

**NOAA  
FISHERIES**

**Office of  
Science &  
Technology**

# Economic Analysis of Marine Recreational Fishing at NOAA Fisheries

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March 8, 2017 — Presented at EAA Seminar:

“Sustainable fisheries management and recreational sea fisheries - socio-economic value, data collection and data use in EU & US management.” EU Parliament, Brussels, Belgium.

The opinions expressed in this presentation and on the following slides are solely those of the presenter and not necessarily those of NOAA Fisheries.

# Outline

**Snapshot** of recreational fishing across the U.S.

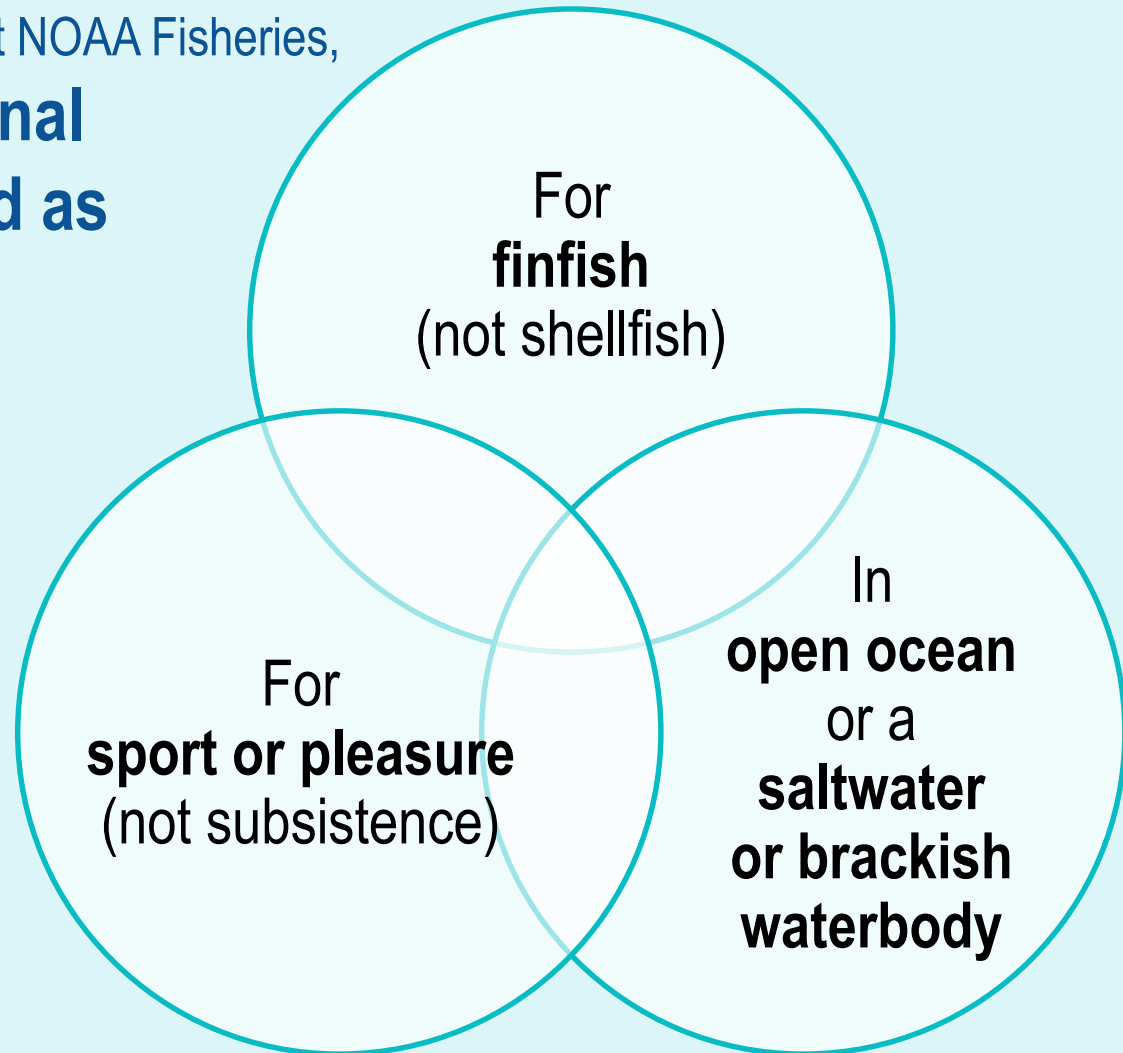
Angler expenditure **surveys**

**Economic impacts** of angler spending

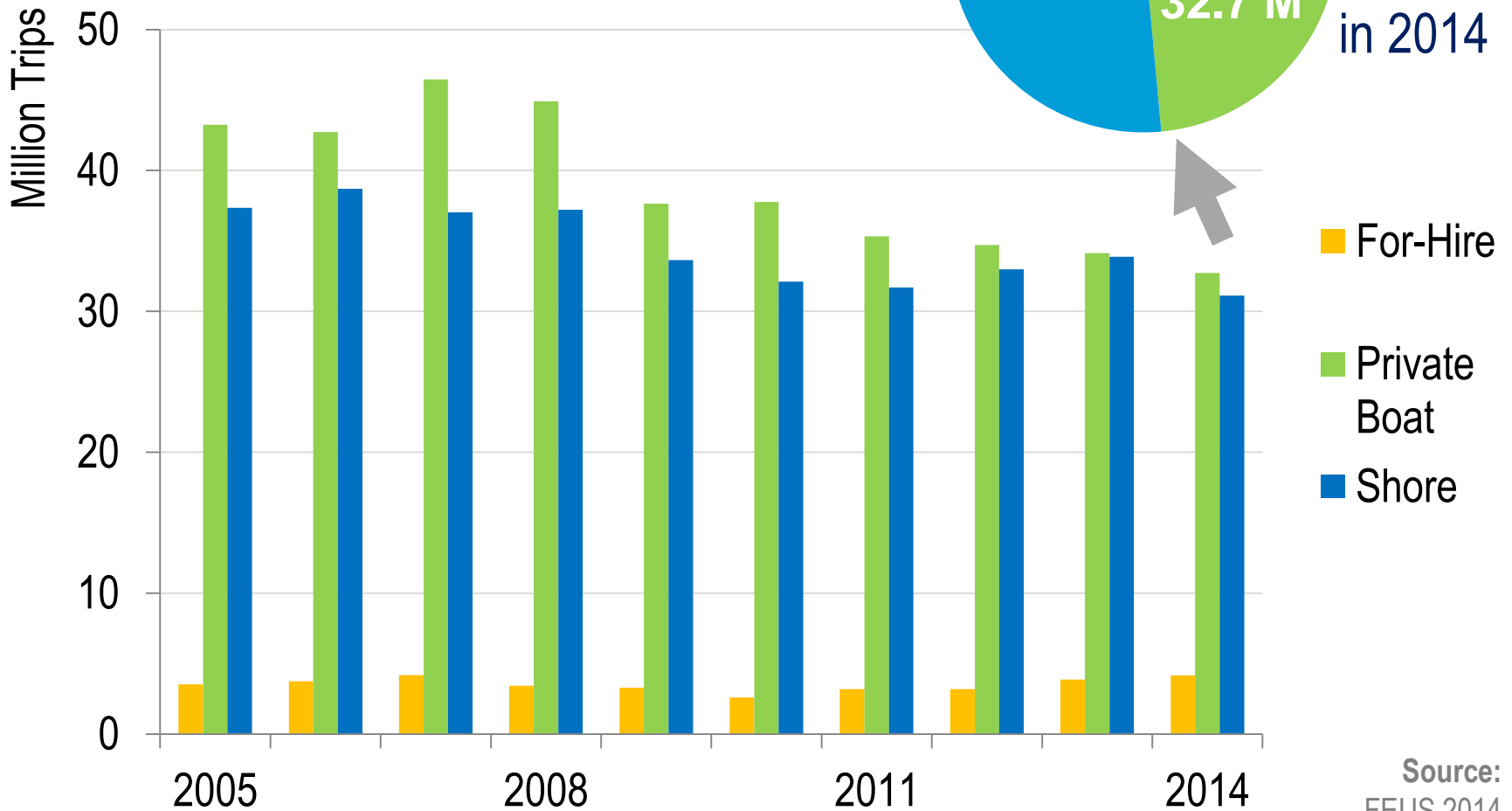
**Study** of bait and tackle businesses

# Definition of Marine Recreational Fishing

For economic analysis at NOAA Fisheries,  
**marine recreational  
fishing is defined as  
fishing...**



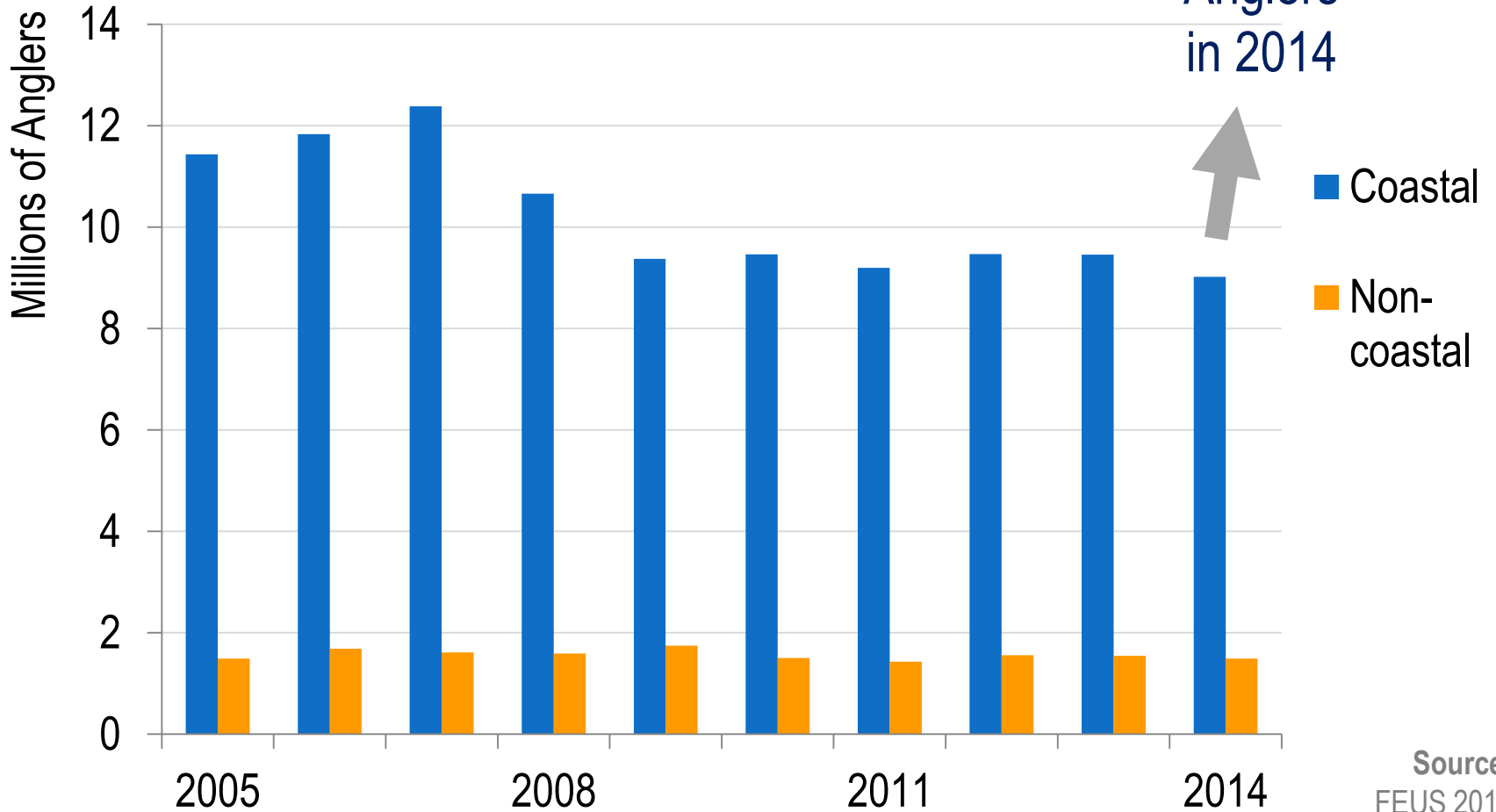
# U.S. Marine Recreational Effort: 2005-2014



Source:  
FEUS 2014

# U.S. Marine Recreational Anglers: 2005-2014

**10.5 M**  
Anglers  
in 2014



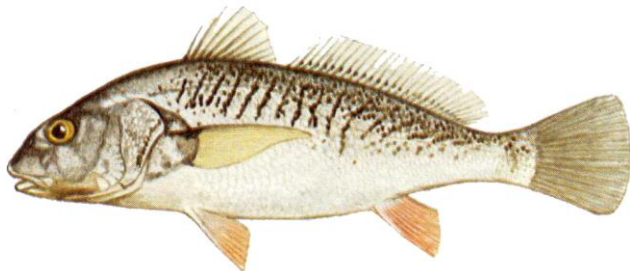
Source:  
FEUS 2014

# Catch of Key Recreational Species, 2014

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**33.8 M**

Drum (Atlantic croaker & spot)



**24.5 M**

Drum (Seatrouts)



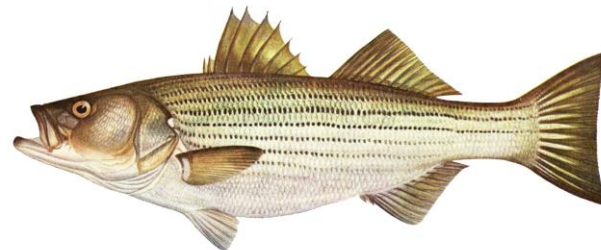
**19.5 M**

Summer Flounder



**9.2 M**

Striped Bass



Source:  
FEUS 2014



# Marine Angler Expenditure Surveys

## Survey Methods

- **Target Population**  
Anglers who fished in past year
- **Angler Interview Sites**
  1. Fishing sites

or

  2. Contacted by mail/email  
(using state fishing license frames)
- **Frequency**  
Every 3-5 years  
(2006, 2011, 2014, 2016/17)
- **Locations**  
Conducted in all U.S. coastal states

## How are the data used?

- **Provide estimates of...**
  1. **How angler expenditures contribute** to a region's economy relative to other activities.
  2. **Economic impacts** related to natural resource damage assessments.  
*Examples: oil spills, hurricanes...*

# 2014 Durable Goods Expenditure Survey

## 32 annual categories

- Tackle, rods/reels, & other gear
- Camping equipment
- Clothing
- Binoculars
- Taxidermy
- Magazine subscriptions
- Club Dues
- License fees
- Boat purchases/accessories & related expenses
- Vehicle purchases & related expenses
- 2<sup>nd</sup> home purchases & related expenses

Survey focused on  
**durable equipment  
expenditures only**  
*(no trip expenses)*



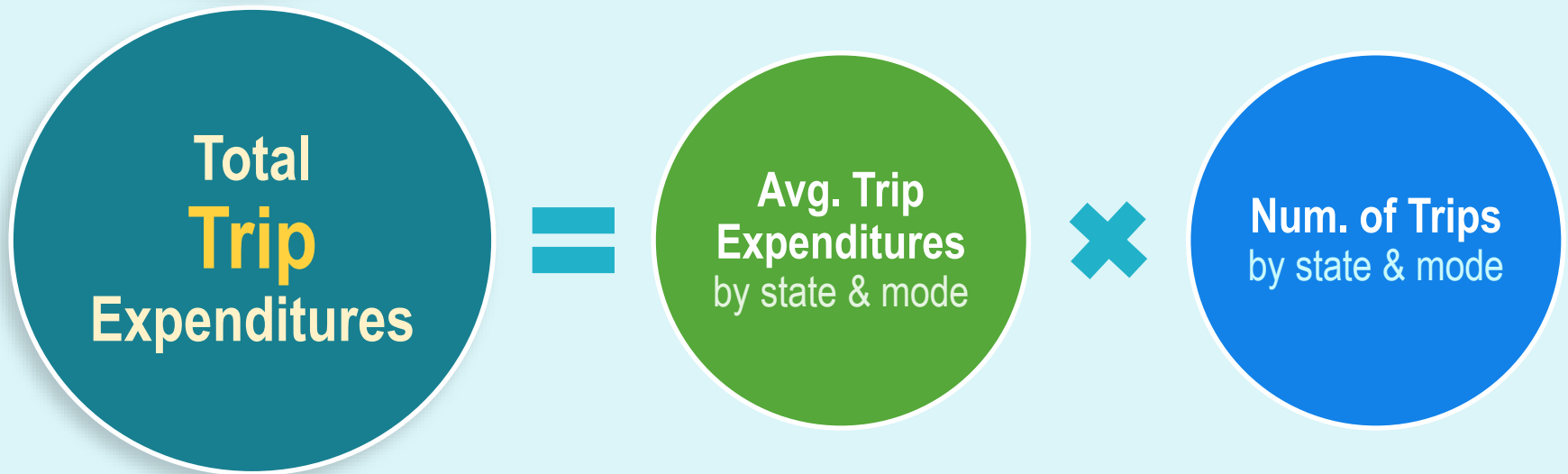
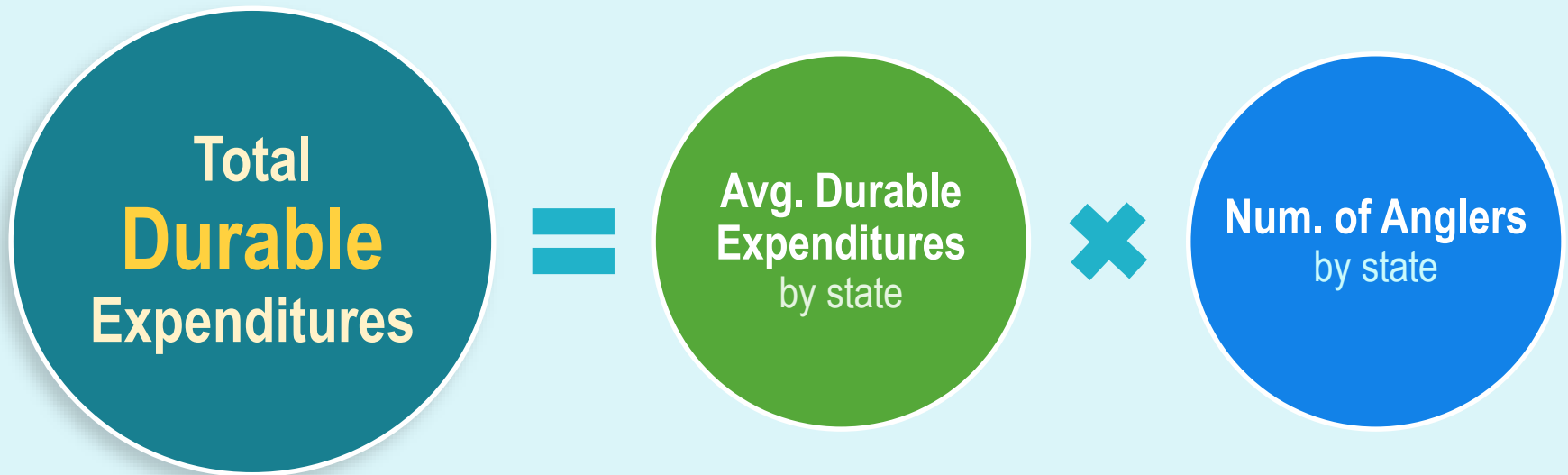


# 2016-2017 Trip Expenditures Survey

<b>Transportation</b> <i>(private, public, airfare, auto rental)</i>	<b>Charter fees, tips, &amp; catch processing</b>
<b>Boat fuel &amp; oil</b>	<b>Boat rental</b>
<b>Access &amp; parking</b>	<b>Bait</b>
<b>Ice</b>	<b>Lodging</b>
<b>Gifts &amp; souvenirs</b>	<b>Food</b> <i>(from grocery stores or restaurants)</i>



# Estimating Total Expenditures



# Demographics of Average Angler

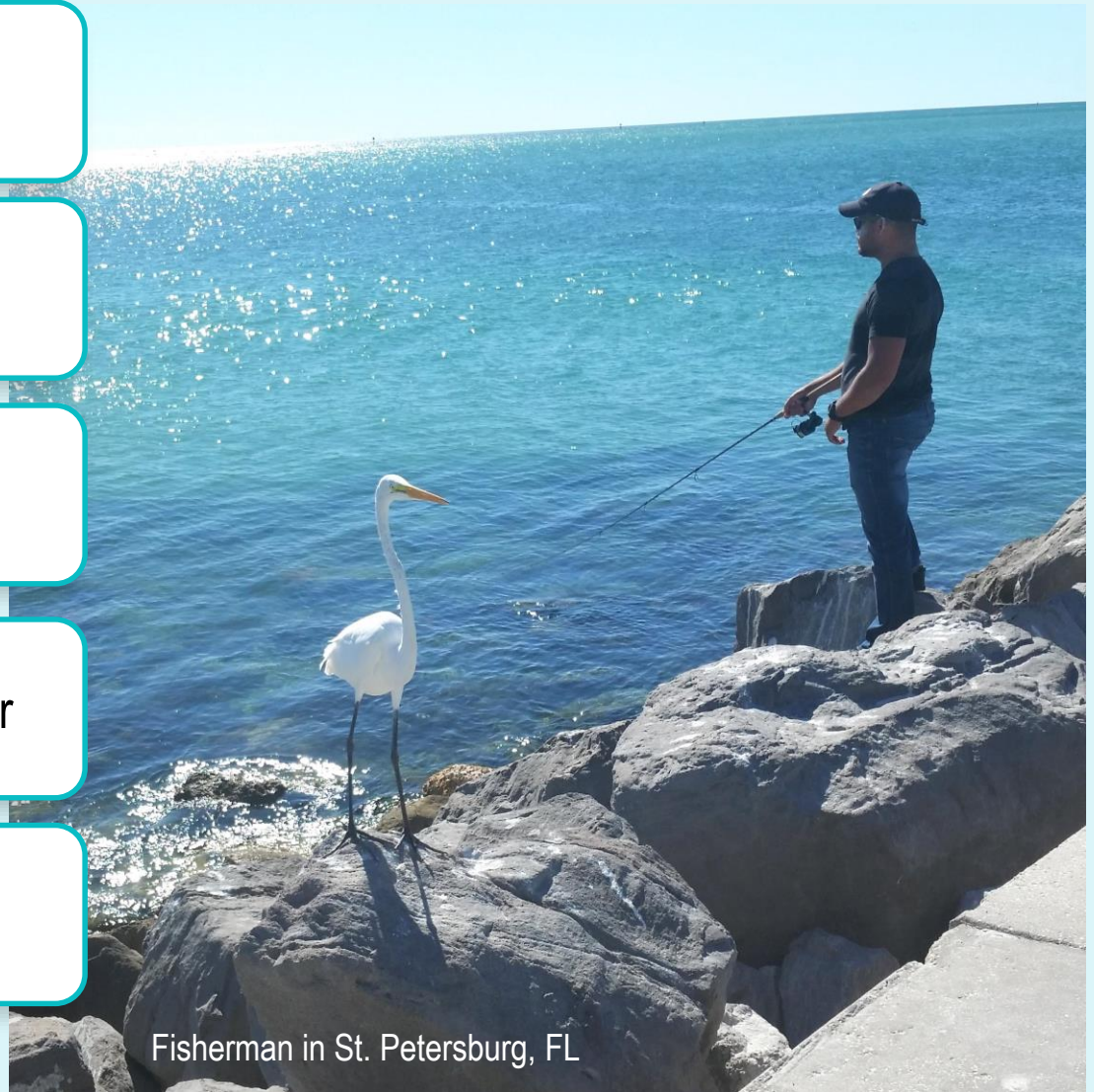
**54** years old

**85%** male

**44%** college educated

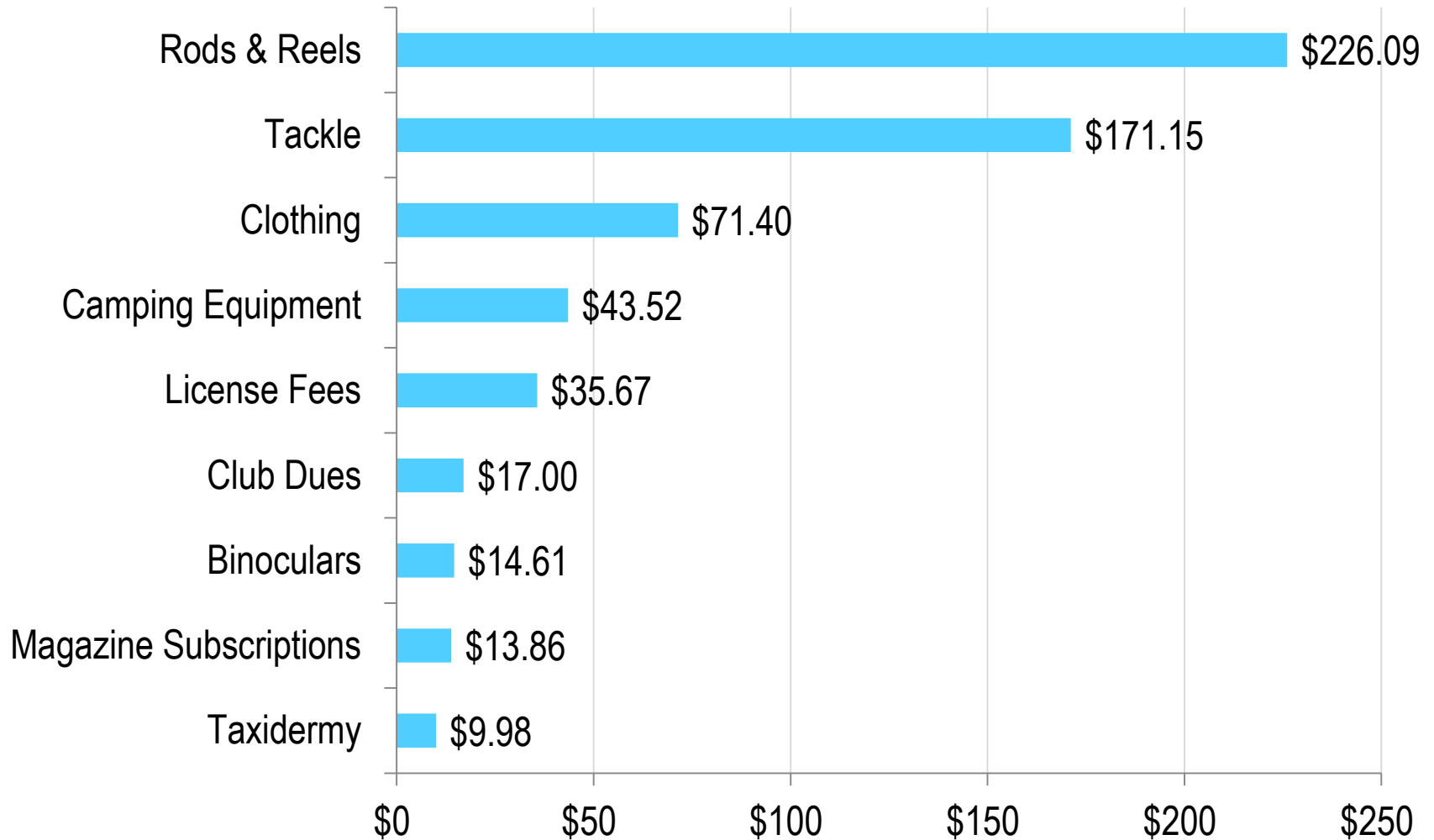
**28** days fished in past year

**32** years fishing



Fisherman in St. Petersburg, FL

# Results: Average U.S. Expenditures in 2014



# Total U.S. Angler Expenditures, 2014

**\$2.0 B**  
Private  
Boat



**\$1.6 B**  
Shore



**\$1.3 B**  
For-Hire



**\$28 B**  
Durable  
Goods





# Economic Contributions from Angling

**Expenditures used to estimate total output, value-added, and employment contributions to state and national economy**

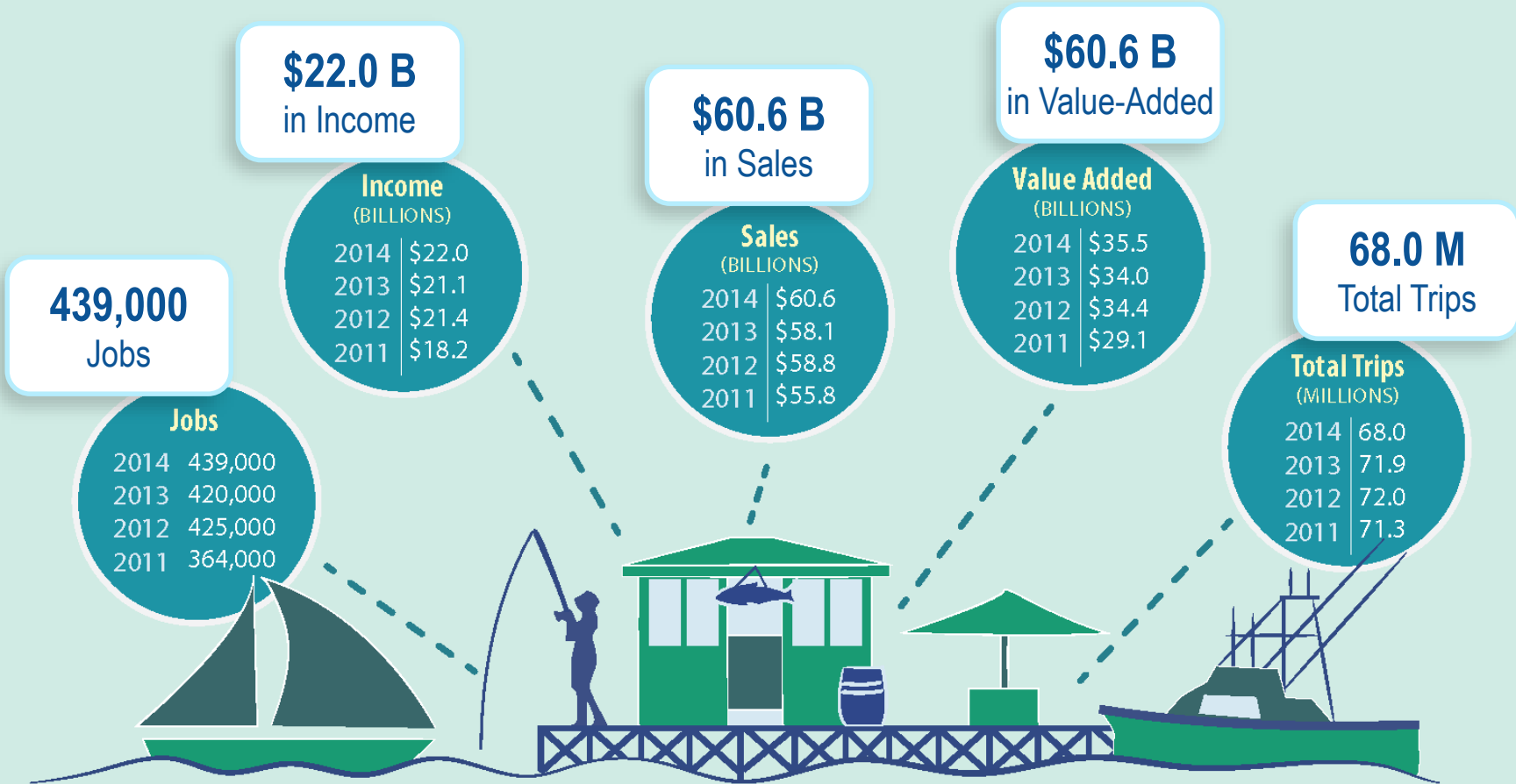
**Total Output =**  
gross value of sales by businesses within the economic region

**Value added =**  
labor income and profits supported by recreational fishing expenditures

**Employment =**  
full and part-time jobs

# U.S. Recreational Fisheries Economic Impact Trends, 2014

2014 Values

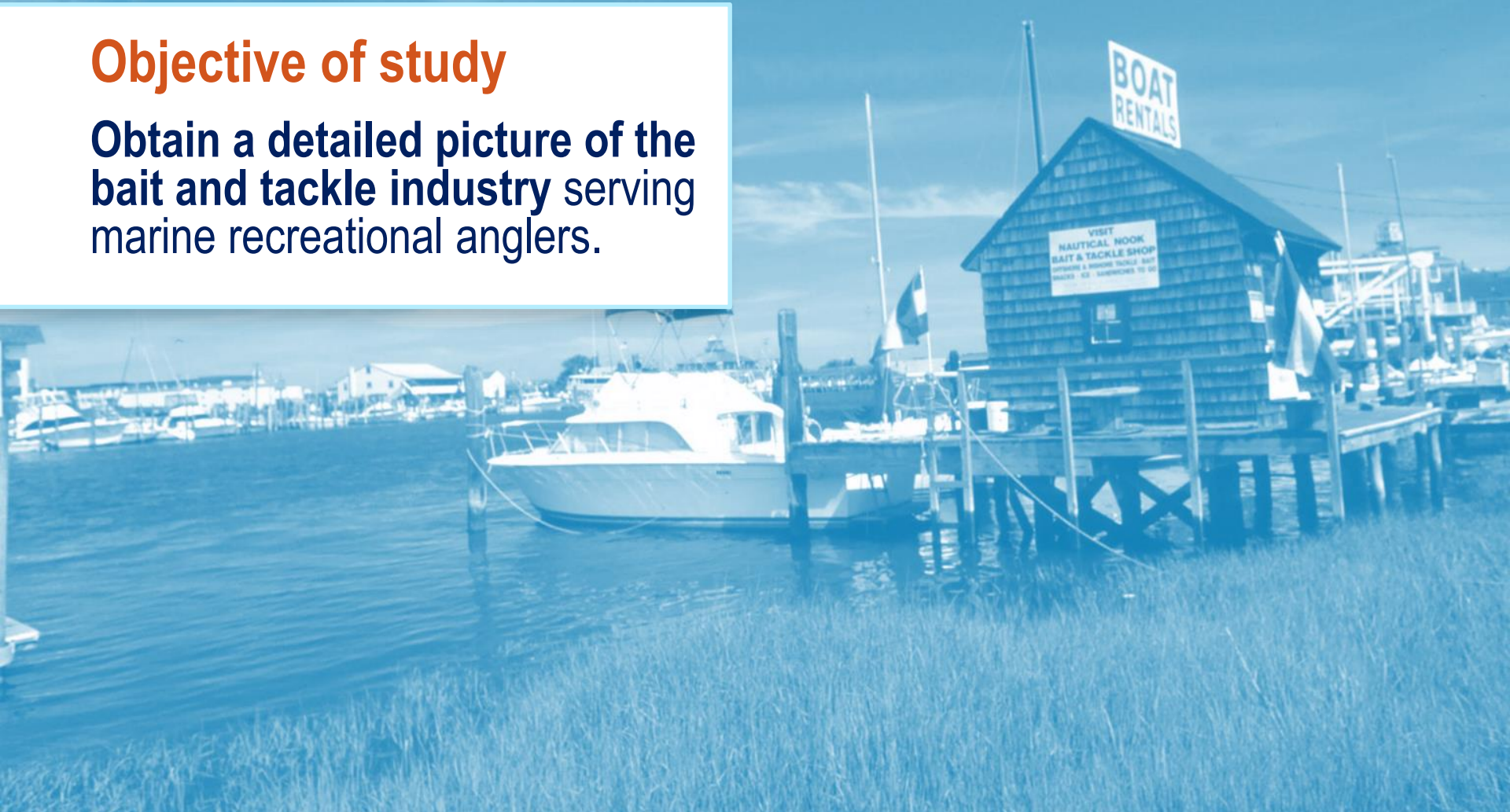


Source: FEUS 2014

# 2013 Study of Bait & Tackle Retail Stores

## Objective of study

Obtain a detailed picture of the bait and tackle industry serving marine recreational anglers.



# Businesses Included in Study

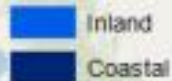
Independent stores & small local chains

Fishing license vendors as proxy sample frame

Lists acquired from all **23 coastal U.S. states**  
**+ 2 wholesalers**

Concentrating on **near coastal counties**

## Counties





# Data Collection and Analysis

**Goal** to collect baseline economic data

- Gross sales (range), fishing sales & costs (%)
- Sales by bait & tackle categories (%)
- Fisheries targeted by customers
- Collected 2013 data

**Conducted** cost-earnings and economic impact analyses (IMPLAN)

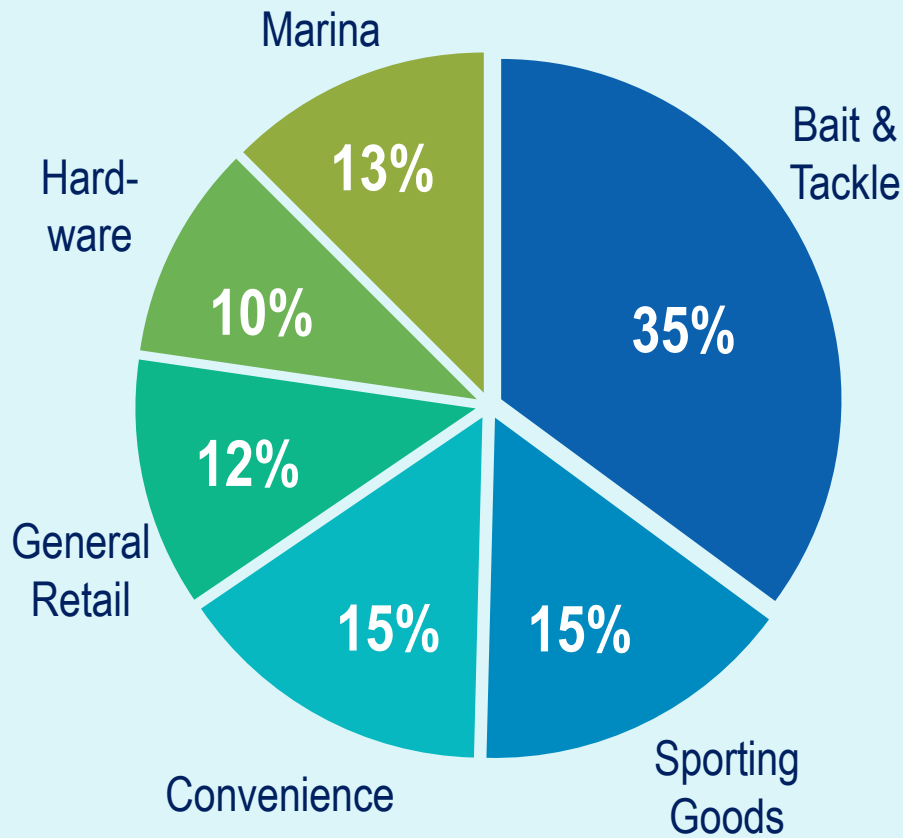
**Conducted** analysis by business categories

- Bait & Tackle vs. Other Stores



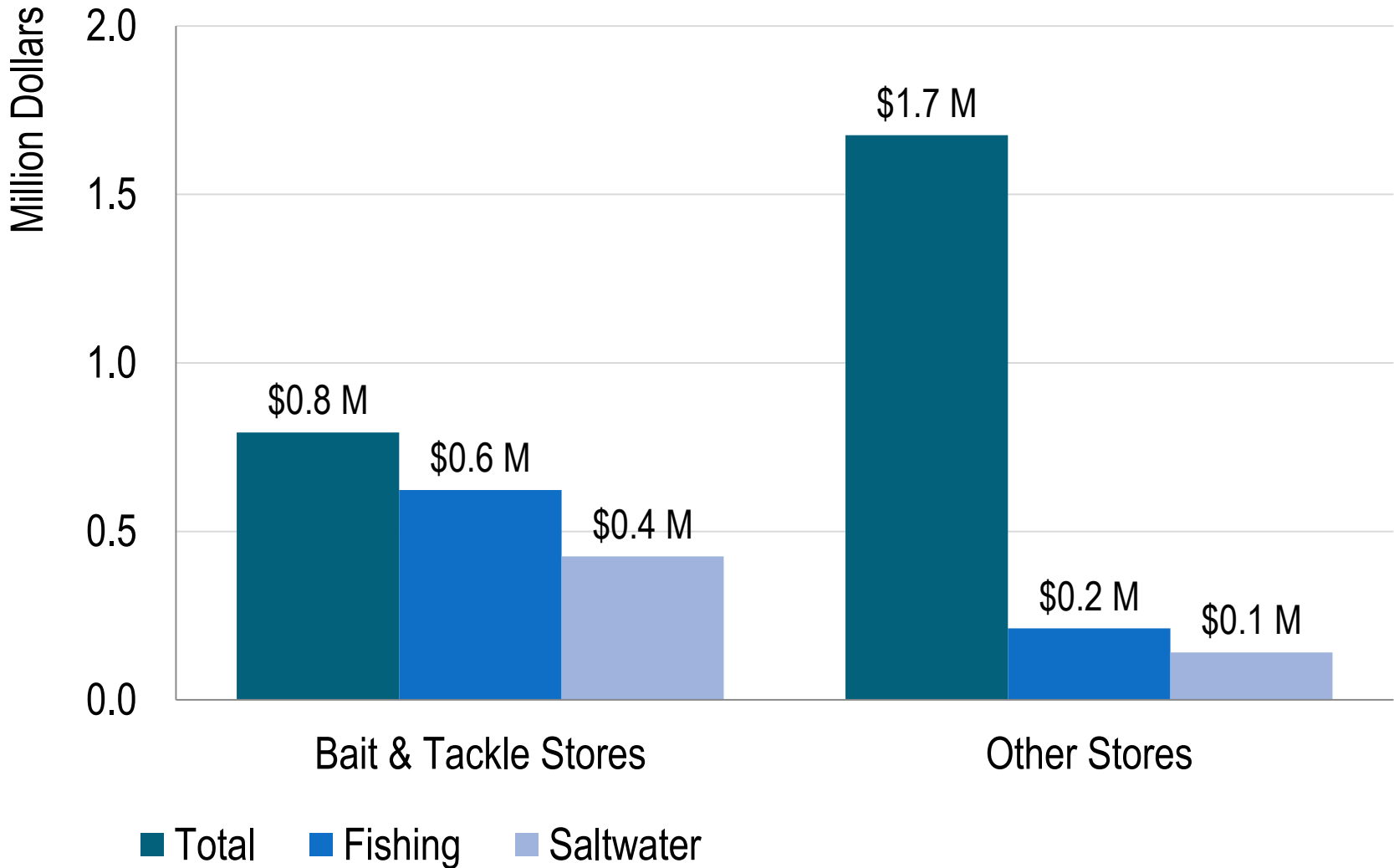
# Store Characteristics

Percent Stores by Category



	Bait & Tackle (1,259)	Other Stores (2,255)
<b>Years selling marine B&amp;T</b>	25	25
<b>Full time employees</b>	3	7
<b>Part time employees</b>	4	6

# Average U.S. Sales by Store Type



# Nationally...

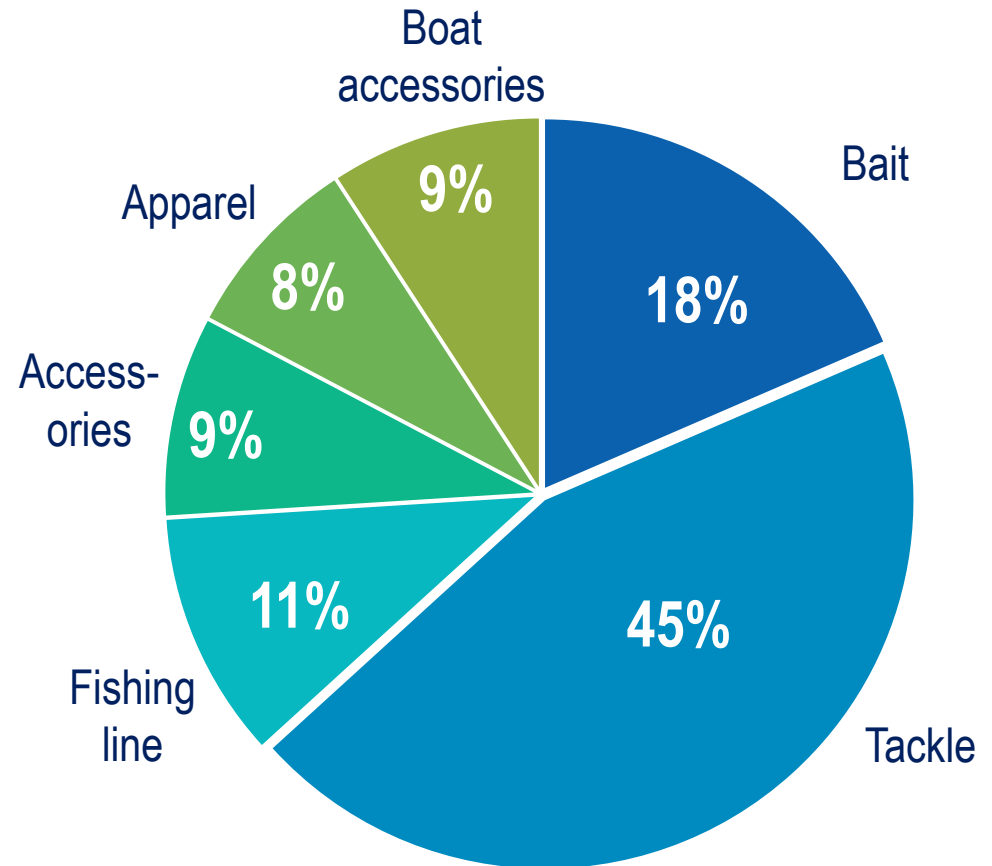
3,514 retail stores

## SW Bait & Tackle Sales

\$854 M Total

\$318 M  
Other  
Stores

\$536 M  
Bait & Tackle  
Stores



# Economic Impacts Generated by \$854 M in Sales

**\$2.3 B**  
in total  
sales output

**\$796 M**  
in  
income

**16,000 +**  
full &  
part time jobs

# For more information

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## FEUS 2014

[www.st.nmfs.noaa.gov/economics/publications/feus/fisheries\\_economics\\_2014/index](http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries_economics_2014/index)

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## Durable Goods Survey 2014

[www.st.nmfs.noaa.gov/economics/fisheries/recreational/angler-expenditures-economic-impacts/index](http://www.st.nmfs.noaa.gov/economics/fisheries/recreational/angler-expenditures-economic-impacts/index)

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## Bait & Tackle Study

[www.st.nmfs.noaa.gov/economics/fisheries/recreational/Bait-and-Tackle/bt-survey-2014](http://www.st.nmfs.noaa.gov/economics/fisheries/recreational/Bait-and-Tackle/bt-survey-2014)

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