

15 Overharvest and Underharvest of IFQs and TACs

15.1 TACs and Harvests: 1991 to 1997

Table 15-1 compares the sum of commercial and retained sablefish harvests in each management area with the total allowable catch (TAC) for each year from 1991 through 1997. It shows the difference, in pounds, between the harvest and TAC, and shows the percent of the TAC that was harvested.

The 1991 to 1994 estimated harvests come from a computerized file that contains fish ticket records for catcher vessels and records derived from NMFS's Weekly Production Reports (WPRs) for catcher-processors.¹ Harvest data for 1995 through 1997 comes from NMFS-RAM catch records. Again, both commercial and retained catch have been included in the harvest totals; therefore, harvest totals are slightly different than those shown in Tables 14-1 and 14-2.²

The TACs and harvests in Table 15-1 do not include the portion of the TAC allocated to trawl operations. Also excluded are the 1995 to 1997 TACs and harvests devoted to the sablefish CDQ fishery in the Bering Sea and Aleutian Islands.

Table 15-1 indicates that estimated harvests in the 1995 to 1997 IFQ fisheries fell below the TACs in all sablefish management areas. The estimated shortfall ranged from about 0.8% in Southeast in 1997 to 41.0% in 1997 in the Bering Sea.

Prior to implementation of the IFQ program in 1995, "overages," or catches that exceeded the TAC, were common in the Southeast, West Yakutat, and Central Gulf areas. In other areas, large underharvests sometimes occurred, particularly when sablefish fisheries were closed after halibut bycatch limits were reached.

¹The harvest estimates contained herein may not agree with sablefish harvest estimates from other data sources. Since 1990, State of Alaska fish tickets do not contain all of the sablefish catch; some Exclusive Economic Zone (EEZ) catch may be recorded only on NMFS Weekly Production Reports (WPR). The authors used fish ticket records for catcher vessels and WPR records for catcher processors to construct the 1991-1994 sablefish catch records contained herein. In doing so, the authors excluded fish ticket records from catcher processors. The amount of harvest for a catcher processor in a specific management area can vary dramatically between fish ticket data and WPR data. Thus, the method of blending data used herein may result in different harvest estimates than other methods of blending fish ticket and WPR data.

² Under the NMFS IFQ catch reporting system, the entire harvest is supposed to be offloaded and weighed when the first delivery is made. If a portion of the catch is "retained" by the IFQ permit holder it is entered on the catch reporting system as retained catch. Some catch is retained for personal use; however, some catch is retained to sell to a different processor or customer.

The subsequent sale of retained catch does not result in an additional entry on the NMFS catch reporting system; i.e., the harvest is only recorded once. Nevertheless, the system does not allow a precise breakout of catch that is sold versus catch that is kept for personal use. It is likely that some of the retained catch is subsequently sold and should be included with the commercial harvest.

Table 15-1. Comparison of Sablefish TACs and Harvest by Management Area, 1991 to 1997

Area	Year	Total Allowable Catch (TAC)	Total Area Harvest	Difference TAC (-) Harvest	Percent of TAC Harvested
Southeast	1991	10,367,226	10,848,012	-480,786	104.6
	1992	10,451,001	10,627,495	-176,494	101.7
	1993	11,372,532	12,643,296	-1,270,764	111.2
	1994	14,953,937	14,042,432	911,505	93.9
	1995	12,985,212	12,007,125	978,087	92.5
	1996	10,436,188	9,823,345	612,843	94.1
	1997	8,042,381	7,980,959	61,422	99.2
W. Yakutat	1991	8,482,275	10,246,116	-1,763,841	120.8
	1992	7,833,015	9,944,545	-2,111,530	127.0
	1993	8,021,510	9,065,405	-1,043,895	113.0
	1994	10,157,787	11,639,260	-1,481,473	114.6
	1995	8,586,995	7,989,722	597,273	93.0
	1996	6,366,885	6,096,859	270,026	95.8
	1997	5,048,534	4,952,665	95,869	98.1
C. Gulf	1991	18,651,085	20,331,346	-1,680,261	109.0
	1992	16,878,571	18,112,446	-1,233,875	107.3
	1993	16,949,119	20,365,049	-3,415,930	120.2
	1994	19,788,669	14,860,366	4,928,303	75.1
	1995	15,167,786	14,072,591	1,095,195	92.8
	1996	12,169,392	11,818,815	350,577	97.1
	1997	11,305,189	10,961,703	343,486	97.0
W. Gulf	1991	5,158,811	3,671,681	1,487,130	71.2
	1992	4,409,240	5,322,280	-913,040	120.7
	1993	3,580,303	1,540,237	2,040,066	43.0
	1994	4,038,864	598,492	3,440,372	14.8
	1995	4,585,610	3,950,818	634,792	86.2
	1996	3,880,096	3,585,286	294,810	92.4
	1997	3,280,445	3,045,866	234,579	92.8
Bering Sea	1991	3,417,161	1,878,196	1,538,965	55.0
	1992	1,543,234	1,249,116	294,118	80.9
	1993	1,653,465	1,436,788	216,677	86.9
	1994	595,247	617,692	-22,445	103.8
	1995	1,410,957	998,318	412,639	70.8
	1996	970,024	703,905	266,119	72.6
	1997	970,024	572,773	397,251	59.0
Aleutians	1991	5,291,088	4,234,283	1,056,805	80.0
	1992	4,960,395	3,145,105	1,815,290	63.4
	1993	4,299,009	4,263,206	35,803	99.2
	1994	4,629,702	3,069,026	1,560,676	66.3
	1995	2,910,098	1,917,782	992,316	65.9
	1996	1,587,312	1,168,273	419,039	73.6
	1997	1,587,312	1,137,281	450,031	71.6

15.2 Total Available IFQs and Actual Harvest by Vessel Category

Table 15-2 compares the sum of sablefish harvests with the available IFQs during the first three years of the IFQ program. The data are broken out by area and vessel category. The data in Table 15-2 for harvest and total available IFQs are somewhat different than in Table 15-1 and other tables in this report.

Each year, NMFS-RAM holds out a portion of the TAC in a special “IFQ reserve” pool to cover QS claims in the administrative appeals process. If a person is awarded additional QS during the year through the administrative appeal process then IFQ is taken from the pounds set aside in the IFQ reserve pool.³ Consequently, the “current year IFQs,” as shown in Table 15-2, consist of the TAC, minus the IFQ in the reserve pool, plus any IFQs that are taken out of the reserve for awards due to administrative appeals.

The IFQ program rules provide for adjustments to a person’s current-year IFQ assignment if they overharvested or underharvested their IFQ in the previous year. Deductions can be made to a person’s current-year IFQ if they overharvested their IFQ in the previous year, and if a person underharvests their IFQ in one year, they can carry-over up to 10% of their unharvested portion to the following year.⁴ The total net carry-over from all QS holders is shown in Table 15-2. The carry-over in 1995 is zero because it was the first year of the IFQ program. The “total available IFQs” in the table is the sum of the “current year IFQs” and the previous year carry-over. The carry-over can be positive or negative.

Note again the harvest data in Table 15-2 consists of both commercial and retained catches, whereas Table 15-1 and tables in Chapter 14 and 16 do not include retained catches. The table also shows the total number of unique persons who recorded landings in each vessel category in the year.

Table 15-2 indicates that from 1995 through 1997 the harvest in most areas and vessel categories was less than the total available IFQ. The percentage of unharvested IFQ was highest in the Aleutian Islands and Bering Sea areas, especially in the smallest vessel category.

In the Western Gulf, Bering Sea, and Aleutian Islands areas, there were sometimes large differences between vessel categories in the percentage of harvested IFQ. For example, in the Aleutian Islands in 1997 the percentage of IFQ harvested in the freezer vessel category was 71.3%, but was 40.3% in the “60 foot or less” category. In the Southeast, West Yakutat, and Central Gulf areas, the differences across vessel categories were usually smaller.

³ Sometimes a QS award is made on appeal where an IFQ had not been set aside in the reserve pool. In such instances, an IFQ is not awarded until the following year.

⁴ See 50 CFR 679.40(c) and 50 CFR 679.40(e).

Table 15-2. Available IFQs and IFQs Harvested, By Area and Vessel Category

Area	Year	Vessel Category	Total Harvest	Number of Unique Harvesters	Current Year IFQs	Previous Year Carry-Over	Total Available IFQ	IFQ Pounds Remaining	Percent IFQ Harvested
Southeast	1995	Freezer	1,075,969	27	1,150,323	0	1,150,323	74,354	93.5
		GT 60 ft.	2,488,304	84	2,566,277	0	2,566,277	77,973	97.0
		LE 60 ft.	8,442,852	374	8,667,856	0	8,667,856	225,004	97.4
		AREA TOTAL	12,007,125	.	12,384,456	0	12,384,456	377,331	97.0
	1996	Freezer	909,183	26	883,885	6,594	890,479	-18,704	102.1
		GT 60 ft.	2,029,930	84	2,021,375	31,685	2,053,060	23,130	98.9
		LE 60 ft.	6,884,232	369	6,938,340	37,342	6,975,682	91,450	98.7
		AREA TOTAL	9,823,345	.	9,843,600	75,621	9,919,221	95,876	99.0
	1997	Freezer	700,575	26	736,354	-2,127	734,227	33,652	95.4
		GT 60 ft.	1,627,363	75	1,640,842	8,958	1,649,800	22,437	98.6
		LE 60 ft.	5,653,021	337	5,659,402	78,354	5,737,756	84,735	98.5
		AREA TOTAL	7,980,959	.	8,036,598	85,185	8,121,783	140,824	98.3
W. Yakutat	1995	Freezer	644,347	21	663,390	0	663,390	19,043	97.1
		GT 60 ft.	4,913,952	99	4,985,129	0	4,985,129	71,177	98.6
		LE 60 ft.	2,431,423	166	2,530,182	0	2,530,182	98,759	96.1
		AREA TOTAL	7,989,722	.	8,178,701	0	8,178,701	188,979	97.7
	1996	Freezer	502,331	20	441,083	7,147	448,230	-54,101	112.1
		GT 60 ft.	3,727,287	108	3,719,219	17,582	3,736,801	9,514	99.7
		LE 60 ft.	1,867,241	160	1,909,381	8,441	1,917,822	50,581	97.4
		AREA TOTAL	6,096,859	.	6,069,683	33,170	6,102,853	5,994	99.9
	1997	Freezer	379,744	18	410,612	-6,122	404,490	24,746	93.9
		GT 60 ft.	3,024,955	100	3,056,723	-16,804	3,039,919	14,964	99.5
		LE 60 ft.	1,547,966	150	1,572,714	5,667	1,578,381	30,415	98.1
		AREA TOTAL	4,952,665	.	5,040,049	-17,259	5,022,790	70,125	98.6
C. Gulf	1995	Freezer	2,069,616	35	2,061,530	0	2,061,530	-8,086	100.4
		GT 60 ft.	7,002,653	158	7,215,138	0	7,215,138	212,485	97.1
		LE 60 ft.	5,000,322	252	5,449,752	0	5,449,752	449,430	91.8
		AREA TOTAL	14,072,591	.	14,726,420	0	14,726,420	653,829	95.6
	1996	Freezer	1,688,879	33	1,727,565	-31,137	1,696,428	7,549	99.6
		GT 60 ft.	5,747,776	139	5,716,528	96,990	5,813,518	65,742	98.9
		LE 60 ft.	4,382,160	221	4,431,977	67,780	4,499,757	117,597	97.4
		AREA TOTAL	11,818,815	.	11,876,070	133,633	12,009,703	190,888	98.4

(Continued)

Table 15-2. Available IFQs and IFQs Harvested, By Area and Vessel Category

Area	Year	Vessel Category	Total Harvest	Number of Unique Harvesters	Current Year IFQs	Previous Year Carry-Over	Total Available IFQ	IFQ Pounds Remaining	Percent IFQ Harvested
C. Gulf (con't)	1997	Freezer	1,490,900	28	1,633,566	-10,800	1,622,766	131,866	91.9
		GT 60 ft.	5,369,615	144	5,399,569	38,272	5,437,841	68,226	98.7
		LE 60 ft.	4,101,188	200	4,183,894	33,349	4,217,243	116,055	97.2
		AREA TOTAL	10,961,703	.	11,217,029	60,821	11,277,850	316,147	97.2
W. Gulf	1995	Freezer	1,596,633	24	1,646,353	0	1,646,353	49,720	97.0
		GT 60 ft.	1,758,312	63	1,883,786	0	1,883,786	125,474	93.3
		LE 60 ft.	595,873	34	794,849	0	794,849	198,976	75.0
		AREA TOTAL	3,950,818	.	4,324,988	0	4,324,988	374,170	91.3
	1996	Freezer	1,410,986	26	1,391,321	18,151	1,409,472	-1,514	100.1
		GT 60 ft.	1,582,571	62	1,576,794	23,240	1,600,034	17,463	98.9
		LE 60 ft.	591,729	36	693,768	26,269	720,037	128,308	82.2
		AREA TOTAL	3,585,286	.	3,661,883	67,660	3,729,543	144,257	96.1
	1997	Freezer	1,155,878	23	1,240,322	-11,944	1,228,378	72,500	94.1
		GT 60 ft.	1,329,640	61	1,416,337	-2,185	1,414,152	84,512	94.0
		LE 60 ft.	560,348	43	617,946	17,623	635,569	75,221	88.2
		AREA TOTAL	3,045,866	.	3,274,605	3,494	3,278,099	232,233	92.9
Bering Sea	1995	Freezer	421,926	20	572,900	0	572,900	150,974	73.6
		GT 60 ft.	471,282	39	669,245	0	669,245	197,963	70.4
		LE 60 ft.	105,110	20	273,034	0	273,034	167,924	38.5
		AREA TOTAL	998,318	.	1,515,179	0	1,515,179	516,861	65.9
	1996	Freezer	267,032	20	369,675	36,073	405,748	138,716	65.8
		GT 60 ft.	345,928	42	429,215	32,294	461,509	115,581	75.0
		LE 60 ft.	90,945	15	194,042	22,876	216,918	125,973	41.9
		AREA TOTAL	703,905	.	992,932	91,243	1,084,175	380,270	64.9
	1997	Freezer	225,001	17	380,082	22,889	402,971	177,970	55.8
		GT 60 ft.	285,833	32	405,338	25,522	430,860	145,027	66.3
		LE 60 ft.	61,939	12	184,727	15,665	200,392	138,453	30.9
		AREA TOTAL	572,773	.	970,147	64,076	1,034,223	461,450	55.4

(Continued)

Table 15-2. Available IFQs and IFQs Harvested, By Area and Vessel Category

Area	Year	Vessel Category	Total Harvest	Number of Unique Harvesters	Current Year IFQs	Previous Year Carry-Over	Total Available IFQ	IFQ Pounds Remaining	Percent IFQ Harvested
Aleutians	1995	Freezer	1,123,475	22	1,530,857	0	1,530,857	407,382	73.4
		GT 60 ft.	711,868	37	1,036,505	0	1,036,505	324,637	68.7
		LE 60 ft.	82,439	15	224,646	0	224,646	142,207	36.7
		AREA TOTAL	1,917,782	.	2,792,008	0	2,792,008	874,226	68.7
	1996	Freezer	611,301	20	862,978	64,254	927,232	315,931	65.9
		GT 60 ft.	452,032	39	570,476	77,442	647,918	195,886	69.8
		LE 60 ft.	104,940	16	134,083	19,472	153,555	48,615	68.3
		AREA TOTAL	1,168,273	.	1,567,537	161,168	1,728,705	560,432	67.6
	1997	Freezer	656,438	18	883,242	37,246	920,488	264,050	71.3
		GT 60 ft.	424,493	36	570,073	41,523	611,596	187,103	69.4
		LE 60 ft.	56,350	13	133,992	5,821	139,813	83,463	40.3
		AREA TOTAL	1,137,281	.	1,587,307	84,590	1,671,897	534,616	68.0

15.3 Unchanged QS and Unharvested IFQ, 1995 to 1997

During the 1995 to 1997 fishing seasons there were persons who did not transfer, lease, or alter their QS holdings in any way, nor did they fish any portion of their IFQs. Tables 15-3a and 15-3b provide information on the extent of unchanged and unused QS.

Table 15-3a shows, by area and year, the total amount of QS initially issued in the area. It is compared with the sum of QS holdings that belong to persons who did not alter their holdings during the year. The portion of the “unaltered holdings” is divided into two groups for the year: QS that was used for an IFQ harvest, and QS that was not used for any IFQ harvest. The table also shows the mean amount of QS held by persons in each of the two categories, as well as the IFQ equivalent of the mean QS.

In Tables 15-3a and 15-3b, CDQ catches are not considered for the counts of persons who had sablefish harvest. The Aleutian Islands and Bering Sea are CDQ areas and portions of the TAC in those areas are allocated to CDQs.

The amount and percentage of QS that belongs to persons who have not altered their holdings since the beginning of the program should decline each year. The percentage of QS that was held by persons who had not changed their holdings by the end of 1995 ranged from 75.0% in the Southeast area to 91.6% in the Western Gulf. These percentages declined in each year from from 1995 to 1997 in all areas. By the end of 1997, the percentage of QS that was held by persons who had not changed their holdings ranged from 52.6% in the Central Gulf area to 69.0% in the Western Gulf.

Some persons did not alter their QS holdings, nor did they fish in a particular year. The average QS holdings of these persons were considerably smaller than the average holdings of persons who did fish, but who also had not altered their holdings. This was true in all areas over the 1995 to 1997 period.

Table 15-3b provides similar information on the number of QS holders. It shows the total number of initial issueses in each area and year and compares them with the number of QS holders who had not altered their holdings by the end of the year. Initial issueses who had not changed their holdings are divided into two groups: the table shows the number and percentage that fished at least some of their IFQ during the year and the number and percentage that did not fish any of their IFQ during the year. The table also shows the mean QS and IFQ equivalent holdings for each group of persons.

The percentage of initial issueses who had not made changes to their QS holdings dropped from 1995 to 1997 in all areas. By the end of 1997, this percentage ranged from 45.6% in the Southeast area to 69.4% in the Bering Sea. Although the number of persons who had not altered their QS holdings nor fished their IFQ is relatively high in some areas and years, these persons held relatively small amounts of QS. For example, in West Yakutat, 15.3% of the initial issueses had not altered their QS holdings by year-end 1997, nor did they fish any of their IFQ in 1997. These person held only 492,119 shares (Table 15-3a), or 0.9% of the total QS issued in West Yakutat. Their average IFQ in 1997 was 677 pounds.

Table 15-3a Fished and Unfished QS Owned by Initial Issues Who Had Not Altered Their QS Holdings at Year-end 1995 to 1997.

Area	Year	Initial Quota Share	QS Holdings of Persons Who Had Not Altered Their Holdings by Year-end									
			Total Unaltered QS	Percent Initial	QS With Some Harvest	Percent Initial	Mean of QS With Some Harvest	IFQ Equivalent of Mean	QS With No Harvest	Percent Initial	Mean of QS With No Harvest	IFQ Equivalent of Mean
Southeast	1995	65,352,762	49,000,180	75.0	47,854,097	73.2	129,686	24,576	1,146,083	1.8	7,590	1,438
	1996	66,213,195	40,334,502	60.9	40,122,116	60.6	134,638	20,234	212,386	0.3	1,985	298
	1997	66,413,185	35,273,959	53.1	28,961,914	43.6	143,376	17,481	6,312,045	9.5	51,738	6,308
W. Yakutat	1995	52,597,269	44,335,574	84.3	43,353,101	82.4	192,680	29,961	982,473	1.9	7,616	1,184
	1996	53,043,389	37,870,451	71.4	37,557,040	70.8	205,230	23,649	313,411	0.6	3,407	393
	1997	53,131,783	31,077,219	58.5	30,585,100	57.6	213,882	20,300	492,119	0.9	7,132	677
C. Gulf	1995	107,635,310	84,983,801	79.0	83,381,018	77.5	258,947	35,429	1,602,783	1.5	9,484	1,298
	1996	110,178,659	71,303,991	64.7	70,145,490	63.7	289,857	31,469	1,158,501	1.1	7,572	822
	1997	111,070,324	58,465,733	52.6	57,590,538	51.9	306,333	31,258	875,195	0.8	7,480	763
W. Gulf	1995	35,196,842	32,223,719	91.6	30,227,218	85.9	311,621	38,292	1,996,501	5.7	21,701	2,667
	1996	35,905,712	29,623,562	82.5	27,296,761	76.0	317,404	32,783	2,326,801	6.5	29,453	3,042
	1997	36,055,489	24,877,894	69.0	24,158,318	67.0	335,532	30,645	719,576	2.0	11,606	1,060
Bering Sea	1995	17,598,802	14,854,856	84.4	12,339,898	70.1	189,845	16,345	2,514,958	14.3	44,122	3,799
	1996	18,423,785	13,544,621	73.5	11,945,209	64.8	205,952	11,282	1,599,412	8.7	29,619	1,623
	1997	18,605,154	12,670,834	68.1	10,600,052	57.0	216,328	11,281	2,070,782	11.1	40,604	2,117
Aleutians	1995	29,863,329	26,072,291	87.3	24,291,639	81.3	411,723	38,493	1,780,652	6.0	37,886	3,542
	1996	31,103,860	25,886,701	83.2	24,209,309	77.8	390,473	19,679	1,677,392	5.4	38,123	1,921
	1997	31,518,176	21,030,025	66.7	18,205,090	57.8	364,102	18,337	2,824,935	9.0	70,623	3,557

**Table 15-3b Number of Initial QS Recipients Who Had Not Altered Their QS Holdings at Year-end 1995 to 1997:
Persons With and Without Harvests**

Area	Year	Total Initial Issuees	Persons Who Had Not Altered Their QS Holdings by Year-end									
			Total Persons	Percent Initial	Persons With Some Harvest	Percent Initial	Mean of Q With Some Harvest	IFQ Equivalent of Mean	Persons With No Harvest	Percent Initial	Mean of QS With No Harvest	IFQ Equivalent of Mean
Southeast	1995	707	520	73.6	369	52.2	129,686	24,576	151	21.4	7,590	1,438
	1996	708	405	57.2	298	42.1	134,638	20,234	107	15.1	1,985	298
	1997	710	324	45.6	202	28.5	143,376	17,481	122	17.2	51,738	6,308
W. Yakutat	1995	449	354	78.8	225	50.1	192,680	29,961	129	28.7	7,616	1,184
	1996	449	275	61.2	183	40.8	205,230	23,649	92	20.5	3,407	393
	1997	452	212	46.9	143	31.6	213,882	20,300	69	15.3	7,132	677
C. Gulf	1995	633	491	77.6	322	50.9	258,947	35,429	169	26.7	9,484	1,298
	1996	637	395	62.0	242	38.0	289,857	31,469	153	24.0	7,572	822
	1997	639	305	47.7	188	29.4	306,333	31,258	117	18.3	7,480	763
W. Gulf	1995	226	189	83.6	97	42.9	311,621	38,292	92	40.7	21,701	2,667
	1996	229	165	72.1	86	37.6	317,404	32,783	79	34.5	29,453	3,042
	1997	231	134	58.0	72	31.2	335,532	30,645	62	26.8	11,606	1,060
Bering Sea	1995	140	122	87.1	65	46.4	189,845	16,345	57	40.7	44,122	3,799
	1996	143	112	78.3	58	40.6	205,952	11,282	54	37.8	29,619	1,623
	1997	144	100	69.4	49	34.0	216,328	11,281	51	35.4	40,604	2,117
Aleutians	1995	128	106	82.8	59	46.1	411,723	38,493	47	36.7	37,886	3,542
	1996	134	106	79.1	62	46.3	390,473	19,679	44	32.8	38,123	1,921
	1997	135	90	66.7	50	37.0	364,102	18,337	40	29.6	70,623	3,557