

## 2.2.1 Surimi Trawl Catcher Processors (ST-CP)

This class is distinct from other trawl catcher processors because all surimi trawl catcher processors have the capacity to produce surimi. Consequently, they are typically the largest catcher processors in the North Pacific. ST-CP vessels focus almost exclusively on pollock, although some have produced surimi from yellowfin sole. The operational characteristics and activities of these vessels in waters off Alaska are largely determined by the pollock fishing seasons. Their Alaska operations are restricted under the AFA to the BS and AI regulatory areas.

### 2.2.1.1 Class Characteristics

Catcher-processors in the ST-CP class have an average length of 308 feet and range from 256 to 386 feet. The catcher-processors have an average horsepower rating of about 6,500, with a maximum of about 8,800 and a minimum of 4,800. Average gross tonnage is approximately 445 tons and average hold capacity is 50,500 cubic feet (CFEC and NMFS, 2001). The vessels are steel-hulled stern ramp trawlers with stern and midship gantries equipped with the same deck gear described for smaller trawlers.

These vessels are equipped with both a full processing deck below the main deck and a lower deck of freezer holds. The fish processing deck contains multiple lines of modern surimi producing equipment. In addition, most vessels have recently added the capability to produce block and individually quick-frozen (IQF) fillets from pollock. A description of IQF fillet production is included in the discussion of fillet trawl catcher processors [FT-CP vessels] in Section 2.2.2. The fillet lines provide the ST-CP vessels with the capacity to produce high-value fillet product from larger pollock and Pacific cod, the principal bycatch species in the pollock fishery. The existence of fillet lines allows the surimi lines to be fine-tuned to the more uniform, smaller fish. Processing surimi from uniformly-sized pollock generates higher utilization rates and higher-quality surimi. Most ST-CP vessels also have plants that produce fishmeal and fish oil.

These vessels are capable of harvesting 400 MT or more of fish daily on a sustained basis and producing 100 MT or more of frozen surimi or fillets per day. The larger surimi vessels have a maximum capacity of about 120 MT of product per day, but the average daily capacity for these vessels is 50 to 80 MT. Larger vessels have freezer hold capacities of about 1,500 MT. Smaller surimi vessels have a maximum daily production capacity of about 50 tons of product and freezer hold capacities of about 500 MT (IAI, 1994).

The length and width of vessels in this class enable them to operate in the BSAI during the very poor weather that can occur during pollock harvest periods. Because these vessels now operate in a pollock cooperative under the AFA, they do not have to operate during storms as they commonly did during the “race-for-fish” of prior years. The quasi-property rights held by the pollock cooperative allow the ST-CP vessels to take the time to fine tune their operations. If bigger fish are being harvested, the machinery can be adjusted to extract higher percentages of flesh, and more fish can be diverted into the fillet lines, which generally have slower throughput rates. If smaller fish are being harvested, the machinery is adjusted accordingly and fewer fish are run through the fillet line. This flexibility offers vessels an opportunity to maximize their yields and product forms and thereby maximize revenues. Moreover, the flexibility afforded by the AFA allows these vessels to reduce operational costs.

When these vessels operate during pollock seasons, their relatively large size enables them to store large amounts of processed product during a trip. Therefore, they do not need to travel to port very often to offload their catch, and can concentrate on fishing and processing activities.

### 2.2.1.2 Description of Fishing and Processing Operations

Trawling operations of ST-CP vessels are similar to those described in Section 2.1.1, but are on a larger scale. Processing on these vessels starts with the same modern filleting machinery used on FT-CP vessels, but rather than going to a candling table, the fillets proceed through mincers, agitators, leeching tanks, and screw presses that produce the paste-like final product. Quality-control personnel test the fish paste for water content, elasticity, and other characteristics that determine the grading of the product. Surimi produced on factory trawlers is usually classified as “SA,” the highest grade of surimi, or “FA,” the next lower grade. Factory trawlers generally produce higher quality surimi than shorebased plants because the fish is caught and quickly processed into fish paste. Implementation of the AFA will enable surimi catcher processors to improve the quality of their product and receive higher prices for the fish harvested. ST-CP vessels that also produce fillets as a final product use the same basic production process described in the FT-CP discussion in Section 2.2.2.

The average time between port calls (or offloading at designated locations to trampers) for surimi catcher processors ranges from about 15 to 30 days. The length of time is a function of freezer hold capacity, product yield, and the abundance of the target species.

The relative importance of various product types for ST-CP vessels is shown in (Table 2.2.1-1). Surimi accounts for the greatest value, although fillets and roe make substantial contributions. During the 1992-2000 period surimi accounted for slightly more than half of the wholesale production value.

**Table 2.2.1-1. Wholesale Production Value for Surimi Trawl Catcher Processors by Product Type, 1992-2001**

Year	\$Millions					
	Fillets	H&G/Whole	Roe Products	Other	Surimi	Total
1992	18.59	8.33	106.54	11.01	252.95	397.42
1993	23.52	7.35	67.41	7.86	93.89	200.03
1994	24.39	10.19	62.45	8.29	152.16	257.48
1995	27.80	13.10	108.55	9.76	192.11	351.33
1996	25.79	12.29	81.70	8.15	118.98	246.91
1997	10.44	9.12	77.00	6.77	155.74	259.07
1998	42.38	6.49	39.62	9.78	119.10	217.37
1999	72.07	2.27	67.00	10.41	125.68	277.44
2000	67.94	1.48	75.02	11.25	165.74	321.43

Source: NMFS Weekly Production Reports, June 2001

Table 2.2.1-2 summarizes information on total harvests, production, and value for ST-CP vessels during the 1992-2000 period. The utilization rate has improved substantially since the early 1990s. Industry sources indicate that they sought to improve yields after implementation of the AFA.

**Table 2.2.1-2. Processing Summary for Surimi Trawl Catcher Processors, 1992-2000**

<b>Year</b>	<b>Round Weight (Thousands of Tons)<sup>a</sup></b>	<b>Product (Thousands of Tons)<sup>b</sup></b>	<b>Utilization Rate (Product Tons/Round- weight Tons)<sup>c</sup></b>	<b>Wholesale Value (\$Millions)<sup>d</sup></b>	<b>\$/Round- weight Ton<sup>e</sup></b>
1992	669.90	119.17	0.18	397.42	593
1993	513.95	95.55	0.19	200.03	389
1994	601.14	120.21	0.20	257.48	428
1995	586.15	125.72	0.21	351.33	599
1996	507.36	115.72	0.23	246.91	487
1997	480.73	103.19	0.21	259.07	539
1998	452.53	98.26	0.22	217.37	480
1999	353.59	92.96	0.26	277.44	785
2000	412.55	107.53	0.26	321.43	779

<sup>a</sup> Total groundfish reported tons—retained and discarded from NMFS Blend Data, June 2001.

<sup>b</sup> Total groundfish final product from NMFS Weekly Production Reports, June 2001.

<sup>c</sup> Total final product as a percent of total groundfish reported tons (column 3 ÷ column 2).

<sup>d</sup> Total final product value from NMFS Weekly Production Reports with product prices from ADF&G Commercial Operator Annual Reports.

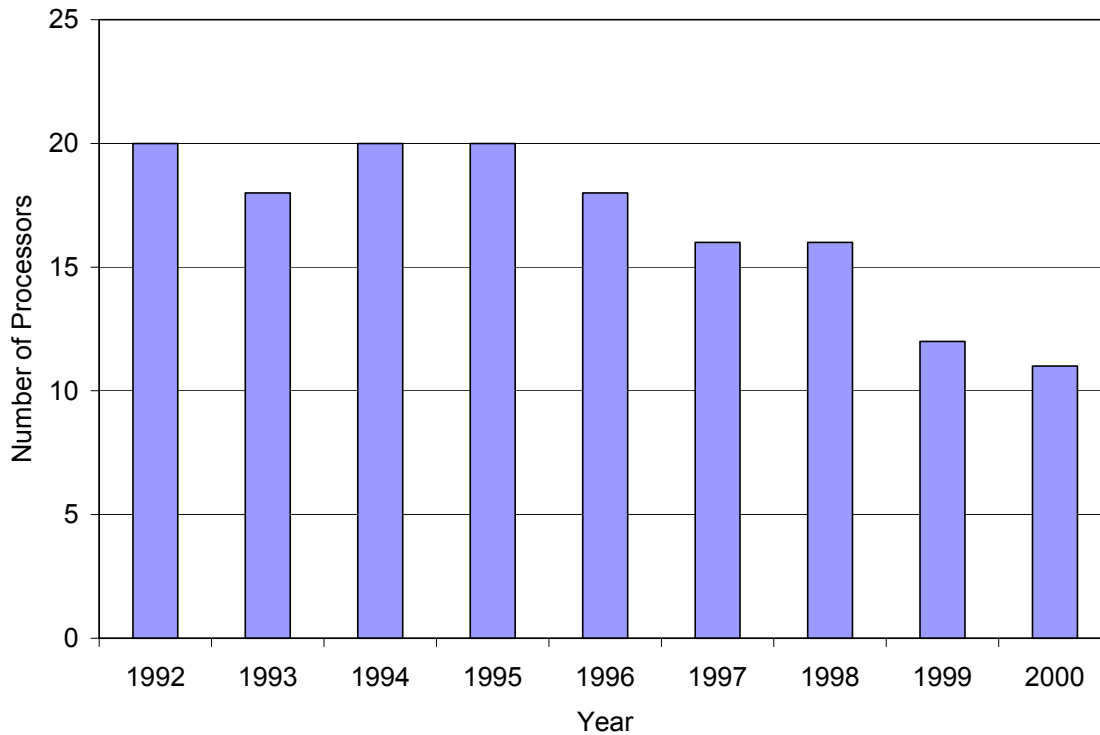
<sup>e</sup> Total value of final product per round weight ton reported (column 5 ÷ column 2).

Source: NMFS Blend Data and Weekly Production Report Data, June 2001

### 2.2.1.3 Class Participation

The number of surimi catcher processors has decreased by 45 percent since 1992. A combination of excess capacity in pollock surimi production, reduced quotas for the offshore sector, and the decommissioning of vessels under the AFA combined to reduce the number of ST-CP vessels to 11 in 2000. Figure 2.2.1-1 demonstrates this downward trend for the 1992–2000 period.

**Figure 2.2.1-1. Number of Active Surimi Catcher Processors, 1992-2000**



Source: NMFS Blend Data, June 2001.

### 2.2.1.4 Catch and Production

Table 2.2.1-3 shows the number of ST-CP vessels that had landings for each of the major species groups, by year. The fact that all vessels reported harvests in all four species aggregations is primarily a function of incidental catches of other species in the pollock fishery rather than efforts targeted on non-pollock species. The catcher processors in this class are extremely dependent on the pollock resource. In 2000, pollock accounted for 96 percent of the total tons of groundfish harvested and nearly all of the wholesale production value (Table 2.2.1-4 and Table 2.2.1-6). The vessels catch most of the fish they process, although some is purchased from catcher vessels in a mothership-type operation. Harvests delivered to ST-CP vessels by trawl catcher vessels are included in the tables. On average from 1995 – 1998, ST-CP took deliveries of 11,000 tons of groundfish from catcher vessels. In 1999, after AFA was implemented, deliveries from catcher vessels declined to just over 2,000 tons and in 2000 deliveries to ST-CP from catcher vessels fell to zero.

ST-CP vessels operate from mid-January through March or April, and from August through October (Table 2.2.1-7). With the implementation of the AFA, ST-CP vessels, which by definition are all AFA-eligible, can select when they want to participate in the pollock fishing seasons. In addition to

their pollock operations, about one-third of this fleet also harvests Pacific whiting off the Oregon and Washington coasts during the April-July period (Richardson, 2000).

Table 2.2.1-8 and Table 2.2.1-9 provide details on wholesale value of products and landings in target fisheries by this processor class. Wholesale value of products from target species by trimester is presented in Table 2.2.1-10. Because of the high value of roe products, vessels typically generate more revenue in the first trimester than during the remainder of the year.

**Table 2.2.1-3. Number of Surimi Trawl Catcher Processors by Species, 1992-2000**

Year	Number of Processors				
	ARSO	FLAT	PCOD	PLCK	Total
1992	20	20	20	20	20
1993	18	18	18	18	18
1994	20	20	20	20	20
1995	20	20	20	20	20
1996	18	18	18	18	18
1997	16	16	16	16	16
1998	16	16	16	16	16
1999	12	12	12	12	12
2000	11	11	11	11	11

Source: NMFS Weekly Production Reports, June 2001

**Table 2.2.1-4. Tons of Groundfish Reported by Surimi Trawl Catcher Processors by Species, 1992-2000**

Year	Thousands of Tons				
	ARSO	FLAT	PCOD	PLCK	Total
1992	17.27	20.68	11.71	620.24	669.90
1993	5.52	18.36	6.68	483.40	513.95
1994	16.31	30.60	10.35	543.88	601.14
1995	15.59	34.32	16.07	520.18	586.15
1996	14.60	48.47	7.45	436.85	507.36
1997	17.89	32.43	4.21	426.20	480.73
1998	12.36	25.10	6.55	408.53	452.53
1999	2.59	14.00	3.23	333.77	353.59
2000	5.91	10.76	1.14	394.74	412.55

Source: NMFS Blend Data, June 2001

**Table 2.2.1-5. Wholesale Value per Roundweight Ton for Surimi Trawl Catcher Processors by Species, 1992-2000**

Year	ARSO		FLAT		PCOD		PLCK	
	\$/Pound	\$/Ton	\$/Pound	\$/Ton	\$/Pound	\$/Ton	\$/Pound	\$/Ton
1992	0.17	373	0.09	188	0.17	364	0.28	618
1993	0.06	137	0.15	328	0.15	332	0.18	394
1994	0.08	182	0.13	281	0.10	210	0.20	447
1995	0.09	205	0.16	361	0.10	217	0.29	638
1996	0.07	144	0.10	226	0.03	74	0.24	533
1997	0.09	203	0.11	245	0.03	66	0.26	580
1998	0.04	86	0.10	211	0.18	395	0.23	509
1999	0.05	112	0.07	159	0.30	655	0.37	817
2000	0.00	5	0.07	146	0.07	160	0.37	809

Source: NMFS Blend Data and Weekly Production Report, June 2001

**Table 2.2.1-6. Wholesale Production Value for Surimi Trawl Catcher Processors by Species, 1992-2000**

Year	\$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	5.15	4.54	4.27	383.46	397.42
1993	0.44	6.76	2.21	190.61	200.03
1994	2.33	9.61	2.17	243.37	257.48
1995	2.63	13.39	3.49	331.82	351.33
1996	1.54	11.85	0.55	232.97	246.91
1997	2.89	8.84	0.28	247.06	259.07
1998	0.82	5.89	2.59	208.08	217.37
1999	0.19	2.37	2.11	272.76	277.44
2000	0.02	1.94	0.18	319.30	321.43

Source: NMFS Weekly Production Reports, June 2001

**Table 2.2.1-7. Wholesale Production Value for Surimi Trawl Catcher Processors by Trimester, 1992-2000**

Year	\$Millions		
	Jan-Apr	May-Aug	Sep-Dec
1992	242.34	128.59	26.49
1993	125.76	24.77	49.49
1994	157.35	40.26	59.87
1995	234.51	33.27	83.56
1996	167.47	3.16	76.28
1997	169.42	10.14	79.50
1998	133.03	4.90	79.44
1999	158.76	50.11	68.56
2000	175.54	63.05	82.85

Source: NMFS Blend Data and Weekly Production Report Data, June 2001

**Table 2.2.1-8. Wholesale Value of Products from Target Species by Surimi Trawl Catcher Processors by Trimester, 1992-2000**

Target	Year	\$Millions			Total
		Jan-Apr	May-Aug	Sep-Dec	
PCOD	1992	2.11	0.00	0.00	2.11
	1993	1.25	0.01	0.00	1.26
	1994	0.86	0.00	0.08	0.93
	1995	1.80	0.00	0.19	1.99
	1996	a	a	a	a
	1997	0.06	0.02	0.00	0.08
	1998	1.31	0.00	0.00	1.31
	1999	1.25	0.00	0.00	1.25
	2000	a	a	a	a
	PLCK	1992	233.06	124.65	24.67
1993		122.83	20.87	46.31	190.00
1994		148.94	38.28	55.51	242.74
1995		220.63	30.70	78.93	330.26
1996		154.24	2.24	76.01	232.50
1997		159.16	9.38	78.05	246.59
1998		124.22	4.68	77.74	206.64
1999		153.82	50.01	67.66	271.49
2000		172.65	62.91	82.61	318.17

Source: NMFS Blend Data and WPR Data, June 2001.

**Table 2.2.1-9. Landings of Target Species in Target Fisheries by Surimi Trawl Catcher Processors by Trimester, 1992-2000**

Target	Thousands of Tons				
	Year	Jan-Apr	May-Aug	Sep-Dec	Total
PCOD	1992	3.54	0.00	0.00	3.54
	1993	2.11	0.01	0.00	2.12
	1994	1.97	0.03	0.22	2.22
	1995	3.51	0.00	0.48	3.99
	1996	a	a	a	a
	1997	0.23	0.09	0.00	0.32
	1998	3.13	0.01	0.00	3.14
	1999	1.81	0.00	0.00	1.81
	2000	a	a	a	a
	PLCK	1992	283.73	280.31	52.58
1993		219.22	80.53	179.66	479.41
1994		255.55	116.15	164.38	536.08
1995		258.99	71.28	182.01	512.28
1996		209.74	6.39	216.03	432.17
1997		201.26	22.93	198.69	422.89
1998		204.97	11.25	188.36	404.57
1999		141.29	81.08	109.80	332.17
2000		158.15	101.57	133.80	393.52

Source: NMFS Blend Data and WPR Data, June 2001.

**Table 2.2.1-10. Wholesale Value of All Products from Top Three Target Fisheries by Surimi Trawl Catcher Processors, 1992-2000**

Year	Wholesale Value (\$Millions)	
	PLCK	All Target Total
1992	384.39	397.42
1993	190.91	200.03
1994	243.63	257.48
1995	331.22	351.33
1996	232.87	246.91
1997	246.70	259.07
1998	207.58	217.37
1999	272.31	277.44
2000	318.53	321.43

Source: NMFS Blend Data and Weekly Production Report Data, June 2001.



The tons and wholesale production value of groundfish by FMP subarea are presented in Table 2.2.1-11 and Table 2.2.1-12, respectively. The BS is clearly the focus of these vessels. After inshore-offshore allocations were implemented in 1992, ST-CP vessels were prohibited from targeting pollock and Pacific cod in the GOA.

Information on the number of ST-CP vessels harvesting pollock and Pacific cod by FMP subarea and the tonnage and wholesale value of the harvest are shown in Table 2.2.1-13, Table 2.2.1-14 and Table 2.2.1-15, respectively. These tables are of particular importance given recent management actions taken to protect Steller sea lions.

**Table 2.2.1-11. Tons of Groundfish Reported by Surimi Trawl Catcher Processors by FMP Subarea, 1992-2000**

Year	Thousands of Tons			
	AI	BS	GOA	Total
1992	45.41	620.96	3.52	669.90
1993	32.71	480.91	0.33	513.95
1994	49.33	551.43	0.37	601.14
1995	53.62	531.98	0.55	586.15
1996	24.74	481.80	0.83	507.36
1997	26.09	454.31	0.33	480.73
1998	23.71	428.82	0.00	452.53
1999	1.58	351.98	0.03	353.59
2000	0.00	412.55	0.00	412.55

Source: NMFS Blend Data, June 2000

<sup>a</sup> Combined with tons from BS to protect the confidentiality of the small number of ST-CPs that reported deliveries from this subarea during the year.

**Table 2.2.1-12. Wholesale Production Value of Groundfish by Surimi Trawl Catcher Processors by FMP Subarea, 1992-2000**

Year	\$Million			
	AI	BS	GOA	Total
1992	31.70	363.46	2.26	397.42
1993	17.94	181.94	0.15	200.03
1994	22.75	234.51	0.21	257.48
1995	38.85	312.12	0.35	351.33
1996	13.07	233.50	0.33	246.91
1997	13.01	245.80	0.26	259.07
1998	9.65	207.72	0.00	217.37
1999	0.81	276.62	0.00	277.44
2000	0.00	321.43	0.00	321.43

Source: NMFS Blend Data, June 2000

<sup>a</sup> Combined with value in BS to protect the confidentiality of the small number of ST-CPs that reported deliveries from this subarea during the year.

**Table 2.2.1-13. Number of Surimi Trawl Catcher Processors Processing Pacific Cod and Pollock by FMP Area**

Year	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	14	20	2	2	18	20	5	2
1993	11	18	1	2	16	18	1	2
1994	10	20	1	1	20	20	0	1
1995	13	20	4	1	18	20	5	1
1996	14	18	2	1	17	18	2	2
1997	10	16	1	0	15	16	1	0
1998	5	16	0	0	5	16	0	0
1999	3	12	0	0	3	12	1	0
2000	0	11	0	0	0	11	0	0

Source: NMFS Blend Data, June 2001

**Table 2.2.1-14. Tons of Pacific Cod and Pollock Reported by Surimi Trawl Catcher Processors by FMP Area**

Year	Thousands of Tons							
	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	0.90	10.81	a	a	34.59	582.64	2.86	b
1993	0.53	6.14	a	a	31.48	451.91	a	a
1994	0.99	9.36	a	a	37.01	506.87	0.00	a
1995	0.93	15.12	0.01	b	41.23	478.44	0.51	b
1996	0.95	6.50	a	a	15.99	420.86	a	a
1997	0.34	3.87	a	0.00	12.98	413.13	a	0.00
1998	1.98	4.58	0.00	0.00	13.18	395.34	0.00	0.00
1999	0.84	2.39	0.00	0.00	0.06	333.71	a	0.00
2000	0.00	1.14	0.00	0.00	0.00	394.74	0.00	0.00

<sup>a</sup> Added to BS to protect confidentiality.

<sup>b</sup> Added to WG to protect confidentiality.

Source: NMFS Blend Data, June 2001.

**Table 2.2.1-15. Wholesale Value of Pacific Cod and Pollock Harvested by Surimi Trawl Catcher Processors by FMP Area**

Year	\$Millions							
	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	0.41	3.86	a	a	26.43	355.12	1.85	b
1993	0.20	2.01	a	a	17.50	173.11	a	a
1994	0.12	2.05	a	a	20.48	222.89	0.00	a
1995	0.27	3.22	0.00	a	35.96	295.50	0.35	b
1996	0.14	0.41	a	a	11.74	221.23	a	a
1997	0.02	0.26	a	0.00	10.30	236.69	a	0.00
1998	0.83	1.76	0.00	0.00	8.01	200.07	0.00	0.00
1999	0.59	1.53	0.00	0.00	0.07	272.69	a	0.00
2000	0.00	0.18	0.00	0.00	0.00	319.30	0.00	0.00

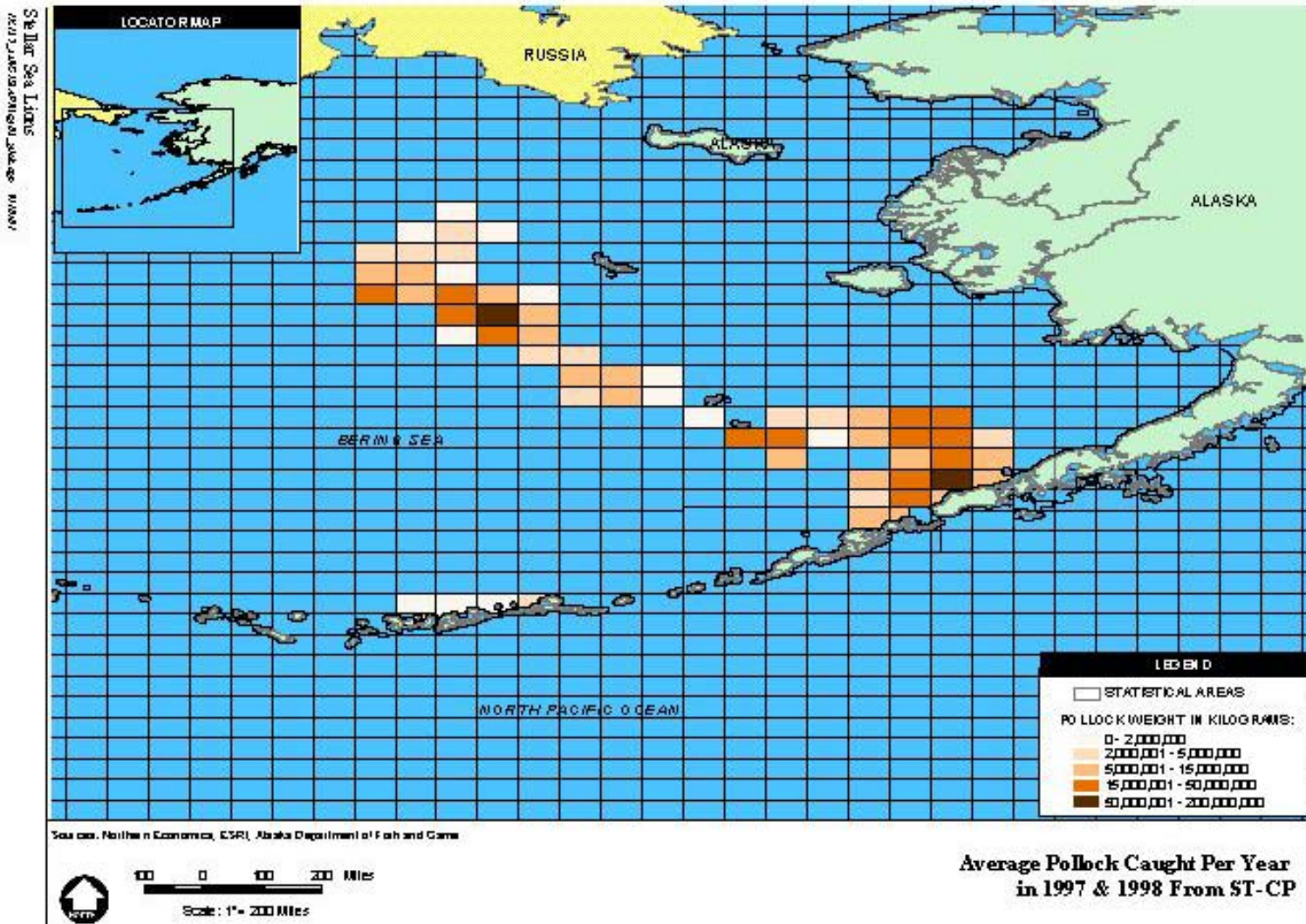
<sup>a</sup> Added to BS to protect confidentiality.

<sup>b</sup> Added to WG to protect confidentiality.

Source: NMFS Blend Data and Weekly Production Report Data, June 2001.

Detailed information on the geographical distribution of the pollock catch by vessels in the ST-CP class is presented in Figure 2.2.1-2 for the years 1997 and 1998 combined. In the figures, only catches in areas in which four or more vessels reported landings are shown.

Figure 2.2.1-2. Average Annual Pollock Catch of Surimi Catcher Processors, by Statistical Area, 1997-1998



**2.2.1.5 Crew Employment and Income**

Table 2.2.1-16 indicates the average crew size and number of FTE positions in this class. FTE positions were estimated from Weekly Production Report information on the number of crew and the number of weeks that the vessel was operating. The product of these data was divided by 52 weeks in a year to arrive at total groundfish FTE employment. Average FTE employment is the total FTE employment divided by the number of vessels in this class in each year.

Table 2.2.1-16 also shows estimated payments to labor for ST-CP. Payments to labor were calculated as 30 percent of total production value for the crew, plus an additional 10 percent of total labor costs for the home office. FTE employment and payments to labor by trimester are presented in Table 2.2.1-17 and Table 2.2.1-18, respectively.

**Table 2.2.1-16. Estimated Full-Time Equivalent Employment Generated by Groundfish-Related Activity by Surimi Trawl Catcher Processors, 1992-2000**

Year	Groundfish FTE Employment at Processing Facilities	Additional Administrative FTE Employment	Total Groundfish FTE Employment <sup>a</sup>	Total Number of Facilities <sup>b</sup>	Average Groundfish FTE Employment <sup>c</sup>	Average Vessel Crew Size <sup>d</sup>	Total Payments to Labor (\$Millions)	Payments to Labor per FTE (\$Millions)
1992	1,590	80	1,670	20	79.5	104.0	139.1	0.08
1993	1,431	72	1,503	18	79.5	104.0	70.0	0.05
1994	1,590	80	1,670	20	79.5	96.8	90.1	0.06
1995	1,835	92	1,927	20	91.7	103.3	123.0	0.07
1996	1,816	91	1,906	18	100.9	106.9	86.4	0.05
1997	1,338	67	1,405	16	83.6	104.3	90.7	0.07
1998	1,501	75	1,576	16	93.8	105.6	76.1	0.05
1999	1,277	64	1,341	12	106.4	107.7	97.1	0.08
2000	1,310	65	1,375	11	119.1	107.9	112.5	0.09

<sup>a</sup> Total groundfish FTE positions for vessels were estimated using NMFS Observer Data (June 2001) on the number of crew when the vessel was operating. These data were adjusted to account for the longer work days on vessels (16-hour days for STP, FTP, MS, and FLT, and 12-hour days for other processing vessel classes), assuming an average of 6 work days per week (to account for partial weeks), and dividing by 52 weeks in year.

<sup>b</sup> Total number of facilities is from NMFS Blend Data.

<sup>c</sup> Average groundfish FTE is the total groundfish FTE divided by the number of facilities.

<sup>d</sup> Average vessel crew size is derived from NMFS Observer Data

Source: Calculated by Northern Economics from NMFS Observer Data, Blend Data and Weekly Production Report Data, June 2001.

**Table 2.2.1-17. Full Time Equivalent Employment on Surimi Trawl Catcher Processors by Trimester, 1992-2000**

Year	Number of FTE			
	Jan-Apr	May-Aug	Sep-Dec	Total
1992	1,018	540	111	1,670
1993	900	177	354	1,431
1994	972	249	370	1,590
1995	1,225	174	436	1,835
1996	1,231	23	561	1,816
1997	875	52	411	1,338
1998	919	34	548	1,501
1999	731	231	316	1,277
2000	715	257	338	1,310

Source: Estimated by Northern Economics from NMFS Blend and Weekly Report Data, June 2001

**Table 2.2.1-18. Payments to Labor on Surimi Trawl Catcher Processors by Trimester, 1992-2000**

Year	Millions			
	Jan-Apr	May-Aug	Sep-Dec	Total
1992	84.82	45.01	9.27	139.10
1993	44.02	8.67	17.32	70.01
1994	55.07	14.09	20.95	90.12
1995	82.08	11.64	29.24	122.97
1996	58.61	1.11	26.70	86.42
1997	59.30	3.55	27.82	90.67
1998	46.56	1.71	27.80	76.08
1999	55.57	17.54	24.00	97.10
2000	61.44	22.07	29.00	112.50

Source: Estimated by Northern Economics from NMFS Blend and Weekly Report Data, June 2001

### 2.2.1.6 Regional Residence of Vessel Owners

Table 2.2.1-19 presents information on the number of ST-CP vessel owners by region. The registered owners of ST-CP vessels all list addresses in WAIW. The vessel owner's residence is an important factor because most of the regional economic impact of catcher processor operations occurs in the owner's region of residence. Table 2.2.1-20 shows the wholesale value accruing to each region. Table 2.2.1-21 shows the payments to labor accruing to each region, while Table 2.2.1-22 shows the full-time equivalent by region. It was assumed that all crewmembers of a particular vessel and home office staff reside in the vessel owner's region of residence. It should be noted that the tables showing revenue and payments to labor by regions are based on average earnings which have been adjusted to reflect differences in regional efficiencies. Because of these regional adjustments, the values shown as total by year may be slightly different from values shown in earlier tables for this class.

**Table 2.2.1-19. Number of Surimi Trawl Catcher Processors Owned by Regional Residents**

Year	Number of Processors							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0	0	0	0	20	0	0	20
1993	0	0	0	0	18	0	0	18
1994	0	0	0	0	20	0	0	20
1995	0	0	0	0	20	0	0	20
1996	0	0	0	0	18	0	0	18
1997	0	0	0	0	16	0	0	16
1998	0	0	0	0	16	0	0	16
1999	0	0	0	0	12	0	0	12
2000	0	0	0	0	11	0	0	11

Source: NMFS Blend Data, June 2001

**Table 2.2.1-20. Regionally-Adjusted Wholesale Value of Surimi Trawl Catcher Processors by Region, 1992-2000**

Year	\$Millions							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0.00	0.00	0.00	0.00	408.63	0.00	0.00	408.63
1993	0.00	0.00	0.00	0.00	207.89	0.00	0.00	207.89
1994	0.00	0.00	0.00	0.00	267.63	0.00	0.00	267.63
1995	0.00	0.00	0.00	0.00	369.92	0.00	0.00	369.92
1996	0.00	0.00	0.00	0.00	259.00	0.00	0.00	259.00
1997	0.00	0.00	0.00	0.00	272.50	0.00	0.00	272.50
1998	0.00	0.00	0.00	0.00	233.44	0.00	0.00	233.44
1999	0.00	0.00	0.00	0.00	297.00	0.00	0.00	297.00
2000	0.00	0.00	0.00	0.00	336.24	0.00	0.00	336.24

Source: Calculated by Northern Economics on average revenues in the class from NMFS Blend and Weekly Production Report Data. An adjustment has been made to account for regional differences and therefore total wholesale value in this tables are slightly different from total wholesale value in other table shown in this section.

**Table 2.2.1-21. Regionally-Adjusted Payments to Labor from Surimi Trawl Catcher Processors by Region, 1992-2000**

Year	\$Millions							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0.00	0.00	0.00	0.00	143.02	0.00	0.00	143.02
1993	0.00	0.00	0.00	0.00	72.76	0.00	0.00	72.76
1994	0.00	0.00	0.00	0.00	93.67	0.00	0.00	93.67
1995	0.00	0.00	0.00	0.00	129.47	0.00	0.00	129.47
1996	0.00	0.00	0.00	0.00	90.65	0.00	0.00	90.65
1997	0.00	0.00	0.00	0.00	95.38	0.00	0.00	95.38
1998	0.00	0.00	0.00	0.00	81.71	0.00	0.00	81.71
1999	0.00	0.00	0.00	0.00	103.95	0.00	0.00	103.95
2000	0.00	0.00	0.00	0.00	117.68	0.00	0.00	117.68

Source: Calculated by Northern Economics from NMFS Blend and Weekly Production Report Data.

**Table 2.2.1-22. Regionally-Adjusted Full Time Equivalent Employment on Surimi Trawl Catcher Processors by Region, 1992-2000**

Year	Full Time Equivalent							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0	0	0	0	1,717	0	0	1,717
1993	0	0	0	0	1,562	0	0	1,562
1994	0	0	0	0	1,736	0	0	1,736
1995	0	0	0	0	2,029	0	0	2,029
1996	0	0	0	0	2,000	0	0	2,000
1997	0	0	0	0	1,478	0	0	1,478
1998	0	0	0	0	1,692	0	0	1,692
1999	0	0	0	0	1,436	0	0	1,436
2000	0	0	0	0	1,439	0	0	1,439

Source: Calculated by Northern Economics from NMFS Blend and Weekly Production Report Data.



## **2.2.2 Fillet Trawl Catcher Processors (FT-CP)**

These trawl catcher processors produce fillets as their primary product from harvests in the BSAI pollock fisheries. The large size of these vessels also provides room for equipment to produce fishmeal, minced product, and other product forms. Pollock is the primary species harvested by this vessel class, but Pacific cod are also targeted. Their operational characteristics and activities in waters offshore Alaska are largely determined by the fishing seasons for these species. This class has been defined as a distinct class because these vessels do not have the capability to produce surimi, and because of their focus on higher value but more labor-intensive fillet production.

### **2.2.2.1 Class Characteristics**

Catcher-processors in the FT-CP class have an average length of 250 feet and range from 201 to 296 feet. The catcher-processors have an average horsepower rating of about 4,550, with a maximum of about 5,800 and a minimum of 3,000. Average gross tonnage is approximately 490 tons and average hold capacity is 40,425 cubic feet (CFEC and NMFS, 2001). As a group, these catcher processors are second in size only to ST-CP vessels. FT-CP vessels are steel-hulled stern ramp trawlers with stern or midship gantries equipped with the same deck gear described for smaller trawlers. These vessels are equipped with a full processing deck below the main deck and a lower deck of freezer holds, similar to surimi catcher processors. The fish processing deck contains several lines of modern filleting and banks of plate freezers.

With their large size and horsepower, these vessels are capable of operating in adverse weather conditions and can tow very large nets to harvest large quantities of pollock and other species. The size of vessels in this class enables them to operate in the BSAI during very poor weather. Because these vessels now have pollock quotas through the cooperatives formed under the AFA, they do not have to operate during storms as they commonly did during the “race for fish” that occurred prior to passage of the AFA. FT-CP vessels are able to store large amounts of processed product during a fishing trip. As these vessels do not need to travel to port very often to offload their catch, they can concentrate on fishing and processing activities.

Because FT-CP vessels rely almost entirely on fillet production, which generally requires larger fish, they try to catch the larger size pollock found at the bottom of the water column. Smaller fish cannot be easily used by FT-CP vessels and often are made into fishmeal and oil. The requirement for larger fish makes it more likely that these vessels will have greater amounts of incidental catch of non-pollock species (NPFMC, 1999).

The AFA enables FT-CP vessels to maximize revenues by allowing them to maximize yields and optimize product forms. This flexibility also offers these vessels an opportunity to minimize operational costs. However, the number of vessels in the FT-CP class was dramatically reduced under the AFA, dropping from 12 in 1998 to 4 in 1999. The AFA and at-sea pollock cooperative also highlighted a disadvantage of FT-CP vessels relative to SP-CP vessels. Because of the AFA, vessels in both classes now have the opportunity to tailor processing to meet market demands, rather than to maximize throughput. ST-CP vessels, with their greater size, can incorporate fillet-processing lines into their processing array. This has the effect of making FT-CP vessels, with their inability to produce surimi, relatively less desirable vessels. The lack of product versatility combined with their higher bycatch rates because of their need to fish closer to the bottom suggest that the downward trend in the number of FT-CP vessels is likely continue. Some owners of FT-CP vessels may be able to afford the expense of adding surimi-processing lines, thereby converting to ST-CP vessels, but others are likely to divest their pollock cooperative interests and leave the fishery (Richardson, 2000).

### 2.2.2.2 Description of Fishing and Processing Operations

Fishing season regulations in the BSAI groundfish FMPs allow FT-CP vessels to operate from mid-January through March or April, and from July through October. The fishing operations of these vessels are similar to those described in Section 2.1.1. Because of AFA, the remaining vessels in this class can be more selective as to when in the pollock fishing seasons they fish.

The primary products of FT-CP vessels are skinless and boneless pollock fillets (Table 2.2.2-1). Production entails running the fish through sophisticated filleting machinery, which can be set for the size of the fish and thickness of the fillet. Deep-skin fillets have a deeper cut of skin removed than do regular fillets. The price is higher for deep-skin fillets than for regular fillets. Once the fillets have been cut, they move to the candling table, where crewmembers check for and remove parasites. Candling is a labor-intensive process and can be the limiting factor in production throughput. After the fillets have been cleaned, they are packed into trays for a block product or are processed and sold as IQF product. Roe products are also an important product for FT-CP, accounting for over 22 percent of total wholesale product revenue in 2000.

FT-CP vessels by definition do not produce surimi. In the past they were also less likely to produce fish oil or fishmeal, primarily because their size constrained the amount of equipment they could accommodate. The Improved Retention and Improved Utilization (IRIU) program under the BSAI and GOA groundfish FMPs may encourage more of these vessels to produce oil and meal, while the AFA may encourage them to add surimi lines.

**Table 2.2.2-1. Wholesale Production Value for Fillet Trawl Catcher Processors by Product Type, 1992-2000**

Year	\$Millions					
	Fillets	H&G/Whole	Roe Products	Other	Surimi	Total
1992	72.63	39.95	47.03	12.00	0.00	171.60
1993	75.13	38.96	44.25	13.29	a	171.62
1994	71.19	15.30	30.75	8.48	0.00	125.72
1995	75.61	11.49	35.13	6.66	0.00	128.89
1996	84.90	9.06	30.54	12.49	0.00	136.99
1997	70.27	9.56	34.71	7.55	0.00	122.09
1998	84.33	2.74	16.60	14.48	0.44	118.60
1999	49.26	0.13	12.96	6.60	0.00	68.95
2000	51.63	a	17.94	10.99	a	80.56

Source: NMFS Weekly Production Reports, June 2001

<sup>a</sup> Combined with value of Other to protect the confidentiality of the small number of FT-CPs that reported producing this product during the year.

Table 2.2.2-2 summarizes information on total harvests, production, and value for FT-CP vessels during the 1992-2000 period. In 2000, total harvest was less than one-quarter of the peak in 1993, and total products experienced similar declines. Higher product prices offset some of these production decreases. Industry sources indicate that they sought to improve yields after implementation of the AFA. The utilization rate has improved significantly since the early 1990s, from 18 percent in 1995 to 27 percent in 2000. The falling productivity of the class is primarily a function of the declining numbers of vessels, rather than a drop in average harvest or production—in fact averages revenue vessels in the class has more than doubled since 1998.

**Table 2.2.2-2. Processing Summary for Fillet Trawl Catcher Processors, 1992-2000**

Year	Round Weight (Thousands of Tons) <sup>a</sup>	Product (Thousands of Tons) <sup>b</sup>	Utilization Rate (Product Tons/Round-weight Tons) <sup>c</sup>	Wholesale Value (\$Millions) <sup>d</sup>	\$/Round- weight Ton <sup>e</sup>
1992	349.99	70.90	0.20	171.60	490.00
1993	422.28	87.74	0.21	171.62	406.00
1994	305.67	57.91	0.19	125.72	411.00
1995	276.99	49.48	0.18	128.89	465.00
1996	264.08	53.05	0.20	136.99	519.00
1997	242.85	47.66	0.20	122.09	503.00
1998	221.83	44.16	0.20	118.60	535.00
1999	90.96	20.74	0.23	68.95	758.00
2000	94.81	25.66	0.27	80.56	850.00

<sup>a</sup> Total groundfish reported tons—retained and discarded from NMFS Blend Data, June 2001.

<sup>b</sup> Total groundfish final product from NMFS Weekly Production Reports, June 2001.

<sup>c</sup> Total final product as a percent of total groundfish reported tons (column 3 ÷ column 2).

<sup>d</sup> Total final product value from NMFS Weekly Production Reports with product prices from ADF&G Commercial Operator Annual Reports.

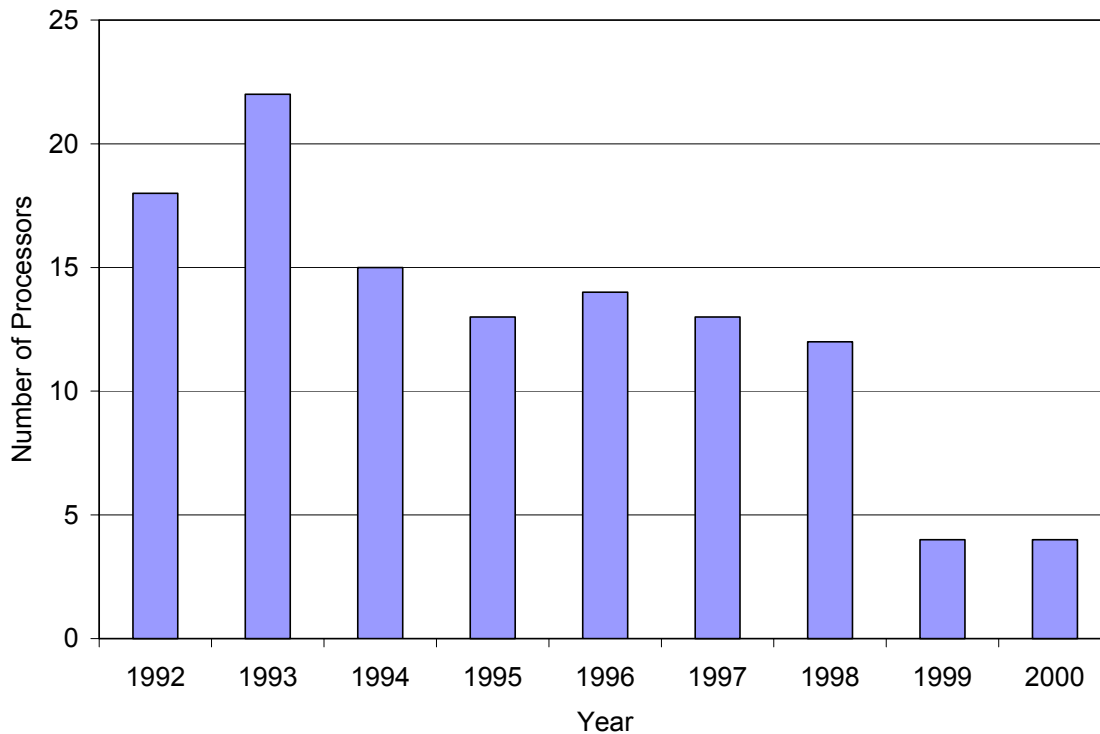
<sup>e</sup> Total value of final product per round weight ton reported (column 5 ÷ column 2).

Source: NMFS Blend Data and Weekly Production Report Data, June 2001

### 2.2.2.3 Class Participation

The size of the FT-CP fleet has decreased to less than one-fifth of its peak of 22 in 1993 (Figure 2.2.2-1). The elimination of excess fishing capacity under the AFA and declining quotas for the offshore class resulting from inshore-offshore allocations were two factors that contributed to this decline. Competition from ST-CP with the capacity to switch between surimi and fillets depending on the market for pollock products, may be another reason for the smaller number of FT-CP vessels (Richardson, 2000).

**Figure 2.2.2-1. Number of Active Fillet Trawl Catcher Processors, 1992-2000**



Source: NMFS Blend Data, June 2001.

### 2.2.2.4 Catch and Production

All of the FT-CP vessels reported harvesting the major groundfish species groups (pollock, Pacific cod, flatfish, and the ARSO group consisting of Atka mackerel, rockfish, sablefish, and other groundfish species) for the 1992-2000 period, although some species were bycatch (Table 2.2.2-3). In 2000, pollock accounted for 93 percent of the total tons of groundfish harvested and 95 percent of the wholesale production value (Table 2.2.2-4 and Table 2.2.2-6).

The annual bimodal cycle of pollock harvesting and processing activity is evident in Table 2.2.2-7, with peaks occurring in late winter and fall. Table 2.2.2-8 and Table 2.2.2-9 provide details on wholesale value of products and landings in target fisheries by this processor class. The bimodal activity for pollock is evident, as well as the spring harvest peak for Pacific cod. Wholesale value of products from target species by trimester is presented in Table 2.2.2-10, which show that pollock is clearly the most important fishery for the class.

**Table 2.2.2-3. Number of Fillet Trawl Catcher Processors by Species, 1992-2000**

Year	Number of Processors				
	ARSO	FLAT	PCOD	PLCK	Total
1992	18	18	18	18	18
1993	22	22	22	22	22
1994	15	15	15	15	15
1995	13	13	13	13	13
1996	14	14	14	14	14
1997	13	13	13	13	13
1998	12	12	12	12	12
1999	4	4	4	4	4
2000	4	4	4	4	4

Source: NMFS Weekly Production Reports, June 2001

**Table 2.2.2-4. Tons of Groundfish Reported by Fillet Trawl Catcher Processors by Species, 1992-2000**

Year	Thousands of Tons				
	ARSO	FLAT	PCOD	PLCK	Total
1992	48.38	58.48	37.64	205.49	349.99
1993	58.52	34.68	30.64	298.43	422.28
1994	18.08	26.61	20.52	240.46	305.67
1995	10.23	17.90	24.02	224.85	276.99
1996	9.57	13.88	26.38	214.25	264.08
1997	9.20	22.47	27.16	184.02	242.85
1998	6.40	3.18	17.69	194.56	221.83
1999	0.77	0.54	9.85	79.80	90.96
2000	1.93	0.48	4.38	88.03	94.81

Source: NMFS Blend Data, June 2001

**Table 2.2.2-5. Wholesale Value per Roundweight Ton for Fillet Trawl Catcher Processors by Species, 1992-2000**

Year	ARSO		FLAT		PCOD		PLCK	
	\$/Pound	\$/Ton	\$/Pound	\$/Ton	\$/Pound	\$/Ton	\$/Pound	\$/Ton
1992	0.29	644	0.15	333	0.27	595	0.23	506
1993	0.28	612	0.20	449	0.22	489	0.17	364
1994	0.26	584	0.23	516	0.15	334	0.18	397
1995	0.26	573	0.18	401	0.22	479	0.21	469
1996	0.24	540	0.19	411	0.19	423	0.24	539
1997	0.19	424	0.14	312	0.25	545	0.24	527
1998	0.19	422	0.06	126	0.31	674	0.24	535
1999	0.00	0	0.00	2	0.31	694	0.35	778
2000	0.00	0	0.02	38	0.40	881	0.40	871

Source: NMFS Blend Data and Weekly Production Report, June 2001

**Table 2.2.2-6. Wholesale Production Value for Fillet Trawl Catcher Processors by Species, 1992-2000**

Year	\$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	19.77	25.39	22.39	104.04	171.60
1993	23.17	24.86	14.97	108.63	171.62
1994	3.63	19.86	6.86	95.37	125.72
1995	2.50	9.52	11.50	105.37	128.89
1996	3.28	7.14	11.16	115.41	136.99
1997	1.52	8.77	14.80	97.00	122.09
1998	1.94	0.63	11.93	104.11	118.60
1999	0.00	0.00	6.84	62.11	68.95
2000	0.00	0.05	3.86	76.66	80.56

Source: NMFS Weekly Production Reports, June 2001

**Table 2.2.2-7. Wholesale Production Value for Fillet Trawl Catcher Processors by Trimester, 1992-2000**

Year	\$Millions		
	Jan-Apr	May-Aug	Sep-Dec
1992	109.55	44.84	17.22
1993	94.23	32.65	44.74
1994	71.69	20.73	33.30
1995	85.74	17.00	26.15
1996	84.81	12.05	40.13
1997	89.07	6.23	26.80
1998	65.93	7.14	45.53
1999	39.55	10.87	18.53
2000	45.51	17.59	17.45

Source: NMFS Blend Data and Weekly Production Report Data, June 2001

**Table 2.2.2-8. Wholesale Value of Products from Target Species by Fillet Trawl Catcher Processors by Trimester, 1992-2000**

Target	\$Millions				Total
	Year	Jan-Apr	May-Aug	Sep-Dec	
<b>FLAT</b>	1992	7.91	8.68	4.73	21.32
	1993	11.17	6.82	4.83	22.82
	1994	10.82	2.05	6.23	19.10
	1995	6.91	1.44	0.75	9.10
	1996	5.16	0.84	0.00	6.00
	1997	5.21	2.22	1.30	8.73
	1998	a	a	a	a
	1999	a	a	a	a
	2000	a	a	a	a
	<b>PCOD</b>	1992	12.51	3.93	0.53
1993		12.42	0.40	0.06	12.88
1994		5.30	0.24	0.00	5.54
1995		10.55	0.00	0.00	10.55
1996		10.72	0.00	0.00	10.72
1997		14.06	0.00	0.00	14.06
1998		10.80	0.00	0.00	10.80
1999		6.60	0.00	0.00	6.60
2000		3.64	0.00	0.00	3.64
<b>PLCK</b>		1992	65.09	28.74	9.22
	1993	58.79	16.10	32.72	107.61
	1994	52.33	15.31	26.46	94.09
	1995	66.01	13.22	25.16	104.39
	1996	66.21	8.95	39.99	115.15
	1997	68.88	2.52	25.38	96.77
	1998	53.92	5.14	44.66	103.72
	1999	32.64	10.85	18.43	61.92
	2000	41.56	17.57	17.33	76.47

<sup>a</sup> Data omitted to protect confidentiality.

Source: NMFS Blend Data and WPR Data, June 2001.

**Table 2.2.2-9. Landings of Target Species in Target Fisheries by Fillet Trawl Catcher Processors by Trimester, 1992-2000**

Target	Thousands of Tons				
	Year	Jan-Apr	May-Aug	Sep-Dec	Total
<b>FLAT</b>	1992	12.24	31.41	14.48	58.14
	1993	16.13	16.17	9.59	41.89
	1994	12.97	4.99	15.17	33.14
	1995	11.80	4.09	2.14	18.03
	1996	8.71	2.36	0.00	11.07
	1997	12.54	8.82	3.60	24.96
	1998	a	a	a	a
	1999	a	a	a	a
	2000	a	a	a	a
	<b>PCOD</b>	1992	17.18	5.03	0.71
1993		19.09	0.63	0.08	19.80
1994		11.55	0.51	0.00	12.06
1995		17.34	0.00	0.00	17.34
1996		21.26	0.00	0.00	21.26
1997		23.39	0.01	0.00	23.40
1998		15.85	0.00	0.00	15.85
1999		9.51	0.00	0.00	9.51
2000		4.12	0.00	0.00	4.12
<b>PLCK</b>		1992	81.01	88.34	23.33
	1993	104.01	57.80	118.54	280.36
	1994	99.03	47.21	80.87	227.11
	1995	102.98	39.09	75.15	217.22
	1996	91.38	21.28	97.05	209.71
	1997	98.41	6.76	74.70	179.87
	1998	83.75	11.54	98.10	193.39
	1999	32.65	17.29	29.47	79.41
	2000	35.87	26.03	25.67	87.57

<sup>a</sup> Data omitted to protect confidentiality.

Source: NMFS Blend Data and WPR Data, June 2001.



**Table 2.2.2-10. Wholesale Value of All Products from Top Three Target Fisheries by Fillet Trawl Catcher Processors, 1992-2000**

Year	Wholesale Value (\$Millions)			
	PLCK	PCOD	FLAT	All Target Total
1992	108.01	20.30	23.54	171.60
1993	109.62	14.14	24.18	171.62
1994	95.21	7.15	20.31	125.72
1995	104.81	11.83	10.03	128.89
1996	115.94	11.57	6.47	136.99
1997	97.02	14.35	9.32	122.09
1998	104.66	10.96	a	a
1999	62.16	6.80	a	a
2000	76.65	3.78	a	a

<sup>a</sup> Data omitted to protect confidentiality.

Source: NMFS Blend Data and Weekly Production Report Data, June 2001.

Tons and wholesale production value of groundfish by FMP subarea of FT-CP are presented in Table 2.2.2-11 and Table 2.2.2-12, respectively. The BS is clearly the focus of FT-CP vessels, with the AI accounting for about 10 percent total value prior to its closure to pollock fishing in 1999. Vessels in the FT-CP class have not had significant GOA participation since the implementation of inshore-offshore allocations.

Information on the number of FT-CP vessels harvesting pollock and Pacific cod by FMP subarea and the tonnage and wholesale value of the harvest are shown in Table 2.2.2-13, Table 2.2.2-14 and Table 2.2.2-15, respectively.

**Table 2.2.2-11. Tons of Groundfish Reported by Fillet Trawl Catcher Processors by FMP Subarea, 1992-2000**

Year	Thousands of Tons			
	AI	BS	GOA	Total
1992	29.11	308.51	12.37	349.99
1993	41.26	367.38	13.64	422.28
1994	12.36	289.55	3.77	305.67
1995	11.54	258.73	6.73	276.99
1996	13.79	241.06	9.23	264.08
1997	21.25	217.24	4.35	242.85
1998	16.45	200.67	4.71	221.83
1999	9.06	81.91	0.00	90.96
2000	3.42	91.38	0.00	94.81

Source: NMFS Blend Data, June 2000

<sup>a</sup> Combined with tons from BS to protect the confidentiality of the small number of FT-CPs that reported deliveries from this subarea during the year.

**Table 2.2.2-12. Wholesale Production Value of Groundfish by Fillet Trawl Catcher Processors by FMP Subarea, 1992-2000**

Year	\$Million			
	AI	BS	GOA	Total
1992	22.69	143.16	5.75	171.60
1993	27.25	136.33	8.05	171.62
1994	5.58	116.77	3.37	125.72
1995	7.29	116.24	5.36	128.89
1996	7.28	123.57	6.14	136.99
1997	12.65	106.32	3.13	122.09
1998	10.51	105.41	2.69	118.60
1999	6.02	62.93	0.00	68.95
2000	2.85	77.71	0.00	80.56

Source: NMFS Blend Data, June 2000

<sup>a</sup> Combined with value in BS to protect the confidentiality of the small number of FT-CPs that reported deliveries from this subarea during the year.

**Table 2.2.2-13. Number of Fillet Trawl Catcher Processors Processing Pacific Cod and Pollock by FMP Area**

Year	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	16	18	6	6	15	18	6	6
1993	16	22	6	8	17	22	6	5
1994	7	15	2	2	9	15	2	2
1995	6	13	4	4	8	13	4	4
1996	10	14	7	7	10	14	8	7
1997	10	13	5	3	8	13	6	3
1998	12	12	2	6	12	12	1	3
1999	3	4	0	0	3	4	0	0
2000	2	4	0	0	1	4	0	0

Source: NMFS Blend Data, June 2001

**Table 2.2.2-14. Tons of Pacific Cod and Pollock Reported by Fillet Trawl Catcher Processors by FMP Area**

Year	Thousands of Tons							
	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	8.08	28.66	0.49	0.41	2.44	202.52	0.14	0.39
1993	10.09	20.23	0.08	0.17	7.09	291.17	0.08	0.08
1994	7.11	13.41	a	a	3.32	237.15	a	a
1995	5.43	17.80	0.09	0.70	5.67	218.50	0.46	0.21
1996	9.91	13.56	0.45	2.45	1.79	212.02	0.11	0.33
1997	15.20	11.79	0.10	0.08	5.17	178.50	0.33	0.01
1998	13.08	3.74	b	0.87	2.49	192.00	b	0.06
1999	8.58	1.28	0.00	0.00	0.06	79.74	0.00	0.00
2000	c	4.38	0.00	0.00	c	88.03	0.00	0.00

<sup>a</sup> Added to BS to protect confidentiality.

<sup>b</sup> Added to WG to protect confidentiality.

<sup>c</sup> Data omitted to protect confidentiality.

Source: NMFS Blend Data, June 2001

**Table 2.2.2-15. Wholesale Value of Pacific Cod and Pollock Harvested by Fillet Trawl Catcher Processors by FMP Area**

Year	\$Millions							
	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	5.96	15.97	0.23	0.23	1.19	102.77	0.01	0.07
1993	6.15	8.74	0.03	0.04	4.08	104.52	0.02	0.00
1994	3.22	3.63	a	a	1.40	93.97	a	a
1995	3.40	7.76	0.04	0.30	3.87	101.18	0.30	0.02
1996	5.03	4.77	0.20	1.16	1.31	114.03	0.04	0.03
1997	9.04	5.72	0.03	0.01	3.55	93.23	0.22	0.00
1998	8.92	2.45	b	0.56	1.62	102.49	a	0.00
1999	5.96	0.88	0.00	0.00	0.06	62.05	0.00	0.00
2000	c	3.86	0.00	0.00	c	76.66	0.00	0.00

<sup>a</sup> Added to BS to protect confidentiality.

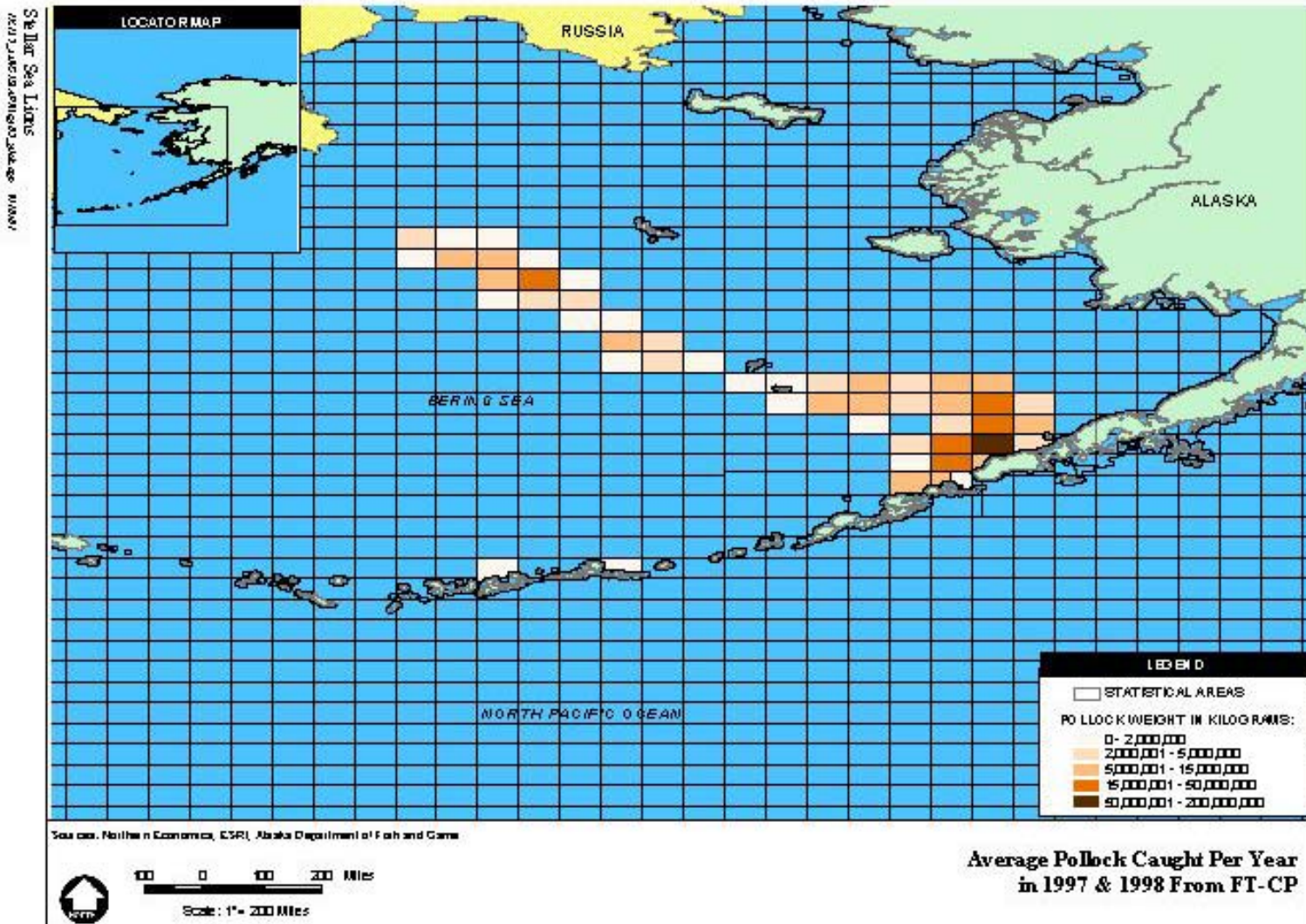
<sup>b</sup> Added to WG to protect confidentiality.

<sup>c</sup> Data omitted to protect confidentiality.

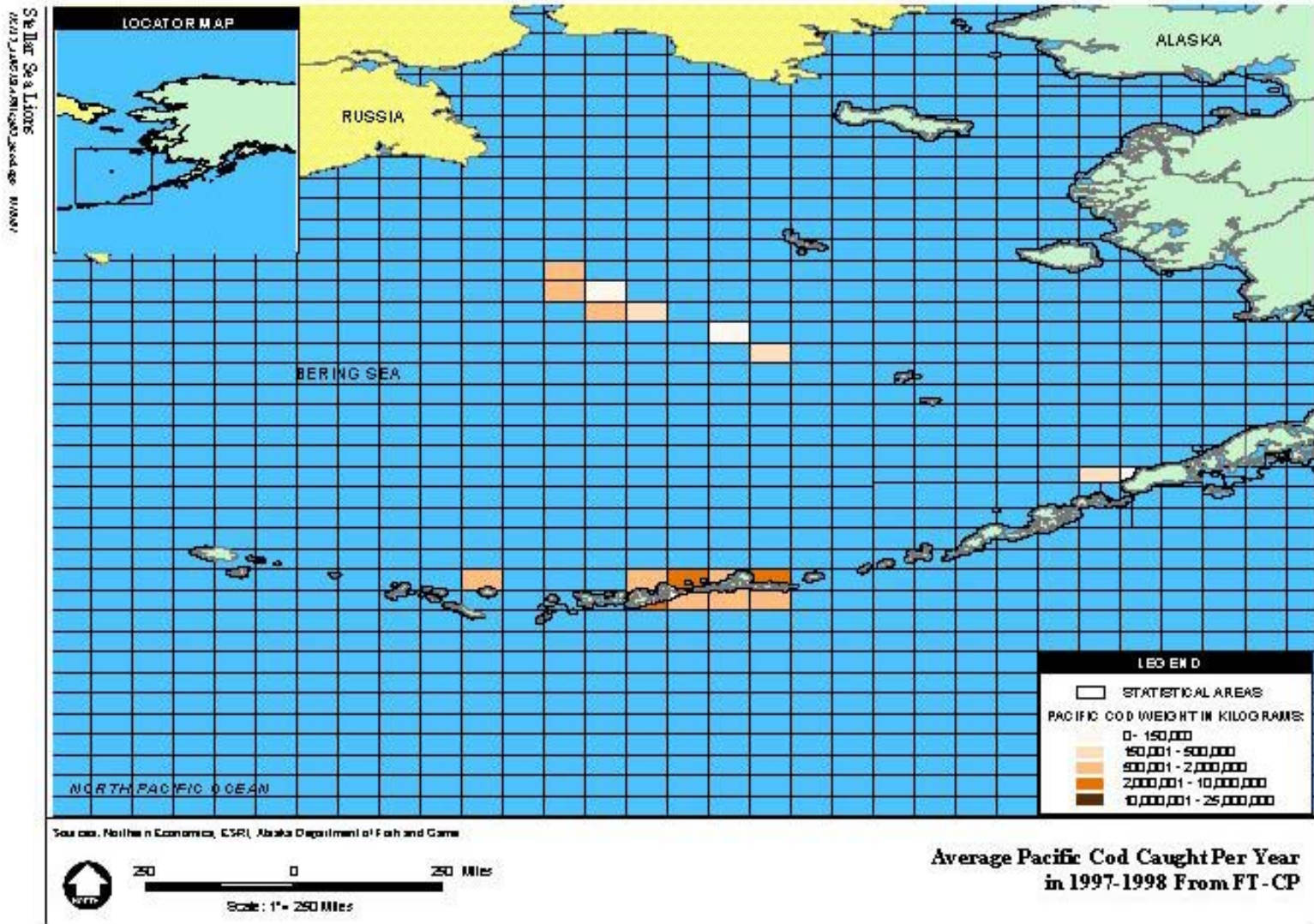
Source: NMFS Blend Data and Weekly Production Report Data, June 2001

Detailed information on the geographical distribution of the pollock and Pacific cod catch by vessels in the FT-CP class is presented in Figure 2.2.2-2 and Figure 2.2.2-3 for the years 1997 and 1998 combined. In the figures, only catches in areas in which four or more vessels reported landings are shown.

**Figure 2.2.2-2. Average Annual Pollock Catch of Fillet Trawl Catcher Processors, by Statistical Area, 1997-1998**



**Figure 2.2.2-3. Average Annual Pacific Cod Catch of Fillet Trawl Catcher Processors, by Statistical Area, 1997-1998**





**2.2.2.5 Crew Employment and Income**

The average crew size is less for FT-CP vessels than for ST-CP vessels, but larger than for other catcher processor classes. Table 2.2.2-16 indicates the average crew size and number of FTE positions in this class. FTE positions were estimated from Weekly Production Report information on the number of crew and the number of weeks that the vessel was operating. The product of these data was divided by 52 weeks in a year to arrive at total groundfish FTE employment. Before AFA (1992 – 1998), the class generated an average of 1,325 FTE positions per year, but in 1999 and 2000 FT-SPs produced only 353 FTEs.

Table 2.2.2-16 also shows estimated payments to labor for FT-CP catcher processors. Payments to labor were calculated as 30 percent of total production value for the crew, plus an additional 10 percent of total labor costs for the home office. In 1999 and 2000 each FTE generated average of approximately \$89,000 in labor payments. FTE employment and payments to labor by trimester are presented in Table 2.2.2-17 and Table 2.2.2-18, respectively.

**Table 2.2.2-16. Estimated Full-Time Equivalent Employment Generated by Groundfish-Related Activity by Fillet Trawl Catcher Processors, 1992-2000**

Year	Groundfish FTE Employment at Processing Facilities	Additional Administrative FTE Employment	Total Groundfish FTE Employment <sup>a</sup>	Total Number of Facilities <sup>b</sup>	Average Groundfish FTE Employment <sup>c</sup>	Average Vessel Crew Size <sup>d</sup>	Total Payments to Labor (\$Millions)	Payments to Labor per FTE (\$Millions)
1992	1,466	73	1,539	18	81.5	75.0	68.6	0.04
1993	1,792	90	1,882	22	81.5	75.0	68.6	0.04
1994	1,059	53	1,112	15	70.6	68.9	50.3	0.05
1995	1,159	58	1,217	13	89.2	76.6	51.6	0.04
1996	1,369	68	1,438	14	97.8	75.5	54.8	0.04
1997	953	48	1,000	13	73.3	75.6	48.8	0.05
1998	1,035	52	1,087	12	86.3	75.8	47.4	0.05
1999	328	16	344	4	82.0	78.9	27.6	0.08
2000	345	17	362	4	86.1	85.8	32.2	0.09

<sup>a</sup> Total groundfish FTE positions for vessels were estimated using NMFS Observer Data (June 2001) on the number of crew when the vessel was operating. These data were adjusted to account for the longer work days on vessels (16-hour days for STP, FTP, MS, and FLT, and 12-hour days for other processing vessel classes), assuming an average of 6 work days per week (to account for partial weeks), and dividing by 52 weeks in year.

<sup>b</sup> Total number of facilities is from NMFS Blend Data.

<sup>c</sup> Average groundfish FTE is the total groundfish FTE divided by the number of facilities.

<sup>d</sup> Average vessel crew size is derived from NMFS Observer Data

Source: Calculated by Northern Economics from NMFS Observer Data, Blend Data and Weekly Production Report Data, June 2001.

**Table 2.2.2-17. Full Time Equivalent Employment on Fillet Trawl Catcher Processors by Trimester, 1992-2000**

Year	Number of FTE			
	Jan-Apr	May-Aug	Sep-Dec	Total
1992	983	402	154	1,539
1993	984	341	467	1,792
1994	604	175	280	1,059
1995	771	153	235	1,159
1996	848	120	401	1,369
1997	695	49	209	953
1998	576	62	397	1,035
1999	188	52	88	328
2000	195	75	75	345

Source: Estimated by Northern Economics from NMFS Blend and Weekly Report Data, June 2001

**Table 2.2.2-18. Payments to Labor on Fillet Trawl Catcher Processors by Trimester, 1992-2000**

Year	\$Millions			
	Jan-Apr	May-Aug	Sep-Dec	Total
1992	43.82	17.93	6.89	68.64
1993	37.69	13.06	17.90	68.65
1994	28.67	8.29	13.32	50.29
1995	34.30	6.80	10.46	51.56
1996	33.92	4.82	16.05	54.80
1997	35.63	2.49	10.72	48.84
1998	26.37	2.86	18.21	47.44
1999	15.82	4.35	7.41	27.58
2000	18.21	7.04	6.98	32.22

Source: Estimated by Northern Economics from NMFS Blend and Weekly Report Data, June 2001



**2.2.2.6 Regional Residence of Vessel Owners**

Table 2.2.2-19 presents information on the number of FT-CP vessel owners by region. Virtually all FT-CP vessels are owned by WAIW entities. The vessel owner’s residence is an important factor because most of the regional economic impact of catcher vessel operations occurs in the owner’s region of residence. Table 2.2.2-20 shows the wholesale value accruing to each region. Table 2.2.2-21 shows the payments to labor accruing to each region, while Table 2.2.2-22 shows the full-time equivalent by region. It was assumed that all crewmembers of a particular vessel and home office staff reside in the vessel owner’s region of residence. As is the case with all regional tables associated with processors, the estimates of revenue and payments to labor accruing to have been adjusted based on regional productivity differences.

**Table 2.2.2-19. Number of Fillet Trawl Catcher Processors Owned by Regional Residents**

Year	Number of Processors							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0	0	0	0	18	0	0	18
1993	0	0	0	0	22	0	0	22
1994	0	0	0	0	15	0	0	15
1995	0	0	0	0	13	0	0	13
1996	0	0	0	0	14	0	0	14
1997	0	0	0	0	13	0	0	13
1998	0	0	0	0	12	0	0	12
1999	0	0	0	0	4	0	0	4
2000	0	0	0	0	4	0	0	4

Source: NMFS Blend Data, June 2001

**Table 2.2.2-20. Regionally-Adjusted Wholesale Value of Fillet Trawl Catcher Processors by Region, 1992-2000**

Year	\$Millions							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0.00	0.00	0.00	0.00	176.44	0.00	0.00	176.44
1993	0.00	0.00	0.00	0.00	178.37	0.00	0.00	178.37
1994	0.00	0.00	0.00	0.00	130.67	0.00	0.00	130.67
1995	0.00	0.00	0.00	0.00	135.71	0.00	0.00	135.71
1996	0.00	0.00	0.00	0.00	143.70	0.00	0.00	143.70
1997	0.00	0.00	0.00	0.00	128.43	0.00	0.00	128.43
1998	0.00	0.00	0.00	0.00	127.37	0.00	0.00	127.37
1999	0.00	0.00	0.00	0.00	73.82	0.00	0.00	73.82
2000	0.00	0.00	0.00	0.00	84.27	0.00	0.00	84.27

Source: Calculated by Northern Economics on average revenues in the class from NMFS Blend and Weekly Production Report Data. An adjustment has been made to account for regional differences and therefore total wholesale value in this tables are slightly different from total wholesale value in other table shown in this section.

**Table 2.2.2-21. Regionally-Adjusted Payments to Labor from Fillet Trawl Catcher Processors by Region, 1992-2000**

Year	\$Millions							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0.00	0.00	0.00	0.00	70.58	0.00	0.00	70.58
1993	0.00	0.00	0.00	0.00	71.35	0.00	0.00	71.35
1994	0.00	0.00	0.00	0.00	52.27	0.00	0.00	52.27
1995	0.00	0.00	0.00	0.00	54.28	0.00	0.00	54.28
1996	0.00	0.00	0.00	0.00	57.48	0.00	0.00	57.48
1997	0.00	0.00	0.00	0.00	51.37	0.00	0.00	51.37
1998	0.00	0.00	0.00	0.00	50.95	0.00	0.00	50.95
1999	0.00	0.00	0.00	0.00	29.53	0.00	0.00	29.53
2000	0.00	0.00	0.00	0.00	33.71	0.00	0.00	33.71

Source: Calculated by Northern Economics from NMFS Blend and Weekly Production Report Data.

**Table 2.2.2-22. Regionally-Adjusted Full Time Equivalent Employment on Fillet Trawl Catcher Processors by Region, 1992-2000**

Year	Full Time Equivalent							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0	0	0	0	1,583	0	0	1,583
1993	0	0	0	0	1,956	0	0	1,956
1994	0	0	0	0	1,156	0	0	1,156
1995	0	0	0	0	1,282	0	0	1,282
1996	0	0	0	0	1,508	0	0	1,508
1997	0	0	0	0	1,052	0	0	1,052
1998	0	0	0	0	1,167	0	0	1,167
1999	0	0	0	0	369	0	0	369
2000	0	0	0	0	378	0	0	378

Source: Calculated by Northern Economics from NMFS Blend and Weekly Production Report Data.

### **2.2.3 Head and Gut Trawl Catcher Processors (HT-CP)**

This subsection describes the characteristics and activities of trawl catcher processors that primarily produce headed and gutted products from the BSAI and GOA groundfish fisheries. Flatfish is the primary target species for this vessel class, and components of the ARSO species aggregation (primarily Atka mackerel and rockfish) and Pacific cod are important secondary targets. This class was established for the following reasons:

- This class is the only trawl catcher processor group that does not focus on pollock
- Vessels in this class are smaller than the ST-CP or FT-CP vessels
- This class primarily produces one product form—headed and gutted products

This focus on trawl fisheries other than pollock results in spatial and temporal differences in the operating patterns of HT-CP vessels compared to ST-CP and FT-CP vessels.

#### **2.2.3.1 Class Characteristics**

Catcher-processors in the HT-CP class have an average length of 166 feet and range from 102 to 295 feet. The catcher-processors have an average horsepower rating of about 2,100, with a maximum of about 3,600 and a minimum of 675. Average gross tonnage is approximately 345 tons and average hold capacity is 16,650 cubic feet (CFEC and NMFS, 2001). HT-CP are steel-hulled stern ramp trawlers typically equipped with stern gantries having the same deck gear described in Subsection 2.1.1. Below the fishing deck is the fish processing deck, with plate freezers where the catch is headed, gutted, cleaned, sized, and frozen in blocks weighing about 40 pounds each. All vessels in this class have machines that remove fish heads, and some have machinery to eviscerate the fish. Some vessels are also equipped with machinery that cuts both the head and the tail from yellowfin sole to produce kirimi. Below the processing deck are freezer holds capable of storing 200 to 500 MT of frozen product. The larger HT-CP vessels can operate in the BSAI during most weather conditions, while the smaller vessels may have trouble operating in this area during adverse weather.

Most of the vessels in this class can only accommodate sufficient crew and machinery to produce headed and gutted product. Various regulations associated with food production may also constrain the ability of this vessel class to produce other product forms. Heading and gutting of fish leaves the skin on the fish and is not covered by regulations for other fish processing methods that produce different product forms. Most vessels in the HT-CP class are not loadline-certified—a designation that requires certain standards for food production on a vessel. Without loadline certification, a processing vessel cannot produce fillets.

These vessels typically have modern instrumentation for finding and catching fish. The larger vessels in this class can produce 50 to 75 MT of fish per day and have freezer hold capacities of approximately 400 to 500 tons. Small to midsize vessels have a daily capacity between 10 and 30 MT and freezer capacity of about 100 to 300 MT (IAI, 1994).

#### **2.2.3.2 Description of Fishing and Processing Operations**

The HT-CP class targets a number of species and operates for longer periods than the ST-CP and FT-CP classes that focus on pollock. Whereas the ST-CP and FT-CP classes operate almost solely in the BSAI, vessels in the HT-CP class operate in both the BSAI and GOA. The target fisheries of the HT-CP class are usually limited by prohibited species, bycatch of halibut, or market constraints—only rarely are these vessels able to catch the entire TAC of the target fisheries available to them.

The trawl fishing operations for this class are similar to those described in Section 2.1.1.3 (TCV BSP  $\geq 125$ ). HT-CPs typically use pelagic trawl gear when fishing for Atka Mackerel and Rockfish, but switch to bottom trawl gear when fishing for flatfish and Pacific cod. Head and gut products are the primary finished products from the HT-CP class because their size typically constrains the number of crew and the amount of equipment they can accommodate (Table 2.2.3-1). The production of head and gutted product utilizes machinery that removes the head and entrails of each fish. The fish are then cleaned and packed into trays where they are blast-frozen into 40-pound blocks. The blocks are removed from the trays, packaged in boxes, and stored in the freezer hold until they are offloaded and sent to market.

Because this class pursues a wide range of species, vessels fish more days than other catcher processors and operate about 9 months per year. A fishing rotation might include Atka mackerel and pollock for roe in January; rock sole in February; rock sole, Pacific cod, and flatfish in March; rex sole in April; yellowfin sole and turbot in May; yellowfin sole in June; rockfish in July; and yellowfin sole and some Atka mackerel from August to December (IAI, 1998). Maintenance and shipyard work is generally conducted from late October through early January. The duration of an average fishing trip for vessels in this class ranges from 6 to 20 days.

**Table 2.2.3-1. Wholesale Production Value for Head and Gut Trawl Catcher Processors by Product Type, 1992-2000**

Year	\$Millions					
	Fillets	H&G/Whole	Roe Products	Other	Surimi	Total
1992	2.18	112.17	24.71	0.66	0.00	139.72
1993	0.27	116.73	20.03	0.46	0.00	137.49
1994	1.09	116.58	37.45	0.40	0.00	155.52
1995	0.61	144.92	28.63	0.65	0.00	174.82
1996	0.07	167.83	29.41	0.32	0.00	197.62
1997	0.04	136.10	24.99	0.17	0.00	161.30
1998	0.04	105.44	15.88	0.36	a	121.72
1999	0.13	120.01	18.15	0.22	0.00	138.51
2000	0.05	130.30	20.90	0.25	0.00	151.50

Source: NMFS Weekly Production Reports, June 2001

<sup>a</sup> Combined with value of Other to protect the confidentiality of the small number of HT-CPs that reported producing this product during the year.

Table 2.2.3-2 summarizes information on total harvests, production, and value for HT-CP vessels during the 1992-2000 period. The utilization rate has generally improved since the early 1990s, but the value per ton has declined. Because of the diversity of species harvested, products produced, and markets served by HT-CP, trends in productivity and value are difficult to evaluate.

The recent increase in price of Pacific cod products, due to reduced Atlantic cod harvests from the Barents Sea and an improving Asian economy, should result in higher product values for this class. However, the closure of some of the best fishing grounds for the major target species to protect Bering Sea crab and Steller sea lions has adversely affected their cost structure. In addition, headed and gutted fish harvested by Japanese and Korean vessels from Russian waters is increasing competition in the marketplace.

**Table 2.2.3-2. Processing Summary for Head and Gut Trawl Catcher Processors, 1992-2000**

Year	Round Weight (Thousands of Tons) <sup>a</sup>	Product (Thousands of Tons) <sup>b</sup>	Utilization Rate (Product Tons/Round-weight Tons) <sup>c</sup>	Wholesale Value (\$Millions) <sup>d</sup>	\$/Round-weight Ton <sup>e</sup>
1992	275.02	93.72	0.34	139.72	508
1993	297.91	102.69	0.34	137.49	462
1994	349.70	110.09	0.31	155.52	445
1995	339.38	117.68	0.35	174.82	515
1996	367.27	133.59	0.36	197.62	538
1997	381.91	140.98	0.37	161.30	422
1998	297.94	121.11	0.41	121.72	409
1999	299.06	114.23	0.38	138.51	463
2000	330.47	120.40	0.36	151.50	458

<sup>a</sup> Total groundfish reported tons—retained and discarded from NMFS Blend Data, June 2001.

<sup>b</sup> Total groundfish final product from NMFS Weekly Production Reports, June 2001.

<sup>c</sup> Total final product as a percent of total groundfish reported tons (column 3 ÷ column 2).

<sup>d</sup> Total final product value from NMFS Weekly Production Reports with product prices from ADF&G Commercial Operator Annual Reports.

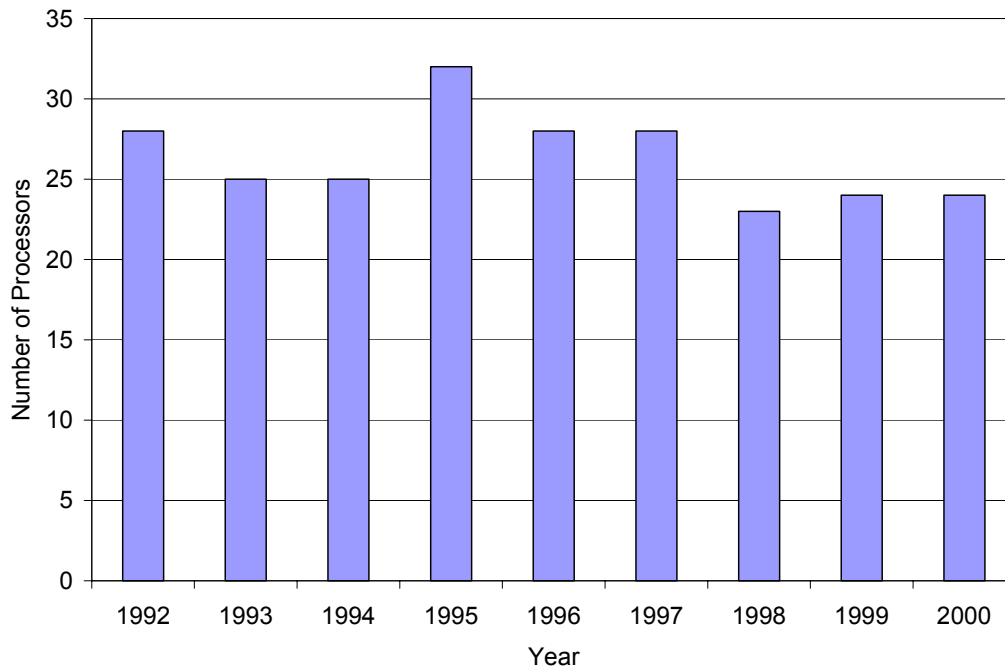
<sup>e</sup> Total value of final product per round weight ton reported (column 5 ÷ column 2).

Source: NMFS Blend Data and Weekly Production Report Data, June 2001

**2.2.3.3 Class Participation**

The number of HT-CP vessels decreased from 28 in 1992 to 24 in 2000, a decrease of about 15 percent (Figure 2.2.3-1).

**Figure 2.2.3-1. Number of Active Head and Gut Trawl Catcher Processors, 1992-2000**



Source: NMFS Blend Data, June 2001.

**2.2.3.4 Catch and Production**

With few exceptions, vessels in this class process all four major species groups (pollock, Pacific cod, flatfish, and ARSO) on an annual basis (Table 2.2.3-3). Flatfish species, yellowfin sole, and rock sole in particular are the primary targets of the HT-CP fleet. Species in the ARSO species aggregation have also been very important to the class, particularly Atka mackerel and various rockfish species. In 2000, FLAT and ARSO accounted for 81 percent of the total tons of groundfish harvested and 70 percent of the wholesale production value (Table 2.2.3-4 and Table 2.2.3-6).

The long operating season of the HT-CP fleet and its harvest of a number of different species are shown in Table 2.2.3-7. Flatfish account for most of the catch in the spring months, while the ARSO species complex is more important during the fall months. Pacific cod and pollock harvests remain at relatively low levels for most of the year. Table 2.2.3-8 and Table 2.2.3-9 provide details on wholesale value of products and landings in target fisheries by this processor class. Wholesale value of products from target species by trimester is presented in Table 2.2.3-10.

**Table 2.2.3-3. Number of Head and Gut Trawl Catcher Processors by Species, 1992-2000**

Year	Number of Processors				
	ARSO	FLAT	PCOD	PLCK	Total
1992	28	28	28	28	28
1993	25	25	25	25	25
1994	25	25	25	25	25
1995	32	32	32	32	32
1996	28	28	28	28	28
1997	28	28	28	28	28
1998	23	23	23	23	23
1999	24	24	24	24	24
2000	24	24	24	24	24

Source: NMFS Weekly Production Reports, June 2001

**Table 2.2.3-4. Tons of Groundfish Reported by Head and Gut Trawl Catcher Processors by Species, 1992-2000**

Year	Thousands of Tons				
	ARSO	FLAT	PCOD	PLCK	Total
1992	106.64	114.23	23.47	30.68	275.02
1993	124.03	106.58	27.25	40.04	297.91
1994	134.57	135.59	29.71	49.84	349.70
1995	146.99	114.24	38.28	39.88	339.38
1996	169.42	127.36	31.96	38.53	367.27
1997	139.99	171.38	31.76	38.78	381.91
1998	107.12	135.98	30.53	24.32	297.94
1999	133.39	108.17	28.14	29.36	299.06
2000	129.12	138.28	31.15	31.92	330.47

Source: NMFS Blend Data, June 2001

**Table 2.2.3-5. Wholesale Value per Roundweight Ton for Head and Gut Trawl Catcher Processors by Species, 1992-2000**

Year	ARSO		FLAT		PCOD		PLCK	
	\$/Pound	\$/Ton	\$/Pound	\$/Ton	\$/Pound	\$/Ton	\$/Pound	\$/Ton
1992	0.33	731	0.19	418	0.27	595	0.13	291
1993	0.30	663	0.20	450	0.17	376	0.05	115
1994	0.23	504	0.24	526	0.18	404	0.03	73
1995	0.29	640	0.26	580	0.15	336	0.05	101
1996	0.29	643	0.26	575	0.21	453	0.04	84
1997	0.27	589	0.19	423	0.18	393	0.03	57
1998	0.16	346	0.18	388	0.39	850	0.09	197
1999	0.19	412	0.19	413	0.54	1,194	0.08	179
2000	0.18	391	0.18	395	0.56	1,228	0.11	248

Source: NMFS Blend Data and Weekly Production Report, June 2001

**Table 2.2.3-6. Wholesale Production Value for Head and Gut Trawl Catcher Processors by Species, 1992-2000**

Year	\$Millions				
	ARSO	FLAT	PCOD	PLCK	Total
1992	57.32	59.49	13.97	8.93	139.72
1993	58.82	63.84	10.25	4.59	137.49
1994	48.28	91.61	11.99	3.65	155.52
1995	69.55	88.40	12.85	4.02	174.82
1996	87.40	92.50	14.49	3.23	197.62
1997	52.82	93.77	12.49	2.21	161.30
1998	27.87	63.09	25.96	4.80	121.72
1999	40.53	59.14	33.59	5.25	138.51
2000	33.30	72.04	38.25	7.92	151.50

Source: NMFS Weekly Production Reports, June 2001

**Table 2.2.3-7. Wholesale Production Value for Head and Gut Trawl Catcher Processors by Trimester, 1992-2000**

Year	\$Millions		
	Jan-Apr	May-Aug	Sep-Dec
1992	74.30	43.13	22.29
1993	68.22	35.35	33.92
1994	77.11	46.42	31.99
1995	103.53	44.64	26.65
1996	100.84	70.45	26.33
1997	89.04	36.65	35.62
1998	55.16	38.02	28.54
1999	68.79	43.65	26.07
2000	78.58	46.28	26.64

<sup>a</sup> Source: NMFS Blend Data and Weekly Production Report Data, June 2001

**Table 2.2.3-8. Wholesale Value of Products from Target Species by Head and Gut Trawl Catcher Processors by Trimester, 1992-2000**

Target	\$Millions				
	Year	Jan-Apr	May-Aug	Sep-Dec	Total
<b>AMCK</b>	1992	19.06	0.01	0.06	19.13
	1993	20.75	2.83	10.12	33.70
	1994	14.78	10.47	0.26	25.52
	1995	33.16	7.84	0.12	41.12
	1996	35.63	29.07	0.59	65.29
	1997	32.63	0.00	0.00	32.63
	1998	10.95	2.28	3.83	17.06
	1999	9.22	0.89	11.73	21.84
	2000	12.29	1.56	5.84	19.69
	<b>FLAT</b>	1992	20.86	20.63	14.93
1993		22.80	19.36	18.99	61.15
1994		42.82	19.48	25.37	87.67
1995		40.98	20.20	19.55	80.73
1996		40.27	25.99	18.68	84.94
1997		32.28	24.43	30.82	87.54
1998		28.87	15.79	14.25	58.92
1999		28.69	16.79	7.55	53.02
2000		31.76	21.36	13.39	66.51
<b>PCOD</b>		1992	5.90	1.36	0.23
	1993	3.93	0.26	0.05	4.24
	1994	2.05	0.14	0.35	2.54
	1995	5.88	0.01	0.20	6.09
	1996	2.71	0.31	0.56	3.58
	1997	3.61	0.90	0.21	4.72
	1998	3.71	2.55	1.50	7.76
	1999	13.89	1.43	1.10	16.42
	2000	15.21	2.28	0.21	17.70
	<b>PLCK</b>	1992	5.86	0.85	0.26
1993		4.05	0.00	0.01	4.05
1994		1.41	0.37	0.29	2.07
1995		1.16	0.61	0.86	2.63
1996		0.05	0.00	2.36	2.40
1997		0.80	0.00	0.38	1.19
1998		0.10	0.00	0.56	0.66
1999		0.01	0.69	0.01	0.71
2000		0.50	0.04	0.42	0.95
<b>ROCK</b>		1992	9.16	8.88	2.58
	1993	5.93	7.75	0.50	14.17
	1994	5.24	7.02	0.94	13.20
	1995	9.12	8.10	3.62	20.84
	1996	6.73	5.72	1.77	14.22
	1997	6.55	6.45	0.02	13.01
	1998	0.00	7.00	0.05	7.05
	1999	0.01	13.14	0.02	13.16
	2000	0.00	8.07	0.11	8.18

<sup>a</sup> Data omitted to protect confidentiality.

Source: NMFS Blend Data and Weekly Production Report Data, June 2001.



**Table 2.2.3-9. Landings of Target Species in Target Fisheries by Head and Gut Trawl Catcher Processors by Trimester, 1992-2000**

Target	Thousands of Tons				Total
	Year	Jan-Apr	May-Aug	Sep-Dec	
<b>AMCK</b>	1992	20.99	0.06	0.05	21.11
	1993	24.94	3.15	14.29	42.37
	1994	31.68	20.82	0.52	53.01
	1995	56.61	12.52	0.16	69.30
	1996	51.80	40.23	0.71	92.73
	1997	51.36	0.00	0.00	51.36
	1998	31.30	5.97	9.67	46.94
	1999	22.06	2.06	28.50	52.62
	2000	29.21	3.62	13.66	46.48
<b>FLAT</b>	1992	22.32	66.45	43.01	131.77
	1993	33.13	56.15	45.65	134.93
	1994	54.05	49.70	59.67	163.43
	1995	56.92	43.14	39.84	139.91
	1996	44.59	65.81	40.07	150.47
	1997	54.60	74.38	78.01	206.99
	1998	52.05	52.21	47.00	151.27
	1999	53.44	52.07	24.23	129.74
	2000	72.56	50.58	44.86	168.00
<b>PCOD</b>	1992	8.07	1.72	0.31	10.10
	1993	6.15	0.49	0.11	6.75
	1994	3.58	0.32	0.59	4.50
	1995	13.70	0.03	0.44	14.17
	1996	4.55	0.55	0.80	5.90
	1997	7.53	1.78	0.50	9.81
	1998	4.26	3.04	1.74	9.04
	1999	11.01	1.16	0.90	13.08
	2000	11.98	1.88	0.17	14.03
<b>PLCK</b>	1992	5.21	4.08	0.96	10.25
	1993	10.16	0.02	0.06	10.24
	1994	1.52	1.18	0.83	3.53
	1995	2.01	1.78	2.25	6.03
	1996	0.13	0.01	3.98	4.12
	1997	1.20	0.05	1.08	2.33
	1998	0.25	0.01	2.38	2.65
	1999	0.10	2.19	0.03	2.32
	2000	0.82	0.12	1.29	2.23
<b>ROCK</b>	1992	10.39	9.25	2.82	22.47
	1993	7.97	11.57	0.75	20.29
	1994	8.34	11.31	1.52	21.16
	1995	8.98	9.56	4.98	23.52
	1996	10.80	8.53	2.61	21.94
	1997	9.52	10.66	0.03	20.21
	1998	0.00	16.22	0.11	16.33
	1999	0.05	25.58	0.04	25.67
	2000	0.00	17.23	0.24	17.47

<sup>a</sup> Data omitted to protect confidentiality.

Source: NMFS Blend Data and Weekly Production Report Data, June 2001.

**Table 2.2.3-10. Wholesale Value of All Products from Top Three Target Fisheries by Head and Gut Trawl Catcher Processors, 1992-2000**

Year	Wholesale Value (\$Millions)			
	FLAT	AMCK	ROCK	All Target Total
1992	63.11	21.27	26.41	139.72
1993	67.44	35.68	18.40	137.49
1994	98.00	29.91	17.98	155.52
1995	89.32	43.88	25.89	174.82
1996	93.60	72.33	19.68	197.62
1997	96.90	35.57	17.05	161.30
1998	78.04	21.27	9.31	121.72
1999	71.86	25.73	17.26	138.51
2000	92.58	23.58	10.79	151.50

Source: NMFS Blend Data and Weekly Production Report Data, June 2001.

The tons and wholesale production value of groundfish by FMP subarea are presented in Table 2.2.3-11 and Table 2.2.3-12, respectively. The BS is clearly the focus of these vessels, but a substantial number also fish in the AI, WG, and CG. Relatively few HT-CP vessels fish in the EG.

Information on the number of HT-CP vessels harvesting pollock and Pacific cod by FMP subarea and the tonnage and wholesale value of the harvest are shown in Table 2.2.3-13, Table 2.2.3-14 and Table 2.2.3-15, respectively. These tables are particularly relevant given recent and proposed area restrictions on fishing for pollock and Pacific cod designed to protect Steller sea lions.

**Table 2.2.3-11. Tons of Groundfish Reported by Head and Gut Trawl Catcher Processors by FMP Subarea, 1992-2000**

Year	Thousands of Tons					
	AI	BS	WG	CG	EG	Total
1992	39.38	182.13	18.38	28.79	6.34	275.02
1993	71.31	191.60	8.28	26.00	0.72	297.91
1994	78.24	233.25	5.99	29.09	3.13	349.70
1995	91.87	211.42	4.44	27.91	3.75	339.38
1996	126.32	201.05	6.28	30.01	3.60	367.27
1997	71.57	282.18	5.72	18.96	3.49	381.91
1998	68.35	202.80	5.25	19.84	1.71	297.94
1999	79.19	189.10	7.14	21.64	1.99	299.06
2000	71.37	222.61	11.03	24.08	1.37	330.47

Source: NMFS Blend Data, June 2001

**Table 2.2.3-12. Wholesale Production Value of Groundfish by Head and Gut Trawl Catcher Processors by FMP Subarea, 1992-2000**

Year	\$Millions					
	AI	BS	WG	CG	EG	Total
1992	29.85	74.28	9.80	19.33	6.47	139.72
1993	47.08	69.18	5.25	15.26	0.72	137.49
1994	38.06	96.28	3.91	15.15	2.13	155.52
1995	55.76	93.65	3.39	18.18	3.83	174.82
1996	81.86	88.96	4.16	19.21	3.43	197.62
1997	43.69	101.70	2.97	10.13	2.81	161.30
1998	26.78	77.83	2.72	13.40	1.00	121.72
1999	35.47	79.92	5.08	16.16	1.88	138.51
2000	34.36	92.30	7.42	16.54	0.88	151.50

Source: NMFS Blend Data, June 2001

**Table 2.2.3-13. Number of Head and Gut Trawl Catcher Processors Processing Pacific Cod and Pollock by FMP Area**

Year	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	19	27	22	19	18	27	21	20
1993	17	25	16	17	15	25	11	14
1994	10	24	14	17	9	24	7	11
1995	16	32	15	22	16	32	15	23
1996	14	28	20	19	14	28	18	17
1997	10	28	16	19	10	28	15	17
1998	13	23	14	11	12	23	11	11
1999	12	24	13	15	11	24	9	14
2000	12	23	14	10	10	23	14	10

Source: NMFS Blend Data, June 2001

**Table 2.2.3-14. Tons of Pacific Cod and Pollock Reported by Head and Gut Trawl Catcher Processors by FMP Area**

Year	Thousands of Tons							
	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	6.28	12.78	2.82	1.53	0.77	27.53	0.71	1.56
1993	7.41	17.66	0.49	1.70	1.06	38.24	0.20	0.54
1994	6.35	21.86	0.32	1.16	0.63	47.79	0.18	1.23
1995	4.19	30.77	0.87	2.42	0.66	38.00	0.14	1.04
1996	9.45	19.54	0.70	2.27	0.61	36.34	0.28	1.24
1997	1.82	28.03	0.54	1.37	0.27	37.78	0.15	0.57
1998	5.70	20.32	0.34	4.16	0.49	23.61	0.07	0.13
1999	5.57	20.20	0.65	1.67	0.49	28.52	0.16	0.18
2000	7.30	21.49	0.84	1.52	0.67	30.85	0.18	0.21

Source: NMFS Blend Data, June 2001

**Table 2.2.3-15. Wholesale Value of Pacific Cod and Pollock Harvested by Head and Gut Trawl Catcher Processors by FMP Area**

Year	\$Millions							
	PCOD				PLCK			
	AI	BS	WG	CG	AI	BS	WG	CG
1992	4.70	6.54	1.70	1.01	0.30	8.37	0.16	0.09
1993	3.70	5.80	0.16	0.59	0.15	4.44	0.00	0.00
1994	3.41	8.02	0.11	0.45	0.11	3.54	0.00	0.00
1995	1.60	10.06	0.29	0.90	0.03	3.98	0.01	0.00
1996	5.56	8.36	0.24	0.32	0.00	3.21	0.00	0.02
1997	0.72	11.21	0.14	0.42	0.01	2.19	0.00	0.01
1998	4.95	17.32	0.24	3.45	0.10	4.66	0.01	0.02
1999	6.88	23.88	0.79	1.99	0.13	5.05	0.05	0.03
2000	9.20	26.34	0.95	1.75	0.19	7.61	0.07	0.05

Source: NMFS Blend Data and Weekly Production Report Data, June 2001

Detailed information on the geographical distribution of the Atka mackerel, Pacific cod, rock sole and yellowfin sole catch in the Bering Sea is presented in Figure 2.2.3-2 through Figure 2.2.3-5. Detailed information on the geographical distribution of the Atka mackerel, Pacific cod, rockfish, and rock sole catch in the Gulf of Alaska is presented in Figure 2.2.3-6 through Figure 2.2.3-9. The figures show catches for the years 1997 and 1998 combined. In the figures, only catches in areas in which four or more vessels reported landings are shown.

**Figure 2.2.3-2. Average Annual Atka Mackerel Catch of Head and Gut Trawl Catcher Processors in the Bering Sea, by Statistical Area, 1997-1998**

**Figure 2.2.3-3. Average Annual Pacific Cod Catch of Head and Gut Trawl Catcher Processors in the Bering Sea, by Statistical Area, 1997-1998**

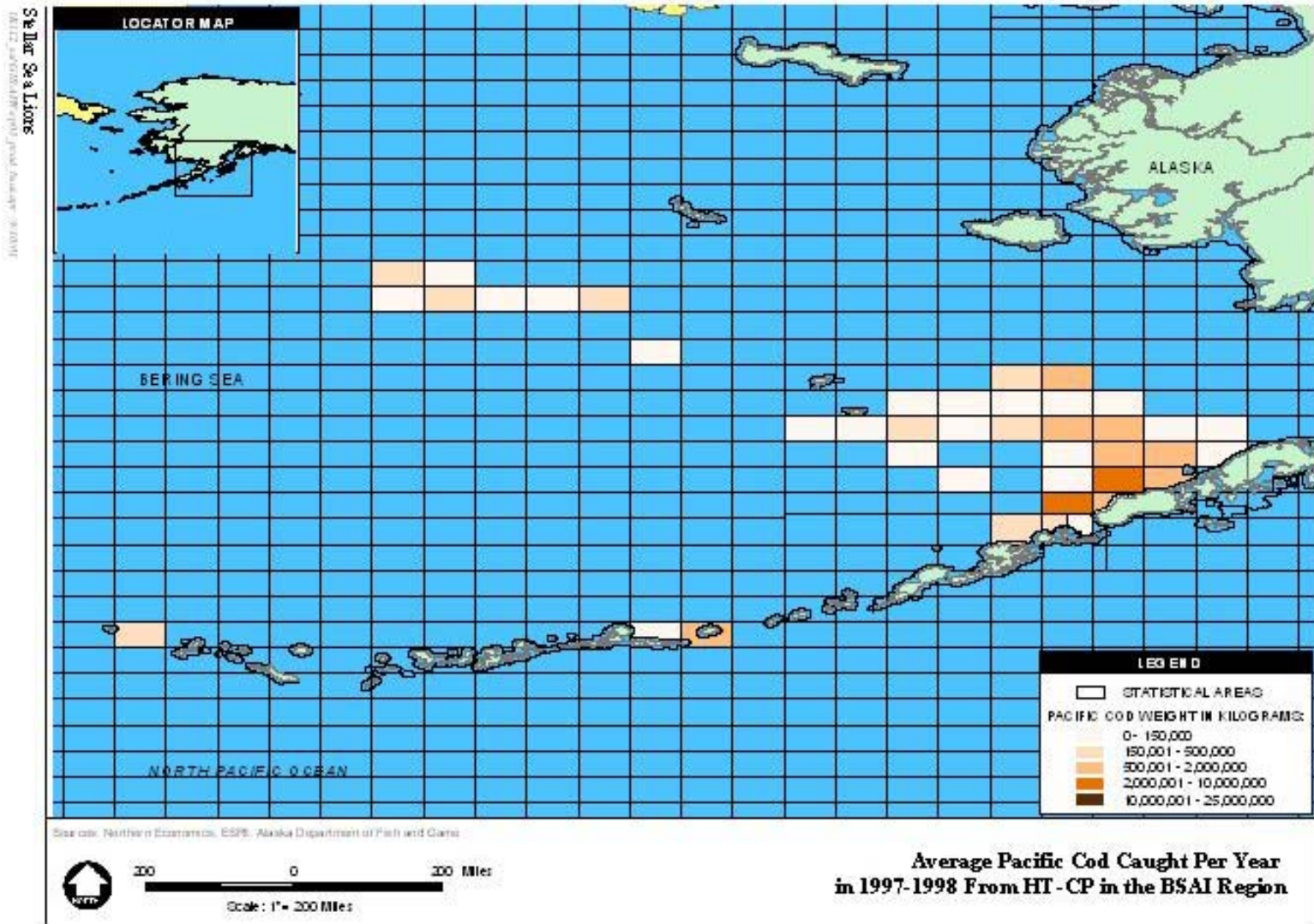
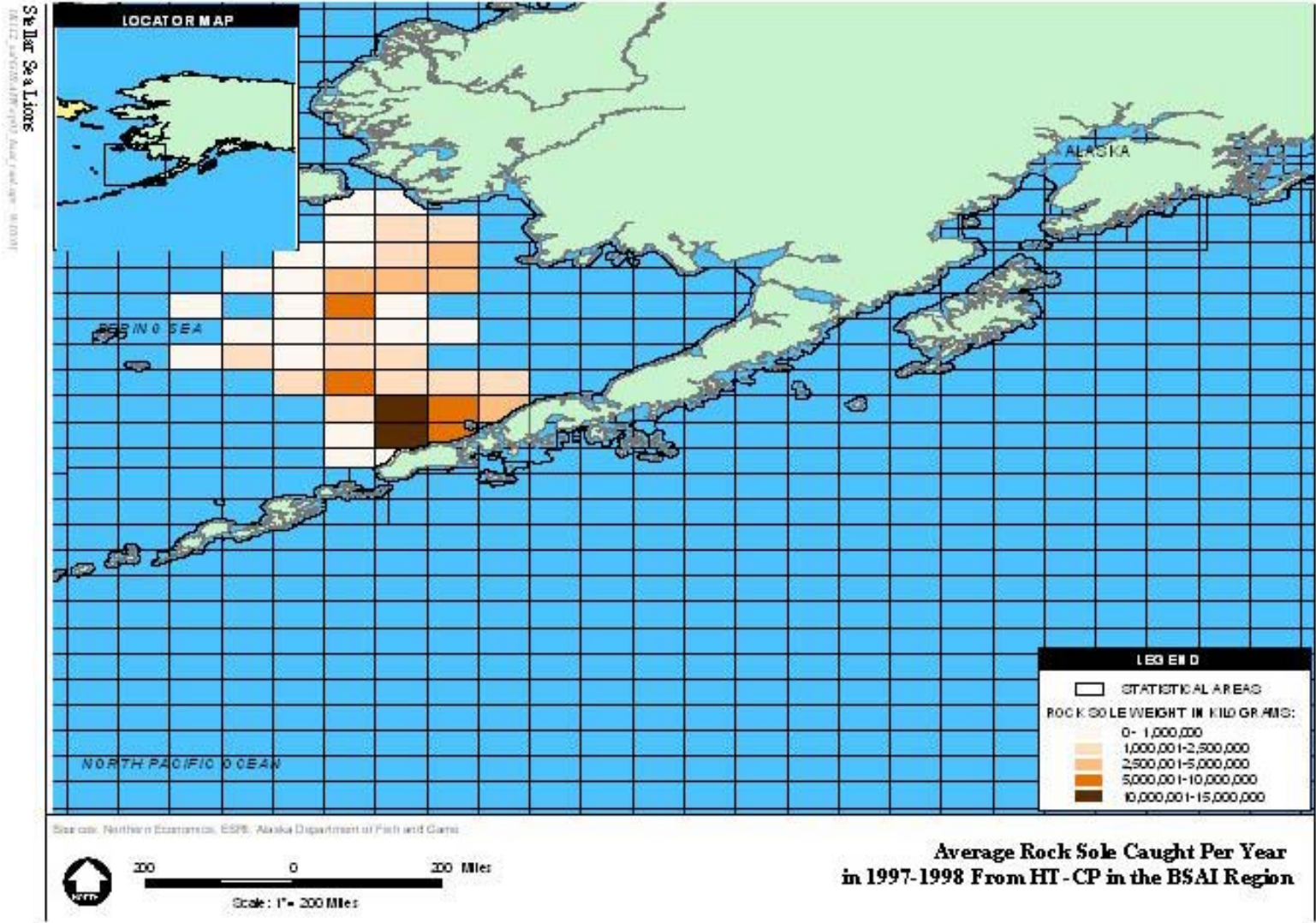


Figure 2.2.3-4. Average Annual Rock Sole Catch of Head and Gut Trawl Catcher Processors in the Bering Sea, by Statistical Area, 1997-1998



**Figure 2.2.3-5. Average Annual Yellowfin Sole Catch of Head and Gut Trawl Catcher Processors in the Bering Sea, by Statistical Area, 1997-1998**

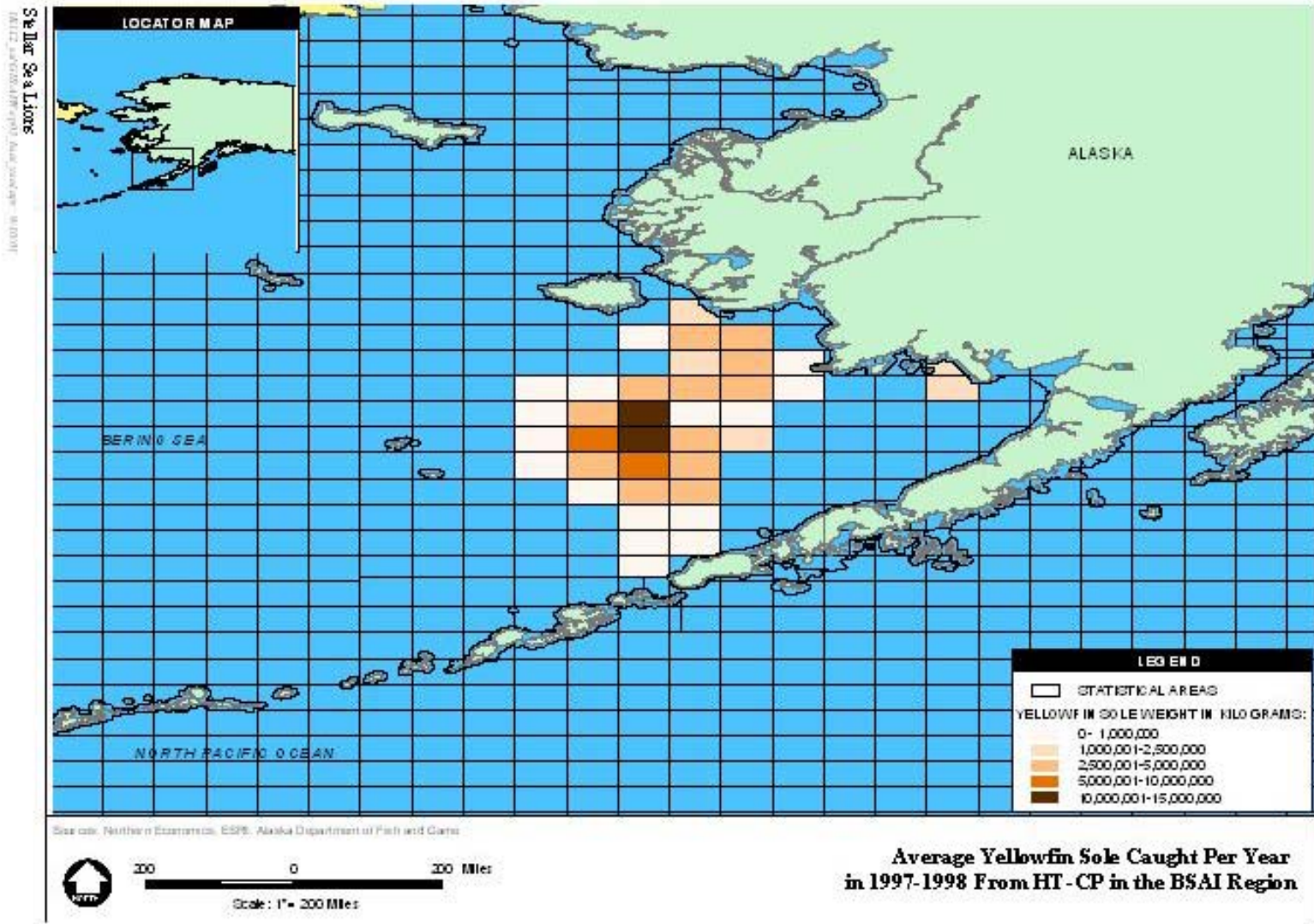
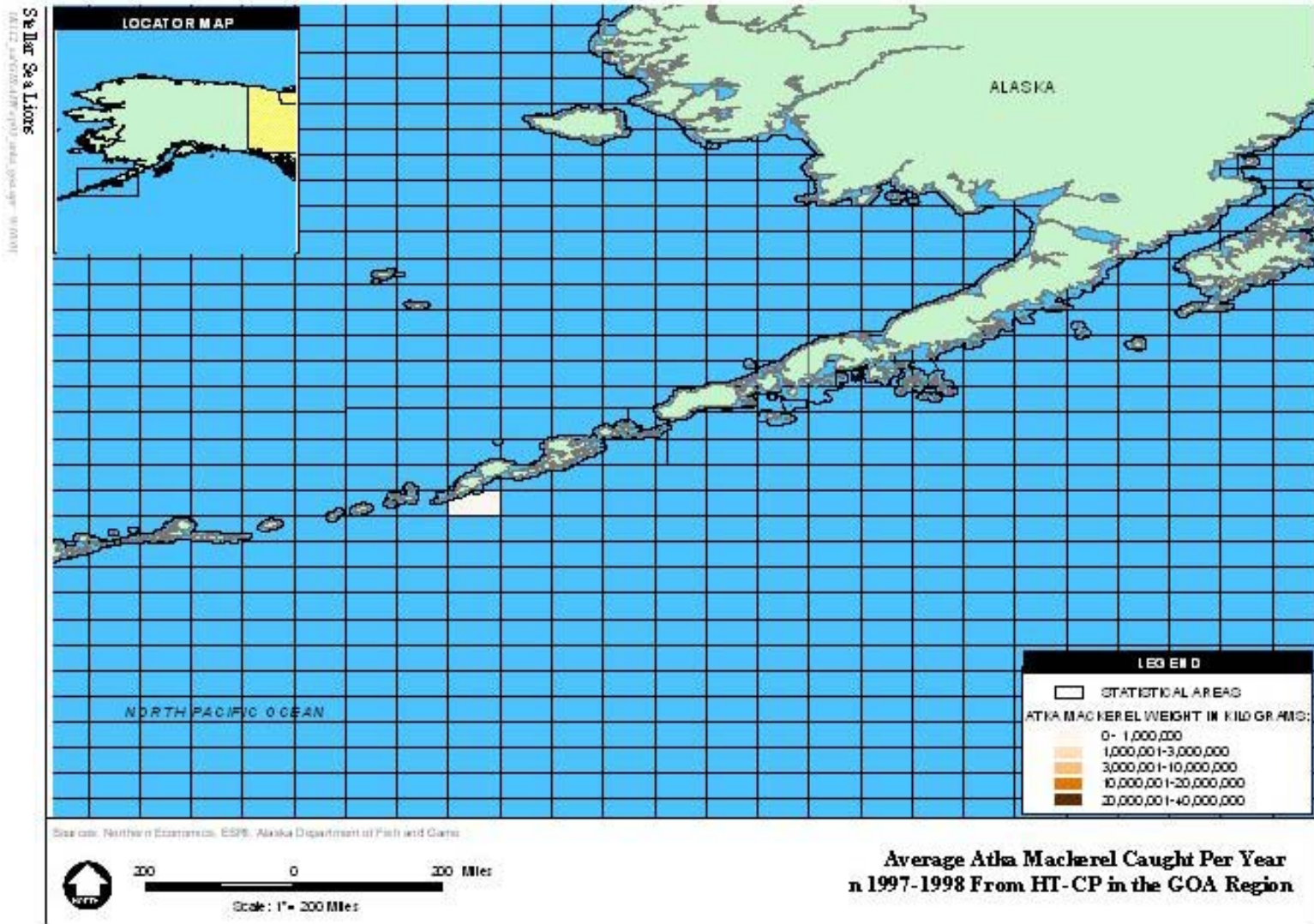
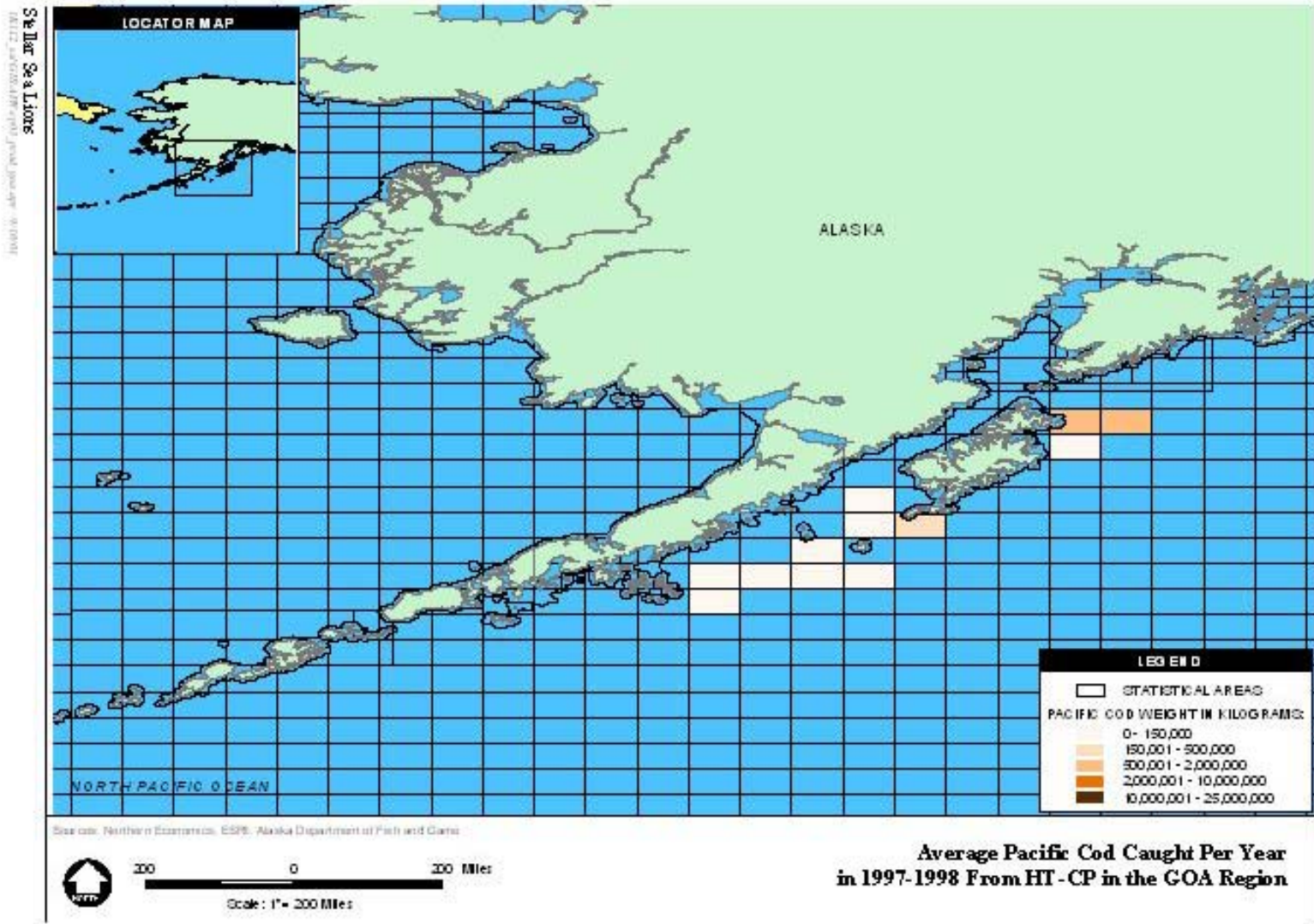




Figure 2.2.3-6. Average Annual Atka Mackerel Catch of Head and Gut Trawl Catcher Processors in the Gulf of Alaska, by Statistical Area, 1997-1998

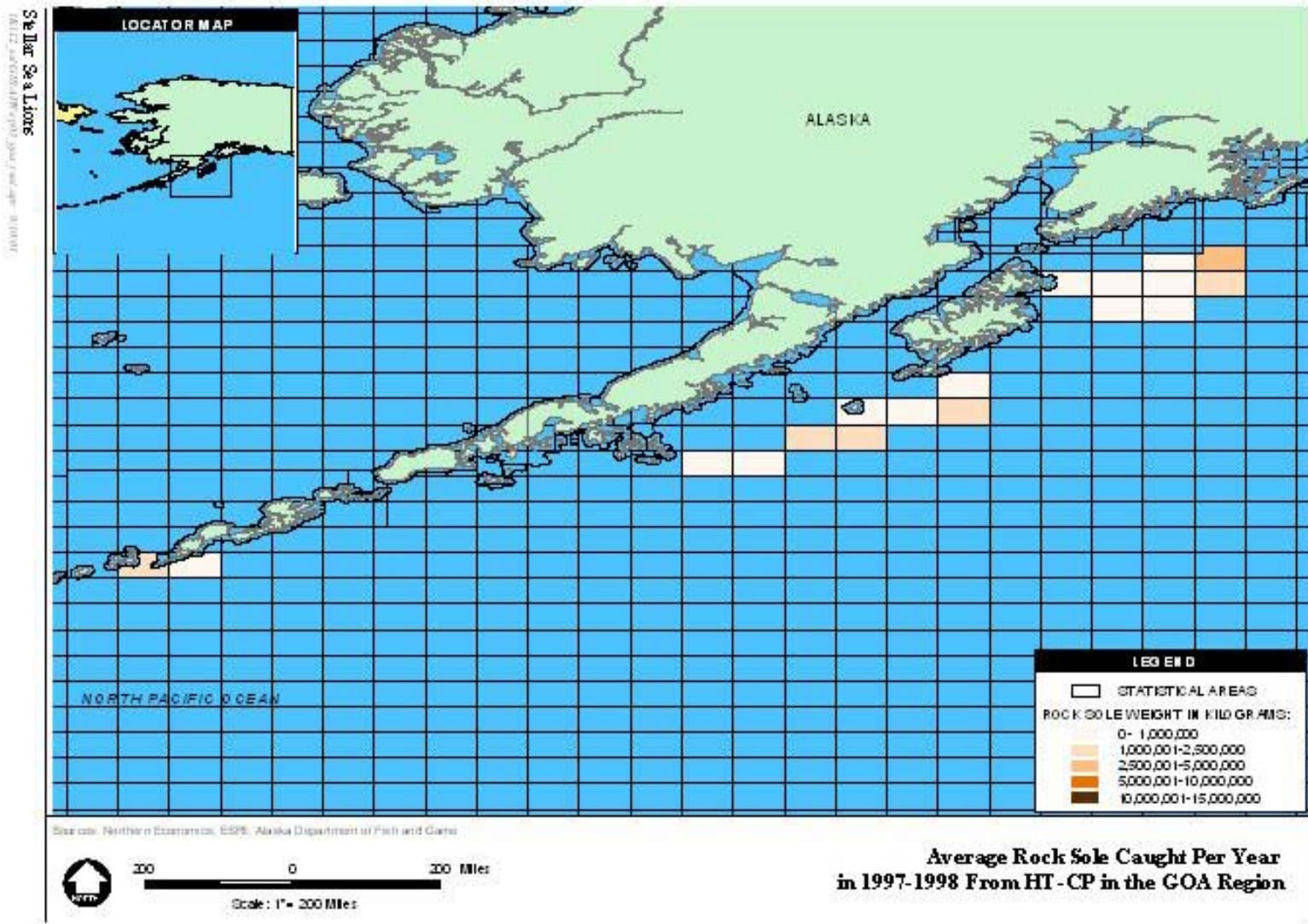


**Figure 2.2.3-7. Average Annual Pacific Cod Catch of Head and Gut Trawl Catcher Processors in the Gulf of Alaska, by Statistical Area, 1997-1998**



**Figure 2.2.3-8. Average Annual Rockfish Catch of Head and Gut Trawl Catcher Processors in the Gulf of Alaska, by Statistical Area, 1997-1998**

Figure 2.2.3-9. Average Annual Rock Sole Catch of Head and Gut Trawl Catcher Processors in the Gulf of Alaska, by Statistical Area, 1997-1998



**2.2.3.5 Crew Employment and Income**

The smaller vessel size and limited product forms in the HT-CP class result in much smaller crews compared to ST-CP and FT-CP vessels. The average crew size of about 34 persons is about one-third of the average employment on an ST-CP, and less than half of the average crew for a FT-CP vessel. A typical crew might include a captain, a mate, two engineers (one each for the vessel and processing equipment), a cook/housekeeper, two to three crewmembers dedicated to the deck, a processing foreman and assistant, and about 20 processing workers. On some vessels, two to three crewmembers may split their time between processing and deck work. Any variation in crew size usually is the result of a change in the number of processing workers employed.

Table 2.2.3-16 indicates the average crew size and number of FTE positions in this class. FTE positions were estimated from Weekly Production Report information on the number of crew and the number of weeks that the vessel was operating. The product of these data was divided by 52 weeks in a year to arrive at total groundfish FTE employment. Average FTE employment is the total FTE employment divided by the number of vessels in this class in each year.

Table 2.2.3-16 also shows estimated payments to labor for head and gut catcher processors. Payments to labor were calculated as 30 percent of total production value for the crew, plus an additional 10 percent of total labor costs for the home office. FTE employment and payments to labor by trimester are presented in Table 2.2.3-17 and Table 2.2.3-18, respectively.

**Table 2.2.3-16. Estimated Full-Time Equivalent Employment Generated by Groundfish-Related Activity by Head and Gut Trawl Catcher Processors, 1992-2000**

Year	Groundfish FTE Employment at Processing Facilities	Additional Administrative FTE Employment	Total Groundfish FTE Employment <sup>a</sup>	Total Number of Facilities <sup>b</sup>	Average Groundfish FTE Employment <sup>c</sup>	Average Vessel Crew Size <sup>d</sup>	Total Payments to Labor (\$Millions)	Payments to Labor per FTE (\$Millions)
1992	859	43	902	28	30.7	34.0	55.9	0.06
1993	767	38	805	25	30.7	34.0	55.0	0.07
1994	981	49	1,030	25	39.3	35.1	62.2	0.06
1995	995	50	1,045	32	31.1	34.3	69.9	0.07
1996	1,326	66	1,392	28	47.4	33.4	79.0	0.06
1997	1,318	66	1,384	28	47.1	35.1	64.5	0.05
1998	1,168	58	1,227	23	50.8	33.0	48.7	0.04
1999	1,245	62	1,307	24	51.9	34.5	55.4	0.04
2000	1,089	54	1,144	24	45.4	36.8	60.6	0.06

<sup>a</sup> Total groundfish FTE positions for vessels were estimated using NMFS Observer Data (June 2001) on the number of crew when the vessel was operating. These data were adjusted to account for the longer work days on vessels (16-hour days for STP, FTP, MS, and FLT, and 12-hour days for other processing vessel classes), assuming an average of 6 work days per week (to account for partial weeks), and dividing by 52 weeks in year.

<sup>b</sup> Total number of facilities is from NMFS Blend Data.

<sup>c</sup> Average groundfish FTE is the total groundfish FTE divided by the number of facilities.

<sup>d</sup> Average vessel crew size is derived from NMFS Observer Data

Source: Calculated by Northern Economics from NMFS Observer Data, Blend Data and Weekly Production Report Data, June 2001.

**Table 2.2.3-17. Full Time Equivalent Employment on Head and Gut Trawl Catcher Processors by Trimester, 1992-2000**

Year	Number of FTE			
	Jan-Apr	May-Aug	Sep-Dec	Total
1992	480	278	144	902
1993	380	197	189	767
1994	487	293	202	981
1995	590	254	152	995
1996	677	473	177	1,326
1997	728	299	291	1,318
1998	529	365	274	1,168
1999	618	392	234	1,245
2000	565	333	192	1,089

Source: Estimated by Northern Economics from NMFS Blend and Weekly Report Data, June 2001

**Table 2.2.3-18. Payments to Labor on Head and Gut Trawl Catcher Processors by Trimester, 1992-2000**

Year	\$Millions			
	Jan-Apr	May-Aug	Sep-Dec	Total
1992	29.72	17.25	8.92	55.89
1993	27.29	14.14	13.57	55.00
1994	30.84	18.57	12.80	62.21
1995	41.41	17.86	10.66	69.93
1996	40.34	28.18	10.53	79.05
1997	35.61	14.66	14.25	64.52
1998	22.06	15.21	11.42	48.69
1999	27.52	17.46	10.43	55.40
2000	31.43	18.51	10.66	60.60

Source: Estimated by Northern Economics from NMFS Blend and Weekly Report Data, June 2001

### 2.2.3.6 Regional Residence of Vessel Owners

Table 2.2.3-19 presents information on the number of HT-CP vessel owners by region. As with vessel owners in the ST-CP and FT-CP classes, most HT-CP vessel owners reside or are located in Washington. Only one HT-CP is currently owned by an Alaskan.

The vessel owner's residence is an important factor because most of the regional economic impact of catcher processor operations occurs in the owner's region of residence. Table 2.2.3-20 shows the wholesale value accruing to each region. Table 2.2.3-21 shows the payments to labor accruing to each region, while Table 2.2.3-22 shows the full-time equivalent by region. It was assumed that all crewmembers of a particular vessel and home office staff reside in the vessel owner's region of residence. The estimates of revenues by region and payments to labor by region are based on the average for all vessels in the class and do not necessarily reflect particular vessels. The use of averages for the class protects the confidentiality of data for vessel owners when less than four

residents are involved. It should also be noted that the averages have been adjusted to reflect the relative difference in productivity across regions. Because of this regional adjustment, the sum across regions for a particular vessel class will vary slightly from the actual total for the class.

**Table 2.2.3-19. Number of Head and Gut Trawl Catcher Processors Owned by Regional Residents**

Year	Number of Processors							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0	1	0	0	22	1	4	28
1993	0	1	0	0	19	1	4	25
1994	0	1	0	0	21	1	2	25
1995	0	1	0	0	27	1	3	32
1996	0	1	0	0	24	0	3	28
1997	0	1	0	0	23	0	4	28
1998	0	1	0	0	18	0	4	23
1999	0	1	0	0	19	0	4	24
2000	0	1	0	0	19	0	4	24

Source: NMFS Blend Data, June 2001

**Table 2.2.3-20. Regionally-Adjusted Wholesale Value of Head and Gut Trawl Catcher Processors by Region, 1992-2000**

Year	\$Millions							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0.00	5.45	0.00	0.00	112.88	4.99	11.88	135.20
1993	0.00	5.37	0.00	0.00	108.60	5.50	12.15	131.62
1994	0.00	5.67	0.00	0.00	135.79	6.22	9.38	157.06
1995	0.00	3.00	0.00	0.00	155.31	5.46	10.15	173.92
1996	0.00	4.97	0.00	0.00	177.69	0.00	11.59	194.26
1997	0.00	3.36	0.00	0.00	139.37	0.00	14.93	157.65
1998	0.00	3.13	0.00	0.00	102.30	0.00	10.61	116.04
1999	0.00	3.16	0.00	0.00	117.39	0.00	14.99	135.53
2000	0.00	4.22	0.00	0.00	125.46	0.00	19.80	149.49

Source: Calculated by Northern Economics on average revenues in the class from NMFS Blend and Weekly Production Report Data. An adjustment has been made to account for regional differences and therefore total wholesale value in this tables are slightly different from total wholesale value in other table shown in this section.

**Table 2.2.3-21. Regionally-Adjusted Payments to Labor from Head and Gut Trawl Catcher Processors by Region, 1992-2000**

Year	\$Millions							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0.00	2.18	0.00	0.00	45.15	2.00	4.75	54.08
1993	0.00	2.15	0.00	0.00	43.44	2.20	4.86	52.65
1994	0.00	2.27	0.00	0.00	54.32	2.49	3.75	62.82
1995	0.00	1.20	0.00	0.00	62.12	2.19	4.06	69.57
1996	0.00	1.99	0.00	0.00	71.08	0.00	4.64	77.70
1997	0.00	1.34	0.00	0.00	55.75	0.00	5.97	63.06
1998	0.00	1.25	0.00	0.00	40.92	0.00	4.25	46.42
1999	0.00	1.26	0.00	0.00	46.96	0.00	6.00	54.21
2000	0.00	1.69	0.00	0.00	50.19	0.00	7.92	59.79

Source: Calculated by Northern Economics from NMFS Blend and Weekly Production Report Data.

**Table 2.2.3-22. Regionally-Adjusted Full Time Equivalent Employment on Head and Gut Trawl Catcher Processors by Region, 1992-2000**

Year	Full Time Equivalent							Total
	AKAPAI	AKKO	AKSC	AKSE	WAIW	ORCO	OTHER	
1992	0	35	0	0	728	32	77	872
1993	0	31	0	0	636	32	71	771
1994	0	38	0	0	900	41	62	1,041
1995	0	18	0	0	929	33	61	1,040
1996	0	35	0	0	1,252	0	82	1,369
1997	0	29	0	0	1,196	0	128	1,353
1998	0	32	0	0	1,031	0	107	1,169
1999	0	30	0	0	1,108	0	141	1,279
2000	0	32	0	0	947	0	149	1,129

Source: Calculated by Northern Economics from NMFS Blend and Weekly Production Report Data.