

# Paddlesport Data and Trends

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## Policy and Data Evaluation

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Charge 4: Gather the best available data from any and all sources that help evaluate status and trends of paddling within the United States, patterns, and commonalities of accidents and injuries to inform discussions and debate.

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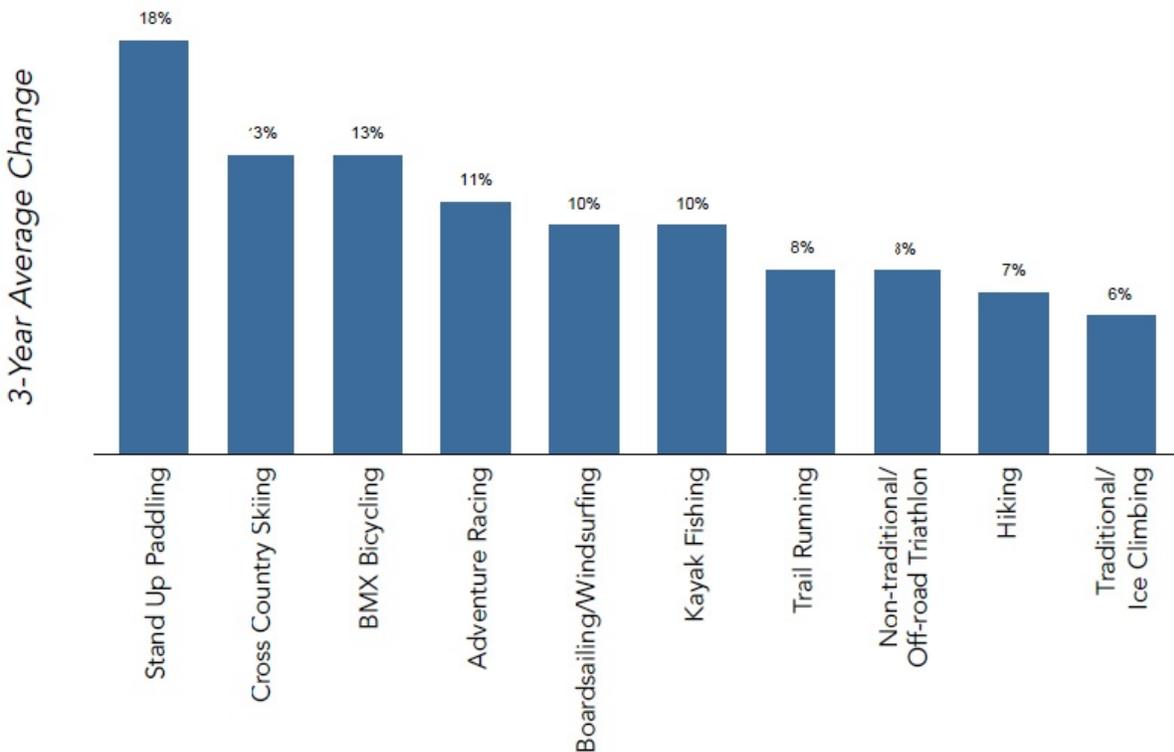
FOR DISCUSSION

## Section 1. Participation

### Outdoor Recreation: Participation Report 2017

In 2016 the outdoor recreation participation rate and number of participants slightly increased, while the number of total outings decreased. The decline in outings was a result of the decline in core participation. In other words, in 2016, Americans participated in outdoor activities, such as traditional and non-traditional triathlons, mountain and road biking, boardsailing and others, less often than they did the year before. Over the past three years, stand up paddling was the top outdoor activity for growth, increasing participation an average of 18%.

### Top Outdoor Activities for Growth



Below is a breakdown of each paddlesport and the 3-year change in participation:

<b>Paddlesport</b>	<b>3-Year Change in Participation</b>
<b>Canoeing</b>	-1.1%
<b>Kayaking (Recreational)</b>	+14.9%
<b>Kayaking (Sea/Touring)</b>	+ 16.0%
<b>Kayaking (White Water)</b>	+ 18.9%
<b>Kayak Fishing</b>	+31.8%
<b>Rafting</b>	-10.6%
<b>Standup Paddling</b>	+ 61.6%

## Section 2. Economic

*The Outdoor Recreation Economy: Outdoor Industry Association Report*

The 2017 Economic Analysis of Outdoor Recreation gave information on the expenditures for paddlesports. While this report shows the importance and economic contribution of outdoor recreation activities, additional data is needed to show the full picture of paddlesports' economic contribution. Below is the total amount of money Americans spent annually on Water Sports in the United States.

	<b>Gear and Accessories</b>	<b>Trip Related</b>	<b>Total</b>
<b>Water Sports</b>	\$29,059,965,205	\$110,911,844,967	\$139,971,810,172

## Section 3. Recreational Boating Statistics

*United States Coast Guard Data*

The number of non-motorized paddling deaths has increased since 2013.

<b>A Look at the Increase in Non-motorized Paddling Vessel Deaths</b>			
	<b># Deaths on a Non-motorized Paddling Vessel</b>	<b>Total Deaths (where motorization known)</b>	<b>% of Deaths on a Non-motorized Paddling Vessel</b>
<b>2012</b>	157	638	24.6%
<b>2013</b>	153	547	28.0%
<b>2014</b>	178	598	29.8%
<b>2015</b>	181	620	29.2%
<b>2016</b>	199	683	29.1%

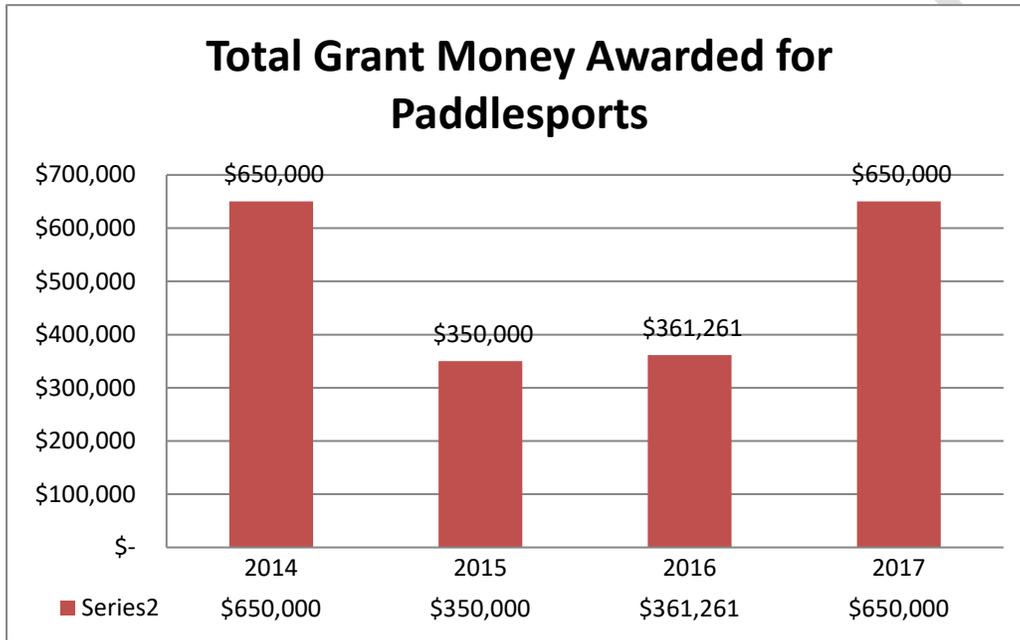
Below we see non-motorized paddling fatalities are most commonly caused by drowning.

<b>Cause of Death by Year on Non-motorized Paddling Vessels</b>					
	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
<b>Carbon monoxide</b>	0	0	0	0	0
<b>Cardiac arrest</b>	7	6	3	3	4
<b>Drowning</b>	131	130	156	157	171
<b>Hypothermia</b>	4	3	0	8	5
<b>Other</b>	1	1	0	0	3
<b>Trauma</b>	2	2	0	2	0
<b>Unknown</b>	12	11	19	11	16
<b>Total</b>	<b>157</b>	<b>153</b>	<b>178</b>	<b>181</b>	<b>199</b>

**Section 4. Grants**

*United States Coast Guard Grant Funding for Paddlesports*

Over the last 4 years there has been a dramatic increase in grant funding from the U.S. Coast Guard for Paddlesport safety campaigns. Each year more grants are awarded for paddlesports safety and increasing awareness of paddlesports.



**National Nonprofit Public Service Organization  
U.S. Coast Guard Grants  
2017**

Organization	Project Title	Funding Level	Grant Number
1. American Canoe Association	National Safe Boating Campaign: Paddlesports Safety Facilitator Training Program & Sharable Resources	\$100,000.00	3317FAN170202
2. American Canoe Association	Youth Paddle Smart WebTV Series	\$100,000.00	3317FAN170203
3. American Canoe Association	Paddlesports TV Outreach Safety Minute Series	\$100,000.00	3317FAN170205
4. American Canoe Association	Game-based Intervention for Water Safety and Paddlesports Users	\$100,000.00	3317FAN170206
5. American Whitewater Affiliation Inc.	Safer Paddling Through Modernizing the National Whitewater Inventory	\$75,000.00	3317FAN170207

6.	Coast Guard Auxiliary Association	Paddlecraft Safety Initiative	\$75,000.00	3317FAN170208
7.	Water Sports Foundation	Increasing the Awareness of Paddle Sports Safety	\$150,000.00	3317FAN170235

**2016**

Organization	Project Title	Funding Level	Grant Number
1. American Canoe Association	Paddle Safe Web TV Series	\$150,000.00	3316FAN160203
2. American Canoe Association	Stand Up Paddleboarding-Rescue Training Initiative	\$61,261.00	3316FAN160204
3. Water Sports Foundation	Increasing the Awareness of Paddle Sports Safety	\$150,000.00	3316FAN160231

**2015**

Organization	Project Title	Funding Level	Grant Number
1. American Canoe Association	Sustainable Paddlesport Education for Underserved Communities	\$200,000.00	3315FAN150202
2. American Canoe Association	National Safe Boating Campaign: Creative Outreach Safe Paddling WebTV Series	\$150,000.00	3315FAN150203

**2014**

1. United States Sailing	National On-Water Standards (Core Competencies) For On-Water Instruction SAIL, POWER and HUMAN Domains and Drivers Education for Boaters	\$650,000.00	3314FAN140222
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### **Section 5. Paddlesport Data Gaps**

**Fatality data.** Because of their severity, recreational boating accidents that result in fatalities typically are investigated by trained personnel.<sup>1</sup> That means their numbers and other details about the incidents are more likely to be known and recorded with greater accuracy than other

<sup>1</sup> Current federal regulations for reporting recreational boating accidents require the operator or owner of the boat to report the incident and complete the Coast Guard's Boating Accident Report form, with the state authority receiving and submitting the data. However, the provisions in 33 CFR 173 and 174 are outdated and in many instances, do not reflect the states Recreational Boating Safety programs, operations and investigation practices as they have evolved over the years in the interest of boating safety; this is especially the case for the reporting and investigation of boating fatalities.

types of accidents.<sup>2</sup> In fact, fatality data represent some of the most robust and reliable data reported to the U.S. Coast Guard (USCG) and included in the Boating Accident Report Database (BARD). Still, nationally, there are variations in how complete and consistent even these report data are. Some information, such as the number of fatalities involved and location of the accident are more consistently recorded and reported. However, other report data, –for example, the cause of or factors contributing to the accident, the specific activity at the time of the accident, or as may especially be the case with paddlesport accidents, the specialized type of boat used and equipment involved—may not be recorded as evenly. When definitions for report terms are not available or applied or when personnel do not have proper training to evaluate the incident and accurately select options to complete the reports, then the data are less reliable and risk assessments become more problematic.

Other gaps in fatality data for paddlesports—affecting risk assessments and directly affecting the calculation of fatality rates that can be used to make comparisons across time or across states—involve the estimates of the number of paddlecraft and of exposure hours associated with paddlesports. For years, fatality and casualty rates have been a set of measures used to evaluate boating safety. Currently, nationally, the rates are figured by taking the numbers of fatalities and dividing them by the reported number of state-registered boats (a denominator standardized to allow the comparisons across time and jurisdictions). However, rates that use of state-registered boats as the denominator are problems for paddlesports, not the least being that states have different registration requirements and the vast majority do not register paddlecraft.

Exposure hour estimates—such as the data produced from the USCG’s 2012 National Recreational Boating Survey (NRBS)—on the other hand, are based on boaters’ reported time on registered **and** unregistered boats and while they were being operated.<sup>3</sup> In that way, exposure hour-based statistics as the denominator for fatality rates conceptually seem to be an improvement for evaluating and comparing the risks across boat types and across states—comparisons that could help in identifying effective existing or developing new injury prevention programs and other methods for reducing risk. However, at this time, there is only one year’s worth of state-level exposure hour data and for paddlesports in particular, there are many caveats with the data, making it hard to use it with confidence.<sup>4</sup>

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<sup>2</sup> For more discussion, see “Structuring a Strategic RBS Plan: What we know and what we don’t,” Dr. L. Daniel Maxim and Ms. Susan Weber, [Proceedings \(Recreational Boating Safety issue\), Fall-Winter 2016](#) (vol. 73. No. 3), pp. 6-13. Also, see “[Behind the Counts: The vital role that accident report data play in answering boating safety research and what can improve them for the future,](#)” Dr. Deborah Gona, Small Craft Advisory, July-August 2010, pp. 12-13, 19.

<sup>3</sup> For more discussion, see “[Breaking Down the Numbers: A Closer Look at Exposure Hours from the 2012 National Recreational Boating Survey,](#)” Dr. Deborah Gona and Ms. Tamara Terry, Small Craft Advisory, July-August 2014, pp. 14-19.

<sup>4</sup> For more detail, see “[2012 National Recreational Boating Survey \(NRBS\) Data Tables: Boat Numbers – Estimates by State, Boat Type, and Registration Status and Exposure Hours—Estimates by State, Boat Type, and Registration Status,](#)” produced by NASBLA’s Engineering, Reporting & Analysis Committee.

**Accident data.** The deficiencies and caveats described for fatality data are magnified for accident data across states and across boat types. Under federal reporting regulations, accidents must be reported by the operator/owner if they meet certain conditions.<sup>5</sup> But studies have shown that not all otherwise reportable accidents are included in BARD, especially those that involve property damage only (currently, the federal reporting requirement is \$2,000, though states may have different thresholds and more stringent reporting requirements).<sup>6</sup> As such, the number of boating accidents is very likely understated, and especially so for those involving paddlesports. Many paddlers likely do not know that accidents meeting the federal (or additional state) requirements should be reported; educating the paddling public about these requirements could help to increase the volume and potentially the quality of data. In addition to accidents, near-misses between vessels, on-water assists, and search and rescues for paddlers are not formally reported or recorded in BARD leaving no way currently to track this important data.

**Participation data.** This gap is one of the most challenging to fill since most state governments do not register these vessels and are limited liable barometers of their growth. A strong proxy to measure participation would be sales data but most economic data is collected by manufacturers who sell paddle vessels, but they generally do not want to share their data. NASBLA has recommended having data sent to a trusted third party and aggregated. If we were given access to this data for paddlesports it would help us understand how quickly the sport is growing based on sales of vessels and as a proxy for participation.

**Economic data.** Economic data has some of the same caveats as participation data and is also greatly lacking for paddlesports. The information is dependent on surveying or other methodology by an organization/industry; some of it is based on sales/manufacturing data; others on surveying as to how (and how much) people are spending on their boating and other recreational activities. There is always a need for caution on the economic surveying, because sometimes the questions can seem intrusive to the respondent.

The 2015 Economic Analysis of Outdoor Recreation gave information on the expenditures for paddlesports. While this report shows the importance and economic contribution of outdoor recreation activities, additional data is needed to show the full picture of paddlesports' economic contribution.

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<sup>5</sup> As required under 33 CFR Part 173, Subpart C, the operator is required to file a boating accident report when, as a result of an occurrence involving the vessel or its equipment, 1) a person dies, or 2) a person disappears from the vessel under circumstances that indicate death or injury, or 3) a person is injured and requires medical treatment beyond first aid, or 4) damage to vessels and other property totals \$2,000 or more, or 5) there is a complete loss of any vessel. States may have more stringent requirements.

<sup>6</sup> See "Structuring a Strategic RBS Plan: What we know and what we don't," Dr. L. Daniel Maxim and Ms. Susan Weber, [Proceedings \(Recreational Boating Safety issue\), Fall-Winter 2016](#) (vol. 73. No. 3), pp. 6-13.