DOCUMENTATION FOR THE WEST COAST FISHING FLEET
COST-EARNINGS DATA BASE

by

Samuel F. Herrick, Jr.
National Marine Fisheries Service
P.O. Box 271
8604 La Jolla Shores Drive
La Jolla, CA 92038
Voice (858)546-7111
FAX (858)546-7003
Email Sam.Herrick@noaa.gov

Jeffery G. Lee

Dale Squires
National Marine Fisheries Service

1992

Southwest Fisheries Science Center
National Marine Fisheries Service

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I. INTRODUCTION

The west coast fishing fleet cost-earnings data base (CEDB) was created to consolidate fishing vessel cost and earnings data into an informational and analytical data base that would support economic research and provide economic information on selected U.S., west coast fisheries.

The major source of landings and ex-vessel earnings data for west coast fishing vessels is the PACFIN Research Data Base which contains annual fish ticket and vessel registration data: landings, ex-vessel prices, and fishing vessel characteristics data for Washington, Oregon and California vessels for the years 1981 through 1989 (Jacobson et al., ). Because of its design, comprehensiveness, continuity, and the level of support provided users, the PACFIN data base has experienced widespread popularity among researchers investigating and monitoring changes in the fishing activities and gross earnings of various west coast fleets over time.

Fishing vessel cost data, on the other hand, are typically assembled on an ad hoc basis. There is nothing for vessel costs that incorporates the annual, secondary data reporting and compilation mechanisms that constitute the PACFIN Research Data Base. Instead, cost data are usually collected as part of a specific study and are therefore subject to the special needs and concerns of the investigator. Because a routine standard cost data reporting format is lacking, it is difficult to use these data to conduct consistent or routine analyses (e.g. fleet productivity analyses) which draw on both the PACFIN and various vessel cost data bases.

In view of the disparate nature of fishing vessel cost data, we set out to establish an economic information and research data base, comprising both fishing vessel cost and earnings data, which would feature the versatility and permanence that characterizes the PACFIN data base. In this report, we document that effort by first providing an overview of the data base in terms of the elements contained in the data base, their source, and concerns about confidentiality and access. We next describe in detail the structure and content of the cost-earnings data base system, and in the last section present statistical
summaries for the quantitative variables in the data base.

II. OVERVIEW

A. Data Description

There are costs associated with operating and owning a fishing vessel. Costs related to the vessel's operation are generally categorized as variable costs, since they vary with the level of fishing activity. Ownership costs tend to be incurred whether or not the vessel actually engages in fishing (or non-fishing activities), and therefore fall into a fixed cost category. Vessels generate earnings from the sale of fish caught, or by engaging in alternative revenue-producing activities. For over 140 vessels that belonged to either the west coast trawl fleet, the U.S. tropical tuna purse seine fleet, the west coast wetfish fleet, or the southern California gillnet fleet, in one or more of the years 1981-89, we acquired data on annual expenditures for major items of both variable and fixed cost, and annual earnings by fishing and non-fishing activities. Petroleum (fuel and lubricants), wages and benefits, maintenance, and expenditures on a number of other intermediate inputs were the major items of variable cost. Interest, mortgage, depreciation, insurance, administrative, professional, and other overhead, were the major fixed expenses. For these items, actual expenditures are further disaggregated and detailed in the next section. In addition to economic data, data on the vessels' physical characteristics were also obtained.

B. Data Sources

The scope of the data base is limited by the periodic availability of secondary cost data from individual fishing vessels. In this regard, individual vessel cost and earnings information that could be obtained, directly from federal tax forms, through NMFS's fishing vessel Capital Construction Fund (CCF) and Fishing Vessel Obligation Guarantee program (FVOG) provided a starting point for the construction of the data base. We recognized the interpretive problems inherent in data taken from tax forms, but nonetheless feel that these have been sufficiently resolved so that reasonable data on the costs and returns of owning and operating a fishing vessel have been entered into the data base. For west coast vessels, cost and earnings data taken from tax forms were supplemented with corresponding PACFIN data on landings.
and revenue by species, as well as physical characteristics data, to thoroughly document a particular vessel's economic performance over a given time period.

C. Confidentiality

Standard provisions for confidential data apply to the Cost-Earnings Data Base. Access is limited to National Marine Fisheries Service personnel in accordance with the data sharing agreement with the state of California. NMFS employees must sign a confidentiality agreement before accessing the data.

D. Who to Contact for More Information

Responsibility for the maintenance and continuance of the west coast fishing fleet cost-earnings data base rests with Dr. Samuel F. Herrick, Jr. and Dr. Dale Squires of the Southwest Fisheries Center, La Jolla. Their address and respective phone numbers follow:

National Marine Fisheries Service
Southwest Fisheries Center
P.O. Box 271
La Jolla, CA 92038

619/546-7111, FTS/893-7111
619/546-7113, FTS/893-7113.

III. DESCRIPTION OF THE SYSTEM

A. Data Base Design

The west coast fishing fleet cost-earnings data base has been implemented on a IBM compatible personal computer, running the MS-DOS operating system. Fleet-specific data files were created using the relational data base structure and data management system provided by dBASE IV. The intent was to establish a highly flexible structure that could be easily modified to accept "nonstandard" data (i.e., data not from tax forms or the PACFIN). The dBASE IV system satisfies these requirements, and also allows for report generation, data manipulation using an internal programming capability, and automated data entry.
B. Data Base Structure

The database contains four categories for: the west coast groundfish/shrimp trawl fleet, (81-89) the southern California swordfish/shark drift gillnet fleet, (81-86) and the U.S. tropical tuna purse seine fleet, (81-89). The respective files are called TRACE.DBF, TUNA.DBF, and GILLNET.DBF. TRACE.DBF contains 72 fields, 342 vessel-years, 116 vessels, TUNA.DBF contains 75 fields, 40 vessel/corporation years, 15 vessels, GILLNET.DBF contains 71 fields, 39 vessel-years, 12 vessels.

Each fleet file contains a separate record for each vessel in that fleet, for each year in which cost-earnings data were available for that vessel. Each record contains the information shown in table 1.1.

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¹TUNA.DBF and GILL.DBF have a slightly different structure. TUNA.DBF has 5 extra fields HELICOST (cost of helicopter acquisition), FISHREV (revenue received from fishing operations) DEPPLANE (annual depreciation on plane) OTHERREV (other unspecified revenue), and NOTE (a note to give added information). In addition, ice, bait, and salt expenses have been aggregated into SALTCOST. GILL.DBF also combines ice, bait, and salt into SALTCOST. Other than that it is the same.
Table 1. dBASE IV FORMAT OF DATA BASE

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Name</th>
<th>Format</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ID</td>
<td>Numeric</td>
<td>6 digit Coast Guard ID #</td>
<td>CCF tax</td>
</tr>
<tr>
<td>2</td>
<td>VES_NAME</td>
<td>Character</td>
<td>Name of Vessel</td>
<td>CCF tax</td>
</tr>
<tr>
<td>3</td>
<td>YEAR</td>
<td>Numeric</td>
<td>Calendar year for which cost-earnings data applies</td>
<td>CCF tax</td>
</tr>
<tr>
<td>4</td>
<td>PRINPORT</td>
<td>Character</td>
<td>Principle port of vessel which account for a plurality of revenues</td>
<td>PACFIN</td>
</tr>
<tr>
<td>5</td>
<td>LENGTH</td>
<td>Numeric</td>
<td>Coast Guard measurement in feet.</td>
<td>PACFIN</td>
</tr>
<tr>
<td>6</td>
<td>GROSSTON</td>
<td>Numeric</td>
<td>Coast Guard registered tonnage</td>
<td>PACFIN</td>
</tr>
<tr>
<td>7</td>
<td>HORSEPOWER</td>
<td>Numeric</td>
<td>Coast Guard registered horsepower</td>
<td>PACFIN</td>
</tr>
<tr>
<td>8</td>
<td>CREWSIZE</td>
<td>Numeric</td>
<td>Number in crew</td>
<td>PACFIN</td>
</tr>
<tr>
<td>9</td>
<td>YEARBUILT</td>
<td>Numeric</td>
<td>Construction year of vessel</td>
<td>CCF tax</td>
</tr>
<tr>
<td>10</td>
<td>YEARPURCH</td>
<td>Numeric</td>
<td>Purchase year of vessel</td>
<td>CCF tax</td>
</tr>
<tr>
<td>11</td>
<td>LANDINGS</td>
<td>Numeric</td>
<td>Number of fish tickets</td>
<td>PACFIN</td>
</tr>
<tr>
<td>12</td>
<td>WEEKS</td>
<td>Numeric</td>
<td>Weeks fished in year</td>
<td>PACFIN</td>
</tr>
<tr>
<td>13</td>
<td>GEARTYPE</td>
<td>Numeric</td>
<td>Code to indicate type of fishing gear used</td>
<td>CCF tax</td>
</tr>
<tr>
<td>14</td>
<td>JV</td>
<td>Numeric</td>
<td>Joint Venture operations dummy variable; 1=JV 0=not</td>
<td>OTHER</td>
</tr>
<tr>
<td>15</td>
<td>DEPTOTAL</td>
<td>Numeric</td>
<td>Vessel depreciation for year</td>
<td>CCF tax</td>
</tr>
<tr>
<td>16</td>
<td>SIZE</td>
<td>Character</td>
<td>Vessel size code</td>
<td>OTHER</td>
</tr>
<tr>
<td>17</td>
<td>PETROCOST</td>
<td>Numeric</td>
<td>Vessel fuel cost</td>
<td>CCF tax</td>
</tr>
<tr>
<td>18</td>
<td>PROVISCST</td>
<td>Numeric</td>
<td>Cost of vessel provisions</td>
<td>CCF tax</td>
</tr>
<tr>
<td></td>
<td>Name</td>
<td>Type</td>
<td>Description</td>
<td>Tax</td>
</tr>
<tr>
<td>---</td>
<td>-----------------</td>
<td>----------</td>
<td>------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>19</td>
<td>GEARCOST</td>
<td>Numeric</td>
<td>Cost of vessel gear</td>
<td>CCF tax</td>
</tr>
<tr>
<td>20</td>
<td>CREWCOST</td>
<td>Numeric</td>
<td>Crew expenses including crewshare and captain's share</td>
<td>CCF tax</td>
</tr>
<tr>
<td>21</td>
<td>TAX</td>
<td>Numeric</td>
<td>Local, state, and federal taxes. Does not include income taxes.</td>
<td>CCF tax</td>
</tr>
<tr>
<td>22</td>
<td>AUTOEXPEN</td>
<td>Numeric</td>
<td>Costs related to automobiles</td>
<td>CCF tax</td>
</tr>
<tr>
<td>23</td>
<td>REPAIRCOST</td>
<td>Numeric</td>
<td>Repair expenses</td>
<td>CCF tax</td>
</tr>
<tr>
<td>24</td>
<td>DUES</td>
<td>Numeric</td>
<td>Membership costs</td>
<td>CCF tax</td>
</tr>
<tr>
<td>25</td>
<td>BAITCOST</td>
<td>Numeric</td>
<td>Costs for bait</td>
<td>CCF tax</td>
</tr>
<tr>
<td>26</td>
<td>ICECOST</td>
<td>Numeric</td>
<td>Costs for ice</td>
<td>CCF tax</td>
</tr>
<tr>
<td>27</td>
<td>PERMITCOST</td>
<td>Numeric</td>
<td>Cost of fishing permit or license</td>
<td>CCF tax</td>
</tr>
<tr>
<td>28</td>
<td>OFFLOADEXP</td>
<td>Numeric</td>
<td>Offloading costs</td>
<td>CCF tax</td>
</tr>
<tr>
<td>29</td>
<td>RENTETC</td>
<td>Numeric</td>
<td>Expenses listed as rent, lease, moorage</td>
<td>CCF tax</td>
</tr>
<tr>
<td>30</td>
<td>INSURCOST</td>
<td>Numeric</td>
<td>Insurance expenses</td>
<td>CCF tax</td>
</tr>
<tr>
<td>31</td>
<td>INTERESTEX</td>
<td>Numeric</td>
<td>Costs of interest</td>
<td>CCF tax</td>
</tr>
<tr>
<td>32</td>
<td>PROEXP</td>
<td>Numeric</td>
<td>Professional fees including management accounting and legal</td>
<td>CCF tax</td>
</tr>
<tr>
<td>33</td>
<td>TRAVELEXP</td>
<td>Numeric</td>
<td>Costs of travel</td>
<td>CCF tax</td>
</tr>
<tr>
<td>34</td>
<td>SUPPLYEXP</td>
<td>Numeric</td>
<td>Items listed as supplies not as provisions</td>
<td>CCF tax</td>
</tr>
<tr>
<td>35</td>
<td>OFFICEEXP</td>
<td>Numeric</td>
<td>Office expenses</td>
<td>CCF tax</td>
</tr>
<tr>
<td>36</td>
<td>PHONEEXP</td>
<td>Numeric</td>
<td>Phone or utilities expenses</td>
<td>CCF tax</td>
</tr>
<tr>
<td>37</td>
<td>BANKCHARGE</td>
<td>Numeric</td>
<td>Bank charges including special loan guarantee program fees</td>
<td>CCF tax</td>
</tr>
<tr>
<td>Column</td>
<td>Code</td>
<td>Type</td>
<td>Description</td>
<td>Source</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>---------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>38</td>
<td>CCFDEPOSIT Numeric</td>
<td>Capital Construction Fund deposit</td>
<td></td>
<td>CCF tax</td>
</tr>
<tr>
<td>39</td>
<td>OTHEREXP Numeric</td>
<td>Misc. vessel expenses</td>
<td></td>
<td>CCF tax</td>
</tr>
<tr>
<td>40</td>
<td>TOTALEXP Numeric</td>
<td>Total deductions or total deductions plus costs of goods sold, those items listed as totals</td>
<td>CCF tax</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>OWNERPAY Numeric</td>
<td>Payments to the owners of the vessel such as partners and corporate officers</td>
<td>CCF tax</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>DEPNEGATIV Numeric</td>
<td>Negative depreciation expense due to CCF deposit</td>
<td>CCF tax</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>FUELPRICE Numeric</td>
<td>Price of fuel (No.2 marine diesel)</td>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>OPPLABOR Numeric</td>
<td>Opportunity cost of labor</td>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>CAPSERV Numeric</td>
<td>Capital services price</td>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>TOTALREV Numeric</td>
<td>PACFIN reported total revenue</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>TOTREV Numeric</td>
<td>Tax form reported total revenue</td>
<td>CCF tax</td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>JVREV Numeric</td>
<td>Computed joint venture revenue</td>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>TR_SP1 Numeric</td>
<td>Total revenue species1</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>TR_SP2 Numeric</td>
<td>Total revenue species2</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>TR_SP3 Numeric</td>
<td>Total revenue species3</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>TR_SP4 Numeric</td>
<td>Total revenue species4</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>TR_SP5 Numeric</td>
<td>Total revenue species5</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>TR_SP6 Numeric</td>
<td>Total revenue species6</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>TR_SP7 Numeric</td>
<td>Total revenue species7</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>TR_SP8 Numeric</td>
<td>Total revenue species8</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>TR_SP9 Numeric</td>
<td>Total revenue species9</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>Column</td>
<td>Type</td>
<td>Description</td>
<td>Source</td>
<td></td>
</tr>
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<td>--------</td>
<td>--------</td>
<td>--------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>TR_SP10</td>
<td>Numeric Total revenue species10</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>JVTONS</td>
<td>Numeric Computed joint venture catch in tons</td>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>TOTCATCH</td>
<td>Numeric Total catch in tons</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>TC_SP1</td>
<td>Numeric Total catch species1</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>62</td>
<td>TC_SP2</td>
<td>Numeric Total catch species2</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>TC_SP3</td>
<td>Numeric Total catch species3</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>TC_SP4</td>
<td>Numeric Total catch species4</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>TC_SP5</td>
<td>Numeric Total catch species5</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>TC_SP6</td>
<td>Numeric Total catch species6</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>TC_SP7</td>
<td>Numeric Total catch species7</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>TC_SP8</td>
<td>Numeric Total catch species8</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>TC_SP9</td>
<td>Numeric Total catch species9</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>TC_SP10</td>
<td>Numeric Total catch species10</td>
<td>PACFIN</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>PRICE</td>
<td>Numeric Vessel acquisition price</td>
<td>CCF tax</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>OPP_CAP</td>
<td>Numeric Opportunity cost of capital</td>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

(All costs and revenues are in nominal dollars).

1). Data Source Codes

CCF tax data: Tax data from vessels participating in the Capital Construction Fund

PACFIN: Data transferred directly from the PACFIN Research Data Base

OTHER: Computed Variables (listed below)

C. Other Variables

GEARTYPE. Type of fishing gear used. "1" = Trawl, "3" = Coastal pelagic, "4" = Troll, pots, longline.

JV. Personnel at National Marine Fisheries Service, Southwest Region monitor joint venture participation by west coast trawl.
vessels. Vessels in the cost-earnings trawl fleet were identified accordingly.

FUELPRICE. Average of quarterly fuel prices obtained from vessel principle ports.

OPP_LABOR. Opportunity cost of labor by homeport - Labor earnings information from the Bureau of Labor statistics was used to calculate the next best alternate income source for crew members in their principle area. The geometric mean for three labor categories, captain, mechanic, and crew, was used as opportunity cost.

CAP_SERV. Capital services price - This variable was derived from the following formula: Vessel acquisition price * \[ \text{depreciation rate} + \text{opportunity cost of capital} \]. where 
\[
\text{depreciation rate} = 7\% \text{ annually}
\]

JV_REV. Joint venture revenue - This variable was computed taking tons caught by the vessel as listed in the JV log books, and multiplying it by a coastwide average price per ton of Pacific Whiting, compiled by the National Marine Fisheries Service, Southwest Region.

OPP_CAP. Opportunity cost of capital - \[(\text{vessel acquisition price} \times \text{interest rate})\text{, where interest rate} = \text{Baa bond rate}\].

D. Missing Values

The cost data presented in the data base have various degrees of aggregation depending of the tax reporting method used. Therefore cost fields where nothing has been reported are assigned a value of (0). Fields that exhibit actual missing values have been assigned a (-1).

IV. Summary Statistics

A. Data Integrity.

The integrity of the cost data was checked by comparing the observed share of annual total variable/fixed costs for each of the vessel's itemized costs with the corresponding mean cost
shares for all vessels in the cost-earnings fleet, i.e.,

\[ \frac{C_{i,j}}{TC_j} = \frac{\Sigma_{j=1}^{N}(C_{i,j}/TC_j)}{N} \]

Where \( C_{i,j} \) = expenditure on cost item \( i \) for vessel \( j \) and 
\( TC_j \) = total expenditure by vessel \( j \).

Using a two standard deviation difference rule (actual minus fleet mean), none of the reported cost values were considered to be outliers. PACFIN revenue is checked for integrity as it is introduced into the PACFIN database.

All statistical summaries and data integrity checking were done using Statistical Package for the Social Sciences (SPSS/PC+). The statistical summaries are listed at the end of this document.

For purposes of completing summary statistics the following aggregations were performed.

TOTAL VARIABLE COST = PETROCOST + PROVISCOST + GEARCOST +
OTHERCOST + TAX + AUTOEXPENS + REPAIRCOST +
DUES + BAITCOST + ICECOST +
PERMITCOST + OFFLOADEXP + RENTETC +
SUPPLYEXP.

TOTAL FIXED COST = INSURCOST + PROEXP + TRAVELEXP
OFFICEEXP + PHONEEXP + BANKCHARGE.

TOTAL COST = TOTAL VARIABLE COST + TOTAL FIXED COST.

B. Statistical Results (see appendix for statistical definitions)

Table 2.
(Note: these figures are in nominal dollars)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>Median</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Variable Cost</td>
<td>40714</td>
<td>118212</td>
<td>5274</td>
<td>41104</td>
<td>21995</td>
</tr>
<tr>
<td>Total Fixed Cost</td>
<td>10870</td>
<td>45320</td>
<td>522</td>
<td>10405</td>
<td>7951</td>
</tr>
<tr>
<td>Length (ft.)</td>
<td>44</td>
<td>49</td>
<td>28</td>
<td>46</td>
<td>5.7</td>
</tr>
<tr>
<td>Variable</td>
<td>Mean</td>
<td>Max</td>
<td>Min</td>
<td>Median</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
<td>-----------</td>
</tr>
<tr>
<td>Gross ton</td>
<td>37.9</td>
<td>58</td>
<td>12</td>
<td>39</td>
<td>12.8</td>
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<tr>
<td>Horsepower</td>
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<td>230</td>
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<tr>
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<td>3</td>
<td>2</td>
<td>3</td>
<td>.489</td>
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<tr>
<td>Weeks fished</td>
<td>28.7</td>
<td>46</td>
<td>3</td>
<td>32</td>
<td>10.5</td>
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</table>

b) Trawlers with length between 50 and 75 feet

<table>
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<tr>
<th>Variable</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>Median</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Variable Cost</td>
<td>63451</td>
<td>263384</td>
<td>500</td>
<td>52211</td>
<td>51953</td>
</tr>
<tr>
<td>Total Fixed Cost</td>
<td>16687</td>
<td>112206</td>
<td>0.0</td>
<td>13784</td>
<td>14043</td>
</tr>
<tr>
<td>Length(ft.)</td>
<td>62.2</td>
<td>75</td>
<td>50</td>
<td>62</td>
<td>7.2</td>
</tr>
<tr>
<td>Gross ton</td>
<td>80.8</td>
<td>141</td>
<td>25</td>
<td>83</td>
<td>26.8</td>
</tr>
<tr>
<td>Horsepower</td>
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<td>840</td>
<td>135</td>
<td>340</td>
<td>118.2</td>
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<tr>
<td>Crewsize</td>
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<td>2</td>
<td>3</td>
<td>.46</td>
</tr>
<tr>
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<td>52</td>
<td>9</td>
<td>32</td>
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c) Trawlers with length greater than 75 feet

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<th>Max</th>
<th>Min</th>
<th>Median</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>78746</td>
<td>237226</td>
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<td>85571</td>
<td>64495</td>
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<tr>
<td>Total Fixed Cost</td>
<td>32600</td>
<td>116259</td>
<td>100</td>
<td>21899</td>
<td>32927</td>
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<tr>
<td>Length(ft.)</td>
<td>82.8</td>
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<td>80</td>
<td>7.6</td>
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<tr>
<td>Gross ton</td>
<td>144.3</td>
<td>196</td>
<td>90</td>
<td>140</td>
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<tr>
<td>Horsepower</td>
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<td>1040</td>
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<td>470</td>
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<td>3</td>
<td>.69</td>
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<tr>
<td>Weeks fished</td>
<td>25.3</td>
<td>43</td>
<td>4</td>
<td>29.5</td>
<td>12.2</td>
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V. Appendix.
Table 5. Definition of Homeport codes

A. Oregon

<table>
<thead>
<tr>
<th>Code</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>AST</td>
<td>Astoria</td>
</tr>
<tr>
<td>COS</td>
<td>Coos Bay</td>
</tr>
<tr>
<td>NEW</td>
<td>Newport</td>
</tr>
<tr>
<td>BRK</td>
<td>Brookings</td>
</tr>
<tr>
<td>TLL</td>
<td>Tillamook Bay</td>
</tr>
<tr>
<td>FLR</td>
<td>Florence</td>
</tr>
<tr>
<td>DES</td>
<td>Deschutes</td>
</tr>
<tr>
<td>CSC</td>
<td>Coos</td>
</tr>
<tr>
<td>CUR</td>
<td>Curry</td>
</tr>
<tr>
<td>CRK</td>
<td>Crook</td>
</tr>
<tr>
<td>KLM</td>
<td>Klamath</td>
</tr>
<tr>
<td>MRN</td>
<td>Marion</td>
</tr>
<tr>
<td>MRW</td>
<td>Morrow</td>
</tr>
<tr>
<td>TLC</td>
<td>Tillamook</td>
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</table>

B. Washington

<table>
<thead>
<tr>
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<tr>
<td>BLN</td>
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</tr>
<tr>
<td>BLL</td>
<td>Bellingham</td>
</tr>
<tr>
<td>ANA</td>
<td>Anacortes</td>
</tr>
<tr>
<td>EVR</td>
<td>Everett</td>
</tr>
<tr>
<td>TAC</td>
<td>Tacoma</td>
</tr>
<tr>
<td>SEA</td>
<td>Seattle</td>
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<tr>
<td>OLY</td>
<td>Olympia</td>
</tr>
<tr>
<td>NEA</td>
<td>Neah Bay</td>
</tr>
<tr>
<td>WPT</td>
<td>Westport</td>
</tr>
<tr>
<td>CPL</td>
<td>Copalis</td>
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<tr>
<td>PAG</td>
<td>Port Angeles</td>
</tr>
<tr>
<td>WLB</td>
<td>Bay Center</td>
</tr>
<tr>
<td>LWC</td>
<td>Chinook</td>
</tr>
<tr>
<td>GRH</td>
<td>Gray's Harbor</td>
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<tr>
<td>OSP</td>
<td>Kitsap</td>
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C. California

<table>
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<tr>
<td>ALB</td>
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</tr>
<tr>
<td>AVL</td>
<td>Avila</td>
</tr>
<tr>
<td>BDG</td>
<td>Bodega Bay</td>
</tr>
<tr>
<td>BRG</td>
<td>Fort Bragg</td>
</tr>
<tr>
<td>CRS</td>
<td>Crescent City</td>
</tr>
<tr>
<td>CRZ</td>
<td>Santa Cruz</td>
</tr>
<tr>
<td>ERK</td>
<td>Eureka</td>
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<tr>
<td>MNT</td>
<td>Monterey</td>
</tr>
<tr>
<td>MOS</td>
<td>Moss Landing</td>
</tr>
<tr>
<td>MRO</td>
<td>Morro Bay</td>
</tr>
<tr>
<td>NWB</td>
<td>Newport Beach</td>
</tr>
<tr>
<td>OAK</td>
<td>Oakland</td>
</tr>
<tr>
<td>TML</td>
<td>Tomales Bay</td>
</tr>
<tr>
<td>TRM</td>
<td>Terminal Is.</td>
</tr>
<tr>
<td>TRN</td>
<td>Trinidad</td>
</tr>
<tr>
<td>WLN</td>
<td>Wilmington</td>
</tr>
<tr>
<td>SB</td>
<td>Santa Barbara</td>
</tr>
<tr>
<td>SD</td>
<td>San Diego</td>
</tr>
<tr>
<td>OBV</td>
<td>Ventura</td>
</tr>
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<td>SF</td>
<td>San Francisco</td>
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<td>BDO</td>
<td>Sonoma</td>
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</table>

Table 7. Definition of species codes

<table>
<thead>
<tr>
<th>TRAWL FLEET</th>
<th>TUNA FLEET</th>
<th>GILLNET FLEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>sp1) Salmon</td>
<td>sp1) Yellowfin</td>
<td>sp1) Albacore</td>
</tr>
<tr>
<td>sp2) Dover</td>
<td>sp2) Skipjack</td>
<td>sp2) Mackerel</td>
</tr>
<tr>
<td>sp3) Flatfish</td>
<td>sp3) Bluefin</td>
<td>sp3) Swordfish</td>
</tr>
<tr>
<td>sp4) Rockfish</td>
<td>sp4) Albacore</td>
<td>sp4) Rockfish</td>
</tr>
<tr>
<td>sp5) Cod &amp; Lingcod</td>
<td>sp5) Unspecified</td>
<td>sp5) Thresher</td>
</tr>
<tr>
<td>sp6) Sable</td>
<td>sp6) Other</td>
<td>sp6) Halibut</td>
</tr>
<tr>
<td>sp7) Whiting</td>
<td>sp7) Black skipjack</td>
<td>sp7) Mako</td>
</tr>
<tr>
<td>sp8) Shrimp</td>
<td>sp8) Pacific bonito</td>
<td>sp8) Seabass</td>
</tr>
<tr>
<td>sp9) Crab</td>
<td>sp9) Swordfish</td>
<td>sp9) Lobster</td>
</tr>
<tr>
<td>sp10) Misc.</td>
<td>sp10) Other</td>
<td>sp10) Other</td>
</tr>
</tbody>
</table>