



# NOAA FISHERIES

Understanding the human dimensions of recreational fishing is critical to improved stewardship of the Nation's fishery resources. The Economics and Social Sciences program within NOAA Fisheries collects economic data on marine recreational fishing, develops economic models, and conducts analyses to better understand and describe the socio-economic aspects of marine recreational fisheries.

For more Information: <http://www.st.nmfs.noaa.gov/economics/fisheries/recreational/index>



## Recreational Economics Program Data Holdings

### Expenditure Surveys

**Description:** Determining the economic impacts generated by saltwater anglers from expenditures on fishing trips as well as purchases of more durable fishing-related goods (e.g., boats, tackle, second homes, etc.) requires detailed information on those purchases. In 2006, NOAA Fisheries began conducting a national expenditure survey on a five-year cycle. When combined with current information on trips and participation from the Marine Recreational Information Program (MRIP) and other state partners, the economic data is sufficiently "current" to be used in management.

#### Data Holdings:

Survey Level	Survey Years	
	2005-2009	2010-2014
Nationwide	■	■

■ = Data collected one or more times during the time period

**Identified Challenges:** The two main challenges with the national expenditure surveys are costs (about \$1 million) and timeliness of results. To make the data available sooner, NOAA Fisheries will now conduct the durable expenditure survey in advance of the trip cost survey, which will enable NOAA Fisheries to update the economic models six months earlier than had been possible when conducting the trip and durable expenditure surveys simultaneously.

### For-Hire Cost & Earnings Surveys

**Description:** Recreational for-hire businesses offer charter, guided, or headboat trips to anglers. In order to understand the effects of different regulatory changes on the profitability of these businesses and the associated indirect economic effects on the communities where they are located, information on their revenues and costs is essential. Data on the number of jobs supported, catch, vessel characteristics, owner and crew demographics are also important for understanding the for-hire sector.

#### Data Holdings:

Survey Level	Survey Years		
	2007-2009	2010-2012	2013-2014
Northeast		■	
Southeast		■	
Northwest & Southwest	■		■
Western Pacific		■	
Alaska		■	■
Caribbean			
Atlantic HMS			■

■ = Data collected one or more times during the time period

**Identified Challenges:** A key challenge to for-hire cost & earnings surveys is generating industry support for the survey, which is crucial for ensuring widespread participation by for-hire owners. Time constraints, privacy concerns, survey fatigue, and distrust of how the data will be used are often cited as reasons for limited participation by industry. NOAA Fisheries recognizes that ensuring future success will require sharing survey results with industry as well as conveying their importance in the management process. Survey length and complexity are also issues that can lead to lower response rates. NOAA Fisheries has addressed this issue by implementing in-person interviews in recent cost & earnings surveys, leading to improved response rates.

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## Economic Valuation Questions

**Description:** This short series of questions are generally implemented in conjunction with other economic surveys (e.g., expenditure surveys or stated preference surveys) and are used in models that assess the value of accessing fishing sites, natural resource damage assessment, and measuring the benefits of improving fishing quality. Data on fishing trip characteristics (e.g., location, length, primary purpose, species targeted) and angler characteristics (e.g., age, household income, fishing experience, avidity) are typically collected.

### Data Holdings:

Survey Level	Survey Years	
	2005-2009	2010-2014
Nationwide	■	■

■ = Data collected one or more times during the time period

**Identified Challenges:** Economic data such as household income, work hours, and demographics are important components of valuation models. However, anglers are often hesitant to provide such information due to privacy concerns or misunderstanding of how the data is used in analysis. NOAA Fisheries is addressing this issue by increasing pre-survey outreach efforts to demonstrate how this information will be used.

## Stated Preference Surveys

**Description:** These surveys are used to determine anglers' preferences for management options and to value the trade-offs among proposed management options. These models allow managers to rapidly assess changes in effort, value, and economic impacts from changes in recreational policies. Recently conducted stated preference surveys have provided critical data into a decision support tool developed for the New England and Mid-Atlantic regions. NOAA Fisheries is working to expand this tool to other regions in the next few years.

**Identified Challenges:** In some regions, identifying a sample frame from which to draw a representative sample is challenging due to different state fishing license requirements or availability of an intercept-based frame. The key challenge, however, to these data collections is that developing high quality stated preference surveys can be time intensive. Further, because these surveys are fisheries-specific and not regionally focused they can be more costly to implement. However, these models are able to provide critical information on the economic benefits associated with recreational fisheries.

### Data Holdings:

Survey Level	Survey Years	
	2005-2009	2010-2014
<b>Northeast</b>		
Northeast Multispecies (Cod, Haddock, Winter flounder, Pollock)	■	■
Summer flounder, Black sea bass, Weakfish		■
Mackerel, Bluefish, Red drum, Spotted sea trout, Striped bass, Tautog, Scup	None to date	
<b>Southeast – South Atlantic</b>		
Snapper–Grouper	■	
Coastal Migratory Pelagics (CMP)	■	
Dolphin-Wahoo	■	
<b>Southeast – Gulf</b>		
Reef fish		■
Coastal migratory pelagic		■
<b>Southeast – Caribbean</b>		
<b>Oregon &amp; Washington</b>		
Salmon	■	■
Groundfish	■	■
<b>California</b>		
Groundfish	■	
Highly Migratory Species (HMS)		
Salmon	■	
<b>Alaska</b>		
Salmon	■	
Pacific Halibut	■	■
<b>Pacific Islands</b>		
None to date		

■ = Data collected one or more times during the time period

## Recent and Upcoming Studies

### Recreational Attitudes Survey, 2013

NOAA Fisheries recently completed a national survey of recreational saltwater anglers' opinions and attitudes. The results provide insights into anglers' motivations, characteristics of successful trips, and preferred management objectives to help NOAA Fisheries better understand what saltwater recreational anglers care most about.

### Bait & Tackle Survey, 2014

In 2014, NOAA Fisheries plans to conduct a nationwide survey of bait and tackle stores that service marine recreational anglers in order to better understand the potential economic impacts of recreational fisheries management actions.

### Ocean Recreational Survey (SWFSC and NEFSC), 2013

This nationwide survey of ocean recreation was recently completed. Types of recreation covered in the survey include: (a) finfishing, (b) shellfishing, (c) waterfowl hunting (wetlands), (d) wildlife viewing/photography, (e) beachcombing/tidepooling, (f) water contact sports (e.g., swimming, surfing), (g) boating (e.g., sailing, kayaking, wake boarding), and (h) other ocean-related outdoor activities. Analysis of survey data and estimation of economic impacts is underway.