# Economic Status Report Summary: BSAI Crab Fisheries, 2014

The Bering Sea/Aleutian Islands (BSAI) crab fisheries managed under the North Pacific Fishery Management Council's Fishery Management Plan (FMP) are currently prosecuted by an active fleet of 113 catcher vessels and two catcher processors, and landed and processed at 21 processing facilities throughout the region. Of the 10 crab stocks and 11 fisheries managed under the FMP<sup>1</sup>, seven are currently open to targeted fishing. The Bering Sea Tanner (BST) crab fisheries reopened for targeted fishing for the 2013/14 season<sup>2</sup> after being closed since the 2010/11 season. Pribilof Islands red and blue king, and Western Aleutian red king crab stocks are currently designated overfished, as detailed in the assessments for these stocks, and the Saint Matthew blue king (SMB) crab fishery was closed for the 2013/14 season under the State of Alaska's management strategy. This report provides a brief summary of key indicators of economic status and performance of BSAI crab fisheries for 2013 calendar year operations.<sup>3</sup>

### Fishery production and economic value – 2009-2013

Harvest- and processing sector production statistics by crab fishery, including ex-vessel and 1<sup>st</sup> wholesale output, estimated revenue, and average prices are shown in Table 1 for calendar years 2009-2013 and summarized in Figure 1. Across all fisheries managed under the BSAI Crab FMP, the total volume of ex-vessel landings during 2013 was 81 million pounds, a 21 percent decrease from the previous year. Processing sector finished production volume during 2013 was 54 million pounds aggregated over all BSAI crab species and product forms, a 21 percent decrease over the previous year. Average prices for most BSAI crab produced in 2013 as reported in both sectors declined for the second year from the recent peak 2011 levels, with the result of total gross revenues over all fisheries declining in 2013: \$240<sup>4</sup> million ex-vessel for the year, down from \$294 million for 2012 (-18%), and \$402 million first wholesale revenues (-19% from the previous year).

<sup>&</sup>lt;sup>1</sup> There are currently 11 distinctly managed fisheries on the 10 crab stocks managed under the FMP; catch allocations and other management elements are administered separately for the Eastern and Western components of the Bering Sea Tanner crab stock, and for the Eastern and Western components of the Aleutian Islands golden king crab stock, and the Pribilof Island blue and red king crab stocks are managed collectively as a single fishery. For fisheries characterized by a small number of participating entities, individual statistics where indicated in Tables 1-2 are suppressed in this report due to confidentiality restrictions; this includes most values for the Pribilof Island golden king (PIG) crab fisheries and both Bering Sea Tanner crab fisheries, and aggregate, statistics for both Aleutian Islands golden king crab fisheries and both Bering Sea Tanner crab fisheries are reported in aggregate, respectively. Values that are indicated as suppressed in Tables 1-2 are also excluded from values reported in aggregate over multiple crab fisheries. Except where noted, the suppressed values are sufficiently small that they have minimal effect on the accuracy of aggregate information at the level of precision reported here.

<sup>&</sup>lt;sup>2</sup> Although opened as of October, 2013, most activity in the reopened BST fisheries occurred during Spring of 2014.

<sup>&</sup>lt;sup>3</sup> The Economic Status Report for BSAI Crab provides a comprehensive presentation of statistical information and analysis regarding economic dimensions of the fishery evaluation; update of the report for 2014 is in preparation.

<sup>&</sup>lt;sup>4</sup> All prices are inflation-adjusted to 2012 dollars.

As of 2013, allowable catch quantities in all BSAI crab fisheries currently open to targeted fishing are fully exploited (> 98% of total allocation landed), and recent interannual variation in commercial landings largely reflects the results of stock assessments and the State of Alaska's specified catch limits rather than changes in fishing capacity or exploitation rate. The decrease in aggregate production during 2013 was driven largely by the 26 percent decrease in volume landed in the Bering Sea snow crab (BSS) fishery compared to 2012, with total catch at 65.5 million pounds. Norton Sound red king crab (NSR) landings were 440 thousand pounds, and landings of 5.8 million pounds in Aleutian Islands golden king (AIG) crab fisheries changed only slightly from the previous year. Landings of 8.5 million pounds in Bristol Bay red king (BBR) in 2013 increased 9% over 2012, still nearly 18 percent below the previous 5-year average.

Similar to ex-vessel production, the proportional decrease in processing sector output aggregated over all active crab fisheries was driven by the 43 million pounds of BSS fishery production, declining by 26 percent in volume over the previous year. Finished volume in the BBR fishery of 5.8 million pounds reflects an increase of 9% in 2013, and AIG and BST fisheries produced 3.7 million and 0.82 million pounds of finished volume, respectively.

Ex-vessel and wholesale Alaska crab prices in 2013 showed modest increases in two of the three largest fisheries shown in Table 1. Average prices in both sectors of the BSS fishery increased slightly, to \$2.33 ex-vessel (+3.5%) and \$4.88 first wholesale +1%) per-pound, and in the AIG fisheries increased slightly, to \$4.05 ex-vessel (+1%) and \$8.33 first wholesale (+5%) per-pound. Average price for NSR crab sales were \$5.78 ex-vessel and \$9.57 at first wholesale. BBR fishery average ex-vessel price declined by 17 percent to \$6.85 per pound, continuing the 23 percent price decline from 2011 to 2012 averages; the average wholesale price reported by processors for BBR declined by 13 percent, to \$13.02 per pound for 2013.

The estimated gross revenue value of production in the 2013 BSS fishery decreased in 2013 to \$152 million ex-vessel (-23%), and \$209 million first wholesale (-25%), due largely to the decline in production. With declining price in both sectors in the BBR fishery offsetting increased physical production, estimated gross revenues for BBR fell to \$58 million ex-vessel (-9%) and \$74.9 million first wholesale (-5%). Estimated revenues in the AIG fisheries remained stable at \$23.56 million ex-vessel (-1%) and \$30.71 million wholesale (+3.36%). The NSR fishery produced gross ex-vessel revenue of \$2.56 million, and \$3.26 million at first wholesale. The proportional inter-annual variation in gross revenue from 2012 to 2013 was somewhat less than the average degree of variation over the last 15 years in the historically volatile crab fisheries; longer time series for these and other measures of crab fishery performance are available in the full 2013 BSAI Crab Economic Status Report, currently being updated for 2014 (to be released in January 2015).

## **Employment and Income**

A summary of selected indicators from the most recent employment data available for Crab Rationalization (CR) program fisheries is provided in Table 2<sup>5</sup>. Crab EDR data for calendar year 2013 are reported where available, but note that results are preliminary pending completion of data validation and additional analyses.

The number of vessels operating in CR fisheries in 2013 declined from 83 to 78, but increased from 114 to 115 across all BSAI FMP crab fisheries. Based on the average (mean) number of crew onboard (as reported in eLandings catch accounting records for crab vessels), there were an estimated 1093 crew positions across all 78 vessels in CR fisheries in 2013. Over the last 5 years, both the aggregate number of vessels and total crew positions have varied contemporaneously with the total size of crab catch allocations, declining in 2010 and 2011 and increasing in 2012 as BSS allocations were substantially increased. However, neither the number of vessels operating in individual fisheries nor the number of crew positions has varied proportionally with catch, with vessel and crew participation rates varying to a lesser degree than catch. For example, changes in crew positions have varied from year-to-year by -14% to +19% in the BSS fishery, compared to much larger annual variations in catch.

Crew compensation and processing sector employment and pay for 2009-2013 are shown in Table 2; results for 2013 may be revised upon completion of validation and analysis of crab EDR data submitted by crab industry participants in July of this year, and any revisions will be released with the full Economic Status Report for BSAI Crab for 2014. Revenue-share payments to crab vessel crew members as a group totaled approximately \$30.9 million in 2013, with an additional \$15.7 million paid to vessel captains. Over both groups, incomes declined by 20 percent in 2013, reflecting the overall decrease in exvessel revenue described above. In addition to revenue-share payments, income is derived by some crew and many captains from royalties for harvesting quota shares held by either the captain or crew. While this may become an increasingly important source of income as opportunities for investment in QS ownership are advanced, there is no evidence to-date that the proportion of CR fishery quota share pools held by crab crew members has changed in recent years, following a small amount of consolidation occurring during the initial years of the program (see NMFS Alaska Region, Restricted Access Management Program, Bering Sea and Aleutian Islands Crab Rationalization Program Report, Fishing Year 2011/12 for information on quota allocation and transfer activity, and other current CR program administration details).

Crab processing labor input associated with the IFQ and CDQ fisheries is estimated at nearly 956 thousand hours in 2013, generating slightly greater than \$9.9 million in labor income. Most processing facilities that receive crab landings do not exclusively process crab, however, and it may be difficult to attribute crab processing labor to specific employment effects. To some degree, the interannual variation in the measure of crab processing labor hours likely reflects variation in processors' ability to track labor input

<sup>&</sup>lt;sup>5</sup> The NSR and Pribilof Island golden king (PIG) crab fisheries are managed by the State of Alaska under the FMP, but are not included in the CR program.

by species for reporting compliance. The trend in processing labor input as reported in the BSAI Crab Economic Data Report (EDR) indicates general consistency with catch and production volume fluctuations. However, total processing labor hours declined across all CR fisheries overall by approximately 24% in 2013, commensurate with the decline in production volume over the same period.

## IFQ Leasing

This report provides results from the BSAI Crab Rationalization Economic Data Report (EDR) program collection of crab harvest quota allocation lease data associated with 2012 and 2013 calendar year Bering Sea snow crab (BSS) and Bristol Bay red king crab (BBR) fisheries, respectively. Results of analysis of EDR quota lease data shown in Table 3 are preliminary for 2013; data upon which these results are based have not been fully validated and the fishery-level summary statistics shown are expected to change upon completion of the validation process.<sup>6</sup> Final statistical results for EDR data, incorporating error corrections identified in the validation process, as well as a summary of EDR data quality findings, will be released with publication of the 2014 BSAI Crab Economic Status Report.<sup>7</sup>

Table 3 shows aggregated results for crab fishing quota lease volume (in pounds) and cost reported for crab vessels active in 2012 and 2013 calendar year BBR and BSS fisheries,<sup>\*</sup> by fishing quota type category, including total quantities summed over all reporting vessels, and average values (both median and mean) for volume and cost of leased quota per vessel, and average lease price paid (\$US per pound) and average lease rate (lease price as percentage of ex-vessel price) per vessel. Both median and arithmetic mean average value metrics are presented to provide information on the variation in reported values within each stratum, with the higher mean values shown indicating the presence of a subset of high-value data points in these data. Harvest quota types are categorized as the following: catcher vessel owner (CVO) Class A IFQ; catcher vessel owner Class B IFQ and catcher/processor owner (CPO) IFQ; catcher vessel crew IFQ and catcher/processor owner (CDQ).

The number of vessels reporting quota leases in the 2013 BBR fishery range from 49 vessels leasing CVO Class A shares, to 6 vessels leasing CDQ shares (out of 63 crab vessels active during the 2013 BBR fishery), and from 53 vessels leasing CVO A Class BSS IFQ allocation to 8 vessels leasing CDQ allocation (out of 70 active vessels) in the BSS fishery. Total volume and cost over all vessels leasing the respective quota types during 2013 range from 8.1 million pounds and \$37.1 million for BBR CVO Class A

<sup>&</sup>lt;sup>6</sup> EDR data validation includes mandatory audit of supporting documentation by a third-party auditor; audits of Crab EDR data are performed by AKT CPA, LLC of Portland, OR and are currently ongoing for 2013 EDR data; audit reports for 2005-2012 annual EDR collections can be accessed at <u>http://www.psmfc.org/alaska\_crab/</u>. Consultation with AKT staff (12/2/13) regarding preliminary audit findings for 2013 quota lease data indicate moderate rate of incidence of errors in quota lease pounds and cost reported, but do not indicate any systematic bias in magnitude or direction of reporting errors.

<sup>&</sup>lt;sup>7</sup> The Economic Status Report for BSAI Crab provides a comprehensive presentation of statistical information and analysis regarding economic dimensions of the fishery evaluation; update of the report for 2013 is in preparation, with expected release in January, 2014.

<sup>&</sup>lt;sup>8</sup> Note that CR crab fisheries are managed on a July-June seasonal calendar, 2012 calendar year fisheries include the 2011/2012 BSS season and 2012/2013 BBR season.

IFQ, to 391 thousand pounds and \$1.9 million for BBR CVO and CPC crew IFQ allocation; BSS lease volume and cost ranged from 62.9 million pounds and \$66.5 million for CVO A Class IFQ to 3.4 million pounds and \$3.9 million for crew share IFQ allocation.

Per-vessel averages (median)<sup>9</sup> for 2013 BBR quota leased volume and cost ranged from 78 thousand pounds and \$342 thousand per vessel for BBR CVO A Class allocation, to 5,000 pounds and \$23,000 for BBR CVO and CPO crew IFQ; BSS per-vessel averages ranged from 421 thousand pounds and \$490,000 per vessel for per vessel CVO- A Class allocation to 36 thousand pounds and \$40,000 for BSS crew share allocation.

Average (median) lease prices and lease rates in the BBR fishery shown in Table 3 range from \$4.85 per pound CDQ allocation (64% of ex-vessel value; see table footnote regarding calculation of lease rate) to \$5.14 per pound (64% of ex-vessel value) for BBR CVO A Class allocation. Median lease price and rate in the BSS fishery ranged from \$1.12 for CDQ allocation (49% of ex-vessel value) to \$1.06 per pound for BSS CVO A Class IFQ (46% of ex-vessel). Average value metrics are calculated over individual vessel-level observations of both quota lease price and ex-vessel value; the general consistency of results between median and mean statistics across quota types indicates the relative uniformity of quota price paid by leasing vessels and the limited effect that the small number of high-price outliers in data have on aggregate statistical results.

<sup>&</sup>lt;sup>9</sup> Differences between median and mean average values shown in Table 3 are most pronounced in the per-vessel pounds and cost statistics; this primarily reflects the relative concentration of high-volume quota leasing activity by a small number of vessels within each quota type category (particularly in the case of pooled results for CVO-B Share and CPO IFQ allocation, where the latter is leased by a small subset of vessels).

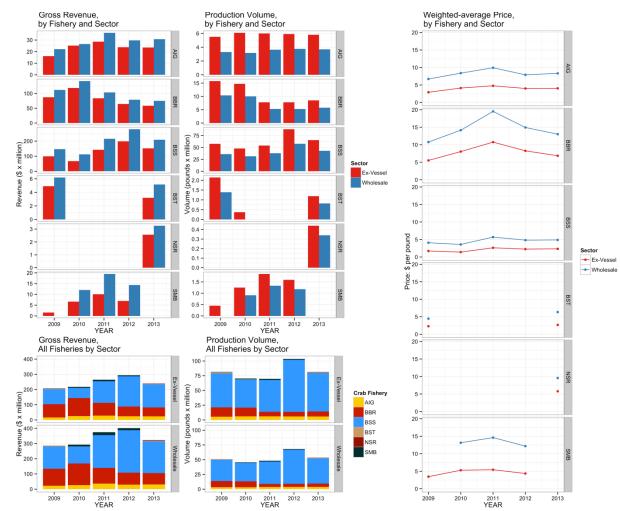


Figure 1: BSAI Crab Ex-vessel and First Wholesale Production, 2009-2013

(a) Revenue, (b) Volume, and (c) Weighted Average Price, 2009-2013; gross revenue and production volume by sector are presented in the upper pair of panels by individual crab fishery for comparison of within-fishery variation over time, and summarized over all fisheries in the lower panels to illustrate the variation in aggregate values and relative contribution of each fishery over time. Figure does not display information for PIG fishery due to confidentiality. See Table 1 footnotes for data sources and details.

			Har	vest Sector:	Ex-Vessel S	tatistics <sup>a</sup>		Processing Sector: First Wholesale Statistics b						
	Fishery:	Vessels	CFEC	Landed	<b>volume</b> million lb	Gross revenue	Average price	Plants	Buyers	Finished		Gross revenue	Average price	
	Year	v C35C15	permits	1000 mt	s	\$million	\$/lb	1 mills	Duyers	1000 mt	bs	\$million	\$/lb	
Total -	All BSAI cra	b fisherie	1				1						1	
	2009	112	242	37	81.56	208.8	2.56	22	27	23.16	51.06	287.15	6.9	
	2010	102	232	31.88	70.29	217.48	3.09	19	24	20.65	45.53	292.96	9.53	
	2011	102	235	31.61	69.68	264.69	3.80	18	27	21.85	48.17	374.86	10.39	
	2012	113	284	46.97	103.55	294.05	2.84	20	26	30.84	68	401.58	7.29	
	2013	114	233	36.95	81.45	240.1	2.95	22	28	24.27	53.5	323.3	6.97	
Aleutia	n Islands gol	den king	- Eastern	and Wester	n (AIG)									
	2009	5	13	2.5	5.51	16.11	2.92	6	9	1.5	3.3	22.12	6.71	
	2010	5	13	2.76	6.09	25.17	4.13	5	9	1.44	3.17	26.54	8.38	
	2011	5	13	2.72	6	28.55	4.76	7	14	1.65	3.64	36.2	9.93	
	2012	6	14	2.69	5.92	23.76	4.01	8	14	1.71	3.76	29.71	7.9	
	2013	6	14	2.64	5.81	23.56	4.05	7	13	1.67	3.69	30.71	8.33	
Bristol	Bay red king	g (BBR)												
	2009	70	86	7.16	15.78	87.09	5.52	13	16	4.72	10.4	111.96	10.76	
	2010	65	79	6.68	14.73	118.59	8.05	14	17	4.55	10.03	141.97	14.16	
	2011	62	71	3.53	7.79	83.71	10.75	14	18	2.41	5.3	103.6	19.53	
	2012	64	74	3.54	7.8	64.49	8.26	12	17	2.39	5.27	78.7	14.93	
	2013	63	73	3.86	8.52	58.38	6.85	11	17	2.61	5.75	74.91	13.02	
Bering	Sea snow (BS	<b>SS</b> )												
	2009	77	103	26.16	57.68	99.13	1.72	15	18	16.31	35.97	146.88	4.08	
	2010	68	87	21.7	47.84	67.1	1.4	11	13	14.25	31.41	112.42	3.58	
	2011	68	88	24.52	54.05	142.38	2.63	14	16	17.18	37.89	215.59	5.69	
	2012	72	109	40.02	88.23	198.85	2.25	13	16	26.21	57.79	278.85	4.82	
	2013	70	88	29.7	65.49	152.41	2.33	12	15	19.46	42.9	209.25	4.88	

Table 1: BSAI crab harvest and processing sector output - production volume, gross revenue, and average price, 2009-2013

Source: ADF&G fish tickets, eLandings, CFEC pricing, ADF&G Commercial Operator's Annual Report, NMFS AFSC BSAI Crab Economic Data Report (EDR) database. Data shown for all BSAI crab fisheries by calendar year. All dollar values are adjusted for inflation to 2013-equivalent value. Information suppressed for confidentiality where indicated by "--"

<sup>a</sup> Except where noted, ex-vessel results reflect total commercial sales volume and value across all management programs (LLP/open access, IFQ, CDQ, ACA), inclusive of all harvest sector production (CV, CP, and catcher-sellers); ex-vessel value of CP and catcher-seller landings incorporated in revenue total by approximation using average CV ex-vessel sale price; ex-vessel average price results are sourced from CV sector EDR data where available (2009-2013 for CR program fisheries) and secondarily from CFEC gross earnings estimates (2013 for CR fisheries; all years for non-CR fisheries).

#### Table 1: (continued)

		Harv	est Sector:	Ex-Vessel S	Statistics <sup>a</sup>			Processing	Sector: Fir	st Wholesa	le Statistics <sup>b</sup>	
			Landed	volume	Gross	Average			Finished	volume	Gross	Average
Fishery:	Vessels	CFEC		million	revenue	price	Plants	Buyers <sup>c</sup>		million 1	revenue	price
Year		permits	1000 mt	lbs	\$million	\$/lb		-	1000 mt	bs	\$million	\$/lb
<b>Bering Sea Tanner</b>	(BST) <sup>d</sup>											
2009	18	24	0.97	2.14	4.91	2.3	10	11	0.63	1.39	6.19	4.46
2010	4	5	0.17	0.37			7	7				
2011-2012						CLC	DSED					
2013	22	25	0.54	1.19	3.19	2.67	9	12	0.37	0.82	5.16	6.33
Norton Sound red	king (NSF	R) <sup>e</sup>										
2009	24	29					3	3				
2010	24	37					2	3				
2011	25	38					2	2				
2012	30	64					3	3				
2013	34	52	0.2	0.44	2.56	5.78	5	5	0.15	0.34	3.26	9.57
Pribilof Island gold	len king (	PIG)										
2008-2009						CLC	DSED					
2010	1	1					2	2				
2011	2	2					1	1				
2012	1	1					1	1				
2013	1	1					1	1				
Saint Matthew blue	e king (SN	<b>AB</b> )										
2009	7	7	0.2	0.45	1.56	3.46	2	6				
2010	11	14	0.57	1.25	6.63	5.29	5	9	0.41	0.91	12.02	13.15
2011	18	23	0.84	1.85	10.06	5.44	6	11	0.6	1.33	19.48	14.62
2012	17	22	0.72	1.59	6.96	4.36	6	11	0.53	1.18	14.32	12.18
2013						CLC	DSED					

<sup>b</sup>Counts of buyers include CPs landing and processing their own crab, but exclude catcher sellers (NSR fishery only); processing sector results inclusive of all CP and shoreside processor output; finished volume sourced from crab processor EDR production reports where available (2008-2011), or eLandings ex-vessel sales volume adjusted by average product recovery rate (PRR) by fishery (2012). Wholesale price results are sourced from crab processor EDR gross earnings reports where available (2008-2011) and secondarily from COAR gross earnings estimates (2012); gross wholesale revenue estimates are derived from price and volume sourced or estimated as described.

e Statistics reported for "All BSAI Fisheries" reflect information aggregated over all FMP crab fisheries, excluding fishery-level confidential information suppressed where indicated by "-- ".

<sup>d</sup> Landings and ex-vessel revenue suppressed in years where CDQ fishery landings are confidential.

<sup>e</sup>Data for Norton Sound red king crab are aggregated over the summer and winter commercial fisheries.

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		С	rab Crew	Employme	nt and Ear	nings			Crab P	rocessing Er	nployment an	d Earnings	
		Crew p	ositions	Crew	share	Captai	n share	Pro	cessing labor	hours	Process	ing labor pay	yment
					Vessel		Vessel			Plant		Plant	
Fishery: Year <sup>b</sup>	Obs	Total	Vessel	Total \$million	median \$1000	Total \$million	median \$1000	Obs	Total 1000 hrs <sup>d</sup>	median 1000 hrs	Total \$million	median \$1000	Median \$/hour <sup>e</sup>
			mean	ŞIIIIIIOII	\$1000	\$IIIIII0II	\$1000	Obs	1000 III's	1000 IIIS	\$IIIIII0II	\$1000	\$/nour
All CR Pr			~										
2009	89	1155		\$27.77		\$13.03		17	828.29		\$11.44		
2010	79	964		\$27.44		\$13.15		15	771.12		\$8.56		
2011	77	1014		\$35.88		\$16.64		16	724.96		\$8.68		
2012	83	1081		\$39.80		\$18.25		13	1261.9		\$14.73		
2013	78	1093		\$30.91		\$15.68		12	955.77		\$9.91		
Aleutian l	[slands	golden ki	ing - East	ern and W	estern (AI	$\mathbf{G}$ ) <sup>t,g</sup>							
2009	5	35	7	\$2.10	\$423.31	\$1.24	\$228.30	4			\$0.97	\$151.80	
2010	5	35	7	\$3.29	\$664.24	\$1.87	\$286.54	3					
2011	5	36	7.2	\$3.98	\$673.98	\$2.16	\$358.52	6	48.97	4.79	\$1.14	\$76.93	\$10.23
2012	6	46	7.67	\$3.53	\$643.88	\$1.82	\$322.58	7	53.16	2.6	\$1.13	\$60.37	\$10.38
2013	6	44	7.33	\$3.31	\$533.87	\$1.51	\$272.48	6	61.09	5.96	\$0.61	\$61.28	\$9.93
<b>Bristol Ba</b>	ay red k	ing (BBF	<b>R</b> ) <sup>g</sup>										
2009	70	443	6.33	\$10.54	\$134.83	\$4.99	\$70.76	10	198.9	16.06	\$2.49	\$143.65	\$11.67
2010	65	422	6.48	\$13.55	\$200.78	\$6.45	\$103.83	11	211.56	20.09	\$2.48	\$200.95	\$10.29
2011	62	413	6.66	\$10.69	\$155.15	\$4.96	\$84.39	12	104.38	6.71	\$1.24	\$75.19	\$10.40
2012	64	428	6.68	\$8.12	\$103.28	\$3.66	\$54.97	10	100.36	6.51	\$1.20	\$68.69	\$10.99
2013	63	418	6.63	\$6.89	\$92.83	\$3.24	\$50.83	8	103.96	10	\$1.18	\$93.25	\$9.98
Bering Se	a snow	(BSS) <sup>g</sup>											
2009	77	536	6.96	\$14.36	\$163.96	\$6.36	\$81.10	10	600.07	58.41	\$7.66	\$351.05	\$11.76
2010	68	444	6.53	\$9.65	\$127.75	\$4.33	\$61.12	9	534.17	50.9	\$5.83	\$385.54	\$10.49
2011	68	453	6.66	\$19.94	\$281.31	\$8.93	\$130.54	12	554.86	45.69	\$6.15	\$356.62	\$10.56
2012	72	502	6.97	\$27.29	\$378.30	\$12.38	\$177.62	11	1087.26	77.94	\$12.16	\$620.40	\$10.55
2013	70	476	6.79	\$20.30	\$280.68	\$10.73	\$140.77	10	774.12	63.55	\$7.96	\$479.78	\$10.00

Table 2: CR program fisheries crew and processing sector employment and earnings, 2009-2013

#### Table 2: (continued)

		С	ab Crew	Employme	nt and Ea	rnings			Crab P	rocessing Er	nployment an	d Earnings	
		Crew p	ositions <sup>a</sup>	tions <sup>a</sup> Crew share payment <sup>b</sup>		Captain share payment <sup>b</sup>		Pro	cessing labor	hours <sup>c</sup>	Process	ment	
Fishery: Year <sup>b</sup>	Obs	Total	Vessel mean	Total \$million	Vessel median \$1000	Total \$million	Vessel median \$1000	Obs	Total 1000 hrs <sup>d</sup>	Plant median 1000 hrs	Total \$million	Plant median \$1000	Median \$/hour <sup>d</sup>
Bering Se	a Tann	er (BST)											
2009	14	102	7.29	\$0.60	\$31.03	\$0.37	\$17.49	7	29.32	4.27	\$0.32	\$37.45	\$11.25
2010	4							5	6.43	0.7	\$0.07	\$7.30	\$10.50
2013	22	156	7.09	\$0.41	\$14.44	\$0.19	\$7.43	6	16.58	1.86	\$0.16	\$15.52	\$9.59
Saint Mat	thew b	lue king (	SMB)										
2009	7	39	5.57	\$0.17	\$19.81	\$0.07	\$8.54	2					
2010	11	63	5.73	\$0.94	\$74.22	\$0.49	\$44.37	5	18.96	0.4	\$0.18	\$4.17	\$10.24
2011	17	112	6.56	\$1.27	\$59.30	\$0.59	\$32.13	6	16.75	0.84	\$0.15	\$8.04	\$9.42
2012	17	106	6.24	\$0.86	\$44.59	\$0.39	\$22.72	6	21.12	0.76	\$0.25	\$7.41	\$9.91

Source: NMFS AFSC BSAI Crab Economic Data. Crew positions from eLandings. Data shown for all BSAI crab fisheries by calendar year. All dollar values are adjusted for inflation to 2013-equivalent value. Information suppressed for confidentiality where indicated by "--".

<sup>a</sup> For catcher processors, EDR reporting may be used to adjust eLandings crew size reporting in order to estimate the number of fishing crew and processing positions.

<sup>b</sup> Crew and captain payments reflect amounts paid for labor during the crab fishery and include all post-season adjustments, bonuses, and deductions for shared expenses such as fuel, bait, and food and provisions; payments for IFQ royalties, labor outside of crab fishery, health/retirement or other benefits are excluded.

<sup>c</sup> Processing labor hours for catcher processors are estimated by multiplying processing positions, number of days processing, and an assumed shift length of 12 hours per day. <sup>d</sup> For all years, pay per hour statistics reflect only the shoreside and floating processing sectors.

<sup>e</sup> Statistics reported for "All CR Program Fisheries" reflect information aggregated over all rationalized crab fisheries, excluding fishery-level confidential information suppressed where indicated by "--- ". Values that are discontinuous with the rest of the series for a given variable due to data suppression are italicized. Average values are reported at the fishery level, but not over all crab fisheries.

<sup>f</sup> Due to confidentiality restrictions, Aleutian Islands Eastern and Western golden king crab fisheries are reported in aggregate. Where an entity reported labor information for both the Eastern and Western fisheries, counts of crew positions are averaged over both fisheries under the assumption that the same individuals are employed in both fisheries. <sup>g</sup> Sector-level results for 2009 and later reflect combined catcher processor data and catcher vessel/shoreside processor data.

			Poun	ds Leased ( pounds)	1000	C	ost (\$1000)		Average Lease Price (\$/pound) <sup>c</sup>		Average Lease Rate (% of ex-vessel value) <sup>d</sup>		
					Average pe	er vessel	Total -	Average pe	er vessel				
Fishery	Year	Quota type <sup>a</sup>	Vessels <sup>b</sup>	Total	Median	Mean	(\$1000)	Median	Mean	Median	Mean	Median	Mean
	2012	CVO A	50	7,238	65	72	\$35,618	\$305	\$356	\$5.16	\$5.30	64%	67%
		CVO B +CPO	42	1,078	8	12	\$5,825	\$42	\$65	\$5.33	\$5.71	65%	70%
		CVC + CPC	36	343	4	5	\$1,794	\$21	\$24	\$5.21	\$5.25	64%	65%
BBR		CDQ	5	737	71	74	\$4,361	\$433	\$436	\$5.40	\$5.93	64%	72%
DDK	2013	CVO A	49	8,128	78	83	\$37,056	\$342	\$378	\$4.46	\$4.60	64%	67%
		CVO B +CPO	43	1,424	10	15	\$6,689	\$46	\$71	\$4.73	\$4.63	63%	61%
		CVC + CPC	36	391	5	5	\$1,889	\$23	\$24	\$4.77	\$4.90	64%	65%
		CDQ	6	808	66	67	\$3,874	\$312	\$323	\$4.85	\$4.80	63%	63%
	2012	CVO A	55	85,592	640	778	\$85,084	\$656	\$773	\$1.00	\$1.00	46%	46%
		CVO B +CPO	47	13,979	84	132	\$15,609	\$100	\$147	\$1.09	\$1.15	46%	50%
		CVC + CPC	39	3,760	48	46	\$4,010	\$50	\$50	\$1.09	\$1.11	46%	47%
BSS		CDQ	11	12,927	563	588	\$14,572	\$662	\$662	\$1.12	\$1.13	48%	49%
D22	2013	CVO A	53	62,901	421	593	\$66,513	\$490	\$627	\$1.06	\$1.06	46%	46%
		CVO B +CPO	46	13,386	77	129	\$17,008	\$92	\$164	\$1.14	\$1.36	47%	55%
		CVC + CPC	38	3,361	36	42	\$3,932	\$40	\$49	\$1.13	\$1.22	46%	50%
		CDQ	8	9,263	563	579	\$11,262	\$683	\$704	\$1.21	\$1.21	49%	51%

Table 3: Crab Harvest Quota Leasing - Volume, Cost, and Lease Prices and Rates, 2012 Calendar Year Fisheries (PRELIMINARY RESULTS, BBR and BSS fisheries only)

Source: NMFS AFSC BSAI Crab Economic Data (preliminary findings subject to revision following completion of data validation).

<sup>a</sup> Harvest quota types are categorized in this report as the following: CVO A – catcher vessel owner Class A IFQ; CVO B + CPO - catcher vessel owner Class B IFQ and catcher/processor owner IFQ; CVC + CPC – catcher vessel crew IFQ and catcher/processor crew IFQ. Statistics reported represent results pooled over all quota types and/or regional designations within each category.

<sup>b</sup> Vessels column shows total count of vessel-level observations for fishery-year where both pounds and cost of quota leased were reported as non-zero values; in a small number of observations where leased pounds was reported for a given fishery/quota type but lease cost was missing, the mean price over all complete observations was used to impute the missing data in computing the total aggregate lease cost over all vessels.

<sup>c</sup> Average lease price statistics by fishery and quota type are calculated as the median and arithmetic mean, respectively, over all observations where both pounds and cost for one or more quota type within the respective category were reported as non-zero values.

<sup>d</sup> Average lease rate statistics by fishery and quota type are calculated as the median and mean, respectively, of the ratio of lease price to ex-vessel price, over all EDR observations where both ex-vessel and lease pounds, and ex-vessel revenue and lease cost, were reported as non-zero values; both ex-vessel and quota-lease price estimates used in calculations are stratified by fishery and quota type, such that lease rate is calculated relative to ex-vessel value of catch landed on the respective quota type, not the average price by fishery over all landings as reported in Table 1.