.

The fishery management and development policies for the BSAI and GOA groundfish fisheries have resulted in high levels of catch, ex-vessel value (i.e., revenue), processed product value (i.e., revenue), exports, employment, and other measures of economic activity. The cost data required to estimate the success of these policies with respect to net benefits to either the participants in these fisheries or the Nation are not available. However, the use of the race for fish as a principal mechanism for allocating the groundfish quotas and prohibited species catch (PSC) limits among competing fishing operations has adversely affected at least some aspects of the economic performance of the fisheries. The individual fishing quota (IFQ) program for the fixed gear sablefish fishery, the Western Alaska Community Development Quota (CDQ) program for BSAI groundfish, and the American Fisheries Act (AFA) cooperatives for the BSAI pollock fishery have demonstrated that eliminating the race for fish as the allocation mechanism and replacing it with a market-based allocation mechanism can decrease harvesting and processing costs, increase the value of the groundfish catch, and, in some cases, decrease the cost of providing more protection for target species, non-target species, marine mammals, and seabirds. However, the distribution of net benefits and the magnitude of net benefits to the Nation resulting from such programs are difficult to measure. As with most any management program, there are winners and losers.

This report presents the economic status of groundfish fisheries off Alaska in terms of economic activity and outputs using estimates of catch, bycatch, ex-vessel prices and value (i.e., revenue), the size and level of activity of the groundfish fleet, and the weight and gross value of (i.e., F.O.B. Alaska revenue from) processed products. The catch, ex-vessel value, and fleet size and activity data are for the fishing industry activities that are reflected in Weekly Production Reports, Observer Reports, fish tickets, and the Commercial Operators' Annual Reports. All catch data reported for 1991-2001 are based on the blend estimates of total catch which are used by the National Marine Fisheries Service (NMFS) to monitor groundfish and PSC quotas during

each fishing year.

A variety of external factors influence the economic status of the fisheries. Information concerning the following external factors are included in this report: foreign exchange rates, the prices and price indexes of products that compete with products from these fisheries, U.S. cold storage holdings, and fishery imports. This report updates last year's report (Hiatt et al. 2001) and is intended to serve as a reference document for those involved in making decisions with respect to conservation, management, and use of these fishery resources.

The qualifications made in both the overview of the fisheries and the footnotes to the tables are critical to understanding the information contained in this report.

This report also includes a summary of recent estimates of capacity, capacity utilization, and fishery utilization for the vessels that participated in federally managed commercial fisheries off Alaska in 2001 (Felthoven et al. 2002).

The estimates in this report are intended both to provide information that can be used to describe the Alaska groundfish fisheries and to provide industry and others an opportunity to comment on the validity of these estimates. It is hoped that the industry and others will identify estimates in this report that can be improved and provide the information and methods necessary to improve them for both past and future years. There are two reasons why it is important that such improvements be made. First, with better estimates, the report will be more successful in monitoring the economic performance of the fisheries and in identifying changes in economic performance that should be addressed through regulatory actions. Second, the estimates in this report often will be used as the basis for estimating the effects of proposed fishery management actions. Therefore, improved estimates in this report will allow more informed decisions by those involved in managing and conducting the Alaska groundfish fisheries. The industry and other stakeholders in these fisheries can further improve the usefulness of this report by suggesting other measures of economic performance that should be included in the report or other ways of summarizing the data that are the basis for this report.

OVERVIEW

The commercial groundfish catch off Alaska totaled 2.0 million t in 2001, compared to 1.8 million t in 2000 (Fig. 1 and Table 1). The ex-vessel value of the catch, excluding the value added by at-sea processing, decreased from \$593 million in 2000 to \$543 million in 2001 (Fig. 3 and Table 2.1). The gross value of the 2001 catch after primary processing was approximately \$1.4 billion (F.O.B. Alaska). The groundfish fisheries accounted for the largest share of the ex-vessel value of all commercial fisheries off Alaska in 2001 (56%), while the Pacific salmon (*Oncorhynchus* spp.) fishery was second with \$189 million or 19% of the total Alaska ex-vessel value (Fig. 4, Tables 2.1 and 2.2). The value of the shellfish catch amounted to \$124 million or 13% of the total for Alaska.

During the last 15 years, estimated total catch in the commercial groundfish fisheries off Alaska (including foreign and joint venture fisheries as well as the domestic fishery) varied between 1.7 and 2.4 million t (Fig. 1 and Table 1). The rapid displacement of the foreign and joint-venture fisheries by the domestic fishery between 1984 and 1991 can be seen by comparing Figures 1 and 2; by 1991, the domestic fishery accounted for all of the commercial groundfish catch off Alaska.

The peak catch occurred in 1991, in part, because blend estimates of catch and bycatch were not yet used to monitor most quotas. If they had been, several fisheries would have been closed earlier in the year. There are three reasons why the catch estimates for 1988 through 1990 have a significant downward bias compared to the estimates for the other years. First, the domestic fishery accounted for a large part of total catch in 1988 through 1990. Second, discards were not included in the reported estimates of domestic catch prior to 1991, but they were included in the catch estimates for the foreign and joint venture fisheries. Based on estimates of the discard rates for 1992 through 1995, discards would have been about 16% of total catch. Finally, the blend estimates of catch, excluding at-sea discards, tend to exceed the estimates based solely on industry reports and prior to 1991 only industry reports were used to estimate retained catch in the domestic fishery. Variations in the catch estimates also reflect changes in the total allowable catch (TAC), area closures or restrictions, and bycatch restrictions.

The information provided by the Observer Program has had a key role in the success of the groundfish management regime. For example, it would not be possible to monitor total allowable catches (TACs) in terms of total catch without Observer Program data. Similarly, the PSC limits, which have been a key factor in controlling the bycatch of prohibited species, could not be used without the Observer Program. In recent years, the reliance on observer data for individual vessel accounting is of particular importance in the management of the CDQ program and AFA fisheries. In addition, much of the information that is used to assess the status of groundfish stocks, to monitor the interactions between the groundfish fishery and marine mammals and sea birds, and to analyze fishery management actions is provided by the Observer Program. Estimates of the numbers of vessels and plants with observers, observer-deployment days, and estimated observer costs by year and type of operation for 2000-2001 are presented in Table 3.

Walleye (Alaska) pollock (*Theragra chalcogramma*) has been the dominant species in the commercial groundfish catch off Alaska. The 2001 pollock catch of 1.46 million t accounted for 73% of the total groundfish catch of 2.00 million t (Table 1). The pollock catch was up approximately 21% from 2000. The next major species, Pacific cod (*Gadus macrocephalus*), accounted for 218,400 t or 10.9% of the total 2001 groundfish catch. The Pacific cod catch was down about 11% from a year earlier. The 2001 catch of flatfish, which includes yellowfin sole (*Pleuronectes asper*), rock sole (*Pleuronectes bilineatus*), and arrowtooth flounder (*Atheresthes stomias*) was 172,000 t, down almost 25% from 2000. Pollock, Pacific cod, and flatfish comprised almost 93% of the total 2001 catch. Other important species are sablefish (*Anoplopoma fimbria*), rockfish (*Sebastes* and *Sebastolobus* spp.), and Atka mackerel (*Pleurogrammus monopterygius*). The contributions of the major groundfish species or species

groups to the total catch in the domestic groundfish fisheries off Alaska are depicted in Fig. 2.

Trawl, hook and line (including longline and jigs), and pot gear account for virtually all the catch in the BSAI and GOA groundfish fisheries. There are catcher vessels and catcher/processor vessels for each of these three gear groups. Table 4 presents catch data by area, gear, vessel type, and species. The catch data in Table 4 and the catch, ex-vessel value, and vessel information in the tables of the rest of this report are for the BSAI and GOA FMP fisheries, unless otherwise indicated.

In the last five years, the trawl catch averaged about 90% of the total catch, while the catch with hook and line gear accounted for 8.4%. Most species are harvested predominately by one type of gear, which typically accounts for 90% or more of the catch. The one exception is Pacific cod, where in 2001, 35% (76,000 t) was taken by trawls, 54% (118,000 t) by hook and line gear, and 11% (24,000 t) by pots. In the last five years for the BSAI and GOA as a whole, catcher vessels took 44% of the catch and catcher/processor vessels took the other 56%. In each of the years 2000 and 2001, catcher vessels took about 47% of the total. That increase from earlier years is explained in part by the AFA, which among other things increased the share of the BSAI pollock TAC allocated to catcher vessels delivering to shoreside processors. The distribution of catch between catcher vessels and catcher/processor vessels differed substantially by species and area.

The discards of groundfish in the groundfish fishery have received increased attention in recent years by NMFS, the Council, Congress, and the public at large. Table 5 presents the blend estimates of the discarded groundfish catch and discard rates by gear, area, and species. The discard rate is the percent of total catch that is discarded.

Although these are the best available estimates of discards and are used for several management purposes, these estimates are not necessarily accurate. The groundfish TACs are established and monitored in terms of total catch, not retained catch; this means that both retained catch and discarded catch are counted against the TACs. Therefore, the estimation methods used by at-sea observers focus on providing good estimates of total catch by species, not on the disposition of that catch. Observers on vessels sample randomly chosen catches for species composition. For each sampled haul, they also make a rough visual approximation of the weight of the non-prohibited species in their samples that are being retained by the vessel. This is expressed as the percent of that species that is retained. Approximating this percentage is difficult because discards occur in a variety of places on fishing vessels. Discards include fish falling off of processing conveyor belts, dumping of large portions of nets before bringing them on-board the vessel, dumping fish from the decks, size sorting by crewmen, quality control discard, etc. Because observers can only be in one place at a time, they can provide only this rough approximation based on their visual observations rather than data from direct sampling. The discard estimate derived by expanding these approximations from sampled hauls to the remainder of the catch may be inaccurate because the approximation may be inaccurate. The numbers derived from the observer discard approximation can provide users with some information as to the disposition of the catch, but the discard numbers should not be treated as

sound estimates. At best, they should be considered a rough gauge of the quantity of discard occurring.

For the BSAI and GOA fisheries as a whole, the annual discard rate for groundfish decreased from 14.5% in 1997 to 6.2% in 2001 after a very large reduction in 1998, a small increase in 1999, and decreases in both 2000 and 2001. The 43% reduction in the overall discard rate in 1998 is the result of prohibiting pollock and Pacific cod discards in all BSAI and GOA groundfish fisheries beginning in 1998. Total discards decreased by almost 49% in 1998 with the aid of a 9.4% reduction in total catch. The prohibition was so effective in decreasing the overall discard rate because the discards of these two species had accounted for 43% of the overall discards in 1997. The benefits and costs of the reduction in discards since 1997 have not been determined. In 2001, the overall discard rates were, 13.3% and 5.5%, respectively, for the GOA and the BSAI compared to 16.2% and 14.3% in 1997.

Although the fixed gear fisheries accounted for a small part of either total catch or total discards, in 1998 and later years, the overall discard rates were substantially higher for fixed gear (12.8% in 2001) than for trawl gear (5.5% in 2001). Prior to 1998, the overall discard rates had been similar for these two gear groups. This change occurred because the prohibition on pollock and Pacific cod discards had a much larger effect on trawl discards than on fixed gear discards. In the BSAI, the 2001 discard rates were 13.2% and 4.8% for fixed and trawl gear, respectively. However, in the GOA, the corresponding discard rates were 11.0% and 13.8%. One explanation for the relatively low discard rates for the BSAI trawl fishery is the dominance of the pollock fishery with very low discard rates. The mortality rates of groundfish that are discarded are thought to differ by gear or species; however, estimates of groundfish discard mortality are not available.

Target fisheries are defined by area, gear and target species. The target designations are used to estimate prohibited species catch (PSC), to apportion PSC limits by fishery (i.e., establish PSC allowances by fishery) and to monitor those PSC allowances. The target fishery designations can also be used to provide estimates of catch and bycatch data by fishery. The blend catch data are assigned to a target fishery by processor, week, area, and gear. CDQ fishing activity is targeted separately from non-CDQ fishing. Generally, the species or species group that accounts for the largest proportion of the retained catch of the TAC species is considered the target species. One exception to the dominant retained catch rule is that the target for the pelagic pollock fishery is assigned if 95 percent or more of the total catch is pollock.

Tables 6 and 7, 8 and 9, and 10 and 11, respectively, provide estimates of total catch, discarded catch, and discard rates by species, area, gear, and target fishery. Within each area or gear type, there are substantial differences in discard rates among target fisheries. Similarly, within a target fishery, there are often substantial differences in discard rates by species. Typically, in each target fishery the discard rates are very high except for the target species. The regulatory exceptions to the prohibition on pollock and Pacific cod discards explain, in part, why there are still high discard rates for these two species in some fisheries.

The bycatch of Pacific halibut, crab, Pacific salmon, and Pacific herring (*Clupea pallasii*) has been an important management issue for more than twenty years. The retention of these species was prohibited first in the foreign groundfish fisheries. This was done to ensure that groundfish fishermen had no incentive to target these species. Estimates of the bycatch of these prohibited species for 1998-2001 are summarized by area and gear in Table 12. More detailed estimates of prohibited species bycatch and of bycatch rates for 2000 and 2001 are in Tables 13 - 16. The estimates for halibut are in terms of bycatch mortality because the bycatch limits for halibut are set and monitored using estimated discard mortality rates. The estimates for the other prohibited species are of total bycatch, this is in part due to the lack of well established discard mortality rates for these species. The discard mortality rates probably approach 100% for salmon and herring in the groundfish fishery as a whole; however, the discard mortality rates for crab may be substantially lower.

An extensive at-sea observer program was developed for the foreign fleets and then extended to the domestic fishery once it had all but replaced participation by foreign fishing and processing vessels. The observer program resulted in fundamental changes in the nature of the bycatch problem. First, by providing good estimates of total groundfish catch and non-groundfish bycatch by species, it eliminated much of the concern that total fishing mortality was being underestimated due to fish that were discarded at sea. Second, it made it possible to establish, monitor and enforce the groundfish quotas in terms of total catch as opposed to only retained catch. For the groundfish fisheries, this means that both retained catch and discarded catch are counted against the TACs. Third, it made it possible to implement and enforce bycatch quotas for the non-groundfish species that by regulation had to be discarded at sea. Finally, it provided extensive information that managers and the industry could use to assess methods to reduce bycatch and bycatch mortality. In summary, the observer program provided fishery managers with the information and tools necessary to prevent bycatch from adversely affecting the stocks of the bycatch species. Therefore, the bycatch in the groundfish fishery is principally not a conservation problem but it can be an allocation problem. Although this does not make it less controversial, it does help identify the types of information and management measures that are required to reduce bycatch to the extent practicable, as is required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Residents of Alaska and of other states, particularly Washington and Oregon, are active participants in the BSAI and GOA groundfish fisheries. Catch data by residency of vessel owners are presented in Table 17. These data were extracted from the NMFS blend catch database and from the State of Alaska groundfish fish ticket database and vessel registration file which includes the stated residency of each vessel owner. For the domestic groundfish fishery as a whole, 94% of the 2001 catch was made by vessels with owners who indicated that they were not residents of Alaska. The catches of the two vessel-residence groups were much closer to being equal in the Gulf where Alaskan vessels accounted for the majority of the Pacific cod and sablefish catch.

Table 18 contains the estimated ex-vessel prices that were used with estimates of retained catch

to calculate ex-vessel values. The estimates of ex-vessel value by area, gear, type of vessel, and species are in Table 19. The ex-vessel value of the domestic landings in the FMP fisheries, excluding the value added by at-sea processing, decreased from \$571 million in 1997 to \$384 million in 1998, increased in 1999 to \$462 million, increased again to \$592 million in 2000, and decreased to \$543 in 2001. The distribution of ex-vessel value by type of vessel differed by area, gear and species. In 2001, catcher vessels accounted for 53% of the ex-vessel value of the groundfish landings compared to 47% of the total catch because catcher vessels take larger percentages of higher-priced species such as sablefish, which was \$2.15 per pound in 2001. Similarly, trawl gear accounted for only 72% of the total ex-vessel value compared to 91% of the catch because much of the trawl catch is of low-priced species such as pollock, which was about \$0.11 per pound in 2001.

Tables 20 and 20.1 summarize the ex-vessel value of catch delivered to shoreside processors by vessel-size class, gear, and area. Table 20 gives the total ex-vessel value in each category and Table 20.1 gives the ex-vessel value per vessel. The relative dominance of each of the three vessel size classes differs by area and by gear.

Table 21 provides estimates of ex-vessel value by residency of vessel owners, area, and species. For the BSAI and GOA combined, 86.1% of the 2001 ex-vessel value was accounted for by vessels with owners who indicated that they were not residents of Alaska. Vessels with owners who indicated that they were residents of Alaska accounted for 13.7% of the total and the remaining 0.2% was taken by vessels for which the residence of the owner was not known. The vessels owned by residents of Alaska accounted for a much larger share of the ex-vessel value than of catch (13.7% compared to 5.8%) because these vessels accounted for relatively large shares of the higher-priced species such as sablefish.

Table 22 presents estimates of ex-vessel value of catch delivered to shoreside processors, and Table 22.1 gives the ex-vessel value of groundfish as a percentage of the ex-vessel value of all species delivered to shoreside processors. The data in both tables are reported by processor group, which is a classification of shoreside processors based primarily on their geographical locations. The processor groups are described in the footnote to the tables.

Gross product value (F.O.B. Alaska) data, through primary processing, are summarized by category of processor and by area in Table 23, and by catcher/processor size class, gear, and area in Table 24. Table 24.1 reports gross product value per vessel, categorized in the same way as Table 24. Tables 25 and 25.1 present gross product value of groundfish processed by shoreside processors and the groundfish gross product value as a percentage of all-species gross product value, both tables are broken down by processor group. The processor groups are the same as in Tables 22 and 22.1.

At-sea processors will not be required to complete the Alaska Department of Fish and Game (ADF&G) Commercial Operators' Annual Report (COAR) until next year. Therefore, the estimates of gross product value (i.e., revenue) for at-sea processors are based on COAR product

price data for the at-sea processors who voluntarily completed the COAR and on product quantity data in the NMFS Weekly Production Reports (WPR). Beginning with last year's report (Hiatt et al. 2001), the estimates of gross product value for shoreside processors were based on COAR product price and quantity data. Prior to that, the estimates for all processors were based on COAR price data and WPR product quantity data. Due to incomplete COAR data for 1997, gross product value was underestimated for that year in last year's report. The problem was most pronounced for pollock. The problem for 1997 has been eliminated and ADF&G staff have taken additional steps to ensure that the COAR data are complete for shoreside processors.

Estimates of the numbers and net registered tonnage of vessels in the groundfish fisheries are presented by area and gear in Table 26 and estimates of the numbers of vessels that landed groundfish are depicted in Fig. 6 by gear type. For the purposes of Regulatory Flexibility Act analyses, a business involved in fish harvesting is a small business if it is independently owned and operated and not dominant in its field of operation (including its affiliates) and if it has combined annual receipts not in excess of \$3.5 million for all its affiliated operations worldwide. The information necessary to determine if a vessel is independently owned and operated and had gross earnings of less than \$3.5 million, is not available. However, by using estimates of Alaska groundfish revenue by vessel, it is possible to identify vessels that clearly are not small entities. Estimates of both the numbers of fishing vessels that clearly are not small entities and the numbers of fishing vessels that could be small entities are presented in Tables 26.1 and 26.2, respectively. With more complete revenue, ownership, and affiliation information, some of the vessels included in Table 26.2 would be determined to be large entities. Estimates of the average revenue per vessel for the vessels in Tables 26.1 and 26.2, respectively, are presented in Tables 26.3 and 26.4.

More detailed information on the BSAI and GOA groundfish vessels by type of vessel, vessel size class, catch amount classes, and residency of vessel owners is in Tables 27 - 31. In particular, Table 28.1 gives detailed estimates of the numbers of smaller (less than 60 feet) hook-and-line catcher vessels. Estimates of the number of vessels by month, gear, and area are in Table 32. Table 33 provides estimates of the number of catcher vessel weeks by size class, area, gear, and target fishery. Table 34 contains similar information for catcher/processor vessels.

The Weekly Production Reports include employment data for at-sea processors but not inshore processors. Those data are summarized in Table 35 by month and area. The data indicate that in 2001, the crew weeks totaled 110,197 with the majority of them (105,428) occurring in the BSAI groundfish fishery. In 2001, the maximum monthly employment (19,852) occurred in March. Much of this was accounted for by the BSAI pollock fishery.

Estimates of weight and value of the processed products made with BSAI and GOA groundfish catch are presented by species, product form, area, and type of processor in Tables 36, 37 and 38. Product price-per-pound estimates are presented in Table 36.1. As noted above, a large correction was made to the estimate of the gross product value of pollock and, therefore, for the

estimate of total gross product value for 1997.

There are a variety of at least partially external factors that affect the economic performance of the BSAI and GOA groundfish fisheries. They include landing market prices in Japan, wholesale prices in Japan, U.S. imports of groundfish products, U.S. per capita consumption of seafood, U.S. consumer and producer price indexes, foreign exchange rates, and U.S. cold storage holdings of groundfish. Such data are included in Tables 39 - 49.

Exchange rates and world supplies of fishery products play a major role in international trade. Exchange rates change rapidly and can significantly affect the economic status of the groundfish fisheries. There is also considerable uncertainty concerning the future conditions of stocks, the resulting quotas, and future changes to the fishery management regimes for the BSAI and GOA groundfish fisheries. The management actions taken to allocate the catch between various user groups can significantly affect the economic health of either the domestic fishery as a whole or segments of the fishery. Changes in fishery management measures are expected as the result of continued concerns with: 1) the bycatch of prohibited species; 2) the discard and utilization of groundfish catch; 3) the effects of the groundfish fisheries on marine mammals and sea birds; 4) other effects of the groundfish fisheries on the ecosystem and habitat; 5) excess harvesting and processing capacity; and 6) the allocations of groundfish quotas among user groups.

CITATIONS

Felthoven, Ronald G., Terry Hiatt and Joseph M. Terry. 2002. Excerpts from quantitative estimates of fishing capacity, capacity utilization, and fishery utilization for Alaskan commercial fisheries, 2001.

Hiatt, Terry, Ron Felthoven and Joe Terry. Stock assessment and fishery evaluation report for the groundfish fisheries of the Gulf of Alaska and Bering Sea/Aleutian Island area: economic status of the groundfish fisheries off Alaska, NPFMC, November 2001.

<http://www.fakr.noaa.gov/npfmc/safes/2001/economic2000.pdf>

National Marine Fisheries Service. 2002. Fisheries of the United States, 2001.

www.st.nmfs.gov/st1/fus/fus00/index.html

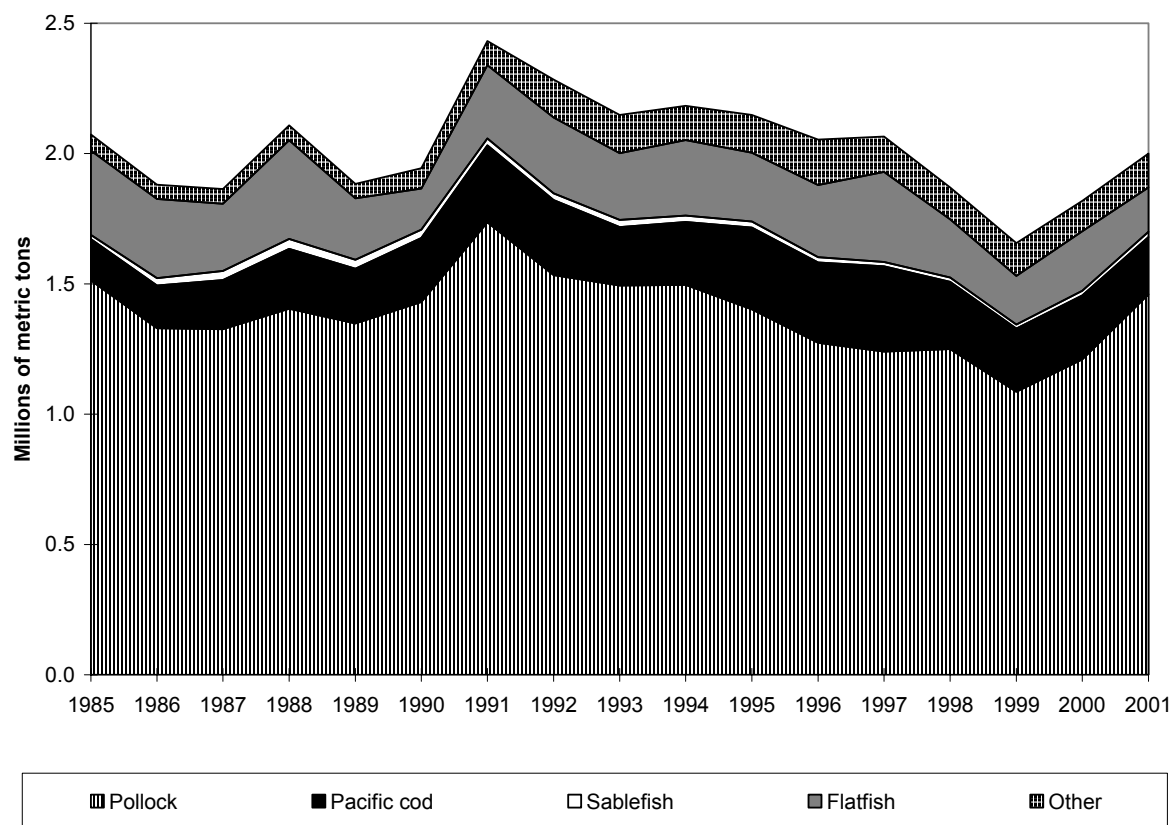


Figure 1. Groundfish catch in the commercial fisheries off Alaska by species, 1985-2001.

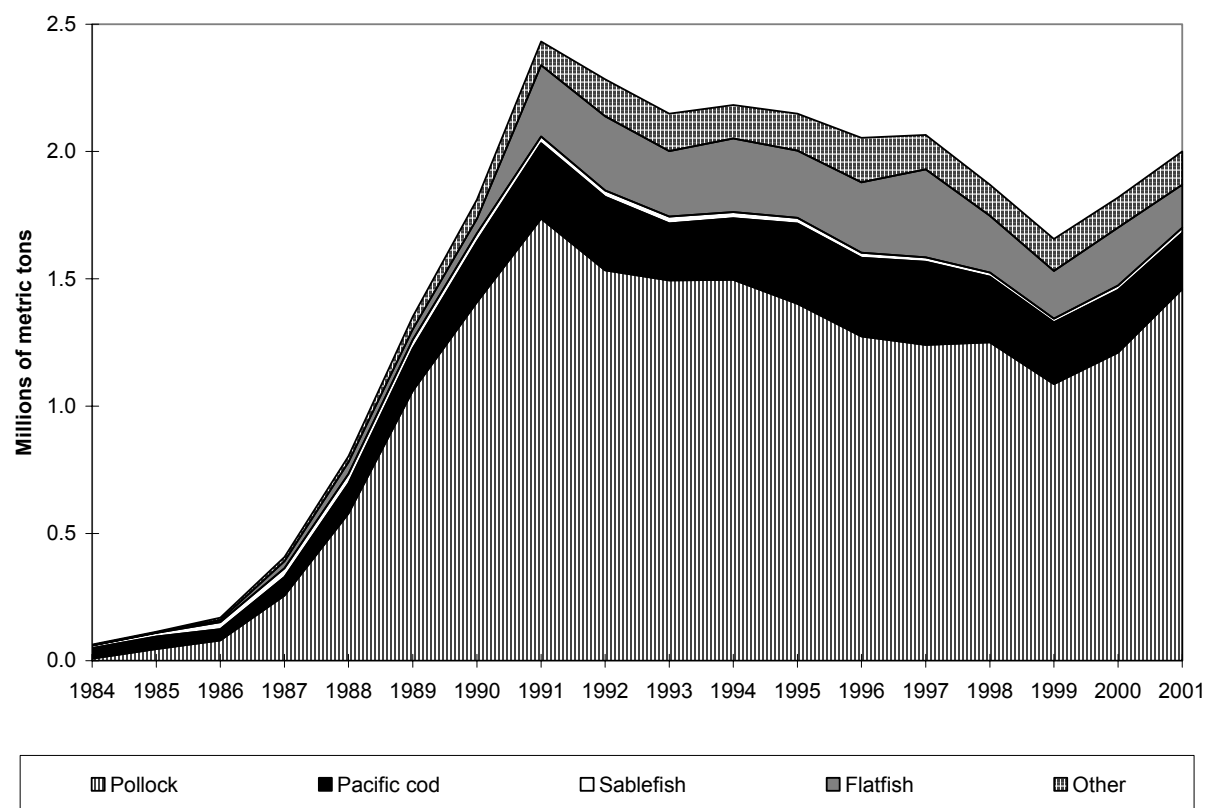


Figure 2. Groundfish catch in the domestic commercial fisheries off Alaska by species, 1984-2001.

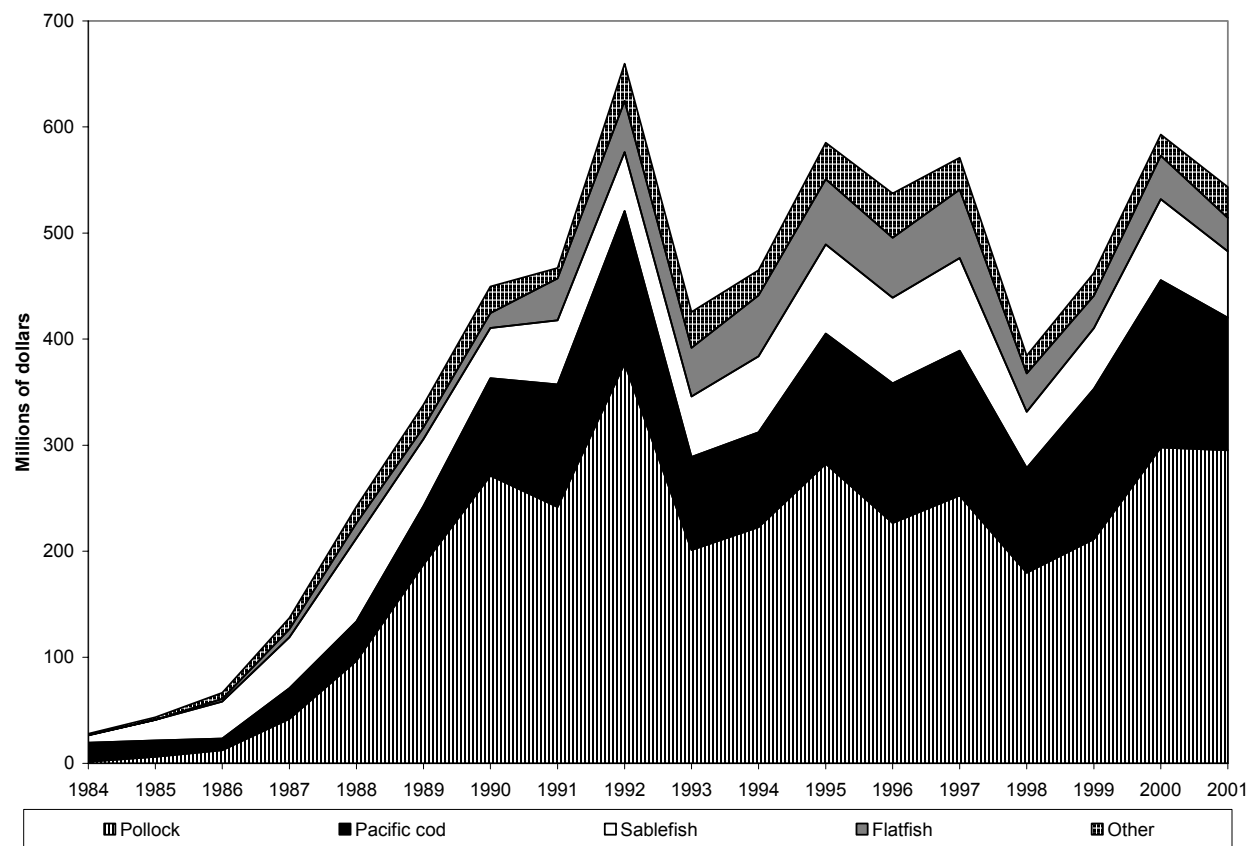


Figure 3. Ex-vessel value of the groundfish catch in the domestic commercial fisheries off Alaska by species, 1984-2001.

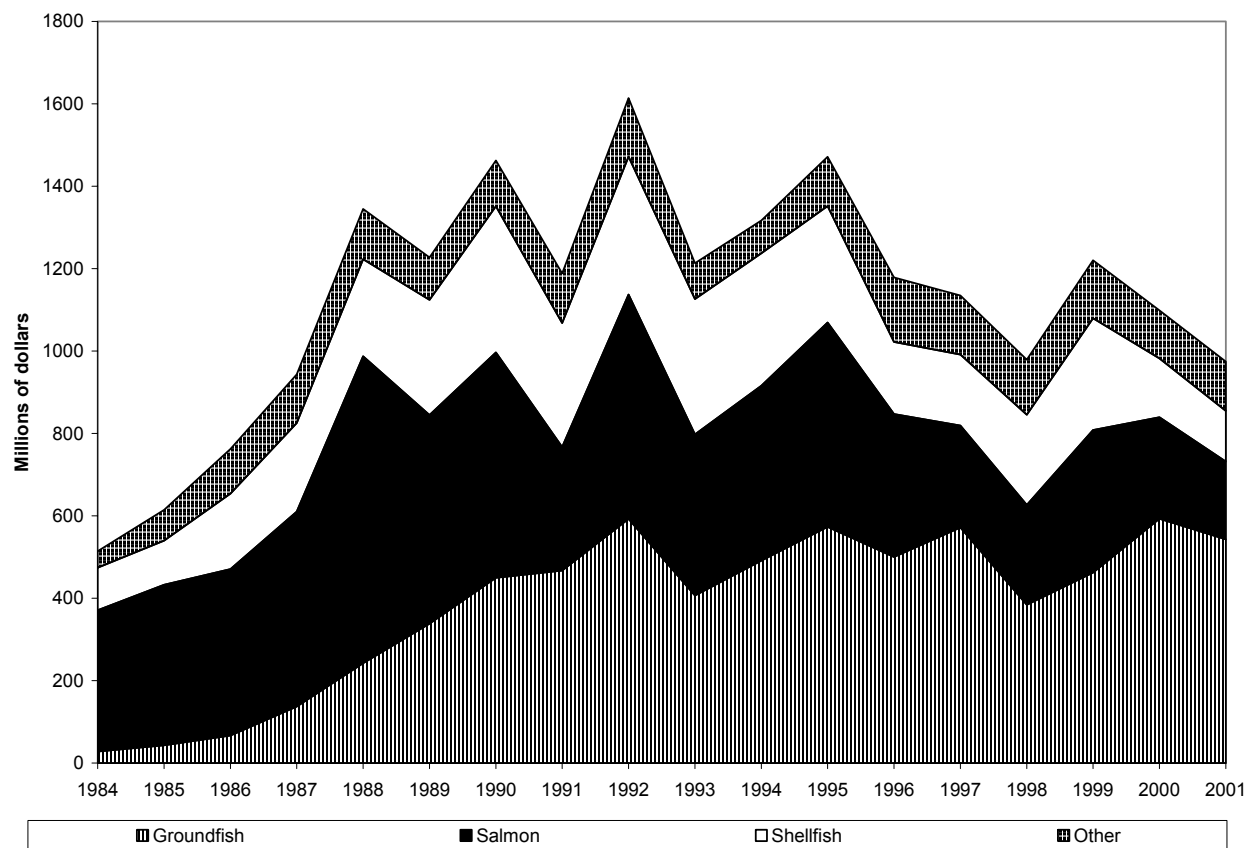


Figure 4. Ex-vessel value of the domestic fish and shellfish catch off Alaska, 1984-2001.

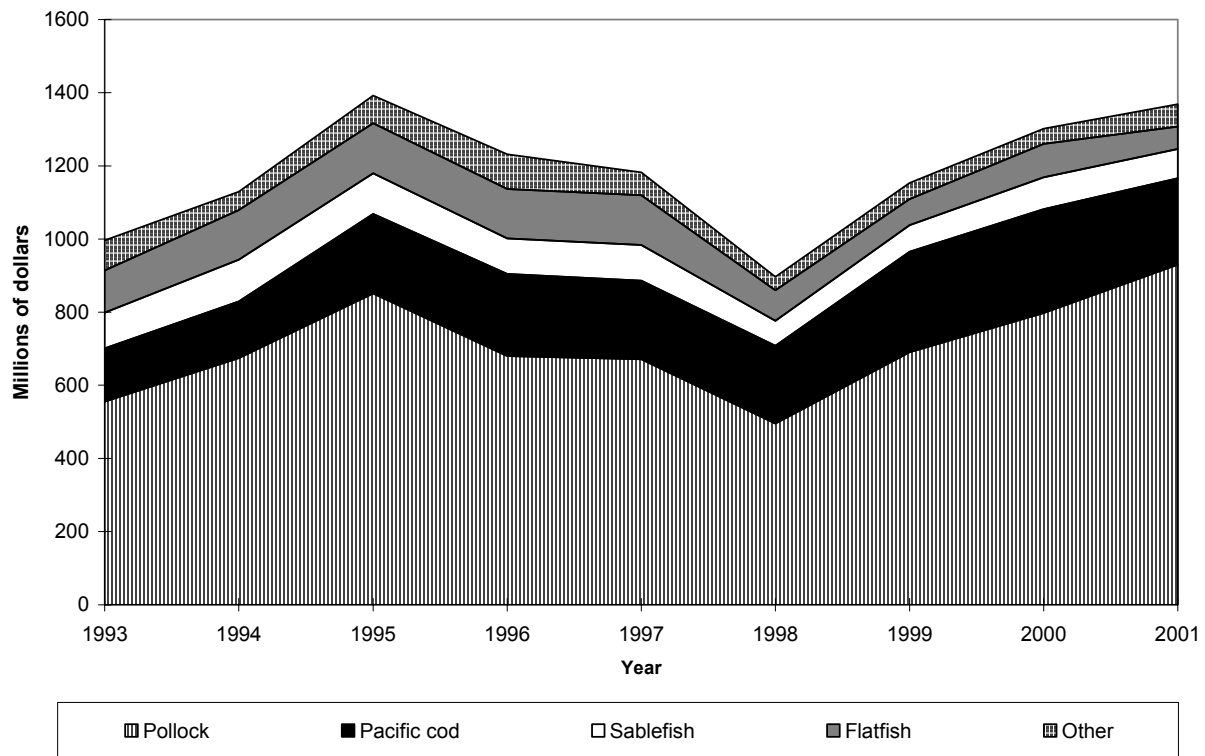


Figure 5. Gross product value of the groundfish catch off Alaska, 1993-2001.

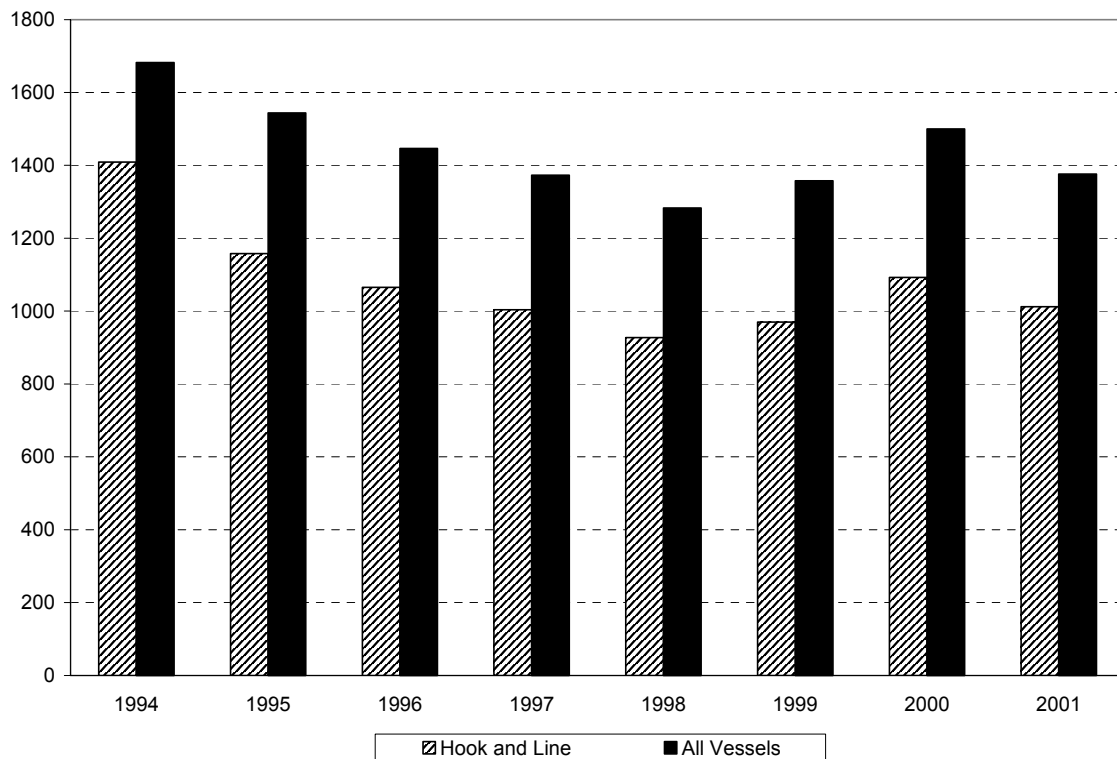
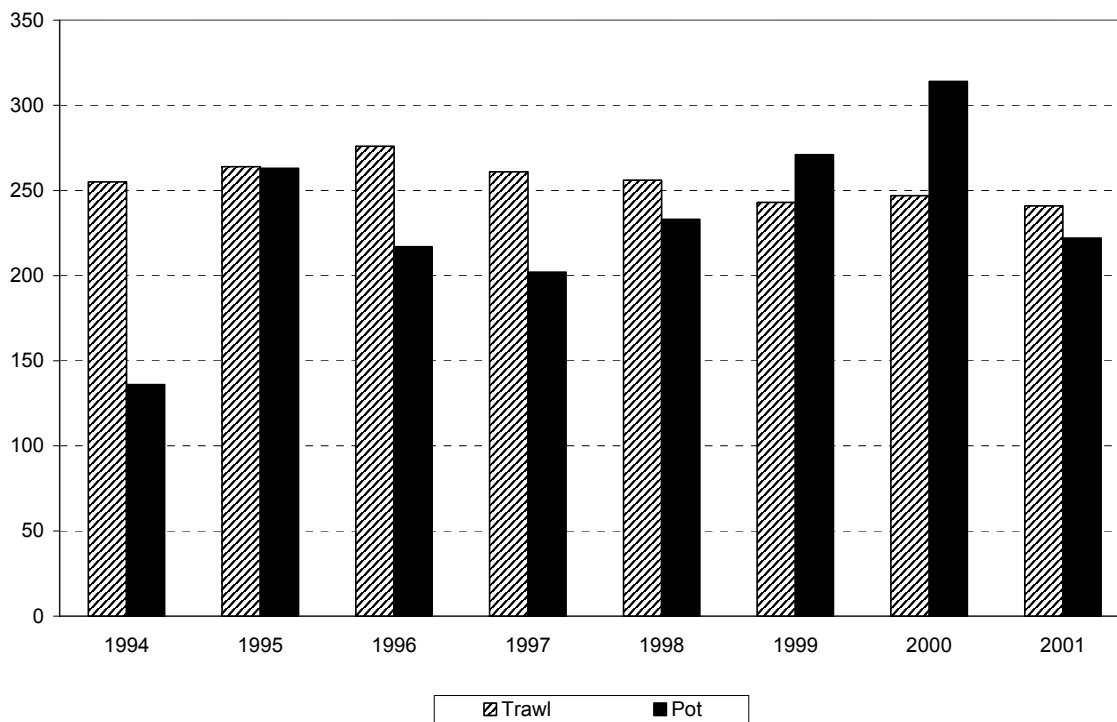


Figure 6. Number of vessels in the domestic groundfish fishery off Alaska by gear type, 1994-2001.

Table 1. Groundfish catch in the commercial fisheries off Alaska by area and species, 1986-2001 (1,000 metric tons, round weight).

	Pollock	Sablefish	Pacific cod	Flatfish	Rockfish	Atka mackerel	Total
Gulf of Alaska							
1986	84.0	21.9	24.6	2.5	8.0	.0	141.7
1987	62.7	26.5	31.4	9.9	12.8	.0	143.8
1988	55.9	31.0	32.6	8.8	18.4	.1	147.7
1989	66.6	29.8	41.7	5.2	23.4	.2	167.4
1990	77.8	27.3	74.6	15.4	21.1	.1	219.8
1991	107.5	23.1	77.0	40.1	21.2	1.4	276.1
1992	90.9	23.6	80.7	41.9	24.9	6.4	280.7
1993	108.9	24.8	56.5	39.5	19.7	5.1	261.4
1994	107.3	22.5	47.5	36.0	16.1	3.5	235.8
1995	72.6	20.8	69.0	32.3	19.3	.7	218.1
1996	51.3	18.2	68.3	43.1	18.2	1.6	205.2
1997	90.1	15.7	68.5	33.6	19.8	.3	233.5
1998	125.1	15.2	62.1	23.3	19.5	.3	249.3
1999	95.6	13.9	68.6	24.9	24.5	.3	231.6
2000	76.4	15.7	54.5	37.3	21.5	.2	211.1
2001	72.6	13.2	41.6	31.8	21.5	.1	185.6
Bering Sea and Aleutian Islands							
1986	1,245.8	6.6	139.3	301.4	1.6	32.0	1,739.4
1987	1,263.6	7.9	157.6	247.3	3.6	30.2	1,719.9
1988	1,349.0	6.6	197.1	369.5	4.7	21.6	1,960.7
1989	1,281.5	4.5	168.4	230.8	7.3	18.3	1,715.9
1990	1,352.9	4.5	171.0	141.8	25.2	22.2	1,723.9
1991	1,629.1	3.4	218.1	240.3	10.6	26.7	2,155.8
1992	1,442.9	2.2	207.3	248.9	17.9	48.5	2,003.0
1993	1,384.6	2.7	167.4	216.9	24.7	66.0	1,887.2
1994	1,388.6	2.4	193.8	253.4	18.7	65.4	1,947.2
1995	1,329.5	2.0	245.0	232.2	16.8	81.6	1,929.8
1996	1,222.3	1.4	240.7	233.7	24.0	103.9	1,848.6
1997	1,150.5	1.3	257.8	311.9	17.0	65.8	1,831.1
1998	1,125.1	1.2	195.8	199.8	15.5	57.1	1,620.9
1999	990.9	1.4	173.9	161.6	19.9	56.2	1,424.9
2000	1,134.0	1.8	191.1	190.9	16.4	47.2	1,607.9
2001	1,388.3	1.9	176.7	140.2	17.6	61.6	1,815.2
All Alaska							
1986	1,329.8	28.5	163.9	303.9	9.6	32.0	1,881.1
1987	1,326.3	34.4	189.0	257.2	16.4	30.2	1,863.7
1988	1,404.9	37.6	229.7	378.3	23.1	21.7	2,108.4
1989	1,348.1	34.3	210.1	236.0	30.7	18.5	1,883.3
1990	1,430.7	31.8	245.6	157.2	46.3	22.3	1,943.7
1991	1,736.6	26.6	295.1	280.4	31.8	28.1	2,431.9
1992	1,533.8	25.7	288.0	290.8	42.8	54.9	2,283.7
1993	1,493.5	27.5	223.9	256.4	44.4	71.2	2,148.6
1994	1,495.9	24.9	241.3	289.4	34.8	68.9	2,183.0
1995	1,402.1	22.9	314.0	264.4	36.1	82.3	2,147.9
1996	1,273.6	19.6	309.0	276.8	42.2	105.5	2,053.8
1997	1,240.7	17.1	326.2	345.6	36.9	66.2	2,064.6
1998	1,250.2	16.4	257.9	223.1	34.9	57.4	1,870.2
1999	1,086.4	15.3	242.5	186.4	44.4	56.5	1,656.5
2000	1,210.3	17.5	245.6	228.2	37.9	47.4	1,819.0
2001	1,460.9	15.1	218.4	172.0	39.1	61.6	2,000.8

Notes: These estimates include catch from Federal and State of Alaska fisheries. Totals may include additional categories.

Source: Blend estimates for 1991-2001. Processor reports and fish tickets for 1986-90. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 2.1. Ex-vessel value of the catch in the domestic commercial fisheries off Alaska by species group, 1984-2001 (\$ millions)

	Shellfish	Salmon	Herring	Halibut	Groundfish	Total
Year						
1984	103.4	343.0	20.4	19.6	27.9	514.3
1985	106.9	389.6	36.9	37.5	43.4	614.3
1986	183.0	404.1	38.4	70.1	66.6	762.2
1987	215.2	473.0	41.7	76.3	137.1	943.3
1988	235.6	744.9	56.0	66.1	242.2	1,344.8
1989	279.2	506.7	18.7	84.4	338.3	1,227.3
1990	355.1	546.7	24.0	86.9	449.5	1,462.2
1991	301.1	300.1	28.6	91.6	467.0	1,188.4
1992	335.1	544.5	27.0	48.0	592.4	1,547.0
1993	328.5	391.1	14.1	53.6	406.6	1,193.9
1994	321.2	424.4	21.6	84.7	491.5	1,343.4
1995	282.9	495.9	39.1	59.5	573.3	1,450.7
1996	175.2	346.5	44.8	74.2	500.3	1,141.0
1997	172.1	247.8	15.9	106.5	571.5	1,113.8
1998	218.7	242.7	10.8	94.1	383.9	950.2
1999	271.2	345.7	14.2	116.9	462.3	1,210.3
2000	142.6	246.6	9.6	134.8	592.8	1,126.4
2001	123.5	188.5	10.4	109.0	542.8	974.2

Note: The value added by at-sea processing is not included in these estimates of ex-vessel value.

Source: Blend estimates, ADFG fishtickets, annual processor reports, weekly processor reports. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 2.2. Percentage distribution of ex-vessel value of the catch in the domestic commercial fisheries off Alaska by species group, 1984-2001.

	Shellfish	Salmon	Herring	Halibut	Groundfish
Year					
1984	20.1%	66.7%	4.0%	3.8%	5.4%
1985	17.4%	63.4%	6.0%	6.1%	7.1%
1986	24.0%	53.0%	5.0%	9.2%	8.7%
1987	22.8%	50.1%	4.4%	8.1%	14.5%
1988	17.5%	55.4%	4.2%	4.9%	18.0%
1989	22.7%	41.3%	1.5%	6.9%	27.6%
1990	24.3%	37.4%	1.6%	5.9%	30.7%
1991	25.3%	25.3%	2.4%	7.7%	39.3%
1992	21.7%	35.2%	1.7%	3.1%	38.3%
1993	27.5%	32.8%	1.2%	4.5%	34.1%
1994	23.9%	31.6%	1.6%	6.3%	36.6%
1995	19.5%	34.2%	2.7%	4.1%	39.5%
1996	15.4%	30.4%	3.9%	6.5%	43.8%
1997	15.5%	22.2%	1.4%	9.6%	51.3%
1998	23.0%	25.5%	1.1%	9.9%	40.4%
1999	22.4%	28.6%	1.2%	9.7%	38.2%
2000	12.7%	21.9%	.9%	12.0%	52.6%
2001	12.7%	19.3%	1.1%	11.2%	55.7%

Source: Blend estimates, ADFG fishtickets, annual processor reports, weekly processor reports. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 3. Numbers of vessels and plants with observers, observer-deployment days, and estimated observer costs (\$1,000) by year and type of operation, 2000-2001.

	2000			2001		
	Count	Obs. Days	Cost	Count	Obs. Days	Cost
Catcher vessels						
Hook and line						
60-124	47	945	331	53	930	325
>124	2	17	6	-	-	-
H&L total	49	962	337	53	930	325
Pot						
60-124	59	864	302	42	664	232
>124	20	244	85	12	117	41
Pot total	79	1,108	388	54	781	273
Trawl						
60-124	106	4,272	1,495	105	4,420	1,547
>124	30	4,336	1,518	27	3,839	1,344
Trawl total	136	8,608	3,013	132	8,259	2,891
Catcher-vessel total	264	10,678	3,737	239	9,970	3,490
Catcher/processors						
Hook and line						
60-124	11	1,840	644	11	1,724	603
>124	26	6,515	2,280	27	6,936	2,428
H&L total	37	8,355	2,924	38	8,660	3,031
Pot						
>60	9	426	149	7	526	184
Pot total	9	426	149	7	526	184
Fillet trawler						
>124	4	1,195	418	4	1,357	475
H&G trawler						
60-124	9	860	301	8	751	263
>124	15	4,532	1,586	16	4,331	1,516
Surimi trawler						
>124	11	4,377	1,532	11	4,547	1,591
Trawl total	39	10,964	3,837	39	10,986	3,845
Catcher/processor total	85	19,745	6,911	84	20,172	7,060
Motherships	6	1,244	435	4	1,243	435
Other vessels	10	942	330	5	775	271
All vessels	365	32,609	11,413	332	32,160	11,256
Shore plants	27	4,522	1,583	23	4,463	1,562
Grand totals	392	37,131	12,996	355	36,623	12,818

Note: The cost estimates are based on an estimated average cost per day of \$350. This includes the payment to observer providers and the cost of transportation and board.

Source: NMFS observer-program, CFEC fish tickets, weekly production reports, Alaska state and Federal vessel-registration files. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 4. Groundfish catch off Alaska by area, vessel type, gear and species, 1997-2001, (1,000 metric tons, round weight).

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total
All gear									
All groundfish									
1997	189	39	228	602	1,229	1,831	791	1,268	2,059
1998	207	37	244	548	1,073	1,621	755	1,110	1,865
1999	183	43	226	598	827	1,425	781	870	1,651
2000	162	45	207	683	925	1,608	846	969	1,815
2001	144	38	182	789	1,027	1,815	932	1,064	1,997
Hook and line									
Sablefish									
1997	10	2	12	1	1	1	11	2	13
1998	10	2	12	1	0	1	11	2	13
1999	9	1	11	0	1	1	9	2	12
2000	11	1	12	1	1	1	11	2	13
2001	9	1	11	1	0	1	10	2	12
Pacific cod									
1997	7	4	11	0	124	124	7	128	135
1998	6	3	10	0	100	100	7	103	110
1999	7	5	12	0	89	89	7	95	101
2000	7	5	12	1	97	98	7	102	109
2001	6	4	10	1	108	108	7	112	118
Flatfish									
1997	0	0	1	2	8	10	2	8	11
1998	1	0	1	1	9	11	2	10	11
1999	1	0	1	1	6	6	2	6	8
2000	1	0	1	0	7	8	2	8	9
2001	1	0	1	1	5	6	1	5	7
Rockfish									
1997	1	0	2	0	0	0	1	1	2
1998	1	0	2	0	1	1	1	1	2
1999	1	0	1	0	0	0	1	1	2
2000	1	0	1	0	1	1	1	1	2
2001	2	0	2	0	1	1	2	1	2
All groundfish									
1997	19	6	26	3	151	154	22	157	180
1998	19	5	25	2	128	130	22	133	155
1999	19	8	27	1	110	112	20	118	138
2000	22	7	29	2	124	126	24	131	156
2001	19	6	25	2	135	138	21	141	163
Pot									
Pacific cod									
1997	9	-	9	17	5	22	26	5	31
1998	-	-	-	10	4	14	-	-	-
1999	14	4	19	12	4	16	27	8	35
2000	16	1	17	16	3	19	32	4	36
2001	6	2	7	14	3	17	19	5	24

Table 4. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total
Trawl									
Pollock									
1997	87	1	88	498	648	1,146	585	649	1,234
1998	123	0	123	495	627	1,122	618	627	1,245
1999	93	0	93	544	443	987	637	443	1,080
2000	74	0	75	615	514	1,129	689	515	1,204
2001	71	0	71	746	636	1,382	817	636	1,453
Sablefish									
1997	1	1	2	0	0	0	1	1	2
1998	1	1	1	0	0	0	1	1	1
1999	1	1	2	0	0	0	1	1	2
2000	1	1	2	0	0	0	1	1	2
2001	1	1	1	0	0	0	1	1	2
Pacific cod									
1997	46	2	48	50	61	111	97	63	160
1998	36	5	41	33	49	82	69	55	123
1999	35	2	37	29	39	68	64	41	105
2000	23	2	25	40	34	74	63	37	100
2001	21	3	24	19	32	51	41	35	76
Flatfish									
1997	19	14	33	30	272	302	49	286	335
1998	10	12	22	6	183	189	16	195	211
1999	11	12	23	8	147	155	20	159	179
2000	15	21	36	7	175	183	22	197	219
2001	17	14	31	3	131	134	20	145	165
Rockfish									
1997	5	13	18	0	16	17	5	29	34
1998	5	12	17	1	14	15	6	26	32
1999	8	14	23	0	19	19	8	34	42
2000	9	10	19	0	16	16	9	26	35
2001	7	11	19	0	17	17	7	28	35
Atka mackerel									
1997	0	0	0	0	66	66	0	66	66
1998	0	0	0	0	57	57	0	57	57
1999	0	0	0	0	56	56	0	56	56
2000	0	0	0	0	47	47	0	47	47
2001	0	0	0	0	61	61	0	61	61
All groundfish									
1997	161	33	193	581	1,073	1,654	742	1,105	1,847
1998	177	32	208	535	941	1,476	712	972	1,685
1999	150	31	180	583	713	1,296	733	743	1,477
2000	124	36	160	663	798	1,461	787	834	1,621
2001	119	30	149	771	888	1,659	891	918	1,809

Note: The estimates are of total catch (i.e., retained and discarded catch). All groundfish include additional species categories. These estimates include only catch counted against Federal TACs. A dash (-) indicates that data are not available, either because there was no activity or to preserve confidentiality.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 5. Discards and discard rates for groundfish catch off Alaska by area, gear, and species, 1997-2001 (1,000 metric tons, round weight).

Area/Species/Year	Fixed		Trawl		All gear	
	Total Discards	Discard Rate	Total Discards	Discard Rate	Total Discards	Discard Rate
Gulf of Alaska						
All groundfish						
1997	3.1	8.7%	34.4	17.6%	37.5	16.2%
1998	3.5	9.5%	18.8	9.0%	22.3	9.1%
1999	4.2	9.0%	20.6	11.4%	24.8	10.9%
2000	5.5	11.5%	22.0	13.7%	27.5	13.2%
2001	3.7	11.0%	20.7	13.8%	24.3	13.3%
Pollock						
1997	.0	42.5%	7.2	8.0%	7.2	8.0%
1998	.0	10.7%	1.0	.8%	1.0	.8%
1999	.1	68.5%	1.8	1.9%	1.9	2.0%
2000	.3	78.1%	1.9	2.6%	2.2	2.9%
2001	.0	9.3%	.7	1.0%	.7	1.0%
Sablefish						
1997	.5	4.2%	.5	30.7%	1.0	7.3%
1998	.5	4.7%	.3	23.7%	.9	6.7%
1999	.3	2.6%	.7	42.2%	1.0	8.0%
2000	.5	4.2%	.6	35.9%	1.1	8.2%
2001	.3	2.6%	.5	35.3%	.8	6.4%
Pacific cod						
1997	.7	3.5%	4.1	8.5%	4.8	7.1%
1998	.4	1.8%	1.4	3.3%	1.7	2.8%
1999	.6	1.9%	1.0	2.8%	1.6	2.4%
2000	.1	.5%	1.2	4.9%	1.4	2.5%
2001	.3	1.9%	1.6	6.5%	1.9	4.6%
Flatfish						
1997	.7	98.9%	15.9	48.5%	16.6	49.5%
1998	.8	90.2%	11.4	50.8%	12.2	52.2%
1999	1.4	97.9%	11.9	50.7%	13.3	53.5%
2000	1.4	95.2%	14.0	39.0%	15.3	41.1%
2001	.9	94.4%	13.7	44.3%	14.5	45.7%
Rockfish						
1997	.3	15.2%	3.5	19.6%	3.8	19.2%
1998	.5	24.8%	2.7	15.7%	3.2	16.6%
1999	.2	16.1%	3.4	15.1%	3.7	15.1%
2000	.4	21.8%	2.1	11.1%	2.5	12.1%
2001	.6	23.0%	2.0	10.6%	2.6	12.1%
Atka mackerel						
1997	.0	96.9%	.1	16.2%	.1	16.6%
1998	.0	100.0%	.2	51.9%	.2	51.9%
1999	.0	21.2%	.0	13.0%	.0	13.0%
2000	.0	100.0%	.0	5.0%	.0	6.1%
2001	.0	93.2%	.0	22.6%	.0	23.5%

Table 5. Continued.

Area/Species/Year	Fixed		Trawl		All gear	
	Total Discards	Discard Rate	Total Discards	Discard Rate	Total Discards	Discard Rate
Bering Sea and Aleutian Islands						
All groundfish						
1997	25.1	14.2%	235.8	14.3%	261.0	14.3%
1998	21.7	15.0%	109.4	7.4%	131.0	8.1%
1999	15.1	11.7%	114.9	8.9%	130.0	9.1%
2000	20.4	13.9%	107.7	7.4%	128.1	8.0%
2001	20.5	13.2%	78.9	4.8%	99.4	5.5%
Pollock						
1997	3.8	82.1%	90.5	7.9%	94.2	8.2%
1998	.7	21.7%	16.2	1.4%	16.9	1.5%
1999	.6	15.0%	28.9	2.9%	29.5	3.0%
2000	1.0	21.1%	21.4	1.9%	22.4	2.0%
2001	1.0	16.7%	16.7	1.2%	17.7	1.3%
Sablefish						
1997	.1	11.2%	.0	16.8%	.2	11.5%
1998	.1	11.4%	.0	11.0%	.1	11.4%
1999	.1	10.3%	.0	15.9%	.2	11.6%
2000	.1	7.5%	.1	17.1%	.2	9.2%
2001	.1	6.9%	.0	7.1%	.1	6.9%
Pacific cod						
1997	4.0	2.7%	18.0	16.2%	21.9	8.5%
1998	3.1	2.8%	1.1	1.4%	4.2	2.2%
1999	1.6	1.5%	2.0	2.9%	3.6	2.1%
2000	2.9	2.5%	1.1	1.4%	4.0	2.1%
2001	1.8	1.5%	1.1	2.1%	2.9	1.7%
Flatfish						
1997	5.0	50.5%	104.7	34.7%	109.8	35.2%
1998	3.7	34.6%	71.0	37.5%	74.7	37.4%
1999	2.5	38.9%	62.9	40.6%	65.4	40.5%
2000	3.2	40.7%	66.0	36.1%	69.2	36.3%
2001	3.1	51.2%	37.8	28.2%	40.8	29.1%
Rockfish						
1997	.2	47.0%	4.4	26.4%	4.6	26.9%
1998	.4	57.6%	4.7	32.1%	5.1	33.2%
1999	.3	56.5%	6.9	35.6%	7.2	36.1%
2000	.4	60.9%	5.7	36.0%	6.1	37.1%
2001	.4	58.7%	8.1	47.9%	8.5	48.4%
Atka mackerel						
1997	.1	97.6%	6.5	9.9%	6.6	10.0%
1998	.1	95.3%	5.6	9.8%	5.7	9.9%
1999	.1	94.8%	5.0	8.8%	5.0	8.9%
2000	.2	97.2%	2.6	5.6%	2.8	5.9%
2001	.2	53.6%	4.4	7.1%	4.5	7.3%

Table 5. Continued.

Area/Species/Year	Fixed		Trawl		All gear	
	Total Discards	Discard Rate	Total Discards	Discard Rate	Total Discards	Discard Rate
All Alaska						
All groundfish						
1997	28.3	13.3%	270.2	14.6%	298.5	14.5%
1998	25.1	13.9%	128.2	7.6%	153.4	8.2%
1999	19.3	11.0%	135.4	9.2%	154.8	9.4%
2000	25.9	13.3%	129.6	8.0%	155.6	8.6%
2001	24.2	12.8%	99.6	5.5%	123.7	6.2%
Pollock						
1997	3.8	81.4%	97.7	7.9%	101.5	8.2%
1998	.7	21.5%	17.2	1.4%	17.9	1.4%
1999	.7	17.0%	30.7	2.8%	31.4	2.9%
2000	1.3	24.9%	23.3	1.9%	24.6	2.0%
2001	1.0	16.6%	17.4	1.2%	18.5	1.3%
Sablefish						
1997	.6	4.9%	.5	30.0%	1.1	7.7%
1998	.7	5.3%	.3	22.4%	1.0	7.1%
1999	.4	3.3%	.8	38.2%	1.1	8.4%
2000	.6	4.6%	.7	32.9%	1.3	8.3%
2001	.4	3.2%	.5	29.1%	.9	6.4%
Pacific cod						
1997	4.7	2.8%	22.1	13.8%	26.8	8.2%
1998	3.5	2.6%	2.5	2.0%	6.0	2.3%
1999	2.2	1.6%	3.0	2.9%	5.2	2.2%
2000	3.0	2.1%	2.3	2.3%	5.3	2.2%
2001	2.2	1.5%	2.7	3.5%	4.8	2.2%
Flatfish						
1997	5.7	53.7%	120.7	36.0%	126.4	36.6%
1998	4.5	38.7%	82.3	38.9%	86.8	38.9%
1999	3.9	49.9%	74.8	41.9%	78.7	42.2%
2000	4.6	49.1%	80.0	36.5%	84.5	37.1%
2001	3.9	57.0%	51.5	31.2%	55.4	32.2%
Rockfish						
1997	.5	21.0%	7.9	22.9%	8.4	22.8%
1998	.9	33.4%	7.4	23.3%	8.3	24.0%
1999	.5	25.5%	10.4	24.6%	10.9	24.6%
2000	.8	32.5%	7.8	22.3%	8.6	23.0%
2001	1.0	30.8%	10.1	28.4%	11.1	28.6%
Atka mackerel						
1997	.1	97.6%	6.5	9.9%	6.6	10.0%
1998	.1	95.3%	5.7	10.0%	5.8	10.2%
1999	.1	93.7%	5.0	8.8%	5.1	9.0%
2000	.2	97.2%	2.6	5.6%	2.8	5.9%
2001	.2	53.8%	4.4	7.1%	4.5	7.4%

Notes: All groundfish and all gear may include additional categories. These estimates include only catch counted against Federal TACs. Although these are the best available estimates of discards and are used for several management purposes, these estimates are not necessarily accurate. The reasons for this are as follows: 1) they are wholly or partially derived from observer estimates; 2) discards occur at many different places on vessels; 3) observers record only a rough approximation of what they see; 4) the estimation methods used by at-sea observers focus on providing good estimates of total catch by species, not on the disposition of that catch.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0700.

Table 6. Gulf of Alaska groundfish catch by species, gear, and target fishery, 2000-01 (1,000 metric tons, round weight).

	Species											
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rex sole	Flat deep	Flat shallow	Rock- fish	Atka mack.	Other	Total
Year/Gear/Target												
2000												
Hook and line												
Sablefish	.0	11.9	.1	.9	.0	-	.0	.0	1.4	-	.5	14.9
Pacific cod	.3	.1	11.5	.4	.0	-	.0	.0	.1	-	1.9	14.2
Rockfish	.0	.1	.1	.0	-	-	.0	.0	.4	-	.1	.7
Total	.3	12.1	11.7	1.3	.0	-	.1	.0	1.9	-	2.5	29.8
Pot												
Pacific cod	.0	.0	17.3	.0	.0	-	.0	.0	.0	.0	.4	17.7
Total	.0	.0	17.4	.0	.0	.0	.0	.0	.0	.0	.4	17.9
Trawl												
Pollock												
bottom	9.2	.0	.6	.4	.1	.0	.0	.1	.1	-	.2	10.7
pelagic	63.2	.0	.2	.6	.1	.0	.0	.0	.0	.0	.4	64.4
Pacific cod	1.5	.0	19.9	1.3	.2	.1	.0	1.0	.1	.0	.4	24.4
Arrowtooth	.2	.4	1.1	11.9	.4	1.2	.1	.6	.6	.0	.5	17.2
Flathd. sole	.0	.0	.0	.1	.0	.0	.0	.0	.0	-	.0	.2
Rex sole	.2	.1	.5	4.3	.3	2.1	.1	.0	.4	.0	.3	8.3
Flat deep	.0	.0	.1	.1	.0	.0	.4	.1	.1	-	.0	1.0
Flat shallow	.4	.1	1.5	1.8	.4	.0	.1	4.7	.1	-	.5	9.8
Rockfish	.2	1.0	1.5	2.5	.1	.1	.2	.4	17.7	.2	.2	23.8
Total	74.8	1.7	25.4	22.9	1.5	3.6	.9	6.9	19.2	.2	2.7	159.9
All gear												
Total	75.2	13.8	54.5	24.3	1.5	3.6	1.0	6.9	21.1	.2	5.6	207.6

Table 6. Continued.

	Species											
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rex sole	Flat deep	Flat shallow	Rock- fish	Atka mack.	Other	Total
Year/Gear/Target												
2001												
Hook and line												
Sablefish	.0	10.7	.2	.5	.0	.0	.0	.0	1.4	-	.5	13.2
Pacific cod	.1	.0	9.9	.2	.0	.0	.0	.0	.2	.0	.9	11.3
Rockfish	.0	.0	.0	.1	-	-	-	.0	1.0	-	.2	1.4
Total	.1	10.7	10.1	.9	.0	.0	.0	.0	2.6	.0	1.6	25.9
Pot												
Pacific cod	.0	.0	7.2	.0	-	-	.0	.0	.0	.0	.2	7.4
Total	.0	.0	7.2	.0	-	-	.0	.0	.0	.0	.2	7.4
Trawl												
Pollock												
bottom	26.5	.0	.8	2.1	.3	.0	.0	.2	.0	-	.9	30.8
pelagic	42.0	.0	.2	.4	.1	.0	.0	.0	.0	-	.2	42.9
Pacific cod	1.9	.1	19.2	4.1	.4	.3	.1	1.9	.2	.0	.6	28.6
Arrowtooth	.0	.1	.7	4.6	.1	.2	.0	.1	.3	.0	.1	6.2
Flathd. sole	.0	.0	.1	.8	.4	.1	.0	.1	.0	.0	.1	1.7
Rex sole	.1	.2	.4	3.6	.2	2.1	.1	.0	.6	.0	.3	7.6
Flat deep	.0	.1	.1	.4	.0	.0	.5	.0	.1	-	.1	1.2
Flat shallow	.4	.0	1.7	1.7	.3	.0	.0	3.4	.2	-	.5	8.3
Rockfish	.1	.9	1.1	1.4	.1	.2	.1	.4	17.1	.1	.3	21.8
Total	70.9	1.4	24.4	19.1	1.9	2.9	.8	6.1	18.6	.1	3.0	149.2
All gear												
Total	71.1	12.1	41.6	20.0	1.9	2.9	.8	6.2	21.1	.1	4.8	182.6

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area, and gear. These estimates include only catch counted against Federal TACs.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 7. Bering Sea and Aleutian Islands groundfish catch by species, gear, and target fishery, 2000-01 (1,000 metric tons, round weight).

Year/Gear/Target	Species												
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rock sole	Turbot	Yellow fin	Flat other	Rock- fish	Atka mack.	Other	Total
2000													
Hook and line													
Sablefish	.0	.9	.1	.2	.0	.0	.4	-	.0	.2	.0	.3	2.1
Pacific cod	4.8	.1	97.6	1.3	.3	.0	.2	.3	.1	.3	.2	13.2	118.4
Turbot	.0	.3	.2	.5	.0	.0	4.4	-	.0	.1	.0	.3	5.7
Total	4.8	1.3	97.9	2.0	.3	.0	5.0	.3	.1	.7	.2	13.8	126.4
Pot													
Sablefish	.0	.1	.0	.0	-	.0	.0	-	.0	.0	.0	.0	.2
Pacific cod	.1	-	19.0	.0	.0	.0	.0	.1	.0	.0	.0	.8	19.9
Total	.1	.1	19.0	.0	.0	.0	.0	.1	.0	.0	.0	.8	20.1
Trawl													
Pollock													
bottom	25.0	.0	.4	.1	.4	1.2	.0	.9	.2	.1	.0	.2	28.5
pelagic	1,067.3	.0	3.1	.9	2.2	1.5	.0	.7	.3	.0	.0	.5	1,076.6
Pacific cod	9.9	.0	54.4	.9	1.8	7.1	.1	1.1	.8	.6	.3	2.2	79.1
Arrowtooth	.2	.1	.1	1.5	.1	.0	.3	.1	.1	.1	.0	.2	2.7
Flathd. sole	5.6	.1	3.6	3.6	10.4	1.8	.6	5.0	1.6	.2	.0	2.6	35.1
Rock sole	6.4	.0	5.0	.2	2.0	31.3	.0	4.2	2.1	.0	.0	1.3	52.8
Turbot	.1	.1	.0	.3	.1	.0	.7	.0	.1	.1	.0	.1	1.6
Yellowfin	13.5	.0	5.0	2.0	2.8	6.6	.0	71.4	10.3	.0	.0	3.5	115.1
Flat, other	.3	.0	.3	1.0	.2	.1	.1	.4	.7	.1	.0	.2	3.2
Rockfish	.3	.0	.1	.4	.0	.0	.0	-	.0	8.5	.2	.1	9.7
Atka mack.	.2	.0	2.1	.3	.0	.0	.2	.0	.0	6.1	46.5	.4	55.8
Oth. & unk.	-	-	-	-	-	-	-	-	-	-	-	.8	.8
Total	1,128.8	.3	74.2	11.2	20.1	49.6	1.9	83.7	16.4	15.7	47.1	11.9	1,460.9
All gear													
Total	1,134.0	1.8	191.0	13.2	20.4	49.7	7.0	84.1	16.5	16.4	47.2	26.5	1,607.8

Table 7. Continued.

Species													
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rock sole	Turbot	Yellow fin	Flat other	Rock- fish	Atka mack.	Other	Total
2001													
Hook and line													
Sablefish	.0	1.1	.1	.1	.0	-	.4	-	.0	.2	.0	.1	1.9
Pacific cod	6.0	.1	108.0	1.4	.3	.0	.1	.6	.1	.5	.3	15.1	132.5
Turbot	.0	.2	.1	.1	.0	.0	2.6	-	.0	.1	-	.2	3.2
Total	6.0	1.3	108.2	1.6	.3	.0	3.1	.6	.1	.7	.3	15.4	137.8
Pot													
Sablefish	.0	.2	.0	.0	-	-	.0	.0	.0	.0	-	.0	.2
Pacific cod	.0	.0	17.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	17.6
Total	.0	.2	17.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	17.9
Trawl													
Pollock													
bottom	16.3	.0	.4	.2	.4	.5	.0	.4	.1	.2	.0	.3	18.8
pelagic	1,334.1	.0	3.6	.4	1.9	1.3	.1	.1	.1	.5	.0	2.0	1,344.1
Sablefish	.0	.0	-	.0	.0	.0	.0	-	.0	.0	-	.0	.1
Pacific cod	5.1	.0	31.7	1.9	.7	4.4	.0	.5	.4	.3	.8	1.4	47.4
Arrowtooth	.2	.1	.3	2.0	.2	.0	.4	.0	.1	.2	-	.2	3.7
Flathd. sole	4.5	.1	2.8	3.7	10.1	1.9	.6	2.9	.9	.1	.0	2.4	29.9
Rock sole	5.3	.0	4.0	.9	1.1	16.3	.0	4.7	1.3	.0	.0	1.3	35.0
Turbot	.1	.1	.0	.2	.1	.0	.4	.0	.0	.0	.0	.0	.9
Yellowfin	15.8	.0	6.3	1.8	3.1	4.9	.0	54.3	6.7	.0	.0	3.8	96.7
Flat, other	.2	.0	.1	.4	.0	.0	.0	.1	.2	.0	.0	.1	1.1
Rockfish	.4	.0	.2	.4	.0	.0	.5	-	.0	7.6	.7	.1	10.0
Atka mack.	.3	.0	2.1	.3	.0	.1	.1	.0	.0	7.9	59.7	.6	70.9
Oth. & unk.	-	-	-	-	-	-	-	-	-	-	-	.7	.7
Total	1,382.2	.4	51.5	12.4	17.5	29.4	2.1	62.9	9.9	16.9	61.3	12.9	1,659.4
All gear													
Total	1,388.2	1.9	176.7	14.1	17.8	29.5	5.3	63.6	10.0	17.6	61.6	28.8	1,815.1

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area, and gear. These estimates include only catch counted against Federal TACs.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 8. Gulf of Alaska groundfish discards by species, gear, and target fishery, 2000-01 (1,000 metric tons, round weight).

	Species											
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rex sole	Flat deep	Flat shallow	Rock- fish	Atka mack.	Other	Total
Year/Gear/Target												
2000												
Hook and line												
Sablefish	.0	.4	.0	.8	.0	-	.0	.0	.4	-	.5	2.2
Pacific cod	.3	.0	.1	.4	.0	-	.0	.0	.0	-	1.9	2.6
Rockfish	.0	.1	.0	.0	-	-	.0	.0	.0	-	.1	.3
Total	.3	.5	.1	1.3	.0	-	.1	.0	.4	-	2.5	5.1
Pot												
Pacific cod	.0	.0	.0	.0	.0	-	.0	.0	.0	.0	.3	.4
Flat deep	.0	.0	.0	-	-	.0	.0	.0	.0	-	.0	.0
Total	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4
Trawl												
Pollock												
bottom	.1	.0	.0	.1	.0	.0	.0	.0	.0	-	.2	.6
pelagic	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2	.8
Pacific cod	1.0	.0	.0	1.1	.1	.0	.0	.5	.1	.0	.4	3.2
Arrowtooth	.1	.3	.2	4.3	.0	.0	.0	.1	.4	.0	.4	5.8
Flathd. sole	.0	.0	.0	.0	.0	.0	.0	.0	.0	-	.0	.1
Rex sole	.1	.1	.1	3.9	.1	.0	.1	.0	.3	.0	.3	5.1
Flat deep	.0	.0	.1	.1	.0	.0	.0	.0	.0	-	.0	.3
Flat shallow	.1	.0	.5	1.2	.0	.0	.0	.1	.0	-	.3	2.3
Rockfish	.1	.2	.3	1.8	.0	.0	.1	.0	1.2	.0	.2	3.8
Total	1.9	.6	1.2	12.6	.2	.1	.2	.8	2.1	.0	2.1	22.0
All gear												
Total	2.2	1.1	1.4	13.9	.2	.1	.3	.8	2.5	.0	4.9	27.5

Table 8. Continued.

Species												
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rex sole	Flat deep	Flat shallow	Rock- fish	Atka mack.	Other	Total
2001												
Hook and line												
Sablefish	.0	.3	.0	.5	.0	.0	.0	.0	.4	-	.5	1.6
Pacific cod	.0	.0	.2	.2	.0	.0	.0	.0	.2	.0	.8	1.4
Rockfish	.0	.0	.0	.1	-	-	-	.0	.0	-	.2	.3
Total	.0	.3	.2	.8	.0	.0	.0	.0	.6	.0	1.5	3.4
Pot												
Pacific cod	.0	.0	.1	.0	-	-	.0	.0	.0	.0	.1	.3
Total	.0	.0	.1	.0	-	-	.0	.0	.0	.0	.1	.3
Trawl												
Pollock												
bottom	.1	.0	.0	.6	.0	.0	.0	.0	.0	-	.5	1.3
pelagic	.2	.0	.0	.1	.0	.0	.0	.0	.0	-	.1	.4
Pacific cod	.1	.0	.3	3.4	.1	.0	.0	.3	.1	.0	.5	4.9
Arrowtooth	.0	.1	.3	1.3	.0	.0	.0	.0	.2	.0	.1	2.0
Flathd. sole	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.1	.9
Rex sole	.0	.1	.0	3.5	.1	.0	.1	.0	.4	.0	.3	4.5
Flat deep	.0	.0	.0	.3	.0	.0	.0	.0	.0	-	.1	.5
Flat shallow	.2	.0	.8	1.4	.0	.0	.0	.2	.0	-	.3	3.0
Rockfish	.0	.2	.1	1.1	.0	.1	.1	.0	1.1	.0	.2	3.1
Total	.7	.5	1.6	12.5	.3	.2	.2	.6	2.0	.0	2.2	20.7
All gear												
Total	.7	.8	1.9	13.3	.3	.2	.2	.6	2.6	.0	3.8	24.3

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area, and gear. These estimates include only catch counted against Federal IACs. Although these are the best available estimates of discards and are used for several management purposes, these estimates are not necessarily accurate. The reasons for this are as follows: 1) they are wholly or partially derived from observer estimates; 2) discards occur at many different places on vessels; 3) observers record only a rough approximation of what they see; and 4) the estimation methods used by at-sea observers focus on providing good estimates of total catch by species, not on the disposition of that catch.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 9. Bering Sea and Aleutian Islands groundfish discards by species, gear, and target fishery, 2000-01 (1,000 metric tons, round weight).

	Species												
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rock sole	Turbot	Yellow fin	Flat other	Rock- fish	Atka mack.	Other	Total
Year/Gear/Target													
2000													
Hook and line													
Sablefish	.0	.0	.0	.2	.0	.0	.2	-	.0	.1	.0	.2	.8
Pacific cod	1.0	.1	2.7	1.2	.3	.0	.1	.3	.1	.3	.1	11.2	17.5
Turbot	.0	.0	.0	.5	.0	.0	.2	-	.0	.1	.0	.3	1.1
Total	1.0	.1	2.8	1.9	.3	.0	.5	.3	.1	.4	.1	11.8	19.4
Pot													
Sablefish	.0	.0	.0	.0	-	.0	.0	-	.0	.0	.0	.0	.0
Pacific cod	.0	-	.1	.0	.0	.0	.0	.1	.0	.0	.0	.8	1.0
Total	.0	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.8	1.0
Trawl													
Pollock													
bottom	.2	.0	.0	.1	.2	1.0	.0	.5	.2	.0	.0	.1	2.3
pelagic	1.6	.0	.1	.4	1.1	1.0	.0	.4	.0	.0	.0	.3	5.0
Pacific cod	6.7	.0	.3	.7	1.1	5.5	.0	.9	.7	.5	.2	2.2	19.0
Arrowtooth	.1	.0	.0	.5	.0	.0	.1	.1	.0	.0	.0	.2	1.0
Flathd. sole	3.6	.0	.1	2.3	1.3	1.1	.1	1.4	1.1	.1	.0	2.2	13.4
Rock sole	3.0	.0	.2	.2	.8	15.0	.0	.7	1.9	.0	.0	1.3	23.1
Turbot	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
Yellowfin	5.8	.0	.3	.9	.6	3.6	.0	9.7	9.3	.0	.0	3.2	33.5
Flat, other	.2	.0	.0	.7	.0	.1	.0	.1	.1	.0	.0	.2	1.4
Rockfish	.1	.0	.0	.0	.0	.0	.0	-	.0	.2	.0	.1	.5
Atka mack.	.0	.0	.0	.1	.0	.0	.0	.0	.0	4.7	2.4	.4	7.7
Oth. & unk.	-	-	-	-	-	-	-	-	-	-	-	.7	.7
Total	21.4	.1	1.1	6.1	5.2	27.3	.3	13.7	13.4	5.7	2.6	10.9	107.7
All gear													
Total	22.4	.2	4.0	8.0	5.5	27.3	.8	14.1	13.5	6.1	2.8	23.5	128.1

Table 9. Continued.

Species													
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rock sole	Turbot	Yellow fin	Flat other	Rock- fish	Atka mack.	Other	Total
2001													
Hook and line													
Sablefish	.0	.0	.0	.1	.0	-	.3	-	.0	.0	.0	.1	.5
Pacific cod	1.0	.0	1.8	1.3	.3	.0	.0	.6	.1	.4	.1	13.2	18.8
Turbot	.0	.0	.0	.1	.0	.0	.1	-	.0	.0	-	.1	.4
Total	1.0	.1	1.8	1.5	.3	.0	.4	.6	.1	.4	.1	13.4	19.8
Pot													
Sablefish	.0	.0	.0	.0	-	-	.0	.0	.0	.0	-	.0	.0
Pacific cod	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	.6
Total	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.5	.7
Trawl													
Pollock													
bottom	.4	.0	.0	.1	.2	.2	.0	.1	.1	.1	.0	.2	1.5
pelagic	.9	.0	.0	.2	.7	.5	.0	.1	.1	.4	.0	1.0	3.8
Sablefish	.0	.0	-	.0	.0	.0	.0	-	.0	.0	-	.0	.1
Pacific cod	2.8	.0	.3	1.5	.4	2.7	.0	.4	.3	.3	.3	1.4	10.4
Arrowtooth	.1	.0	.0	.3	.0	.0	.2	.0	.0	.1	-	.2	.9
Flathd. sole	2.6	.0	.1	2.8	1.2	.8	.1	.5	.8	.0	.0	2.0	10.9
Rock sole	2.8	.0	.2	.5	.2	3.9	.0	.9	1.2	.0	.0	1.1	10.8
Turbot	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
Yellowfin	6.8	.0	.4	.8	.5	1.8	.0	5.9	6.5	.0	.0	3.5	26.3
Flat, other	.1	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.1	.5
Rockfish	.1	.0	.0	.4	.0	.0	.0	-	.0	.5	.2	.1	1.3
Atka mack.	.2	.0	.0	.1	.0	.0	.0	.0	.0	6.7	3.9	.6	11.5
Oth. & unk.	-	-	-	-	-	-	-	-	-	-	-	.5	.5
Total	16.7	.0	1.1	7.2	3.1	10.0	.5	8.0	9.0	8.1	4.4	10.8	78.9
All gear													
Total	17.7	.1	2.9	8.8	3.4	10.0	.9	8.7	9.1	8.5	4.5	24.7	99.4

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area, and gear. These estimates include only catch counted against Federal TACs. Although these are the best available estimates of discards and are used for several management purposes, these estimates are not necessarily accurate. The reasons for this are discussed in the Notes for Table 8.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 10. Gulf of Alaska groundfish discard rates by species, gear, and target fishery, 2000-01.

	Species											
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rex sole	Flat deep	Flat shallow	Rock- fish	Atka mack.	Other	Total
Year/Gear/Target												
2000												
Hook and line												
Sablefish	100.0%	3.4%	26.8%	98.1%	100.0%	-	92.3%	91.4%	26.7%	-	98.8%	14.9%
Pacific cod	84.3%	65.2%	.6%	99.7%	96.6%	-	56.1%	97.9%	8.1%	-	99.3%	18.6%
Rockfish	52.4%	76.9%	21.2%	100.0%	-	-	92.5%	.0%	3.0%	-	99.7%	39.8%
Total	84.3%	4.2%	1.0%	98.6%	96.6%	-	92.0%	88.9%	21.6%	-	99.0%	17.2%
Pot												
Pacific cod	54.9%	100.0%	.1%	99.7%	.0%	-	100.0%	17.3%	98.8%	100.0%	87.4%	2.0%
Flat deep	.0%	.0%	.0%	-	-	.0%	.0%	.0%	.0%	-	.0%	.0%
Total	28.1%	8.9%	.1%	99.7%	.0%	.0%	.0%	7.5%	37.8%	100.0%	81.7%	2.0%
Trawl												
Pollock												
bottom	1.5%	63.5%	1.1%	35.5%	10.1%	11.5%	18.6%	14.6%	36.0%	-	81.2%	5.2%
pelagic	.8%	49.9%	1.2%	14.8%	6.2%	2.8%	.0%	6.2%	23.2%	.0%	60.6%	1.3%
Pacific cod	67.5%	71.0%	.2%	86.0%	50.0%	13.4%	36.7%	48.7%	84.5%	100.0%	99.7%	13.2%
Arrowtooth	28.6%	63.1%	16.3%	36.0%	7.0%	1.3%	54.4%	12.9%	65.9%	32.2%	81.2%	33.7%
Flathd. sole	.2%	51.0%	29.2%	87.5%	3.5%	4.8%	2.5%	63.8%	10.3%	-	100.0%	41.7%
Rex sole	51.0%	55.8%	28.2%	90.8%	34.9%	1.1%	91.4%	46.0%	71.8%	6.2%	99.9%	60.8%
Flat deep	40.6%	11.2%	56.0%	77.9%	.0%	.0%	.2%	1.6%	38.0%	-	95.0%	27.7%
Flat shallow	19.0%	68.5%	31.6%	68.0%	.8%	5.7%	.5%	3.0%	19.8%	-	55.0%	23.6%
Rockfish	66.1%	18.0%	19.5%	70.3%	30.2%	47.2%	45.0%	10.0%	6.7%	4.8%	94.0%	16.1%
Total	2.6%	35.9%	4.9%	55.1%	15.4%	2.9%	26.1%	11.1%	11.1%	5.0%	75.5%	13.7%
All gear												
Total	2.9%	8.2%	2.5%	57.5%	15.6%	2.9%	29.0%	11.3%	12.1%	6.1%	86.5%	13.2%

Table 10. Continued.

	Species											
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rex sole	Flat deep	Flat shallow	Rock- fish	Atka mack.	Other	Total
2001												
Hook and line												
Sablefish	88.9%	2.4%	25.0%	93.5%	100.0%	100.0%	71.9%	100.0%	28.6%	-	96.0%	12.4%
Pacific cod	6.0%	29.3%	1.7%	100.0%	100.0%	100.0%	94.3%	94.1%	88.1%	100.0%	95.2%	12.5%
Rockfish	.0%	44.3%	.0%	100.0%	-	-	-	.0%	2.2%	-	100.0%	24.3%
Total	6.3%	2.6%	2.0%	96.1%	39.8%	14.9%	67.8%	81.8%	22.9%	100.0%	92.9%	13.0%
Pot												
Pacific cod	64.7%	100.0%	1.8%	100.0%	-	-	100.0%	99.9%	97.7%	91.8%	80.7%	3.9%
Total	64.7%	54.2%	1.8%	100.0%	-	-	100.0%	99.9%	67.6%	91.8%	75.1%	3.9%
Trawl												
Pollock												
bottom	.3%	74.2%	.1%	30.0%	13.7%	28.5%	32.7%	2.9%	80.0%	-	52.2%	4.1%
pelagic	.5%	.0%	.0%	24.0%	19.1%	16.4%	.0%	.0%	20.3%	-	56.0%	1.0%
Pacific cod	7.3%	53.1%	1.3%	84.6%	15.6%	15.3%	31.1%	13.2%	64.9%	97.0%	95.3%	17.2%
Arrowtooth	40.6%	82.0%	37.8%	27.1%	24.0%	3.0%	94.5%	11.7%	84.0%	53.8%	89.1%	32.0%
Flathd. sole	34.8%	8.0%	17.0%	91.6%	2.7%	3.0%	9.7%	7.8%	12.3%	11.3%	85.4%	51.2%
Rex sole	18.5%	70.4%	10.8%	98.4%	25.0%	1.0%	96.9%	94.5%	64.8%	100.0%	100.0%	59.8%
Flat deep	45.9%	39.3%	45.0%	90.8%	6.7%	.0%	.0%	4.1%	42.1%	-	99.5%	43.1%
Flat shallow	57.3%	85.8%	49.9%	78.8%	1.4%	4.6%	6.2%	6.6%	11.0%	-	69.1%	36.8%
Rockfish	64.1%	20.6%	8.6%	79.7%	38.3%	35.8%	50.8%	11.9%	6.6%	2.1%	89.7%	14.1%
Total	1.0%	35.3%	6.5%	65.5%	13.2%	5.4%	23.6%	9.1%	10.6%	22.6%	73.5%	13.8%
All gear												
Total	1.0%	6.4%	4.6%	66.8%	13.5%	5.4%	24.6%	9.3%	12.1%	23.5%	79.9%	13.3%

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area, and gear. These estimates include only catch counted against Federal TACs. Although these are the best available estimates of discards and are used for several management purposes, these estimates are not necessarily accurate. The reasons for this are as follows: 1) they are wholly or partially derived from observer estimates; 2) discards occur at many different places on vessels; 3) observers record only a rough approximation of what they see; and 4) the estimation methods used by at-sea observers focus on providing good estimates of total catch by species, not on the disposition of that catch.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 11. Bering Sea and Aleutian Islands groundfish discard rates by species, gear, and target fishery, 2000-01.

	Species												
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rock sole	Turbot	Yellow fin	Flat other	Rock- fish	Atka mack.	Other	Total
Year/Gear/Target													
2000													
Hook and line													
Sablefish	60.9%	.8%	41.7%	92.2%	71.5%	99.0%	56.2%	-	100.0%	39.7%	25.8%	96.0%	37.9%
Pacific cod	20.8%	58.5%	2.8%	94.7%	95.7%	99.8%	41.1%	94.5%	99.2%	83.4%	97.2%	85.2%	14.8%
Turbot	33.1%	15.8%	26.0%	95.8%	100.0%	100.0%	4.1%	-	100.0%	39.6%	100.0%	95.7%	18.5%
Total	20.8%	8.3%	2.9%	94.4%	95.7%	99.7%	9.9%	94.5%	99.2%	60.4%	97.2%	85.4%	15.3%
Pot													
Sablefish	66.7%	.3%	3.8%	51.4%	-	.0%	46.3%	-	100.0%	88.0%	.0%	1.7%	7.9%
Pacific cod	47.1%	-	.4%	82.0%	1.9%	94.5%	100.0%	99.7%	32.6%	96.5%	98.4%	97.0%	5.0%
Total	47.2%	.4%	.4%	48.8%	1.9%	94.1%	38.1%	99.7%	32.7%	95.3%	97.3%	96.9%	5.1%
Trawl													
Pollock													
bottom	.8%	1.0%	6.9%	34.9%	53.7%	79.2%	18.9%	51.9%	86.9%	60.6%	67.5%	90.0%	8.0%
pelagic	.1%	18.3%	4.7%	45.6%	49.6%	66.5%	64.2%	51.7%	11.1%	70.9%	34.1%	67.7%	.5%
Pacific cod	67.7%	82.4%	.6%	82.2%	62.7%	78.2%	64.4%	82.3%	90.8%	92.7%	61.7%	98.7%	24.0%
Arrowtooth	47.5%	6.2%	2.4%	37.0%	17.3%	83.5%	33.3%	83.4%	13.3%	13.0%	.8%	98.6%	37.6%
Flathd. sole	64.1%	39.1%	1.8%	65.4%	12.3%	61.9%	12.8%	28.3%	70.3%	34.4%	2.1%	87.5%	38.1%
Rock sole	46.8%	.0%	3.0%	81.0%	40.6%	47.8%	40.8%	16.7%	88.7%	50.8%	80.0%	97.4%	43.7%
Turbot	39.8%	.0%	.0%	12.1%	1.1%	47.7%	.1%	3.3%	3.5%	4.3%	.0%	79.3%	8.8%
Yellowfin	43.1%	100.0%	6.2%	46.0%	20.5%	55.2%	25.9%	13.6%	90.4%	85.1%	.0%	91.7%	29.1%
Flat, other	63.2%	8.4%	.6%	73.1%	13.5%	52.2%	15.5%	32.8%	7.2%	37.4%	.0%	100.0%	42.2%
Rockfish	49.5%	.0%	.0%	8.0%	15.0%	6.3%	1.6%	-	7.0%	2.6%	18.9%	91.7%	5.3%
Atka mack.	8.4%	7.2%	1.4%	45.0%	12.2%	76.1%	19.8%	100.0%	18.7%	77.6%	5.2%	97.6%	13.8%
Oth. & unk.	-	-	-	-	-	-	-	-	-	-	-	87.1%	87.1%
Total	1.9%	17.1%	1.4%	54.4%	25.7%	55.0%	14.6%	16.4%	81.8%	36.0%	5.6%	91.8%	7.4%
All gear													
Total	2.0%	9.2%	2.1%	60.4%	26.8%	55.0%	11.3%	16.8%	81.9%	37.1%	5.9%	88.6%	8.0%

Table 11. Continued.

	Species												
	Pollock	Sable- fish	Pacific cod	Arrow- tooth	Flathd. sole	Rock sole	Turbot	Yellow fin	Flat other	Rock- fish	Atka mack.	Other	Total
2001													
Hook and line													
Sablefish	100.0%	2.2%	9.8%	90.9%	100.0%	-	64.9%	-	7.1%	14.3%	100.0%	95.2%	26.0%
Pacific cod	16.6%	43.5%	1.6%	94.3%	95.0%	98.1%	28.9%	97.0%	99.3%	77.6%	50.8%	87.2%	14.2%
Turbot	3.7%	23.4%	5.3%	87.5%	100.0%	100.0%	2.7%	-	100.0%	41.3%	-	85.4%	12.7%
Total	16.6%	7.9%	1.7%	93.0%	95.0%	98.1%	12.4%	97.0%	91.9%	58.5%	50.8%	87.1%	14.4%
Pot													
Sablefish	61.5%	.0%	.0%	49.9%	-	-	40.5%	100.0%	100.0%	28.5%	-	95.3%	5.6%
Pacific cod	73.9%	2.9%	.3%	98.9%	10.7%	93.3%	98.9%	99.8%	97.5%	98.4%	99.4%	96.3%	3.7%
Total	73.9%	.3%	.3%	83.8%	10.7%	93.3%	77.7%	99.8%	97.5%	89.7%	99.4%	96.3%	3.7%
Trawl													
Pollock													
bottom	2.5%	1.1%	1.7%	52.9%	42.2%	46.2%	28.6%	39.2%	75.8%	70.9%	.1%	92.2%	8.0%
pelagic	.1%	24.2%	1.2%	35.9%	36.4%	37.6%	42.2%	65.4%	43.8%	70.8%	83.5%	52.6%	.3%
Sablefish	31.1%	.0%	-	86.6%	1.8%	100.0%	87.2%	-	3.1%	26.3%	-	100.0%	49.4%
Pacific cod	54.5%	10.0%	1.1%	79.4%	52.6%	61.2%	46.2%	83.4%	79.6%	90.9%	35.8%	97.7%	22.0%
Arrowtooth	28.9%	12.7%	1.3%	16.1%	9.9%	40.5%	44.9%	10.9%	6.3%	33.7%	-	99.2%	24.1%
Flathd. sole	57.5%	1.0%	3.0%	75.5%	12.0%	43.8%	21.1%	17.7%	84.7%	13.0%	5.1%	83.0%	36.5%
Rock sole	52.6%	50.9%	4.2%	57.8%	19.2%	23.7%	17.9%	19.6%	95.6%	1.0%	1.5%	83.3%	31.0%
Turbot	70.4%	.0%	.0%	63.0%	3.2%	92.0%	10.0%	56.2%	1.3%	5.8%	.0%	80.8%	26.3%
Yellowfin	43.0%	48.8%	6.6%	45.2%	14.6%	36.9%	17.1%	10.9%	97.3%	28.6%	78.5%	91.9%	27.1%
Flat, other	40.3%	9.2%	.1%	82.1%	7.3%	22.8%	29.5%	11.4%	7.9%	26.9%	.0%	94.7%	44.2%
Rockfish	42.1%	2.6%	.1%	80.1%	24.4%	78.2%	6.4%	-	25.1%	6.6%	24.6%	95.0%	13.3%
Atka mack.	58.4%	100.0%	.4%	34.5%	51.0%	81.9%	29.8%	100.0%	54.8%	85.6%	6.5%	97.4%	16.3%
Oth. & unk.	-	-	-	-	-	-	-	-	-	-	-	73.0%	73.0%
Total	1.2%	7.1%	2.1%	58.2%	17.7%	34.0%	23.2%	12.7%	91.3%	47.9%	7.1%	83.4%	4.8%
All gear													
Total	1.3%	6.9%	1.7%	62.3%	18.9%	34.0%	17.3%	13.6%	91.3%	48.4%	7.3%	85.6%	5.5%

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area, and gear. These estimates include only catch counted against Federal TACs. Although these are the best available estimates of discards and are used for several management purposes, these estimates are not necessarily accurate. The reasons for this are discussed in the Notes for Table 10.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 12. Prohibited species bycatch by species, area and gear, 1998-2001 (metric tons (t) or number in 1,000s)

	Halibut mort.	Herring	Chinook	Other salmon	Red king crab	Other k.crab	Bairdi	Other tanner
	t	t	1,000s	1,000s	1,000s	1,000s	1,000s	1,000s
BSAI Hook and line								
1998	775	-	0	0	3	6	6	156
1999	581	-	0	0	8	4	3	92
2000	831	0	0	0	5	7	8	109
2001	831	0	0	0	18	9	15	88
BSAI Pot								
1998	4	0	-	0	4	21	41	403
1999	3	0	0	-	1	45	41	179
2000	4	0	-	0	35	12	133	162
2001	5	0	-	0	1	12	65	127
BSAI Trawl								
1998	3,297	906	50	51	37	15	1,447	4,047
1999	3,434	892	12	47	85	18	872	1,342
2000	3,196	512	7	58	77	18	1,001	3,014
2001	3,241	270	38	57	62	17	1,000	1,852
BSAI All gear								
1998	4,076	906	50	51	44	42	1,494	4,606
1999	4,018	892	12	47	94	67	915	1,613
2000	4,031	512	7	58	116	36	1,141	3,285
2001	4,077	270	38	57	81	39	1,080	2,068
GOA Hook and line								
1998	-	-	-	-	0	0	0	0
1999	-	-	-	-	0	0	0	0
2000	-	-	-	-	0	0	0	0
2001	-	-	-	-	0	0	0	0
GOA Pot								
1998	13	-	-	-	0	0	91	1
1999	41	-	-	-	0	0	50	1
2000	7	-	0	-	0	0	66	30
2001	4	-	-	-	0	-	69	0
GOA Trawl								
1998	2,085	21	15	9	0	1	106	3
1999	2,198	10	32	8	0	2	30	2
2000	1,934	5	27	11	0	1	49	3
2001	2,259	7	15	6	0	1	127	4
GOA All gear								
1998	2,098	21	15	9	0	1	198	3
1999	2,239	10	32	8	0	2	80	4
2000	1,941	5	27	11	0	1	115	34
2001	2,263	7	15	6	0	1	196	4
BSAI and GOA, All gear								
1998	6,174	927	65	60	45	43	1,692	4,610
1999	6,257	903	44	54	94	69	995	1,617
2000	5,972	517	34	69	116	37	1,256	3,319
2001	6,340	277	53	64	81	39	1,275	2,072

Notes: These estimates include only catches counted against Federal TACs. Totals may include additional categories. The estimates of halibut bycatch mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut Individual Fishing Quota program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut bycatch numbers unavailable. This is particularly a problem in the Gulf of Alaska for all h&l fisheries and in the Bering Sea and Aleutian Islands for the sablefish h&l fishery. Therefore, estimates of halibut bycatch mortality are not included in this table for those fisheries for 1998-2001.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0700.

Table 13. Prohibited species bycatch in the Gulf of Alaska by species, gear, and groundfish target fishery, 2000-01. (Metric tons (t) or number in 1,000s)

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t	t	1,000s	1,000s	1,000s	1,000s	1,000s	1,000s
Year/Gear/Target								
2000								
Hook and line								
Sablefish	n.a.	.0	.0	.0	.0	.0	.0	.0
Pacific cod	n.a.	.0	.0	.0	.2	.1	.0	.0
Flat shallow	n.a.	.0	.0	.0	.0	.0	.0	.0
Rockfish	n.a.	.0	.0	.0	.0	.0	.0	.0
Total	n.a.	.0	.0	.0	.2	.1	.0	.0
Pot								
Pacific cod	6.9	.0	.0	.0	65.6	30.3	.0	.0
Flat deep	.0	.0	.0	.0	.0	.0	.0	.0
Total	6.9	.0	.0	.0	65.6	30.3	.0	.0
Trawl								
Pollock								
bottom	46.2	.4	.0	.0	2.1	.9	5.1	3.4
pelagic	57.4	4.3	.0	.1	2.2	.1	13.5	4.1
Sablefish	.2	.0	.0	.0	.0	.0	.0	.0
Pacific cod	347.0	.0	.0	.0	10.6	.9	2.1	.0
Arrowtooth	380.0	.4	.0	.0	8.9	.3	2.1	1.7
Flathd. sole	4.5	.0	.0	.0	3.0	.0	.0	.0
Rex sole	230.1	.0	.0	.1	2.9	.6	2.1	.4
Flat deep	43.6	.0	.0	.0	.0	.0	.1	.0
Flat shallow	577.5	.2	.1	.2	18.9	.5	.6	.8
Rockfish	245.5	.1	.0	.3	.3	.0	1.4	.7
Total	1,933.7	5.3	.1	.7	48.8	3.4	27.0	11.2
All gear								
Total	1,940.6	5.3	.1	.7	114.5	33.7	27.0	11.2

Table 13. Continued.

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t	t	1,000s	1,000s	1,000s	1,000s	1,000s	1,000s
Year/Gear/Target								
2001								
Hook and line								
Sablefish	n.a.	.0	.0	.0	.0	.0	.0	.0
Pacific cod	n.a.	.0	.0	.0	.0	.1	.0	.0
Arrowtooth	n.a.	.0	.0	.0	.0	.0	.0	.0
Flathd. sole	n.a.	.0	.0	.0	.0	.0	.0	.0
Flat deep	n.a.	.0	.0	.0	.0	.0	.0	.0
Rockfish	n.a.	.0	.0	.0	.0	.0	.0	.0
Total	n.a.	.0	.0	.0	.0	.2	.0	.0
Pot								
Pacific cod	4.5	.0	.0	.0	69.1	.5	.0	.0
Total	4.5	.0	.0	.0	69.1	.5	.0	.0
Trawl								
Pollock								
bottom	71.6	3.8	.0	.0	9.3	1.0	6.7	1.2
pelagic	15.8	2.7	.0	.0	5.5	.0	2.8	1.6
Sablefish	.1	.0	.0	.0	.0	.0	.0	.0
Pacific cod	746.0	.0	.0	.0	46.8	1.0	2.3	.6
Arrowtooth	184.2	.0	.0	.1	2.2	.3	.9	.3
Flathd. sole	70.2	.1	.0	.0	41.9	.2	.1	.0
Rex sole	251.8	.1	.0	.1	2.1	.3	1.8	.4
Flat deep	43.6	.0	.0	.1	2.5	.7	.0	.1
Flat shallow	488.2	.1	.0	.0	13.2	.3	.1	1.2
Rockfish	386.9	.1	.0	.3	2.9	.0	.6	.8
Total	2,259.0	6.9	.0	.6	126.6	3.7	15.2	6.2
All gear								
Total	2,263.5	6.9	.1	.6	195.7	4.4	15.2	6.2

Notes: These estimates include only catches counted against Federal TACs. Totals may include additional categories. The estimates of halibut bycatch mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut Individual Fishing Quota program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut bycatch numbers unavailable. Therefore, estimates of halibut bycatch mortality are not included in this table for those fisheries.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 14. Prohibited species bycatch in the Bering Sea and Aleutian Islands by species, gear, and groundfish target fishery, 2000-01. (Metric tons (t) or number in 1,000s)

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t	t	1,000s	1,000s	1,000s	1,000s	1,000s	1,000s
Year/Gear/Target								
2000								
Hook and line								
Sablefish	n.a.	.0	.0	1.1	.0	.1	.0	.0
Pacific cod	712.7	.0	4.8	3.6	7.9	107.8	.0	.0
Turbot	109.9	.0	.0	1.8	.0	.9	.0	.0
Rockfish	1.4	.0	.0	.1	.0	.0	.0	.0
Total	831.4	.0	4.8	6.5	7.9	108.9	.0	.0
Pot								
Sablefish	2.6	.0	.0	6.2	.0	.3	.0	.0
Pacific cod	1.1	.0	34.5	5.0	132.8	161.4	.0	.0
Total	3.7	.0	34.5	11.7	132.8	161.6	.0	.0
Trawl								
Pollock								
bottom	19.4	3.8	.0	.0	5.3	13.4	.2	.3
pelagic	78.9	480.8	.0	.1	.2	2.9	4.1	56.6
Pacific cod	903.9	.7	5.7	.9	81.8	122.8	2.3	.1
Arrowtooth	67.9	.1	.0	1.4	8.6	5.3	.0	.0
Flathd. sole	391.0	1.7	.1	3.6	203.0	297.8	.3	.1
Rock sole	519.2	2.0	54.0	.6	209.2	192.0	.0	.0
Turbot	23.4	.0	.1	4.8	1.1	2.9	.0	.0
Yellowfin	866.3	22.7	15.7	2.7	482.1	2,353.9	.1	.2
Flat, other	69.7	.0	.0	1.6	9.2	23.5	.2	.0
Rockfish	8.9	.0	1.0	2.4	.0	.0	.0	.0
Atka mack.	247.2	.0	.0	.0	.0	.0	.0	.3
Total	3,195.9	511.8	76.7	18.1	1,000.5	3,014.5	7.1	57.6
All gear								
Total	4,031.0	511.8	116.0	36.3	1,141.3	3,285.0	7.1	57.6

Table 14. Continued.

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t	t	1,000s	1,000s	1,000s	1,000s	1,000s	1,000s
Year/Gear/Target								
2001								
Hook and line								
Sablefish	n.a.	.0	.0	.6	.0	.1	.0	.0
Pacific cod	775.9	.0	17.7	8.4	14.8	87.7	.0	.0
Turbot	51.4	.0	.0	.3	.0	.5	.0	.0
Rockfish	1.1	.0	.0	.0	.0	.0	.0	.0
Total	830.7	.0	17.8	9.3	14.8	88.4	.0	.0
Pot								
Sablefish	3.6	.0	.0	1.0	.0	.3	.0	.0
Pacific cod	1.6	.0	1.1	10.7	65.1	127.2	.0	.0
Total	5.3	.0	1.1	11.8	65.1	127.4	.0	.0
Trawl								
Pollock								
bottom	51.3	2.3	.9	.0	15.7	25.2	.8	1.0
pelagic	164.4	224.4	.0	5.1	.1	2.2	30.1	52.8
Sablefish	2.1	.0	.0	.1	.7	.5	.0	.0
Pacific cod	590.3	5.1	2.3	.3	65.5	29.8	3.1	1.5
Arrowtooth	70.2	.3	.1	1.5	20.0	11.6	.3	.0
Flathd. sole	363.2	9.4	.4	1.8	293.2	475.7	1.2	.2
Rock sole	817.2	13.0	26.6	1.5	269.0	261.5	1.1	.7
Turbot	15.8	.0	.0	.6	2.1	8.0	.0	.0
Yellowfin	1,040.0	15.7	31.7	.4	324.7	1,010.2	.7	.5
Flat, other	10.3	.1	.1	1.3	6.6	27.0	.0	.0
Rockfish	54.8	.0	.0	4.7	.0	.1	.0	.2
Atka mack.	61.2	.1	.0	.0	2.1	.0	.6	.3
Total	3,240.7	270.3	62.2	17.4	999.9	1,851.9	37.9	57.3
All gear								
Total	4,076.6	270.3	81.0	38.6	1,079.8	2,067.8	37.9	57.4

Notes: These estimates include only catches counted against Federal TACs. Totals may include additional categories. The estimates of halibut bycatch mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut Individual Fishing Quota program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut bycatch numbers unavailable. This is particularly a problem in the Bering Sea and Aleutian Islands sablefish hook-and-line fishery. Therefore, estimates of halibut bycatch mortality are not included in this table for that fishery.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 15. Prohibited species bycatch rates in the Gulf of Alaska by species, gear, and groundfish target fishery, 2000-01. (Metric tons (t))

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t/t	t/t	No./t	No./t	No./t	No./t	No./t	No./t
Year/Gear/Target								
2000								
Hook and line								
Sablefish	n.a.	.000	.000	.000	.000	.000	.000	.000
Pacific cod	n.a.	.000	.003	.000	.012	.005	.000	.000
Flat shallow	n.a.	.000	.000	.000	.000	.000	.000	.000
Rockfish	n.a.	.000	.000	.029	.000	.002	.000	.000
Total	n.a.	.000	.002	.001	.006	.003	.000	.000
Pot								
Pacific cod	.000	.000	.000	.002	3.715	1.717	.001	.000
Flat deep	.000	.000	.000	.000	.000	.000	.000	.000
Total	.000	.000	.000	.002	3.688	1.704	.001	.000
Trawl								
Pollock								
bottom	.004	.000	.000	.000	.198	.086	.473	.320
pelagic	.001	.000	.000	.002	.034	.002	.210	.063
Sablefish	.007	.000	.000	.000	.016	.046	.069	.000
Pacific cod	.014	.000	.000	.001	.433	.036	.084	.000
Arrowtooth	.022	.000	.000	.002	.516	.020	.124	.097
Flat hd. sole	.026	.000	.000	.000	17.560	.067	.007	.005
Rex sole	.028	.000	.000	.011	.347	.066	.250	.053
Flat deep	.044	.000	.000	.013	.046	.045	.079	.018
Flat shallow	.059	.000	.006	.016	1.930	.049	.064	.082
Rockfish	.010	.000	.000	.012	.011	.000	.059	.030
Total	.012	.000	.000	.004	.305	.021	.169	.070
All gear								
Total	.009	.000	.001	.004	.554	.163	.130	.054

Table 15. Continued.

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t/t	t/t	No./t	No./t	No./t	No./t	No./t	No./t
Year/Gear/Target								
2001								
Hook and line								
Sablefish	n.a.	.000	.000	.000	.000	.000	.000	.000
Pacific cod	n.a.	.000	.000	.000	.001	.010	.000	.000
Arrowtooth	n.a.	.000	.000	.000	.000	.167	.000	.000
Flathd. sole	n.a.	.000	.000	.000	.000	.000	.000	.000
Flat deep	n.a.	.000	.000	.000	.000	.000	.000	.000
Rockfish	n.a.	.000	.000	.028	.000	.000	.000	.000
Total	n.a.	.000	.000	.001	.001	.009	.000	.000
Pot								
Pacific cod	.001	.000	.001	.000	9.380	.066	.000	.000
Total	.001	.000	.001	.000	9.356	.065	.000	.000
Trawl								
Pollock								
bottom	.002	.000	.000	.000	.302	.031	.217	.039
pelagic	.000	.000	.000	.000	.129	.001	.066	.037
Sablefish	.024	.000	.000	.000	.060	.169	.261	.000
Pacific cod	.026	.000	.000	.000	1.635	.033	.080	.022
Arrowtooth	.030	.000	.000	.009	.352	.041	.136	.054
Flathd. sole	.040	.000	.000	.000	24.044	.095	.056	.011
Rex sole	.033	.000	.000	.012	.282	.041	.238	.047
Flat deep	.037	.000	.000	.056	2.167	.612	.000	.053
Flat shallow	.059	.000	.006	.000	1.599	.036	.010	.143
Rockfish	.018	.000	.000	.015	.133	.002	.027	.035
Total	.015	.000	.000	.004	.848	.025	.102	.041
All gear								
Total	.012	.000	.000	.003	1.078	.024	.084	.034

Notes: Totals may include additional categories. The target, calculated by AFSC staff, is based on processor, week, processing mode, NMFS area and gear. These estimates include only catch counted against Federal TACs. International Pacific Halibut Commission discard mortality rates are used to estimate halibut mortality. The halibut Individual Fishing Quota program allows retention of halibut in the hook-and-line groundfish fisheries making true halibut bycatch numbers unavailable. No prohibited species bycatch numbers were available for the sablefish fishery.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 16. Prohibited species bycatch rates in the Bering Sea and Aleutian Islands by species, gear, and groundfish target fishery, 2000-01. Metric tons (t))

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t/t	t/t	No./t	No./t	No./t	No./t	No./t	No./t
Year/Gear/Target								
2000								
Hook and line								
Sablefish	n.a.	.000	.000	.517	.000	.065	.000	.002
Pacific cod	.006	.000	.041	.030	.067	.910	.000	.000
Turbot	.019	.000	.004	.308	.002	.162	.000	.001
Rockfish	.087	.000	.007	5.008	.001	.020	.000	.000
Total	.007	.000	.038	.051	.063	.861	.000	.000
Pot								
Sablefish	.015	.000	.000	36.467	.019	1.609	.000	.029
Pacific cod	.000	.000	1.733	.253	6.667	8.101	.000	.000
Total	.000	.000	1.716	.583	6.602	8.035	.000	.000
Trawl								
Pollock								
bottom	.001	.000	.000	.000	.187	.470	.006	.012
pelagic	.000	.000	.000	.000	.000	.003	.004	.053
Pacific cod	.011	.000	.072	.012	1.035	1.552	.029	.002
Arrowtooth	.025	.000	.000	.505	3.175	1.939	.000	.000
Flathd. sole	.011	.000	.004	.102	5.789	8.492	.008	.003
Rock sole	.010	.000	1.023	.011	3.962	3.636	.001	.000
Turbot	.015	.000	.046	3.081	.673	1.836	.000	.000
Yellowfin	.008	.000	.136	.023	4.188	20.450	.001	.002
Flat, other	.022	.000	.007	.504	2.857	7.273	.058	.000
Rockfish	.001	.000	.105	.243	.001	.000	.000	.000
Atka mack.	.004	.000	.000	.001	.000	.000	.000	.005
Total	.002	.000	.053	.012	.685	2.063	.005	.039
All gear								
Total	.003	.000	.072	.023	.710	2.043	.004	.036

Table 16. Continued.

	Halibut mort.	Herring	Red king crab	Other k.crab	Bairdi	Other tanner	Chinook	Other salmon
	t/t	t/t	No./t	No./t	No./t	No./t	No./t	No./t
Year/Gear/Target								
2001								
Hook and line								
Sablefish	n.a.	.000	.006	.321	.001	.077	.000	.003
Pacific cod	.006	.000	.134	.063	.112	.662	.000	.000
Turbot	.016	.000	.007	.105	.001	.169	.000	.002
Rockfish	.071	.000	.007	.061	.000	.023	.000	.000
Total	.006	.000	.129	.068	.107	.642	.000	.000
Pot								
Sablefish	.016	.000	.000	4.293	.028	1.211	.000	.031
Pacific cod	.000	.000	.061	.604	3.689	7.206	.000	.000
Total	.000	.000	.060	.659	3.642	7.129	.000	.000
Trawl								
Pollock								
bottom	.003	.000	.050	.000	.839	1.342	.045	.055
pelagic	.000	.000	.000	.004	.000	.002	.022	.039
Sablefish	.016	.000	.000	.877	5.487	3.738	.000	.015
Pacific cod	.012	.000	.048	.007	1.381	.629	.066	.031
Arrowtooth	.019	.000	.021	.406	5.367	3.097	.079	.012
Flathd. sole	.012	.000	.013	.059	9.797	15.894	.039	.006
Rock sole	.023	.000	.761	.043	7.685	7.473	.031	.021
Turbot	.017	.000	.000	.708	2.281	8.788	.000	.000
Yellowfin	.011	.000	.327	.004	3.357	10.445	.007	.005
Flat, other	.009	.000	.113	1.159	5.796	23.569	.000	.001
Rockfish	.005	.000	.000	.467	.000	.013	.000	.017
Atka mack.	.001	.000	.000	.000	.030	.000	.008	.005
Total	.002	.000	.037	.011	.603	1.116	.023	.035
All gear								
Total	.002	.000	.045	.021	.595	1.139	.021	.032

Notes: These estimates include only catches counted against Federal TACs. Totals may include additional categories. The estimates of halibut bycatch mortality are based on the International Pacific Halibut Commission discard mortality rates that were used for in-season management. The halibut Individual Fishing Quota program allows retention of halibut in the hook-and-line groundfish fisheries, making true halibut bycatch numbers unavailable. This is particularly a problem in the Bering Sea and Aleutian Islands sablefish hook-and-line fishery. Therefore, estimates of halibut bycatch mortality are not included in this table for that fishery.

Source: Blend estimates, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 17. Groundfish catch off Alaska by area, residency, and species, 1997-2001, (1,000 metric tons, round weight).

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Alaska	Other	Unknown	Alaska	Other	Unknown	Alaska	Other	Unknown
Species/Year									
All groundfish									
1997	108	120	0	67	1,764	0	175	1,883	0
1998	95	148	0	48	1,572	0	144	1,721	0
1999	91	134	0	44	1,380	1	135	1,514	2
2000	90	116	1	52	1,555	1	142	1,671	2
2001	70	111	0	46	1,766	3	116	1,877	3
Pollock									
1997	37	51	0	12	1,138	0	49	1,190	0
1998	36	88	0	4	1,121	0	40	1,208	0
1999	32	61	0	9	981	1	41	1,042	1
2000	31	44	1	11	1,122	1	42	1,166	1
2001	29	42	0	16	1,370	2	45	1,412	2
Sablefish									
1997	7	7	0	1	1	0	7	7	0
1998	7	6	0	0	1	0	7	7	0
1999	6	6	0	0	1	0	6	7	0
2000	7	7	0	1	1	0	7	8	0
2001	6	7	0	1	1	0	6	8	0
Pacific cod									
1997	42	26	0	27	231	0	68	257	0
1998	38	24	0	21	174	0	59	198	0
1999	40	28	0	25	149	0	65	177	0
2000	33	21	0	24	167	0	57	188	0
2001	22	20	0	17	159	1	39	179	1
Flatfish									
1997	15	19	0	18	294	0	33	313	0
1998	9	15	0	14	186	0	22	201	0
1999	7	18	0	7	154	0	14	172	0
2000	11	26	0	8	182	0	19	209	0
2001	8	23	0	3	137	0	12	160	0
Rockfish									
1997	5	14	0	1	16	0	6	30	0
1998	5	14	0	1	15	0	5	29	0
1999	5	19	0	0	20	0	5	39	0
2000	6	15	0	2	15	0	8	29	0
2001	4	17	0	3	15	0	7	31	0
Atka mackerel									
1997	0	0	0	7	59	0	7	59	0
1998	0	0	0	6	51	0	6	51	0
1999	0	0	0	0	56	0	0	56	0
2000	0	0	0	3	45	0	3	45	0
2001	0	0	0	5	57	0	5	57	0

Notes: These estimates include only catch counted against Federal TACS. Catch delivered to motherships is classified by the residence of the owner of the mothership. All other catch is classified by the residence of the owner of the fishing vessel. All groundfish include additional species categories.

Source: Blend estimates, fish tickets, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 18. Ex-vessel prices* in the groundfish fisheries off Alaska by area, gear, and species, 1997-2001 (\$/lb, round weight).

	Gulf of Alaska		Bering Sea and Aleutian		All Alaska
	Fixed	Trawl	Fixed	Trawl	All gear***
Pollock					
1997	.095	.093	-	.102	.100
1998	.086	.071	-	.070	.070
1999	.099	.100	-	.096	.097
2000	.148	.134	-	.118	.120
2001	.081	.126	.038	.109	.111
Sablefish					
1997	2.437	1.887	2.358	1.060 **	2.410
1998	1.680	1.088	1.619	.738 **	1.646
1999	2.014	1.873	1.945	.892 **	1.976
2000	2.659	1.764	2.037	1.009 **	2.558
2001	2.248	1.769	1.842	.889 **	2.148
Pacific cod					
1997	.232	.187	.139	.160	.177
1998	.199	.159	.174	.152	.168
1999	.312	.235	.269	.236	.261
2000	.338	.326	.302	.293	.314
2001	.299	.258	.244	.235	.260
Flatfish					
1997	.198	.147	.081	.128 **	.129
1998	.328	.162	-	.112 **	.114
1999	.190	.141	.309	.128 **	.129
2000	.157	.151	.234	.130 **	.131
2001	-	.161	.240	.124 **	.126
Rockfish					
1997	.670	.151 **	.821	.144 **	.174
1998	.629	.108 **	.874	.087 **	.129
1999	.487	.139 **	.613	.104 **	.144
2000	.464	.120 **	.607	.112 **	.144
2001	.642	.086 **	.577	.115 **	.126
Atka mackerel					
1997	-	.151 **	-	.123 **	.123
1998	-	.261 **	-	.069 **	.069
1999	-	.135 **	-	.090 **	.091
2000	-	.103 **	-	.097 **	.097
2001	-	.174 **	-	.167 **	.167

* Prices do not include the value added by at-sea processing; therefore they reflect prices prior to processing. Prices do reflect the value added by dressing fish at sea, where the fish have not been frozen. Except where noted unfrozen landings price is calculated as landed value divided by estimated or actual round weight.

** Since this category is not well represented by on-shore landings, a price was calculated from product-report prices. The price in this case is the value of the product divided by the calculated round weight and multiplied by a constant .4 to correct for value added by processing.

*** This column is the weighted average of the other columns.

Source: Blend estimates, ADFG fish tickets, Commercial Operators Annual Report (COAR), weekly processor reports, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 19. Ex-vessel value of the groundfish catch off Alaska by area, catcher category, gear, and species, 1997-2001, (\$ millions).

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total
All gear									
All species									
1997	119.4	19.0	138.4	137.0	295.2	432.2	256.4	314.2	570.7
1998	89.5	14.0	103.5	92.5	187.7	280.2	182.0	201.7	383.7
1999	104.5	21.4	125.9	128.4	207.8	336.2	232.8	229.2	462.1
2000	125.8	20.0	145.8	189.9	256.7	446.6	315.7	276.7	592.4
2001	99.9	16.6	116.5	188.9	237.1	426.0	288.8	253.7	542.5
Hook and line									
All species									
1997	74.5	10.2	84.6	3.6	79.2	82.8	78.1	89.3	167.5
1998	48.6	7.0	55.6	3.0	46.9	49.9	51.6	53.9	105.5
1999	52.5	10.1	62.6	2.4	62.4	64.8	54.9	72.5	127.4
2000	69.4	11.6	81.0	3.5	69.9	73.5	73.0	81.5	154.5
2001	53.9	9.1	62.9	5.6	66.0	71.5	59.4	75.1	134.5
Sablefish									
1997	68.7	7.8	76.6	3.3	2.7	6.1	72.0	10.6	82.6
1998	42.1	5.1	47.2	1.7	1.2	2.9	43.8	6.3	50.2
1999	41.6	6.1	47.7	2.0	2.2	4.2	43.6	8.3	51.9
2000	59.1	7.1	66.2	3.0	3.1	6.0	62.1	10.2	72.2
2001	46.9	6.0	52.9	4.4	1.5	5.9	51.3	7.5	58.8
Pacific cod									
1997	3.7	2.1	5.8	-	70.8	70.8	3.7	72.9	76.7
1998	4.3	1.6	5.9	1.2	41.4	42.6	5.5	43.0	48.5
1999	7.6	3.8	11.4	.2	57.0	57.2	7.8	60.8	68.5
2000	5.9	4.3	10.2	.4	62.5	62.9	6.3	66.8	73.1
2001	5.1	2.9	7.9	.9	61.9	62.7	5.9	64.7	70.6
Flatfish									
1997	.0	.0	.0	.2	2.8	3.1	.3	2.8	3.1
1998	.0	.0	.0	-	3.6	3.6	.0	3.6	3.7
1999	.0	.0	.0	.1	2.3	2.4	.1	2.3	2.4
2000	.5	.0	.5	.1	3.1	3.2	.5	3.1	3.7
2001	-	.0	.0	.1	1.5	1.6	.1	1.5	1.6
Rockfish									
1997	2.0	.2	2.2	.1	.2	.3	2.1	.5	2.5
1998	1.9	.3	2.2	.1	.3	.4	2.0	.6	2.6
1999	1.8	.2	2.0	.1	.2	.2	1.9	.3	2.2
2000	2.2	.2	2.4	.1	.3	.4	2.3	.5	2.8
2001	1.9	.2	2.1	.2	.2	.4	2.1	.4	2.5
Pot									
Pacific cod									
1997	5.5	-	5.5	3.8	2.1	5.9	9.3	2.1	11.4
1998	6.6	.0	6.6	2.6	1.5	4.1	9.1	1.5	10.6
1999	11.6	2.8	14.5	7.7	2.4	10.1	19.3	5.3	24.6
2000	14.9	.8	15.7	10.4	1.8	12.2	25.2	2.6	27.8
2001	8.4	1.0	9.5	6.9	1.8	8.7	15.4	2.8	18.2

Table 19. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total
Trawl									
All species									
1997	39.3	8.9	48.2	129.6	214.0	343.5	168.9	222.8	391.7
1998	34.2	7.0	41.3	86.9	139.3	226.1	121.1	146.3	267.4
1999	40.3	8.5	48.8	118.3	142.9	261.2	158.6	151.4	310.0
2000	41.5	7.6	49.0	176.0	185.0	360.9	217.4	192.5	410.0
2001	37.6	6.5	44.1	176.4	169.3	345.8	214.0	175.8	389.8
Pollock									
1997	17.5	.2	17.7	106.4	128.3	234.6	123.9	128.4	252.3
1998	17.9	.0	17.9	75.4	85.8	161.1	93.3	85.8	179.1
1999	18.9	.0	19.0	103.4	86.7	190.1	122.3	86.7	209.0
2000	19.2	.1	19.2	154.3	121.7	276.0	173.5	121.8	295.3
2001	21.9	.0	21.9	167.0	105.5	272.5	188.9	105.5	294.4
Sablefish									
1997	1.8	2.5	4.3	.0	.1	.1	1.8	2.6	4.4
1998	1.1	1.4	2.5	.0	.2	.2	1.1	1.6	2.7
1999	3.0	1.6	4.6	.0	.5	.5	3.0	2.1	5.1
2000	1.2	1.9	3.0	.0	.6	.6	1.2	2.5	3.6
2001	1.0	1.4	2.4	.0	.7	.7	1.0	2.1	3.1
Pacific cod									
1997	14.7	.5	15.2	18.7	14.5	33.2	33.4	15.0	48.4
1998	12.0	1.8	13.7	10.9	15.1	26.0	22.9	16.8	39.7
1999	15.9	1.4	17.3	14.2	17.4	31.5	30.1	18.7	48.8
2000	16.8	1.4	18.2	20.6	17.9	38.6	37.4	19.4	56.8
2001	11.3	1.7	13.0	8.9	14.0	22.9	20.2	15.7	35.9
Flatfish									
1997	3.8	2.1	5.9	4.4	51.2	55.6	8.3	53.3	61.5
1998	2.2	1.4	3.6	.5	28.6	29.1	2.7	30.0	32.6
1999	.8	1.2	2.0	.7	25.3	26.0	1.5	26.5	27.9
2000	2.4	1.6	4.0	1.0	32.4	33.4	3.4	34.0	37.4
2001	2.3	1.3	3.6	.5	25.8	26.3	2.8	27.1	29.9
Rockfish									
1997	1.2	3.6	4.8	.1	3.8	3.9	1.3	7.4	8.6
1998	1.1	2.4	3.5	.1	1.8	1.9	1.2	4.2	5.4
1999	1.6	4.3	5.9	.0	2.9	2.9	1.6	7.2	8.8
2000	2.0	2.6	4.5	.0	2.5	2.5	2.0	5.0	7.0
2001	1.1	2.1	3.1	.0	2.2	2.2	1.1	4.3	5.4
Atka mackerel									
1997	.0	.1	.1	.0	16.0	16.0	.0	16.1	16.1
1998	.0	.1	.1	.0	7.8	7.8	.0	7.9	7.9
1999	.0	.0	.1	.0	10.2	10.2	.0	10.2	10.3
2000	.0	.0	.0	.0	9.5	9.5	.0	9.5	9.5
2001	-	.0	.0	.0	21.0	21.0	.0	21.0	21.0

Note: These estimates include only catch counted against Federal TACs. Ex-vessel value is calculated using prices on table 18. Please refer to Table 18 for a description of the price derivation. All groundfish includes additional species categories.

Source: Blend estimates, ADFG commercial operators annual reports. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 20. Ex-vessel value of Alaska groundfish delivered to shoreside processors by area, gear and catcher-vessel length, 1995-2001. (\$ millions)

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length			Vessel length			Vessel length		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Fixed									
1995	49.3	39.8	.4	1.2	7.4	1.3	50.5	47.2	1.7
1996	47.0	32.2	.2	1.4	7.5	1.7	48.4	39.7	1.9
1997	54.2	30.9	.1	.9	5.3	1.8	55.2	36.2	1.9
1998	38.0	21.9	.1	1.0	3.4	1.0	39.0	25.3	1.1
1999	46.8	24.2	-	.9	5.9	2.3	47.6	30.0	2.3
2000	58.2	29.7	.8	2.3	6.2	3.4	60.5	35.9	4.2
2001	43.9	19.9	-	3.3	7.2	1.5	47.2	27.1	1.5
Trawl									
1995	5.0	22.7	3.9	-	47.6	57.6	5.0	70.2	61.5
1996	8.9	19.5	1.1	-	42.8	43.4	8.9	62.3	44.5
1997	11.2	29.4	3.4	-	41.5	56.1	11.2	70.9	59.5
1998	8.0	24.6	3.1	.2	25.8	38.3	8.2	50.4	41.4
1999	8.6	31.8	2.2	.5	45.3	58.5	9.2	77.1	60.7
2000	8.8	30.5	-	.1	66.7	75.9	8.9	97.2	75.9
2001	6.0	20.7	-	.6	48.3	61.4	6.6	69.0	61.4
All gear									
1995	54.3	62.5	4.3	1.2	55.0	59.0	55.5	117.5	63.2
1996	55.9	51.7	1.3	1.4	50.3	45.1	57.3	101.9	46.4
1997	65.4	60.3	3.5	.9	46.7	57.9	66.3	107.0	61.4
1998	46.0	46.5	3.2	1.2	29.2	39.3	47.2	75.7	42.5
1999	55.4	55.9	2.2	1.4	51.2	60.8	56.8	107.1	63.0
2000	67.0	60.2	.8	2.4	72.9	79.3	69.4	133.1	80.1
2001	49.9	40.6	-	3.9	55.5	62.9	53.8	96.1	62.9

Note: These estimates include only catch counted against Federal TACs.

Source: ADFG Fishtickets, Pacfin, NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 20.1. Ex-vessel value per catcher vessel for Alaska groundfish delivered to shoreside processors by area, gear and catcher-vessel length, 1995-2001. (\$ thousands)

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length			Vessel length			Vessel length		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Fixed									
1995	59	206	38	16	57	58	58	194	64
1996	55	186	30	26	70	72	55	192	78
1997	61	201	10	19	59	91	61	199	78
1998	47	145	10	21	43	46	47	142	43
1999	57	137	-	22	65	90	56	145	90
2000	68	178	77	41	71	124	69	179	127
2001	59	173	-	43	99	86	60	174	86
Trawl									
1995	91	231	139	-	634	1,920	91	656	2,050
1996	150	253	69	-	542	1,445	150	582	1,482
1997	189	331	137	-	592	1,753	189	644	1,859
1998	144	271	142	29	397	1,197	142	450	1,294
1999	157	392	87	49	588	1,888	146	714	1,958
2000	155	462	-	28	889	2,448	154	876	2,448
2001	117	304	-	46	644	2,194	114	633	2,194
All gear									
1995	63	227	112	16	272	1,134	62	357	1,129
1996	63	216	57	26	270	835	63	338	844
1997	71	258	116	19	292	1,136	71	378	1,116
1998	56	199	110	22	215	802	56	277	817
1999	66	228	87	28	312	1,085	66	358	1,124
2000	77	272	77	40	453	1,366	78	446	1,252
2001	65	229	-	44	375	1,398	67	371	1,398

Note: These estimates include only catch counted against Federal TACs.

Source: ADFG Fishtickets, Pacfin, NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 21. Ex-vessel value of the groundfish catch off Alaska by area, residency, and species, 1997-2001, (\$ millions).

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Alaska	Other	Unknown	Alaska	Other	Unknown	Alaska	Other	Unknown
All groundfish									
1997	74.1	64.4	.0	22.1	410.3	.0	96.2	474.7	.0
1998	54.3	49.2	.1	12.7	268.2	.0	67.0	317.4	.1
1999	64.4	61.4	.3	19.5	316.6	.2	83.9	378.0	.5
2000	77.1	68.2	.5	22.7	424.0	.2	99.8	492.2	.7
2001	55.8	60.4	.3	18.5	407.5	.9	74.2	467.9	1.2
Pollock									
1997	7.4	10.3	.0	1.8	233.0	.0	9.2	243.3	.0
1998	5.3	12.8	.0	.5	161.1	.0	5.8	173.9	.0
1999	7.0	13.4	.0	1.5	189.1	.2	8.5	202.5	.2
2000	8.4	12.4	.1	2.5	274.3	.2	10.9	286.7	.3
2001	8.7	13.2	.0	3.5	269.3	.5	12.2	282.5	.5
Sablefish									
1997	44.9	36.0	.0	2.8	3.6	.0	47.7	39.6	.0
1998	29.4	20.3	.0	1.2	2.0	.0	30.6	22.3	.0
1999	29.3	22.8	.2	1.6	3.1	.0	30.9	25.9	.2
2000	37.1	32.0	.2	2.6	4.4	.0	39.7	36.3	.2
2001	28.2	26.8	.2	3.1	4.4	.0	31.3	31.2	.2
Pacific cod									
1997	16.2	10.3	.0	12.6	97.3	.0	28.9	107.6	.0
1998	16.2	10.0	.0	8.1	64.6	.0	24.3	74.6	.0
1999	25.4	17.6	.0	14.6	84.2	.0	40.1	101.8	.1
2000	27.3	16.7	.1	14.8	98.7	.0	42.1	115.5	.1
2001	16.4	13.9	.1	9.2	84.8	.4	25.6	98.6	.5
Flatfish									
1997	2.7	3.3	.0	3.2	55.5	.0	5.9	58.7	.0
1998	1.4	2.2	.0	2.2	30.5	.0	3.6	32.7	.0
1999	.7	1.6	.0	1.6	26.8	.0	2.3	28.3	.0
2000	1.8	2.6	.0	1.6	35.0	.0	3.4	37.6	.0
2001	1.0	2.6	.0	.8	27.1	.0	1.7	29.7	.0
Rockfish									
1997	2.6	4.4	.0	.1	4.0	.0	2.7	8.5	.0
1998	1.9	3.8	.0	.1	2.2	.0	2.0	6.0	.0
1999	1.9	6.0	.0	.1	3.0	.0	2.0	9.0	.0
2000	2.6	4.4	.0	.4	2.4	.0	3.0	6.8	.0
2001	1.3	3.9	.0	.5	2.2	.0	1.8	6.1	.0
Atka mackerel									
1997	.0	.1	.0	1.6	14.5	.0	1.6	14.5	.0
1998	.0	.1	.0	.7	7.1	.0	.7	7.2	.0
1999	.0	.1	.0	.0	10.2	.0	.0	10.3	.0
2000	.0	.0	.0	.4	9.0	.0	.4	9.0	.0
2001	.0	.0	.0	1.5	19.5	.0	1.5	19.6	.0

Note: These estimates include only catches counted against Federal TACs. Ex-vessel value is calculated using prices on table 18. Please refer to Table 18 for a description of the price derivation. Catch delivered to motherships is classified by the residence of the owner of the mothership. All other catch is classified by the residence of the owner of the fishing vessel. All groundfish include additional species categories.

Source: Blend estimates, Commercial Operators Annual Report (COAR). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 22. Ex-vessel value of groundfish delivered to shoreside processors by processor group, 1995-2001. (\$ millions)

	1995	1996	1997	1998	1999	2000	2001
Processor group:							
Alaska Peninsula/Aleutians	20.9	22.1	22.8	16.7	23.7	25.8	25.7
Bering Sea Pollock Processors	108.0	90.0	103.8	72.1	103.2	153.7	157.6
Kodiak	28.0	22.7	30.8	26.9	32.3	36.6	30.9
South Central	30.7	25.8	27.7	15.5	18.3	25.0	18.1
Southeastern	43.2	39.1	48.4	32.2	33.6	39.5	30.9
TOTAL	230.8	199.7	233.6	163.6	211.2	280.6	263.2

Table 22.1 Ex-vessel value of groundfish as a percentage of the ex-vessel value of all species delivered to shoreside processors by processor group, 1995-2001. (percent)

	1995	1996	1997	1998	1999	2000	2001
Processor group:							
Alaska Peninsula/Aleutians	10.0%	12.3%	16.1%	10.8%	9.8%	16.0%	22.1%
Bering Sea Pollock Processors	69.5%	66.4%	73.5%	56.6%	56.2%	77.1%	81.5%
Kodiak	30.0%	32.6%	43.5%	39.8%	40.1%	48.0%	45.3%
South Central	28.6%	22.7%	20.7%	18.8%	15.2%	23.1%	19.6%
Southeastern	21.9%	21.7%	26.8%	22.5%	18.6%	23.3%	18.9%
TOTAL	30.3%	29.4%	35.0%	28.4%	26.2%	39.2%	41.5%

Note: This table includes the value of groundfish purchases reported by processing plants, as well as by other entities, such as markets and restaurants, that normally would not report sales of groundfish products. Keep this in mind when comparing ex-vessel values in this table to gross processed-product values in Table 25. The data are for catch from the EEZ and State waters. The processor groups are defined as follows:

"Bering Sea Pollock Processors" are the AFA inshore pollock processors including the two AFA floating processors.

"Alaska Peninsula/Aleutian" are other processors on the Alaska Peninsula or in the Aleutian Islands.

"Kodiak" are processors on Kodiak Island.

"South Central" are processors west of Yakutat and on the Kenai Peninsula.

"Southeastern" are processors located from Yakutat south.

Source: ADFG Commercial Operators Annual Report, ADFG intent to process. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 23. Gross product value of Alaska groundfish by area and processing mode, 1996-2001 (\$ millions).

	Gulf of Alaska		Bering Sea and Aleutian			All Alaska
	At-sea	Shoreside	Motherships	Catcher/ processors	Shoreside	Total
1996	48.5	233.0	71.3	634.6	279.3	1,266.8
1997	30.2	212.6	79.6	626.7	280.0	1,229.0
1998	27.7	237.2	59.1	542.6	160.7	1,027.4
1999	42.9	207.6	58.2	582.6	289.4	1,180.7
2000	41.6	199.1	75.6	611.0	399.4	1,326.8
2001	26.9	176.9	90.6	664.7	432.6	1,391.8

Note: For shoreside processors, these estimates include production resulting from catch from Federal and State of Alaska fisheries. For at-sea processors, they include production only from catch counted against Federal TACs. Catcher/processors that at times during a year act like motherships are classified as catcher/processors for the entire year. For shoreside processors the area represents the location of the plant, not necessarily the area of the catch.

Source: NMFS weekly production reports and ADFG Commercial Operators Annual Reports (COAR). National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 24. Gross product value of Alaska groundfish by catcher/processor category, vessel length, and area, 1996-2001 (\$ millions).

	Gulf of Alaska		Bering Sea and Aleutian					
	Vessel length		Vessel length					
	<=124	>124	<=124	125-165	>165	165-235	236-260	>260
Fixed Gear								
1996	9.7	2.9	18.4	37.4	30.7	-	-	-
1997	8.7	1.9	17.2	37.7	30.5	-	-	-
1998	6.6	1.7	18.0	46.4	39.3	-	-	-
1999	11.3	8.5	21.9	51.8	46.6	-	-	-
2000	11.7	3.7	22.9	53.4	46.5	-	-	-
2001	8.4	3.5	20.5	52.0	47.2	-	-	-
Fillet Trawl								
1996	-	6.2	-	-	-	68.5	42.8	-
1997	-	3.0	-	-	-	63.3	31.8	-
1998	-	2.3	-	-	-	62.5	33.2	-
1999	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-
H&G Trawl								
1996	12.7	14.5	15.5	30.6	124.6	-	-	-
1997	6.7	9.8	19.7	26.9	100.8	-	-	-
1998	6.7	10.4	17.0	17.4	70.4	-	-	-
1999	9.2	13.3	20.0	23.8	72.1	-	-	-
2000	9.4	15.7	24.3	27.5	85.5	-	-	-
2001	6.3	8.8	19.3	19.1	96.4	-	-	-
Surimi Trawl								
1996	-	-	-	-	-	-	-	223.5
1997	-	-	-	-	-	-	-	244.9
1998	-	-	-	-	-	-	-	197.3
1999	-	-	-	-	-	-	-	249.3
2000	-	-	-	-	-	-	-	248.4
2001	-	-	-	-	-	-	-	314.5
All Trawl								
1996	12.7	20.7	15.5	30.6	124.6	68.5	42.8	223.5
1997	6.7	12.8	19.7	26.9	100.8	63.3	31.8	244.9
1998	6.7	12.7	17.0	17.4	70.4	62.5	33.2	197.3
1999	9.2	13.3	20.0	23.8	72.1	-	-	249.3
2000	9.4	15.7	24.3	27.5	85.5	-	-	248.4
2001	6.3	8.8	19.3	19.1	96.4	-	-	314.5

Note: These estimates include only catch counted against Federal TACs.

Source: NMFS weekly production reports, COAR prices, and NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 24.1 Gross product value per vessel of Alaska groundfish by catcher/processor category, vessel length, and area 1996-2001 (\$ millions).

	Gulf of Alaska		Bering Sea and Aleutian					
	Vessel length		Vessel length					
	<=124	>124	<=124	125-165	>165	165-235	236-260	>260
Fixed Gear								
1996	.6	.4	.8	2.1	2.2	-	-	-
1997	.6	.4	.9	2.2	2.2	-	-	-
1998	.7	.3	1.0	2.6	3.3	-	-	-
1999	.6	.4	1.3	2.7	3.9	-	-	-
2000	.8	.5	1.8	2.7	3.9	-	-	-
2001	.7	.4	1.3	2.7	3.4	-	-	-
Fillet Trawl								
1996	-	.8	-	-	-	8.6	10.7	-
1997	-	1.0	-	-	-	7.9	10.6	-
1998	-	.4	-	-	-	8.9	11.1	-
1999	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-
H&G Trawl								
1996	1.4	.9	1.9	6.1	7.8	-	-	-
1997	1.1	.7	1.6	5.4	8.4	-	-	-
1998	1.0	.9	2.1	4.3	6.4	-	-	-
1999	1.5	1.2	2.2	5.9	6.6	-	-	-
2000	1.9	1.1	3.0	5.5	7.1	-	-	-
2001	1.0	.7	2.4	4.8	8.8	-	-	-
Surimi Trawl								
1996	-	-	-	-	-	-	-	14.0
1997	-	-	-	-	-	-	-	17.5
1998	-	-	-	-	-	-	-	14.1
1999	-	-	-	-	-	-	-	22.7
2000	-	-	-	-	-	-	-	24.8
2001	-	-	-	-	-	-	-	28.6
All Trawl								
1996	1.4	.8	1.9	6.1	7.8	7.6	8.6	12.4
1997	1.1	.8	1.6	5.4	8.4	7.0	8.0	15.3
1998	1.0	.7	2.1	4.3	6.4	7.8	8.3	12.3
1999	1.5	1.2	2.2	5.9	6.6	-	-	19.2
2000	1.9	1.1	3.0	5.5	7.1	-	-	20.7
2001	1.0	.7	2.4	4.8	8.8	-	-	24.2

Note: These estimates include only catch counted against Federal TACs.

Source: NMFS weekly production reports, COAR prices, and NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 25. Gross product value of groundfish processed by shoreside processors by processor group, 1995-2001. (\$ millions)

	1995	1996	1997	1998	1999	2000	2001
Processor group:							
Alaska Peninsula/Aleutians	51.5	52.8	50.0	38.4	59.0	46.3	49.6
Bering Sea Pollock Processors	326.4	276.4	278.4	214.6	293.0	396.7	421.8
Kodiak	70.1	93.2	63.4	67.1	71.0	73.9	69.1
South Central	40.9	35.2	38.4	27.2	24.9	29.5	28.0
Southeastern	73.3	54.7	62.3	50.6	49.2	52.1	41.1
TOTAL	562.4	512.3	492.5	397.9	497.1	598.6	609.5

Table 25.1 Groundfish gross product value as a percentage of all-species gross product value by shoreside processor group, 1995-2001. (percent)

	1995	1996	1997	1998	1999	2000	2001
Processor group:							
Alaska Peninsula/Aleutians	12.1%	13.9%	18.7%	11.6%	12.5%	15.1%	20.4%
Bering Sea Pollock Processors	82.2%	82.1%	85.6%	66.3%	70.4%	86.8%	89.0%
Kodiak	34.5%	51.5%	44.8%	40.7%	42.1%	46.4%	44.6%
South Central	19.0%	15.1%	15.6%	15.1%	11.3%	13.8%	15.2%
Southeastern	18.8%	14.8%	18.5%	16.4%	13.4%	16.4%	12.8%
TOTAL	34.4%	34.2%	37.4%	30.4%	30.2%	41.1%	44.3%

Note: The data are for catch from the EEZ and State waters. The processor groups are defined as follows:
 "Bering Sea Pollock Processors" are the AFA inshore pollock processors including the two AFA floating processors.
 "Alaska Peninsula/Aleutian" are other processors on the Alaska Peninsula or in the Aleutian Islands.
 "Kodiak" are processors on Kodiak Island.
 "South Central" are processors west of Yakutat and on the Kenai Peninsula.
 "Southeastern" are processors located from Yakutat south.

Source: ADFG Commercial Operators Annual Report, ADFG intent to process. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 26. Number and total registered net tons of vessels that caught groundfish off Alaska by area and gear, 1995-2001.

	Gulf of Alaska		Bering Sea and Aleutian		All Alaska	
	Number of vessels	Registered net tons	Number of vessels	Registered net tons	Number of vessels	Registered net tons
Gear/Year						
Hook and line						
1995	1,106	39,211	175	18,395	1,158	45,325
1996	1,016	38,370	158	16,902	1,065	44,474
1997	975	32,483	137	15,616	1,004	38,144
1998	888	31,332	115	16,032	927	38,479
1999	932	32,749	116	15,464	970	37,717
2000	1,029	31,392	148	18,285	1,092	41,631
2001	953	30,740	163	17,325	1,012	39,412
Pot						
1995	188	13,939	125	16,199	262	24,161
1996	146	9,129	103	14,466	217	20,046
1997	146	8,847	83	11,816	200	17,433
1998	181	11,054	79	12,033	233	19,585
1999	212	16,449	104	16,526	270	24,940
2000	255	19,624	104	15,813	314	28,260
2001	159	8,715	81	11,471	222	18,301
Trawl						
1995	220	49,909	184	80,551	264	86,024
1996	198	39,226	191	77,771	276	83,356
1997	205	36,394	167	70,949	261	77,350
1998	191	31,078	166	68,074	256	74,394
1999	172	25,785	166	55,281	242	60,200
2000	141	19,361	156	53,240	247	59,744
2001	135	18,470	162	51,959	241	57,491
All gear						
1995	1,395	95,034	464	112,253	1,544	144,454
1996	1,267	80,749	438	106,930	1,446	138,919
1997	1,244	72,778	380	97,280	1,373	126,572
1998	1,151	66,861	337	92,419	1,283	122,071
1999	1,207	67,652	373	83,925	1,357	112,762
2000	1,290	61,556	393	84,293	1,500	117,610
2001	1,155	52,211	398	80,146	1,376	108,804

Note: These estimates include only vessels fishing Federal TACs. Registered net tons totals exclude mainly smaller vessels for which data were unavailable. The percent of vessels missing are: 1995 - 4%, 1996 - 5%, 1997 - 4%, 1998 - 3%, 1999 - 5%, 2000 - 8%. 2001 - 6%.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 26.1. Number of vessels that caught or caught and processed more than \$3.5 million ex-vessel value or product value of groundfish by area, catcher type and gear, 1997-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total
1997									
All gear	1	26	27	1	56	57	1	56	57
Hook & line	0	4	4	0	8	8	0	8	8
Trawl	1	22	23	1	48	49	1	48	49
1998									
All gear	0	27	27	0	59	59	0	59	59
Hook & line	0	7	7	0	14	14	0	14	14
Pot	0	0	0	0	1	1	0	1	1
Trawl	0	20	20	0	45	45	0	45	45
1999									
All gear	0	29	29	1	57	58	1	57	58
Hook & line	0	13	13	0	22	22	0	22	22
Pot	0	1	1	0	3	3	0	3	3
Trawl	0	15	15	1	36	37	1	36	37
2000									
All gear	0	28	28	4	57	61	4	57	61
Hook & line	0	13	13	0	26	26	0	26	26
Pot	0	0	0	0	2	2	0	2	2
Trawl	0	15	15	4	33	37	4	33	37
2001									
All gear	0	19	19	5	47	52	5	47	52
Hook & line	0	5	5	0	14	14	0	14	14
Trawl	0	14	14	5	33	38	5	33	38

Note: Includes only vessels that fished part of Federal TACs.

Source: CFEC fish tickets, weekly processor reports, NMFS permits, annual processor survey, ADFG intent-to-operate listings. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 26.2. Number of vessels that caught or caught and processed less than \$3.5 million ex-vessel value or product value of groundfish by area, catcher type and gear, 1997-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total
1997									
All gear	1,178	39	1,217	266	57	323	1,256	60	1,316
Hook & line	946	25	971	93	36	129	958	38	996
Pot	142	4	146	70	13	83	187	13	200
Trawl	172	10	182	107	11	118	200	12	212
1998									
All gear	1,104	20	1,124	238	40	278	1,184	40	1,224
Hook & line	866	15	881	72	29	101	884	29	913
Pot	180	1	181	71	7	78	225	7	232
Trawl	167	4	171	115	6	121	205	6	211
1999									
All gear	1,149	29	1,178	284	31	315	1,265	34	1,299
Hook & line	902	17	919	75	19	94	926	22	948
Pot	201	10	211	90	11	101	256	11	267
Trawl	154	3	157	125	4	129	201	4	205
2000									
All gear	1,246	16	1,262	301	31	332	1,406	33	1,439
Hook & line	1,008	8	1,016	105	17	122	1,048	18	1,066
Pot	250	5	255	91	11	102	300	12	312
Trawl	123	3	126	113	6	119	203	7	210
2001									
All gear	1,115	21	1,136	303	43	346	1,280	44	1,324
Hook & line	933	15	948	118	31	149	967	31	998
Pot	155	4	159	74	7	81	213	9	222
Trawl	117	4	121	118	6	124	196	7	203

Note: Includes only vessels that fished part of Federal TACs.

Source: CFEC fish tickets, weekly processor reports, NMFS permits, annual processor survey, ADFG intent-to-operate listings. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 26.3. Average revenue of vessels that caught or caught and processed more than \$3.5 million ex-vessel value or product value of groundfish by area, catcher type and gear, 1997-2001. (\$ millions)

	Gulf of Alaska		Bering Sea & Aleutians			All Alaska		
	Catcher process	Total	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total
1997								
All gear	8.54	8.40	-	10.37	10.27	-	10.37	10.27
Hook & line	4.48	4.48	-	4.28	4.28	-	4.28	4.28
Trawl	9.28	9.08	-	11.39	11.25	-	11.39	11.25
1998								
All gear	6.30	6.30	-	8.59	8.59	-	8.59	8.59
Hook & line	4.45	4.45	-	4.51	4.51	-	4.51	4.51
Trawl	6.95	6.95	-	9.86	9.86	-	9.86	9.86
1999								
All gear	5.58	5.58	-	10.14	10.04	-	10.14	10.04
Hook & line	4.71	4.71	-	4.72	4.72	-	4.72	4.72
Trawl	6.43	6.43	-	13.29	13.05	-	13.29	13.05
2000								
All gear	6.59	6.59	4.66	10.64	10.24	4.66	10.64	10.24
Hook & line	4.87	4.87	-	5.13	5.13	-	5.13	5.13
Trawl	8.08	8.08	4.66	14.81	13.71	4.66	14.81	13.71
2001								
All gear	7.55	7.55	4.29	13.03	12.19	4.29	13.03	12.19
Hook & line	4.98	4.98	-	4.68	4.68	-	4.68	4.68
Trawl	8.46	8.46	4.29	16.57	14.95	4.29	16.57	14.95

Notes: Includes only vessels that fished part of Federal TACs.
Categories with fewer than four vessels are not reported.
Averages are obtained by adding the total revenues, across all areas and gear types, of all the vessels in the category, and dividing that sum by the number of vessels in the category.

Source: CFEC fish tickets, weekly processor reports, NMFS permits, annual processor survey, ADFG intent-to-operate listings. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 26.4. Average revenue of vessels that caught or caught and processed less than \$3.5 million ex-vessel value or product value of groundfish by area, catcher type and gear, 1997-2001. (\$ millions)

	Gulf of Alaska			Bering Sea & Aleutians			All Alaska		
	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total	Catcher Vessels	Catcher process	Total
1997									
All gear	.16	1.30	.20	.51	1.36	.66	.17	1.30	.22
Hook & line	.08	1.42	.12	.25	1.64	.64	.08	1.58	.14
Pot	.13	.23	.13	.11	.59	.19	.11	.59	.14
Trawl	.69	1.41	.73	.99	1.43	1.03	.67	1.31	.71
1998									
All gear	.12	1.68	.14	.37	1.58	.54	.12	1.58	.17
Hook & line	.06	1.58	.08	.13	1.57	.54	.06	1.57	.11
Pot	.11	-	.12	.22	.84	.28	.14	.84	.16
Trawl	.47	2.13	.51	.65	2.43	.74	.46	2.43	.52
1999									
All gear	.14	1.45	.18	.46	1.52	.57	.16	1.39	.19
Hook & line	.06	1.48	.09	.14	1.79	.47	.06	1.55	.10
Pot	.16	1.23	.21	.15	1.16	.26	.16	1.16	.20
Trawl	.66	-	.69	.89	1.59	.91	.66	1.59	.68
2000									
All gear	.12	1.34	.14	.57	1.39	.65	.19	1.38	.21
Hook & line	.09	1.25	.09	.23	1.62	.42	.08	1.54	.11
Pot	.15	1.04	.17	.12	.63	.18	.15	.75	.17
Trawl	.54	-	.58	1.23	1.84	1.26	.84	1.91	.87
2001									
All gear	.10	1.76	.13	.42	1.77	.59	.15	1.78	.20
Hook & line	.07	1.83	.10	.16	1.92	.53	.07	1.92	.13
Pot	.11	1.73	.15	.11	.86	.18	.11	1.17	.15
Trawl	.35	1.80	.40	.85	1.95	.90	.61	1.97	.65

Notes: Includes only vessels that fished part of Federal TACs.
Categories with fewer than four vessels are not reported.
Averages are obtained by adding the total revenues, across all areas and gear types, of all the vessels in the category, and dividing that sum by the number of vessels in the category.

Source: CFEC fish tickets, weekly processor reports, NMFS permits, annual processor survey, ADFG intent-to-operate listings. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 27. Number of vessels that caught groundfish off Alaska by area, catcher category, target, and gear, 1997-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total
Gear/Target/Year									
All gear									
All groundfish									
1997	1,179	65	1,244	267	113	380	1,257	116	1,373
1998	1,104	47	1,151	238	99	337	1,184	99	1,283
1999	1,149	58	1,207	285	88	373	1,266	91	1,357
2000	1,246	44	1,290	305	88	393	1,410	90	1,500
2001	1,115	40	1,155	308	90	398	1,285	91	1,376
Hook and line									
Sablefish									
1997	473	21	494	66	17	83	479	25	504
1998	421	18	439	37	10	47	430	20	450
1999	412	20	432	36	17	53	422	24	446
2000	399	16	415	48	17	65	413	23	436
2001	398	14	412	55	8	63	421	17	438
Pacific cod									
1997	392	16	408	31	38	69	410	41	451
1998	344	8	352	21	37	58	355	37	392
1999	396	23	419	38	38	76	424	42	466
2000	504	14	518	66	41	107	543	42	585
2001	427	13	440	72	42	114	460	42	502
Flatfish									
1997	0	1	1	17	33	50	17	33	50
1998	0	0	0	19	32	51	19	32	51
1999	0	2	2	9	31	40	9	31	40
2000	2	0	2	7	29	36	9	29	38
2001	1	1	2	15	21	36	16	21	37
Rockfish									
1997	372	2	374	9	3	12	379	5	384
1998	346	3	349	8	2	10	349	4	353
1999	385	5	390	12	4	16	390	9	399
2000	413	5	418	13	4	17	420	7	427
2001	418	3	421	15	2	17	427	4	431
All groundfish									
1997	946	29	975	93	44	137	958	46	1,004
1998	866	22	888	72	43	115	884	43	927
1999	902	30	932	75	41	116	926	44	970
2000	1,008	21	1,029	105	43	148	1,048	44	1,092
2001	933	20	953	118	45	163	967	45	1,012
Pot									
Pacific cod									
1997	141	4	145	69	13	82	186	13	199
1998	166	1	167	71	7	78	211	7	218
1999	200	11	211	89	13	102	254	13	267
2000	249	5	254	90	11	101	298	12	310
2001	150	4	154	70	6	76	205	8	213

Table 27. Continued.

Gear/Target/Year	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total	Catcher vessels	Catcher process ors	Total
Trawl									
Pollock									
1997	119	6	125	104	35	139	171	36	207
1998	120	2	122	99	38	137	167	39	206
1999	112	0	112	114	17	131	160	17	177
2000	83	0	83	102	16	118	163	16	179
2001	83	0	83	104	16	120	162	16	178
Pacific cod									
1997	133	9	142	82	41	123	182	43	225
1998	117	13	130	85	36	121	171	36	207
1999	106	9	115	81	26	107	170	27	197
2000	95	6	101	84	27	111	173	27	200
2001	95	6	101	66	21	87	151	22	173
Flatfish									
1997	48	15	63	12	33	45	59	34	93
1998	37	14	51	8	30	38	45	30	75
1999	29	11	40	2	29	31	31	29	60
2000	39	11	50	5	29	34	44	30	74
2001	41	11	52	0	26	26	41	27	68
Rockfish									
1997	23	17	40	0	10	10	23	17	40
1998	26	14	40	0	8	8	26	17	43
1999	28	12	40	1	13	14	29	17	46
2000	32	11	43	0	6	6	32	12	44
2001	33	12	45	1	8	9	33	15	48
Atka mack.									
1997	0	0	0	0	12	12	0	12	12
1998	0	0	0	0	14	14	0	14	14
1999	0	0	0	0	17	17	0	17	17
2000	0	0	0	0	12	12	0	12	12
2001	0	0	0	0	12	12	0	12	12
All groundfish									
1997	173	32	205	108	59	167	201	60	261
1998	167	24	191	115	51	166	205	51	256
1999	154	18	172	126	40	166	202	40	242
2000	123	18	141	117	39	156	207	40	247
2001	117	18	135	123	39	162	201	40	241

Note: A target is calculated based on vessel, week, catching mode, NMFS area, and gear. These estimates include only vessels that fished part of Federal TACs.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 28. Number of vessels, mean length and mean net tonnage for vessels that caught groundfish off Alaska by area, vessel-length class (feet), and gear, 1997-2001 (excluding catcher-processors).

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Number of vessels									
Gear/Year									
Hook and line									
1997	823	120	3	47	46	0	834	121	3
1998	746	118	2	38	34	0	759	123	2
1999	786	114	2	35	38	2	801	121	4
2000	896	110	2	64	40	1	928	117	3
2001	827	104	2	79	39	0	854	111	2
Pot									
1997	90	49	3	5	48	17	91	77	19
1998	125	50	5	4	46	21	125	77	23
1999	134	65	2	4	63	23	136	97	23
2000	150	89	11	5	61	25	151	118	31
2001	116	38	1	5	53	16	119	78	16
Trawl									
1997	58	90	25	3	73	32	59	110	32
1998	54	90	23	6	78	31	56	118	31
1999	55	74	25	11	84	31	63	108	31
2000	55	65	3	9	78	30	61	115	31
2001	51	65	1	14	81	28	58	115	28

Note: If the permit files do not report a length for a vessel, the vessel is counted in the "less than 60 feet" class.

Table 28. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Mean vessel length (feet)									
Gear/Year									
Hook and line									
1997	43	77	130	45	75	-	43	77	130
1998	43	75	129	40	75	-	43	75	129
1999	43	75	132	45	74	150	43	74	141
2000	43	76	130	42	78	177	43	76	146
2001	44	76	132	44	80	-	43	77	132
Pot									
1997	50	88	129	55	104	134	50	94	134
1998	52	89	132	57	103	137	52	95	137
1999	52	90	129	44	99	133	52	94	133
2000	53	93	137	52	103	137	53	96	137
2001	53	88	134	46	103	133	53	97	133
Trawl									
1997	56	97	155	48	106	159	56	98	159
1998	57	95	155	49	105	156	56	98	156
1999	57	98	150	46	104	155	56	99	155
2000	57	91	172	55	104	155	57	98	157
2001	56	89	155	54	105	156	55	99	156

Table 28. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Mean registered net tons									
Gear/Year									
Hook and line									
1997	23	71	127	28	60	-	22	71	127
1998	23	70	132	23	63	-	23	70	132
1999	23	68	125	26	72	266	23	69	195
2000	23	70	128	27	70	380	22	72	212
2001	24	70	125	26	75	-	23	72	125
Pot									
1997	32	104	152	44	127	160	32	113	160
1998	38	98	142	41	118	146	38	106	147
1999	40	106	142	16	118	168	40	111	168
2000	41	110	199	40	125	160	41	113	168
2001	40	99	119	30	131	164	40	119	164
Trawl									
1997	54	118	223	45	132	250	53	119	250
1998	56	113	227	51	128	222	54	116	222
1999	58	115	202	45	123	230	56	116	230
2000	58	103	317	54	125	226	57	115	233
2001	56	104	370	57	124	230	56	115	230

Note: These estimates include only vessels that fished part of Federal TACs.

Source: Blend estimates, ADFG fish tickets, Norpac, NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 28.1 Number of smaller hook-and-line vessels that caught groundfish off Alaska, by area and vessel-length class (feet), 1997-2001 (excluding catcher-processors).

	Vessel length class							
	<26	26-30	30-35	35-40	40-45	45-50	50-55	55-60
Number of vessels								
Gulf of Alaska								
1997	49	18	85	116	196	135	80	144
1998	38	24	76	97	183	119	70	139
1999	51	20	92	97	178	125	78	145
2000	65	29	105	125	203	139	80	150
2001	48	24	96	92	187	151	76	153
Bering Sea and Aleutian								
1997	1	1	13	2	5	2	5	18
1998	4	1	11	3	6	1	4	8
1999	5	0	7	1	2	3	3	14
2000	7	6	11	6	5	2	7	20
2001	8	2	14	8	15	4	4	24
All Alaska								
1997	49	19	90	116	199	135	81	145
1998	39	25	80	98	186	119	71	141
1999	53	20	98	98	180	126	79	147
2000	71	35	115	128	204	139	83	153
2001	55	26	104	95	190	151	78	155

Note: If the permit files do not report a length for a vessel, the vessel is counted in the "<26" class.

Source: Blend estimates, ADFG fish tickets, Norpac, NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 29. Number of vessels, mean length and mean net tonnage for vessels that caught and processed groundfish off Alaska by area, vessel-length class (feet), and gear, 1997-2001.

	Gulf of Alaska					Bering Sea and Aleutian					All Alaska				
	Vessel length class					Vessel length class					Vessel length class				
	<124	124-164	165-234	235-259	>260	<124	124-164	165-234	235-259	>260	<124	124-164	165-234	235-259	>260
Number of vessels															
Gear/Year															
Hook and line															
1997	20	6	3	0	0	18	15	11	0	0	20	15	11	0	0
1998	14	3	5	0	0	16	15	12	0	0	16	15	12	0	0
1999	17	5	8	0	0	15	15	11	0	0	18	15	11	0	0
2000	14	1	6	0	0	15	16	12	0	0	16	16	12	0	0
2001	12	3	5	0	0	16	16	13	0	0	16	16	13	0	0
Pot															
1997	4	0	0	0	0	6	4	3	0	0	6	4	3	0	0
1998	0	1	0	0	0	2	4	2	0	0	2	4	2	0	0
1999	2	6	3	0	0	3	7	4	0	0	3	7	4	0	0
2000	1	3	1	0	0	2	7	4	0	0	2	8	4	0	0
2001	1	2	1	0	0	2	4	1	0	0	2	6	1	0	0
Trawl															
1997	10	3	16	1	2	12	5	21	5	16	13	5	21	5	16
1998	7	2	14	1	0	8	4	18	5	16	8	4	18	5	16
1999	6	2	7	1	2	9	4	10	3	14	9	4	10	3	14
2000	4	4	8	1	1	8	4	11	3	13	9	4	11	3	13
2001	6	2	8	1	1	8	4	10	3	14	9	4	10	3	14

Note: If the permit files do not report a length for a vessel, the vessel is counted in the "less than 124 feet" class.

Table 29. Continued.

	Gulf of Alaska					Bering Sea and Aleutian					All Alaska				
	Vessel length class					Vessel length class					Vessel length class				
	<124	124-164	165-234	235-259	>260	<124	124-164	165-234	235-259	>260	<124	124-164	165-234	235-259	>260
Mean vessel length (feet)															
Gear/Year															
Hook and line															
1997	91	137	183	-	-	94	143	181	-	-	91	143	181	-	-
1998	92	151	178	-	-	94	145	180	-	-	94	145	180	-	-
1999	96	146	175	-	-	104	143	177	-	-	98	143	177	-	-
2000	106	141	175	-	-	107	144	178	-	-	108	144	178	-	-
2001	103	141	175	-	-	106	144	177	-	-	106	144	177	-	-
Pot															
1997	105	-	-	-	-	111	146	169	-	-	111	146	169	-	-
1998	-	165	-	-	-	118	153	176	-	-	118	153	176	-	-
1999	108	151	171	-	-	112	150	172	-	-	112	150	172	-	-
2000	116	149	180	-	-	118	149	174	-	-	118	146	174	-	-
2001	116	146	180	-	-	118	146	180	-	-	118	146	180	-	-
Trawl															
1997	103	149	207	238	303	107	149	206	241	302	107	149	206	241	302
1998	114	155	213	238	-	115	152	211	241	302	115	152	211	241	302
1999	113	155	207	238	287	114	152	207	245	306	114	152	207	245	306
2000	111	152	205	238	295	116	152	204	245	308	114	152	204	245	308
2001	113	155	211	238	295	117	152	207	245	305	116	152	207	245	305

Table 29. Continued.

		Gulf of Alaska					Bering Sea and Aleutian					All Alaska				
		Vessel length class					Vessel length class					Vessel length class				
		<124	124-	165-	235-	>260	<124	124-	165-	235-	>260	<124	124-	165-	235-	>260
		164	234	259			164	234	259			164	234	259		
Mean registered net tons																
Gear/Year																
Hook and line																
1997	99	289	846	-	-	-	106	258	530	-	-	99	258	530	-	-
1998	107	316	808	-	-	-	110	271	602	-	-	110	271	602	-	-
1999	107	239	604	-	-	-	121	252	520	-	-	109	252	520	-	-
2000	121	470	454	-	-	-	122	265	633	-	-	122	265	633	-	-
2001	122	153	583	-	-	-	123	262	508	-	-	123	262	508	-	-
Pot																
1997	117	-	-	-	-	-	121	331	245	-	-	121	331	245	-	-
1998	-	793	-	-	-	-	128	487	583	-	-	128	487	583	-	-
1999	133	399	492	-	-	-	130	409	478	-	-	130	409	478	-	-
2000	130	579	243	-	-	-	128	394	250	-	-	128	360	250	-	-
2001	130	129	243	-	-	-	128	347	243	-	-	128	275	243	-	-
Trawl																
1997	117	289	712	533	1611	130	226	707	1056	1897	130	226	707	1056	1897	1897
1998	136	256	766	533	-	150	193	737	1056	1897	150	193	737	1056	1897	1897
1999	136	256	610	533	1618	141	193	624	1130	1853	141	193	624	1130	1853	1853
2000	138	193	754	533	1085	147	193	670	1130	1830	141	193	670	1130	1830	1830
2001	115	256	732	533	1085	138	193	724	1130	1620	133	193	724	1130	1620	1620

Note: These estimates include only vessels that fished part of Federal TACs.

Source: Blend estimates, NMFS permits. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 30. Number of vessels that caught groundfish off Alaska by area, tonnage caught, and gear, 1995-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Tonnage caught			Tonnage caught			Tonnage caught		
	Less than 2 t	2 t to 25 t	More than 25 t	Less than 2 t	2 t to 25 t	More than 25 t	Less than 2 t	2 t to 25 t	More than 25 t
Gear/Year									
Hook and line									
1995	481	353	272	38	67	70	483	372	303
1996	418	342	256	40	59	59	430	354	281
1997	384	355	236	33	43	61	384	360	260
1998	351	361	176	24	42	49	349	367	211
1999	407	349	176	30	39	47	409	360	201
2000	415	369	245	48	44	56	439	378	275
2001	375	328	250	44	53	66	388	339	285
Pot									
1995	12	59	117	13	48	64	20	86	156
1996	7	41	98	5	16	82	11	46	160
1997	17	26	103	13	19	51	28	35	137
1998	10	50	121	13	19	47	23	58	152
1999	14	46	152	5	21	78	18	46	206
2000	13	57	185	6	18	80	16	51	247
2001	12	35	112	3	10	68	11	42	169
Trawl									
1995	0	5	215	0	1	183	0	1	263
1996	1	10	187	0	4	187	1	9	266
1997	1	4	200	0	2	165	0	4	257
1998	1	7	183	1	0	165	1	4	251
1999	1	5	166	0	5	161	0	5	237
2000	0	9	132	1	4	151	1	9	237
2001	1	5	129	0	3	159	0	5	236
All gear									
1995	455	378	562	44	109	311	460	411	673
1996	402	354	511	40	76	322	412	364	670
1997	380	354	510	45	61	274	389	362	622
1998	332	386	433	25	55	257	330	390	563
1999	396	372	439	33	61	279	395	379	583
2000	392	391	507	51	57	285	414	386	700
2001	362	337	456	43	63	292	373	352	651

Note: These estimates include only vessels fishing part of Federal TACs.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 31. Number of vessels that caught groundfish off Alaska by area, residency, target, and gear, 1997-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Alaska	Other	Unk.	Alaska	Other	Unk.	Alaska	Other	Unk.
Gear/Target/Year									
All gear									
All groundfish									
1997	905	335	4	100	280	0	925	444	4
1998	819	323	9	84	253	0	841	433	9
1999	849	334	24	92	275	6	875	452	30
2000	935	317	38	103	282	8	971	483	46
2001	846	283	26	112	272	14	883	455	38
Hook and line									
Sablefish									
1997	359	133	2	35	48	0	363	139	2
1998	309	128	2	21	26	0	316	132	2
1999	301	126	5	21	32	0	307	134	5
2000	282	130	3	34	31	0	296	137	3
2001	284	123	5	38	25	0	304	129	5
Pacific cod									
1997	355	52	1	28	41	0	373	77	1
1998	295	54	3	21	37	0	309	80	3
1999	344	68	7	30	45	1	362	96	8
2000	412	93	13	48	58	1	440	131	14
2001	351	83	6	52	57	5	374	118	10
Flatfish									
1997	1	0	0	20	30	0	20	30	0
1998	0	0	0	22	29	0	22	29	0
1999	1	1	0	15	25	0	15	25	0
2000	2	0	0	13	23	0	15	23	0
2001	1	1	0	13	21	2	14	21	2
Rockfish									
1997	319	54	1	9	3	0	326	57	1
1998	289	58	2	9	1	0	293	58	2
1999	318	68	4	7	9	0	321	74	4
2000	340	71	7	9	7	1	344	75	8
2001	341	75	5	10	7	0	346	80	5
All groundfish									
1997	775	197	3	61	76	0	787	214	3
1998	690	191	7	53	62	0	706	214	7
1999	715	201	16	50	65	1	730	223	17
2000	787	219	23	73	73	2	821	246	25
2001	730	207	16	81	75	7	758	232	22
Pot									
Pacific cod									
1997	123	22	0	25	57	0	130	69	0
1998	135	31	1	22	56	0	144	73	1
1999	160	48	3	32	70	0	174	90	3
2000	185	61	8	21	79	1	191	110	9
2001	119	28	7	18	57	1	128	78	7
All groundfish									
1997	123	23	0	26	57	0	130	70	0
1998	148	32	1	22	57	0	157	75	1
1999	161	48	3	32	72	0	175	92	3
2000	186	61	8	22	81	1	193	112	9
2001	123	29	7	18	62	1	132	83	7

Table 31. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Alaska	Other	Unk.	Alaska	Other	Unk.	Alaska	Other	Unk.
Gear/Target/Year									
Trawl									
Pollock									
1997	54	70	1	12	127	0	57	149	1
1998	45	76	1	9	128	0	49	156	1
1999	32	76	4	10	119	2	35	136	6
2000	35	44	4	11	104	3	38	134	7
2001	33	49	1	12	102	6	36	135	7
Pacific cod									
1997	71	71	0	7	116	0	75	150	0
1998	65	64	1	9	112	0	66	140	1
1999	60	54	1	5	100	2	61	133	3
2000	57	44	0	3	106	2	58	140	2
2001	49	50	2	6	81	0	51	120	2
Flatfish									
1997	34	29	0	3	42	0	34	59	0
1998	23	28	0	3	35	0	23	52	0
1999	14	26	0	2	29	0	14	46	0
2000	17	31	2	2	32	0	18	54	2
2001	17	35	0	1	25	0	17	51	0
Rockfish									
1997	16	24	0	1	9	0	16	24	0
1998	15	25	0	2	6	0	16	27	0
1999	13	27	0	1	13	0	13	33	0
2000	18	24	1	1	5	0	18	25	1
2001	13	32	0	1	8	0	14	34	0
Atka mack.									
1997	0	0	0	1	11	0	1	11	0
1998	0	0	0	2	12	0	2	12	0
1999	0	0	0	1	16	0	1	16	0
2000	0	0	0	1	11	0	1	11	0
2001	0	0	0	1	11	0	1	11	0
All groundfish									
1997	76	128	1	16	151	0	79	181	1
1998	74	116	1	13	153	0	75	180	1
1999	61	106	5	14	147	5	64	168	10
2000	61	73	7	12	139	5	62	173	12
2001	56	76	3	16	139	7	57	174	10

Note: A target is calculated based on vessel, week, processing mode, NMFS area, and gear. Vessels are classified by the residency of the owner of the fishing vessel. These estimates include only vessels fishing part of Federal TACs.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 32. Number of vessels that caught groundfish off Alaska by month, area, catcher type, and gear, 1997-2001.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Gulf of Alaska													
Catcher vessels (excluding catcher/processors)													
Hook and line													
1997	124	115	207	264	423	303	146	196	163	148	79	11	946
1998	88	73	134	199	387	302	164	194	191	160	111	14	866
1999	81	55	154	194	427	342	172	147	166	204	111	7	902
2000	141	162	203	336	473	336	194	167	219	131	103	16	1008
2001	128	130	177	293	368	421	154	161	259	154	112	9	933
Pot													
1997	63	59	58	64	58	14	12	3	16	17	21	31	142
1998	71	68	101	124	32	0	0	0	3	25	28	31	180
1999	66	73	109	128	79	13	0	0	21	22	23	41	201
2000	136	156	177	144	43	4	1	0	5	8	11	21	250
2001	37	75	109	96	28	11	0	0	22	16	9	14	155
Trawl													
1997	85	104	140	42	17	53	24	9	88	28	16	0	173
1998	80	103	118	39	15	79	30	14	70	56	0	0	167
1999	75	99	103	24	4	59	26	8	83	51	1	0	154
2000	70	98	96	34	20	4	32	45	35	36	9	4	123
2001	55	92	96	38	14	8	35	37	61	60	1	0	117
All gear													
1997	266	277	400	367	492	367	181	207	265	190	115	42	1179
1998	231	242	321	358	429	380	194	207	264	238	139	45	1104
1999	219	225	330	343	497	414	198	155	270	275	134	48	1149
2000	339	406	431	503	526	344	225	211	259	175	123	40	1246
2001	219	294	352	419	409	437	189	196	337	228	122	23	1115
Catcher/processors													
Hook and line													
1997	9	10	9	7	13	14	11	4	6	3	3	0	29
1998	5	5	6	6	5	7	8	7	8	4	3	0	22
1999	6	12	12	13	10	10	7	4	5	4	1	0	30
2000	12	10	14	12	3	10	8	3	1	1	3	0	21
2001	9	6	10	9	6	9	2	3	3	1	1	0	20
Pot													
1997	0	0	0	0	0	0	0	1	1	0	2	0	4
1998	0	0	0	0	1	0	0	0	0	0	0	0	1
1999	0	0	0	2	5	10	6	6	1	0	0	0	11
2000	2	3	2	1	3	2	1	0	0	1	1	0	5
2001	0	0	0	4	3	0	0	0	0	0	1	1	4
Trawl													
1997	1	9	15	9	4	2	18	3	0	7	5	0	32
1998	3	2	11	12	5	0	16	7	0	10	0	0	24
1999	3	3	6	9	3	0	12	13	1	7	0	0	18
2000	4	5	5	9	10	0	15	7	0	3	2	0	18
2001	2	3	4	7	9	0	13	2	4	5	0	0	18
All gear													
1997	10	19	24	16	17	16	29	8	7	10	10	0	65
1998	8	7	17	18	11	7	24	14	8	14	3	0	47
1999	9	15	18	24	18	20	25	23	7	11	1	0	58
2000	18	18	21	22	16	12	24	10	1	5	6	0	44
2001	11	9	14	20	18	9	15	5	7	6	2	1	40

Table 32. Continued.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Bering Sea and Aleutian Islands, Catcher vessels (excluding catcher/processors)													
Hook and line													
1997	2	0	0	11	38	36	26	33	11	11	3	1	93
1998	0	0	1	3	17	27	22	31	14	19	8	0	72
1999	1	1	2	5	19	19	36	28	17	16	7	2	75
2000	2	2	6	12	25	43	39	39	30	22	9	8	105
2001	2	3	2	9	18	45	52	59	40	25	14	5	118
Pot													
1997	2	1	6	33	34	15	7	5	10	18	24	6	70
1998	3	1	5	30	30	8	3	1	6	17	13	2	71
1999	2	2	2	40	54	22	0	0	24	30	1	1	90
2000	41	70	81	1	2	2	1	1	5	1	1	0	91
2001	3	4	57	3	7	7	3	4	25	16	6	3	74
Trawl													
1997	84	95	88	83	28	0	0	15	96	98	0	1	108
1998	91	99	92	70	12	2	2	12	87	92	13	0	115
1999	64	86	80	70	0	0	10	91	73	69	2	1	126
2000	64	89	90	68	0	2	43	75	79	53	22	0	117
2001	45	94	105	50	6	8	59	79	91	49	0	0	123
All gear													
1997	88	96	94	127	99	51	33	53	117	127	27	7	267
1998	94	100	98	102	57	37	27	44	107	128	34	2	238
1999	67	89	84	114	73	41	46	119	114	115	10	4	285
2000	107	161	176	81	27	47	83	115	113	76	32	8	305
2001	50	101	164	62	31	60	114	142	156	90	19	8	308
Catcher/processors													
Hook and line													
1997	25	26	30	30	42	9	8	5	34	36	32	27	44
1998	25	25	27	29	38	23	7	4	30	37	35	32	43
1999	27	28	34	36	27	6	4	8	37	37	8	14	41
2000	35	34	37	20	31	14	5	11	37	36	38	35	43
2001	33	37	41	17	25	12	9	37	39	40	38	35	45
Pot													
1997	1	0	2	4	6	8	7	7	6	6	6	2	13
1998	0	0	0	3	3	5	4	3	4	3	1	1	8
1999	0	0	0	5	11	4	1	1	6	3	0	0	14
2000	7	10	9	1	1	0	0	0	0	0	1	0	13
2001	1	1	5	1	1	0	0	0	3	3	2	0	7
Trawl													
1997	45	56	53	36	25	18	21	42	54	52	16	2	59
1998	49	48	43	25	16	7	17	32	50	47	21	5	51
1999	36	36	37	29	20	6	29	38	37	32	6	2	40
2000	35	37	37	34	19	13	29	37	37	31	12	3	39
2001	35	37	38	35	9	14	33	35	36	34	14	5	39
All gear													
1997	71	82	85	70	73	35	36	54	94	93	54	31	113
1998	74	73	70	57	57	34	28	39	83	87	57	38	99
1999	63	63	71	70	55	16	33	46	78	72	14	16	88
2000	77	80	82	54	50	27	34	48	73	67	51	38	88
2001	69	75	84	53	35	26	42	72	78	77	54	40	90

Table 32. Continued.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
All Alaska, Catcher vessels (excluding catcher/processors)													
Hook and line													
1997	126	115	207	275	438	324	166	219	170	152	81	12	958
1998	88	73	135	202	396	323	178	212	203	173	118	14	884
1999	82	56	156	199	439	359	199	169	179	219	118	9	926
2000	143	164	209	347	493	369	226	196	236	149	111	23	1048
2001	130	133	178	302	379	447	198	213	287	175	124	14	967
Pot													
1997	65	60	64	84	82	28	17	8	26	34	43	36	187
1998	73	68	105	144	54	8	3	1	9	36	40	31	225
1999	68	74	111	163	119	34	0	0	43	49	24	42	256
2000	173	206	242	145	45	6	2	1	10	9	12	21	300
2001	40	79	161	98	34	18	3	4	46	32	14	17	213
Trawl													
1997	168	190	185	124	45	53	24	24	150	122	16	1	201
1998	168	190	180	105	27	79	32	26	138	141	13	0	205
1999	139	175	174	93	4	59	36	97	127	111	3	1	202
2000	132	183	180	99	20	6	70	115	112	86	31	4	207
2001	96	173	187	87	20	16	86	112	142	108	1	0	201
All gear													
1997	353	364	450	480	558	402	206	250	344	304	139	48	1257
1998	321	329	388	445	470	409	213	238	350	347	171	45	1184
1999	286	302	405	451	547	452	235	266	349	377	144	52	1266
2000	440	543	584	580	548	381	296	311	356	244	153	47	1410
2001	265	382	496	478	432	477	287	327	468	313	138	31	1285
Catcher/processors													
Hook and line													
1997	29	31	34	37	44	20	15	7	37	38	34	27	46
1998	27	27	29	35	38	25	14	10	35	40	37	32	43
1999	32	36	39	37	29	16	9	11	38	39	9	14	44
2000	39	39	40	24	31	21	10	13	38	37	40	35	44
2001	34	40	43	21	25	18	10	38	40	41	39	35	45
Pot													
1997	1	0	2	4	6	8	7	7	7	6	6	2	13
1998	0	0	0	3	3	5	4	3	4	3	1	1	8
1999	0	0	0	5	12	10	7	7	7	3	0	0	14
2000	8	11	10	2	4	2	1	0	0	1	2	0	14
2001	1	1	5	5	4	0	0	0	3	3	2	1	9
Trawl													
1997	45	56	56	40	27	19	26	42	54	54	21	2	60
1998	50	50	45	30	20	7	26	32	50	48	21	5	51
1999	37	39	39	34	21	6	29	38	37	37	6	2	40
2000	38	39	39	37	23	13	34	38	37	34	14	3	40
2001	37	39	39	37	15	14	35	36	37	35	14	5	40
All gear													
1997	75	87	92	81	77	47	48	56	98	97	61	31	116
1998	77	77	74	68	61	36	44	45	88	91	59	38	99
1999	69	74	78	76	59	32	44	55	79	79	15	16	91
2000	85	88	88	62	57	36	45	51	74	72	55	38	90
2001	72	80	87	63	44	32	45	74	80	79	55	41	91

Note: These estimates include only vessels fishing part of Federal TACs.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 33. Catcher vessel (excluding catcher-processors) weeks of fishing groundfish off Alaska by area, vessel-length class (feet), gear, and target, 1997-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Gear/Target/Year									
Hook and line									
Sablefish									
1997	1052	355	2	58	85	-	1109	440	2
1998	952	306	1	16	42	-	968	348	1
1999	915	302	-	22	48	-	938	350	-
2000	1035	324	-	99	56	-	1133	380	-
2001	1040	347	-	143	51	-	1183	399	-
Pacific cod									
1997	1273	51	1	94	13	-	1366	64	1
1998	1036	66	2	89	5	-	1125	71	2
1999	1065	74	3	85	39	4	1150	113	7
2000	1959	100	2	161	36	2	2120	136	4
2001	1636	82	1	178	52	-	1813	134	1
Flatfish									
1997	-	-	-	20	8	-	20	8	-
1998	-	-	-	57	7	-	57	7	-
1999	-	0	-	11	5	-	11	5	-
2000	2	-	-	5	7	-	7	7	-
2001	1	-	-	22	3	-	23	3	-
Rockfish									
1997	797	29	-	9	1	-	806	30	-
1998	767	40	4	3	3	-	770	43	4
1999	805	49	-	10	7	-	815	56	-
2000	800	54	1	7	5	-	807	59	1
2001	841	62	-	9	6	-	850	68	-
All groundfish									
1997	3173	445	4	183	114	-	3356	559	4
1998	2839	422	7	165	60	-	3004	482	7
1999	2837	432	3	129	107	4	2966	540	7
2000	3832	485	4	270	119	6	4102	604	10
2001	3574	505	4	356	128	-	3930	633	4
Pot									
Pacific cod									
1997	723	300	4	6	240	108	729	540	111
1998	790	297	4	8	167	55	798	464	59
1999	1018	363	1	4	250	115	1021	613	116
2000	1090	511	44	3	233	136	1093	744	180
2001	722	204	-	27	228	63	749	432	63
All groundfish									
1997	731	302	4	6	241	108	737	543	111
1998	917	298	4	8	168	55	925	466	59
1999	1023	365	1	4	254	119	1026	619	120
2000	1095	514	44	3	257	137	1098	771	181
2001	779	204	0	32	264	65	811	468	65

Table 33. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	<60	60-124	>124	<60	60-124	>124	<60	60-124	>124
Trawl									
Pollock									
1997	182	299	24	1	612	397	182	911	421
1998	203	429	44	5	624	451	208	1053	496
1999	132	335	45	6	535	383	138	871	428
2000	105	287	1	3	723	493	109	1011	494
2001	149	203	0	2	898	511	151	1101	512
Pacific cod									
1997	340	281	7	-	415	106	340	696	113
1998	298	222	3	4	386	95	302	608	98
1999	282	220	6	0	340	81	282	560	87
2000	187	184	2	1	382	55	188	566	57
2001	177	246	-	7	258	19	184	504	19
Flatfish									
1997	51	240	-	-	10	45	51	250	45
1998	16	133	-	-	3	5	16	135	5
1999	3	73	-	-	-	3	3	73	3
2000	19	209	-	-	4	6	19	213	6
2001	21	177	-	-	-	-	21	177	-
Rockfish									
1997	2	32	-	-	-	-	2	32	-
1998	3	64	-	-	-	-	3	64	-
1999	-	59	2	-	0	-	-	59	2
2000	-	95	-	-	-	-	-	95	-
2001	-	89	-	-	0	-	-	89	-
All groundfish									
1997	576	896	32	2	2504	689	578	3400	721
1998	523	902	49	9	2646	605	532	3549	654
1999	418	691	53	7	1808	520	425	2498	573
2000	312	781	3	4	2056	555	316	2837	558
2001	348	717	0	9	2284	531	357	3001	531
All gear									
All groundfish									
1997	4480	1642	40	190	2859	796	4670	4501	836
1998	4279	1623	60	182	2874	660	4461	4497	720
1999	4277	1488	58	140	2169	642	4417	3657	700
2000	5239	1779	51	278	2433	698	5517	4212	749
2001	4701	1426	4	397	2675	596	5098	4101	600

Notes: A vessel that fished more than one category in a week is apportioned a partial week based on catch weight. A target is calculated based on vessel, week, processing mode, NMFS area, and gear. All groundfish include additional target categories.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 34. Catcher/processor vessel weeks of fishing groundfish off Alaska by area, vessel-length class (feet), gear, and target, 1997-2001.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	<60	60-124	125-230	<60	60-124	125-230	<60	60-124	125-230
Gear/Target/Year									
Hook and line									
Sablefish									
1997	10	38	15	-	34	13	10	72	28
1998	14	38	15	1	17	2	15	55	17
1999	7	41	16	-	28	20	7	69	36
2000	13	41	20	-	40	16	13	81	36
2001	14	45	15	-	30	7	14	75	22
Pacific cod									
1997	1	36	6	-	196	736	1	232	742
1998	-	30	2	-	174	720	-	204	723
1999	7	53	11	-	184	585	7	237	597
2000	-	63	2	-	225	727	-	287	729
2001	-	42	2	-	250	852	-	291	854
Flatfish									
1997	-	0	-	7	38	40	7	38	40
1998	-	-	-	12	64	90	12	64	90
1999	-	-	0	4	44	46	4	44	47
2000	-	-	-	4	35	71	4	35	71
2001	-	0	-	2	23	49	2	23	49
All groundfish									
1997	12	75	21	7	268	791	19	343	812
1998	14	68	18	13	256	813	27	324	831
1999	15	96	28	4	258	653	19	354	681
2000	13	104	23	4	299	815	17	403	838
2001	14	88	17	2	305	908	16	393	925
Pot									
Pacific cod									
1997	-	-	-	-	43	85	-	43	85
1998	-	-	0	-	29	48	-	29	48
1999	-	21	70	-	11	53	-	32	122
2000	-	12	19	-	2	56	-	14	75
2001	-	8	23	-	5	35	-	13	58
All groundfish									
1997	-	-	-	-	43	85	-	43	85
1998	-	-	0	-	29	48	-	29	48
1999	-	21	70	-	11	60	-	32	129
2000	-	12	19	-	2	58	-	14	77
2001	-	8	23	-	5	39	-	13	62

Table 34. Continued.

	Gulf of Alaska			Bering Sea and Aleutian			All Alaska		
	Vessel length class			Vessel length class			Vessel length class		
	60- 124	125- 230	>230	60- 124	125- 230	>230	60- 124	125- 230	>230
Trawl									
Pollock									
1997	-	0	0	-	96	243	-	97	243
1998	1	-	-	2	134	290	3	134	290
1999	-	-	-	-	25	261	-	25	261
2000	-	-	-	-	30	301	-	30	301
2001	-	-	-	-	34	377	-	34	377
Pacific cod									
1997	15	1	-	30	71	18	45	72	18
1998	13	10	-	27	66	31	40	75	31
1999	16	3	-	32	59	27	48	62	27
2000	4	5	-	43	45	18	47	51	18
2001	12	7	-	32	48	14	44	55	14
Flatfish									
1997	63	22	-	174	444	66	237	466	66
1998	53	21	-	140	336	57	193	357	57
1999	62	19	0	132	226	53	195	245	53
2000	86	25	4	142	327	55	228	351	59
2001	58	14	3	126	285	47	184	299	50
Rockfish									
1997	4	32	2	-	16	4	4	48	6
1998	2	27	0	1	13	3	3	39	3
1999	4	32	4	0	16	4	4	48	8
2000	0	23	1	-	10	6	0	33	7
2001	4	18	0	0	8	6	4	26	6
Atka mack.									
1997	-	-	-	-	79	13	-	79	13
1998	-	-	-	2	87	14	2	87	14
1999	-	-	-	3	88	27	3	88	27
2000	-	-	-	0	64	30	0	64	30
2001	-	-	-	0	82	27	0	82	27
All groundfish									
1997	83	55	2	204	706	343	286	761	345
1998	68	57	0	173	636	396	241	693	396
1999	82	54	4	168	415	373	250	469	377
2000	91	53	4	185	476	411	276	529	415
2001	74	39	3	159	457	471	233	496	474

Table 34. Continued.

	Gulf of Alaska				Bering Sea and Aleutian				All Alaska			
	Vessel length class				Vessel length class				Vessel length class			
	<60	60- 124	125- 230	>230	<60	60- 124	125- 230	>230	<60	60- 124	125- 230	>230
All gear												
All groundfish												
1997	12	157	76	2	7	515	1582	343	19	672	1658	345
1998	14	136	76	0	13	458	1496	396	27	594	1572	396
1999	15	199	152	4	4	437	1127	373	19	636	1279	377
2000	13	207	95	4	4	486	1348	411	17	693	1444	415
2001	14	170	78	3	2	469	1405	471	16	639	1483	474

Notes: A vessel that fished more than one category in a week is apportioned a partial week based on catch weight. A target is calculated based on vessel, week, processing mode, NMFS area, and gear. All groundfish include additional target categories.

Source: Blend estimates, fish tickets, Norpac data, federal permit file, CFEC vessel data, National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 35. Total at-sea processor crew weeks in the groundfish fisheries off Alaska by month and area, 1997-2001.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Area/Year													
Gulf of Alaska													
1997	160	430	967	714	187	390	1,809	89	97	333	310	-	5,485
1998	226	327	465	897	182	241	2,233	262	103	366	-	-	5,301
1999	322	549	471	1,197	423	684	1,544	976	52	431	-	-	6,647
2000	747	943	562	941	615	349	1,437	375	-	224	83	-	6,301
2001	339	388	274	997	944	333	941	84	85	274	-	-	4,769
Bering Sea and Aleutian Islands													
1997	5,056	22,832	19,922	8,760	6,904	2,422	2,315	6,457	21,816	10,209	5,522	1,978	114,192
1998	8,991	17,768	11,501	6,232	5,190	2,231	2,000	5,574	16,136	18,498	5,318	1,624	101,064
1999	6,938	14,291	11,519	5,958	4,730	1,078	3,273	7,596	12,447	10,491	1,587	684	80,591
2000	6,805	16,004	13,585	7,650	3,480	1,452	4,053	9,779	14,920	8,841	4,028	1,935	92,533
2001	5,628	16,364	19,578	7,690	1,672	2,282	7,892	12,019	16,210	9,525	4,525	2,043	105,428
All Alaska													
1997	5,216	23,262	20,889	9,474	7,091	2,812	4,124	6,546	21,913	10,541	5,831	1,978	119,677
1998	9,217	18,096	11,965	7,129	5,371	2,472	4,233	5,836	16,239	18,864	5,318	1,624	106,365
1999	7,260	14,839	11,990	7,154	5,153	1,762	4,816	8,572	12,499	10,922	1,587	684	87,238
2000	7,552	16,947	14,148	8,591	4,095	1,801	5,490	10,154	14,945	9,065	4,111	1,935	98,833
2001	5,966	16,752	19,852	8,687	2,616	2,615	8,833	12,103	16,295	9,798	4,589	2,091	110,197

Note: Crew weeks are calculated by summing weekly reported crew size over vessels and time period. These estimates include only vessels targeting groundfish counted toward Federal TACs. Catcher processors accounted for the following proportions of the total crew weeks in all areas: 1997 - 84%, 1998 - 93%, 1999 - 97%, 2000 - 90%, 2001 - 90%.

Source: Weekly Processor Reports National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 36. Production and gross value of groundfish products in the fisheries off Alaska by species, 1997-2001, (1,000 metric tons product weight and million dollars).

1997			1998			1999			2000			2001		
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Pollock														
Whole fish	2.89	\$2.0		\$2.0	.93	\$4.0	14.18	\$3.8	2.63	\$1.3	1.58	\$1.3	1.58	\$1.3
H&G	.66	\$5.5		\$5.5	6.71	\$4.0	4.54	\$3.5	7.11	\$5.9	9.92	\$5.9	9.92	\$5.9
Roe	18.77	\$177.9		\$177.9	12.82	\$85.4	11.22	\$136.6	16.01	\$285.2	22.54	\$285.2	22.54	\$285.2
Deep-skin fillets	22.51	\$63.7		\$63.7	24.40	\$77.2	28.74	\$104.0	25.57	\$61.5	21.85	\$61.5	21.85	\$61.5
Other fillets	9.87	\$21.0		\$21.0	31.67	\$80.7	24.98	\$71.1	33.35	\$60.8	82.94	\$60.8	82.94	\$60.8
Surimi	160.42	\$380.6		\$380.6	102.31	\$205.7	154.27	\$334.1	191.65	\$338.7	187.57	\$338.7	187.57	\$338.7
Minced fish	7.67	\$5.2		\$5.2	14.73	\$16.5	6.48	\$7.1	8.99	\$11.5	18.34	\$11.5	18.34	\$11.5
Fish meal	32.26	\$20.4		\$20.4	26.56	\$21.6	46.94	\$30.0	50.25	\$30.4	51.31	\$30.4	51.31	\$30.4
Other products	.03	\$1.1		\$1.1	5.37	\$3.8	.69	\$1.1	7.01	\$2.9	12.37	\$2.9	12.37	\$2.9
All products	255.09	\$671.3		\$671.3	225.50	\$495.2	292.03	\$690.7	342.58	\$798.1	408.41	\$798.1	408.41	\$798.1
Pacific cod														
Whole fish	4.11	\$4.0		\$4.0	1.45	\$1.4	2.78	\$3.3	3.13	\$3.7	2.26	\$3.7	2.26	\$3.7
H&G	69.61	\$92.3		\$92.3	61.63	\$124.8	65.84	\$168.7	66.65	\$174.2	65.83	\$174.2	65.83	\$174.2
Salted/split	-	-		-	-	-	-	-	-	-	3.29	-	3.29	-
Fillets	25.16	\$101.2		\$101.2	19.00	\$76.5	16.63	\$88.0	17.35	\$81.7	9.91	\$81.7	9.91	\$81.7
Other products	16.30	\$17.2		\$17.2	8.08	\$10.3	11.80	\$14.6	11.01	\$23.7	11.46	\$23.7	11.46	\$23.7
All products	115.18	\$214.7		\$214.7	90.16	\$212.9	97.04	\$274.6	98.15	\$283.3	92.75	\$283.3	92.75	\$283.3
Sablefish														
H&G	9.66	\$91.4		\$91.4	9.33	\$67.7	8.74	\$72.6	9.02	\$85.9	9.14	\$85.9	9.14	\$85.9
Other products	.68	\$6.7		\$6.7	.15	\$1.1	.05	\$1.1	.19	\$1.2	.24	\$1.2	.24	\$1.2
All products	10.35	\$98.1		\$98.1	9.48	\$68.8	8.79	\$73.7	9.21	\$87.1	9.38	\$87.1	9.38	\$87.1

Table 36.1 Price per pound of groundfish products in the fisheries off Alaska by species and processing mode, 1997-2001 (dollars).

	1997			1998			1999			2000			2001		
	At-sea	Shoreside		At-sea	Shoreside		At-sea	Shoreside		At-sea	Shoreside		At-sea	Shoreside	
Pollock															
Whole fish	\$.32	\$.25		\$.18	\$.34		\$.18	\$.10		\$.23	\$.27		\$.24	\$.48	
H&G	\$.27	-		\$.27	-		\$.35	-		\$.37	-		\$.40	\$.45	
Roe	\$5.07	\$2.85		\$3.52	\$2.07		\$6.03	\$4.67		\$8.81	\$7.28		\$8.30	\$5.54	
Deep-skin fillets	\$1.28	-		\$1.43	-		\$1.64	-		\$1.09	-		\$1.20	-	
Other fillets	\$.78	\$1.04		\$1.12	\$1.19		\$1.21	\$1.31		\$.69	\$.88		\$.87	\$.83	
Surimi	\$1.15	\$1.00		\$1.03	\$.63		\$1.19	\$.84		\$.76	\$.84		\$.82	\$.66	
Minced fish	\$.30	\$.56		\$.51	\$.48		\$.49	-		\$.58	-		\$.63	-	
Fish meal	\$.30	\$.28		\$.32	\$.43		\$.34	\$.27		\$.30	\$.26		\$.38	\$.29	
Other products	\$1.43	-		\$.39	\$.31		\$.32	-		\$.16	\$.20		\$.35	\$.17	
All products	\$1.34	\$.99		\$1.08	\$.80		\$1.35	\$.84		\$1.12	\$.99		\$1.18	\$.90	
Pacific cod															
Whole fish	\$.26	\$.49		\$.25	\$.49		\$.45	\$.55		\$.45	\$.55		\$.46	\$.51	
H&G	\$.60	\$.72		\$.92	\$.86		\$1.17	\$1.05		\$1.19	\$1.13		\$1.09	\$.87	
Salted/split	-	-		-	-		-	-		-	-		-	\$1.42	
Fillets	\$1.69	\$1.85		\$1.89	\$1.81		\$2.04	\$2.44		\$1.58	\$2.22		\$1.61	\$1.86	
Other products	\$.47	\$.50		\$.60	\$.57		\$1.15	\$.44		\$1.15	\$.91		\$1.40	\$1.04	
All products	\$.65	\$1.25		\$.95	\$1.39		\$1.19	\$1.45		\$1.20	\$1.56		\$1.12	\$1.24	
Sablefish															
H&G	\$3.85	\$4.37		\$2.85	\$3.38		\$3.47	\$3.84		\$4.04	\$4.39		\$3.50	\$3.92	
Other products	\$1.61	\$4.72		\$.97	\$2.67		\$1.26	\$2.46		\$1.90	\$3.34		\$1.13	\$3.97	
All products	\$3.76	\$4.40		\$2.78	\$3.37		\$3.42	\$3.84		\$3.95	\$4.37		\$3.40	\$3.92	
Deep-water flats															
Whole fish	-	\$.19		\$.20	-		-	-		-	-		-	-	
H&G	\$.28	-		\$.41	-		\$.14	-		\$.56	-		\$.81	-	
Fillets	-	\$2.06		-	\$2.35		-	\$1.85		-	\$1.83		-	\$1.61	
All products	\$.28	\$1.15		\$.36	\$2.35		\$.14	\$1.85		\$.56	\$1.83		\$.81	\$1.61	

Table 36.1 Continued.

1997		1998		1999		2000		2001		
At-sea		Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
Shallow-water flatfish										
Whole fish	-	\$0.37	-	\$0.33	-	-	-	\$0.44	\$0.40	\$0.41
H&G	\$0.61	-	\$0.77	-	\$0.37	-	\$0.38	-	\$0.52	-
Filletts	-	\$2.08	-	\$2.47	-	\$2.17	-	\$1.61	-	\$1.55
Other products	\$0.87	\$1.11	\$0.81	-	\$1.15	-	\$1.03	-	\$1.20	-
All products	\$0.72	\$1.74	\$0.77	\$2.22	\$0.50	\$2.17	\$0.80	\$1.48	\$0.46	\$1.43
Other flatfish										
Whole fish	\$1.06	-	\$1.38	-	\$1.44	-	\$1.26	-	\$0.95	-
H&G	\$0.35	-	\$0.42	-	\$0.37	-	\$0.29	-	\$0.94	-
Other products	\$0.22	-	\$0.35	-	\$0.47	-	\$0.29	-	\$0.34	-
All products	\$0.44	-	\$0.80	-	\$1.25	-	\$0.91	-	\$0.93	-
Arrowtooth										
H&G	\$0.29	-	\$0.30	-	\$0.41	-	\$0.52	-	\$0.27	-
Filletts	-	\$1.17	-	-	-	-	-	-	-	-
Other products	-	\$0.81	\$0.10	-	\$0.29	-	\$0.26	-	\$0.30	-
All products	\$0.29	\$0.93	\$0.30	-	\$0.41	-	\$0.52	-	\$0.27	-
Flathead sole										
Whole fish	\$0.34	-	\$0.35	\$0.15	\$0.41	-	-	-	\$0.40	-
H&G	\$0.62	-	\$0.56	-	\$0.53	-	\$0.53	-	\$0.47	-
Filletts	-	\$1.81	-	\$2.41	-	\$1.95	-	\$1.31	-	\$1.67
Other products	\$0.95	-	\$0.76	-	\$0.88	-	\$0.82	-	\$1.07	-
All products	\$0.72	\$1.81	\$0.60	\$2.16	\$0.60	\$1.95	\$0.60	\$1.31	\$0.57	\$1.67
Rock sole										
Whole fish	\$0.29	-	\$0.22	-	\$0.21	-	\$0.49	-	\$0.40	-
H&G	\$0.34	-	\$0.57	-	\$0.32	-	\$0.47	-	\$0.41	-
H&G with roe	\$1.20	-	\$1.09	-	\$1.11	-	\$1.06	-	\$1.20	-
Kirimi	\$0.60	-	-	-	-	-	-	-	\$0.79	-
Other products	\$0.25	-	\$0.33	-	\$0.28	-	\$0.25	-	\$0.30	-
All products	\$0.83	-	\$0.86	-	\$0.86	-	\$0.81	-	\$0.73	-

Table 36.1 Continued.

	1997		1998		1999		2000		2001	
	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside	At-sea	Shoreside
Rex sole										
Whole fish	\$.96	\$.79	\$1.29	-	\$1.40	-	\$1.17	-	\$.99	-
H&G	-	-	-	-	-	-	-	-	\$.77	-
Filletlets	-	\$2.32	-	\$2.41	-	\$1.79	-	\$2.37	-	\$1.64
All products	\$.96	\$1.31	\$1.29	\$2.41	\$1.40	\$1.79	\$1.17	\$2.37	\$.99	\$1.64
Yellowfin sole										
Whole fish	\$.26	-	\$.22	-	\$.16	-	\$.20	-	\$.28	-
H&G	\$.41	-	\$.30	-	\$.32	-	\$.36	-	\$.39	-
Kirimi	\$.52	-	\$.27	-	\$.47	-	\$.42	-	\$.30	-
Other products	\$.22	-	\$.23	-	\$.26	-	\$.24	-	\$.30	-
All products	\$.35	-	\$.25	-	\$.29	-	\$.32	-	\$.34	-
Greenland turbot										
H&G	\$1.45	\$1.53	\$1.06	-	\$1.51	\$1.34	\$1.66	\$1.37	\$.73	\$1.09
Kirimi	-	-	\$.32	-	-	-	-	-	-	-
Other products	-	-	-	-	\$.76	-	\$.45	-	\$.37	-
All products	\$1.45	\$1.53	\$1.05	-	\$1.51	\$1.34	\$1.66	\$1.37	\$.70	\$1.09
Rockfish										
Whole fish	\$.71	\$.47	\$.44	\$.62	\$.41	\$.13	\$.69	\$.76	\$.31	\$.65
H&G	\$.71	\$2.01	\$.49	\$1.81	\$.51	\$1.82	\$.62	\$1.70	\$.54	\$1.85
Other products	\$1.52	\$1.44	\$.96	\$1.83	\$.83	\$1.32	\$1.12	\$1.04	\$.93	\$.51
All products	\$.71	\$1.18	\$.49	\$1.35	\$.48	\$.45	\$.63	\$1.13	\$.52	\$.71
Atka mackerel										
Whole fish	\$.28	-	\$.23	-	\$.21	-	\$.19	-	\$.36	-
H&G	\$.61	-	\$.31	-	\$.37	-	\$.40	-	\$.69	-
Other products	\$.60	-	-	-	\$.24	-	-	-	\$.76	-
All products	\$.54	-	\$.30	-	\$.32	-	\$.38	-	\$.64	-

Note: Prices based on confidential data have been excluded.

Source: Weekly processor reports and commercial operators annual report. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 37. Production of groundfish products in the fisheries off Alaska by species, product and area, 1997-2001 (1,000 mt. product weight).

	Bering Sea and Aleutians				Gulf of Alaska					
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Pollock										
Whole fish	2.55	.89	4.02	2.54	1.37	.34	.04	10.15	.09	.20
H&G	.66	6.67	4.47	7.02	7.57	-	.04	.07	.10	2.34
Roe	17.48	10.69	10.68	14.66	20.20	1.29	2.13	.54	1.34	2.34
Fillets	25.46	40.50	42.44	54.15	99.76	6.93	15.58	11.27	4.77	5.03
Surimi	152.07	72.22	141.01	181.09	177.85	8.35	30.09	13.26	10.56	9.72
Minced fish	7.46	13.27	6.48	8.99	18.34	.21	1.45	-	-	-
Fish meal	32.26	26.56	46.94	50.25	51.31	-	-	-	-	-
Other products	.03	5.36	.69	7.01	11.73	-	.01	.00	-	.64
Pacific cod										
Whole fish	1.74	.90	1.06	.77	.47	2.37	.55	1.71	2.36	1.79
H&G	65.26	55.19	54.96	58.32	57.09	4.36	6.45	10.88	8.33	8.74
Salted/split	-	-	-	-	3.29	-	-	-	-	-
Fillets	12.39	4.42	6.64	7.71	3.87	12.77	14.58	9.99	9.64	6.04
Other products	7.49	4.45	4.32	7.23	7.21	8.81	3.63	7.48	3.78	4.25
Sablefish										
H&G	.66	.58	.88	1.09	1.25	9.00	8.75	7.86	7.93	7.89
Other products	.00	.00	.01	.01	.01	.68	.15	.04	.18	.23
Flatfish										
Whole fish	45.44	31.35	9.64	11.88	7.75	3.43	2.64	3.47	3.52	2.72
H&G	50.09	37.81	36.44	42.32	35.16	1.81	1.63	1.46	4.73	1.66
Kirimi	15.54	6.30	4.21	6.37	6.15	-	-	-	-	-
Fillets	-	-	-	-	-	1.91	1.04	.63	1.77	1.10
Other products	4.03	.86	.70	.85	.42	.29	-	-	-	-
Rockfish										
Whole fish	.04	.04	1.73	.17	.46	1.31	2.10	7.02	1.08	.93
H&G	5.65	4.45	5.04	4.30	2.94	5.58	4.86	5.15	4.00	4.05
Other products	.00	.01	.02	.01	2.14	1.16	1.09	.98	1.86	1.34
Atka mackerel										
Whole fish	6.84	4.87	10.10	2.92	4.81	-	-	-	-	-
H&G	22.08	21.90	22.18	22.49	26.66	.19	.05	.05	.08	.02
Other products	1.85	-	.03	-	.00	-	-	-	-	-

Notes: For shoreside processors, these estimates include production resulting from catch from Federal and State of Alaska fisheries.

For at-sea processors, they include production only from catch counted against Federal TACs. A dash indicates that data were not available or were withheld to preserve confidentiality. Confidential data withheld from this table are not included in the totals in Table 36.

Source: Weekly processor report and commercial operators annual report. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 38. Production of groundfish products in the fisheries off Alaska by species, product and processing mode, 1997-2001, (1,000 metric tons product weight).

	At-sea					On-shore				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Pollock										
Whole fish	2.55	.89	4.02	2.54	1.37	.34	.04	10.15	.09	.20
H&G	.66	6.71	4.54	7.11	7.63	-	-	-	-	2.29
Roe	12.24	8.38	7.00	8.39	10.47	6.54	4.44	4.21	7.62	12.07
Filletts	25.46	40.50	32.68	35.15	51.59	6.93	15.58	21.04	23.77	53.20
Surimi	84.64	72.22	64.07	87.17	81.76	75.78	30.09	90.20	104.48	105.81
Minced fish	7.46	13.27	6.48	8.99	18.34	.21	1.45	-	-	-
Fish meal	13.99	15.05	14.54	17.21	20.38	18.27	11.50	32.40	33.04	30.93
Other products	.03	.76	.69	.95	1.81	-	4.61	-	6.06	10.56
Pacific cod										
Whole fish	.88	.36	.15	.59	.22	3.23	1.08	2.63	2.54	2.04
H&G	67.53	58.91	59.24	61.15	58.46	2.08	2.73	6.60	5.49	7.37
Salted/split	-	-	-	-	-	-	-	-	-	3.29
Filletts	4.58	3.00	1.63	2.36	1.27	20.58	16.00	14.99	14.99	8.63
Other products	4.48	2.93	2.02	3.16	3.15	11.82	5.15	9.78	7.86	8.31
Sablefish										
H&G	1.51	1.51	1.66	1.69	1.29	8.15	7.81	7.08	7.33	7.86
Other products	.06	.05	.04	.07	.06	.62	.09	.01	.12	.18
Flatfish										
Whole fish	48.22	33.70	12.43	15.21	10.34	.65	.29	.67	.19	.13
H&G	51.38	39.22	37.79	47.03	36.71	.52	.22	.10	.03	.10
Kirimi	15.54	6.30	4.21	6.37	6.15	-	-	-	-	-
Filletts	-	-	-	-	-	1.91	1.04	.63	1.77	1.10
Other products	.81	.86	.70	.85	.42	3.52	-	-	-	-
Rockfish										
Whole fish	.48	1.06	4.20	.84	.72	.86	1.08	4.55	.41	.67
H&G	10.85	8.72	9.74	7.75	6.35	.39	.60	.46	.55	.64
Other products	.01	.02	.03	.03	.01	1.15	1.08	.97	1.84	3.46
Atka mackerel										
Whole fish	6.84	4.87	10.10	2.92	4.81	-	-	-	-	-
H&G	22.27	21.96	22.23	22.57	26.68	-	-	-	-	-
Other products	1.85	-	.03	-	.00	-	-	-	-	-

Notes: For shoreside processors, these estimates include production resulting from catch from Federal and State of Alaska fisheries. For at-sea processors, they include production only from catch counted against Federal TACs. A dash indicates that data were not available or were withheld to preserve confidentiality. Confidential data withheld from this table are not included in the totals in Table 36.

Source: Weekly processor report and commercial operators annual report. National Marine Fisheries Service, P.O. Box 15700, Seattle, WA 98115-0070.

Table 39.--Monthly Japanese landing market price of selected groundfish
by species, 1988-2001, in yen/kilogram (weighted average).

Species	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Flatfish, fresh												
1988	586	695	716	630	523	496	568	497	528	547	546	587
1989	634	712	645	588	505	542	590	486	515	552	613	692
1990	674	704	701	665	497	515	615	629	597	637	687	801
1991	695	840	785	640	548	598	684	699	535	737	752	688
1992	739	799	749	687	567	558	605	584	556	587	600	570
1993	638	746	681	611	487	515	475	651	486	576	512	490
1994	603	592	534	573	585	467	541	542	508	474	454	505
1995	499	510	485	540	478	473	523	511	464	362	415	424
1996	501	556	543	472	431	385	477	550	419	403	418	490
1997	473	500	424	417	472	405	445	605	438	476	387	474
1998	434	482	403	337	391	432	505	567	451	397	404	486
1999	433	446	427	397	372	394	417	506	366	346	365	467
2000	447	469	474	391	335	323	446	497	436	464	441	490
2001	567	587	565	459	398	401	452	506	466	495	483	572
Cod, fresh												
1988	176	112	124	89	90	90	130	114	88	180	223	229
1989	170	155	168	119	105	87	132	129	121	211	204	325
1990	282	230	180	148	123	124	153	113	151	192	242	343
1991	296	279	216	148	124	137	136	128	173	261	398	366
1992	332	316	180	164	128	119	135	134	175	221	366	299
1993	281	285	207	167	118	128	154	215	175	305	319	366
1994	261	272	170	132	98	129	117	115	204	311	288	287
1995	244	185	188	103	64	110	146	146	197	257	401	315
1996	296	235	153	83	68	72	176	149	205	273	304	289
1997	235	174	157	111	105	82	192	177	134	330	269	311
1998	234	167	150	104	88	94	173	172	115	211	289	368
1999	284	276	180	153	109	115	148	154	103	225	315	352
2000	299	256	205	146	104	103	169	162	143	238	329	370
2001	418	246	176	134	96	91	124	254	195	305	387	499
Cod, frozen												
1988	313	274	199	191	215	--	--	224	227	348	--	330
1989	280	300	308	238	236	--	132	202	201	350	384	377
1990	374	427	326	347	411	--	--	373	353	--	320	300
1991	331	290	307	325	312	342	--	332	391	410	456	440
1992	369	324	281	251	264	270	298	322	339	348	315	163
1993	278	148	171	164	206	288	259	148	329	387	260	278
1994	309	258	112	245	264	124	217	258	258	246	264	228
1995	232	182	154	177	196	109	135	184	138	134	259	249
1996	265	220	183	211	146	201	247	326	213	292	299	262
1997	199	210	200	184	131	211	223	133	214	225	195	148
1998	185	137	137	217	138	231	239	401	333	296	266	249
1999	298	257	215	302	220	237	218	266	315	266	283	243
2000	241	202	179	203	199	211	208	283	247	298	273	212
2001	This category was not reported for 2001.											

Table 39.--Continued.

Species	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Alaska pollock, fresh												
1988	85	113	69	52	35	40	39	38	33	38	32	58
1989	96	117	67	49	47	43	36	35	31	42	48	70
1990	121	121	76	64	57	58	55	57	50	53	66	94
1991	150	172	168	108	81	87	91	111	89	115	135	146
1992	144	201	132	68	35	33	59	64	51	57	64	74
1993	107	157	141	91	54	56	51	51	37	60	62	72
1994	76	125	118	88	45	46	52	51	44	55	67	74
1995	104	132	131	101	40	38	66	59	40	47	74	72
1996	90	120	110	77	33	27	63	46	42	41	54	91
1997	126	122	110	97	69	65	55	48	33	45	51	70
1998	80	85	91	86	35	26	37	35	26	33	56	52
1999	73	86	76	78	42	36	40	24	21	31	46	53
2000	96	79	96	87	51	51	81	55	27	46	109	129
2001	109	127	91	90	60	46	60	80	34	62	105	111
Atka mackerel, fresh												
1988	40	41	80	59	86	63	87	90	44	48	37	33
1989	41	37	42	40	47	36	31	55	46	106	53	44
1990	42	54	45	50	42	48	59	61	57	64	79	85
1991	65	93	111	90	101	120	168	143	93	79	80	57
1992	47	36	65	85	88	91	136	95	87	94	84	48
1993	66	41	33	33	24	44	57	56	40	66	46	26
1994	25	28	21	20	28	30	49	50	42	49	35	30
1995	35	31	29	29	37	49	109	98	39	36	27	19
1996	21	22	29	40	51	40	95	69	40	46	69	28
1997	36	40	40	44	55	59	114	79	48	44	27	30
1998	23	31	23	22	26	26	25	28	23	32	35	27
1999	43	44	32	36	38	57	78	88	40	35	29	17
2000	26	23	22	20	27	34	52	44	42	43	47	49
2001	44	38	32	32	51	58	106	75	54	35	34	31
Rockfish, fresh												
1988	1703	1378	1395	1375	1309	1431	1573	1366	1275	1256	1419	1628
1989	1760	1493	1670	1583	1513	1765	1935	1835	1588	1682	1830	2056
1990	2058	1975	1919	1896	1803	2049	2316	1961	1643	1948	2017	2231
1991	2328	2054	2074	1937	2035	2145	2553	2328	2003	2320	2513	2630
1992	2992	2653	3281	2204	1951	2174	2383	2307	1786	2177	2808	2613
1993	2847	2987	2452	2480	2053	2004	2050	2140	1783	2010	2445	2633
1994	2687	2861	1944	2363	2205	2433	2230	2118	2069	2075	2323	2778
1995	3214	2725	2360	2545	2142	1993	2234	2189	2149	2373	3179	3119
1996	3471	3586	3510	2630	2321	2188	2234	2374	2419	3012	3073	3414
1997	3770	4240	3281	2699	2760	2384	2472	2475	2873	3117	2943	3433
1998	3348	3753	3365	2721	2729	2790	2675	2574	2636	2831	2238	2181
1999	4518	3750	3872	2935	2992	3041	3324	2634	2951	2512	1736	3035
2000	4049	3932	2934	3061	2645	2620	3292	2419	2734	2777	3112	3270
2001	This category was not reported for 2001.											

Source: Monthly Stat. of Agriculture, Forestry, and Fisheries, Stat. and Info. Dept., Ministry of Agriculture, Forestry, and Fishery, Government of Japan. Available from Alaska Fish. Sci. Cen., P.O. Box 15700, Seattle, WA 98115-0070.

Table 40.--Monthly Tokyo wholesale prices of selected products, 1988-2001
in yen/kilogram (weighted average).

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Flatfish, frozen												
1988	496	503	462	451	442	437	408	424	407	419	396	392
1989	409	357	349	421	343	433	410	457	462	472	480	459
1990	496	433	439	463	509	616	570	578	637	526	592	552
1991	449	512	572	570	520	541	565	573	509	543	482	485
1992	499	486	517	511	530	491	423	433	499	437	460	413
1993	412	386	404	427	431	447	431	406	418	423	407	414
1994	423	426	403	450	460	433	470	394	414	433	422	455
1995	446	435	450	455	427	443	447	464	440	466	475	500
1996	478	478	467	520	532	544	575	550	562	550	565	580
1997	538	535	535	536	506	533	512	530	509	508	528	540
1998	482	473	511	505	519	514	509	544	524	518	457	447
1999	471	460	475	516	516	490	524	533	469	484	507	514
2000	468	467	456	491	483	483	522	448	492	470	476	509
2001	464	466	470	486	478	477	505	530	513	499	509	521
Cod, frozen												
1988	499	515	552	505	482	483	472	525	531	507	495	479
1989	472	451	341	600	529	474	511	608	174	529	506	577
1990	566	635	623	588	601	678	690	748	708	684	620	726
1991	702	681	694	704	737	694	764	771	780	800	721	742
1992	798	741	774	770	764	741	750	726	734	665	658	647
1993	643	663	670	671	666	707	614	602	604	587	639	644
1994	610	612	635	648	625	614	665	700	633	652	656	656
1995	644	646	628	649	623	583	571	605	614	527	458	567
1996	586	603	636	689	657	677	715	561	584	624	545	590
1997	484	539	598	613	651	560	610	638	609	555	484	503
1998	452	469	508	532	578	596	589	616	598	571	520	565
1999	603	574	624	678	691	751	728	667	567	559	520	542
2000	477	545	616	629	610	621	628	555	641	516	508	512
2001	489	501	582	609	634	573	606	627	619	573	618	530
Surimi												
1992	683	624	591	541	576	555	504	438	443	438	445	415
1993	360	340	347	348	364	350	367	326	332	295	295	309
1994	322	315	309	302	311	320	309	316	310	319	333	350
1995	340	337	332	335	338	341	356	343	368	353	348	335
1996	334	319	314	330	303	342	334	286	308	309	347	321
1997	356	345	340	351	374	388	383	381	402	391	401	402
1998	389	339	354	337	329	339	333	328	313	313	319	334
1999	315	331	328	339	340	346	337	323	339	351	339	330
2000	321	312	298	307	303	297	304	275	289	276	286	294
2001	276	281	282	273	271	272	275	267	268	290	297	298

Note: From 1988-1995 prices are for six large cities wholesale market, and from 1996-1999 prices are for ten large cities wholesale market.

Source: Monthly Stat. of Agriculture, Forestry, and Fisheries, Stat. and Info. Dept., Ministry of Agriculture, Forestry, and Fisheries, Government of Japan. Available from Alaska Fish. Sci. Cen., P.O. Box 15700, Seattle, WA 98115-0070.

Table 41.--U.S. imports of groundfish fillets, steaks, and blocks,
1976-2001, quantity in million lb. product weight and value
in million dollars.

Year	Filletts and steaks		Blocks		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
1976	337	\$273	379	\$211	716	\$484
1977	321	305	385	292	706	597
1978	333	341	406	325	739	666
1979	340	385	408	337	748	722
1980	297	341	336	289	633	630
1981	346	415	344	301	690	716
1982	371	458	319	274	690	732
1983	355	449	384	339	739	788
1984	373	459	316	263	689	722
1985	388	500	334	275	722	775
1986	366	542	364	380	730	922
1987	408	759	403	539	812	1,298
1988	323	568	303	382	626	950
1989	333	578	282	325	616	903
1990	262	482	264	373	526	856
1991	255	526	290	444	545	970
1992	221	437	229	304	450	741
1993	236	452	212	219	447	671
1994	229	433	200	184	428	617
1995	232	437	210	213	442	650
1996	223	407	234	213	457	620
1997	219	426	234	231	453	657
1998	236	460	233	271	469	731
1999	272	550	214	250	486	801
2000	284	545	204	209	488	753
2001	243	462	147	159	389	621

Source: U.S. Dep. Commer., Bur. of the Census, Washington, D.C.
20233; and Fisheries of the United States, Natl. Mar. Fish.
Serv., Fish. Stat. Div., 1315 East-West Highway, Silver Spring,
MD 20910, various issues.

Table 42.--U.S. population and per capita consumption of fish and shellfish, 1970-2001
(population in millions and consumption in pounds, edible weight).

Year	Total civilian population	Per capita consumption			
		Fresh and frozen	Canned	Cured	Total
1970	201.9	6.9	4.5	.4	11.8
1971	204.9	6.7	4.3	.5	11.5
1972	207.5	7.1	4.9	.5	12.5
1973	209.6	7.4	5.0	.4	12.8
1974	211.6	6.9	4.7	.5	12.1
1975	213.8	7.5	4.3	.4	12.2
1976	215.9	8.2	4.2	.5	12.9
1977	218.1	7.7	4.6	.4	12.7
1978	220.5	8.1	5.0	.3	13.4
1979	223.0	7.8	4.8	.4	13.0
1980	225.6	7.9	4.3	.3	12.5
1981	227.8	7.8	4.6	.3	12.7
1982	230.0	7.9	4.3	.3	12.5
1983	232.1	8.4	4.7	.3	13.4
1984	234.1	9.0	4.9	.3	14.2
1985	236.2	9.8	5.0	.3	15.1
1986	238.4	9.8	5.4	.3	15.5
1987	240.6	10.7	5.2	.3	16.2
1988	242.8	10.0	4.9	.3	15.2
1989	245.1	10.2	5.1	.3	15.6
1990	247.8	9.6	5.1	.3	15.0
1991	250.5	9.7	4.9	.3	14.9
1992	253.5	9.9	4.6	.3	14.8
1993	256.4	10.2	4.5	.3	15.0
1994	259.2	10.4	4.5	.3	15.2
1995	261.4	10.0	4.7	.3	15.0
1996	264.0	10.0	4.5	.3	14.8
1997	266.4	9.9	4.4	.3	14.6
1998	269.1	10.2	4.4	.3	14.9
1999	271.5	10.4	4.7	.3	15.4
2000	280.9	10.2	4.7	.3	15.2
2001	283.6	10.3	4.2	.3	14.8

Note: Per capita consumption represents pounds of edible meat consumed from domestically caught and imported fish and shellfish adjusted for beginning and ending inventories, and exports, divided by the civilian population of the United States as of 1 July of each year. Population estimates for 1980-91 were revised to reflect changes from the 1990 decennial population enumeration. Changes did not significantly alter pounds per capita.

Source: Fisheries of the United States, 2001. Natl. Mar. Fish. Serv., 1315 East-West Highway, Silver Spring, MD 20910, CFS No. 9600, September 2002.

Table 43.--U.S. consumption of all fillets and steaks, and fish sticks and portions, total in 1,000 lb and per capita in pounds, product weight, 1980-2001.

Year	Fillets and steaks ¹		Fish sticks and portions	
	Total ²	Per capita	Total ²	Per capita
1980	541,440	2.4	451,200	2.0
1981	546,720	2.4	410,040	1.8
1982	575,000	2.5	391,000	1.7
1983	626,670	2.7	417,780	1.8
1984	702,300	3.0	421,380	1.8
1985	755,840	3.2	425,160	1.8
1986	810,560	3.4	429,120	1.8
1987	866,160	3.6	409,020	1.7
1988	776,960	3.2	364,200	1.5
1989	759,810	3.1	367,650	1.5
1990	768,180	3.1	371,700	1.5
1991	751,500	3.0	300,600	1.2
1992	735,150	2.9	228,150	0.9
1993	743,560	2.9	256,400	1.0
1994	803,520	3.1	233,280	0.9
1995	758,060	2.9	313,680	1.2
1996	792,000	3.0	264,000	1.0
1997	799,200	3.0	266,400	1.0
1998	861,120	3.2	242,190	0.9
1999	868,800	3.2	271,500	1.0
2000	926,970	3.3	252,810	0.9
2001	964,240	3.4	226,880	0.8

¹Series revised in 1993 to reflect deduction of fillet production used to produce blocks, exports of foreign fillets and steaks, and changes in population estimates from 1990 decennial population enumeration.

²Per Capita multiplied by total U.S. population.

Source: Computed from data from U.S. Dep. of Commerce, Bur. of the Census; and Fisheries of the United States, Natl. Mar. Fish. Serv., Fish. Stat. Div., 1315 East-West Highway, Silver Spring, MD 20910, various issues.

Table 44.--Annual U.S. economic indicators: Selected producer and consumer price indexes, 1976-2001.

Year	Producer price index (Index 1982=100)					Consumer price index (Index 1982-84=100)			
	All items	Meat	Poultry	Fish	Petrl. products	All items	Meat	Poultry	Fish
1976	61.1	69.3	93.0	64.5	36.3	56.9	66.4	76.4	60.2
1977	64.9	68.1	97.0	69.7	40.5	60.6	64.9	76.9	66.6
1978	69.9	83.6	108.6	74.1	42.2	65.2	77.0	84.9	73.0
1979	78.7	93.3	105.6	90.9	58.4	72.6	90.1	89.1	80.1
1980	89.8	94.1	108.2	87.8	88.6	82.4	92.7	93.7	87.5
1981	98.0	95.4	108.2	89.4	105.9	90.9	96.0	97.5	94.8
1982	100.0	100.0	100.0	100.0	100.0	96.5	100.7	95.8	98.2
1983	101.3	94.3	103.7	105.4	89.9	99.6	99.5	97.0	99.3
1984	103.7	94.5	115.3	112.7	87.4	103.9	99.8	107.3	102.5
1985	103.2	90.9	110.4	114.6	83.2	107.6	98.9	106.2	107.5
1986	100.2	93.9	116.8	124.9	53.2	109.6	102.0	114.2	117.4
1987	102.8	100.4	103.5	140.0	56.8	113.6	109.6	112.6	129.9
1988	106.9	99.9	111.6	148.7	53.9	118.3	112.2	120.7	139.4
1989	112.2	104.8	120.4	142.9	61.2	124.0	116.7	132.7	143.6
1990	116.3	117.0	113.6	147.2	74.8	130.7	128.5	132.5	146.7
1991	116.5	113.5	109.9	149.5	67.2	136.2	132.5	131.5	148.3
1992	117.2	106.7	109.0	156.1	64.7	140.3	130.7	131.4	151.7
1993	118.9	110.6	111.7	156.5	62.0	144.5	134.6	136.9	156.6
1994	120.4	104.7	114.7	161.4	59.1	148.2	135.4	141.5	163.7
1995	124.7	102.9	114.2	170.8	60.8	152.4	135.5	143.5	171.6
1996	127.7	109.0	119.7	165.9	70.1	156.9	140.2	152.4	173.1
1997	127.6	111.6	117.4	178.1	68.0	160.5	144.4	156.6	177.1
1998	124.4	101.3	120.8	183.2	51.3	163.0	141.6	157.1	181.7
1999	125.5	104.6	114.0	190.9	60.9	166.6	142.3	157.9	185.3
2000	132.7	114.3	112.9	198.1	91.3	172.2	150.7	159.8	190.4
2001	134.2	120.3	116.8	190.8	85.3	177.1	159.3	164.9	191.1

Source: Producer prices and price indexes, and consumer price indexes, U.S. Dep. of Labor, Bur. of Labor Statistics.

Table 45.--Monthly U.S. economic indicators: Selected producer and consumer price indexes, 1999-2001.

Month	Producer price index (Index 1982=100)					Consumer price index (Index 1982-84=100)			
	All items	Meat	Poultry	Fish	Petrl. products	All items	Meat	Poultry	Fish
1999									
Jan.	122.9	99.1	115.7	186.2	44.9	164.3	139.4	158.5	183.6
Feb.	122.3	98.6	113.6	186.9	42.6	164.5	140.6	157.4	184.3
Mar.	122.6	100.2	113.6	200.9	46.3	165.0	140.3	158.3	183.5
Apr.	123.6	99.8	111.8	185.0	58.7	166.2	140.5	157.6	185.3
May	124.7	104.8	114.4	187.1	59.8	166.2	141.4	155.7	185.9
Jun.	125.2	106.5	115.6	186.9	58.8	166.2	141.8	156.8	184.6
Jul.	125.7	104.3	114.5	188.6	63.6	166.7	142.2	157.3	184.4
Aug.	126.9	108.4	113.7	189.0	68.6	167.1	142.8	158.5	185.2
Sep.	128.0	109.2	115.1	193.6	72.5	167.9	143.9	159.8	184.7
Oct.	127.7	108.7	112.6	196.6	69.5	168.2	144.4	158.1	187.3
Nov.	128.3	106.5	114.1	198.9	71.7	168.3	145.3	159.4	187.9
Dec.	127.8	108.9	113.9	191.0	73.7	168.3	145.3	157.5	186.9
2000									
Jan.	128.3	108.6	111.1	196.1	75.2	168.8	144.7	159.9	186.0
Feb.	129.8	111.2	109.2	207.8	84.0	169.8	146.4	157.9	190.0
Mar.	130.8	112.4	110.9	198.3	89.7	171.2	148.3	158.6	189.9
Apr.	130.7	115.3	111.8	211.2	84.6	171.3	148.8	158.5	189.8
May	131.6	119.4	110.8	204.1	87.6	171.5	150.1	159.6	192.4
Jun.	133.8	119.5	111.8	195.0	97.4	172.4	151.7	159.3	191.9
Jul.	133.7	118.6	111.8	196.8	93.1	172.8	152.7	161.8	189.7
Aug.	132.9	115.3	113.3	200.8	90.6	172.8	153.9	161.3	190.7
Sep.	134.7	111.7	116.6	190.3	102.5	173.7	153.8	160.9	191.9
Oct.	135.4	112.2	116.4	194.4	99.5	174.0	152.9	162.1	192.8
Nov.	135.0	112.2	116.6	190.0	99.6	174.1	152.5	157.2	189.6
Dec.	136.2	115.0	115.1	192.2	91.6	174.0	152.9	160.7	189.5
2001									
Jan.	140.0	115.8	110.0	193.7	91.4	175.1	154.1	160.8	192.8
Feb.	137.4	118.8	112.3	210.5	90.4	175.8	156.5	161.8	193.0
Mar.	135.9	121.5	114.1	200.9	85.9	176.2	157.9	162.6	190.7
Apr.	136.4	123.7	115.8	205.2	94.0	176.9	158.0	163.1	192.4
May	136.8	124.8	116.7	192.7	101.2	177.7	158.9	162.3	194.6
Jun.	135.5	123.1	117.6	182.2	95.1	178.0	160.2	164.5	191.5
Jul.	133.4	122.7	117.2	185.9	82.4	177.5	160.8	166.6	191.0
Aug.	133.4	123.6	118.8	185.5	85.4	177.5	160.7	167.5	189.7
Sep.	133.3	120.8	121.4	192.8	94.6	178.3	161.5	165.4	189.1
Oct.	130.3	120.0	121.0	181.4	75.6	177.7	161.8	169.6	189.5
Nov.	129.8	114.2	120.0	181.5	68.3	177.4	161.2	166.4	189.2
Dec.	128.1	114.9	116.7	177.3	59.2	176.7	160.0	167.7	189.4

Source: Producer prices and price indexes, and consumer price indexes, U.S. Dep. of Labor, Bur. of Labor Statistics.

Table 46.--Annual foreign exchange rates for selected countries, 1976-2001,
in national currency units per U.S. dollar.

Year	Canada (dollar)	Denmark (kroner)	Japan (yen)	ROK (won)	New Zeal. (dollar)	Iceland (kronur)	Norway (kroner)	U.K. (pound)
1976	0.9860	6.0450	296.55	484.00	1.0036	1.822	5.4565	0.5536
1977	1.0635	6.0032	268.51	484.00	1.0301	1.989	5.3235	.5729
1978	1.1407	5.5146	210.44	484.00	.9636	2.711	5.2423	.5210
1979	1.1714	5.2610	219.14	484.00	.9776	3.526	5.0641	.4713
1980	1.1692	5.6359	226.74	607.43	1.0265	4.798	4.9392	.4299
1981	1.1989	7.1234	220.54	681.03	1.4194	7.224	5.7395	.4931
1982	1.2337	8.3324	249.08	731.08	1.3300	12.352	6.4540	.5713
1983	1.2324	9.1450	237.51	775.75	1.4952	24.843	7.2964	.6592
1984	1.2951	10.3566	237.52	805.98	1.7286	31.694	8.1615	.7483
1985	1.3655	10.5964	238.54	870.02	2.0064	41.508	8.5970	.7714
1986	1.3895	8.0910	168.52	881.45	1.9088	41.104	7.3947	.6971
1987	1.3260	6.8400	144.64	822.57	1.6886	38.677	6.7375	.6102
1988	1.2307	6.7320	128.15	731.47	1.5244	43.014	6.5170	.5614
1989	1.1840	7.3100	137.96	671.46	1.6708	57.042	6.9045	.6099
1990	1.1668	6.1890	144.79	707.76	1.6750	58.284	6.2597	.5603
1991	1.1457	6.3960	134.71	733.35	1.7265	58.996	6.4829	.5652
1992	1.2087	6.0360	126.65	780.65	1.8580	57.546	6.2145	.5664
1993	1.2901	6.4840	111.20	802.67	1.8494	67.603	7.0941	.6658
1994	1.3656	6.3610	102.21	803.44	1.6844	69.944	7.0576	.6529
1995	1.3724	5.6020	94.06	771.27	1.5235	64.692	6.3352	.6335
1996	1.3635	5.7990	108.78	804.45	1.4540	66.500	6.4498	.6400
1997	1.3849	6.6092	121.06	950.77	1.5094	70.904	7.0857	.6106
1998	1.4835	6.7008	130.91	1401.44	1.8683	70.958	7.5451	.6038
1999	1.4858	6.9900	113.73	1189.84	1.8889	72.474	7.8071	.6184
2000	1.4855	8.0953	107.80	1130.90	2.1805	78.896	8.8131	.6598
2001	1.5487	8.3323	121.57	1292.01	2.3798	97.690	8.9964	.6946

ROK - Republic of Korea. U.K. - United Kingdom.

Source: Through 1998 - Intl. Financial Statistics, Intl. Mon. Fund, Washington, D.C.; 1999-2001 (except Iceland) - U.S. Federal Reserve Board, www.federalreserve.gov; 1999-2001 Iceland - www.oanda.com

Table 47.--Monthly foreign exchange rates for selected countries, 1999-2001,
in national currency units per U.S. dollar.

Month	Canada (dollar)	Denmark (kroner)	Japan (yen)	ROK (won)	New Zeal. (dollar)	Iceland (kronur)	Norway (kroner)	U.K. (pound)
1999								
Jan.	1.519	6.42	113.3	1175.1	1.856	69.46	7.45	.606
Feb.	1.498	6.64	116.7	1188.8	1.840	71.00	7.72	.614
Mar.	1.518	6.83	119.5	1229.7	1.871	72.18	7.82	.617
Apr.	1.488	6.95	119.8	1210.0	1.843	72.99	7.78	.622
May	1.461	6.99	122.0	1197.9	1.808	73.71	7.75	.619
Jun.	1.470	7.16	120.7	1168.9	1.878	74.20	7.87	.627
Jul.	1.489	7.18	119.3	1189.1	1.901	74.47	7.90	.635
Aug.	1.493	7.01	113.2	1198.3	1.902	72.88	7.80	.623
Sep.	1.477	7.08	106.9	1201.0	1.912	72.62	7.84	.616
Oct.	1.478	6.95	106.0	1205.3	1.945	70.78	7.74	.603
Nov.	1.467	7.20	104.7	1177.0	1.952	71.78	7.94	.617
Dec.	1.472	7.36	102.6	1136.8	1.966	72.34	8.01	.620
2000								
Jan.	1.449	7.35	105.3	1131.0	1.951	72.46	8.02	.610
Feb.	1.451	7.57	109.4	1129.8	2.040	73.21	8.24	.625
Mar.	1.461	7.72	106.3	1116.4	2.040	73.67	8.41	.633
Apr.	1.469	7.89	105.6	1110.3	2.016	73.97	8.63	.632
May	1.496	8.23	108.3	1119.5	2.124	76.60	9.05	.663
Jun.	1.477	7.85	106.1	1117.9	2.125	76.81	8.68	.663
Jul.	1.478	7.95	108.2	1115.1	2.175	78.05	8.72	.663
Aug.	1.483	8.25	108.1	1114.5	2.246	80.02	8.95	.672
Sep.	1.486	8.58	106.8	1117.6	2.398	83.02	9.23	.698
Oct.	1.513	8.73	108.4	1131.1	2.499	85.15	9.38	.689
Nov.	1.543	8.70	109.0	1156.5	2.506	87.53	9.35	.701
Dec.	1.522	8.31	112.2	1216.9	2.327	86.08	9.06	.684
2001								
Jan.	1.503	7.96	116.7	1272.6	2.251	85.07	8.78	.677
Feb.	1.522	8.11	116.2	1252.9	2.301	86.02	8.92	.688
Mar.	1.559	8.22	121.5	1291.4	2.391	87.60	8.99	.692
Apr.	1.558	8.37	123.8	1327.8	2.458	93.20	9.09	.697
May	1.541	8.53	121.8	1298.9	2.371	100.19	9.14	.701
Jun.	1.525	8.74	122.4	1295.1	2.415	104.63	9.30	.713
Jul.	1.531	8.64	124.5	1305.2	2.450	102.17	9.26	.707
Aug.	1.540	8.26	121.4	1285.7	2.318	98.44	8.94	.696
Sep.	1.568	8.17	118.6	1293.8	2.396	99.98	8.77	.683
Oct.	1.572	8.22	121.5	1302.4	2.416	102.60	8.83	.690
Nov.	1.592	8.38	122.4	1282.1	2.405	107.10	8.93	.697
Dec.	1.579	8.35	127.6	1292.3	2.406	104.61	8.97	.694

ROK - Republic of Korea. U.K. - United Kingdom.

Source: U.S. Federal Reserve Board, www.federalreserve.gov, except Iceland is from www.oanda.com

Table 48.--Monthly U.S. cold storage holdings of selected groundfish blocks, 1999-2001, in 1,000 lb (end of month).

Month	Cod	Flounder	Alaska pollock	Pollock, other	Whiting	Minced	Total*
1999							
Jan.	6,086	2,890	26,368	8,541	790	13,948	62,313
Feb.	5,253	2,242	18,417	4,490	1,050	5,704	41,270
Mar.	5,368	1,374	18,535	3,596	1,017	3,585	36,962
Apr.	6,056	952	24,214	12,492	1,373	5,905	54,232
May	5,383	740	25,264	14,584	785	4,474	53,790
Jun.	5,169	587	27,691	16,929	1,854	3,769	58,340
Jul.	6,143	475	24,422	16,795	775	5,739	57,736
Aug.	5,490	487	22,439	13,162	666	5,408	50,763
Sep.	5,004	655	22,156	9,695	336	5,225	46,599
Oct.	4,723	744	21,331	9,558	582	4,240	44,460
Nov.	4,110	705	15,473	9,757	586	8,188	42,154
Dec.	4,817	763	12,264	12,390	464	9,289	43,244
2000							
Jan.	4,073	863	12,237	14,266	522	8,499	43,739
Feb.	3,340	456	11,479	12,979	432	6,541	38,414
Mar.	3,242	440	11,738	9,285	392	7,279	34,409
Apr.	2,679	318	9,923	7,308	361	6,788	29,981
May	2,959	223	7,894	6,608	188	8,611	29,027
Jun.	2,637	188	5,703	6,167	255	8,112	28,948
Jul.	2,146	301	4,644	4,771	251	8,164	23,149
Aug.	1,993	245	6,571	3,833	342	7,264	22,601
Sep.	1,820	276	7,438	4,915	335	6,459	23,489
Oct.	1,935	254	9,363	5,471	569	6,585	26,306
Nov.	1,749	178	6,877	2,489	614	7,778	21,739
Dec.	1,871	338	8,138	8,978	546	8,244	30,422
2001							
Jan.	1,699	368	9,537	9,741	505	10,764	35,013
Feb.	1,619	381	7,074	9,302	496	9,200	30,591
Mar.	2,299	301	6,028	7,881	277	3,273	22,479
Apr.	1,415	243	5,639	5,343	366	3,991	18,948
May	1,537	137	12,462	5,493	488	5,427	27,936
Jun.	1,457	271	7,463	8,633	581	6,375	26,803
Jul.	1,650	324	5,792	8,544	459	6,141	24,954
Aug.	1,534	363	6,412	9,130	312	5,458	25,246
Sep.	1,367	279	8,944	13,066	784	6,648	33,230
Oct.	1,652	195	7,970	12,904	494	7,417	33,312
Nov.	1,662	220	17,168	5,183	435	8,040	36,700
Dec.	2,180	274	16,871	8,514	413	9,011	44,646

Notes: * Total includes other species not listed.

Source: Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910.

Table 49.--Monthly U.S. cold storage holdings of selected groundfish fillets, 1999-2001, in 1,000 lb (end of month).

Month	Cod	Flounder	Ocean perch	Alaska pollock	Pollock, other	Whiting	Total*
1999							
Jan.	13,694	6,275	4,045	10,435	3,423	7,246	62,971
Feb.	11,891	5,263	3,993	11,781	3,115	5,424	58,895
Mar.	15,698	4,663	3,800	18,215	2,621	5,439	67,397
Apr.	16,532	4,167	4,170	16,503	2,474	4,349	69,241
May	18,097	3,658	3,635	15,968	2,402	4,172	64,968
Jun.	18,624	4,435	3,788	16,261	2,461	5,624	67,463
Jul.	19,646	4,788	3,032	13,830	2,304	7,697	67,407
Aug.	19,118	5,002	1,899	14,183	1,958	10,583	70,492
Sep.	17,982	4,543	2,546	16,534	1,945	11,290	73,178
Oct.	18,161	4,655	2,348	20,670	2,270	9,650	74,602
Nov.	17,556	4,702	2,163	24,016	1,949	9,652	76,890
Dec.	18,673	3,956	2,178	21,462	3,060	9,882	76,652
2000							
Jan.	20,626	4,728	2,290	19,664	2,972	9,762	79,973
Feb.	27,711	4,221	1,859	22,822	2,797	9,265	86,956
Mar.	34,518	3,890	1,573	32,744	2,471	8,593	99,988
Apr.	40,493	3,533	1,547	46,241	1,969	7,494	119,482
May	40,628	5,517	1,460	40,646	1,870	5,997	114,606
Jun.	37,173	5,477	1,217	34,306	2,186	3,028	98,459
Jul.	35,669	4,253	1,096	32,204	1,905	1,482	96,037
Aug.	32,063	4,709	1,099	33,385	2,138	1,486	93,410
Sep.	30,036	6,631	1,035	32,738	1,997	2,176	95,275
Oct.	28,975	5,125	973	36,888	2,094	2,169	96,092
Nov.	28,158	5,169	968	30,255	2,371	4,412	91,542
Dec.	26,463	5,153	1,162	25,903	2,573	4,332	87,179
2001							
Jan.	26,076	5,360	1,030	20,345	2,557	4,411	80,286
Feb.	24,506	5,009	1,062	18,399	2,298	3,827	73,728
Mar.	24,559	4,363	1,151	22,081	2,006	3,209	88,891
Apr.	26,412	4,557	1,144	23,283	1,887	2,649	90,940
May	27,723	5,096	1,422	18,043	2,238	2,709	88,881
Jun.	26,095	5,576	1,668	13,266	1,867	3,956	81,851
Jul.	24,866	5,131	1,072	11,019	1,738	3,473	66,619
Aug.	22,631	5,332	1,095	12,738	1,542	3,316	68,232
Sep.	18,395	5,166	1,058	16,384	1,484	3,562	67,310
Oct.	21,410	5,812	1,076	19,194	1,526	3,746	74,379
Nov.	21,549	5,750	1,926	18,890	3,610	8,092	90,473
Dec.	19,533	5,723	2,175	14,430	4,232	5,344	79,296

Notes: * Total includes other species not listed.

Source: Natl. Mar. Fish. Serv., Fish. Stat. Div., Silver Spring, MD 20910.

Excerpts From
Quantitative Estimates of Fishing Capacity, Capacity Utilization, and Fishery Utilization
for Alaskan Commercial Fisheries, 2001

The goal of the report was to provide measures of what could be caught by the existing fleet of vessels that operate in federally managed Alaskan fisheries if they were allowed to fish for longer periods of time during the year (under normal operating conditions)¹. Two estimators were used.

This first estimator will be denoted as $\hat{C}_j^i = \hat{\theta}_j^k Y_j^i$, where \hat{C}_j^i is the capacity of vessel j for species i , $\hat{\theta}_j^k$ is a scaling factor for vessel j in fishery k , and Y_j^i is the observed output of vessel j for species i in 2001. The scaling factor $\hat{\theta}_j^k$ indicates the amount by which observed output could be

increased, and is given by: $\hat{\theta}_j^k = \min \left\{ \left(\frac{\text{max. weeks}_j}{\text{weeks}_j} \right), \left(\frac{\text{max. weeks}_j^k}{\text{weeks}_j^k} \right) \right\}$. Here, max. weeks_j is

the maximum number of weeks spent fishing by vessel j in any year for 1990-2001, weeks_j is the observed number of weeks spent fishing by vessel j in 2001, max. weeks_j^k is the maximum number of weeks spent fishing by vessel j in fishery k for 1990-2001, and weeks_j^k is the number of weeks spent fishing by vessel j in fishery k for 2001. Note that θ_j^k is fishery specific, not species specific, and that each k^{th} fishery has a unique group of species i , $i=1, \dots, I$. For example, the groundfish fishery includes seven species and the crab fishery includes four species (all other fisheries defined in this report correspond to a single species or species “group”²).

If one broadens the scope of potential increases in effort to incorporate information from a vessel’s peers (i.e., their subgroup) a second, alternative, capacity estimator can be generated. This estimator is formed by increasing each vessel’s effort (in weeks) to its greatest historical level (as with the first estimator), subject to the constraint that the resulting implied number of

¹ Thus, the capacity estimates reflect what could be caught in all Alaskan commercial fisheries (state and federally managed) by federal fishery participants; the capacity of vessels that participated *only* in state fisheries was not estimated. As is the case in most fisheries, the capacity estimates are in terms of retained catch (not retained *and* discarded catch).

weeks spent in each fishery does not exceed the most weeks in that fishery by *any* vessel in its subgroup for 1990-2001. This alternative formulation recognizes that the maximum historical weeks fished in a fishery by a vessel may not reflect the maximum level possible given the regulatory, technical, and economic constraints that are present. Rather, such a level may be better reflected by the maximum weeks fished in that fishery by another vessel in its subgroup. Thus, this second capacity estimator will generate estimates greater than or equal to the first estimator.

The second capacity estimator will be denoted as $\tilde{C}_j^i = \tilde{\theta}_j^k Y_j^i$. The interpretation of the components of \tilde{C}_j^i is the same as \hat{C}_j^i , except that here, $\tilde{\theta}_j^k$ is defined as:

$$\tilde{\theta}_j^k = \min \left\{ \left(\frac{\max.\text{weeks}_j}{\text{weeks}_j} \right), \left(\frac{\max.\text{weeks}^k}{\text{weeks}_j^k} \right) \right\}.$$
 Thus, the ratio of $\frac{\max.\text{weeks}_j^k}{\text{weeks}_j^k}$ has been replaced with $\frac{\max.\text{weeks}^k}{\text{weeks}_j^k}$, where $\max.\text{weeks}^k$ is the maximum number of weeks spent fishing by *any* of

the vessels in this subgroup in fishery k for 1990-2001. Due to confidentiality requirements, and the sheer number of vessels involved in the fishery, this report will present the values of

$\hat{C}^i = \sum_{j=1}^J \hat{C}_j^i$, and $\tilde{C}^i = \sum_{j=1}^J \tilde{C}_j^i$ for each sub-grouping of catcher vessels and catcher-processors,

where J = the number of vessels in each subgroup (the specific details of each subgroup are given below).

Typically, capacity utilization is defined as the ratio of observed output to capacity output.

Following this convention, we will present two capacity utilization measures for each vessel subgroup, based on the \hat{C}_j^i and \tilde{C}_j^i capacity estimates for each species i . The first measure is defined as the ratio of observed catch by the vessel subgroup to capacity catch for the subgroup (where capacity is defined according to \hat{C}_j^i); $\hat{C}U^i = (\sum_{j=1}^J Y_j^i) / (\sum_{j=1}^J \hat{C}_j^i)$. The second measure is defined as the ratio of total observed catch by the vessel subgroup to the second formulation of

² The “salmon” catch (and capacity) reported in this document includes the various species of Pacific salmon.

capacity catch for the subgroup; $\tilde{CU}^i = (\sum_{j=1}^J Y_j^i) / (\sum_{j=1}^J \tilde{C}_j^i)$. Note that these aggregate subgroup-specific estimates of capacity utilization are in a sense catch-weighted, as vessels with a larger catch share of species i have a larger impact on the value of both \hat{CU}^i and \tilde{CU}^i . It is worth noting that these capacity utilization estimates embody the assumption that the 2001 catch composition for each vessel within each of the eight generally defined fisheries remains constant at capacity. Thus, the value of capacity for each species does not reflect what could or would be caught if all effort were exerted upon that particular species. Rather, capacity (and the associated capacity utilization measures) for each species represents an estimate of what could be caught if all vessels increased their effort (according to the capacity estimators described above) and targeted their observed 2001 catch mix.

Because the species-specific capacity utilization measures are not impacted by vessels that did not catch that particular species in 2001 (as both observed output and capacity output would be zero under our present methodology), they do not provide information on changes in total annual participation. Instead, they indicate the intensity of effort, relative to past years, for those that are currently participating. Therefore, “fishery utilization” (FU) measures were constructed, which provide information on overall participation (in weeks), relative to past years, even in the absence of activity in a fishery in 2001.

These measures (FU_{Total} , and $FU_{Groundfish}$) are simply defined as the ratio of weeks each vessel spent in each fishery in 2001 relative to the maximum ever observed for that vessel for 1990-2001 (averages are presented for each vessel subgroup). Note that FU_{Total} is the ratio of total weeks fished during the year in any activity in 2001 to the maximum number of total weeks fished during the year for 1990-2001. $FU_{Groundfish}$ is the ratio of the weeks a vessel spent in groundfish fisheries in 2001 to the most weeks it spent from 1990-2001 in groundfish fisheries. In summary, CU measures essentially represent vessel utilization by current fishery participants, while FU measures indicate the existing utilization of the fisheries, relative to past levels.

Table 1 presents actual catch and the associated capacity estimates (for both the \hat{C}_j^i and \tilde{C}_j^i estimators discussed above), by species, for the group of catcher-processors and catcher vessels that operated in federally managed Alaskan fisheries in 2001. Note that in all tables, the reported catch and capacity estimates are in metric tons. Table 1 also reports the implied excess capacity (the difference between actual catch and catch levels corresponding to full capacity), and the week-based FU estimates. The estimates indicate that current capacity, in terms of total catch of *all species*, exceeds actual catch by nearly 40%. However, species-specific excess-capacity estimates range widely -- from 8% to over 300%. Further breakdowns, into catcher vessel and catcher-processor fleets (and subgroups within each), are provided in the following tables.

Table 2 presents the capacity estimates for the catcher-processor fleet as a whole, and for each subgroup, by species. Table 3 presents the capacity estimates for the catcher vessel fleet as a whole, and for each subgroup, by species. As stated earlier, these estimates are based upon an assumed catch mix equal to that observed in 2001. Thus, for some species, the capacity estimate is given by a “-“, which implies that no vessels in that subgroup caught that species in 2001.

Table 4 presents capacity utilization estimates for the catcher-processor fleet as a whole, and for each subgroup, by species. Table 5 presents the same information for the catcher vessel fleet. Just as with the Tables 2 and 3, Tables 4 and 5 also have “-“ entries in cases where the specific subgroup did not catch any of that species in 2001. Note that the inverse of the capacity utilization scores (minus one) in Tables 4 and 5 yields an estimate of the percent by which capacity catch exceeds the actual catch observed in 2001.

Tables 6 and 7 present week-based fishery utilization estimates for the catcher-processor and catcher vessel fleets (and their subgroups), respectively. Entries with a “-“ imply that no members of that subgroup that fished in 2001 have participated in that specific fishery during 1990-2001. Entries with a zero imply that some vessels have participated in the past, but did not do so in 2001. The inverse of these fishery utilization scores (minus one) indicates the percent by which the vessels’ annual participation in each fishery could increase, to match each vessel’s historical maximum for the 1990-2001 period.

Finally, Tables 8 and 9 report the mean annual participation (in weeks) for the catcher-processors and catcher vessels, respectively, for 1990-2001. The tables also show the total number of vessels present in the fisheries discussed in this report in each year (by subgroup and for the catcher-processors and catcher vessels as a whole).

In order to fit the description of each catcher-processor and catcher vessel subgroup in the tables below, abbreviated names were used³. The subgroups represented by the abbreviations are as follows:

Catcher-Processors:

ST-CP (surimi trawler catcher-processor); these factory trawlers have the necessary equipment to produce surimi from pollock and other groundfish.

FT-CP (fillet trawler catcher-processor); these trawl vessels have the equipment to produce fillets (from pollock, Pacific cod, and other groundfish), and are not surimi-capable according to past production records.

HT-CP (headed and gutted trawler catcher-processor); these factory trawlers do not process more than incidental amount of fillets. Generally, they are limited to headed and gutted products or kirimi. In general, they do not focus their efforts on pollock, opting instead for flatfish, rockfish, Pacific cod, and Atka mackerel.

P-CP (pot catcher-processor); these vessels have been used primarily in the crab fisheries of the North Pacific, but as of late they have increased their participation in the Pacific cod fisheries. They generally use pot gear, but may also use longline gear. They produce whole or headed and gutted groundfish products.

L-CP (longline catcher-processor); these vessels (also known as freezer longliners) do not trawl or use pot gear, and typically use longline gear to catch mostly Pacific cod. Most of these vessels are limited to headed and gutted products.

All CP; this group includes all catcher-processors from the groundfish catcher-processor categories above plus other non-groundfish catcher-processor categories (salmon CP, crab CP, halibut CP, and other shellfish CP). The “All CP” measures are included to give overall measures for the catcher-processor sector.

Catcher Vessels:

TCV BSP 125; includes all vessels for which trawl catch accounts for more than 15% of total catch value, value of Bering Sea pollock catch is greater than value of catch of all other species combined, vessel length is greater than or equal to 125 ft., and total value of

³ These subgroups were developed for the environmental impact statements for Alaskan groundfish fisheries.

groundfish catch is greater than \$5000. All of these vessels fishing after 1998 are AFA-eligible.

TCV BSP 60-124; includes all vessels for which trawl catch accounts for more than 15% of total catch value, value of Bering Sea pollock catch is greater than value of catch of all other species combined, vessel length is 60 ft. to 124 ft., and total value of groundfish catch is greater than \$5000. All of these vessels fishing after 1998 are AFA-eligible.

TCV Div. AFA; includes all vessels that are AFA-eligible for which trawl catch accounts for more than 15% of total catch value, value of Bering Sea pollock catch is less than value of catch of all other species combined, vessel length is greater than or equal to 60 ft., and total value of groundfish catch is greater than \$5000.

TCV Non-AFA; includes all vessels that are not AFA-eligible for which trawl catch accounts for more than 15% of total catch value, value of Bering Sea pollock catch is less than value of catch of all other species combined, vessel length is greater than or equal to 60 ft., and total value of groundfish catch is greater than \$5000.

TCV < 60; includes all vessels for which trawl catch accounts for more than 15% of total catch value, vessel length is less than 60 ft., and total value of groundfish catch is greater than \$2500.

PCV; includes all vessels that are not trawl CVs for which the value of pot catch is greater than 15% of total catch value, vessel length is greater than or equal to 60 ft., and total value of groundfish catch is greater than \$5000.

LCV; includes all vessels that are not trawl CVs or pot CVs for which vessel length is greater than or equal to 60 ft. and total value of groundfish catch is greater than \$2000, excluding halibut and state water sablefish.

FGCV 33-59; includes all vessels that are not trawl CVs for which vessel length is 33 to 59 ft., and total value of groundfish catch is greater than \$2000.

FGCV 32; includes all vessels that are not trawl CVs for which vessel length is less than or equal to 32 ft., and total value of groundfish catch is greater than \$1000.

All CV; this group includes all catcher vessels from the groundfish catcher vessel categories above plus the non-groundfish catcher vessel categories (salmon CV, crab CV, halibut CV, and other Shellfish CV). The “All CV” measures are included to give overall measures for the catcher vessel sector.

Table 1. Actual Catch (in metric tons), Capacity Estimates, Excess Capacity, and Week-based FU Measures, by Species ⁴ , for Catcher-Processors and Catcher Vessels, 2001								
	<u>Actual Catch</u>		<u>\hat{C}</u>	<u>Excess Capacity</u>		<u>\tilde{C}</u>	<u>Excess Capacity</u>	<u>Week-based FU</u>
Atka Mackerel	57,167		66,886	17.00%		66,893	17.01%	0.404
Flatfish	118,542		149,009	25.70%		149,330	25.97%	0.404
Pacific Cod	227,532		306,976	34.92%		318,117	39.81%	0.404
Pollock	1,449,333		2,010,866	38.74%		2,030,470	40.10%	0.404
Rockfish	26,559		32,208	21.27%		32,595	22.73%	0.404
Sablefish	15,101		18,691	23.77%		20,137	33.35%	0.404
Other Groundfish	5,987		7,757	29.56%		7,861	31.30%	0.404
Salmon	288,850		366,036	26.72%		404,572	40.06%	0.645
Herring	33,654		42,656	26.75%		46,240	37.40%	0.196
Halibut	27,176		31,587	16.23%		40,023	47.27%	0.426
Scallop	251		306	21.91%		470	87.25%	0.024
Golden King Crab	3,006		6,608	119.83%		7,018	133.47%	0.278
Red King Crab	3,963		15,037	279.43%		15,909	301.44%	0.278
Tanner Crab	11,335		44,660	294.00%		48,194	325.18%	0.278
Other Shellfish	468		528	12.82%		576	23.08%	0.252
Other Species	1,571		1,710	8.80%		2,144	36.46%	0.258
All Species	2,270,495		3,101,521	36.60%		3,190,549	40.52%	0.661

⁴ The week-based FU measures are (unweighted) averages of the ratio of each vessel's 2001 weeks in that fishery to its maximum weeks in that fishery for 1990-2001. Thus, the FU measures for groundfish and crab are the same for each species classified in those fisheries. Note also that the week-based FU estimates for "All Species" reflects the ratio of each vessel's total 2001 weeks fishing to its maximum historical weeks fishing, not an average of the week-based CU scores from each fishery.

Table 2. Catcher-Processor Capacity Estimates

<u>Atka Mackerel</u>													<u>Flatfish</u>			<u>Pacific Cod</u>		
<u>Subgroup</u>	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}						
ST-CP n=13		7,112	7,959		7,959		8,910	10,623	10,623		4,119	5,063	5,063					
FT-CP n=4		- ⁵	-		-		0.07	0.10	0.10		3,774	15,940	15,940					
HT-CP n=23		49,827	58,571		58,571		93,144	117,102	117,102		25,749	32,922	32,922					
P-CP n=9		7.90	17.6		21.5		220	284	330		7,888	10,669	11,412					
L-CP n=43		135	139		141		2,557	2,783	2,791		107,305	130,258	130,923					
All CP ⁶		57,082	66,688		66,693		104,831	130,793	130,848		148,877	194,896	196,304					
n=246																		

<u>Pollock</u>													<u>Rockfish</u>			<u>Sablefish</u>		
<u>Subgroup</u>	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}						
ST-CP n=13		506,153	692,768		692,768		1,993	2,243	2,243		35.5	40.7	40.7					
FT-CP n=4		98,104	141,398		141,398		0.7	1.0	1.0		0.4	0.5	0.5					
HT-CP n=23		16,827	20,989		20,989		15,652	18,496	18,496		802	1,078	1,078					
P-CP n=9		130	145		165		0.35	0.39	0.44		8.6	28.1	35.4					
L-CP n=43		4,901	6,196		6,215		236	278	279		1,754	2,026	2,034					
All CP		626,116	861,497		861,536		17,882	21,018	21,019		2,602	3,175	3,189					
n=246																		

⁵ “-” entries indicate that the subgroup did not catch any of that species in 2001.

⁶ “All CP” represents the CPs listed above as well as those in other subgroups.

Table 3. Catcher Vessel Capacity Estimates										
<u>Subgroup</u>	<u>Atka Mackerel</u>			<u>Flatfish</u>			<u>Pacific Cod</u>			
	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	
TCV BSP 125 n=30	31.3	133.3	133.9	964	1,525	1,529	3,288	5,539	5,568	
TCV BSP 60-124 n=46	32.6	43.4	44.1	887	1,253	1,282	8,126	11,058	11,503	
TCV Div. AFA n=29	20.8	20.9	21.8	3,522	4,290	4,373	12,345	17,643	18,061	
TCV Non-AFA n=39	- ⁷	-	-	6,754	9,284	9,377	10,720	14,856	15,087	
TCV < 60 n=55	-	-	-	930	1,132	1,164	10,348	12,566	13,366	
PCV n=162	0.04	0.07	0.10	55.7	70.7	72.2	15,519	27,781	33,270	
LCV n=68	0.01	0.01	0.01	57.3	58.6	60.4	726	772	774	
FGCV 33-59 n=939	-	-	-	172	218	234	13,620	17,499	19,116	
FGCV 32 n=126	-	-	-	5.2	18.4	22	853	1,086	1,177	
All CV⁸ n=6686	85	198	200	13,711	18,216	18,482	78,655	112,080	121,813	

⁷ “-” entries indicate that the subgroup did not catch any of that species in 2001.

⁸ “All CV” represents the CVs listed above as well as those in other subgroups.

Table 3. Catcher Vessel Capacity Estimates (continued)										
<u>Subgroup</u>	<u>Pollock</u>			<u>Rockfish</u>			<u>Sablefish</u>			\tilde{C}
	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	Actual	\hat{C}	\tilde{C}	
TCV BSP 125 n=30	358,557	551,224	553,671	89.4	132.7	134.0	24.6	37.7	37.8	
TCV BSP 60-124 n=46	349,945	443,702	456,194	478	573	576	31.9	39.1	39.3	
TCV Div. AFA n=29	62,424	86,081	88,007	2,744	3,318	3,362	163	191	194	
TCV Non-AFA n=39	25,479	36,042	36,720	3,602	4,913	4,941	237	326	328	
TCV < 60 n=55	21,319	26,114	27,551	23.0	24.4	24.6	276	303	304	
PCV n=162	2.6	4.2	5.3	39.6	60.6	64.1	606	825	845	
LCV n=68	7.2	9.1	9.1	263	304	328	3,808	4,403	4,732	
FGCV 33-59 n=939	159	263	278	1,069	1,446	1,651	6,994	8,986	10,010	
FGCV 32 n=126	124	728	849	50.2	72.4	97.9	36.3	52.3	74.9	
All CV⁹	823,217	1,149,369	1,168,934	8,677	11,190	11,576	12,499	15,516	16,948	
n=6686										

⁹ “All CV” represents the CVs listed above as well as those in other subgroups.

Table 4. Catcher-Processor Catch-Based Capacity Utilization Estimates									
<u>Subgroup</u>	<u>Atka Mackerel</u>			<u>Flatfish</u>			<u>Pacific Cod</u>		
	\hat{CU}	\tilde{CU}	\hat{CU}	\hat{CU}	\tilde{CU}	\hat{CU}	\hat{CU}	\tilde{CU}	\hat{CU}
ST-CP n=13	0.894	0.894		0.839	0.839		0.814	0.814	
FT-CP n=4	¹⁰ -	-		0.700	0.700		0.237	0.237	
HT-CP n=23	0.851	0.851		0.795	0.795		0.782	0.782	
P-CP n=9	0.449	0.367		0.775	0.667		0.739	0.691	
L-CP n=43	0.971	0.957		0.919	0.916		0.824	0.820	
All CP n=246	0.856	0.856		0.802	0.801		0.764	0.758	
<u>Subgroup</u>	<u>Pollock</u>			<u>Rockfish</u>			<u>Sablefish</u>		
	\hat{CU}	\tilde{CU}	\hat{CU}	\hat{CU}	\tilde{CU}	\hat{CU}	\hat{CU}	\tilde{CU}	\hat{CU}
ST-CP n=13	0.731	0.731		0.889	0.889		0.872	0.872	
FT-CP n=4	0.694	0.694		0.700	0.700		0.800	0.800	
HT-CP n=23	0.802	0.802		0.846	0.846		0.744	0.744	
P-CP n=9	0.897	0.788		0.897	0.795		0.306	0.243	
L-CP n=43	0.791	0.789		0.849	0.846		0.866	0.862	
All CP n=246	0.727	0.727		0.851	0.851		0.820	0.816	

¹⁰ “-” entries indicate that the subgroup did not catch any of that species in 2001.

Table 5. Catcher Vessel Catch-Based Capacity Utilization Estimates								
<u>Subgroup</u>	<u>Atka Mackerel</u>			<u>Flatfish</u>			<u>Pacific Cod</u>	
	\hat{CU}	\tilde{CU}	\hat{CU}	\hat{CU}	\tilde{CU}	\hat{CU}	\hat{CU}	\tilde{CU}
TCV BSP 125 n=30	0.235	0.234	0.632	0.630		0.594		0.591
TCV BSP 60-124 n=46	0.751	0.739	0.708	0.692		0.735		0.706
TCV Div. AFA n=29	0.995	0.954	0.821	0.805		0.700		0.684
TCV Non-AFA n=39	¹¹ -	-	0.727	0.720		0.722		0.711
TCV < 60 n=55	-	-	0.822	0.799		0.823		0.774
PCV n=162	0.571	0.400	0.788	0.771		0.559		0.466
LCV n=68	1.000	1.000	0.978	0.949		0.940		0.938
FGCV 33-59 n=939	-	-	0.789	0.735		0.778		0.712
FGCV 32 n=126	-	-	0.283	0.236		0.785		0.725
All CV¹² n=6686	0.429	0.425	0.753	0.742		0.702		0.646

¹¹ “-” entries indicate that the subgroup did not catch any of that species in 2001.

¹² “All CV” represents the CVs listed above as well as those in other subgroups.

Table 5. Catcher Vessel Catch-Based Capacity Utilization Estimates (continued)							
<u>Subgroup</u>	<u>Pollock</u>		<u>Rockfish</u>		<u>Sablefish</u>		$\tilde{C}U$
	$\hat{C}U$	$\tilde{C}U$	$\hat{C}U$	$\tilde{C}U$	$\hat{C}U$	$\tilde{C}U$	
TCV BSP 125 n=30	0.650	0.648	0.674	0.667	0.653	0.651	
TCV BSP 60-124 n=46	0.789	0.767	0.834	0.830	0.816	0.812	
TCV Div. AFA n=29	0.725	0.709	0.827	0.816	0.853	0.840	
TCV Non-AFA n=39	0.707	0.694	0.733	0.729	0.727	0.723	
TCV < 60 n=55	0.816	0.774	0.943	0.935	0.911	0.908	
PCV n=162	0.619	0.491	0.653	0.618	0.735	0.717	
LCV n=68	0.791	0.791	0.865	0.802	0.865	0.805	
FGCV 33-59 n=939	0.605	0.572	0.739	0.647	0.778	0.699	
FGCV 32 n=126	0.170	0.146	0.693	0.513	0.694	0.485	
All CV¹³ n=6686	0.716	0.704	0.775	0.750	0.806	0.737	

¹³ “All CV” represents the CVs listed above as well as those in other subgroups.

Table 6. Mean Catcher-Processor Week-based Fishery Utilization Measures ¹⁴			
<u>Subgroup</u>		FU _{Total}	FU _{Groundfish}
ST-CP	n=13	0.759	0.759
FT-CP	n=4	0.572	0.572
HT-CP	n=23	0.760	0.759
P-CP	n=9	0.462	0.470
L-CP	n=43	0.814	0.802
All CP	n=43	0.814	0.802

Table 7. Mean Catcher Vessel Week-based Fishery Utilization Measures			
<u>Subgroup</u>		FU _{Total}	FU _{Groundfish}
TCV BSP 125	n=30	0.616	0.620
TCV BSP 60-124	n=46	0.761	0.775
TCV Div. AFA	n=29	0.734	0.738
TCV Non-AFA	n=39	0.669	0.664
TCV < 60	n=55	0.742	0.629
PCV	n=162	0.351	0.311
LCV	n=68	0.717	0.700
FGCV 33-59	n=939	0.635	0.402
FGCV 32	n=126	0.527	0.285
All CV	n=6686	0.657	0.402

¹⁴ These measures are based upon the mean number of weeks spent in Alaskan commercial fisheries (state and federal), for the species listed in this report, by vessels that fished in Alaskan federally managed fisheries during 1990-2001.

Table 8. Mean Annual Catcher-Processor Fishing Weeks, 1990-2001 ¹⁵												
Subgroup	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
ST-CP # of vessels:	34.6 20	30.5 20	22.6 20	19.5 18	19.2 20	18.0 20	17.6 18	16.1 16	17.8 16	20.4 12	24.2 11	28.4 13
FT-CP # of vessels:	39.9 17	37.1 18	34.4 18	26.8 22	24.6 15	22.5 13	21.8 14	19.2 13	20.3 12	21.5 4	22.0 4	24.5 4
HT-CP # of vessels:	32.2 25	29.9 29	35.4 28	34.9 25	30.8 27	26.5 35	31.1 33	31.2 32	31.9 29	30.4 29	31.9 30	32.8 23
P-CP # of vessels:	21.0 10	30.2 14	28.8 15	11.3 13	9.0 12	19.2 15	19.9 16	16.6 17	18.9 11	19.9 14	12.3 16	15.8 9
L-CP # of vessels:	30.8 37	27.7 52	25.8 65	20.4 68	20.6 66	23.6 62	21.7 62	25.7 56	26.3 54	25.4 53	25.1 56	31.1 43
All CP ¹⁶ # of vessels:	27.9 153	26.0 188	24.6 208	18.9 236	18.2 235	17.5 282	17.3 297	18.3 248	17.8 270	18.0 267	17.7 267	17.6 246

¹⁵ The mean weeks listed represents the time spent in Alaskan commercial fisheries (state and federal), for the species listed in this report, by vessels that fished in Alaskan federally managed fisheries during 1990-2001.

¹⁶ “All CP” represents the CPs listed above as well as those in other subgroups.

Table 9. Mean Annual Catcher Vessel Fishing Weeks, 1990-2001													
Subgroup:	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
TCV BSP 125 # of vessels:	16.8 16	22.1 13	22.3 22	17.5 23	17.2 23	17.3 23	17.3 30	17.1 32	19.5 30	18.0 35	19.7 31	19.2 30	
TCV BSP 60-124 # of vessels:	24.9 25	25.1 32	23.9 48	17.0 51	19.3 48	17.4 61	16.8 59	16.6 52	17.0 45	16.7 40	20.6 46	21.3 46	
TCV Div. AFA # of vessels:	25.3 34	26.5 47	23.0 31	25.1 30	21.9 27	22.1 22	23.7 19	24.4 25	22.3 32	20.5 33	20.1 29	21.7 29	
TCV Non-AFA # of vessels:	17.8 39	16.7 53	15.9 47	17.7 42	17.2 34	15.5 35	20.2 33	19.8 33	18.1 41	17.6 40	16.3 37	17.0 39	
TCV < 60 # of vessels:	14.8 52	15.5 62	16.4 67	15.3 73	16.5 70	15.8 65	17.0 66	16.2 65	18.0 67	19.2 61	18.5 55	17.5 55	
PCV # of vessels:	11.3 160	14.0 178	14.9 177	11.8 170	8.3 173	10.8 154	11.8 163	11.2 143	12.8 151	12.7 161	9.8 177	6.9 162	
LCV # of vessels:	7.2 119	7.4 128	8.3 131	6.5 119	5.7 136	7.7 108	7.9 94	7.9 94	8.1 98	9.3 92	8.4 75	10.4 68	
FGCV 33-59 # of vessels:	11.7 1,175	12.0 1,252	13.2 1,221	12.0 1,180	11.5 1,174	12.3 1,088	11.8 1,014	12.0 1,014	12.3 980	13.3 967	12.4 986	12.3 939	
FGCV 32 # of vessels:	9.1 172	8.7 186	10.5 193	8.7 180	9.2 184	9.8 172	8.7 156	8.9 162	9.0 153	8.9 144	8.7 138	7.9 126	
All CV¹⁷ # of vessels:	7.7 10,082	7.5 9,993	8.3 9,615	7.8 9,130	7.7 8,933	8.1 8,515	7.9 7,706	7.9 7,779	7.9 7,484	8.1 7,518	7.8 7,028	8.0 6,686	

¹⁷ “All CV” represents the CVs listed above as well as those in other subgroups.