BSAI Crab EDR Database: Data Quality Summary
AFSC/Economics and Social Science Research Program
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Introduction

The following document summarizes the validation and data quality assessment process and findings to date for the BSAI Crab Economic Data Report (EDR) database. Beginning with implementation of the EDR data collection in 2005, protocols for ongoing validation of EDR data and identification and control for potential sources of error have been developed and maintained by Pacific States Marine Fisheries Commission (PSMFC) and Alaska Fisheries Science Center (AFSC) as part of the administrative process of data collection, administration, and documentation. These protocols have been developed and implemented in collaboration with the North Pacific Fishery Management Commission (NPFMC, Council) for the purpose of compliance with the federal Data Quality Act and NOAA Information Quality Guidelines (NOAA 2006), and NMFS regulations pertaining to the EDR program specified in 50 CFR 680.6.

In coordination with the Council, extensive review and interpretation of data quality information derived from submitter feedback and validation audit results described in EDR metadata (AFSC 2011) has been carried out with the assistance of members of the crab industry, through the Pacific Northwest Crab Industry Advisory Committee (PNCIAC). This review process has introduced additional data quality findings and recommended protocols for use of EDR data, and these findings have been incorporated into the database documentation.

As the data collection is a mandatory reporting requirement for active harvesting and processing participants in the BSAI crab fisheries, comprising a full census of the target population and using survey questionnaires to elicit self-reported data, errors in EDR data are the result of a variety of nonsampling survey error sources, including nonresponse, coverage, measurement, and processing error (Biemer 2010; FCSM 2001). Section 1 below provides an overview of these and other nonsampling error sources in survey data; the classification of error sources in EDR data provides a framework for describing and differentiating the potential and observed errors identified in the data quality assessment process, and is useful for understanding the implications of distinct types of error, both for analytical use of EDR data and for corrective measures to improve the data collection process.

Section 2 provides an overview of data quality assessment protocols employed to date. Protocols and methods employed in quantitative third-party audit validation of EDR records and qualitative industry/submitter feedback methods are presented, as well as a description and timeline of the NPFMC's process for formal review of database documentation (metadata) of assessment methods and finding and determination of data use restrictions using a tier-based classification of data quality limitations. Section 3 provides a description of methods developed for audit validation of EDR data records and statistical analysis of validation findings, as well as and results for analysis of audit results. A visual summary of audit results is provided in Appendix A, and a comprehensive description of the database structure and listing of statistical and qualitative data quality

information accumulated through the process described in Section 2 is provided in the Appendix B.

A tabular presentation of data quality findings, including some additional statistical information, is provided in the BSAI Crab EDR Database metadata workbook .

Thorough review of this document should be considered a prerequisite to any authorized user of the EDR database before beginning analysis using these data. Data quality information produced through the array of evaluation and validation procedures is incorporated into the metadata on an ongoing basis as additional annual data collections are completed, further understanding of data quality limitations and appropriate interpretation is gained, and improvements in the data collection methods are implemented. This summary is presented as an overview of validation processes implemented to date, key findings of the different analyses (general findings as well as with regard to specific data variables or components of the database), and recommended protocols for use of the data in analytical studies.

1 Data quality and nonsampling error in fisheries economic data

The data quality assessment process for EDR data has focused principally on describing potential sources of error that limit the accuracy and precision of the measured values, and through the audit process, providing quantitative measures of error. The Total Survey Error framework is a widely cited (Biemer 2010; Federal Committee on Statistical Methodology (FCSM) 2001) system for classification of error sources in survey data, and is used as an interpretive framework for understanding the information gathered in the data quality assessment process described below. A common theme in the literature associated with data quality assessment, however, is the recognition that there are multiple attributes or dimensions of data quality, including qualitative or subjective dimensions, as well as objective, measureable attributes (Wang and Strong 1996). Biemer (2010) provides a useful typology of data quality dimensions associated with survey data:

Data Quality Dimensions and Objectives in Survey Data

Accuracy	Total survey error is minimized
Credibility	Data are considered trustworthy by the survey community
Comparability	Demographic, spatial, and temporal comparisons are valid
Usability/Interpretability	Documentation is clear and metadata are well-managed
Relevance	Data satisfy users needs
Accessibility	Access to the data is user friendly
Timeliness/Punctuality	Data deliveries adhere to schedules
Completeness	Data are rich enough to satisfy the analysis objectives without undue burden on respondents
Coherence	Estimates from different sources can be reliably combined

From (Biemer 2010)

Accuracy is routinely identified as a primary attribute of data quality in both technical and non-technical discussions, and has been the principal focus of the EDR data quality

assessments described below. In design and implementation of a survey, maximizing accuracy must be balanced against objectives in other dimensions (e.g., completeness, timeliness) as well as administrative cost and submitter burden. NOAA Information Quality Guidelines define a general standard of accuracy that recognizes that uncertainty is inherent in scientific data and any standard of review for accuracy of data or information must recognize its nature and intended use:

> "Because NOAA deals largely in scientific information, that information reflects the inherent uncertainty of the scientific process. The concept of statistical variation is inseparable from every phase of the scientific process, from instrumentation to final analysis. Therefore, in assessing information for accuracy, the information is considered accurate if it is within an acceptable degree of imprecision or error appropriate to the particular kind of information at issue and otherwise meets commonly accepted scientific, financial, and statistical standards, as applicable" (NOAA National Oceanic and Atmospheric Administration (NOAA) 2006).

Recordkeeping and monitoring requirements that apply to individuals and firms in Alaska fisheries employ a variety of survey modes, from direct observation and interviews by trained onboard observers and dockside personnel, to self-completed survey questionnaires administered by mail or the Internet. Survey modes and data quality protocols applied in different data collections are calibrated to their intended uses. Administrative data collections that monitor critical factors for in-season management, including the eLandings catch and production accounting system, are subject to a high standard of accuracy and precision, as well as timeliness, because they are the basis on which regulatory compliance is assessed by NMFS administrative personnel with regard to individual license holders. The administrative and enforcement process of fishery management, particularly in the in-season context, does not allow for statistical analysis of license holder's reported data in order to assess regulatory compliance. To ensure uniform and timely administration and enforcement, such data collection requires detailed regulations to set forth specifications for monitoring instrumentation and data record keeping systems required of license holders.

In contrast, data on costs, earnings, and other factors discussed further below are principally intended as analytical databases to draw conclusions regarding the effects of management decisions on various sectors of the fishery and associated groups of stakeholders. The metrics that is intended to be calculated from these data, either by complete enumeration or by methods of estimation, represent statistical indices of economic performance that is by nature somewhat imprecise. Analytical objectives that drove the development of the EDR program, such as measurement of the magnitude and relative distribution of income, changes in quasi-rents among the sectors or subgroups within sectors, technical efficiency of harvesting or processing sectors of the fishery as a whole, and changes in total employment, are intended to add to a more comprehensive, data-driven analysis to inform the deliberations of the Council and National Marine Fisheries Service (NMFS) managers in the evaluation of measures specified in a fisheries management plan. Scientific standards for comparative analysis of management alternatives on the basis of observed trends or forecasted changes in these and other economic and socioeconomic indices requires transparent description of uncertainty and the relative scale of meaningful difference in comparison of statistical values associated with alternatives. As with all statistical information employed in management plan evaluation, uncertainty and degree of meaningful difference of statistical values is

associated with both the variability or volatility of the phenomena measured by the indices themselves (e.g., prices and earnings) as well as from sampling and measurement error in the data. The data quality information reported below and in EDR metadata is intended to support the latter, but it is the responsibility of analysts to address the full range of uncertainty in analyzing economic effects of fishery management in providing information to managers and the public.

Nonsampling error sources in survey data include the following:

Specification error: error that occurs at the planning stage of a survey because data specification is inadequate and/or inconsistent with respect to the objectives of the survey. Specification error can result simply from poorly worded questionnaires and survey instructions, such that subjects interpret the survey question as eliciting a qualitatively different value than the intended object of measurement. Alternately, specification error may reflect the difficulty of measuring an abstract concept or counterfactual, such that the intended object of measurement may be unobservable to the subject. In both cases, it may not be possible to define a statistical relationship between the intended object of measurement and the data reported by survey subjects. In an economic survey, it is often

of a input or output in a complex production process, and the survey subject's ability to report this measure as specified in the questionnaire design (FCSM 1988).

Nonresponse error: error of nonobservation reflecting an unsuccessful attempt to obtain the desired information from a subject. Nonresponse can be at the level of the survey subject (unit nonresponse) or a subject's nonresponse to an individual question (item nonresponse). In census data collections such as the EDR, unit nonresponse is generally identifiable and may be controlled through enforcement. Item nonresponse is more difficult to detect as it may be difficult to determine if is the measurement object applies to the subject, but has the effect of increasing variance and potentially introducing bias in the survey estimates.

Coverage error is the error associated with the failure to include some population units in the frame used for sample selection or census population identification (undercoverage) or the failure to identify units represented on the frame more than once (overcoverage).

Measurement error: the difference between the observed or reported value of a variable and the true, but unobserved, value of that variable. Measurement error comes from four primary sources in survey data collection: the questionnaire; the data collection method, as the way in which the request for information is made; the interviewer, as the deliverer of the questions; and the respondent, as the recipient of the request for information. Each of these sources can introduce error into the measurement process. Respondent effects include misunderstanding the meaning of the question, failing to recall the information accurately or maintain accurate records, and failing to construct the response correctly (e.g., by summing the components of an amount incorrectly). Measurement errors are difficult to quantify, and require some method of acquiring additional quantitative information on which to base an assessment of the data collected in the primary survey.

Processing error: errors occurring after the survey data are reported, during the processes that convert reported data into an electronic database and convey individual or aggregated observations to data users. Each processing step, from data collection to the publication of

the final survey results, can generate errors in the data or in the published statistics. These errors range from transcribing or transmission error, to more complex errors arising from poorly specified editing procedures, database corruption, or aggregation and estimation methods in disseminated results.

2 Data Quality Assessment Protocols and Metadata Development

With the initial implementation of the EDR data collection in 2005, both NMFS and the Council have embarked on a comprehensive and, within fisheries, largely novel program to expand the scope and quality of economic information available to evaluate the effects of fishery management decisions. The survey design process was conducted largely in the context of NPFMC development of the crab rationalization program as a whole. The scope and objectives of the data collection program were developed by iteration through a series of meetings of the crab industry data collection committee chartered by the Council spanning July 2002 to January 2003, with analytical support from AFSC and Council staff economists (NMFS 2004). This process was successful in identifying a comprehensive catalog of economic variables in three different industry sectors, alternative reporting requirements to address analytical questions prioritized by the Council, and development of a highly structured data collection which formed the basis for the current EDR program data collection forms. Due to the complexity and diversity of the industry and the comprehensive nature of the analytical objectives, the program as originally designed has produced data with substantial variation in accuracy as well as other dimensions of data quality described above. Particularly with respect to design of EDRs for use after rationalization, the full implications of the institutional changes in the structure of the crab fishery for data reporting could not be fully anticipated when specifications of the program were finalized in 2004. This unavoidably limited the design and testing of EDR forms to minimize survey error. In effect, realistic pretesting of the survey instruments in the context of the broad range of business information conditions in the industry was not achieved until the reporting requirement was made mandatory, with specific details regarding structure and content of questionnaire design written in regulation (50 CFR 680.6).

Beginning with initial implementation of the EDR collection in 2005, protocols for data quality control and assessment have been developed though collaboration between AFSC and PSMFC and implemented as part of PSMFC's administrative process for the EDR program. These protocols have continued to evolve in response to Council and industry feedback, and as new information and experience has developed. Beginning in 2006, the Council initiated a process for review of the EDR program, including data quality and data use protocols. An overview of the timeline, methods, and findings of these efforts is provided below.

EDR Program Data Quality Assessment - Timeline

May, 2005	EDR data collection implemented as part of the BSAI crab rationalization program under CFR 680.6, with Pacific States Marine Fisheries Commission designated as the official Data Collection Agent charged with administration of the data collection and database custody. EDR forms are described in detail in CFR 680.6, based on design process in collaboration between AFSC and crab industry under Council oversight.
July, 2005	Deadline for mandatory EDR submission for pre-rationalization reference years 1998, 2001, and 2004. PSMFC distributes follow-up questionnaire to solicit submitter feedback.
May 2006	Deadline for first Annual EDR submission, with mandatory submission of completed EDR forms reporting data for the previous calendar year crab operations; EDR forms revised to incorporate limited modifications to address survey design errors identified by submitter feedback.
October, 2006	Selected EDR submitters notified with directions for submission of audit materials, following AFSC/PSMFC development of procedures for audit validation as required by CFR 680.6; selection of CPA firm AKT, LLP contracted by PSMFC as the third party EDR auditor.
November, 2006	Informal discussions between AFSC and Council staff and industry representatives following the 2006 EDR submission and initiation of audit proceedings, identifying an array of data quality and confidentiality concerns.
December, 2006	NPFMC requests development of draft protocols for use of EDR data to address data quality and confidentiality concerns for Council and industry review[a].
April, 2007	NPFMC receives discussion paper on development of data quality and confidentiality protocols[b] and approves process proposed.[c]
June, 2007	Submission of EDR reports for CY 2006; deadline revised from May 1 to June 28 to accommodate tax reporting schedule and finalization of ex-vessel and crew settlement contracts; online EDR form is implemented for catcher vessel sector EDR with automated validation checks; additional EDR revisions to address survey design errors identified by submitter feedback. [Note: as of December 2011, EDR forms and administrative process has remained largely constant since 2007.
July/August, 2007	Formal public meetings in Kodiak and Seattle to solicit further crab industry feedback regarding potential reporting errors and survey design flaws were held in July and August.
February, 2008	Draft data quality protocols and results of validation and data quality evaluation results produced to date presented to NPFMC; Council initiates process for industry review of data use and confidentiality protocols through Pacific Northwest Crab Industry Advisory Committee (PNCIAC)[d].
March, 2008	PSMFC's Alaska Fishery Information Network division completes initial transfer of the EDR database from MS Access to a more robust relational database platform.
April-May, 2008	Database documentation in the form of detailed tabular metadata released by AFSC, including all data quality information and findings to-date; Council establishes a process for formal review of EDR metadata and suspends use of EDR data pending completion of review;[e] PNCIAC EDR subcommittee meetings to review metadata document; formal public review initiated.
June, 2008	Formal review period closes; PNCIAC subcommittee provides detailed comments on metadata and data quality findings
September, 2008	AFSC issues replies to comments; subcommittee meeting
October, 2008	Two-day PNCIAC subcommittee workshop; Three-tier (A/B/C) data quality classification applied to EDR data.
December, 2008	Data quality findings and data use and confidentiality protocol recommendations finalized by PNCIAC subcommittee; Council votes to endorse protocols and tasks staff to initiate process to revise EDR forms to improve data quality and reduce burden.[f]
January-February,	AFSC releases proposals for revisions to EDRs; subcommittee meetings to review

2009	data use protocols and best practices guidance to EDR submitters for recordkeeping.
June-July, 2009	EDR auditor releases "best-practices" recommendations for audit compliance; AFSC releases revised draft EDR forms; July PNCIAC subcommittee meeting rejects proposed EDR revisions, initiates Sector workgroups to complete industry review of accuracy and burden by EDR variable.
September-October, 2009	PNCIAC Subcommittee Sector workgroups complete industry review of accuracy and burden by EDR variable; PNCIAC report to Council on conclusion of metadata/data quality review process; Council motion[g] to initiate analysis of alternatives for revising data collection objectives, tasking development of staff discussion paper.
February, 2010	Council receives staff discussion paper[h] on economic data collection and initiates review of crab and Amendment 80 EDR programs; requests staff discussion paper assessing crab EDR purpose and need and evaluation of informative value, accuracy, and collection cost by variable; suspends further development of economic data collection pending completion of review [i].
June-July, 2010	PSMFC/AKFIN develop and implement database audit test plan to validate database integrity.
September-October, 2010	AFSC releases draft Crab SAFE, Economic Status Report; requests industry review of information content compiled from EDR data about economic status of the fishery. Council receives staff discussion paper on crab EDR program[j] and initiates development of alternatives for EDR revision.[k]
April, 2011	Council receives staff discussion paper on crab EDR revision[l] and advances alternatives for initial review[m].

[a] (NPFMC 2006)
[b] (NPFMC 2007a)
[c] (NPFMC 2007b)
[d] (NPFMC 2008a)
[e] (NPFMC 2008b)
[f] (NPFMC 2008c)
[g] (NPFMC 2009)
[h] (NPFMC 2010b)
[i] (NPFMC 2010c)
[j] (NPFMC 2010a)
[k] (NPFMC 2010d)
[l] (NPFMC 2011a)
[m] (NPFMC 2011b)

2.1 Submitter Feedback

PSMFC EDR program staff has maintained detailed logs of submitter contacts in the course of the annual administrative process of the data collection, with information summarized in annual reports to AFSC. Logs include submitter calls to request clarification of EDR questions and reporting requirements as well as administrative calls to submitters regarding incomplete reports or apparent errors in submitted reports. Following the historical EDR data collection in 2005 (in which EDRs were submitted for the 1998, 2001, and 2004 calendar year data), PSMFC distributed a follow-up questionnaire to all EDR submitters to solicit feedback regarding the clarity of questions and form instructions, availability of requested information in existing records maintained by the submitter and the potential for improved recordkeeping, and general suggestion for improvements (PSMFC 2007).

The results of the feedback survey and the submitter contact logs generated in 2005 and 2006 (the first post-rationalization EDR submission) identified difficulties associated with question interpretation, missing financial and operating records, and excessive reporting burden. Feedback was provided on a voluntary basis, and this information principally identifies potential sources for reporting error, without providing a statistical basis for estimating a quantitative effect on the accuracy of reported data. The information compiled from the PSMFC feedback survey and submitter comment logs, as well as informal meetings between AFSC and Council staff and industry members in November 2006, was incorporated into draft database documentation, which formed the basis for the formal review of EDR data quality by the Council and PNCIAC, beginning in April 2008.

Based on information provided through submitter feedback, limited modifications to EDR forms were incorporated by AFSC staff in the 2005 and 2006 Annual EDR forms to clarify instructions and adjust reporting format where possible. These changes were made in consultation with AKR and Council staff to identify appropriate changes and reviewed by NOAA General Council to ensure consistency with EDR regulations. In some cases, these changes introduce discontinuities in the time series, which complicates the structure of the database and requires data users to make appropriate adjustments (these changes are identified in the metadata as year-version changes). In most instances, changes in the EDR form added additional instructions to clarify the intended object to be reported and reduce reporting error, and did not substantively alter the content of the question. With questions eliciting counts of vessel operating days, however, a significant discontinuity resulted from the modification. No further modifications were made after the 2006 EDR form pending development of the Council process for review of data quality limitations and regulatory review for regulatory amendment.

2.2 Data Validation Audit

The requirement for validation of EDR data submissions by means of third-party audits of submitter records is specified in EDR regulations. The protocols for implementing the validation audit have been developed in collaboration with PSMFC and the accounting firm Aldrich, Kilbride, and Tattone, LLC (AKT) of Portland, OR, following guidance for record-check validation studies described by the Federal Committee on Statistical Committee (OMB2001). The principal objective of the audit process is to quantify error in EDR variables, and identify the nature and source of particular errors to the extent possible. As

such, these procedures have been developed with the intent of maximizing the amount of statistical information useful for analysis, characterizing the accuracy and precision of the data as it is collected, and identifying error sources that may be subject to correction with appropriate analytical treatments. Ultimately, it is hoped, these results will be useful in minimizing the effect of error sources by informing efforts to redesign the data collection process.

Audit reviews have been conducted following completion of the data collection in each year since implementation of the EDR program. The methods and findings of these audits are described in annual reports issued by AKT to PSMFC (AKT LLP 2010) and available online at http://www.psmfc.org/alaska_crab/. A statistical summary and analysis of audit results is presented in Section 3 below.

The audit validation protocol includes the following procedures:

1) Annual selection of EDR variables for validation: Variables that are important for construction of prorata indices necessary for data analysis are audited on an annual basis; the remaining variables in the database are selected on a rotating and irregular basis. Selection is a collaborative process between PSMFC, NMFS, and AKT.

2) Random audit sample selection: The sample size is determined annually using a statistical model with a 95% confidence level and 15% precision level, noting that statistical inference from audit results is limited by the realized sample size for individual variables, which may be smaller. Model specification is provided in (AKT LLP, 2010). Random selection of EDRs from the population of EDR records is performed by PSMFC and AKT.

3) Outlier review and selection for audit: AFSC performs analysis to identify EDR records that exhibit a high degree of statistical deviation from the population mean across a set of EDR variables. By sector, mean and standard deviation are calculated for each variable. Variables that are likely to be sensitive to scale are normalized by the relevant scaling factor (e.g., days fishing, pounds of crab landed) and summary statistics are calculated for the normalized value. The normalized deviation for observation x_i is calculated as $dev(x_i) = |x_i - \bar{x}| / sd(x)$. An index value is calculated for each EDR record by summing over the individual $dev(x_i)$ scores; index values are plotted and scanned for outliers. No outlier audit selections have been identified since the audit of 2008 EDR data.

4) Determination of for-cause audits: Vessels selected for for-cause audits are those that did not comply with an audit request in the previous year. No for-cause audits have been required since 2006.

5) Transfer EDR data for audit review to AKT: EDR data pertaining to the variables selected for auditing are transferred to AKT from PSMFC.

6) Notice of audit and solicitation supporting records for audit review: Selected vessels and processors are informed of audit selection by AKT, and supporting records for specified variables are requested. Appropriate forms of documentation are identified (e.g., previously audited or reviewed financial statements, invoices,

receipts, log books, employment records or payroll journals), and submitters are directed to provide calculations and source documents for estimated values. Item nonresponse observations are identified and submitters are directed to correct the nonresponse and provide documentation. Additional contact efforts are made as needed to ensure that each selected vessel and processor has an opportunity to respond in a timely manner and error detection and correction is maximized to the extent possible.

7) Validation and correction based on supporting documentation: Auditor review of the supporting documentation submitted against the original EDR data submission for each vessel and variable selected follows U.S. Generally Accepted Accounting Principles (GAAP). This allows for some variation in recordkeeping and estimation methods, but applies a consistent standard for validity. Detailed notes related to the basis of information and quality of information are maintained in order to evaluate the validity of selected data. If clarifications on a discrepancy or additional supporting documents are needed, the vessel or processor is contacted as needed. Where indicated by supporting documentation and consultation with submitter, a corrected value is identified by the auditor, confirmed with the submitter, and reported in results to PSMFC.

8) Support classification: Supporting documentation and estimation methods are evaluated and coded to distinguish different types of measurement or response errors. The coding scheme has evolved through iteration, with 1998-2005 data classified as supported/unsupported/not available, and a more detailed classification scheme in use since 2007 (Table 1). The classifications are intended to better identify the nature of the measurement error, if any, and provide some indication of the effect of survey design error (Biemer 2010).

9) Audit results are incorporated into the EDR database, and individual observations are updated to reflect corrections identified by auditors. Observation-level changes are logged in the database as part of the administrative record.

Table 1: Audit Validation Codes

Validation Code	Original Supported	Audit Supported	Nature of measurement error	Effect type	Correction
1	Yes	Yes (same)	No error; reported value is clearly substantiated by compete records	None	No
2	Yes	Yes (same)	Calculation error	Respondent	Yes
3	Yes	Yes (same)	Misinterpretation of question	Questionnaire - wording	Yes
4	No	No	Unsupported: Reported value is "best guess", not derived from records; no valid value is available	Questionnaire - Specification + Respondent	No
5	Yes	Yes (same)	Data cannot be reported precisely as specified in EDR form and must be estimated; estimate is based on original documentation and sound assumptions/logic and is considered validated	Questionnaire - Specification	No
6	Yes	Yes (same)	Estimate is based on original documentation but flawed assumptions/logic	Questionnaire - Specification + Respondent	Yes
7	Yes	Yes (updated)	Original value was reported correctly based on original documentation, but corrected based on updated documentation	Questionnaire - Specification	Yes
8	No	Yes (new)	Original value is unsubstantiated; correction based on new documentation	Questionnaire - Respondent error	Yes
9	No	No	No data reported - item not applicable or item cannot be validated	None	No

Audit methods employ US GAAP standards to assess validity (U.S. Federal Accounting Standards Advisory Board 2009). Where third party documentation in the form of invoices, financial statements, payroll records or other standard accounting records are unavailable, less formal evidence may be assessed to be sufficient if it is consistent with other documentation and can be justified to the auditor. Auditors have reported that internal monitoring, accounting, and documentation methods employed by EDR submitters vary widely in the industry. This has presented a challenge to both collecting and assessing the accuracy of the data, and has required that audit personnel exercise some judgment regarding the completeness and sufficiency of evidence supplied to support a reported value. Until the audit of 2008 EDR data, no feedback was provided to submitters regarding auditor findings. Minimal enforcement action has been taken against submitters who were unable to provide sufficient documentation to support the accuracy and completeness of submitted EDRs, except in rare cases of gross noncompliance. Beginning in 2009, EDR submitters receive an audit report from AKT identifying any errors or findings of unsupported values. Enforcement action continues to be taken only in cases of gross noncompliance.

2.3 PNCIAC Data Quality Review

Objectives and methods for the public review of EDR data quality documentation requested by the Council were developed over the course of several formal public meetings of the Council's Pacific Northwest Crab Industry Advisory Committee with AFSC and Council staff between April, 2008 and September, 2009. Minutes of these meetings are part of the Council public record, and a brief overview of the review process is provided here.

Initial objectives set forward by the Council in early 2008 (NPFMC 2008a) were to conduct a public review of data quality as described in the database documentation developed by AFSC. Over the course of several meetings, culminating in a two-day workshop in October, 2008, PNCIAC's EDR subcommittee met with AFSC and Council staff to review the metadata documentation, EDR forms, audit results, submitter feedback, and other aspects of the EDR program. Descriptions of potential error sources in the data identified by the subcommittee and guidance for corrective treatment were incorporated into the metadata by AFSC staff. Due to the confidentiality of EDR data, the subcommittee did not have access to disaggregate data for use in evaluating data quality. As directed by the Council, the review did not make use of aggregate or summary statistics computed from EDR data other than audit results, and focused principally on database documentation.

At the October workshop, the PNCIAC subcommittee implemented a three-tier (A/B/C) data quality ranking, categorized each variable in the database according to tier (with separate rankings for different periods in the time series in most cases), and developed recommendations for appropriate use of data by tier:

> **Category A:** These data elements have been determined to exhibit minimal known data quality limitations. Users of these data are advised to carefully review the metadata to understand the structure of these data before performing analysis; however, these data as reported in the EDR database are consistent with the variable descriptions included in the EDR forms and detailed in the metadata.
>
> **Category B:** These data elements are characterized by significant data quality limitations and require careful understanding of the data quality documentation in order to ensure their appropriate use and interpretation. These elements are reliable for use in economic analysis of the crab fisheries, provided adjustments to analytical methods or interpretation are undertaken to overcome the noted data quality concerns. Where possible, the metadata specifies the nature of the adjustment that can or should be utilized.
>
> **Category C:** These data elements are not reliable for analysis of the economic performance of the crab fisheries. A substantial portion of the data collected is known to contain significant error, which cannot be identified or estimated.

In addition to the ranking system, general findings applying to components of the database were identified and incorporated into the database documentation (see Appendix B below for details). The findings of the PNCIAC review, including general data quality limitations associated with components of the database, data quality rankings for individual variables, and recommended data use protocols were presented by AFSC staff to the Council at the December, 2008 meeting. The Council recommended staff proceed with use of EDR data

consistent with recommendations of the PNCIAC review and requested AFSC and PNCIAC continue efforts to revise EDR forms to address data quality limitations (NPFMC 2008a).

In July, 2009, the PNCIAC EDR subcommittee held a public meeting to review AFSC proposed draft revisions to EDR forms, and determined the need for a more detailed review of the accuracy and reporting burden associated with individual EDR variables. Sector-level workgroups were formed and tasked with development of accuracy and burden scores. Workgroups were composed of industry personnel responsible for completion and submission of EDR forms, each of whom had detailed familiarity with the accounting and operational record systems used to report EDR data. Each workgroup member independently assessed the EDR variables along two dimensions: the degree of accuracy with which they felt they could report the data based on available records, and the amount of time required to extract the information from records and derive values for reporting as required in the EDR form. Criteria for these scores were the following:

Accuracy score	
1	good data accuracy at the requested level of detail
2	average data accuracy at requested level of detail
3	poor data accuracy at requested level of detail

Burden score	
1	easy to report at requested level of detail
2	average difficulty/ease to report at requested level of detail
3	difficult to report at requested level of detail

For each dimension, the workgroup members applied a discrete score of 1 – 3. The results of the individual assessments were pooled and compiled into a report, including supporting comments. Workgroup reports were presented at the September, 2009 PNCIAC meeting, and the findings presented to the Council the same month, concluding the PNCIAC data quality review. The averaged scores by sector were incorporated into database documentation, and are summarized below in Appendix A.

2.4 PSMFC/AKFIN Database Administration

Elements of the EDR program associated with database integrity and security are the responsibility of Pacific States Marine Fisheries Commission, Alaska Fisheries Information Network (PSMFC/AKFIN). AKFIN provides data warehousing services to support data sharing among NMFS, Alaska Department of Fish and Game, and the Council, and is the principal database administrator for EDR data. The EDR relational database is maintained on AKFIN's secure data server network, and is accessible to authorized users through authenticated network access. Access to identifying information in the database is restricted to PSMFC and AKFIN personnel and contractors, and is controlled by limiting file permissions to the database.

Initial database design for data entry from paper EDR forms employed a flat file structure in MS Access. Porting of the data from Access to the current Oracle relational database was completed by AKFIN in 2008, and a comprehensive test plan to validate database integrity was completed in August, 2010. Detailed database administration protocols to ensure

database integrity are beyond the scope of this document, and are described in PSMFC (PSMFC 2011).

3 Audit results: summary statistics and analysis

Results from the annual audit review described in Section 2 provide a source of statistical information that allows a quantitative analysis of error in reported EDR data. In addition to rates of incidence for different types of error, statistical analysis is performed to identify patterns in reporting error that may suggest bias in the data, either due to a tendency toward strategic misreporting, or consistent recordkeeping or calculation errors or misinterpretation of the EDR questions. A visual summary of audit results is provided in Appendix A. More detailed tabular summaries are displayed in Appendix B, along with a comprehensive listing of qualitative data quality information and interpretive guidance by variable. Additional detail is available in the EDR metadata workbook.

For the purpose of statistical analysis reported below in Appendix A, audit data are pooled across all four industry sectors for three periods: P1 (1998-2004), P2 (2005-2006), and P3 (2007-2009). Note that with the exception of P1, these periods do not correspond to EDR version-years, but reflect reporting periods within which data quality findings are generally consistent. Values disaggregated by year and sector are reported in Appendix B and in the BSAI crab metadata workbook. However, both sets of results are based on data that is pooled over fishery, location, and other stratifications that apply to many of the variables in the dataset. As a result, the audit sample as analyzed may contain multiple measures for a given submitter for a given stratified variable, and differential reporting error across fishery and other stratification levels is not accounted for.

3.1 Summary statistics

The analysis presents tabulations for counts and proportions of audited observations coded by general support findings and detailed support findings.
General support types distinguished by auditors and displayed in histograms below are as follows:

- Sufficient documentation provided to validate submitter's response
- Insufficient documentation provided to validate submitter's response
- No data reported

Detailed support statistics are reported for 2008-2009 audited observations only and are reported for both the original reported values and the auditor's corrected value. Code values are as described in Table 1 above. Only a subset of the codes apply to corrected values. General coding results are displayed in histograms depicting the proportions of observations by code value in Appendix A below, and detailed results are available in tabular format in Appendix B.

3.2 Analysis

A statistical analysis of measurement error may employ a variety of methods, and the EDR metadata workbook include values for several statistical metrics of measurement error

reported by variable, year and sector, including the coefficient of variation of root mean squared error CV(RMSE). Formulas for computation of these values are reported in the metadata. For purposes of summarizing results qualitatively, this report focuses on two methods of quantifying measurement error in EDR data: reliability ratio computation and regression analysis of error distribution.

Reliability ratio is calculated as:

$$RR= [Var(correct)/[Var(correct)+Var(measurement\ error)]].$$

where *correct* is the value reported by the auditors for a validated observation, and *measurement error* is the difference between correct and the value originally reported by the submitter. RR values depicted in Appendix A are calculated on audit results with corrected non-responses included. RR values calculated with nonresponses censored are presented in EDR metadata. RR varies between 0 and 1. A value of 1 is an indication that the EDR data for a variable is highly reliable and variation in the values measured by the EDR are solely a function of variation in the true values across EDR submitters (Biemer 2011).

Regression analysis was used to test hypotheses regarding the structure of measurement error in EDR variables, with the objective of distinguishing classical measurement error, in which error values are uncorrelated with the data values, from other forms of measurement error. This approach applies the perspective of the errors-in-variables framework for analyzing data in which measurement error is present (Fuller 1987).

Test statistics were constructed using regression analysis of audit validation data to test for systematic reporting error in EDR variables. The model

$$\text{correct} = \alpha + \beta\ (\text{original})$$

was estimated by ordinary least squares to determine how well data originally reported in the EDR by submitters (original) predicts the values reported by the auditors (correct). The model was estimated for each variable for which audit validation has been conducted in one or more years. Audit year data were pooled by period over all industry sectors and any additional levels of stratification for the variable (e.g. fishery, location), and the model estimated separately for each period. Item non-response observations (for which the measurement error was equal to the corrected value) and very extreme outliers were censored (i.e., one obvious data entry error). Note that audit corrected values are only available for observations for which adequate support was provided.

To test for systematic error in the EDR data as originally reported in the EDR by submitters, the model was estimated with linear restrictions to test three hypotheses:

H_o1: $\alpha=0$
H_o2: $\beta=1$
H_o3: $\alpha=0$ and $\beta=1$

Note: see BSAI crab metadata workbook for results of test for H_o 1 and 2, and other regression results.

Hypotheses 1-3 are tested by calculating the F-test statistic

$$\frac{(SSE_{restricted} - SSE_{unrestricted})/J}{SSE_{unrestricted}/(T-K)} \sim F(J, T-K)$$

where $SSE_{restricted}$ is the error sum of squares under the restricted model and $SSE_{unrestricted}$ model, J is the number of restrictions, and T-K is the error degrees of freedom. In the restricted model for H_o3, $SSE_{restricted}$ is the sum of the squared measurement errors.

If the value of the test statistic is large (such that probability values ≤ 0.05), this indicates that the null hypothesis should be rejected and there is statistical evidence of bias in the original reported values and reporting errors.

1. Hypothesis 1 tests whether the model intercept is significantly different from 0, which would indicate a constant fixed bias (positive or negative) in the data reported by submitters in the audit sample (i.e. all submitters over-or under-report by the same amount).

2. Hypothesis 2 tests whether the slope parameter is significantly different from 1, which would indicate the existence of a bias in the data reported by submitters that is proportional to the magnitude of the reported value (e.g., a slope parameter $0<\beta<1$ would indicate that larger reported values for a variable are likely to be underreported to a greater degree than smaller values).

3. Hypothesis 3 tests whether both types of bias are jointly present in the audit sample; if the null hypothesis is not rejected, this supports the conclusion that the measurement errors in the reported data are random and do not exhibit systematic bias.

A fourth test was calculated to test for correlation between the variance of the measurement error and the data (original):

H_o 4: measurement error e_m is independently and identically distributed.

Hypothesis 4 is tested by calculating the White test for heteroskedasticity (Greene and Zhang, 2003) for the model restricted to $\alpha=0$ and $\beta=1$. This test indicates whether the variance of the measurement error is correlated with the explanatory variable (original).

Significance values for results of the test for H_o3: $\alpha=0$ and $\beta=1$ by period are presented as a summary indicator of systematic bias in the reported values of EDR variables in Appendix A below under the heading "Test 3: F-Test significance level"[1]. Regression results and test statistics H_o1 to H_o4 are reported in the BSAI crab metadata workbook. Significance values < 0.05 indicate that the errors detected by auditors are correlated in some way with the values reported for EDR variables, potentially indicating a consistent reporting bias in the EDR data for these variables. This testing approach and the implications for different forms of measurement error are discussed in Bound *et al.* (2001).

[1] Note: the first row in Appendix A (table=ALL and variable=ALL) shows the percentage of variables by period where Test 3 < 0.05.

3.3 Results

A visual review of the graphical information in Appendix A reveals several notable patterns. The first row of the table displays a summary over all audited variables for the General Support findings and a summary of results from regression-based hypothesis tests for reporting bias. The proportion of unsupported values identified in the validation audit (indicated by the medium-gray bar) has decreased over time and for period 3 (beginning in 2007), is generally reduced to a small proportion. While some variables, including vessel and processor total annual days operating and days operating in the crab fishery, continue to be reported without sufficient basis for validation by a significant proportion of submitters, the improvement in recordkeeping support for EDR data in the most recent years of reporting suggests that recent data for most variables, with noted exceptions, are generally reliable for use in analysis.

The probability scores for the hypothesis test of random measurement error indicate that a significant (~ 25%) proportion of variables continue to exhibit some degree of nonrandomness in measurement errors identified by the auditor. These variables include total annual labor costs, crab fishery fuel cost and gallons, captain share payment, and others. An analysis of regression residuals (not reported due to confidentiality restrictions) indicates that in most instances this is the result of a small number of high-leverage points in the distribution of values reported for the variable (i.e., typically one correctly-reported value that is an extreme right-tail outlier relative to the rest of the audit sample distribution), combined with a small number of measurement error outliers. Despite the presence of these error patterns, the overall reliability of these variables is high as indicated by the reliability ratio (RR). Despite the accurate reporting of the large majority of submitters, the effects of a small number of outliers, which may not be detectable based on visual inspection of unaudited observations, have potential to significantly skew the values of simple summary statistics. For these variables, and most likely others, application of analytical methods that are robust to non-normal disturbances should be developed for use in reporting aggregate economic information for public.

Another notable pattern is the general correspondence of the reporting accuracy scores reported by PNCIAC sector workgroups for EDR variables and auditor findings. Variables for which auditors found a relatively large proportion of observations required estimation to derive corrected values are generally assessed accuracy ratings between 1.5 and 1.75 by workgroup members, whereas those variables for which auditors identified a high proportion of support directly from accounting records were scored closer to 1.0. Employment data for processors and both landing revenue and quota lease data are exceptions – despite auditors' finding that these data could be accurately and directly reported from available records, workgroup participants expressed a lower assessment of accuracy for these data.

4 Discussion

The ongoing data quality assessment process for the crab EDR data program has provided detailed information to support analytical use of the data, and inform the process of revising the EDR reporting requirements to improve data quality and utility. Qualitative information describing potential sources of reporting error accumulated through the administrative process of the data collection, as well as through extensive reviews of the data collection

forms and database documentation informed by the experience of EDR submitters, has identified numerous elements of the data collection process in need of improvement. This includes both the design of the EDR forms and clarification of reporting and analytical objectives.

Audit validation results provide information identifying sources of error associated with the survey response process, and detailed quantitative information on the frequency and distributional aspects of reporting. In addition to supporting appropriate use of EDR data, this information should also be useful in the process of revising and improving the crab EDR data collection, and in developing economic data collection programs for other fisheries. Qualitative information reflecting the experience of individual submitters has been essential in identifying potential sources of error, identifying methods for validating the data and corrective measures in data use, and needed improvements in the data collection. However, the use of quantitative validation results based on objective measurement is also essential in the application of best available science to inform decisions, and the crab EDR data quality assessment process has produced a rich source of quantitative validation data at considerable effort on the part of submitters. Both the qualitative and quantitative information produced by this process is largely unprecedented in fisheries, and is unique among the various sources of self-reported operational, economic, and social science data collections that form the information base routinely used to inform decision making in Alaskan fisheries management.

A number of the most severe data quality limitations in EDR data are associated specification and/or coverage errors. These errors may not be completely addressed with appropriate statistical methods for summarizing and analyzing the data, even with adjustments based on improved information about variance and bias in the data. A critical example of combined coverage and specification error in the EDR form is represented by the set of questions designed to elicit the amount and cost paid for IFQ (disaggregated by IFQ type) leased by the owner of a vessel. IFQ plays independent functions as an instrument for allocating allowable catch across individual vessels (i.e., a fixed production cap across the available capital stock), and separately, for distributing resource rents among those holding quota share (i.e., royalty interest). As a reflection of these multiple functions, the collected data is intended for multiple purposes, including the estimation of average market price per unit of IFQ leased, calculation of the distribution of resource rents among participants in the fishery, and, in conjunction with information about amounts and costs of other factor inputs used, to provide insights into the mechanism for distributing production among vessel operations that vary in production efficiency. Due to the design of the EDR form, however, the data is elicited as component of a vessel's production cost. However, distinct from other fixed and variable factor input costs collected in the EDR which are physically expended in the production process, the disposal of a particular unit of IFQ is associated with the fishing activity of a particular vessel solely as an accounting function. Accounting of transactions in IFQ may occur at any time, may not be fully accounted for at the level of the individual vessel, and commonly involve in-kind trades and share distributions that may not fit the common understanding of the term "lease." In addition, to the extent that IFQ lease cost information is intended to provide a measure of competitive market prices for IFQ, the failure to specify the measurement objective to control for the terms of quota transactions (e.g. by differentiating non-affiliated transfers) limits the value of the data for this purpose.

Other specification errors in the in the crab EDR include levels of stratification applied in the reporting format, including fishery- and location-specific reporting, which requires submitters to partition costs that may be incurred jointly for multiple activities. This includes fixed costs, which are collected to a limited extent in the EDR, but also some variable input factors such as fuel and labor. These inputs are expended on an incremental basis, such that gallons or man-hours used may potentially be partitioned by fishery or other activity provided sufficient record keeping. However, fuel purchasing, labor compensation, and other variables may not be measured on the same incremental basis, and partitioning costs frequently requires some method of estimation, which may be arbitrary. In some cases, multiple dimensions of stratification, e.g. reporting fuel cost by fishery and location of purchase, compound the error and can make accurate reporting essentially infeasible, regardless of the quality of supporting records. In many cases a more appropriate method for collecting these data may be to elicit information at the level of detail at which it is maintained in common record systems. The more aggregate data that would be produced may not allow simple summary calculations to produce information needed to inform decision-making, but appropriate statistical methods employed by data users could provide information with the necessary degree of precision to inform fishery managers.

Greater recognition of the effect of statistical uncertainty in economic information produced for management decision analysis is generally warranted. The crab EDR and many other survey and administrative data sources used in Alaska fisheries management are mandatory and avoid sampling error as a source of uncertainty. Nonetheless, measurement and other non-sampling sources of error are endemic in data collections relying on mandatory or voluntary self-reporting, and the crab EDR is one of many such data collections employed in Alaska fisheries management. Apart from specification errors, validation results provide important information regarding the precision of EDR data, both at the level of individual observations, as well as population parameters reported in aggregate. This information should be used to better describe the uncertainty in statistical information drawn from EDR data. However, this should not convey the implication that other economic data sources that lack statistical measures of error should be reported without recognition of uncertainty. Many of the economic phenomena that are measured, however imperfectly, by the EDR and other data sources are highly variable over time as well as in cross-section. Differences in point values enumerated at the population or subpopulation level may be misinterpreted as significant if they are not accompanied by measures of variance or dispersion. This does not typically occur, although uncertainty may be qualitatively described.

A benefit that could be gained from the data quality analysis of crab EDR data is better understanding of the imprecision of economic data available for fisheries, and the development of better analytical methods to control for, and make more explicit, the role of uncertainty in the production and use of economic information. A broader base of economic data is essential to address critical analytical questions and satisfy requirements for transparent and informed decision-making. However, expanding the breadth of information available requires making tradeoffs between other attributes of data quality, including accuracy, precision, and timeliness, and the cost of acquiring the information. Ultimately, the balance of these factors remains a decision for the intended users of the information, and a better understanding of the scale of these dimensions is essential to an informed decision.

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Appendix A

Appendix A below presents selected information summarizing data quality assessment results for each EDR variable and statistical analysis of audit results. EDR variables are referenced by the EDR relational database table name and variable name, and are ordered alphabetically first by table name and then by variable name. Information presented in Appendix A is derived from two sources described previously: a) the PNCIAC data quality review and b) validation audits of EDR data conducted in 2005 and annually thereafter. The values presented in Appendix A are the following:

Data quality rank

Presents data quality ranking values for variables as reported in EDR forms, as assessed by the PNCIAC data quality review described in Section 1.

Accuracy and Burden Scores

The PNCIAC sector-level accuracy and burden scores were assessed in 2009 as described in Section 1. Appendix A presents sector working-group assessments of reporting accuracy (RA score) and reporting burden (RB score) by sector (C=catcher processors, SF=shoreside and floating processors, V=catcher vessels). Assessed scores are presented as the following:
RB_C: Reporting Burden score – Catcher-Processor Sector
RB_SF: Reporting Burden score – Shoreside Processing Sector
RB_V: Reporting Burden score – Catcher Vessel Sector
RA_C: Accuracy score – Catcher-Processor Sector
RA_SF: Accuracy score – Shoreside Processing Sector
RA_V: Accuracy score – Catcher Vessel Sector

Audit observations

Number of audit observations, by period.

General Support Codes

Key	Description
	Sufficient documentation provided to validate submitter's response
	Insufficient documentation provided to validate submitter's response
	No data reported

Detailed Support Codes

Key	Description	Original value only?
	No error	
	Calculation error	X
	Misinterpretation of question	X
	Flawed estimate	X
	Valid estimate	
	Updated estimate	X
	Unsupported	
	Original value unsupported; correction based on new documentation	X
	No data reported	

RR
Reliability ratio (0-1), by period.

Test 3: F-Test significance level
Significance level for test of Ho3: $\alpha=0$ and $\beta=1$, by period.

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
ALL			2336	3271	4615							0.19*	0.23*	0.26*
ANNUAL_COSTS_BY_LOCATION: CAPINV_COST	RB_C: 1 RB_SF: 2 RB_V: 2.75	9804: B 05: B 06: B RA_C: 1 RA_SF: 2 RA_V: 1.5	106	72	77							0.28	0.00	0.50
ANNUAL_COSTS_BY_LOCATION: FUEL_COST	RB_C: RB_SF: 2 RB_V: 2	9804: A 05: A 06: A RA_C: RA_SF: 2 RA_V: 1.5	12	64	112							0.43	0.99	0.29
ANNUAL_COSTS_BY_LOCATION: RNM_COST	RB_C: 2 RB_SF: 2 RB_V: 3	9804: B 05: B 06: B RA_C: 2 RA_SF: 2 RA_V: 2	106	90	121							0.65	0.03	0.14
ANNUAL_COSTS_GENERAL: INS_COST	RB_C: 1 RB_SF: RB_V: 2	9804: N/C 05: B 06: B RA_C: 2 RA_SF: RA_V: 1.25		47									0.77	
ANNUAL_COSTS_GENERAL: SALARY_COST	RB_C: 1 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 2 RA_V:	21	14									0.47	

* Indicates the proportion of variables in the period where Test 3 < 0.05.

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
ANNUAL_COSTS_GENERAL: SALARY_NUM	RB_C: 1 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 2 RA_V:	21	14									0.00	
ANNUAL_COSTS_OTHER_DETAIL: OTHER_AC_COST	RB_C: 1 RB_SF: 2 RB_V: 2	9804: C 05: C 06: C RA_C: 1 RA_SF: 1 RA_V: 1.5	88	38								0.07	0.84	
ANNUAL_TOTALS: FINISHED_POUNDS_PROCESSED	RB_C: 1 RB_SF: 1 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V:		7	19									0.57
ANNUAL_TOTALS: ROUND_POUNDS_CAUGHT	RB_C: 1 RB_SF: RB_V: 1.67	9804: A 05: A 06: A RA_C: 1 RA_SF: RA_V: 1		30	84								0.02	0.75
ANNUAL_TOTALS: TOTAL_DAYS_AT_SEA	RB_C: 1 RB_SF: RB_V: 1.67	9804: C 05: B 06: B RA_C: 1 RA_SF: RA_V: 1.67	88	52	84							0.01	0.71	0.07
ANNUAL_TOTALS: TOTAL_DAYS_PROCESSING	RB_C: 1 RB_SF: 2 RB_V:	9804: A 05: A 06: A RA_C: 1 RA_SF: 1 RA_V:	12	10	19							0.51	0.48	0.60

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
ANNUAL_TOTALS: TOTAL_FOB_REVENUE	RB_C: 1 RB_SF: 1 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V:		7	19									0.32
ANNUAL_TOTALS: TOTAL_GROSS_LAND_REVENUE	RB_C: RB_SF: RB_V: 1.5	9804: A 05: A 06: A RA_C: RA_SF: RA_V: 1		28	78								0.45	0.31
ANNUAL_TOTALS: TOTAL_LABOR_COSTS	RB_C: 1 RB_SF: 1 RB_V: 1.5	9804: A 05: A 06: A RA_C: 1 RA_SF: 1 RA_V: 1		35	33								0.94	0.00
CO_COST_BY_FISHERY: BAIT_TOTAL_COST	RB_C: RB_SF: RB_V:	9804: 05: 06: RA_C: RA_SF: RA_V:	94	24								0.12	0.42	
CO_COST_BY_LOCATION: HGEAR_COST	RB_C: 2 RB_SF: RB_V: 2	9804: C 05: C 06: C RA_C: 3 RA_SF: RA_V: 1.33		36									0.40	
CO_COST_BY_LOCATION: POTS_COST	RB_C: 1 RB_SF: RB_V: 1.33	9804: C 05: C 06: C RA_C: 1 RA_SF: RA_V: 1.33		28										

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
CO_COST_BY_LOCATION: POTS_COUNT	RB_C: 1 RB_SF: RB_V: 1	9804: C 05: C 06: C RA_C: 1 RA_SF: RA_V: 1.5		28										
CO_COST_BY_LOCATION: PROC_PACK_COST	RB_C: 1 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 3 RA_V:	12	11	6							0.55	0.63	0.60
CO_COST_FUEL_DETAIL: FUEL_COST	RB_C: 2 RB_SF: RB_V: 2	9804: C 05: C 06: C RA_C: 2 RA_SF: RA_V: 1.75	94	74	121							0.29	0.69	0.00
CO_COST_FUEL_DETAIL: FUEL_GAL	RB_C: 2 RB_SF: RB_V: 1.75	9804: C 05: C 06: C RA_C: 2 RA_SF: RA_V: 1.75		51	121								0.25	0.01
CO_COST_GENERAL: COOP_COST	RB_C: 1 RB_SF: RB_V: 1	9804: N/C 05: B 06: A RA_C: 1 RA_SF: RA_V: 1			53									0.37
CO_COST_GENERAL: GEARSTORAGE_COST	RB_C: 1 RB_SF: RB_V: 2	9804: A 05: A 06: A RA_C: 1 RA_SF: RA_V: 1.67			29									0.60

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
CO_COST_GENERAL: INSURANCE_DEDUCT_COST	RB_C: RB_SF: 2 RB_V: 2	9804: C 05: C 06: C RA_C: RA_SF: 2 RA_V: 1.67	106	64								0.00	0.33	
CO_COST_GENERAL: INSURANCE_PREM_COST	RB_C: RB_SF: RB_V: 2.25	9804: C 05: C 06: C RA_C: RA_SF: RA_V: 2.5	91	55								0.46	0.00	
CO_COST_GENERAL: TAX_COST	RB_C: 1 RB_SF: 2 RB_V: 2	98:C 01-04: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V: 1.75	106	32								0.95	0.06	
CO_COST_OTHER_CRAB_DETAIL: OTHER_CRAB_COST	RB_C: RB_SF: 2 RB_V: 1.5	9804: C 05: C 06: C RA_C: RA_SF: 2 RA_V: 1.5		35	11								0.98	
CRAB_ACTIVITY: DAYS_AT_SEA	RB_C: RB_SF: RB_V:	9804: C 05: N/C 06: N/C RA_C: RA_SF: RA_V:	185									0.03		
CRAB_ACTIVITY: DAYS_FISHING	RB_C: 1 RB_SF: RB_V: 2	9804: N/C 05: B 06: B RA_C: 1 RA_SF: RA_V: 1.67		100	175								0.06	0.14

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
CRAB_ACTIVITY: DAYS_PROCESSING	RB_C: 1 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V:	37	35	54							0.93	0.38	0.18
CRAB_ACTIVITY: DAYS_TRAVEL_OFFLOAD	RB_C: 1 RB_SF: RB_V: 2.5	9804: N/C 05: B 06: B RA_C: 1 RA_SF: RA_V: 2		53	174								0.13	0.47
CRAB_LABOR: AVG_NUM_PROC_POSITIONS	RB_C: 2 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 2 RA_SF: 2 RA_V:			54									0.47
CRAB_LABOR: CAPTAIN_SHARE_PAYMENT	RB_C: 1 RB_SF: RB_V: 1.25	9804: A 05: A 06: A RA_C: 1 RA_SF: RA_V: 1.25	179	94	171							0.64	0.14	0.00
CRAB_LABOR: CREW_EARNING_SHARES	RB_C: 2 RB_SF: RB_V: 1	9804: A 05: A 06: A RA_C: 3 RA_SF: RA_V: 1	179	94	174							0.00	0.60	0.17
CRAB_LABOR: CREW_SHARE_PAYMENT	RB_C: 2 RB_SF: RB_V: 1.25	9804: A 05: A 06: A RA_C: 3 RA_SF: RA_V: 1.25	179	94	171							0.65	0.18	0.45

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
CRAB_LABOR: NUM_PROCESSING_CREW	RB_C: 2 RB_SF: RB_V:	9804: B 05: B 06: B RA_C: 2 RA_SF: RA_V:	16	7	10								0.61	0.57
CRAB_LABOR: PROC_MAN_HRS	RB_C: RB_SF: 2 RB_V:	9804: A 05: A 06: A RA_C: RA_SF: 2 RA_V:	21	25	41								0.62	0.81
CRAB_LABOR: TOTAL_PROC_LABOR_PAYMENT	RB_C: 2 RB_SF: 2 RB_V:	9804: A 05: A 06: A RA_C: 2 RA_SF: 2 RA_V:	37	32	54							0.38	0.35	0.33
CRAB_PROCESS_SALES: FINISHED_POUNDS_SOLD	RB_C: 1 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V:	235	200								0.60	0.56	
CRAB_PROCESS_SALES: FOB_REVENUES	RB_C: 1 RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V:	110	145								0.18		
CRAB_PRODUCTION_OUT: FINISHED_LBS	RB_C: 1 RB_SF: 1 RB_V:	9804: B 05: B 06: B RA_C: 1 RA_SF: 1 RA_V:		124										

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
CRAB_PURCHASED: GROSS_COST	RB_C: RB_SF: 2 RB_V:	9804: B 05: B 06: B RA_C: RA_SF: 1 RA_V:			113									0.90
CRAB_PURCHASED: POUNDS_PURCHASED	RB_C: RB_SF: 1 RB_V:	9804: B 05: B 06: B RA_C: RA_SF: 1 RA_V:			113									0.40
CRAB_RAW: PROCESSED_POUNDS	RB_C: 1 RB_SF: 1 RB_V:	9804: A 05: A 06: A RA_C: 1 RA_SF: 1 RA_V:	37	35	54							0.83	0.56	0.62
CUSTOM_PROCESS_PROVIDED: CUSTOM_PROCESS_POUNDS	RB_C: RB_SF: RB_V:	9804: A 05: A 06: A RA_C: RA_SF: RA_V:	120	53	18									
CUSTOM_PROCESS_PROVIDED: CUSTOM_PROCESS_REVENUE	RB_C: RB_SF: 1 RB_V:	9804: A 05: A 06: A RA_C: RA_SF: 1 RA_V:			18									
CV_CRAB_LANDING_REVENUE: DEADLOSS	RB_C: RB_SF: RB_V: 2	9804: N/C 05: B 06: B RA_C: RA_SF: RA_V: 1		39									0.00	

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
CV_CRAB_LANDING_REVENUE: POUNDS	RB_C: RB_SF: RB_V: 2	9804: B 05: B 06: B RA_C: RA_SF: RA_V: 1		50									0.46	
CV_CRAB_LANDING_REVENUE: REVENUE	RB_C: RB_SF: RB_V: 2.33	9804: B 05: B 06: B RA_C: RA_SF: RA_V: 1.67		44	407								0.02	0.29
OWNER_IFQ_ALLOCATION: POUNDS_HARVESTED	RB_C: 1 RB_SF: RB_V: 2.75	9804: N/C 05: C 06: C RA_C: 1 RA_SF: RA_V: 1.5			197									0.05
OWNER_IFQ_ALLOCATION: POUNDS_TRANSFERED	RB_C: 1 RB_SF: RB_V: 2.75	9804: N/C 05: C 06: C RA_C: 1 RA_SF: RA_V: 2		184	192								0.00	0.00
OWNER_IFQ_ALLOCATION: REVENUE_FROM_TRANSFER	RB_C: 1 RB_SF: RB_V:	9804: N/C 05: C 06: C RA_C: 1 RA_SF: RA_V:		209	192								0.00	0.00
QUOTA_LEASE_COSTS: LEASED_POUNDS	RB_C: 1 RB_SF: RB_V: 3	9804: C 05: C 06: C RA_C: 1 RA_SF: RA_V: 1.67		270	430								0.21	0.10

Appendix A: Data Quality Summary Statistics

Variable	PNCIAC Review		Audit observations			General support			Detailed support		RR	Test 3: F-Test significance level		
	Reporting Burden	Data quality and Reporting Accuracy	P1	P2	P3	P1	P2	P3	Original value	Auditor value	P1-3	P1	P2	P3
QUOTA_LEASE_COSTS: LEASE_COST	RB_C: 1 RB_SF: RB_V: 3	9804: C 05: C 06: C RA_C: 1 RA_SF: RA_V: 1.5		285	439								0.90	0.00
QUOTA_LEASE_COSTS: NUM_CREW_CONTRIBUTE	RB_C: 1 RB_SF: RB_V: 1	9804: N/C 05: C 06: C RA_C: 1 RA_SF: RA_V: 1		50	92								0.00	0.00
REVENUE_SHARES: REVSHARE_CAPT	RB_C: RB_SF: RB_V: 1	9804: B 05: B 06: B RA_C: RA_SF: RA_V: 1		31	95								0.47	0.54
REVENUE_SHARES: REVSHARE_CREW	RB_C: RB_SF: RB_V: 1	9804: B 05: B 06: B RA_C: RA_SF: RA_V: 1		31	95								0.54	0.00
REVENUE_SHARES: REVSHARE_OWNER	RB_C: RB_SF: RB_V: 1	9804: B 05: B 06: B RA_C: RA_SF: RA_V: 1		29	95								0.22	0.22

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EDR METADATA

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BSAI Crab Economic Data Report (EDR) Database Metadata

AFSC/Economics and Social Science Research Program
Updated August 10, 2011

INTRODUCTION

This document provides metadata documentation for BSAI Crab Economic Data Report (EDR) data as maintained in the BSAI Crab EDR database. The data is in panel format, with time series collected from vessels and processing plants participating in the BSAI crab fishery, during the years 1998, 2001, 2004, and annually in subsequent years. These data represent a census of all participants in the fishery for these years. The dataset has four components corresponding to the separate sectors of the crab fishery: 1) catcher vessels, 2) catcher/processor vessels, 3) stationary floating processing plants, and 4) shoreside processing plants. Annual data submission forms for each sector solicit data on vessel and plant activity and financial management, including detailed tables of input costs and quantities, production and earnings, labor compensation and crew participation, and vessel and plant operations.

The data collection program is managed by NOAA Fisheries, Alaska Fisheries Science Center, Economics and Social Science Research Program (AFSC/ESSRP). The data collection and relational database is administered under contract by a third-party data collection agent, Pacific States Marine Fisheries Commission (PSMFC), and the Alaska Fisheries Information Network (AKFIN; a division of PSMFC).

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In addition to a discussion of general EDR data quality issues relevant to larger groups of data elements, this document provides information for each reported variable in the form of a structured index. Because this document is intended primarily to consolidate data quality information on EDR reporting elements, users of the EDR database are encouraged to consult the workbook version of the metadata[1] for the following information not contained herein.

- Metadata for plant or vessel certification data elements self-reported on the EDR and other identifying data elements populated by PSMFC database administrators (Certification data worksheet and CERTS_EDR_V records in Main data index worksheet)
- Metadata for secondary/external data sources linked to EDR records (Linked data sources worksheet)
- Coded values included in the EDR database (Appendix A worksheet)

[1] Available at http://www.afsc.noaa.gov/REFM/Socioeconomics/Metadata/crabEDR_metadata_080811.xls

Database and metadata organization

The EDR database is structured as a relational model, with separate database tables corresponding to general subject matter and containing information organized by the stratification structure of the data collection. The base unit of observation in the database is the vessel or plant, and each EDR record representing a vessel or plant is referenced by the variable BOOKLET_ID. Most data elements are reported at the vessel/plant level. Other data elements may be reported by fishery, location, and/or other stratifying variables.

Data elements reported in the EDR data collection forms are referenced in the index by the names of the database table and column where reported data is maintained. Tables 1-3 in the Form-Database Mappings section are intended to guide the user in navigating between data elements reported in the current (2006-) version of the EDR data collection forms and the corresponding tables and columns in the database. Form-database mappings for the two previous EDR versions (1998-2004, 2005) may be found in the workbook version of the metadata (Main data index worksheet, EDR Form Source Tables fields).

Entries in the metadata index are grouped by EDR database table, and tables are further grouped according to general subject matter (operational, labor, cost, revenue, and annual totals). Entries include the following information:

DATABASE TABLE	
Description	Description of information contained in the EDR database table.
Stratified by	Stratifying variables by which data in the table are reported.
Sector-year summary	General industry sector(s) (HARVESTING, PROCESSING, ALL) for which the database table contains information.
Data structure notes	Identifies database structural issues pertaining to all variables within the table, including cross-references to associated variables, deviations from original structure in EDR forms, etc.
Year-version changes	Identifies general changes across EDR form versions in reporting of variables, including changes in stratifying detail.
Data quality notes	Identifies known general data quality issues pertaining to variables in the table and suggests guidance on use and interpretation of variables in analysis.

DATABASE TABLE | VARIABLE/DATABASE COLUMN NAME	
Description	Description of the variable.
Sector-year summary	Industry sectors (V=catcher vessel, C=catcher processor, S=shoreside processor, F=floating processor) and years in which the variable is reported.
Data structure notes	Identifies database structural issues pertaining to the variable, including cross-references to associated variables, deviations from original structure in EDR forms, variable recoding, etc.
Year-version changes	Identifies any inconsistencies in variable definition across years of sector versions of EDR forms.
Data quality notes	Identifies known data quality issues and summarizes audit findings pertaining to the variable; suggests guidance on use and interpretation of variable in analysis.
Years audited	Years variable was audited in the harvest and processing sectors.

Detailed data quality information stratified by industry sector and year is presented in tabular format after the set of index entries for each database table. Provided are PNCIAC qualitative data quality rankings and accuracy scores, as well as summary statistics from the annual validation audits of EDR data. The validation audits and PNCIAC data quality review are discussed in Sections 2.2 and 2.3 of the *BSAI Crab EDR Database: Data Quality Summary* report**.** Additional summary statistics are presented in the workbook metadata (Audit stats worksheet).

Data quality tables in the index include the following information:

VARIABLE	Data element/variable as referenced by EDR database column name.
SECTOR	Industry sector (C=catcher processor, SF=shoreside and floating processor, V=catcher vessel); note that data quality rankings are summarized for all sectors where this is blank
YEAR	Year. Note that data quality and accuracy rankings (DQRANK) may be given for the EDR year-version in general (98-04, 2005, 2006-current). In these cases, the ranking applies to all relevant sectors.
DQRANK	PNCIAC working group qualitative assessments of the variable's data quality and accuracy; refer to Section 2.3 of the Data Quality Summary report for descriptions of codes.
N_EDRS	Number of EDR submissions in the given year and sector for which the variable was audited.
N_OBSERVATIONS	Number of unique observations of this variable audited in the given year and sector.
P_SUPPORTED	Percent of observations where the submitter provided sufficient documentation to validate the reported value.
N_NONSUPPORTED	Percent of observations where there was insufficient documentation to validate the reported value.
P_NONREPORTED	Percent of observations without any reported data.
P_CORRECTED	Percent of audited observations that resulted in a correction to the value or nonresponse as originally reported.
P_NONRESP	Percent of observations with sufficient documentation to validate and determined by auditors to be instances of item nonresponse (submitter's originally-reported "0" or nonresponse corrected to a value other than "0")
P_SAMPLE_EST	Estimate of values > 0 in the EDR database that have been subjected to audit.
RR_NS	Reliability ratio calculated with nonresponses included. Refer to Section 3.2 of the Data Quality Summary report for a description of the reliability ratio calculation.
RR_S	Reliability ratio calculated with nonresponses suppressed. Refer to Section 3.2 of the Data Quality Summary report for a description of the reliability ratio calculation.

GENERAL EDR DATA QUALITY ISSUES

In addition to ratings and interpretive notes specific to individual data elements, a number of data quality issues that apply to larger groups of data elements have been identified and are important for data users to recognize and address if using the affected data elements. These include the following:

Multi-year production and sales data elements

The EDR program collects data on an annual, calendar year basis. This is consistent with other annual monitoring programs in state and federally regulated fisheries; however, this is in contrast to the management and execution of the crab fishery, which is conducted on a July-June annual schedule. In most regards, this does not raise serious data quality concerns for the harvest sector. Although there is potential for late post-season settlements to still be pending from quota lease, crab sales and/or labor contracts for the previous calendar year at the time of the EDR submission deadline in late June, there is no evidence that it has significantly affected accurate reporting in the EDR data. Of greater concern are data elements collected in the crab processing (including catcher processor) sector that, in many instances, reflect a multi-year process of receiving raw crab, processing (sometimes in multiple stages), inventory, and first wholesale disposal of finished products. The EDR process captures these activities and associated material use, costs, and revenues on a discrete, calendar year annual basis, despite the reality that the income and material flow is a highly continuous process and breaking the data into discrete annual figures is somewhat artificial. In particular, due to varying lengths of storage periods for crab product inventory, processing data and final sales data generally do not reflect the same initial raw crab inputs. That is, while some volume of crab product is sold at first wholesale in the same calendar year in which it is landed, sales data reported in the EDR can reflect sales of crab from inventory that was initially processed prior to the year for which the EDR is filed, as well as some fraction of the crab landed and processed in the reporting year. As such, processing and sales data reported in the processing sector EDRs are not expected to correspond. Additional detail on data quality and interpretation for data elements that are particularly affected by this dynamic is included in the metadata and summarized below. It is important for analysts and users of published results from these data to understand the nature of the product and income flow in the crab fishery and interpret the data appropriately.

Pro rata methods

Most data elements in the crab EDR are to be reported for the crab fishery exclusively, and in many cases are reported separately for individual crab fisheries. A set of data elements for costs that are incurred for the vessel or plant on an annual basis rather than on an incremental basis for individual fisheries are also reported. While this structure assumes that there is clear differentiation between crab-only costs and annual vessel/plant costs, submitter feedback indicates that in many cases, material usage and associated costs cannot practically be monitored at the level of detail necessary to differentiate between costs and inputs used in the crab fisheries and those associated with other fisheries without substantially increasing the reporting burden placed on EDR submitters. In general, submitters employ a variety of pro rata methods to estimate the amount of material use and cost associated with individual fisheries where internal records do not permit more direct association and reporting. The EDR forms do not effectively control for when pro rata estimation or direct reporting occur or for different pro rata methods that are employed by the submitter.

Data are collected in the EDR forms to permit the construction of indices for prorating data elements that are reported as annual values for various purposes. Each EDR record includes values for total days

operating in all fishery-related activity, total annual harvest and/or product sales volume and revenue, and total labor costs, which, combined with similar data reported for crab fisheries, identify pro rata indices based on days operating, landings and product volume and value, and labor cost. While it is not appropriate in the database documentation to prescribe a particular pro rating method for individual variables, it is recommended that analysts perform sensitivity analyses using different methods to determine the effect of different assumptions on analytical results.

Bering Sea Tanner crab fishery

The Bering Sea Tanner crab fishery was not opened in any of the pre-rationalization years for which reference data were collected in the historical crab EDR, and data from this fishery have been collected only for 2005 and subsequent years. Feedback from submitters indicates that the small number of vessels operating in this fishery have generally co-targeted the species with the Bering Sea snow crab fishery, with Tanner crab being a secondary target. This makes differentiation between these fisheries in reporting fishery-specific data in the EDR particularly difficult, and it is unclear whether harvest activity and labor- and material- input and cost data reported specific to the Tanner crab fishery is concurrent or differentiated from data reported for the snow crab fishery. As such, the Tanner crab fishery data should be used only for limited purposes, and any analysis using these data should present a description of methods for addressing these data quality limitations. Use of data reported for the snow crab fishery by vessels with large landings in the Tanner crab fishery should be carefully examined to determine whether these data can be assumed to reflect the snow crab fishery exclusively. Rules passed by the Alaska Board of Fisheries in 2008 prohibit co-targeting these species starting in the 2008/2009 fishery. This will improve the ability of submitters to distinguish values for this fishery from other crab fisheries, subject to limitations already noted above with regard to prorating in general.

Non-processing crab IPQ holders

Due to the statement of conditions requiring EDR submission by crab processing firms contained in 50 CFR 680.6(f) and (h), processors who hold IPQ and purchase crab but do not process any crab in their own plant in a given year (i.e., processors who contract for custom processing of all their IPQ) are currently exempt from EDR requirements. As such, the EDR data does not represent a full census data collection for the processing sector, and aggregating data across processors in a given fishery will not produce figures that represent the full value for such measures within the processing sector. Data analysts who present results based upon these data must make clear that the results represent only the component of the processing sector that physically processed crab in a given year. Data elements affected by this include the following:

Crab Freight Costs	CO_COST_GENERAL | CRAB_FREIGHT_COST
Product Storage Costs	CO_COST_GENERAL | PRODSTORAGE_COST
Tax Cost	CO_COST_GENERAL | TAX_COST
Broker Cost	CO_COST_GENERAL | ALLBROKER_COST CO_COST_BY_FISHERY | BROKER_COST
Proc Pack Cost	CO_COST_BY_LOCATION | PROC_PACK_COST
Other Crab Costs	CO_COST_OTHER_CRAB_DETAIL
Total FOB revenue	ANNUAL_TOTALS | TOTAL_FOB_REVENUE
Processed Pounds	CRAB_RAW | PROCESSED_POUNDS
Supplied to Custom Processor Pounds	CRAB_RAW | SUPPLIED_TO_CUSTOM_LBS
Crab Purchased Pounds	CRAB_PURCHASED | POUNDS_PURCHASED
Finished Pounds	CRAB_PRODUCTION_OUT | FINISHED_LBS CRAB_PROCESS_SALES| FINISHED_POUNDS_SOLD

Location-specific data elements

Several crab-specific and annual cost elements are reported in the EDR forms by location of purchase. In many cases, location of purchase is unknown by the person completing the EDR form and available documentation is limited to invoice billing address for some costs. Reporting of location of purchase based on this and other types of source documentation likely undercounts amount of sales in Alaska locations that are billed from a separate billing office. This effect is more pronounced for processing plants with complex service and materials sourcing; location of purchase information for harvest vessels is generally accurate as reported.

FORM-DATABASE MAPPINGS

Data elements reported in the EDR are referenced in the metadata index by the names of the EDR database table and column where reported data is stored. Tables 1 through 3 below are intended to guide the user in navigating between data elements reported in the current (2006-) catcher vessel, catcher processor, and shoreside/floating processor versions of the EDR collection forms and the corresponding tables and columns in the database.

TABLE 1: Form-database mappings, catcher vessel EDR – 2006-current version

Form table reference	Form section	Reported data element	Database table | column
1.0	Crab Activity	ADF&G fish ticket numbers	FISH_TICKETS | FISH_TICKET_NUMBER
		number of days crab fishing	CRAB_ACTIVITY | DAYS_FISHING
		number of days traveling & offloading	CRAB_ACTIVITY | DAYS_TRAVEL_OFFLOAD
2.0	Crab Sales	pounds sold	CV_CRAB_LANDING_REVENUE | POUNDS
		deadloss pounds	CV_CRAB_LANDING_REVENUE | DEADLOSS
		gross revenue from ex-vessel sale	CV_CRAB_LANDING_REVENUE | REVENUE
3.1	Vessel Owner/Leaseholder's IFQ Allocation	quota permits landed by this vessel	OWNER_IFQ_ALLOCATION | POUNDS_HARVESTED
		permits transferred to another vessel, pounds	OWNER_IFQ_ALLOCATION | POUNDS_TRANSFERRED
		permits transferred to another vessel, revenue	OWNER_IFQ_ALLOCATION | REVENUE_FROM_TRANSFER
3.2	Quota Lease Costs	pounds leased	QUOTA_LEASE_COSTS | LEASED_POUNDS
		total cost	QUOTA_LEASE_COSTS | LEASE_COST
		number of crew contributing C shares	QUOTA_LEASE_COSTS | NUM_CREW_CONTRIBUTE
4.1	Harvest Labor Costs	no. of paid harvest crew	CRAB_LABOR | CREW_EARNING_SHARES
		total crew labor payment	CRAB_LABOR | CREW_SHARE_PAYMENT
		captain's labor payment	CRAB_LABOR | CAPTAIN_SHARE_PAYMENT
4.2	Labor Payment Details	fuel and lubrication	HARV_LABOR_PAY_DETAIL | FUEL
		food and provisions	HARV_LABOR_PAY_DETAIL | FOOD
		bait	HARV_LABOR_PAY_DETAIL | BAIT
		fish tax	HARV_LABOR_PAY_DETAIL | TAX
		observer costs	HARV_LABOR_PAY_DETAIL | OBSERV
		CDQ costs	HARV_LABOR_PAY_DETAIL | CDQ

TABLE 1: Form-database mappings, catcher vessel EDR – 2006-current version

Form table reference	Form section	Reported data element	Database table | column
		IFQ costs	HARV_LABOR_PAY_DETAIL | IFQ
		IPQ costs	HARV_LABOR_PAY_DETAIL | IPQ
		Travel and airfare costs	HARV_LABOR_PAY_DETAIL | TRAVEL
		Gear loss	HARV_LABOR_PAY_DETAIL | GEAR
		Other (describe)	HARV_LABOR_PAY_DTL_OTHER | OTHER_LPD_DESC, OTHER_LPD_VALUE
4.3	Revenue shares	vessel owner's percentage of net share	REVENUE_SHARES | REVSHARE_OWNER
		harvest crew percentage of net share	REVENUE_SHARES | REVSHARE_CREW
		captain's percentage of net share	REVENUE_SHARES | REVSHARE_CAPT
4.4	Crew Licenses and Permits	harvest crew license numbers	HARV_CREW_LIC_PERMIT_NUMS | CREW_LIC_NUMS
		CFEC gear operator permit numbers	HARV_CREW_LIC_PERMIT_NUMS | CREW_GEAR_PERMIT_NUM
5.1	Crab-Only Costs	insurance premiums	CO_COST_GENERAL | INSURANCE_PREM_COST
		insurance deductibles	CO_COST_GENERAL | INSURANCE_DEDUCT_COST
		quantity of pots purchased	CO_COST_BY_LOCATION | POTS_COUNT
		cost of pots purchased	CO_COST_BY_LOCATION | POTS_COST
		line and other crab gear purchases	CO_COST_BY_LOCATION | HGEAR_COST
		bait pounds	CO_COST_BAIT_DETAIL | POUNDS
		total bait cost	CO_COST_BAIT_DETAIL | COST
		gallons of fuel used	CO_COST_FUEL_DETAIL | FUEL_GAL
		cost of fuel used (indicate if lube/fluids cost included)	CO_COST_FUEL_DETAIL | FUEL_COST, FUEL_LUBE_FLAG
		food and provisions for crew	CO_COST_GENERAL | CREW_FOOD_COST
		cost of other crew-related expense (open ended description)	CO_COST_OTHER_CREW_DETAIL | OTHER_CREW_DESC, OTHER_CREW_COST
		freight and handling costs for crab and crab products	CO_COST_GENERAL | CRAB_FREIGHT_COST
		storage, wharfage, and delivery costs for crab harvest gear	CO_COST_GENERAL | GEARSTORAGE_COST
		observer costs	CO_COST_BY_FISHERY | OBSERV_COST
		total of fisheries taxes and fees	CO_COST_GENERAL | TAX_COST

TABLE 1: Form-database mappings, catcher vessel EDR – 2006-current version

Form table reference	Form section	Reported data element	Database table | column
		harvest cooperative membership and Inter Coop Exchange fees	CO_COST_BY_FISHERY | COOP_COST
		cost of other crab related expense (open ended description)	CO_COST_OTHER_CRAB_DETAIL | OTHER_CRAB_DESC, OTHER_CRAB_COST
5.2	Annual Costs	capital investment cost (crab only cost indicated)	ANNUAL_COSTS_BY_LOCATION | CAPINV_COST, CAPINV_COFLAG
		repair and maintenance cost (crab only cost indicated)	ANNUAL_COSTS_BY_LOCATION | RNM_COST, RNM_COFLAG
		hull, P&I, and pollution insurance premium costs (crab only cost indicated)	ANNUAL_COSTS_GENERAL | INS_COST, INS_COFLAG
		fuel, electricity, lubrication and fluids, cost (not incurred while fishing for crab)	ANNUAL_COSTS_BY_LOCATION | FUEL_COST, FUEL_COFLAG, FUEL_LUBE_FLAG
		other crab related cost (open-ended description)	ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_DESC, OTHER_AC_COST, OTHER_AC_COFLAG
6.0	Annual Totals, All Fisheries	annual totals for all fisheries, days at sea	ANNUAL_TOTALS | TOTAL_DAYS_AT_SEA
		annual totals for all fisheries, round pounds caught and retained (excludes discards)	ANNUAL_TOTALS | ROUND_POUNDS_CAUGHT
		gross landings revenue	ANNUAL_TOTALS | TOTAL_GROSS_LAND_REVENUE
		annual totals for all fisheries, labor costs	ANNUAL_TOTALS | TOTAL_LABOR_COSTS

TABLE 2: Form-database mappings, catcher processor EDR - 2006-current version

Form table reference	Form section	Reported data element	Database table | column
1.1	Crab Activity	dates covered	CRAB_ACTIVITY | BEGIN_DATE, END_DATE
		days fishing	CRAB_ACTIVITY | DAYS_FISHING
		days traveling and offloading	CRAB_ACTIVITY | DAYS_TRAVEL_OFFLOAD
		crab processing days	CRAB_ACTIVITY | DAYS_PROCESSING
1.2a-e	Crab Production	pounds of raw crab processed	CRAB_RAW | PROCESSED_POUNDS
		product code	CRAB_PRODUCTON_OUT | PRODUCT_CODE
		process code	CRAB_PRODUCTON_OUT | PROCESS_CODE
		crab size code	CRAB_PRODUCTON_OUT | CRAB_SIZE_CODE
		crab grade code	CRAB_PRODUCTON_OUT | CRAB_GRADE_CODE
		box size and units (kg/lb)	CRAB_PRODUCTON_OUT | BOX_SIZE, BOX_LB_KG
		custom processed indicator	CRAB_PRODUCTON_OUT | CUST_PROC_FLAG
		finished pounds	CRAB_PRODUCTON_OUT | FINISHED_LBS
2.1a-b	Annual Crab Sales	product code	CRAB_PROCESS_SALES | PRODUCT_CODE
		process code	CRAB_PROCESS_SALES | PROCESS_CODE
		crab size code	CRAB_PROCESS_SALES | CRAB_SIZE_CODE
		crab grade code	CRAB_PROCESS_SALES | CRAB_GRADE_CODE
		box size and units (kg/lb)	CRAB_PROCESS_SALES | BOX_SIZE, B0X_LB_KG
		finished pounds sold	CRAB_PROCESS_SALES | FINISHED_POUNDS_SOLD
		total revenues	CRAB_PROCESS_SALES | FOB_REVENUES
		port of lading for FOB value; Seattle or Alaska	CRAB_PROCESS_SALES | FOB_PORT
2.2	Custom Processing Provided	product code	CUSTOM_PROCESS_PROVIDED | PRODUCT_CODE
		process code	CUSTOM_PROCESS_PROVIDED | PROCESS_CODE
		revenue received for custom processing	CUSTOM_PROCESS_PROVIDED | CUSTOM_PROCESS_REVENUE

TABLE 2: Form-database mappings, catcher processor EDR - 2006-current version

Form table reference	Form section	Reported data element	Database table | column
3.1	Owner Annual Quota Allocation	vessel owner's quota harvested on vessel, pounds	OWNER_IFQ_ALLOCATION | POUNDS_HARVESTED
		vessel owner's quota leased/transferred to another vessel, pounds	OWNER_IFQ_ALLOCATION | POUNDS_TRANSFERRED
		vessel owner's quota leased/transferred to another vessel, revenue	OWNER_IFQ_ALLOCATION | REVENUE_FROM_TRANSFER
3.2	Quota Lease Costs	quota leased for use on vessel, pounds	QUOTA_LEASE_COSTS | LEASED_POUNDS
		quota leased for use on vessel, total cost	QUOTA_LEASE_COSTS | LEASE_COST
		number of crew (including captain) contributing IFQ C class shares	QUOTA_LEASE_COSTS | NUM_CREW_CONTRIBUTE
4.1	Harvest Labor Costs	no. of paid harvest crew	CRAB_LABOR | CREW_EARNING_SHARES
		total crew labor payment	CRAB_LABOR | CREW_SHARE_PAYMENT
		captain's labor payment	CRAB_LABOR | CAPTAIN_SHARE_PAYMENT
4.2	Processing Labor Costs	no. of crew with pay determined by processing work	CRAB_LABOR | NUM_PROCESSING_CREW
		average no. of crab processing positions	CRAB_LABOR | AVG_NUM_PROC_POSITIONS
		total processing labor payment	CRAB_LABOR | TOTAL_PROC_LABOR_PAYMENT
4.3	Labor Payment Details	fuel and lubrication	HARV_LABOR_PAY_DETAIL | FUEL
		food and provisions	HARV_LABOR_PAY_DETAIL | FOOD
		bait	HARV_LABOR_PAY_DETAIL | BAIT
		fish tax	HARV_LABOR_PAY_DETAIL | TAX
		observer costs	HARV_LABOR_PAY_DETAIL | OBSERV
		CDQ costs	HARV_LABOR_PAY_DETAIL | CDQ
		IFQ costs	HARV_LABOR_PAY_DETAIL | IFQ
		IPQ costs	HARV_LABOR_PAY_DETAIL | IPQ
		Travel and airfare costs	HARV_LABOR_PAY_DETAIL | TRAVEL
		Gear loss	HARV_LABOR_PAY_DETAIL | GEAR
		Other (describe)	HARV_LABOR_PAY_DTL_OTHER | OTHER_LPD_DESC, OTHER_LPD_VALUE
4.4	Crew Licenses and Permits	harvest crew license numbers	HARV_CREW_LIC_PERMIT_NUMS | CREW_LIC_NUMS
		CFEC gear operator permit numbers	HARV_CREW_LIC_PERMIT_NUMS | CREW_GEAR_PERMIT_NUM

TABLE 2: Form-database mappings, catcher processor EDR - 2006-current version

Form table reference	Form section	Reported data element	Database table | column
4.5	Processing Employee Residence	count of processing workers by city, state, or country of residence	CREW_RESIDENCE | HCREW_RES_COUNT
5.a-e	Custom Processing Done For You	pounds of raw crab sent for custom processing	CRAB_RAW | SUPPLIED_TO_CUSTOM_LBS
		product code	CUSTOM_PROCESS_HIRED | PRODUCT_CODE
		process code	CUSTOM_PROCESS_HIRED | PROCESS_CODE
		crab size code	CUSTOM_PROCESS_HIRED | CRAB_SIZE_CODE
		crab grade code	CUSTOM_PROCESS_HIRED | CRAB_GRADE_CODE
		box size and units (kg/lb)	CUSTOM_PROCESS_HIRED | BOX_SIZE, BLX_LB_KG
		finished pounds	CUSTOM_PROCESS_HIRED | CUST_HIRED_FINISHED_LBS
		total cost paid	CUSTOM_PROCESS_HIRED | CUST_HIRED_PROCESS_COST
6.a-e	Crab Purchases	crab size code	CRAB_PURCHASED | CRAB_SIZE_CODE
		crab grade code	CRAB_PURCHASED | CRAB_GRADE_CODE
		total pounds of raw crab purchased	CRAB_PURCHASED | POUNDS_PURCHASED
		total gross cost of raw crab purchased	CRAB_PURCHASED | GROSS_COST
7.1	Crab-Only Costs	insurance premiums	CO_COST_GENERAL | INSURANCE_PREM_COST
		insurance deductible fees	CO_COST_GENERAL | INSURANCE_DEDUCT_COST
		food and provisions for crew	CO_COST_GENERAL | CREW_FOOD_COST
		cost of other crew-related expense (open ended description)	CO_COST_OTHER_CREW_DETAIL | OTHER_CREW_DESC, OTHER_CREW_COST
		freight and handling costs for crab and crab products	CO_COST_GENERAL | CRAB_FREIGHT_COST
		storage, wharfage, and delivery costs for crab harvest gear	CO_COST_GENERAL | GEARSTORAGE_COST
		product storage	CO_COST_GENERAL | PRODSTORAGE_COST
		total of fisheries taxes and fees	CO_COST_GENERAL | TAX_COST

TABLE 2: Form-database mappings, catcher processor EDR - 2006-current version

Form table reference	Form section	Reported data element	Database table | column
		harvest cooperative membership and Inter Coop Exchange fees	CO_COST_GENERAL | COOP_COST
		crab product re-packing costs	CO_COST_GENERAL | REPACK_COST
		brokerage and promotions costs for crab sales for all fisheries	CO_COST_GENERAL | ALLBROKER_COST
		cost of other crab related expense (open ended description)	CO_COST_OTHER_CRAB_DETAIL | OTHER_CRAB_DESC, OTHER_CRAB_COST
		observer costs	CO_COST_BY_FISHERY | OBSERV_COST
		quantity of pots purchased	CO_COST_BY_LOCATION | POTS_COUNT
		cost of pots purchased	CO_COST_BY_LOCATION | POTS_COST
		other crab harvest gear cost	CO_COST_BY_LOCATION | HGEAR_COST
		packaging, materials, equipment and supply costs for crab processing	CO_COST_BY_LOCATION | PROC_PACK_COST
		bait pounds	CO_COST_BAIT_DETAIL | POUNDS
		total bait cost	CO_COST_BAIT_DETAIL | COST
		gallons of fuel used	CO_COST_FUEL_DETAIL | FUEL_GAL
		cost of fuel used (indicate if lube/fluids cost included)	CO_COST_FUEL_DETAIL | FUEL_COST, FUEL_LUBE_FLAG
7.2	Annual Costs	hull, P&I, and pollution insurance premium costs (crab only cost indicated)	ANNUAL_COSTS_GENERAL | INS_COST, INS_COFLAG
		wages and salaries of employees not engaged in harvest or processing, including foremen and managers	ANNUAL_COSTS_GENERAL | SALARY_COST, SALARY_COFLAG
		number of salaried employees not engaged in harvest or processing, including foremen and managers (crab only cost indicated)	ANNUAL_COSTS_GENERAL | SALARY_NUM, SALARY_COFLAG
		other crab related cost (open-ended description)	ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_DESC, OTHER_AC_COST
		fuel, electricity, lubrication and fluids, cost (crab only cost and lube/fluids costs included indicated)	ANNUAL_COSTS_BY_LOCATION | FUEL_COST, FUEL_COFLAG, FUEL_LUBE_FLAG

TABLE 2: Form-database mappings, catcher processor EDR - 2006-current version

Form table reference	Form section	Reported data element	Database table | column
		capital investment cost (crab only cost indicated)	ANNUAL_COSTS_BY_LOCATION | CAPINV_COST, CAPINV_COFLAG
		repair and maintenance cost (crab only cost indicated)	ANNUAL_COSTS_BY_LOCATION | RNM_COST, RNM_COFLAG
8.0	Annual Totals, All Fisheries	annual totals for all fisheries, processing days	ANNUAL_TOTALS | TOTAL_DAYS_PROCESSING
		annual totals for all fisheries, days at sea	ANNUAL_TOTALS | TOTAL_DAYS_AT_SEA
		annual totals for all fisheries, round pounds caught and retained (excludes discards)	ANNUAL_TOTALS | ROUND_POUNDS_CAUGHT
		annual totals for all fisheries, product sales, FOB revenue	ANNUAL_TOTALS | TOTAL_FOB_REVENUE
		annual totals for all fisheries, product sales, FOB port location code	ANNUAL_TOTALS | TOTAL_FOB_LOCATE_CODE
		annual totals for all fisheries, finished pounds processed	ANNUAL_TOTALS | FINISHED_POUNDS_PROCESSED
		annual totals for all fisheries, labor costs	ANNUAL_TOTALS | TOTAL_LABOR_COSTS

TABLE 3: Form-database mappings, shoreside and floating processor EDR – 2006-current version

Form table reference	Form section	Reported data element	Database table | column
1.a-e	Crab Production	dates covered	CRAB_ACTIVITY | BEGIN_DATE, END_DATE
		crab processing days	CRAB_ACTIVITY | DAYS_PROCESSING
		pounds of raw crab processed	CRAB_RAW | PROCESSED_POUNDS
		product code	CRAB_PRODUCTON_OUT | PRODUCT_CODE
		process code	CRAB_PRODUCTON_OUT | PROCESS_CODE
		crab size code	CRAB_PRODUCTON_OUT | CRAB_SIZE_CODE
		crab grade code	CRAB_PRODUCTON_OUT | CRAB_GRADE_CODE
		box size and units (kg/lb)	CRAB_PRODUCTON_OUT | BOX_SIZE, BOX_LB_KG
		custom processed indicator	CRAB_PRODUCTON_OUT | CUST_PROC_FLAG
		finished pounds	CRAB_PRODUCTON_OUT | FINISHED_LBS
2.1a-b	Annual Crab Sales	product code	CRAB_PROCESS_SALES | PRODUCT_CODE
		process code	CRAB_PROCESS_SALES | PROCESS_CODE
		crab size code	CRAB_PROCESS_SALES | CRAB_SIZE_CODE
		crab grade code	CRAB_PROCESS_SALES | CRAB_GRADE_CODE
		box size and units (kg/lb)	CRAB_PROCESS_SALES | BOX_SIZE, B0X_LB_KG
		finished pounds sold	CRAB_PROCESS_SALES | FINISHED_POUNDS_SOLD
		total revenues	CRAB_PROCESS_SALES | FOB_REVENUES
		port of lading for FOB value; Seattle or Alaska	CRAB_PROCESS_SALES | FOB_PORT
2.2	Custom Processing Provided	product code	CUSTOM_PROCESS_PROVIDED | PRODUCT_CODE
		process code	CUSTOM_PROCESS_PROVIDED | PROCESS_CODE
		revenue received for custom processing	CUSTOM_PROCESS_PROVIDED | CUSTOM_PROCESS_REVENUE
3.1	Processing Labor Costs	average no. of crab processing positions	CRAB_LABOR | AVG_NUM_PROC_POSITIONS
		total man-hours	CRAB_LABOR | PROC_MAN_HRS
		total processing labor payment	CRAB_LABOR | TOTAL_PROC_LABOR_PAYMENT

TABLE 3: Form-database mappings, shoreside and floating processor EDR – 2006-current version

Form table reference	Form section	Reported data element	Database table | column
3.2	Processing Employee Residence	count of processing workers by city, state, or country of residence	CREW_RESIDENCE | PROCEMP_RES_COUNT
4.a-e	Custom Processing Done For You	pounds of raw crab sent for custom processing	CRAB_RAW | SUPPLIED_TO_CUSTOM_LBS
		product code	CUSTOM_PROCESS_HIRED | PRODUCT_CODE
		process code	CUSTOM_PROCESS_HIRED | PROCESS_CODE
		crab size code	CUSTOM_PROCESS_HIRED | CRAB_SIZE_CODE
		crab grade code	CUSTOM_PROCESS_HIRED | CRAB_GRADE_CODE
		box size and units (kg/lb)	CUSTOM_PROCESS_HIRED | BOX_SIZE, BLX_LB_KG
		finished pounds	CUSTOM_PROCESS_HIRED | CUST_HIRED_FINISHED_LBS
		total cost paid	CUSTOM_PROCESS_HIRED | CUST_HIRED_PROCESS_COST
5.a-e	Crab Purchases	crab size code	CRAB_PURCHASED | CRAB_SIZE_CODE
		crab grade code	CRAB_PURCHASED | CRAB_GRADE_CODE
		total pounds of raw crab purchased	CRAB_PURCHASED | POUNDS_PURCHASED
		total gross cost of raw crab purchased	CRAB_PURCHASED | GROSS_COST
6.1	Crab-Only Costs	Fisheries Taxes	CO_COST_GENERAL | TAX_COST
		Processing and packaging materials, equipment & supplies	CO_COST_BY_LOCATION | PROC_PACK_COST
		food and provisions	CO_COST_GENERAL | CREW_FOOD_COST
		Other Direct Costs for crab labor	CO_COST_GENERAL | OTHER_LABOR_COST
		Insurance Deductibles	CO_COST_GENERAL | INSURANCE_DEDUCT_COST
		Re-packing Costs	CO_COST_GENERAL | REPACK_COST
		Brokerage and promotions costs for crab sales, by fishery	CO_COST_BY_FISHERY | BROKER_COST
		Processor Quota (IPQ) Lease Lbs	CO_COST_BY_FISHERY | IPQ_LBS_LEASE
		Processor Quota (IPQ) Lease Costs	CO_COST_BY_FISHERY | IPQ_LEASE_COST
		Observer costs, by fishery	CO_COST_BY_FISHERY | OBSERV_COST
		Freight Costs for supplies to plant	CO_COST_GENERAL | SUPPLY_FREIGHT_COST

TABLE 3: Form-database mappings, shoreside and floating processor EDR – 2006-current version

Form table reference	Form section	Reported data element	Database table | column
		freight and handling costs for processed crab products from the plant	CO_COST_GENERAL | CRAB_FREIGHT_COST
		product storage	CO_COST_GENERAL | PRODSTORAGE_COST
		water, sewer, and waste disposal	CO_COST_GENERAL | WASTE_COST
		Other Crab specific costs (describe below)	CO_COST_OTHER_CRAB_DETAIL | OTHER_CRAB_DESC, OTHER_CRAB_COST
6.2	Annual Costs	Fuel, electricity, lubrication and hydraulic fluids	ANNUAL_COSTS_BY_LOCATION | FUEL_COST, FUEL_COFLAG
		Investments in plant and equipment (by location)	ANNUAL_COSTS_BY_LOCATION | CAPINV_COST, CAPINV_COFLAG
		repair and maintenance for plant and equipment (by location)	ANNUAL_COSTS_BY_LOCATION | RNM_COST, RNM_COFLAG
		Number of Employees for Foremen, Managers, and other Employees	ANNUAL_COSTS_GENERAL | SALARY_NUM, SALARY_COFLAG
		Salaries for Foremen, Managers, and other Employees	ANNUAL_COSTS_GENERAL | SALARY_COST, SALARY_COFLAG
		Other Plant specific costs (describe below)	ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_DESC, OTHER_AC_COST, OTHER_AC_COFLAG
7.0	Annual Totals, All Fisheries	annual totals for all fisheries, processing days	ANNUAL_TOTALS | TOTAL_DAYS_PROCESSING
		annual totals for all fisheries, gross FOB revenue	ANNUAL_TOTALS | TOTAL_FOB_REVENUE
		annual totals for all fisheries, finished pounds processed	ANNUAL_TOTALS | FINISHED_POUNDS_PROCESSED
		annual totals for all fisheries, processing labor costs	ANNUAL_TOTALS | TOTAL_LABOR_COSTS

OPERATIONAL INFORMATION

Tables containing information on vessel or plant activity level for crab harvest and production; includes data on througput without economic value assigned.

CRAB_ACTIVITY

Description	Days of activity related to crab fishing or production, reported by fishery.
Stratified by	BOOKLET_ID, FISHERY_CODE
Sector-year summary	ALL
Data quality notes	Data for vessel days are limited by discontinuities in the time series. Pre- and post-rationalization data for vessel days are not directly comparable due to a change in the variables defined to measure vessel operating days. Analysts should use particular caution when comparing days at sea from 1998, 2001, and 2004 EDR data to 2005 and later data for days fishing and days traveling/offloading. It is recommended that vessel days time series be supplemented with estimates of days fishing by fishery from CFEC fish tickets to provide a consistent measurement of days fishing through the entire data time series. Vessel days as measured by these variables do not include all operating days that a vessel incurs costs; additional days include days on strike, days in port working on vessel/gear maintenance, or days steaming between home and departure port. See column-level information for detail.

CRAB_ACTIVITY | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CRAB_ACTIVITY | TRIP_ID

Description	identifier for trip within a rationalized crab fishery

CRAB_ACTIVITY | BEGIN_DATE

Description	dates covered from, first period
Sector-year summary	CSF: 1998-
Data structure notes	Some processors included multiple date ranges for single fisheries, where a fishery spans Jan1. To accommodate this, the begin_date and end_date fields have been defined as primary keys. As such, observations for days_at_sea, days_fishing, days_travel_offload, days_processing, and pots_lost are stratified by fishery and data range.

CRAB_ACTIVITY | END_DATE

Description	dates covered to, first period
Sector-year summary	CSF: 1998-
Years audited	Harvest: | Processing:

CRAB_ACTIVITY | DAYS_AT_SEA

Description	days at sea
Sector-year summary	VC: 1998-2004
Year-version changes	Days at sea was collected in historical data collection; this changed to days fishing and days traveling and offloading for 2005 and later years. Days at sea includes travel to/from fishing grounds and excludes travel to/from out-of-state port and days offloading at processors; days fishing is days operating on fishing grounds. Days traveling and offloading includes days steaming to/from

	fishing grounds and days queuing and offloading at processors. All years exclude days traveling to/from out-of-state port; however, this was not explicit in the directions of the 2005 EDR and some observations may be inflated. Note that days fishing and days traveling/offloading do not sum to days at sea, which differ by number of days offloading.
Data quality notes	Pre- and post-rationalization data are not directly comparable due changes in the definition of data elements. 1998-2004 data were poorly documented in audit results and should be regarded as approximations. Neither days at sea nor days fishing + days traveling/offloading include days on strike, days in port working on vessel/gear maintenance, or days steaming between home and departure port, during which time additional costs are incurred for operating in the crab fishery. These data should be supplemented with crab observer program and CFEC fish ticket data to ensure a consistent basis for comparison over the full data series. Analysts should use caution when comparing days at sea from 1998, 2001, and 2004 EDR data to 2005 and 2006 data for days fishing and days traveling/offloading. As collected, these data are not directly comparable. It is recommended that historical data series be supplemented with estimates of days fishing by fishery from CFEC fish tickets and the state crab observer database to provide a consistent measurement of days fishing through the entire data time series. It should also be noted that short seasons (e.g., 50 hours) in the pre-rationalization period result in the potential for greater proportional measurement error for the days at sea variable and any statistics calculated on a per day basis using this data. The validation audit indicated that the documented basis for EDR entries for days fishing is most commonly fish ticket dates. The basis for data entered for days traveling and offloading is much less consistent and is often estimated. Analysts should also note that days at sea/fishing/traveling and offloading exclude days transiting to/from out of state port, days on strike, and days spent on repair and maintenance related to crab fishing.
Years audited	Harvest: 1998-2004 | Processing:

CRAB_ACTIVITY | DAYS_FISHING

Description	days fishing
Sector-year summary	VC: 2005-
Year-version changes	see year-version changes for days_at_sea variable
Data quality notes	see data quality notes for days at sea variable
Years audited	Harvest: 2005-2009 | Processing:

CRAB_ACTIVITY | DAYS_TRAVEL_OFFLOAD

Description	days traveling and offloading
Sector-year summary	VC: 2005-
Year-version changes	see year-version changes for days_at_sea variable
Data quality notes	see data quality notes for days at sea variable
Years audited	Harvest: 2006-2009 | Processing:

CRAB_ACTIVITY | DAYS_PROCESSING

Description	crab processing days
Sector-year summary	CSF: 1998-
Data quality notes	Days processing in individual fisheries are not mutually exclusive; summing across multiple fisheries will overcount total days in crab fisheries. Note that days_processing measures days on which crab processing occurred.
Years audited	Harvest: | Processing: 1998-2009

CRAB_ACTIVITY | POTS_LOST

Description	pots lost
Sector-year summary	VC: 1998-2004
Year-version changes	Pots lost was dropped from 2005 and later EDRs.
Data quality notes	The pots lost variable was inconsistently reported in 1998-2004 EDR and dropped from subsequent data collection. These data are not recommended for any use.

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
BEGIN_DATE		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										
END_DATE		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										
DAYS_AT_SEA	C	1998	C	3	9	0.89	0.11	0.00	0.00	0.00	0.50	1.00	1.00
		2001	C	3	8	0.88	0.13	0.00	0.00	0.00	0.57	1.00	1.00
		2004	C	3	8	0.88	0.13	0.00	0.38	0.00	0.53	0.97	0.97
	V	1998	C	24	57	0.42	0.58	0.00	0.07	0.00	0.11	0.98	0.98
		2001	C	26	48	0.56	0.44	0.00	0.00	0.00	0.12	1.00	1.00
		2004	C	32	55	0.56	0.44	0.00	0.15	0.00	0.13	0.81	0.81
DAYS_FISHING	C	2005	B	3	9	0.89	0.11	0.00	0.00	0.00	0.69	1.00	1.00
		2006	B	2	4	1.00	0.00	0.00	0.00	0.00	0.31	1.00	1.00
		2007	B	2	5	1.00	0.00	0.00	0.00	0.00	0.45	1.00	1.00
		2008	B	2	3	1.00	0.00	0.00	0.00	0.00	0.27	1.00	1.00
		2009	1	2	5	1.00	0.00	0.00	0.00	0.00	0.63	1.00	1.00
	V	2005	B	20	38	0.29	0.71	0.00	0.08	0.00	0.10	0.96	0.96
		2006	B	28	49	1.00	0.00	0.00	0.14	0.02	0.25	0.91	0.95
		2007	B	27	64	0.78	0.03	0.19	0.13	0.00	0.31	0.95	0.95
		2008	B	28	49	1.00	0.00	0.00	0.12	0.00	0.27	0.98	0.98
		2009	1.67	23	49	0.86	0.14	0.00	0.12	0.02	0.29	0.94	0.94
DAYS_TRAVEL_OFFLOAD		2005	B										
	C	2006	B	2	4	1.00	0.00	0.00	0.00	0.00	0.27	1.00	1.00
		2007	B	2	5	1.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00
		2008	B	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	1	2	5	1.00	0.00	0.00	0.00	0.00	0.63	1.00	1.00
	V	2006	B	28	49	1.00	0.00	0.00	0.24	0.02	0.26	0.86	0.89
		2007	B	27	64	0.78	0.03	0.19	0.09	0.00	0.32	0.98	0.98
		2008	B	28	49	0.96	0.04	0.00	0.10	0.00	0.26	0.99	0.99
		2009	2	23	48	0.85	0.15	0.00	0.06	0.02	0.29	0.93	0.93

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
DAYS_PROCESSING	C	1998	B	3	6	1.00	0.00	0.00	0.00	0.00	0.40	1.00	1.00
		2001	B	3	5	1.00	0.00	0.00	0.00	0.00	0.42	1.00	1.00
		2004	B	3	5	1.00	0.00	0.00	0.00	0.00	0.33	1.00	1.00
		2005	B	3	6	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2006	B	2	4	1.00	0.00	0.00	0.00	0.00	0.29	1.00	1.00
		2007	B	2	5	1.00	0.00	0.00	0.00	0.00	0.45	1.00	1.00
		2008	B	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	1	2	5	1.00	0.00	0.00	0.20	0.00	0.63	1.00	1.00
	SF	1998	B	3	6	0.67	0.33	0.00	0.00	0.00	0.09	1.00	1.00
		2001	B	3	6	0.67	0.33	0.00	0.00	0.00	0.15	0.96	0.96
		2004	B	5	9	0.56	0.44	0.00	0.11	0.00	0.23	0.49	0.49
		2005	B	4	8	0.00	0.88	0.13	0.00		0.21		
		2006	B	5	17	1.00	0.00	0.00	0.12	0.00	0.46	1.00	1.00
		2007	B	4	13	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2008	B	3	11	1.00	0.00	0.00	0.00	0.00	0.28	1.00	1.00
		2009	1	6	17	1.00	0.00	0.00	0.24	0.00	0.49	0.99	0.99
POTS_LOST		98-04	C										

FISH_TICKETS

Description	ADF&G fish ticket numbers reported by fishery by catcher vessels.
Stratified by	BOOKLET_ID, FISHERY_CODE
Sector-year summary	HARVEST

FISH_TICKETS | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

FISH_TICKETS | FISH_TICKET_NUMBER

Description	CFEC fish ticket numbers, by fishery
Sector-year summary	V: 1998-
Data structure notes	Fish tickets data can be linked to CFEC catch accounting data.
Data quality notes	1998 through 2005 fish tickets as entered did not consistently include the full fish ticket ID with year code. CFEC fish ticket records have been linked to EDR records by database administrators using license numbers in the certification data section of the EDR (visible only to PSMFC). See the akfin_edr_fish_tickets_v table in the secondary data fields tab.

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FISH_TICKET_NUMBER		98-04	C										
		2005	C										
		2006-	C										
	V	2009	1.25										

CRAB_RAW

Description	Processing sector volume of raw crab pounds input to production (either processed by vessel/plant or sent for custom processing), reported by fishery.
Stratified by	BOOKLET_ID, FISHERY_CODE
Sector-year summary	PROCESSING
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CRAB_RAW | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CRAB_RAW | PROCESSED_POUNDS

Description	pounds of raw crab processed (purchased or landed by the vessel if CP) by the vessel/plant
Sector-year summary	CSF: 1998-
Year-version changes	Variable is intended to measure volume of raw crab input to processing. SP/FP historical and 2005 EDR forms labeled this variable "raw crab purchased" but decribed it as "raw crab pounds used in processing," and table included custom

processing by the plant. Changed to be consistent with CP form in 2006; see data quality notes.

Data quality notes: 1998-2005 SP/FP data may undercount raw crab pounds to some degree. Variable should be validated against COAR data.

Years audited: Harvest: | Processing: 1998-2009

CRAB_RAW | SUPPLIED_TO_CUSTOM_LBS

Description: pounds of raw crab sent for custom processing

Sector-year summary: CSF: 1998-

Data quality notes: Submitter feedback indicates that there is some ambiguity in reporting crab harvest, processing and landings in the CP sector. Custom processing by or for CPs is uncommon and appears to be a point of confusion in reporting. Also note that harvest and landings to processors by CPs is not recorded in the EDR forms for any year.

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
PROCESSED_POUNDS	C	1998	A	3	6	1.00	0.00	0.00	0.00	0.00	0.40	1.00	1.00
		2001	A	3	5	1.00	0.00	0.00	0.20	0.00	0.42	1.00	1.00
		2004	A	3	5	1.00	0.00	0.00	0.20	0.00	0.36	0.96	0.96
		2005	A	3	6	0.83	0.00	0.00	0.33	0.00	0.38	1.00	1.00
		2006	A	2	4	1.00	0.00	0.00	0.00	0.00	0.36	1.00	1.00
		2007	A	2	5	1.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00
		2008	A	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	1	2	5	1.00	0.00	0.00	0.20	0.00	0.63	1.00	1.00
	SF	1998	A	3	6	0.67	0.17	0.17	0.17	0.00	0.08	1.00	1.00
		2001	A	3	6	0.83	0.17	0.00	0.00	0.00	0.16	1.00	1.00
		2004	A	5	9	0.78	0.22	0.00	0.11	0.00	0.25	1.00	1.00
		2005	A	4	8	0.25	0.75	0.00	0.00	0.00	0.22		
		2006	A	5	17	1.00	0.00	0.00	0.06	0.00	0.47	1.00	1.00
		2007	A	4	13	1.00	0.00	0.00	0.08	0.00	0.38	0.79	0.79
		2008	A	3	11	1.00	0.00	0.00	0.00	0.00	0.28	1.00	1.00
		2009	1	6	17	1.00	0.00	0.00	0.00	0.00	0.47	1.00	1.00
SUPPLIED_TO_CUSTOM_LBS		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	1										

CRAB_PRODUCTION_OUT

Description: Processing sector volume of finished crab production, reported by fishery and other strata.

Stratified by: BOOKLET_ID, FISHERY_CODE, PRODUCT_CODE, PROCESS_CODE, CRAB_SIZE_CODE, CRAB_GRADE_CODE, BOX_SIZE, BOX_LB_KG, CUST_PROC_FLAG

Sector-year summary: PROCESSING

Data quality notes: Note that sale of crab product lags behind production for several months, depending on the length of time finished product is held in inventory. As such, sales reported in CRAB_PROCESS_SALES will not correspond completely to production reported in CRAB_PRODUCTION_OUT and sales may reflect production from prior

	year(s). Analysis of rents will require the multi-year production and sales process to accurately reflect net revenues. CRAB_SIZE_CODE and CRAB_GRADE_CODE do not support comparison of production quantity by size or grade across processors or time and are not recommended for use in analysis.

CRAB_PRODUCTION_OUT | FISHERY_CODE	
Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	see data structure notes for crab_production_out table

CRAB_PRODUCTION_OUT | PRODUCT_CODE	
Description	product code; see Appendix A, Table 7 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data structure notes for crab_production_out table

CRAB_PRODUCTION_OUT | PROCESS_CODE	
Description	process code; see Appendix A, Table 8 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data structure notes for crab_production_out table

CRAB_PRODUCTION_OUT | CRAB_SIZE_CODE	
Description	crab size code; see Appendix A Table 9 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	CRAB_SIZE_CODE and CRAB_GRADE_CODE do not support comparison of production quantity by size or grade across processors or time and are not recommended for use in analysis. Use of product code, process code, box size, and finished pounds data should note the lag between production and sales and the EDRfiling exemption of non-processing RCR permit holders. Crab sizing and grading is not consistent over time for a given processor or across different processors, and varies depending on the intended market for product; the data does not support comparison of production quantity by size or grade across processors or time. For most analytical purposes, data users should aggregate finished pounds values by product form (fishery code, product code, and process code) over all size and grade code values.

CRAB_PRODUCTION_OUT | CRAB_GRADE_CODE	
Description	crab grade code; see Appendix A, Table 10 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data quality notes for crab size code

CRAB_PRODUCTION_OUT | BOX_SIZE	
Description	box size
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data structure notes for crab_production_out table

CRAB_PRODUCTION_OUT | BOX_LB_KG	
Description	box size units (kg or lb)
Sector-year summary	CSF: 1998-

Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data structure notes for crab_production_out table

CRAB_PRODUCTION_OUT | CUST_PROC_FLAG

Description	custom processed flag; indicates raw crab was processed for other licensed registered crab receiver
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data structure notes for crab_production_out table

CRAB_PRODUCTION_OUT | FINISHED_LBS

Description	finished pounds for product form identified by code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_production_out table
Data quality notes	see data structure notes for crab_production_out table
Years audited	Harvest: | Processing: 2006

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
PRODUCT_CODE		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	1										
PROCESS_CODE		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	2										
CRAB_SIZE_CODE		98-04	C										
		2005	C										
		2006-	C										
	C	2009	1										
	SF	2009	2										
CRAB_GRADE_CODE		98-04	C										
		2005	C										
		2006-	C										
	C	2009	1										
	SF	2009	1										
BOX_SIZE		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										
BOX_LB_KG		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FINISHED_LBS		98-04	B										
		2005	B										
	C	2006	B	2	6	1.00	0.00	0.00	0.00	0.00	0.35	1.00	1.00
		2009	1										
	SF	2006	B	5	118	1.00	0.00	0.00	0.00	0.00	0.60	1.00	1.00
		2009	1										
CUST_PROC_FLAG		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										

LABOR INFORMATION

Tables containing information on crab harvesting and processing labor, including pay arrangements, employment, and employee residence.

CRAB_LABOR

Description	Data on crab labor employment (excluding salaried workers), including number of participants/positions/hours and pay.
Stratified by	BOOKLET_ID, FISHERY_CODE
Sector-year summary	ALL
Data quality notes	Audit review of crew labor payment data has been completed for all EDR years. Findings indicate that documentary support for all harvest labor variables was not provided for approximately one-third of 1998-2004 submitted EDR's, with substantial improvements in support in 2006-2007 (~75%) and 2007-current periods (~95%). Significant reporting error due to misinterpretation or miscalculation have continued to affect these variables, however, principally due to aggregation of captain and crew share payment. Unadjusted values for aggregate captain share payment values are likely to be biased downward, and crew share payment upwardly biased. Where appropriate, captain and crew share payment data should be aggregated. Corrected audit values are uniformly and directly supported by documentation, indicating that collection of these data could be improved with additional instructions.

CRAB_LABOR | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CRAB_LABOR | AVE_CREW_SIZE

Description	average number of crew members on vessel during the fishery, including captain
Sector-year summary	V: 1998-2004
Year-version changes	Dropped from EDR starting 2005.
Data quality notes	A change in the definition of harvest crew from number of crew earning shares to paid crew members may introduce systematic undercounting of paid crew in 1998-2004 data where some crew did not receive shares. Use the average number of crew variable as comparable to number of paid harvest crew plus captain. Use E-Landings data on crew count at landing to calculate average crew size by fishery.
Years audited	Harvest: | Processing:

CRAB_LABOR | CREW_EARNING_SHARES

Description	crab harvesting labor, no. of paid harvest crew, by fishery
Sector-year summary	VC: 1998-
Year-version changes	1998-2004: defined as number of harvest crew earning shares; 2005 and later EDRs: defined as number of paid harvest crew.
Data quality notes	Audit found harvest crew count and total payment to crew and captain data to be consistently supported by crew settlement records. Rates of support in 1998-2005, although well-below 100%, are higher for these data than for other audited variables. Submitter feedback indicates that these data are well documented and unambiguous. Confidence in data quality is high.
Years audited	Harvest: 1998-2009 | Processing:

CRAB_LABOR | CREW_SHARE_PAYMENT

Description	crab harvesting labor, total crew labor payment, by fishery
Sector-year summary	VC: 1998-

Year-version changes	1998-2004: defined as harvest crew share payment; 2005 and later EDRs: defined as harvest crew labor payment.
Data quality notes	see data quality notes for crew_earning_shares variable
Years audited	Harvest: 1998-2009 | Processing:

CRAB_LABOR | CAPTAIN_SHARE_PAYMENT

Description	crab harvesting labor, captain's labor payment, by fishery
Sector-year summary	VC: 1998-
Year-version changes	1998-2004: defined as captain harvest payment; 2005 and later EDRs: defined as captain labor payments.
Data quality notes	see data quality notes for crew_earning_shares variable
Years audited	Harvest: 1998-2009 | Processing:

CRAB_LABOR | NUM_PROCESSING_CREW

Description	crab processing labor, no. of crew with pay determined by processing work, by fishery
Sector-year summary	C: 1998-
Data quality notes	Harvest and processing labor are not mutually exclusive; summing num_processing_crew and crew_earning_shares may overcount total labor. Compare this to average crew size as validation check.
Years audited	Harvest: | Processing: 1998-2007, 2009

CRAB_LABOR | AVG_NUM_PROC_POSITIONS

Description	crab processing labor, average no. of crab processing positions, by fishery
Sector-year summary	CSF: 1998-
Data quality notes	Feedback from processors indicate that "crab processing positions" is artificial; the value is computed based on total man-hours assuming a 12-hour work day.
Years audited	Harvest: | Processing: 2007-2009

CRAB_LABOR | PROC_MAN_HRS

Description	crab processing labor, total man-hours, by fishery
Sector-year summary	SF: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: | Processing: 1998-2009

CRAB_LABOR | TOTAL_PROC_LABOR_PAYMENT

Description	crab processing labor, total processing labor payment, by fishery
Sector-year summary	CSF: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: | Processing: 1998-2009

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
AVE_CREW_SIZE		98-04	B										
CREW_EARNING_SHARES	C	1998	A	3	6	1.00	0.00	0.00	0.00	0.00	0.33	1.00	1.00
		2001	A	3	5	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2004	A	3	5	0.80	0.20	0.00	0.00	0.00	0.33	1.00	1.00
		2005	A	3	6	0.50	0.00	0.50	0.00	0.00	0.30	1.00	1.00
		2007	A	2	5	1.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00
		2008	A	2	6	1.00	0.00	0.00	0.00	0.00	0.40	1.00	1.00
		2009	3	2	5	1.00	0.00	0.00	0.00	0.00	0.63	1.00	1.00
	V	1998	A	25	58	0.59	0.40	0.02	0.03	0.00	0.11	0.95	0.95
		2001	A	27	49	0.71	0.27	0.02	0.02	0.00	0.12	0.99	0.99
		2004	A	33	56	0.68	0.30	0.02	0.02	0.00	0.13	0.98	0.98
		2005	A	21	39	0.54	0.41	0.03	0.03	0.00	0.10	0.97	0.97
		2006	A	28	49	0.96	0.00	0.04	0.12	0.00	0.25	0.87	0.87
		2007	A	27	63	0.86	0.00	0.14	0.14	0.00	0.32	0.90	0.90
		2008	A	28	48	1.00	0.00	0.00	0.13	0.00	0.27	0.81	0.81
		2009	1	23	47	1.00	0.00	0.00	0.06	0.00	0.28	0.98	0.98
CREW_SHARE_PAYMENT	C	1998	A	3	6	0.50	0.33	0.17	0.00	0.00	0.28	1.00	1.00
		2001	A	3	5	1.00	0.00	0.00	0.60	0.00	0.38	1.00	1.00
		2004	A	3	5	1.00	0.00	0.00	0.80	0.00	0.33	0.98	0.98
		2005	A	3	6	0.50	0.00	0.50	0.17	0.00	0.30	0.83	0.83
		2007	A	2	5	1.00	0.00	0.00	0.40	0.00	0.50	0.97	0.97
		2008	A	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	3	2	5	1.00	0.00	0.00	0.00	0.00	0.63	1.00	1.00
	V	1998	A	25	58	0.57	0.40	0.02	0.12	0.00	0.11	0.99	0.99
		2001	A	27	49	0.71	0.27	0.02	0.04	0.00	0.12	1.00	1.00
		2004	A	33	56	0.66	0.32	0.02	0.14	0.00	0.13	0.98	0.98
		2005	A	21	39	0.54	0.44	0.03	0.15	0.00	0.10	1.00	1.00
		2006	A	28	49	0.96	0.00	0.04	0.39	0.00	0.25	0.99	0.99
		2007	A	27	63	0.84	0.00	0.16	0.43	0.00	0.31	0.96	0.96
		2008	A	28	48	1.00	0.00	0.00	0.23	0.00	0.27	0.97	0.97
		2009	1.25	23	47	1.00	0.00	0.00	0.40	0.00	0.28	0.97	0.97
CAPTAIN_SHARE_PAYMENT	C	1998	A	3	6	0.50	0.33	0.17	0.00	0.00	0.28	1.00	1.00
		2001	A	3	5	1.00	0.00	0.00	0.20	0.00	0.38	1.00	1.00
		2004	A	3	5	0.60	0.40	0.00	0.40	0.00	0.33	1.00	1.00
		2005	A	3	6	0.50	0.00	0.50	0.17	0.00	0.30	0.94	0.94
		2007	A	2	5	1.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00
		2008	A	2	3	1.00	0.00	0.00	0.67	0.00	0.30	1.00	1.00
		2009	1	2	5	1.00	0.00	0.00	0.00	0.00	0.63	1.00	1.00
	V	1998	A	25	58	0.57	0.40	0.02	0.17	0.00	0.11	1.00	1.00
		2001	A	27	49	0.71	0.27	0.02	0.06	0.00	0.12	1.00	1.00
		2004	A	33	56	0.68	0.30	0.02	0.11	0.00	0.13	0.99	0.99
		2005	A	21	39	0.51	0.46	0.03	0.10	0.00	0.11	0.99	0.99
		2006	A	28	49	0.96	0.00	0.04	0.29	0.00	0.26	0.99	0.99
		2007	A	27	63	0.84	0.00	0.16	0.35	0.00	0.31	1.00	1.00
		2008	A	28	48	1.00	0.00	0.00	0.21	0.00	0.26	0.47	0.47
		2009	1.25	23	47	0.96	0.00	0.04	0.40	0.00	0.28	0.98	0.98

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
NUM_PROCESSING_CREW	C	1998	B	3	6	1.00	0.00	0.00	0.00	0.00	0.43	1.00	1.00
		2001	B	3	5	1.00	0.00	0.00	0.00	0.00	0.45	1.00	1.00
		2004	B	3	5	1.00	0.00	0.00	0.00	0.00	0.33	1.00	1.00
		2005	B	3	3	1.00	0.00	0.00	0.33	0.00	0.23	0.50	0.50
		2006	B	2	4	1.00	0.00	0.00	0.00	0.00	0.44	1.00	1.00
		2007	B	2	5	1.00	0.00	0.00	0.00	0.00	0.44	1.00	1.00
		2009	2	2	5	1.00	0.00	0.00	0.20	0.00	0.71	0.90	0.90
AVG_NUM_PROC_POSITIONS		98-04	B										
		2005	B										
	C	2007	B	2	5	1.00	0.00	0.00	0.00	0.00	0.40	1.00	1.00
		2008	B	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	2	2	5	1.00	0.00	0.00	0.20	0.00	0.63	0.74	0.74
	SF	2007	B	4	13	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2008	B	3	11	1.00	0.00	0.00	0.18	0.00	0.31	1.00	1.00
		2009	2	6	17	0.88	0.12	0.00	0.00	0.00	0.49	1.00	1.00
PROC_MAN_HRS	SF	1998	A	3	6	0.67	0.17	0.17	0.00	0.00	0.08	1.00	1.00
		2001	A	3	6	0.67	0.17	0.17	0.00	0.00	0.13	1.00	1.00
		2004	A	5	9	0.56	0.44	0.00	0.00	0.00	0.24	1.00	1.00
		2005	A	4	8	0.25	0.75	0.00	0.00	0.00	0.22		
		2006	A	5	17	1.00	0.00	0.00	0.06	0.00	0.46	1.00	1.00
		2007	A	4	13	1.00	0.00	0.00	0.38	0.00	0.38	1.00	1.00
		2008	A	3	11	1.00	0.00	0.00	0.09	0.09	0.28	1.00	1.00
		2009	2	6	17	1.00	0.00	0.00	0.18	0.00	0.49	1.00	1.00
TOTAL_PROC_LABOR_PAYMENT	C	1998	A	3	6	0.83	0.00	0.17	0.17	0.00	0.33	0.98	0.98
		2001	A	3	5	1.00	0.00	0.00	0.20	0.00	0.45	1.00	1.00
		2004	A	3	5	1.00	0.00	0.00	0.00	0.00	0.33	1.00	1.00
		2005	A	3	3	1.00	0.00	0.00	0.33	0.00	0.23	0.95	0.95
		2006	A	2	4	1.00	0.00	0.00	0.50	0.00	0.40	1.00	1.00
		2007	A	2	5	1.00	0.00	0.00	0.00	0.00	0.40	1.00	1.00
		2008	A	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	2	2	5	1.00	0.00	0.00	0.00	0.00	0.63	1.00	1.00
	SF	1998	A	3	6	0.67	0.17	0.17	0.00	0.00	0.08	1.00	1.00
		2001	A	3	6	0.67	0.17	0.17	0.17	0.00	0.13	1.00	1.00
		2004	A	5	9	0.56	0.44	0.00	0.33	0.00	0.24	1.00	1.00
		2005	A	4	8	0.25	0.75	0.00	0.00	0.00	0.22		
		2006	A	5	17	1.00	0.00	0.00	0.06	0.00	0.46	1.00	1.00
		2007	A	4	13	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2008	A	3	11	1.00	0.00	0.00	0.00	0.00	0.28	1.00	1.00
		2009	2	6	17	1.00	0.00	0.00	0.18	0.00	0.49	1.00	1.00

HARV_LABOR_PAY_DETAIL

Description	Harvest sector treatment of vessel costs in pay for crab labor.
Stratified by	BOOKLET_ID
Sector-year summary	HARVEST
Data structure notes	Entries are coded in 3-bit integer format as deducted | charged | not charged, with the following keys applied: 0: blank or null

	1: selected by submitter 2: N/C indicated by submitter 3: didn't know/unknown indicated by submitter (coded -9 in the original, historical CV/CP data). For example, '100' means deducted, '010' means charged, '001' means not charged, and '222' means the submitter indicated that the cost element did not apply. In some instances, submitters checked multiple boxes, for example, both deducted and charged (110), indicating that treatment of the cost element in crew settlements was not consistent across all crew members and/or for the duration of the calendar year. Empty cells indicate that the data element was not elicited in the EDR version completed by the submitter (e.g. treatment of IFQ costs was not elicited in 1998-2004 EDR forms).

HARV_LABOR_PAY_DETAIL | FUEL

Description	vessel costs treated in crew payment, fuel and lubrication costs
Sector-year summary	VC: 1998-
Data structure notes	Entry is coded in 3-bit integer format as deducted | charged | not charged, with the following keys applied: 0: blank or null 1: selected by submitter 2: N/C indicated by submitter 3: didnt know/unknown indicated by submitter (coded -9 in the original, historical CV/CP data). For example, '100' means deducted, '010' means charged, '001' means not charged, and '222' means the submitter indicated that the cost element did not apply. In some instances, submitters checked multiple boxes, for example, both deducted and charged (110), indicating that treatment of the cost element in crew settlements was not consistent across all crew members and/or for the duration of the calendar year. Empty cells indicate that the data element was not elicited in the EDR version completed by the submitter (e.g. treatment of IFQ costs was not elicited in 1998-2004 EDR forms).
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | FOOD

Description	vessel costs treated in crew payment, food and provisions
Sector-year summary	VC: 1998-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | BAIT

Description	vessel costs treated in crew payment, bait
Sector-year summary	VC: 1998-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel

Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | TAX

Description	vessel costs treated in crew payment, fish taxes
Sector-year summary	VC: 1998-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | OBSERV

Description	vessel costs treated in crew payment, observer program costs
Sector-year summary	VC: 1998-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | CDQ

Description	vessel costs treated in crew payment, CDQ lease costs
Sector-year summary	VC: 1998-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | IFQ

Description	vessel costs treated in crew payment, IFQ lease costs
Sector-year summary	VC: 2005-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Year-version changes	Introduced in 2005 EDR forms.
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | IPQ

Description	vessel costs treated in crew payment, IPQ lease costs
Sector-year summary	C: 2005-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Year-version changes	Introduced in 2005 EDR forms.
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | TRAVEL

Description	vessel costs treated in crew payment, travel costs
Sector-year summary	VC: 2006-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Year-version changes	Introduced in 2006 EDR forms.
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

HARV_LABOR_PAY_DETAIL | FREIGHT

Description	vessel costs treated in crew payment, freight costs
Sector-year summary	VC: 1998-2005
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Year-version changes	Dropped from 2006 EDR forms.
Data quality notes	No known data quality concerns.
Years audited	Harvest: | Processing:

HARV_LABOR_PAY_DETAIL | GEAR

Description	vessel costs treated in crew payment, lost gear costs
Sector-year summary	VC: 1998-
Data structure notes	see data structure notes for harv_labor_pay_detail:fuel
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FUEL		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
FOOD		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
BAIT		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
TAX		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
OBSERV		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
CDQ		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
IFQ		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
IPQ		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
TRAVEL		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
FREIGHT		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										
GEAR		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	V	2009	1										

HARV_LABOR_PAY_DTL_OTHER

Description	Harvest sector treatment of miscellaneous, submitter-defined vessel costs in pay for crab labor.
Stratified by	BOOKLET_ID
Sector-year summary	HARVEST

HARV_LABOR_PAY_DTL_OTHER | OTHER_LPD_DESC

Description	harvest labor pay detail description; other description; open-ended description
Sector-year summary	VC: 1998-
Data quality notes	These data are reported without specific direction and are not reliably or consistently reported. Lack of a reported value for any or all other cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine the appropriate use of these data. These data cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery.

HARV_LABOR_PAY_DTL_OTHER | OTHER_LPD_CODE

Description	harvest labor pay detail description; other, classified description
Sector-year summary	VC: 1998-
Data structure notes	This variable is derived from coding open-ended responses to "other harvest labor pay detail" descriptions.
Data quality notes	see data quality notes for other_lpd_desc variable

HARV_LABOR_PAY_DTL_OTHER | OTHER_LPD_VALUE

Description	harvest labor pay detail value; see data structure notes
Sector-year summary	VC: 1998-
Data structure notes	Value is encoded as Deducted|Charged|Not Charged, with 0=blank, 1=selected, 2=N/C.
Data quality notes	see data quality notes for other_lpd_desc variable
Years audited	Harvest: 2008 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
OTHER_LPD_CODE		98-04	C										
		2005	C										
		2006-	C										
OTHER_LPD_DESC		98-04	C										
		2005	C										
		2006-	C										
OTHER_LPD_VALUE		98-04	C										
		2005	C										
		2006-	C										
	C	2009	1										
	V	2009	1										

REVENUE_SHARES

Description	Harvest sector shares of ex-vessel or product revenue.
Stratified by	BOOKLET_ID, FISHERY_CODE
Sector-year summary	HARVEST
Data structure notes	1998-2004 catcher vessel EDRS and 1998-2005 catcher processor EDRs collected these data across all fisheries rather than separately by fishery. For observations from these EDRs, a default value of ALL is entered in the FISHERY_CODE field. Revenue share reporting was dropped from catcher processor EDRs in 2006.

REVENUE_SHARES | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Sector-year summary	V: 2005-

REVENUE_SHARES | REVSHARE_OWNER

Description	vessel owner's percentage of net share, by fishery
Sector-year summary	C: 1998-2005; V: 1998-
Year-version changes	1998-2005 catcher vessel and catcher processor EDRs labeled the vessel owner share of revenues variable as "Boat Share" which is inconsistent with use of the term in other fisheries; changed to "Owner Share" beginning in 2006 EDR to avoid misinterpretation. This is not expected to produce significant error in the data; however, these data can be validated by summing over revshare_owner, revshare_crew, and revshare_capt, which should sum to one (note that revshare_capt is not populated for 1998-2004 data see below).
Data quality notes	Numerous sources of variation in methods of reporting these data elements may confound variation associated with changes in crew compensation in the crab fishery. Careful analysis of these data is required to isolate variation in reporting from explanatory effects that can be attributed to these data elements. 1998-2004 CV and CP EDRs defined crew shares as including both captain and deck crew; comparison of 1998-2004 revshare_crew data to 2005 and later data requires aggregation of captain and crew shares (revshare_crew + revshare_capt) in 2005 and later data series. Some observations in the 2005 and later data reported captain and crew share data together; these observations are flagged in the URcode and UR field in the data record and should be censored in analysis focused on the

division of shares between captain and crew.

Analysts should note that deductions from crew pay (identified in harv_labor_pay_detail) will result in different basis for share payments and percentages; comparisons across vessels or years cannot be made without controlling for different deductions.

In cases where an owner operates multiple vessels, payments to a particular crew may be based on the average daily revenue received by all vessels operated by the same owner. In such cases, differences in share percentages between vessels reflect vessel owners methods for distributing earnings more equitably among multiple crews rather than differences in actual crew share percentages across vessels under common ownership.

Years audited	Harvest: 2006, 2008-2009 | Processing:

REVENUE_SHARES | REVSHARE_CREW

Description	harvest crew percentage of net share, by fishery
Sector-year summary	C: 1998-2005; V: 1998-
Year-version changes	see year-version changes for revshare_owner variable
Data quality notes	see data quality notes for revshare_owner
Years audited	Harvest: 2006, 2008-2009 | Processing:

REVENUE_SHARES | REVSHARE_CAPT

Description	captain's percentage of net share, by fishery
Sector-year summary	C: 2005; V: 2005-
Year-version changes	see year-version changes for revshare_owner variable
Data quality notes	see data quality notes for revshare_owner
Years audited	Harvest: 2006, 2008-2009 | Processing:

REVENUE_SHARES | REVSHARE_PROCEMP_NET

Description	processing worker revenue shares; percentage of net share
Sector-year summary	C: 1998-2005
Data structure notes	Processing employee revenue shares are reported over all crab fisheries (fishery code = all) in 1998-2005 EDRs, as either percentage of product value or percentage of net revenue share. Process employee shares were dropped from CP EDR in 2006.
Data quality notes	Processing worker revenue shares were included in the EDR data collection for the CP sector from 1998-2005, and were reported as percentage of net product value or a net share, but were not differentiated among different crab fisheries. Submitter feedback indicates that the standard basis for share payments in the CP sector is FOB AK revenues for crab sales, but this was not specified in the form and variation in share basis across vessels is not controlled for. The processing employee revenue share (revshare_procemp_net, revshare_procemp_prodval) data elements were dropped from the data collection in 2006. Data for CP processing worker revenue shares are not considered reliable for analysis of changes in processing crew compensation.
Years audited	Harvest: | Processing:

REVENUE_SHARES | REVSHARE_PROCEMP_PRODVAL

Description	processing worker revenue shares; percentage of product value
Sector-year summary	C: 1998-2005
Data structure notes	see data structure notes for revshare_procemp_net variable
Data quality notes	see data quality notes for revshare_procemp_net

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
REVSHARE_OWNER		98-04	B										
		2005	B										
	V	2006	B	17	29	1.00	0.00	0.00	0.17	0.00	0.15	0.71	0.71
		2008	B	28	48	1.00	0.00	0.00	0.17	0.00	0.27	0.98	0.98
		2009	1	23	47	0.96	0.04	0.00	0.15	0.00	0.28	0.61	0.61
REVSHARE_CAPT		98-04	B										
		2005	B										
	V	2006	B	18	31	1.00	0.00	0.00	0.10	0.00	0.17	0.98	0.98
		2008	B	28	48	0.96	0.00	0.04	0.04	0.00	0.26	0.79	0.79
		2009	1	23	47	0.91	0.04	0.04	0.09	0.02	0.27	0.98	0.98
REVSHARE_CREW		98-04	B										
		2005	B										
	V	2006	B	18	31	1.00	0.00	0.00	0.26	0.00	0.16	0.74	0.74
		2008	B	28	48	0.96	0.00	0.04	0.15	0.00	0.26	0.96	0.96
		2009	1	23	47	0.96	0.04	0.00	0.17	0.00	0.28	0.65	0.65
REVSHARE_PROCEMP_NET		98-04	C										
		2005	C										
		2006-	C										
REVSHARE_PROCEMP_PRODVAL		98-04	C										
		2005	C										

CREW_RESIDENCE

Description	Employee location of residence.
Stratified by	BOOKLET_ID, LOCATION, LOCATE_CODE
Sector-year summary	ALL

CREW_RESIDENCE | LOCATION

Description	identifies Alaska city of residence, state of residence if not Alaska, and country of residence if not US
Sector-year summary	V: 1998-2005; CSF: 1998-
Data quality notes	Feedback indicated that there was low confidence in residence information by submitters, particularly regarding foreign workers with nonlocal US residence address. Data submitted is frequently a legal address rather than residence address. Counts of Alaska residence are likely of greater accuracy. Reported place of residence (location) acts as a primary key in the relational structure, however, due to incompleteness of reporting in 1998-2004 data, lack of a crew or employee count observation for a given location does not reliably indicate that no crew or process employee from that location participated in the crab fishery. See the EDR metadata for a full description of changes and the relational structure of these data elements.

CREW_RESIDENCE | LOCATE_CODE

Description	location(s) of crew/employee residence classified per Appendix A, Table 1
Sector-year summary	V: 1998-2005; CSF: 1998-
Data structure notes	Data is converted from original open-ended city/state/country responses per coding in Appendix A, Table 1.

CREW_RESIDENCE | HCREW_RES_COUNT

Description	count of harvest crew with city, state, or country of residence as identified by location or locatecode
Sector-year summary	C: 2005; V: 1998-2005
Year-version changes	Data for CV harvest crew residence used counts by open-ended location in 1998-2001 EDRs; 2005 CP and CV EDRs requires commercial crew lic num or CFEC gear operator permit and residence for each captain or crew; 2006 EDR requires only crew license number and/or CFEC permit number.
Data quality notes	Multiple structural changes in the collection of these data in catcher processor and catcher vessel EDRs occurred over the 1998-2006 period and use of these data will require adjustments for lack of continuity in the time series. Prior to 2006, CV and CP harvest crew and processing employee counts, residence, and crew license data are incomplete and should not be taken to represent a full census of all crew and process employee participants in the crab fisheries. Aggregating data for CP harvest and processing crew will overcount fishery participation due to CP crews labor in both harvest and processing activity. Non-Alaska residence information is unverified. Crew and processing employee count data are intended to measure counts of individuals that participated in the fishery during some or all of the crab seasons in the calendar year; they are not a measure of crab crew size or exclusively crab processing labor force. Data for CV harvest crew residence and harvest crew count (location, hcrew_res_count), used counts by open-ended location in 1998-2004 EDRs. The 2005 CV EDRs separated reporting for licensed and unlicensed crew, with reporting of commercial crew license number or CFEC gear operator permit and place of residence for each licensed captain or crew member on the vessel during the reporting year. Counts of employees without crew license by place of residence were also collected in the 2005 CV EDR; given that unlicensed crew on catcher vessels is prohibited by law, submitter feedback has indicated that these data represent crew with unknown license numbers, and have been aggregated with counts of licensed crew by residence in the database. The hcrew_res_count variable for 2005 is considered a complete count of crew who worked on the vessel during the calendar year. As with SP/FP data, counts by Alaska residence are considered reliable; out-of-state residence information is unverified. Data for CP crew residence and crew count (location, labor_res_count) collected in 1998-2004 CP EDRs combined counts of harvest and process workers, by residence location. 2005 CP EDRs differentiated between licensed harvest crew and unlicensed employees (hcrew_res_count, procemp_res_count) and required reporting crew license or gear permit and place of residence for licensed crew. 2006 CP EDRs distinguished between harvest crew and processing employee, requiring only license number or gear permit for harvest crew, and counts by residence location for processing employees. Submitter feedback indicates that CP crew participate in both harvest and processing labor and hcrew_res_count includes crew who participated in processing activity. Aggregating counts by location for hcrew_rescount and procemp_res_count may overcount total participation and is not directly comparable to 1998-2004 CP labor_res_count data.

CREW_RESIDENCE | PROCEMP_RES_COUNT

Description	count of processing workers with city, state, or country of residence as identified by location or locatecode
Sector-year summary	C: 2005-; SF: 1998-
Data structure notes	Data is converted from original open-ended city/state/country responses

Year-version changes	Processing employees on CPs were combined with harvest crew in 1998-2001 EDRs and differentiated as "employees without crew license" in 2005 EDRs. Beginning in 2006 EDR, processing crew data uses same table in CP, SP and FP EDRs.
Data quality notes	Participation of individual processor employees in crab processing is not systematically tracked and counts may represent entire processing labor force. In some cases, these data substantially over-count crab processing employees by residence and cannot be used to identify locational impact of crab processing employment. Feedback indicated that there was low confidence in residence information by submitters, particularly regarding foreign workers with nonlocal US residence address. Data submitted is frequently legal address rather than residence address. Counts of Alaska residence are likely of greater accuracy. Employee place of residence reported is that held on record by the employer and is not verified, however,local and Alaska residency is considered to be accurate where reported due to employer familiarity with local resident employees and state enforcement of Alaska residency requirements for Permanent Fund eligibility. Also see hcrew_res_count and labor_res_count data quality notes.

CREW_RESIDENCE | LABOR_RES_COUNT

Description	combined count of processing workers and harvest crew with city, state, or country of residence as identified by location or locatecode
Sector-year summary	C: 1998-2004
Data structure notes	Data is converted from original open-ended city/state/country responses
Year-version changes	Data is from 1998-2001 CP EDRs only and combines counts of harvest and process workers; 2005 and subsequent CP EDRs differentiated b/w counts of process employees and harvest crew .
Data quality notes	see data quality notes for hcrew_res_count variable
Years audited	Harvest: | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
LOCATION		98-04	B										
		2005	B										
HCREW_RES_COUNT		98-04	C										
		2005	B										
PROCEMP_RES_COUNT		98-04	C										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	3										
LABOR_RES_COUNT		98-04	C										

HARV_CREW_LIC_PERMIT_NUMS

Description	Harvest sector self-reported CFEC crew license and gear operator permit numbers.
Stratified by	BOOKLET_ID
Sector-year summary	HARVEST

HARV_CREW_LIC_PERMIT_NUMS | SEQ

Description	database-generated unique identifier

HARV_CREW_LIC_PERMIT_NUMS | CREW_LIC_NUMS

Description	harvest crew license numbers
Sector-year summary	VC: 2005-
Data structure notes	license numbers can be linked to ADFG crew license database for residence information.
Year-version changes	2005 CV and CP EDRs required recording of license number or operator permit and city/state residence for each crew/captain; 2006 and subsequent EDRs dropped residence variable.
Data quality notes	Crew license reporting was incomplete in 2005 data. 2006 data is complete with no known data quality concerns. Distribution of income among licensed crew cannot be determined from EDR data.

HARV_CREW_LIC_PERMIT_NUMS | CREW_GEAR_PERMIT_NUM

Description	CFEC gear operator permit numbers for captain and crew members
Sector-year summary	VC: 2005-
Data structure notes	gear operator permit numbers can be linked to CFEC permit database for residence information.
Data quality notes	Feedback indicated that gear operator permit for vessel captain was consistently and accurately reported. Other crew with gear operator permits may not be consistently reported in 2005 data. 2006 data is complete with no known data quality concerns.

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
CREW_LIC_NUMS		2005	B										
		2006-	A										
	C	2009	1										
	V	2009	1.75										
CREW_GEAR_PERMIT_NUM		2005	B										
		2006-	A										
	C	2009	1										
	V	2009	2.5										

REVENUE INFORMATION

Tables containing information on crab harvesting and processing labor, including pay arrangements, employment, and employee residence.

CV_CRAB_LANDING_REVENUE

Description	Volume and ex-vessel value of catcher vessel crab landings, reported by fishery and quota type.
Stratified by	BOOKLET_ID, FISHERY_CODE, QUOTA_SHARE_TYPE
Sector-year summary	HARVEST

CV_CRAB_LANDING_REVENUE | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CV_CRAB_LANDING_REVENUE | QUOTA_SHARE_TYPE

Description	harvest quota permit class (A, B, or C shares)
Sector-year summary	V: 2006-
Data structure notes	Stratification by IFQ type begins with 2006 data. A value of 'N/A' is used for records from prior to 2006 in the quota_share_type field.

CV_CRAB_LANDING_REVENUE | POUNDS

Description	pounds sold, by fishery
Sector-year summary	V: 1998-
Year-version changes	Ex-vessel pounds landed and gross revenue were reported by fishery in the 1998-2004 EDRs. Pounds, revenue, and deadloss were reported by fishery in 2005. Pounds, revenue and deadloss by fishery were disaggregated by IFQ type in 2006 EDR. Aggregating 2006 pounds, revenue and deadloss data, respectively, across IFQ type, provides total figures by fishery that are directly comparable to pounds, revenue and deadloss (2005 only) data from 1998-2005.
Data quality notes	Pounds landed by fishery and IFQ type are validated against CFEC fish ticket data. Audit results also indicate that the basis for data entered for pounds landed and landing revenue by fishery and IFQ type is well documented and comprises the basis for crew settlement data. Note that CFEC landing value data do not reflect the full value of post-season adjustments and do not compare directly to *_revenue figures. Statistics are presented for comparison of fish ticket revenues to EDR revenues, but the differential cannot be attributed to error in either fish ticket or EDR values. Note that crab buyers that do not process crab (e.g., processors that send all crab for custom processing) are exempt from the EDR requirement and are not represented in the EDR data. Therefore, the sum of pounds sold by harvesters in a given fishery may not equal pounds_purchased summed over all processors and in some cases may diverge by as much as 40%.
Years audited	Harvest: 2006 | Processing:

CV_CRAB_LANDING_REVENUE | DEADLOSS

Description	deadloss pounds, by fishery
Sector-year summary	V: 2005-
Year-version changes	see year-version changes for pounds variable
Data quality notes	see data quality notes for pounds variable
Years audited	Harvest: 2006 | Processing:

CV_CRAB_LANDING_REVENUE | REVENUE

Description	gross revenue from ex-vessel sale, by fishery
Sector-year summary	V: 1998-
Year-version changes	see year-version changes for pounds variable
Data quality notes	see data quality notes for pounds variable
Years audited	Harvest: 2006-2009 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
POUNDS		98-04	B										
		2005	B										
	V	2006	B	13	50	1.00	0.00	0.00	0.22	0.04	0.11	0.97	0.97
		2009	1										
DEADLOSS		2005	B										
	V	2006	B	11	39	0.95	0.00	0.05	0.08	0.03	0.10	0.06	0.06
		2009	1										
REVENUE		98-04	B										
		2005	B										
	V	2006	B	11	44	1.00	0.00	0.00	0.39	0.05	0.10	0.87	0.86
		2007	B	27	192	0.83	0.00	0.17	0.27	0.00	0.31	0.99	0.99
		2008	B	28	106	1.00	0.00	0.00	0.20	0.04	0.26	0.00	0.00
		2009	1.67	23	109	1.00	0.00	0.00	0.22	0.00	0.28	1.00	1.00

OWNER_IFQ_ALLOCATION

Description	Harvest sector vessel owner's amount of IFQ harvested or transferred, with revenue from transfer, reported by fishery and quota type.
Stratified by	BOOKLET_ID, FISHERY_CODE, QUOTA_SHARE_TYPE
Sector-year summary	HARVEST
Year-version changes	Monitoring of EDR submitters' use of harvest quota began in 2005. Both the use of the owner's vessel and lease/transfer to other harvesters is collected by fishery and by quota type.
Data quality notes	The 2005 data for pounds_harvested, pounds_transferred, and revenue_from_transfer for all fisheries and quota types were poorly documented in the validation audit, reflected highly irregular transaction agreements, and are not regarded as reliable. The 2006 data are better supported and appear to be accurate, but still reflect highly variable, irregular transactions. Use of these data in published analysis should address data quality limitations, particularly with regard to heterogeneity in lease rates. The validation audit for 2005 and 2006 EDR data indicated that pound and revenue data for owner quota transfers to other harvesters are of limited quality, although accuracy and support improved in 2006. For 2005, 15 (34%) of audited EDR submitters were found to have leased out quota, of which 7 provided documented basis. In audit of 2006 data, 15 (54%) of vessel EDR submitters were found to have leased out quota. All 2006 submitters provided basis for submitted data. A small number of gross outliers are the source of most error in 2006 audited data.

Analysts should use caution interpreting the lease revenue data for all years. The 2005 data should not generally be regarded as reliable. Although measurement error in 2006 pounds and cost data appears to be largely restricted to outliers, submitter feedback indicates that these data are difficult to interpret given the large number of irregular, non-arms length transactions, including market-rate transactions, trades between affiliates, and in-kind transactions, and differences in management of distinct pools of quota shares held by a given vessel owner. While 2006 reported values may be accurate representations of transactions, they are not necessarily indicative of competitive equilibrium prices in the quota market.

Note that revenue for quota lease represents a separate revenue stream from harvest revenue for quota owners, and is independent of all other revenue and cost figures represented in the EDR and are unlikely to be used in analysis of vessel harvest cost and income. As a source of data for analysis of the quota lease market, 2006 data can be used with careful attention to outliers and heterogeneity in transaction types. Use of 2005 data, except for limited purposes, is not recommended."

OWNER_IFQ_ALLOCATION | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Sector-year summary	
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.
Year-version changes	
Data quality notes	
Years audited	Harvest: | Processing:

OWNER_IFQ_ALLOCATION | QUOTA_SHARE_TYPE

Description	harvest quota permit type (IPQ, CPO-IFQ, CVO-IFQ-A, CVO-IFQ-B)
Sector-year summary	VC: 2005-
Data structure notes	
Year-version changes	see year-version changes for owner_ifq_allocation_table
Data quality notes	see data quality notes for owner_ifq_allocation table
Years audited	Harvest: | Processing:

OWNER_IFQ_ALLOCATION | POUNDS_HARVESTED

Description	vessel owner's quota harvested on vessel, pounds harvested by fishery and quota permit type
Sector-year summary	VC: 2005-
Data structure notes	
Year-version changes	see year-version changes for owner_ifq_allocation_table
Data quality notes	see data quality notes for owner_ifq_allocation table
Years audited	Harvest: 2007 | Processing:

OWNER_IFQ_ALLOCATION | POUNDS_TRANSFERRED

Description	vessel owner's quota leased/transferred to another vessel, pounds leased, by fishery and quota permit type
Sector-year summary	VC: 2005-
Data structure notes	
Year-version changes	see year-version changes for owner_ifq_allocation_table
Data quality notes	see data quality notes for owner_ifq_allocation table
Years audited	Harvest: 2006-2007 | Processing:

OWNER_IFQ_ALLOCATION | REVENUE_FROM_TRANSFER

Description	vessel owner's quota leased/transferred to another vessel, revenue, by fishery and quota permit type
Sector-year summary	VC: 2005-
Year-version changes	see year-version changes for owner_ifq_allocation_table
Data quality notes	see data quality notes for owner_ifq_allocation table
Years audited	Harvest: 2005-2007 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
POUNDS_HARVESTED		2005	C										
	C	2007	C	2	5	1.00	0.00	0.00	0.00	0.00	0.45	1.00	1.00
		2009	1										
	V	2007	C	27	192	0.84	0.00	0.16	0.08	0.00	0.29	0.99	0.99
		2009	1.5										
POUNDS_TRANSFERED		2005	C										
	C	2006	C	2	12	0.00	0.00	1.00	0.00		0.00		
		2009	1										
	V	2006	C	28	172	0.20	0.02	0.77	0.07	0.00	0.27	0.98	0.98
		2007	C	27	192	0.18	0.02	0.80	0.06	0.06	0.31	0.87	0.99
		2009	2										
REVENUE_FROM_TRANSFER	C	2006	C	2	12	0.00	0.00	1.00	0.00		0.00		
		2009	1										
	V	2005	C	12	25	0.44	0.40	0.04	0.32	0.64	0.13	0.60	1.00
		2006	C	28	172	0.19	0.02	0.78	0.10	0.00	0.24	0.36	0.36
		2007	C	27	192	0.18	0.02	0.80	0.09	0.03	0.33	1.00	1.00

CRAB_PROCESS_SALES

Description	Processing sector sales revenue and volume of sold processed crab, reported by fishery and other strata.
Stratified by	BOOKLET_ID, SPP_CODE, PRODUCT_CODE, PROCESS_CODE, CRAB_SIZE_CODE, CRAB_GRADE_CODE, BOX_SIZE, BOX_LB_KG, AFFILIATED_SALE_FLAG, FOB_PORT
Sector-year summary	PROCESSING
Data structure notes	Note that sale of crab product lags behind production for several months, depending on the length of time finished product is held in inventory. As such, sales reported in crab_process_sales will not correspond completely to production reported in crab_production_out and sales may reflect production from prior year(s). Analysis of rents will require the multi-year production and sales process to accurately reflect net revenues.
Data quality notes	Due to the reporting exemption of registered crab receiver (RCR) permit holders that purchased but did not process crab, total volume of crab in processing sector is undercounted in Annual BSAI Crab Sales tables.

CRAB_PROCESS_SALES | SPP_CODE

Description	crab species code; see Appendix A, Table 11 for species code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | PRODUCT_CODE

Description	product code; see Appendix A, Table 7 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | PROCESS_CODE

Description	process code; see Appendix A, Table 8 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | CRAB_SIZE_CODE

Description	crab size code; see Appendix A Table 9 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	Crab_size_code and crab_grade_code do not support comparison of production quantity by size or grade across processors or time. Use of product code, process code, box size, and finished pounds data should note the lag between production and sales and the EDRfiling exemption of non-processing RCR permit holders. Crab sizing and grading is not consistent over time for a given processor or across different processors, and varies depending on the intended market for product; the data does not support comparison of production quantity by size or grade across processors or time.

CRAB_PROCESS_SALES | CRAB_GRADE_CODE

Description	crab grade code; see Appendix A, Table 10 for code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data quality notes for crab size code

CRAB_PROCESS_SALES | BOX_SIZE

Description	box size
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | BOX_LB_KG

Description	box size units (kg or lb)
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | FINISHED_POUNDS_SOLD

Description	finished pounds sold for product form identified by code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table
Years audited	Harvest: | Processing: 1998-2006

CRAB_PROCESS_SALES | FOB_REVENUES

Description	total revenues for finished pounds of product form identified by code values
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table

Data quality notes	see data structure notes for crab_process_sales table
Years audited	Harvest: | Processing: 1998-2006

CRAB_PROCESS_SALES | FOB_PORT

Description	port of lading for FOB value; Seattle or Alaska
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | AFFILIATED_SALE_FLAG

Description	identifier for sales to affiliated entities; 0=not affliated/1=affiliated
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

CRAB_PROCESS_SALES | AFFILIATED_SALE_FLAG

Description	identifier for sales to affiliated entities; 0=not affliated/1=affiliated
Sector-year summary	CSF: 1998-
Data structure notes	see data structure notes for crab_process_sales table
Data quality notes	see data structure notes for crab_process_sales table

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
SPP_CODE		98-04	B										
		2005	B										
		2006-	B										
PRODUCT_CODE		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	1										
PROCESS_CODE		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	2										
CRAB_SIZE_CODE		98-04	C										
		2005	C										
		2006-	C										
	C	2009	1										
	SF	2009	2										
CRAB_GRADE_CODE		98-04	C										
		2005	C										
		2006-	C										
	C	2009	1										
	SF	2009	1										
BOX_SIZE		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	1										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
BOX_LB_KG		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										
FINISHED_POUNDS_SOLD	C	1998	B	3	12	0.92	0.00	0.08	0.00	0.00	0.48	1.00	1.00
		2001	B	3	13	0.92	0.00	0.00	0.15	0.00	0.72	1.00	1.00
		2004	B	3	18	0.89	0.00	0.06	0.06	0.00	0.71	0.99	0.99
		2005	B	3	15	0.73	0.07	0.13	0.07	0.00	0.87	0.65	0.65
		2006	B	2	6	1.00	0.00	0.00	0.00	0.00	0.18	1.00	1.00
		2009	1										
	SF	1998	B	3	55	0.98	0.02	0.00	0.00	0.00	0.22	1.00	1.00
		2001	B	3	49	0.92	0.08	0.00	0.00	0.00	0.36	1.00	1.00
		2004	B	5	88	0.80	0.20	0.00	0.00	0.00	0.55	1.00	1.00
		2005	B	4	85	0.41	0.59	0.00	0.00	0.00	0.51	1.00	1.00
		2006	B	5	94	1.00	0.00	0.00	0.00	0.00	0.42	1.00	1.00
		2009	1										
FOB_REVENUES	C	1998	B	3	6	0.67	0.00	0.17	0.00	0.00	0.22	1.00	1.00
		2001	B	3	6	0.83	0.00	0.00	0.00	0.00	0.33	1.00	1.00
		2004	B	3	9	0.78	0.00	0.11	0.22	0.00	0.33	0.07	0.07
		2005	B	3	6	0.50	0.00	0.50	0.00	0.00	0.25	1.00	1.00
		2006	B	2	6	1.00	0.00	0.00	0.00	0.00	0.18	1.00	1.00
		2009	1										
	SF	1998	B	2	27	1.00	0.00	0.00	0.00	0.00	0.11	1.00	1.00
		2001	B	3	22	0.95	0.05	0.00	0.00	0.00	0.16	1.00	1.00
		2004	B	4	40	0.83	0.05	0.13	0.00	0.00	0.23	1.00	1.00
		2005	B	3	39	0.51	0.49	0.00	0.00	0.00	0.23	1.00	1.00
		2006	B	5	94	1.00	0.00	0.00	0.00	0.00	0.42	1.00	1.00
		2009	1										
FOB_PORT		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										
AFFILIATED_SALE_FLAG		98-04	A										
		2005	A										
		2006-	A										
	C	2009	1										
	SF	2009	1										

CUSTOM_PROCESS_PROVIDED

Description	Processing sector custom crab processing revenue and volume of crab custom processed, reported by fishery and other strata.
Stratified by	BOOKLET_ID, FISHERY_CODE, PRODUCT_CODE, PROCESS_CODE
Sector-year summary	PROCESSING

CUSTOM_PROCESS_PROVIDED | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values

Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CUSTOM_PROCESS_PROVIDED | PRODUCT_CODE

Description	product code; see Appendix A, Table 7 for code values
Sector-year summary	CSF: 1998-
Data quality notes	No known data quality concerns.

CUSTOM_PROCESS_PROVIDED | PROCESS_CODE

Description	process code; see Appendix A, Table 8 for code values
Sector-year summary	CSF: 1998-
Data quality notes	No known data quality concerns.

CUSTOM_PROCESS_PROVIDED | CUSTOM_PROCESS_POUNDS

Description	pounds processed, by fishery and product/process
Sector-year summary	CSF: 1998-
Data structure notes	Pounds of custom processed crab is recorded in Table 1.2(CP) and 1.0 (SP/FP) and must be summed by fishery code over size/grade/box size values to derive this variable. Due to inconsistencies in reporting by product and process code, this field has not been populated.
Data quality notes	No known data quality concerns.
Years audited	Harvest: | Processing: 1998-2005, 2007

CUSTOM_PROCESS_PROVIDED | CUSTOM_PROCESS_REVENUE

Description	revenue received for custom processing the specified product
Sector-year summary	CSF: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: | Processing: 2007

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FISHERY_CODE	SF	2009	1										
PRODUCT_CODE		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	1										
PROCESS_CODE		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	2										
CUSTOM_PROCESS_POUNDS	C	1998	A	3	6	0.00	1.00	0.00	0.00				
		2001	A	3	7	0.00	0.86	0.14	0.00				
		2004	A	3	9	0.00	1.00	0.00	0.00				
		2005	A	3	9	0.00	1.00	0.00	0.00				
		2007	A	2	5	1.00	0.00	0.00	0.00	0.00		1.00	1.00
	SF	1998	A	3	28	0.50	0.50	0.00	0.00	0.00		1.00	1.00
		2001	A	3	26	0.69	0.31	0.00	0.00	0.00		1.00	1.00
		2004	A	5	44	0.41	0.57	0.02	0.00	0.00		1.00	1.00
		2005	A	4	44	0.34	0.64	0.02	0.00	0.00		1.00	1.00
		2007	A	4	13	1.00	0.00	0.00	0.00	0.00		1.00	1.00

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
CUSTOM_PROCESS_REVENUE		98-04	A										
		2005	A										
	C	2007	A	2	5	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	SF	2007	A	4	13	1.00	0.00	0.00	0.00	0.00	0.03	1.00	1.00
		2009	1										

COST INFORMATION

Tables containing information on plant or vessel expenditures specific to crab activity or to all processing and harvesting activity over the year.

CO_COST_GENERAL

Description	Crab-specific costs, not stratified by fishery or location.
Stratified by	BOOKLET_ID
Sector-year summary	ALL

CO_COST_GENERAL | INSURANCE_PREM_COST

Description	BSAI crab-specific costs; insurance premiums
Sector-year summary	VC: 1998-
Data structure notes	Annual insurance premiums are reported separately for 2005 and later EDRs; see annual_costs_general table.
Year-version changes	2005 and later EDR directions included cost of insurance pool participation.
Data quality notes	These data do not provide a reliable measure of variation in insurance costs across vessels/plants or over time. Numerous sources of variation in methods of reporting these data elements, terms of insurance contracts, and methods of insurance procurement are likely to confound and may overwhelm any variation associated with changes in insurance costs due to rationalization or further changes in the crab fishery. Submitter feedback has indicated that P&I insurance costs are determined by numerous factors unrelated to the crab fishery (including the global underwriting market and delayed billing to vessel operators). As such, associating insurance costs with the effects of rationalization or other changes in the fishery cannot be determined with EDR data. Costs reported for a given year largely reflect costs of insurance claims for previous years and are lagged to an unknown degree. Any use of these data should include additional efforts to accurately reflect the behavior of the insurance market in commercial fisheries. Crab-only insurance costs as reported are based on either crab fishery-specific premiums or prorating annual insurance costs based on days in fishery. 98-04 EDRs did not specify treatment of insurance pool costs and these data undercount insurance pool costs to an unknown degree. The 2005 audit examined crab-only costs and excluded annual insurance costs reported in Table 5.2/6.2. Thus, most reporting error found in audit resulted from a zero insurance cost reported compared to an audit finding of positive insurance cost; however, other sources of error were not described by auditors, and audit-based validation information for 2005 data is incomplete. 2006 audit results reflect both crab-only and annual insurance cost with findings of a high degree of support and accuracy; however, this should be considered in light of the complexity of insurance premium determination noted above.
Years audited	Harvest: 1998-2006 | Processing:

CO_COST_GENERAL | INSURANCE_DEDUCT_COST

Description	BSAI crab-specific costs; insurance deductible fees
Sector-year summary	ALL: 1998-
Data quality notes	Deductible costs are reported by small number of EDR submitters due to the incidental nature of costs. Audit indicates that reporting error is derived from a single observation in the audit sample for each year; where deductible cost is

	reported, it is generally accurate. Use of this variable in analysis should reflect the probabilistic and incidental nature of this cost element, rather than as an ordinary variable operating cost. Note that deductible costs are frequently not finalized by the EDR submission deadline for claims entered in the previous year; as such, deductible costs reported in a given year may reflect incidents from the previous year.
Years audited	Harvest: 1998-2006 | Processing:

CO_COST_GENERAL | CREW_FOOD_COST

Description	BSAI crab-specific costs; food and provisions for crew
Sector-year summary	ALL: 1998-
Data quality notes	No known data quality concerns.

CO_COST_GENERAL | OTHER_LABOR_COST

Description	other_labor_cost
Sector-year summary	V: 1998-2004; C: 1998-2004; SF: 1998-
Data quality notes	See data quality notes on crab_labor.num_processing_crew. These data are typically computed by prorating total plant processing labor non-wage costs based on man-hours in crab processing relative to total man hours of labor for the plant. While indirectly derived, it is expected that these data are a close approximation and can be used in general analysis of crab processing costs. There may be significant variation in reporting on this variable, including prorating methods and types of labor included, but no information is known about the degree of variation.

CO_COST_GENERAL | SUPPLY_FREIGHT_COST

Description	BSAI crab-specific costs; freight costs for supplies to the plant
Sector-year summary	V: 1998-2004; C: 1998-2004; SF: 1998-
Year-version changes	Submitter feedback indicated that freight cost data element does not apply to catcher vessels and was minimal for CPs; should be dropped from post-rationalization CV and CP EDR forms.
Data quality notes	See year-version changes regarding CP and CV EDR data; no known data quality concerns for SP and FP data for all years.

CO_COST_GENERAL | CRAB_FREIGHT_COST

Description	BSAI crab-specific costs; freight and handling costs for crab and crab products
Sector-year summary	ALL: 1998-
Data quality notes	Does not include crab shipping costs for custom-process only crab buyers.

CO_COST_GENERAL | GEARSTORAGE_COST

Description	BSAI crab-specific costs; storage, wharfage, and delivery costs for crab harvest gear
Sector-year summary	VC: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

CO_COST_GENERAL | PRODSTORAGE_COST

Description	BSAI crab-specific costs; product storage
Sector-year summary	CSF: 1998-
Data quality notes	Product storage costs may include storage of inventory from prior years' crab production; analysts should use caution in year-specific analysis of revenue and costs associated with multi-year inventories. Post-rationalization data does not include crab storage costs for custom-process only crab buyers. Use of these data must use E-Landings and/or COAR data on IPQ holder and processor to estimate unreported storage costs for custom-process only crab buyers.

CO_COST_GENERAL | TAX_COST

Description	BSAI crab-specific costs; total of fisheries taxes and fees
Sector-year summary	ALL: 1998-
Data quality notes	Large outliers in the 1998 EDR audit indicate a high mean % error. The preferred source for 1998 data is direct calculation based on landing and sales revenue. There are no known data quality concerns for 2001 and subsequent harvest sector data. The post-rationalization data does not include custom-process only crab buyers; aggregate crab tax and fee costs for the processing sector EDR data will undercount the total tax cost in the fishery. Note that tax_cost includes non-tax buyback and cost-recovery fees.
Years audited	Harvest: 1998-2005 | Processing: 1998-2006

CO_COST_GENERAL | COOP_COST

Description	BSAI crab-specific costs; harvest cooperative membership and Inter Coop Exchange fees
Sector-year summary	VC: 2005-
Data quality notes	Submitter feedback indicated that some respondents may have incorrectly included arbitration-association dues and excluded intercooperative exchange fees in this cost element. 2006 instructions specified intercooperative fees in the instructions. Arbitration association dues which are not specifically collected but are widely reported as other cost in the Other Crab-specific Costs variable (see discussion below).
Years audited	Harvest: 2007-2008 | Processing:

CO_COST_GENERAL | REPACK_COST

Description	BSAI crab-specific costs; crab product re-packing costs
Sector-year summary	CSF: 1998-
Data quality notes	Repacking costs are not disaggregated by species/fishery, but are not incurred evenly for all species or product types. As such, prorating to separate species/fisheries by relative product volume will distort analysis of fishery-specific quasi-rents to unknown degree. Repacking costs are incurred while product is in inventory and may not be paid in same year that crab was landed. As with final sales, analysts should be attentive to the multiyear stream of processor costs and revenues for crab landed in a given year.

CO_COST_GENERAL | ALLBROKER_COST

Description	BSAI crab-specific costs; brokerage and promotions costs for crab sales for all fisheries
Sector-year summary	CSF: 1998-
Data structure notes	Starting in 2005, broker costs are reported on a by-fishery basis only in the SP/FP EDR, but on an unstratified basis in the CP EDR. By-fishery costs for SP/FP and pre-2005 CP data are reported in co_cost_by_fishery.broker_cost.
Data quality notes	Brokerage costs are incurred at the time of product sale and may be reported for sales occuring one or more years after crab was landed. Analysts should be attentive to the multiyear stream of brokerage costs and revenues for crab landed in a given year.

CO_COST_GENERAL | WASTE_COST

Description	BSAI crab-specific costs; water, sewer, and waste disposal
Sector-year summary	C: 1998-2004; S: 1998-; F: 1998-2004, 2006-
Data structure notes	Waste_cost is not part of FP05 data, but is included in FP06.
Data quality notes	Audit findings and submitter feedback indicate that invoicing of these costs includes costs for plant operation and on-site housing facilities and are partially deducted from processing employee pay. Approximate pro-rata methods are used by

submitters to identify crab-processing share, and there is likely substantial variation in reporting among processor EDRs. Variation in this cost element as measured may be only weakly associated with the scale of crab processing at a plant.

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
INSURANCE_PREM_COST	C	1998	C	2	2	0.50	0.00	0.50	0.00	0.00	0.14		
		2001	C	2	2	0.50	0.00	0.50	0.00	0.00	0.17		
		2004	C	2	2	0.50	0.00	0.50	0.00	0.00	0.11		
		2005	C	2	2	0.50	0.00	0.50	0.00	0.00	0.20		
		2006	C	2	4	0.50	0.00	0.50	0.00	0.00	0.67		
	V	1998	C	25	25	0.20	0.72	0.08	0.52	0.40	0.13	0.40	0.86
		2001	C	27	27	0.26	0.63	0.11	0.33	0.14	0.14	0.43	1.00
		2004	C	33	33	0.21	0.70	0.09	0.45	0.14	0.14	0.73	1.00
		2005	C	21	21	0.24	0.71	0.05	0.43	0.40	0.17	0.97	1.00
		2006	C	28	28	0.50	0.00	0.50	0.25	0.07	0.23	0.98	0.98
		2009	2.5										
INSURANCE_DEDUCT_COST	C	1998	C	3	3	0.67	0.33	0.00	0.00	0.00	0.40		
		2001	C	3	3	0.67	0.33	0.00	0.00	0.00	0.25		
		2004	C	3	3	0.67	0.33	0.00	0.00	0.00	0.20		
		2005	C	3	3	0.67	0.33	0.00	0.00	0.00	0.20		
		2006	C	2	3	0.33	0.00	0.67	0.00	0.00	0.33		
	SF	1998	C	3	3	0.00	1.00	0.00	0.00		0.00		
		2001	C	3	4	0.25	0.75	0.00	0.00	0.00			
		2004	C	4	5	0.00	1.00	0.00	0.00		0.00		
		2005	C	4	4	0.00	1.00	0.00	0.00				
		2006	C	5	5	0.00	0.00	1.00	0.00				
		2009	2										
	V	1998	C	25	25	0.28	0.68	0.04	0.04	0.00	0.08	0.91	0.91
		2001	C	27	27	0.26	0.70	0.04	0.04	0.00	0.05	0.61	0.61
		2004	C	33	33	0.27	0.70	0.03	0.03	0.11	0.10	0.89	1.00
		2005	C	21	21	0.24	0.62	0.14	0.14	0.20	0.15	0.46	1.00
		2006	C	28	28	0.14	0.00	0.86	0.00	0.00	0.15	1.00	1.00
		2009	1.67										
CREW_FOOD_COST		98-04	A										
		2005	A										
		2006-	A										
	C	2009	2										
	SF	2009	3										
	V	2009	1.67										
OTHER_LABOR_COST		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	3										
SUPPLY_FREIGHT_COST		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	2										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
CRAB_FREIGHT_COST		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										
	SF	2009	2										
GEARSTORAGE_COST		98-04	A										
		2005	A										
	C	2008	A	2	2	1.00	0.00	0.00	0.00	0.00	0.67		
		2009	1										
	V	2008	A	27	27	1.00	0.00	0.00	0.33	0.22	0.38	1.00	0.99
		2009	1.67										
PRODSTORAGE_COST		98-04	B										
		2005	C										
		2006-	C										
	C	2009	1										
	SF	2009	3										
TAX_COST	C	1998	C	3	3	0.67	0.00	0.00	0.33	0.00	0.38		
		2001	B	3	3	0.67	0.00	0.00	0.33	0.00	0.43		
		2004	B	3	3	0.33	0.00	0.33	0.33	0.00	0.29		
		2005	B	3	3	0.67	0.00	0.00	0.67	0.00	0.33		
		2009	1										
	SF	1998	C	3	3	0.67	0.33	0.00	0.00	0.00	0.13		
		2001	B	3	4	0.75	0.25	0.00	0.00	0.00	0.18	1.00	1.00
		2004	B	4	5	0.60	0.40	0.00	0.20	0.00	0.26	1.00	1.00
		2005	B	4	4	0.25	0.75	0.00	0.00	0.00	0.22		
		2006	B	4	4	1.00	0.00	0.00	0.50	0.00	0.36	0.94	0.94
		2009	1										
	V	1998	C	25	25	0.60	0.36	0.04	0.20	0.00	0.11	0.90	0.90
		2001	B	27	27	0.70	0.22	0.07	0.22	0.05	0.12	0.91	0.91
		2004	B	33	33	0.70	0.27	0.03	0.06	0.00	0.14	0.76	0.76
		2005	B	21	21	0.62	0.33	0.05	0.14	0.00	0.12	1.00	1.00
		2009	1.75										
COOP_COST		2005	B										
	C	2008	A	2	2	1.00	0.00	0.00	0.00	0.00	1.00		
		2009	1										
	V	2007	A	27	27	0.59	0.04	0.37	0.19	0.06	0.31	0.48	0.96
		2008	A	24	24	0.92	0.08	0.00	0.08	0.00	0.26	1.00	1.00
		2009	1										
REPACK_COST		98-04	B										
		2005	B										
		2006-	B										
	SF	2009	2										
ALLBROKER_COST		98-04	B										
		2005	B										
		2006-	B										
WASTE_COST		98-04	B										
		2005	B										
		2006-	B										
	SF	2009	3										

CO_COST_BY_FISHERY

Description	Crab-specific costs, reported b y fishery.
Stratified by	BOOKLET_ID, FISHERY_CODE
Sector-year summary	ALL

CO_COST_BY_FISHERY | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CO_COST_BY_FISHERY | BROKER_COST

Description	BSAI crab-specific costs; brokerage and promotions costs for crab sales, by fishery
Sector-year summary	C: 1998-2004; SF: 1998-
Data structure notes	Crab sales brokerage costs across all fisheries are reported for CP and SP/FP EDRs for all years in co_cost_general.allbroker_cost.
Data quality notes	see data quality notes for allbroker_cost

CO_COST_BY_FISHERY | IPQ_LEASE_COST

Description	BSAI crab-specific costs; lease costs for IPQ
Sector-year summary	CSF: 2007-
Year-version changes	Added to forms in 2007

CO_COST_BY_FISHERY | IPQ_LBS_LEASE

Description	BSAI crab-specific costs; leased IPQ pounds
Sector-year summary	CSF: 2007-
Year-version changes	Added to forms in 2007

CO_COST_BY_FISHERY | OBSERV_COST

Description	BSAI crab-specific costs; observer costs, by fishery
Sector-year summary	ALL: 1998-
Data quality notes	No known data quality concerns. Cost applies to CP's (all fisheries) and CV's (golden king crab fishery only); test fishery and recovery cost fees fund observer costs for CVs for all other crab fisheries.

CO_COST_BY_FISHERY | BAIT_TOTAL_COST

Description	total bait cost, by species/type
Sector-year summary	VC: 1998-
Data structure notes	Details on bait pounds purchased and cost by bait type are provided in co_cost_bait_detail table.
Year-version changes	Bait costs were differentiated by bait type in 2005 and later EDRs.
Data quality notes	see data quality notes for co_cost_bait_detail table
Years audited	Harvest: 1998-2005 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
BROKER_COST		98-04	B										
		2005	B										
		2006-	B										
	SF	2009	2										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
OBSERV_COST		98-04	A										
		2005	A										
		2006-	A										
	C	2009	2										
	SF	2009	3										
BAIT_TOTAL_COST	C	1998		3	3	0.67	0.00	0.00	0.00	0.00	0.17		
		2001		3	3	0.67	0.00	0.00	0.00	0.00	0.23		
		2004		3	3	0.67	0.00	0.00	0.33	0.00	0.20		
		2005		3	3	0.67	0.00	0.00	0.00	0.00	0.30		
	V	1998		25	25	0.52	0.44	0.04	0.12	0.08	0.05	0.58	0.81
		2001		27	27	0.67	0.26	0.07	0.19	0.06	0.06	0.47	0.68
		2004		33	33	0.67	0.30	0.03	0.18	0.09	0.08	0.48	0.99
		2005		21	21	0.67	0.29	0.05	0.05	0.00	0.08	0.98	0.98

CO_COST_BY_LOCATION

Description	Crab-specific costs, reported by location.
Stratified by	BOOKLET_ID, CITYSTATE, LOCATE_CODE
Sector-year summary	ALL
Data quality notes	Data in this table are stratified by location of purchase. Submitter feedback indicates that in many cases, particularly larger firms with extensive supply purchasing, location of purchase is unknown and documentation is limited to the invoice billing address, not local point of sale. This undercounts the amount of sales in Alaska locations that are billed from a separate billing office. For processors with a large number of invoices, feedback indicated that approximation methods were used to associate costs with locations. Smaller firms with less distributed supply management are more likely to provide accurate location information. Analysts are cautioned to use location of purchase information carefully and state limitations in any reporting of results.

CO_COST_BY_LOCATION | CITYSTATE

Description	BSAI crab-specific costs; open-ended descriptions of location(s) of purchase
Sector-year summary	VCSF: 2005-
Data structure notes	Pre-2005 forms did not collect data by location. For all years, the PROC_PACK_COST variable is reported over all locations in catcher processor forms. For pre-2005 records, and for PROC_PACK_COST costs from the CP sector for all years, a default value of 'ALL' is entered in the CITYSTATE field and a value of 'UNK' is entered in the LOCATE_CODE field.
Year-version changes	For 2005 EDRs, this variable is derived from coding open-ended responses to "City, State" descriptions; 2006 EDRs provided list of eight location codes to report and eliminated open-ended City, State entries. See Appendix A, Table 1 for location code values.
Data quality notes	Location of purchase information is of limited quality. In many cases, location of purchase is unknown and documentation is limited to the invoice billing address. This undercounts the amount of sales in Alaska locations that are billed from a

	separate billing office. For processors with a large number of invoices, feedback indicated that approximation methods were used to associate costs with locations. Analysts are cautioned to use location of purchase information carefully and state limitations in any reporting of results.

CO_COST_BY_LOCATION | LOCATE_CODE

Description	BSAI crab-specific costs; category code for city, state - see Appendix A, Table 1 for code values
Sector-year summary	VCSF: 2005-
Data structure notes	see data structure notes for CITYSTATE variable
Year-version changes	see year-version changes for citystate variable
Data quality notes	see data quality notes for citystate variable

CO_COST_BY_LOCATION | POTS_COUNT

Description	BSAI crab-specific costs; quantity of pots purchased
Sector-year summary	VC: 1998-
Year-version changes	Pre-2005 forms reported this variable as aggregate; 2005 and later forms reported by location.
Data quality notes	Pot and gear costs may not be attributed solely to crab fishery and may apply to the cod fishery as well. It is uncertain if submitters prorated these costs or reported total costs of pots and other gear. Where not prorated, cost is biased upward. Note that new pot purchases are low after 2005 and costs of used pots may include refurbishment, or may separate refurbishment costs as repair and maintenance reported in rnm_costs in annual_costs_by_location table. Similarly, respondents were unsure of the difference between hgear_cost and rnm_cost. Error is likely to be small relative to scale of other costs, but users should use caution in analysis focused on these cost elements. Note that the number of pots purchased reflects both replacement and capacity increases. It is recommended that data from the ADF&G pot registry be used to isolate chages in the number of pots in use by vessels relative to number of pots purchased. Data from 1998 is likely to be of poor quality given the pro rata nature of costs and the error and lack of support for the days at sea variable in 1998.
Years audited	Harvest: 2006 | Processing:

CO_COST_BY_LOCATION | POTS_COST

Description	BSAI crab-specific costs; cost of pots purchased
Sector-year summary	VC: 1998-
Year-version changes	Pre-2005 forms reported this variable as aggregate; 2005 and later forms reported by location.
Data quality notes	see data quality notes for pots_count variable
Years audited	Harvest: 2006 | Processing:

CO_COST_BY_LOCATION | HGEAR_COST

Description	BSAI crab-specific costs; other crab harvest gear cost
Sector-year summary	VC: 1998-
Year-version changes	Pre-2005 forms reported this variable as aggregate; 2005 and later forms reported by location.
Data quality notes	see data quality notes for pots_count variable
Years audited	Harvest: 2006 | Processing:

CO_COST_BY_LOCATION | PROC_PACK_COST

Description	BSAI crab-specific costs; packaging, materials, equipment and supply costs for crab processing

Sector-year summary	CSF: 1998-
Data structure notes	Proc_pack_cost is collected by location in the SP/FP EDR form, and over all locations (citystate = all, locatecode = all) in the CP EDR form.
Data quality notes	The location of purchase information is of limited quality, particularly for FPs and SPs. In many cases, location of purchase is unknown and documentation is limited to an invoice billing address. This undercounts the amount of sales in Alaska locations that are billed from separate billing office. For processors with large a number of invoices, feedback indicated that approximation methods were used to associate costs with locations. Analysts are cautioned to use location of purchase information carefully and state limitations in any reporting of results. Submitter feedback indicated that processing and packaging materials are more closely attributed to crab fisheries than equipment. Approximate pro rata methods are used by submitters to identify crab-processing share, and there is likely substantial variation in reporting between processor EDRs.
Years audited	Harvest: | Processing: 1998-2007

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
CITYSTATE		98-04	B										
		2005	B										
		2006-	B										
POTS_COUNT		98-04	C										
		2005	C										
	C	2009	1										
	V	2006	C	28	28	0.14	0.00	0.86	0.00	0.00	0.16	1.00	1.00
		2009	1.5										
POTS_COST		98-04	C										
		2005	C										
	C	2009	1										
	V	2006	C	28	28	0.18	0.00	0.82	0.04	0.20	0.19	0.86	1.00
		2009	1.33										
HGEAR_COST		98-04	C										
		2005	C										
	C	2009	3										
	V	2006	C	28	36	0.78	0.00	0.22	0.25	0.00	0.32	1.00	1.00
		2009	1.33										
PROC_PACK_COST	C	2007	B	2	2	1.00	0.00	0.00	0.50	0.00	0.40		
		2009	1										
	SF	1998	B	3	3	0.67	0.33	0.00	0.00	0.00	0.13		
		2001	B	3	4	0.75	0.25	0.00	0.00	0.00	0.14	1.00	1.00
		2004	B	4	5	0.80	0.20	0.00	0.20	0.00	0.26	0.50	0.50
		2005	B	4	4	0.25	0.75	0.00	0.25	0.00	0.10		
		2006	B	5	7	0.86	0.00	0.14	0.00	0.00	0.43	1.00	1.00
		2007	B	4	4	1.00	0.00	0.00	0.25	0.00	0.25	0.97	0.97
		2009	3										

CO_COST_BAIT_DETAIL

Description	Harvest sector crab-specific bait costs, reported by fishery, location of purchase, and bait species.
Stratified by	BOOKLET_ID, FISHERY_CODE, CITYSTATE, LOCATE_CODE, BAIT_SPECIES_DESC, BAIT_SPECIES_CODE
Sector-year summary	HARVEST

CO_COST_BAIT_DETAIL | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CO_COST_BAIT_DETAIL | CITYSTATE

Description	BSAI crab-specific costs; open-ended descriptions of location(s) of purchase
Sector-year summary	VC: 2005-
Data structure notes	Location of purchase was not collected in 1998-2004 forms. For these years, a default value of 'UNKNOWN' is entered in the CITYSTATE field.
Data quality notes	Location of purchase information is of limited quality. In many cases, location of purchase is unknown and documentation is limited to an invoice billing address. This undercounts the amount of sales in Alaska locations that are billed from a separate billing office. For a small number of bait purchases, this is likely to be a small effect and location information is expected to be generally accurate.

CO_COST_BAIT_DETAIL | LOCATE_CODE

Description	BSAI crab-specific costs; category code for city, state - see Appendix A, Table 1 for code values
Sector-year summary	VC: 2005-
Data structure notes	Location of purchase was not collected in 1998-2004 forms. For these years, a default value of 'UNK' is entered in the LOCATE_CODE field. This variable is derived from coding open-ended responses to "City, State" descriptions; see Appendix A, Table 1 for classification values.
Data quality notes	see data quality notes for citystate variable

CO_COST_BAIT_DETAIL | BAIT_SPECIES_DESC

Description	open-ended description of bait species/type
Sector-year summary	VC: 1998-
Year-version changes	Bait costs were differentiated by bait type in 2005 and later EDRs. 1998-2004 bait costs are reported by fishery, but not by bait species. Prior to 2006, EDR directions did not specify how to report bait caught by the vessel or purchased in prior year. 2006 EDR directed submitters to report only pounds and cost of bait purchases during the reporting year.
Data quality notes	Internal records on bait purchasing and use do not support reporting at the level of detail required in the EDRs and these data represent estimates based on various pro rata methods. Volume and costs for bait harvested by the vessel are not included in these data, which therefore do not reflect the total quantity or cost of bait used in the crab fishery. The 1998-2004 audit results indicated that bait use and cost details were difficult to document at the level of detail required. The 2005 and later data are better supported and generally more accurate. However, for vessels operating in multiple fisheries, a variety of pro rata methods are used in some cases to allocate bait costs to different fisheries. Audit findings and submitter feedback indicate that bait invoices often do not include the quantity of bait purchased; pounds reported in EDRs were based on

calculations using available bait price information. Purchased bait costs are expected to be accurate, but are not a complete representation of bait usage or costs incurred for bait caught by the vessel. Analysts should use caution in fishery-specific analysis of bait costs.

CO_COST_BAIT_DETAIL | BAIT_SPECIES_CODE

Description	bait species, classified per Appendix A, Table 2
Sector-year summary	VC: 1998-
Data structure notes	This variable is derived from coding open-ended responses to "bait species" descriptions; see Appendix A, Table 2 for bait codes.
Year-version changes	see year-version changes for bait_species_desc variable
Data quality notes	see data quality notes for bait_species_desc variable

CO_COST_BAIT_DETAIL | POUNDS

Description	bait pounds, by species/type
Sector-year summary	VC: 1998-
Year-version changes	see year-version changes for bait_species_desc variable
Data quality notes	see data quality notes for bait_species_desc variable

CO_COST_BAIT_DETAIL | COST

Description	total bait cost, by species/type
Sector-year summary	VC: 2005-
Data structure notes	In 1998-2004 data, bait cost is reported as total cost over all bait species by fishery. Starting in 2005, bait cost is reported separately by bait species and fishery. See co_cost_by_fishery:bait_total_cost field for total bait cost by fishery for 1998-2004 data. That field has been populated for each EDR record with the reported bait cost value for 1998-2004 EDR records and with the sum of bait_cost across all bait species for each crab fishery for 2005 and later EDR records.
Year-version changes	see year-version changes for bait_species_desc variable
Data quality notes	see data quality notes for bait_species_desc variable
Years audited	Harvest: 1998-2004 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
CITYSTATE		98-04	B										
		2005	B										
		2006-	B										
BAIT_SPECIES_DESC		98-04	B										
		2005	B										
		2006-	B										
POUNDS		98-04	B										
		2005	B										
		2006-	B										
	C	2009	2										
	V	2009	1.67										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
COST		2005	B										
		2006-	B										
	C	2001	B	1	6	0.00	0.00	0.00	0.00		1.00		
		2009	2										
	V	1998	B	2	9	0.00	0.00	0.00	1.00		1.00		
		2001	B	4	22	0.00	0.00	0.00	1.00		1.00		
		2004	B	1	7	0.00	0.00	0.00	1.00		0.30		
		2009	1.33										

CO_COST_FUEL_DETAIL

Description	Harvest sector crab-specific fuel costs, reported by location and fishery.
Stratified by	BOOKLET_ID, CITYSTATE, LOCATE_CODE
Sector-year summary	HARVEST
Data structure notes	Annual fuel costs are reported separately for 2006 and later EDRs; see annual_costs_general table.
Data quality notes	Numerous sources of variation in methods of reporting these cost elements may confound variation associated with fuel market trends and operational changes in the crab fishery. Careful analysis of these data is required to isolate variation in reporting from explanatory effects that can be attributed to these variables and may not be possible with existing information. Unless reporting error can be better isolated in these data, they should not be considered reliable for use in analysis of vessel or fishery economic performance. Submitter feedback following the 1998-2004 EDR indicated that lubrication and fluids costs were difficult to separate from fuel costs due to invoicing; lube_cost should be summed with fuel_cost to maintain consistency of treatment of these costs through the time series. Feedback comments indicate that, in general, fuel purchased is used over multiple fisheries and the amount used in a given fishery is often not monitored. Reported costs and quantities used in individual crab fisheries is approximated using various methods, including prorating by days at sea. The timing of fuel purchases for tax purposes may also influence the reporting of fuel costs between successive calendar year EDRs, and vessels that do not deduct fuel costs in crew settlements may report fuel cost in the year of purchase instead of the year fuel was used. Audit findings for these data are based on documentation of total fuel costs and appropriateness of approximation for by-fishery gallons/costs reporting. Audit results from 2006-current EDR data indicate a high degree of support and accuracy, contrary to findings derived from submitter feedback. Two-dimensional stratification of reporting of these data (by fishery and location of purchase) may exceed the ability of submitters to allocate fuel data by prorata methods.

CO_COST_FUEL_DETAIL | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values

Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CO_COST_FUEL_DETAIL | CITYSTATE

Description	location(s) of fuel purchases
Sector-year summary	VC: 2005-
Year-version changes	Location of purchase was not reported in forms prior to 2005.

CO_COST_FUEL_DETAIL | LOCATE_CODE

Description	location(s) of fuel purchases classified per Appendix A, Table 1
Sector-year summary	VC: 2005-
Data structure notes	This variable is derived from coding open-ended responses to "City, State" descriptions; see Appendix A, Table 1 for classification values.
Year-version changes	Location of purchase was not reported in forms prior to 2005.

CO_COST_FUEL_DETAIL | LUBE_COST

Description	BSAI crab-specific costs; lubrication and fluids
Sector-year summary	VC: 1998-2004
Year-version changes	Lubrication and fluids costs were reported separately in the 1998-2004 EDRs only; merged with fuels costs in 2005 and later EDRs.
Data quality notes	Numerous sources of variation in methods of reporting these cost elements may confound variation associated with fuel market trends and operational changes in the crab fishery. Careful analysis of these data is required to isolate variation in reporting from explanatory effects that can be attributed to these data elements and may not be possible with existing information. Unless reporting error can be better isolated in these data, they should not be considered reliable for use in analysis of vessel or fishery economic performance. Submitter feedback following the 1998-2004 EDR indicated that lubrication and fluids costs were difficult to separate from fuel costs due to invoicing; lube_cost should be summed with fuel_cost to maintain consistency of treatment of these costs through the time series. Feedback comments indicate that, in general, fuel purchased is used over multiple fisheries and the amount used in a given fishery is often not monitored, and reported costs and quantity used in individual crab fisheries is approximated using various methods, including prorating by days at sea. The timing of fuel purchases for tax purposes may also influence the reporting of fuel costs between successive calendar year EDRs. Vessels that do not deduct fuel costs in crew settlements may report fuel cost in the year of purchase instead of the year fuel was used. Audit findings are based on documentation of total fuel costs and appropriateness of approximation for by-fishery gallons/costs reporting. Invoices often did not include the quantity of fuel purchased and gallons reported were based on calculations using available fuel price information. Further analysis should be performed to identify sources of variation in per-day or per pound landed fuel costs.

CO_COST_FUEL_DETAIL | FUEL_LUBE_FLAG

Description	BSAI crab-specific costs; binary code indicating inclusion of lubrication/fluids cost in total fuels cost, by fishery
Sector-year summary	VC: 2005-
Data structure notes	The 2005 EDR elicited the "lube/fluid cost included" flag separately by fishery; 2006 and subsequent EDRs eliminated the stratification. For structural simplicity, the flag

	is reported on a by-fishery basis with all 2006 values populated with the unstratified value, and the pre-2005 data .
Year-version changes	The 2005 EDR elicited the "lube/fluid cost included" flag separately by fishery; 2006 and subsequent EDRs eliminated the stratification.
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2008 | Processing:

CO_COST_FUEL_DETAIL | FUEL_GAL

Description	BSAI crab-specific costs; gallons of fuel used, by fishery
Sector-year summary	VC: 1998-
Year-version changes	Prior to 2006, directions did not specify treatment of fuel gallons/costs incurred for steaming to/from home port before/after crab season. 2006 EDR form directed that these costs be recorded in annual vessel costs table.
Data quality notes	see data quality notes for lube_cost variable
Years audited	Harvest: 2006-2008 | Processing:

CO_COST_FUEL_DETAIL | FUEL_COST

Description	BSAI crab-specific costs; cost of fuel used, by fishery
Sector-year summary	VC: 1998-
Year-version changes	see year-version changes for fuel_gal variable
Data quality notes	see data quality notes for lube_cost variable
Years audited	Harvest: 1998-2008 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
CITYSTATE		98-04	A										
		2005	A										
		2006-	A										
LUBE_COST		98-04	C										
FUEL_LUBE_FLAG		2005	A										
		2006-	A										
FUEL_GAL		98-04	C										
		2005	C										
	C	2006	C	2	4	1.00	0.00	0.00	0.00	0.00	0.36	1.00	1.00
		2007	C	2	8	1.00	0.00	0.00	1.00	0.00	0.89	0.70	0.70
		2008	C	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	2										
	V	2006	C	28	47	0.85	0.04	0.11	0.15	0.00	0.24	0.98	0.98
		2007	C	27	63	0.79	0.02	0.19	0.24	0.00	0.32	0.98	0.98
		2008	C	28	47	0.91	0.09	0.00	0.13	0.00	0.27	0.97	0.97
		2009	1.75										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FUEL_COST	C	1998	C	3	3	0.67	0.00	0.00	0.00	0.00	0.17		
		2001	C	3	3	0.67	0.00	0.00	0.00	0.00	0.23		
		2004	C	3	3	0.67	0.00	0.00	0.00	0.00	0.20		
		2005	C	3	3	0.67	0.00	0.00	0.00	0.00	0.25		
		2006	C	2	3	1.00	0.00	0.00	0.33	0.00	0.27	1.00	1.00
		2007	C	2	8	1.00	0.00	0.00	0.88	0.00	0.89	0.73	0.73
		2008	C	2	3	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	2										
	V	1998	C	25	25	0.52	0.32	0.12	0.08	0.08	0.04	0.78	0.81
		2001	C	27	27	0.70	0.22	0.07	0.04	0.05	0.06	0.52	0.52
		2004	C	33	33	0.67	0.30	0.03	0.06	0.09	0.08	0.47	0.96
		2005	C	21	21	0.62	0.33	0.05	0.19	0.08	0.08	0.63	0.94
		2006	C	28	47	0.87	0.02	0.11	0.32	0.00	0.24	1.00	1.00
		2007	C	27	63	0.79	0.02	0.19	0.14	0.00	0.32	1.00	1.00
		2008	C	28	47	0.96	0.04	0.00	0.13	0.00	0.27	0.99	0.99
		2009	1.75										

CO_COST_OTHER_CREW_DETAIL

Description	Harvest sector other crab-specific, submitter-defined crew-related costs.
Stratified by	BOOKLET_ID, OTHER_CREW_DESC, OTHER_CREW_CODE
Sector-year summary	HARVEST
Data quality notes	These data are reported without specific direction and are not reliably or consistently reported. Lack of a reported value for any or all other cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine the appropriate use of these data. These data cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery.

CO_COST_OTHER_CREW_DETAIL | OTHER_CREW_DESC

Description	BSAI crab-specific costs; other crew-related expense, open-ended description
Sector-year summary	VC: 2005-
Year-version changes	1998-2004 EDRs elicited other crew costs as single variable; 2005 and later EDRs elicited multiple "other crew costs" with space for open-ended descriptions of crew cost elements.
Data quality notes	These data are reported without specific direction and are not reliably or consistently reported. Lack of a reported value for any or all other cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine the appropriate use of these data. These data cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery.

CO_COST_OTHER_CREW_DETAIL | OTHER_CREW_CODE

Description	BSAI crab-specific costs; other crew-related expense, classified per Appendix A, Table 3
Sector-year summary	VC: 2005-

Data structure notes	This variable is derived from coding open-ended responses to "other crew costs" descriptions. See Appendix A, Table 3 for code values and correspondence to NAICS codes; also see data quality notes
Year-version changes	see year-version changes for other_crew_desc variable
Data quality notes	see data quality notes for other_crew_desc variable

CO_COST_OTHER_CREW_DETAIL | OTHER_CREW_COST

Description	BSAI crab-specific costs; other crew-related expense, cost
Sector-year summary	VC: 2005-
Year-version changes	see year-version changes for other_crew_desc variable
Data quality notes	see data quality notes for other_crew_desc variable

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
OTHER_CREW_DESC		98-04	C										
		2005	C										
		2006-	C										
OTHER_CREW_CODE		98-04	C										
		2005	C										
		2006-	C										
OTHER_CREW_COST		98-04	C										
		2005	C										
		2006-	C										
	C	2009	2										
	V	2009	2										

CO_COST_OTHER_CRAB_DETAIL

Description	Other crab-specific, submitter-defined costs.
Stratified by	BOOKLET_ID, OTHER_CRAB_DESC, OTHER_CRAB_CODE
Sector-year summary	ALL

CO_COST_OTHER_CRAB_DETAIL | OTHER_CRAB_DESC

Description	BSAI crab-specific costs; other crab related expense, open-ended description
Sector-year summary	ALL: 1998-
Data quality notes	These data are reported without specific direction and are not reliably or consistently reported. Lack of a reported value for any or all other cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine the appropriate use of these data. These data cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery.

CO_COST_OTHER_CRAB_DETAIL | OTHER_CRAB_CODE

Description	BSAI crab-specific costs; other crab related expense, classified per Appendix A, Table 4
Sector-year summary	ALL: 1998-
Data structure notes	This variable is derived from coding open-ended responses to "other crab-specific costs" descriptions (other_crew_desc). See Appendix A, Table 4 for code values and code values and correspondence to NAICS codes; also see data quality notes.

Data quality notes: see data quality notes for other_crab_desc variable

CO_COST_OTHER_CRAB_DETAIL | OTHER_CRAB_COST

Description: BSAI crab-specific costs; other crab related expense, cost
Sector-year summary: ALL: 1998-
Data quality notes: see data quality notes for other_crab_desc variable
Years audited: Harvest: 2006 | Processing: 2006, 2008

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
OTHER_CRAB_DESC		98-04	C										
		2005	C										
		2006-	C										
OTHER_CRAB_CODE		98-04	C										
		2005	C										
		2006-	C										
OTHER_CRAB_COST		98-04	C										
		2005	C										
	C	2006	C	2	2	0.50	0.00	0.50	0.00	0.00	0.10		
	SF	2006	C	5	5	0.60	0.00	0.40	0.00	0.00	0.14	1.00	1.00
		2008	C	3	11	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
		2009	2										
	V	2006	C	28	28	0.68	0.00	0.32	0.43	0.00	0.10	1.00	1.00
		2009	1.5										

ANNUAL_COSTS_GENERAL

Description: Operational costs reported at the plant or vessel level and applicable to all harvest or processing activities.
Stratified by: BOOKLET_ID
Sector-year summary: ALL
Data quality notes: Variables reported in the annual vessel/plant cost tables include a check box to indicate whether the reported cost is attributable to operations in crab fisheries exclusively, or reflect operations in additional fisheries. For costs reported as crab operations only, reported data may be based on various methods of prorating annual costs or, for vessels or plants that operate exclusively in the BSAI crab fishery, these data are directly reported. Additional analysis to isolate sources of variation in these data should be employed to improve accuracy.

ANNUAL_COSTS_GENERAL | INS_COST

Description: annual costs; hull, P&I, and pollution insurance premium costs
Sector-year summary: VC: 2005-
Data structure notes: Crab-only insurance premiums are reported separately for 2005 and later EDRs; see co_cost_general table.
Data quality notes: See data quality notes above for CO_COST_GENERAL.INSURANCE_PREM_COST variable.

These data do not provide a reliable measure of variation in insurance costs across vessels/plants or over time. Numerous sources of variation in the methods of

	reporting these data elements, terms of insurance contracts, and methods of insurance procurement are likely to confound and may overwhelm any variation associated with changes in insurance costs due to rationalization or further changes in the crab fishery. Crab-only and annual insurance premium costs are reported separately for 2005 and later EDRs only. Prior to 2005, insurance costs for vessels was collected specifically as a crab-only cost, but submitters were directed to enter annual premiums that could not be attributed solely to crab fishing in the annual "other costs" section (insurance costs are the most common entry in the annual other costs fields). However, the descriptions of types of insurance reported in annual other costs are inconsistent across 1998-2004 EDRs. To improve consistency in reporting, insurance costs were added as a specified annual costs element in 2005 and subsequent CV and CP EDRs. Further analysis should be performed to determine if the distribution frequency of reporting annual insurance costs is consistent between historical and 2005 and later data, where "other" entries are included.
Years audited	Harvest: 2005-2006 | Processing:

ANNUAL_COSTS_GENERAL | INS_COFLAG

Description	annual costs; hull, P&I, and pollution insurance premium crab-only cost indicator
Sector-year summary	VC: 2005-
Data quality notes	Where data is identified as a crab-only cost, variation may reflect different prorating method.

ANNUAL_COSTS_GENERAL | SALARY_COST

Description	annual costs; wages and salaries of employees not engaged in harvest or processing, including foremen and managers
Sector-year summary	CSF: 1998-
Data quality notes	Where data is identified as a crab-only cost, variation may reflect different prorating method.
Years audited	Harvest: | Processing: 1998-2006

ANNUAL_COSTS_GENERAL | SALARY_NUM

Description	number of salaried employees not engaged in harvest or processing, including foremen and managers
Sector-year summary	CSF: 1998-
Data quality notes	Where data is identified as a crab-only cost, variation may reflect different prorating method.
Years audited	Harvest: | Processing: 1998-2006

ANNUAL_COSTS_GENERAL | SALARY_COFLAG

Description	annual costs; wages and salaries, crab-only cost indicator
Sector-year summary	CSF: 1998-
Data quality notes	Where data is identified as a crab-only cost, variation may reflect different prorating method.

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
INS_COST	C	2009	2										
	V	2005	B	19	19	0.37	0.63	0.00	0.32	0.00	0.10	1.00	1.00
		2006	B	28	28	0.93	0.00	0.07	0.54	0.00	0.32	0.91	0.91
		2009	1.25										
INS_COFLAG		2005	A										
		2006-	A										
SALARY_COST	C	1998	B	3	3	0.67	0.00	0.33	0.00	0.00	0.40		
		2001	B	3	3	0.67	0.00	0.00	0.00	0.00	0.60		
		2004	B	3	3	0.67	0.00	0.00	0.00	0.00	0.43		
		2005	B	3	3	0.67	0.00	0.00	0.33	0.00	0.43		
		2006	B	2	2	1.00	0.00	0.00	0.00	0.00	0.67		
		2009	1										
	SF	1998	B	3	3	0.33	0.67	0.00	0.00	0.00	0.09		
		2001	B	3	4	0.50	0.50	0.00	0.00	0.00	0.17		
		2004	B	5	5	0.40	0.60	0.00	0.00	0.00	0.25		
		2005	B	4	4	0.25	0.50	0.00	0.25	0.00	0.24		
		2006	B	5	5	1.00	0.00	0.00	0.20	0.00	0.38	1.00	1.00
		2009	2										
SALARY_NUM	C	1998	B	3	3	0.67	0.00	0.33	0.00	0.00	0.40		
		2001	B	3	3	0.67	0.00	0.00	0.00	0.00	0.60		
		2004	B	3	3	0.67	0.00	0.00	0.00	0.00	0.43		
		2005	B	3	3	0.33	0.33	0.00	0.33	0.00	0.43		
		2006	B	2	2	1.00	0.00	0.00	0.00	0.00	0.67		
		2009	1										
	SF	1998	B	3	3	0.33	0.67	0.00	0.00	0.00	0.09		
		2001	B	3	4	0.50	0.50	0.00	0.00	0.00	0.17		
		2004	B	5	5	0.40	0.60	0.00	0.00	0.00	0.26		
		2005	B	4	4	0.25	0.75	0.00	0.25	0.00	0.24		
		2006	B	5	5	1.00	0.00	0.00	0.20	0.00	0.38	0.99	0.99
		2009	2										
SALARY_COFLAG		98-04	A										
		2005	A										
		2006-	A										

ANNUAL_COSTS_BY_LOCATION

Description	Operational costs reported at the plant or vessel level and applicable to all harvest or processing activities, reported by location.
Stratified by	BOOKLET_ID, CITYSTATE, LOCATE_CODE
Sector-year summary	ALL
Year-version changes	Location of purchase for annual costs was not reported in forms prior to 2005.

ANNUAL_COSTS_BY_LOCATION | SEQ

Description	database- generated identifier to provide unique values across booklet_id and location

ANNUAL_COSTS_BY_LOCATION | CITYSTATE

Description	open-ended description of location of purchase
Sector-year summary	ALL: 2005-

Data structure notes	Location was not reported in forms prior to 2005. For these years, a default value of 'ALL' is entered in the CITYSTATE field.
Year-version changes	See data structure notes.
Data quality notes	Location of purchase information is of limited quality. In many cases, location of purchase is unknown and documentation is limited to an invoice billing address. This undercounts the amount of sales in Alaska locations that are billed from a separate billing office. For processors with a large number of invoices, feedback indicated that approximation methods were used to associate costs with locations. Analysts are cautioned to use location of purchase information carefully and state limitations in any reporting of results.

ANNUAL_COSTS_BY_LOCATION | LOCATE_CODE

Description	location of purchase classified per Appendix A, Table 1
Sector-year summary	ALL: 2005-
Data structure notes	Location was not reported in forms prior to 2005. For these years, a default value of 'UNK' is entered in the LOCATE_CODE field. This variable is derived from coding open-ended responses to "City, State" descriptions; see Appendix A, Table 1 for classification values.
Year-version changes	See data structure notes.
Data quality notes	see data quality notes for citystate variable
Years audited	Harvest: 2008 | Processing:

ANNUAL_COSTS_BY_LOCATION | FUEL_COST

Description	annual costs; fuel, electricity, lubrication and fluids, cost
Sector-year summary	S: 1998-; F: 2005-; VC: 2006-
Data structure notes	Crab-only fuel costs are reported separately for 2006 and later EDRs; see co_cost_fuel_detail. Fuel_cost was reported for SPs, but not FPs, in 1998-2004 EDR.
Data quality notes	2006 audit found that both fuel cost and location data were well-supported and accurate.
Years audited	Harvest: 2006-2008 | Processing: 1998-2008

ANNUAL_COSTS_BY_LOCATION | FUEL_COFLAG

Description	annual costs; fuel, electricity, lubrication and fluids, crab-only cost indicator
Sector-year summary	S: 1998-; F: 2005-; VC: 2006-
Data quality notes	see data quality notes for fuel_cost variable
Years audited	Harvest: 2008 | Processing:

ANNUAL_COSTS_BY_LOCATION | FUEL_LUBE_FLAG

Description	annual costs; fuel, electricity, lubrication and fluids, lubrication and fluids included indicator
Sector-year summary	VC: 2006-
Data structure notes	Fuel_lube_flag is not reported separately for each fuel purchase location in the EDR, but is presented in the database on a by-location basis to maintain structural consistency. The value of this variable is the same across all locations for a given EDR record.
Data quality notes	see data quality notes for fuel_cost variable
Years audited	Harvest: 2008 | Processing:

ANNUAL_COSTS_BY_LOCATION | CAPINV_COST

Description	annual costs; capital investment cost
Sector-year summary	ALL: 1998-
Data quality notes	It is recommended that analysts sum pre-2006 capital investment and repair and maintenance cost data elements in data analysis and include these costs as a single cost category in any reported analytical results.

The validation audit for 1998-2005 found in a small number of instances, that substantial capital investment costs were unreported in the historical (1998-2004) data; these may have been reported as repair and maintenance or "other" costs. Submitter feedback from the same period confirmed that there was confusion regarding differentiation between capital investment and repair/maintenance costs. Improved instructions in 2006 EDR form and more consistent record keeping resulted in better differentiation, and the 2006 data audit found no significant errors in repair and maintenance costs; the audit included capital investment costs in the error calculation, but the effect on overall % error was small. It is recommended that analysts sum pre-2006 capital investment and repair and maintenance costs in data analysis and include these costs as a single cost category in any reported analytical results.

Where data is identified as a crab-only cost, variation may reflect different prorating methods.

Capital investment and repair and maintenance costs should be analyzed on a multi-year basis, noting that for vessels that enter the fishery in a given year, capital investment and repair and maintenance costs incurred in the year prior to entry will not be reflected in EDR data.

Years audited	Harvest: 1998-2007, 2009 | Processing: 1998-2007, 2009

ANNUAL_COSTS_BY_LOCATION | CAPINV_COFLAG

Description	annual costs; capital investment, crab-only cost indicator
Sector-year summary	ALL: 1998-
Data quality notes	see data quality notes for capinv_cost variable
Years audited	Harvest: 2009 | Processing: 2009

ANNUAL_COSTS_BY_LOCATION | RNM_COST

Description	annual costs; repair and maintenance cost
Sector-year summary	ALL: 1998-
Data quality notes	see data quality notes for capinv_cost variable
Years audited	Harvest: 1998-2008 | Processing: 1998-2008

ANNUAL_COSTS_BY_LOCATION | RNM_COFLAG

Description	annual costs; repair and maintenance, crab-only cost indicator
Sector-year summary	ALL: 1998-
Data quality notes	see data quality notes for capinv_cost variable
Years audited	Harvest: 2008 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
LOCATE_CODE		98-04	C										
		2005	C										
		2006-	C										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FUEL_LUBE_FLAG		98-04	A										
		2005	A										
		2006-	A										
FUEL_COST	C	2006	A	2	5	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
		2007	A	2	2	1.00	0.00	0.00	0.00	0.00	0.00		
		2008	A	2	4	1.00	0.00	0.00	0.00	0.00	0.80	1.00	1.00
	SF	1998	A	3	3	0.33	0.67	0.00	0.00	0.00	0.15		
		2001	A	3	4	0.50	0.50	0.00	0.00	0.00	0.18		
		2004	A	5	5	0.60	0.40	0.00	0.20	0.00	0.29	1.00	1.00
		2005	A	4	4	0.00	1.00	0.00	0.00		0.18		
		2006	A	5	5	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2007	A	4	7	1.00	0.00	0.00	0.00	0.00	0.29	1.00	1.00
		2008	A	3	3	1.00	0.00	0.00	0.00	0.00	0.23	1.00	1.00
		2009	2										
	V	2006	A	28	50	0.98	0.02	0.00	0.52	0.02	0.34	0.88	0.88
		2007	A	27	44	0.98	0.02	0.00	0.52	0.05	0.33	0.92	0.93
		2008	A	28	52	1.00	0.00	0.00	0.27	0.06	0.33	0.97	0.97
		2009	1.5										
FUEL_COFLAG		98-04	A										
		2005	A										
		2006-	A										
CAPINV_COST	C	1998	B	3	3	0.67	0.00	0.00	0.00	0.00	0.33		
		2001	B	3	3	0.33	0.33	0.00	0.00	0.00	0.50		
		2004	B	3	3	0.67	0.00	0.33	0.00	0.00	0.33		
		2005	B	3	3	0.67	0.00	0.00	0.00	0.00	0.18		
		2006	B	2	2	0.00	0.00	1.00	0.00		0.00		
		2007	B	2	3	1.00	0.00	0.00	0.33	0.00	0.50	1.00	1.00
		2009	1	2	2	0.00	1.00	0.00	0.00		0.00		
	SF	1998	B	3	3	0.67	0.33	0.00	0.33	0.00	0.23		
		2001	B	3	4	0.50	0.50	0.00	0.00	0.00	0.23		
		2004	B	5	5	0.60	0.40	0.00	0.40	0.00	0.29	0.88	0.88
		2005	B	4	4	0.00	1.00	0.00	0.00		0.14		
		2006	B	5	8	1.00	0.00	0.00	0.00	0.00	0.44	1.00	1.00
		2007	B	4	8	1.00	0.00	0.00	0.13	0.13	0.35	0.53	1.00
		2009	2	6	10	1.00	0.00	0.00	0.00	0.00	0.59	1.00	1.00
	V	1998	B	25	25	0.40	0.56	0.04	0.04	0.10	0.07	0.80	1.00
		2001	B	27	27	0.33	0.63	0.04	0.04	0.11	0.11	0.91	1.00
		2004	B	33	33	0.30	0.67	0.03	0.03	0.10	0.12	0.57	1.00
		2005	B	21	21	0.38	0.57	0.05	0.19	0.00	0.07	0.00	0.00
		2006	B	28	34	0.68	0.00	0.32	0.26	0.04	0.31	0.90	0.91
		2007	B	27	28	1.00	0.00	0.00	0.25	0.04	0.32	0.53	0.53
		2009	1.5	18	26	0.88	0.12	0.00	0.08	0.00	0.36	1.00	1.00
CAPINV_COFLAG		98-04	B										
		2005	B										
		2006-	B										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
RNM_COST	C	1998	B	3	3	0.67	0.00	0.00	0.33	0.00	0.38		
		2001	B	3	3	0.67	0.00	0.00	0.00	0.00	0.43		
		2004	B	3	3	0.67	0.00	0.00	0.00	0.00	0.30		
		2005	B	3	3	0.67	0.00	0.00	0.33	0.00	0.17		
		2006	B	2	4	1.00	0.00	0.00	0.50	0.00	0.40	1.00	1.00
		2007	B	2	5	1.00	0.00	0.00	1.00	0.00	0.50	1.00	1.00
		2008	B	2	4	1.00	0.00	0.00	0.50	0.50	0.44	0.48	1.00
		2009	2										
	SF	1998	B	3	3	0.67	0.33	0.00	0.00	0.00	0.14		
		2001	B	3	4	0.75	0.25	0.00	0.00	0.00	0.19	1.00	1.00
		2004	B	5	5	0.80	0.20	0.00	0.20	0.00	0.26	1.00	1.00
		2005	B	4	4	0.25	0.75	0.00	0.25	0.00	0.05		
		2006	B	5	12	1.00	0.00	0.00	0.08	0.00	0.46	1.00	1.00
		2007	B	4	7	1.00	0.00	0.00	0.14	0.00	0.24	1.00	1.00
		2008	B	3	5	1.00	0.00	0.00	0.00	0.00	0.20	1.00	1.00
		2009	2										
	V	1998	B	25	25	0.44	0.48	0.08	0.24	0.00	0.11	0.94	0.94
		2001	B	27	27	0.52	0.44	0.04	0.15	0.00	0.12	0.98	0.98
		2004	B	33	33	0.67	0.30	0.03	0.21	0.05	0.14	0.99	0.99
		2005	B	21	21	0.62	0.29	0.10	0.33	0.00	0.06	0.91	0.91
		2006	B	28	46	0.98	0.00	0.02	0.46	0.04	0.29	1.00	1.00
		2007	B	27	40	1.00	0.00	0.00	0.38	0.00	0.28	0.89	0.89
		2008	B	28	60	1.00	0.00	0.00	0.23	0.02	0.34	0.99	0.99
		2009	2										
RNM_COFLAG		98-04	B										
		2005	B										
		2006-	B										

ANNUAL_COSTS_OTHER_DETAIL

Description	Other, submitter-defined operational costs reported at the plant or vessel level and applicable to all harvest or processing activities.
Stratified by	BOOKLET_ID, OTHER_AC_DESC, OTHER_AC_CODE
Sector-year summary	ALL

ANNUAL_COSTS_OTHER_DETAIL | SEQ

Description	Generated identifier to provide unique values across booklet_ids

ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_DESC

Description	BSAI crab-specific costs; other crab related expense, open-ended description
Sector-year summary	ALL: 1998-
Data quality notes	These data are reported without specific direction and are not reliably or consistently reported. Lack of a reported value for any or all other cost categories in an EDR record may not represent a valid zero value. Further validation is needed to determine the appropriate use of these data. These data cannot be compared among vessels/plants or over time as a reliable measure of vessel or plant economic performance or changes in the fishery. Starting in 2006, the online EDR form provided a menu of other cost items, which

improved the consistency of the "other" cost item reporting. Isolation of online form submiters may yield improved accuracy.

ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_CODE

Description	BSAI crab-specific costs; other crab related expense, classified per Appendix A, Table 5
Sector-year summary	ALL: 1998-
Data structure notes	This variable is derived from coding open-ended responses to "other annual costs" descriptions. See Appendix A, Table 5 for code values and correspondence to NAICS codes; also see data quality notes.
Data quality notes	see data quality notes for other_ac_desc variable

ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_COST

Description	BSAI crab-specific costs; other crab related expense, cost
Sector-year summary	ALL: 1998-
Data quality notes	see data quality notes for other_ac_desc variable
Years audited	Harvest: 1998-2006 | Processing: 2006

ANNUAL_COSTS_OTHER_DETAIL | OTHER_AC_COFLAG

Description	BSAI crab-specific costs; other crab related expense, crab-only cost indicator
Sector-year summary	ALL: 1998-
Data quality notes	see data quality notes for other_ac_desc variable

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
OTHER_AC_DESC		98-04	C										
		2005	C										
		2006-	C										
OTHER_AC_CODE		98-04	C										
		2005	C										
		2006-	C										
OTHER_AC_COST	C	1998	C	1	1	1.00	0.00	0.00	0.00	0.00	0.11		
		2001	C	1	1	1.00	0.00	0.00	0.00	0.00	0.14		
		2004	C	1	1	1.00	0.00	0.00	0.00	0.00	0.08		
		2005	C	1	1	1.00	0.00	0.00	0.00	0.00	0.05		
		2006	C	2	2	1.00	0.00	0.00	0.00	0.00	0.11		
		2009	1										
	SF	2006	C	5	5	1.00	0.00	0.00	0.20	0.00	0.13	1.00	1.00
		2009	1										
	V	1998	C	25	25	0.36	0.60	0.04	0.32	0.44	0.03	0.52	0.97
		2001	C	27	27	0.37	0.52	0.04	0.19	0.30	0.03	0.60	1.00
		2004	C	33	33	0.33	0.52	0.09	0.24	0.27	0.04	0.64	1.00
		2005	C	2	2	0.00	0.50	0.50	0.00		0.00		
		2006	C	28	28	0.50	0.00	0.50	0.18	0.00	0.14	0.99	0.99
		2009	1.5										
OTHER_AC_COFLAG		98-04	C										
		2005	C										
		2006-	C										

QUOTA_LEASE_COSTS

Description	Harvest-sector costs for leased quota, reported by fishery and quota type.
Stratified by	BOOKLET_ID, FISHERY_CODE, QUOTA_SHARE_TYPE
Sector-year summary	HARVEST
Year-version changes	1998-2004 EDR forms elicited pounds and cost for leased CDQ by fishery. 2005 and subsequent EDRs elicited pounds and cost of leased harvest quota by fishery and quota type, and number of crew contributing IFQ C shares.
Data quality notes	Analysts should use caution interpreting the lease cost data for all years. The 1998-2005 data should not generally be regarded as reliable. 2006 and later EDR data for lease pounds exhibit minimal measurement error, with substantial corrections required for a small number of reported lease cost observations. These data are difficult to interpret given the large number of irregular, non-arms length transactions. Audit results for 2006 and later indicate these data are accurate representations of volume and transfer value for quota transactions, however, lack of differentiation in lease terms and transfers between affiliated parties limit the value of the cost data as an indicator of competitive equilibrium prices in the quota market. The 2005 data for leased_lb, lease_cost, and num_crew_contribute for all fisheries and quota types were poorly documented in the validation audit, reflected highly irregular transactions agreements, and are not regarded as reliable. While not included in the validation audit, submitter feedback indicates that pre-rationalization data on CDQ lease rates reflect transactions between affiliated parties and do not reliably reflect market price for CDQ. Audit results for 2006 indicate data are well supported supported and exhibit minimal measurement error, but continue to reflect highly variable, irregular transactions. Use of these data in published analysis should address data quality limitations, particularly with regard to heterogeneity in lease rates. More recent audit results from 2007 and 2008 indicate a high degree of documented support, but significant corrections by auditors, possibly indicating that sufficient records are available to support reporting with improved elicitation design.

QUOTA_LEASE_COSTS | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.
Year-version changes	see year-version changes for quota_lease_costs table
Data quality notes	see data quality notes for quota_lease_costs_table

QUOTA_LEASE_COSTS | QUOTA_SHARE_TYPE

Description	harvest quota permit type
Sector-year summary	VC: 2005-
Data structure notes	Default value of 'N/A' for all records prior to 2005.
Year-version changes	see year-version changes for quota_lease_costs table
Data quality notes	see data quality notes for quota_lease_costs_table

QUOTA_LEASED_POUNDS

Description	quota leased for use on vessel, pounds leased, by fishery and permit type
Sector-year summary	VC: 1998-
Year-version changes	see year-version changes for quota_lease_costs table
Data quality notes	see data quality notes for quota_lease_costs_table
Years audited	Harvest: 2006-2008 | Processing:

QUOTA_LEASE_COSTS | LEASE_COST

Description	quota leased for use on vessel, total cost, by fishery and permit type
Sector-year summary	VC: 1998-
Year-version changes	see year-version changes for quota_lease_costs table
Data quality notes	see data quality notes for quota_lease_costs_table
Years audited	Harvest: 2005-2008 | Processing:

QUOTA_LEASE_COSTS | NUM_CREW_CONTRIBUTE

Description	number of crew (including captain) contributing IFQ C class shares
Sector-year summary	VC: 2005-
Year-version changes	see year-version changes for quota_lease_costs table
Data quality notes	see data quality notes for quota_lease_costs_table
Years audited	Harvest: 2006-2008 | Processing:

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
LEASED_POUNDS		98-04	C										
		2005	C										
	C	2006	C	2	20	0.00	0.00	1.00	0.00		0.00		
		2007	C	2	10	1.00	0.00	0.00	0.00	0.00	0.42	1.00	1.00
		2008	C	2	4	1.00	0.00	0.00	0.00	0.00	0.24	1.00	1.00
		2009	1										
	V	2006	C	28	250	0.44	0.00	0.56	0.05	0.00	0.30	1.00	1.00
		2007	C	27	320	0.81	0.00	0.19	0.09	0.00	0.32	0.99	0.99
		2008	C	27	96	1.00	0.00	0.00	0.15	0.01	0.24	0.99	0.99
		2009	1.67										
LEASE_COST		98-04	C										
	C	2006	C	2	20	0.00	0.00	1.00	0.00		0.00		
		2007	C	2	20	1.00	0.00	0.00	0.05	0.00	0.94	1.00	1.00
		2008	C	2	4	1.00	0.00	0.00	0.00	0.00	0.24	1.00	1.00
		2009	1										
	V	2005	C	9	15	0.47	0.40	0.13	0.07	0.00	0.06	0.97	0.97
		2006	C	28	250	0.44	0.00	0.56	0.11	0.00	0.31	1.00	1.00
		2007	C	27	320	0.81	0.00	0.19	0.18	0.00	0.32	0.99	0.99
		2008	C	26	95	1.00	0.00	0.00	0.24	0.01	0.23	0.97	0.97
		2009	1.5										
NUM_CREW_CONTRIBUTE		2005	C										
	C	2007	C	2	5	1.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00
		2008	C	1	1	1.00	0.00	0.00	0.00	0.00	0.20		
		2009	1										
	V	2006	C	28	50	0.68	0.00	0.32	0.12	0.00	0.33	0.79	0.79
		2007	C	27	64	0.81	0.00	0.19	0.05	0.00	0.27	0.94	0.94
		2008	C	15	22	1.00	0.00	0.00	0.14	0.05	0.20	0.57	0.52
		2009	1										

CRAB_PURCHASED

Description	Processing sector crab purchases (volume and cost), reported by fishery, quota type, and other strata.
Stratified by	BOOKLET_ID, FISHERY_CODE, IFQ_CODE, CRAB_SIZE_CODE, CRAB_GRADE_CODE

Sector-year summary	PROCESSING
Data quality notes	Data analysts should note the lag between production and sales in use of these data. CRAB_SIZE_CODE and CRAB_GRADE_CODE do not support comparison of production quantity by size or grade across processors or time and are not recommended for use in analysis. Audit results for 2007-2009 indicate data reported to be well-supported and highly accurate.

CRAB_PURCHASED | FISHERY_CODE

Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CRAB_PURCHASED | IFQ_CODE

Description	code for IFQ type used for landing of purchased crab; see Appendix A, Table 12 for code values
Sector-year summary	SF: 2006-
Data structure notes	Default value of 'N/A' for all catcher processor records and for SP/FP records prior to 2006.
Year-version changes	EDR forms disaggregated SP/FP crab purchases by IFQ type beginning in 2006; did not disaggregate for CP sector.
Data quality notes	See year-version changes.

CRAB_PURCHASED | CRAB_SIZE_CODE

Description	crab size code; see Appendix A Table 9 for code values
Sector-year summary	SFC: 1998-
Data quality notes	Crab_size_code and crab_grade_code do not support comparison of production quantity by size or grade across processors or time and are not recommended for use in analysis. Use of product code, process code, box size, and finished pounds data should note the lag between production and sales and the EDRfiling exemption of non-processing RCR permit holders. Crab sizing and grading is not consistent over time for a given processor or across different processors, and varies depending on the intended market for product; the data does not support comparison of production quantity by size or grade across processors or time. For most analytical purposes, data users should aggregate finished pounds values by product form (fishery code, product code, and process code) over all size and grade code values.

CRAB_PURCHASED | CRAB_GRADE_CODE

Description	crab grade code; see Appendix A, Table 10 for code values
Sector-year summary	SFC: 1998-
Data quality notes	see data quality notes for crab_purchased, crab_size_code

CRAB_PURCHASED | POUNDS_PURCHASED

Description	total pounds of raw crab purchased, by crab grade and size
Sector-year summary	SFC: 1998-
Data quality notes	Note that crab buyers that do not process crab (e.g., processors that send all crab for custom processing) are exempt from the EDR requirement and are not represented in the EDR data. Therefore, pounds_purchased summed over all processors may not equal the sum of pounds sold by harvesters in a given fishery,

	and in some cases (e.g. the Eastern Aleutians golden king crab fishery) may diverge by almost 50%.
Years audited	Harvest: | Processing: 2007-2009

CRAB_PURCHASED | GROSS_COST

Description	total gross cost of raw crab purchased, by crab grade and size
Sector-year summary	SFC: 1998-
Data quality notes	see data quality notes for pounds_purchased variable
Years audited	Harvest: | Processing: 2007-2009

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
IFQ_CODE		2005	B										
		2006-	B										
	SF	2009	1										
CRAB_SIZE_CODE		98-04	C										
		2005	C										
		2006-	C										
	SF	2009	2										
CRAB_GRADE_CODE		98-04	C										
		2005	C										
		2006-	C										
	SF	2009	2										
POUNDS_PURCHASED		98-04	B										
		2005	B										
	C	2008	B	2	3	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
		2009	B	2	5	0.00	1.00	0.00	0.00				
	SF	2007	B	4	40	1.00	0.00	0.00	0.15	0.00	0.42	1.00	1.00
		2008	B	3	30	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	1	6	35	0.86	0.00	0.14	0.03	0.00	0.26	1.00	1.00
GROSS_COST		98-04	B										
		2005	B										
	C	2008	B	2	3	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
		2009	B	2	5	0.00	1.00	0.00	0.00				
	SF	2007	B	4	40	1.00	0.00	0.00	0.65	0.00	0.42	1.00	1.00
		2008	B	3	30	1.00	0.00	0.00	0.00	0.00	0.30	1.00	1.00
		2009	1	6	35	0.86	0.00	0.14	0.06	0.00	0.26	0.98	0.98

CUSTOM_PROCESS_HIRED

Description	Processing sector costs for and volume of custom crab processing hired out, reported by fishery and other strata.
Stratified by	BOOKLET_ID, FISHERY_CODE, PRODUCT_CODE, PROCESS_CODE, CRAB_SIZE_CODE, CRAB_GRADE_CODE, BOX_SIZE, BOX_LB_KG
Sector-year summary	PROCESSING
Data quality notes	CRAB_SIZE_CODE and CRAB_GRADE_CODE do not support comparison of production quantity by size or grade across processors or time and are not recommended for use in analysis.

CUSTOM_PROCESS_HIRED | FISHERY_CODE	
Description	code for rationalized crab fishery; see Appendix A, Table 6 for code values
Data structure notes	All variables in this table are reported on a by-fishery basis. See Appendix A, Table 6 for code values.

CUSTOM_PROCESS_HIRED | PRODUCT_CODE	
Description	product code; see Appendix A, Table 7 for code values
Sector-year summary	SFC: 1998-
Data quality notes	No known data quality concerns.

CUSTOM_PROCESS_HIRED | PROCESS_CODE	
Description	process code; see Appendix A, Table 8 for code values
Sector-year summary	SFC: 1998-
Data quality notes	No known data quality concerns.

CUSTOM_PROCESS_HIRED | CRAB_SIZE_CODE	
Description	crab size code; see Appendix A Table 9 for code values
Sector-year summary	SFC: 1998-
Data quality notes	Crab_size_code and crab_grade_code do not support comparison of production quantity by size or grade across processors or time and are not recommended for use in analysis. Use of product code, process code, box size, and finished pounds data should note the lag between production and sales and the EDRfiling exemption of non-processing RCR permit holders. Crab sizing and grading is not consistent over time for a given processor or across different processors, and varies depending on the intended market for product; the data does not support comparison of production quantity by size or grade across processors or time. For most analytical purposes, data users should aggregate finished pounds values by product form (fishery code, product code, and process code) over all size and grade code values.

CUSTOM_PROCESS_HIRED | CRAB_GRADE_CODE	
Description	crab grade code; see Appendix A, Table 10 for code values
Sector-year summary	SFC: 1998-
Data quality notes	see data quality notes for crab size code

CUSTOM_PROCESS_HIRED | BOX_SIZE	
Description	box size
Sector-year summary	SFC: 1998-
Data quality notes	No known data quality concerns.

CUSTOM_PROCESS_HIRED | BOX_LB_KG	
Description	box size units (kg or lb)
Sector-year summary	SFC: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: | Processing:

CUSTOM_PROCESS_HIRED | CUST_HIRED_FINISHED_LBS	
Description	finished pounds of specified product produced by custom processor
Sector-year summary	SFC: 1998-
Data quality notes	Does not include custom processing performed for non-processing crab buyers. Difference between total processing by species and custom processing provided should provide measure of custom processing volume performed for non-processing crab buyers.
Years audited	Harvest: | Processing: 2006

CUSTOM_PROCESS_HIRED | CUST_HIRED_PROCESS_COST

Description	total cost paid for specified product produced by custom processor
Sector-year summary	SFC: 1998-
Data quality notes	see data quality notes for CUST_HIRED_FINISHED_LBS
Years audited	Harvest: | Processing: 2006

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
PRODUCT_CODE		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	1										
PROCESS_CODE		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	2										
CRAB_SIZE_CODE		98-04	C										
		2005	C										
		2006-	C										
	SF	2009	2										
CRAB_GRADE_CODE		98-04	C										
		2005	C										
		2006-	C										
	SF	2009	1										
BOX_SIZE		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	1										
BOX_LB_KG		98-04	A										
		2005	A										
		2006-	A										
	SF	2009	1										
CUST_HIRED_FINISHED_LBS		98-04	B										
		2005	B										
	C	2006	B	2	4	0.00	0.00	1.00	0.00		0.00		
	SF	2009	1										
CUST_HIRED_PROCESS_COST		98-04	B										
		2005	B										
	C	2006	B	2	4	0.00	0.00	1.00	0.00		0.00		
	SF	2009	1										

ANNUAL TOTALS

Table containing total annual data on various operational, labor, and revenue elements.

ANNUAL_TOTALS

Description	Total annual data on various operational, labor, and revenue elements.
Stratified by	BOOKLET_ID
Sector-year summary	ALL

ANNUAL_TOTALS | TOTAL_DAYS_PROCESSING

Description	annual totals for all fisheries, processing days
Sector-year summary	SFC: 1998-
Data quality notes	Days processing is the count of days on which processing occurred.
Years audited	Harvest: | Processing: 1998-2009

ANNUAL_TOTALS | TOTAL_DAYS_AT_SEA

Description	annual totals for all fisheries, days at sea
Sector-year summary	VC: 1998-
Year-version changes	Additional instructions were added to the 2005 and 2006 EDR forms to clarify activities included in days at sea. 2005 EDR specified inclusion of chartering and tendering; 2006 EDR specified inclusion of transiting to/from home port
Data quality notes	1998-2005 data for total days at sea do not reliably measure changes over time or across vessels. The inconsistent and incomplete definition of days at sea in the 1998-2004 and 2005 EDRs likely resulted in under-reporting of this variable for these years, particularly for 1998-2004. Use of these data are not recommended for pro rata indices without further validation against other data sources. Error in reporting of total days at sea in 1998-2005 EDRs is indicated by both submitter feedback and audit results. Additional instructions were added to 2005 and 2006 EDR forms to better define activities to included in days at sea; 2005 EDRs specified inclusion of chartering and tendering and 2006 EDRs additionally specified inclusion of transiting to/from home port. Further work should be performed to validate these data against CFEC data, logbook data, and other available data sources. 2006 audit review found total days at sea data were well supported and accurate.
Years audited	Harvest: 1998-2009 | Processing:

ANNUAL_TOTALS | ROUND_POUNDS_CAUGHT

Description	annual totals for all fisheries, round pounds caught and retained (excludes discards)
Sector-year summary	VC: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2006-2009 | Processing:

ANNUAL_TOTALS | TOTAL_GROSS_LAND_REVENUE

Description	annual totals for all fisheries, landings, gross revenue
Sector-year summary	V: 1998-
Data quality notes	No known data quality concerns.
Years audited	Harvest: 2006-2009 | Processing:

ANNUAL_TOTALS | TOTAL_FOB_REVENUE

Description	annual totals for all fisheries, product sales, FOB revenue
Sector-year summary	SFC: 1998-

Data quality notes	Total FOB revenue is generated from sales of inventory, while finished pounds processed reflects processing activity, but not final sales. These data should not be combined to calculate figures for average revenue per pound sold and should be compared to crab and total processing activity on a multi-year basis. The 1998-2004 data may include shipping costs to Seattle for processors using Seattle as FOB port; however feedback indicated that most processors either specified FOB port or converted to FOB Alaska revenue. These data do not include revenue for non-crab processing crab buyers--see COAR reports for total fishery figures.
Years audited	Harvest: | Processing: 2006-2009

ANNUAL_TOTALS | TOTAL_FOB_LOCATE_CODE

Description	annual totals for all fisheries, product sales, FOB port location code
Sector-year summary	SFC: 2005-
Year-version changes	1998-2004 forms specified FOB Alaska revenues. Total_fob_locate_code was added in 2005 to allow specification of FOB port as Alaska or Seattle.
Data quality notes	see data quality notes for total_fob_revenue variable
Years audited	Harvest: | Processing:

ANNUAL_TOTALS | FINISHED_POUNDS_PROCESSED

Description	annual totals for all fisheries, finished pounds processed
Sector-year summary	SFC: 1998-
Data quality notes	These data do not include revenue for non-crab processing crab buyers--see COAR reports for total fishery figures.
Years audited	Harvest: | Processing: 2006-2009

ANNUAL_TOTALS | TOTAL_LABOR_COSTS

Description	annual totals for all fisheries, labor costs
Sector-year summary	ALL: 1998-
Data quality notes	Audit results for 2006 identified substantial under- and over-reporting in a small number of cases, resulting in a significant but relatively modest error rate.
Years audited	Harvest: 2006-2007 | Processing: 2006-2007

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
TOTAL_DAYS_PROCESSING	C	2006	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2007	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2008	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2009	1	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
	SF	1998	A	3	3	0.67	0.33	0.00	0.33	0.00	0.13		
		2001	A	3	4	0.75	0.25	0.00	0.00	0.00	0.17	1.00	1.00
		2004	A	5	5	0.80	0.20	0.00	0.00	0.00	0.25	1.00	1.00
		2005	A	3	3	0.33	0.67	0.00	0.33	0.00	0.19		
		2006	A	5	5	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2007	A	4	4	1.00	0.00	0.00	0.25	0.00	0.29	0.97	0.97
		2008	A	3	3	1.00	0.00	0.00	0.00	0.00	0.23	1.00	1.00
		2009	1	6	6	0.83	0.17	0.00	0.00	0.00	0.50	1.00	1.00

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
TOTAL_DAYS_AT_SEA	C	2006	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2007	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2008	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2009	1	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
	V	1998	C	25	26	0.42	0.50	0.08	0.19	0.00	0.12	0.80	0.80
		2001	C	27	28	0.39	0.54	0.07	0.14	0.00	0.13	0.69	0.69
		2004	C	33	34	0.38	0.56	0.06	0.24	0.00	0.14	0.65	0.65
		2005	B	21	22	0.36	0.55	0.09	0.18	0.00	0.12	0.99	0.99
		2006	B	28	28	0.96	0.04	0.00	0.36	0.00	0.29	0.96	0.96
		2007	B	27	27	0.96	0.04	0.00	0.19	0.00	0.33	0.94	0.94
		2008	B	28	28	0.96	0.04	0.00	0.18	0.00	0.31	0.93	0.93
		2009	1.67	23	23	0.83	0.17	0.00	0.22	0.00	0.27	0.68	0.68
ROUND_POUNDS_CAUGHT		98-04	A										
		2005	A										
	C	2006	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2007	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2008	A	2	2	1.00	0.00	0.00	0.50	0.00	0.40		
		2009	1	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
	V	2006	A	28	28	0.96	0.04	0.00	0.43	0.00	0.29	1.00	1.00
		2007	A	27	27	0.96	0.04	0.00	0.33	0.00	0.32	1.00	1.00
		2008	A	28	28	1.00	0.00	0.00	0.29	0.00	0.31	0.99	0.99
		2009	1	23	23	1.00	0.00	0.00	0.35	0.00	0.27	0.57	0.57
TOTAL_GROSS_LAND_REVENUE		98-04	A										
		2005	A										
	V	2006	A	28	28	0.96	0.04	0.00	0.36	0.00	0.29	0.93	0.93
		2007	A	27	27	1.00	0.00	0.00	0.63	0.00	0.33	0.98	0.98
		2008	A	28	28	1.00	0.00	0.00	0.18	0.00	0.31	1.00	1.00
		2009	1	23	23	1.00	0.00	0.00	0.43	0.00	0.27	0.99	0.99
TOTAL_FOB_REVENUE		98-04	B										
		2005	B										
	C	2006	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2007	B	2	2	1.00	0.00	0.00	0.50	0.00	0.40		
		2008	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2009	1	2	2	1.00	0.00	0.00	0.50	0.00	0.40		
	SF	2006	B	5	5	1.00	0.00	0.00	0.00	0.00	0.42	1.00	1.00
		2007	B	4	4	1.00	0.00	0.00	0.50	0.00	0.29	1.00	1.00
		2008	B	3	3	1.00	0.00	0.00	0.33	0.00	0.23	1.00	1.00
		2009	1	6	6	1.00	0.00	0.00	0.33	0.00	0.50	1.00	1.00
TOTAL_FOB_LOCATE_CODE		98-04	B										
		2005	B										
		2006-	B										
	C	2009	1										

VARIABLE	SECTOR	YEAR	DQRANK	N_EDRS	N_OBSERVATIONS	P_SUPPORTED	N_NONSUPPORTED	P_NONREPORTED	P_CORRECTED	P_NONRESP	P_SAMPLE_EST	RR_NS	RR_S
FINISHED_POUNDS_PROCESSED		98-04	B										
		2005	B										
	C	2006	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2007	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2008	B	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2009	1	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
	SF	2006	B	5	5	1.00	0.00	0.00	0.00	0.00	0.38	1.00	1.00
		2007	B	4	4	1.00	0.00	0.00	0.50	0.00	0.29	1.00	1.00
		2008	B	3	3	1.00	0.00	0.00	0.00	0.00	0.23	1.00	1.00
		2009	1	6	6	1.00	0.00	0.00	0.00	0.00	0.50	1.00	1.00
TOTAL_LABOR_COSTS		98-04	A										
		2005	A										
	C	2006	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2007	A	2	2	1.00	0.00	0.00	0.00	0.00	0.40		
		2009	1										
	SF	2006	A	5	5	1.00	0.00	0.00	0.20	0.00	0.38	1.00	1.00
		2007	A	4	4	1.00	0.00	0.00	0.75	0.00	0.29	0.99	0.99
		2009	1										
	V	2006	A	28	28	0.96	0.04	0.00	0.39	0.00	0.28	0.93	0.93
		2007	A	27	27	1.00	0.00	0.00	0.48	0.00	0.33	0.98	0.98
		2009	1										