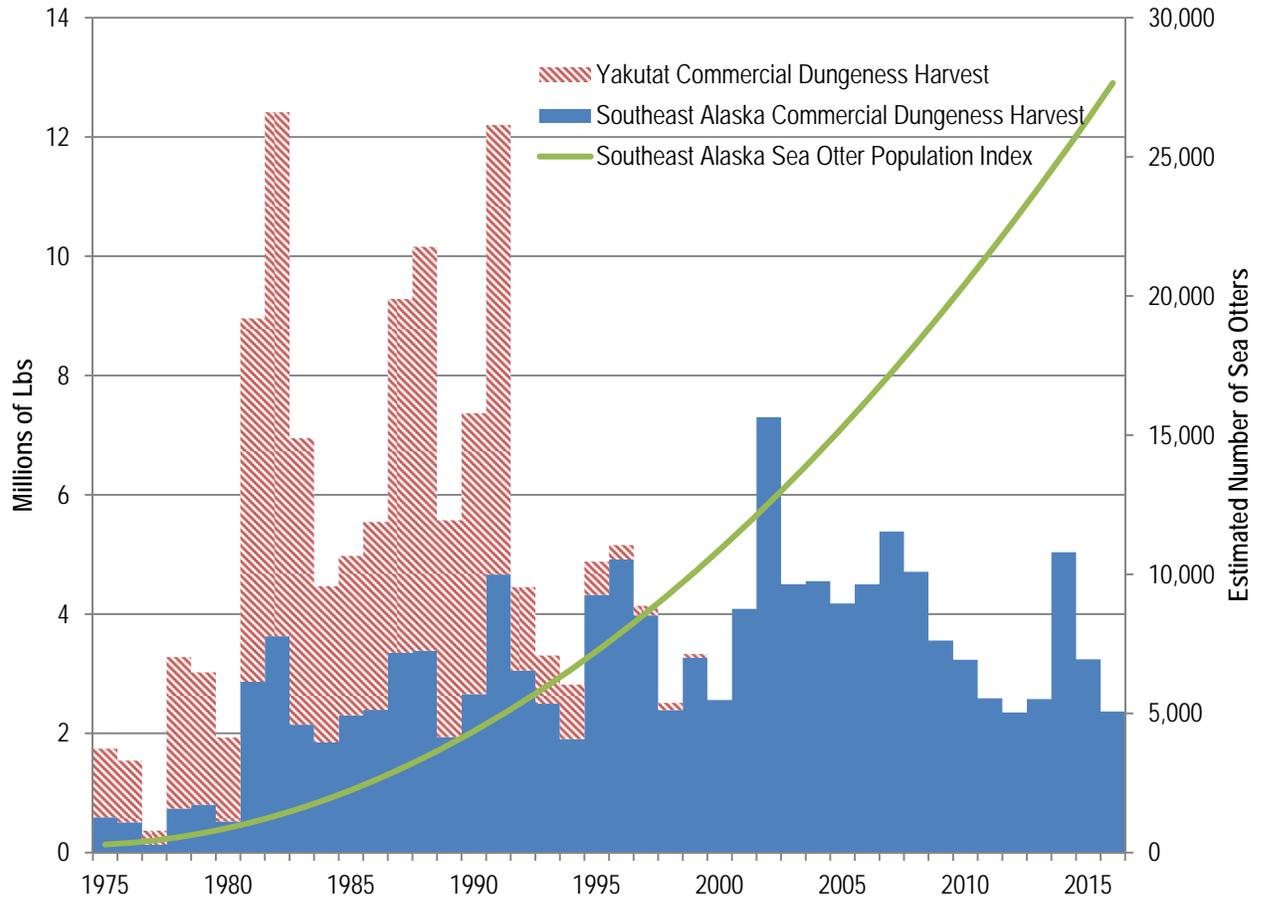


Yakutat and Southeast Alaska Commercial Dungeness Crab Fisheries, 1975-2016



Yakutat and Southeast Alaska Commercial Harvest of Dungeness Crab

CFEC Report Number 18-1N
January, 2018

Commercial Fisheries Entry Commission
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Abstract

Commercial fishing in the Yakutat and Southeast Alaska commercial Dungeness crab fisheries are examined in this report with an emphasis on the four limited Southeast Alaska Dungeness crab pot gear permit types which are: Tier D 75 pots or 25% of maximum (D9DA), followed by Tier C 150 pots or 50% of maximum (D9CA), then Tier B 225 pots or 75% of maximum, and finally Tier A 300 pots or 100% of maximum. This report includes summary statistics on the number of permit holdings, permanent and emergency transfers of permits, permit value, permit latency, new entrants in the fisheries, permit holder mean age, estimated gross earnings, as well as vessel characteristics for the five Southeast Alaska commercial Dungeness crab fisheries. Some summary statistics are also separated by resident type. Some summary statistics of commercial fishing for all years combined are also included. A description of the computer files and methods used to generate the statistics are provided.

The figure on the cover displays millions of pounds of commercially harvested Dungeness crab by year in both the Yakutat and Southeast Alaska fisheries from 1975 to 2016. Also included is an index of abundance of sea otters in Southeast Alaska.

Prepared by Marcus Gho

Acknowledgements

Special thanks to Craig Farrington for his insights and contributions to this document.

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Introduction

This report provides an overview of limited entry permit holdings and estimated gross earnings in the Yakutat and Southeast Alaska commercial Dungeness crab (*Cancer magister*) fisheries. Commercial fishing in Yakutat and Southeast Alaska for Dungeness crab has been prosecuted with a variety of permit types. Chapter 5 includes both a complete description of permit types used to make commercial landings since 1975, as well as the years in which they were used.

In 1972, Alaskan voters amended the state constitution to allow limited entry in the state's commercial fisheries. Following the amendment, in 1973 the Alaska State Legislature enacted the Limited Entry Act (AS 16.43), giving the Commercial Fisheries Entry Commission (CFEC) the authority to administer the program. Permit fisheries are defined by CFEC as a specific gear type for a fishery resource within a defined administrative area.

Prior to limitation of a fishery, commercial fishermen use interim-use permits. After CFEC limits a fishery, limited entry permits get issued. Limited entry permits in the Southeast Alaska Dungeness pot fisheries were first issued in 1997. Limited entry permits were allocated based upon an individual's past participation and economic dependence on the fishery. To allocate permits among qualified applicants, CFEC developed point systems to measure each individual's relative position in the fishery. The Limited Entry Act also required CFEC to determine levels within the point system where persons would experience only minor economic hardship if excluded from an initial permit allocation. Persons who received permanent limited entry permits and who were ranked at or below the minor economic hardship level received non-transferable permits, while persons who were ranked above the minor economic hardship level received transferable permits.

Information regarding season length, openings and closings, size, and other such data can be found in the Alaska Department of Fish and Game's Area Management Reports. This report focuses on the economics of these commercial fisheries.

Description of the Data Files Used to Generate This Report

Four CFEC data files were used to generate the statistics in this report: the gross earnings file, the vessel file, the permit file, and the census file. The most recent updated data is included in this report. The following is a brief description of each file. Please contact CFEC for more detail about these files if you are interested.

CFEC Gross Earnings File

The CFEC gross earnings file is based on ADF&G fish tickets and is augmented with CFEC permit holder and other data. The ex-vessel value for Dungeness crab in the CFEC gross earnings file largely come from the Commercial Operators Annual Report and ADF&G fish tickets with some additional information provided by processors. ADF&G shellfish districts were mapped out from statistical areas using information provided by ADF&G. Several processes to validate and enhance fields such as vessel number and statistical area were undertaken to increase accuracy of this report.

CFEC Vessel File

CFEC maintains a computer file of vessel registration data back to 1978. Commercial fishermen fill out a form and voluntarily provide data regarding the vessel they intend to use that fishing season.

CFEC Permit File

The CFEC permit file contains data on persons who hold or have held CFEC permits. It originates from CFEC permit renewal and permit transfer forms. The permit file contains a data field indicating the declared residency of permit holders as well as their addresses.

In this report, resident status is categorized into three resident types:

- **Local** – permits held by persons residing locally to the ADF&G management area
- **Nonlocal** – permits held by persons who reside in Alaska outside of the ADF&G management area
- **Nonresidents** – permits held by persons who are not residents of Alaska

CFEC Census File

CFEC maintains a computer file of places within Alaska where permit holders of limited permits reside. Each community is annotated with information on its local or nonlocal status by permit fishery. Table 0-1 lists the communities that are currently designated as local to the Southeast Alaska Dungeness crab fisheries.

Table 0-1. Communities Local to the Southeast Alaska Dungeness Crab Fisheries, as Indicated in the CFEC Census File

Angoon	Edna Bay	Katlian	Noyes Island	Steamboat Bay
Annette	Elfin Cove	Ketchikan	Pelican	Taku Harbor
Auke Bay	Excursion Inlet	Ketchikan East	Pennock Island	Tenakee
Baranof	Freshwater Bay	Klawock	Petersburg	Tenakee Springs
Baranof Warm Springs	Funter Bay	Klukwan	Point Baker	Thoms Place
Bell Island	Game Creek	Kupreanof	Polk Inlet	Thorne Bay
Big Port Walter	Gustavus	Labouchere Bay	Port Alexander	Tokeen
Campbell	Haines	Little Port Walter	Port Alice	Tuxekan
Cape Pole	Happy Harbor	Long Island	Port Armstrong	Twin Peaks
Chatham	Hawk Inlet	Loring	Port Frederick	Tyee
Clover Pass	Herring Cove	Lutak	Port Protection	Ward Cove
Coffman Cove	Hobart Bay	Metlakatla	Rowan Bay	Warm Springs Bay
Corner Bay	Hollis	Meyers Chuck	Saginaw Bay	Waterfall
Covenant Life	Hoonah	Mosquito Lake	Saint James Bay	Whale Pass
Craig	Hydaburg	Mount Edgecumbe	Saltery Cove	Whitstone Logging Camp
Cube Cove	Hyder	Mountain Point	Saxman	Wrangell
Dairy	Idaho Inlet	Mud Bay	Shoal Cove	Yes Bay
Deep Bay	Juneau	Naukati	Sitka	
Dora Bay	Kake	Naukati Bay	Skagway	
Douglas	Kasaan	North Tongass Hwy	St. John Harbor	

Data Display

Percentages are rounded to the nearest tenth of a percent where displayed. Dollars are rounded to whole dollars. As such, rounded aggregates may appear to not total due to rounding. If you would like more precise figures then please contact the CFEC research unit. When an individual with an interim-entry permit is issued a permanent permit in the same year, only the permanent permit is counted in this report. Other counts will vary from previous research projects insofar as the data has been corrected and updated.

Chapter 1 Tier D Southeast Alaska Dungeness Crab Fishery, 75 Pots or 25% of Maximum

D9DA Permit Holdings

Tier D limited entry permits for the Southeast Alaska Dungeness crab, 75 pots or 25% of maximum, were issued as D9DA permits starting in 1997. Table 1-1 indicates the initial distribution and historical net changes in permit holdings for the fishery. CFEC has issued 127 D9DA permits. Of this total, Alaska Locals received 80.3% (102/127) of the permits, Nonlocal Alaskans received 2.4% (3/127) of the permits, and the remaining 17.3% (22/127) of the permits went to Nonresidents. 72 of the D9DA permits were issued as transferable permits, and the remaining 55 were issued as non-transferable.

Table 1-1. Initial Issuance and Year-end 2016 Totals of D9DA Permits, With Net Changes Due to Permit Transfers, Migrations, and Cancellations, by Resident Type

INITIAL ISSUE			TRANSFERS		MIGRATIONS		CANCELLED		2016 YEAR-END	
<i>Residency</i>	<i>Total</i>	<i>Percent</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Total</i>	<i>Percentage</i>
Local	102	80.3%	5	4.9%	-8	-7.8%	-13	-12.7%	86	87.8%
Nonlocal	3	2.4%	0	0.0%	2	66.7%	-1	-33.3%	4	4.1%
Nonresident	22	17.3%	-5	-22.7%	6	27.3%	-15	-68.2%	8	8.2%
Total	127	100.0%	0	0.0%	0	0.0%	-29	-22.8%	98	100.0%

The number of permits held by each resident type can change for three reasons: permits can be transferred to other resident types (transfer); permit holders can move from one location to another (migration); or permits can be cancelled, such as when a permit holder does not pay the renewal fee for two consecutive years. This table indicates the extent to which these factors have contributed to net changes in permit holdings in this fishery. Cancelled permits have had the largest impact on the changes; all but one of the cancelled permits were non-transferable.

Transfers of D9DA Permits

Under the Limited Entry Act's terms of free transferability, permits may be sold, traded, given away, or inherited. CFEC requires the completion of a survey with each transfer.¹ The surveys provide information such as transfer acquisition methods, the relationship between individuals in the transaction, and the sale amount for instances when the permit is sold.

Table 1-2. Transfer Acquisition Methods for D9DA Permits, 1997-2016

Acquisition Method	D9DA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Gift</i>	44	14.9%	120	15.0%	7,408	37.8%
<i>Sale</i>	238	80.4%	605	75.5%	11,430	58.3%
<i>Trade</i>	12	4.1%	62	7.7%	215	1.1%
<i>Other</i>	2	0.7%	14	1.7%	545	2.8%
Total	296		801		19,598	

Table 1-2 compares and contrasts the transfer acquisition methods for the D9DA permits, all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits between 1997 and 2016. Most of all D9DA transfers were sales (80.4% or 238/296), 14.9% were gifts (44/296), and a smaller percentage were trades (4.1% or 12/296) or other (0.7% 2/296). The annual acquisition methods for D9DA permits can be compared by year or to other permit types in a different publication.²

Table 1-3. Relationships of Transferor to Transfer Recipients for D9DA Permits, 1997-2016

Relationship	D9DA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Business Partner/Friend</i>	51	17.2%	140	17.5%	3,306	16.9%
<i>Member of Immediate Family</i>	50	16.9%	140	17.5%	6,593	33.6%
<i>Other Relative</i>	5	1.7%	15	1.9%	828	4.2%
<i>Other</i>	190	64.2%	506	63.2%	8,871	45.3%
Total	296		801		19,598	

Table 1-3 shows the relationships between the transferors and transfer recipients for D9DA permits, and compares and contrasts D9DA permit transfers with all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits from 1997 to 2016. Transfers within the family, both between immediate family members and other relatives, total 18.6% (55/296) of all permit transfers for D9DA permits compared to 19.4% (155/801) for all four limited Southeast Alaska Dungeness pot permit types combined, and 37.9% (7,421/19,598) for all limited entry permits statewide.

¹ CFEC implemented the transfer survey in 1980.

² See *Changes in the Distribution of Alaska's Commercial Fisheries Entry Permits, 1975-2016*, CFEC Report No. 17-1N.

Emergency Transfers of D9DA Permits

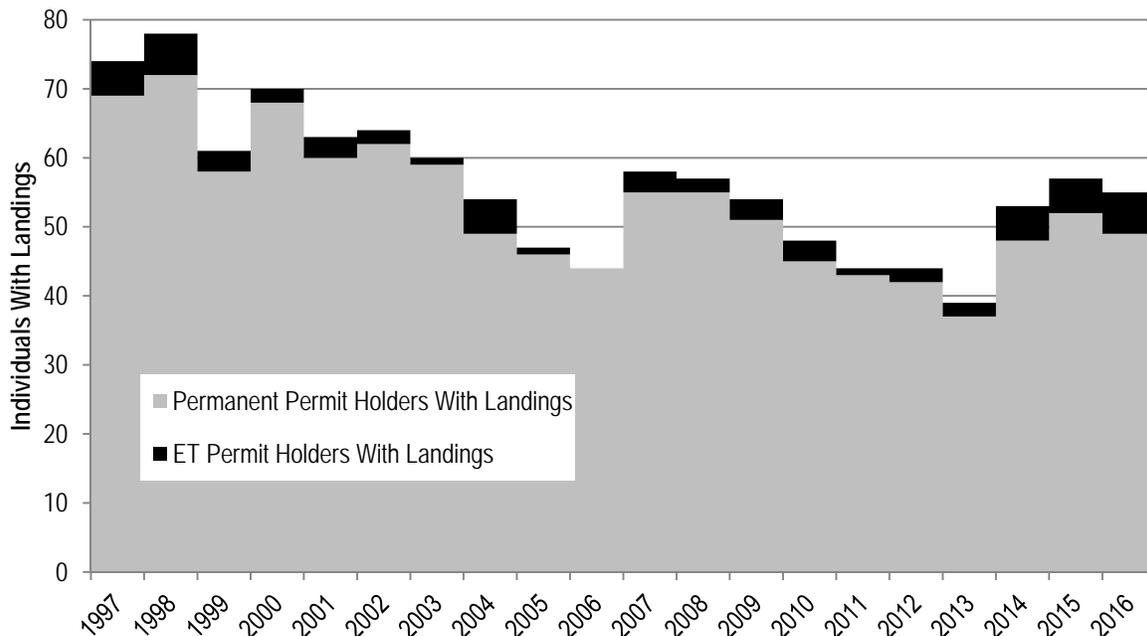
Commercial landings can be made with either permanently-held permits or with permits held temporarily through emergency transfers. Emergency transfers (ET) of permits are granted if illness, disability, death, required military or government service, or other unavoidable hardship of a temporary, unexpected, and unforeseen nature prevents the permanent permit holder from participating in the fishery. “Hardship” does not include the results of a permit holder’s own economic decisions, or the results of economic, biological or regulatory variables which are normally part of the risk of doing business as a fisherman. At the end of the year, ET permits automatically revert back to the permanent permit holder.

Table 1-4 and Figure 1-1 show the total number of individuals who recorded landings each year, and of that group, the number of individuals who made landings with ET permits. Some individuals who made landings with ET permits also made landings with permanent permits in the same year.

Table 1-4. Use of D9DA Emergency Transfer Permits, 1997-2016

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
1997	74	5	6.8%
1998	78	6	7.7%
1999	61	3	4.9%
2000	70	2	2.9%
2001	63	3	4.8%
2002	64	2	3.1%
2003	60	1	1.7%
2004	54	5	9.3%
2005	47	1	2.1%
2006	44	0	0.0%
2007	58	3	5.2%
2008	57	2	3.5%
2009	54	3	5.6%
2010	48	3	6.3%
2011	44	1	2.3%
2012	44	2	4.5%
2013	39	2	5.1%
2014	53	5	9.4%
2015	57	5	8.8%
2016	55	6	10.9%

Figure 1-1. Use of D9DA Emergency Transfer Permits, 1997-2016



Latent D9DA Permits

CFEC regulations require individuals to renew their limited entry permits annually, regardless of whether they actually fish. Permits that are not used (don't record landings) in a given year are referred to herein as "latent" permits for that year.

Table 1-5 indicates the total number of viable D9DA permits issued each year, the number of permits fished (with commercial landings), and the rate of permit latency. Viable permits include both interim entry and permanent permits. Note that for this table, in years when a single individual held an interim-entry permit and was also issued a permanent permit, only the permanent permit is counted. The rate of latency is depicted in Figure 1-2.

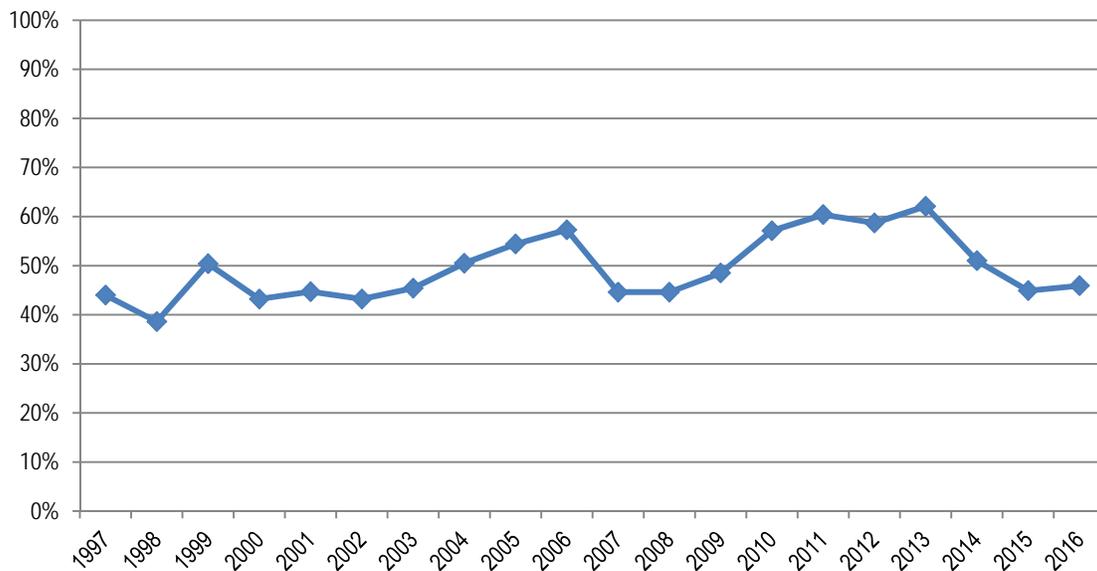
There are many reasons why an individual might not fish in any given year. This table and figure do not explain any of these reasons, but simply estimate the rate of permit latency.

Table 1-5. D9DA Permit Latency, 1997-2016

Year	Permits		Latency Rate
	Issued	Fished	
1997	125	70	44.0%
1998	127	78	38.6%
1999	121	60	50.4%
2000	118	67	43.2%
2001	114	63	44.7%
2002	111	63	43.2%
2003	108	59	45.4%
2004	105	52	50.5%
2005	103	47	54.4%
2006	103	44	57.3%
2007	101	56	44.6%
2008	101	56	44.6%
2009	101	52	48.5%
2010	112	48	57.1%
2011	111	44	60.4%
2012	104	43	58.7%
2013	103	39	62.1%
2014	100	49	51.0%
2015	98	54	44.9%
2016	98	53	45.9%

- When an individual with an interim-entry permit is issued a permanent permit in the same year, only the permanent permit is counted in the above table.

Figure 1-2. D9DA Permit Latency, 1997-2016



New Entrants into the Tier D Southeast Alaska Dungeness Crab Pot Fishery

New entrants are defined herein as individuals who, for the first time, record a landing on a permanent D9DA permit. It is important to note that initial permit holders are not considered new entrants because they needed a proven fishing history prior to 1997 in order to become an initial permit holder of a limited entry permit. Individuals who only make landings on an emergency transfer or interim-entry permit for any given year are not considered in this table.

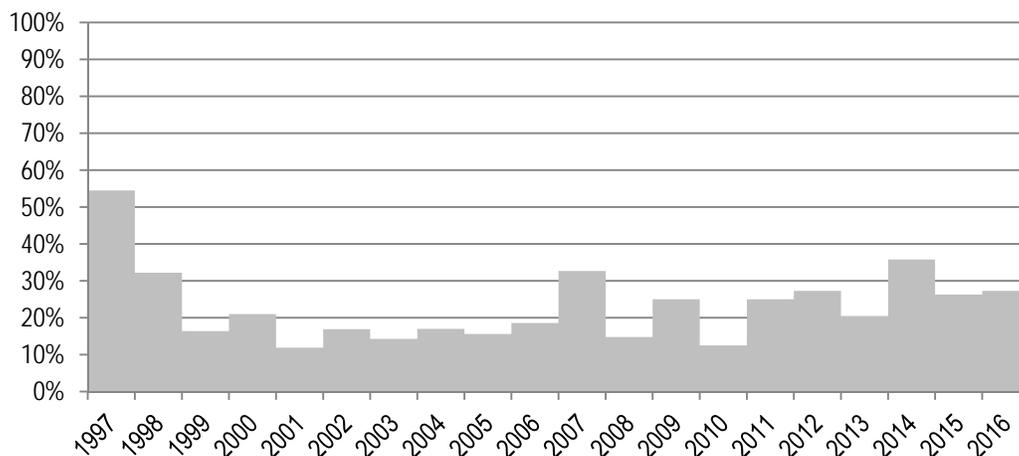
Table 1-6 and Figure 1-3 describe individuals rather than permits. An individual may hold up to two permits in this fishery, but can only fish one of them. An individual may hold one D9DA permit one year, and then in subsequent years hold a different D9DA permit. Likewise, individuals may enter and exit the fishery multiple times over the years. Individuals are only counted once as a new entrant and only in the year in which they made their first documented landing.

Table 1-6. New Entrants into the Tier D Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016

Year	Individuals		New Percent	Year	Individuals		New Percent
	w/Landings	New			w/Landings	New	
1997	44	24	54.5%	2007	55	18	32.7%
1998	59	19	32.2%	2008	54	8	14.8%
1999	55	9	16.4%	2009	52	13	25.0%
2000	62	13	21.0%	2010	48	6	12.5%
2001	59	7	11.9%	2011	44	11	25.0%
2002	59	10	16.9%	2012	44	12	27.3%
2003	56	8	14.3%	2013	39	8	20.5%
2004	53	9	17.0%	2014	53	19	35.8%
2005	45	7	15.6%	2015	57	15	26.3%
2006	43	8	18.6%	2016	55	15	27.3%

- *New Entrants excludes individuals with interim-entry and emergency transfer permits.*

Figure 1-3. New Entrants into the Tier D Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016



Age of D9DA Permit Holders

Table 1-7 shows the annual mean age of four different cohorts of people: 1) D9DA permit holders; 2) all four (D9DA, D9CA, D9BA, and D9AA) Southeast Alaska Dungeness pot permit holders; 3) all CFEC limited entry permit holders; and 4) the Alaskan worker population.

Note that these figures include ages of permit holders for both transferable and non-transferable permits. Some individuals hold permits in more than one fishery; in these cases, the age of the permit holder is counted once for each permit that he or she holds.

The mean age of the general Alaskan worker age population has increased 2.3 years between 1997 and 2016, which represents a 6.2% increase. The percent change in ages over the same period for all CFEC permit holders increased by 12.2% (5.6 years), and 10.1% (4.4 years) for the combined Southeast Alaska Dungeness pot permit holders.

For D9DA permit holders, the mean age increased 7.3% (3.3 years).

Table 1-7. Mean Age of Select CFEC Permit Holders and the General Alaskan Worker Population

Year	Combined Southeast Dungeness Pot			Mean Age of Alaskan Workers
	D9DA	Statewide All Permits	Statewide All Permits	
1997	45.2	43.2	45.7	37.4
1998	42.4	42.3	46.0	37.6
1999	43.0	42.9	46.4	37.8
2000	43.7	43.4	46.8	37.9
2001	43.7	43.8	47.1	38.1
2002	44.2	44.0	47.7	38.3
2003	44.6	44.6	48.2	38.4
2004	46.6	45.0	48.4	38.6
2005	46.8	45.8	48.6	38.7
2006	47.7	46.1	48.8	38.8
2007	46.8	45.4	49.0	38.9
2008	47.0	45.2	49.2	39.0
2009	47.6	46.3	49.6	39.1
2010	48.7	47.2	49.7	39.2
2011	48.1	47.4	49.9	39.4
2012	48.4	47.7	50.1	39.4
2013	49.4	48.4	50.2	39.5
2014	48.4	47.5	50.4	39.5
2015	47.6	47.2	50.8	39.5
2016	48.5	47.6	51.2	39.7

- Mean Age of Alaskan Workers is the annual average age of all Alaskans age 16-64 as reported by the Alaska Department of Labor and Workforce Development, Research and Analysis Section.
- Displayed figures are rounded to the nearest 10th. Age data from the CFEC permit file is as of December 31st of each year.

D9DA Permit Value

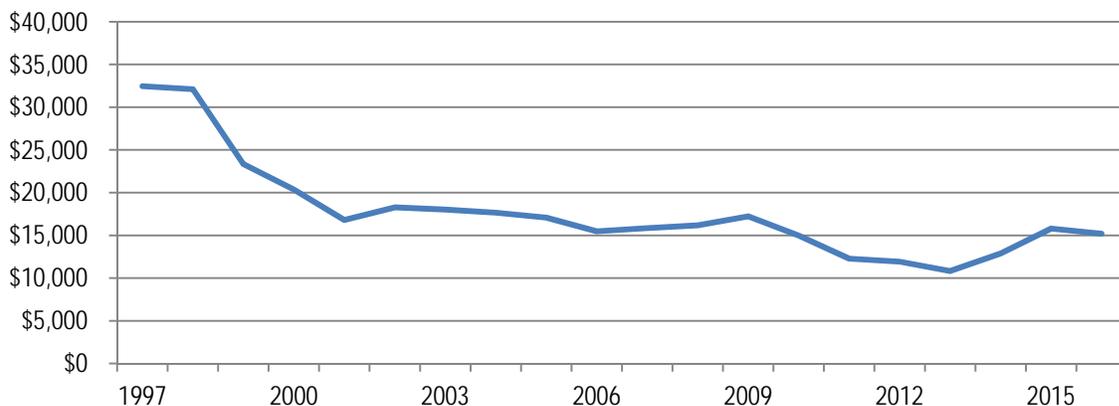
Many permit transfers are non-monetary transactions (see Table 1-2). Table 1-8 and Figure 1-4 considers solely the arms-length market transactions where permits are sold. CFEC estimated values are expressed in both nominal and real (adjusted for inflation) terms.

Table 1-8. CFEC Estimated Value of D9DA Permits

Year	D9DA Permit Sales	Nominal		Real	
		Permit Value	Standard Deviation	Permit Value	Standard Deviation
1997	24	\$21,700	\$1,900	\$32,450	\$2,841
1998	22	\$21,800	\$2,550	\$32,099	\$3,755
1999	10	\$16,200	\$2,150	\$23,338	\$3,097
2000	9	\$14,600	\$2,400	\$20,349	\$3,345
2001	9	\$12,400	\$1,350	\$16,805	\$1,830
2002	11	\$13,700	\$2,000	\$18,277	\$2,668
2003	11	\$13,800	\$1,350	\$18,001	\$1,761
2004	10	\$13,900	\$800	\$17,661	\$1,016
2005	8	\$13,900	\$1,700	\$17,082	\$2,089
2006	9	\$13,000	\$2,100	\$15,477	\$2,500
2007	17	\$13,700	\$1,550	\$15,858	\$1,794
2008	10	\$14,500	\$1,200	\$16,164	\$1,338
2009	8	\$15,400	\$1,550	\$17,228	\$1,734
2010	5	\$13,600	\$1,550	\$14,969	\$1,706
2011	11	\$11,500	\$1,400	\$12,270	\$1,494
2012	12	\$11,400	\$1,250	\$11,917	\$1,307
2013	6	\$10,500	\$750	\$10,818	\$773
2014	16	\$12,700	\$2,050	\$12,875	\$2,078
2015	7	\$15,600	\$400	\$15,797	\$405
2016	11	\$15,200	\$2,350	\$15,200	\$2,350

- Permit values represent averages of all arms-length sale transactions over the year. Beginning in 1991, additional data from recent months in the preceding year may be included until at least four observations can be averaged.
- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

Figure 1-4. D9DA Real Permit Value



- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

D9DA Vessel Characteristics

Table 1-9 reports on various characteristics of vessels used in the Tier D Southeast Alaska Dungeness crab pot fishery since 1997. Reported are the age, length, net tonnage, horsepower, and hold capacity. This data is from the vessel license file which includes voluntarily supplied information on vessels. The first column of each category is the count of vessels with the described characteristics, other statistics reported include the 25th percentile, median, and 75th percentile.

Table 1-9. D9DA Vessel Characteristics

Year	Vessel Count	Age				Length				Gross Tons				Net Tons				Horsepower				Hold Capacity			
		Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%
1997	73	71	10	18	24	73	24	32	37	45	11	15	21	45	7	10	15	70	140	200	255	23	200	365	768
1998	76	75	12	20	25	76	25	32	40	50	10	15	21	50	7	11	17	72	150	200	250	30	200	358	800
1999	59	57	11	21	26	59	24	30	38	39	7	13	19	37	7	10	15	56	150	200	250	20	200	383	653
2000	68	68	14	22	29	68	25	33	38	47	7	13	22	46	5	10	16	66	135	200	250	29	175	400	616
2001	64	63	12	22	28	64	26	33	37	44	8	13	20	45	5	9	13	63	150	200	250	23	175	340	540
2002	60	60	16	24	29	60	27	34	38	42	11	15	24	42	6	10	16	59	150	210	260	23	248	365	540
2003	59	59	17	24	30	59	26	34	38	44	8	13	20	45	4	9	14	57	140	170	250	22	250	300	442
2004	51	51	16	25	31	51	24	34	38	36	9	13	22	37	6	9	14	48	140	168	233	20	230	358	500
2005	49	49	16	26	31	49	24	31	36	33	10	14	24	34	7	10	19	48	150	205	250	22	180	345	500
2006	43	43	20	28	31	43	24	30	39	30	8	13	19	31	4	9	15	42	140	205	250	20	153	308	400
2007	57	57	18	28	31	57	24	32	40	37	9	15	22	41	6	11	15	56	150	210	250	26	180	308	500
2008	57	57	17	28	31	57	22	32	35	38	9	14	19	39	5	9	14	56	150	210	260	25	150	300	407
2009	56	55	18	29	32	56	23	32	37	32	10	14	20	35	5	11	16	52	150	210	276	28	200	328	575
2010	48	48	16	30	33	48	26	32	40	30	8	13	21	31	6	9	17	47	150	210	292	20	230	400	1,025
2011	43	43	22	32	34	43	24	32	35	29	8	12	15	29	6	9	11	43	150	210	250	19	60	240	400
2012	44	44	21	32	35	44	26	30	35	27	8	12	20	28	5	9	12	43	150	210	260	17	200	240	400
2013	43	43	23	34	37	43	26	30	35	31	7	11	15	32	4	8	12	42	130	168	225	20	130	228	400
2014	55	54	25	35	41	55	24	32	40	39	5	13	21	40	4	9	15	53	146	210	240	24	105	308	785
2015	56	55	25	35	37	56	24	32	40	42	7	14	21	41	4	10	16	54	150	210	230	27	70	240	850
2016	56	56	24	34	38	56	26	30	39	41	4	11	17	40	4	9	15	55	150	225	250	21	160	240	400
Total	337					337	24	32	39	230	9	15	22	236	5	10	16	324	146	200	260	141	175	340	800

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Table 1-10 provides additional characteristics of vessels used in the Tier D Southeast Alaska Dungeness crab fishery. Included are statistics of engine power type and hull material for each year since 1997.

Table 1-10. Additional D9DA Vessel Characteristics

Year	Vessel Count	Engine Power					Hull Material					
		Count	Diesel	Gas	Count	Aluminum	Fiberglass	Concrete	Steel	Wood		
1997	73	71	43 60.6%	28 39.4%	73	19 26.0%	36 49.3%	0 0.0%	5 6.8%	13 17.8%		
1998	76	74	46 62.2%	28 37.8%	76	17 22.4%	40 52.6%	1 1.3%	3 3.9%	15 19.7%		
1999	59	57	32 56.1%	25 43.9%	59	14 23.7%	32 54.2%	1 1.7%	0 0.0%	12 20.3%		
2000	68	67	44 65.7%	23 34.3%	68	14 20.6%	38 55.9%	1 1.5%	2 2.9%	13 19.1%		
2001	64	64	41 64.1%	23 35.9%	64	18 28.1%	33 51.6%	1 1.6%	2 3.1%	10 15.6%		
2002	60	59	44 74.6%	15 25.4%	60	15 25.0%	31 51.7%	1 1.7%	1 1.7%	12 20.0%		
2003	59	58	43 74.1%	15 25.9%	59	13 22.0%	30 50.8%	1 1.7%	2 3.4%	13 22.0%		
2004	51	50	34 68.0%	16 32.0%	51	14 27.5%	27 52.9%	1 2.0%	1 2.0%	8 15.7%		
2005	49	48	29 60.4%	19 39.6%	49	14 28.6%	26 53.1%	1 2.0%	3 6.1%	5 10.2%		
2006	43	42	25 59.5%	17 40.5%	43	13 30.2%	20 46.5%	1 2.3%	2 4.7%	7 16.3%		
2007	57	56	35 62.5%	21 37.5%	57	20 35.1%	28 49.1%	1 1.8%	2 3.5%	6 10.5%		
2008	57	56	33 58.9%	23 41.1%	57	27 47.4%	22 38.6%	1 1.8%	2 3.5%	5 8.8%		
2009	56	55	32 58.2%	23 41.8%	56	25 44.6%	25 44.6%	0 0.0%	3 5.4%	3 5.4%		
2010	48	48	31 64.6%	17 35.4%	48	19 39.6%	22 45.8%	0 0.0%	3 6.3%	4 8.3%		
2011	43	43	27 62.8%	16 37.2%	43	15 34.9%	24 55.8%	0 0.0%	1 2.3%	3 7.0%		
2012	44	44	24 54.5%	20 45.5%	44	20 45.5%	19 43.2%	0 0.0%	3 6.8%	2 4.5%		
2013	43	43	26 60.5%	17 39.5%	43	15 34.9%	22 51.2%	0 0.0%	2 4.7%	4 9.3%		
2014	55	55	32 58.2%	23 41.8%	55	17 30.9%	28 50.9%	0 0.0%	3 5.5%	7 12.7%		
2015	56	56	35 62.5%	21 37.5%	56	14 25.0%	35 62.5%	0 0.0%	3 5.4%	4 7.1%		
2016	56	56	31 55.4%	25 44.6%	56	20 35.7%	30 53.6%	0 0.0%	1 1.8%	5 8.9%		
Total	337	336	213 63.4%	123 36.6%	337	112 33.2%	160 47.5%	1 0.3%	17 5.0%	47 13.9%		

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Participation and Earnings of D9DA Permit Holders

Earnings are estimated from weighted average ex-vessel prices, and as noted earlier, largely stem from the ADF&G Commercial Operators Annual Report and fish ticket values. Earnings shown in Figure 1-5 are for both nominal and real dollars using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

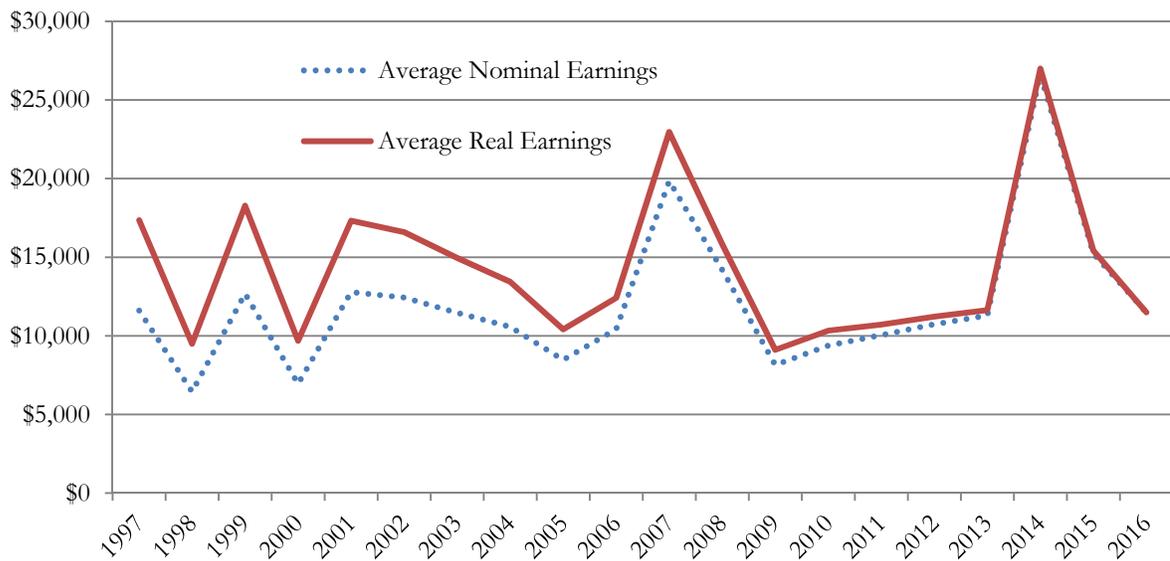
Permit counts include interim-entry permits and permanent permits. Interim-entry permits are issued to individuals during the period when their applications for permanent permits are in adjudication. The last year an interim-entry D9DA permit was held was in 2010. Some individuals made landings on both an interim-entry permit and subsequently on their newly issued permanent permit in the same year; for these instances, only the permanent permit is counted in this report.

Table 1-11 reports the number of permits, permit issued, and vessels with landings, and estimated gross earnings in the Tier D Southeast Alaska Dungeness crab pot fishery from 1997 to 2016. Note that the figures by permit or vessel in this table span the entire year, regardless of who held the permit or however many times the permit was transferred.

Table 1-12 reports the number of permit holders (people) and estimated real (inflation adjusted) gross earnings by each resident type. Where fewer than four individuals made landings, earnings are masked for that group and at least one other due to reasons of confidentiality.

Table 1-13 breaks out participation and real earnings by ADF&G shellfish management area. Note that some permits are used to record landings in more than one district.

Figure 1-5. Estimated Nominal and Real Average Gross Earnings Per D9DA Permit



- Real earnings are adjusted for inflation using the 2016 U.S. Bureau of Labor Statistics Consumer Price Index.

Table 1-11. Estimated Total Gross Earnings (Real and Nominal) for the Tier D Southeast Alaska Dungeness Crab Pot Fishery, With Average Gross (Real) Earnings by Permit and Vessel, 1997-2016

Year	Viable Permits	Total Gross Earnings		Permits With Landings	Average Real Earnings	Vessels With Landings	Average Real Vessel Earnings
		Nominal	Real				
1997	125	\$812,442	\$1,214,902	70	\$17,356	73	\$16,642
1998	127	\$503,014	\$740,655	78	\$9,496	76	\$9,745
1999	121	\$760,975	\$1,096,274	60	\$18,271	59	\$18,581
2000	118	\$465,571	\$648,899	67	\$9,685	68	\$9,543
2001	114	\$805,267	\$1,091,303	63	\$17,322	64	\$17,052
2002	111	\$783,695	\$1,045,538	63	\$16,596	60	\$17,426
2003	108	\$676,505	\$882,423	59	\$14,956	59	\$14,956
2004	105	\$549,802	\$698,552	52	\$13,434	51	\$13,697
2005	103	\$398,127	\$489,263	47	\$10,410	49	\$9,985
2006	103	\$458,717	\$546,108	44	\$12,412	43	\$12,700
2007	101	\$1,111,050	\$1,286,086	56	\$22,966	57	\$22,563
2008	101	\$794,851	\$886,052	56	\$15,822	57	\$15,545
2009	101	\$423,504	\$473,783	52	\$9,111	56	\$8,460
2010	112	\$450,464	\$495,811	48	\$10,329	48	\$10,329
2011	111	\$442,124	\$471,741	44	\$10,721	43	\$10,971
2012	104	\$461,761	\$482,704	43	\$11,226	44	\$10,971
2013	103	\$440,629	\$453,964	39	\$11,640	43	\$10,557
2014	100	\$1,304,813	\$1,322,842	49	\$26,997	55	\$24,052
2015	98	\$822,585	\$832,962	54	\$15,425	56	\$14,874
2016	98	\$609,122	\$609,122	53	\$11,493	56	\$10,877

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.

Table 1-12. Estimated Real Gross Earnings for Permit Holders in the Tier D Southeast Alaska Dungeness Crab Pot Fishery by Resident Type, 1997-2016

Year	Local Gross Earnings			Nonlocal Gross Earnings			Nonresident Gross Earnings			Total Gross Earnings		
	People	Average	Total	People	Average	Total	People	Average	Total	People	Average	Total
1997	64	\$15,431	\$987,555	0	\$0	\$0	10	\$22,735	\$227,347	74	\$16,418	\$1,214,902
1998	68	\$9,962	\$677,448	0	\$0	\$0	10	\$6,321	\$63,207	78	\$9,496	\$740,655
1999	**	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	61	\$17,972	\$1,096,274
2000	61	\$9,672	\$589,973	0	\$0	\$0	9	\$6,547	\$58,925	70	\$9,270	\$648,899
2001	56	\$18,504	\$1,036,209	1-3	Confidential	Confidential	**	Confidential	Confidential	63	\$17,322	\$1,091,303
2002	56	\$17,129	\$959,208	0	\$0	\$0	8	\$10,791	\$86,330	64	\$16,337	\$1,045,538
2003	56	\$14,755	\$826,263	0	\$0	\$0	4	\$14,040	\$56,161	60	\$14,707	\$882,423
2004	49	\$13,024	\$638,172	1-3	Confidential	Confidential	1-3	Confidential	Confidential	54	\$12,936	\$698,552
2005	43	\$10,773	\$463,230	0	\$0	\$0	4	\$6,508	\$26,034	47	\$10,410	\$489,263
2006	39	\$12,850	\$501,156	1-3	Confidential	Confidential	**	Confidential	Confidential	44	\$12,412	\$546,108
2007	50	\$23,240	\$1,162,003	1-3	Confidential	Confidential	**	Confidential	Confidential	58	\$22,174	\$1,286,086
2008	50	\$16,087	\$804,372	1-3	Confidential	Confidential	**	Confidential	Confidential	57	\$15,545	\$886,052
2009	46	\$8,744	\$402,244	0	\$0	\$0	8	\$8,942	\$71,539	54	\$8,774	\$473,783
2010	41	\$10,655	\$436,837	0	\$0	\$0	7	\$8,425	\$58,974	48	\$10,329	\$495,811
2011	**	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	44	\$10,721	\$471,741
2012	41	\$10,995	\$450,778	1-3	Confidential	Confidential	1-3	Confidential	Confidential	44	\$10,971	\$482,704
2013	**	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	39	\$11,640	\$453,964
2014	46	\$25,021	\$1,150,964	1-3	Confidential	Confidential	**	Confidential	Confidential	53	\$24,959	\$1,322,842
2015	47	\$15,855	\$745,202	0	\$0	\$0	10	\$8,776	\$87,760	57	\$14,613	\$832,962
2016	48	\$11,460	\$550,091	1-3	Confidential	Confidential	6	Confidential	Confidential	55	\$11,075	\$609,122

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.
- Note that these counts are for individuals, not permits.
- When fewer than four permits make landings, earnings in another column are masked (**) due to reasons of confidentiality.

Table 1-13. Gross Real Earnings for the Tier D Southeast Alaska Dungeness Crab Pot Fishery by ADF&G Shellfish Management Area, 1997 to 2016

Year	Juneau Area				Ketchikan Area				Petersburg Area				Sitka Area				Total	
	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Gross Earnings Real Value
1997	18	25.7%	\$160,625	13.2%	10	14.3%	\$98,961	8.1%	45	64.3%	\$919,563	75.7%	1-3	confidential	confidential	2.9%	70	\$1,214,902
1998	19	24.4%	\$116,083	15.7%	11	14.1%	\$110,454	14.9%	54	69.2%	\$498,144	67.3%	4	5.1%	\$15,974	2.2%	78	\$740,655
1999	14	23.3%	\$68,968	6.3%	9	15.0%	\$154,793	14.1%	43	71.7%	\$810,568	73.9%	4	6.7%	\$61,946	5.7%	60	\$1,096,274
2000	13	19.4%	\$34,563	5.3%	8	11.9%	\$74,628	11.5%	48	71.6%	\$523,143	80.6%	4	6.0%	\$16,564	2.6%	67	\$648,899
2001	13	20.6%	\$70,456	6.5%	8	12.7%	\$82,797	7.6%	45	71.4%	\$931,102	85.3%	1-3	confidential	confidential	0.6%	63	\$1,091,303
2002	12	19.0%	\$79,664	7.6%	11	17.5%	\$57,383	5.5%	47	74.6%	\$903,753	86.4%	1-3	confidential	confidential	0.5%	63	\$1,045,538
2003	11	18.6%	\$87,531	9.9%	10	16.9%	\$63,880	7.2%	44	74.6%	\$731,012	82.8%	0	0.0%	\$0	0.0%	59	\$882,423
2004	10	19.2%	\$98,273	14.1%	12	23.1%	\$85,027	12.2%	38	73.1%	\$512,657	73.4%	1-3	confidential	confidential	0.4%	52	\$698,552
2005	7	14.9%	\$60,350	12.3%	9	19.1%	\$71,246	14.6%	32	68.1%	\$353,480	72.2%	1-3	confidential	confidential	0.9%	47	\$489,263
2006	6	13.6%	\$60,342	11.0%	6	13.6%	\$60,754	11.1%	32	72.7%	\$414,945	76.0%	1-3	confidential	confidential	1.8%	44	\$546,108
2007	11	19.6%	\$218,590	17.0%	7	12.5%	\$73,288	5.7%	39	69.6%	\$930,079	72.3%	4	7.1%	\$64,129	5.0%	56	\$1,286,086
2008	14	25.0%	\$173,324	19.6%	5	8.9%	\$52,697	5.9%	39	69.6%	\$614,902	69.4%	1-3	confidential	confidential	5.1%	56	\$886,052
2009	10	19.2%	\$104,770	22.1%	7	13.5%	\$49,429	10.4%	34	65.4%	\$292,467	61.7%	4	7.7%	\$27,117	5.7%	52	\$473,783
2010	8	16.7%	\$100,063	20.2%	5	10.4%	\$40,714	8.2%	34	70.8%	\$343,822	69.3%	1-3	confidential	confidential	2.3%	48	\$495,811
2011	8	18.2%	\$51,932	11.0%	7	15.9%	\$70,945	15.0%	29	65.9%	\$343,876	72.9%	1-3	confidential	confidential	1.1%	44	\$471,741
2012	10	23.3%	\$70,316	14.6%	5	11.6%	\$50,870	10.5%	27	62.8%	\$345,489	71.6%	1-3	confidential	confidential	3.3%	43	\$482,704
2013	10	25.6%	\$75,442	16.6%	6	15.4%	\$58,519	12.9%	23	59.0%	\$278,656	61.4%	1-3	confidential	confidential	9.1%	39	\$453,964
2014	12	24.5%	\$176,682	13.4%	6	12.2%	\$85,056	6.4%	32	65.3%	\$946,798	71.6%	4	8.2%	\$114,305	8.6%	49	\$1,322,842
2015	15	27.8%	\$232,905	28.0%	5	9.3%	\$57,496	6.9%	35	64.8%	\$496,955	59.7%	5	9.3%	\$45,607	5.5%	54	\$832,962
2016	14	26.4%	\$116,267	19.1%	8	15.1%	\$79,425	13.0%	34	64.2%	\$398,454	65.4%	4	7.5%	\$14,976	2.5%	53	\$609,122

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- When fewer than four permits make landings, earnings in another column are masked due to reasons of confidentiality.
- Some permits are used to record landings in more than one district.

Chapter 2 Tier C Southeast Alaska Dungeness Crab Fishery, 150 Pots or 50% of Maximum

D9CA Permit Holdings

Tier C limited entry permits for the Southeast Alaska Dungeness crab, 150 pots or 50% of maximum, were issued as D9CA permits starting in 1997. Table 2-1 indicates the initial distribution and historical net changes in permit holdings for the fishery. CFEC has issued 87 D9CA permits. Of this total, Alaska Locals received 82.8% (72/87) of the permits and the remaining 17.2% (15/87) of the permits went to Nonresidents. 83 of the D9CA permits were issued as transferable permits, and the remaining 4 were issued as non-transferable.

Table 2-1. Initial Issuance and Year-end 2016 Totals of D9CA Permits, With Net Changes Due to Permit Transfers, Migrations, and Cancellations, by Resident Type

INITIAL ISSUE			TRANSFERS		MIGRATIONS		CANCELLED		2016 YEAR-END	
<i>Residency</i>	<i>Total</i>	<i>Percent</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Total</i>	<i>Percentage</i>
Local	72	82.8%	0	0.0%	-3	-4.2%	-2	-2.8%	67	80.7%
Nonlocal	0	0.0%	-4	.	5	-	0	-	1	1.2%
Nonresident	15	17.2%	4	26.7%	-2	-13.3%	-2	-13.3%	15	18.1%
Total	87	100.0%	0	0.0%	0	0.0%	-4	-4.6%	83	100.0%

The number of permits held by each resident type can change for three reasons: permits can be transferred to other resident types (transfer); permit holders can move from one location to another (migration); or permits can be cancelled, such as when a permit holder does not pay the renewal fee for two consecutive years or from a permit buyback. This table indicates the extent to which these factors have contributed to net changes in permit holdings in this fishery. Migrations have had the largest impact on net changes.

Transfers of D9CA Permits

Under the Limited Entry Act's terms of free transferability, permits may be sold, traded, given away, or inherited. CFEC requires the completion of a survey with each transfer.³ The surveys provide information such as transfer acquisition methods, the relationship between individuals in the transaction, and the sale amount for instances when the permit is sold.

Table 2-2. Transfer Acquisition Methods for D9CA Permits, 1997-2016

Acquisition Method	D9CA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Gift</i>	35	13.2%	120	15.0%	7,408	37.8%
<i>Sale</i>	201	75.8%	605	75.5%	11,430	58.3%
<i>Trade</i>	21	7.9%	62	7.7%	215	1.1%
<i>Other</i>	8	3.0%	14	1.7%	545	2.8%
Total	265		801		19,598	

Table 2-2 compares and contrasts the transfer acquisition methods for the D9CA permits, all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits between 1997 and 2016. Most D9CA transfers were sales (75.8% or 201/265), 13.2% were gifts (35/265), and a smaller percentage were trades (7.9% or 21/265) or other (3.0% 8/265). The annual acquisition methods for D9CA permits can be compared by year or to other permit types in a different publication.⁴

Table 2-3. Relationships of Transferor to Transfer Recipients for D9CA Permits, 1997-2016

Relationship	D9CA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Business Partner/Friend</i>	48	18.1%	140	17.5%	3,306	16.9%
<i>Member of Immediate Family</i>	46	17.4%	140	17.5%	6,593	33.6%
<i>Other Relative</i>	3	1.1%	15	1.9%	828	4.2%
<i>Other</i>	168	63.4%	506	63.2%	8,871	45.3%
Total	265		801		19,598	

Table 2-3 shows the relationships between the transferors and transfer recipients for D9CA permits, and compares and contrasts D9CA permit transfers with all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits from 1997 to 2016. Transfers within the family, both between immediate family members and other relatives, total 18.5% (49/265) of all permit transfers for D9CA permits compared to 19.4% (155/801) for all four limited Southeast Alaska Dungeness pot permit types combined, and 37.9% (7,421/19,598) for all limited entry permits statewide.

³ CFEC implemented the transfer survey in 1980.

⁴ See *Changes in the Distribution of Alaska's Commercial Fisheries Entry Permits, 1975-2016*, CFEC Report No. 17-1N.

Emergency Transfers of D9CA Permits

Commercial landings can be made with either permanently-held permits or with permits held temporarily through emergency transfers. Emergency transfers (ET) of permits are granted if illness, disability, death, required military or government service, or other unavoidable hardship of a temporary, unexpected, and unforeseen nature prevents the permanent permit holder from participating in the fishery. “Hardship” does not include the results of a permit holder’s own economic decisions, or the results of economic, biological or regulatory variables which are normally part of the risk of doing business as a fisherman. At the end of the year, ET permits automatically revert back to the permanent permit holder.

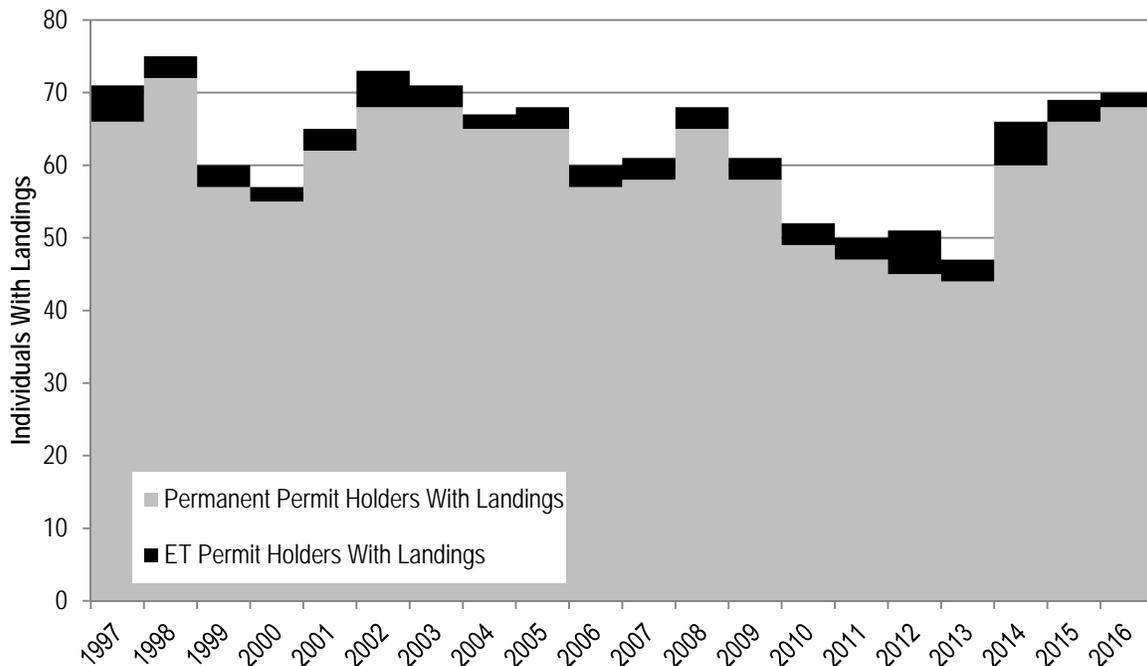
Table 2-4 and Figure 2-1 show the total number of individuals who recorded landings each year, and of that group, the number of individuals who made landings with ET permits. Some individuals who made landings with ET permits also made landings with permanent permits in the same year.

Table 2-4. Use of Emergency Transfer Permits in the D9CA Fishery, 1997-2016

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
1997	71	5	7.0%
1998	75	3	4.0%
1999	60	3	5.0%
2000	57	2	3.5%
2001	65	3	4.6%
2002	73	5	6.8%
2003	71	3	4.2%
2004	67	2	3.0%
2005	68	3	4.4%
2006	60	3	5.0%

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
2007	61	3	4.9%
2008	68	3	4.4%
2009	61	3	4.9%
2010	52	3	5.8%
2011	50	3	6.0%
2012	51	6	11.8%
2013	47	3	6.4%
2014	66	6	9.1%
2015	69	3	4.3%
2016	70	2	2.9%

Figure 2-1. Use of Emergency Transfer Permits in the D9CA Fishery, 1997-2016



Latent D9CA Permits

CFEC regulations require individuals to renew their limited entry permits annually, regardless of whether they actually fish. Permits that are not used (don't record landings) in a given year are referred to herein as "latent" permits for that year.

Table 2-5 indicates the total number of viable D9CA permits issued each year, the number of permits fished (with commercial landings), and the rate of permit latency. Viable permits include both interim entry and permanent permits. Note that for this table, in years when a single individual held an interim-entry permit and was also issued a permanent permit, only the permanent permit is counted. The rate of latency is depicted in Figure 2-2.

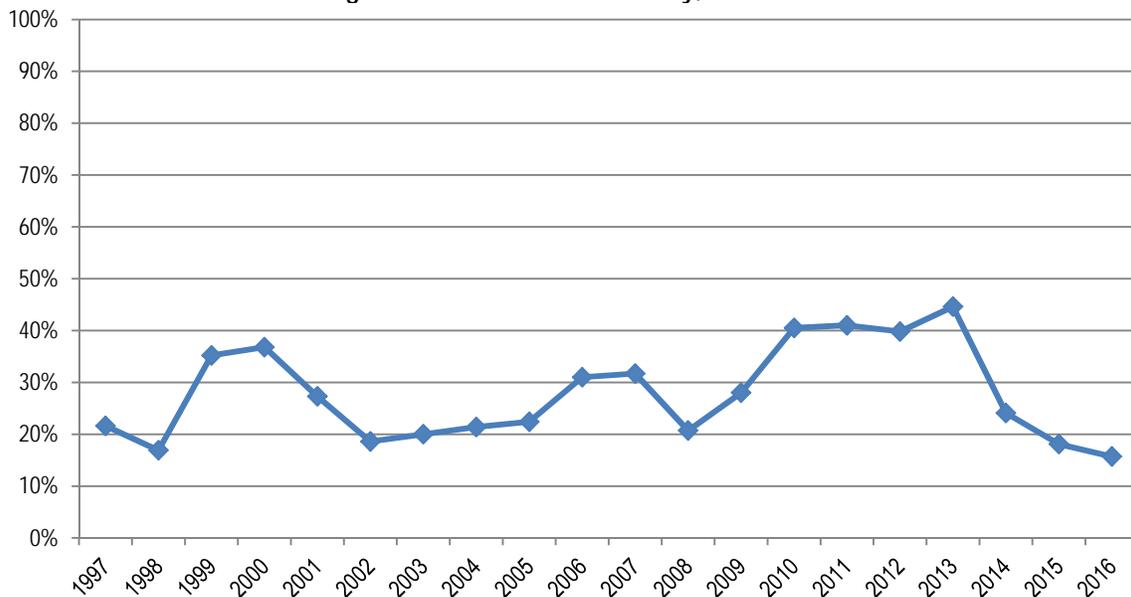
There are many reasons why an individual might not fish in any given year. This table and figure do not explain any of these reasons, but simply estimate the rate of permit latency.

Table 2-5. D9CA Permit Latency, 1997-2016

Year	Permits		Latency Rate	Year	Permits		Latency Rate
	Issued	Fished			Issued	Fished	
1997	88	69	21.6%	2007	82	56	31.7%
1998	89	74	16.9%	2008	82	65	20.7%
1999	88	57	35.2%	2009	82	59	28.0%
2000	87	55	36.8%	2010	84	50	40.5%
2001	88	64	27.3%	2011	83	49	41.0%
2002	86	70	18.6%	2012	83	50	39.8%
2003	85	68	20.0%	2013	83	46	44.6%
2004	84	66	21.4%	2014	83	63	24.1%
2005	85	66	22.4%	2015	83	68	18.1%
2006	84	58	31.0%	2016	83	70	15.7%

- When an individual with an interim-entry permit is issued a permanent permit in the same year, only the permanent permit is counted in the above table.

Figure 2-2. D9CA Permit Latency, 1997-2016



New Entrants into the Tier C Southeast Alaska Dungeness Crab Pot Fishery

New entrants are defined herein as individuals who, for the first time, record a landing on a permanent D9CA permit. It is important to note that initial permit holders are not considered new entrants because they needed a proven fishing history prior to 1997 in order to become an initial permit holder of a limited entry permit. Individuals who only make landings on an emergency transfer or interim-entry permit for any given year are not considered in this table.

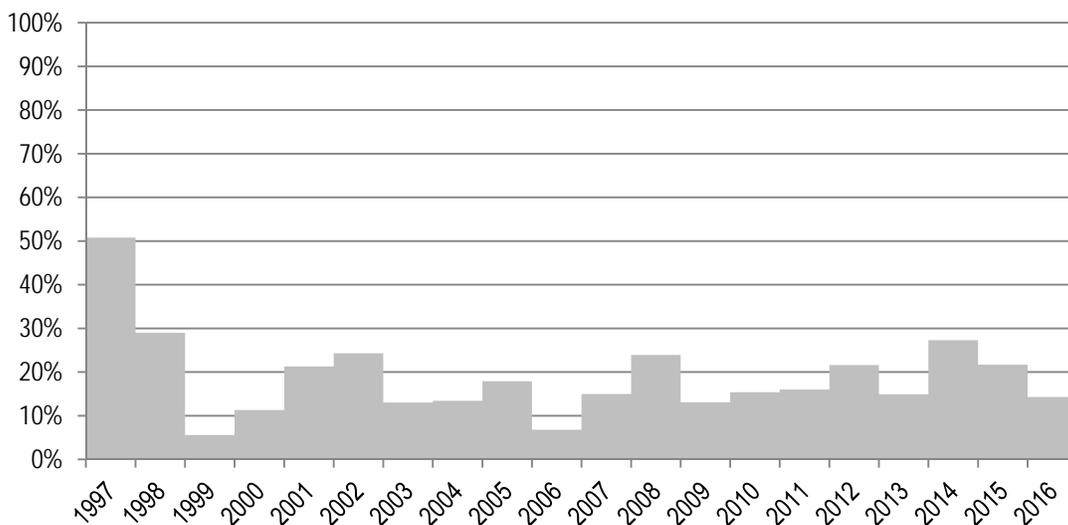
Table 2-6 and Figure 2-3 describe individuals rather than permits. An individual may hold up to two permits in this fishery, but can only fish one of them. An individual may hold one D9CA permit one year, and then in subsequent years hold a different D9CA permit. Likewise, individuals may enter and exit the fishery multiple times over the years. Individuals are only counted once as a new entrant and only in the year in which they made their first documented landing.

Table 2-6. New Entrants into the Tier C Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016

Year	Individuals		New Percent	Year	Individuals		New Percent
	w/Landings	New			w/Landings	New	
1997	63	32	50.8%	2007	60	9	15.0%
1998	69	20	29.0%	2008	67	16	23.9%
1999	54	3	5.6%	2009	61	8	13.1%
2000	53	6	11.3%	2010	52	8	15.4%
2001	61	13	21.3%	2011	50	8	16.0%
2002	70	17	24.3%	2012	51	11	21.6%
2003	69	9	13.0%	2013	47	7	14.9%
2004	67	9	13.4%	2014	66	18	27.3%
2005	67	12	17.9%	2015	69	15	21.7%
2006	59	4	6.8%	2016	70	10	14.3%

- New Entrants excludes individuals with interim-entry and emergency transfer permits.

Figure 2-3. New Entrants into the Tier C Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016



Age of D9CA Permit Holders

Table 2-7 shows the annual mean age of four different cohorts of people: 1) D9CA permit holders; 2) all four (D9DA, D9CA, D9BA, and D9AA) Southeast Alaska Dungeness pot permit holders; 3) all CFEC limited entry permit holders; and 4) the Alaskan worker population.

Note that these figures include ages of permit holders for both transferable and non-transferable permits. Some individuals hold permits in more than one fishery; in these cases, the age of the permit holder is counted once for each permit that he or she holds.

The mean age of the general Alaskan worker age population has increased 2.3 years between 1997 and 2016, which represents a 6.2% increase. The percent change in ages over the same period for all CFEC permit holders increased by 12.2% (5.6 years), and 10.1% (4.4 years) for the combined Southeast Alaska Dungeness pot permit holders.

For D9CA permit holders, the mean age increased 10.4% (4.3 years).

Table 2-7. Mean Age of Select CFEC Permit Holders and the General Alaskan Population

Year	D9CA	Combined Southeast Dungeness Pot	Statewide All Permits	Mean Age of Alaskan Workers
1997	41.1	43.2	45.7	37.4
1998	40.9	42.3	46.0	37.6
1999	41.5	42.9	46.4	37.8
2000	42.5	43.4	46.8	37.9
2001	43.7	43.8	47.1	38.1
2002	43.5	44.0	47.7	38.3
2003	44.8	44.6	48.2	38.4
2004	44.6	45.0	48.4	38.6
2005	45.5	45.8	48.6	38.7
2006	44.9	46.1	48.8	38.8
2007	44.6	45.4	49.0	38.9
2008	44.4	45.2	49.2	39.0
2009	45.7	46.3	49.6	39.1
2010	46.9	47.2	49.7	39.2
2011	47.3	47.4	49.9	39.4
2012	47.1	47.7	50.1	39.4
2013	48.0	48.4	50.2	39.5
2014	45.9	47.5	50.4	39.5
2015	45.6	47.2	50.8	39.5
2016	45.4	47.6	51.2	39.7

- Mean Age of Alaskan Workers is the annual average age of all Alaskans age 16-64 as reported by the Alaska Department of Labor and Workforce Development, Research and Analysis Section.
- Displayed figures are rounded to the nearest 10th. Age data from the CFEC permit file is as of December 31st of each year.

D9CA Permit Value

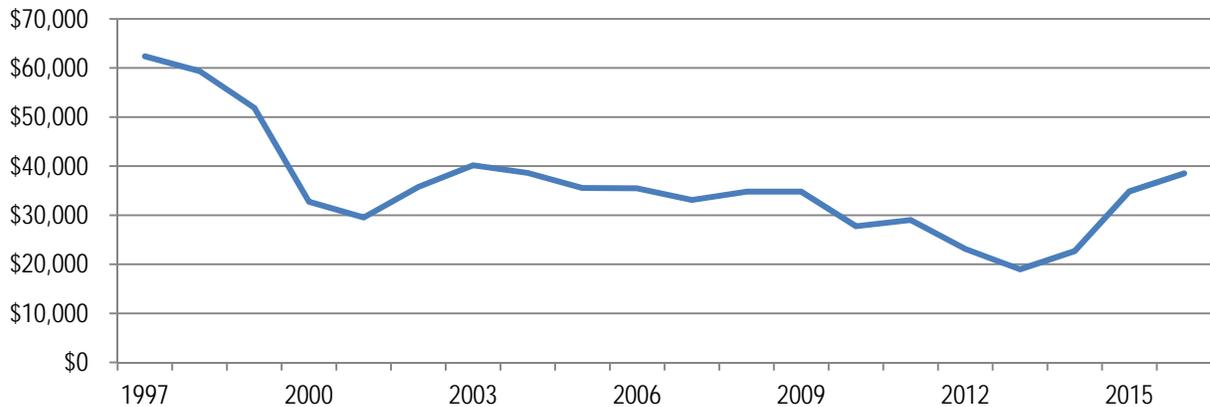
Many permit transfers are non-monetary transactions (see Table 2-2). Table 2-8 and Figure 2-4 considers solely the arms-length market transactions where permits are sold. CFEC estimated values are expressed in both nominal and real (adjusted for inflation) terms.

Table 2-8. CFEC Estimated Value of D9CA Permits

Year	D9CA Permit Sales	Nominal		Real	
		Permit Value	Standard Deviation	Permit Value	Standard Deviation
1997	28	\$41,700	\$3,900	\$62,357	\$5,832
1998	16	\$40,300	\$1,400	\$59,339	\$2,061
1999	2	\$36,000	\$7,050	\$51,862	\$10,156
2000	6	\$23,500	\$4,450	\$32,754	\$6,202
2001	9	\$21,800	\$3,050	\$29,543	\$4,133
2002	14	\$26,800	\$2,700	\$35,754	\$3,602
2003	10	\$30,800	\$4,450	\$40,175	\$5,805
2004	10	\$30,400	\$2,650	\$38,625	\$3,367
2005	7	\$28,900	\$1,850	\$35,516	\$2,273
2006	2	\$29,800	\$500	\$35,477	\$595
2007	6	\$28,600	\$1,300	\$33,106	\$1,505
2008	16	\$31,200	\$3,350	\$34,780	\$3,734
2009	6	\$31,100	\$2,650	\$34,792	\$2,965
2010	8	\$25,200	\$4,500	\$27,737	\$4,953
2011	5	\$27,200	\$6,450	\$29,022	\$6,882
2012	7	\$22,100	\$4,050	\$23,102	\$4,234
2013	6	\$18,400	\$1,650	\$18,957	\$1,700
2014	14	\$22,400	\$5,650	\$22,710	\$5,728
2015	11	\$34,400	\$2,450	\$34,834	\$2,481
2016	7	\$38,500	\$2,000	\$38,500	\$2,000

- Permit values represent averages of all arms-length sale transactions over the year. Beginning in 1991, additional data from recent months in the preceding year may be included until at least four observations can be averaged.
- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

Figure 2-4. D9CA Real Permit Value



- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

D9CA Vessel Characteristics

Table 2-9 reports on various characteristics of vessels used in the Tier C Southeast Alaska Dungeness crab pot fishery since 1997. Reported are the age, length, net tonnage, horsepower, and hold capacity. This data is from the vessel license file which includes voluntarily supplied information on vessels. The first column of each category is the count of vessels with the described characteristics, other statistics reported include the 25th percentile, median, and 75th percentile.

Table 2-9. D9CA Vessel Characteristics

Year	Vessel Count	Age				Length				Gross Tons				Net Tons				Horsepower				Hold Capacity			
		Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%
1997	72	71	11	18	25	72	28	34	40	52	11	16	23	52	8	12	17	71	155	200	235	36	200	345	750
1998	76	75	8	18	25	76	28	34	41	56	11	16	26	58	8	12	20	76	165	200	243	37	200	450	800
1999	58	58	9	16	23	58	26	32	39	41	11	16	22	43	8	12	17	58	160	200	250	28	200	449	750
2000	56	55	10	18	26	56	26	32	38	41	10	14	21	43	8	11	16	55	165	200	250	26	200	345	605
2001	62	61	12	19	27	62	26	33	39	45	10	16	22	46	8	11	16	61	165	220	250	34	210	400	700
2002	70	70	13	21	29	70	28	35	41	56	11	16	26	55	8	12	22	70	165	220	300	45	250	450	950
2003	72	72	14	22	29	72	29	35	41	57	11	16	25	57	8	12	20	72	165	225	300	44	265	455	975
2004	67	66	16	25	31	67	28	35	41	54	11	16	27	53	8	12	21	66	165	220	270	37	250	450	1,120
2005	66	66	16	26	32	66	28	34	41	50	11	15	25	49	9	12	20	66	165	223	285	34	225	398	1,120
2006	56	56	18	28	37	56	29	35	41	43	11	15	28	43	8	12	22	55	165	225	310	30	210	328	1,200
2007	64	64	18	28	34	64	30	37	43	51	12	17	31	50	9	13	24	62	165	225	320	31	210	350	1,200
2008	64	64	18	29	34	64	30	38	42	50	12	18	28	51	9	14	23	63	200	225	330	33	300	450	1,000
2009	66	65	19	30	35	65	28	35	40	50	12	17	22	50	8	14	19	64	180	225	324	32	280	423	1,110
2010	51	51	19	30	34	51	28	36	41	40	13	16	24	39	10	12	22	51	175	260	400	26	240	370	1,200
2011	47	47	22	30	36	47	26	35	40	37	12	16	21	35	10	13	18	47	170	220	350	20	225	290	1,760
2012	50	50	22	30	36	50	28	36	40	38	13	16	21	38	9	12	16	50	170	210	315	26	240	375	1,120
2013	47	47	23	30	38	47	28	35	40	37	12	15	21	37	6	12	17	47	165	210	300	24	218	320	620
2014	64	64	25	30	37	64	26	34	40	49	12	16	22	49	4	12	17	63	150	201	300	33	175	400	800
2015	71	70	25	32	37	70	27	33	38	53	12	16	21	55	5	11	16	69	170	225	285	35	210	400	800
2016	73	73	26	33	38	73	28	32	38	53	12	15	20	55	5	11	16	72	175	225	308	35	210	350	700
Total	305					304	28	35	41	235	11	16	25	235	6	12	20	297	165	225	315	151	225	440	1,000

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Table 2-10 provides additional characteristics of vessels used in the Tier C Southeast Alaska Dungeness crab fishery. Included are statistics of engine power type and hull material for each year since 1997.

Table 2-10. Additional D9CA Vessel Characteristics

Year	Vessel Count	Engine Power					Hull Material										
		Count	Diesel		Gas	Count	Aluminum	Fiberglass	Concrete	Steel	Wood						
1997	72	72	50	69.4%	22	30.6%	72	24	33.3%	29	40.3%	0	0.0%	6	8.3%	13	18.1%
1998	76	76	54	71.1%	22	28.9%	76	26	34.2%	32	42.1%	0	0.0%	3	3.9%	15	19.7%
1999	58	58	38	65.5%	20	34.5%	58	24	41.4%	25	43.1%	0	0.0%	1	1.7%	8	13.8%
2000	56	56	36	64.3%	20	35.7%	55	23	41.8%	23	41.8%	0	0.0%	1	1.8%	8	14.5%
2001	62	62	42	67.7%	20	32.3%	61	26	42.6%	24	39.3%	0	0.0%	3	4.9%	8	13.1%
2002	70	70	50	71.4%	20	28.6%	70	24	34.3%	31	44.3%	0	0.0%	6	8.6%	9	12.9%
2003	72	72	52	72.2%	20	27.8%	72	24	33.3%	36	50.0%	0	0.0%	5	6.9%	7	9.7%
2004	67	67	47	70.1%	20	29.9%	66	20	30.3%	31	47.0%	0	0.0%	7	10.6%	8	12.1%
2005	66	66	45	68.2%	21	31.8%	66	23	34.8%	30	45.5%	0	0.0%	6	9.1%	7	10.6%
2006	56	56	40	71.4%	16	28.6%	56	16	28.6%	26	46.4%	0	0.0%	7	12.5%	7	12.5%
2007	64	64	45	70.3%	19	29.7%	64	18	28.1%	33	51.6%	0	0.0%	8	12.5%	5	7.8%
2008	64	64	47	73.4%	17	26.6%	64	20	31.3%	35	54.7%	0	0.0%	5	7.8%	4	6.3%
2009	66	65	47	72.3%	18	27.7%	65	22	33.8%	34	52.3%	1	1.5%	4	6.2%	4	6.2%
2010	51	51	35	68.6%	16	31.4%	51	17	33.3%	29	56.9%	0	0.0%	3	5.9%	2	3.9%
2011	47	47	32	68.1%	15	31.9%	47	16	34.0%	28	59.6%	0	0.0%	1	2.1%	2	4.3%
2012	50	50	35	70.0%	15	30.0%	50	19	38.0%	28	56.0%	0	0.0%	2	4.0%	1	2.0%
2013	47	47	32	68.1%	15	31.9%	47	15	31.9%	28	59.6%	1	2.1%	2	4.3%	1	2.1%
2014	64	64	39	60.9%	25	39.1%	64	26	40.6%	33	51.6%	1	1.6%	2	3.1%	2	3.1%
2015	71	70	46	65.7%	24	34.3%	70	25	35.7%	42	60.0%	1	1.4%	2	2.9%	0	0.0%
2016	73	73	48	65.8%	25	34.2%	73	24	32.9%	45	61.6%	1	1.4%	1	1.4%	2	2.7%
Total	305	304	219	72.0%	85	28.0%	303	96	31.7%	152	50.2%	1	0.3%	20	6.6%	34	11.2%

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Participation and Earnings of D9CA Permit Holders

Earnings are estimated from weighted average ex-vessel prices, and as noted earlier, largely stem from the ADF&G Commercial Operators Annual Report and fish ticket values. Earnings shown in Figure 2-5 are for both nominal and real dollars using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

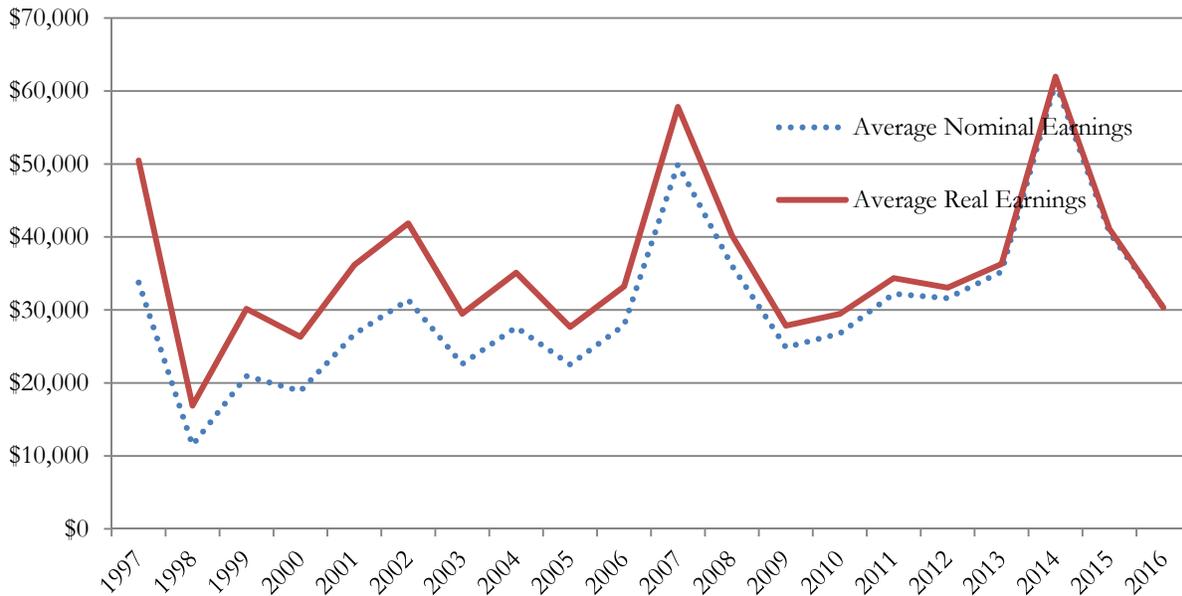
Permit counts include interim-entry permits and permanent permits. Interim-entry permits are issued to individuals during the period when their applications for permanent permits are in adjudication. The last year an interim-entry D9CA permit was held was in 2008. Some individuals made landings on both an interim-entry permit and subsequently on their newly issued permanent permit in the same year; for these instances, only the permanent permit is counted in this report.

Table 2-11 reports the number of permits, permit issued, and vessels with landings, and estimated gross earnings in the Tier C Southeast Alaska Dungeness crab pot fishery from 1997 to 2016. Note that the figures by permit or vessel in this table span the entire year, regardless of who held the permit or however many times the permit was transferred.

Table 2-12 reports the number of permit holders (people) and estimated real (inflation adjusted) gross earnings by each resident type. Where fewer than four individuals made landings, earnings are masked for that group and at least one other due to reasons of confidentiality.

Table 2-13 breaks out participation and real earnings by ADF&G shellfish management area. Note that some permits are used to record landings in more than one district.

Figure 2-5. Estimated Nominal and Real Average Gross Earnings Per D9CA Permit



- Real earnings are adjusted for inflation using the 2016 U.S. Bureau of Labor Statistics Consumer Price Index.

Table 2-11. Estimated Total Gross Earnings (Real and Nominal) for the Tier C Southeast Alaska Dungeness Crab Pot Fishery, With Average Gross (Real) Earnings by Permit and Vessel, 1997-2016

Year	Viable Permits	Total Gross Earnings		Permits With Landings	Average Real Earnings	Vessels With Landings	Average Real Vessel Earnings
		Nominal	Real				
1997	88	\$2,328,642	\$3,482,183	69	\$50,466	72	\$48,364
1998	89	\$848,753	\$1,249,735	74	\$16,888	76	\$16,444
1999	88	\$1,193,127	\$1,718,840	57	\$30,155	58	\$29,635
2000	87	\$1,038,579	\$1,447,539	55	\$26,319	56	\$25,849
2001	88	\$1,708,156	\$2,314,904	64	\$36,170	62	\$37,337
2002	86	\$2,196,782	\$2,930,757	70	\$41,868	70	\$41,868
2003	85	\$1,536,385	\$2,004,039	68	\$29,471	72	\$27,834
2004	84	\$1,823,570	\$2,316,937	66	\$35,105	67	\$34,581
2005	85	\$1,486,074	\$1,826,258	66	\$27,671	66	\$27,671
2006	84	\$1,618,660	\$1,927,033	58	\$33,225	56	\$34,411
2007	82	\$2,797,670	\$3,238,420	56	\$57,829	64	\$50,600
2008	82	\$2,346,094	\$2,615,286	65	\$40,235	64	\$40,864
2009	82	\$1,468,496	\$1,642,837	59	\$27,845	66	\$24,891
2010	84	\$1,338,503	\$1,473,246	50	\$29,465	51	\$28,887
2011	83	\$1,578,588	\$1,684,333	49	\$34,374	47	\$35,837
2012	83	\$1,580,980	\$1,652,684	50	\$33,054	50	\$33,054
2013	83	\$1,621,094	\$1,670,153	46	\$36,308	47	\$35,535
2014	83	\$3,850,708	\$3,903,913	63	\$61,967	64	\$60,999
2015	83	\$2,761,203	\$2,796,036	68	\$41,118	71	\$39,381
2016	83	\$2,123,472	\$2,123,472	70	\$30,335	73	\$29,089

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.

Table 2-12. Estimated Real Gross Earnings for Permit Holders in the Tier C Southeast Alaska Dungeness Crab Pot Fishery by Resident Type, 1997-2016

Year	Local Gross Earnings			Nonlocal Gross Earnings			Nonresident Gross Earnings			Total Gross Earnings		
	People	Average	Total	People	Average	Total	People	Average	Total	People	Average	Total
1997	66	\$46,643	\$3,078,449	0	\$0	\$0	5	\$80,747	\$403,734	71	\$49,045	\$3,482,183
1998	66	\$16,919	\$1,116,629	0	\$0	\$0	9	\$14,790	\$133,106	75	\$16,663	\$1,249,735
1999	54	\$28,066	\$1,515,563	0	\$0	\$0	6	\$33,879	\$203,277	60	\$28,647	\$1,718,840
2000	52	\$24,648	\$1,281,716	0	\$0	\$0	5	\$33,165	\$165,823	57	\$25,395	\$1,447,539
2001	56	\$37,499	\$2,099,970	0	\$0	\$0	9	\$23,881	\$214,933	65	\$35,614	\$2,314,904
2002	62	\$41,959	\$2,601,434	0	\$0	\$0	11	\$29,938	\$329,322	73	\$40,147	\$2,930,757
2003	63	\$28,258	\$1,780,278	1-3	Confidential	Confidential	**	Confidential	Confidential	71	\$28,226	\$2,004,039
2004	61	\$35,347	\$2,156,160	0	\$0	\$0	6	\$26,796	\$160,778	67	\$34,581	\$2,316,937
2005	60	\$28,384	\$1,703,043	1-3	Confidential	Confidential	**	Confidential	Confidential	68	\$26,857	\$1,826,258
2006	54	\$33,363	\$1,801,609	1-3	Confidential	Confidential	**	Confidential	Confidential	60	\$32,117	\$1,927,033
2007	54	\$57,963	\$3,129,981	0	\$0	\$0	7	\$15,491	\$108,439	61	\$53,089	\$3,238,420
2008	61	\$40,441	\$2,466,905	0	\$0	\$0	7	\$21,197	\$148,381	68	\$38,460	\$2,615,286
2009	52	\$28,794	\$1,497,288	1-3	Confidential	Confidential	**	Confidential	Confidential	61	\$26,932	\$1,642,837
2010	45	\$28,552	\$1,284,841	0	\$0	\$0	7	\$26,915	\$188,405	52	\$28,332	\$1,473,246
2011	43	\$34,470	\$1,482,190	0	\$0	\$0	7	\$28,878	\$202,143	50	\$33,687	\$1,684,333
2012	45	\$32,078	\$1,443,522	0	\$0	\$0	6	\$34,860	\$209,162	51	\$32,406	\$1,652,684
2013	40	\$36,584	\$1,463,341	0	\$0	\$0	7	\$29,545	\$206,813	47	\$35,535	\$1,670,153
2014	59	\$59,222	\$3,494,088	0	\$0	\$0	7	\$58,546	\$409,825	66	\$59,150	\$3,903,913
2015	58	\$42,592	\$2,470,347	1-3	Confidential	Confidential	**	Confidential	Confidential	69	\$40,522	\$2,796,036
2016	57	\$30,778	\$1,754,348	0	\$0	\$0	13	\$28,394	\$369,124	70	\$30,335	\$2,123,472

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.
- Note that these counts are for individuals, not permits.
- When fewer than four permits make landings, earnings in another column are masked (**) due to reasons of confidentiality.

Table 2-13. Gross Real Earnings for the Tier C Southeast Alaska Dungeness Crab Pot Fishery by ADF&G Shellfish Management Area, 1997 to 2016

Year	Juneau Area				Ketchikan Area				Petersburg Area				Sitka Area				Total	
	Permits Count	Permits Percent	Gross Earnings Real Value	Gross Earnings Percent	Permits Count	Permits Percent	Gross Earnings Real Value	Gross Earnings Percent	Permits Count	Permits Percent	Gross Earnings Real Value	Gross Earnings Percent	Permits Count	Permits Percent	Gross Earnings Real Value	Gross Earnings Percent	Permits Count	Gross Earnings Real Value
1997	17	24.6%	\$618,884	17.8%	7	10.1%	\$191,920	5.5%	48	69.6%	\$2,548,137	73.2%	5	7.2%	\$123,242	3.5%	69	\$3,482,183
1998	16	21.6%	\$178,420	14.3%	9	12.2%	\$121,977	9.8%	51	68.9%	\$882,801	70.6%	8	10.8%	\$66,536	5.3%	74	\$1,249,735
1999	9	15.8%	\$74,284	4.3%	4	7.0%	\$98,141	5.7%	43	75.4%	\$1,457,161	84.8%	4	7.0%	\$89,253	5.2%	57	\$1,718,840
2000	8	14.5%	\$78,168	5.4%	5	9.1%	\$142,457	9.8%	42	76.4%	\$1,162,639	80.3%	1-3	confidential	confidential	confidential	55	\$1,447,539
2001	12	18.8%	\$349,925	15.1%	6	9.4%	\$122,013	5.3%	49	76.6%	\$1,699,781	73.4%	6	9.4%	\$143,185	6.2%	64	\$2,314,904
2002	15	21.4%	\$560,057	19.1%	8	11.4%	\$97,190	3.3%	53	75.7%	\$2,152,294	73.4%	6	8.6%	\$121,216	4.1%	70	\$2,930,757
2003	16	23.5%	\$480,472	24.0%	7	10.3%	\$102,201	5.1%	56	82.4%	\$1,355,556	67.6%	5	7.4%	\$65,809	3.3%	68	\$2,004,039
2004	16	24.2%	\$586,404	25.3%	6	9.1%	\$156,084	6.7%	51	77.3%	\$1,494,093	64.5%	1-3	confidential	confidential	confidential	66	\$2,316,937
2005	12	18.2%	\$372,592	20.4%	5	7.6%	\$104,626	5.7%	53	80.3%	\$1,332,367	73.0%	1-3	confidential	confidential	confidential	66	\$1,826,258
2006	8	13.8%	\$526,206	27.3%	5	8.6%	\$56,448	2.9%	48	82.8%	\$1,324,108	68.7%	1-3	confidential	confidential	confidential	58	\$1,927,033
2007	7	12.5%	\$334,346	10.3%	4	7.1%	\$177,290	5.5%	46	82.1%	\$2,648,690	81.8%	1-3	confidential	confidential	confidential	56	\$3,238,420
2008	14	21.5%	\$473,461	18.1%	1-3	confidential	confidential	confidential	50	76.9%	\$1,971,929	75.4%	4	6.2%	\$111,272	4.3%	65	\$2,615,286
2009	12	20.3%	\$247,840	15.1%	4	6.8%	\$112,641	6.9%	47	79.7%	\$1,205,773	73.4%	1-3	confidential	confidential	confidential	59	\$1,642,837
2010	7	14.0%	\$158,384	10.8%	1-3	confidential	confidential	confidential	43	86.0%	\$1,219,240	82.8%	1-3	confidential	confidential	confidential	50	\$1,473,246
2011	8	16.3%	\$140,613	8.3%	1-3	confidential	confidential	confidential	38	77.6%	\$1,335,747	79.3%	5	10.2%	\$88,764	5.3%	49	\$1,684,333
2012	8	16.0%	\$99,343	6.0%	1-3	confidential	confidential	confidential	44	88.0%	\$1,475,941	89.3%	1-3	confidential	confidential	confidential	50	\$1,652,684
2013	7	15.2%	\$192,426	11.5%	1-3	confidential	confidential	confidential	38	82.6%	\$1,240,190	74.3%	1-3	confidential	confidential	confidential	46	\$1,670,153
2014	8	12.7%	\$377,614	9.7%	7	11.1%	\$174,213	4.5%	52	82.5%	\$3,222,656	82.5%	1-3	confidential	confidential	confidential	63	\$3,903,913
2015	11	16.2%	\$570,620	20.4%	6	8.8%	\$117,701	4.2%	57	83.8%	\$2,032,997	72.7%	4	5.9%	\$74,717	2.7%	68	\$2,796,036
2016	13	18.6%	\$519,592	24.5%	7	10.0%	\$154,110	7.3%	57	81.4%	\$1,407,497	66.3%	4	5.7%	\$42,273	2.0%	70	\$2,123,472

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- When fewer than four permits make landings, earnings in another column are masked due to reasons of confidentiality.
- Some permits are used to record landings in more than one district.

Chapter 3 Tier B Southeast Alaska Dungeness Crab Fishery, 75 Pots or 25% of Maximum

D9BA Permit Holdings

Tier B limited entry permits for the Southeast Alaska Dungeness crab, 225 pots or 75% of maximum, were issued as D9BA permits starting in 1997. Table 3-1 indicates the initial distribution and historical net changes in permit holdings for the fishery. CFEC has issued 48 D9BA permits. Of this total, Alaska Locals received 77.1% (37/48) of the permits, Nonlocal Alaskans received 2.1% (1/48) of the permits, and the remaining 20.8% (10/48) of the permits went to Nonresidents. 46 of the D9BA permits were issued as transferable permits, and the remaining 2 were issued as non-transferable.

Table 3-1. Initial Issuance and Year-end 2016 Totals of D9BA Permits, With Net Changes Due to Permit Transfers, Migrations, and Cancellations, by Resident Type

INITIAL ISSUE			TRANSFERS		MIGRATIONS		CANCELLED		2016 YEAR-END	
<i>Residency</i>	<i>Total</i>	<i>Percent</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Total</i>	<i>Percentage</i>
Local	37	77.1%	7	18.9%	-6	-16.2%	-3	-8.1%	35	81.4%
Nonlocal	1	2.1%	-1	-100.0%	1	100.0%	0	0.0%	1	2.3%
Nonresident	10	20.8%	-6	-60.0%	5	50.0%	-2	-20.0%	7	16.3%
Total	48	100.0%	0	0.0%	0	0.0%	-5	-10.4%	43	100.0%

The number of permits held by each resident type can change for three reasons: permits can be transferred to other resident types (transfer); permit holders can move from one location to another (migration); or permits can be cancelled, such as when a permit holder does not pay the renewal fee for two consecutive years or from a permit buyback. This table indicates the extent to which these factors have contributed to net changes in permit holdings in this fishery. Transfers have had the largest impact on net changes.

Transfers of D9BA Permits

Under the Limited Entry Act's terms of free transferability, permits may be sold, traded, given away, or inherited. CFEC requires the completion of a survey with each transfer.⁵ The surveys provide information such as transfer acquisition methods, the relationship between individuals in the transaction, and the sale amount for instances when the permit is sold.

Table 3-2. Transfer Acquisition Methods for D9BA Permits, 1997-2016

Acquisition Method	D9BA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Gift</i>	25	18.5%	120	15.0%	7,408	37.8%
<i>Sale</i>	86	63.7%	605	75.5%	11,430	58.3%
<i>Trade</i>	21	15.6%	62	7.7%	215	1.1%
<i>Other</i>	3	2.2%	14	1.7%	545	2.8%
Total	135		801		19,598	

Table 3-2 compares and contrasts the transfer acquisition methods for the D9BA permits, all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits between 1997 and 2016. Most of all D9BA transfers were sales (63.7% or 86/135), 18.5% were gifts (25/135), and a smaller percentage were trades (15.6% or 21/135) or other (2.2% 3/135). The annual acquisition methods for D9BA permits can be compared by year or to other permit types in a different publication.⁶

Table 3-3. Relationships of Transferor to Transfer Recipients for D9BA Permits, 1997-2016

Relationship	D9BA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Business Partner/Friend</i>	23	17.0%	140	17.5%	3,306	16.9%
<i>Member of Immediate Family</i>	26	19.3%	140	17.5%	6,593	33.6%
<i>Other Relative</i>	4	3.0%	15	1.9%	828	4.2%
<i>Other</i>	82	60.7%	506	63.2%	8,871	45.3%
Total	135		801		19,598	

Table 3-3 shows the relationships between the transferors and transfer recipients for D9BA permits, and compares and contrasts D9BA permit transfers with all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits from 1997 to 2016. Transfers within the family, both between immediate family members and other relatives, total 22.2% (30/135) of all permit transfers for D9BA permits compared to 19.4% (155/801) for all four limited Southeast Alaska Dungeness pot permit types combined, and 37.9% (7,421/19,598) for all limited entry permits statewide.

⁵ CFEC implemented the transfer survey in 1980.

⁶ See *Changes in the Distribution of Alaska's Commercial Fisheries Entry Permits, 1975-2016*, CFEC Report No. 17-1N.

Emergency Transfers of D9BA Permits

Commercial landings can be made with either permanently-held permits or with permits held temporarily through emergency transfers. Emergency transfers (ET) of permits are granted if illness, disability, death, required military or government service, or other unavoidable hardship of a temporary, unexpected, and unforeseen nature prevents the permanent permit holder from participating in the fishery. “Hardship” does not include the results of a permit holder’s own economic decisions, or the results of economic, biological or regulatory variables which are normally part of the risk of doing business as a fisherman. At the end of the year, ET permits automatically revert back to the permanent permit holder.

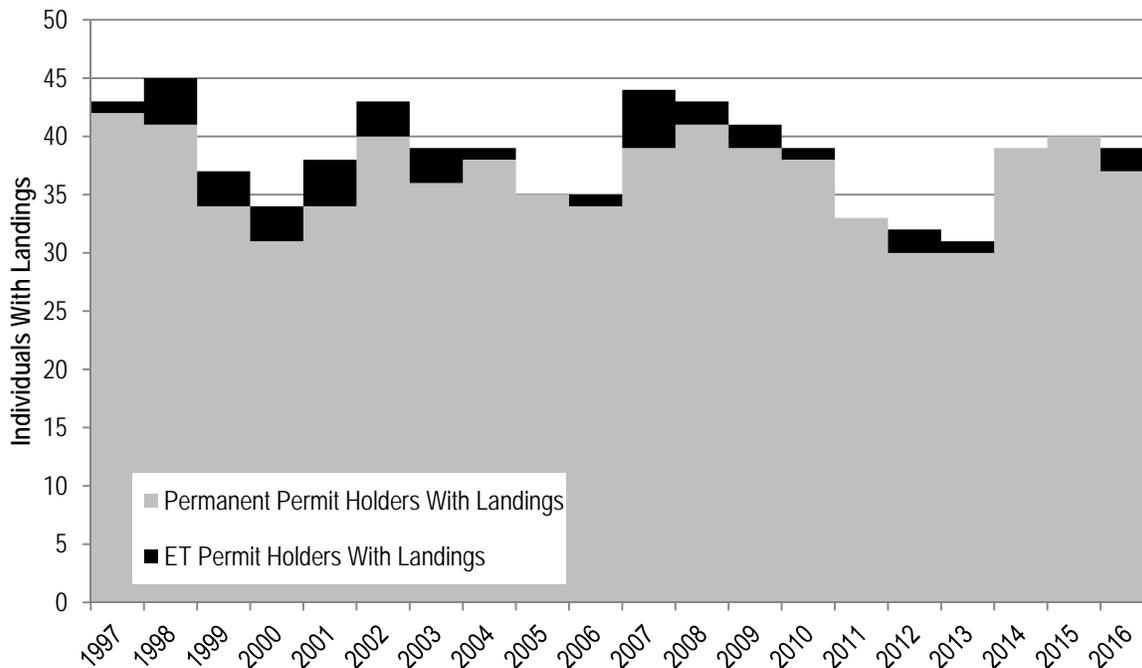
Table 3-4 and Figure 3-1 show the total number of individuals who recorded landings each year, and of that group, the number of individuals who made landings with ET permits. Some individuals who made landings with ET permits also made landings with permanent permits in the same year.

Table 3-4. Use of Emergency Transfer Permits in the D9BA Fishery, 1997-2016

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
1997	43	1	2.3%
1998	45	4	8.9%
1999	37	3	8.1%
2000	34	3	8.8%
2001	38	4	10.5%
2002	43	3	7.0%
2003	39	3	7.7%
2004	39	1	2.6%
2005	35	0	0.0%
2006	35	1	2.9%

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
2007	44	5	11.4%
2008	43	2	4.7%
2009	41	2	4.9%
2010	39	1	2.6%
2011	33	0	0.0%
2012	32	2	6.3%
2013	31	1	3.2%
2014	39	0	0.0%
2015	40	0	0.0%
2016	39	2	5.1%

Figure 3-1. Use of Emergency Transfer Permits in the D9BA Fishery, 1997-2016



Latent D9BA Permits

CFEC regulations require individuals to renew their limited entry permits annually, regardless of whether they actually fish. Permits that are not used (don't record landings) in a given year are referred to herein as "latent" permits for that year.

Table 3-5 indicates the total number of viable D9BA permits issued each year, the number of permits fished (with commercial landings), and the rate of permit latency. Viable permits include both interim entry and permanent permits. Note that for this table, in years when a single individual held an interim-entry permit and was also issued a permanent permit, only the permanent permit is counted. The rate of latency is depicted in Figure 3-2.

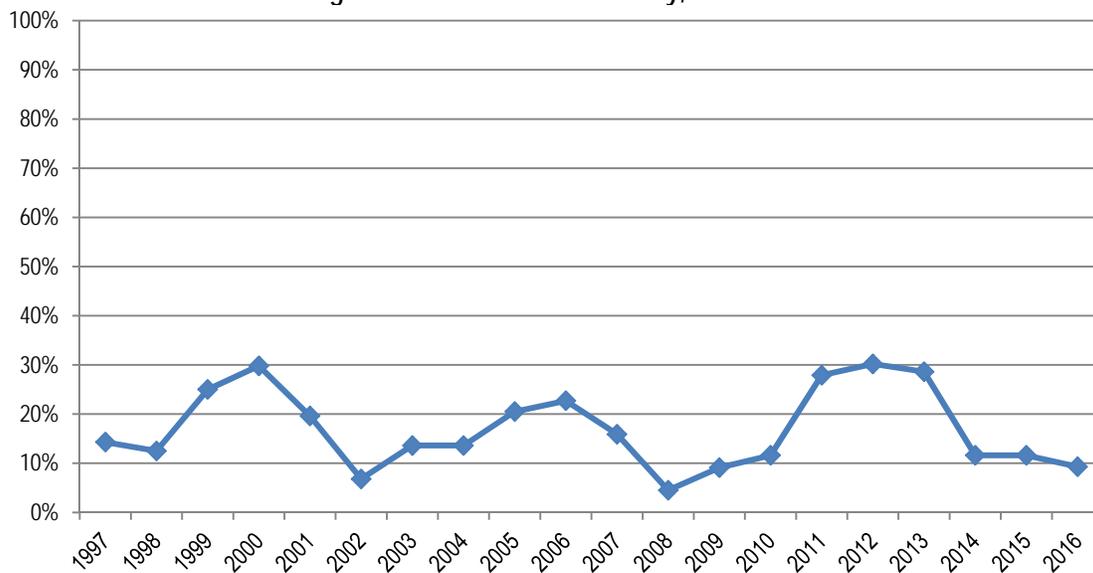
There are many reasons why an individual might not fish in any given year. This table and figure do not explain any of these reasons, but simply estimate the rate of permit latency.

Table 3-5. D9BA Permit Latency, 1997-2016

Year	Permits		Latency Rate	Year	Permits		Latency Rate
	Issued	Fished			Issued	Fished	
1997	49	42	14.3%	2007	44	37	15.9%
1998	48	42	12.5%	2008	44	42	4.5%
1999	48	36	25.0%	2009	44	40	9.1%
2000	47	33	29.8%	2010	43	38	11.6%
2001	46	37	19.6%	2011	43	31	27.9%
2002	44	41	6.8%	2012	43	30	30.2%
2003	44	38	13.6%	2013	42	30	28.6%
2004	44	38	13.6%	2014	43	38	11.6%
2005	44	35	20.5%	2015	43	38	11.6%
2006	44	34	22.7%	2016	43	39	9.3%

- When an individual with an interim-entry permit is issued a permanent permit in the same year, only the permanent permit is counted in the above table.

Figure 3-2. D9BA Permit Latency, 1997-2016



New Entrants into the Tier B Southeast Alaska Dungeness Crab Pot Fishery

New entrants are defined herein as individuals who, for the first time, record a landing on a permanent D9BA permit. It is important to note that initial permit holders are not considered new entrants because they needed a proven fishing history prior to 1997 in order to become an initial permit holder of a limited entry permit. Individuals who only make landings on an emergency transfer or interim-entry permit for any given year are not considered in this table.

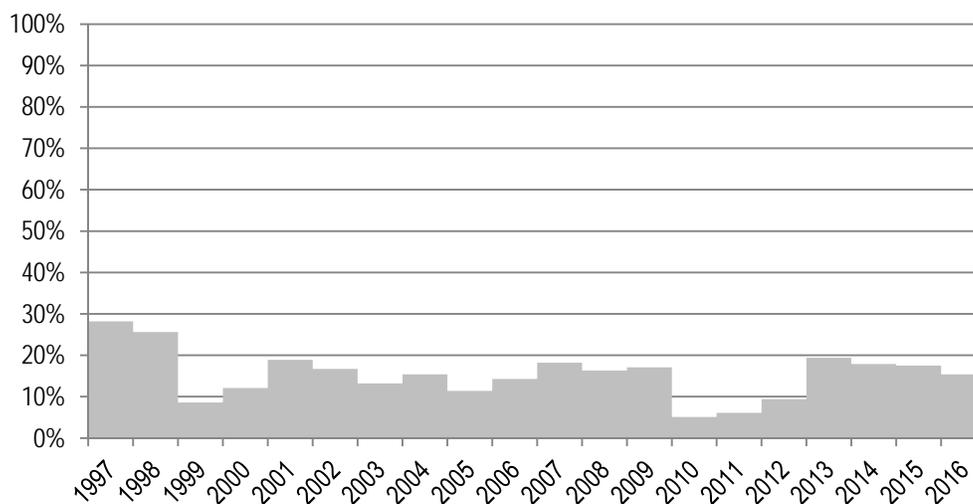
Table 3-6 and Figure 3-3 describe individuals rather than permits. An individual may hold up to two permits in this fishery, but can only fish one of them. An individual may hold one D9BA permit one year, and then in subsequent years hold a different D9BA permit. Likewise, individuals may enter and exit the fishery multiple times over the years. Individuals are only counted once as a new entrant and only in the year in which they made their first documented landing.

Table 3-6. New Entrants into the Tier B Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016

Year	Individuals w/Landings	New	New Percent
1997	39	11	28.2%
1998	43	11	25.6%
1999	35	3	8.6%
2000	33	4	12.1%
2001	37	7	18.9%
2002	42	7	16.7%
2003	38	5	13.2%
2004	39	6	15.4%
2005	35	4	11.4%
2006	35	5	14.3%
2007	44	8	18.2%
2008	43	7	16.3%
2009	41	7	17.1%
2010	39	2	5.1%
2011	33	2	6.1%
2012	32	3	9.4%
2013	31	6	19.4%
2014	39	7	17.9%
2015	40	7	17.5%
2016	39	6	15.4%

• New Entrants excludes individuals with interim-entry and emergency transfer permits.

Figure 3-3. New Entrants into the Tier B Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016



Age of D9BA Permit Holders

Table 3-7 shows the annual mean age of four different cohorts of people: 1) D9BA permit holders; 2) all four (D9DA, D9CA, D9BA, and D9AA) Southeast Alaska Dungeness pot permit holders; 3) all CFEC limited entry permit holders; and 4) the Alaskan worker population.

Note that these figures include ages of permit holders for both transferable and non-transferable permits. Some individuals hold permits in more than one fishery; in these cases, the age of the permit holder is counted once for each permit that he or she holds.

The mean age of the general Alaskan worker age population has increased 2.3 years between 1997 and 2016, which represents a 6.2% increase. The percent change in ages over the same period for all CFEC permit holders increased by 12.2% (5.6 years), and 10.1% (4.4 years) for the combined Southeast Alaska Dungeness pot permit holders.

For D9BA permit holders, the mean age increased 9.6% (4.2 years).

Table 3-7. Mean Age of Select CFEC Permit Holders and the General Alaskan Population

Year	Combined Southeast			Mean Age of Alaskan Workers
	D9BA	Dungeness Pot	Statewide All Permits	
1997	43.2	43.2	45.7	37.4
1998	42.8	42.3	46.0	37.6
1999	42.5	42.9	46.4	37.8
2000	43.4	43.4	46.8	37.9
2001	44.5	43.8	47.1	38.1
2002	43.3	44.0	47.7	38.3
2003	44.0	44.6	48.2	38.4
2004	43.7	45.0	48.4	38.6
2005	44.4	45.8	48.6	38.7
2006	45.5	46.1	48.8	38.8
2007	45.6	45.4	49.0	38.9
2008	44.0	45.2	49.2	39.0
2009	45.2	46.3	49.6	39.1
2010	44.6	47.2	49.7	39.2
2011	45.5	47.4	49.9	39.4
2012	46.7	47.7	50.1	39.4
2013	45.7	48.4	50.2	39.5
2014	46.7	47.5	50.4	39.5
2015	46.7	47.2	50.8	39.5
2016	47.3	47.6	51.2	39.7

- Mean Age of Alaskan Workers is the annual average age of all Alaskans age 16-64 as reported by the Alaska Department of Labor and Workforce Development, Research and Analysis Section.
- Displayed figures are rounded to the nearest 10th. Age data from the CFEC permit file is as of December 31st of each year.

D9BA Permit Value

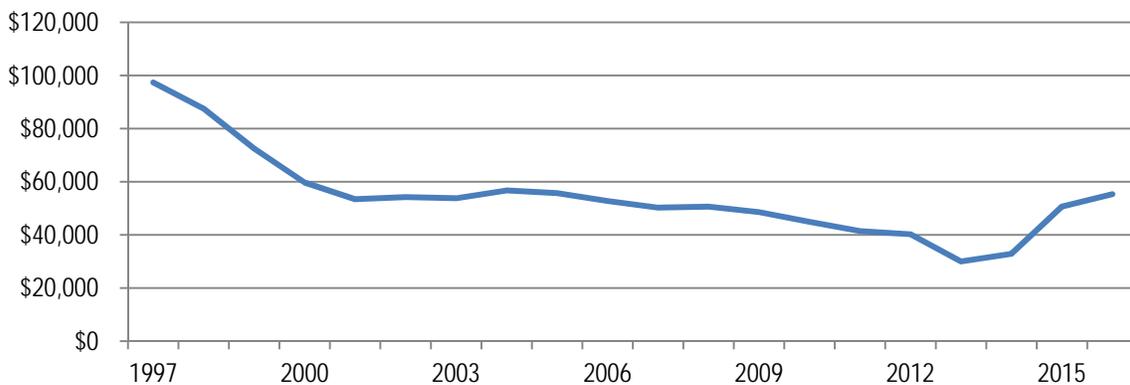
Many permit transfers are non-monetary transactions (see Table 3-2). Table 3-8 and Figure 3-4 considers solely the arms-length market transactions where permits are sold. CFEC estimated values are expressed in both nominal and real (adjusted for inflation) terms.

Table 3-8. CFEC Estimated Value of D9BA Permits

Year	D9BA Permit Sales	Nominal		Real	
		Permit Value	Standard Deviation	Permit Value	Standard Deviation
1997	11	\$65,100	\$3,100	\$97,349	\$4,636
1998	6	\$59,400	\$5,900	\$87,463	\$8,687
1999	3	\$50,300	\$7,150	\$72,463	\$10,300
2000	3	\$42,800	\$2,050	\$59,653	\$2,857
2001	3	\$39,400	\$4,150	\$53,395	\$5,624
2002	4	\$40,600	\$2,450	\$54,165	\$3,269
2003	1	\$41,200	\$2,450	\$53,741	\$3,196
2004	8	\$44,600	\$2,600	\$56,667	\$3,303
2005	3	\$45,300	\$800	\$55,670	\$983
2006	3	\$44,300	\$1,500	\$52,740	\$1,786
2007	4	\$43,400	\$3,250	\$50,237	\$3,762
2008	7	\$45,400	\$1,750	\$50,609	\$1,951
2009	3	\$43,400	\$3,550	\$48,552	\$3,971
2010	4	\$40,800	\$3,300	\$44,907	\$3,632
2011	2	\$38,800	\$5,200	\$41,399	\$5,548
2012	1	\$38,500	\$5,050	\$40,246	\$5,279
2013	6	\$29,100	\$4,850	\$29,981	\$4,997
2014	7	\$32,400	\$7,450	\$32,848	\$7,553
2015	4	\$50,000	\$4,550	\$50,631	\$4,607
2016	2	\$55,300	\$3,700	\$55,300	\$3,700

- Permit values represent averages of all arms-length sale transactions over the year. Beginning in 1991, additional data from recent months in the preceding year may be included until at least four observations can be averaged.
- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

Figure 3-4. D9BA Real Permit Value



- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

D9BA Vessel Characteristics

Table 3-9 reports on various characteristics of vessels used in the Tier B Southeast Alaska Dungeness crab pot fishery since 1997. Reported are the age, length, net tonnage, horsepower, and hold capacity. This data is from the vessel license file which includes voluntarily supplied information on vessels. The first column of each category is the count of vessels with the described characteristics, other statistics reported include the 25th percentile, median, and 75th percentile.

Table 3-9. D9BA Vessel Characteristics

Year	Vessel Count	Age				Length				Gross Tons				Net Tons				Horsepower				Hold Capacity			
		Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%
1997	43	43	7	15	22	43	28	37	40	32	13	17	25	33	9	12	19	42	165	210	275	22	200	389	500
1998	44	44	9	18	24	44	28	38	43	32	16	20	30	31	10	13	24	43	175	210	300	23	180	400	884
1999	37	37	10	18	21	37	28	38	41	27	9	16	28	26	10	13	23	35	175	210	300	16	125	400	800
2000	37	37	10	15	24	37	27	38	41	23	13	17	29	22	10	13	24	35	175	250	330	13	180	400	858
2001	38	38	11	16	29	38	28	38	40	28	12	18	28	26	7	13	23	37	165	200	300	14	210	400	858
2002	45	45	12	19	31	45	31	40	48	34	16	23	45	33	11	19	31	44	170	225	340	25	270	520	1,200
2003	39	39	12	18	24	39	28	38	45	25	15	20	32	24	11	18	28	38	175	240	380	17	240	400	858
2004	41	41	13	17	25	41	30	38	42	28	15	20	29	26	11	15	24	40	168	250	318	14	250	389	800
2005	37	37	14	20	26	37	28	32	42	24	13	17	26	23	10	13	22	36	163	245	328	12	245	389	829
2006	35	35	15	23	27	35	28	32	40	25	9	15	21	24	8	11	19	34	185	228	330	14	125	314	858
2007	44	44	17	26	28	44	31	38	42	33	13	17	26	33	10	14	22	43	200	265	400	20	200	389	1,080
2008	48	48	19	28	32	48	28	35	42	33	12	17	26	33	10	12	22	47	150	225	318	21	225	378	1,302
2009	48	47	20	29	31	47	30	36	42	33	13	20	25	33	10	16	20	45	165	225	315	23	240	378	858
2010	41	41	19	30	36	41	28	38	42	24	13	19	27	26	9	16	22	38	165	223	315	14	350	580	890
2011	32	32	20	29	35	32	29	38	41	19	15	17	26	19	11	15	22	30	165	223	300	11	250	400	858
2012	32	32	21	30	36	32	30	36	40	21	15	18	25	19	11	15	22	30	160	225	300	10	250	389	800
2013	30	30	21	29	34	30	28	35	39	21	12	17	25	19	9	12	22	28	155	210	260	8	314	550	845
2014	40	40	23	34	41	40	31	38	43	29	15	18	28	27	10	15	22	37	200	225	300	15	220	350	800
2015	40	40	24	34	38	40	29	38	44	28	14	22	30	27	11	17	25	37	200	225	300	15	250	700	890
2016	39	39	24	32	42	39	32	38	43	29	11	18	28	28	12	16	23	36	183	245	330	16	250	600	845
Total	178					177	30	38	44	138	13	18	29	135	9	14	23	170	165	225	315	87	200	460	900

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Table 3-10 provides additional characteristics of vessels used in the Tier B Southeast Alaska Dungeness crab fishery. Included are statistics of engine power type and hull material for each year since 1997.

Table 3-10. Additional D9BA Vessel Characteristics

Year	Vessel Count	Engine Power					Hull Material								
		Count	Diesel		Gas	Count	Aluminum	Fiberglass	Steel	Wood					
1997	43	42	30	71.4%	12	28.6%	43	18	41.9%	13	30.2%	1	2.3%	11	25.6%
1998	44	43	29	67.4%	14	32.6%	44	19	43.2%	14	31.8%	4	9.1%	7	15.9%
1999	37	36	23	63.9%	13	36.1%	36	19	52.8%	10	27.8%	2	5.6%	5	13.9%
2000	37	36	21	58.3%	15	41.7%	36	17	47.2%	12	33.3%	2	5.6%	5	13.9%
2001	38	37	24	64.9%	13	35.1%	38	18	47.4%	12	31.6%	2	5.3%	6	15.8%
2002	45	43	32	74.4%	11	25.6%	45	14	31.1%	16	35.6%	5	11.1%	10	22.2%
2003	39	38	23	60.5%	15	39.5%	39	16	41.0%	16	41.0%	2	5.1%	5	12.8%
2004	41	40	27	67.5%	13	32.5%	41	16	39.0%	20	48.8%	2	4.9%	3	7.3%
2005	37	36	22	61.1%	14	38.9%	37	19	51.4%	15	40.5%	1	2.7%	2	5.4%
2006	35	34	20	58.8%	14	41.2%	35	18	51.4%	14	40.0%	2	5.7%	1	2.9%
2007	44	43	32	74.4%	11	25.6%	44	19	43.2%	21	47.7%	2	4.5%	2	4.5%
2008	48	47	32	68.1%	15	31.9%	48	19	39.6%	24	50.0%	3	6.3%	2	4.2%
2009	48	46	33	71.7%	13	28.3%	47	18	38.3%	24	51.1%	3	6.4%	2	4.3%
2010	41	40	28	70.0%	12	30.0%	40	16	40.0%	20	50.0%	2	5.0%	2	5.0%
2011	32	31	22	71.0%	9	29.0%	32	14	43.8%	17	53.1%	0	0.0%	1	3.1%
2012	32	31	22	71.0%	9	29.0%	32	15	46.9%	17	53.1%	0	0.0%	0	0.0%
2013	30	29	19	65.5%	10	34.5%	30	15	50.0%	15	50.0%	0	0.0%	0	0.0%
2014	40	38	29	76.3%	9	23.7%	40	13	32.5%	23	57.5%	1	2.5%	3	7.5%
2015	40	39	29	74.4%	10	25.6%	40	14	35.0%	24	60.0%	1	2.5%	1	2.5%
2016	39	38	29	76.3%	9	23.7%	38	13	34.2%	22	57.9%	0	0.0%	3	7.9%
Total	178	173	132	76.3%	41	23.7%	174	56	32.2%	81	46.6%	11	6.3%	26	14.9%

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Participation and Earnings of D9BA Permit Holders

Earnings are estimated from weighted average ex-vessel prices, and as noted earlier, largely stem from the ADF&G Commercial Operators Annual Report and fish ticket values. Earnings shown in Figure 3-5 are for both nominal and real dollars using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

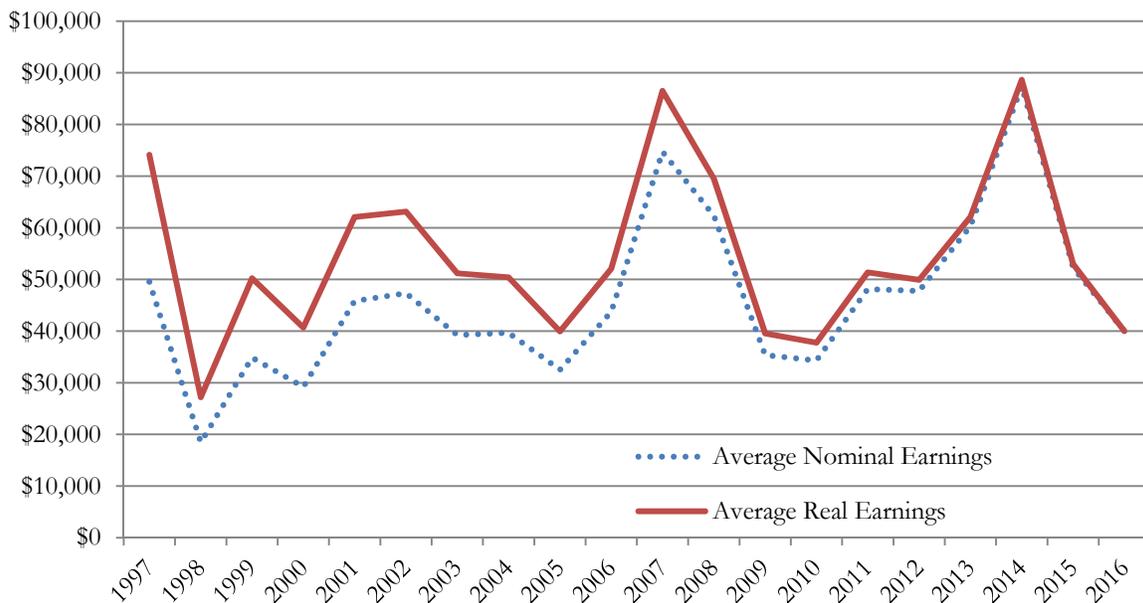
Permit counts include interim-entry permits and permanent permits. Interim-entry permits are issued to individuals during the period when their applications for permanent permits are in adjudication. The last year an interim-entry D9BA permit was held was in 2003. Some individuals made landings on both an interim-entry permit and subsequently on their newly issued permanent permit in the same year; for these instances, only the permanent permit is counted in this report.

Table 3-11 reports the number of permits, permit issued, and vessels with landings, and estimated gross earnings in the Tier C Southeast Alaska Dungeness crab pot fishery from 1997 to 2016. Note that the figures by permit or vessel in this table span the entire year, regardless of who held the permit or however many times the permit was transferred.

Table 3-12 reports the number of permit holders (people) and estimated real (inflation adjusted) gross earnings by each resident type. Where fewer than four individuals made landings, earnings are masked for that group and at least one other due to reasons of confidentiality.

Table 3-13 breaks out participation and real earnings by ADF&G shellfish management area. Note that some permits are used to record landings in more than one district.

Figure 3-5. Estimated Nominal and Real Average Gross Earnings Per D9BA Permit



- Real earnings are adjusted for inflation using the 2016 U.S. Bureau of Labor Statistics Consumer Price Index.

Table 3-11. Estimated Total Gross Earnings (Real and Nominal) for the Tier B Southeast Alaska Dungeness Crab Pot Fishery, With Average Gross (Real) Earnings by Permit and Vessel, 1997-2016

Year	Viable Permits	Total Gross Earnings		Permits With Landings	Average Real Earnings	Vessels With Landings	Average Real Vessel Earnings
		Nominal	Real				
1997	49	\$2,081,476	\$3,112,578	42	\$74,109	43	\$72,386
1998	48	\$775,868	\$1,142,415	42	\$27,200	44	\$25,964
1999	48	\$1,255,233	\$1,808,312	36	\$50,231	37	\$48,873
2000	47	\$962,912	\$1,342,077	33	\$40,669	37	\$36,272
2001	46	\$1,695,331	\$2,297,523	37	\$62,095	38	\$60,461
2002	44	\$1,940,470	\$2,588,807	41	\$63,142	45	\$57,529
2003	44	\$1,491,188	\$1,945,084	38	\$51,186	39	\$49,874
2004	44	\$1,507,609	\$1,915,493	38	\$50,408	41	\$46,719
2005	44	\$1,137,834	\$1,398,300	35	\$39,951	37	\$37,792
2006	44	\$1,486,989	\$1,770,277	34	\$52,067	35	\$50,579
2007	44	\$2,764,704	\$3,200,260	37	\$86,494	44	\$72,733
2008	44	\$2,617,124	\$2,917,415	42	\$69,462	48	\$60,779
2009	44	\$1,413,595	\$1,581,418	40	\$39,535	48	\$32,946
2010	43	\$1,303,563	\$1,434,789	38	\$37,758	41	\$34,995
2011	43	\$1,491,976	\$1,591,919	31	\$51,352	32	\$49,747
2012	43	\$1,432,928	\$1,497,917	30	\$49,931	32	\$46,810
2013	42	\$1,808,925	\$1,863,668	30	\$62,122	30	\$62,122
2014	43	\$3,321,421	\$3,367,313	38	\$88,614	40	\$84,183
2015	43	\$1,987,231	\$2,012,300	38	\$52,955	40	\$50,307
2016	43	\$1,559,535	\$1,559,535	39	\$39,988	39	\$39,988

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.

Table 3-12. Estimated Real Gross Earnings for Permit Holders in the Tier B Southeast Alaska Dungeness Crab Pot Fishery by Resident Type, 1997-2016

Year	Local Gross Earnings			Nonlocal Gross Earnings			Nonresident Gross Earnings			Total Gross Earnings		
	People	Average	Total	People	Average	Total	People	Average	Total	People	Average	Total
1997	34	\$68,300	\$2,322,187	1-3	Confidential	Confidential	**	Confidential	Confidential	43	\$72,386	\$3,112,578
1998	34	\$27,576	\$937,577	0	\$0	\$0	11	\$18,622	\$204,838	45	\$25,387	\$1,142,415
1999	29	\$49,952	\$1,448,603	0	\$0	\$0	8	\$44,964	\$359,709	37	\$48,873	\$1,808,312
2000	28	\$40,394	\$1,131,022	0	\$0	\$0	6	\$35,176	\$211,055	34	\$39,473	\$1,342,077
2001	30	\$62,153	\$1,864,576	0	\$0	\$0	8	\$54,118	\$432,947	38	\$60,461	\$2,297,523
2002	33	\$61,984	\$2,045,487	0	\$0	\$0	10	\$54,332	\$543,320	43	\$60,205	\$2,588,807
2003	32	\$51,743	\$1,655,790	0	\$0	\$0	7	\$41,328	\$289,294	39	\$49,874	\$1,945,084
2004	30	\$49,061	\$1,471,816	0	\$0	\$0	9	\$49,297	\$443,677	39	\$49,115	\$1,915,493
2005	30	\$39,181	\$1,175,433	0	\$0	\$0	5	\$44,574	\$222,868	35	\$39,951	\$1,398,300
2006	26	\$54,563	\$1,418,647	1-3	Confidential	Confidential	**	Confidential	Confidential	35	\$50,579	\$1,770,277
2007	33	\$74,075	\$2,444,470	1-3	Confidential	Confidential	**	Confidential	Confidential	44	\$72,733	\$3,200,260
2008	35	\$68,587	\$2,400,530	1-3	Confidential	Confidential	**	Confidential	Confidential	43	\$67,847	\$2,917,415
2009	35	\$38,504	\$1,347,623	0	\$0	\$0	6	\$38,966	\$233,795	41	\$38,571	\$1,581,418
2010	34	\$34,579	\$1,175,692	1-3	Confidential	Confidential	**	Confidential	Confidential	39	\$36,789	\$1,434,789
2011	28	\$46,580	\$1,304,253	0	\$0	\$0	5	\$57,533	\$287,666	33	\$48,240	\$1,591,919
2012	27	\$42,607	\$1,150,391	0	\$0	\$0	5	\$69,505	\$347,525	32	\$46,810	\$1,497,917
2013	26	\$60,550	\$1,574,306	0	\$0	\$0	5	\$57,872	\$289,362	31	\$60,118	\$1,863,668
2014	35	\$85,721	\$3,000,228	0	\$0	\$0	4	\$91,771	\$367,086	39	\$86,341	\$3,367,313
2015	34	\$51,323	\$1,744,996	0	\$0	\$0	6	\$44,551	\$267,304	40	\$50,307	\$2,012,300
2016	33	\$43,230	\$1,426,600	0	\$0	\$0	6	\$22,156	\$132,935	39	\$39,988	\$1,559,535

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.
- Note that these counts are for individuals, not permits.
- When fewer than four permits make landings, earnings in another column are masked (**) due to reasons of confidentiality.

Table 3-13. Gross Real Earnings for the Tier B Southeast Alaska Dungeness Crab Pot Fishery by ADF&G Shellfish Management Area, 1997 to 2016

Year	Juneau Area				Ketchikan Area				Petersburg Area				Sitka Area				Total	
	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Gross Earnings Real Value
1997	10	23.8%	\$548,415	17.6%	7	16.7%	\$216,005	6.9%	31	73.8%	\$2,230,476	71.7%	4	9.5%	\$117,682	3.8%	42	\$3,112,578
1998	11	26.2%	\$162,083	14.2%	9	21.4%	\$149,377	13.1%	27	64.3%	\$770,450	67.4%	5	11.9%	\$60,505	5.3%	42	\$1,142,415
1999	6	16.7%	\$117,825	6.5%	5	13.9%	\$101,456	5.6%	29	80.6%	\$1,572,701	87.0%	1-3 confidential	confidential	confidential		36	\$1,808,312
2000	1-3 confidential	confidential	confidential	confidential	5	15.2%	\$100,273	7.5%	27	81.8%	\$1,127,092	84.0%	0	0.0%	\$0	0.0%	33	\$1,342,077
2001	5	13.5%	\$194,770	8.5%	6	16.2%	\$132,731	5.8%	32	86.5%	\$1,970,022	85.7%	0	0.0%	\$0	0.0%	37	\$2,297,523
2002	6	14.6%	\$238,991	9.2%	7	17.1%	\$116,797	4.5%	36	87.8%	\$2,233,020	86.3%	0	0.0%	\$0	0.0%	41	\$2,588,807
2003	7	18.4%	\$419,289	21.6%	5	13.2%	\$142,348	7.3%	34	89.5%	\$1,381,196	71.0%	1-3 confidential	confidential	confidential		38	\$1,945,084
2004	7	18.4%	\$393,428	20.5%	4	10.5%	\$51,737	2.7%	32	84.2%	\$1,470,173	76.8%	1-3 confidential	confidential	confidential		38	\$1,915,493
2005	5	14.3%	\$183,262	13.1%	1-3 confidential	confidential	confidential	confidential	31	88.6%	\$1,099,542	78.6%	1-3 confidential	confidential	confidential		35	\$1,398,300
2006	4	11.8%	\$190,119	10.7%	1-3 confidential	confidential	confidential	confidential	29	85.3%	\$1,390,226	78.5%	1-3 confidential	confidential	confidential		34	\$1,770,277
2007	10	27.0%	\$516,756	16.1%	1-3 confidential	confidential	confidential	confidential	30	81.1%	\$2,488,690	77.8%	1-3 confidential	confidential	confidential		37	\$3,200,260
2008	11	26.2%	\$523,165	17.9%	1-3 confidential	confidential	confidential	confidential	34	81.0%	\$2,227,309	76.3%	4	9.5%	\$152,678	5.2%	42	\$2,917,415
2009	10	25.0%	\$244,424	15.5%	1-3 confidential	confidential	confidential	confidential	32	80.0%	\$1,012,342	64.0%	6	15.0%	\$237,936	15.0%	40	\$1,581,418
2010	11	28.9%	\$292,165	20.4%	1-3 confidential	confidential	confidential	confidential	25	65.8%	\$1,007,046	70.2%	6	15.8%	\$108,384	7.6%	38	\$1,434,789
2011	8	25.8%	\$371,313	23.3%	1-3 confidential	confidential	confidential	confidential	24	77.4%	\$1,048,392	65.9%	** confidential	confidential	confidential		31	\$1,591,919
2012	11	36.7%	\$309,084	20.6%	0	0.0%	\$0	0.0%	22	73.3%	\$1,101,880	73.6%	1-3 confidential	confidential	confidential		30	\$1,497,917
2013	10	33.3%	\$325,800	17.5%	0	0.0%	\$0	0.0%	23	76.7%	\$1,359,706	73.0%	1-3 confidential	confidential	confidential		30	\$1,863,668
2014	9	23.7%	\$457,784	13.6%	1-3 confidential	confidential	confidential	confidential	26	68.4%	\$2,465,383	73.2%	6	15.8%	\$420,603	12.5%	38	\$3,367,313
2015	8	21.1%	\$584,415	29.0%	1-3 confidential	confidential	confidential	confidential	27	71.1%	\$1,214,648	60.4%	5	13.2%	\$196,817	9.8%	38	\$2,012,300
2016	14	35.9%	\$483,813	31.0%	1-3 confidential	confidential	confidential	confidential	27	69.2%	\$967,213	62.0%	5	12.8%	\$73,778	4.7%	39	\$1,559,535

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- When fewer than four permits make landings, earnings in another column are masked (**) due to reasons of confidentiality.
- Some permits are used to record landings in more than one district.

Chapter 4 Tier A Southeast Alaska Dungeness Crab Fishery, 300 Pots or 100% of Maximum

D9AA Permit Holdings

Tier A limited entry permits for the Southeast Alaska Dungeness crab, 300 pots or 100% of maximum, were issued as D9AA permits starting in 1997. Table 4-1 indicates the initial distribution and historical net changes in permit holdings for the fishery. CFEC has issued 52 D9AA permits. Of this total, Alaska Locals received 75.0% (39/52) of the permits and the remaining 25.0% (13/52) of the permits went to Nonresidents. All of the D9AA permits were issued as transferable permits.

Table 4-1. Initial Issuance and Year-end 2016 Totals of D9AA Permits, With Net Changes Due to Permit Transfers, Migrations, and Cancellations, by Resident Type

INITIAL ISSUE			TRANSFERS		MIGRATIONS		CANCELLED		2016 YEAR-END	
<i>Residency</i>	<i>Total</i>	<i>Percent</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Change</i>	<i>Percent Change from Initial</i>	<i>Total</i>	<i>Percentage</i>
Local	39	75.0%	10	25.6%	-4	-10.3%	-2	-5.1%	43	87.8%
Nonlocal	0	0.0%	1	-	0	-	0	-	1	2.0%
Nonresident	13	25.0%	-11	-84.6%	4	30.8%	-1	-7.7%	5	10.2%
Total	52	100.0%	0	0.0%	0	0.0%	-3	-5.8%	49	100.0%

The number of permits held by each resident type can change for three reasons: permits can be transferred to other resident types (transfer); permit holders can move from one location to another (migration); or permits can be cancelled, such as when a permit holder does not pay the renewal fee for two consecutive years or from a permit buyback. This table indicates the extent to which these factors have contributed to net changes in permit holdings in this fishery. Transferred permits have had the largest impact on the changes. All three of the cancelled permits were involved in a permit buyback.

Transfers of D9AA Permits

Under the Limited Entry Act's terms of free transferability, permits may be sold, traded, given away, or inherited. CFEC requires the completion of a survey with each transfer.⁷ The surveys provide information such as transfer acquisition methods, the relationship between individuals in the transaction, and the sale amount for instances when the permit is sold.

Table 4-2. Transfer Acquisition Methods for D9AA Permits, 1997-2016

Acquisition Method	D9AA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Gift</i>	16	15.2%	120	15.0%	7,408	37.8%
<i>Sale</i>	80	76.2%	605	75.5%	11,430	58.3%
<i>Trade</i>	8	7.6%	62	7.7%	215	1.1%
<i>Other</i>	1	1.0%	14	1.7%	545	2.8%
Total	105		801		19,598	

Table 4-2 compares and contrasts the transfer acquisition methods for the D9AA permits, all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits between 1997 and 2016. Most of all D9AA transfers were sales (76.2% or 80/105), 15.2% were gifts (16/105), and a smaller percentage were trades (7.6% or 8/105) or other (1.0% 1/105). The annual acquisition methods for D9AA permits can be compared by year or to other permit types in a different publication.⁸

Table 4-3. Relationships of Transferor to Transfer Recipients for D9AA Permits, 1997-2016

Relationship	D9AA Permit		Combined Southeast Dungeness Pot		All Fisheries Statewide	
	Count	Percent	Count	Percent	Count	Percent
<i>Business Partner/Friend</i>	18	17.1%	140	17.5%	3,306	16.9%
<i>Member of Immediate Family</i>	18	17.1%	140	17.5%	6,593	33.6%
<i>Other Relative</i>	3	2.9%	15	1.9%	828	4.2%
<i>Other</i>	66	62.9%	506	63.2%	8,871	45.3%
Total	105		801		19,598	

Table 4-3 shows the relationships between the transferors and transfer recipients for D9AA permits, and compares and contrasts D9AA permit transfers with all four limited Southeast Alaska Dungeness pot permit types combined, and all limited entry permits from 1997 to 2016. Transfers within the family, both between immediate family members and other relatives, total 20.0% (21/105) of all permit transfers for D9AA permits compared to 19.4% (155/801) for all four limited Southeast Alaska Dungeness pot permit types combined, and 37.9% (7,421/19,598) for all limited entry permits statewide.

⁷ CFEC implemented the transfer survey in 1980.

⁸ See *Changes in the Distribution of Alaska's Commercial Fisheries Entry Permits, 1975-2016*, CFEC Report No. 17-1N.

Emergency Transfers of D9AA Permits

Commercial landings can be made with either permanently-held permits or with permits held temporarily through emergency transfers. Emergency transfers (ET) of permits are granted if illness, disability, death, required military or government service, or other unavoidable hardship of a temporary, unexpected, and unforeseen nature prevents the permanent permit holder from participating in the fishery. “Hardship” does not include the results of a permit holder’s own economic decisions, or the results of economic, biological or regulatory variables which are normally part of the risk of doing business as a fisherman. At the end of the year, ET permits automatically revert back to the permanent permit holder.

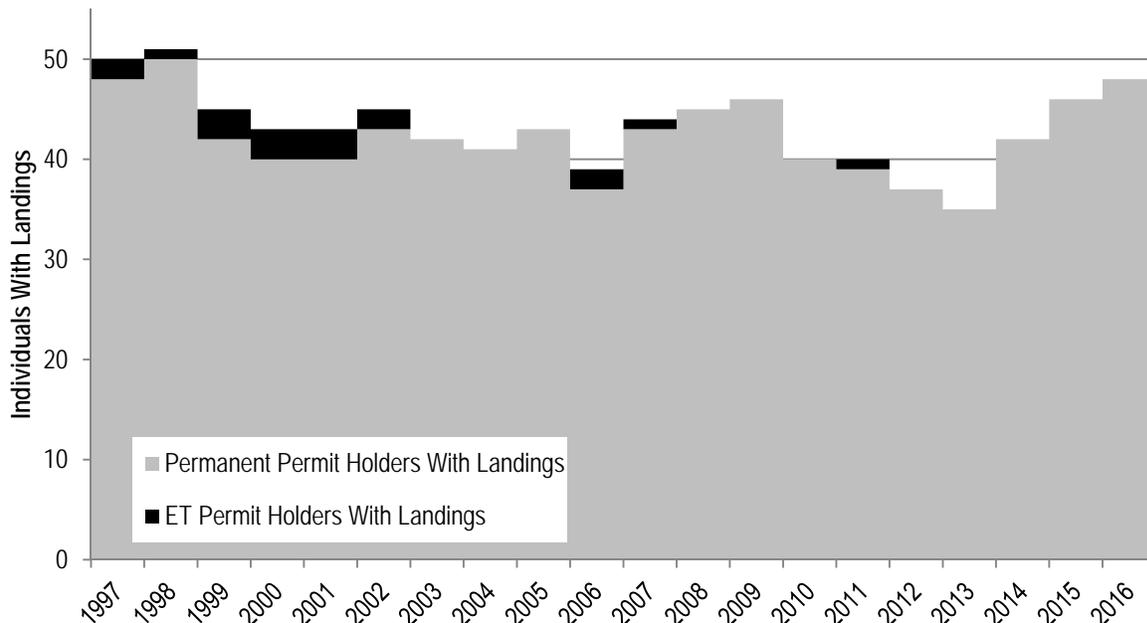
Table 4-4 and Figure 4-1 show the total number of individuals who recorded landings each year, and of that group, the number of individuals who made landings with ET permits. Some individuals who made landings with ET permits also made landings with permanent permits in the same year.

Table 4-4. Use of Emergency Transfer Permits in the D9AA Fishery, 1997-2016

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
1997	50	2	4.0%
1998	51	1	2.0%
1999	45	3	6.7%
2000	43	3	7.0%
2001	43	3	7.0%
2002	45	2	4.4%
2003	42	0	0.0%
2004	41	0	0.0%
2005	43	0	0.0%
2006	39	2	5.1%

Year	Individuals With Landings	ET Permit Holders With Landings	Rate ET
2007	44	1	2.3%
2008	45	0	0.0%
2009	46	0	0.0%
2010	40	0	0.0%
2011	40	1	2.5%
2012	37	0	0.0%
2013	35	0	0.0%
2014	42	0	0.0%
2015	46	0	0.0%
2016	48	0	0.0%

Figure 4-1. Use of Emergency Transfer Permits in the D9AA Fishery, 1997-2016



Latent D9AA Permits

CFEC regulations require individuals to renew their limited entry permits annually, regardless of whether they actually fish. Permits that are not used (don't record landings) in a given year are referred to herein as "latent" permits for that year.

Table 4-5 indicates the total number of viable D9AA permits issued each year, the number of permits fished (with commercial landings), and the rate of permit latency. Viable permits include both interim entry and permanent permits. Note that for this table, in years when a single individual held an interim-entry permit and was also issued a permanent permit, only the permanent permit is counted. The rate of latency is depicted in Figure 4-2.

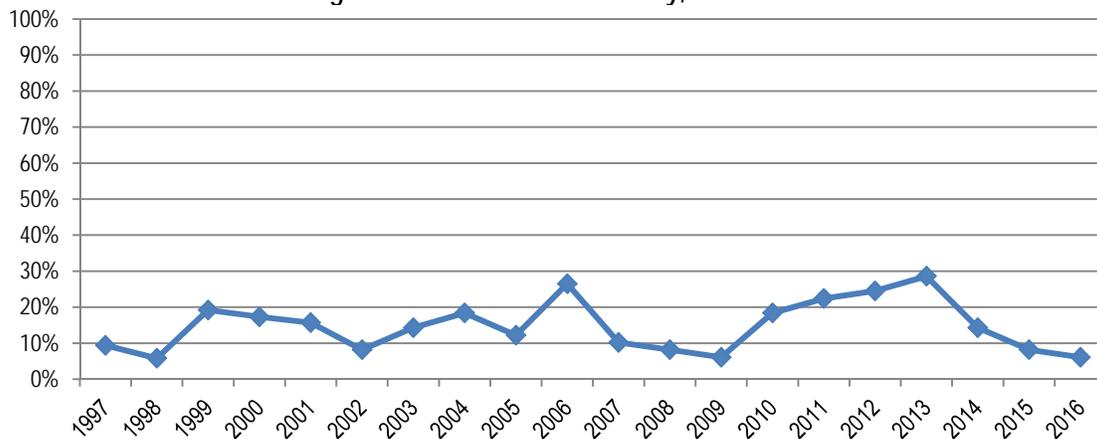
There are many reasons why an individual might not fish in any given year. This table and figure do not explain any of these reasons, but simply estimate the rate of permit latency.

Table 4-5. D9AA Permit Latency, 1997-2016

Year	Permits		Latency Rate	Year	Permits		Latency Rate
	Issued	Fished			Issued	Fished	
1997	53	48	9.4%	2007	49	44	10.2%
1998	52	49	5.8%	2008	49	45	8.2%
1999	52	42	19.2%	2009	49	46	6.1%
2000	52	43	17.3%	2010	49	40	18.4%
2001	51	43	15.7%	2011	49	38	22.4%
2002	49	45	8.2%	2012	49	37	24.5%
2003	49	42	14.3%	2013	49	35	28.6%
2004	49	40	18.4%	2014	49	42	14.3%
2005	49	43	12.2%	2015	49	45	8.2%
2006	49	36	26.5%	2016	49	46	6.1%

- When an individual with an interim-entry permit is issued a permanent permit in the same year, only the permanent permit is counted in the above table.

Figure 4-2. D9AA Permit Latency, 1997-2016



New Entrants into the Tier A Southeast Alaska Dungeness Crab Pot Fishery

New entrants are defined herein as individuals who, for the first time, record a landing on a permanent D9AA permit. It is important to note that initial permit holders are not considered new entrants because they needed a proven fishing history prior to 1997 in order to become an initial permit holder of a limited entry permit. Individuals who only make landings on an emergency transfer or interim-entry permit for any given year are not considered in this table.

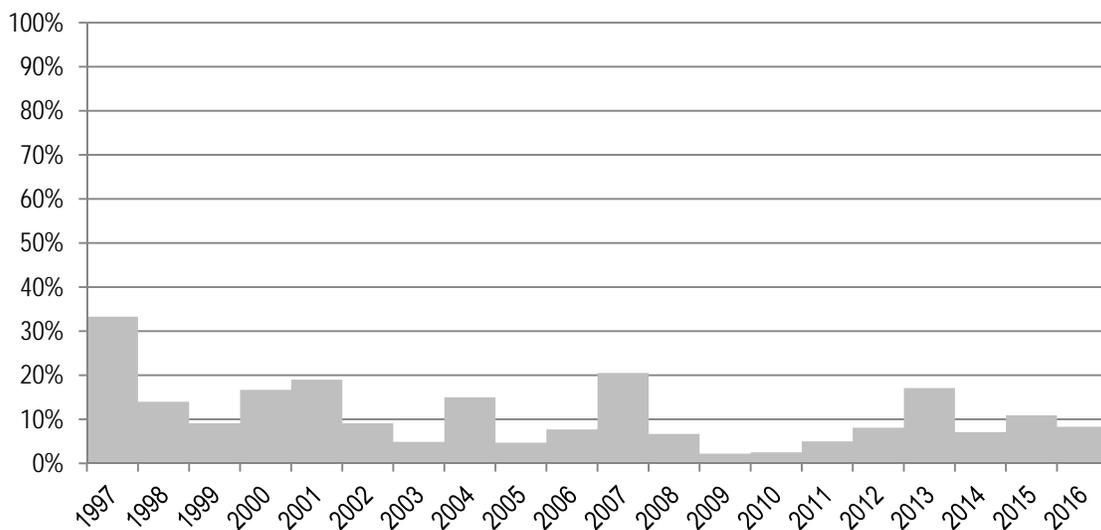
Table 4-6 and Figure 4-3 describe individuals rather than permits. An individual may hold up to two permits in this fishery, but can only fish one of them. An individual may hold one D9AA permit one year, and then in subsequent years hold a different D9AA permit. Likewise, individuals may enter and exit the fishery multiple times over the years. Individuals are only counted once as a new entrant and only in the year in which they made their first documented landing.

Table 4-6. New Entrants into the Tier A Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016

Year	Individuals		New Percent	Year	Individuals		New Percent
	w/Landings	New			w/Landings	New	
1997	48	16	33.3%	2007	44	9	20.5%
1998	50	7	14.0%	2008	45	3	6.7%
1999	44	4	9.1%	2009	46	1	2.2%
2000	42	7	16.7%	2010	40	1	2.5%
2001	42	8	19.0%	2011	40	2	5.0%
2002	44	4	9.1%	2012	37	3	8.1%
2003	41	2	4.9%	2013	35	6	17.1%
2004	40	6	15.0%	2014	42	3	7.1%
2005	43	2	4.7%	2015	46	5	10.9%
2006	39	3	7.7%	2016	48	4	8.3%

- New Entrants excludes individuals with interim-entry and emergency transfer permits.

Figure 4-3. New Entrants into the Tier A Southeast Alaska Dungeness Crab Pot Fishery, 1997-2016



Age of D9AA Permit Holders

Table 4-7 shows the annual mean age of four different cohorts of people: 1) D9AA permit holders; 2) all four (D9AA, D9CA, D9BA, and D9AA) Southeast Alaska Dungeness pot permit holders; 3) all CFEC limited entry permit holders; and 4) the Alaskan worker population.

Note that these figures include ages of permit holders for both transferable and non-transferable permits. Some individuals hold permits in more than one fishery; in these cases, the age of the permit holder is counted once for each permit that he or she holds.

The mean age of the general Alaskan worker age population has increased 2.3 years between 1997 and 2016, which represents a 6.2% increase. The percent change in ages over the same period for all CFEC permit holders increased by 12.2% (5.6 years), and 10.1% (4.4 years) for the combined Southeast Alaska Dungeness pot permit holders.

For D9AA permit holders, the mean age increased 13.8% (6.1 years).

Table 4-7. Mean Age of Select CFEC Permit Holders and the General Alaskan Population

Year	D9AA	Combined Southeast Dungeness Pot	Statewide All Permits	Mean Age of Alaskan Workers
1997	43.9	43.2	45.7	37.4
1998	44.1	42.3	46.0	37.6
1999	45.1	42.9	46.4	37.8
2000	44.3	43.4	46.8	37.9
2001	43.8	43.8	47.1	38.1
2002	44.9	44.0	47.7	38.3
2003	45.0	44.6	48.2	38.4
2004	43.7	45.0	48.4	38.6
2005	45.2	45.8	48.6	38.7
2006	45.7	46.1	48.8	38.8
2007	43.6	45.4	49.0	38.9
2008	44.2	45.2	49.2	39.0
2009	45.7	46.3	49.6	39.1
2010	46.8	47.2	49.7	39.2
2011	47.6	47.4	49.9	39.4
2012	48.2	47.7	50.1	39.4
2013	49.0	48.4	50.2	39.5
2014	49.1	47.5	50.4	39.5
2015	49.6	47.2	50.8	39.5
2016	50.0	47.6	51.2	39.7

- Mean Age of Alaskan Workers is the annual average age of all Alaskans age 16-64 as reported by the Alaska Department of Labor and Workforce Development, Research and Analysis Section.
- Displayed figures are rounded to the nearest 10th. Age data from the CFEC permit file is as of December 31st of each year.

D9AA Permit Value

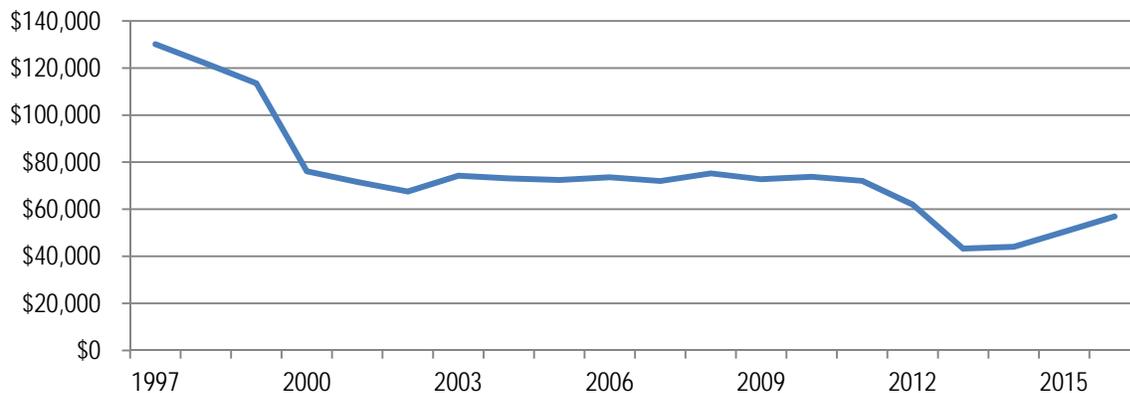
Many permit transfers are non-monetary transactions (see Table 4-2). Table 4-8 and Figure 4-4 considers solely the arms-length market transactions where permits are sold. CFEC estimated values are expressed in both nominal and real (adjusted for inflation) terms.

Table 4-8. CFEC Estimated Value of D9AA Permits

Year	D9AA Permit Sales	Nominal		Real	
		Permit Value	Standard Deviation	Permit Value	Standard Deviation
1997	14	\$87,000	\$8,750	\$130,097	\$13,084
1998	5	\$82,800	\$4,700	\$121,918	\$6,920
1999	2	\$78,800	\$6,050	\$113,521	\$8,716
2000	7	\$54,600	\$4,350	\$76,100	\$6,063
2001	3	\$52,800	\$1,700	\$71,555	\$2,304
2002	2	\$50,600	\$2,450	\$67,506	\$3,269
2003	3	\$56,900	\$6,250	\$74,220	\$8,152
2004	5	\$57,500	\$2,500	\$73,057	\$3,176
2005	1	\$58,900	\$2,700	\$72,383	\$3,318
2006	2	\$61,800	\$2,500	\$73,574	\$2,976
2007	7	\$62,200	\$9,300	\$71,999	\$10,765
2008	3	\$67,500	\$5,000	\$75,245	\$5,574
2009	1	\$65,000	\$4,725	\$72,717	\$5,236
2010	1	\$67,000	\$4,450	\$73,745	\$4,898
2011	1	\$67,500	\$5,000	\$72,022	\$5,335
2012	2	\$59,300	\$13,100	\$61,989	\$13,694
2013	4	\$42,000	\$1,350	\$43,271	\$1,391
2014	5	\$43,400	\$2,800	\$44,000	\$2,839
2015	1	\$49,800	\$10,450	\$50,428	\$10,582
2016	1	\$56,900	\$16,700	\$56,900	\$16,700

- Permit values represent averages of all arms-length sale transactions over the year. Beginning in 1991, additional data from recent months in the preceding year may be included until at least four observations can be averaged.
- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

Figure 4-4. D9AA Real Permit Value



- Real permit values were calculated using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

D9AA Vessel Characteristics

Table 4-9 reports on various characteristics of vessels used in the Tier A Southeast Alaska Dungeness crab pot fishery since 1997. Reported are the age, length, net tonnage, horsepower, and hold capacity. This data is from the vessel license file which includes voluntarily supplied information on vessels. The first column of each category is the count of vessels with the described characteristics, other statistics reported include the 25th percentile, median, and 75th percentile.

Table 4-9. D9AA Vessel Characteristics

Year	Vessel Count	Age				Length				Gross Tons				Net Tons				Horsepower				Hold Capacity			
		Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%	Count	25%	Median	75%
1997	51	51	9	17	22	51	31	38	44	38	14	16	26	41	7	13	21	49	160	210	300	37	250	440	900
1998	55	55	10	18	24	55	32	41	45	45	15	18	33	48	10	14	25	53	160	235	340	36	275	625	1,010
1999	42	42	11	20	25	42	33	42	45	35	15	18	29	36	11	14	22	40	170	250	320	29	300	600	1,000
2000	44	44	14	21	26	44	32	40	46	36	15	18	29	38	10	14	20	42	175	250	340	30	300	449	980
2001	45	45	13	21	24	45	31	40	46	35	15	18	29	36	11	15	20	42	180	250	350	29	300	650	1,000
2002	47	47	13	21	24	47	32	41	46	36	15	18	30	37	11	15	20	44	190	255	388	30	300	685	1,000
2003	43	43	13	23	28	43	34	41	48	32	15	21	32	33	12	16	24	39	180	300	380	25	400	670	1,000
2004	42	42	15	25	30	42	35	42	52	31	16	26	40	33	12	18	25	38	180	313	395	25	426	700	1,000
2005	44	44	17	25	31	44	37	45	54	34	18	29	43	34	14	21	31	40	178	338	390	28	475	900	1,200
2006	38	38	19	27	31	38	38	45	55	32	21	32	46	32	16	22	33	34	200	350	400	24	615	1,000	1,200
2007	46	46	20	28	32	46	38	46	53	40	23	32	43	40	17	23	33	42	225	325	380	31	570	1,000	1,300
2008	51	51	19	27	30	51	36	44	53	42	21	30	45	42	16	22	33	48	205	328	390	35	500	1,000	1,200
2009	52	52	22	30	33	52	36	44	54	46	18	30	45	46	14	22	33	50	220	325	380	36	535	920	1,200
2010	42	42	21	30	33	42	36	43	52	34	21	28	42	34	16	22	33	39	220	290	380	27	480	700	1,200
2011	40	40	22	32	35	40	37	44	52	34	18	27	40	34	14	22	33	38	225	295	380	25	480	670	1,020
2012	37	37	23	32	34	37	36	43	50	29	18	27	40	29	14	22	33	34	225	300	380	21	480	670	1,020
2013	35	35	23	32	35	35	35	42	50	25	17	22	40	25	13	18	27	32	238	313	380	19	400	670	840
2014	45	45	24	33	36	45	36	43	52	35	17	27	42	34	13	22	33	41	250	300	380	24	440	685	1,010
2015	48	48	25	33	36	48	35	43	49	35	17	27	40	34	13	22	33	43	225	300	400	23	500	670	1,000
2016	49	49	26	34	38	49	34	42	52	37	18	27	43	36	13	22	34	46	225	300	380	27	500	700	1,020
Total	176					176	31	40	48	133	15	24	40	135	11	18	28	170	200	270	400	101	300	670	1,020

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Table 4-10 provides additional characteristics of vessels used in the Tier A Southeast Alaska Dungeness crab fishery. Included are statistics of engine power type and hull material for each year since 1997.

Table 4-10. Additional D9AA Vessel Characteristics

Year	Vessel Count	Engine Power					Hull Material								
		Count	Diesel		Gas	Count	Aluminum	Fiberglass	Steel	Wood					
1997	51	51	42	82.4%	9	17.6%	51	15	29.4%	25	49.0%	5	9.8%	6	11.8%
1998	55	55	47	85.5%	8	14.5%	55	14	25.5%	27	49.1%	6	10.9%	8	14.5%
1999	42	42	36	85.7%	6	14.3%	42	12	28.6%	17	40.5%	5	11.9%	8	19.0%
2000	44	44	39	88.6%	5	11.4%	44	12	27.3%	22	50.0%	4	9.1%	6	13.6%
2001	45	45	36	80.0%	9	20.0%	44	16	36.4%	19	43.2%	4	9.1%	5	11.4%
2002	47	47	40	85.1%	7	14.9%	46	14	30.4%	22	47.8%	5	10.9%	5	10.9%
2003	43	42	36	85.7%	6	14.3%	42	13	31.0%	21	50.0%	3	7.1%	5	11.9%
2004	42	41	35	85.4%	6	14.6%	41	11	26.8%	21	51.2%	3	7.3%	6	14.6%
2005	44	43	39	90.7%	4	9.3%	43	9	20.9%	23	53.5%	4	9.3%	7	16.3%
2006	38	37	35	94.6%	2	5.4%	37	6	16.2%	21	56.8%	5	13.5%	5	13.5%
2007	46	46	43	93.5%	3	6.5%	45	9	20.0%	25	55.6%	6	13.3%	5	11.1%
2008	51	51	46	90.2%	5	9.8%	50	11	22.0%	29	58.0%	6	12.0%	4	8.0%
2009	52	52	47	90.4%	5	9.6%	52	10	19.2%	29	55.8%	8	15.4%	5	9.6%
2010	42	42	36	85.7%	6	14.3%	42	9	21.4%	24	57.1%	6	14.3%	3	7.1%
2011	40	40	35	87.5%	5	12.5%	40	9	22.5%	21	52.5%	7	17.5%	3	7.5%
2012	37	36	31	86.1%	5	13.9%	37	8	21.6%	22	59.5%	4	10.8%	3	8.1%
2013	35	34	29	85.3%	5	14.7%	35	10	28.6%	19	54.3%	3	8.6%	3	8.6%
2014	45	44	38	86.4%	6	13.6%	45	12	26.7%	25	55.6%	5	11.1%	3	6.7%
2015	48	46	37	80.4%	9	19.6%	48	18	37.5%	23	47.9%	4	8.3%	3	6.3%
2016	49	48	40	83.3%	8	16.7%	49	18	36.7%	23	46.9%	4	8.2%	4	8.2%
Total	176	173	137	79.2%	36	20.8%	176	57	32.4%	85	48.3%	17	9.7%	17	9.7%

- Total includes every unique vessel used in this fishery from 1997 to 2016.

Participation and Earnings of D9AA Permit Holders

Earnings are estimated from weighted average ex-vessel prices, and as noted earlier, largely stem from the ADF&G Commercial Operators Annual Report and fish ticket values. Earnings shown in Figure 4-5 are for both nominal and real dollars using the 2016 Consumer Price Index from the U.S. Bureau of Labor Statistics.

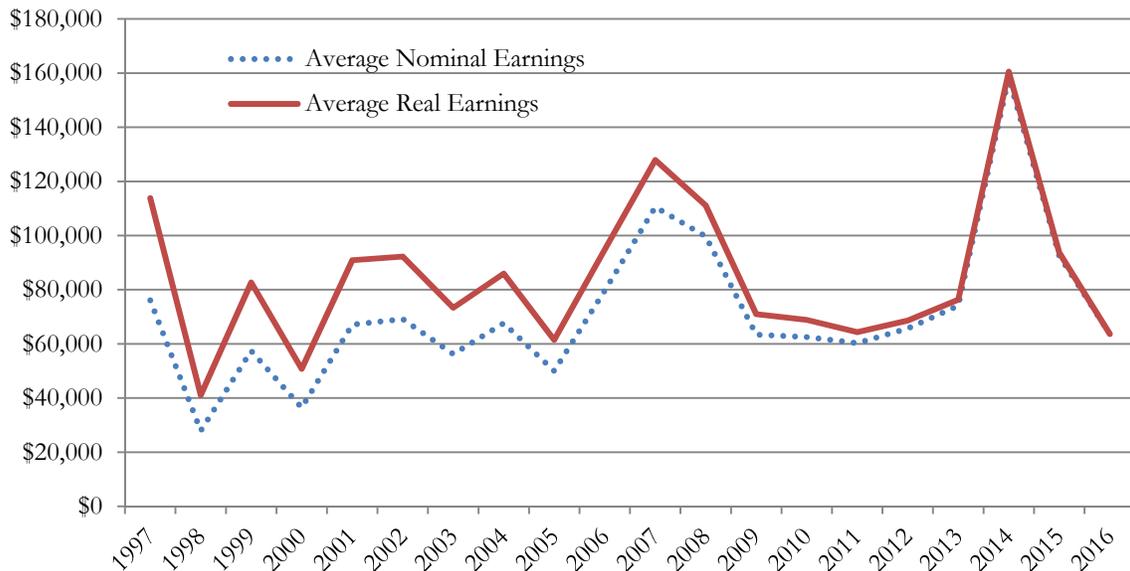
Permit counts include interim-entry permits and permanent permits. Interim-entry permits are issued to individuals during the period when their applications for permanent permits are in adjudication. The last year an interim-entry D9AA permit was held was in 2004. Some individuals made landings on both an interim-entry permit and subsequently on their newly issued permanent permit in the same year; for these instances, only the permanent permit is counted in this report.

Table 4-11 reports the number of permits, permit issued, and vessels with landings, and estimated gross earnings in the Tier A Southeast Alaska Dungeness crab pot fishery from 1997 to 2016. Note that the figures by permit or vessel in this table span the entire year, regardless of who held the permit or however many times the permit was transferred.

Table 4-12 reports the number of permit holders (people) and estimated real (inflation adjusted) gross earnings by each resident type. Where fewer than four individuals made landings, earnings are masked for that group and at least one other due to reasons of confidentiality.

Table 4-13 breaks out participation and real earnings by ADF&G shellfish management area. Note that some permits are used to record landings in more than one district.

Figure 4-5. Estimated Nominal and Real Average Gross Earnings Per D9AA Permit



- Real earnings are adjusted for inflation using the 2016 U.S. Bureau of Labor Statistics Consumer Price Index.

Table 4-11. Estimated Total Gross Earnings (Real and Nominal) for the Tier A Southeast Alaska Dungeness Crab Pot Fishery, With Average Gross (Real) Earnings by Permit and Vessel, 1997-2016

Year	Viable Permits	Total Gross Earnings		Permits With Landings	Average Real Earnings	Vessels With Landings	Average Real Vessel Earnings
		Nominal	Real				
1997	53	\$3,653,342	\$5,463,101	48	\$113,815	51	\$107,120
1998	52	\$1,366,229	\$2,011,685	49	\$41,055	55	\$36,576
1999	52	\$2,409,820	\$3,471,630	42	\$82,658	42	\$82,658
2000	52	\$1,565,996	\$2,182,637	43	\$50,759	44	\$49,605
2001	51	\$2,884,684	\$3,909,341	43	\$90,915	45	\$86,874
2002	49	\$3,110,530	\$4,149,800	45	\$92,218	47	\$88,294
2003	49	\$2,361,353	\$3,080,116	42	\$73,336	43	\$71,631
2004	49	\$2,705,513	\$3,437,491	40	\$85,937	42	\$81,845
2005	49	\$2,150,057	\$2,642,237	43	\$61,447	44	\$60,051
2006	49	\$2,870,004	\$3,416,771	36	\$94,910	38	\$89,915
2007	49	\$4,861,774	\$5,627,706	44	\$127,902	46	\$122,341
2008	49	\$4,485,703	\$5,000,395	45	\$111,120	51	\$98,047
2009	49	\$2,917,310	\$3,263,655	46	\$70,949	52	\$62,763
2010	49	\$2,501,509	\$2,753,328	40	\$68,833	42	\$65,555
2011	49	\$2,290,339	\$2,443,762	38	\$64,310	40	\$61,094
2012	49	\$2,429,361	\$2,539,542	37	\$68,636	37	\$68,636
2013	49	\$2,592,730	\$2,671,194	35	\$76,320	35	\$76,320
2014	49	\$6,649,489	\$6,741,365	42	\$160,509	45	\$149,808
2015	49	\$4,163,649	\$4,216,174	45	\$93,693	48	\$87,837
2016	49	\$2,927,619	\$2,927,619	46	\$63,644	49	\$59,747

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.

Table 4-12. Estimated Real Gross Earnings for Permit Holders in the Tier A Southeast Alaska Dungeness Crab Pot Fishery by Resident Type, 1997-2016

Year	Local Gross Earnings			Nonlocal Gross Earnings			Nonresident Gross Earnings			Total Gross Earnings		
	People	Average	Total	People	Average	Total	People	Average	Total	People	Average	Total
1997	44	\$113,470	\$4,992,697	0	\$0	\$0	6	\$78,401	\$470,405	50	\$109,262	\$5,463,101
1998	46	\$41,701	\$1,918,244	0	\$0	\$0	5	\$18,688	\$93,440	51	\$39,445	\$2,011,685
1999	42	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	45	\$77,147	\$3,471,630
2000	39	\$53,048	\$2,068,884	0	\$0	\$0	4	\$28,438	\$113,753	43	\$50,759	\$2,182,637
2001	37	\$96,060	\$3,554,226	1-3	Confidential	Confidential	4	Confidential	Confidential	43	\$90,915	\$3,909,341
2002	39	\$93,044	\$3,628,699	1-3	Confidential	Confidential	**	Confidential	Confidential	45	\$92,218	\$4,149,800
2003	36	\$72,792	\$2,620,499	1-3	Confidential	Confidential	**	Confidential	Confidential	42	\$73,336	\$3,080,116
2004	36	\$88,538	\$3,187,358	0	\$0	\$0	5	\$50,027	\$250,133	41	\$83,841	\$3,437,491
2005	37	\$63,883	\$2,363,677	0	\$0	\$0	6	\$46,427	\$278,559	43	\$61,447	\$2,642,237
2006	33	\$93,997	\$3,101,892	0	\$0	\$0	6	\$52,480	\$314,878	39	\$87,610	\$3,416,771
2007	39	\$129,861	\$5,064,568	0	\$0	\$0	5	\$112,628	\$563,138	44	\$127,902	\$5,627,706
2008	40	\$109,241	\$4,369,657	0	\$0	\$0	5	\$126,148	\$630,738	45	\$111,120	\$5,000,395
2009	40	\$73,623	\$2,944,904	1-3	Confidential	Confidential	**	Confidential	Confidential	46	\$70,949	\$3,263,655
2010	35	\$69,397	\$2,428,896	1-3	Confidential	Confidential	**	Confidential	Confidential	40	\$68,833	\$2,753,328
2011	36	\$60,538	\$2,179,359	1-3	Confidential	Confidential	1-3	Confidential	Confidential	40	\$61,094	\$2,443,762
2012	35	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	37	\$68,636	\$2,539,542
2013	33	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	35	\$76,320	\$2,671,194
2014	39	Confidential	Confidential	0	\$0	\$0	1-3	Confidential	Confidential	42	\$160,509	\$6,741,365
2015	42	\$92,872	\$3,900,618	1-3	Confidential	Confidential	1-3	Confidential	Confidential	46	\$91,656	\$4,216,174
2016	43	\$62,170	\$2,673,297	1-3	Confidential	Confidential	**	Confidential	Confidential	48	\$60,992	\$2,927,619

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- Counts will differ from CFEC on-line Basic Information Tables where the on-line data does not account for the combination of interim-entry permits that were issued as permanent permits in the same year.
- Note that these counts are for individuals, not permits.
- When fewer than four permits make landings, earnings in another column are masked (**) due to reasons of confidentiality.

Table 4-13. Gross Real Earnings for the Tier A Southeast Alaska Dungeness Crab Pot Fishery by ADF&G Shellfish Management Area, 1997 to 2016

Year	Juneau Area				Ketchikan Area				Petersburg Area				Sitka Area				Total	
	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Percent	Gross Earnings Real Value	Percent	Permits Count	Gross Earnings Real Value
1997	20	41.7%	\$1,901,183	34.8%	6	12.5%	\$285,707	5.2%	31	64.6%	\$2,549,955	46.7%	7	14.6%	\$726,256	13.3%	48	\$5,463,101
1998	20	40.8%	\$621,828	30.9%	10	20.4%	\$214,911	10.7%	31	63.3%	\$1,028,164	51.1%	7	14.3%	\$146,782	7.3%	49	\$2,011,685
1999	12	28.6%	\$543,443	15.7%	9	21.4%	\$246,417	7.1%	31	73.8%	\$2,385,595	68.7%	4	9.5%	\$296,175	8.5%	42	\$3,471,630
2000	7	16.3%	\$207,371	9.5%	1-3	confidential	confidential	confidential	36	83.7%	\$1,603,541	73.5%	6	14.0%	\$309,254	14.2%	43	\$2,182,637
2001	12	27.9%	\$731,804	18.7%	1-3	confidential	confidential	confidential	35	81.4%	\$2,785,013	71.2%	8	18.6%	\$252,353	6.5%	43	\$3,909,341
2002	16	35.6%	\$1,075,287	25.9%	1-3	confidential	confidential	confidential	36	80.0%	\$2,840,898	68.5%	1-3	confidential	confidential	confidential	45	\$4,149,800
2003	16	38.1%	\$1,430,149	46.4%	4	9.5%	\$132,259	4.3%	32	76.2%	\$1,364,740	44.3%	5	11.9%	\$152,969	5.0%	42	\$3,080,116
2004	18	45.0%	\$1,540,667	44.8%	8	20.0%	\$288,651	8.4%	29	72.5%	\$1,327,885	38.6%	7	17.5%	\$280,288	8.2%	40	\$3,437,491
2005	20	46.5%	\$1,440,070	54.5%	6	14.0%	\$208,857	7.9%	25	58.1%	\$825,856	31.3%	7	16.3%	\$167,453	6.3%	43	\$2,642,237
2006	17	47.2%	\$1,666,163	48.8%	5	13.9%	\$209,785	6.1%	21	58.3%	\$1,283,459	37.6%	4	11.1%	\$257,363	7.5%	36	\$3,416,771
2007	21	47.7%	\$2,427,008	43.1%	7	15.9%	\$288,812	5.1%	28	63.6%	\$2,675,120	47.5%	4	9.1%	\$236,765	4.2%	44	\$5,627,706
2008	22	48.9%	\$2,329,093	46.6%	5	11.1%	\$234,338	4.7%	28	62.2%	\$2,299,493	46.0%	1-3	confidential	confidential	confidential	45	\$5,000,395
2009	24	52.2%	\$1,686,943	51.7%	1-3	confidential	confidential	confidential	26	56.5%	\$1,133,851	34.7%	7	15.2%	\$261,925	8.0%	46	\$3,263,655
2010	25	62.5%	\$1,605,363	58.3%	5	12.5%	\$267,481	9.7%	21	52.5%	\$800,851	29.1%	5	12.5%	\$79,633	2.9%	40	\$2,753,328
2011	18	47.4%	\$1,181,967	48.4%	5	13.2%	\$321,340	13.1%	22	57.9%	\$817,607	33.5%	4	10.5%	\$122,849	5.0%	38	\$2,443,762
2012	19	51.4%	\$973,542	38.3%	6	16.2%	\$345,044	13.6%	21	56.8%	\$959,970	37.8%	4	10.8%	\$260,987	10.3%	37	\$2,539,542
2013	15	42.9%	\$996,679	37.3%	7	20.0%	\$391,595	14.7%	20	57.1%	\$845,413	31.6%	4	11.4%	\$437,508	16.4%	35	\$2,671,194
2014	17	40.5%	\$1,853,964	27.5%	8	19.0%	\$624,252	9.3%	26	61.9%	\$3,473,094	51.5%	5	11.9%	\$790,055	11.7%	42	\$6,741,365
2015	22	48.9%	\$1,685,445	40.0%	10	22.2%	\$455,891	10.8%	28	62.2%	\$1,701,805	40.4%	6	13.3%	\$373,034	8.8%	45	\$4,216,174
2016	23	50.0%	\$1,259,042	43.0%	9	19.6%	\$408,947	14.0%	28	60.9%	\$1,144,874	39.1%	6	13.0%	\$114,758	3.9%	46	\$2,927,619

- Adjusted for inflation to 2016 dollars using U.S. Bureau of Labor Statistics Consumer Price Index.
- When fewer than four permits make landings, earnings in another column are masked (**) due to reasons of confidentiality.
- Some permits are used to record landings in more than one district.

Chapter 5 Yakutat and Combined Southeast Alaska Dungeness Crab Fisheries

The limited Southeast Dungeness crab ring net gear (D10A) and diving gear (D11A) only include a few permits so they are not given the same detail as the limited pot fisheries. Landing information for these two fisheries are aggregated in the tables of this chapter along with all other Dungeness crab fisheries for Yakutat and Southeast Alaska.

Table 5-1 is a reference table for the area, species, and gear type allowed for permits, and includes both limited and open access permits. The years in which these permit types were used to prosecute the Dungeness crab fisheries in Southeast Alaska and Yakutat are presented in Tables 5-2 and Table 5-3.

**Table 5-1. Permit Types Used to Prosecute Yakutat and Southeast Alaska
Dungeness Crab Fisheries, 1975-2016**

FSHY	Permit Description
D09D	Yakutat Dungeness Crab Pot Gear Vessel Under 60'
D09E	Prince William Sound Dungeness Crab Pot Gear Vessel Under 60'
D09J	Westward Dungeness Crab Pot Gear Vessel Under 60'
D09L	Chignik Dungeness Crab Pot Gear Vessel Under 60'
D09M	Alaska Peninsula Dungeness Crab Pot Gear Vessel Under 60'
D10A	Southeast Dungeness Crab Ring Net Gear
D10D	Yakutat Dungeness Crab Ring Net
D10H	Cook Inlet Dungeness Crab Ring Net Gear
D11A	Southeast Dungeness Crab Diving Gear
D91D	Yakutat Dungeness Crab Pot Gear Vessel 60' or Over
D91E	Prince William Sound Dungeness Crab Pot Gear Vessel 60' or Over
D91H	Cook Inlet Dungeness Crab Pot Gear
D91J	Westward Dungeness Crab Pot Gear Vessel 60' or Over
D91L	Chignik Dungeness Crab Pot Gear Vessel 60' or Over
D91M	Alaska Peninsula Dungeness Crab Pot Gear Vessel 60' or Over
D9AA	Southeast Dungeness Crab 300 Pots or 100% of Max
D9BA	Southeast Dungeness Crab 225 Pots or 75% of Max
D9CA	Southeast Dungeness Crab 150 Pots or 50% of Max
D9DA	Southeast Dungeness Crab 75 Pots or 25% of Max
D09A	Southeast Dungeness Crab Pot Gear Vessel Under 60'
D09B	Statewide Dungeness Crab Pot Gear Vessel Under 60'
D10B	Statewide Dungeness Crab Ring Net Gear
D12B	Statewide Dungeness Crab Hand Picking Gear
D91A	Southeast Dungeness Crab Pot Gear Vessel 60' or Over
D91B	Statewide Dungeness Crab Pot Gear Vessel 60' or Over
D99B	Statewide Dungeness Crab Other Gear

Table 5-2 indicates which permit types were used to make landings in the Yakutat Dungeness crab fishery. Statewide permits are only counted in this report when landings of Dungeness crab were recorded in Yakutat.

Table 5-2. Permit Types Used to Prosecute Yakutat Dungeness Crab Fisheries, 1975-1999

Year	D09B	D09D	D10B	D12B	D91B	D91D	D99B
1975	yes				yes		
1976	yes				yes		
1977	yes				yes		
1978	yes				yes		
1979	yes				yes		yes
1980	yes				yes		yes
1981	yes				yes		yes
1982	yes				yes		yes
1983	yes				yes		yes
1984	yes			yes	yes		yes
1985	yes			yes	yes		yes
1986	yes			yes	yes		yes
1987	yes				yes		yes
1988	yes			yes	yes		yes
1989	yes			yes	yes		yes
1990	yes				yes		yes
1991	yes		yes	yes	yes		
1992		yes				yes	
1993		yes				yes	
1994		yes				yes	
1995		yes				yes	
1996		yes				yes	
1997		yes				yes	
1998		yes				yes	
1999		yes				yes	

Tables 5-3 indicates which permit types were used to make landings in the Southeast Alaska Dungeness crab fishery. Statewide permits are only counted in this table when they were used to make landings of Dungeness crab in Southeast Alaska.

Table 5-3. Permit Types Used to Prosecute Southeast Alaska Dungeness Crab Fisheries, 1975-2016

Year	D09A	D09B	D10A	D10B	D11A	D12B	D91A	D91B	D99B	D9AA	D9BA	D9CA	D9DA
1975		yes											
1976		yes						yes					
1977		yes											
1978		yes						yes					
1979		yes						yes	yes				
1980		yes						yes	yes				
1981		yes						yes	yes				
1982		yes						yes	yes				
1983		yes						yes	yes				
1984		yes				yes		yes	yes				
1985		yes				yes		yes	yes				
1986		yes				yes		yes	yes				
1987		yes						yes	yes				
1988		yes				yes		yes	yes				
1989		yes				yes		yes	yes				
1990		yes						yes	yes				
1991		yes		yes		yes		yes					
1992	yes		yes				yes						
1993	yes						yes						
1994	yes				yes		yes						
1995	yes		yes		yes		yes						
1996	yes		yes				yes						
1997			yes							yes	yes	yes	yes
1998										yes	yes	yes	yes
1999			yes							yes	yes	yes	yes
2000			yes							yes	yes	yes	yes
2001			yes							yes	yes	yes	yes
2002			yes							yes	yes	yes	yes
2003			yes							yes	yes	yes	yes
2004			yes							yes	yes	yes	yes
2005										yes	yes	yes	yes
2006										yes	yes	yes	yes
2007										yes	yes	yes	yes
2008										yes	yes	yes	yes
2009										yes	yes	yes	yes
2010										yes	yes	yes	yes
2011										yes	yes	yes	yes
2012										yes	yes	yes	yes
2013										yes	yes	yes	yes
2014										yes	yes	yes	yes
2015										yes	yes	yes	yes
2016										yes	yes	yes	yes

Tables 5-4 and 5-5 display landings by vessel for each year from 1975 to 2016 for both the Yakutat and Southeast Alaska Dungeness crab fisheries.

Table 5-4. Landings in the Yakutat Dungeness Crab Fishery by Vessel, 1975-2016

Year	Vessels	Whole Lbs	Real Value
1975	42	1,149,024	\$2,657,443
1976	26	1,035,558	\$1,827,445
1977	12	238,445	\$462,885
1978	33	2,539,382	\$5,999,293
1979	53	2,219,757	\$5,424,021
1980	30	1,405,256	\$2,046,694
1981	85	6,094,485	\$10,203,204
1982	140	8,786,163	\$15,463,247
1983	170	4,801,876	\$10,806,976
1984	199	2,618,589	\$7,979,615
1985	226	2,672,838	\$7,533,578
1986	220	3,148,859	\$7,233,464
1987	251	5,933,674	\$13,990,825
1988	290	6,771,947	\$13,740,611
1989	268	3,636,246	\$7,830,322
1990	259	4,713,180	\$12,770,635
1991	349	7,540,044	\$17,780,010
1992	49	1,400,814	\$2,214,305
1993	45	809,987	\$1,404,542
1994	46	913,965	\$1,732,099
1995	47	555,342	\$1,490,284
1996	29	238,468	\$490,630
1997	32	162,257	\$652,686
1998	29	121,444	\$367,114
1999	10	65,386	\$191,972
2000	0	0	\$0
2001	0	0	\$0
2002	0	0	\$0
2003	0	0	\$0
2004	0	0	\$0
2005	0	0	\$0
2006	0	0	\$0
2007	0	0	\$0
2008	0	0	\$0
2009	0	0	\$0
2010	0	0	\$0
2011	0	0	\$0
2012	0	0	\$0
2013	0	0	\$0
2014	0	0	\$0
2015	0	0	\$0
2016	0	0	\$0

Table 5-5. Landings in the Southeast Alaska Dungeness Crab Fishery by Vessel, 1975-2016

Year	Vessels	Whole Lbs	Real Value
1975	29	592,354	\$1,366,097
1976	20	506,088	\$956,446
1977	10	129,623	\$268,939
1978	22	739,979	\$1,760,085
1979	37	802,942	\$2,051,669
1980	22	523,575	\$762,655
1981	65	2,864,232	\$4,659,373
1982	114	3,628,052	\$6,483,061
1983	124	2,143,849	\$4,824,640
1984	166	1,847,833	\$5,699,688
1985	199	2,302,769	\$6,424,164
1986	201	2,394,317	\$5,501,822
1987	227	3,350,769	\$7,889,898
1988	260	3,385,133	\$6,539,628
1989	240	1,936,382	\$4,049,933
1990	228	2,655,743	\$7,141,248
1991	295	4,662,218	\$10,411,545
1992	236	3,051,900	\$4,493,282
1993	192	2,496,236	\$4,107,279
1994	178	1,903,551	\$3,778,290
1995	197	4,322,543	\$11,252,727
1996	194	4,917,369	\$7,316,777
1997	236	3,976,140	\$13,282,245
1998	244	2,388,998	\$5,144,489
1999	196	3,264,122	\$8,100,334
2000	201	2,558,340	\$5,638,930
2001	198	4,087,796	\$9,630,806
2002	213	7,300,658	\$10,718,866
2003	208	4,500,194	\$7,888,989
2004	195	4,549,964	\$8,362,188
2005	185	4,178,511	\$6,334,502
2006	161	4,498,260	\$7,660,188
2007	190	5,384,401	\$13,352,472
2008	211	4,706,976	\$11,419,148
2009	206	3,554,842	\$6,961,274
2010	173	3,233,858	\$6,157,174
2011	152	2,588,410	\$6,191,756
2012	153	2,349,390	\$6,172,847
2013	148	2,574,715	\$6,658,980
2014	190	5,036,707	\$15,321,160
2015	193	3,242,354	\$9,845,488
2016	199	2,366,637	\$7,213,553

• Real earnings are adjusted for inflation using the 2016 U.S. Bureau of Labor Statistics Consumer Price Index.

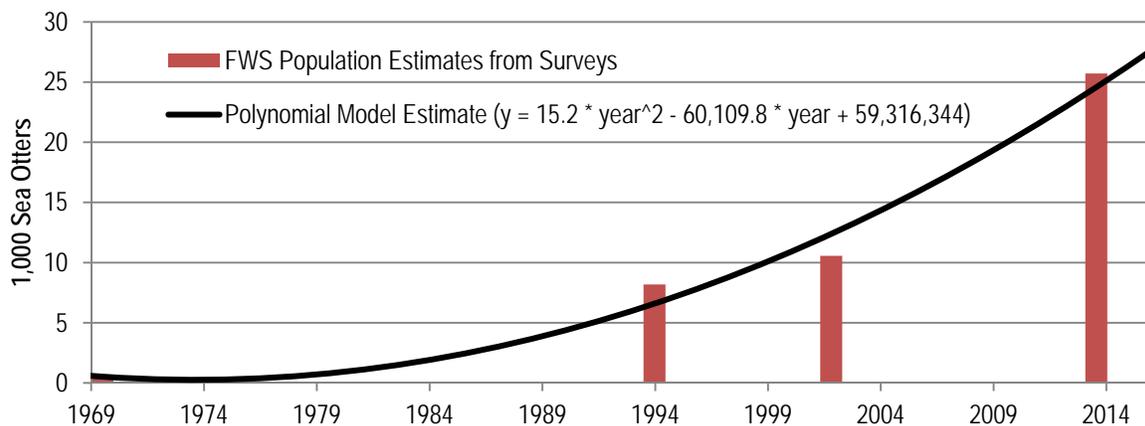
Appendix A Sea Otters in Southeast Alaska

In Southeast Alaska, the formerly extirpated northern sea otters (*Enhydra lutris kenyoni*) were reintroduced in the 1960s by the ADF&G. Because sea otters are marine mammals, the 1972 Marine Mammal Protection Act transferred all management authority of this species from ADF&G to their federal counterpart, the U.S. Fish & Wildlife Service. Fish & Wildlife Service has conducted population surveys which resulted in population estimates for 1994⁹, 2002¹⁰, and 2014¹¹. Table A-1 includes the results of the surveys. Using the four data points from the original population and survey results, a 2nd order polynomial regression was fitted to estimate an index of abundance of sea otters in Southeast Alaska. As this model considers only four data points, it should be viewed with caution. Yakutat currently has a thriving sea otter population as well as Southeast Alaska, but there were no population estimates for Yakutat available to the author at the time of this publication.

Table A-1. Sea Otter Population Estimates From the Fish & Wildlife Service

Year	Southeast Alaska Sea Otter Population
1969	412
1994	8,180
2002	10,563
2014	25,712

Figure A-1 Index of Abundance of Southeast Alaska Sea Otters



Adult male sea otters typically weigh 80 to 100 pounds and consume approximately 20 percent of their body weight in seafood each day to support their high metabolism.¹² Sea otters eat almost any shellfish they can catch, including Dungeness crab.

⁹ Agler, B.A., Kendall, S.J., Seiser, P.E., and Lindell, J.R., 1995, Estimates of marine bird and sea otter abundance in Southeast Alaska during summer 1994: U.S. Fish and Wildlife Service, Anchorage, Alaska, 102 p.

¹⁰ <https://www.fws.gov/alaska/fisheries/mmm/stock/finalsoutheastalaskaseaottersar01aug2008.pdf>

¹¹ See https://www.fws.gov/alaska/fisheries/mmm/stock/Revised_April_2014_Southeast_Alaska_Sea_Otter_SAR.pdf

¹² See <http://www.adfg.alaska.gov/index.cfm?adfg=viewing.marinemammals&species=seaotter>