4 QS Transfers and QS Prices

Permanent transferability of QS is an important part of the IFQ program. Transfers allow QS to move to persons who feel that they can use it more profitably and allow for consolidation of QS holdings and fishing operations. This chapter looks at the extent of permanent transfers and the prices paid for QS in permanent transactions during the first three years of the program.

Section 4.1 presents data on the volume and rate of permanent QS transfers, and on the number and rate of QS holder transfers, summarized by management area during 1995, 1996 and 1997.

Section 4.2 presents similar data on QS transfer rates and on QS holder transfer rates, summarized by management area *and* vessel category during 1995, 1996, and 1997.

Section 4.3 presents estimates of average prices for permanent QS transfers broken out by management area, vessel category, and year.

Average prices for many management area, vessel category, and year combinations cannot be presented because of a lack of data. Section 4.4 presents 1995, 1996, and 1997 QS price estimates based upon a statistical model. This technique allows a very detailed breakouts of prices. In this section, estimated prices are shown by management area, vessel category, block status, size of block, year, and quarter within the year.

4.1 Transfer Rates by Area

Table 4-1 provides data on QS transfer rates and on QS holder transfer rates by management area. Data are provided for 1995, 1996, 1997, and for all three years together. The table contains information on the QS holdings at the end of the year, the total QS permanently transferred, the QS transfer rate, the total number of QS holders at the end of the year, the total number of QS holders who transferred QS (transferors), and the rate at which QS holders transferred QS. The QS transfer rate is the ratio of QS transferred to total QS held at the end of the year, expressed as a percentage. The QS holder transfer rate is the ratio of QS transferors to total QS holders at the end of the year, expressed as a percentage.

Table 4-1 shows a substantial volume of permanent QS transfers. Over all three years combined, the QS transfer rates range from a low of 0.4% in Area 4E (where all of the TAC had been allocated to CDQs), to a high of 16.8% in Area 4A. The lowest QS transfer rates were in Area 4E where there were no transfers in 1995 or 1996. The highest

QS transfer rate in any single year occurred in Area 4D in 1997 where 24% of the QS was transferred.

In 1997 QS transfer rates were lower than in earlier years in Areas 2C, 3A, and 3B. The 1997 rates in Areas 4A, 4B, and 4D (23.7%, 19.4%, and 24%) were higher than any rates seen in any other area in the preceding two years.

The QS transfer rates for the three year period were generally high compared to transfer rates for Alaska limited entry permits. Over the years 1975 to 1997, the ratio of the total number of limited entry permit transfers to the total number of transferable permit-years, interpreted here as the permit transfer rate, was 9%. Annual permit transfer rates during the period ranged from 7% to 13%.[1]

Table 4-1 also reports on the QS holder transfer rates. These are the rates derived from the ratios of the number of persons transferring QS to the total number of persons holding QS at the end of the calendar year. Over the three years combined, these rates ranged from a low of 0.3% in Area 4E to a high of 25.1% in Area 3B.

[1]Iverson, Kurt, Al Tingley, and Elaine Dinneford. *Executive Summary. Changes in the Distribution of Alaska's Commercial Fisheries Entry Permits, 1975-1997.* Alaska Commercial Fisheries Entry Commission. CFEC 98-5N-EXEC. Juneau: June, 1998. page 4. Transfer rates of State of Alaska limited entry permits and halibut QS units are not completely comparable. Limited entry permits provide an all-or-nothing access to the fishery, and leasing is prohibited, except in emergency cases. Halibut QS units can be transferred in small amounts by persons who remain in the fishery and some halibut QS units can be leased.

Table 4-1. Halibut QS Transfer Rates by Area and Year

Area	Year	Year-end Total QS	QS Transferred	QS Transfer Rate %	Year-end Total QS Holders	QS Transferors	QS Holder Transfer Rate %
2C	1995	58,965,237	10,488,537	17.8	2,134	447	20.9
	1996	59,025,567	8,970,321	15.2	1,920	441	23.0
	1997	59,549,860	5,952,264	10.0	1,742	320	18.4
	All Yrs	177,540,664	25,411,122	14.3	5,796	1,208	20.8
3A	1995	182,683,910	28,557,489	15.6	2,764	523	18.9
	1996	184,311,045	26,626,791	14.4	2,541	529	20.8
	1997	184,740,655	18,560,798	10.0	2,343	436	18.6
	All Yrs	551,735,610	73,745,078	13.4	7,648	1,488	19.5
3B	1995	53,394,413	7,332,140	13.7	957	150	15.7
	1996	53,824,727	7,576,146	14.1	838	248	29.6
	1997	53,912,549	7,184,384	13.3	715	233	32.6
	All Yrs	161,131,689	22,092,670	13.7	2,510	631	25.1
4A	1995	14,276,912	1,757,035	12.3	478	91	19.0
	1996	14,421,900	2,069,893	14.4	433	89	20.6
	1997	14,502,965	3,444,152	23.7	382	128	33.5
	All Yrs	43,201,777	7,271,080	16.8	1,293	308	23.8
4B	1995	9,022,264	408,998	4.5	145	13	9.0
	1996	9,281,377	432,444	4.7	141	12	8.5
	1997	9,284,774	1,799,544	19.4	132	32	24.2
	All Yrs	27,588,415	2,640,986	9.6	418	57	13.6
4C	1995	3,969,186	105,330	2.7	80	3	3.8
	1996	3,969,186	614,446	15.5	80	5	6.3
	1997	3,969,186	380,063	9.6	77	9	11.7
	All Yrs	11,907,558	1,099,839	9.2	237	17	7.2
4D	1995	4,685,996	109,563	2.3	67	2	3.0
	1996	4,790,491	438,168	9.1	68	5	7.4
	1997	4,790,491	1,150,444	24.0	61	21	34.4
	All Yrs	14,266,978	1,698,175	11.9	196	28	14.3
4E	1995	139,999	0	0.0	104	0	0.0
	1996	139,999	0	0.0	104	0	0.0
	1997	139,999	1,856	1.3	104	1	1.0
	All Yrs	419,997	1,856	0.4	312	1	0.3

4.2 Transfer Rates by Area and Vessel Category

The annual QS and QS holder transfer rates for each area and vessel category are shown in Table 4-2. Data are provided for 1995, 1996, 1997, and for all three years together. The variables shown in this table are those presented in Table 4-1, however the observations are more detailed management area *and* vessel category breakouts, as opposed to the management area summaries presented in Table 4-1.

Table 4-2 contains information on the QS holdings at the end of the year, the total QS permanently transferred, the QS transfer rate, the total number of QS holders at the end of the year, the total number of QS holders who transferred QS (transferors), and the rate at which QS holders transferred QS. The QS transfer rate is the ratio of QS transferred to total QS held at the end of the year, expressed in percentage form. The QS holder transfer rate is the ratio of QS transferors to total QS holders at the end of the year, expressed as a percentage.

QS transfer rates often diverged widely between vessel categories within an area. For example, over the three-year period, the average QS transfer rate for freezer vessels in Area 2C was only 5.9%, while the rate for "greater than 60 feet" catcher vessel QS was 18.2%. Similarly, the transfer rate for "less than or equal to 35 feet" catcher vessel QS in Area 4B was 3.3%, while the rate for freezer vessel QS was 21.9%. QS holder transfer rates also showed large differences between vessel categories.

In Areas 2C through 3B the "three-year" freezer QS transfer rates tended to be relatively small compared to the catcher vessel category QS transfer rates. However, in Areas 4B, 4C, and 4D, freezer vessel QS transfer rates were larger than the catcher vessel QS transfer rates.

Table 4-2. Halibut QS Transfer Rates by Area, Vessel Class, and Year

Area	Year	Vessel Class	Year-end Total QS	QS Transferred	QS Transfer Rate %	Year-end Total QS holders	QS Transferors	QS holder Transfer Rate %
2C	1995	Freezer	1,233,704	14,957	1.2	30	2	6.7
		GT 60 ft.	2,900,705	454,014	15.7	125	18	14.4
		36-60 ft.	45,222,555	8,021,093	17.7	1,019	279	27.4
		LE 35 ft.	9,608,273	1,998,473	20.8	984	152	15.4
	1996	Freezer	1,243,061	170,327	13.7	29	9	31.0
		GT 60 ft.	2,791,577	702,729	25.2	102	32	31.4
		36-60 ft.	45,810,132	6,233,633	13.6	954	247	25.9
		LE 35 ft.	9,180,797	1,863,632	20.3	871	158	18.1
	1997	Freezer	1,249,141	33,187	2.7	29	5	17.2
		GT 60 ft.	2,709,684	373,203	13.8	91	16	17.6
		36-60 ft.	46,498,798	4,489,620	9.7	873	180	20.6
		LE 35 ft.	9,092,237	1,056,254	11.6	793	122	15.4
	All Yrs	Freezer	3,725,906	218,471	5.9	88	16	18.2
		GT 60 ft.	8,401,966	1,529,946	18.2	318	66	20.8
		36-60 ft.	137,531,485	18,744,346	13.6	2,846	706	24.8
		LE 35 ft.	27,881,307	4,918,359	17.6	2,648	432	16.3
3A	1995	Freezer	4,156,950	164,789	4.0	37	2	5.4
		GT 60 ft.	67,514,777	10,588,079	15.7	274	82	29.9
		36-60 ft.	97,630,610	14,700,637	15.1	1,349	284	21.1
		LE 35 ft.	13,381,573	3,103,984	23.2	1,163	161	13.8
	1996	Freezer	4,736,344	210,053	4.4	38	5	13.2
		GT 60 ft.	68,251,744	7,135,866	10.5	281	72	25.6
		36-60 ft.	98,459,927	16,201,562	16.5	1,248	316	25.3
		LE 35 ft.	12,863,030	3,079,310	23.9	1,062	145	13.7
	1997	Freezer	4,755,112	391,508	8.2	38	7	18.4
		GT 60 ft.	68,298,684	6,583,233	9.6	277	52	18.8
		36-60 ft.	98,862,582	9,942,793	10.1	1,151	243	21.1
		LE 35 ft.	12,824,277	1,643,264	12.8	972	146	15.0
	All Yrs	Freezer	13,648,406	766,350	5.6	113	14	12.4
		GT 60 ft.	204,065,205	24,307,178	11.9	832	206	24.8
		36-60 ft.	294,953,119	40,844,992	13.8	3,748	843	22.5
		LE 35 ft.	39,068,880	7,826,558	20.0	3,197	452	14.1
3B	1995	Freezer	1,525,163	148,216	9.7	20	1	5.0
		GT 60 ft.	29,676,351	3,443,909	11.6	195	58	29.7
		36-60 ft.	20,234,235	3,444,421	17.0	511	81	15.9
		LE 35 ft.	1,958,664	295,594	15.1	253	12	4.7
	1996	Freezer	1,587,671	166,975	10.5	18	7	38.9
		GT 60 ft.	29,930,873	2,881,424	9.6	182	95	52.2
		36-60 ft.	20,598,405	3,988,982	19.4	483	120	24.8
		LE 35 ft.	1,707,778	538,765	31.5	188	28	14.9
	1997	Freezer	1,593,155	8,498	0.5	18	2	11.1
		GT 60 ft.	29,952,504	3,317,731	11.1	178	42	23.6
		36-60 ft.	20,668,535	3,338,394	16.2	394	151	38.3
		LE 35 ft.	1,698,355	519,761	30.6	160	46	28.8
	All Yrs	Freezer	4,705,989	323,689	6.9	56	10	17.9
		GT 60 ft.	89,559,728	9,643,064	10.8	555	195	35.1
		36-60 ft.	61,501,175	10,771,797	17.5	1,388	352	25.4
		LE 35 ft.	5,364,797	1,354,120	25.2	601	86	14.3

(Continued)

Table 4-2. Halibut QS Transfer Rates by Area, Vessel Class, and Year

Area	Year	Vessel Class	Year-end Total QS	QS Transferred	QS Transfer Rate %	Year-end Total QS holders	QS Transferors	QS Holder Transfer Rate %
4A	1995	Freezer	588,884	58,866	10.0	17	1	5.9
		GT 60 ft.	8,350,730	587,903	7.0	136	40	29.4
		36-60 ft.	4,243,601	896,719	21.1	135	28	20.7
		LE 35 ft.	1,093,697	213,547	19.5	200	22	11.0
	1996	Freezer	617,547	172,451	27.9	17	3	17.6
		GT 60 ft.	8,478,868	769,298	9.1	139	40	28.8
		36-60 ft.	4,267,424	905,293	21.2	126	31	24.6
		LE 35 ft.	1,058,061	222,851	21.1	168	15	8.9
	1997	Freezer	619,003	2,590	0.4	17	3	17.6
		GT 60 ft.	8,532,238	1,694,690	19.9	130	33	25.4
		36-60 ft.	4,280,423	1,301,974	30.4	107	57	53.3
		LE 35 ft.	1,071,301	444,898	41.5	151	41	27.2
	All Yrs	Freezer	1,825,434	233,907	12.8	51	7	13.7
		GT 60 ft.	25,361,836	3,051,891	12.0	405	113	27.9
		36-60 ft.	12,791,448	3,103,986	24.3	368	116	31.5
		LE 35 ft.	3,223,059	881,296	27.3	519	78	15.0
4B	1995	Freezer	322,852	0	0.0	7	0	0.0
		GT 60 ft.	7,100,366	259,872	3.7	78	8	10.3
		36-60 ft.	1,333,447	149,126	11.2	34	5	14.7
		LE 35 ft.	265,599	0	0.0	27	0	0.0
	1996	Freezer	553,489	0	0.0	8	0	0.0
		GT 60 ft.	7,114,526	317,384	4.5	77	7	9.1
		36-60 ft.	1,347,763	98,981	7.3	33	2	6.1
		LE 35 ft.	265,599	16,079	6.1	26	3	11.5
	1997	Freezer	553,489	312,602	56.5	7	3	42.9
		GT 60 ft.	7,114,526	1,216,374	17.1	72	19	26.4
		36-60 ft.	1,347,763	260,065	19.3	29	9	31.0
		LE 35 ft.	268,996	10,503	3.9	26	2	7.7
	All Yrs	Freezer	1,429,830	312,602	21.9	22	3	13.6
		GT 60 ft.	21,329,418	1,793,630	8.4	227	34	15.0
		36-60 ft.	4,028,973	508,172	12.6	96	16	16.7
		LE 35 ft.	800,194	26,582	3.3	79	5	6.3
4C	1995	Freezer	18,876	37,752	200.0	1	2	200.0
		GT 60 ft.	1,767,422	0	0.0	29	0	0.0
		36-60 ft.	1,007,084	67,578	6.7	20	1	5.0
		LE 35 ft.	1,175,804	0	0.0	31	0	0.0
	1996	Freezer	18,876	37,752	200.0	1	2	200.0
		GT 60 ft.	1,620,607	0	0.0	28	0	0.0
		36-60 ft.	820,661	0	0.0	19	0	0.0
		LE 35 ft.	1,509,042	576,694	38.2	33	4	12.1
	1997	Freezer	18,876	0	0.0	1	0	0.0
		GT 60 ft.	1,620,607	264,166	16.3	28	6	21.4
		36-60 ft.	820,661	115,897	14.1	18	3	16.7
		LE 35 ft.	1,509,042	0	0.0	33	0	0.0
	All Yrs	Freezer	56,628	75,504	133.0	3	4	133.0
		GT 60 ft.	5,008,636	264,166	5.3	85	6	7.1
		36-60 ft.	2,648,406	183,475	6.9	57	4	7.0
		LE 35 ft.	4,193,888	576,694	13.8	97	4	4.1

(Continued)

Table 4-2. Halibut QS Transfer Rates by Area, Vessel Class, and Year

Area	Year	Vessel Class	Year-end Total QS	QS Transferred	QS Transfer Rate %	Year-end Total QS holders	QS Transferors	QS Holder Transfer Rate %
4D	1995	Freezer	355,318	0	0.0	5	0	0.0
		GT 60 ft.	3,975,433	69,848	1.8	49	1	2.0
		36-60 ft.	355,245	39,715	11.2	14	1	7.1
	1996	Freezer	413,936	154,426	37.3	6	1	16.7
		GT 60 ft.	4,021,310	283,742	7.1	49	4	8.2
		36-60 ft.	355,245	0	0.0	14	0	0.0
	1997	Freezer	413,936	145,364	35.1	5	3	60.0
		GT 60 ft.	4,021,310	846,912	21.1	47	13	27.7
		36-60 ft.	355,245	158,168	44.5	13	5	38.5
	All Yrs	Freezer	1,183,190	299,790	25.3	16	4	25.0
		GT 60 ft.	12,018,053	1,200,502	10.0	145	18	12.4
		36-60 ft.	1,065,735	197,883	18.6	41	6	14.6
4E	1995	GT 60 ft.	11,176	0	0.0	2	0	0.0
		36-60 ft.	37,032	0	0.0	7	0	0.0
		LE 35 ft.	91,791	0	0.0	95	0	0.0
	1996	GT 60 ft.	11,176	0	0.0	2	0	0.0
		36-60 ft.	37,032	0	0.0	7	0	0.0
		LE 35 ft.	91,791	0	0.0	95	0	0.0
	1997	GT 60 ft.	11,176	0	0.0	2	0	0.0
		36-60 ft.	37,032	1,856	5.0	7	1	14.3
		LE 35 ft.	91,791	0	0.0	95	0	0.0
	All Yrs	GT 60 ft.	33,528	0	0.0	6	0	0.0
		36-60 ft.	111,096	1,856	1.7	21	1	4.8
		LE 35 ft.	275,373	0	0.0	285	0	0.0

4.3 QS Sales Prices

This section covers QS transfers for which price information is available. Information on 1995 to 1997 transfers is used to provide estimates of average prices per unit of halibut QS.

Table 4-3 shows average annual prices per QS unit by area for 1995 to 1997. The prices shown in this table were calculated from transfers in which the actual current-year IFQ transferred with the QS was within 5% of the standard IFQ per unit of QS in that year and management area.[2] Mean and standard deviations for the price per QS unit are provided in dollars per pound of IFQ and in dollars per QS unit. The pounds of IFQ, the amount of QS, and the number of transfers used to produce the estimates are also shown.

Table 4-3 shows the estimated average prices of QS, in dollars per QS unit, range from a low of $0.44 for Area 3B QS in 1995 to a high of $1.92 for Area 2C QS in 1997. QS prices in dollars per QS unit are not comparable across areas since the ratio of IFQs to QS differs from area to area.

QS prices in dollars per pound of associated IFQ are more comparable across areas. These prices ranged from a low of $5.03 in Area 4B in 1996 to a high of $11.40 in Area 2C in 1997. The estimated average prices in dollars per pound of IFQ rose in each year in Areas 2C, 3A, and 3B. In Area 4A they rose from 1995 to 1996, but were relatively unchanged from 1996 to 1997. In Area 4B they fell from 1995 to 1996 and then rose slightly in 1997. There is insufficient information to say anything about price trends in the other management areas.

Table 4-4 provides a more detailed breakout of QS price estimates by management area *and* vessel category. The variables shown in Table 4-4 the same as in Table 4-3.

In many of the area and vessel category combinations there are so few observations that the averages were not reported to preserve confidentiality.[3] There are, however, generally enough observations to report QS prices for the catcher vessel categories in Areas 2C, 3A, 3B, and 4A that some general observations can be made. QS prices appear to be higher in larger vessel categories. For example, QS prices in the "greater than 60 feet" catcher vessel category tended to be higher than QS prices in the "36 to 60 feet" category; prices appear to be even lower in the "less than or equal to 35 feet" category.

Estimated catcher vessel average QS prices tended to increase from one year to another.

[2]Standard IFQs were calculated by multiplying the amount of QS by the ratio of the area's total allowable catch to the amount of QS in the area's QS pool on January 31st of the year. This ratio was supplied by NMFS-RAM.

[3]Prices were not reported if they were calculated from less than four observations. In addition some prices with more than four observations were not reported when doing so would have made it possible to calculate confidential prices from other information in the report.

These QS price increases occurred during a period of rising TACs and ex-vessel prices. The overall Alaska halibut TAC grew considerably during the 1995-1997 period, leading to large increases in IFQs. The TAC devoted to IFQs rose from about 37.4 million pounds in 1995 to about 51.1 million pounds in 1997. Not only did the TAC grow during this period, but ex-vessel prices tended to rise as well. In its annual industry summary for 1998, the industry magazine *Pacific Fishing* estimated that average ex-vessel halibut prices in Alaska rose from $1.90 a pound in 1995 to $2.20 a pound in 1997.[4] The net effect of TAC and ex-vessel price increases of these magnitudes would be an increase in ex-vessel gross revenues of about 58%. With fleet consolidation, and operating efficiencies made possible by IFQs, the increase in profits should be even greater than suggested by the increase in gross revenues.

Table 4-5 provides associated annual QS price information for transfers in which QS was sold without any of the current year IFQ. To avoid confusion, prices are provided only in dollars per QS unit. There are fewer of these types of observations than there are of transfers of QS with all or most IFQs. Prices are only available from four management areas. Note that, as before, prices in dollars per QS unit are not comparable across management areas due to the differences in the amount of IFQ per unit of QS across areas.

The available estimates of average prices range from a low of $0.47 per QS unit in Area 3B in 1995 to a high of $2.07 per QS unit in Area 2C in 1997. In every instance for which the data is available, estimated average prices rose from one year to another in a management area.

Table 4-6 is similar to Table 4-5, differing by providing a more detailed breakout of price estimates. In Table 4-6 prices are shown by management area, vessel category, and year. Because of the small numbers of observations, prices cannot be reported for many of the cells.

In all of these tables there are several caveats associated with the reported statistics. the information provided on the NMFS transfer application forms can be ambiguous. The form does not explicitly differentiate between sale transfers and other transfers. Sale transfer observations used in the tables in this section were selected because prices were supplied. Other sale transfer observations, for which no prices were supplied, could not be used to estimate these prices.

The transfer application forms from which pricing data were gathered also differed somewhat between years. For example, the 1995 form requested prices net of brokers' fees, while the 1996 form requested prices including fees.[5]

---

[4] *Pacific Fishing*, March, 1998, pages 68-70.

[5] Although the 1995 form requested prices "net" of brokers' fees, respondents typically reported their prices in a "gross" form which included brokers' fees. See Muse, Ben, Kurt Schelle, Elaine Dinneford, and Kurt Iverson, *Changes Under Alaska's Halibut IFQ Program, 1995*. CFEC 96-10N. Alaska Commercial Fisheries Entry Commission. Juneau, AK: 1996. page 155. Subsequent forms requested gross prices.

The associated current year IFQ is important in determining QS prices, but the ratio of IFQ to QS can vary between holdings within a management area due to underages and overages from the preceding year. In addition, only a portion of the associated current year IFQ might have been transferred with the QS. This makes it harder to calculate a meaningful average price per QS unit within a management area. This difficulty has been dealt with herein by calculating QS prices for QS sold with "approximately" the associated current year IFQ and for QS sold with no current year IFQ.

Table 4-3. Annual Prices for Halibut QS and IFQ Transfers by Area and Year

Mngt area	Year	Mean Price $/IFQ	Stan Dev Price $/IFQ	Tot IFQs Transferred Used for Pricing	Mean Price $/QS	Stan Dev Price $/QS	Tot QS Transferred Used for pricing	Number of Transactions Used for Pricing
2C	95	7.58	1.21	996,874	1.14	0.18	6,629,554	315
	96	9.13	2.71	681,056	1.37	0.41	4,539,813	289
	97	11.40	2.53	517,715	1.92	0.43	3,057,477	211
3A	95	7.37	1.44	1,792,912	0.79	0.15	16,658,196	355
	96	8.40	4.07	1,582,609	0.90	0.44	14,724,748	352
	97	9.78	2.45	1,276,525	1.32	0.33	9,443,198	294
3B	95	6.53	1.40	225,912	0.44	0.10	3,323,670	88
	96	7.88	2.30	323,160	0.53	0.16	4,760,536	165
	97	8.58	2.53	605,744	1.43	0.42	3,634,335	157
4A	95	5.64	2.07	114,616	0.74	0.27	873,519	56
	96	6.68	1.50	160,899	0.87	0.20	1,230,691	65
	97	6.67	2.79	383,112	1.35	0.56	1,889,914	90
4B	95	6.14	1.05	34,716	1.23	0.21	173,523	5
	96	5.03	0.86	51,769	1.00	0.17	260,336	7
	97	5.15	1.71	294,051	1.54	0.51	980,663	30
4C	97	6.29	0.50	48,681	0.91	0.07	336,313	8
4D	96	C	C	27,358	C	C	237,858	3
	97	5.85	1.63	82,294	0.99	0.28	485,517	11

Table 4-4. Annual Prices for Halibut QS and IFQ Transfers by Area, Vessel Class, and Year

Mngt Area	Vessel Class	Year	Mean Price $/IFQ	Stan Dev Price $/IFQ	Tot IFQs Transferred Used for Pricing	Mean Price $/QS	Stan Dev Price $/QS	Tot QS Transferred Used for Pricing	Number of Transactions Used for Pricing
2C	Freezer	95	C	C	570	C	C	3,788	1
		96	8.95	2.38	9,066	1.34	0.36	60,426	4
		97	12.2	1.04	5,380	2.07	0.18	31,793	4
	GT 60 ft.	95	C	C	16,916	C	C	112,499	4
		96	8.77	1.71	63,204	1.32	0.26	421,218	21
		97	13.30	2.85	25,080	2.25	0.48	148,232	10
	36-60 ft.	95	7.78	1.15	763,157	1.17	0.17	5,075,250	195
		96	9.51	1.74	450,753	1.43	0.26	3,004,306	155
		97	11.70	2.58	376,533	1.99	0.44	2,223,068	117
	LE 35 ft.	95	6.80	1.09	216,231	1.02	0.16	1,438,017	115
		96	8.21	4.51	158,033	1.23	0.68	1,053,863	109
		97	9.66	1.08	110,722	1.63	0.18	654,384	80
3A	Freezer	95	C	C	8,338	C	C	77,472	1
		96	9.95	1.13	18,047	1.07	0.12	167,902	4
		97	C	C	15,287	C	C	113,088	3
	GT 60 ft.	95	C	C	551,559	C	C	5,124,599	54
		96	8.65	3.37	526,090	0.93	0.36	4,894,746	67
		97	C	C	469,850	C	C	3,475,740	35
	36-60 ft.	95	7.23	1.69	1,024,463	0.78	0.18	9,518,413	185
		96	8.41	4.72	888,858	0.90	0.51	8,270,019	199
		97	9.95	2.06	654,926	1.34	0.28	4,844,878	155
	LE 35 ft.	95	6.99	1.29	208,552	0.75	0.14	1,937,712	115
		96	7.31	1.20	149,614	0.79	0.13	1,392,081	82
		97	8.01	1.17	136,462	1.08	0.16	1,009,492	101
3B	Freezer	96	9.70	2.03	7,031	0.66	0.14	103,574	5
		97	C	C	1,419	C	C	8,498	2
	GT 60 ft.	95	C	C	93,917	C	C	1,381,717	39
		96	8.11	1.46	144,638	0.55	0.10	2,130,598	69
		97	9.42	2.58	321,296	1.57	0.43	1,924,522	30
	36-60 ft.	95	6.28	1.69	129,860	0.43	0.11	1,910,546	48
		96	7.77	2.87	154,306	0.53	0.20	2,273,206	77
		97	7.67	2.17	246,500	1.28	0.36	1,482,490	99
	LE 35 ft.	95	C	C	2,135	C	C	31,407	1
		96	6.18	1.02	17,185	0.42	0.07	253,158	14
		97	C	C	36,529	C	C	218,825	26

(Continued)

Table 4-4. Annual Prices for Halibut QS and IFQ Transfers by Area, Vessel Class, and Year

Mngt Area	Vessel Class	Year	Mean Price $/IFQ	Stan Dev Price $/IFQ	Tot IFQs Trans Used for Pricing	Mean Price $/QS	Stan Dev Price $/QS	Tot QS Trans Used for Pricing	Number of Trans Used for Pricing
4A	Freezer	96	C	C	8,502	C	C	65,033	2
		97	C	C	526	C	C	2,590	3
	GT 60 ft.	95	6.35	0.37	16,000	0.83	0.05	121,934	28
		96	7.02	1.34	64,061	0.92	0.18	489,996	32
		97	C	C	195,214	C	C	962,981	19
	36-60 ft.	95	5.47	2.32	87,749	0.72	0.30	668,772	21
		96	6.55	1.57	80,052	0.86	0.20	612,309	23
		97	6.46	1.85	151,855	1.31	0.38	749,127	43
	LE 35 ft.	95	5.96	0.73	10,867	0.78	0.10	82,813	7
		96	C	C	8,284	C	C	63,353	8
		97	5.41	1.34	35,517	1.10	0.27	175,216	25
4B	Freezer	97	C	C	16,846	C	C	56,183	1
	GT 60 ft.	95	C	C	25,118	C	C	125,551	3
		96	C	C	33,607	C	C	169,002	5
		97	5.41	1.91	196,074	1.62	0.57	653,912	17
	36-60 ft.	95	C	C	9,598	C	C	47,972	2
		96	C	C	16,880	C	C	84,886	1
		97	C	C	77,981	C	C	260,065	10
	LE 35 ft.	96	C	C	1,282	C	C	6,448	1
		97	C	C	3,150	C	C	10,503	2
4C	GT 60 ft.	97	C	C	31,746	C	C	220,416	5
	36-60 ft.	97	C	C	16,935	C	C	115,897	3
4D	Freezer	96	C	C	17,762	C	C	154,426	1
		97	C	C	20,759	C	C	122,473	2
	GT 60 ft.	96	C	C	9,596	C	C	83,432	2
		97	6.58	1.02	58,301	1.12	0.17	343,960	7
	36-60 ft.	97	C	C	3,234	C	C	19,084	2

Table 4-5. Annual Prices for Halibut QS-Only Transfers by Area and Year

Mngt Area	Year	Mean Price $/QS	Stan Dev Price $/QS	Tot QS Trans Used for Pricing	Number of Trans Used for Pricing
2C	95	1.03	0.22	751,236	25
	96	1.28	0.24	1,484,304	43
	97	2.07	0.38	480,565	24
3A	95	0.74	0.25	2,068,199	38
	96	0.85	0.21	4,439,006	82
	97	1.46	0.29	2,098,195	33
3B	95	0.47	0.09	892,536	10
	96	0.59	0.12	919,400	16
	97	1.35	0.48	760,885	21
4A	95	0.60	0.18	196,536	8
	96	C	C	267,658	3
	97	1.25	0.43	82,220	6
4B	97	C	C	56,991	1
4D	96	C	C	29,678	1
	97	C	C	22,891	1

Table 4-6. Annual Prices for Halibut QS-Only Transfers by Area, Vessel Class, and Year

Mngt Area	Vess Class	Year	Mean Price $/QS	Stan Dev Price $/QS	Tot QS Trans Used for Pricing	Number of Trans Used for Pricing
2C	Freezer	96	C	C	41,718	2
	GT 60 ft.	96	C	C	48,234	1
		97	C	C	98,391	2
	36-60 ft.	95	1.09	0.15	643,143	21
		96	1.35	0.22	1,102,743	27
		97	2.07	0.38	330,029	18
	LE 35 ft.	95	0.70	0.24	108,093	4
		96	C	C	291,609	13
		97	C	C	52,145	4
3A	Freezer	96	C	C	42,151	1
	GT 60 ft.	95	0.79	0.35	762,830	6
		96	C	C	946,214	6
		97	C	C	1,245,500	14
	36-60 ft.	95	0.71	0.16	1,178,404	23
		96	0.85	0.20	2,820,850	51
		97	1.38	0.22	824,939	18
	LE 35 ft.	95	0.70	0.10	126,965	9
		96	0.73	0.16	629,791	24
		97	C	C	27,756	1
3B	Freezer	96	C	C	56,113	1
	GT 60 ft.	95	C	C	201,892	1
		96	C	C	469,591	6
		97	C	C	196,834	5
	36-60 ft.	95	0.49	0.08	613,999	6
		96	0.53	0.12	385,783	7
		97	1.39	0.46	552,392	14
	LE 35 ft.	95	C	C	76,645	3
		96	C	C	7,913	2
		97	C	C	11,659	2
4A	Freezer	96	C	C	107,418	1
	GT 60 ft.	95	C	C	106,692	2
		96	C	C	33,278	1
		97	C	C	16,988	2
	36-60 ft.	95	C	C	49,669	3
		96	C	C	126,962	1
		97	C	C	56,088	3
	LE 35 ft.	95	C	C	40,175	3
		97	C	C	9,144	1
4B	GT 60 ft.	97	C	C	56,991	1
4D	Freezer	97	C	C	22,891	1
	GT 60 ft.	96	C	C	29,678	1

4.4 Estimated QS Prices

Annual average QS prices by management area, vessel category, and year are reported in Table 4-4 of this chapter. However, the available data do not permit calculation and reporting of prices for many of these combinations of categories, For example, the price for "less than or equal to 35 feet" catcher vessels in Area 3B cannot be reported in 1995. In some combinations of categories no report can be made because there were no transfers, and in others there were too few transfers to report without breaking data confidentiality rules.

There would be even more gaps if prices were estimated by block status, block size, and quarter, as well as by management area, vessel class, and year, since there would be fewer observations in each combination of categories.

To provide a more detailed set of QS prices for the 1995-1997 period, a statistical model of QS prices was estimated using available data for Areas 2C, 3A, 3B, and 4A.[6] This model was then used to estimate prices for QS by management area (for Areas 2C, 3A, 3B, and 4A), vessel class, block status, size of block, and quarter for 1995-1997. These price estimates are reported in Table 4-7. The estimates were confined to these four areas because there were not enough observations in the other areas (4B, 4C, 4D, and 4E) to develop a meaningful model.

The approach in this section is similar to an approach used to estimate prices using these category combinations in an earlier CFEC report on the halibut IFQ program.[7] There are differences, however. In the earlier report, separate models were created and used to estimate prices for each management area. In this report a single model was estimated using the data from the four management areas over all three years. There are also differences in the variables used in the two studies. For these reasons, the price estimates in this report may differ somewhat from those in the earlier report.

The dependent variable in the model used in this report was the price for QS expressed in dollars per unit of QS. The following explanatory variables were used in the model:

dummy variables for vessel class	Separate dummy variables were used for catcher vessels over 60 feet, for catcher vessels from 36 to 60 feet, and for catcher vessels 35 feet or less. These estimated coefficients show how average prices increased or decreased relative to freezer vessel prices when all other factors are the same.

[6]The parameters of this model were estimated using OLS regression on 3,028 observations. The QS price in "dollars per unit of QS" was the dependent variable. The explanatory variables are described in a list starting on this page. The regression R-squared was 0.58. The estimated coefficients had expected signs and the important coefficients were statistically significant. The results will be summarized in more detail in a forthcoming CFEC report, *Regression Analysis of Alaska Halibut and Sablefish QS Prices, 1995-1997.*

[7]Dinneford, Elaine. Kurt Iverson, Ben Muse and Kurt Schelle. *Changes Under Alaska's Halibut IFQ Program, 1995 to 1996.* Alaska Commercial Fisheries Entry Commission. Juneau: December, 1997. pages 49-57.

the natural log of the amount of blocked QS transferred	Prices were hypothesized to be higher for QS in larger blocks. This variable was assigned a value of zero for unblocked QS.
the natural log of the amount of unblocked QS transferred	Prices were also hypothesized to be higher for QS in larger unblocked transactions. This variable was assigned a value of zero for blocked QS.
a dummy variable indicating whether or not QS was blocked	QS in blocks were hypothesized to have lower prices, all other things equal. This dummy variable took on a value of one if the QS in the transaction was blocked, and a value of zero if it was not.
standard pounds of IFQ per QS unit	This is the ratio, "pounds of IFQ per QS unit" for the area and year. This is the inverse of the standard ratios published by RAM. This variable has the same value for all transactions in an area during a year.
ratio of "the difference between the standard pounds of IFQ and the actual number of pounds of IFQ transferred" to "QS units transferred"	The numerator of this ratio is the difference between the standard IFQ associated with the QS being transferred in the transaction, and the actual IFQs being transferred in the transaction. The denominator is the number of units of QS being transferred in the transaction.
separate dummy variables for the 2nd through the 12th quarters of the time period	Dummy variables were introduced for each quarter except the first quarter of 1995. These variables were intended to capture quarterly QS price changes due to changes in market conditions relative to the first quarter of 1995.

The simulation model produced price estimates in "dollars per QS unit." Since the number of QS units per pound of IFQ differed from area to area, and from year to year, prices were converted to "dollars per pound of IFQ" for Table 4-7. This was done to permit comparisons of prices across management areas.

This conversion was done by multiplying the price in "dollars per QS unit " by the "QS units per pound of IFQ" in the relevant management area and year. These prices in "dollars per IFQ" are reported in Table 4-7. The "QS units per pound of IFQ" ratios used to make these price conversions were based on the standard ratios for each management area published by NMFS-RAM. These are the ratios calculated by dividing the total TACs in the different management areas by the QS units available in those management areas on January 31 of the year.

The amount of QS contained and transferred in a block can vary widely. For simulation purposes, blocks were defined to be either large, medium, or small. Large blocks were defined to have 13,000 pounds of current-year IFQ, medium blocks were defined to have 6,000 pounds of current-year IFQ, and small blocks were defined to have 1,000 pounds of current-year IFQ. Unblocked transfers were assumed to have 5,500 pounds of IFQ. These size categories were chosen after an examination of the distribution of actual block size holdings at the end of 1996 and after a review of the size distribution of blocks transferred during 1995 and 1996. The unblocked transfer sizes are approximately equal to the mean transfer size during 1995 and 1996. These block sizes, although constant in terms of pounds of IFQ, were associated with different units of QS in different areas and years since the QS-to-IFQ ratios varied between areas and between years within an area.

Comparing estimated prices (Table 4-7) and average prices (Table 4-4)

A comparison with the average prices in Table 4-4 shows that for most of the areas, vessel classes, and years, the average price falls within the range of estimated prices from the model. The exceptions occur in Area 2C, where the average price falls outside the estimated price ranges in three of the eleven comparisons that can be made. All of these exceptions occur in 1997 data; in each case the average price is above the highest estimated price from the model.

While the comparison of average prices in Table 4-4 with somewhat similar price estimates from the model shown in Table 4-7 is interesting, the reader should be aware that there can be subtle differences in what the prices represent. The calculations behind the prices in Table 4-7 are based on the assumption that all the estimated associated IFQ pounds for the year have been sold with the QS. In contrast, the averages in Table 4-4 were generated from observations with "almost all" of the IFQs transferred with the QS. This means that the transferred IFQ was within 5% of the "standard IFQ" for that area and the number of QS in the transaction. Further, the average prices in Tables 4-3 and 4-4 are aggregates of prices for transactions in different quarters and for transactions of different block status or size. The prices in Table 4-7 are broken out for more detailed category combinations and for blocks or unblocked transfers of a given size.

Price Changes Through Time

Table 4-7 indicates that estimated QS prices, measured in dollars per pound of IFQ, tended to rise from quarter to quarter during the three year period, 1995-1997. Quarterly price decreases were less frequent than increases, and the result was that in all areas prices in the last quarter of 1997 were higher than prices in the first quarter of 1995. Estimated price increases over the three year period ranged between 3.2% for "35 to 60 feet" unblocked only catcher vessel QS in Area 3B to 74% for small blocks of Area 3B freezer QS. Quarterly price decreases appeared to be concentrated in 1995 and the first quarter of 1997. The 1997 first quarter reductions in estimated prices were large, but were offset in subsequent quarters of 1997.

Blocking of QS

A feature which the NPFMC added to the halibut IFQ program was the "blocking" of all initial allocations of QS that translated into less than 20,000 pounds of a hypothetical IFQ for an area.[8] Under the program rules, blocked halibut QS must be sold as a unit. In addition, a person is only allowed to hold two blocks of QS in an area. If a person holds any unblocked QS in the area, the person is only allowed to hold one block of QS. In 1995 and through August 1996, blocked QS often could not be leased because of the 10% leasing restriction. From September, 1996, regulations became effective allowing the leasing of IFQ independently of QS.[9]

The purpose of the blocking provision was to make a portion of the QS relatively unattractive to persons who wanted to put together more full-time halibut operations. Proponents hoped the block provisions would ensure there would always be QS available to a part-time fleet of small operators. The proponents felt this would help maintain some of the diversity of the fleet that existed under open access and thereby make the IFQ program less disruptive to isolated Alaska fishing communities. Proponents also predicted that the blocked QS would sell for a lower price per QS unit and hence would be more affordable for a fleet of small part-time operators, as well as new entrants to the fishery.

The results from the model suggest that blocked QS did sell for less than unblocked QS over the first three years of the program and that smaller blocks sold for less than larger blocks. Estimated prices differed by the block status and the size of block. Unblocked QS had the highest prices. If the QS was blocked, the estimated price was higher for larger blocks. Unblocked QS had higher estimated prices per unit than QS in larger blocks despite the fact that in the simulations large blocks are assumed to have 13,000 QS and unblocked transactions are assumed to be for 5,500 QS.[10] For example, the estimated prices for Area 3A "greater than 60 feet" catcher vessel QS in the first quarter of 1995 were $8.91 per pound of IFQ for unblocked QS, $7.79 per pound for QS in large blocks, $7.18 per pound for QS in medium blocks, and $5.77 per pound for QS in small blocks. Similar results occurred for all other area, vessel category, and quarter combinations.

The regression model used to generate these and other results, had a statistically significant negative coefficient on the dummy variable indicating whether or not QS was blocked, and statistically significant positive coefficients on the variables of the size of the block (if blocked) and the number of units of QS transferred (if unblocked). Thus the model indicated that both blocked and unblocked QS had a higher average price per QS unit the greater the amount of QS involved in the transaction.

[8]As noted earlier, the range of QS holdings were blocked if they were worth less than 20,000 pounds of IFQ, given the QS pool as of October 17, 1994 and the 1994 TAC for the area. See 50 CFR 679.40(a).

[9]*FR* 61(155): 41523-41526. August 9, 1996. Note that regulations allowing for the leasing of catcher vessel QS expired on January 2, 1998 and have not been renewed.

[10]These are prices per unit of QS, not prices paid for a block of QS or for a "package" of units of unblocked QS.

Management Area

It is dificult to generalize about differences in estimated prices by management area. Estimated prices for unblocked QS and for large and medium blocks of QS tended to be highest in Area 3B, and second highest in Area 3A. They tended to be lower and similar in Areas 2C and 4A. Prices for small blocks of QS appeared to tend to be higher, and similar, in Areas 2C and 4A, next highest in Area 3A, and lowest in Area 3B. There were frequent deviations from these patterns in any given quarter, however.

Perhaps the most important "area-specific" variable in the model used to generate the price estimates was a variable for the number of "pounds of IFQ per unit of QS" in an area and in a year. This variable was constant for all transactions in an area during a year. The coefficient for this variable had a positive sign indicating that the more pounds of IFQ per QS unit the higher the average QS price when that price was measured in dollars per QS unit (this did not necessarily hold for QS prices measured in dollars per pound of IFQ).

Vessel Classes

Vessel classes could affect the price of QS. Freezer and catcher vessels produce different products. Catcher vessels of different sizes could produce in different volumes for different markets. Catcher vessel size could also affect operating characteristics, including ability to operate in different weather conditions, fixed costs, variable material costs, and vessel, skipper, and crew shares. Finally, new "fish down" rules could impact prices (these were discussed in Chapter 3). The large number of considerations could affect QS from different vessel classes in different ways making it difficult to predict how vessel class should affect QS prices.

Estimated QS prices were highest for the "36 to 60 feet" catcher vessel QS in all of the management areas. The "less than or equal to 35 feet" catcher vessel QS had the next highest average QS prices, followed by the "greater than 60 feet" catcher vessel class. Freezer vessel QS had the lowest QS prices. This relationship held for unblocked QS, and large, medium, and small blocks of QS. However, the model relationships should be viewed with caution since the model did not allow variation in the vessel class estimated parameter coefficients across areas and the estimated parameters were not all statistically significant.

Table 4-7. Estimated Prices Per Unit of Halibut QS, Expressed in Dollars Per Pound of IFQ

Area	Vessel Category	Year	Quarter	Unblocked Price	Large Block Price	Medium Block Price	Small Block Price
2C	Freezer	95	1	8.29	7.36	6.92	5.91
			2	8.07	7.14	6.70	5.69
			3	7.93	6.99	6.56	5.55
			4	8.04	7.10	6.67	5.66
		96	1	8.20	7.27	6.83	5.82
			2	8.59	7.66	7.22	6.21
			3	9.03	8.09	7.65	6.64
			4	9.62	8.68	8.24	7.23
		97	1	8.48	7.60	7.22	6.32
			2	9.41	8.54	8.15	7.25
			3	9.87	9.00	8.61	7.71
			4	10.42	9.55	9.17	8.27
	GT 60 feet	95	1	8.50	7.57	7.13	6.12
			2	8.28	7.35	6.91	5.90
			3	8.14	7.20	6.77	5.76
			4	8.25	7.31	6.88	5.87
		96	1	8.41	7.48	7.04	6.03
			2	8.80	7.87	7.43	6.42
			3	9.24	8.30	7.87	6.85
			4	9.83	8.89	8.46	7.44
		97	1	8.66	7.79	7.40	6.51
			2	9.60	8.73	8.34	7.44
			3	10.06	9.19	8.80	7.90
			4	10.61	9.74	9.35	8.45
	36 to 60 feet	95	1	8.90	7.96	7.53	6.52
			2	8.68	7.74	7.31	6.29
			3	8.53	7.60	7.16	6.15
			4	8.64	7.71	7.27	6.26
		96	1	8.81	7.87	7.43	6.42
			2	9.20	8.26	7.83	6.81
			3	9.63	8.70	8.26	7.25
			4	10.22	9.29	8.85	7.84
		97	1	9.01	8.14	7.75	6.86
			2	9.95	9.08	8.69	7.79
			3	10.41	9.54	9.15	8.25
			4	10.96	10.09	9.70	8.80
	LE 35 feet	95	1	8.63	7.70	7.26	6.25
			2	8.41	7.48	7.04	6.03
			3	8.27	7.34	6.90	5.89
			4	8.38	7.45	7.01	6.00
		96	1	8.54	7.61	7.17	6.16
			2	8.94	8.00	7.56	6.55
			3	9.37	8.44	8.00	6.98
			4	9.96	9.03	8.59	7.57
		97	1	8.78	7.91	7.52	6.62
			2	9.72	8.84	8.46	7.56
			3	10.17	9.30	8.92	8.02
			4	10.73	9.86	9.47	8.57

(Continued)

Table 4-7. Estimated Prices Per Unit of Halibut QS, Expressed in Dollars Per Pound of IFQ

Area	Vessel Category	Year	Quarter	Unblocked Price	Large Block Price	Medium Block Price	Small Block Price
3A	Freezer	95	1	8.61	7.50	6.89	5.47
			2	8.31	7.19	6.58	5.16
			3	8.11	6.99	6.38	4.96
			4	8.26	7.14	6.53	5.12
		96	1	8.49	7.37	6.76	5.34
			2	9.04	7.91	7.30	5.89
			3	9.64	8.52	7.91	6.49
			4	10.46	9.34	8.73	7.32
		97	1	8.72	7.73	7.24	6.12
			2	9.89	8.90	8.41	7.29
			3	10.46	9.47	8.99	7.86
			4	11.16	10.17	9.68	8.56
	GT 60 feet	95	1	8.91	7.79	7.18	5.77
			2	8.60	7.48	6.87	5.46
			3	8.40	7.28	6.67	5.26
			4	8.55	7.43	6.82	5.41
		96	1	8.78	7.66	7.05	5.64
			2	9.33	8.21	7.60	6.18
			3	9.93	8.81	8.20	6.79
			4	10.76	9.64	9.03	7.61
		97	1	8.95	7.96	7.48	6.35
			2	10.12	9.13	8.65	7.52
			3	10.70	9.71	9.22	8.10
			4	11.39	10.40	9.92	8.79
	36 to 60 feet	95	1	9.46	8.34	7.73	6.32
			2	9.15	8.03	7.42	6.01
			3	8.95	7.83	7.22	5.81
			4	9.10	7.98	7.37	5.96
		96	1	9.33	8.21	7.60	6.19
			2	9.88	8.76	8.15	6.73
			3	10.49	9.37	8.76	7.34
			4	11.31	10.19	9.58	8.16
		97	1	9.39	8.40	7.91	6.79
			2	10.56	9.57	9.09	7.96
			3	11.14	10.15	9.66	8.53
			4	11.83	10.84	10.35	9.23
	LE 35 feet	95	1	9.09	7.97	7.36	5.95
			2	8.79	7.67	7.06	5.64
			3	8.58	7.46	6.85	5.44
			4	8.74	7.62	7.01	5.60
		96	1	8.97	7.85	7.24	5.82
			2	9.51	8.39	7.78	6.37
			3	10.12	9.00	8.39	6.97
			4	10.94	9.82	9.21	7.80
		97	1	9.10	8.11	7.62	6.50
			2	10.27	9.28	8.79	7.67
			3	10.85	9.85	9.37	8.24
			4	11.54	10.55	10.06	8.94

(Continued)

Table 4-7. Estimated Prices Per Unit of Halibut QS, Expressed in Dollars Per Pound of IFQ

Area	Vessel Category	Year	Quarter	Unblocked Price	Large Block Price	Medium Block Price	Small Block Price
3B	Freezer	95	1	9.34	7.96	7.00	4.76
			2	8.85	7.48	6.51	4.27
			3	8.53	7.16	6.19	3.95
			4	8.77	7.40	6.43	4.20
		96	1	9.13	7.76	6.79	4.55
			2	10.00	8.63	7.66	5.42
			3	10.96	9.59	8.62	6.38
			4	12.26	10.89	9.92	7.68
		97	1	8.49	7.61	7.22	6.31
			2	9.44	8.56	8.17	7.25
			3	9.90	9.02	8.63	7.72
			4	10.46	9.59	9.19	8.28
	GT 60 feet	95	1	9.80	8.43	7.46	5.22
			2	9.31	7.94	6.98	4.74
			3	8.99	7.62	6.66	4.42
			4	9.24	7.87	6.90	4.66
		96	1	9.60	8.23	7.26	5.02
			2	10.47	9.09	8.13	5.89
			3	11.42	10.05	9.08	6.84
			4	12.73	11.36	10.39	8.15
		97	1	8.68	7.80	7.41	6.50
			2	9.63	8.75	8.35	7.44
			3	10.09	9.21	8.82	7.91
			4	10.65	9.78	9.38	8.47
	36 to 60 feet	95	1	10.67	9.30	8.34	6.10
			2	10.19	8.81	7.85	5.61
			3	9.87	8.49	7.53	5.29
			4	10.11	8.74	7.77	5.53
		96	1	10.47	9.10	8.13	5.89
			2	11.34	9.97	9.00	6.76
			3	12.30	10.93	9.96	7.72
			4	13.60	12.23	11.26	9.02
		97	1	9.03	8.16	7.76	6.85
			2	9.98	9.10	8.71	7.80
			3	10.45	9.57	9.18	8.26
			4	11.01	10.13	9.74	8.83
	LE 35 feet	95	1	10.09	8.72	7.76	5.52
			2	9.61	8.23	7.27	5.03
			3	9.29	7.91	6.95	4.71
			4	9.53	8.16	7.19	4.95
		96	1	9.89	8.52	7.55	5.31
			2	10.76	9.39	8.42	6.18
			3	11.72	10.34	9.38	7.14
			4	13.02	11.65	10.68	8.44
		97	1	8.80	7.92	7.53	6.62
			2	9.74	8.87	8.47	7.56
			3	10.21	9.33	8.94	8.03
			4	10.77	9.89	9.50	8.59

(Continued)

Table 4-7. Estimated Prices Per Unit of Halibut QS, Expressed in Dollars Per Pound of IFQ

Area	Vessel Category	Year	Quarter	Unblocked Price	Large Block Price	Medium Block Price	Small Block Price
4A	Freezer	95	1	8.41	7.40	6.90	5.74
			2	8.16	7.15	6.65	5.49
			3	7.99	6.98	6.48	5.32
			4	8.12	7.11	6.61	5.45
		96	1	8.31	7.30	6.79	5.63
			2	8.76	7.75	7.24	6.08
			3	9.25	8.24	7.74	6.58
			4	9.93	8.92	8.42	7.25
		97	1	8.32	7.54	7.22	6.47
			2	9.10	8.32	8.00	7.25
			3	9.48	8.71	8.38	7.63
			4	9.95	9.17	8.84	8.09
	GT 60 feet	95	1	8.65	7.64	7.14	5.98
			2	8.40	7.39	6.89	5.73
			3	8.23	7.22	6.72	5.56
			4	8.36	7.35	6.85	5.69
		96	1	8.55	7.54	7.04	5.87
			2	9.00	7.99	7.49	6.32
			3	9.49	8.48	7.98	6.82
			4	10.17	9.16	8.66	7.50
		97	1	8.48	7.70	7.37	6.62
			2	9.26	8.48	8.15	7.40
			3	9.64	8.86	8.54	7.79
			4	10.10	9.32	9.00	8.25
	36 to 60 feet	95	1	9.10	8.09	7.59	6.43
			2	8.85	7.84	7.34	6.18
			3	8.68	7.67	7.17	6.02
			4	8.81	7.80	7.30	6.14
		96	1	9.00	7.99	7.49	6.33
			2	9.45	8.44	7.94	6.78
			3	9.95	8.94	8.44	7.27
			4	10.63	9.62	9.11	7.95
		97	1	8.77	7.99	7.67	6.92
			2	9.55	8.77	8.45	7.70
			3	9.93	9.15	8.83	8.08
			4	10.40	9.62	9.29	8.54
	LE 35 feet	95	1	8.80	7.79	7.29	6.13
			2	8.55	7.54	7.04	5.88
			3	8.38	7.37	6.87	5.71
			4	8.51	7.50	7.00	5.84
		96	1	8.70	7.69	7.19	6.02
			2	9.15	8.14	7.64	6.47
			3	9.65	8.64	8.13	6.97
			4	10.32	9.31	8.81	7.65
		97	1	8.57	7.80	7.47	6.72
			2	9.36	8.58	8.25	7.50
			3	9.74	8.96	8.64	7.89
			4	10.20	9.42	9.10	8.35