



The Mid-Atlantic Recreational Boater Survey

April 2016

**MONMOUTH
UNIVERSITY**

URBAN COAST INSTITUTE

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ACKNOWLEDGEMENTS

This report was prepared by the Monmouth University Urban Coast Institute (UCI) based on survey data collected in partnership with the Mid-Atlantic Regional Council on the Ocean (MARCO). The survey was conducted by the Center for Survey Research at the University of Massachusetts-Boston with funding from Office for Coastal Management (OCM), National Oceanic and Atmospheric Administration (NOAA). The statements, findings, conclusions and recommendations are those of the authors and do not necessarily reflect the views of NOAA or the U.S. Department of Commerce.

The UCI wishes to extend a special thanks to the students of Monmouth University Professor Richard Bastian's fall 2015 Statistical Consulting course for their contributions to this effort. The students were responsible for decoding and analyzing survey data provided by the consultant and extrapolated the statistics presented in this report.

ABOUT THE SURVEY SPONSORS

The Monmouth University Urban Coast Institute

The Urban Coast Institute (UCI) was established in 2005 as one of Monmouth University's "Centers of Distinction." The UCI's mission is to serve Monmouth University and the public interest as a forum for research, education and collaboration in the development and implementation of science-based policies and programs that support stewardship of healthy, productive and resilient coastal ecosystems and communities.

www.monmouth.edu/uci

The Mid-Atlantic Regional Council on the Ocean

Established in 2009 by the Governors of New York, New Jersey, Delaware, Maryland and Virginia, the Mid-Atlantic Regional Council on the Ocean (MARCO) provides a forum for our coastal Mid-Atlantic states to collaborate on shared regional priorities related to marine habitats, renewable offshore energy, climate change adaptation, and ocean water quality. MARCO has initiated and oversees the Mid-Atlantic Ocean Data Portal to assist the region with ocean planning efforts.

midatlanticocean.org



EXECUTIVE SUMMARY

Recreational boating is deeply ingrained in the economy and cultural fabric of the Mid-Atlantic region. Nearly a half-million privately owned vessels that were believed to be used for recreation on ocean waters were registered in the states of New Jersey, Delaware, Maryland and Virginia in 2013. However, there has historically been little documented data about the details of recreational saltwater boating, such as how much money people spend to support their activities, the duration of trips, and when and where boats visit.

This report provides a snapshot of recreational boater spending and activities in the four states. It is based on data collected during a six-month Mid-Atlantic Recreational Boater Survey effort led by the Monmouth University Urban Coast Institute (UCI) and the Mid-Atlantic Regional Council on the Ocean (MARCO) and conducted by the University of Massachusetts Boston Center for Survey Research and EcoTrust in 2013.

The report's completion marks the final phase of a two-part project. The Mid-Atlantic Recreational Boater Survey asked respondents to complete questionnaires regarding their spending and trip activities – summarized in this report – while also using an online program to map their trip routes. The mapped data was uploaded to the Mid-Atlantic Ocean Data Portal (portal.midatlanticocean.org) in 2015. The results of the questionnaires are presented here for the first time.

Respondents were asked to complete a survey each month from the May to October boating season that contained questions about their most recent boat trips. They were also given an end of season survey in October that included questions about other general expenses of owning a boat.

Among the results:

- Boat owners and their parties spent an average of \$318 per on-water trip. The largest expenses were maintenance/equipment/repairs (\$86), fuel/oil (\$78) and food/drinks (\$50).
- Boat owners and their parties spent an average of \$727 during visits to their vessels that didn't involve on-water trips. The largest expenses were maintenance/equipment/repairs (\$474), transient/guest dockage (\$78) and food/drinks (\$61).
- Total expenditures for an end of season survey which covered general annual expenses of owning a boat such as financing, insurance fees, storage and documentation fees, were placed at \$7,722.
- The economic impact of recreational boating crosses state lines. Respondents reported that on 14% of on-water trips, at least some portion of their expenses occurred outside of the state where their boat was launched.
- New Jersey owners took their boats on the water most frequently throughout the season (5.05 days per month), while Marylanders were on the water an average of 5.71 days in July – the most by any state for a single month. The average monthly total for all four states was 4.68 days.
- Delaware boat owners took the most overnight trips (2.4 days per month). The average for all four states was 1.46 days.
- Virginians traveled the furthest to the site where their boats were launched – 65.62 miles per round trip. The average for the four states was 57.25 miles.
- 7% of respondents reported their boats were damaged during Superstorm Sandy. Of those, 52% received a small amount of damage, 36% saw moderate damage and 12% saw a large amount of damage.



SURVEY OVERVIEW

The Mid-Atlantic Recreational Boater Survey was actually a series of surveys conducted monthly from May through October of 2013. Each survey asked respondents to reflect back on their boating activity from the previous month and describe their most recent on-water trip on Mid-Atlantic coastal waters. If respondents visited their boat during the month but didn't take it on the water, they were asked a series of alternate but similar questions about their spending on the trip. The final (October) survey also contained an end-of-season component in which boaters were asked about general expenses of owning the vessel.

The Mid-Atlantic Recreational Boater Survey was patterned closely after 2010 and 2012 projects focused on the states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut and New York. The Mid-Atlantic questionnaire was very similar to the one used in the 2012 Northeast survey, which allowed for the collection of consistent data from the two regions that could be compared directly. One notable difference with the Mid-Atlantic survey was the inclusion of questions about how boaters were affected by Superstorm Sandy, which occurred in the fall of 2012.

The survey team considered several approaches for collecting trip data. Ultimately, it was determined that asking respondents about their most recent trip would provide the most accurate results and best response rates, since it



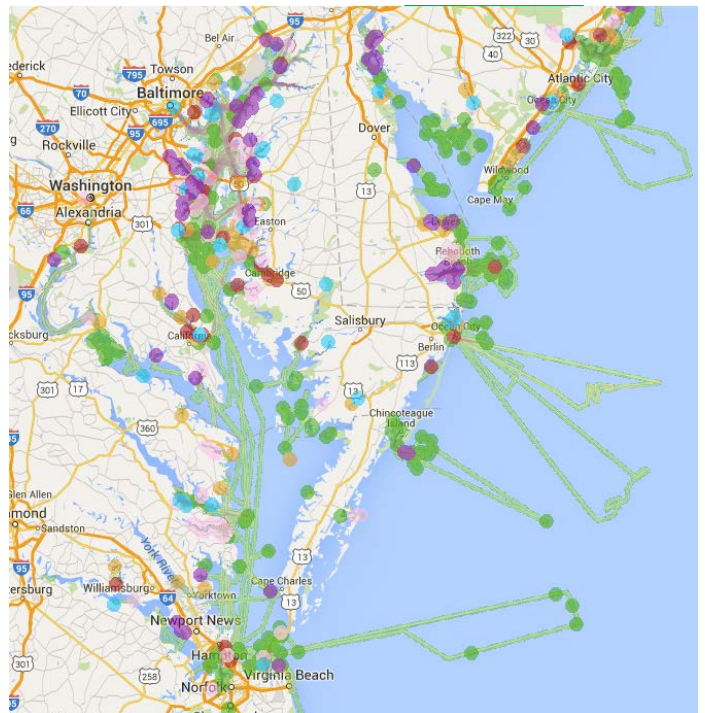
would be easy to understand, respondents would be more likely to remember their trip details and summarizing a single trip would be less time-consuming than other alternatives. It was not deemed feasible to ask about each trip taken during the month, since it risked overburdening respondents. Asking about a randomly chosen trip during the month was considered, but determined to be too confusing.

Another component of the survey asked boaters to map the exact route taken during the monthly trip using a web-based mapping application. That data was integrated in 2015 in the Mid-Atlantic Ocean Data Portal (portal.midatlanticocean.org), an interactive ocean mapping and information website focused on the coasts of New York, New Jersey, Delaware, Maryland and Virginia.

The sample for this study came from five separate databases. Four of these were the state databases of registered boaters and the fifth was a Coast Guard database of documented vessels. This included boats with a current valid registration, designated for recreational use, at least 10 feet long, and to the extent possible, known to be for use on ocean waters.

Overall, a total of 475,596 boats were found to be eligible for the study from across the four states. Virginia had the most eligible boats with 207,266, followed by New Jersey with 144,568, Maryland with 93,039 and Delaware with 30,723.

A sample of 32,000 boats from across the region was selected for potential inclusion in the survey. In April of 2013, all 32,000 sample boat owners were mailed a short recruitment survey that sought to determine their eligibility through two questions. The first question asked whether they still owned the boat selected from the recreational boat databases. The second question inquired as to whether they used the boat, at least partially, on saltwater. If the answer to either question was no, the boat owner could not participate in the survey. Of the 31,947 recruitment surveys that were assumed to be delivered to boat owners (53 were returned as bad addresses), a total of 940 were completed online.



Sample map from the Mid-Atlantic Ocean Data Portal showing boater route and activity data submitted by survey respondents.

A total of 715 respondents were ultimately deemed eligible and completed a survey one or more times throughout the six-month survey period. This included 300 participants from Maryland, 249 from New Jersey, 97 from Virginia and 69 from Delaware.

ECONOMIC IMPACTS

On-Water Trips

Respondents were asked to specify how much money was spent on a list of common expenses during their last on-water trip of the survey month.

Category	Mean Spending
Equipment, maintenance, repairs and upkeep	\$85.56
Boat fuel and oil	\$77.92
Restaurant meals & drinks	\$49.59
Groceries	\$23.56
Transient/guest dockage (marina fee)	\$22.99
Auto gas and oil	\$20.92
Fishing gear, bait, ice, etc.	\$13.70
Recreation and entertainment	\$7.97
Lodging (hotel/motel)	\$6.60
Shopping and souvenirs	\$3.73
Lodging (camping/B&B)	\$2.61
Launch fees	\$1.95
Pump out fees	\$0.42
Total:	\$317.52

Interstate Spending: On-Water Trips

Respondents were asked approximately what percent of the total spending they listed for their last on-water trips occurred in the state where they launched or boarded their boats.

Spending in State	Percent of Respondents
0%	2.14%
1%-10%	0.84%
11%-20%	0.76%
21%-30%	0.31%

31%-40%	0.69%
41%-50%	0.76%
51%-60%	1.14%
61%-70%	0.84%
71%-80%	2.06%
81%-90%	2.82%
91%-99%	2.06%
100%	85.58%

Spending on Non On-Water Trips

Respondents who reported visiting their boats during a survey month but did not take them on the water were also asked how much they spent on a series of items.

Category	Mean Spending
Equipment, maintenance, repairs and upkeep	\$473.97
Transient/guest dockage (marina fee)	\$77.58
Restaurant meals & drinks	\$61.38
Boat fuel and oil	\$34.36
Auto gas and oil	\$31.75
Groceries	\$17.93
Lodging (hotel/motel)	\$11.82
Recreation and entertainment	\$6.86
Shopping and souvenirs	\$6.71
Fishing gear, bait, ice, etc.	\$4.56
Pump out fees	\$0.06
Lodging (camping/B&B)	\$0.00
Total Spent:	\$726.98

Interstate Spending: Non On-Water Visits

Those who reported visiting their boats during a survey month but did not take them on the water were asked to estimate what percent of the total spending they listed occurred in the state where the boats were located.

Spending in State	Percent of Respondents
0%	6.48%
1%-10%	1.54%
11%-20%	0.62%
21%-30%	0.62%
31%-40%	0.62%
41%-50%	0.93%
51%-60%	0.31%
61%-70%	0.62%
71%-80%	3.09%
81%-90%	1.85%
91%-99%	2.16%
100%	81.17%

General Annual Expenses

The final survey contained an end of season component in which boaters were asked about general expenses of owning their vessel over the last 12 months.

Expense Type	Mean Spending
Non trip-specific expenditures/Other items not listed below	\$2,024.65
Dockage, mooring, storage	\$1,131.55
Boat loan payments	\$1,050.19
Routine vessel maintenance, including parts and labor	\$968.60
Repairs to existing vessel, including parts and labor	\$970.53
Boat insurance	\$520.97
Purchase of new equipment or upgrades for the vessel, including parts and installation labor	\$489.53
Taxes	\$166.40
Purchase of a new trailer	\$125.99
State registration, trailer registration and/or USCG documentation fees	\$95.13
Fishing-related expenses	\$92.07
Safety-related equipment	\$86.86
Total	\$7,722.47

Interstate Spending: General Annual Expenses

Respondents to the end of season survey component were asked to estimate the percent of total spending in the categories above that occurred in the state where their boats were registered.

Percent of Spending in State	Percent of Respondents
0%	1.80%
1%-10%	1.80%
11%-20%	1.80%
21%-30%	0.36%
31%-40%	1.08%
41%-50%	1.44%
51%-60%	0.36%
61%-70%	1.44%
71%-80%	3.24%
81%-90%	7.55%
91%-99%	5.40%
100%	73.74%

Hurricane Sandy

Respondents were asked a few questions about the storm's impact on their boats. Those who said their boats were damaged summarized the severity.

Boat Was Damaged	Percentage
Does not Apply	0.27%
Yes	6.83%
No	92.90%

Damage Level	Percentage
Large Amounts of Damage	12%
Moderate Amount of Damage	36%
Small Amount of Damage	52%

BOATER BEHAVIOR

In addition to the spending questions, the monthly surveys also contained questions pertaining to the frequency, duration and distances traveled for recreational boat trips.

Monthly Boat Visits

Respondents were asked how many total days during the month they visited their boats for recreation or maintenance.

	Delaware	Maryland	New Jersey	Virginia	Combined Average
May	5.37	5.36	4.6	3.38	4.84
June	6.75	6.74	6.13	4.17	6.16
July	6.65	6.11	6.4	4.33	6.16
August	5.93	5.24	6.25	5.41	5.89
September	5.91	3.61	5.14	3.72	5.03
October	5.63	3.97	3.72	3.63	4.4
Total Average	6.06	5.26	5.45	4.11	5.47

Monthly On-Water Trips

Respondents were asked how many days they took trips out on the water each month.

	Delaware	Maryland	New Jersey	Virginia	Combined Average
May	4.52	4.234	4.1	3.46	4.23
June	5	4.58	5.4	3.49	4.88
July	4.91	5.71	5.58	3.53	5
August	5.09	4.55	5.59	4.06	5.05
September	4.85	5	4.67	3.1	4.53
October	3.61	4.47	4.25	3.5	3.91
Total Average	4.75	4.76	5.05	3.53	4.68

Overnight Trips

Respondents were asked how many times per month they stayed on board their boats overnight.

	Delaware	Maryland	New Jersey	Virginia	Combined Average
May	2.53	0.24	0.83	1.21	1.56
June	2.51	0.66	0.99	0.3	1.45
July	2.52	0.25	1.33	0.25	1.5
August	2.2	0	1.68	0.82	1.58
September	2.25	0	1.03	0.58	1.37
October	2.37	0	0.55	0	1.13
Total Average	2.4	0.23	1.13	0.52	1.46

Distance to Boat

Respondents were asked approximately how many miles they traveled round-trip to reach the place where they launched or boarded their boats.

	Delaware	Maryland	New Jersey	Virginia	Combined Average
Total Average	63.51	41.41	51.72	65.62	57.25