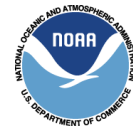


Technical Appendix: Economic Impact of the Recreational Fisheries on Local County Economies in California National Marine Sanctuaries 2010, 2011 and 2012

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Office of National Marine Sanctuaries



June 2015

About the Marine Sanctuaries Conservation Series

The Office of National Marine Sanctuaries, part of the National Oceanic and Atmospheric Administration, serves as the trustee for a system of 14 marine protected areas encompassing more than 170,000 square miles of ocean and Great Lakes waters. The 13 national marine sanctuaries and one marine national monument within the National Marine Sanctuary System represent areas of America's ocean and Great Lakes environment that are of special national significance. Within their waters, giant humpback whales breed and calve their young, coral colonies flourish, and shipwrecks tell stories of our maritime history. Habitats include beautiful coral reefs, lush kelp forests, whale migrations corridors, spectacular deep-sea canyon, and underwater archaeological sites. These special places also provide homes to thousands of unique or endangered species and are important to America's cultural heritage. Sites range in size from one square mile to almost 140,000 square miles and serve as natural classrooms, cherished recreational spots, and are home to valuable commercial industries.

Because of considerable differences in settings, resources and threats, each marine sanctuary has a tailored management plan. Conservation, education, research, monitoring and enforcement programs vary accordingly. The integration of these programs is fundamental to marine protected area management. The Marine Sanctuaries Conservation Series reflects and supports this integration by providing a forum for publication and discussion of the complex issues currently facing the sanctuary system. Topics of published reports vary substantially and may include descriptions of educational programs, discussions on resource management issues, and results of scientific research and monitoring projects. The series facilitates integration of natural sciences, socioeconomic and cultural sciences, education, and policy development to accomplish the diverse needs of NOAA's resource protection mandate. All publications are available on the Office of National Marine Sanctuaries Web site (<http://www.sanctuaries.noaa.gov>).

Technical Appendix: Economic Impact of the Recreational Fisheries on Local County Economies in California National Marine Sanctuaries 2010, 2011 and 2012

Cheryl Chen, Vernon R. Leeworthy & Danielle Schwarzmann

Point 97 &
NOAA's Office of National Marine Sanctuaries
Conservation Science Division



U.S. Department of Commerce
Penny Pritzker, Secretary

National Oceanic and Atmospheric Administration
Kathryn Sullivan, Ph.D.
Under Secretary of Commerce for Oceans and Atmosphere

National Ocean Service
Russell Callender, Ph.D., Acting Assistant Administrator

Silver Spring, Maryland
June 2015

Office of National Marine Sanctuaries
John Armor, Acting Director

Disclaimer

Report content does not necessarily reflect the views and policies of the Office of National Marine Sanctuaries or the National Oceanic and Atmospheric Administration, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use.

Report Availability

Electronic copies of this report may be downloaded from the Office of National Marine Sanctuaries web site at <http://sanctuaries.noaa.gov>.

Cover

Kelp bass. Steve Lonhart, Monterey Bay national Marine Sanctuary.
Kelp rockfish in the Channel Islands National Marine Sanctuary. Claire Fackler, NOAA National Marine Sanctuaries.

Suggested Citation

Chen, C., Leeworthy, V., & Schwarzmman, D. 2015. Technical Appendix: Economic Impact of the Recreational Fisheries on Local County Economies in California National Marine Sanctuary 2010, 2011 and 2012. Marine Sanctuaries Conservation Series ONMS-2015-06. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 167 pp.

Contact

Dr. Vernon R. (Bob) Leeworthy
Chief Economist
Office of National Marine Sanctuaries
1305 East West Highway, SSMC4, 11th floor
Silver Spring, MD 20910
Telephone: (301) 713-7261
Fax: (301) 713-0404
E-mail: Bob.Leeworthy@noaa.gov

Dr. Danielle N Schwarzmman
Economist
Office of National Marine Sanctuaries
1305 East West Highway
Silver Spring, MD 20910
Telephone: (301) 713-7254
Fax: (301) 713-0404
Danielle.Schwarzmman@noaa.gov

Acknowledgements

We would like to acknowledge Connie Ryan and Kevin Hitchcock with California Department of Fish and Wildlife

Abstract

This report provides the methodology used to estimate the trends and market impacts of recreational fishing in California's four National Marine Sanctuaries. Detailed explanations of how estimates of resident and non-resident person-days of recreational fishing were derived are including in this Appendix. Further, how this trend information was then extrapolated to the population and used in conjunction with NOAA Fisheries' expenditure profiles by mode of access to estimate the market impacts is detailed.

This Appendix also explains how the recreational fishing person-days was used (in conjunction with IMPLAN) to estimate the three-year average from 2010 through 2012 for economic indicators such as; output, value-added, labor income and employment. For detailed information on the economic impacts and recreational fishing trends, please refer to the reports for each individual sanctuary or the summary report of all four California sanctuaries.

Key Words

California, National Marine Sanctuaries, Economic, Recreational Fishing, Output, Employment, Value Added

Table of Contents

Topic	Page
Abstract.....	i
Key Words	i
Table of Contents.....	ii
List of Figures and Tables.....	iv
Chapter 1 Recreational Fishing Effort Data Collection and Preparation.....	1
Project Goal and Objectives.....	1
Methods.....	1
Data Sources	2
Sanctuary CDFW Fishing Blocks.....	2
Determining Residential Status.....	9
<i>Monterey Bay and Greater Farallones</i>	9
<i>Cordell Banks and Channel Islands</i>	9
Chapter 2 Recreational Fishing Effort Estimation Methods.....	11
Shore Mode.....	11
Private – Rental Boating	12
Commercial Passenger Fishing Vessel	13
Chapter 3 Recreational Fishing Effort Estimation Results	15
Shore Mode.....	15
Private – Rental Boating	18
Commercial Passenger Fishing Vessel	22
Summary.....	25
Chapter 4 Expenditures.....	27
NOAA NMFS Expenditure Profiles	28
Converting Durable Good expenditures per participant to per person-day	30
Monterey Bay (MB) Expenditure Tables	39
Greater Farallones (GF) Expenditure Tables.....	51
Cordell Banks (CB) Expenditure Tables	63
Channel Islands (CI) Expenditure Tables	72
Total for All California Sanctuaries Expenditure Tables	81
Chapter 5 IMPLAN Modelling.....	93
IMPLAN and NAICS Codes	93
Monterey Bay Estimate Yearly Economic Impacts using IMPLAN.....	97
Shore Mode.....	98
Private – Rental Boating.....	100
CPFV.....	102
Durable Goods	104
Greater Farallones Estimate Yearly Economic Impacts using IMPLAN	105
Shore Mode.....	106
Private – Rental Boating	108

CPFV.....	110
Durable Goods	112
Cordell Banks Estimate Yearly Economic Impacts using IMPLAN.....	113
Private – Rental Boating.....	113
CPFV.....	115
Durable Goods	117
Channel Islands Estimate Yearly Economic Impacts using IMPLAN	118
Private – Rental Boating	119
CPFV.....	121
Durable Goods	123
California Sanctuaries Estimate Yearly Economic Impacts using IMPLAN	124
Shore Mode.....	124
Private – Rental Boating	126
CPFV.....	128
Durable Goods	130
Study Area Employment and Labor Income Data.....	131
Monterey Bay.....	132
Greater Farallones.....	135
Cordell Banks.....	138
Channel Islands.....	140
California Sanctuaries.....	143
Conclusion	145
Chapter 6 Conclusion.....	147
Appendix A.....	149
Residential SAS Code for Monterey Bay and Greater Farallones.....	149
Shore Mode - SAS Code for Monterey Bay and Greater Farallones.....	151
Private – Rental Boating SAS Code for Residential versus Non-Residential Percentages	158
CPFV Boating SAS Code for Residential versus Non-Residential Percentages.....	165

List of Figures and Tables

Figure/Table Number and Title	Page
Figure 1.1 CDFW Recreational Fishing Blocks associated with each California NMS	4
Figure 1.2 CDFW Recreational Fishing Blocks associated with the Greater Farallones and Cordell Banks NMS.	5
Figure 1.3 CDFW Recreational Fishing Blocks associated with the Monterey Bay NMS.	6
Figure 1.4 CDFW Recreational Fishing Blocks associated with the Channel Islands NMS.	7
Figure 1.5 California Recreational Fisheries Survey Districts	8
Table 1.1. California Department of Fish and Wildlife (CDFW) recreational fishing blocks associated with specific National Marine Sanctuaries	3
Table 1.2 Greater Farallones and Monterey Bay Sanctuary Resident Counties.....	9
Table 1.3 Cordell Bank and Channel Island Sanctuary Resident Counties.....	10
Table 3.1 Statewide estimated number of angler person-days for shore mode fishing by district and year.....	15
Table 3.2 Percentage of Residents and Non-Residents Shore Fishing	16
Table 3.3 Total estimated number of shore mode fishing angler/person-days to each sanctuary within a district by resident and non-resident status (2004-2012).....	17
Table 3.4 Total Number of shore mode fishing angler/person-days by resident status in CA Sanctuaries.....	18
Table 3.5 Private/rental boat recreational fishing mode: Estimated number of angler/person-days, for California by district (2004-2012)	18
Table 3.6. Private/rental vessel recreational fishing mode: Estimated number of angler/person-days for each California NMS by district (2004-2012)	19
Table 3.7 Percentage of Residents and Non-Residents Private – Rental Boat Fishing	21
Table 3.8 Total estimated number of Private-Rental boat fishing angler/person-days to each sanctuary by resident and non-resident status	21
Table 3.9 Total estimated number of Private-Rental boat fishing angler/person-days in Total for All California Sanctuaries by resident and non-resident status	22
Table 3.10 Total number of CPFV vessels, trips, and angler/person days for California (2004-2012).....	22
Table 3.11 Total Number of CPFV Person-Days by Year and District (20014-2012).....	22
Table 3.12 Total CPFV vessels, trips, and angler/person-days for each California NMS (2004-2012).....	23
Table 3.13 Percentage of Residents and Non-Residents CPFV Boat Fishing.....	24
Table 3.14 Total estimated number of CPFV boat fishing angler/person-days to each sanctuary within a district by resident and non-resident status (2010-2012).....	24
Table 3.15 Total estimated number of CPFV fishing angler/person-days in Total for All California Sanctuaries by resident and non-resident status	25

Table 3.16 Monterey Bay Total Person-Days by Year and Fishing Mode.....	25
Table 3.17 Greater Farallones Total Person-Days by Year and Fishing Mode	25
Table 3.18 Cordell Banks Total Person-Days by Year and Fishing Mode ⁷	26
Table 3.19 Channel Islands Total Person-Days by Year and Fishing Mode ⁷	26
Table 3.20 California Total Person-Days by Year and Fishing Mode ⁷	26
Table 4.1: CPI Value Used	28
Table 4.2 Shore Mode Trip-related Expenditures Per Person-day in 2011 Dollars	28
Table 4.3 Private-Rental Boat Trip-related Expenditures Per Person-day in 2011 Dollars	29
Table 4.4 CPFV Estimated Trip-related Expenditures Per Person-day in 2011 Dollars ..	29
Table 4.5 Durable Goods Estimated Expenditures Per Angler in 2011 Dollars.....	32
Table 4.6 Durable Goods Estimated Expenditures Per Person-day in 2011 Dollars.....	33
Table 4.7 Shore Mode Person-Day Trip-related Expenditures by Resident Status 2010 to 2012 (Nominal \$).....	35
Table 4.8 Private-Rental Boat Fishing Person-Day Trip-related Expenditures by Resident Status 2010 to 2012 (Nominal \$)	36
Table 4.9 CPFV Fishing Person-Day Trip-related Expenditures by Resident Status 2010 to 2012 (Nominal \$).....	37
Table 4.10 Resident Durable Good Expenditures Per Person-days 2010, 2011 and 2012 (Nominal \$).....	38
Table 4.11 Total MB Shore Mode Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (Nominal \$)	39
Table 4.12 Total MB Private-Rental Boat Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (Nominal \$)	40
Table 4.13 Total MB CPFV Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (Nominal \$)	41
Table 4.14 Total Resident MB Durable Good Expenditures 2010, 2011 and 2012 (Nominal \$).....	42
Table 4.15 Total MB Shore Mode Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (2014 \$)	43
Table 4.16 Total MB Private-Rental Boat Fishing Trip-related Expenditures by Residential Status 2010, 2011, 2012 (2014 \$)	44
Table 4.17 Total MB CPFV Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (2014 \$)	45
Table 4.18 Total Resident MB Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)	46
Table 4.19 Total MB Shore Mode Fishing Trip-related Expenditures by Residential Status Three-year Average (2014 \$)	47
Table 4.20 Total MB Private-Rental Boat Fishing Trip-related Expenditures by Residential Status Three-year Average (2014 \$)	48
Table 4.21 Total MB CPFV Fishing Trip-related Expenditures by Residential Status Three-year Average (2014 \$).....	49
Table 4.22 Total Resident MB Durable Good Expenditures Three-year Average (2014 \$)	50
Table 4.23 Total GF Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	51

Table 4.24 Total GF Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	52
Table 4.25 Total GF CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	53
Table 4.26 Total Resident GF Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)	54
Table 4.27 Total GF Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)	55
Table 4.28 Total GF Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)	56
Table 4.29 Total GF CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)	57
Table 4.30 Total Resident GF Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)	58
Table 4.31 Total GF Shore Mode Fishing Trip-related Expenditures Three-year Average (2014 \$)	59
Table 4.32 Total GF Private-Rental Boat Fishing Trip-related Expenditures Three-year Average (2014 \$)	60
Table 4.33 Total GF CPFV Fishing Trip-related Expenditures Three-year Average (2014 \$)	61
Table 4.34 Total Resident GF Durable Good Expenditures 2010-2012, (2014 \$)	62
Table 4.35 Total CB Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	63
Table 4.36 Total CB CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	64
Table 4.37 Total Resident CB Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)	65
Table 4.38 Total CB Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)	66
Table 4.39 Total CB CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)	67
Table 4.40 Total Resident CB Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)	68
Table 4.41 Total CB Private-Rental Boat Fishing Trip-related Expenditures Three-year Average (2014 \$)	69
Table 4.42 Total CB CPFV Fishing Trip-related Expenditures Three-year Average (2014 \$)	70
Table 4.43 Total Resident CB Durable Good Expenditures Three-year Average (2014 \$)	71
Table 4.44 Total CI Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	72
Table 4.45 Total CI CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	73
Table 4.46 Total Resident CI Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)	74

Table 4.47 Total CI Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)	75
Table 4.48 Total CI CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)	76
Table 4.49 Total Resident CI Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)	77
Table 4.50 Total CI Private-Rental Boat Fishing Trip-related Expenditures Three-year Average (2014 \$)	78
Table 4.51 Total CI CPFV Fishing Trip-related Expenditures, 2010, 2011 and 2012 (2014 \$)	79
Table 4.52 Total Resident CI Durable Good Expenditures Three-year Average (2014 \$)	80
Table 4.53 Total for All California Sanctuaries Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$).....	81
Table 4.54 Total for All California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$).....	82
Table 4.55 Total for All California Sanctuaries CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)	83
Table 4.56 Total Resident for All California Sanctuaries Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)	84
Table 4.57 Total for All California Sanctuaries Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$).....	85
Table 4.58 Total for All California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$).....	86
Table 4.59 Total for All California Sanctuaries CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)	87
Table 4.60 Total Resident for All California Sanctuaries Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)	88
Table 4.61 Total for All California Sanctuaries Shore Mode Fishing Trip-related Expenditures, Three-year Average (2014 \$).....	89
Table 4.62 Total for All California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditures, Three-year Average (2014 \$).....	90
Table 4.63 Total for All California Sanctuaries CPFV Fishing Trip-related Expenditures, Three-year Average (2014 \$).....	91
Table 4.64 Total Resident for All California Sanctuaries Durable Good Expenditures Three-year Average (2014 \$).....	92
Table 5.1 Shore Mode IMPLAN Codes	93
Table 5.2 Private-Rental Boating IMPLAN Codes	94
Table 5.3 CPFV IMPLAN Codes	94
Table 5.4 Durable IMPLAN Codes	95
Table 5.5 IMPLAN Economic Indicators' Definitions.....	96
Table 5.6 Impact Type Definitions	97
Table 5.7 Percentage of Total Monterey Bay Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status.....	97
Table 5.8 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	98

Table 5.9 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	98
Table 5.10 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)....	99
Table 5.11 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	99
Table 5.12 Monterey Bay Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Type of Impact, 2010, 2011 and 2012	100
Table 5.13 Monterey Bay Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	100
Table 5.14 Monterey Bay Private-Rental Boat Fishing Value Added Trip-related Impacts on Value Added by Residential Status, 2010, 2011 and 2012 (2014 \$)	101
Table 5.15 Monterey Bay Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	101
Table 5.16 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	102
Table 5.17 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	102
Table 5.18 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	103
Table 5.19 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	103
Table 5.20 Monterey Bay Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	104
Table 5.21 Monterey Bay Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	104
Table 5.22 Monterey Bay Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	104
Table 5.23 Monterey Bay Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	104
Table 5.24 Percentage of Total Greater Farallones Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status.....	105
Table 5.25 Greater Farallones Shore Mode Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	106
Table 5.26 Greater Farallones Shore Mode Fishing Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	106
Table 5.27 Greater Farallones Shore Mode Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)..	107
Table 5.28 Greater Farallones Shore Mode Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	107
Table 5.29 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	108
Table 5.30 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	108

Table 5.31 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$).....	109
Table 5.32 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$).....	109
Table 5.33 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	110
Table 5.34 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	110
Table 5.35 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$).....	111
Table 5.36 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	111
Table 5.37 Greater Farallones Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	112
Table 5.38 Greater Farallones Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	112
Table 5.39 Greater Farallones Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$).....	112
Table 5.40 Greater Farallones Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	112
Table 5.41 Percentage of Total Cordell Banks Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status.....	113
Table 5.42 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	113
Table 5.43 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	114
Table 5.44 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	114
Table 5.45 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	115
Table 5.46 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	115
Table 5.47 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	116
Table 5.48 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$).....	116
Table 5.49 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	117
Table 5.50 Cordell Banks Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	117
Table 5.51 Cordell Banks Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	117

Table 5.52 Cordell Banks Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	118
Table 5.53 Cordell Banks Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	118
Table 5.54 Percentage of Total Channel Islands Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status	118
Table 5.55 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	119
Table 5.56 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	119
Table 5.57 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	120
Table 5.58 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	120
Table 5.59 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	121
Table 5.60 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	121
Table 5.61 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	122
Table 5.62 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	122
Table 5.63 Channel Islands Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	123
Table 5.64 Channel Islands Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	123
Table 5.65 Channel Islands Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	123
Table 5.66 Channel Islands Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	123
Table 5.67 Percentage of Total California Sanctuaries Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status	124
Table 5.68 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	124
Table 5.69 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	125
Table 5.70 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	125
Table 5.71 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	126
Table 5.72 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	126

Table 5.73 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	127
Table 5.74 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	127
Table 5.75 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	128
Table 5.76 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	128
Table 5.77 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	129
Table 5.78 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	129
Table 5.79 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	130
Table 5.80 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012	130
Table 5.81 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	130
Table 5.82 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	131
Table 5.83 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)	131
Table 5.84 BEA Study Area Employment and Labor Income	132
Table 5.85 MB 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	132
Table 5.86 MB 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	133
Table 5.87 MB 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	133
Table 5.88 MB 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	134
Table 5.89 MB Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	134
Table 5.90 MB Durable Goods Economic Impacts of Residents All Modes (2014 \$)	134
Table 5.91 MB Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	135
Table 5.92 GF 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	135
Table 5.93 GF 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	136
Table 5.94 GF 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	136

Table 5.95 GF 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	137
Table 5.96 GF Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	137
Table 5.97 GF Durable Goods Economic Impacts of Residents All Modes (2014 \$)....	137
Table 5.98 GF Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	138
Table 5.99 CB 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	138
Table 5.100 CB 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	138
Table 5.101 CB 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	139
Table 5.102 CB 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	139
Table 5.103 CB Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	139
Table 5.104 CB Durable Goods Economic Impacts of Residents All Modes (2014 \$) .	140
Table 5.105 CB Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	140
Table 5.106 CI 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	140
Table 5.107 CI 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	141
Table 5.108 CI 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	141
Table 5.109 CI 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	141
Table 5.110 CI Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	142
Table 5.111 CI Durable Goods Economic Impacts of Residents All Modes (2014 \$)...	142
Table 5.112 CI Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)	142
Table 5.113 CA 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	143
Table 5.114 CA 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	143
Table 5.115 CA 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	144
Table 5.116 CA 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	144
Table 5.117 CA Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	144
Table 5.118 CA Durable Goods Expenditure Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)	145

Table 5.119 CA Total Expenditures Economic Impacts of Residents and Non-Residents
All Modes (2014 \$)..... 145

Table 5.120 Multipliers for Relationship between Total Trip-related Expenditures and
Economic Impact Measure for the 2010-2012 Yearly Averages..... 146

Table 5.121 Multipliers for Relationship between Total Durable Good Expenditures and
Economic Impact Measure for the 2010-2012 Yearly Averages..... 146

Table 5.122 Multipliers for Relationship between Total Expenditures and Economic
Impact Measure for the 2010-2012 Yearly Averages..... 146

Chapter 1 Recreational Fishing Effort Data Collection and Preparation

Project Goal and Objectives

1. For the shore mode fishing sector: Estimate the number of person-days of activity in each California National Marine Sanctuary as well as statewide.
2. For the commercial passenger fishing vessels (CPFV) sector: Estimate the number of vessels that operate and the number of person-days of activity in each California National Marine Sanctuary as well as statewide.
3. For the private -rental recreational fishing sector: Estimate the number of participants, number of boats, average number of persons per boat, and the total number of person-days of fishing by mode of access (e.g. shore and private-rental boat) both inside each California National Marine Sanctuary as well as statewide.
4. Develop a guide on how California Department of Fish and Wildlife (CDFW) data were used to estimate recreational fishing effort within California National Marine Sanctuaries for future updates.
5. Summarize results and estimates in a final report.

Methods

To estimate and contextualize how much recreational fishing activity takes places in the four National Marine Sanctuaries offshore of California: Channel Islands, Cordell Bank, Greater Farallones, and Monterey Bay National Marine Sanctuaries (including their associated expansion zones) we utilized two data sources from the California Department of Fish and Wildlife: Commercial Passenger Fishing Vessel (CPFV) logbook data and the California Recreational Fishing Survey (CRFS) database. We utilized these databases to query fishing effort data both at the statewide scale and for each sanctuary in order to contextualize recreational fishing effort within overall state use.

Below is a detailed step by step method of how we developed fishing effort estimates below so that the data summary methods may be replicated for future updates. Generally, data summary steps included:

1. Obtaining recreational fishing data
2. Identifying CDFW recreational fishing blocks associated with each sanctuary
3. Associating each fishing record to a specific CDFW recreational fishing block
4. Summarizing fishing records to each sanctuary

Definition: A “person-day” is equal to one person fishing for a day or any part of a day. So from CDFW data, the number of anglers on a day is equal to the number of person-days of fishing.

Data Sources

To estimate recreational fishing effort across California and within each National Marine Sanctuary we utilize two data sources:

1. California Recreational Fishing Survey (CRFS) database
 - i. This data is collected using intercept surveys at recreational fishing locations or telephone surveys. These survey effort collects data for the following modes of fishing:
 1. Private/rental boats, man-made structures (e.g., piers), beach/bank areas, and party/charter boats.
 2. For this project we did not utilize the data collected on charter/party boats as CPFV logbook data (formally called “Skipper’s Log Book-Marine Sportfishing”) was readily available. We chose to utilize this data set as it provides a more robust estimate of fishing effort from this sector.
 - ii. This data set was obtained directly from Pacific States Marine Fisheries Commission staff who managed the RecFIN database.
2. Commercial Passenger Fishing Vessel (CPFV) trip logbooks
 - i. This data is collected from trip logs which CPFV operators are legally required to submit to the California Department of Fish and Wildlife (CDFW)
 - ii. This data set was obtained directly from CDFW staff

All data for this project were obtained under non-disclosure agreements with both the California Department of Fish and Wildlife and the Pacific States Fisheries Commission.

Sanctuary CDFW Fishing Blocks

To summarize fishing effort data to each California National Marine Sanctuary we first identified which CDFW recreational fishing blocks (10 x 10 square nautical mile blocks) are associated with specific sanctuaries. If only a portion of a fishing block overlapped with a specific sanctuary’s boundaries we consulted with ONMS Staff. ONMS had obtained 1-minute by one-minute distributions during the marine reserve process in 1999-2000 for the CINMS. Generally, if the centroid of a CDFW cell was included, the cell was included. For the CINMS, in some cases where the centroid was not included but past data showed significant activity in the portion of the cell inside the sanctuary, the cell was included. For other CA sites, the cell was included if known habitat types or depth contours were included. Below is a table (Table 1) which, provides the fishing

blocks ID for each sanctuary (including expansion zones) as well as a set of maps which illustrate the location of the fishing blocks. For the private/rental vessel and shore fishing modes we also summarize data to CRFS district. A map delineating these districts can be found in Map 5.

Table 1.1. California Department of Fish and Wildlife (CDFW) recreational fishing blocks associated with specific National Marine Sanctuaries

Sanctuary (number of blocks)	CDFW Recreational Fishing Block Number
Cordell Banks NMS (15)	
Full Blocks (2)	440, 441
Partial Blocks (3)	432, 442, 451
Expansion (10)	433, 434, 435, 436, 443, 444, 452, 453, 461, 462
Greater Farallones NMS (39)	
Full Blocks (8)	430, 438, 447, 448, 449, 457, 458, 459
Partial Blocks (7)	431, 439, 450, 456, 460, 466, 467
Expansion (24)	401, 402, 403, 404, 405, 407, 408, 409, 410, 411, 412, 414, 415, 416, 417, 418, 419, 422, 423, 424, 425, 426, 427, 428
Monterey Bay NMS (65)	
Full Blocks (47)	446, 464, 472, 473, 474, 475, 478, 479, 480, 481, 501, 502, 503, 507, 508, 509, 510, 511, 512, 516, 517, 518, 519, 520, 521, 525, 526, 527, 528, 529, 530, 532, 533, 534, 535, 538, 539, 540, 541, 547, 548, 549, 553, 554, 560, 561, 562
Partial Blocks (17)	465, 476, 482, 504, 505, 513, 522, 531, 536, 542, 550, 551, 601, 602, 603, 604, 568
Expansion (1)	455
Channel Islands NMS (22)	
Full Blocks (3)	690, 687, 711
Partial Blocks (19)	691, 689, 688, 686, 685, 684, 683, 706, 707, 708, 709, 710, 712, 713, 714, 744, 745, 764, 765

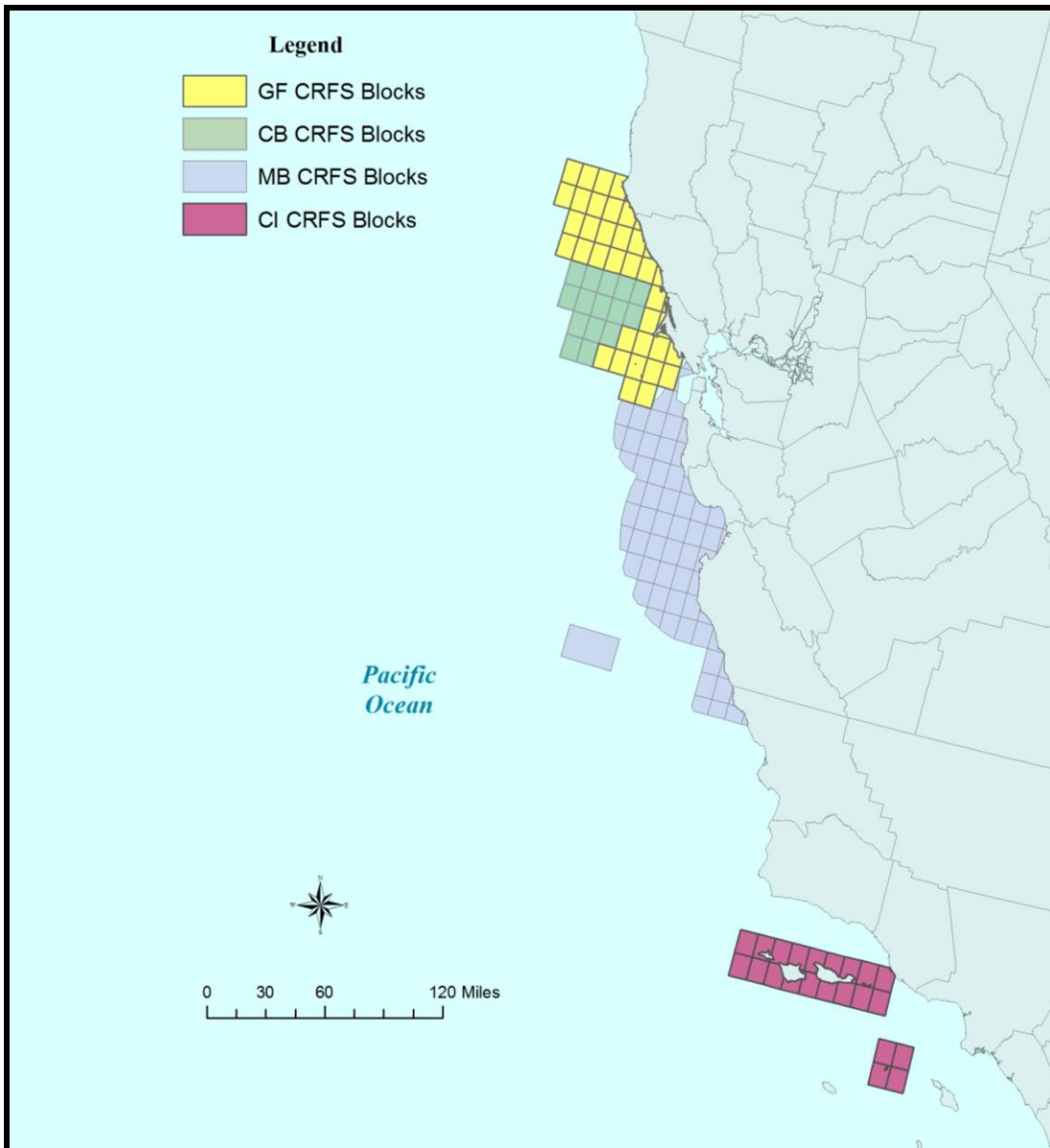


Figure 1.1 CDFW Recreational Fishing Blocks associated with each California NMS

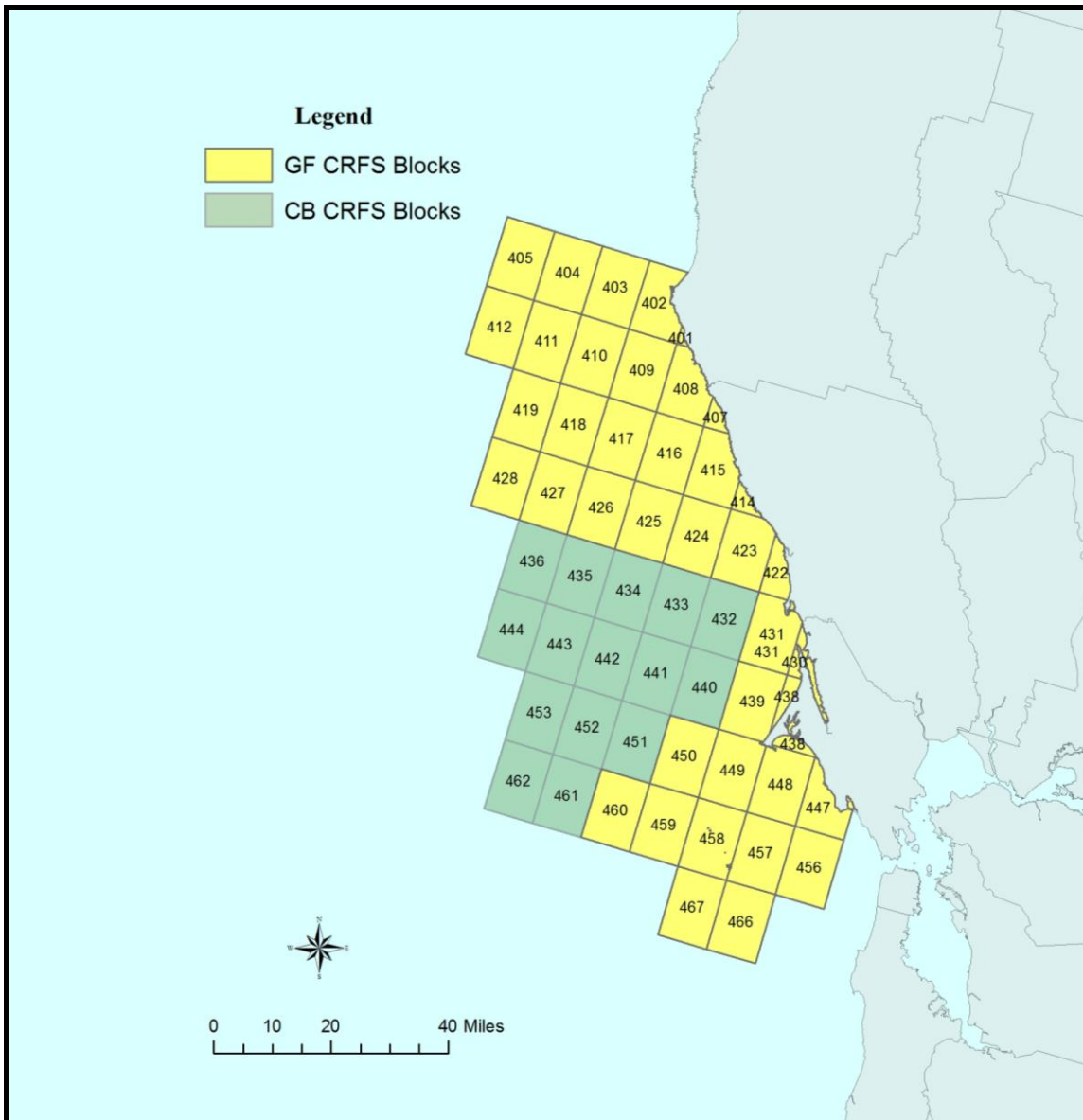


Figure 1.2 CDFW Recreational Fishing Blocks associated with the Greater Farallones and Cordell Banks NMS.

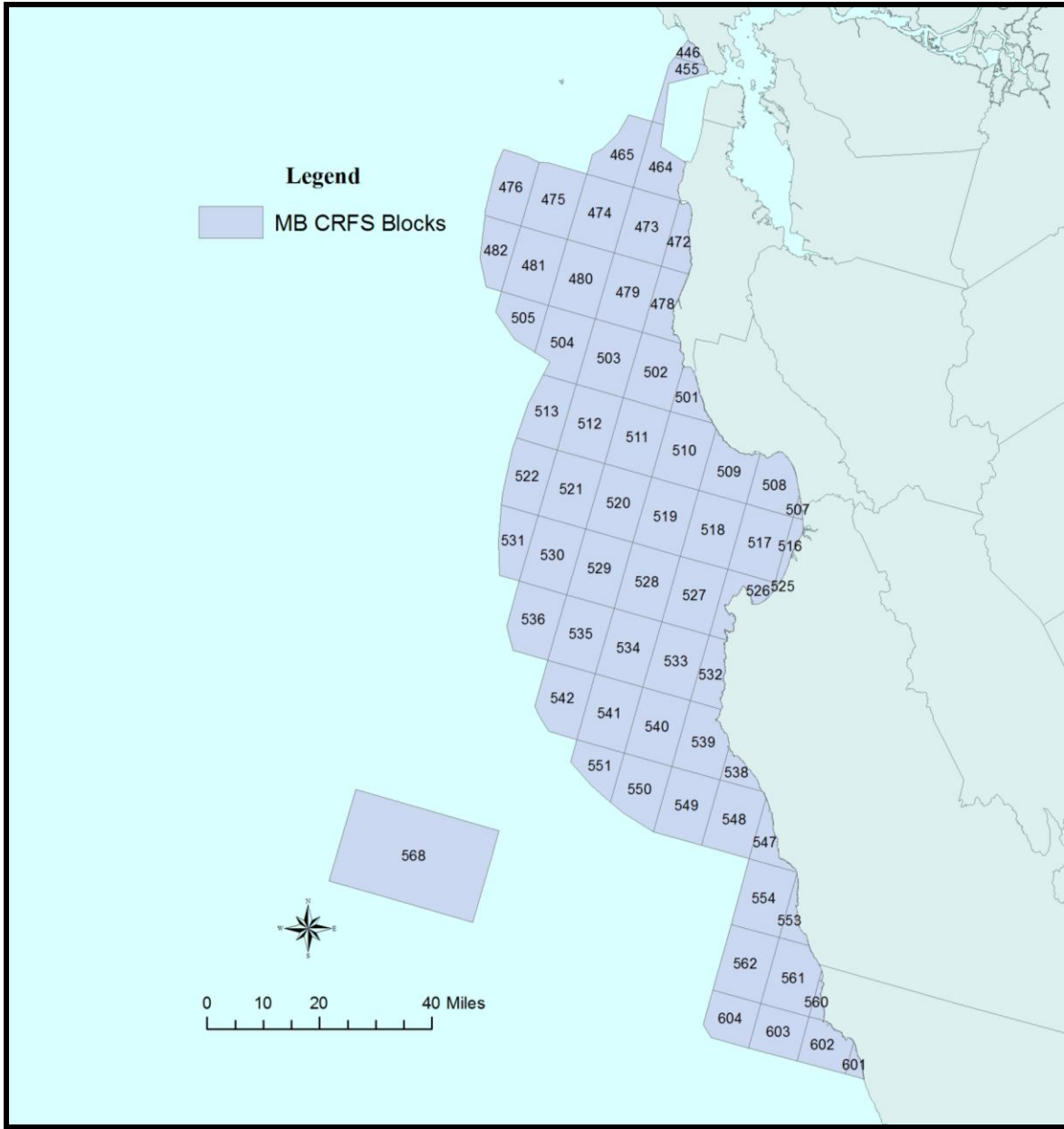


Figure 1.3 CDFW Recreational Fishing Blocks associated with the Monterey Bay NMS.



Figure 1.5 California Recreational Fisheries Survey Districts

Determining Residential Status

Monterey Bay and Greater Farallones

In the CRFS shore fishing mode surveys the respondents are asked their county of residence. If the county was a coastal county and bordered a sanctuary, these respondents were considered residents. The next step was to consider non-coastal counties and coastal counties that were not adjacent to the sanctuary and determine if these respondents should be included as residents of the sanctuary study area. Using data from the U.S. Census, workplace county flows were analyzed¹. If more than 1 percent of the workers within the county that was not adjacent worked in a county that was adjacent to the sanctuary, the non-adjacent county was then considered to be part of the residential study area. Table 2 shows the counties that were classified as residents of each county. The SAS Code for this process is provided in Appendix A.

Table 1.2 Greater Farallones and Monterey Bay Sanctuary Resident Counties

County	Resident of Greater Farallones	Resident of Monterey Bay	Coastal County
Alameda	No	Yes	Non-Coastal
Contra Costa	Yes	Yes	Non-Coastal
Santa Clara	No	Yes	Non-Coastal
Solano	Yes	Yes	Non-Coastal
Marin	Yes	No	Coastal
Mendocino	Yes	No	Coastal
Monterey	No	Yes	Coastal
Santa Cruz	No	Yes	Coastal
San Francisco	Yes	Yes	Coastal
San Luis Obispo	No	Yes	Coastal
San Mateo	No	Yes	Coastal
Sonoma	Yes	No	Coastal

Cordell Banks and Channel Islands

To determine the study area for Cordell Banks and Channel Islands, past studies were used as a guide. These two sanctuaries used a different methodology to determine the study area because they are not adjacent to any shoreline. In addition, to being guided by precedent, the number of persons accessing a sanctuary from the county of access was also considered. If it was found that a sanctuary had a high number of total users

¹ <http://www.census.gov/population/metro/data/other.html>

accessing from certain counties, they were included in the study area. Detailed code can be found in Appendix A.

Table 1.3 Cordell Bank and Channel Island Sanctuary Resident Counties

County	Resident of Cordell Banks	Resident of Channel Islands	Coastal County
Los Angeles	No	Yes	Coastal
Marin	Yes	No	Coastal
San Mateo	Yes	No	Coastal
Santa Barbara	No	Yes	Coastal
Sonoma	Yes	No	Coastal
Ventura	No	Yes	Coastal

Chapter 2 Recreational Fishing Effort Estimation Methods

We received several files from the California Recreational Fishing Survey database. Below is a step-by-step guide as to how we organized and summarized survey data for each fishing mode. From these data summaries we developed estimates of the percent or ratio of fishing effort occurring in each California national marine sanctuary. These ratios were then applied to estimate recreational fishing effort in each sanctuary each year. The person-day trends account for recreational fin-fishing from 2004 through 2012, but beginning in 2010 through 2012 the CRFS data includes invertebrate recreational fishing person-day effort too.

Shore Mode

Using data provided by the California Department of Fish and Wildlife (CDFW) from the California Recreational Fisheries Survey (CRFS), the number of times both residents and non-residents fished along the shore (e.g., fishing from man-made structures or beach/bank fishing) within either the Greater Farallones National Marine Sanctuary (GFNMS) or the Monterey Bay National Marine Sanctuary (MBNMS) was estimated (RecFin, 2014). A summary of the methodology is detailed here below but a full summary that includes the SAS code to analyze the data is provided in Appendix A.

To determine what shore fishing access points were within the sanctuary borders, we used the boundary tool in GIS to draw a 1.5 mile boundary around the sanctuary to associate access points to the sanctuary. The access points that were located with the 1.5 mile boundary of the sanctuary and potential expansion areas of the sanctuaries were included.

Those access points were then merged in SAS with the raw CRFS survey data collected for shore fishing modes by the CDFW from years 2004 to 2012 so that each access point was labeled as being within the GFNMS, MBNMS or outside of a sanctuary. Then using the variable ‘FFDays12’ in the survey data, which asked the respondent ‘days saltwater fin-fishing (last 12 months)—not counting the survey day’ and adding 1 to it, to include the current fishing day, the number of days the respondent reported fin-fishing in the last 12 months was generated². These numbers were then summed for each year by access point within each district, sanctuary, and by resident and non-resident status. The MBNMS is located within Districts 3 and 4 and the GFNMS is located within District 4.

² CDFW recommended to us that the “best” approximation would be to take the sample sum of “ffdays12” by those taking trips in access sites inside sanctuary boundaries within a given district divided by the sample sum of all those taking trips in the given district. Multiple this ratio times the population estimate for the district provided by RecFin to total trips (person-days).

We then used these summarized surveyed number of days fin-fishing to create percentages/proportions of fin-fishing days that came from each district, sanctuary, and by resident and non-resident status.

These percentages were then multiplied by the total estimated number of person-days for shore fishing modes within each district³ to yield for each year (from 2004 to 2012) the total estimated number of person-days that occurred in each district and within each district the total estimated number of person-days that occurred in each sanctuary by residents and non-residents.

Private – Rental Boating

To estimate the number of angler days we received raw CRFS survey data (i8 files) from CDFW staff. We followed these steps below to calculate the proportion of private/rental boat fishing person-days that occurred in each California national marine sanctuary by district and by year. These proportions or percentages were then applied to extrapolated estimates on the estimated number of private/rental boat angler days to yield total estimated angler days for each national marine sanctuary by district and by year.

1. We first combine SCal and NCal i8 files where all the files should be filtered for MODE_FX=7 (Private/Rental Boats). These files are the raw survey data from the CRFS program from 2004 to 2012.
2. Next we separated out PR1 and PR2 data records as these records for these two survey types need to be analyzed separately. To do so we identified each survey by:
 - a. PR 1: SURTYPE = “.” (blank records which show up as periods)
 - b. PR2: SURTYPE = 1
3. For the PR1 records:
 - a. Filter out only one record for each PR1 Trip so as to count person-days only once
 - i. Filter on unique ID_CODE (we only want one record per unique ID_CODE)
 - b. Filter out records only in ocean areas
 - i. ZONE_CODE = 1,2, and “.” (blank records which show up as periods)
 - ii. This removes records for water areas that equal Mexico, Bay/Estuary and River/Freshwater

³ The total estimated number of person-days within each district for all shore based fishing, for all marine areas, for all sites and all counties, from January 2004 to December 2012 for person-days targeted on all species was obtained from the Recreational Fisheries Information Network. <<http://www.recfin.org/>>

- c. Populate all district fields.
 - i. If district filed is blank it can be populated by using the ASSNID. The 3rd digit from the left is the district. ASSNID = MMDistrict###
- 4. For the PR2 records:
 - a. Filter out only on record for each PR2 Trip so as to count person-days only once
 - i. Filter on HLOC=1 (we only want records that have HLOC=1)
 - b. Filter out records only in ocean areas
 - i. ZONE_CODE = 1,2, and . (blank records)
 - ii. This removes records for water areas that equal Mexico, Bay/Estuary and River/Freshwater
 - c. Populate all district fields.
 - i. If district filed is blank it can be populated by using the ASSNID. The 3rd digit from the left is the district. ASSNID = MMDistrict###
- 5. Combine PR1 and PR2 records and for each year and district
- 6. Summarize number of boat person-days count to each sanctuary by district for each year
 - a. Each record is one boat trip count
 - b. Remove erroneous records. These include records that are geographically impossible—for example fishing from district that is in a complete different geographic location from a sanctuary block. Erroneous records would include:
 - i. Any fish landed in District 6 or 4 caught from the Channel Islands NMS
 - ii. Any fish landed in District 6 or 2 caught from Cordell Banks NMS
 - iii. Any fish landed in District 1 caught from Greater Farallones NMS
 - iv. Any fish landed in District 1 or 5 or 6 caught from Monterey Bay NMS
- 7. From these boat trip counts calculate the proportion/percentage of boat person-days to each sanctuary by district for each year
- 8. Apply these proportions/percentages to PR combined (PR1, PR2, and PR PAN) estimates of number of anglers days for each year and district

Commercial Passenger Fishing Vessel

The structure of the raw data received from CDFW is structured such that the needed information is duplicated and simple summary would double count records resulting in inflated values. The raw data are structured so that each record represents a vessel-trip-species caught combination. In this analysis we are not focused on species and thus to avoid counting duplicates, we developed a series of queries to filter the data. These

unique lists are created by using the “Group-by” function in MS Access. We also created a look-up table that associated a subset of the CDFW recreational fishing landing blocks with the sanctuaries. Using a combination of the “Group-by” queries and the look-up table we developed the following summaries:

1. Count of vessels statewide – This summary was created in a two-step querying process. First, we used a “Group-by” query to generate a unique list of VESSEL ID’s by year. Second, we created a query to count the number of vessels per year.
2. Count of vessels per sanctuary – This summary was also created in a two-step querying process. First, we used a “Group-by” query to generate a unique list of VESSEL ID’s by year and landing blocks filtered by the sanctuary look-up table. Second, we created a query to count the number of vessels in each sanctuary per year.
3. Count of vessel-days statewide – This summary was created in a two-step querying process. First, we used a “Group-by” query to generate a unique list of trip serial numbers (field name: SERIAL NUMBER) by year. Second, we created a query to count the number of trip serial numbers per year.
4. Count of vessel-days per sanctuary – This summary was also created in a two-step querying process. First, we used a “Group-by” query to generate a unique list of trip serial numbers by year and landing blocks filtered by the sanctuary look-up table. Second, we created a query to count the number of trip serial numbers (field name: SERIAL NUMBER) in each sanctuary per year.
5. Count of angler/person days statewide – This table was created in a two-step querying process. First, we used a “Group-by” query to generate a unique list of trip serial numbers (field name: SERIAL NUMBER) and number of anglers (person days) (field name: NUMBER OF ANGLERS) by year. Second, we created a query to summarize the number of anglers (person days) per year.
6. Count of angler/person days per sanctuary – This table was also created in a two-step querying process. First, we used a “Group-by” query to generate a unique list of trip serial numbers (field name: SERIAL NUMBER) and number of anglers (person days) (field name: NUMBER OF ANGLERS) by year and landing blocks filtered by the Sanctuary look-up table. Second, we created a query to summarize the number of anglers (person days) in each sanctuary per year.

Chapter 3 Recreational Fishing Effort Estimation Results

This chapter presents the results of the analysis to determine fishing effort explained in Chapter 2. The person-day trends account for recreational fin-fishing from 2004 through 2012, but beginning in 2010 through 2012 the CRFS data includes invertebrate recreational fishing person-day effort too.

Shore Mode

Table 3.1 below contains the California state-wide estimated total number of recreational angler person-days for shore mode fishing (e.g., man-made structures or beach/bank areas). These are the extrapolated estimates provided by RecFIN.

Table 3.1 Statewide estimated number of angler person-days for shore mode fishing by district and year

Year	District 1	District 2	District 3	District 4	District 5	District 6
2004	2,049,654	272,180	407,733	621,742	49,517	102,786
2005	1,641,738	301,663	226,026	929,299	21,525	95,743
2006	2,274,118	384,571	361,194	654,470	18,258	109,434
2007	1,747,833	349,448	293,164	565,398	36,378	79,463
2008	1,769,089	321,047	337,419	576,259	28,380	81,080
2009	2,066,155	323,993	384,443	682,244	20,787	121,348
2010	1,878,136	282,167	265,524	474,501	24,517	67,490
2011	1,398,749	347,934	443,908	690,622	52,398	111,521
2012	2,739,489	389,262	396,629	564,984	73,719	62,625

Source: RecFIN/CRFS Database

Table 3.2 Percentage of Residents and Non-Residents Shore Fishing

Year	Greater Farallones		Monterey Bay		California Sanctuaries	
	<i>Resident</i>	<i>Non-Resident</i>	<i>Resident</i>	<i>Non-Resident</i>	<i>Resident</i>	<i>Non-Resident</i>
2010	78.1%	21.9%	92.6%	7.4%	90.3%	9.7%
2011	82.6%	17.4%	96.1%	3.9%	95.4%	4.6%
2012	74.5%	25.5%	95.5%	4.5%	93.0%	7.0%

The percent of person-days within each district by sanctuary status in each year was calculated for the sample and presented above in Table 3.2. In the CRFS shore fishing mode surveys the respondents are asked their county of residence. If the county was a coastal county and completely bordered a sanctuary this county was considered part of the study area. The next step was to consider non-coastal counties and coastal counties that were not adjacent to the sanctuary and determine if these respondents should be included as residents of the sanctuary study area. Using data from the U.S. Census, workplace county flows were analyzed⁴. If more than 1 percent of the workers within the county that was not adjacent worked in a county that was adjacent to the sanctuary, the non-adjacent county was then considered to be part of the residential study area.

⁴ <http://www.census.gov/population/metro/data/other.html>

Table 3.3 Total estimated number of shore mode fishing angler/person-days to each sanctuary within a district by resident and non-resident status (2004-2012)

Year	District	Sanctuary	% of Person-Days in District	Total	Resident	Non-Resident
				Person – Days		
2004	3	MBNMS	46%	186,108	145,307	40,801
	4	MBNMS	20%	122,920	92,810	30,110
	4	GFNMS	3%	16,961	12,428	4,533
	5	GFNMS	43%	21,190	14,495	6,695
2005	3	MBNMS	51%	116,043	108,275	7,768
	4	MBNMS	14%	129,197	121,358	7,839
	4	GFNMS	5%	49,294	33,453	15,841
	5	GFNMS	47%	10,072	6,792	3,279
2006	3	MBNMS	50%	179,652	168,053	11,599
	4	MBNMS	19%	121,974	118,028	3,946
	4	GFNMS	5%	33,603	23,541	10,062
	5	GFNMS	49%	9,015	7,202	1,813
2007	3	MBNMS	54%	158,572	152,077	6,494
	4	MBNMS	23%	131,776	128,129	3,647
	4	GFNMS	3%	15,403	10,564	4,838
	5	GFNMS	42%	15,443	12,955	2,488
2008	3	MBNMS	38%	129,040	113,714	15,326
	4	MBNMS	22%	124,736	120,058	4,679
	4	GFNMS	4%	24,426	15,212	9,213
	5	GFNMS	12%	3,333	1,536	1,797
2009	3	MBNMS	42%	160,044	142,906	17,138
	4	MBNMS	23%	160,034	156,356	3,679
	4	GFNMS	4%	26,772	20,439	6,332
	5	GFNMS	25%	5,263	4,005	1,258
2010	3	MBNMS	27%	72,711	64,152	8,558
	4	MBNMS	17%	80,353	77,507	2,846
	4	GFNMS	5%	22,588	17,710	4,878
	5	GFNMS	23%	5,739	4,416	1,323
2011	3	MBNMS	57%	252,999	241,149	11,850
	4	MBNMS	23%	156,414	152,279	4,135
	4	GFNMS	2%	13,061	10,908	2,153
	5	GFNMS	18%	9,657	7,849	1,807
2012	3	MBNMS	60%	237,244	225,990	11,254
	4	MBNMS	21%	116,494	111,652	4,842
	4	GFNMS	5%	28,354	23,560	4,794
	5	GFNMS	24%	17,390	10,529	6,862

Source: RecFIN/CRFS Database/Current Study

Table 3.4 Total Number of shore mode fishing angler/person-days by resident status in CA Sanctuaries

Year	Resident	Non-Resident	Total Person-Days	% of Total Person-Days in California
2004	265,040	82,139	347,179	9.9%
2005	269,877	34,728	304,605	9.5%
2006	316,824	27,419	344,243	9.1%
2007	303,726	17,468	321,194	10.5%
2008	250,521	31,015	281,535	9.0%
2009	323,706	28,407	352,114	9.8%
2010	163,785	17,605	181,390	6.1%
2011	412,186	19,945	432,130	14.2%
2012	371,730	27,751	399,482	9.5%

Private – Rental Boating

Table 3.5 below contains the California state-wide estimated total number of recreational private/rental boat angler/person-days. To provide angler/person-days we assumed that one angler trip equated to one angler day. These are the extrapolated estimates provided by RecFIN.

Table 3.5 Private/rental boat recreational fishing mode: Estimated number of angler/person-days, for California by district (2004-2012)

Year	District 1	District 2	District 3	District 4	District 5	District 6
2004	375,532	54,257	84,514	100,141	44,251	49,293
2005	514,201	43,772	88,101	171,768	42,233	41,895
2006	533,133	41,931	80,228	165,495	28,709	46,427
2007	442,077	47,072	83,193	125,638	26,844	43,654
2008	388,460	41,133	48,031	126,192	10,385	26,195
2009	401,698	28,615	59,692	118,056	18,223	49,756
2010	353,431	26,410	75,048	122,253	24,127	53,513
2011	275,325	38,122	109,873	108,854	33,736	54,692
2012	268,310	40,519	196,296	105,971	30,580	62,401

Source: RecFIN/CRFS Database

Table 3.6 below displays the estimated total number of anglers/person-days in each sanctuary by district and across districts in a given year. Total angler/person-days estimates were derived from applying calculated percentages of the proportion of private/rental vessel person-days that occurred in each district-sanctuary combination to extrapolated state totals of angler/person days (Table 3.5) for a given year.

Table 3.6. Private/rental vessel recreational fishing mode: Estimated number of angler/person-days for each California NMS by district (2004-2012)

Year	District	Estimated angler days in each sanctuary				Total angler days in sanctuaries	Total angler days outside sanctuaries	Total statewide angler days
		Channel Islands	Cordell	Greater Farallones	Monterey			
2004	1	-	-	-	-	0	375,532	375,532
2004	2	67	-	-	-	67	54,190	54,257
2004	3	-	-	-	59,745	59,745	24,770	84,514
2004	4	-	-	-	98	98	100,043	100,141
2004	5	-	3,137	16,886	-	20,023	24,228	44,251
2004	6	-	-	-	-	0	49,293	49,293
2004	TOTAL	67	3,137	16,886	59,842	79,932	628,055	707,987
2005	1	294	-	-	-	294	421,212	514,201
2005	2	1,986	-	-	-	1,986	41,090	43,076
2005	3	-	-	-	64,986	64,986	22,505	87,492
2005	4	-	91	18,359	48,473	66,923	40,505	107,428
2005	5	-	-	20,642	-	20,642	19,886	40,529
2005	6	-	-	-	-	0	39,642	39,642
2005	TOTAL	2,280	91	39,001	113,459	154,832	584,840	739,672
2006	1	942	-	-	-	942	532,191	533,133
2006	2	21,419	-	-	-	21,419	20,512	41,931
2006	3	-	-	-	53,064	53,064	27,164	80,228
2006	4	-	379	28,234	49,867	78,479	87,016	165,495
2006	5	-	-	17,367	-	17,367	11,342	28,709
2006	6	-	-	-	-	0	46,427	46,427
2006	TOTAL	22,362	379	45,601	102,931	171,272	482,592	653,864
2007	1	734	-	-	-	734	441,344	442,077
2007	2	23,401	-	-	-	23,401	23,671	47,072
2007	3	-	-	-	58,621	58,621	24,572	83,193
2007	4	-	32	18,213	30,707	48,952	76,686	125,638
2007	5	-	-	16,144	-	16,144	10,699	26,844
2007	6	-	-	-	-	0	43,654	43,654
2007	TOTAL	24,135	32	34,358	89,328	147,852	423,172	571,024
2008	1	413	-	-	-	413	388,047	388,460
2008	2	19,995	-	-	-	19,995	21,138	41,133
2008	3	-	-	-	29,454	29,454	18,577	48,031
2008	4	-	-	12,097	12,215	24,312	101,880	126,192
2008	5	-	-	1,270	-	1,270	9,115	10,385
2008	6	-	-	-	-	0	26,195	26,195
2008	TOTAL	20,408	0	13,368	41,668	75,443	342,730	418,173

Table 3.6. Private/rental vessel recreational fishing mode: Estimated number of angler/person-days for each California NMS by district (2004-2012)

Year	District	Estimated angler days in each sanctuary				Total angler days in sanctuaries	Total angler days outside sanctuaries	Total statewide angler days
		Channel Islands	Cordell	Greater Farallones	Monterey			
2009	1	830	-	-	-	830	400,868	401,698
2009	2	12,427	-	-	-	12,427	16,187	28,615
2009	3	-	-	-	38,756	38,756	20,936	59,692
2009	4	-	523	13,791	18,911	33,225	84,830	118,056
2009	5	-	-	1,890	-	1,890	16,334	18,223
2009	6	-	-	-	-	0	49,756	49,756
2009	TOTAL	13,257	523	15,681	57,667	87,128	368,601	455,729
2010	1	785	-	-	-	785	352,647	353,431
2010	2	9,784	-	-	-	9,784	16,627	26,410
2010	3	-	-	-	50,682	50,682	24,367	75,048
2010	4	-	882	32,104	21,301	54,287	67,966	122,253
2010	5	-	-	2,534	-	2,534	21,593	24,127
2010	6	-	-	-	-	0	53,513	53,513
2010	TOTAL	10,568	882	34,638	71,983	118,071	336,290	454,360
2011	1	378	-	-	-	378	274,948	275,325
2011	2	19,495	-	-	-	19,495	18,627	38,122
2011	3	-	-	-	84,073	84,073	25,800	109,873
2011	4	-	410	26,313	27,303	54,026	54,828	108,854
2011	5	-	-	2,215	-	2,215	31,521	33,736
2011	6	-	-	-	-	0	54,692	54,692
2011	TOTAL	19,873	410	28,528	111,376	160,188	317,445	477,632
2012	1	179	-	-	-	179	268,130	268,310
2012	2	19,854	-	-	-	19,854	20,665	40,519
2012	3	-	-	-	148,672	148,672	47,624	196,296
2012	4	-	350	40,607	21,968	62,925	43,046	105,971
2012	5	-	-	1,188	-	1,188	29,392	30,580
2012	6	-	-	-	-	0	62,401	62,401
2012	TOTAL	20,033	350	41,795	170,640	232,818	321,577	554,395

Source: RecFIN/CRFS Database/Current Study

The percentage of person-days within each district by sanctuary and resident status in each year was calculated for the sample and presented in Table 3.7. (See Appendix A for an explanation of how the number of resident and non-residential person-days was calculated). Information on total number of recreational fishing person-days for the

population was taken from the California Fish and Wildlife Website⁵. This population number was multiplied by the estimated percentage of person-days by sanctuary (based on the sample) to get the combined population person-days. Using the total number of person-days the percentage of resident and non-resident person-days for the population is calculated based on sample estimates. Table 3.8 presents the results for the private-rental boat mode person-days. Table 3.9 provides information on the total number of private-rental angler person-days for the four California sanctuaries.

Table 3.7 Percentage of Residents and Non-Residents Private – Rental Boat Fishing

Year	Channel Islands		Cordell Banks	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	93.1%	6.9%	56.7%	43.3%
2011	94.4%	5.6%	52.4%	47.6%
2012	86.5%	13.5%	87.5%	12.5%
Year	Greater Farallones		Monterey Bay	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	43.3%	52.3%	88.3%	11.7%
2011	47.6%	59.8%	86.8%	13.2%
2012	12.5%	52.8%	80.6%	19.4%

Table 3.8 Total estimated number of Private-Rental boat fishing angler/person-days to each sanctuary by resident and non-resident status

Year	Channel Islands		Cordell Banks	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	9,839	729	500	382
2011	18,765	1,108	215	195
2012	17,332	2,701	307	44
Year	Greater Farallones		Monterey Bay	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	18,107	16,531	63,547	8,436
2011	17,071	11,457	96,697	14,679
2012	22,073	19,722	137,519	33,121

⁵ The data was retrieved from the following website:
<http://www.recfin.org/data/estimates/tabulate-recent-estimates-2004-current>. The website allows you to filter by year, district and mode of access for angler person-days (person-days) to get a SAS or Comma delimited output file.

Table 3.9 Total estimated number of Private-Rental boat fishing angler/person-days in Total for All California Sanctuaries by resident and non-resident status

Year	California Sanctuaries				% of Total Person-Days in California
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>	
2010	91,993	26,078	78%	22%	18.0%
2011	132,748	27,440	83%	17%	25.8%
2012	177,230	55,588	76%	24%	33.1%

Commercial Passenger Fishing Vessel

The tables below details the summary of the number of unique vessels, the number of CPFV trips, and the number of CPFV angler/person days across California, districts and for each sanctuary for each year (Table 3.10, Table 3.11 and Table 3.12). These data were summarized from CPFV trip logbook data provided from the California Department of Fish and Wildlife.

Table 3.10 Total number of CPFV vessels, trips, and angler/person days for California (2004-2012)

Year	No. of Unique Vessels	Trips	Total Angler/Person Days
2004	309	26,538	719,303
2005	304	25,820	866,961
2006	302	26,058	325,712
2007	311	25,026	339,773
2008	292	20,860	304,835
2009	285	20,125	307,428
2010	293	19,451	310,161
2011	293	21,996	532,268
2012	305	24,611	490,539

Source: California Department of Fish and Wildlife

Table 3.11 Total Number of CPFV Person-Days by Year and District (2004-2012)

District	1	2	3	4	5	6
2004	509,622	66,890	55,178	66,797	15,698	5,118
2005	560,923	90,330	61,280	116,513	34,758	3,157
2006	191,181	24,401	36,495	65,319	3,762	4,553
2007	212,145	35,197	43,204	39,078	5,523	4,626
2008	197,615	39,308	31,624	31,599	577	4,113
2009	206,226	31,406	29,954	32,057	1,846	5,940
2010	186,826	28,547	43,340	44,225	127	7,096
2011	374,238	72,570	35,760	39,145	3,617	6,938
2012	330,257	74,620	31,800	43,626	4,919	5,316

Table 3.12 Total CPFV vessels, trips, and angler/person-days for each California NMS (2004-2012)

Year	Sanctuary	Vessels		Trips		Anglers	
		No. of Unique Vessels	% of State	Trips	% of State	Total Angler/Person Days	% of State
2004	CBNMS	21	6.80%	106	0.40%	985	0.14%
	CINMS	58	18.77%	1,716	6.47%	34,853	4.85%
	GFNMS	59	19.09%	2,075	7.82%	34,289	4.77%
	MBNMS	72	23.30%	3,853	14.52%	63,490	8.83%
2005	CBNMS	19	6.25%	145	0.56%	1,708	0.20%
	CINMS	58	19.08%	1,789	6.93%	37,395	4.31%
	GFNMS	60	19.74%	2,255	8.73%	34,673	4.00%
	MBNMS	68	22.37%	3,197	12.38%	51,410	5.93%
2006	CBNMS	28	9.27%	136	0.52%	2,692	0.83%
	CINMS	68	22.52%	2,025	7.77%	38,967	11.96%
	GFNMS	64	21.19%	2,657	10.20%	41,402	12.71%
	MBNMS	61	20.20%	2,248	8.63%	34,008	10.44%
2007	CBNMS	18	5.79%	86	0.34%	1,243	0.37%
	CINMS	58	18.65%	1,837	7.34%	35,893	10.56%
	GFNMS	53	17.04%	1,930	7.71%	30,856	9.08%
	MBNMS	61	19.61%	2,130	8.51%	32,012	9.42%
2008	CBNMS	3	1.03%	18	0.09%	350	0.11%
	CINMS	54	18.49%	1,828	8.76%	34,773	11.41%
	GFNMS	44	15.07%	692	3.32%	12,098	3.97%
	MBNMS	45	15.41%	1,275	6.11%	21,251	6.97%
2009	CBNMS	14	4.91%	40	0.16%	727	0.24%
	CINMS	57	20.00%	1,892	7.68%	36,110	11.75%
	GFNMS	38	13.33%	528	2.14%	9,999	3.25%
	MBNMS	52	18.25%	1,438	5.83%	22,982	7.48%
2010	CBNMS	12	4.10%	40	0.17%	754	0.24%
	CINMS	55	18.77%	1,630	6.93%	29,834	9.62%
	GFNMS	52	17.75%	1,113	4.73%	16,304	5.26%
	MBNMS	62	21.16%	1,894	8.05%	27,375	8.83%
2011	CBNMS	8	2.73%	31	0.12%	277	0.05%
	CINMS	52	17.75%	2,082	8.08%	39,926	7.50%
	GFNMS	52	17.75%	1,489	5.78%	22,760	4.28%
	MBNMS	73	24.91%	2,361	9.16%	34,120	6.41%
2012	CBNMS	13	4.26%	29	0.10%	331	0.07%
	CINMS	52	17.05%	2,579	8.89%	53,136	10.83%
	GFNMS	60	19.67%	2,049	7.06%	32,589	6.64%
	MBNMS	71	23.28%	2,799	9.64%	39,918	8.14%

Source: California Department of Fish and Wildlife

The percentage of person-days within each district by sanctuary and resident status in each year was calculated for the sample and presented in Table 3.13. (See Appendix A for an explanation of how the number of resident and non-residential person-days was calculated). Information on total number of recreational fishing person-days for the population was taken from the California Fish and Wildlife Website⁶. This population number was multiplied by the estimated percentage of person-days by sanctuary (based on the sample) to get the combined population person-days. Using the total number of person-days the percentage of resident and non-resident person-days for the population is calculated based on sample estimates. Tables 3.13, 3.14 and 3.15 present the results for the CPFV mode person-days.

Table 3.13 Percentage of Residents and Non-Residents CPFV Boat Fishing

Year	Channel Islands		Cordell Banks	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	77.1%	22.9%	31.9%	68.1%
2011	77.5%	22.5%	27.4%	72.6%
2012	72.6%	27.4%	36.1%	63.9%
Year	Greater Farallones		Monterey Bay	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	37.4%	62.6%	47.0%	53.0%
2011	27.8%	72.2%	46.7%	53.3%
2012	20.0%	80.0%	48.7%	51.3%

Table 3.14 Total estimated number of CPFV boat fishing angler/person-days to each sanctuary within a district by resident and non-resident status (2010-2012)

Year	Channel Islands		Cordell Banks	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	22,996	6,838	241	513
2011	30,933	8,993	76	201
2012	38,582	14,554	120	211
Year	Greater Farallones		Monterey Bay	
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>
2010	6,098	10,206	12,867	14,508
2011	6,333	16,427	15,921	18,199
2012	6,518	26,071	19,422	20,496

⁶ The data was retrieved from the following website:
<http://www.recfin.org/data/estimates/tabulate-recent-estimates-2004-current>. The website allows you to filter by year, district and mode of access for angler person-days (person-days) to get a SAS or Comma delimited output file.

Table 3.15 Total estimated number of CPFV fishing angler/person-days in Total for All California Sanctuaries by resident and non-resident status

Year	California Sanctuaries				% of Total Person-Days in California
	<i>Resident</i>	<i>Non-Residents</i>	<i>Resident</i>	<i>Non-Residents</i>	
2010	42,201	32,066	57%	43%	24%
2011	53,262	43,821	55%	45%	18%
2012	64,642	61,332	51%	49%	26%

Summary

The following tables present the number of total person-days by mode in each sanctuary and California. The percentages are the total number of person-days in the Sanctuary divided by the total number of person-days in the district (or districts) that each Sanctuary is located.

Table 3.16 Monterey Bay Total Person-Days by Year and Fishing Mode⁷

Mode	2010	2011	2012	Average
Shore	153,064	409,412	353,737	305,405
Percent in Districts 3 & 4	20.7%	36.1%	36.8%	32.3%
Private/rental Boating	71,983	111,376	170,640	118,000
Percent in Districts 3 & 4	36.5%	50.9%	56.5%	49.3%
CPFV	27,375	34,120	39,918	33,804
Percent in Districts 3 & 4	31.3%	45.6%	52.9%	42.6%
Total of All Modes	252,423	554,909	564,296	457,209
Percent in Districts 3 & 4	24.6%	38.9%	42.1%	36.2%

Table 3.17 Greater Farallones Total Person-Days by Year and Fishing Mode⁷

Mode	2010	2011	2012	Average
Shore	28,327	22,718	45,744	32,263
Percent in Districts 4 & 5	5.7%	3.1%	7.2%	5.1%
Private/rental Boating	34,638	28,528	41,795	34,987
Percent in Districts 4 & 5	23.7%	20.0%	30.6%	24.7%
CPFV	16,304	22,760	32,589	23,884
Percent in Districts 4 & 5	36.8%	53.2%	67.1%	52.8%
Total of All Modes	79,269	74,006	120,129	91,134
Percent in Districts 4 & 5	11.5%	8.0%	64.9%	11.2%

⁷ Percent in Districts is the number of recreational fishing days for the districts that the Sanctuary is located. The number of person-days for each district and mode are given in previous tables.

Table 3.18 Cordell Banks Total Person-Days by Year and Fishing Mode⁷

Mode	2010	2011	2012	Average
Private/rental Boating	882	410	371	554
Percent in District 4	0.7%	0.4%	0.3%	0.5%
CPFV	754	277	331	454
Percent in District 4	1.7%	0.7%	0.8%	0.8%
Total of All Modes	1,636	687	702	1,008
Percent in District 4	1.0%	0.5%	0.5%	0.7%

Table 3.19 Channel Islands Total Person-Days by Year and Fishing Mode⁷

Mode	2010	2011	2012	Average
Private/rental Boating	10,568	19,873	20,033	16,825
Percent in Districts 1 & 2	2.8%	6.3%	6.5%	5.0%
CPFV	29,834	39,926	53,136	40,965
Percent in Districts 1 & 2	13.9%	8.9%	13.1%	11.5%
Total of All Modes	40,402	59,799	73,169	57,790
Percent in Districts 1 & 2	6.8%	7.9%	10.3%	8.4%

Table 3.20 California Total Person-Days by Year and Fishing Mode⁷

Mode	2010	2011	2012	Average
Shore	181,390	432,130	399,482	337,667
Percent of CA	6.1%	14.2%	9.5%	9.9%
Private/rental Boating	118,071	160,188	232,838	170,366
Percent of CA	18.0%	25.8%	33.1%	25.8%
CPFV	74,267	97,083	125,974	99,108
Percent of CA	23.9%	18.2%	25.7%	22.3%
Total of All Modes	373,729	689,402	758,296	607,141
Percent of CA	9.4%	16.4%	14.0%	13.4%

Chapter 4 Expenditures

After estimating the number of population person-days of effort in the Sanctuary and the percentage of those person-days that are resident and non-resident, total expenditures can now be estimated using expenditure profiles⁸. Expenditure profiles are from NOAA's National Marine Fisheries Service (NMFS) (Lovell et al, 2013). The most recent expenditure profiles available are from 2011. These expenditures are generated by fishing mode; shore, private-rental and CPFV for trip-related expenditures and across all modes for durable goods expenditures. Durable good expenditures are calculated for residents of the study area only.

Using this information, expenditures were converted to 2010, 2011 and 2012 dollars using the CPI from the United States Department of Labor, Bureau of Labor Statistics. Fuel expenditures were adjusted using the gasoline CPI. Each type of expenditure was converted. (For example, there are several expenditure categories for each type of trip mode and durable goods, these values were converted individually and not aggregated to get one total expenditure value for each mode of access). These values were then estimated by the number of population person-days by resident status for each sanctuary by mode of access to get total expenditures in that year's dollars. Using the total expenditures in 2010, 2011 and 2012 dollars, these total expenditures were then converted to 2014 dollars using the CPI and the gasoline CPI.

The next step was to sum total expenditures in each year to get the total expenditures by mode and resident status in each sanctuary in 2014 dollars. Now that the expenditure profiles were estimated in 2014 dollars for years 2010 through 2012 by access mode and resident status, that data can be inputted to IMPLAN to estimate market economic impacts.

The following presents the steps taken to get to total expenditures for each sanctuary by resident or non-resident status.

1. Calculate CPI Adjustment Factor (Year Converting To – Year of Current Expenditure Value) / (Year of Current Expenditure Value) = CPI Adjustment Factor going from current year to new year
2. Person-Day Expenditure₂₀₁₁ * CPI₂₀₁₀⁹ = Person-Day Expenditure₂₀₁₀
 - a. Each expenditure category should be calculated individual for steps 1 through 7.

⁸ Mean expenditures in the 2011 survey report are reported for all of California (not separately by region) and residents are defined as residents of California and non-residents are those who live outside California (Lovell et al., 2013). However, in this study residents are defined as residents of the study areas defined in Chapter 1, and non-residents live outside the study area.

⁹ The CPI should be changed for gasoline expenditures, given increased variability in the price of gasoline, when compared to other consumer and durable goods.

3. 2010 Person-Day Expenditures in 2010 Dollars * Total Resident Person-days in Sanctuary = Total 2010 Person-Day Expenditures in 2010 Dollars
4. Total Person-Day Expenditure₂₀₁₀ * CPI₂₀₁₄ = Total 2010 Person-Day Expenditures in 2014 Dollars
5. Repeat the above 3 steps for 2011 and 2012.
6. Sum the Total Person-Day Expenditures in 2014 dollars for years 2010, 2011 and 2012.
7. Repeat steps 1 through 6 for the Durable Good Expenditures
8. Repeat Steps 1 through 7 for Non-Residents. (Substituting the number of Non-Resident person-days in Step 3 for Resident person-days).

Table 4.1: CPI Value Used

Year	CPI	Gasoline CPI
2010	218.056	238.594
2011	224.939	301.694
2012	229.594	311.47
August 2014 ¹⁰	237.852	300.64

The next series of tables present the results for the Steps just described for each sanctuary.

NOAA NMFS Expenditure Profiles

Table 4.2 Shore Mode Trip-related Expenditures Per Person-day in 2011 Dollars

Expenditure Category	Resident	Non- Resident
Auto Fuel	\$20.23	\$18.57
Auto Rental	\$0.00	\$1.10
Bait	\$13.19	\$5.43
Fish Processing	\$0.00	\$0.00
Food from Grocery Stores	\$20.43	\$8.78
Food from Restaurants	\$6.92	\$10.64
Gifts & Souvenirs	\$1.14	\$5.96
Ice	\$1.71	\$1.46
Lodging	\$3.85	\$9.06
Parking & Site Access	\$2.57	\$0.41
Public Transportation	\$0.00	\$0.53

¹⁰ At the time the analysis was completed, the most recent CPI data available from the Bureau of Labor Statistics was August 2014.

Tournament Fees	\$0.09	\$0.06
Trip Total	\$70.13	\$62.00

Table 4.3 Private-Rental Boat Trip-related Expenditures Per Person-day in 2011 Dollars

Expenditure Category	Resident	Non- Resident
Auto Fuel	\$29.52	\$52.69
Auto Rental	\$0.04	\$13.22
Bait	\$16.84	\$9.97
Boat Fuel	\$35.26	\$19.76
Boat Rental	\$0.89	\$2.33
Charter Fees	\$0.00	\$0.00
Fish Processing	\$0.00	\$0.00
Food from Grocery Stores	\$20.99	\$21.04
Food from Restaurants	\$8.16	\$21.77
Gifts & Souvenirs	\$0.22	\$4.47
Ice	\$3.69	\$2.89
Lodging	\$1.77	\$19.90
Parking & Site Access	\$6.15	\$3.40
Public Transportation	\$0.00	\$20.13
Tournament Fees	\$0.38	\$0.25
Trip Total	\$123.90	\$191.83

Table 4.4 CPFV Estimated Trip-related Expenditures Per Person-day in 2011 Dollars

Expenditure Category	Resident	Non- Resident
Auto Fuel	\$27.69	\$53.15
Auto Rental	\$0.63	\$29.30
Bait	\$4.83	\$2.21
Charter Fees	\$111.78	\$142.74
Crew Tips	\$17.45	\$14.08
Fish Processing	\$0.11	\$0.11
Food from Grocery Stores	\$18.10	\$27.02
Food from Restaurants	\$17.13	\$28.95
Gifts & Souvenirs	\$2.00	\$31.32
Ice	\$2.29	\$2.13
Lodging	\$4.74	\$34.77
Parking & Site Access	\$4.11	\$9.51
Public Transportation	\$0.00	\$17.94
Tournament Fees	\$4.68	\$2.03
Trip Total	\$215.54	\$395.26

The next section presents durable good expenditures per person-day in 2014 dollars. NMFS calculates the mean durable expenditures for all modes by participant. When estimating durable good expenditures they are not disaggregated by fishing mode, but

presented as the expenditure value for all modes. We converted the mean durable good expenditures by participant to durable good expenditures by person-day using the following approach.

Converting Durable Good expenditures per participant to per person-day

Using Table CA_3 Mean Expenditures by Mode and Resident Status in California and Table CA_4 Total Expenditures by Mode and Resident Status in California, 2011 from Lovell et al, 2013 calculate the number of participants.

$$\text{Number of Participants} = \frac{\text{Total Resident Durable Good Expenditures/}}{\text{Mean Resident Durable Good Expenditure per Participant}}$$

$$= \$530,391,000 / \$655.86$$

$$= 808,695.45 \text{ Participants}$$

Then using Table CA_3 Mean Expenditures by Mode and Resident Status in California and Table CA_4 Total Expenditures by Mode and Resident Status in California, 2011 from Lovell et al, 2013 calculate the total number of person-days by mode.

$$\text{For-Hire}^{11} \text{ Person-days} = \frac{\text{Total Resident For-Hire Expenditures/}}{\text{Mean Resident For-Hire Expenditure per Participant}}$$

$$= \$98,751,000 / \$217.85$$

$$= 453,298.14 \text{ For-Hire Person Days}$$

$$\text{Private Boat}^{12} \text{ Person-days} = \frac{\text{Total Resident Private Boat Expenditures/}}{\text{Mean Resident Private Boat Expenditure per Participant}}$$

$$= \$76,737,000 / \$123.90$$

$$= 619,346.25 \text{ Private Boat Person Days}$$

$$\text{Shore Person-days} = \frac{\text{Total Resident Shore Expenditures/}}{\text{Mean Resident Shore Expenditure per Participant}}$$

$$= \$185,592,000 / \$70.21$$

¹¹ For-Hire is the terminology used in the Lovell et al, 2013 recreational fishing expenditure tables. In this report we use the term CPFV

¹² Private Boat is the terminology used in the Lovell et al, 2013 recreational fishing expenditure tables. In this report we use the term Private-Rental.

$$= 2,643,384.13 \text{ Shore Person Days}$$

Then we sum the For-Hire, Private Boat and Shore Person-days to get the total number of recreational fishing person-days in California.

Total Recreational Fishing Person-Days =
Total For-Hire Person-days + Private Boat Person-days + Shore Person-days

$$= 453,298.14 + 619,346.25 + 2,643,384.13$$

$$= 3,716,028.52 \text{ person-days}$$

To get person-days per participants we divide the number of person-days by the number of participants.

Person-days per Participant = Total Number of Person-days / Number of Participants
Per-per

$$= 3,716,028.52 / 808,695.45$$

$$= 4.6 \text{ person-days per participant}$$

Using the number of person-days per participant we can divide the durable good expenditures by the number of person-days per participant yield the durable goods expenditures per person-day.

To estimate durable good expenditures by person-day divide each expenditure item in Table 4.5 by 4.6 person-days per participant. The results are in Table 4.6.

Table 4.5 Durable Goods Estimated Expenditures Per Angler in 2011 Dollars

Durable Goods	Resident
Durable Tackle	\$95.82
Rods & Reels	\$128.48
Spearfishing Gear	\$0.00
Binoculars	\$3.87
Camping Equipment	\$11.31
Clothing	\$32.28
Club Dues	\$6.16
License Fees	\$33.72
Magazine Subscriptions	\$5.38
Taxidermy	\$1.33
New Boat Purchase	\$36.83
Used Boat Purchase	\$2.37
New Canoe Purchase	\$1.11
Used Canoe Purchase	\$0.00
New Accessory Purchase	\$21.15
Used Accessory Purchase	\$0.00
Boat Insurance	\$22.83
Boat Maintenance	\$47.66
Boat Registration	\$5.95
Boat Storage	\$83.34
Boat Purchase Fees	\$1.47
New Vehicle Purchase	\$32.82
Used Vehicle Purchase	\$32.25
Vehicle Insurance	\$24.27
Vehicle Maintenance	\$8.36
Vehicle Registration	\$7.67
Vehicle Purchase Fees	\$5.31
New Home Purchase	\$4.06
Second Home Insurance	\$0.00
Second Home Maintenance	\$0.00
Second Home Property Taxes	\$0.05
Second Home Purchase Fees	\$0.00
Real Estate Commissions	\$0.00
Total Annual	\$655.86

Table 4.6 Durable Goods Estimated Expenditures Per Person-day in 2011 Dollars

Durable Goods	Resident
Durable Tackle	\$20.20
Rods & Reels	\$27.08
Spearfishing Gear	\$0.00
Binoculars	\$0.82
Camping Equipment	\$2.38
Clothing	\$6.80
Club Dues	\$1.30
License Fees	\$7.11
Magazine Subscriptions	\$1.13
Taxidermy	\$0.28
New Boat Purchase	\$7.76
Used Boat Purchase	\$0.50
New Canoe Purchase	\$0.23
Used Canoe Purchase	\$0.00
New Accessory Purchase	\$4.46
Used Accessory Purchase	\$0.00
Boat Insurance	\$4.81
Boat Maintenance	\$10.05
Boat Registration	\$1.25
Boat Storage	\$17.57
Boat Purchase Fees	\$0.31
New Vehicle Purchase	\$6.92
Used Vehicle Purchase	\$6.80
Vehicle Insurance	\$5.12
Vehicle Maintenance	\$1.76
Vehicle Registration	\$1.62
Vehicle Purchase Fees	\$1.12
New Home Purchase	\$0.86
Second Home Insurance	\$0.00
Second Home Maintenance	\$0.00
Second Home Property Taxes	\$0.01
Second Home Purchase Fees	\$0.00
Real Estate Commissions	\$0.00
Total Annual	\$138.25

The next set of tables summarizes the trip-related expenditures per person-day for 2010, 2011, and 2012 by mode of access and residential status in nominal dollars i.e. adjusted for inflation to relevant year (Table 4.7, Table 4.8, Table 4.9 and Table 4.10). These tables are followed by the tables summarizing durable good expenditures per person-day for 2010, 2011 and 2012 by residential status in nominal dollars.

Table 4.7 Shore Mode Person-Day Trip-related Expenditures by Resident Status 2010 to 2012 (Nominal \$)

Expenditure Category	2010 Dollars		2011 Dollars		2012 Dollars	
	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident
Auto Fuel	\$16.00	\$14.69	\$20.23	\$18.57	\$20.89	\$19.17
Auto Rental	\$0.00	\$1.07	\$0.00	\$1.10	\$0.00	\$1.12
Bait	\$12.79	\$5.26	\$13.19	\$5.43	\$13.46	\$5.54
Fish Processing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Food from Grocery Stores	\$19.80	\$8.51	\$20.43	\$8.78	\$20.85	\$8.96
Food from Restaurants	\$6.71	\$10.31	\$6.92	\$10.64	\$7.06	\$10.86
Gifts & Souvenirs	\$1.11	\$5.78	\$1.14	\$5.96	\$1.16	\$6.08
Ice	\$1.66	\$1.42	\$1.71	\$1.46	\$1.75	\$1.49
Lodging	\$3.73	\$8.78	\$3.85	\$9.06	\$3.93	\$9.25
Parking & Site Access	\$2.49	\$0.40	\$2.57	\$0.41	\$2.62	\$0.42
Public Transportation	\$0.00	\$0.51	\$0.00	\$0.53	\$0.00	\$0.54
Tournament Fees	\$0.09	\$0.06	\$0.09	\$0.06	\$0.09	\$0.06
Trip Total	\$67.98	\$60.10	\$70.13	\$62.00	\$71.58	\$63.28

Table 4.8 Private-Rental Boat Fishing Person-Day Trip-related Expenditures by Resident Status 2010 to 2012 (Nominal \$)

Expenditure Category	2010 Dollars		2011 Dollars		2012 Dollars	
	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident
Auto Fuel	\$23.35	\$41.67	\$29.52	\$52.69	\$30.48	\$54.40
Auto Rental	\$0.04	\$12.82	\$0.04	\$13.22	\$0.04	\$13.49
Bait	\$16.32	\$9.66	\$16.84	\$9.97	\$17.19	\$10.18
Boat Fuel	\$27.89	\$15.63	\$35.26	\$19.76	\$36.40	\$20.40
Boat Rental	\$0.86	\$2.26	\$0.89	\$2.33	\$0.91	\$2.38
Charter Fees	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fish Processing	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Food from Grocery Stores	\$20.35	\$20.40	\$20.99	\$21.04	\$21.42	\$21.48
Food from Restaurants	\$7.91	\$21.10	\$8.16	\$21.77	\$8.33	\$22.22
Gifts & Souvenirs	\$0.21	\$4.33	\$0.22	\$4.47	\$0.22	\$4.56
Ice	\$3.58	\$2.80	\$3.69	\$2.89	\$3.77	\$2.95
Lodging	\$1.72	\$19.29	\$1.77	\$19.90	\$1.81	\$20.31
Parking & Site Access	\$5.96	\$3.30	\$6.15	\$3.40	\$6.28	\$3.47
Public Transportation	\$0.00	\$19.51	\$0.00	\$20.13	\$0.00	\$20.55
Tournament Fees	\$0.37	\$0.24	\$0.38	\$0.25	\$0.39	\$0.26
Trip Total	\$120.11	\$185.96	\$123.90	\$191.83	\$126.46	\$195.80

Table 4.9 CPFV Fishing Person-Day Trip-related Expenditures by Resident Status 2010 to 2012 (Nominal \$)

Expenditure Category	2010 Dollars		2011 Dollars		2012 Dollars	
	Resident	Non-Resident	Resident	Non-Resident	Resident	Non-Resident
Auto Fuel	\$21.90	\$42.03	\$27.69	\$53.15	\$28.59	\$54.87
Auto Rental	\$0.61	\$28.40	\$0.63	\$29.30	\$0.64	\$29.91
Bait	\$4.68	\$2.14	\$4.83	\$2.21	\$4.93	\$2.26
Charter Fees	\$108.36	\$138.37	\$111.78	\$142.74	\$114.09	\$145.69
Crew Tips	\$16.92	\$13.65	\$17.45	\$14.08	\$17.81	\$14.37
Fish Processing	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11
Food from Grocery Stores	\$17.55	\$26.19	\$18.10	\$27.02	\$18.47	\$27.58
Food from Restaurants	\$16.61	\$28.06	\$17.13	\$28.95	\$17.48	\$29.55
Gifts & Souvenirs	\$1.94	\$30.36	\$2.00	\$31.32	\$2.04	\$31.97
Ice	\$2.22	\$2.06	\$2.29	\$2.13	\$2.34	\$2.17
Lodging	\$4.59	\$33.71	\$4.74	\$34.77	\$4.84	\$35.49
Parking & Site Access	\$3.98	\$9.22	\$4.11	\$9.51	\$4.20	\$9.71
Public Transportation	\$0.00	\$17.39	\$0.00	\$17.94	\$0.00	\$18.31
Tournament Fees	\$4.54	\$1.97	\$4.68	\$2.03	\$4.78	\$2.07
Trip Total	\$208.94	\$383.17	\$215.54	\$395.26	\$220.00	\$403.44

Table 4.10 Resident Durable Good Expenditures Per Person-days 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$20.20	\$20.83	\$21.27
Rods & Reels	\$27.08	\$27.94	\$28.51
Spearfishing Gear	\$0.00	\$0.00	\$0.00
Binoculars	\$0.82	\$0.84	\$0.86
Camping Equipment	\$2.38	\$2.46	\$2.51
Clothing	\$6.80	\$7.02	\$7.16
Club Dues	\$1.30	\$1.34	\$1.37
License Fees	\$7.11	\$7.33	\$7.48
Magazine Subscriptions	\$1.13	\$1.17	\$1.19
Taxidermy	\$0.28	\$0.29	\$0.30
New Boat Purchase	\$7.76	\$8.01	\$8.17
Used Boat Purchase	\$0.50	\$0.52	\$0.53
New Canoe Purchase	\$0.23	\$0.24	\$0.25
Used Canoe Purchase	\$0.00	\$0.00	\$0.00
New Accessory Purchase	\$4.46	\$4.60	\$4.69
Used Accessory Purchase	\$0.00	\$0.00	\$0.00
Boat Insurance	\$4.81	\$4.96	\$5.07
Boat Maintenance	\$10.05	\$10.36	\$10.58
Boat Registration	\$1.25	\$1.29	\$1.32
Boat Storage	\$17.57	\$18.12	\$18.50
Boat Purchase Fees	\$0.31	\$0.32	\$0.33
New Vehicle Purchase	\$6.92	\$7.14	\$7.28
Used Vehicle Purchase	\$6.80	\$7.01	\$7.16
Vehicle Insurance	\$5.12	\$5.28	\$5.39
Vehicle Maintenance	\$1.76	\$1.82	\$1.86
Vehicle Registration	\$1.62	\$1.67	\$1.70
Vehicle Purchase Fees	\$1.12	\$1.15	\$1.18
New Home Purchase	\$0.86	\$0.88	\$0.90
Second Home Property Taxes	\$0.01	\$0.01	\$0.01
Total Annual	\$138.25	\$142.61	\$145.56

The next several sections present the total expenditures in MBNMS. The total expenditures are calculated by multiplying person-day expenditures by total number of person-days in each sanctuary by each mode. There is one expenditure goods profile for each sanctuary. Durable goods are calculated for all modes and not for each mode individually (Tables 4.11 to 4.14 in nominal dollars and Tables 4.15 to 4.22 in 2014 dollars for all years).

Monterey Bay (MB) Expenditure Tables

Table 4.11 Total MB Shore Mode Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$2,266,389	\$167,486	\$2,433,874	\$7,959,052	\$296,829	\$8,255,881	\$7,051,823	\$308,584	\$7,360,407
Auto Rental	\$0	\$12,161	\$12,161	\$0	\$17,583	\$17,583	\$0	\$18,072	\$18,072
Bait	\$1,811,315	\$60,031	\$1,871,346	\$5,189,318	\$86,795	\$5,276,113	\$4,545,654	\$89,209	\$4,634,862
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$2,805,546	\$97,067	\$2,902,613	\$8,037,738	\$140,342	\$8,178,080	\$7,040,766	\$144,245	\$7,185,011
Food from Restaurants	\$950,288	\$117,630	\$1,067,918	\$2,722,523	\$170,073	\$2,892,596	\$2,384,831	\$174,803	\$2,559,634
Gifts & Souvenirs	\$156,550	\$65,891	\$222,441	\$448,508	\$95,267	\$543,775	\$392,877	\$97,916	\$490,793
Ice	\$234,825	\$16,141	\$250,966	\$672,762	\$23,337	\$696,099	\$589,315	\$23,986	\$613,301
Lodging	\$528,701	\$100,163	\$628,863	\$1,514,698	\$144,818	\$1,659,516	\$1,326,821	\$148,845	\$1,475,666
Parking & Site Access	\$352,925	\$4,533	\$357,458	\$1,011,110	\$6,554	\$1,017,664	\$885,696	\$6,736	\$892,432
Public Transportation	\$0	\$5,859	\$5,859	\$0	\$8,472	\$8,472	\$0	\$8,707	\$8,707
Tournament Fees	\$12,359	\$663	\$13,023	\$35,409	\$959	\$36,368	\$31,017	\$986	\$32,002
Trip Total	\$9,118,898	\$647,625	\$9,766,523	\$27,591,118	\$991,028	\$28,582,146	\$24,248,800	\$1,022,089	\$25,270,888

Table 4.12 Total MB Private-Rental Boat Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$1,483,548	\$351,543	\$1,835,092	\$2,854,488	\$773,456	\$3,627,944	\$4,191,099	\$1,801,707	\$5,992,806
Auto Rental	\$2,464	\$108,117	\$110,581	\$3,868	\$194,061	\$197,929	\$5,615	\$446,924	\$452,538
Bait	\$1,037,380	\$81,537	\$1,118,918	\$1,628,373	\$146,353	\$1,774,727	\$2,363,740	\$337,052	\$2,700,792
Boat Fuel	\$1,772,016	\$131,837	\$1,903,853	\$3,409,527	\$290,064	\$3,699,592	\$5,006,035	\$675,683	\$5,681,717
Boat Rental	\$54,826	\$19,055	\$73,881	\$86,060	\$34,203	\$120,263	\$124,924	\$78,769	\$203,694
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$1,293,029	\$172,071	\$1,465,100	\$2,029,665	\$308,854	\$2,338,519	\$2,946,253	\$711,292	\$3,657,544
Food from Restaurants	\$502,674	\$178,041	\$680,715	\$789,045	\$319,570	\$1,108,615	\$1,145,375	\$735,970	\$1,881,345
Gifts & Souvenirs	\$13,552	\$36,557	\$50,109	\$21,273	\$65,617	\$86,890	\$30,880	\$151,116	\$181,996
Ice	\$227,312	\$23,635	\$250,947	\$356,811	\$42,423	\$399,234	\$517,945	\$97,701	\$615,646
Lodging	\$109,036	\$162,748	\$271,783	\$171,153	\$292,120	\$463,273	\$248,445	\$672,752	\$921,197
Parking & Site Access	\$378,853	\$27,806	\$406,659	\$594,685	\$49,910	\$644,595	\$863,242	\$114,943	\$978,185
Public Transportation	\$0	\$164,629	\$164,629	\$0	\$295,496	\$295,496	\$0	\$680,528	\$680,528
Tournament Fees	\$23,409	\$2,045	\$25,453	\$36,745	\$3,670	\$40,415	\$53,339	\$8,452	\$61,790
Trip Total	\$6,898,100	\$1,459,620	\$8,357,720	\$11,981,694	\$2,815,797	\$14,797,491	\$17,496,891	\$6,512,887	\$24,009,779

Table 4.13 Total MB CPFV Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$281,764.49	\$609,831	\$891,596	\$440,857	\$967,269	\$1,408,125	\$555,225	\$1,124,656	\$1,679,881
Auto Rental	\$7,858	\$412,083	\$419,941	\$10,030	\$533,226	\$543,256	\$12,489	\$612,957	\$625,446
Bait	\$60,245	\$31,082	\$91,327	\$76,899	\$40,219	\$117,119	\$95,750	\$46,233	\$141,983
Charter Fees	\$1,394,242	\$2,007,533	\$3,401,775	\$1,779,667	\$2,597,703	\$4,377,370	\$2,215,929	\$2,986,126	\$5,202,056
Crew Tips	\$217,655	\$198,025	\$415,680	\$277,824	\$256,240	\$534,064	\$345,929	\$294,554	\$640,483
Fish Processing	\$1,372	\$1,547	\$2,919	\$1,751	\$2,002	\$3,753	\$2,181	\$2,301	\$4,482
Food from Grocery Stores	\$225,763	\$380,016	\$605,779	\$288,173	\$491,733	\$779,906	\$358,815	\$565,259	\$924,074
Food from Restaurants	\$213,664	\$407,161	\$620,824	\$272,729	\$526,857	\$799,586	\$339,586	\$605,635	\$945,221
Gifts & Souvenirs	\$24,946	\$440,493	\$465,439	\$31,842	\$569,988	\$601,830	\$39,648	\$655,216	\$694,864
Ice	\$28,563	\$29,957	\$58,520	\$36,459	\$38,764	\$75,223	\$45,397	\$44,560	\$89,957
Lodging	\$59,122	\$489,015	\$548,137	\$75,466	\$632,774	\$708,240	\$93,966	\$727,390	\$821,356
Parking & Site Access	\$51,264	\$133,751	\$185,016	\$65,436	\$173,071	\$238,507	\$81,477	\$198,950	\$280,426
Public Transportation	\$0	\$252,313	\$252,313	\$0	\$326,487	\$326,487	\$0	\$375,306	\$375,306
Tournament Fees	\$58,374	\$28,550	\$86,925	\$74,511	\$36,944	\$111,455	\$92,776	\$42,468	\$135,244
Trip Total	\$2,624,834	\$5,421,357	\$8,046,191	\$3,431,646	\$7,193,275	\$10,624,921	\$4,279,168	\$8,281,611	\$12,560,778

Table 4.14 Total Resident MB Durable Good Expenditures 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$4,404,513	\$10,543,452	\$10,517,852
Rods & Reels	\$5,905,780	\$14,137,160	\$14,102,835
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$177,890	\$425,831	\$424,797
Camping Equipment	\$519,882	\$1,244,484	\$1,241,462
Clothing	\$1,483,800	\$3,551,896	\$3,543,271
Club Dues	\$283,154	\$677,809	\$676,163
License Fees	\$1,549,992	\$3,710,344	\$3,701,336
Magazine Subscriptions	\$247,300	\$591,983	\$590,545
Taxidermy	\$61,135	\$146,345	\$145,990
New Boat Purchase	\$1,692,947	\$4,052,550	\$4,042,710
Used Boat Purchase	\$108,941	\$260,780	\$260,147
New Canoe Purchase	\$51,023	\$122,138	\$121,841
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$972,192	\$2,327,218	\$2,321,567
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$1,049,416	\$2,512,075	\$2,505,975
Boat Maintenance	\$2,190,765	\$5,244,218	\$5,231,484
Boat Registration	\$273,501	\$654,702	\$653,112
Boat Storage	\$3,830,851	\$9,170,228	\$9,147,963
Boat Purchase Fees	\$67,571	\$161,750	\$161,357
New Vehicle Purchase	\$1,508,622	\$3,611,314	\$3,602,546
Used Vehicle Purchase	\$1,482,421	\$3,548,595	\$3,539,978
Vehicle Insurance	\$1,115,608	\$2,670,524	\$2,664,040
Vehicle Maintenance	\$384,280	\$919,884	\$917,650
Vehicle Registration	\$352,563	\$843,960	\$841,911
Vehicle Purchase Fees	\$244,082	\$584,280	\$582,862
New Home Purchase	\$186,624	\$446,738	\$445,653
Second Home Property Taxes	\$2,298	\$5,502	\$5,488
Total Annual	\$30,147,151	\$72,165,758	\$71,990,539

Table 4.15 Total MB Shore Mode Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$2,855,758	\$211,040	\$3,066,799	\$7,931,275	\$295,793	\$8,227,068	\$6,806,631	\$297,854	\$7,104,486
Auto Rental	\$0	\$13,265	\$13,265	\$0	\$18,592	\$18,592	\$0	\$18,722	\$18,722
Bait	\$1,975,753	\$65,481	\$2,041,234	\$5,487,221	\$91,777	\$5,578,998	\$4,709,152	\$92,417	\$4,801,569
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$3,060,245	\$105,879	\$3,166,124	\$8,499,160	\$148,399	\$8,647,559	\$7,294,008	\$149,433	\$7,443,442
Food from Restaurants	\$1,036,559	\$128,309	\$1,164,868	\$2,878,815	\$179,837	\$3,058,651	\$2,470,609	\$181,090	\$2,651,699
Gifts & Souvenirs	\$170,763	\$71,872	\$242,635	\$474,256	\$100,736	\$574,991	\$407,008	\$101,438	\$508,446
Ice	\$256,144	\$17,606	\$273,750	\$711,383	\$24,677	\$736,060	\$610,512	\$24,849	\$635,361
Lodging	\$576,698	\$109,256	\$685,954	\$1,601,653	\$153,131	\$1,754,784	\$1,374,544	\$154,199	\$1,528,743
Parking & Site Access	\$384,965	\$4,944	\$389,909	\$1,069,155	\$6,930	\$1,076,085	\$917,553	\$6,978	\$924,531
Public Transportation	\$0	\$6,391	\$6,391	\$0	\$8,958	\$8,958	\$0	\$9,020	\$9,020
Tournament Fees	\$13,481	\$724	\$14,205	\$37,441	\$1,014	\$38,455	\$32,132	\$1,021	\$33,153
Trip Total	\$10,330,366	\$734,768	\$11,065,134	\$28,690,359	\$1,029,844	\$29,720,203	\$24,622,148	\$1,037,022	\$26,179,831

Table 4.16 Total MB Private-Rental Boat Fishing Trip-related Expenditures by Residential Status 2010, 2011, 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$1,869,342	\$442,961	\$2,312,304	\$2,844,526	\$770,757	\$3,615,283	\$4,045,374	\$1,739,061	\$5,784,436
Auto Rental	\$2,688	\$117,932	\$120,620	\$4,090	\$205,202	\$209,292	\$5,817	\$462,999	\$468,815
Bait	\$1,131,558	\$88,940	\$1,220,498	\$1,721,853	\$154,755	\$1,876,608	\$2,448,759	\$349,175	\$2,797,934
Boat Fuel	\$2,232,825	\$166,121	\$2,398,946	\$3,397,628	\$289,052	\$3,686,680	\$4,831,975	\$652,189	\$5,484,164
Boat Rental	\$59,803	\$20,785	\$80,589	\$91,001	\$36,166	\$127,167	\$129,418	\$81,603	\$211,020
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$1,410,416	\$187,692	\$1,598,108	\$2,146,182	\$326,584	\$2,472,766	\$3,052,223	\$736,875	\$3,789,099
Food from Restaurants	\$548,308	\$194,204	\$742,513	\$834,342	\$337,915	\$1,172,258	\$1,186,572	\$762,442	\$1,949,014
Gifts & Souvenirs	\$14,783	\$39,876	\$54,658	\$22,495	\$69,384	\$91,878	\$31,991	\$156,551	\$188,542
Ice	\$247,948	\$25,781	\$273,729	\$377,294	\$44,859	\$422,153	\$536,575	\$101,215	\$637,790
Lodging	\$118,935	\$177,522	\$296,457	\$180,979	\$308,889	\$489,868	\$257,381	\$696,950	\$954,331
Parking & Site Access	\$413,247	\$30,330	\$443,578	\$628,824	\$52,775	\$681,599	\$894,291	\$119,077	\$1,013,368
Public Transportation	\$0	\$179,574	\$179,574	\$0	\$312,459	\$312,459	\$0	\$705,005	\$705,005
Tournament Fees	\$25,534	\$2,230	\$27,764	\$38,854	\$3,881	\$42,735	\$55,257	\$8,756	\$64,013
Trip Total	\$8,075,387	\$1,673,949	\$9,749,337	\$12,288,067	\$2,912,678	\$15,200,746	\$17,475,633	\$6,571,897	\$24,873,362

Table 4.17 Total MB CPFV Fishing Trip-related Expenditures by Residential Status 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$355,037	\$768,417	\$1,123,454	\$439,318	\$963,893	\$1,403,211	\$535,920	\$1,085,552	\$1,621,471
Auto Rental	\$8,571	\$449,494	\$458,065	\$10,606	\$563,837	\$574,443	\$12,938	\$635,004	\$647,942
Bait	\$65,714	\$33,904	\$99,618	\$81,314	\$42,528	\$123,842	\$99,194	\$47,896	\$147,090
Charter Fees	\$1,520,816	\$2,189,785	\$3,710,602	\$1,881,832	\$2,746,829	\$4,628,661	\$2,295,632	\$3,093,531	\$5,389,163
Crew Tips	\$237,415	\$216,002	\$453,417	\$293,773	\$270,950	\$564,723	\$358,372	\$305,149	\$663,520
Fish Processing	\$1,497	\$1,688	\$3,184	\$1,852	\$2,117	\$3,969	\$2,259	\$2,384	\$4,643
Food from Grocery Stores	\$246,259	\$414,516	\$660,774	\$304,716	\$519,962	\$824,678	\$371,721	\$585,591	\$957,311
Food from Restaurants	\$233,061	\$444,124	\$677,185	\$288,386	\$557,102	\$845,488	\$351,800	\$627,419	\$979,218
Gifts & Souvenirs	\$27,211	\$480,483	\$507,693	\$33,670	\$602,709	\$636,379	\$41,074	\$678,782	\$719,857
Ice	\$31,156	\$32,676	\$63,833	\$38,552	\$40,989	\$79,541	\$47,030	\$46,162	\$93,192
Lodging	\$64,490	\$533,409	\$597,899	\$79,799	\$669,099	\$748,898	\$97,346	\$753,553	\$850,898
Parking & Site Access	\$55,918	\$145,894	\$201,812	\$69,192	\$183,006	\$252,199	\$84,407	\$206,105	\$290,513
Public Transportation	\$0	\$275,219	\$275,219	\$0	\$345,230	\$345,230	\$0	\$388,804	\$388,804
Tournament Fees	\$63,673	\$31,142	\$94,816	\$78,788	\$39,064	\$117,853	\$96,113	\$43,995	\$140,109
Trip Total	\$2,910,819	\$6,016,752	\$8,927,572	\$3,601,800	\$7,547,316	\$11,149,115	\$4,393,805	\$8,499,928	\$13,012,564

Table 4.18 Total Resident MB Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010	2011	2012
Durable Tackle	\$4,804,373	\$11,148,720	\$10,896,158
Rods & Reels	\$6,441,931	\$14,948,732	\$14,610,086
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$194,040	\$450,277	\$440,077
Camping Equipment	\$567,078	\$1,315,926	\$1,286,115
Clothing	\$1,618,505	\$3,755,799	\$3,670,716
Club Dues	\$308,860	\$716,720	\$700,484
License Fees	\$1,690,706	\$3,923,344	\$3,834,465
Magazine Subscriptions	\$269,751	\$625,967	\$611,786
Taxidermy	\$66,686	\$154,746	\$151,241
New Boat Purchase	\$1,846,640	\$4,285,195	\$4,188,118
Used Boat Purchase	\$118,831	\$275,751	\$269,504
New Canoe Purchase	\$55,655	\$129,149	\$126,224
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$1,060,452	\$2,460,816	\$2,405,069
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$1,144,686	\$2,656,285	\$2,596,110
Boat Maintenance	\$2,389,651	\$5,545,272	\$5,419,650
Boat Registration	\$298,330	\$692,286	\$676,603
Boat Storage	\$4,178,631	\$9,696,664	\$9,476,997
Boat Purchase Fees	\$73,705	\$171,035	\$167,161
New Vehicle Purchase	\$1,645,580	\$3,818,629	\$3,732,122
Used Vehicle Purchase	\$1,617,001	\$3,752,309	\$3,667,304
Vehicle Insurance	\$1,216,887	\$2,823,830	\$2,759,860
Vehicle Maintenance	\$419,167	\$972,691	\$950,656
Vehicle Registration	\$384,570	\$892,410	\$872,193
Vehicle Purchase Fees	\$266,241	\$617,822	\$603,826
New Home Purchase	\$203,567	\$472,384	\$461,682
Second Home Property Taxes	\$2,507	\$5,818	\$5,686
Total Annual	\$32,884,030	\$76,308,578	\$74,579,894

Table 4.19 Total MB Shore Mode Fishing Trip-related Expenditures by Residential Status Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$5,864,555	\$268,229	\$6,132,784
Auto Rental	\$0	\$16,860	\$16,860
Bait	\$4,057,375	\$83,225	\$4,140,600
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$6,284,471	\$134,571	\$6,419,042
Food from Restaurants	\$2,128,661	\$163,079	\$2,291,739
Gifts & Souvenirs	\$350,675	\$91,349	\$442,024
Ice	\$526,013	\$22,377	\$548,390
Lodging	\$1,184,298	\$138,862	\$1,323,160
Parking & Site Access	\$790,558	\$6,284	\$796,842
Public Transportation	\$0	\$8,123	\$8,123
Tournament Fees	\$27,685	\$920	\$28,605
Trip Total	\$21,214,291	\$933,878	\$22,321,723

Table 4.20 Total MB Private-Rental Boat Fishing Trip-related Expenditures by Residential Status Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$2,919,747	\$984,260	\$3,904,007
Auto Rental	\$4,198	\$262,044	\$266,242
Bait	\$1,767,390	\$197,623	\$1,965,013
Boat Fuel	\$3,487,476	\$369,121	\$3,856,597
Boat Rental	\$93,407	\$46,185	\$139,592
Charter Fees	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$2,202,940	\$417,051	\$2,619,991
Food from Restaurants	\$856,407	\$431,520	\$1,287,928
Gifts & Souvenirs	\$23,089	\$88,603	\$111,693
Ice	\$387,273	\$57,285	\$444,557
Lodging	\$185,765	\$394,454	\$580,219
Parking & Site Access	\$645,454	\$67,394	\$712,848
Public Transportation	\$0	\$399,013	\$399,013
Tournament Fees	\$39,882	\$4,955	\$44,837
Trip Total	\$12,613,029	\$3,719,508	\$16,607,815

Table 4.21 Total MB CPFV Fishing Trip-related Expenditures by Residential Status Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$443,424.84	\$939,287	\$1,382,712
Auto Rental	\$10,705	\$549,445	\$560,150
Bait	\$82,074	\$41,443	\$123,517
Charter Fees	\$1,899,427	\$2,676,715	\$4,576,142
Crew Tips	\$296,520	\$264,034	\$560,554
Fish Processing	\$1,869	\$2,063	\$3,932
Food from Grocery Stores	\$307,565	\$506,689	\$814,255
Food from Restaurants	\$291,082	\$542,882	\$833,964
Gifts & Souvenirs	\$33,985	\$587,325	\$621,310
Ice	\$38,913	\$39,943	\$78,856
Lodging	\$80,545	\$652,020	\$732,565
Parking & Site Access	\$69,839	\$178,335	\$248,175
Public Transportation	\$0	\$336,418	\$336,418
Tournament Fees	\$79,525	\$38,067	\$117,592
Trip Total	\$3,635,475	\$7,354,665	\$11,029,750

Table 4.22 Total Resident MB Durable Good Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average
Durable Tackle	\$8,949,750
Rods & Reels	\$12,000,250
Spearfishing Gear	\$0
Binoculars	\$361,465
Camping Equipment	\$1,056,373
Clothing	\$3,015,007
Club Dues	\$575,354
License Fees	\$3,149,505
Magazine Subscriptions	\$502,501
Taxidermy	\$124,224
New Boat Purchase	\$3,439,984
Used Boat Purchase	\$221,362
New Canoe Purchase	\$103,676
Used Canoe Purchase	\$0
New Accessory Purchase	\$1,975,446
Used Accessory Purchase	\$0
Boat Insurance	\$2,132,361
Boat Maintenance	\$4,451,525
Boat Registration	\$555,740
Boat Storage	\$7,784,097
Boat Purchase Fees	\$137,300
New Vehicle Purchase	\$3,065,444
Used Vehicle Purchase	\$3,012,205
Vehicle Insurance	\$2,266,859
Vehicle Maintenance	\$780,838
Vehicle Registration	\$716,391
Vehicle Purchase Fees	\$495,963
New Home Purchase	\$379,211
Second Home Property Taxes	\$4,670
Total Annual	\$61,257,501

The next several sections present the total expenditures in GFNMS. The total expenditures are calculated by multiplying person-day expenditures by total number of person-days in each sanctuary by each mode. There is one expenditure goods profile for each sanctuary. Durable goods are calculated for all modes and not for each mode individually (Tables 4.23 to 4.26 in nominal dollars and Tables 4.27 to 4.34 in 2014 dollars for all years).

Greater Farallones (GF) Expenditure Tables

Table 4.23 Total GF Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$353,985	\$91,067	\$445,052	\$379,462	\$73,542	\$453,004	\$711,959	\$223,460	\$935,419
Auto Rental	\$0	\$6,612	\$6,612	\$0	\$4,356	\$4,356	\$0	\$13,087	\$13,087
Bait	\$282,907	\$32,641	\$315,548	\$247,410	\$21,504	\$268,914	\$458,934	\$64,600	\$523,534
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$438,195	\$52,778	\$490,973	\$383,214	\$34,771	\$417,985	\$710,843	\$104,455	\$815,297
Food from Restaurants	\$148,425	\$63,959	\$212,383	\$129,801	\$42,137	\$171,938	\$240,775	\$126,583	\$367,358
Gifts & Souvenirs	\$24,451	\$35,827	\$60,278	\$21,383	\$23,603	\$44,986	\$39,665	\$70,906	\$110,571
Ice	\$36,677	\$8,776	\$45,453	\$32,075	\$5,782	\$37,857	\$59,498	\$17,369	\$76,867
Lodging	\$82,577	\$54,461	\$137,038	\$72,216	\$35,880	\$108,096	\$133,957	\$107,786	\$241,743
Parking & Site Access	\$55,123	\$2,465	\$57,588	\$48,207	\$1,624	\$49,830	\$89,421	\$4,878	\$94,298
Public Transportation	\$0	\$3,186	\$3,186	\$0	\$2,099	\$2,099	\$0	\$6,305	\$6,305
Tournament Fees	\$1,930	\$361	\$2,291	\$1,688	\$238	\$1,926	\$3,131	\$714	\$3,845
Trip Total	\$1,424,271	\$352,132	\$1,776,403	\$1,315,457	\$245,535	\$1,560,992	\$2,448,183	\$740,142	\$3,188,325

Table 4.24 Total GF Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$422,729	\$688,824	\$1,111,553	\$503,942	\$603,663	\$1,107,606	\$672,713	\$1,072,811	\$1,745,525
Auto Rental	\$702	\$211,847	\$212,549	\$683	\$151,460	\$152,143	\$901	\$266,117	\$267,018
Bait	\$295,596	\$159,767	\$455,362	\$287,479	\$114,225	\$401,705	\$379,404	\$200,695	\$580,099
Boat Fuel	\$504,926	\$258,325	\$763,251	\$601,931	\$226,388	\$828,319	\$803,519	\$402,330	\$1,205,848
Boat Rental	\$15,622	\$37,338	\$52,960	\$15,193	\$26,695	\$41,888	\$20,052	\$46,903	\$66,954
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$368,442	\$337,160	\$705,602	\$358,325	\$241,053	\$599,378	\$472,903	\$423,533	\$896,436
Food from Restaurants	\$143,234	\$348,858	\$492,092	\$139,301	\$249,416	\$388,718	\$183,844	\$438,227	\$622,072
Gifts & Souvenirs	\$3,862	\$71,631	\$75,492	\$3,756	\$51,212	\$54,968	\$4,957	\$89,981	\$94,937
Ice	\$64,771	\$46,311	\$111,083	\$62,993	\$33,110	\$96,103	\$83,135	\$58,175	\$141,311
Lodging	\$31,069	\$318,892	\$349,961	\$30,216	\$227,992	\$258,208	\$39,878	\$400,585	\$440,463
Parking & Site Access	\$107,952	\$54,484	\$162,436	\$104,988	\$38,953	\$143,941	\$138,559	\$68,442	\$207,001
Public Transportation	\$0	\$322,578	\$322,578	\$0	\$230,627	\$230,627	\$0	\$405,214	\$405,214
Tournament Fees	\$6,670	\$4,006	\$10,676	\$6,487	\$2,864	\$9,351	\$8,561	\$5,032	\$13,594
Trip Total	\$1,965,575	\$2,860,021	\$4,825,596	\$2,115,295	\$2,197,660	\$4,312,955	\$2,808,426	\$3,878,045	\$6,686,471

Table 4.25 Total GF CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$133,534	\$429,000	\$562,535	\$175,347	\$873,121	\$1,048,468	\$186,326	\$1,430,586	\$1,616,912
Auto Rental	\$3,724	\$289,890	\$293,614	\$3,989	\$481,325	\$485,315	\$4,191	\$779,694	\$783,885
Bait	\$28,551	\$21,865	\$50,417	\$30,586	\$36,305	\$66,891	\$32,132	\$58,810	\$90,942
Charter Fees	\$660,762	\$1,412,247	\$2,073,009	\$707,849	\$2,344,859	\$3,052,708	\$743,636	\$3,798,414	\$4,542,050
Crew Tips	\$103,152	\$139,305	\$242,457	\$110,502	\$231,299	\$341,801	\$116,089	\$374,679	\$490,768
Fish Processing	\$650	\$1,088	\$1,739	\$697	\$1,807	\$2,504	\$732	\$2,927	\$3,659
Food from Grocery Stores	\$106,994	\$267,332	\$374,326	\$114,619	\$443,871	\$558,489	\$120,413	\$719,022	\$839,435
Food from Restaurants	\$101,260	\$286,427	\$387,687	\$108,476	\$475,576	\$584,052	\$113,960	\$770,380	\$884,341
Gifts & Souvenirs	\$11,823	\$309,875	\$321,698	\$12,665	\$514,509	\$527,174	\$13,305	\$833,448	\$846,753
Ice	\$13,537	\$21,074	\$34,611	\$14,501	\$34,991	\$49,492	\$15,235	\$56,681	\$71,915
Lodging	\$28,019	\$344,009	\$372,028	\$30,016	\$571,184	\$601,200	\$31,534	\$925,255	\$956,788
Parking & Site Access	\$24,295	\$94,090	\$118,386	\$26,027	\$156,225	\$182,252	\$27,343	\$253,068	\$280,410
Public Transportation	\$0	\$177,496	\$177,496	\$0	\$294,709	\$294,709	\$0	\$477,396	\$477,396
Tournament Fees	\$27,665	\$20,085	\$47,749	\$29,636	\$33,348	\$62,984	\$31,135	\$54,020	\$85,154
Trip Total	\$1,243,967	\$3,813,783	\$5,057,750	\$1,364,910	\$6,493,128	\$7,858,038	\$1,436,032	\$10,534,378	\$11,970,410

Table 4.26 Total Resident GF Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$935,763	\$878,426	\$1,332,951
Rods & Reels	\$1,254,715	\$1,177,835	\$1,787,284
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$37,794	\$35,478	\$53,836
Camping Equipment	\$110,452	\$103,684	\$157,333
Clothing	\$315,241	\$295,926	\$449,047
Club Dues	\$60,158	\$56,472	\$85,692
License Fees	\$329,304	\$309,127	\$469,079
Magazine Subscriptions	\$52,540	\$49,321	\$74,841
Taxidermy	\$12,989	\$12,193	\$18,502
New Boat Purchase	\$359,676	\$337,638	\$512,342
Used Boat Purchase	\$23,145	\$21,727	\$32,969
New Canoe Purchase	\$10,840	\$10,176	\$15,441
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$206,547	\$193,892	\$294,218
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$222,954	\$209,293	\$317,588
Boat Maintenance	\$465,440	\$436,921	\$662,998
Boat Registration	\$58,107	\$54,546	\$82,770
Boat Storage	\$813,885	\$764,016	\$1,159,342
Boat Purchase Fees	\$14,356	\$13,476	\$20,449
New Vehicle Purchase	\$320,515	\$300,876	\$456,559
Used Vehicle Purchase	\$314,948	\$295,651	\$448,630
Vehicle Insurance	\$237,017	\$222,494	\$337,620
Vehicle Maintenance	\$81,642	\$76,640	\$116,296
Vehicle Registration	\$74,904	\$70,314	\$106,697
Vehicle Purchase Fees	\$51,857	\$48,679	\$73,867
New Home Purchase	\$39,649	\$37,220	\$56,479
Second Home Property Taxes	\$488	\$458	\$696
Total Annual	\$6,404,925	\$6,012,479	\$9,123,525

Table 4.27 Total GF Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$446,038	\$114,748	\$560,786	\$378,138	\$73,285	\$451,423	\$687,204	\$215,690	\$902,895
Auto Rental	\$0	\$7,213	\$7,213	\$0	\$4,606	\$4,606	\$0	\$13,557	\$13,557
Bait	\$308,591	\$35,604	\$344,195	\$261,613	\$22,739	\$284,352	\$475,441	\$66,924	\$542,364
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$477,977	\$57,569	\$535,546	\$405,213	\$36,767	\$441,980	\$736,410	\$108,212	\$844,622
Food from Restaurants	\$161,899	\$69,765	\$231,664	\$137,253	\$44,556	\$181,809	\$249,435	\$131,136	\$380,571
Gifts & Souvenirs	\$26,671	\$39,079	\$65,750	\$22,611	\$24,958	\$47,569	\$41,092	\$73,456	\$114,548
Ice	\$40,007	\$9,573	\$49,580	\$33,917	\$6,114	\$40,030	\$61,638	\$17,994	\$79,632
Lodging	\$90,074	\$59,405	\$149,479	\$76,362	\$37,939	\$114,301	\$138,775	\$111,663	\$250,438
Parking & Site Access	\$60,127	\$2,688	\$62,816	\$50,974	\$1,717	\$52,691	\$92,637	\$5,053	\$97,690
Public Transportation	\$0	\$3,475	\$3,475	\$0	\$2,219	\$2,219	\$0	\$6,532	\$6,532
Tournament Fees	\$2,106	\$393	\$2,499	\$1,785	\$251	\$2,036	\$3,244	\$739	\$3,984
Trip Total	\$1,613,489	\$399,514	\$2,013,003	\$1,367,866	\$255,151	\$1,623,017	\$2,485,876	\$750,957	\$3,236,833

Table 4.28 Total GF Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$532,659	\$867,951	\$1,400,610	\$502,184	\$601,557	\$1,103,740	\$649,323	\$1,035,510	\$1,684,833
Auto Rental	\$766	\$231,079	\$231,845	\$722	\$160,155	\$160,877	\$934	\$275,689	\$276,622
Bait	\$322,431	\$174,271	\$496,702	\$303,983	\$120,782	\$424,765	\$393,050	\$207,913	\$600,964
Boat Fuel	\$636,231	\$325,502	\$961,733	\$599,830	\$225,598	\$825,428	\$775,580	\$388,341	\$1,163,921
Boat Rental	\$17,041	\$40,727	\$57,768	\$16,066	\$28,227	\$44,293	\$20,773	\$48,590	\$69,362
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$401,890	\$367,769	\$769,659	\$378,895	\$254,891	\$633,786	\$489,912	\$438,766	\$928,679
Food from Restaurants	\$156,237	\$380,529	\$536,766	\$147,298	\$263,735	\$411,033	\$190,457	\$453,990	\$644,446
Gifts & Souvenirs	\$4,212	\$78,133	\$82,346	\$3,971	\$54,152	\$58,124	\$5,135	\$93,217	\$98,352
Ice	\$70,651	\$50,516	\$121,167	\$66,609	\$35,011	\$101,620	\$86,126	\$60,268	\$146,393
Lodging	\$33,890	\$347,842	\$381,732	\$31,951	\$241,080	\$273,031	\$41,312	\$414,993	\$456,305
Parking & Site Access	\$117,752	\$59,430	\$177,183	\$111,015	\$41,190	\$152,205	\$143,543	\$70,903	\$214,446
Public Transportation	\$0	\$351,863	\$351,863	\$0	\$243,867	\$243,867	\$0	\$419,789	\$419,789
Tournament Fees	\$7,276	\$4,370	\$11,646	\$6,859	\$3,029	\$9,888	\$8,869	\$5,213	\$14,083
Trip Total	\$2,301,037	\$3,279,983	\$5,581,020	\$2,169,383	\$2,273,274	\$4,442,657	\$2,805,014	\$3,913,182	\$6,718,196

Table 4.29 Total GF CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$168,260	\$540,561	\$708,821	\$174,735	\$870,074	\$1,044,809	\$179,847	\$1,380,844	\$1,560,692
Auto Rental	\$4,062	\$316,207	\$320,269	\$4,219	\$508,957	\$513,175	\$4,342	\$807,738	\$812,080
Bait	\$31,143	\$23,850	\$54,994	\$32,342	\$38,389	\$70,731	\$33,288	\$60,925	\$94,213
Charter Fees	\$720,748	\$1,540,457	\$2,261,205	\$748,484	\$2,479,471	\$3,227,955	\$770,384	\$3,935,035	\$4,705,419
Crew Tips	\$112,516	\$151,952	\$264,468	\$116,846	\$244,577	\$361,423	\$120,265	\$388,155	\$508,420
Fish Processing	\$709	\$1,187	\$1,896	\$737	\$1,911	\$2,647	\$758	\$3,032	\$3,791
Food from Grocery Stores	\$116,707	\$291,601	\$408,308	\$121,198	\$469,352	\$590,550	\$124,745	\$744,883	\$869,628
Food from Restaurants	\$110,453	\$312,430	\$422,883	\$114,703	\$502,877	\$617,580	\$118,059	\$798,089	\$916,149
Gifts & Souvenirs	\$12,896	\$338,007	\$350,903	\$13,392	\$544,045	\$557,437	\$13,784	\$863,425	\$877,209
Ice	\$14,766	\$22,987	\$37,753	\$15,334	\$36,999	\$52,333	\$15,783	\$58,720	\$74,502
Lodging	\$30,563	\$375,239	\$405,803	\$31,739	\$603,974	\$635,713	\$32,668	\$958,534	\$991,202
Parking & Site Access	\$26,501	\$102,632	\$129,133	\$27,521	\$165,194	\$192,715	\$28,326	\$262,170	\$290,496
Public Transportation	\$0	\$193,609	\$193,609	\$0	\$311,627	\$311,627	\$0	\$494,567	\$494,567
Tournament Fees	\$30,176	\$21,908	\$52,084	\$31,337	\$35,262	\$66,600	\$32,254	\$55,963	\$88,217
Trip Total	\$1,379,501	\$4,232,628	\$5,612,129	\$1,432,588	\$6,812,708	\$8,245,296	\$1,474,503	\$10,812,082	\$12,286,585

Table 4.30 Total Resident GF Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010	2011	2012
Durable Tackle	\$1,020,715	\$928,854	\$1,380,895
Rods & Reels	\$1,368,623	\$1,245,451	\$1,851,570
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$41,225	\$37,515	\$55,772
Camping Equipment	\$120,479	\$109,636	\$162,992
Clothing	\$343,860	\$312,914	\$465,198
Club Dues	\$65,619	\$59,713	\$88,774
License Fees	\$359,200	\$326,873	\$485,951
Magazine Subscriptions	\$57,310	\$52,152	\$77,533
Taxidermy	\$14,168	\$12,893	\$19,167
New Boat Purchase	\$392,329	\$357,020	\$530,770
Used Boat Purchase	\$25,246	\$22,974	\$34,155
New Canoe Purchase	\$11,824	\$10,760	\$15,997
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$225,299	\$205,023	\$304,800
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$243,195	\$221,308	\$329,011
Boat Maintenance	\$507,694	\$462,003	\$686,845
Boat Registration	\$63,382	\$57,678	\$85,747
Boat Storage	\$887,773	\$807,876	\$1,201,041
Boat Purchase Fees	\$15,659	\$14,250	\$21,185
New Vehicle Purchase	\$349,612	\$318,148	\$472,980
Used Vehicle Purchase	\$343,541	\$312,623	\$464,766
Vehicle Insurance	\$258,534	\$235,267	\$349,763
Vehicle Maintenance	\$89,054	\$81,040	\$120,479
Vehicle Registration	\$81,704	\$74,351	\$110,535
Vehicle Purchase Fees	\$56,564	\$51,474	\$76,524
New Home Purchase	\$43,249	\$39,357	\$58,510
Second Home Property Taxes	\$533	\$485	\$721
Total Annual	\$6,986,390	\$6,357,637	\$9,451,680

Table 4.31 Total GF Shore Mode Fishing Trip-related Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$503,793	\$134,575	\$638,368
Auto Rental	\$0	\$8,459	\$8,459
Bait	\$348,548	\$41,755	\$390,304
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$539,867	\$67,516	\$607,383
Food from Restaurants	\$182,862	\$81,819	\$264,681
Gifts & Souvenirs	\$30,125	\$45,831	\$75,956
Ice	\$45,187	\$11,227	\$56,414
Lodging	\$101,737	\$69,669	\$171,406
Parking & Site Access	\$67,913	\$3,153	\$71,066
Public Transportation	\$0	\$4,076	\$4,076
Tournament Fees	\$2,378	\$461	\$2,840
Trip Total	\$1,822,411	\$468,541	\$2,290,951

Table 4.32 Total GF Private-Rental Boat Fishing Trip-related Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$561,388	\$835,006	\$1,396,394
Auto Rental	\$807	\$222,308	\$223,115
Bait	\$339,821	\$167,656	\$507,477
Boat Fuel	\$670,547	\$313,147	\$983,694
Boat Rental	\$17,960	\$39,181	\$57,141
Charter Fees	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$423,566	\$353,809	\$777,375
Food from Restaurants	\$164,664	\$366,084	\$530,748
Gifts & Souvenirs	\$4,439	\$75,168	\$79,607
Ice	\$74,462	\$48,598	\$123,060
Lodging	\$35,718	\$334,639	\$370,356
Parking & Site Access	\$124,103	\$57,174	\$181,278
Public Transportation	\$0	\$338,506	\$338,506
Tournament Fees	\$7,668	\$4,204	\$11,872
Trip Total	\$2,425,145	\$3,155,480	\$5,580,624

Table 4.33 Total GF CPFV Fishing Trip-related Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$174,280.87	\$930,493	\$1,104,774
Auto Rental	\$4,208	\$544,301	\$548,508
Bait	\$32,258	\$41,055	\$73,313
Charter Fees	\$746,539	\$2,651,654	\$3,398,193
Crew Tips	\$116,542	\$261,562	\$378,104
Fish Processing	\$735	\$2,043	\$2,778
Food from Grocery Stores	\$120,883	\$501,945	\$622,829
Food from Restaurants	\$114,405	\$537,799	\$652,204
Gifts & Souvenirs	\$13,357	\$581,826	\$595,183
Ice	\$15,294	\$39,569	\$54,863
Lodging	\$31,657	\$645,916	\$677,573
Parking & Site Access	\$27,449	\$176,665	\$204,115
Public Transportation	\$0	\$333,268	\$333,268
Tournament Fees	\$31,256	\$37,711	\$68,967
Trip Total	\$1,428,864	\$7,285,806	\$8,714,670

Table 4.34 Total Resident GF Durable Good Expenditures 2010-2012, (2014 \$)

Expenditure Category	Three-year Average
Durable Tackle	\$1,110,155
Rods & Reels	\$1,488,548
Spearfishing Gear	\$0
Binoculars	\$44,837
Camping Equipment	\$131,036
Clothing	\$373,991
Club Dues	\$71,369
License Fees	\$390,674
Magazine Subscriptions	\$62,332
Taxidermy	\$15,409
New Boat Purchase	\$426,706
Used Boat Purchase	\$27,458
New Canoe Purchase	\$12,860
Used Canoe Purchase	\$0
New Accessory Purchase	\$245,040
Used Accessory Purchase	\$0
Boat Insurance	\$264,505
Boat Maintenance	\$552,181
Boat Registration	\$68,936
Boat Storage	\$965,563
Boat Purchase Fees	\$17,031
New Vehicle Purchase	\$380,247
Used Vehicle Purchase	\$373,643
Vehicle Insurance	\$281,188
Vehicle Maintenance	\$96,858
Vehicle Registration	\$88,863
Vehicle Purchase Fees	\$61,521
New Home Purchase	\$47,038
Second Home Property Taxes	\$579
Total Annual	\$7,598,569

The next several sections present the total expenditures in CBNMS. The total expenditures are calculated by multiplying person-day expenditures by total number of person-days in each sanctuary by each mode. There is one expenditure goods profile for each sanctuary. Durable goods are calculated for all modes and not for each mode individually (Tables 4.35 to 4.37 in nominal dollars and Tables 4.38 to 4.43 in 2014 dollars for all years).

Cordell Banks (CB) Expenditure Tables

Table 4.35 Total CB Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$11,666	\$15,923	\$27,589	\$6,346	\$10,297	\$16,643	\$9,345	\$2,383	\$11,728
Auto Rental	\$19	\$4,897	\$4,916	\$9	\$2,583	\$2,592	\$13	\$591	\$604
Bait	\$8,157	\$3,693	\$11,851	\$3,620	\$1,948	\$5,568	\$5,271	\$446	\$5,716
Boat Fuel	\$13,934	\$5,971	\$19,906	\$7,580	\$3,862	\$11,441	\$11,162	\$894	\$12,056
Boat Rental	\$431	\$863	\$1,294	\$191	\$455	\$647	\$279	\$104	\$383
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$10,168	\$7,794	\$17,962	\$4,512	\$4,112	\$8,624	\$6,569	\$941	\$7,510
Food from Restaurants	\$3,953	\$8,064	\$12,017	\$1,754	\$4,254	\$6,008	\$2,554	\$973	\$3,527
Gifts & Souvenirs	\$107	\$1,656	\$1,762	\$47	\$874	\$921	\$69	\$200	\$269
Ice	\$1,787	\$1,071	\$2,858	\$793	\$565	\$1,358	\$1,155	\$129	\$1,284
Lodging	\$857	\$7,372	\$8,229	\$380	\$3,889	\$4,269	\$554	\$890	\$1,444
Parking & Site Access	\$2,979	\$1,259	\$4,239	\$1,322	\$664	\$1,986	\$1,925	\$152	\$2,077
Public Transportation	\$0	\$7,457	\$7,457	\$0	\$3,934	\$3,934	\$0	\$900	\$900
Tournament Fees	\$184	\$93	\$277	\$82	\$49	\$131	\$119	\$11	\$130
Trip Total	\$54,243	\$66,113	\$120,356	\$26,636	\$37,486	\$64,122	\$39,014	\$8,614	\$47,627

Table 4.36 Total CB CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$5,270	\$21,578	\$26,848	\$2,101	\$10,689	\$12,791	\$3,419	\$11,601	\$15,019
Auto Rental	\$147	\$14,581	\$14,728	\$48	\$5,893	\$5,941	\$77	\$6,322	\$6,399
Bait	\$1,127	\$1,100	\$2,227	\$367	\$444	\$811	\$590	\$477	\$1,066
Charter Fees	\$26,076	\$71,035	\$97,110	\$8,482	\$28,707	\$37,190	\$13,644	\$30,801	\$44,446
Crew Tips	\$4,071	\$7,007	\$11,078	\$1,324	\$2,832	\$4,156	\$2,130	\$3,038	\$5,168
Fish Processing	\$26	\$55	\$80	\$8	\$22	\$30	\$13	\$24	\$37
Food from Grocery Stores	\$4,222	\$13,447	\$17,669	\$1,374	\$5,434	\$6,808	\$2,209	\$5,830	\$8,040
Food from Restaurants	\$3,996	\$14,407	\$18,403	\$1,300	\$5,822	\$7,122	\$2,091	\$6,247	\$8,338
Gifts & Souvenirs	\$467	\$15,586	\$16,053	\$152	\$6,299	\$6,451	\$244	\$6,758	\$7,002
Ice	\$534	\$1,060	\$1,594	\$174	\$428	\$602	\$280	\$460	\$739
Lodging	\$1,106	\$17,303	\$18,409	\$360	\$6,993	\$7,352	\$579	\$7,503	\$8,081
Parking & Site Access	\$959	\$4,733	\$5,691	\$312	\$1,913	\$2,224	\$502	\$2,052	\$2,554
Public Transportation	\$0	\$8,928	\$8,928	\$0	\$3,608	\$3,608	\$0	\$3,871	\$3,871
Tournament Fees	\$1,092	\$1,010	\$2,102	\$355	\$408	\$763	\$571	\$438	\$1,009
Trip Total	\$49,091	\$191,830	\$240,921	\$16,356	\$79,493	\$95,849	\$26,349	\$85,422	\$111,771

Table 4.37 Total Resident CB Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$14,953	\$6,060	\$9,064
Rods & Reels	\$20,050	\$8,125	\$12,154
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$604	\$245	\$366
Camping Equipment	\$1,765	\$715	\$1,070
Clothing	\$5,037	\$2,041	\$3,054
Club Dues	\$961	\$390	\$583
License Fees	\$5,262	\$2,133	\$3,190
Magazine Subscriptions	\$840	\$340	\$509
Taxidermy	\$208	\$84	\$126
New Boat Purchase	\$5,747	\$2,329	\$3,484
Used Boat Purchase	\$370	\$150	\$224
New Canoe Purchase	\$173	\$70	\$105
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$3,301	\$1,338	\$2,001
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$3,563	\$1,444	\$2,160
Boat Maintenance	\$7,437	\$3,014	\$4,508
Boat Registration	\$929	\$376	\$563
Boat Storage	\$13,005	\$5,271	\$7,884
Boat Purchase Fees	\$229	\$93	\$139
New Vehicle Purchase	\$5,122	\$2,076	\$3,105
Used Vehicle Purchase	\$5,033	\$2,040	\$3,051
Vehicle Insurance	\$3,787	\$1,535	\$2,296
Vehicle Maintenance	\$1,305	\$529	\$791
Vehicle Registration	\$1,197	\$485	\$726
Vehicle Purchase Fees	\$829	\$336	\$502
New Home Purchase	\$634	\$257	\$384
Second Home Property Taxes	\$8	\$3	\$5
Total Annual	\$102,347	\$41,477	\$62,040

Table 4.38 Total CB Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$14,700	\$20,064	\$34,763	\$6,324	\$10,261	\$16,584	\$9,020	\$2,300	\$11,320
Auto Rental	\$21	\$5,342	\$5,363	\$9	\$2,732	\$2,741	\$13	\$612	\$625
Bait	\$8,898	\$4,028	\$12,926	\$3,828	\$2,060	\$5,888	\$5,460	\$462	\$5,922
Boat Fuel	\$17,558	\$7,524	\$25,082	\$7,553	\$3,848	\$11,401	\$10,774	\$863	\$11,637
Boat Rental	\$470	\$941	\$1,412	\$202	\$481	\$684	\$289	\$108	\$396
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$11,091	\$8,501	\$19,592	\$4,771	\$4,348	\$9,119	\$6,806	\$975	\$7,780
Food from Restaurants	\$4,312	\$8,796	\$13,108	\$1,855	\$4,499	\$6,353	\$2,646	\$1,008	\$3,654
Gifts & Souvenirs	\$116	\$1,806	\$1,922	\$50	\$924	\$974	\$71	\$207	\$278
Ice	\$1,950	\$1,168	\$3,117	\$839	\$597	\$1,436	\$1,196	\$134	\$1,330
Lodging	\$935	\$8,041	\$8,976	\$402	\$4,112	\$4,514	\$574	\$922	\$1,496
Parking & Site Access	\$3,250	\$1,374	\$4,623	\$1,398	\$703	\$2,100	\$1,994	\$157	\$2,152
Public Transportation	\$0	\$8,134	\$8,134	\$0	\$4,160	\$4,160	\$0	\$932	\$932
Tournament Fees	\$201	\$101	\$302	\$86	\$52	\$138	\$123	\$12	\$135
Trip Total	\$63,501	\$75,820	\$139,321	\$27,317	\$38,776	\$66,093	\$38,966	\$8,692	\$47,658

Table 4.39 Total CB CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$6,640	\$27,190	\$33,830	\$2,094	\$10,652	\$12,746	\$3,300	\$11,197	\$14,497
Auto Rental	\$160	\$15,905	\$16,065	\$51	\$6,231	\$6,282	\$80	\$6,550	\$6,630
Bait	\$1,229	\$1,200	\$2,429	\$388	\$470	\$858	\$611	\$494	\$1,105
Charter Fees	\$28,443	\$77,484	\$105,927	\$8,969	\$30,355	\$39,325	\$14,135	\$31,909	\$46,044
Crew Tips	\$4,440	\$7,643	\$12,083	\$1,400	\$2,994	\$4,394	\$2,207	\$3,148	\$5,354
Fish Processing	\$28	\$60	\$88	\$9	\$23	\$32	\$14	\$25	\$39
Food from Grocery Stores	\$4,606	\$14,667	\$19,273	\$1,452	\$5,746	\$7,198	\$2,289	\$6,040	\$8,329
Food from Restaurants	\$4,359	\$15,715	\$20,074	\$1,375	\$6,157	\$7,531	\$2,166	\$6,472	\$8,638
Gifts & Souvenirs	\$509	\$17,001	\$17,510	\$160	\$6,661	\$6,821	\$253	\$7,001	\$7,254
Ice	\$583	\$1,156	\$1,739	\$184	\$453	\$637	\$290	\$476	\$766
Lodging	\$1,206	\$18,874	\$20,080	\$380	\$7,394	\$7,775	\$599	\$7,773	\$8,372
Parking & Site Access	\$1,046	\$5,162	\$6,208	\$330	\$2,022	\$2,352	\$520	\$2,126	\$2,646
Public Transportation	\$0	\$9,738	\$9,738	\$0	\$3,815	\$3,815	\$0	\$4,010	\$4,010
Tournament Fees	\$1,191	\$1,102	\$2,293	\$376	\$432	\$807	\$592	\$454	\$1,046
Trip Total	\$54,439	\$212,898	\$267,337	\$17,167	\$83,406	\$100,573	\$27,055	\$87,674	\$114,729

Table 4.40 Total Resident CB Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010	2011	2012
Durable Tackle	\$16,310	\$6,408	\$9,390
Rods & Reels	\$21,870	\$8,592	\$12,591
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$659	\$259	\$379
Camping Equipment	\$1,925	\$756	\$1,108
Clothing	\$5,495	\$2,159	\$3,163
Club Dues	\$1,049	\$412	\$604
License Fees	\$5,740	\$2,255	\$3,304
Magazine Subscriptions	\$916	\$360	\$527
Taxidermy	\$226	\$89	\$130
New Boat Purchase	\$6,269	\$2,463	\$3,609
Used Boat Purchase	\$403	\$158	\$232
New Canoe Purchase	\$189	\$74	\$109
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$3,600	\$1,414	\$2,073
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$3,886	\$1,527	\$2,237
Boat Maintenance	\$8,113	\$3,187	\$4,671
Boat Registration	\$1,013	\$398	\$583
Boat Storage	\$14,186	\$5,573	\$8,167
Boat Purchase Fees	\$250	\$98	\$144
New Vehicle Purchase	\$5,587	\$2,195	\$3,216
Used Vehicle Purchase	\$5,490	\$2,157	\$3,160
Vehicle Insurance	\$4,131	\$1,623	\$2,378
Vehicle Maintenance	\$1,423	\$559	\$819
Vehicle Registration	\$1,306	\$513	\$752
Vehicle Purchase Fees	\$904	\$355	\$520
New Home Purchase	\$691	\$272	\$398
Second Home Property Taxes	\$9	\$3	\$5
Total Annual	\$111,638	\$43,858	\$64,272

Table 4.41 Total CB Private-Rental Boat Fishing Trip-related Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$10,014	\$10,875	\$20,889
Auto Rental	\$14	\$2,895	\$2,910
Bait	\$6,062	\$2,183	\$8,245
Boat Fuel	\$11,962	\$4,078	\$16,040
Boat Rental	\$320	\$510	\$831
Charter Fees	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$7,556	\$4,608	\$12,164
Food from Restaurants	\$2,937	\$4,768	\$7,705
Gifts & Souvenirs	\$79	\$979	\$1,058
Ice	\$1,328	\$633	\$1,961
Lodging	\$637	\$4,358	\$4,995
Parking & Site Access	\$2,214	\$745	\$2,958
Public Transportation	\$0	\$4,409	\$4,409
Tournament Fees	\$137	\$55	\$192
Trip Total	\$43,261	\$41,096	\$84,357

Table 4.42 Total CB CPFV Fishing Trip-related Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$4,011	\$16,346	\$20,358
Auto Rental	\$97	\$9,562	\$9,659
Bait	\$742	\$721	\$1,464
Charter Fees	\$17,182	\$46,583	\$63,765
Crew Tips	\$2,682	\$4,595	\$7,277
Fish Processing	\$17	\$36	\$53
Food from Grocery Stores	\$2,782	\$8,818	\$11,600
Food from Restaurants	\$2,633	\$9,448	\$12,081
Gifts & Souvenirs	\$307	\$10,221	\$10,529
Ice	\$352	\$695	\$1,047
Lodging	\$729	\$11,347	\$12,076
Parking & Site Access	\$632	\$3,104	\$3,735
Public Transportation	\$0	\$5,855	\$5,855
Tournament Fees	\$719	\$662	\$1,382
Trip Total	\$32,887	\$127,993	\$160,880

Table 4.43 Total Resident CB Durable Good Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average
Durable Tackle	\$10,703
Rods & Reels	\$14,351
Spearfishing Gear	\$0
Binoculars	\$432
Camping Equipment	\$1,263
Clothing	\$3,606
Club Dues	\$688
License Fees	\$3,766
Magazine Subscriptions	\$601
Taxidermy	\$149
New Boat Purchase	\$4,114
Used Boat Purchase	\$265
New Canoe Purchase	\$124
Used Canoe Purchase	\$0
New Accessory Purchase	\$2,362
Used Accessory Purchase	\$0
Boat Insurance	\$2,550
Boat Maintenance	\$5,323
Boat Registration	\$665
Boat Storage	\$9,309
Boat Purchase Fees	\$164
New Vehicle Purchase	\$3,666
Used Vehicle Purchase	\$3,602
Vehicle Insurance	\$2,711
Vehicle Maintenance	\$934
Vehicle Registration	\$857
Vehicle Purchase Fees	\$593
New Home Purchase	\$453
Second Home Property Taxes	\$6
Total Annual	\$73,256

The next several sections present the total expenditures in CINMS. The total expenditures are calculated by multiplying person-day expenditures by total number of person-days in each sanctuary by each mode. There is one expenditure goods profile for each sanctuary. Durable goods are calculated for all modes and not for each mode individually (Tables 4.44 to 4.46 in nominal dollars and Tables 4.47 to 4.52 in 2014 dollars for all years).

Channel Islands (CI) Expenditure Tables

Table 4.44 Total CI Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$229,707	\$30,368	\$260,075	\$553,933	\$58,393	\$612,326	\$528,210	\$146,944	\$675,155
Auto Rental	\$382	\$9,340	\$9,721	\$751	\$14,651	\$15,401	\$708	\$36,450	\$37,158
Bait	\$160,624	\$7,044	\$167,668	\$315,997	\$11,049	\$327,046	\$297,906	\$27,489	\$325,395
Boat Fuel	\$274,373	\$11,389	\$285,761	\$661,642	\$21,899	\$683,541	\$630,918	\$55,108	\$686,026
Boat Rental	\$8,489	\$1,646	\$10,135	\$16,701	\$2,582	\$19,283	\$15,744	\$6,424	\$22,169
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$200,208	\$14,864	\$215,072	\$393,870	\$23,317	\$417,187	\$371,321	\$58,012	\$429,332
Food from Restaurants	\$77,832	\$15,380	\$93,212	\$153,120	\$24,126	\$177,246	\$144,353	\$60,025	\$204,378
Gifts & Souvenirs	\$2,098	\$3,158	\$5,256	\$4,128	\$4,954	\$9,082	\$3,892	\$12,325	\$16,217
Ice	\$35,196	\$2,042	\$37,238	\$69,242	\$3,203	\$72,444	\$65,277	\$7,968	\$73,246
Lodging	\$16,883	\$14,059	\$30,942	\$33,213	\$22,054	\$55,267	\$31,312	\$54,869	\$86,180
Parking & Site Access	\$58,660	\$2,402	\$61,062	\$115,403	\$3,768	\$119,171	\$108,796	\$9,375	\$118,170
Public Transportation	\$0	\$14,221	\$14,221	\$0	\$22,309	\$22,309	\$0	\$55,503	\$55,503
Tournament Fees	\$3,625	\$177	\$3,801	\$7,131	\$277	\$7,408	\$6,722	\$689	\$7,412
Trip Total	\$1,068,077	\$126,089	\$1,194,166	\$2,325,129	\$212,581	\$2,537,710	\$2,205,159	\$531,180	\$2,736,340

Table 4.45 Total CI CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$503,576.68	\$287,431	\$791,008	\$856,526	\$477,996	\$1,334,521	\$1,102,955	\$798,608	\$1,901,563
Auto Rental	\$14,044	\$194,227	\$208,271	\$19,488	\$263,505	\$282,992	\$24,810	\$435,255	\$460,065
Bait	\$107,671	\$14,650	\$122,321	\$149,405	\$19,875	\$169,280	\$190,208	\$32,830	\$223,037
Charter Fees	\$2,491,824	\$946,208	\$3,438,032	\$3,457,654	\$1,283,708	\$4,741,362	\$4,401,949	\$2,120,421	\$6,522,370
Crew Tips	\$388,999	\$93,335	\$482,334	\$539,775	\$126,626	\$666,401	\$687,189	\$209,160	\$896,349
Fish Processing	\$2,452	\$729	\$3,181	\$3,403	\$989	\$4,392	\$4,332	\$1,634	\$5,966
Food from Grocery Stores	\$403,489	\$179,113	\$582,602	\$559,881	\$243,000	\$802,881	\$712,786	\$401,386	\$1,114,172
Food from Restaurants	\$381,866	\$191,906	\$573,772	\$529,877	\$260,357	\$790,234	\$674,587	\$430,056	\$1,104,643
Gifts & Souvenirs	\$44,584	\$207,617	\$252,201	\$61,865	\$281,671	\$343,536	\$78,761	\$465,263	\$544,024
Ice	\$51,049	\$14,120	\$65,169	\$70,836	\$19,156	\$89,992	\$90,181	\$31,641	\$121,823
Lodging	\$105,665	\$230,487	\$336,152	\$146,621	\$312,698	\$459,319	\$186,663	\$516,513	\$703,176
Parking & Site Access	\$91,621	\$63,041	\$154,662	\$127,133	\$85,527	\$212,660	\$161,854	\$141,272	\$303,126
Public Transportation	\$0	\$118,922	\$118,922	\$0	\$161,340	\$161,340	\$0	\$266,501	\$266,501
Tournament Fees	\$104,328	\$13,457	\$117,784	\$144,765	\$18,256	\$163,021	\$184,301	\$30,156	\$214,456
Trip Total	\$4,691,170	\$2,555,241	\$7,246,411	\$6,667,227	\$3,554,704	\$10,221,932	\$8,500,576	\$5,880,697	\$14,381,272

Table 4.46 Total Resident CI Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$663,187	\$1,035,442	\$1,189,069
Rods & Reels	\$889,232	\$1,388,370	\$1,594,360
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$26,785	\$41,820	\$48,024
Camping Equipment	\$78,278	\$122,217	\$140,350
Clothing	\$223,415	\$348,821	\$400,575
Club Dues	\$42,634	\$66,566	\$76,442
License Fees	\$233,382	\$364,382	\$418,445
Magazine Subscriptions	\$37,236	\$58,137	\$66,763
Taxidermy	\$9,205	\$14,372	\$16,505
New Boat Purchase	\$254,907	\$397,989	\$457,038
Used Boat Purchase	\$16,403	\$25,610	\$29,410
New Canoe Purchase	\$7,683	\$11,995	\$13,774
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$146,383	\$228,549	\$262,459
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$158,010	\$246,704	\$283,307
Boat Maintenance	\$329,863	\$515,020	\$591,432
Boat Registration	\$41,181	\$64,296	\$73,836
Boat Storage	\$576,811	\$900,582	\$1,034,199
Boat Purchase Fees	\$10,174	\$15,885	\$18,242
New Vehicle Purchase	\$227,153	\$354,657	\$407,276
Used Vehicle Purchase	\$223,208	\$348,497	\$400,203
Vehicle Insurance	\$167,977	\$262,264	\$301,176
Vehicle Maintenance	\$57,861	\$90,339	\$103,743
Vehicle Registration	\$53,085	\$82,883	\$95,180
Vehicle Purchase Fees	\$36,751	\$57,380	\$65,894
New Home Purchase	\$28,100	\$43,873	\$50,382
Second Home Property Taxes	\$346	\$540	\$620
Total Annual	\$4,539,252	\$7,087,192	\$8,138,704

Table 4.47 Total CI Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$289,442	\$38,265	\$327,707	\$552,000	\$58,189	\$610,189	\$509,845	\$141,835	\$651,679
Auto Rental	\$416	\$10,188	\$10,604	\$794	\$15,492	\$16,286	\$733	\$37,761	\$38,494
Bait	\$175,206	\$7,683	\$182,889	\$334,137	\$11,683	\$345,821	\$308,621	\$28,478	\$337,099
Boat Fuel	\$345,723	\$14,350	\$360,073	\$659,333	\$21,822	\$681,155	\$608,981	\$53,191	\$662,172
Boat Rental	\$9,260	\$1,796	\$11,055	\$17,659	\$2,730	\$20,390	\$16,311	\$6,655	\$22,966
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$218,384	\$16,214	\$234,598	\$416,481	\$24,656	\$441,137	\$384,676	\$60,098	\$444,775
Food from Restaurants	\$84,898	\$16,776	\$101,674	\$161,910	\$25,511	\$187,421	\$149,545	\$62,183	\$211,729
Gifts & Souvenirs	\$2,289	\$3,445	\$5,734	\$4,365	\$5,238	\$9,603	\$4,032	\$12,768	\$16,800
Ice	\$38,391	\$2,227	\$40,619	\$73,217	\$3,387	\$76,603	\$67,625	\$8,255	\$75,880
Lodging	\$18,415	\$15,335	\$33,751	\$35,120	\$23,320	\$58,440	\$32,438	\$56,842	\$89,280
Parking & Site Access	\$63,986	\$2,620	\$66,606	\$122,028	\$3,984	\$126,012	\$112,709	\$9,712	\$122,421
Public Transportation	\$0	\$15,512	\$15,512	\$0	\$23,589	\$23,589	\$0	\$57,499	\$57,499
Tournament Fees	\$3,954	\$193	\$4,146	\$7,540	\$293	\$7,833	\$6,964	\$714	\$7,678
Trip Total	\$1,250,364	\$144,604	\$1,394,968	\$2,384,583	\$219,895	\$2,604,478	\$2,202,480	\$535,993	\$2,738,473

Table 4.48 Total CI CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$634,531	\$362,177	\$996,708	\$853,536	\$476,327	\$1,329,864	\$1,064,605	\$770,840	\$1,835,446
Auto Rental	\$15,319	\$211,859	\$227,178	\$20,606	\$278,632	\$299,238	\$25,702	\$450,911	\$476,613
Bait	\$117,446	\$15,980	\$133,426	\$157,982	\$21,016	\$178,998	\$197,049	\$34,011	\$231,060
Charter Fees	\$2,718,042	\$1,032,109	\$3,750,150	\$3,656,147	\$1,357,402	\$5,013,549	\$4,560,278	\$2,196,689	\$6,756,966
Crew Tips	\$424,314	\$101,808	\$526,122	\$570,762	\$133,895	\$704,657	\$711,906	\$216,683	\$928,589
Fish Processing	\$2,675	\$795	\$3,470	\$3,598	\$1,046	\$4,644	\$4,488	\$1,693	\$6,180
Food from Grocery Stores	\$440,119	\$195,373	\$635,493	\$592,022	\$256,950	\$848,972	\$738,424	\$415,823	\$1,154,247
Food from Restaurants	\$416,533	\$209,328	\$625,861	\$560,295	\$275,303	\$835,598	\$698,851	\$445,524	\$1,144,375
Gifts & Souvenirs	\$48,632	\$226,465	\$275,097	\$65,417	\$297,841	\$363,258	\$81,594	\$481,997	\$563,591
Ice	\$55,684	\$15,401	\$71,085	\$74,902	\$20,255	\$95,158	\$93,425	\$32,780	\$126,204
Lodging	\$115,258	\$251,411	\$366,669	\$155,038	\$330,649	\$485,687	\$193,377	\$535,091	\$728,468
Parking & Site Access	\$99,939	\$68,764	\$168,703	\$134,432	\$90,436	\$224,868	\$167,675	\$146,354	\$314,029
Public Transportation	\$0	\$129,719	\$129,719	\$0	\$170,602	\$170,602	\$0	\$276,087	\$276,087
Tournament Fees	\$113,799	\$14,678	\$128,477	\$153,075	\$19,305	\$172,380	\$190,930	\$31,241	\$222,170
Trip Total	\$5,202,290	\$2,835,868	\$8,038,158	\$6,997,813	\$3,729,661	\$10,727,474	\$8,728,304	\$6,035,722	\$14,764,025

Table 4.49 Total Resident CI Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010	2011	2012
Durable Tackle	\$723,394	\$1,094,884	\$1,231,837
Rods & Reels	\$969,960	\$1,468,072	\$1,651,706
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$29,217	\$44,220	\$49,752
Camping Equipment	\$85,385	\$129,233	\$145,398
Clothing	\$243,698	\$368,846	\$414,983
Club Dues	\$46,505	\$70,387	\$79,191
License Fees	\$254,569	\$385,300	\$433,496
Magazine Subscriptions	\$40,616	\$61,474	\$69,164
Taxidermy	\$10,041	\$15,197	\$17,098
New Boat Purchase	\$278,048	\$420,837	\$473,477
Used Boat Purchase	\$17,892	\$27,081	\$30,468
New Canoe Purchase	\$8,380	\$12,683	\$14,270
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$159,672	\$241,670	\$271,899
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$172,355	\$260,866	\$293,497
Boat Maintenance	\$359,809	\$544,585	\$612,705
Boat Registration	\$44,920	\$67,987	\$76,492
Boat Storage	\$629,176	\$952,281	\$1,071,397
Boat Purchase Fees	\$11,098	\$16,797	\$18,898
New Vehicle Purchase	\$247,775	\$375,017	\$421,925
Used Vehicle Purchase	\$243,472	\$368,503	\$414,598
Vehicle Insurance	\$183,227	\$277,320	\$312,009
Vehicle Maintenance	\$63,114	\$95,525	\$107,474
Vehicle Registration	\$57,905	\$87,641	\$98,604
Vehicle Purchase Fees	\$40,088	\$60,675	\$68,264
New Home Purchase	\$30,651	\$46,391	\$52,194
Second Home Property Taxes	\$377	\$571	\$643
Total Annual	\$4,951,343	\$7,494,046	\$8,431,437

Table 4.50 Total CI Private-Rental Boat Fishing Trip-related Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$450,429	\$79,430	\$529,858
Auto Rental	\$648	\$21,147	\$21,795
Bait	\$272,655	\$15,948	\$288,603
Boat Fuel	\$538,012	\$29,788	\$567,800
Boat Rental	\$14,410	\$3,727	\$18,137
Charter Fees	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$339,847	\$33,656	\$373,503
Food from Restaurants	\$132,118	\$34,824	\$166,941
Gifts & Souvenirs	\$3,562	\$7,150	\$10,712
Ice	\$59,744	\$4,623	\$64,367
Lodging	\$28,658	\$31,832	\$60,490
Parking & Site Access	\$99,574	\$5,439	\$105,013
Public Transportation	\$0	\$32,200	\$32,200
Tournament Fees	\$6,153	\$400	\$6,552
Trip Total	\$1,945,809	\$300,164	\$2,245,973

Table 4.51 Total CI CPFV Fishing Trip-related Expenditures, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$850,890.79	\$536,448	\$1,387,339
Auto Rental	\$20,542	\$313,800	\$334,343
Bait	\$157,492	\$23,669	\$181,161
Charter Fees	\$3,644,822	\$1,528,733	\$5,173,555
Crew Tips	\$568,994	\$150,796	\$719,790
Fish Processing	\$3,587	\$1,178	\$4,765
Food from Grocery Stores	\$590,189	\$289,382	\$879,570
Food from Restaurants	\$558,560	\$310,052	\$868,612
Gifts & Souvenirs	\$65,214	\$335,434	\$400,649
Ice	\$74,670	\$22,812	\$97,482
Lodging	\$154,558	\$372,384	\$526,941
Parking & Site Access	\$134,015	\$101,851	\$235,866
Public Transportation	\$0	\$192,136	\$192,136
Tournament Fees	\$152,601	\$21,741	\$174,342
Trip Total	\$6,976,136	\$4,200,417	\$11,176,552

Table 4.52 Total Resident CI Durable Good Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average
Durable Tackle	\$1,016,705
Rods & Reels	\$1,363,246
Spearfishing Gear	\$0
Binoculars	\$41,063
Camping Equipment	\$120,006
Clothing	\$342,509
Club Dues	\$65,361
License Fees	\$357,788
Magazine Subscriptions	\$57,085
Taxidermy	\$14,112
New Boat Purchase	\$390,787
Used Boat Purchase	\$25,147
New Canoe Purchase	\$11,778
Used Canoe Purchase	\$0
New Accessory Purchase	\$224,414
Used Accessory Purchase	\$0
Boat Insurance	\$242,239
Boat Maintenance	\$505,700
Boat Registration	\$63,133
Boat Storage	\$884,285
Boat Purchase Fees	\$15,598
New Vehicle Purchase	\$348,239
Used Vehicle Purchase	\$342,191
Vehicle Insurance	\$257,519
Vehicle Maintenance	\$88,704
Vehicle Registration	\$81,383
Vehicle Purchase Fees	\$56,342
New Home Purchase	\$43,079
Second Home Property Taxes	\$531
Total Annual	\$6,958,942

The next several sections present the total expenditures for all sites. The total expenditures are calculated by adding up values across all four sites (MBNMS, GFNMS, CBNMS and CINMS) by mode for trip-related expenditures. Durable goods are calculated for all modes and not for each mode individually (Tables 4.53 to 4.56 in nominal dollars and Tables 4.57 to 4.64 in 2014 dollars for all years).

Total for All California Sanctuaries Expenditure Tables

Table 4.53 Total for All California Sanctuaries Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$2,620,373	\$258,553	\$2,878,926	\$8,338,515	\$370,370	\$8,708,885	\$7,763,782	\$532,044	\$8,295,826
Auto Rental	\$0	\$18,773	\$18,773	\$0	\$21,939	\$21,939	\$0	\$31,158	\$31,158
Bait	\$2,094,222	\$92,672	\$2,186,894	\$5,436,728	\$108,299	\$5,545,027	\$5,004,587	\$153,809	\$5,158,396
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$3,243,742	\$149,845	\$3,393,587	\$8,420,952	\$175,113	\$8,596,065	\$7,751,609	\$248,700	\$8,000,309
Food from Restaurants	\$1,098,712	\$181,589	\$1,280,301	\$2,852,324	\$212,210	\$3,064,534	\$2,625,606	\$301,386	\$2,926,992
Gifts & Souvenirs	\$181,002	\$101,717	\$282,719	\$469,892	\$118,870	\$588,761	\$432,542	\$168,821	\$601,364
Ice	\$271,503	\$24,917	\$296,420	\$704,837	\$29,119	\$733,956	\$648,813	\$41,356	\$690,169
Lodging	\$611,278	\$154,624	\$765,901	\$1,586,915	\$180,698	\$1,767,612	\$1,460,778	\$256,631	\$1,717,409
Parking & Site Access	\$408,048	\$6,997	\$415,045	\$1,059,317	\$8,177	\$1,067,494	\$975,117	\$11,614	\$986,730
Public Transportation	\$0	\$9,045	\$9,045	\$0	\$10,571	\$10,571	\$0	\$15,013	\$15,013
Tournament Fees	\$14,290	\$1,024	\$15,314	\$37,097	\$1,197	\$38,293	\$34,148	\$1,700	\$35,848
Trip Total	\$10,543,169	\$999,756	\$11,542,926	\$28,906,576	\$1,236,562	\$30,143,138	\$26,696,982	\$1,762,231	\$28,459,213

Table 4.54 Total for All California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$2,147,650	\$1,086,658	\$3,234,309	\$3,918,709	\$1,445,809	\$5,364,518	\$5,401,368	\$3,023,845	\$8,425,213
Auto Rental	\$3,567	\$334,200	\$337,767	\$5,310	\$362,756	\$368,066	\$7,236	\$750,082	\$757,318
Bait	\$1,501,758	\$252,041	\$1,753,799	\$2,235,469	\$273,576	\$2,509,045	\$3,046,320	\$565,682	\$3,612,002
Boat Fuel	\$2,565,249	\$407,523	\$2,972,772	\$4,680,680	\$542,213	\$5,222,893	\$6,451,633	\$1,134,014	\$7,585,647
Boat Rental	\$79,368	\$58,902	\$138,271	\$118,145	\$63,935	\$182,080	\$160,999	\$132,201	\$293,200
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$1,871,847	\$531,889	\$2,403,736	\$2,786,372	\$577,336	\$3,363,708	\$3,797,046	\$1,193,777	\$4,990,822
Food from Restaurants	\$727,693	\$550,343	\$1,278,036	\$1,083,220	\$597,367	\$1,680,587	\$1,476,126	\$1,235,196	\$2,711,322
Gifts & Souvenirs	\$19,619	\$113,001	\$132,620	\$29,204	\$122,656	\$151,861	\$39,798	\$253,621	\$293,418
Ice	\$329,067	\$73,059	\$402,126	\$489,839	\$79,301	\$569,140	\$667,513	\$163,974	\$831,487
Lodging	\$157,845	\$503,070	\$660,915	\$234,963	\$546,054	\$781,018	\$320,189	\$1,129,095	\$1,449,284
Parking & Site Access	\$548,445	\$85,952	\$634,397	\$816,398	\$93,296	\$909,693	\$1,112,522	\$192,911	\$1,305,432
Public Transportation	\$0	\$508,884	\$508,884	\$0	\$552,365	\$552,365	\$0	\$1,142,145	\$1,142,145
Tournament Fees	\$33,888	\$6,320	\$40,208	\$50,444	\$6,860	\$57,304	\$68,741	\$14,185	\$82,926
Trip Total	\$9,985,996	\$4,511,842	\$14,497,838	\$16,448,754	\$5,263,524	\$21,712,278	\$22,549,490	\$10,930,726	\$33,480,216

Table 4.55 Total for All California Sanctuaries CPFV Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars			2011 Dollars			2012 Dollars		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$924,145	\$1,347,841	\$2,271,986	\$1,474,831	\$2,329,074	\$3,803,905	\$1,847,924	\$3,365,450	\$5,213,375
Auto Rental	\$25,773	\$910,780	\$936,554	\$33,555	\$1,283,949	\$1,317,504	\$41,567	\$1,834,229	\$1,875,796
Bait	\$197,595	\$68,697	\$266,292	\$257,257	\$96,844	\$354,100	\$318,680	\$138,350	\$457,029
Charter Fees	\$4,572,903	\$4,437,023	\$9,009,927	\$5,953,651	\$6,254,978	\$12,208,629	\$7,375,159	\$8,935,762	\$16,310,921
Crew Tips	\$713,877	\$437,672	\$1,151,549	\$929,426	\$616,997	\$1,546,422	\$1,151,338	\$881,432	\$2,032,769
Fish Processing	\$4,500	\$3,419	\$7,919	\$5,859	\$4,820	\$10,679	\$7,258	\$6,886	\$14,144
Food from Grocery Stores	\$740,468	\$839,907	\$1,580,376	\$964,046	\$1,184,037	\$2,148,084	\$1,194,224	\$1,691,497	\$2,885,721
Food from Restaurants	\$700,786	\$899,901	\$1,600,686	\$912,382	\$1,268,611	\$2,180,993	\$1,130,224	\$1,812,318	\$2,942,543
Gifts & Souvenirs	\$81,820	\$973,571	\$1,055,391	\$106,524	\$1,372,467	\$1,478,991	\$131,958	\$1,960,684	\$2,092,643
Ice	\$93,684	\$66,210	\$159,894	\$121,970	\$93,338	\$215,309	\$151,092	\$133,342	\$284,434
Lodging	\$193,913	\$1,080,813	\$1,274,726	\$252,463	\$1,523,648	\$1,776,111	\$312,742	\$2,176,660	\$2,489,402
Parking & Site Access	\$168,139	\$295,615	\$463,755	\$218,908	\$416,736	\$635,643	\$271,175	\$595,342	\$866,517
Public Transportation	\$0	\$557,659	\$557,659	\$0	\$786,145	\$786,145	\$0	\$1,123,074	\$1,123,074
Tournament Fees	\$191,458	\$63,102	\$254,560	\$249,267	\$88,956	\$338,223	\$308,783	\$127,081	\$435,864
Trip Total	\$8,609,061	\$11,982,212	\$20,591,273	\$11,480,140	\$17,320,600	\$28,800,740	\$14,242,124	\$24,782,108	\$39,024,232

Table 4.56 Total Resident for All California Sanctuaries Durable Good Expenditure 2010, 2011 and 2012 (Nominal \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$6,018,416	\$12,463,380	\$13,048,936
Rods & Reels	\$8,069,777	\$16,711,491	\$17,496,633
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$243,073	\$503,374	\$527,023
Camping Equipment	\$710,377	\$1,471,100	\$1,540,216
Clothing	\$2,027,494	\$4,198,684	\$4,395,947
Club Dues	\$386,907	\$801,236	\$838,880
License Fees	\$2,117,940	\$4,385,986	\$4,592,049
Magazine Subscriptions	\$337,916	\$699,781	\$732,658
Taxidermy	\$83,537	\$172,994	\$181,122
New Boat Purchase	\$2,313,278	\$4,790,506	\$5,015,574
Used Boat Purchase	\$148,859	\$308,268	\$322,751
New Canoe Purchase	\$69,719	\$144,379	\$151,162
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$1,328,423	\$2,750,997	\$2,880,244
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$1,433,943	\$2,969,515	\$3,109,030
Boat Maintenance	\$2,993,505	\$6,199,172	\$6,490,423
Boat Registration	\$373,717	\$773,921	\$810,281
Boat Storage	\$5,234,552	\$10,840,097	\$11,349,388
Boat Purchase Fees	\$92,330	\$191,204	\$200,187
New Vehicle Purchase	\$2,061,411	\$4,268,922	\$4,469,485
Used Vehicle Purchase	\$2,025,610	\$4,194,782	\$4,391,862
Vehicle Insurance	\$1,524,389	\$3,156,817	\$3,305,131
Vehicle Maintenance	\$525,088	\$1,087,392	\$1,138,480
Vehicle Registration	\$481,750	\$997,643	\$1,044,514
Vehicle Purchase Fees	\$333,519	\$690,676	\$723,125
New Home Purchase	\$255,007	\$528,087	\$552,898
Second Home Property Taxes	\$3,140	\$6,504	\$6,809
Total Annual	\$41,193,675	\$85,306,906	\$89,314,809

Table 4.57 Total for All California Sanctuaries Shore Mode Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$3,301,796	\$325,789	\$3,627,585	\$8,309,413	\$369,078	\$8,678,491	\$7,493,836	\$513,545	\$8,007,380
Auto Rental	\$0	\$20,478	\$20,478	\$0	\$23,198	\$23,198	\$0	\$32,279	\$32,279
Bait	\$2,284,344	\$101,085	\$2,385,429	\$5,748,834	\$114,516	\$5,863,350	\$5,184,592	\$159,341	\$5,343,933
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$3,538,222	\$163,449	\$3,701,670	\$8,904,373	\$185,166	\$9,089,539	\$8,030,419	\$257,645	\$8,288,064
Food from Restaurants	\$1,198,458	\$198,074	\$1,396,532	\$3,016,068	\$224,392	\$3,240,460	\$2,720,044	\$312,226	\$3,032,270
Gifts & Souvenirs	\$197,434	\$110,951	\$308,385	\$496,867	\$125,693	\$622,560	\$448,100	\$174,894	\$622,993
Ice	\$296,151	\$27,179	\$323,330	\$745,300	\$30,791	\$776,091	\$672,150	\$42,843	\$714,993
Lodging	\$666,772	\$168,661	\$835,433	\$1,678,015	\$191,071	\$1,869,086	\$1,513,319	\$265,862	\$1,779,181
Parking & Site Access	\$445,092	\$7,633	\$452,725	\$1,120,129	\$8,647	\$1,128,776	\$1,010,190	\$12,031	\$1,022,221
Public Transportation	\$0	\$9,866	\$9,866	\$0	\$11,177	\$11,177	\$0	\$15,553	\$15,553
Tournament Fees	\$15,587	\$1,117	\$16,704	\$39,226	\$1,265	\$40,492	\$35,376	\$1,761	\$37,137
Trip Total	\$11,943,855	\$1,134,282	\$13,078,137	\$30,058,225	\$1,284,995	\$31,343,220	\$27,108,025	\$1,787,979	\$28,896,004

Table 4.58 Total for All California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure by Residential Status, 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$2,706,143	\$1,369,241	\$4,075,384	\$3,905,033	\$1,440,763	\$5,345,796	\$5,213,562	\$2,918,706	\$8,132,268
Auto Rental	\$3,891	\$364,540	\$368,431	\$5,615	\$383,580	\$389,195	\$7,496	\$777,061	\$784,557
Bait	\$1,638,094	\$274,922	\$1,913,015	\$2,363,801	\$289,281	\$2,653,082	\$3,155,890	\$586,029	\$3,741,918
Boat Fuel	\$3,232,337	\$513,498	\$3,745,835	\$4,664,345	\$540,320	\$5,204,665	\$6,227,310	\$1,094,584	\$7,321,894
Boat Rental	\$86,574	\$64,250	\$150,823	\$124,928	\$67,605	\$192,533	\$166,790	\$136,956	\$303,745
Charter Fees	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Food from Grocery Stores	\$2,041,781	\$580,176	\$2,621,957	\$2,946,329	\$610,479	\$3,556,808	\$3,933,618	\$1,236,714	\$5,170,332
Food from Restaurants	\$793,756	\$600,306	\$1,394,061	\$1,145,405	\$631,660	\$1,777,065	\$1,529,220	\$1,279,623	\$2,808,843
Gifts & Souvenirs	\$21,400	\$123,260	\$144,660	\$30,881	\$129,698	\$160,579	\$41,229	\$262,743	\$303,972
Ice	\$358,941	\$79,691	\$438,632	\$517,959	\$83,854	\$601,813	\$691,522	\$169,872	\$861,394
Lodging	\$172,175	\$548,741	\$720,916	\$248,452	\$577,402	\$825,853	\$331,706	\$1,169,706	\$1,501,412
Parking & Site Access	\$598,235	\$93,755	\$691,990	\$863,265	\$98,652	\$961,916	\$1,152,537	\$199,849	\$1,352,386
Public Transportation	\$0	\$555,083	\$555,083	\$0	\$584,075	\$584,075	\$0	\$1,183,225	\$1,183,225
Tournament Fees	\$36,964	\$6,894	\$43,858	\$53,340	\$7,254	\$60,594	\$71,214	\$14,695	\$85,908
Trip Total	\$11,690,289	\$5,174,356	\$16,864,645	\$16,869,351	\$5,444,623	\$22,313,974	\$22,522,093	\$11,029,764	\$33,551,857

Table 4.59 Total for All California Sanctuaries CPFV Fishing Trip-related Expenditures by Resident Status 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010			2011			2012		
	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers	Resident	Non-Resident	All Anglers
Auto Fuel	\$1,164,467	\$1,698,344	\$2,862,812	\$1,469,684	\$2,320,946	\$3,790,630	\$1,783,672	\$3,248,434	\$5,032,106
Auto Rental	\$28,113	\$993,465	\$1,021,578	\$35,482	\$1,357,656	\$1,393,138	\$43,062	\$1,900,202	\$1,943,264
Bait	\$215,533	\$74,934	\$290,467	\$272,025	\$102,403	\$374,428	\$330,142	\$143,326	\$473,468
Charter Fees	\$4,988,050	\$4,839,834	\$9,827,884	\$6,295,433	\$6,614,057	\$12,909,490	\$7,640,429	\$9,257,164	\$16,897,593
Crew Tips	\$778,685	\$477,406	\$1,256,091	\$982,781	\$652,416	\$1,635,198	\$1,192,749	\$913,135	\$2,105,884
Fish Processing	\$4,909	\$3,730	\$8,638	\$6,195	\$5,097	\$11,292	\$7,519	\$7,134	\$14,653
Food from Grocery Stores	\$807,691	\$916,157	\$1,723,848	\$1,019,389	\$1,252,009	\$2,271,399	\$1,237,178	\$1,752,337	\$2,989,515
Food from Restaurants	\$764,406	\$981,597	\$1,746,003	\$964,759	\$1,341,439	\$2,306,198	\$1,170,876	\$1,877,504	\$3,048,380
Gifts & Souvenirs	\$89,248	\$1,061,956	\$1,151,204	\$112,640	\$1,451,256	\$1,563,896	\$136,705	\$2,031,206	\$2,167,911
Ice	\$102,189	\$72,221	\$174,410	\$128,972	\$98,697	\$227,669	\$156,527	\$138,138	\$294,665
Lodging	\$211,517	\$1,178,934	\$1,390,451	\$266,956	\$1,611,116	\$1,878,073	\$323,990	\$2,254,950	\$2,578,940
Parking & Site Access	\$183,404	\$322,452	\$505,856	\$231,475	\$440,659	\$672,134	\$280,928	\$616,755	\$897,683
Public Transportation	\$0	\$608,285	\$608,285	\$0	\$831,275	\$831,275	\$0	\$1,163,469	\$1,163,469
Tournament Fees	\$208,839	\$68,830	\$277,670	\$263,577	\$94,063	\$357,640	\$319,889	\$131,652	\$451,541
Trip Total	\$9,547,050	\$13,298,146	\$22,845,196	\$12,049,367	\$18,173,090	\$30,222,457	\$14,623,666	\$25,435,406	\$40,059,072

Table 4.60 Total Resident for All California Sanctuaries Durable Good Expenditures 2010, 2011 and 2012 (2014 \$)

Expenditure Category	2010 Dollars	2011 Dollars	2012 Dollars
Durable Tackle	\$6,564,792	\$13,178,865	\$13,518,281
Rods & Reels	\$8,802,384	\$17,670,847	\$18,125,952
Spearfishing Gear	\$0	\$0	\$0
Binoculars	\$265,140	\$532,271	\$545,979
Camping Equipment	\$774,867	\$1,555,552	\$1,595,614
Clothing	\$2,211,558	\$4,439,718	\$4,554,061
Club Dues	\$422,032	\$847,232	\$869,052
License Fees	\$2,310,215	\$4,637,772	\$4,757,216
Magazine Subscriptions	\$368,593	\$739,953	\$759,010
Taxidermy	\$91,121	\$182,925	\$187,636
New Boat Purchase	\$2,523,286	\$5,065,515	\$5,195,974
Used Boat Purchase	\$162,373	\$325,964	\$334,359
New Canoe Purchase	\$76,048	\$152,667	\$156,599
Used Canoe Purchase	\$0	\$0	\$0
New Accessory Purchase	\$1,449,023	\$2,908,923	\$2,983,841
Used Accessory Purchase	\$0	\$0	\$0
Boat Insurance	\$1,564,122	\$3,139,986	\$3,220,855
Boat Maintenance	\$3,265,268	\$6,555,048	\$6,723,870
Boat Registration	\$407,645	\$818,349	\$839,426
Boat Storage	\$5,709,765	\$11,462,394	\$11,757,603
Boat Purchase Fees	\$100,712	\$202,180	\$207,388
New Vehicle Purchase	\$2,248,554	\$4,513,988	\$4,630,244
Used Vehicle Purchase	\$2,209,502	\$4,435,592	\$4,549,828
Vehicle Insurance	\$1,662,779	\$3,338,041	\$3,424,010
Vehicle Maintenance	\$572,758	\$1,149,815	\$1,179,428
Vehicle Registration	\$525,485	\$1,054,914	\$1,082,083
Vehicle Purchase Fees	\$363,797	\$730,325	\$749,135
New Home Purchase	\$278,158	\$558,403	\$572,785
Second Home Property Taxes	\$3,426	\$6,877	\$7,054
Total Annual	\$44,933,401.76	\$90,204,119.21	\$92,527,283.68

Table 4.61 Total for All California Sanctuaries Shore Mode Fishing Trip-related Expenditures, Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$6,368,348	\$402,804	\$6,771,152
Auto Rental	\$0	\$25,318	\$25,318
Bait	\$4,405,923	\$124,981	\$4,530,904
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$6,824,338	\$202,087	\$7,026,424
Food from Restaurants	\$2,311,523	\$244,898	\$2,556,421
Gifts & Souvenirs	\$380,800	\$137,180	\$517,980
Ice	\$571,200	\$33,604	\$604,804
Lodging	\$1,286,035	\$208,531	\$1,494,567
Parking & Site Access	\$858,470	\$9,437	\$867,907
Public Transportation	\$0	\$12,199	\$12,199
Tournament Fees	\$30,063	\$1,381	\$31,444
Trip Total	\$23,036,702	\$1,402,419	\$24,439,121

Table 4.62 Total for All California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditures, Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$3,941,579	\$1,909,570	\$5,851,149
Auto Rental	\$5,667	\$508,394	\$514,061
Bait	\$2,385,928	\$383,411	\$2,769,339
Boat Fuel	\$4,707,997	\$716,134	\$5,424,131
Boat Rental	\$126,097	\$89,603	\$215,701
Charter Fees	\$0	\$0	\$0
Fish Processing	\$0	\$0	\$0
Food from Grocery Stores	\$2,973,909	\$809,123	\$3,783,032
Food from Restaurants	\$1,156,127	\$837,196	\$1,993,323
Gifts & Souvenirs	\$31,170	\$171,900	\$203,070
Ice	\$522,807	\$111,139	\$633,946
Lodging	\$250,777	\$765,283	\$1,016,060
Parking & Site Access	\$871,345	\$130,752	\$1,002,097
Public Transportation	\$0	\$774,128	\$774,128
Tournament Fees	\$53,839	\$9,614	\$63,453
Trip Total	\$17,027,244	\$7,216,248	\$24,243,492

Table 4.63 Total for All California Sanctuaries CPFV Fishing Trip-related Expenditures, Three-year Average (2014 \$)

Expenditure Category	Three-year Average		
	Resident	Non-Resident	All Anglers
Auto Fuel	\$1,472,608	\$2,422,575	\$3,895,182
Auto Rental	\$35,552	\$1,417,108	\$1,452,660
Bait	\$272,567	\$106,888	\$379,454
Charter Fees	\$6,307,970	\$6,903,685	\$13,211,655
Crew Tips	\$984,739	\$680,986	\$1,665,724
Fish Processing	\$6,208	\$5,320	\$11,528
Food from Grocery Stores	\$1,021,419	\$1,306,835	\$2,328,254
Food from Restaurants	\$966,680	\$1,400,180	\$2,366,860
Gifts & Souvenirs	\$112,864	\$1,514,806	\$1,627,670
Ice	\$129,229	\$103,018	\$232,248
Lodging	\$267,488	\$1,681,667	\$1,949,155
Parking & Site Access	\$231,936	\$459,955	\$691,891
Public Transportation	\$0	\$867,676	\$867,676
Tournament Fees	\$264,102	\$98,182	\$362,284
Trip Total	\$12,073,361	\$18,968,881	\$31,042,242

Table 4.64 Total Resident for All California Sanctuaries Durable Good Expenditures Three-year Average (2014 \$)

Expenditure Category	Three-year Average
Durable Tackle	\$11,087,312
Rods & Reels	\$14,866,394
Spearfishing Gear	\$0
Binoculars	\$447,797
Camping Equipment	\$1,308,678
Clothing	\$3,735,112
Club Dues	\$712,772
License Fees	\$3,901,734
Magazine Subscriptions	\$622,519
Taxidermy	\$153,894
New Boat Purchase	\$4,261,592
Used Boat Purchase	\$274,232
New Canoe Purchase	\$128,438
Used Canoe Purchase	\$0
New Accessory Purchase	\$2,447,262
Used Accessory Purchase	\$0
Boat Insurance	\$2,641,655
Boat Maintenance	\$5,514,729
Boat Registration	\$688,473
Boat Storage	\$9,643,254
Boat Purchase Fees	\$170,093
New Vehicle Purchase	\$3,797,595
Used Vehicle Purchase	\$3,731,641
Vehicle Insurance	\$2,808,277
Vehicle Maintenance	\$967,334
Vehicle Registration	\$887,494
Vehicle Purchase Fees	\$614,419
New Home Purchase	\$469,782
Second Home Property Taxes	\$5,785
Total Annual	\$75,888,268

Chapter 5 IMPLAN Modelling

IMPLAN and NAICS Codes

Taking the total expenditure profiles for years 2010-2012 in 2014 dollars, developed using the methodology described in Chapter 4; total economic impacts can be estimated. The first step was to identify which North American Industry Classification System (NAICS) codes were associated with each type of expenditure (NAICS Association, 2014). Then those codes were mapped to the appropriate IMPLAN sector codes. Tables 5.1, 5.2, 5.3 and 5.4 below show the IMPLAN codes associated with each expenditure category by fishing mode of access and for durable goods.

Using the expenditures and NAICS codes, the information was uploaded to IMPLAN to develop market economic impacts for each mode of access. These economic impacts were estimated using the resident and non-resident profiles for both trip-related expenditures and durable good expenditures.

In the tables below the fuel expenditures are assigned differently in IMPLAN based upon the study area. Monterey Bay and Channel Islands' fuel expenditures are coded as a commodity activity to reflect the petroleum refining that occurs within these study areas¹³. Applying these expenditures as a commodity activity allows for the market share of the locally-produced supply of the commodity that is produced within the study area to be applied to the industries and institutions that are involved in the production process, such as transportation and wholesale (IMPLAN, 2014).

Table 5.1 Shore Mode IMPLAN Codes

NOAA Expenditure Description	Code	IMPLAN Description
Auto Fuel for GF	326	Retail Stores - Gasoline stations
Auto Fuel for MB	3115	Petroleum Refineries
Auto Rental	362	Automotive equipment rental and leasing
Bait	410	Other amusement and recreation industries
Fish Processing	61	Seafood product preparation and packaging
Food from Grocery Stores	324	Retail Stores - Food and beverage
Food from Restaurants	413	Food services and drinking places
Gifts & Souvenirs	330	Retail Stores - Miscellaneous
Ice	324	Retail Stores - Food and beverage
Lodging	411	Hotels and motels, including casino hotels
Parking & Site Access	422	Other personal services
Public Transportation	336	Transit and ground passenger transportation
Tournament Fees	410	Other amusement and recreation industries

¹³ To determine the amount of petroleum refining that occurred in each study area, we used the Regional Accounts data from the Bureau of Economic Statistics

Table 5.2 Private-Rental Boating IMPLAN Codes

NOAA Expenditure Description	Code	IMPLAN Description
Auto Fuel for GF & CB	326	Retail Stores - Gasoline stations
Auto Fuel for MB & CI	3115	Petroleum Refineries
Auto Rental	362	Automotive equipment rental and leasing
Bait	410	Other amusement and recreation industries
Boat Fuel for GF & CB	326	Retail Stores - Gasoline stations
Boat Fuel for MB & CI	3115	Petroleum Refineries
Boat Rental	363	General and consumer goods rental except video tapes and discs
Charter Fees	410	Other amusement and recreation industries
Fish Processing	61	Seafood product preparation and packaging
Food from Grocery Stores	324	Retail Stores - Food and beverage
Food from Restaurants	413	Food services and drinking places
Gifts & Souvenirs	330	Retail Stores - Miscellaneous
Ice	324	Retail Stores - Food and beverage
Lodging	411	Hotels and motels, including casino hotels
Parking & Site Access	422	Other personal services
Public Transportation	336	Transit and ground passenger transportation
Tournament Fees	410	Other amusement and recreation industries

Table 5.3 CPFV IMPLAN Codes

NOAA Expenditure Description	Code	IMPLAN Description
Auto Fuel for GF & CB	326	Retail Stores - Gasoline stations
Auto Fuel for MB & CI	3115	Petroleum Refineries
Auto Rental	362	Automotive equipment rental and leasing
Bait	410	Other amusement and recreation industries
Charter Fees	410	Other amusement and recreation industries
Crew Tips	410	Other amusement and recreation industries
Fish Processing	61	Seafood product preparation and packaging
Food from Grocery Stores	324	Retail Stores - Food and beverage
Food from Restaurants	413	Food services and drinking places
Gifts & Souvenirs	330	Retail Stores - Miscellaneous
Ice	324	Retail Stores - Food and beverage
Lodging	411	Hotels and motels, including casino hotels
Parking & Site Access	422	Other personal services
Public Transportation	336	Transit and ground passenger transportation
Tournament Fees	410	Other amusement and recreation industries

Table 5.4 Durable IMPLAN Codes

NOAA Expenditure Description	Code	IMPLAN Description
Durable Tackle	311	Sporting and athletic goods manufacturing
Rods & Reels	311	Sporting and athletic goods manufacturing
Spearfishing Gear	311	Sporting and athletic goods manufacturing
Binoculars	328	Retail Stores - Sporting goods, hobby, book and music
Camping Equipment	328	Retail Stores - Sporting goods, hobby, book and music
Clothing	327	Retail Stores - Clothing and clothing accessories
Club Dues	410	Other amusement and recreation industries
License Fees		State/Local Government NonEducation Institutional Spending Pattern
Magazine Subscriptions	342	Periodical publishers
Taxidermy	405	Independent Artists/performers
New Boat Purchase	320	Retail Stores - Motor vehicle and parts
Used Boat Purchase	320	Retail Stores - Motor vehicle and parts
New Canoe Purchase	410	Other amusement and recreation industries
Used Canoe Purchase	410	Other amusement and recreation industries
New Accessory Purchase	329	Retail Stores - General merchandise
Used Accessory Purchase	329	Retail Stores - General merchandise
Boat Insurance	357	Insurance carriers
Boat Maintenance	418	Personal and household goods repair and maintenance
Boat Registration		State/Local Government NonEducation Institutional Spending Pattern
Boat Storage	360	Real estate establishments
Boat Purchase Fees	389	Other support services
New Vehicle Purchase	320	Retail Stores - Motor vehicle and parts
Used Vehicle Purchase	320	Retail Stores - Motor vehicle and parts
Vehicle Insurance	357	Insurance carriers
Vehicle Maintenance	320	Retail Stores - Motor vehicle and parts
Vehicle Registration		State/Local Government NonEducation Institutional Spending Pattern
Vehicle Purchase Fees	389	Other support services
New Home Purchase	37	Construction of new residential permanent site single- and multi-family structures
Second Home Insurance ¹⁴	357	Insurance carriers
Second Home Maintenance ⁹	40	Maintenance and repair of residential
Second Home Property Taxes		State/Local Government NonEducation Institutional Spending Pattern
Second Home Purchase Fees ⁹	360	Real estate establishments
Real Estate Commissions ⁹	360	Real estate establishments

¹⁴This is a category listed in the NOAA NMFS expenditures, but it was \$0 for all residents/non-residents. The discussion of expenditures below does not include these four categories since it was always zero.

Defining the Study Area for Economic Impact Estimation

The next critical step in estimating economic impacts is defining the study area for the extent of the economic impacts to be estimated. Though the multiplier process, theoretically one could include all areas in the chain of producing goods and services used. This could even include other countries, i.e. a rod or reel or outboard motor could have been produced outside the country. In Chapter 1, we defined the study areas for economic impact for each sanctuary limiting our impact areas to more local area counties that capture the majority of the local economic impact.

IMPLAN Output

The remainder of this Chapter presents the IMPLAN output from running each expenditure profile by mode of recreational fishing, expenditure type (trip-related or durable goods expenditures), and residential status for each sanctuary¹⁵. Employment numbers include both full and part-time and seasonal jobs. Table 5.5 provides a more detailed explanation of the terminology used in this report, as defined by IMPLAN.

Table 5.5 IMPLAN Economic Indicators' Definitions

<i>Indicator</i>	<i>Definitions and Relationships</i>
Employment	Total annual average jobs. This includes self-employed and wage and salary employees, and all full-time, part-time and seasonal jobs, based on a count of full-time/part-time averages over twelve months
Labor Income	Defines the total value paid to local workers within a region. Labor income is the income source for induced household spending estimations. $\text{Labor Income} = \text{Employee Compensation} + \text{Proprietor Income}$
Value Added	Comprised of Labor Income, Indirect Business Taxes (IBT), and Other Property Type Income (OPTI), Value Added demonstrates an industry's value of production over the cost of its purchasing the goods and services required to make its products. Value Added is often referred to as Gross Regional Product (GRP). $\text{Value Added} = \text{Labor Income} + \text{IBT} + \text{OPTI}$
Output	The total value of an industry's production, comprised of the value of Intermediate Inputs and Value Added. In IMPLAN this is typically viewed as the value of a change in sales or the value of increased production. However, annual production is not always equal to annual sales. If production levels are higher than sales, surpluses become inventory. Because inventory does not drive additional impacts in the year it was produced, in IMPLAN Direct industry sales = Direct Output. $\text{Output} = \text{Intermediate Inputs} + \text{Value Added}$

Source: Day, 2011

¹⁵ These numbers may not sum to the exact amounts in the publications that this Technical Appendix is supporting due to rounding effects.

Impacts are defined as direct, indirect or induced. In short, direct effects are those that occur within the sector of the expenditure. Indirect effects occur as a result of spending within the primary sector on goods and services from other sectors. Induced impacts result from the wage earners within the study area spending their money on goods and services within the region. The indirect plus induced make-up what is generally referred to as the “multiplier” effects. Table 5.6 explains these types of impacts in more detail. The economic estimates provided in this report take into account recreational fin-fishing and recreational invertebrate fishing.

Table 5.6 Impact Type Definitions

<i>Type of Impact</i>	<i>Definition</i>
Direct Effect	Reports the information entered into the Events field and the underlying regional relationships of the Sectors selected for the Event.
Indirect Effect	The result of a Sector purchasing goods and services to produce their product from other industries located within the study area.
Induced Effect	Results from spending of employee wages that stem from both the Direct and Indirect effects.

Source: Day, 2011

Monterey Bay Estimate Yearly Economic Impacts using IMPLAN

Based on the expenditures presented in Chapter 4, the percentage of total expenditures in each year can be calculated to determine how each year contributes to the three-year average. The percentages in Table 5.7 represent the relative contribution of each year’s expenditure to the three-year average expenditure. Expenditures from Chapter 4 by mode and residential status and year for trip-related expenditures and by residential status and year for durable goods expenditures were inputted into IMPLAN’s to estimate total output, value added income and employment estimates for the study period (2010 through 2012) to estimated yearly impacts. The results are presented in the tables below.

Table 5.7 Percentage of Total Monterey Bay Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status

Fishing Mode	Resident Status	2010	2011	2012
Shore	Residents	16%	45%	39%
	Non-Residents	26%	37%	37%
Private – Rental Boat	Residents	21%	32%	46%
	Non-Residents	15%	26%	59%
CPFV	Residents	27%	33%	40%
	Non-Residents	27%	34%	39%
Durable Goods	Residents	18%	42%	41%

Shore Mode

Table 5.8 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	62	173	149	128
	Indirect Effect	13	35	30	26
	Induced Effect	17	46	40	34
	Total Effect	92	254	218	188
Non-residents	Direct Effect	5	7	7	6
	Indirect Effect	1	1	1	1
	Induced Effect	1	2	2	2
	Total Effect	7	10	10	9
Total	Direct Effect	67	180	156	134
	Indirect Effect	14	36	31	27
	Induced Effect	18	48	41	36
	Total Effect	99	264	228	197

Table 5.9 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$2,925,691	\$8,125,474	\$6,973,305	\$6,008,157
	Indirect Effect	\$889,302	\$2,469,846	\$2,119,629	\$1,826,259
	Induced Effect	\$1,010,836	\$2,807,380	\$2,409,301	\$2,075,839
	Total Effect	\$4,825,830	\$13,402,700	\$11,502,235	\$9,910,255
Non-residents	Direct Effect	\$214,546	\$300,705	\$302,802	\$272,684
	Indirect Effect	\$72,827	\$102,074	\$102,786	\$92,562
	Induced Effect	\$76,139	\$106,716	\$107,460	\$96,772
	Total Effect	\$363,512	\$509,495	\$513,047	\$462,018
Total	Direct Effect	\$3,140,237	\$8,426,179	\$7,276,107	\$6,280,841
	Indirect Effect	\$962,129	\$2,571,920	\$2,222,415	\$1,918,821
	Induced Effect	\$1,086,975	\$2,914,096	\$2,516,761	\$2,172,611
	Total Effect	\$5,189,342	\$13,912,195	\$12,015,282	\$10,372,273

Table 5.10 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$4,689,201	\$13,023,243	\$11,176,584	\$9,629,676
	Indirect Effect	\$1,567,327	\$4,352,913	\$3,735,682	\$3,218,641
	Induced Effect	\$1,831,594	\$5,086,856	\$4,365,555	\$3,761,335
	Total Effect	\$8,088,122	\$22,463,013	\$19,277,821	\$16,609,652
Non-residents	Direct Effect	\$351,160	\$492,182	\$495,613	\$446,318
	Indirect Effect	\$125,879	\$176,431	\$177,661	\$159,990
	Induced Effect	\$137,960	\$193,364	\$194,712	\$175,345
	Total Effect	\$614,999	\$861,977	\$867,986	\$781,654
Total	Direct Effect	\$5,040,361	\$13,515,425	\$11,672,197	\$10,075,994
	Indirect Effect	\$1,693,206	\$4,529,344	\$3,913,343	\$3,378,631
	Induced Effect	\$1,969,554	\$5,280,220	\$4,560,267	\$3,936,680
	Total Effect	\$8,703,121	\$23,324,990	\$20,145,807	\$17,391,306

Table 5.11 Monterey Bay Shore Mode Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$7,516,695	\$20,876,001	\$17,915,842	\$15,436,179
	Indirect Effect	\$2,815,007	\$7,818,079	\$6,709,496	\$5,780,861
	Induced Effect	\$2,920,015	\$8,109,710	\$6,959,776	\$5,996,500
	Total Effect	\$13,251,717	\$36,803,790	\$31,585,114	\$27,213,540
Non-residents	Direct Effect	\$579,384	\$812,059	\$817,720	\$736,388
	Indirect Effect	\$226,929	\$318,062	\$320,279	\$288,423
	Induced Effect	\$219,944	\$308,272	\$310,421	\$279,546
	Total Effect	\$1,026,258	\$1,438,393	\$1,448,420	\$1,304,357
Total	Direct Effect	\$8,096,079	\$21,688,060	\$18,733,562	\$16,172,567
	Indirect Effect	\$3,041,936	\$8,136,141	\$7,029,775	\$6,069,284
	Induced Effect	\$3,139,959	\$8,417,982	\$7,270,197	\$6,276,046
	Total Effect	\$14,277,975	\$38,242,183	\$33,033,534	\$28,517,897

Private – Rental Boating

Table 5.12 Monterey Bay Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Type of Impact, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	40	61	87	63
	Indirect Effect	11	16	23	17
	Induced Effect	13	20	29	21
	Total Effect	64	97	139	100
Non-residents	Direct Effect	11	19	43	24
	Indirect Effect	2	4	10	5
	Induced Effect	3	5	12	7
	Total Effect	17	29	65	37
Total	Direct Effect	51	80	130	87
	Indirect Effect	13	20	32	22
	Induced Effect	16	26	41	28
	Total Effect	81	126	203	137

Table 5.13 Monterey Bay Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$2,305,949	\$3,508,890	\$4,990,213	\$3,601,684
	Indirect Effect	\$775,842	\$1,180,575	\$1,678,970	\$1,211,796
	Induced Effect	\$817,556	\$1,244,050	\$1,769,242	\$1,276,949
	Total Effect	\$3,899,347	\$5,933,515	\$8,438,426	\$6,090,429
Non-residents	Direct Effect	\$514,960	\$896,032	\$2,021,724	\$1,144,239
	Indirect Effect	\$182,078	\$316,817	\$714,837	\$404,577
	Induced Effect	\$184,834	\$321,613	\$725,657	\$410,701
	Total Effect	\$881,873	\$1,534,462	\$3,462,219	\$1,959,518
Total	Direct Effect	\$2,820,909	\$4,404,922	\$7,011,937	\$4,745,923
	Indirect Effect	\$957,920	\$1,497,392	\$2,393,807	\$1,616,373
	Induced Effect	\$1,002,390	\$1,565,663	\$2,494,899	\$1,687,651
	Total Effect	\$4,781,220	\$7,467,977	\$11,900,645	\$8,049,947

Table 5.14 Monterey Bay Private-Rental Boat Fishing Value Added Trip-related Impacts on Value Added by Residential Status, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$3,775,805	\$5,745,526	\$8,171,074	\$5,897,468
	Indirect Effect	\$1,368,715	\$2,082,732	\$2,961,983	\$2,137,810
	Induced Effect	\$1,481,462	\$2,254,294	\$3,205,974	\$2,313,910
	Total Effect	\$6,625,982	\$10,082,552	\$14,339,031	\$10,349,188
Non-residents	Direct Effect	\$838,232	\$1,458,528	\$3,290,887	\$1,862,549
	Indirect Effect	\$310,265	\$539,862	\$1,218,095	\$689,407
	Induced Effect	\$334,925	\$582,770	\$1,314,909	\$744,201
	Total Effect	\$1,483,422	\$2,581,160	\$5,823,890	\$3,296,157
Total	Direct Effect	\$4,614,037	\$7,204,054	\$11,461,961	\$7,760,017
	Indirect Effect	\$1,678,980	\$2,622,594	\$4,180,078	\$2,827,217
	Induced Effect	\$1,816,387	\$2,837,064	\$4,520,883	\$3,058,111
	Total Effect	\$8,109,404	\$12,663,712	\$20,162,921	\$13,645,346

Table 5.15 Monterey Bay Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$6,355,691	\$9,671,261	\$13,754,106	\$9,927,019
	Indirect Effect	\$2,555,030	\$3,887,912	\$5,529,243	\$3,990,728
	Induced Effect	\$2,361,456	\$3,593,355	\$5,110,336	\$3,688,382
	Total Effect	\$11,272,177	\$17,152,527	\$24,393,685	\$17,606,130
Non-residents	Direct Effect	\$1,420,562	\$2,471,784	\$5,577,105	\$3,156,484
	Indirect Effect	\$570,262	\$992,259	\$2,238,841	\$1,267,121
	Induced Effect	\$533,900	\$928,989	\$2,096,085	\$1,186,325
	Total Effect	\$2,524,725	\$4,393,032	\$9,912,031	\$5,609,929
Total	Direct Effect	\$7,776,253	\$12,143,045	\$19,331,211	\$13,083,503
	Indirect Effect	\$3,125,292	\$4,880,171	\$7,768,084	\$5,257,849
	Induced Effect	\$2,895,356	\$4,522,344	\$7,206,421	\$4,874,707
	Total Effect	\$13,796,902	\$21,545,559	\$34,305,716	\$23,216,059

CPFV

Table 5.16 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	27	34	41	34
	Indirect Effect	5	6	7	6
	Induced Effect	6	7	9	7
	Total Effect	38	47	57	47
Non-residents	Direct Effect	52	66	74	64
	Indirect Effect	9	12	13	12
	Induced Effect	12	15	17	14
	Total Effect	74	92	104	90
Total	Direct Effect	80	100	115	98
	Indirect Effect	14	18	20	17
	Induced Effect	18	22	26	22
	Total Effect	112	139	161	137

Table 5.17 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$1,073,157	\$1,327,906	\$1,619,902	\$1,340,322
	Indirect Effect	\$300,479	\$371,807	\$453,565	\$375,284
	Induced Effect	\$363,065	\$449,250	\$548,037	\$453,451
	Total Effect	\$1,736,700	\$2,148,964	\$2,621,504	\$2,169,056
Non-residents	Direct Effect	\$2,078,761	\$2,607,563	\$2,936,687	\$2,541,004
	Indirect Effect	\$650,157	\$815,547	\$918,484	\$794,729
	Induced Effect	\$722,137	\$905,837	\$1,020,171	\$882,715
	Total Effect	\$3,451,056	\$4,328,947	\$4,875,342	\$4,218,448
Total	Direct Effect	\$3,151,918	\$3,935,469	\$4,556,589	\$3,881,325
	Indirect Effect	\$950,636	\$1,187,354	\$1,372,049	\$1,170,013
	Induced Effect	\$1,085,202	\$1,355,087	\$1,568,208	\$1,336,166
	Total Effect	\$5,187,756	\$6,477,911	\$7,496,846	\$6,387,504

Table 5.18 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$1,662,812	\$2,057,536	\$2,509,971	\$2,076,773
	Indirect Effect	\$538,397	\$666,203	\$812,696	\$672,432
	Induced Effect	\$657,783	\$813,930	\$992,906	\$821,540
	Total Effect	\$2,858,992	\$3,537,669	\$4,315,573	\$3,570,745
Non-residents	Direct Effect	\$3,318,493	\$4,162,663	\$4,688,069	\$4,056,408
	Indirect Effect	\$1,127,738	\$1,414,616	\$1,593,167	\$1,378,507
	Induced Effect	\$1,308,405	\$1,641,242	\$1,848,397	\$1,599,348
	Total Effect	\$5,754,637	\$7,218,521	\$8,129,634	\$7,034,264
Total	Direct Effect	\$4,981,305	\$6,220,199	\$7,198,040	\$6,133,181
	Indirect Effect	\$1,666,135	\$2,080,819	\$2,405,863	\$2,050,939
	Induced Effect	\$1,966,188	\$2,455,172	\$2,841,303	\$2,420,888
	Total Effect	\$8,613,629	\$10,756,190	\$12,445,207	\$10,605,009

Table 5.19 Monterey Bay CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$2,652,885	\$3,282,636	\$4,004,460	\$3,313,327
	Indirect Effect	\$926,536	\$1,146,480	\$1,398,581	\$1,157,199
	Induced Effect	\$1,048,996	\$1,298,010	\$1,583,432	\$1,310,146
	Total Effect	\$4,628,417	\$5,727,126	\$6,986,473	\$5,780,672
Non-residents	Direct Effect	\$5,329,741	\$6,685,540	\$7,529,380	\$6,514,887
	Indirect Effect	\$1,958,057	\$2,456,155	\$2,766,168	\$2,393,460
	Induced Effect	\$2,086,260	\$2,616,970	\$2,947,280	\$2,550,170
	Total Effect	\$9,374,058	\$11,758,665	\$13,242,829	\$11,458,517
Total	Direct Effect	\$7,982,626	\$9,968,176	\$11,533,840	\$9,828,214
	Indirect Effect	\$2,884,593	\$3,602,635	\$4,164,749	\$3,550,659
	Induced Effect	\$3,135,256	\$3,914,980	\$4,530,712	\$3,860,316
	Total Effect	\$14,002,475	\$17,485,791	\$20,229,302	\$17,239,189

Durable Goods

Table 5.20 Monterey Bay Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	185	316	309	270
	Indirect Effect	43	90	88	73
	Induced Effect	65	115	112	97
	Total Effect	293	520	509	441

Table 5.21 Monterey Bay Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$11,847,448	\$19,617,767	\$19,173,349	\$16,879,521
	Indirect Effect	\$3,220,793	\$6,820,835	\$6,666,316	\$5,569,315
	Induced Effect	\$3,989,820	\$7,000,517	\$6,841,929	\$5,944,089
	Total Effect	\$19,058,061	\$33,439,119	\$32,681,594	\$28,392,925

Table 5.22 Monterey Bay Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$19,725,411	\$36,263,549	\$35,442,040	\$30,477,000
	Indirect Effect	\$5,579,661	\$11,732,327	\$11,466,544	\$9,592,844
	Induced Effect	\$7,229,161	\$12,684,248	\$12,396,901	\$10,770,103
	Total Effect	\$32,534,233	\$60,680,124	\$59,305,485	\$50,839,947

Table 5.23 Monterey Bay Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$30,714,043	\$60,671,444	\$59,297,001	\$50,227,496
	Indirect Effect	\$9,544,189	\$20,171,621	\$19,714,656	\$16,476,822
	Induced Effect	\$11,526,065	\$20,223,569	\$19,765,427	\$17,171,687
	Total Effect	\$51,784,297	\$101,066,633	\$98,777,084	\$83,876,005

Greater Farallones Estimate Yearly Economic Impacts using IMPLAN

Based on the expenditures presented in Chapter 4, the percentage of total expenditures in each year can be calculated to determine how each year contributes to the three-year average. The percentages in Table 5.24 represent the relative contribution of each year's expenditure to the three-year average expenditure. Expenditures from Chapter 4 by mode and residential status and year for trip-related expenditures and by residential status and year for durable goods expenditures were inputted into IMPLAN's to estimate total output, value added income and employment estimates for the study period (2010 through 2012) to estimated yearly impacts. The results are presented in the tables below.

Table 5.24 Percentage of Total Greater Farallones Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status

Fishing Mode	Resident Status	2010	2011	2012
Shore	Residents	30%	25%	45%
	Non-Residents	28%	18%	53%
Private – Rental Boat	Residents	32%	30%	39%
	Non-Residents	30%	35%	35%
CPFV	Residents	32%	33%	34%
	Non-Residents	19%	31%	49%
Durable Goods	Residents	31%	28%	41%

Shore Mode

Table 5.25 Greater Farallones Shore Mode Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	9	8	15	11
	Indirect Effect	1	1	2	2
	Induced Effect	2	2	3	2
	Total Effect	13	11	20	14
Non-residents	Direct Effect	3	2	5	3
	Indirect Effect	0.4	0.3	1	0.5
	Induced Effect	1	0.3	1	1
	Total Effect	3	2	6	4
Total	Direct Effect	12	10	19	14
	Indirect Effect	2	2	3	2
	Induced Effect	2	2	4	3
	Total Effect	16	13	26	18

Table 5.26 Greater Farallones Shore Mode Fishing Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$378,401	\$320,796	\$582,996	\$427,398
	Indirect Effect	\$88,885	\$75,354	\$136,943	\$100,394
	Induced Effect	\$112,996	\$95,794	\$174,091	\$127,627
	Total Effect	\$580,282	\$491,944	\$894,030	\$655,419
Non-residents	Direct Effect	\$96,948	\$61,916	\$182,231	\$113,698
	Indirect Effect	\$25,818	\$16,489	\$48,529	\$30,279
	Induced Effect	\$29,687	\$18,960	\$55,803	\$34,817
	Total Effect	\$152,453	\$97,365	\$286,562	\$178,793
Total	Direct Effect	\$475,349	\$382,712	\$765,227	\$541,096
	Indirect Effect	\$114,703	\$91,843	\$185,472	\$130,673
	Induced Effect	\$142,683	\$114,754	\$229,894	\$162,444
	Total Effect	\$732,735	\$589,309	\$1,180,592	\$834,212

Table 5.27 Greater Farallones Shore Mode Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$582,285	\$493,642	\$897,116	\$657,681
	Indirect Effect	\$159,892	\$135,551	\$246,343	\$180,595
	Induced Effect	\$208,478	\$176,741	\$321,199	\$235,473
	Total Effect	\$950,655	\$805,935	\$1,464,658	\$1,073,749
Non-residents	Direct Effect	\$153,188	\$97,835	\$287,945	\$179,656
	Indirect Effect	\$45,140	\$28,829	\$84,849	\$52,939
	Induced Effect	\$54,774	\$34,981	\$102,957	\$64,237
	Total Effect	\$253,102	\$161,645	\$475,750	\$296,832
Total	Direct Effect	\$735,473	\$591,477	\$1,185,061	\$837,337
	Indirect Effect	\$205,032	\$164,380	\$331,192	\$233,535
	Induced Effect	\$263,252	\$211,722	\$424,156	\$299,710
	Total Effect	\$1,203,757	\$967,580	\$1,940,408	\$1,370,582

Table 5.28 Greater Farallones Shore Mode Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$859,916	\$729,009	\$1,324,858	\$971,261
	Indirect Effect	\$268,468	\$227,599	\$413,625	\$303,231
	Induced Effect	\$328,392	\$278,400	\$505,948	\$370,913
	Total Effect	\$1,456,776	\$1,235,008	\$2,244,430	\$1,645,405
Non-residents	Direct Effect	\$234,219	\$149,585	\$440,256	\$274,687
	Indirect Effect	\$76,833	\$49,070	\$144,421	\$90,108
	Induced Effect	\$86,278	\$55,102	\$162,175	\$101,185
	Total Effect	\$397,330	\$253,756	\$746,852	\$465,979
Total	Direct Effect	\$1,094,135	\$878,594	\$1,765,114	\$1,245,948
	Indirect Effect	\$345,301	\$276,669	\$558,046	\$393,339
	Induced Effect	\$414,670	\$333,502	\$668,123	\$472,098
	Total Effect	\$1,854,106	\$1,488,764	\$2,991,282	\$2,111,384

Private – Rental Boating

Table 5.29 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	11	9	12	11
	Indirect Effect	2	2	2	2
	Induced Effect	2	2	3	2
	Total Effect	15	13	17	15
Non-residents	Direct Effect	20	14	23	19
	Indirect Effect	3	2	4	3
	Induced Effect	4	3	5	4
	Total Effect	27	19	32	26
Total	Direct Effect	30	23	35	30
	Indirect Effect	5	4	6	5
	Induced Effect	7	5	8	7
	Total Effect	42	32	49	41

Table 5.30 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$454,550	\$426,759	\$551,801	\$477,703
	Indirect Effect	\$90,676	\$94,970	\$122,797	\$102,814
	Induced Effect	\$132,150	\$126,362	\$163,387	\$140,633
	Total Effect	\$677,376	\$648,092	\$837,984	\$721,151
Non-residents	Direct Effect	\$802,392	\$556,117	\$957,292	\$771,934
	Indirect Effect	\$219,715	\$152,279	\$262,131	\$211,375
	Induced Effect	\$247,387	\$171,457	\$295,144	\$237,996
	Total Effect	\$1,269,493	\$879,853	\$1,514,567	\$1,221,304
Total	Direct Effect	\$1,256,942	\$982,876	\$1,509,093	\$1,249,637
	Indirect Effect	\$310,391	\$247,249	\$384,928	\$314,189
	Induced Effect	\$379,537	\$297,819	\$458,531	\$378,629
	Total Effect	\$1,946,869	\$1,527,945	\$2,352,551	\$1,942,455

Table 5.31 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$687,857	\$645,639	\$834,812	\$722,769
	Indirect Effect	\$164,459	\$172,221	\$222,682	\$186,454
	Induced Effect	\$243,893	\$233,189	\$301,513	\$259,532
	Total Effect	\$1,096,209	\$1,051,048	\$1,359,006	\$1,168,754
Non-residents	Direct Effect	\$1,248,326	\$865,182	\$1,489,313	\$1,200,940
	Indirect Effect	\$377,004	\$261,292	\$449,785	\$362,694
	Induced Effect	\$456,486	\$316,379	\$544,610	\$439,158
	Total Effect	\$2,081,816	\$1,442,853	\$2,483,708	\$2,002,792
Total	Direct Effect	\$1,936,183	\$1,510,821	\$2,324,125	\$1,923,710
	Indirect Effect	\$541,463	\$433,513	\$672,467	\$549,148
	Induced Effect	\$700,379	\$549,568	\$846,123	\$698,690
	Total Effect	\$3,178,025	\$2,493,901	\$3,842,714	\$3,171,547

Table 5.32 Greater Farallones Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$937,799	\$931,341	\$1,204,226	\$1,024,455
	Indirect Effect	\$271,992	\$286,678	\$370,676	\$309,782
	Induced Effect	\$384,008	\$367,205	\$474,796	\$408,670
	Total Effect	\$1,593,800	\$1,585,225	\$2,049,698	\$1,742,908
Non-residents	Direct Effect	\$1,943,036	\$1,346,668	\$2,318,137	\$1,869,280
	Indirect Effect	\$651,699	\$451,676	\$777,509	\$626,961
	Induced Effect	\$718,925	\$498,268	\$857,713	\$691,635
	Total Effect	\$3,313,660	\$2,296,612	\$3,953,358	\$3,187,877
Total	Direct Effect	\$2,880,835	\$2,278,009	\$3,522,363	\$2,893,736
	Indirect Effect	\$923,691	\$738,354	\$1,148,185	\$936,743
	Induced Effect	\$1,102,933	\$865,473	\$1,332,509	\$1,100,305
	Total Effect	\$4,907,460	\$3,881,837	\$6,003,056	\$4,930,784

CPFV

Table 5.33 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	14	14	15	14
	Indirect Effect	2	2	2	2
	Induced Effect	3	3	3	3
	Total Effect	18	19	20	19
Non-residents	Direct Effect	38	61	97	65
	Indirect Effect	6	10	15	10
	Induced Effect	7	12	18	12
	Total Effect	51	82	130	88
Total	Direct Effect	52	75	111	79
	Indirect Effect	8	12	17	12
	Induced Effect	10	14	21	15
	Total Effect	69	101	149	106

Table 5.34 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$473,863	\$492,098	\$506,496	\$490,819
	Indirect Effect	\$120,091	\$124,713	\$128,361	\$124,388
	Induced Effect	\$143,368	\$148,885	\$153,241	\$148,498
	Total Effect	\$737,322	\$765,695	\$788,099	\$763,705
Non-residents	Direct Effect	\$1,358,078	\$2,187,833	\$3,469,156	\$2,338,356
	Indirect Effect	\$379,448	\$611,658	\$969,284	\$653,463
	Induced Effect	\$419,756	\$676,309	\$1,072,251	\$722,772
	Total Effect	\$2,157,282	\$3,475,800	\$5,510,691	\$3,714,591
Total	Direct Effect	\$1,831,941	\$2,679,931	\$3,975,652	\$2,829,175
	Indirect Effect	\$499,539	\$736,371	\$1,097,645	\$777,852
	Induced Effect	\$563,124	\$825,194	\$1,225,492	\$871,270
	Total Effect	\$2,894,604	\$4,241,495	\$6,298,790	\$4,478,296

Table 5.35 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$723,702	\$751,552	\$773,541	\$749,598
	Indirect Effect	\$219,388	\$227,831	\$234,497	\$227,239
	Induced Effect	\$264,452	\$274,628	\$282,664	\$273,915
	Total Effect	\$1,207,542	\$1,254,010	\$1,290,701	\$1,250,751
Non-residents	Direct Effect	\$2,141,349	\$3,450,063	\$5,469,991	\$3,687,134
	Indirect Effect	\$670,165	\$1,080,118	\$1,711,909	\$1,154,064
	Induced Effect	\$774,356	\$1,247,637	\$1,978,061	\$1,333,351
	Total Effect	\$3,585,870	\$5,777,818	\$9,159,962	\$6,174,550
Total	Direct Effect	\$2,865,051	\$4,201,615	\$6,243,532	\$4,436,733
	Indirect Effect	\$889,553	\$1,307,949	\$1,946,406	\$1,381,303
	Induced Effect	\$1,038,808	\$1,522,265	\$2,260,725	\$1,607,266
	Total Effect	\$4,793,412	\$7,031,828	\$10,450,663	\$7,425,301

Table 5.36 Greater Farallones CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$1,138,769	\$1,182,591	\$1,217,192	\$1,179,517
	Indirect Effect	\$368,949	\$383,147	\$394,358	\$382,151
	Induced Effect	\$416,702	\$432,737	\$445,398	\$431,612
	Total Effect	\$1,924,420	\$1,998,475	\$2,056,948	\$1,993,281
Non-residents	Direct Effect	\$3,368,660	\$5,428,089	\$8,605,108	\$5,800,619
	Indirect Effect	\$1,136,803	\$1,832,270	\$2,903,919	\$1,957,664
	Induced Effect	\$1,219,972	\$1,965,612	\$3,116,371	\$2,100,652
	Total Effect	\$5,725,436	\$9,225,971	\$14,625,398	\$9,858,935
Total	Direct Effect	\$4,507,429	\$6,610,680	\$9,822,300	\$6,980,136
	Indirect Effect	\$1,505,752	\$2,215,417	\$3,298,277	\$2,339,815
	Induced Effect	\$1,636,674	\$2,398,349	\$3,561,769	\$2,532,264
	Total Effect	\$7,649,856	\$11,224,446	\$16,682,346	\$11,852,216

Durable Goods

Table 5.37 Greater Farallones Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	31	28	41	33
	Indirect Effect	8	7	11	8
	Induced Effect	9	9	13	10
	Total Effect	48	43	64	52

Table 5.38 Greater Farallones Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$1,684,568	\$1,532,962	\$2,279,002	\$1,832,177
	Indirect Effect	\$557,313	\$507,157	\$753,972	\$606,147
	Induced Effect	\$542,050	\$493,267	\$733,324	\$589,547
	Total Effect	\$2,783,931	\$2,533,386	\$3,766,298	\$3,027,872

Table 5.39 Greater Farallones Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$3,127,870	\$2,846,372	\$4,231,603	\$3,401,948
	Indirect Effect	\$982,538	\$894,113	\$1,329,246	\$1,068,632
	Induced Effect	\$1,000,070	\$910,067	\$1,352,965	\$1,087,701
	Total Effect	\$5,110,478	\$4,650,552	\$6,913,815	\$5,558,282

Table 5.40 Greater Farallones Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$5,554,549	\$5,054,657	\$7,514,585	\$6,041,264
	Indirect Effect	\$1,629,950	\$1,483,259	\$2,205,111	\$1,772,773
	Induced Effect	\$1,575,332	\$1,433,557	\$2,131,220	\$1,713,370
	Total Effect	\$8,759,830	\$7,971,473	\$11,850,915	\$9,527,406

Cordell Banks Estimate Yearly Economic Impacts using IMPLAN

Based on the expenditures presented in Chapter 4, the percentage of total expenditures in each year can be calculated to determine how each year contributes to the three-year average. The percentages in Table 5.41 represent the relative contribution of each year's expenditure to the three-year average expenditure. Expenditures from Chapter 4 by mode and residential status and year for trip-related expenditures and by residential status and year for durable goods expenditures were inputted into IMPLAN's to estimate total output, value added income and employment estimates for the study period (2010 through 2012) to estimated yearly impacts. The results are presented in the tables below.

Table 5.41 Percentage of Total Cordell Banks Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status

Fishing Mode	Resident Status	2010	2011	2012
Private – Rental Boat	Residents	49%	21%	30%
	Non-Residents	61%	31%	7%
CPFV	Residents	55%	17%	27%
	Non-Residents	55%	22%	23%
Durable Goods	Residents	51%	20%	29%

Private – Rental Boating

Table 5.42 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	0.3	0.1	0.1	0.2
	Indirect Effect	0.03	0.0	0.02	0.0
	Induced Effect	0.05	0.0	0.03	0.0
	Total Effect	0.4	0.1	0.2	0.2
Non-residents	Direct Effect	0.4	0.2	0.1	0.2
	Indirect Effect	0.1	0.03	0.0	0.0
	Induced Effect	0.1	0.04	0.0	0.0
	Total Effect	0.6	0.3	0.1	0.3
Total	Direct Effect	0.7	0.3	0.2	0.4
	Indirect Effect	0.1	0.03	0.02	0.1
	Induced Effect	0.1	0.04	0.03	0.1
	Total Effect	1.0	0.4	0.3	0.6

Table 5.43 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$12,614	\$5,403	\$7,707	\$8,575
	Indirect Effect	\$1,891	\$906	\$1,293	\$1,363
	Induced Effect	\$2,672	\$1,161	\$1,656	\$1,830
	Total Effect	\$17,176	\$7,470	\$10,655	\$11,767
Non-residents	Direct Effect	\$18,481	\$9,451	\$2,119	\$10,017
	Indirect Effect	\$3,823	\$1,955	\$438	\$2,072
	Induced Effect	\$4,102	\$2,098	\$470	\$2,223
	Total Effect	\$26,406	\$13,504	\$3,027	\$14,312
Total	Direct Effect	\$31,095	\$14,854	\$9,826	\$18,592
	Indirect Effect	\$5,714	\$2,861	\$1,731	\$3,435
	Induced Effect	\$6,774	\$3,259	\$2,126	\$4,053
	Total Effect	\$43,582	\$20,974	\$13,682	\$26,079

Table 5.44 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$19,116	\$8,181	\$11,670	\$12,989
	Indirect Effect	\$3,518	\$1,685	\$2,403	\$2,535
	Induced Effect	\$5,112	\$2,222	\$3,169	\$3,501
	Total Effect	\$27,746	\$12,088	\$17,242	\$19,025
Non-residents	Direct Effect	\$28,706	\$14,681	\$3,291	\$15,559
	Indirect Effect	\$6,594	\$3,372	\$756	\$3,574
	Induced Effect	\$7,848	\$4,014	\$900	\$4,254
	Total Effect	\$43,148	\$22,067	\$4,946	\$23,387
Total	Direct Effect	\$47,822	\$22,862	\$14,961	\$28,548
	Indirect Effect	\$10,112	\$5,057	\$3,159	\$6,109
	Induced Effect	\$12,960	\$6,236	\$4,069	\$7,755
	Total Effect	\$70,894	\$34,155	\$22,188	\$42,412

Table 5.45 Cordell Banks Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$25,880	\$11,728	\$16,729	\$18,112
	Indirect Effect	\$5,684	\$2,741	\$3,909	\$4,111
	Induced Effect	\$7,883	\$3,426	\$4,888	\$5,399
	Total Effect	\$39,448	\$17,895	\$25,526	\$27,623
Non-residents	Direct Effect	\$44,915	\$22,970	\$5,149	\$24,345
	Indirect Effect	\$10,995	\$5,623	\$1,260	\$5,959
	Induced Effect	\$12,106	\$6,191	\$1,388	\$6,562
	Total Effect	\$68,017	\$34,785	\$7,797	\$36,866
Total	Direct Effect	\$70,795	\$34,698	\$21,878	\$42,457
	Indirect Effect	\$16,679	\$8,364	\$5,169	\$10,071
	Induced Effect	\$19,989	\$9,617	\$6,276	\$11,961
	Total Effect	\$107,465	\$52,680	\$33,323	\$64,489

CPFV

Table 5.46 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	0.5	0.2	0.2	0.3
	Indirect Effect	0.1	0.0	0.03	0.0
	Induced Effect	0.1	0.0	0.04	0.0
	Total Effect	0.6	0.2	0.3	0.4
Non-residents	Direct Effect	1.8	0.7	0.7	1.1
	Indirect Effect	0.3	0.1	0.1	0.2
	Induced Effect	0.3	0.1	0.1	0.2
	Total Effect	2.3	0.9	0.9	1.4
Total	Direct Effect	2.3	0.9	0.9	1.4
	Indirect Effect	0.4	0.1	0.1	0.2
	Induced Effect	0.4	0.1	0.1	0.2
	Total Effect	2.9	1.1	1.2	1.7

Table 5.47 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$19,022	\$5,998	\$9,453	\$11,491
	Indirect Effect	\$3,522	\$1,111	\$1,750	\$2,128
	Induced Effect	\$4,137	\$1,305	\$2,056	\$2,499
	Total Effect	\$26,681	\$8,414	\$13,260	\$16,118
Non-residents	Direct Effect	\$68,975	\$27,022	\$28,405	\$41,467
	Indirect Effect	\$14,215	\$5,569	\$5,854	\$8,546
	Induced Effect	\$15,278	\$5,986	\$6,292	\$9,185
	Total Effect	\$98,468	\$38,576	\$40,551	\$59,198
Total	Direct Effect	\$87,997	\$33,020	\$37,858	\$52,958
	Indirect Effect	\$17,737	\$6,680	\$7,604	\$10,674
	Induced Effect	\$19,415	\$7,291	\$8,348	\$11,685
	Total Effect	\$125,149	\$46,990	\$53,811	\$75,317

Table 5.48 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$29,052	\$9,162	\$14,438	\$17,551
	Indirect Effect	\$6,632	\$2,091	\$3,296	\$4,006
	Induced Effect	\$7,911	\$2,495	\$3,932	\$4,779
	Total Effect	\$43,596	\$13,748	\$21,666	\$26,337
Non-residents	Direct Effect	\$108,567	\$42,532	\$44,709	\$65,269
	Indirect Effect	\$25,603	\$10,030	\$10,544	\$15,392
	Induced Effect	\$29,220	\$11,447	\$12,033	\$17,567
	Total Effect	\$163,390	\$64,010	\$67,286	\$98,229
Total	Direct Effect	\$137,619	\$51,694	\$59,147	\$82,820
	Indirect Effect	\$32,235	\$12,121	\$13,840	\$19,399
	Induced Effect	\$37,131	\$13,942	\$15,965	\$22,346
	Total Effect	\$206,986	\$77,758	\$88,952	\$124,565

Table 5.49 Cordell Banks CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$44,939	\$14,171	\$22,333	\$27,148
	Indirect Effect	\$10,876	\$3,430	\$5,405	\$6,570
	Induced Effect	\$12,210	\$3,850	\$6,068	\$7,376
	Total Effect	\$68,025	\$21,451	\$33,806	\$41,094
Non-residents	Direct Effect	\$169,441	\$66,381	\$69,778	\$101,867
	Indirect Effect	\$42,282	\$16,565	\$17,412	\$25,420
	Induced Effect	\$45,089	\$17,664	\$18,568	\$27,107
	Total Effect	\$256,812	\$100,609	\$105,759	\$154,393
Total	Direct Effect	\$214,380	\$80,552	\$92,111	\$129,014
	Indirect Effect	\$53,158	\$19,995	\$22,817	\$31,990
	Induced Effect	\$57,299	\$21,514	\$24,636	\$34,483
	Total Effect	\$324,837	\$122,060	\$139,565	\$195,487

Durable Goods

Table 5.50 Cordell Banks Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	0.5	0.2	0.3	0.3
	Indirect Effect	0.1	0.04	0.1	0.1
	Induced Effect	0.1	0.05	0.1	0.1
	Total Effect	0.7	0.3	0.4	0.5

Table 5.51 Cordell Banks Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$29,332	\$11,523	\$16,887	\$19,247
	Indirect Effect	\$6,180	\$2,428	\$3,558	\$4,055
	Induced Effect	\$6,523	\$2,563	\$3,756	\$4,281
	Total Effect	\$42,036	\$16,514	\$24,201	\$27,584

Table 5.52 Cordell Banks Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$54,155	\$21,275	\$31,178	\$35,536
	Indirect Effect	\$10,986	\$4,316	\$6,325	\$7,209
	Induced Effect	\$12,477	\$4,901	\$7,183	\$8,187
	Total Effect	\$77,617	\$30,493	\$44,685	\$50,932

Table 5.53 Cordell Banks Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$88,750	\$34,866	\$51,095	\$58,237
	Indirect Effect	\$17,769	\$6,981	\$10,230	\$11,660
	Induced Effect	\$19,251	\$7,563	\$11,083	\$12,632
	Total Effect	\$125,771	\$49,410	\$72,408	\$82,530

Channel Islands Estimate Yearly Economic Impacts using IMPLAN

Based on the expenditures presented in Chapter 4, the percentage of total expenditures in each year can be calculated to determine how each year contributes to the three-year average. The percentages in Table 5.54 represent the relative contribution of each year's expenditure to the three-year average expenditure. Expenditures from Chapter 4 by mode and residential status and year for trip-related expenditures and by residential status and year for durable goods expenditures were inputted into IMPLAN's to estimate total output, value added income and employment estimates for the study period (2010 through 2012) to estimated yearly impacts. The results are presented in the tables below.

Table 5.54 Percentage of Total Channel Islands Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status

Fishing Mode	Resident Status	2010	2011	2012
Private – Rental Boat	Residents	21%	41%	38%
	Non-Residents	16%	24%	60%
CPFV	Residents	25%	33%	42%
	Non-Residents	23%	30%	48%
Durable Goods	Residents	24%	36%	40%

Private – Rental Boating

Table 5.55 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	7	14	13	11
	Indirect Effect	2	4	3	3
	Induced Effect	3	5	5	4
	Total Effect	12	22	21	18
Non-residents	Direct Effect	1	3	4	2
	Indirect Effect	0.2	0.9	1	0.7
	Induced Effect	0.3	1.3	1	1
	Total Effect	2	5	6	4
Total	Direct Effect	8	16	16	14
	Indirect Effect	2	4	4	3
	Induced Effect	3	7	6	5
	Total Effect	14	27	26	22

Table 5.56 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$346,576	\$657,268	\$607,074	\$536,973
	Indirect Effect	\$109,678	\$220,957	\$204,083	\$178,239
	Induced Effect	\$144,423	\$277,854	\$256,636	\$226,304
	Total Effect	\$600,678	\$1,156,079	\$1,067,793	\$941,517
Non-residents	Direct Effect	\$43,005	\$162,877	\$159,402	\$121,761
	Indirect Effect	\$15,140	\$62,670	\$56,118	\$44,643
	Induced Effect	\$18,386	\$71,401	\$68,152	\$52,646
	Total Effect	\$76,531	\$296,948	\$283,673	\$219,051
Total	Direct Effect	\$389,581	\$820,145	\$766,476	\$658,734
	Indirect Effect	\$124,818	\$283,627	\$260,201	\$222,882
	Induced Effect	\$162,809	\$349,255	\$324,788	\$278,951
	Total Effect	\$677,209	\$1,453,027	\$1,351,466	\$1,160,567

Table 5.57 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$562,389	\$1,067,067	\$985,579	\$871,678
	Indirect Effect	\$194,116	\$391,309	\$361,426	\$315,617
	Induced Effect	\$259,676	\$499,557	\$461,408	\$406,880
	Total Effect	\$1,016,181	\$1,957,933	\$1,808,412	\$1,594,175
Non-residents	Direct Effect	\$70,301	\$283,166	\$260,581	\$204,683
	Indirect Effect	\$25,922	\$109,897	\$96,085	\$77,301
	Induced Effect	\$33,055	\$128,381	\$122,524	\$94,653
	Total Effect	\$129,279	\$521,444	\$479,190	\$376,638
Total	Direct Effect	\$632,690	\$1,350,233	\$1,246,160	\$1,076,361
	Indirect Effect	\$220,038	\$501,206	\$457,511	\$392,918
	Induced Effect	\$292,731	\$627,938	\$583,932	\$501,534
	Total Effect	\$1,145,460	\$2,479,377	\$2,287,602	\$1,970,813

Table 5.58 Channel Islands Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$924,990	\$1,815,941	\$1,677,263	\$1,472,731
	Indirect Effect	\$372,702	\$749,945	\$692,674	\$605,107
	Induced Effect	\$425,163	\$818,010	\$755,541	\$666,238
	Total Effect	\$1,722,855	\$3,383,896	\$3,125,479	\$2,744,077
Non-residents	Direct Effect	\$120,073	\$506,778	\$445,065	\$357,305
	Indirect Effect	\$49,019	\$221,383	\$181,697	\$150,700
	Induced Effect	\$54,133	\$210,192	\$200,653	\$154,993
	Total Effect	\$223,225	\$938,353	\$827,414	\$662,997
Total	Direct Effect	\$1,045,063	\$2,322,719	\$2,122,328	\$1,830,037
	Indirect Effect	\$421,721	\$971,328	\$874,371	\$755,807
	Induced Effect	\$479,296	\$1,028,202	\$956,194	\$821,231
	Total Effect	\$1,946,080	\$4,322,249	\$3,952,893	\$3,407,074

CPFV

Table 5.59 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	58	77	97	77
	Indirect Effect	9	13	16	12
	Induced Effect	14	19	24	19
	Total Effect	81	109	136	109
Non-residents	Direct Effect	28	37	59	41
	Indirect Effect	5	7	11	7
	Induced Effect	8	10	16	11
	Total Effect	40	53	86	60
Total	Direct Effect	85	114	156	118
	Indirect Effect	14	19	26	20
	Induced Effect	22	29	40	30
	Total Effect	121	162	222	168

Table 5.60 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$1,865,238	\$2,509,007	\$3,129,460	\$2,501,235
	Indirect Effect	\$550,417	\$740,389	\$923,479	\$738,095
	Induced Effect	\$761,769	\$1,024,687	\$1,278,082	\$1,021,513
	Total Effect	\$3,177,424	\$4,274,082	\$5,331,021	\$4,260,842
Non-residents	Direct Effect	\$948,813	\$1,247,855	\$2,019,407	\$1,405,358
	Indirect Effect	\$307,330	\$404,193	\$654,107	\$455,210
	Induced Effect	\$396,512	\$521,482	\$843,916	\$587,303
	Total Effect	\$1,652,655	\$2,173,529	\$3,517,430	\$2,447,871
Total	Direct Effect	\$2,814,051	\$3,756,862	\$5,148,867	\$3,906,593
	Indirect Effect	\$857,747	\$1,144,582	\$1,577,586	\$1,193,305
	Induced Effect	\$1,158,281	\$1,546,169	\$2,121,998	\$1,608,816
	Total Effect	\$4,830,079	\$6,447,611	\$8,848,451	\$6,708,714

Table 5.61 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$2,886,304	\$3,882,485	\$4,842,585	\$3,870,458
	Indirect Effect	\$981,598	\$1,320,387	\$1,646,906	\$1,316,297
	Induced Effect	\$1,369,043	\$1,841,556	\$2,296,954	\$1,835,851
	Total Effect	\$5,236,944	\$7,044,427	\$8,786,445	\$7,022,605
Non-residents	Direct Effect	\$1,527,607	\$2,009,070	\$3,251,284	\$2,262,654
	Indirect Effect	\$533,485	\$701,626	\$1,135,443	\$790,185
	Induced Effect	\$712,692	\$937,315	\$1,516,859	\$1,055,622
	Total Effect	\$2,773,785	\$3,648,010	\$5,903,587	\$4,108,461
Total	Direct Effect	\$4,413,911	\$5,891,555	\$8,093,869	\$6,133,112
	Indirect Effect	\$1,515,083	\$2,022,013	\$2,782,349	\$2,106,482
	Induced Effect	\$2,081,735	\$2,778,871	\$3,813,813	\$2,891,473
	Total Effect	\$8,010,729	\$10,692,437	\$14,690,032	\$11,131,066

Table 5.62 Channel Islands CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$4,709,438	\$6,334,856	\$7,901,404	\$6,315,233
	Indirect Effect	\$1,731,086	\$2,328,554	\$2,904,383	\$2,321,341
	Induced Effect	\$2,243,471	\$3,017,784	\$3,764,053	\$3,008,436
	Total Effect	\$8,683,994	\$11,681,195	\$14,569,840	\$11,645,010
Non-residents	Direct Effect	\$2,493,871	\$3,279,876	\$5,307,833	\$3,693,860
	Indirect Effect	\$949,726	\$1,249,055	\$2,021,349	\$1,406,710
	Induced Effect	\$1,167,632	\$1,535,640	\$2,485,131	\$1,729,468
	Total Effect	\$4,611,229	\$6,064,570	\$9,814,313	\$6,830,037
Total	Direct Effect	\$7,203,309	\$9,614,732	\$13,209,237	\$10,009,093
	Indirect Effect	\$2,680,812	\$3,577,609	\$4,925,732	\$3,728,051
	Induced Effect	\$3,411,103	\$4,553,424	\$6,249,184	\$4,737,904
	Total Effect	\$13,295,223	\$17,745,765	\$24,384,153	\$18,475,047

Durable Goods

Table 5.63 Channel Islands Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	21	32	36	30
	Indirect Effect	7	10	11	9
	Induced Effect	10	15	17	14
	Total Effect	38	57	64	53

Table 5.64 Channel Islands Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$1,251,310	\$1,893,905	\$2,130,803	\$1,758,673
	Indirect Effect	\$433,179	\$655,633	\$737,643	\$608,818
	Induced Effect	\$532,090	\$805,338	\$906,073	\$747,834
	Total Effect	\$2,216,578	\$3,354,875	\$3,774,519	\$3,115,324

Table 5.65 Channel Islands Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$2,314,221	\$3,502,661	\$3,940,791	\$3,252,558
	Indirect Effect	\$740,641	\$1,120,988	\$1,261,207	\$1,040,945
	Induced Effect	\$956,462	\$1,447,641	\$1,628,719	\$1,344,274
	Total Effect	\$4,011,324	\$6,071,291	\$6,830,717	\$5,637,777

Table 5.66 Channel Islands Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$3,936,698	\$5,958,342	\$6,703,640	\$5,532,893
	Indirect Effect	\$1,299,877	\$1,967,413	\$2,213,507	\$1,826,932
	Induced Effect	\$1,566,759	\$2,371,349	\$2,667,968	\$2,202,025
	Total Effect	\$6,803,334	\$10,297,104	\$11,585,115	\$9,561,851

California Sanctuaries Estimate Yearly Economic Impacts using IMPLAN

In this section, we add up the economic impacts for all four California National Marine Sanctuaries. Table 5.67 shows the relative contribution of expenditures to the three-year average for years 2010, 2011, and 2012.

Table 5.67 Percentage of Total California Sanctuaries Expenditures (2010-2012) Attributed to Each Year by Fishing Mode and Residential Status

Fishing Mode	Resident Status	2010	2011	2012
Shore	Residents	17%	43%	39%
	Non-Residents	27%	31%	43%
Private – Rental Boat	Residents	23%	33%	44%
	Non-Residents	24%	25%	51%
CPFV	Residents	26%	33%	40%
	Non-Residents	23%	32%	45%
Durable Goods	Residents	20%	40%	41%

Shore Mode

Table 5.68 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	72	181	163	139
	Indirect Effect	14	36	32	27
	Induced Effect	19	48	43	36
	Total Effect	104	265	238	202
Non-residents	Direct Effect	8	9	12	9
	Indirect Effect	1	2	2	2
	Induced Effect	2	2	3	2
	Total Effect	11	12	17	13
Total	Direct Effect	79	190	175	148
	Indirect Effect	15	38	34	29
	Induced Effect	20	50	45	38
	Total Effect	115	277	254	215

Table 5.69 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$3,304,092	\$8,446,270	\$7,556,301	\$6,435,554
	Indirect Effect	\$978,187	\$2,545,200	\$2,256,572	\$1,926,653
	Induced Effect	\$1,123,832	\$2,903,174	\$2,583,392	\$2,203,466
	Total Effect	\$5,406,112	\$13,894,644	\$12,396,265	\$10,565,674
Non-residents	Direct Effect	\$311,494	\$362,621	\$485,033	\$386,383
	Indirect Effect	\$98,645	\$118,563	\$151,315	\$122,841
	Induced Effect	\$105,826	\$125,676	\$163,263	\$131,588
	Total Effect	\$515,965	\$606,860	\$799,609	\$640,811
Total	Direct Effect	\$3,615,586	\$8,808,891	\$8,041,334	\$6,821,937
	Indirect Effect	\$1,076,832	\$2,663,763	\$2,407,887	\$2,049,494
	Induced Effect	\$1,229,658	\$3,028,850	\$2,746,655	\$2,335,054
	Total Effect	\$5,922,077	\$14,501,504	\$13,195,874	\$11,206,485

Table 5.70 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$5,271,486	\$13,516,885	\$12,073,700	\$10,287,357
	Indirect Effect	\$1,727,219	\$4,488,464	\$3,982,025	\$3,399,236
	Induced Effect	\$2,040,072	\$5,263,597	\$4,686,754	\$3,996,808
	Total Effect	\$9,038,777	\$23,268,948	\$20,742,479	\$17,683,401
Non-residents	Direct Effect	\$504,348	\$590,017	\$783,558	\$625,974
	Indirect Effect	\$171,019	\$205,260	\$262,510	\$212,930
	Induced Effect	\$192,734	\$228,345	\$297,669	\$239,583
	Total Effect	\$868,101	\$1,023,622	\$1,343,736	\$1,078,486
Total	Direct Effect	\$5,775,834	\$14,106,902	\$12,857,258	\$10,913,331
	Indirect Effect	\$1,898,238	\$4,693,724	\$4,244,535	\$3,612,166
	Induced Effect	\$2,232,806	\$5,491,942	\$4,984,423	\$4,236,390
	Total Effect	\$9,906,878	\$24,292,570	\$22,086,215	\$18,761,888

Table 5.71 California Sanctuaries Shore Mode Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$8,376,611	\$21,605,010	\$19,240,700	\$16,407,440
	Indirect Effect	\$3,083,475	\$8,045,678	\$7,123,121	\$6,084,091
	Induced Effect	\$3,248,407	\$8,388,110	\$7,465,724	\$6,367,414
	Total Effect	\$14,708,493	\$38,038,798	\$33,829,544	\$28,858,945
Non-residents	Direct Effect	\$813,603	\$961,644	\$1,257,976	\$1,011,074
	Indirect Effect	\$303,762	\$367,132	\$464,700	\$378,531
	Induced Effect	\$306,222	\$363,374	\$472,596	\$380,731
	Total Effect	\$1,423,588	\$1,692,149	\$2,195,272	\$1,770,336
Total	Direct Effect	\$9,190,214	\$22,566,654	\$20,498,676	\$17,418,515
	Indirect Effect	\$3,387,237	\$8,412,810	\$7,587,821	\$6,462,623
	Induced Effect	\$3,554,629	\$8,751,484	\$7,938,320	\$6,748,144
	Total Effect	\$16,132,081	\$39,730,947	\$36,024,816	\$30,629,281

Private – Rental Boating

Table 5.72 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	59	84	111	85
	Indirect Effect	14	21	28	21
	Induced Effect	18	28	37	28
	Total Effect	91	133	176	133
Non-residents	Direct Effect	32	36	70	46
	Indirect Effect	6	7	14	9
	Induced Effect	8	10	18	12
	Total Effect	46	53	103	67
Total	Direct Effect	91	119	182	131
	Indirect Effect	20	28	42	30
	Induced Effect	26	37	55	39
	Total Effect	137	186	279	200

Table 5.73 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$3,119,689	\$4,598,320	\$6,156,795	\$4,624,935
	Indirect Effect	\$978,087	\$1,497,408	\$2,007,143	\$1,494,213
	Induced Effect	\$1,096,801	\$1,649,427	\$2,190,921	\$1,645,716
	Total Effect	\$5,194,577	\$7,745,156	\$10,354,858	\$7,764,864
Non-residents	Direct Effect	\$1,378,838	\$1,624,477	\$3,140,537	\$2,047,951
	Indirect Effect	\$420,756	\$533,721	\$1,033,524	\$662,667
	Induced Effect	\$454,709	\$566,569	\$1,089,423	\$703,567
	Total Effect	\$2,254,303	\$2,724,767	\$5,263,486	\$3,414,185
Total	Direct Effect	\$4,498,527	\$6,222,797	\$9,297,332	\$6,672,885
	Indirect Effect	\$1,398,843	\$2,031,129	\$3,040,667	\$2,156,880
	Induced Effect	\$1,551,510	\$2,215,996	\$3,280,344	\$2,349,283
	Total Effect	\$7,448,880	\$10,469,923	\$15,618,344	\$11,179,049

Table 5.74 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$5,045,167	\$7,466,413	\$10,003,135	\$7,504,905
	Indirect Effect	\$1,730,808	\$2,647,947	\$3,548,494	\$2,642,416
	Induced Effect	\$1,990,143	\$2,989,262	\$3,972,064	\$2,983,823
	Total Effect	\$8,766,118	\$13,103,621	\$17,523,691	\$13,131,143
Non-residents	Direct Effect	\$2,185,565	\$2,621,557	\$5,044,072	\$3,283,731
	Indirect Effect	\$719,785	\$914,423	\$1,764,721	\$1,132,976
	Induced Effect	\$832,314	\$1,031,544	\$1,982,943	\$1,282,267
	Total Effect	\$3,737,665	\$4,567,524	\$8,791,734	\$5,698,974
Total	Direct Effect	\$7,230,732	\$10,087,970	\$15,047,207	\$10,788,636
	Indirect Effect	\$2,450,593	\$3,562,370	\$5,313,215	\$3,775,393
	Induced Effect	\$2,822,457	\$4,020,806	\$5,955,007	\$4,266,090
	Total Effect	\$12,503,783	\$17,671,145	\$26,315,425	\$18,830,118

Table 5.75 California Sanctuaries Private-Rental Boat Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$8,244,360	\$12,430,271	\$16,652,324	\$12,442,318
	Indirect Effect	\$3,205,408	\$4,927,276	\$6,596,502	\$4,909,729
	Induced Effect	\$3,178,510	\$4,781,996	\$6,345,561	\$4,768,689
	Total Effect	\$14,628,280	\$22,139,543	\$29,594,388	\$22,120,737
Non-residents	Direct Effect	\$3,528,586	\$4,348,200	\$8,345,456	\$5,407,414
	Indirect Effect	\$1,281,975	\$1,670,941	\$3,199,307	\$2,050,741
	Induced Effect	\$1,319,064	\$1,643,640	\$3,155,839	\$2,039,514
	Total Effect	\$6,129,627	\$7,662,782	\$14,700,600	\$9,497,670
Total	Direct Effect	\$11,772,946	\$16,778,471	\$24,997,780	\$17,849,732
	Indirect Effect	\$4,487,383	\$6,598,217	\$9,795,809	\$6,960,470
	Induced Effect	\$4,497,574	\$6,425,636	\$9,501,400	\$6,808,203
	Total Effect	\$20,757,907	\$29,802,325	\$44,294,988	\$31,618,407

CPFV

Table 5.76 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	99	126	153	126
	Indirect Effect	16	20	25	20
	Induced Effect	23	29	36	29
	Total Effect	138	175	213	175
Non-residents	Direct Effect	120	164	230	171
	Indirect Effect	21	28	39	29
	Induced Effect	27	36	51	38
	Total Effect	167	228	320	238
Total	Direct Effect	219	290	383	297
	Indirect Effect	37	48	64	49
	Induced Effect	50	66	87	67
	Total Effect	305	403	534	414

Table 5.77 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$3,431,280	\$4,335,009	\$5,265,311	\$4,343,867
	Indirect Effect	\$974,509	\$1,238,020	\$1,507,155	\$1,239,895
	Induced Effect	\$1,272,339	\$1,624,127	\$1,981,416	\$1,625,961
	Total Effect	\$5,678,127	\$7,197,155	\$8,753,884	\$7,209,722
Non-residents	Direct Effect	\$4,454,627	\$6,070,273	\$8,453,655	\$6,326,185
	Indirect Effect	\$1,351,150	\$1,836,967	\$2,547,729	\$1,911,949
	Induced Effect	\$1,553,683	\$2,109,614	\$2,942,630	\$2,201,976
	Total Effect	\$7,359,461	\$10,016,852	\$13,944,014	\$10,440,109
Total	Direct Effect	\$7,885,907	\$10,405,282	\$13,718,966	\$10,670,052
	Indirect Effect	\$2,325,659	\$3,074,987	\$4,054,884	\$3,151,843
	Induced Effect	\$2,826,022	\$3,733,741	\$4,924,046	\$3,827,936
	Total Effect	\$13,037,588	\$17,214,007	\$22,697,898	\$17,649,831

Table 5.78 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$5,301,870	\$6,700,735	\$8,140,535	\$6,714,380
	Indirect Effect	\$1,746,015	\$2,216,512	\$2,697,395	\$2,219,974
	Induced Effect	\$2,299,189	\$2,932,609	\$3,576,456	\$2,936,085
	Total Effect	\$9,347,074	\$11,849,854	\$14,414,385	\$11,870,438
Non-residents	Direct Effect	\$7,096,016	\$9,664,328	\$13,454,053	\$10,071,466
	Indirect Effect	\$2,356,991	\$3,206,390	\$4,451,063	\$3,338,148
	Induced Effect	\$2,824,673	\$3,837,641	\$5,355,350	\$4,005,888
	Total Effect	\$12,277,682	\$16,708,359	\$23,260,469	\$17,415,503
Total	Direct Effect	\$12,397,886	\$16,365,063	\$21,594,588	\$16,785,846
	Indirect Effect	\$4,103,006	\$5,422,902	\$7,148,458	\$5,558,122
	Induced Effect	\$5,123,862	\$6,770,250	\$8,931,806	\$6,941,973
	Total Effect	\$21,624,756	\$28,558,213	\$37,674,854	\$29,285,941

Table 5.79 California Sanctuaries CPFV Fishing Trip-related Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$8,546,031	\$10,814,254	\$13,145,389	\$10,835,225
	Indirect Effect	\$3,037,447	\$3,861,611	\$4,702,727	\$3,867,262
	Induced Effect	\$3,721,379	\$4,752,381	\$5,798,951	\$4,757,570
	Total Effect	\$15,304,856	\$19,428,247	\$23,647,067	\$19,460,057
Non-residents	Direct Effect	\$11,361,713	\$15,459,886	\$21,512,099	\$16,111,233
	Indirect Effect	\$4,086,868	\$5,554,045	\$7,708,848	\$5,783,254
	Induced Effect	\$4,518,953	\$6,135,886	\$8,567,350	\$6,407,396
	Total Effect	\$19,967,535	\$27,149,815	\$37,788,299	\$28,301,883
Total	Direct Effect	\$19,907,744	\$26,274,140	\$34,657,488	\$26,946,457
	Indirect Effect	\$7,124,315	\$9,415,656	\$12,411,575	\$9,650,515
	Induced Effect	\$8,240,332	\$10,888,267	\$14,366,301	\$11,164,967
	Total Effect	\$35,272,391	\$46,578,062	\$61,435,366	\$47,761,940

Durable Goods

Table 5.80 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Employment by Residential Status and Impact Type, 2010, 2011 and 2012

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	237	376	386	333
	Indirect Effect	57	107	110	91
	Induced Effect	85	138	142	122
	Total Effect	379	621	638	546

Table 5.81 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Income by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$14,812,658	\$23,056,157	\$23,600,041	\$20,489,619
	Indirect Effect	\$4,217,465	\$7,986,053	\$8,161,489	\$6,788,336
	Induced Effect	\$5,070,483	\$8,301,685	\$8,485,082	\$7,285,750
	Total Effect	\$24,100,606	\$39,343,894	\$40,246,612	\$34,563,704

Table 5.82 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Value Added by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$25,221,657	\$42,633,857	\$43,645,612	\$37,167,042
	Indirect Effect	\$7,313,826	\$13,751,744	\$14,063,322	\$11,709,631
	Induced Effect	\$9,198,170	\$15,046,857	\$15,385,768	\$13,210,265
	Total Effect	\$41,733,652	\$71,432,460	\$73,094,702	\$62,086,938

Table 5.83 California Sanctuaries Fishing Durable Goods Expenditure Impacts on Output by Residential Status and Impact Type, 2010, 2011 and 2012 (2014 \$)

Residential Status	Impact Type	2010	2011	2012	Average
Residents	Direct Effect	\$40,294,040	\$71,719,309	\$73,566,321	\$61,859,890
	Indirect Effect	\$12,491,785	\$23,629,274	\$24,143,504	\$20,088,188
	Induced Effect	\$14,687,407	\$24,036,038	\$24,575,698	\$21,099,714
	Total Effect	\$67,473,232	\$119,384,620	\$122,285,522	\$103,047,791

Study Area Employment and Labor Income Data

It is also possible to use California and county data to determine the percentage of employment and income that each sanctuary contributes to its respective study area. The information on employment and labor income is from the US Department of Commerce Bureau of Economic Analysis. The employment and income numbers are presented in the Table 5.84 below.

The employment and income numbers are the sum of the counties' income and employment that are included in each sanctuary study area as described in Chapter 1. By taking the IMPLAN output for each sanctuary and the state and dividing it by the respective study area number, the percentage of employment and income that is attributed to the sanctuary can be estimated for each year of the study (2010 through 2012).

Table 5.84 BEA Study Area Employment and Labor Income

	2010	2011	2012	Average
Monterey Bay				
Employment	4,306,995	4,393,697	4,532,734	4,411,142
Income	\$392,597,631,000	\$426,540,881,000	\$457,225,291,000	425,454,601,000
Greater Farallones				
Employment	1,850,224	1,878,828	1,931,879	1,886,977
Income	\$174,428,279,000	\$188,447,761,000	\$201,264,536,000	188,046,858,667
Cordell Bank				
Employment	903,681	921,559	945,916	923,719
Income	\$89,616,615,000	\$97,029,919,000	\$102,606,268,000	96,417,600,667
Channel Islands				
Employment	6,097,118	6,230,645	6,358,142	6,228,635
Income	\$459,484,242,000	\$483,748,165,000	\$504,555,495,000	482,595,967,333
California				
Employment	19,808,693	20,182,463	20,653,860	20,215,005
Income	\$1,579,148,473,000	\$1,683,203,700,000	\$1,768,039,281,000	1,676,797,151,333

The next set of tables presents the combined impacts of residents and non-residents by each mode, for each year by sanctuary. The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84 BEA Study Area Employment and Labor Income. The study area for each Sanctuary is defined in Chapter 1.

Monterey Bay

Table 5.85 MB 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)¹⁶

Mode	Output	Value Added	Labor Income	Employment
Shore	\$14,277,975	\$8,703,121	\$5,189,342	99
% of MB			0.001%	0.002%
Private/rental	\$13,796,902	\$8,109,404	\$4,781,220	81
% of MB			0.001%	0.002%
CPFV	\$14,002,475	\$8,613,629	\$5,187,756	112
% of MB			0.001%	0.003%
Total	\$42,077,352	\$25,426,154	\$15,158,318	291
% of MB			0.004%	0.007%

¹⁶ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.86 MB 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)¹⁷

Mode	Output	Value Added	Labor Income	Employment
Shore	\$38,242,183	\$23,324,990	\$13,912,195	264
% of MB			0.003%	0.006%
Private/rental	\$21,545,559	\$12,663,712	\$7,467,977	126
% of MB			0.002%	0.003%
CPFV	\$17,485,791	\$10,756,190	\$6,477,911	139
% of MB			0.002%	0.003%
Total	\$77,273,533	\$46,744,892	\$27,858,083	530
% of MB			0.007%	0.012%

Table 5.87 MB 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)¹⁸

Mode	Output	Value Added	Labor Income	Employment
Shore	\$33,033,534	\$20,145,807	\$12,015,282	228
% of MB			0.003%	0.005%
Private/rental	\$34,305,716	\$20,162,921	\$11,900,645	203
% of MB			0.003%	0.004%
CPFV	\$20,229,302	\$12,445,207	\$7,496,846	161
% of MB			0.002%	0.004%
Total	\$87,568,552	\$52,753,935	\$31,412,773	593
% of MB			0.007%	0.013%

¹⁷ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

¹⁸ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.88 MB 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)¹⁹

Mode	Output	Value Added	Labor Income	Employment
Shore	\$28,517,897	\$17,391,306	\$10,372,273	197
% of MB			0.002%	0.004%
Private/rental	\$23,216,059	\$13,645,346	\$8,049,947	137
% of MB			0.002%	0.003%
CPFV	\$17,239,189	\$10,605,009	\$6,387,504	137
% of MB			0.002%	0.003%
Total	\$68,973,146	\$41,641,660	\$24,809,725	471
% of MB			0.006%	0.011%

Table 5.89 MB Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)²⁰

Measure	2010	2011	2012	Average
Output	\$42,077,352	\$77,273,533	\$87,568,552	\$68,973,146
Value Added	\$25,426,154	\$46,744,892	\$52,753,935	\$41,641,660
Labor Income	\$15,158,318	\$27,858,083	\$31,412,773	\$24,809,725
% of MB	0.004%	0.007%	0.007%	0.006%
Employment	291	530	593	471
% of MB	0.007%	0.012%	0.013%	0.011%

Table 5.90 MB Durable Goods Economic Impacts of Residents All Modes (2014 \$)²¹

Measure	2010	2011	2012	Average
Output	\$51,784,297	\$101,066,633	\$98,777,084	\$83,876,005
Value Added	\$32,534,233	\$60,680,124	\$59,305,485	\$50,839,947
Labor Income	\$19,058,061	\$33,439,119	\$32,681,594	\$28,392,925
% of MB	0.005%	0.008%	0.007%	0.007%
Employment	293	520	509	441
% of MB	0.007%	0.012%	0.011%	0.010%

¹⁹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

²⁰ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

²¹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.91 MB Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)²²

Measure	2010	2011	2012	Average
Output	\$93,861,649	\$178,340,166	\$186,345,636	\$152,849,150
Value Added	\$57,960,387	\$107,425,016	\$112,059,420	\$92,481,608
Labor Income	\$34,216,379	\$61,297,202	\$64,094,367	\$53,202,649
% of MB	0.01%	0.01%	0.01%	0.01%
Employment	584	1,050	1,101	912
% of MB	0.01%	0.02%	0.02%	0.02%

Greater Farallones

Table 5.92 GF 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)²³

Mode	Output	Value Added	Labor Income	Employment
Shore	\$1,854,106	\$1,203,757	\$732,735	16
% of GF			0.0004%	0.001%
Private/rental	\$4,907,460	\$3,178,025	\$1,946,869	42
% of GF			0.001%	0.002%
CPFV	\$7,649,856	\$4,793,412	\$2,894,604	69
% of GF			0.002%	0.004%
Total	\$14,411,422	\$9,175,194	\$5,574,208	127
% of GF			0.003%	0.007%

²² The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

²³ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.93 GF 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)²⁴

Mode	Output	Value Added	Labor Income	Employment
Shore	\$1,488,764	\$967,580	\$589,309	13
% of GF			0.0003%	0.001%
Private/rental	\$3,881,837	\$2,493,901	\$1,527,945	32
% of GF			0.001%	0.002%
CPFV	\$11,224,446	\$7,031,828	\$4,241,495	101
% of GF			0.002%	0.005%
Total	\$16,595,047	\$10,493,309	\$6,358,749	146
% of GF			0.003%	0.008%

Table 5.94 GF 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)²⁵

Mode	Output	Value Added	Labor Income	Employment
Shore	\$2,991,282	\$1,940,408	\$1,180,592	26
% of GF			0.001%	0.001%
Private/rental	\$6,003,056	\$3,842,714	\$2,352,551	49
% of GF			0.001%	0.003%
CPFV	\$16,682,346	\$10,450,663	\$6,298,790	149
% of GF			0.003%	0.008%
Total	\$25,676,684	\$16,233,785	\$9,831,933	225
% of GF			0.005%	0.012%

²⁴ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

²⁵ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.95 GF 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)²⁶

Mode	Output	Value Added	Labor Income	Employment
Shore	\$2,111,384	\$1,370,582	\$834,212	18
% of GF			0.0004%	0.001%
Private/rental	\$4,930,784	\$3,171,547	\$1,942,455	41
% of GF			0.001%	0.002%
CPFV	\$11,852,216	\$7,425,301	\$4,478,296	106
% of GF			0.002%	0.006%
Total	\$18,894,384	\$11,967,429	\$7,254,963	166
% of GF			0.004%	0.009%

Table 5.96 GF Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)²⁷

Measure	2010	2011	2012	Average
Output	\$14,411,422	\$16,595,047	\$25,676,684	\$18,894,384
Value Added	\$9,175,194	\$10,493,309	\$16,233,785	\$11,967,429
Labor Income	\$5,574,208	\$6,358,749	\$9,831,933	\$7,254,963
% of GF	0.003%	0.003%	0.005%	0.004%
Employment	127	146	225	166
% of GF	0.007%	0.008%	0.012%	0.009%

Table 5.97 GF Durable Goods Economic Impacts of Residents All Modes (2014 \$)²⁸

Measure	2010	2011	2012	Average
Output	\$8,759,830	\$7,971,473	\$11,850,915	\$9,527,406
Value Added	\$5,110,478	\$4,650,552	\$6,913,815	\$5,558,282
Labor Income	\$2,783,931	\$2,533,386	\$3,766,298	\$3,027,872
% of GF	0.002%	0.001%	0.002%	0.002%
Employment	48	43	64	52
% of GF	0.003%	0.002%	0.003%	0.003%

²⁶ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

²⁷ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

²⁸ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.98 GF Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)²⁹

Measure	2010	2011	2012	Average
Output	\$23,171,252	\$24,566,520	\$37,527,599	\$28,421,790
Value Added	\$14,285,672	\$15,143,861	\$23,147,600	\$17,525,711
Labor Income	\$8,358,139	\$8,892,135	\$13,598,231	\$10,282,835
% of GF	0.005%	0.005%	0.007%	0.005%
Employment	174	189	289	217
% of GF	0.009%	0.010%	0.015%	0.012%

Cordell Banks

Table 5.99 CB 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³⁰

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$107,465	\$70,894	\$43,582	1
% of CB			0.00005%	0.0001%
CPFV	\$324,837	\$206,986	\$125,149	3
% of CB			0.0001%	0.0003%
Total	\$432,302	\$277,880	\$168,731	4
% of CB			0.0002%	0.0004%

Table 5.100 CB 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³¹

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$52,680	\$34,155	\$20,974	0.4
% of CB			0.00002%	0.00004%
CPFV	\$122,060	\$77,758	\$46,990	1
% of CB			0.00005%	0.0001%
Total	\$174,740	\$111,913	\$67,964	2
% of CB			0.0001%	0.0002%

²⁹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³⁰ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³¹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.101 CB 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³²

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$33,323	\$22,188	\$13,682	0.3
% of CB			0.00001%	0.00003%
CPFV	\$139,565	\$88,952	\$53,811	1
% of CB			0.0001%	0.0001%
Total	\$172,888	\$111,140	\$67,493	2
% of CB			0.0001%	0.0002%

Table 5.102 CB 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³³

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$64,489	\$42,412	\$26,079	1
% of CB			0.00003%	0.0001%
CPFV	\$195,487	\$124,565	\$75,317	2
% of CB			0.0001%	0.0002%
Total	\$259,977	\$166,978	\$101,396	2
% of CB			0.0001%	0.0002%

Table 5.103 CB Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)³⁴

Measure	2010	2011	2012	Average
Output	\$432,302	\$174,740	\$172,888	\$259,977
Value Added	\$277,880	\$111,913	\$111,140	\$166,978
Labor Income	\$168,731	\$67,964	\$67,493	\$101,396
% of CB	0.0002%	0.0001%	0.0001%	0.0001%
Employment	4	2	2	2
% of CB	0.0004%	0.0002%	0.0002%	0.0002%

³² The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³³ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³⁴ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.104 CB Durable Goods Economic Impacts of Residents All Modes (2014 \$)³⁵

Measure	2010	2011	2012	Average
Output	\$125,771	\$49,410	\$72,408	\$82,530
Value Added	\$77,617	\$30,493	\$44,685	\$50,932
Labor Income	\$42,036	\$16,514	\$24,201	\$27,584
% of CB	0.00005%	0.00002%	0.00002%	0.00003%
Employment	1	0	0	0
% of CB	0.0001%	0.00003%	0.00004%	0.0001%

Table 5.105 CB Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)³⁶

Measure	2010	2011	2012	Average
Output	\$558,073	\$224,150	\$245,296	\$342,506
Value Added	\$355,497	\$142,406	\$155,825	\$217,909
Labor Income	\$210,767	\$84,478	\$91,694	\$128,980
% of CB	0.0002%	0.0001%	0.0001%	0.0001%
Employment	5	2	2	3
% of CB	0.0005%	0.0002%	0.0002%	0.0003%

Channel Islands

Table 5.106 CI 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³⁷

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$1,946,080	\$1,145,460	\$677,209	14
% of CI			0.0001%	0.0002%
CPFV	\$13,295,223	\$8,010,729	\$4,830,079	121
% of CI			0.001%	0.002%
Total	\$15,241,303	\$9,156,189	\$5,507,288	135
% of CI			0.001%	0.002%

³⁵ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³⁶ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³⁷ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.107 CI 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³⁸

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$4,322,249	\$2,479,377	\$1,453,027	27
% of CI			0.0003%	0.0004%
CPFV	\$17,745,765	\$10,692,437	\$6,447,611	162
% of CI			0.001%	0.003%
Total	\$22,068,014	\$13,171,814	\$7,900,638	189
% of CI			0.002%	0.003%

Table 5.108 CI 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)³⁹

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$3,952,893	\$2,287,602	\$1,351,466	26
% of CI			0.0003%	0.0004%
CPFV	\$24,384,153	\$14,690,032	\$8,848,451	222
% of CI			0.002%	0.003%
Total	\$28,337,046	\$16,977,634	\$10,199,917	248
% of CI			0.002%	0.004%

Table 5.109 CI 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁰

Mode	Output	Value Added	Labor Income	Employment
Private/rental	\$3,407,074	\$1,970,813	\$1,160,567	22
% of CI			0.0002%	0.0004%
CPFV	\$18,475,047	\$11,131,066	\$6,708,714	168
% of CI			0.001%	0.003%
Total	\$21,882,121	\$13,101,879	\$7,869,281	191
% of CI			0.002%	0.003%

³⁸ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

³⁹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁴⁰ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.110 CI Trip-related Economic Impacts of Residents and Non-Residents All Modes (2014 \$)⁴¹

Measure	2010	2011	2012	Average
Output	\$15,241,303	\$22,068,014	\$28,337,046	\$21,882,121
Value Added	\$9,156,189	\$13,171,814	\$16,977,634	\$13,101,879
Labor Income	\$5,507,288	\$7,900,638	\$10,199,917	\$7,869,281
% of CI	0.001%	0.002%	0.002%	0.002%
Employment	135	189	248	191
% of CI	0.002%	0.003%	0.004%	0.003%

Table 5.111 CI Durable Goods Economic Impacts of Residents All Modes (2014 \$)⁴²

Measure	2010	2011	2012	Average
Output	\$6,803,334	\$10,297,104	\$11,585,115	\$9,561,851
Value Added	\$4,011,324	\$6,071,291	\$6,830,717	\$5,637,777
Labor Income	\$2,216,578	\$3,354,875	\$3,774,519	\$3,115,324
% of CI	0.0005%	0.001%	0.001%	0.001%
Employment	38	57	64	53
% of CI	0.001%	0.001%	0.001%	0.001%

Table 5.112 CI Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)⁴³

Measure	2010	2011	2012	Average
Output	\$22,044,637	\$32,365,118	\$39,922,161	\$31,443,972
Value Added	\$13,167,513	\$19,243,105	\$23,808,351	\$18,739,656
Labor Income	\$7,723,866	\$11,255,513	\$13,974,436	\$10,984,605
% of CI	0.002%	0.002%	0.003%	0.002%
Employment	173	246	313	244
% of CI	0.003%	0.004%	0.005%	0.004%

⁴¹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁴² The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁴³ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

California Sanctuaries

Table 5.113 CA 2010 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁴

Mode	Output	Value Added	Labor Income	Employment
Shore	\$16,132,081	\$9,906,878	\$5,922,077	115
% of CA			0.000%	0.001%
Private/rental	\$20,757,907	\$12,503,783	\$7,448,880	137
% of CA			0.000%	0.001%
CPFV	\$35,272,391	\$21,624,756	\$13,037,588	305
% of CA			0.001%	0.002%
Total	\$72,162,379	\$44,035,417	\$26,408,545	556
% of CA			0.002%	0.003%

Table 5.114 CA 2011 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁵

Mode	Output	Value Added	Labor Income	Employment
Shore	\$39,730,947	\$24,292,570	\$14,501,504	277
% of CA			0.001%	0.001%
Private/rental	\$29,802,325	\$17,671,145	\$10,469,923	186
% of CA			0.001%	0.001%
CPFV	\$46,578,062	\$28,558,213	\$17,214,007	403
% of CA			0.001%	0.002%
Total	\$116,111,334	\$70,521,928	\$42,185,434	866
% of CA			0.003%	0.004%

⁴⁴ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁴⁵ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.115 CA 2012 Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁶

Mode	Output	Value Added	Labor Income	Employment
Shore	\$36,024,816	\$22,086,215	\$13,195,874	254
% of CA			0.001%	0.001%
Private/rental	\$44,294,988	\$26,315,425	\$15,618,344	279
% of CA			0.001%	0.001%
CPFV	\$61,435,366	\$37,674,854	\$22,697,898	534
% of CA			0.001%	0.003%
Total	\$141,755,170	\$86,076,494	\$51,512,116	1,067
% of CA			0.003%	0.005%

Table 5.116 CA 2010-2012 Average Yearly Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁷

Mode	Output	Value Added	Labor Income	Employment
Shore	\$30,629,281	\$18,761,888	\$11,206,485	215
% of CA			0.001%	0.001%
Private/rental	\$31,618,407	\$18,830,118	\$11,179,049	200
% of CA			0.001%	0.001%
CPFV	\$47,761,940	\$29,285,941	\$17,649,831	414
% of CA			0.001%	0.002%
Total	\$110,009,628	\$66,877,946	\$40,035,365	830
% of CA			0.002%	0.004%

Table 5.117 CA Trip-related Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁸

Measure	2010	2011	2012	Average
Output	\$72,162,379	\$116,111,334	\$141,755,170	\$110,009,628
Value Added	\$44,035,417	\$70,521,928	\$86,076,494	\$66,877,946
Labor Income	\$26,408,545	\$42,185,434	\$51,512,116	\$40,035,365
% of CA	0.002%	0.003%	0.003%	0.002%
Employment	556	866	1067	830
% of CA	0.003%	0.004%	0.005%	0.004%

⁴⁶ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁴⁷ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁴⁸ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.118 CA Durable Goods Expenditure Economic Impacts of Residents and Non-Residents by Fishing Mode (2014 \$)⁴⁹

Measure	2010	2011	2012	Average
Output	\$67,473,232	\$119,384,620	\$122,285,522	\$103,047,791
Value Added	\$41,733,652	\$71,432,460	\$73,094,702	\$62,086,938
Labor Income	\$24,100,606	\$39,343,894	\$40,246,612	\$34,563,704
% of CA	0.002%	0.002%	0.002%	0.002%
Employment	379	621	638	546
% of CA	0.002%	0.003%	0.003%	0.003%

Table 5.119 CA Total Expenditures Economic Impacts of Residents and Non-Residents All Modes (2014 \$)⁵⁰

Measure	2010	2011	2012	Average
Output	\$139,635,611	\$235,495,954	\$264,040,692	\$213,057,419
Value Added	\$85,769,069	\$141,954,388	\$159,171,196	\$128,964,884
Labor Income	\$50,509,151	\$81,529,328	\$91,758,728	\$74,599,069
% of CA	0.003%	0.005%	0.005%	0.004%
Employment	936	1,487	1,705	1,376
% of CA	0.005%	0.007%	0.008%	0.007%

Conclusion

The tables in this Chapter present the estimated economic impacts of recreational fishing in California NMS based on expenditures estimated in Chapter 4. The data can be used in conjunction with study area estimates of other available economic indicators to understand the total impact of recreational fishing within the study areas and California. Additionally, the output from trip-related expenditures can be used when considering policies that may impact or shift the demand for recreational fishing within California NMS to estimate the economic impact of such policies.

Below are three additional tables summarizing multipliers defined as total spending divided by each economic measurement (e.g. output, value added, income and employment). This is done for trip-related expenditures (Table 5.120), durable goods expenditures (Table 5.121), and total trip-related plus durable goods expenditures (Table 5.122).

⁴⁹ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

⁵⁰ The percentages in the tables are the percent of employment or income that can be attributed to recreational fishing activities within the study area. The study area employment and income are defined in Table 5.84. The study area for each Sanctuary is defined in Chapter 1.

Table 5.120 Multipliers for Relationship between Total Trip-related Expenditures and Economic Impact Measure for the 2010-2012 Yearly Averages⁵¹

Sanctuary	Economic Impact Measure			
	Output	Value Added	Income	Employment
Monterey Bay (MB)	1.005	0.647	0.396	0.000008
Greater Farallones (GF)	1.139	0.722	0.437	0.000010
Cordell Bank (CB)	1.060	0.681	0.413	0.000009
Channel Islands (CI)	1.104	0.683	0.415	0.000010
All Sanctuaries	1.380	0.839	0.502	0.000010

Table 5.121 Multipliers for Relationship between Total Durable Good Expenditures and Economic Impact Measure for the 2010-2012 Yearly Averages⁵²

Sanctuary	Economic Impact Measure			
	Output	Value Added	Income	Employment
Monterey Bay (MB)	1.369	0.830	0.464	0.000007
Greater Farallones (GF)	1.254	0.731	0.398	0.000007
Cordell Bank (CB)	1.127	0.695	0.377	0.000006
Channel Islands (CI)	1.374	0.810	0.448	0.000008
All Sanctuaries	1.358	0.818	0.455	0.000007

Table 5.122 Multipliers for Relationship between Total Expenditures and Economic Impact Measure for the 2010-2012 Yearly Averages⁵³

Sanctuary	Economic Impact Measure			
	Output	Value Added	Income	Employment
Monterey Bay (MB)	1.207	0.748	0.433	0.000008
Greater Farallones (GF)	1.175	0.725	0.425	0.000009
Cordell Bank (CB)	1.075	0.684	0.405	0.000009
Channel Islands (CI)	1.196	0.727	0.426	0.000009
All Sanctuaries	1.369	0.829	0.479	0.000009

⁵¹ Multipliers are equal to economic measure divided by total trip-related expenditures. So multiply these multipliers by total estimated trip-related expenditures would yield estimates of the total economic impact for each measure. These numbers may vary slightly from calculating them directly from the previous tables presenting averages in this report due to rounding.

⁵² Multipliers are equal to economic measure divided by total trip-related expenditures. So multiply these multipliers by total estimated trip-related expenditures would yield estimates of the total economic impact for each measure. These numbers may vary slightly from calculating them directly from the previous tables presenting averages in this report due to rounding.

⁵³ Multipliers are equal to economic measure divided by total trip-related expenditures. So multiply these multipliers by total estimated trip-related expenditures would yield estimates of the total economic impact for each measure. These numbers may vary slightly from calculating them directly from the previous tables presenting averages in this report due to rounding.

Chapter 6 Conclusion

The information and methods presented in this appendix provide supporting documentation to the Conservation Science Division Series on Recreational Fisheries Impacts on Local County Economies for Monterey Bay, Greater Farallones, Cordell Banks, Channel Islands and the four sanctuaries combined within California.

Utilizing recreational fisher survey data provided by CFWS and RecFIN, expenditure profiles provided by NOAA NMFS and IMPLAN the total economic impacts of recreational fishing in National Marine Sanctuaries can be evaluated. Additionally, recreational fishing trends in Sanctuaries over time can be evaluated. The results of this series of reports can help to inform policy and management decisions by understanding how marginal changes will impact users and the local economies.

References

- Day, Francis. (2011). Principles of Impact Analysis & IMPLAN Applications. First Edition. MIG.
- IMPLAN. *Margining: When you know what is purchased*. (2014).
< http://implan.com/index.php?option=com_content&view=article&id=160&Itemid=1702>
- Lovell, Sabrina, Scott Steinback, and James Hilger. 2013. The Economic Contribution of Marine Angler Expenditures in the United States, 2011. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-134.
- North American Industry Classification System (NAICS). (2014).
< <http://www.naics.com/search/>>
- RecFIN. (2014). Pacific States Marine Fisheries Commission. <<http://www.recfin.org/>>
- United States Census Bureau. (2013). Metropolitan and Micropolitan.
<<http://www.census.gov/population/metro/data/other.html>>
- United States Department of Commerce, Bureau of Economic Analysis (BEA).
Regional Data – Personal Income & GDP.
<<http://bea.gov/iTable/iTable.cfm?reqid=70&step=1&isuri=1&acrdn=5#reqid=70&step=1&isuri=1>>
- United States Department of Commerce, Bureau of Economic Analysis (BEA).
Regional Economic Accounts.
< <http://www.bea.gov/regional/>>
- United States Department of Labor. Bureau of Labor Statistics (BLS).
< <http://data.bls.gov/pdq/querytool.jsp?survey=cu>>

Appendix A

Residential SAS Code for Monterey Bay and Greater Farallones

```
libname CArcFish 'I:\ONMS\Socioeconomic\CA Rec Fishing';
```

```
***Create data set with only information where people are working in the coastal counties that touch sanctuaries... drop all other observations. WkpCtyCd = City Code of where the R works, RsdCtyCd = City Code of where R lives;
```

```
data CArcFish.ICCCstCy;
    set CArcFish.ICCsrvy ;
    if WkpCtyCd='045' or WkpCtyCd='097' or WkpCtyCd='041' or WkpCtyCd='075' or
WkpCtyCd='081' or WkpCtyCd='087' or WkpCtyCd='053' or WkpCtyCd='079';
```

```
run;
```

```
****sort data to run stats based on WkpCtyCd;
```

```
proc sort data=CArcFish.ICCCstCy;
    by WkpCtyCd;
```

```
run;
```

```
proc sort data=CArcFish.ICCCstCy;
    by RsdCtyCd;
```

```
run;
```

```
proc print data=CArcFish.ICCCstCy;
    sum Number;
    by RsdCtyCd;
```

```
run;
```

```
*****get means of residents from outside cities working in coastal town... will later take N* Mean to get total and then get percentage;
```

```
proc means data=CArcFish.ICCCstCy;
```

```
class wkpctycd rsdctycd;
```

```
var Number;
```

```
output out=CArcFish.ICCstats;
```

```
run;
```

```
*****calculate number of those working in coastal cities to then add variable to ICCstats to get percentage leaving to other resident county;
```

```
proc sort data=CArcFish.ICCCstCy;
    by WkpCtyCd;
```

```
run;
```

```
*****Now we will create a variable in the the ICCstCy file that has the population of employment... First two commands clean data to get only mean rows of obs and then to delete missing values for Wrk and Rsd City that are total stats of all variables. WkpCtyCd = City Code of where the R works, RsdCtyCd = City Code of where R lives;
```

```
data CArcFish.ICCstat1;  
    set CArcFish.ICCstats;  
    if _STAT_='MEAN';
```

```
run;
```

```
data CArcFish.ICCstat1;  
    set CArcFish.ICCstat1;  
    if cmiss(WkpCtyCd) then delete;  
    if cmiss(RsdCtyCd) then delete;
```

```
run;
```

****workers is a new variable that is the number of people who live in a specific county and work in a given county;**

```
data CArcFish.ICCstat1;  
    set CArcFish.ICCstat1;  
    workers = Number * _Freq_;
```

```
run;
```

```
proc print data=CArcFish.ICCstat1;  
    sum workers;  
    by wkpctycd;
```

```
run;
```

We are assigning the number of workers in each city (workpop) as given to us by the American Community Survey. WkpCtyCd = City Code of where the R works;

```
data CArcFish.ICCstat1;  
    set CArcFish.ICCstat1;  
    length workpop $7;  
    if WkpCtyCd = '041' then workpop = '124063' ;  
    if WkpCtyCd = '045' then workpop = '38834' ;  
    if WkpCtyCd = '053' then workpop = '175857' ;  
    if WkpCtyCd = '075' then workpop = '591257' ;  
    if WkpCtyCd = '079' then workpop = '115685' ;  
    if WkpCtyCd = '081' then workpop = '351276' ;  
    if WkpCtyCd = '087' then workpop = '109695' ;  
    if WkpCtyCd = '097' then workpop = '206920' ;
```

```
run;
```

****prcntlve is the number of workers who work in a county given their resident county (workers) divided by the total workers in the working county) * 100 to get the percent;**

```
data CArcFish.ICCstat1;  
    set CArcFish.ICCstat1;  
    prcntlve = (workers/workpop)* 100;
```

```
run;
```

*******save in Excel as Stats on Resident County and Work County;**

```

proc sort data=CArcFish.ICCstat1;
  by prcntlve;
run;
***Create a new variable set with observations of the percent working in outside counties > 1.
Just helps to identify city with large populations working in outside counties;
data CArcFish.HighICC;
  set CArcFish.ICCstat1;
  if prcntlve <= 1 then delete;
run;

```

Shore Mode - SAS Code for Monterey Bay and Greater Farallones

2.1a Preparing Data

```
libname CArec 'H:\CA Rec Fishing\SAS Files';
```

****Set data was downloaded from e-mail forwarded to Danielle from Bob Leeworthy on August 4, 2014 'casmeml';

```

data CARecUs;
  set CArec.casmeml;
run;

```

*****Create resident dummy variables for Greater Farallones and Monterey Bay Study areas, rsdtGF and rsdtMB based on looking at number of people who work in counties along the sanctuaries and their resident counties;

```

data CARecUs;
  set CARecUs;

  rsdtGF = 0;
  if cnty_res = '13' then rsdtGF = 1;
  if cnty_res = '95' then rsdtGF = 1;
  if cnty_res = '97' then rsdtGF = 1;
  if cnty_res = '45' then rsdtGF = 1;
  if cnty_res = '41' then rsdtGF = 1;
  if cnty_res = '75' then rsdtGF = 1;
  rsdtMB = 0;
  if cnty_res = '13' then rsdtMB = 1;
  if cnty_res = '95' then rsdtMB = 1;
  if cnty_res = '01' then rsdtMB = 1;
  if cnty_res = '85' then rsdtMB = 1;
  if cnty_res = '75' then rsdtMB = 1;
  if cnty_res = '81' then rsdtMB = 1;

```



```

if cnty_res = '53' then rsdtMB = 1;
if cnty_res = '79' then rsdtMB = 1;
if cnty_res = '87' then rsdtMB = 1;
run;

```

*****Create Variable for Study Area of GF and for MB by county.... taking coastal towns on the sanctuary for place of intercept. The southern tip of cnty 41 is also in MB, but we only included in Greater Farallones

**We ended up not using this code because we used the buffer in GIS to pull those points, but keeping the code in case we need it in future;

```

data Carecus;
    set CAREcUs;
GulfFCty = 0;
    if cnty = '45' then GulfF = 1;
    if cnty = '97' then GulfF = 1;
    if cnty = '41' then GulfF = 1;
MbayCty = 0;
    if cnty = '75' then Mbay = 1;
    if cnty = '81' then Mbay = 1;
    if cnty = '87' then Mbay = 1;
    if cnty = '53' then Mbay = 1;
    if cnty = '79' then Mbay = 1;
run;

```

*****Merge the Access point and district file for sanctuary 'NMS and Access points Intersect 8.26 and NMSap826' to the CAREcUse file so that we have district and access point in the main data set;

****This merge only merges the survey data with access points in sanctuaries

*****combines the cnty and site columns to one unique identifier variable in the access point file;

```

data distset;
    set carec.NMSap826;
    sitecd = catx(' ', vvalue(cnty), vvalue(site));
run;

```

```

proc sort data=distset;
    by sitecd;
run;

```

*****combines the cnty and site(intsite) columns to one unique identifier variable in the Carec.CAREcUse file;

```

proc contents data=CAREc2;
run;
data CAREc2;

```

```

    set CAreCUS;
    sitecd = catx(' ', vvalue(cnty), vvalue(intsite));
run;
****Here we are replacing old site codes with their new site codes. This information was given
to us by CA Fish and Wildlife;
data CAreC2;
    set CAreC2;
    if sitecd = '41 308' then sitecd = '41 103';
    if sitecd = '41 309' then sitecd = '41 208';
    if sitecd = '53 305' then sitecd = '53 107';
    if sitecd = '75 206' then sitecd = '75 205';
    if sitecd = '75 211' then sitecd = '75 204';
    if sitecd = '75 307' then sitecd = '75 208';
    if sitecd = '79 209' then sitecd = '79 300';
    if sitecd = '79 307' then sitecd = '79 113';
    if sitecd = '81 106' then sitecd = '81 230';
    if sitecd = '81 212' then sitecd = '81 214';

    if sitecd = '81 306' then sitecd = '81 102';

    if sitecd = '87 300' then sitecd = '87 102';
    if sitecd = '97 104' then sitecd = '97 227';
run;
proc sort data=CAreC2;
    by sitecd;
run;

data carec.carecus;
    merge CAreC2 distset;
    by sitecd;
if ID_CODE = '' then delete;
run;

****Create a month variable from ID code which has year, month, date in one string;
data carec.carecus;
    set carec.carecus;
month = input(substr(ID_Code, 10, 2), 2.);
run;
**** calculate missing sitecd after merge... they don't have district information and aren't in
GIS file even though people report accessing through those points;
proc means data = carec.carecus n nmiss;
    var district;
    by sitecd;
    output out = missdta;
run;

```

*****Merging the data set CArecus with ALL access points in CA, the excel file with all access points Excel file name CRFS_All_Sites_08.26.14 and CRFSall826 in sas;

```
data AP1;
    set CArec.CRFSall826;
    sitecd = catx(' ', vvalue(cnty), vvalue(site));
run;
proc sort data=AP1;
    by sitecd;
run;
```

```
data AP1;
    set AP1;
    rename district=dist1;
run;
```

```
data AP1;
    set AP1;
    keep dist1 sitecd;
run;
```

```
data carec.carecuse;
    merge carec.carecus AP1;
    by sitecd;
if ID_COde = '' then delete;
run;
```

```
proc means data = carec.carecuse n nmiss;
    var dist1;
    by sitecd;
    output out = carec.missdta;
run;
```

```
data carec.missdta;
    set carec.missdta;
    if _Stat_ = 'MIN' then delete;
    if _Stat_ = 'MAX' then delete;
    if _Stat_ = 'MEAN' then delete;
    if _Stat_ = 'STD' then delete;
    if dist1 > 0 then delete;
run;
```

****There are 18 missing values in missdta set for a total of 232 missing observations for district numbers

****We know that only 3 of these 18 missing values could be in a sanctuary - only 61 observations are unknown as to whether or not they are in a sanctuary;

*****Using GIS replace missing district values based on the county.... this can only be done for counties that are only in one district and on the shoreline;

***Only problem with this is we know district, but the missing site codes could be along a sanctuary;

*****carecus1 has district values filled in;

```
data carec.carecus1;
    set carec.carecuse;
    if cnty = '45' then dist1 = 5;
    if cnty = '97' then dist1 = 4;
    if cnty = '41' then dist1 = 4;
    if cnty = '75' then dist1 = 4;
    if cnty = '81' then dist1 = 4;
    if cnty = '13' then dist1 = 4;
    if cnty = '1' then dist1 = 4;
    if cnty = '85' then dist1 = 4;
    if cnty = '87' then dist1 = 3;
    if cnty = '87' then dist1 = 3;
    if cnty = '53' then dist1 = 3;
    if cnty = '79' then dist1 = 3;
    if cnty = '83' then dist1 = 2;
    if cnty = '111' then dist1 = 3;
    if cnty = '37' then dist1 = 1;
    if cnty = '59' then dist1 = 1;
    if cnty = '73' then dist1 = 1;
```

run;

*****Creating variable so that if the days fishing is equal to 998 (don't know) or 999 (refused) then it is missing value and the 999 or 998 isn't counted as days fished in the specified time period. We are calling the new variable for number of days fishing from the original data set Fdays12a. We then take this new variable Fdays12a (for past 12 months) and Fdays2a (for past 2 months) and add 1 to it. The question asks them for number of days fishing excluding this person-day, so we are adding one to include this fishing person-day in the days spent fishing. The new variable is Fdays12b (for past 12 months) or Fdays2b (for past 2 months);

```
data carec.carecus1;
    set CArec.Carecus1;
    Fdays12a = FFdays12;
    Fdays2a =FFdays2;
    if FFdays12 = 998 then Fdays12a= "";
    if FFdays12 = 999 then Fdays12a= "";
    if FFdays2 = 98 then Fdays2a= "";
    if FFdays2 = 99 then Fdays2a= "";
    length month 3.;
run;
```

```
data carec.carecus1;
```

```

        set carec.CArecus1;
fdays2b = fdays2a + 1;
fdays12b = fdays12a + 1;
run;
****replace missing values (which are in most cases a 999 or 998 with 1 because everyone has
gone at least once;

data carec.carecus1;
    set carec.CArecus1;
    if fdays2b = " then fdays2b=1;
    if fdays12b = " then fdays12b=1;
run;

****create sanctuary variables****;

proc means data = carec.carecus1 n nmiss;
    var dist1;
    by sitecd;
    output out = missdta1;
run;

data missdta1;
    set missdta1;
    if _Stat_ = 'MIN' then delete;
    if _Stat_ = 'MAX' then delete;
    if _Stat_ = 'MEAN' then delete;
    if _Stat_ = 'STD' then delete;
    if dist1 > 0 then delete;
run;

****After filling in districts by county there is only 1 missing data point for a total of 2
observations;
*****Add sanctuary codes to the data;

data carec.carecus1;
    set carec.carecus1;
Sanctry = '';
if NMS_Name = 'Monterey Bay' then Sanctry=1;
if NMS_Name = 'Greater Farallones' then Sanctry=2;
run;

data CArec.carecus1;
    set CArec.carecus1;
Snctry = input(sanctry, 1.);
run;

```

```

data CArec.carecus1;
    set CArec.carecus1;
    if snctry = '' then snctry = 0;

```

```

run;

```

*****Now we will create a data set with only sanctuary access points in the data we will call it CASnctry;

```

proc contents data = carec.carecus1;
run;

```

```

data CArec.casnctry;
    set carec.carecus1;
    if snctry = '0' then delete;
run;

```

2.1b Running Analysis

```

libname CArec 'H:\CA Rec Fishing\SAS Files';

```

```

data snct1;
    set carec.casnctry;

```

```

run;

```

```

data CArec1;
    set carec.carecus1;

```

```

run;

```

***Final Codes for Resident/NonResident Numbers don't need detail for type of use. The following codes calculate the sum of person-days of fishing within each Sanctuary by district in each year by resident status. In the code below we calculated sums for the past year (FDays12b) and past 2 months (FDays2b). However, sums for the past 2 months were not used in this analysis;

***This code calculates the sum of person-days fishing for residents of Monterey Bay (RsdtMB) by year, district (dist1) and sanctuary (snctry). In the code below we calculated sums for the past year (FDays12b) and past 2 months (FDays2b). However, sums for the past 2 months were not used in this analysis;

```

proc summary data=CArec1 nway order=formatted;
class year dist1 snctry RsdtMB ;
var FDays12b FDays2b;
output out=carec.StSncMB
    sum(fdays12b) = Fish_12M
    sum(fdays2b) = Fish_2Mo;
run;

```

***This code calculates the sum of person-days fishing for residents of Greater Farallones (RsdtGF) by year, district (dist1) and sanctuary (snctry). In the code below we calculated sums

for the past year (FDays12b) and past 2 months (FDays2b). However, sums for the past 2 months were not used in this analysis;

```
proc summary data=carec1 nway order=formatted;
class year dist1 snctry RsdtdGF ;
var FDays12b FDays2b;
output out=carec.StSncGF
      sum(fdays12b) = Fish_12M
      sum(fdays2b) = Fish_2Mo;
run;
```

Now we have the sums for the sample, which can now be used in excel to calculate the percentages for sanctuary in each district in each year.

Private – Rental Boating SAS Code for Residential versus Non-Residential Percentages

```
libname CAboat 'H:\CA Rec Fishing\CA Boating\SAS Files';
```

****Pr10_12dta is the file downloaded from RecFin website on 10.15.14 for angler data using private and rental boats;

****Before merging we drop Mode_FX and Area_X from PRangler file because they are stored as characters and in the Prloctn1 file they are stored as #s;

```
proc contents data=caboat.Pr10_12dta;
```

```
run;
```

```
data CAboat.PRangler;
  set CAboat.Pr10_12dta;
  drop Mode_FX;
  drop Area_X;
```

```
run;
```

*****Before merging you must sort each file by the unique id - ID_Code

*After we merge we drop observation that do not have location or sanctuary data associated with them;

```
proc sort data= caboat.prangler;
  by ID_Code;
```

```
run;
```

```
proc sort data = caboat.prloctn1;
  by ID_Code;
```

```
run;
```

```
data proctn1;
  set caboat.prloctn1;
```

```
sanctcd = 0;
if block1 = 440 then sanctcd=1;
if block1 = 441 then sanctcd=1;
if block1 = 432 then sanctcd=1;
if block1 = 442 then sanctcd=1;
if block1 = 451 then sanctcd=1;
if block1 = 433 then sanctcd=1;
if block1 = 434 then sanctcd=1;
if block1 = 435 then sanctcd=1;
if block1 = 436 then sanctcd=1;
if block1 = 443 then sanctcd=1;
if block1 = 444 then sanctcd=1;
if block1 = 452 then sanctcd=1;
if block1 = 453 then sanctcd=1;
if block1 = 461 then sanctcd=1;
if block1 = 462 then sanctcd=1;

if block1 = 430 then sanctcd=2;
if block1 = 438 then sanctcd=2;
if block1 = 447 then sanctcd=2;
if block1 =448 then sanctcd=2;
if block1 = 449 then sanctcd=2;
if block1 = 457 then sanctcd=2;
if block1 =458 then sanctcd=2;
if block1 =459 then sanctcd=2;
if block1 = 431 then sanctcd=2;
if block1 = 439 then sanctcd=2;
if block1 =450 then sanctcd=2;
if block1 = 456 then sanctcd=2;
if block1 = 460 then sanctcd=2;
if block1 =466 then sanctcd=2;
if block1 = 467 then sanctcd=2;
if block1 = 401 then sanctcd=2;
if block1 =402 then sanctcd=2;
if block1 = 403 then sanctcd=2;
if block1 = 404 then sanctcd=2;
if block1 =405 then sanctcd=2;
if block1 = 407 then sanctcd=2;
if block1 = 408 then sanctcd=2;
if block1 =409 then sanctcd=2;
if block1 = 410 then sanctcd=2;
if block1 = 411 then sanctcd=2;
if block1 =412 then sanctcd=2;
if block1 = 414 then sanctcd=2;
if block1 = 415 then sanctcd=2;
if block1 =416 then sanctcd=2;
```



```

if block1 = 417 then sanctcd=2;
if block1 = 418 then sanctcd=2;
if block1 =419 then sanctcd=2;
if block1 = 422 then sanctcd=2;
if block1 = 423 then sanctcd=2;
if block1 =424 then sanctcd=2;
if block1 = 425 then sanctcd=2;
if block1 = 426 then sanctcd=2;
if block1 =427 then sanctcd=2;
if block1 = 428 then sanctcd=2;

    if block1 =446 then sanctcd=3;
if block1 = 464 then sanctcd=3;
if block1 = 472 then sanctcd=3;
if block1 = 473 then sanctcd=3;
if block1 = 474 then sanctcd=3;
if block1 = 475 then sanctcd=3;
if block1 =478 then sanctcd=3;
if block1 = 479 then sanctcd=3;
if block1 = 480 then sanctcd=3;
if block1 = 481 then sanctcd=3;
    if block1 = 501 then sanctcd=3;
if block1 = 502 then sanctcd=3;
if block1 = 503 then sanctcd=3;
if block1 =507 then sanctcd=3;
if block1 = 508 then sanctcd=3;
if block1 = 509 then sanctcd=3;
if block1 = 510 then sanctcd=3;
if block1 = 511 then sanctcd=3;
if block1 = 512 then sanctcd=3;
if block1 = 516 then sanctcd=3;
    if block1 = 517 then sanctcd=3;
if block1 =518 then sanctcd=3;
if block1 = 519 then sanctcd=3;
if block1 = 520 then sanctcd=3;
if block1 = 521 then sanctcd=3;
if block1 = 525 then sanctcd=3;
if block1 = 526 then sanctcd=3;
if block1 = 527 then sanctcd=3;
if block1 =528 then sanctcd=3;
if block1 = 529 then sanctcd=3;
    if block1 = 530 then sanctcd=3;
if block1 = 532 then sanctcd=3;
if block1 = 533 then sanctcd=3;
if block1 = 534 then sanctcd=3;
if block1 = 535 then sanctcd=3;

```

```

if block1 =538           then sanctcd=3;
if block1 = 539         then sanctcd=3;
if block1 = 540         then sanctcd=3;
if block1 = 541         then sanctcd=3;
if block1 = 547         then sanctcd=3;
    if block1 = 548     then sanctcd=3;
if block1 = 549         then sanctcd=3;
if block1 =553         then sanctcd=3;
if block1 = 554         then sanctcd=3;
if block1 = 560         then sanctcd=3;
if block1 = 561         then sanctcd=3;
if block1 = 562         then sanctcd=3;
if block1 = 465         then sanctcd=3;
if block1 = 476         then sanctcd=3;
if block1 =482         then sanctcd=3;
    if block1 =504         then sanctcd=3;
if block1 = 505         then sanctcd=3;
if block1 = 513         then sanctcd=3;
if block1 = 522         then sanctcd=3;
if block1 = 531         then sanctcd=3;
if block1 = 536         then sanctcd=3;
if block1 =542         then sanctcd=3;
if block1 = 550         then sanctcd=3;
if block1 = 551         then sanctcd=3;
if block1 = 601         then sanctcd=3;
    if block1 = 602     then sanctcd=3;
if block1 = 603         then sanctcd=3;
if block1 = 604         then sanctcd=3;
if block1 =568         then sanctcd=3;
if block1 = 455         then sanctcd=3;

if block1 =690           then sanctcd=4;
if block1 = 687         then sanctcd=4;
if block1 = 711         then sanctcd=4;
if block1 = 691         then sanctcd=4;
if block1 = 689         then sanctcd=4;
if block1 = 688         then sanctcd=4;
if block1 = 686         then sanctcd=4;
if block1 = 685         then sanctcd=4;
if block1 =684         then sanctcd=4;
if block1 = 683         then sanctcd=4;
if block1 = 706         then sanctcd=4;
if block1 = 707         then sanctcd=4;
if block1 = 708         then sanctcd=4;
if block1 = 709         then sanctcd=4;
if block1 = 710         then sanctcd=4;

```

```

if block1 =          712 then sanctcd=4;
if block1 =713      then sanctcd=4;
if block1 = 714      then sanctcd=4;
if block1 = 744      then sanctcd=4;
if block1 = 745      then sanctcd=4;
if block1 = 764      then sanctcd=4;
if block1 = 765      then sanctcd=4;

```

run;

```

data caboat.merged;
merge caboat.prloctn1 caboat.prangler;
by ID_Code;
if block1 = " then delete;
if sanctcd = 0 then delete;

```

run;

*****Using merged data set generated from the 'merge angler and location data' editor file we will estimate the percent of person-days to each sanctuary based on the county of residence... we are working with the Private Rental File;

*****We are not going to use FFdays12 or FFdays2 here because that is total days of fishing in past 12 or 2 months (not restricted to sanctuary, instead we will generate a variable with the value of 1 to sum in the Proc Summary command for each time a person was recorded fishing in the sanctuary;

```
libname CAboat 'H:\CA Rec Fishing\CA Boating\SAS Files';
```

```

data caboat.merged1;
set caboat.merged;

```

run;

```

data caboat.merged1;
set caboat.merged1;
sntcnt = 1;

```

run;

*****Looking at the number of respondents recreating in a given sanctuary (sanctcd) based on their county of residence (cnty_res);

```

proc summary data = caboat.merged1;
class sanctcd cnty_res ;
var sntcnt;
output out = cntydata
sum(sntcnt) = PersnDay;

```

```

run;
*****Looking at the number of respondents recreating in a given sanctuary (sanctcd) based on
the county of their access point (cnty_res);
proc summary data = caboat.merged1;
    class sanctcd cnty;
    var snctcnt;
    output out = accesspt
           sum(snctcnt) = PersnDay;
run;

```

```

proc summary data = caboat.merged1;
    class sanctcd;
    var snctcnt;
    output out = test
           sum(snctcnt) = PersnDay;
run;

```

*****Creating Resident County Variables for each Sanctuary --- Variable name is the Sanctuary Initials followed by Rsdnt;

****MB and GF residential status was determined by looking at county of work place and residential county, more details are in technical appendix;

*** to be a resident or nonresident they had to have used that sanctuary that is being coded;

```

data caboat.merged1;
    set caboat.merged1;
    MBRsdnt = 9;
    if sanctcd = 3 then MBRsdnt = 0;
    If cnty_res = 1 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 13 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 85 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 95 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 53 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 87 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 75 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 79 and sanctcd = 3 then MBRsdnt=1;
    If cnty_res = 81 and sanctcd = 3 then MBRsdnt=1;

    GFRsdnt = 9;
    if sanctcd = 2 then GFRsdnt=0;
    If cnty_res = 13 and sanctcd = 2 then GFRsdnt=1;
    If cnty_res = 95 and sanctcd = 2 then GFRsdnt=1;
    If cnty_res = 41 and sanctcd = 2 then GFRsdnt=1;
    If cnty_res = 45 and sanctcd = 2 then GFRsdnt=1;

```

```
If cnty_res = 75 and sanctcd = 2 then GFRsdnt=1;  
If cnty_res = 97 and sanctcd = 2 then GFRsdnt=1;
```

run;

*****To determine the study area for CB we relied on past studies and looked at the portion of residents accessing a the sanctuary from various counties, and the portion of home county zip code accessing a given sanctuary;

```
data caboat.merged1;  
  set caboat.merged1;  
  CBRsdnt = 9;  
  if sanctcd = 1 then CBRsdnt = 0;  
  if cnty_res = 97 and sanctcd = 1 then CBRsdnt=1;  
  if cnty_res = 41 and sanctcd = 1 then CBRsdnt=1;  
  if cnty_res = 81 and sanctcd = 1 then CBRsdnt=1;  
  
  CIRsdnt = 9;  
  if sanctcd = 4 then CIRsdnt=0;  
  If cnty_res = 37 and sanctcd = 4 then CIRsdnt=1;  
  If cnty_res = 111 and sanctcd = 4 then CIRsdnt=1;  
  If cnty_res = 83 and sanctcd = 4 then CIRsdnt=1;
```

run;

*****This output of the following code will tell us the percentage of resident and nonresidential users for PR recreational fishing in each sanctuary. This information is then exported to excel to determine total expenditures in each sanctuary by year and resident status;

```
proc summary data = caboat.merged1 nway;  
  class sanctcd year GFRsdnt;  
  var sntcnt;  
  output out = PRRsdtGF  
    sum(sntcnt) = PersnDay;
```

run;

```
proc summary data = caboat.merged1 nway;  
  class sanctcd year MBRsdnt;  
  var sntcnt;  
  output out = PRRsdtMB  
    sum(sntcnt) = PersnDay;
```

run;

```
proc summary data = caboat.merged1 nway;  
  class sanctcd year CBRsdnt;  
  var sntcnt;  
  output out = PRRsdtCB  
    sum(sntcnt) = PersnDay;
```

```

run;

proc summary data = caboat.merged1 nway;
  class sanctcd year CIRsdnt;
  var snctcnt;
  output out = PRRsdtCI
         sum(snctcnt) = PersnDay;
run;

```

CPFV Boating SAS Code for Residential versus Non-Residential Percentages

*****This is to calculate the percentages of residents/nonresidents for the CPFV data
 CPFV data was taken from rec fin website on 10.20.14 for years 2010-2014 for CPFV person-
 days

We do not have a way to link location to the passenger data so we must assume that that the
 percentage ;

```
libname CACPFV 'H:\CA Rec Fishing\CA CPFV';
```

```

data CACPFV.CPFV1;
  set CACPFV.CPFVcaDat;
  MBRsdnt = 0;
  If cnty_res = 1 then MBRsdnt=1;
  If cnty_res = 13 then MBRsdnt=1;
  If cnty_res = 85 then MBRsdnt=1;
  If cnty_res = 95 then MBRsdnt=1;
  If cnty_res = 53 then MBRsdnt=1;
  If cnty_res = 87 then MBRsdnt=1;
  If cnty_res = 75 then MBRsdnt=1;
  If cnty_res = 79 then MBRsdnt=1;
  If cnty_res = 81 then MBRsdnt=1;

  GFRsdnt = 0;
  If cnty_res = 13 then GFRsdnt=1;
  If cnty_res = 95 then GFRsdnt=1;
  If cnty_res = 41 then GFRsdnt=1;
  If cnty_res = 45 then GFRsdnt=1;
  If cnty_res = 75 then GFRsdnt=1;

  CBRsdnt = 0;
  if cnty_res = 97 then CBRsdnt=1;
  if cnty_res = 41 then CBRsdnt=1;
  if cnty_res = 81 then CBRsdnt=1;

```

```

    CIRsdnt = 0;
    If cnty_res = 37 then CIRsdnt=1;
    If cnty_res = 111 then CIRsdnt=1;
    If cnty_res = 83 then CIRsdnt=1;
run;
***Assume that if they are accessing in the sanctuary county they are recreating in that
sanctuary;
data CACPFV.CPFV1;
    set CACPFV.CPFV1;
    MBaccess = 0;
    If cnty = 1 then MBaccess=1;
    If cnty = 13 then MBaccess=1;
    If cnty = 85 then MBaccess=1;
    If cnty = 95 then MBaccess=1;
    If cnty = 53 then MBaccess=1;
    If cnty = 87 then MBaccess=1;
    If cnty = 75 then MBaccess=1;
    If cnty = 79 then MBaccess=1;
    If cnty = 81 then MBaccess=1;

    GFacecess = 0;
    If cnty = 13 then GFacecess=1;
    If cnty = 95 then GFacecess=1;
    If cnty = 41 then GFacecess=1;
    If cnty = 45 then GFacecess=1;
    If cnty = 75 then GFacecess=1;

    CBaccess = 0;
    if cnty = 97 then CBaccess=1;
    if cnty = 41 then CBaccess=1;
    if cnty = 81 then CBaccess=1;

    CIaccess = 0;
    If cnty = 37 then CIaccess=1;
    If cnty = 111 then CIaccess=1;
    If cnty = 83 then CIaccess=1;
run;

data CPFV1;
    set CACPFV.CPFV1;
    snctcnt = 1;
run;

```

```
proc summary data = CPFV1 nway;  
  class year CIaccess CIRsdnt;  
  var snctcnt;  
  output out = CPRsdtCI  
    sum(snctcnt) = PersnDay;  
run;
```

```
proc summary data = CPFV1 nway;  
  class year GFacecess GFRsdnt;  
  var snctcnt;  
  output out = CPRsdtGF  
    sum(snctcnt) = PersnDay;  
run;
```

```
proc summary data = CPFV1 nway;  
  class year mbaccess MBRsdnt;  
  var snctcnt;  
  output out = CPRsdtmB  
    sum(snctcnt) = PersnDay;  
run;
```

```
proc summary data = CPFV1 nway;  
  class year cbaccess CBRsdnt;  
  var snctcnt;  
  output out = CPRsdtCB  
    sum(snctcnt) = PersnDay;  
run;
```