Lake Erie, Ohio River, and Inland Report

ODNR Parks and Watercraft

Subset: 2022 Recreational Boating Survey

3/6/23

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Executive Summary

- \$1.3 billion was the 2022 economic impact of Ohio-based Lake Erie recreational boating,
 9,385 employed (pp.1-5)
 - o 21.2% of boating households primarily boat Lake Erie; 26.8% include Lake Erie.
- \$0.3 billion was the 2022 economic impact of Ohio-based Ohio River recreational boating,
 1,992 employed.
 - o 4.8% of boating households primarily boat the Ohio River; 7.7% include Ohio River.
- \$2.5 billion was the 2022 economic impact of Inland boating, 14,706 employed.
 - o 74% of boating households primarily boat Inland; 84.9% include Inland lakes, reservoirs, rivers, and streams.
- Households primarily operating motorized boats included, on average, 2.65 boaters and 2.68 vessels.
- Households primarily operating non-motorized boaters included, on average, 2.23 boaters and 2.99 boats (p.7).
- 77.2% of Lake Erie boaters operate a motorboat; 2021-22 cost new = \$105,898 (pp.27-31).
 - 20.7% of Lake Erie boaters increased boating in 2020 (p.14).
- 63.1% of Ohio River boaters operate a motorboat; 2021-22 cost new = \$75,283.
 - o 19.9% of Ohio River boaters operate a pontoon.
 - 15.3% of Ohio River boaters increased boating in 2020 (p.15).
- 43.4% of Inland Lakes boaters operate a motorboat; 2021-22 cost new = \$53,309
 - o 27.5% of Inland Lakes boaters were non-motorized boat operators.
 - 23.2% of Inland Lakes boaters operate a pontoon.
 - 23.8% of Inland Lakes boaters increased boating in 2020.
- 22.1% of Inland Rivers boaters operate a motorboat; 2021-22 cost new = \$55,208.
 - o 65.2% of Inland Rivers boaters were non-motorized boat operators.
 - o 27.3% of Inland Rivers boaters increased boating in 2020.
- 69.1% of Lake Erie boaters completed Safe Boater courses (p.38).
- 43.4% of Ohio River boaters completed Safe Boaters courses.
- 42.9% of Inland boaters completed Safe Boater courses.
- 16.7% of Ohio-based Lake Erie boaters interacted with ODNR on-the-water (p.73).
- 17.4% of Ohio River boaters interacted with ODNR on-the-water
- 13.9% of Inland boaters interacted with ODNR on-the-water.
- 42.1% of Lake Erie boating-time was spent fishing (p.8).
- 24.5% of Ohio River boating-time was spent fishing (p.9).
- 32% of Inland boating-time was spent fishing (p.10).
- 38% of Lake Erie boaters trailer their boat (p.19).
- 53% of Ohio River boaters trailer their boat (p.22).
- 65.9% of Inland boaters trailer their boat (p.26).
- Popular <u>waterways</u>, <u>ramps</u>, and <u>docks</u> for Lake Erie, the Ohio River, and Inland have been itemized and rated.

Economic Impact

The economic impact of Lake Erie boating on Ohio in 2022 was \$1.3 billion and 9,385 workers. Some 89% of Lake Erie boaters operate motorized boats and 11% operate non-motorized boats. Of the 404,028 boating households in Ohio, Lake Erie was the first choice for 21.2% of boaters. For all body of water choices, Lake Erie was mentioned by 26.8% of boaters.

The economic impact of Ohio River boating on Ohio in 2022 was \$0.3 billion and 1,992 employed. Some 88% of Ohio River boaters operate motorized boats and 12% operate non-motorized vessels. Of the 404,028 boating households in Ohio, the Ohio River was the first choice for 4.8% of boaters. For all body of water choices, the Ohio River was mentioned by 7.7% of boaters.

The economic impact of Inland boating on Ohio in 2022 was \$2.5 billion and 14,706 workers. Some 61% of Inland boaters operate motorized boats and 39% operate non-motorized boats. Of the 404,028 boating households in Ohio, Inland lakes, reservoirs, rivers, and streams were the first choice for 74% of boaters. For all body of water choices, Inland lakes, reservoirs, rivers, and streams were mentioned by 84.9% of boaters.

Figure 1 shows the economic impact analysis for Lake Erie, Ohio River, and Inland recreational boating.¹ Direct Impact (2nd column, 1st row) shows the input of the overall average expenses from ODNR Parks and Watercraft's 2022 Recreational Boating survey, the proportional volume of boating households, and an assigned industry. ² Indirect Impact (2nd column, 2nd row) represents the economic impact supporting the direct impact (i.e., the supply chain).³ Induced impact (2nd column, 3rd row) represents the household spending.⁴ For each impact type and for each of three Ohio boating areas, subsequent columns show the number of workers and the total economic output. The economic impact of Lake Erie boating on Ohio in 2022 was \$1.3 billion and 9,385 workers. The economic impact of Ohio River boating on Ohio was \$0.3 billion and 1,992 workers. The economic impact of Inland boating was \$2.5 billion and 14,706 workers.

Annual Boating Expenses	Impact	Lake Erie Labor	Lake Erie Output	Ohio River Labor	Ohio River Output	Inland Labor	Inland Output
D	Direct	361	\$53,953,029	64	\$9,559,994	609	\$91,067,701
Purchase Motorboat	Indirect	92	\$16,978,595	16	\$3,008,455	155	\$28,658,292
Widtorboat	Induced	169	\$29,469,555	30	\$5,221,742	285	\$49,741,871
Purchase Non-	Direct	18	\$2,697,772	2	\$240,017	40	\$5,953,123
motorized	Indirect	5	\$848,968	-	\$75,532	10	\$1,873,401
Boat	Induced	8	\$1,473,543	1	\$131,099	19	\$3,251,641

¹ "Lake Erie boaters" reported that Lake Erie was their #1 body of water for boating, "Ohio River boaters" reported that the Ohio River was their #1 body of water for boating, and "Inland boaters" reported that any lake, reservoir, creek, river, stream etc. that was neither Lake Erie nor the Ohio River was their #1 body of water for boating.

² An industry was assigned to each type of expense. For example, restaurant meals was assigned to Full-Service

² An industry was assigned to each type of expense. For example, restaurant meals was assigned to Full-Service Restaurants Industry such that boaters' restaurant expenses output would be based on the economic performance of restaurants in Ohio.

³ The indirect impact of restaurant meals would include labor and expense, for example, the restaurant building maintenance and repair, restaurant management, transportation-associated costs for workers and many more. ⁴ Examples of induced impact of restaurant meals would include household expenses such as hospitals, physician offices, and other household expenses.

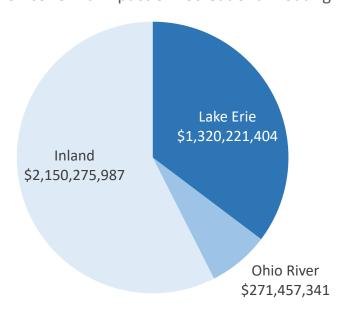
Annual Boating		Lake Erie	Lake Erie	Ohio River	Ohio River	Inland	Inland
Expenses	Impact	Labor	Output	Labor	Output	Labor	Output
	Direct	141	\$43,974,764	32	\$9,833,609	274	\$85,391,963
Loan	Indirect	62	\$12,304,119	14	\$2,751,439	120	\$23,892,633
payments	Induced	100	\$17,528,756	22	\$3,919,769	195	\$34,038,044
	Direct	511	\$53,628,826	44	\$4,646,175	475	\$49,858,072
Storage	Indirect	160	\$29,862,653	14	\$2,587,174	148	\$27,762,948
	Induced	186	\$32,512,923	16	\$2,816,782	173	\$30,226,872
	Direct	389	\$41,443,688	83	\$8,839,523	454	\$48,366,156
Engine	Indirect	49	\$10,631,927	10	\$2,267,683	57	\$12,407,811
Maintenance	Induced	149	\$26,014,749	32	\$5,548,685	174	\$30,360,074
	Direct	830	\$53,280,214	106	\$6,797,440	489	\$31,419,913
Docking	Indirect	129	\$26,782,598	16	\$3,416,899	76	\$15,793,985
	Induced	155	\$27,110,041	20	\$3,458,674	92	\$15,987,082
	Direct	25	\$3,812,750	6	\$902,485	102	\$15,305,375
Engine	Indirect	7	\$1,199,843	2	\$284,005	26	\$4,816,482
Purchase	Induced	12	\$2,082,553	3	\$492,944	48	\$8,359,912
	Direct	155	\$11,772,510	341	\$25,991,801	314	\$23,902,056
Fishing	Indirect	30	\$5,823,747	66	\$12,857,892	61	\$11,824,115
equipment	Induced	32	\$5,674,797	72	\$12,529,036	66	\$11,521,699
	Direct	97	\$31,423,026	15	\$5,006,109	142	\$45,995,237
Insurance	Indirect	91	\$25,549,678	14	\$4,070,406	133	\$37,398,164
	Induced	72	\$12,626,352	12	\$2,011,547	106	\$18,481,736
	Direct	117	\$10,259,582	12	\$1,082,570	191	\$16,736,532
Electronics	Indirect	27	\$5,298,657	3	\$559,103	45	\$8,643,738
	Induced	43	\$7,491,044	5	\$790,439	70	\$12,220,195
	Direct	163	\$43,137,067	14	\$3,746,146	84	\$22,100,676
Marina or club fees	Indirect	76	\$18,352,490	7	\$1,593,782	39	\$9,402,642
iees	Induced	90	\$15,742,216	8	\$1,367,099	46	\$8,065,305
	Direct	146	\$18,480,707	21	\$2,632,018	244	\$30,887,727
Winterization	Indirect	25	\$5,287,301	4	\$753,016	42	\$8,836,930
	Induced	72	\$12,632,471	10	\$1,799,114	121	\$21,113,278
	Direct	103	\$6,106,992	15	\$910,097	198	\$11,692,706
Other Annual	Indirect	15	\$2,978,610	2	\$443,889	29	\$5,702,972
	Induced	18	\$3,198,801	3	4476,703	35	\$6,124,559
Tueilen	Direct	50	\$7,336,265	7	\$1,094,735	166	\$24,292,206
Trailer or car racks	Indirect	9	\$1,618,955	1	\$241,584	30	\$5,360,765
i dens	Induced	38	\$6,645,956	6	\$991,725	126	\$22,006,421
	Direct	18	\$2,224,992	4	\$500,234	40	\$4,818,184
Clothing	Indirect	6	\$1,257,005	1	\$282,606	13	\$2,722,025
	Induced	6	\$1,044,429	1	\$234,814	13	\$2,261,695

Annual		Lake Erie	Lake Erie	Ohio River	Ohio River	Inland	Inland
Boating Expenses	Impact	Labor	Output	Labor	Output	Labor	Output
Expenses	Direct	14	\$3,642,865	2	\$590,323	41	\$10,850,020
Registration	Indirect	8	\$2,012,239	1	\$326,082	25	\$5,993,315
riegistration	Induced	11	41,859,992	2	\$301,410	32	\$5,539,857
	Direct	32	43,220,590	25	\$2,575,584	91	\$9,238,513
Tournament	Indirect	10	\$2,020,990	8	\$1,616,235	30	\$5,797,365
fees	Induced	12	\$2,148,933	10	\$1,718,554	35	\$6,164,379
	Direct	10	\$8,857,480	1	\$907,786	5	\$3,988,407
Paint	Indirect	12	\$3,336,958	1	\$341,998	5	\$1,502,588
	Induced	11	\$2,000,874	1	\$205,066	5	\$900,967
	Direct	15	\$4,728,101	1	\$357,413	18	\$5,468,362
Hull Repair	Indirect	9	\$1,892,134	1	\$143,033	11	\$2,188,379
,	Induced	9	\$1,531,888	1	\$115,801	10	\$1,771,731
	Direct	6	\$457,939	2	\$120,388	33	\$2,516,938
Waterskiing	Indirect	1	\$226,538	-	\$59,555	6	\$1,245,105
Equipment	Induced	1	\$220,744	-	\$58,032	7	1,213,260
	Direct	13	\$1,762,759	3	\$449,724	15	2,089,877
Launch ramp	Indirect	6	\$954,015	2	\$243,393	7	\$1,131,053
fee	Induced	5	\$895,816	1	\$228,545	6	\$1,062,054
	Direct	4	\$309,978	2	\$124,101	11	\$842,159
Scuba diving	Indirect	1	\$153,343	-	\$61,391	2	\$416,608
equipment	Induced	1	\$149,421	-	\$59,821	2	\$405,953
	Direct	259	\$40,266,466	50	\$7,732,791	320	\$49,804,136
Fuel Costs	Indirect	126	\$21,985,851	24	\$4,222,173	155	\$27,193,504
	Induced	93	\$16,230,125	18	\$3,116,841	115	\$20,074,455
	Direct	305	\$36,123,718	170	\$20,099,681	1,458	\$172,616,680
Lodging	Indirect	82	\$14,864,073	46	\$8,270,553	394	\$71,027,764
	Induced	87	\$15,214,121	48	\$8,465,324	416	\$72,700,463
Daatassaat	Direct	1,160	\$89,438,194	156	\$11,997,673	1,576	\$121,544,746
Restaurant Meals	Indirect	191	\$41,041,456	26	\$5,505,500	259	\$55,774,532
ivicais	Induced	239	\$41,760,534	32	\$5,601,961	325	\$56,751,744
	Direct	218	\$43,508,806	35	\$6,897,702	640	\$127,599,111
Transport	Indirect	138	\$27,139,330	22	\$4,302,555	404	\$79,592,036
	Induced	135	\$23,552,138	21	\$3,733,856	395	\$69,071,808
Crocor	Direct	178	\$14,773,413	46	\$3,788,902	442	\$36,693,904
Grocery, Convenience	Indirect	38	\$6,974,353	10	\$1,788,696	93	\$17,322,758
202	Induced	42	\$7,297,037	11	\$1,871,454	104	\$18,124,234

Annual Boating Expenses	Impact	Lake Erie Labor	Lake Erie Output	Ohio River Labor	Ohio River Output	Inland Labor	Inland Output
•	Direct	76	\$10,488,806	11	\$1,592,901	170	\$23,626,221
Fishing	Indirect	21	\$3,792,837	3	\$576,006	47	\$8,543,434
Supplies	Induced	25	\$4,348,759	4	\$660,432	56	\$9,795,657
	Direct	513	\$30,727,516	10	\$603,898	390	\$23,329,487
Entertainment	Indirect	72	\$14,433,750	1	\$283,671	55	\$10,958,647
	Induced	108	\$18,826,232	2	\$369,998	82	\$14,293,584
	Direct	21	\$3,445,860	2	\$378,745	26	\$4,305,326
Other Trip	Indirect	4	\$810,823	-	\$89,120	5	\$1,013,059
	Induced	7	\$1,238,090	1	\$136,082	9	\$1,546,894
	TOTALS	9,385	\$1,320,221,404	1,992	\$271,457,341	14,706	\$2,150,275,987

Figure 2 shows a pie chart of the Figure 1 totals for the economic impact for recreational boating for Lake Erie, the Ohio River, and Inland.

Ohio Economic Impact of Recreational Boating



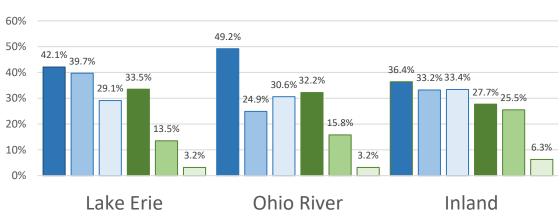
Boating Introduction

From the 2022 Ohio Recreational Boating Survey, 8,867 boaters provided written comments about what it was that first attracted them to boating, where Lake Erie was the first choice for 21.2% of boaters, the Ohio River was the first choice for 4.8% of boaters, and Inland lakes, reservoirs, rivers, and streams were the first choice for 74% of boaters.

The most frequently mentioned introduction to boating was family and friends, especially for Lake Erie and Ohio River boaters (42.1% and 49.2%, respectively) compared to Inland boaters (36.4%).

Lake Erie boaters were significantly more likely to report fishing and childhood as their introduction to boating. Ohio River boaters were significantly more likely to mention family and friends as introducing them to boating. Inland boaters were significantly more likely to cite the boating lifestyle⁵, the activity of boating, and boating programs⁶ as their introduction to boating.

Figure 3 shows how Lake Erie, Ohio River, and Inland boaters were first introduced to boating. All written comment were coded and categorized. The chart shows the percentage of responses for each category.



■ Family & Friends ■ Fishing & Hunting ■ Lifestyle

■ Boat/activity

□ Programs

■ Childhood+

Boating Introduction for Lake Erie, Ohio River, and Inland boaters

⁵ Boating lifestyle among Inland boaters included their love of boating, living local, boating being relaxing/tranquil/freeing/recreational, being outdoors/nature, affordability, and a response to COVID19.

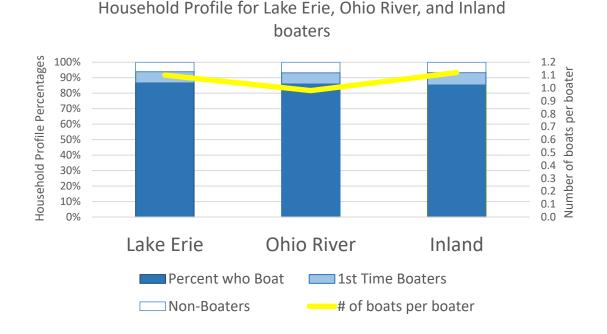
⁶ Boating programs included liveries, boy/girl scouts, summer camps/camping, educational programs, military programs, high school, and college.

Boating Household Profile

The data show that in 93% of Ohio boating households, 100% of household members were boaters. Households primarily operating motorized boats included, on average, 2.65 boaters and 2.68 vessels. Households primarily operating non-motorized boaters included, on average, 2.23 boaters and 2.99 vessels. Almost all households operating motorized boats had sufficient vessels to provide each household member with their own boat. Households operating non-motorized boats had more vessels available than boaters in their household. Seven percent of Ohio boating households include a member who was boating for the first time between October 2021 and September 2022.

At 2.79 boats per household, Inland boaters have the highest number of vessels per household, compared to Lake Erie and Ohio River boating households (2.74 and 2.56, respectively). Inland boating households have the highest percentage of first-time boaters (8%), which compared to 7.3% among Lake Erie and Ohio River boating households.

Figure 4's left y-axis and stacked bars show boating household profiles for Lake Erie, Ohio River, and Inland boaters. The right y-axis and yellow line show the number of vessels per boater in a household.



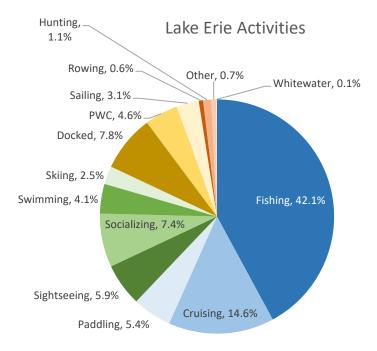
Activity Preferences

Lake Erie Boating Time

Boating time for Lake Erie boaters primarily included fishing (42.1% of the time), cruising (14.6%), onboard while docked (7.8%), and socializing with people not in household (7.4%).

The data show that the percentage of fishing and sailing by Lake Erie boaters was significantly higher than Ohio River and Inland boaters; cruising, sightseeing, and skiing or tubing activities were significantly lower on Lake Erie compared to the rest of Ohio.

Figure 5 shows the percent of boating-time activities for Lake Erie boaters. The 42.1% of time spent fishing by Lake Erie boaters reflects the 42.1% introduced to boating via fishing (Fig. 3).

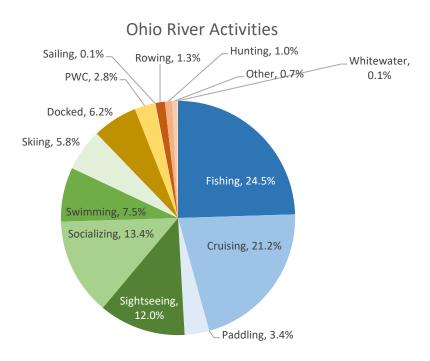


Ohio River Boating Time

Boating time for Ohio River boaters included fishing (24.5% of the time), cruising (21.2%), socializing with people not in household (13.4%), sightseeing or observing nature (12%), and swimming (7.5%).

The data show that the percentage of cruising, socializing with people not in household, sightseeing or observing nature, and swimming by Ohio River boaters was significantly higher than Lake Erie and Inland boaters; fishing was significantly lower on the Ohio River compared to the rest of Ohio.

Figure 6 shows the percentage of boating-time activities for Ohio River boaters.

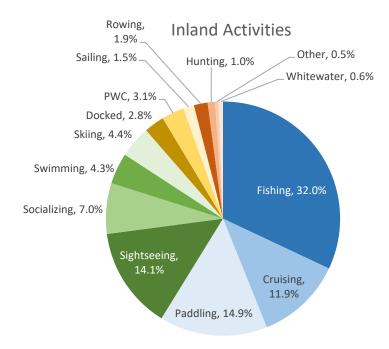


Inland Boating Time

Boating time for Inland boaters included fishing (32% of the time), paddling (14.9%), sightseeing or observing nature (14.1%), cruising (11.9%), and socializing with people not in household (7%).

The data show that the percentage of boating time spent paddling among Inland boaters was significantly higher than Lake Erie and Ohio River boaters (fishing Inland [32%] was higher than fishing in the Ohio River [24.5%]); cruising and onboard while docked activities were significantly lower among Inland boaters compared to the rest of Ohio.

Figure 7 shows the percentage of boating-time activities for Inland boaters.

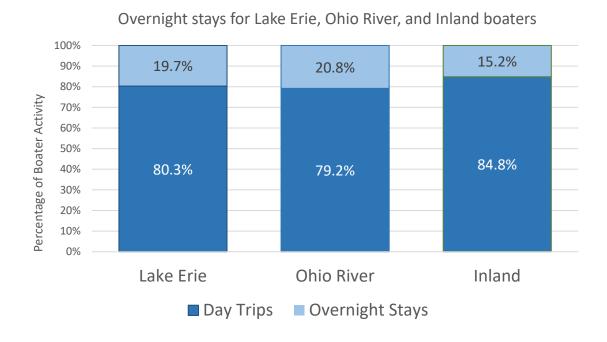


Overnight Trips

First choice body of water being Inland accounts for 74% of all boating households. The significantly lower percentage of overnight stays among Inland boaters—15.2% compared to 19.7% for Lake Erie Boaters and 20.8% for Ohio River boaters—suggests that most of the direct impact of overnight expenses remains in Ohio.

The total economic impact for Inland boaters' lodging expenses was \$316 million and 2,268 jobs. The total economic impact for Lake Erie boaters' lodging expense was \$66 million and 474 jobs; Ohio River boaters' lodging accounted to \$37 million and 264 jobs (Fig. 1).

Figure 8 shows the percentage of boating trips that include an overnight stay for Lake Erie, Ohio River, and Inland boaters.



Thoughts on Boating in Ohio

One of the last questions on the questionnaire asked boaters to provide their thoughts on boating in Ohio. Some 71.8% of Lake Erie boaters, a significantly high percentage, reported that they loved boating in Ohio where 9.6% mentioned Lake Erie by name. Some 68.6% of Ohio River boaters and 58.9% of Inland boaters also offered praise for boating in Ohio.

Inland boaters were significantly more likely to mention water quality issues⁷ (15.2%), compared to Lake Erie and Ohio River boaters (8.8% and 6.8%, respectively). Dangers, such as crowding of waterways, no-wake zone violations, and speed limit violations were observed by 10.7% of Inland boaters (8.6% of Lake Erie boaters and 6.8% of Ohio River boaters).

Inland boaters were significantly more likely to suggest investments in Ohio boating (8.5%), which included more launch sites, 8 compared to Lake Erie and Ohio River boaters (4.4% and 6.8%, respectively). Some 2.6% of Inland boaters suggested more ODNR presence and 2.1% wrote that the fish quality in Ohio had declined.

Lake Erie boaters were significantly more likely to write about boater civility and education⁹ (7.8%) compared to Ohio River and Inland boaters (3.4% and 5.5%, respectively).

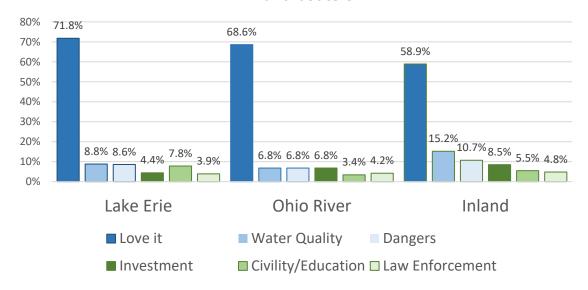
⁷ Water quality issues mentioned by Inland boaters included vegetation/invasive species (lily pads, seaweed, weeds, zebra mussels, and bacteria) (15.5%); cleanup (6.7%); Indian Lake (4.8%); dirty water (1.0%); dredging (1.0%); littering (0.8%); shallow (0.7%); water level (0.6%); and submerged trees (0.3%).

⁸ Investment suggestions from Inland boaters included more kayak launches (2.0%); more ramps (1.7%); larger lakes (1.1%); more access points (1%); infrastructure investment (0.6%); more docks (0.4%); investment in Southern Ohio (0.4%); restrooms (0.4%); deeper water (0.4%); campsites (0.4%); specific places for kayaks (0.3%); and removal of low-head dams (0.2%).

⁹ Lake Erie boaters wrote about boat safety education and mandatory safe boater courses (2.9%); inexperienced boaters (2.7%); boaters following rules (1.5%); and ramp etiquette (1.2%).

Figure 9 shows the category percentages from coded written comments received from Lake Erie, Ohio River, and Inland boaters. Most boaters took the opportunity to praise boating in Ohio, especially Lake Erie and Ohio River boaters.

Thoughts on boating in Ohio from Lake Erie, Ohio River, and Inland boaters



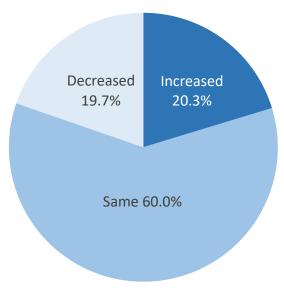
COVID19: Lake Erie

Lake Erie boaters were significantly more likely to have decreased boating during Ohio's shelter in place order in 2020 (19.7%), compared to their pre-pandemic activity—and compared to Ohio River and Inland boaters (16.7% and 16.2%, respectively).

Some 16.1% of Lake Erie boaters reported that Ohio's shelter in place order shut down their boating activity, 1.2% wrote about fewer people on board, 0.9% said they had to work 24/7, and other reasons revolve around cancellation of events and the closing of campgrounds.

Figure 10's pie chart shows boating activity for Lake Erie boaters during Ohio's shelter in place order compared to pre-pandemic boating activity.





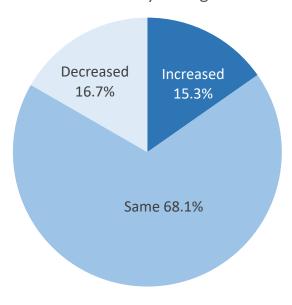
COVID19: Ohio River

Ohio River boaters were significantly more likely to have continued boating at the same level during Ohio's shelter in place order in 2020 (68.1%) as they did pre-pandemic compared to Lake Erie and Inland boaters (60.4% and 59.9%, respectively).

Some 65.3% of Ohio River boaters reported that the shelter in place order did not affect them, 1.4% said it affected them a little, and 1.4% reported that restaurants were closed.

Figure 11's pie chart shows boating activity for Ohio River boaters during Ohio's shelter in place order compared to prepandemic boating activity.





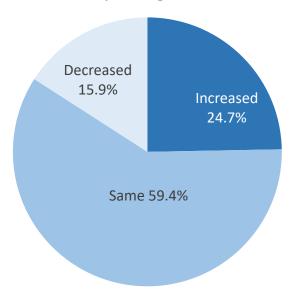
COVID19: Inland

Inland boaters were significantly more likely to have increased their boating activity during Ohio's shelter in place order in 2020 (24.7%) compared to their pre-pandemic activity—and compared to Lake Erie and Ohio River boaters (20.7% and 15.3%, respectively).

Some 17.6% of Inland boaters stated that they boated more and that boating was all they were able to do outside; 2.8% observed that lakes became more crowded during the pandemic; 1.8% said they kayaked more; and 1.3% fished daily. Some 1.3% of Inland boaters bought a kayak (so much so that some boaters reported a kayak shortage); 1.2% bought a boat (but did not specify the type), 0.8% noted that their lake was a place of no contact, 0.8% said boating was a refuge for their family, and 0.8% said they felt safe outdoors. Other reasons Inland boaters flocked to the water during the pandemic included escaping from home, bringing family together outside, and a few boaters took early retirement.

Figure 12's pie chart shows boating activity for Inland boaters during Ohio's shelter in place order compared to pre-pandemic boating activity.



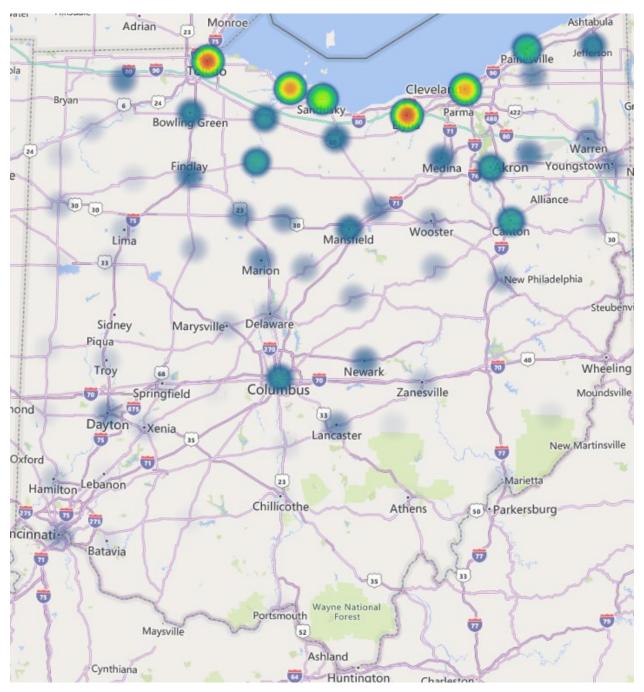


Counties: Residence, Boat, and Storage

Lake Erie Boaters: Residence

Lucas, Ottawa, Sandusky, Erie, Lorain, Cuyahoga, Lake, and Ashtabula counties account for 58.7% of Lake Erie boaters' county of residence, as expected. Wood, Seneca, Huron, Medina, Summit, and Stark accounted for 12.2% of Lake Erie boaters' home counties.

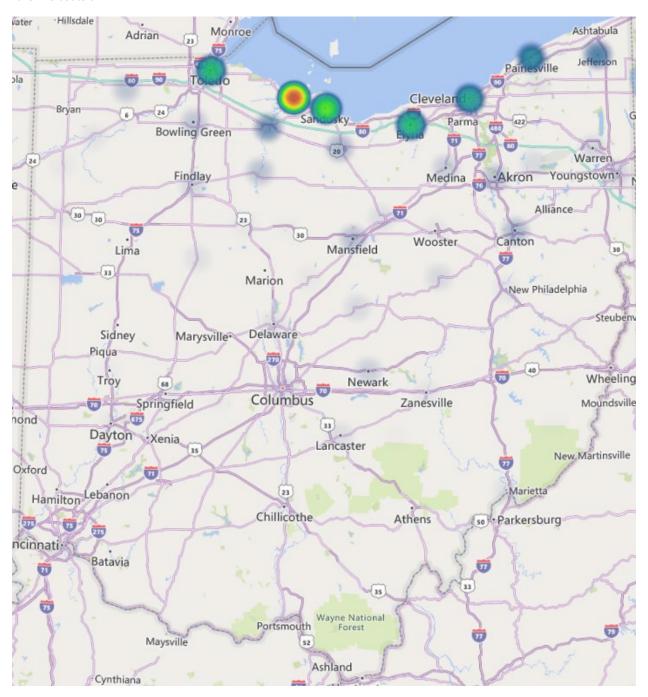
Figure 13 heat map shows the county of residence for Lake Erie boaters.



Lake Erie Boaters: Boat Kept During Season

Lucas, Ottawa, Sandusky, Erie, Lorain, Cuyahoga, Lake, and Ashtabula counties account for 80.4% of where Lake Erie boaters' boats were kept during the boating season.

Figure 14 heat map shows the county where boats were kept during the boating season (October 2021 to September 2022) for Lake Erie boaters.

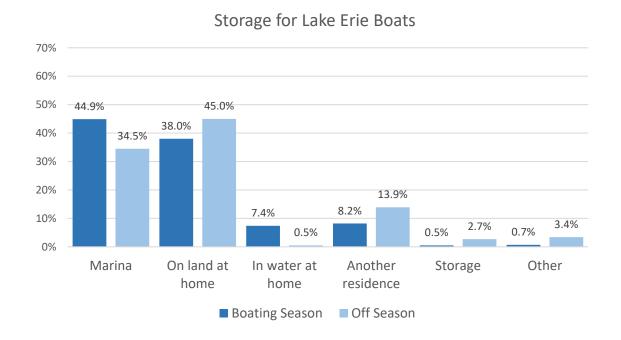


Lake Erie Boaters: Boat Storage

The data suggest that at least one in three Lake Erie boaters have some sort of annual contact with a marina because 34.5% stored their vessel at a marina during the off season.

Some 38% of Lake Erie boaters likely trailer their boats because they stored their boats on land at home during the boating season.

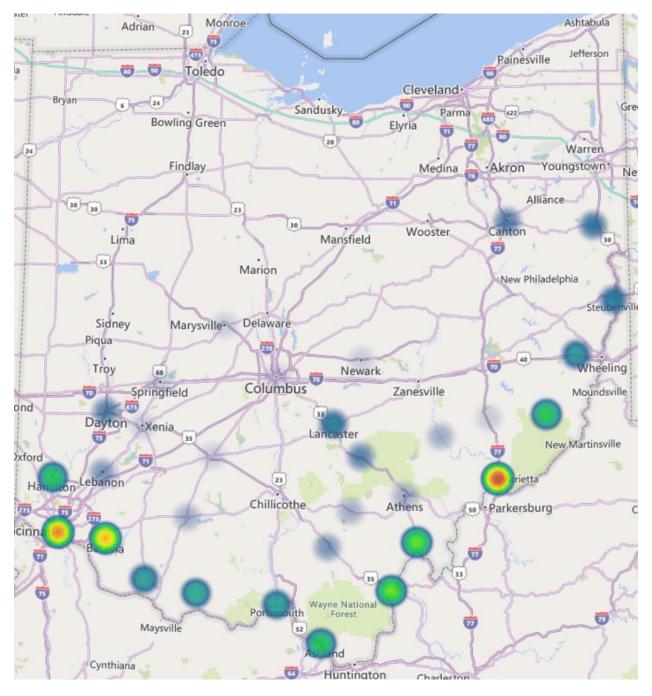
Figure 15 compares where Lake Erie boats are stored during the boating season (dark blue bars) and during the off season (light blue bars).



Ohio River Boaters: Residence

Hamilton, Butler, Clermont, Brown, Adams, Scioto, Lawrence, Gallia, Meigs, Washington, Monroe, Belmont, and Jefferson counties account for 79.4% of Ohio River boaters' county of residence, as expected.

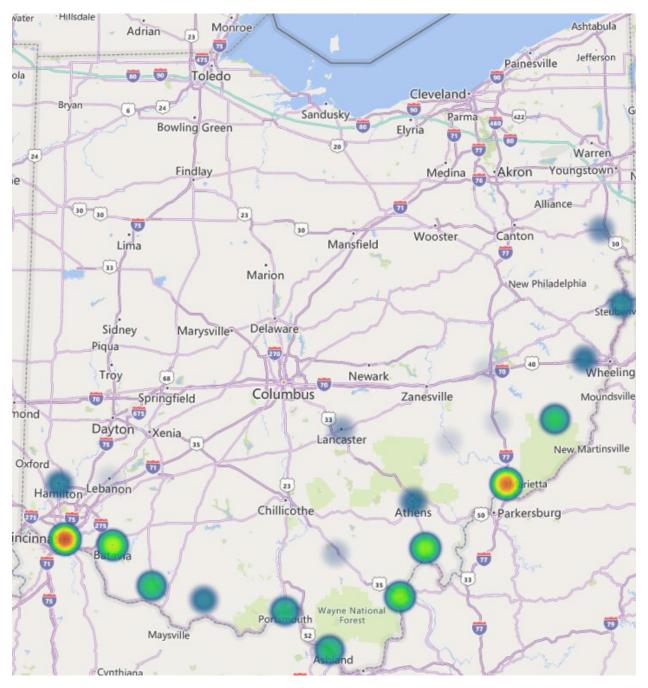
Figure 16 heat map shows the county of residence for Ohio River boaters.



Ohio River Boaters: Boat Kept During Season

Hamilton, Butler, Clermont, Brown, Adams, Scioto, Lawrence, Gallia, Meigs, Athens, Washington, Monroe, Belmont, and Jefferson counties account for 90.2% of where Ohio River boaters' boats were kept during the boating season.

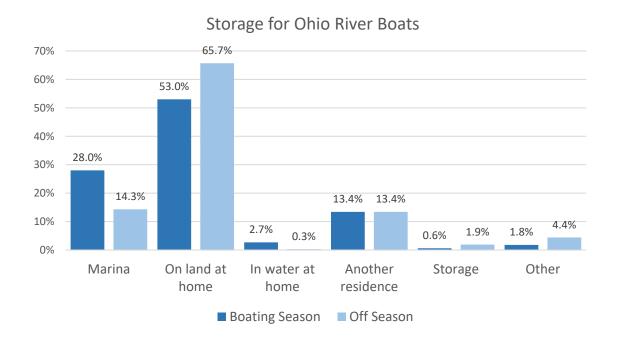
Figure 17 heat map shows the county where boats were kept during the boating season for Ohio River boaters.



Ohio River Boaters: Boat Storage

Most Ohio River boating households store their boats at home throughout the year (53% during the boating season, 65.7% during the off season), which likely reflects proximity to the Ohio River.

Figure 18 compares where Ohio River boaters store their boats during the boating season (dark blue bars) and during the off season (light blue bars).



Inland boaters: Inland Lakes and Inland Rivers

Inland boaters have been split into two subsets:

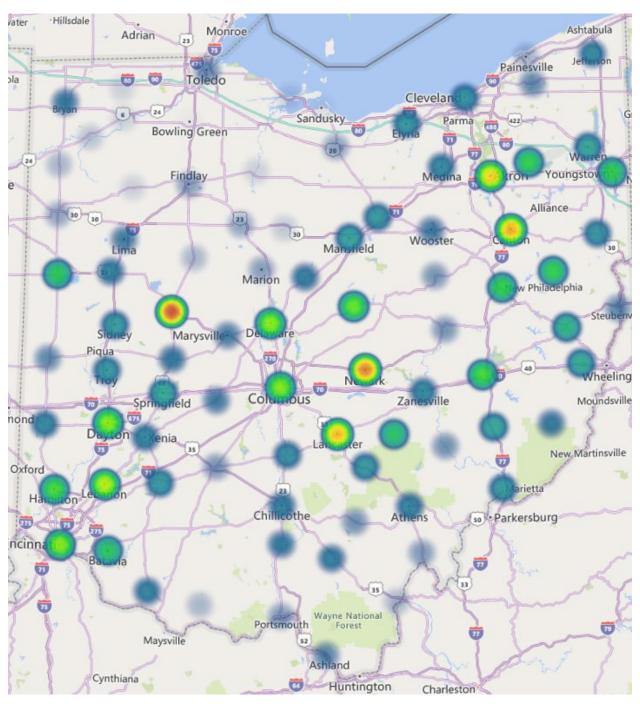
- Inland Lakes
 - This includes all Inland lakes and reservoirs, which account for 3,938 boaters completing questionnaires who boat on Inland's lakes and reservoirs.
- Inland Rivers
 - This includes all Inland rivers and streams, which account for 1,343 boaters completing questionnaire who boat on Inland's rivers, creeks, and streams.

As the report continues, Inland data will sometimes split into two subsets when differences are found to be statistically significant (i.e., where a split was logical given the subject).

Inland Lakes boaters: Boat Kept During Season

Butler, Delaware, Fairfield, Franklin, Hamilton, Knox, Licking, Logan, Mercer, Montgomery, Stark, Summit, and Warren counties were the most popular counties to keep boats during the boating season for Inland Lakes boaters.

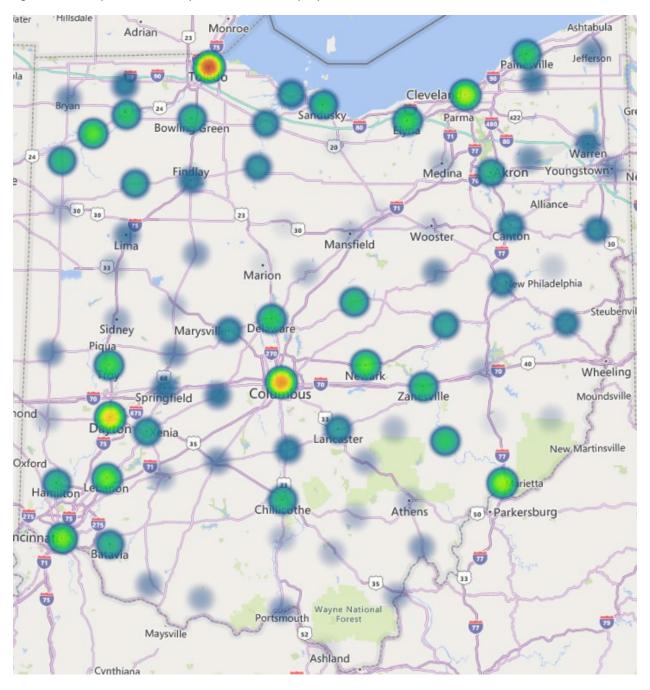
Figure 19 heat map shows the county where boats were kept by Inland Lakes boaters.



Inland Rivers boaters: Boat Kept During Season

Cuyahoga, Franklin, Hamilton, Lucas, Montgomery, Warren, and Washington were the most popular counties to keep boats during the boating season for Inland Rivers boaters.

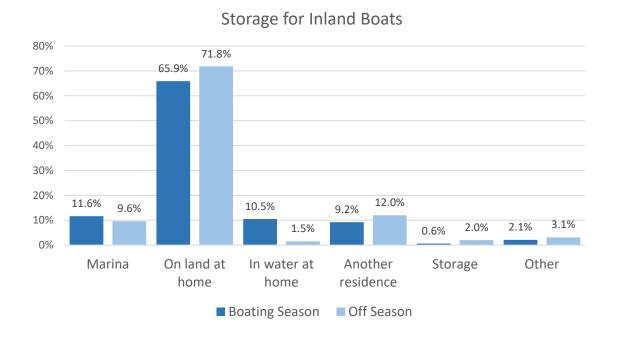
Figure 20 heat map shows the county where boats were kept by Inland Rivers boaters.



Inland boaters: Boat Storage

Most Inland¹⁰ boaters store their boats at home throughout the year (65.9% during the boating season, 71.8% during the off season), which likely reflects proximity to Inland bodies of water throughout Ohio.

Figure 21 compares where Inland boaters store their boats during the boating season (dark blue bars) and during the off season (light blue bars).



¹⁰ Inland Lakes and Inland Rivers were combined as results for this table were similar.

Boat Preferences

Lake Erie and Ohio River boaters were significantly more likely to utilize motorboats (77.2% and 63.1% respectively).

Some 44.7% of Lake Erie boaters boated in an open motorboat and 32.5% used a cabin motorboat. The average size of a Lake Erie boat was 23 feet and 4 inches, the average motor size was 271 horsepower, and 91.7% were gas fueled (6% were diesel). Most frequently purchased brands by Lake Erie boaters included Sea Ray (10.1%), Lund (4.6%), StarCraft (3.8%), Bayliner (3.8%), Wellcraft (2.8%), Sportcraft (2.8%), Sea-Doo (2.7%), Four Winns (2.0%), Boston Whaler (1.8%), Tiara (1.5%), Formula (1.3%), Pursuit (1.3%), and Regal (1.3%). Popular brand-models included Sundancer, Fisherman, Express, Open, Trophy, Outrage, Bowrider, Sportfish, and Center Console.

Most Ohio River boaters, 51.8%, utilized an open motorboat and 11.3% used a cabin motorboat. The average size of an Ohio River boat was 21 feet and 3 inches, the average motor size was 199 horsepower, and 93.5% were gas fueled. Most frequently purchased brands by Ohio River boaters included Sea Ray (6.3%), Sun Tracker (3.6%), Rinker (3.0%), Crownline (3.0%), and Triton (2.1%).

Some 43.4% of Inland Lakes boaters utilized a motorboat where 41% utilized an open motorboat and 2.3% used a cabin motorboat. The average size of an Inland Lakes boat was 17 feet and 3 inches, the average motor size was 119 horsepower, and 93.6% were gas fueled (8.2% were electric and 5.7% were gas/electric). Most frequently purchased brands by Inland Lakes boaters included Bennington (5.0%), Tracker (4.5%), Lowe (2.9%), Ranger (2.7%), Sylvan (2.7%), and Sun Tracker (2.5%). Popular brand-models included Fishing, Bass, Mirage, Pungo, Explorer, Sweetwater, Deep V, and SeaNymph.

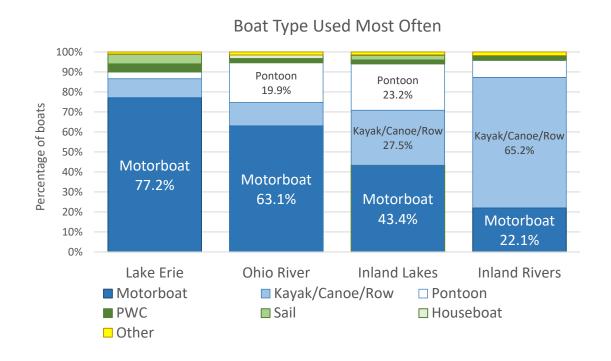
Inland Rivers boaters were the least likely group to utilize motorboats (22.1%) because they preferred kayaks (52.3%), canoes (11.5%), and rowboats (1.4%). The average size of an Inland Rivers boat was 14 feet and 3 inches, the average motor size was 150 horsepower, and 93.2% were gas fueled (4.2% were gas/electric and 4.1% were electric). Most frequently purchased brands by Inland Rivers boaters included Old Town (10.9%), Pelican (8.5%), Perception (5.7%), Wilderness Systems (3.8%), Sundolphin (3.7%), Future Beach (3.0%), Lifetime (2.7%), and Dick's Sporting Goods (2.5%). Popular brand-models included Perception, Pelican, Loon, Swifty, Aruba, Discovery, and Trailblazer.

Boat Type Used Most Often

Inland Lakes and Ohio River boaters were significantly more likely to pontoon (23.2% and 19.9%, respectively) compared to Lake Erie and Inland Rivers boaters (3.4% and 8.5%, respectively).

Some 4.8% of Lake Erie boaters utilized sailboats (3.9% were sailboats with motors and 0.9% were sail [sail only] boats), significantly higher than other areas (2.4% of Inland Lakes boaters used sailboats, 0.5% sailed Inland Rivers, and no one used a sailboat on the Ohio River). Similarly, personal watercraft use on Lake Erie (4.0%) was unmatched in any other area of Ohio.

Figure 22 shows the boat type used most often for Lake Erie, Ohio River, Inland Lakes, and Inland Rivers boaters.



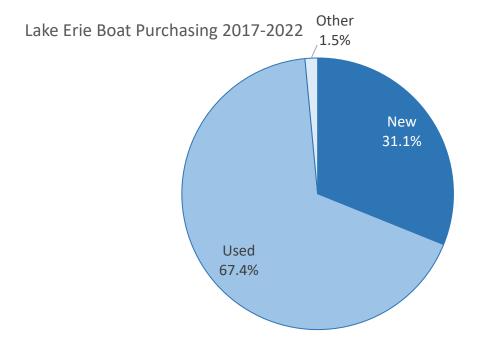
2017-2022 Lake Erie Boat Purchasing: New and Used

Between 2017 and 2022, 43% of Lake Erie boaters bought a boat, where 31.1% purchased a new boat and 67.4% purchased a used boat. Other purchasing options included retail, gifts, and trades.

The average price paid by Lake Erie boaters from 2017-2022 follows.

- Lake Erie boaters motorized boat purchases 2017-2022
 - New motorized boat from dealer \$86,416
 - Used motorized boat from dealer or individual \$42,256
- Lake Erie boaters' non-motorized boat purchases 2017-2022
 - New non-motorized boat from dealer \$1,349¹¹

Figure 23 shows the boat purchasing activity for Lake Erie boaters from 2017-2022.



¹¹ Used non-motorized boat purchase price was not included.

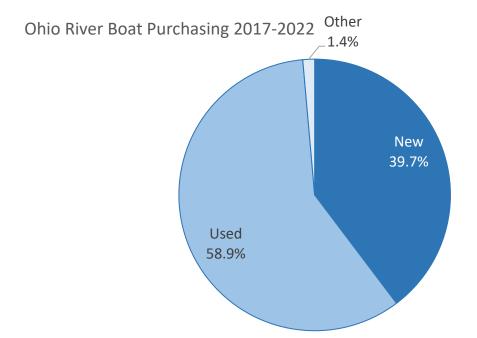
2017-2022 Ohio River Boat Purchasing: New and Used

Between 2017 and 2022, 48.2% of Ohio River boaters bought a boat, where 39.7% purchased a new boat and 58.9% purchased a used boat. Other purchasing options included retail and inheritance.

The average price paid by Ohio River boaters from 2017-2022 follows.

- Ohio River boaters motorized boat purchases 2017-2022
 - New motorized boat from dealer \$56,205
 - Used motorized boat from dealer or individual \$15,198
- Ohio River boaters' non-motorized boat purchases 2017-2022
 - New non-motorized boat from dealer \$963
 - Used non-motorized boat from dealer or individual \$242

Figure 24 shows the boat purchasing activity for Ohio River boaters from 2017-2022.



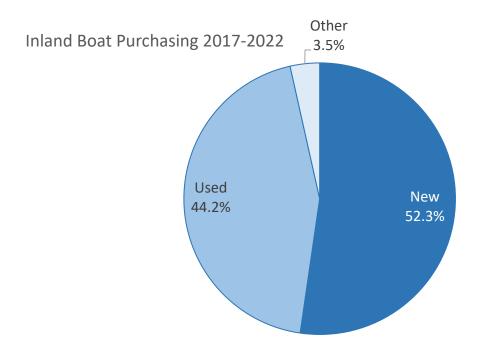
2017-2022 Inland Boat Purchasing: New and Used

Between 2017 and 2022, 45.8% of Inland boaters bought a boat, where 52.3% purchased a new boat and 44.2% purchased a used boat. Other purchasing options included retail, gifts, self-made, and trade.

The average price paid by Inland boaters from 2017-2022 follows.

- Inland boaters motorized boat purchases 2017-2022
 - New motorized boat from dealer \$46,205
 - Used motorized boat from dealer or individual \$14,310
- Inland boaters' non-motorized boat purchases 2017-2022
 - New non-motorized boat from dealer \$744¹²

Figure 25 shows the boat purchasing activity for Inland boaters from 2017-2022.



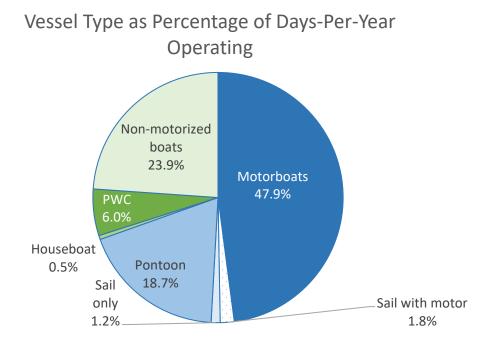
¹² Used non-motorized boat purchase price was not included.

Vessels' Days-per-Year Operating

The data show that motorboats account for almost half (47.9%) of all vessels' days-per-year in operation on Ohio's waters. Non-motorized boats account for 23.9% of all vessels' days-per-year in operation on Ohio's waters; pontoons account for 18.7%; personal watercraft were 6% of days-per-year on Ohio's waters.

With the exception of sail (sail only) boats, all vessel types (motorboats, non-motorized boats, pontoons, personal watercraft, sailboats with motors, and houseboats) operating in Ohio spend most of their days-per-year on Inland lakes and reservoirs.

Figure 26 shows the percentage of days-per-year boat operation in Ohio for seven vessel types.



Lake Erie Vessels

This data presents a profile of vessel type in operation on Lake Erie, such that on any given day during the boating season these vessels types would be on Lake Erie in the following ratios. While motorboats dominate, sailboats have their highest percentage of operation on Lake Erie compared to the Ohio River and Inland. Pontoons have their lowest level of operation on Lake Erie.

The average motorboat trip on Lake Erie lasted five hours with three people on board. Almost all, 98.5%, of recreational motorboats on Lake Erie were owner-operated.

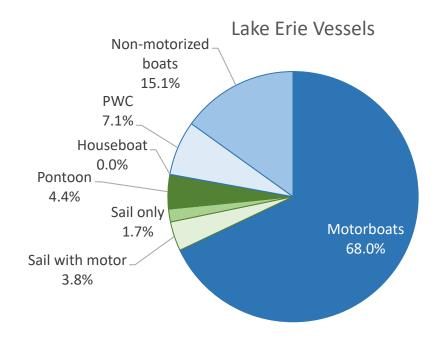
Non-motorized boat trips on Lake Erie averaged three hours with two people on board. Almost all recreational non-motorized boats, 94.9%, on Lake Erie were owner-operated.

Personal watercraft trips on Lake Erie averaged two hours on the water with two people on board. Some 93.8% of personal watercraft on Lake Erie were owner-operated, 4.9% were borrowed, and 1.3% rented.

Pontoons on Lake Erie averaged four hours per trip with five people on board. Some 81.8% of pontoons on Lake Erie were owner-operated, 9.1% were borrowed, and 9.1% rented.

Sailboat with motor trips averaged five hours; sail (sail only) trips lasted three hours. Sailboats with motors had three people on board; sail (sail only) boats had two people on board. Some 93.4% of sailboats with motors were owner-operated, 5.5% were borrowed, one boat was rented. Some 88.4% of sail (sail only) boats were owner-operated, 8% were borrowed, and two people rented.

Figure 27 shows the percentage of days-per-year boat operation for all vessels on Lake Erie.



Ohio River Vessels

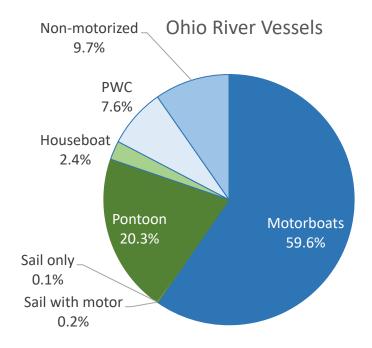
This data presents a profile of vessel type in operation on the Ohio River, such that on any given day during the boating season these vessels types would be on the Ohio River in the following ratios. The data suggest three of five boats were motorboats, one in five were pontoons, and one in five were either non-motorized or personal watercraft.

The average motorboat trip on the Ohio River lasted six hours with three people on board. All motorboats on the Ohio River were owner-operated.

Pontoons on the Ohio River averaged four hours per trip with five people on board. Some 89.1% of pontoons were owner-operated, 5.4% were borrowed, and 5.4% rented.

Non-motorized boat trips on the Ohio River averaged three hours with two people on board. Some 91.8% of non-motorized boats on the Ohio River were owner-operated, 4.5% were rented, and 3.7% were borrowed.

Figure 28 shows the percentage of days-per-year boat operation for all vessels on the Ohio River.



Inland Lakes Vessels

This data presents a profile of vessel type in operation on Inland Lakes. The profile of Inland Lakes shows vessels on the water have a somewhat even mix between motorboats, pontoons and personal watercraft, and non-motorized and sailboats.

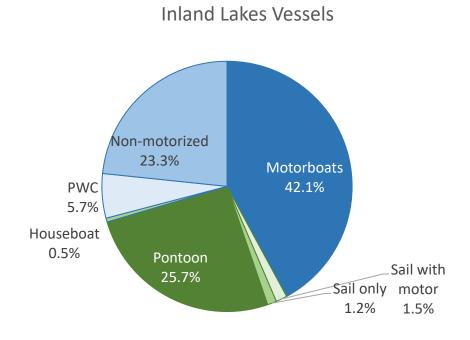
The average motorboat trip on Inland Lakes lasted five hours with three people on board. Almost all motorboats, 97.7%, on Inland Lakes were owner-operated.

Pontoons on Inland Lakes averaged four hours per trip with four people on board. Some 92.9% of pontoons were owner-operated, 4.2% were borrowed, and 2.9% rented.

Non-motorized boat trips on Inland Lakes averaged three hours with one person on board. Almost all, 95.6%, of non-motorized boats on Inland Lakes were owner-operated.

Personal watercraft trips on Inland Lakes averaged two hours on the water with two people on board. Some 93.3% of personal watercraft on Inland Lakes were owner-operated, 59% were borrowed, and 1.7% rented.

Figure 29 shows the percentage of days-per-year boat operation for all vessels on Inland Lakes.



Inland Rivers Vessels

This data presents a profile of vessel type in operation on Inland Rivers. These data show a somewhat even split between motorized vessels (motorboats and pontoons) and non-motorized boats.

Non-motorized boat trips on Inland Rivers averaged four hours with two people on board. Some 95% of non-motorized boats on Inland Rivers were owner-operated, 2.5% were borrowed, and 2.5% were rented.

The average motorboat trip on Inland Rivers lasted five hours with three people on board. Some 91.9% of motorboats on Inland Rivers were owner-operated, 5.9% were borrowed, and 2.1% were rented.

Pontoons on Inland Rivers averaged four hours per trip with five people on board. Some 80.2% of pontoons on Inland Rivers were owner-operated, 10.5% were rented, and 9.3% were borrowed.

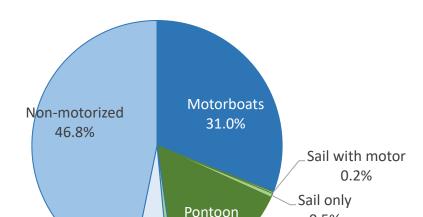
Personal watercraft trips on Inland Rivers averaged two hours on the water with two people on board. Some 83.3% of personal watercraft on Inland Rivers were owner-operated, 12.5% were borrowed, and 4.2% rented.

Inland Rivers Vessels

Figure 30 shows the percentage of days-per-year boat operation for all vessels on Inland Rivers.

PWC

4.7%



15.9%

0.5%

Houseboat

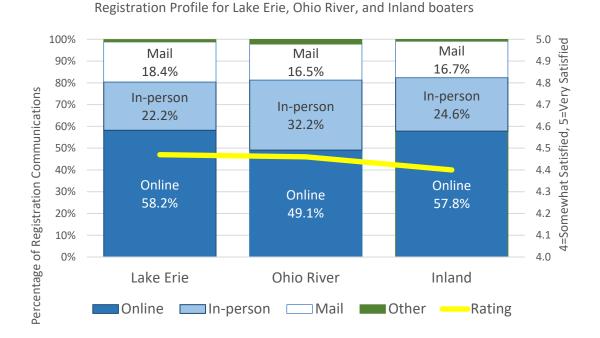
0.8%

36

Registration

While most boaters, 57.3%, registered or renewed online, Ohio River boaters were significantly more likely to register in-person. While ratings for the online registration system were, overall, 4.52 for locating the registration website and 4.49 for user-friendliness, entering a PIN earned lower ratings (4.24).

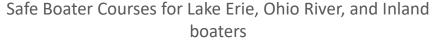
Figure 31's left y-axis and bars show boaters' registration communications percentages. The right y-axis and yellow line show the mean score of satisfaction for the online registration process.

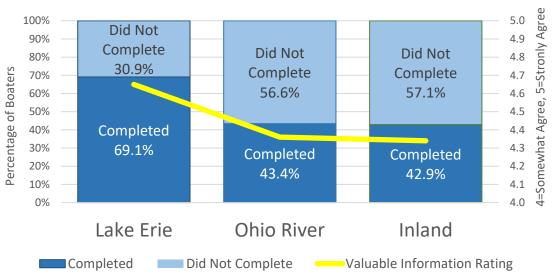


Education: Safe Boater Courses

Safe Boater course completion was significantly higher among Lake Erie boaters and significantly lower among Ohio River and Inland boaters. The data show that 46.6% of Lake Erie boaters attended a Safe Boater course in a classroom, which was a significantly higher percent compared to Ohio River and Inland boaters (15.4% and 18.8%, respectively). Although online and home study completion rates were similar across Ohio, 11.2% of Lake Erie boaters completed a Proctored Safe Boater Proficiency Exam, higher than Ohio River and Inland boaters (3.4% and 4.3%, respectively).

Figure 32's left y-axis and stacked bars show the percentage of boaters having completed Safe Boater Courses for Lake Erie, Ohio River, and Inland boaters. The right y-axis and yellow line show the mean score of agreement with the statement: Safe Boater courses provide valuable information.





Education: Hands-on Courses

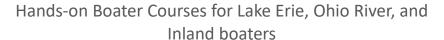
As with Safe Boater course completion, the percentage of Hands-on course completion was significantly higher among Lake Erie boaters and significantly lower among Ohio River and Inland boaters.

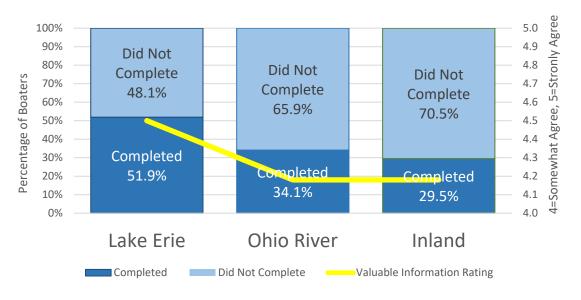
The data show that USPS (United States Power Squadrons) hosted 42.6% of the Hands-on courses for Lake Erie boaters, which was significantly higher compared to Ohio River and Inland boaters (13.3% and 22.8%, respectively).

The data show that ODNR Parks and Watercraft hosted 18.5% of the Hands-on courses for Inland boaters, which was significantly higher compared to Lake Erie and Ohio River boaters (12.7% and 15.6%, respectively).

The data show that USCG (United States Coast Guard) hosted 20% of the Hands-on courses for Ohio River boaters, which was significantly higher compared to Lake Erie and Inland boaters (12.7% and 9.2%, respectively).

Figure 33's left y-axis and stacked bars show the percentage of boaters having completed Hands-on Courses (any one or more of nine) for Lake Erie, Ohio River, and Inland boaters. The right y-axis and yellow line show the mean score of agreement with the statement: Hands-on courses provide valuable information.





Life Jacket Attitude

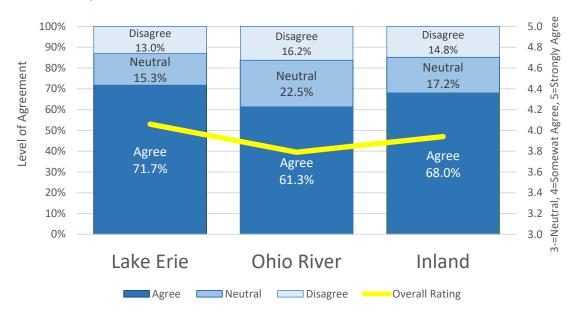
Some 52.6% of Lake Erie boaters Strongly Agree with requiring life jacket wear on smaller vessels and paddlecraft, which was significantly higher compared to Ohio River and Inland boaters (40.2% and 48.1%, respectively).

Some 22.6% of Ohio River boaters were Neutral about requiring life jacket wear on smaller vessels and paddlecraft, which was significantly higher compared to Lake Erie and Inland (15.3% and 17.1%, respectively).

Some 7.1% of Inland boaters Strongly Disagreed about requiring life jacket wear on smaller vessels and paddlecraft, which was somewhat higher than Lake Erie and Ohio River boaters (5.3% and 6.8%, respectively).

Figure 34's left y-axis and stacked bars show boaters level of agreement with the statement: Require life jacket wear on smaller vessels and paddlecraft. The right y-axis and yellow line show the mean score for agreement from Lake Erie, Ohio River, and Inland boaters.

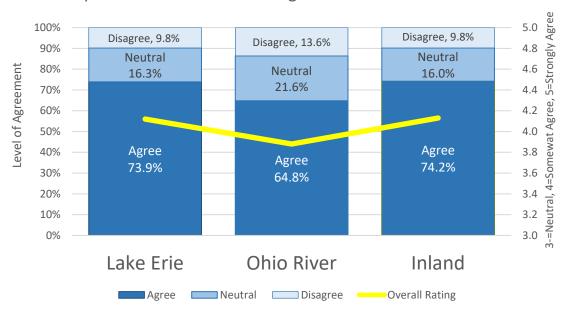
Require Life Jacket Wear on Smaller Vessels and Paddlecraft



Some 8.7% of Ohio River boaters Somewhat Disagree about requiring life jacket wear during cold weather months, which was significantly higher compared to Lake Erie and Inland (5.8% and 4.9%, respectively).

Figure 35's left y-axis and stacked bars show boaters level of agreement with the statement: Require life jacket wear during cold weather months. The right y-axis and yellow line show the mean score for agreement from Lake Erie, Ohio River, and Inland boaters.

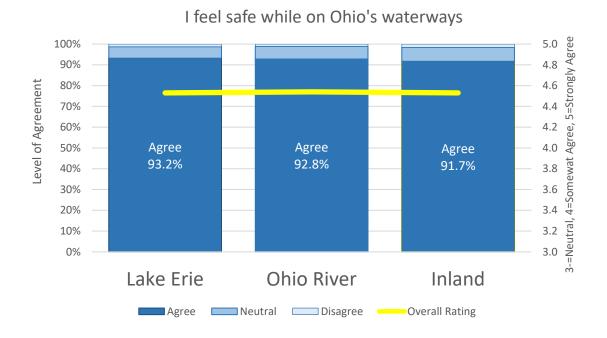
Require Life Jacket Wear during Cold Weather Months



Safety Attitude

Some 63.1% of Inland boaters Strongly Agree (and 28.6% Somewhat Agree) that they feel safe while on Ohio's waterways, which was significantly higher compared to Lake Erie and Ohio River boaters (Strongly Agree 61.4% and 61.9%; and Somewhat Agree 31.9% and 30.9%, respectively).

Figure 36's left y-axis and stacked bars show boaters level of agreement with the statement: I feel safe while on Ohio's waterways. The right y-axis and yellow line show the mean score for agreement from Lake Erie, Ohio River, and Inland boaters.



Safety Improvements

Unique safety improvement suggestions from Lake Erie boaters include boater safety courses (30.4%) and better marine forecasts (3.5%).

Some 21.3% of Ohio River boaters said that they already feel safe; however, 6.7% mentioned barge lighting, especially at night, and 3.5% wanted launch/dock lighting.

Unique safety improvement suggestions from Inland Lakes boaters were safety enforcement (39.9%) and safety rules (23.9%). Safety enforcement included patrols, enforcement of rules, inspections, and safety checks; safety rules included no-wake zones, speed limits, HP limits, Jet Ski rules, and right of way. Also, 5.9% of Inland Lakes boaters wrote about vegetation/invasive species issues and 1.4% mentioned some sort of rental control for Jet Skis and pontoons.

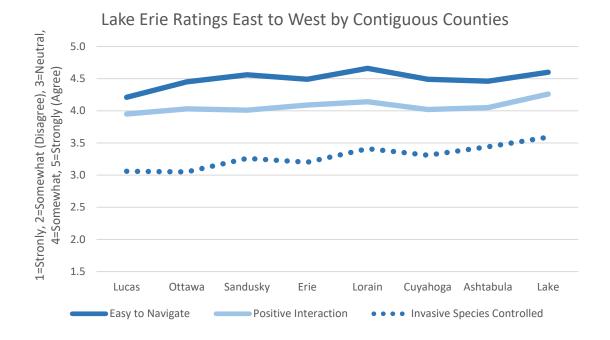
Unique safety improvement suggestions from Inland Rivers boaters included environmental safety (29.5%) and engineering safety (20.7%). Environmental safety included removal of debris/driftwood/trees, water quality improvement, better care of waterways, vegetation issues, and dredging; engineering safety included launch/dock (and kayak launches) upgrades/access, and hazard markings. Life jacket wear (6.3%) and posting rules (6.3%) were also mentioned by Inland Rivers boaters.

Waterway Preferences

Rating Lake Erie

The most popular Lake Erie counties, accounting for 53.9% of boaters, were Ottawa (34%) and Erie (19.9%). Other Lake Erie counties, moving East to West, were Lucas (9.8%), Sandusky (5.9%), Lorain (9.6%), Cuyahoga (9%), Lake (5.2%), Ashtabula (4.8%), and other (1.8%).

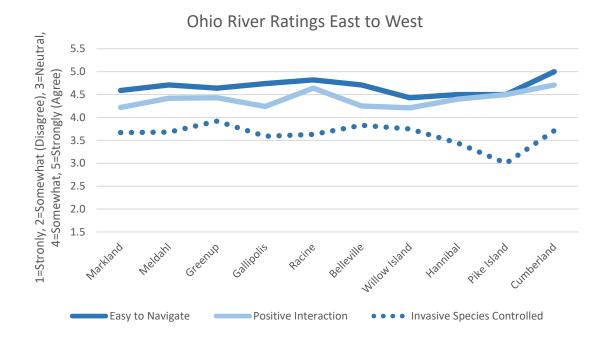
Figure 37 shows the mean score for three attributes (It's pretty easy to navigate, Interactions with other boaters are positive, and Invasive species controlled) for each county contiguous to Lake Erie where Lake Erie boaters who identified each Lake Erie county as their most first choice body of water provided the ratings.



Rating the Ohio River

Moving East to West, popular Ohio River areas were the Markland Pool (11.3%), the Meldahl Pool (11.0%), the Greenup Pool (5.5%), the Gallipolis Pool (11%), Racine (4.1%), the Belleville Pool (8.4%), Willow Island Pool (4.1%), Hannibal Pool (6.4%), Pike Island (0.6%), New Cumberland Pool (5.2%), and other Ohio River areas (25.9%).

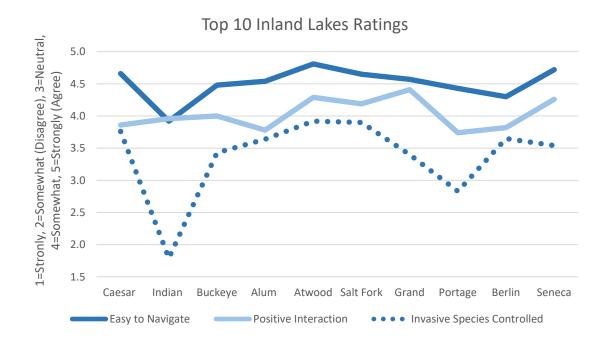
Figure 38 shows the mean score for three attributes (It's pretty easy to navigate, Interactions with other boaters are positive, and Invasive species controlled) moving East to West along the Ohio River where Ohio River boaters who identified each area of the Ohio River as their most first choice body of water provided the ratings.



Rating Inland Lakes

The ten most popular Inland Lakes were Caesar Creek (7.7%), Indian Lake (7.5%), Buckeye Lake (7.1%), Alum Creek Reservoir (6.2%), Atwood Lake (3%), Salt Fork Lake (3%), Grand Lake – St. Marys (2.8%), Portage Lake (2.8%), the Berlin Reservoir (2.7%), and Seneca Lake (2.4%). ¹³

Figure 39 shows the mean score for three attributes (It's pretty easy to navigate, Interactions with other boaters are positive, and Invasive species controlled) for the Top Ten Inland Lakes where Inland Lakes boaters who identified each lake as their most first choice body of water provided the ratings.



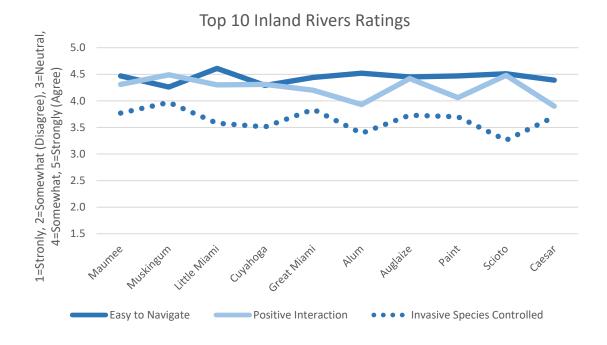
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¹³ Other Inland lakes and reservoirs mentioned, in alphabetical order, include Acton (2.2%), Apple Valley (1.9%), Aurora (0.2%), Belmont (0.4%), Buck Creek (1.8%), Buckhorn (0.2%), Burr Oak (1%), Candlewood (0.3%), Charles Mill (1%), Chippewa (0.6%), Clark (0.1%), Clearfork (0.6%), Clendening (0.7%), Cowan (1.8%), Deer Creek (1.5%), Delaware (1%), Dillon (0.7%), DOW (0.6%), East Branch (0.3%), 4 Seasons (0.2%), Findlay (0.3%), Findley (0.9%), Forked Run (0.4%), Fox (0.1%), Grant 0.2%), Griggs (0.3%), Guilford (0.5%), Hamilton County Parks (0.2%), Hammertown (0.3%), Hargus (0.4%), Harrison (0.3%), Holiday (0.2%), Hoover (2%), Hope (0.2%), Jackson (0.2%), Katherine (0.1%), Kiser (0.7%), Knox (0.6%), Kokosing (0.1%), La Su An (0.4%), Ladue (0.5%), Lakengren (0.2%), Leesville (1.2%), Logan (0.7%), Loramie (1.5%), Lorelei (0.4%), Madison (0.2%), Milton (1.5%), Mogadore (0.8%), Mohawk (0.3%), Monroe (0.3%), Mosquito (1.7%), Nettle (0.3%), Nimisila (1.3%), Ohio Power (0.1%), Oxbow (0.2%), Paint Creek (0.5%), Piedmont (1.2%), Pleasant Hill (0.9%), Punderson (0.1%), Pymatuning (0.6%), Roaming Rock (0.3%), Rocky Fork (1.9%), Roosevelt (0.1%), Rupert (0.5%), Rush Creek (0.9%), Stonelick (0.4%), Tappan (1.6%), Tycoon (0.2%), Upper Sandusky (0.2%), Vesuvius (0.4%), Veto (0.3%), Walborn (0.1%), Waynoka (0.2%), West Branch (1.7%), White (0.5%), Wingfoot (0.1%), Wolf Run (0.5%), and 23 others.

Rating Inland Rivers

The ten most popular Inland Rivers were Maumee (12.4%), Muskingum (7.4%), Little Miami (6.8%), Cuyahoga River (4.4%), Great Miami (4.3%), Alum Creek River (4.2%), Auglaize River (4.2%), Paint Creek (2.9%), Scioto River (2.9%), and Caesar Creek River (2.7%). 14

Figure 40 shows the mean score for three attributes (It's pretty easy to navigate, Interactions with other boaters are positive, and Invasive species controlled) for the Top Ten Inland Rivers where Inland River boaters who identified each river as their most first choice body of water provided the ratings.



¹⁴ Other Inland rivers and streams mentioned, in alphabetical order, include Beaver Creek (0.9%), Black (1.2%), Blanchard (1.3%), Big Darby Creek (2%), Big Walnut Creek (0.4%), Buck Creek (0.5%), Chagrin (1.1%), Cuyahoga Scenic River Area (1.1%), Darby Scenic River Area (0.7%), Deer Creek – Stark (0.7%), Deer Creek (0.5%), Grand (1.5%), Hocking (1.8%), Huron (1.3%), Kokosing (1.9%), Kokosing Scenic River Area (0.4%), Licking River (2.4%), Little Miami Scenic Area (2.2%), Loramie Creek (0.4%), Mohican (2.4%), Mahoning (0.4%), O'Shaughnessy (1.6%), Ottawa (0.4%), Portage (1.3%), Racoon Creek (0.7%), Rocky (0.7%), Mad (2.2%), Rocky Fork Creek (0.4%), Sandusky (2.2%), Sandusky Scenic River Area (1%), Stillwater (0.6%), Tuscarawas (1.8%), Twin (0.5%), Vermilion (1%), Whitewater (0.5%), and 31 others.

Waterway Experiences

Results show significantly more Lake Erie (53.4%) and Inland Lakes (47.2%) boaters observed crowding of waterways in the past 12-months compared to Ohio River (35.4%) and Inland Rivers (36.5%) boaters. Some 5.6% of Inland Lakes boaters observed crowding "most of the time," which was a higher rate than all other areas (Lake Erie 4.7%, Ohio River 4.9%, and Inland Rivers 3.1%).

Similarly, no-wake zone violations were seen significantly more frequent for Lake Erie (59.6%) and Inland Lakes (52.8%) boaters compared to Ohio River (48.2%) and Inland Rivers (33.3%) boaters. Lake Erie boaters were more likely to observe no-wake zone violations "sometimes," but 7% of Inland Lakes boaters report "always" observing no-wake zone violations and 8.7% observed the violation "most of the time."

Also, results show significantly more Lake Erie (42.1%) and Inland Lakes (37.2%) boaters observed speed limit violations in the past 12-months compared to Ohio River (31.7%) and Inland Rivers (24%) boaters. Some 5.4% of Inland Lakes boaters observed speed limit violations "most of the time," which was higher than Lake Erie (3.4%), Ohio River (3.7%), and Inland Rivers (1.8%) boaters.

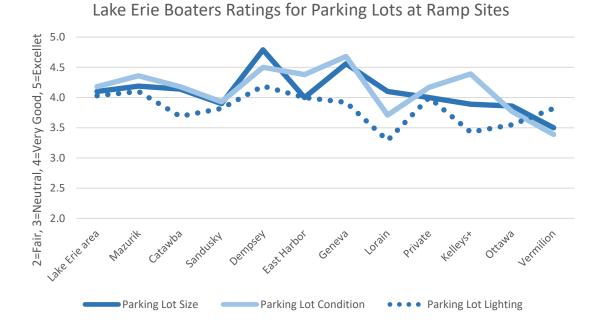
Lake Erie boaters (56.5%) were significantly more likely to have observed careless/reckless operation in the past 12-months compared to Ohio River (47.5%) and Inland Lakes (46%) boaters. Inland Rivers boaters (33.5%) were significantly less likely to have observed careless/reckless operation. Some 4.5% of Inland Lakes boaters observed careless/reckless operation "most of the time," which was higher than Lake Erie (3.5%), Ohio River (2.9%), and Inland Rivers (2.4%) boaters.

Similarly, Lake Erie boaters (39.7%) were significantly more likely to have heard excessive noise on waterways in the past 12-months compared to Ohio River (38.4%) and Inland Lakes (37.5%) boaters. Inland River boaters (32.8%) were the least likely to have heard excessive noise on waterways in the last 12-months.

Ramps: Lake Erie

The most popular ramps for Lake Erie boaters include various Lake Erie waterfronts¹⁵ (17.5%), Mazurik (7.9%), Catawba/Foxhaven (7.5%), Sandusky area¹⁶ (5.4%), Dempsey (4.0%), East Harbor (3.9%), Geneva (2.9%), Lorain (2.9%), private sites (2.6%), Islands¹⁷ (2.4%), Ottawa¹⁸ (2.4%), and Vermilion (2.3%).¹⁹

Figure 41 shows the mean score for three parking lot attributes at the most popular Lake Erie ramps where Lake Erie boaters provided the ratings.



¹⁵ Lake Erie/marinas/Rossford/Metro Park/Toussaint/Spitzer/E.72/E.55

¹⁶ Sandusky/Bay/River/Upper/Shelby Street/Steyer/Hank's/St. John's Dam/Venetian/Scenic Area/Memory

¹⁷ Kelleys Island/Put-in-Bay/South Bass Island/Middle Bass/Gem Beach

¹⁸ Ottawa County/River/Lost Peninsula/Al's/Paradise/Anchors Away/Lima Lake

¹⁹ Other ramps mentioned by Lake Erie boaters, in alphabetical order, include Avon Lake/Miller Road (1.6%), Cullen Park (1.6%), Edgewater (1.7%), Fairport Harbor/Grand River Landing/Harpersfield Dam/Kellogg Farm (1.7%), Hot Water (1.3%), Huron River/Couplings/Metro Park (1.1%), Maumee River/Maple Street/Walbridge Park/Toledo/State Park/Tibbel's/Perrysburg/Grand Rapids (1.1%), Meinke's (1.7%), Mentor Lagoons (1.0%), Portage Lakes/Nimisila/Old State Park/Cove Road (1.1%), Rocky River (1.1%), Sheffield Lake (1.0%), Turtle Creek Marina/Magee East Marina (1.8%), Wild Wings (1.6%), and 56 more (each of the 56 ramps were mentioned by less than one percent of boaters).

Figure 42 shows the mean score for three restroom attributes at the most popular Lake Erie ramps where Lake Erie boaters provided the ratings.



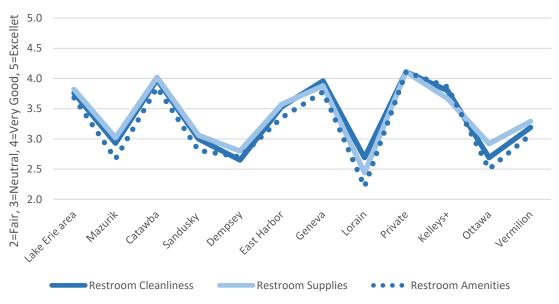


Figure 43 shows the mean score for three ramp attributes at the most popular Lake Erie ramps where Lake Erie boaters provided the ratings.

Lake Erie Boaters Ratings for Ramps

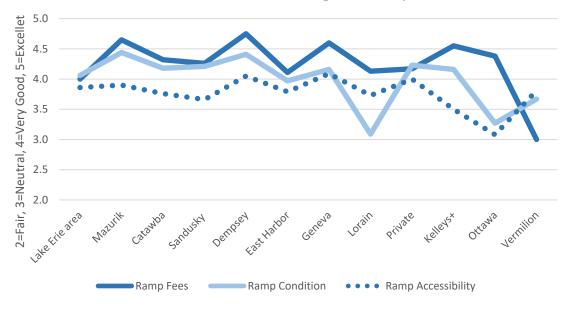
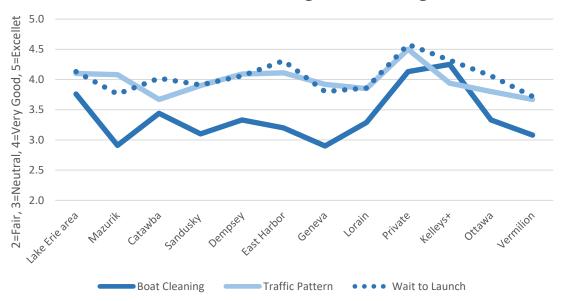


Figure 44 shows the mean score for three boat launching attributes at the most popular Lake Erie ramps where Lake Erie boaters provided the ratings.

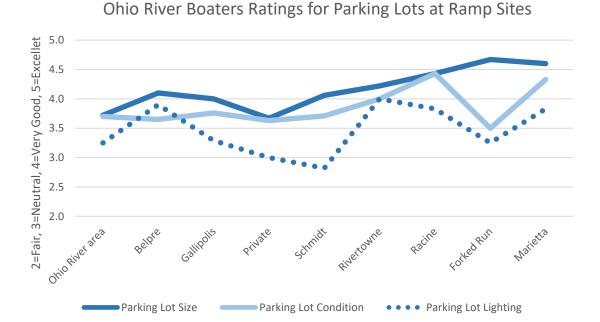
Lake Erie Boaters Ratings for Launching



Ramps: Ohio River

The most popular ramps for Ohio River boaters include various Ohio River sites²⁰ (32.4%), Belpre Civitan Park (9.8%), Gallipolis/O'Connor McIntyre (7.4%), Private (7.4%), Schmidt (7.4%), East Fork (4.5%), Rivertowne (3.7%), Racine (3.3%), Forked Run/Curtis Hollow (2.5%), and Marietta City/Washington County Fairgrounds (2.5%).²¹

Figure 45 shows the mean score for three parking lot attributes at the most popular Ohio River ramps where Ohio River boaters provided the ratings.



²⁰ Ohio River/Williamstown/Powhatan Point/White Oak/Pomeroy/Syracuse/Straight/Duffy/New Richmond/Kennedy/Aberdeen/Coolville/Bush Creek/Guyandotte

²¹ Ohio River ramps also include Alum Creek/Galena/Howard Road/Cheshire/Africa Road/Sunbury Road/Kilbourne (1.2%), Big Darby Creek/Amity Road/Little Darby (1.2%), Eagle Creek (1.2%), Riverside Park (1.2%), Rocky Fork Lake/Creek/Fisherman's Wharf/Tate (1.2%), Seneca Lake/Senecaville/Marina/Noble Boat Club (1.2%), Shawnee State Park (1.6%), Turkey Creek/Portsmouth (1.6%), and 17 more (each of the 17 ramps were mentioned by less than one percent of boaters).

Figure 46 shows the mean score for three restroom attributes at the most popular Ohio River ramps where Ohio River boaters provided the ratings.

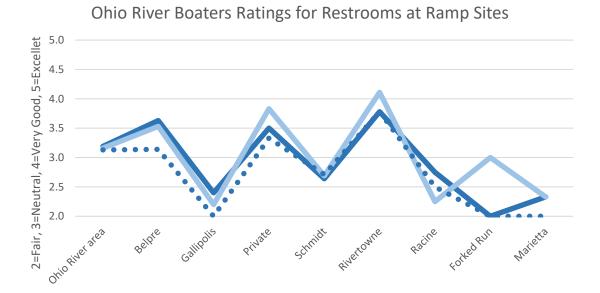


Figure 47 shows the mean score for three ramp attributes at the most popular Ohio River ramps where Ohio River boaters provided the ratings.

Restroom Supplies

Restroom Amenities

Restroom Cleanliness

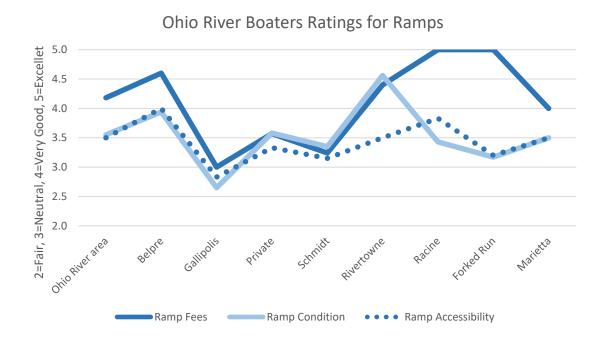
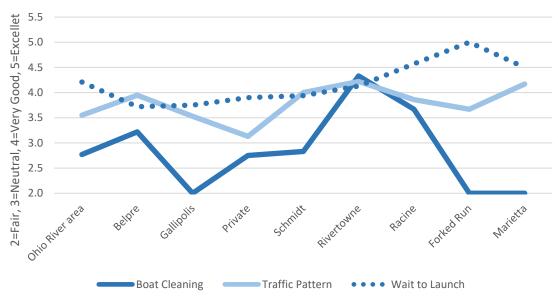


Figure 48 shows the mean score for three boat launching attributes at the most popular Ohio River ramps where Ohio River boaters provided the ratings.

Ohio River Boaters Ratings for Launching

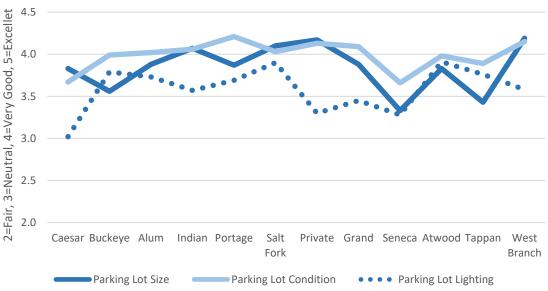


Ramps: Inland Lakes

The most popular ramps for Inland Lakes boaters include Caesar Creek²² (7.9%), Buckeye Lake²³ (5.7%), Alum Creek²⁴ (5.6%), Indian Lake²⁵ (3.8%), Portage Lakes²⁶ (3.7%), Salt Fork²⁷ (3.5%), Private (3.4%), Grand Lake²⁸ (2.6%), Seneca²⁹ (2.5%), Atwood³⁰ (2.5%), Tappan (2.2%), West Branch³¹ (2.1%), and Berlin³² (2.0%).³³

Figure 49 shows the mean score for three parking lot attributes at the most popular Inland Lakes ramps where Inland Lakes boaters provided the ratings.

Inland Lakes Boaters Ratings Parking Lots at Ramps



²² Caesar Creek/river/Furnas Shores/Wellman/Haines/North Pool/Young/Beef Creek

²³ Buckeye Lake/Liebs/Fishermans Park/North Shore/Alexander Landing

²⁴ Alum Creek/Galena/Howard Road/Cheshire/Africa Road/Sunbury Road/Kilbourne

²⁵ Indian Lake/Moundwood Marina/Oakwood Avenue/Kings Avenue/Pew Island/Creek

²⁶ Portage Lakes/Nimisila/Old State Park/Cove Road

²⁷ Salt Fork Lake/Morning Glory/Sugar Tree/N. Salem

²⁸ Grand Lake St. Marys/Bayview/Behm's/Chickasaw/Windy Point/West Bank/South Point/Kozy/Celina

²⁹ Seneca Lake/Senecaville/Marina/Noble Boat Club

³⁰ Atwood/Delroy/Dover/Englewood

³¹ West Branch/Rock Springs/East launch

³² Berlin State Park/Berlin Lake/campground/Reservoir/Bonner Road/Dutch/Mill Creek/Price Street

³³ Other Inland Lakes ramps include Acton (1.4%), Apple Valley Lake/Spillway/Sutton Beach (1%), Blackhawk (1.4%), Burr Oak State Park (1.1%), C.J. Brown Dam (0.9%), Chippewa Lake/marina (1%), Cowan/Mather Mill/Wellman (1.7%), Deer Creek/Hardin Cabin (1.6%), Delaware State Park/Horseshoe Road (1%), Eagle Creek (1.2%), East Fork/Harsha/Bantam/Bethel/Chilo/Tunnel Mill/Tate (1.3%), Findley State Park (1.1%), Hoover Reservoir/Big Walnut/Twin Bridges/Redbank/Baldridge (1.9%), Lake Logan (0.9%), Lake Milton/Robinson Point Ramp/Mahoning Avenue/Pointview Avenue/Jersey Street (1.4%), Leesville/Northfork (1.1%), Loramie/Luthman Road/Filburns/Earl's Island/Loramie Creek/Ft. Loramie/Ellerman Road (1.4%), Mosquito/Jan's/Shenango (1.5%), Piedmont/Reynolds Road/Hazelwood Hills (1.4%), Rocky Fork/Creek/Fisherman's Wharf/Tate (1.7%), Rush Creek (1%), and 130 more (each of the 130 ramps were mentioned by less than one percent of boaters).

Figure 50 shows the mean score for three restroom attributes at the most popular Inland Lakes ramps where Inland Lakes boaters provided the ratings.

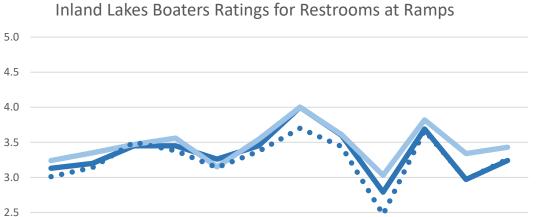


Figure 51 shows the mean score for three ramp attributes at the most popular Inland Lakes ramps where Inland Lakes boaters provided the ratings.

Restroom Supplies

Salt Fork Private Grand Seneca Atwood Tappan West

Restroom Amenities

Branch



Indian Portage

2=Fair, 3=Neutral, 4=Very Good, 5=Excellet

2.0

Caesar Buckeye Alum

Restroom Cleanliness

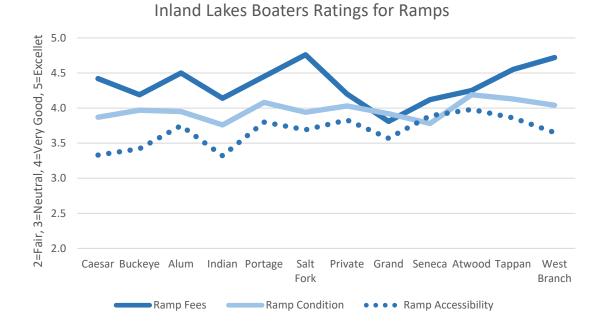
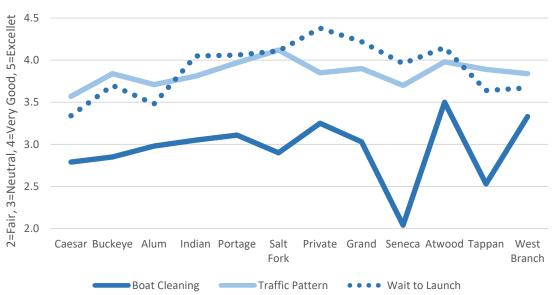


Figure 52 shows the mean score for three boat launching attributes at the most popular Inland Lakes ramps where Inland Lakes boaters provided the ratings.

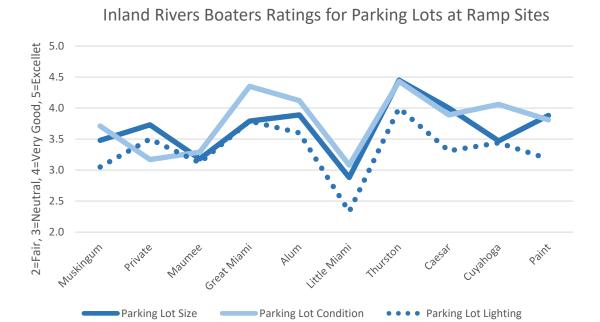
Inland Lakes Boaters Ratings for Launching



Ramps: Inland Rivers

The most popular ramps for Inland Rivers boaters include Muskingum³⁴ (5.7%) Private (5.4%), Maumee River³⁵ (4.2%), Great Miami³⁶ (4%), Alum Creek³⁷ (3.8%), Little Miami³⁸ (3.8%), Mary Jane Thurston (3%), Caesar Creek³⁹ (2.9%), Cuyahoga River⁴⁰ (2.6%), Paint Creek⁴¹ (2.3%).⁴²

Figure 53 shows the mean score for three parking lot attributes at the most popular Inland Rivers ramps where Inland Rivers boaters provided the ratings.



³⁴ Muskingum River/McConnelsville/Devola/Locks/Fern Cliff/Walhonding/Stockport/Gaysport/Jesse Owens State Park/Dresden

³⁵ Maumee River/Maple Street/Walbridge Park/Toledo/State Park/Tibbel's/Perrysburg/Grand Rapids

³⁶ Great Miami River/Treasure Island Park/Tipp City/Stillwater/Heritage Park/Goll Woods

³⁷ Alum Creek/Galena/Howard Road/Cheshire/Africa Road/Sunbury Road/Kilbourne

³⁸ Little Miami River/Ft. Ancient/Otto Armleder/Spring Valley/Rogers Park/Ross Road/Terrell/Scenic Area

³⁹ Caesar Creek/River/Furnas Shores/Wellman/Haines/North Pool/Young/Beef Creek

⁴⁰ Cuyahoga River/Lock/Eldon Russell Park/Whiskey Island/Wendy Park/Neff/Tannery/Fred Fuller/Hidden Valley/CVNP

⁴¹ Paint Creek/Taylor Road/Rattlesnake Creek

⁴² Other Inland Rivers include Auglaize River/Five Span (1.5%), Deer Creek/Harding Cabin (1.6%), Fairport Harbor/Grand River Landing/Harpersfield Dam/Kellogg Farm (1.9%), Farnsworth Metropark/Waterville (1.3%), Five Mile (1.9%), Five Rivers Metropark/Eastwood/Taylorsville/Wegerzyn (1.3%), Independence Dam State Park (1.3%), Kelleys Island/Put-in-Bay/South Bass Island/Middle Bass/Gem Beach (1.2%), Kokosing/Big Run Road/Lower Gambier/Mt. Vernon Avenue (1.3%), Lake Erie/Marinas/Rossford/Metro Park/Toussaint/Spitzer/E.72/E.55 (1.5%), Mohican River/Greer (1.3%), O'Shaughnessy Reservoir (1.1%), Sandusky/Bay/River/Upper/Shelby Street/Steyer/Hank's/St. John's Dam/Venetian/Scenic Area/Memory (1.9%), Scioto Grove/Scioto River/Belle Point (1.7%), The Narrows Reserve Nature Center (1.1%), Vermilion (1.6%), and 118 more (each of the 118 ramps were mentioned by less than one percent of boaters).

Figure 54 shows the mean score for three restroom attributes at the most popular Inland Rivers ramps where Inland Rivers boaters provided the ratings.



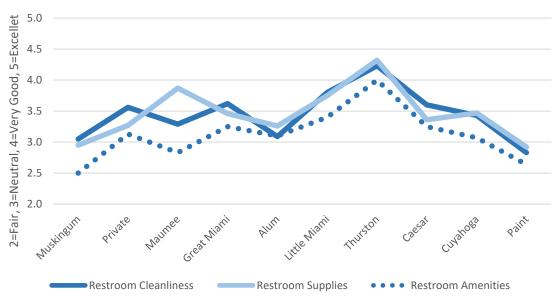


Figure 55 shows the mean score for three ramp attributes at the most popular Inland Rivers ramps where Inland Rivers boaters provided the ratings.

Inland Rivers Boaters Ratings for Ramps

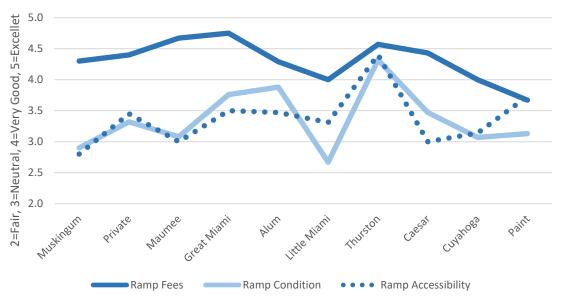
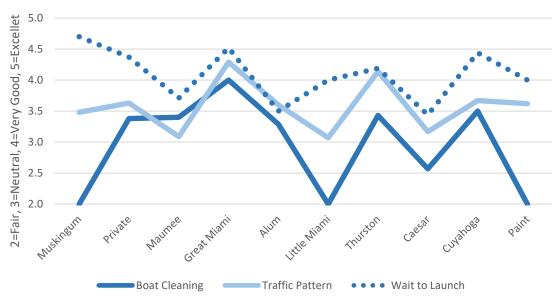


Figure 56 shows the mean score for three boat launching attributes at the most popular Inland Rivers ramps where Inland Rivers boaters provided the ratings.

Inland Rivers Boaters Ratings for Launching



Docks: Lake Erie

The most popular docks for Lake Erie boaters include Put-in-Bay 43 (13.3%), private docks 44 (10.4%), Marblehead 45 (8.9%), Sandusky Bay 46 (7.1%), Kelleys Island 47 (6.9%), Catawba Island 48 (4.8%), Port Clinton 49 (4.8%), Lorain 50 (4.4%), Huron River 51 (3.5%), Vermilion 52 (3.1%), Cleveland 53 (2.9%), Oak Harbor 54 (2.5%), and Geneva 55 (2.1%). 56

⁴³ Put-in-Bay/Boardwalk/Crews Nest/Miller Marine/Mooring Ball/Park Place/South Bass/Middle Bass/North Bass/Burgundy Bay/Oak Point/Park Place/Bay Shore

⁴⁴ Miscellaneous private home/cottage/home dock/home lift/second home

⁴⁵ Marblehead/Blue Water Marina/Channel Grove/Crabby Joes/Dempsey/Harbors Edge/Hidden Beach/Kamp Kozy/Bass Haven/King Coach/LakeVue/Plymouth Shore/Shrock's/Tibbels/West Harbor/Willow Cove/Anchors Away/Avalon on the Bay/Bay Point

⁴⁶ Sandusky Bay/Harbor Marina/Safe Harbor/Paper/Battery Park/Yacht Club/Upper/Shelby Street/Castaway Bay/Clemons/Cold Creek/Come Sail Away/Dock of the Bay/Venetian/Safe Harbor/Shelby Street/Son Rise/Summer Breeze/Vacationland

⁴⁷ Kelleys Island/Marina/Casino/Seaway/Dock/West Bay/North/Portside/Seaway Marina/Unique Marker

⁴⁸ Catawba Island/Club/Moorings/State Park/West Harbor/Fox Haven/Harbor Estates/Harbor Park/Midway Marina/Orchard Isle/Pier 53

⁴⁹ Port Clinton/Doc's Kettle/Hot Waters/Lagoons/Basin/Holiday Harbor/Couplet Park/Harbor North/Sawmill Creek

⁵⁰ Lorain/Copper Kettle/Hot Waters/Spitzer/Oakwood Park/Oasis Marina/Skyline View

⁵¹ Huron River/Yacht Club/Marina/Lagoons/Basin/Holiday Harbor/Couplet Park/Harbor North/Sawmill Creek

⁵² Vermilion/Riverside Marina/Romp's/Waterworks/Valley Harbor Marina

⁵³ Cleveland/Yachting Club/Edgewater/Marina/Dock/Intercity Yacht Club/Lakeside Yacht Club/Quincy/Riverfront/Skipper Bud's/Wildwood Yacht Club/Neff Road

⁵⁴ Oak Harbor/Fenwick Marina/Green Cove/Locust Point/Magee/Paradise Acres/Wild Wings Marina

⁵⁵ Geneva State Park/Marina

⁵⁶ Other docks utilized by Lake Erie boaters include Ashtabula Yacht Club/River/Public Dock/Camp/Harbor Yacht Club/Kister/Lake Shore Park/Redbrook Boat Club/ARU Marina/Camp (1.7%), Beaver Park Marine/Bay Association (1.7%), Cedar Point/Marina/Beach (1.7%), E.55th (CLE)/Marina (1.4%), East Harbor/State Park/Marina (1.5%), Fairport Harbor Port Authority/Hidden Harbor Marina/Ram Island Boat Club (1%), Lake Erie/State Docks (1%), Mazurik (1.2%), Meinke's (1.9%), Mentor Lagoons/Mentor Harbor Yachting Club (1.5%), Toledo/Yacht Club/Downtown/Promenade Park/Cullen Park/Hooters/Jockett's/Lost Peninsula/Providence Park/Rossford/Walbridge Park/Brenner 75 Marina/Bush Marine (1.9%), Turtle Creek/Marina (1%), and 23 more (each of the 23 docks were mentioned by less than one percent of boaters).

Figure 57 shows the mean score for three dock attributes at the most popular Lake Erie docks where Lake Erie boaters provided the ratings.



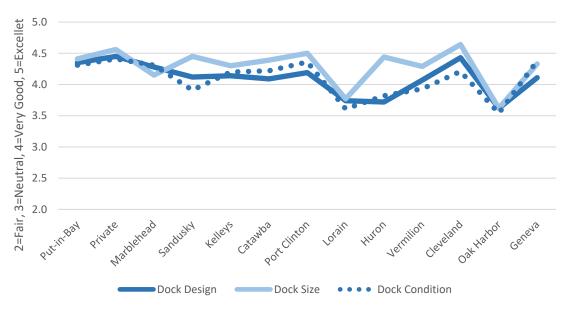


Figure 58 shows the mean score for three docking attributes at the most popular Lake Erie docks where Lake Erie boaters provided the ratings.

Lake Erie Boaters Ratings for Docking

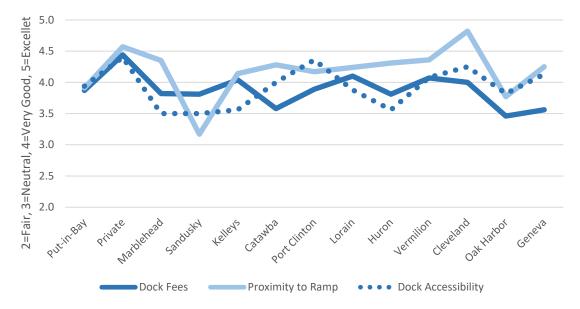


Figure 59 shows the mean score for four restroom attributes at the most popular Lake Erie docks where Lake Erie boaters provided the ratings.

Lake Erie Boaters Ratings for Dock Restrooms and shower

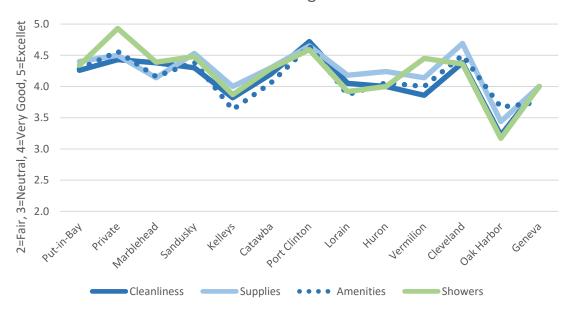
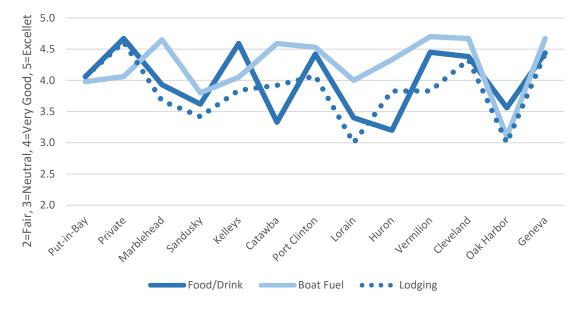


Figure 60 shows the mean score for three services attributes at the most popular Lake Erie docks where Lake Erie boaters provided the ratings.

Lake Erie Boaters Ratings for Dock Services

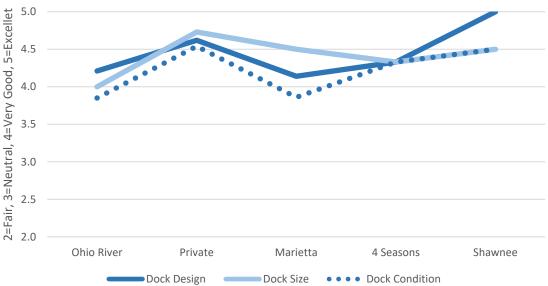


Docks: Ohio River

The most popular docks for Ohio River boaters include the Ohio River⁵⁷ (47.9%), private docks⁵⁸ (22.3%), Marietta⁵⁹ (7.4%), 4 Seasons⁶⁰ (7.4%), Shawnee⁶¹ (3.2%), and 11 others⁶².

Figure 61 shows the mean score for three dock attributes at the most popular Ohio River docks where Ohio River boaters provided the ratings.

Ohio River Boaters Ratings for Docks



⁵⁷ Ohio River/Chilo/Aberdeen/Duffy/Mile 18/Mile 244/Gallipolis/Eagle Creek/Franklin Furnace/Holiday Point/Malta River Queen/Manhattan Harbor/Mariner's Landing/McConnelsville/Meldahl/Ripley/Party Cove/Pomeroy/Powhatan Point/Red Bank/Rivertowne/Straight Creek/Syracuse/Tara Villa/Wheeling Island/Anchor Pad Boat Club/Belpre/Beverly/Cabana/New Richmond/The Landing Restaurant & Marina/Skipper's

⁵⁸ Miscellaneous private home/cottage/home dock/home lift/second home

⁵⁹ Marietta/Indian Acres/Marina/Harbor/Boat Club

⁶⁰ Four Seasons Lake/Marina/Harbor/Boat Club

⁶¹ Shawnee State Park/Boat Club/Marina

⁶² Single mentions include Brilliant Boat Club, city park, Forked Run, FSM, Hockingport, Hooters, Kennedy Marina, Old Lock 15, Schmidt, Syracuse, and Veto.

Figure 62 shows the mean score for three docking attributes at the most popular Ohio River docks where Ohio River boaters provided the ratings.

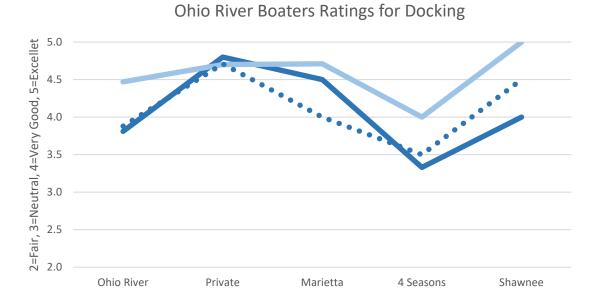


Figure 63 shows the mean score for four restroom attributes at the most popular Ohio River docks where Ohio River boaters provided the ratings.

Dock Accessibility

Proximity to Ramp

Dock Fees

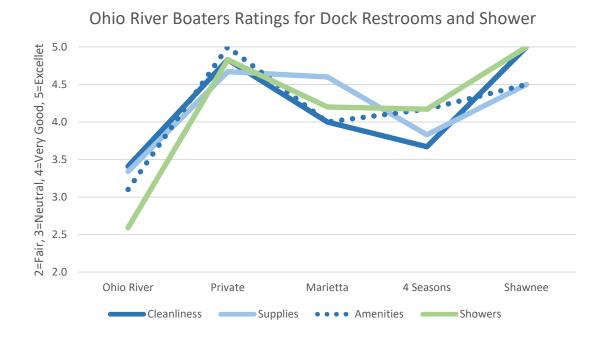
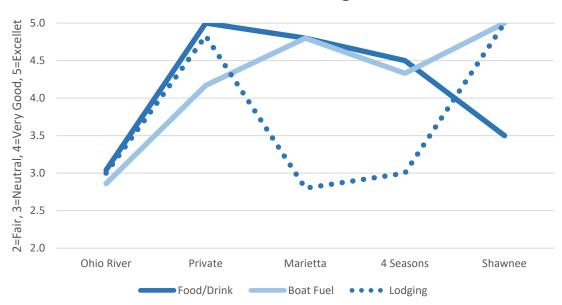


Figure 64 shows the mean score for three services attributes at the most popular Ohio River docks where Ohio River boaters provided the ratings.

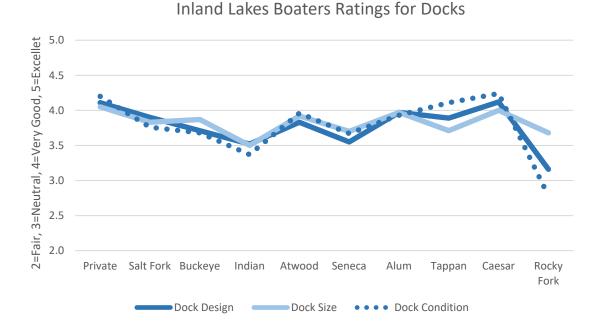
Ohio River Boaters Ratings for Dock Services



Docks: Inland Lakes

The most popular docks for Inland Lakes boaters include private docks⁶³ (20.9%), Salt Fork⁶⁴ (4.1%), Buckeye Lake⁶⁵ (3.9%), Indian Lake⁶⁶ (3.9%), Atwood⁶⁷ (3.6%), Seneca⁶⁸ (3.6%), Alum Creek⁶⁹ (3.4%), Tappan Lake⁷⁰ (3.2%), Caesar Creek⁷¹ (1.3%), and Rocky Fork⁷² (2.5%).⁷³

Figure 65 shows the mean score for three dock attributes at the most popular Inland Lakes docks where Inland Lakes boaters provided the ratings.



⁶³ Miscellaneous private home/cottage/home dock/home lift/second home

⁶⁴ Salt Fork/Lodge/Marina/Sugar Tree/Camp/Morning Glory

⁶⁵ Buckeye Lake/State Park/Marina/Club/Bateson Beach/Carter's/Copper Penny/Fairfield Beach/Fisher's/Horvath's Harbor/Liebs/Papa Boo's

⁶⁶ Indian Lake/Acheson's Resort/Yacht Club/Lakeview/Froggy's/Cranberry/Logan Landing/Moundwood/Newland's/Russell's Point/Tilton Hilton/ Blackhawk

⁶⁷ Atwood Lake/Marina/Park/East/West/Yacht Club

⁶⁸ Seneca Lake/Pioneer Boat Club

⁶⁹ Alum Creek/Marina/Sailing Association/Cheshire

⁷⁰ Tappan Lake/Campground/Marina

⁷¹ Caesar Creek/Marina/Campground/Furnas Shores/North Pool/Milman

⁷² Rocky Fork Lake/Creek/Marina/Fisherman's Wharf

⁷³ Other docks mentioned by Inland Lakes boaters include Apple Valley Lake/Marina/Sutton Beach (1.6%), Berlin Lake/Bedell Road/Dutch Harbor (1.2%), Celina/Celina Eagles/Moose/West Bank/Windy Point Marina/Hecht/Bay View Marina/Behm (1.3%), Charles Mill Lake (1.2%), Chippewa Lake/Marina/State Park/Yacht Club (1.2%), Cowan Lake/Marina (1.2%), Delaware Lake/Marina/Aux/State Park/Howards Farm/Bellepoint (1.3%), Deer Creek/Lake/Marina/Hardin Cabin (1.2%), Hoover Reservoir/Dam/Sailing Club (1%), Lake Loramie/Earls Island (1%), Lake Milton/Boat Masters Marine (1%), Lake Rupert (1.2%), Leesville Lake/Camp/Boaters Beach/North Fork Marina/Cam Roosevelt (1.7%), Miscellaneous campgrounds/restaurants/marinas (1.4%), Portage Lakes/Craftsmen Park/State Park/Turkeyfoot (1.2%), West Branch Reservoir/Campgrounds/Marina (1.2%), and 89 others (each of the 89 docks were mentioned by less than one percent of boaters).

Figure 66 shows the mean score for three docking attributes at the most popular Inland Lakes docks where Inland Lakes boaters provided the ratings.



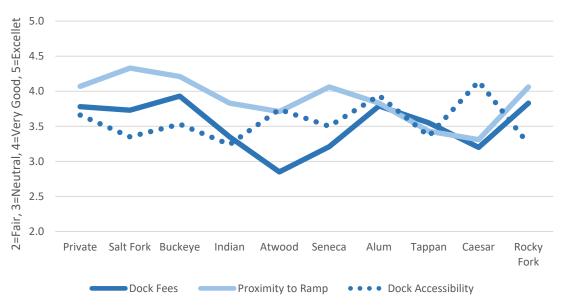


Figure 67 shows the mean score for four restroom attributes at the most popular Inland Lakes docks where Inland Lakes boaters provided the ratings.

Inland Lakes Boaters Ratings for Dock Restrooms and

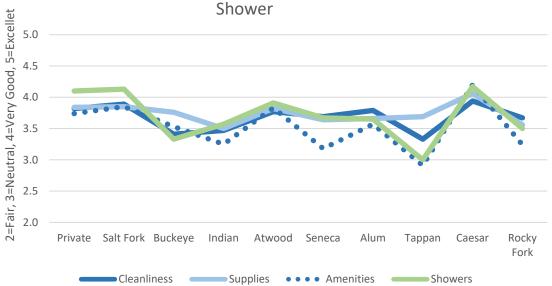
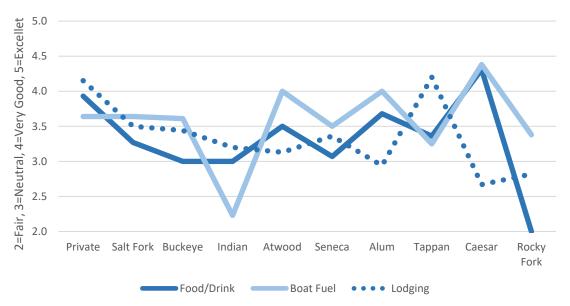


Figure 68 shows the mean score for three services attributes at the most popular Inland Lakes docks where Inland Lakes boaters provided the ratings.

Inland Lakes Boaters Ratings for Dock Services

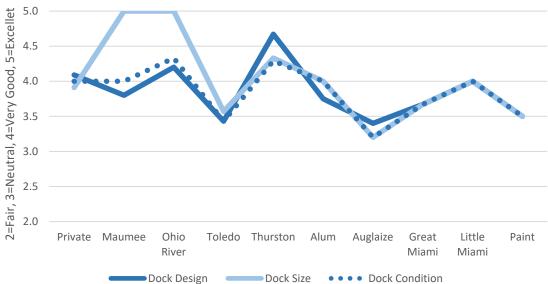


Docks: Inland Rivers

The most popular docks for Inland Rivers boaters include private docks⁷⁴ (27.7%), Maumee⁷⁵ (4.5%), Ohio River⁷⁶ (4.5%), Toledo⁷⁷ (4.5%), Thurston⁷⁸ (4%), Alum⁷⁹ (2.8%), Auglaize⁸⁰ (2.8%), Great Miami⁸¹ (2.8%), Little Miami⁸² (2.3%), and Paint⁸³ (2.3%).⁸⁴

Figure 69 shows the mean score for three dock attributes at the most popular Inland Rivers docks where Inland Rivers boaters provided the ratings.





⁷⁴ Miscellaneous private home/cottage/home dock/home lift/second home

⁷⁵ Maumee/River/Bay/Yacht Club/Indian Hill Boat Club/Perrysburg/Farnsworth/Antwerp/Vet Park

⁷⁶ Ohio River/Chilo/Aberdeen/Duffy/Mile 18/Mile 244/Gallipolis/Eagle Creek/Franklin Furnace/Holiday Point/Malta River Queen/Manhattan Harbor/Mariner's Landing/McConnelsville/Meldahl/Ripley/Party Cove/Pomeroy/Powhatan Point/Red Bank/Rivertowne/Straight Creek/Syracuse/Tara Villa/Wheeling Island/Anchor Pad Boat Club/Belpre/Beverly/Cabana/New Richmond/The Landing Restaurant & Marina/Skipper's

⁷⁷ Toledo/Yacht Club/Downtown/Promenade Park/Cullen Park/Hooters/Jockett's/Lost Peninsula/Providence Park/Rossford/Walbridge Park/Brenner 75 Marina/Bush Marine

⁷⁸ Mary Jane Thurston State Park

⁷⁹ Alum Creek/Marina/Sailing Association/Cheshire

⁸⁰ Auglaize River/Five Span/Charloe/Sno-Cone

⁸¹ Great Miami River/Heritage Park/Hamilton Boat Club/Sidney Boat Club/Rt 79/Treasure Island Park

⁸² Little Miami River/Carl A. Rahe/The Narrows

⁸³ Paint Creek/Marina

⁸⁴ Other docks mentioned by Inland Rivers boaters include Cleveland/Yachting Club/Edgewater/Marina/Dock/Intercity Yacht Club/Lakeside Yacht Club/Quincy/Riverfront/Skipper Bud's/Wildwood Yacht Club/Neff Road (1.7%), Kelleys Island/Marina/Casino/Seaway/Dock/West Bay/North/Portside/Seaway Marina/Unique Marker (1.7%), Marietta/Indian Acres/Marina/Harbor/Boat Club (1.7%), Port Clinton/Doc's Kettle/Hot Waters/Lagoons/Basin/Holiday Harbor/Couplet Park/Harbor North/Sawmill Creek (1.7%), Sandusky River/Fremont/Huss Street Bridge/Steyer Park/Tackle Box (1.7%), and 45 others (each of the 45 docks were mentioned by less than one percent of boaters).

Figure 70 shows the mean score for three docking attributes at the most popular Inland Rivers docks where Inland Rivers boaters provided the ratings.

Inland Rivers Boaters Ratings for Docking

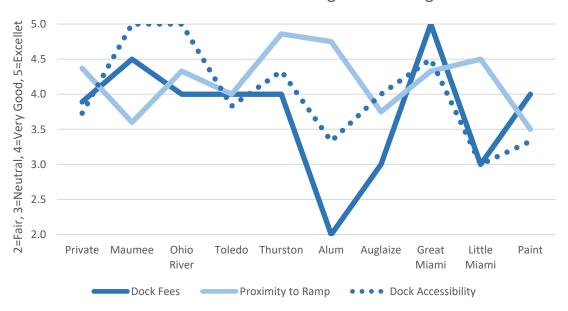


Figure 71 shows the mean score for four restroom attributes at the most popular Inland Rivers docks where Inland Rivers boaters provided the ratings.

Inland Rivers Boaters Ratings for Dock Restrooms and Shower

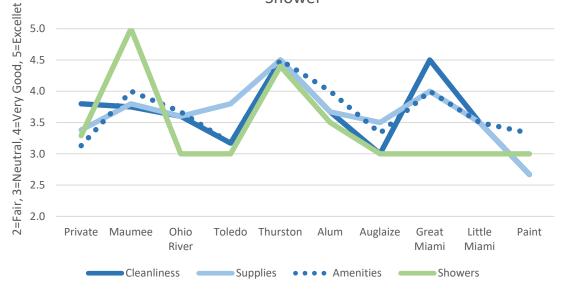
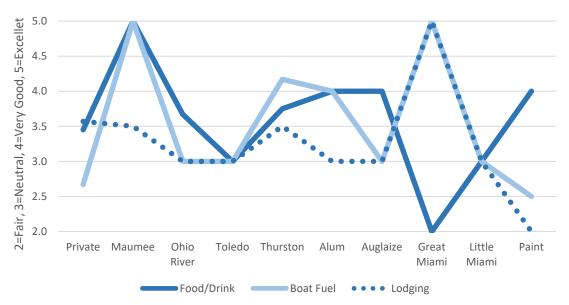


Figure 72 shows the mean score for three services attributes at the most popular Inland Rivers docks where Inland Rivers boaters provided the ratings.

Inland Rivers Boaters Ratings for Dock Services



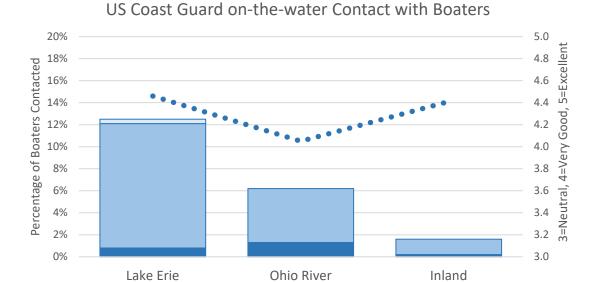
On-the-Water Contact

Assistance

US Coast Guard

Some 12.5% of Lake Erie boaters received on-the-water contact from the US Coast Guard, significantly higher than the contact Ohio River and Inland boaters received from USCG (6.2% and 1.6%, respectively).

Figure 73 shows the US Coast Guard's on-the-water Contract with Lake Erie, Ohio River, and Inland boaters. The left y-axis and stacked bars show the percentage of boaters contacted and the type of contact. The right y-axis and dotted line show the overall mean rating for three attributes (Courteous personnel, Professional personnel, and Knowledgeable personnel).



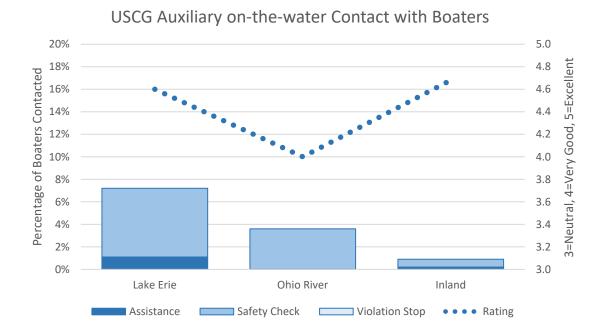
Violation Stop

Safety Check

USCG Auxiliary

Some 7.2% of Lake Erie boaters received on-the-water contact from the USCG Auxiliary, significantly higher than the contact with Ohio River and Inland boaters received from this organization (3.6% and 0.9%, respectively).

Figure 74 shows the USCG Auxiliary's on-the-water Contract with Lake Erie, Ohio River, and Inland boaters. The left y-axis and stacked bars shows the percentage of boaters contacted and the type of contact. The right y-axis and dotted line show the overall mean rating for three attributes (Courteous personnel, Professional personnel, and Knowledgeable personnel).

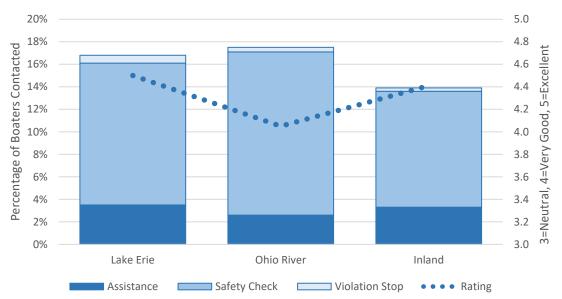


ODNR

ODNR contact with boaters was pretty consistent across Ohio. Some 16.7% of Lake Erie boaters received on-the-water contact with ODNR, 17.4% of Ohio River boaters interacted with ODNR, and 13.9% of Inland boaters were contacted by ODNR Officers.

Figure 75 shows the ODNR's on-the-water Contract with Lake Erie, Ohio River, and Inland boaters. The left y-axis and stacked bars shows the percentage of boaters contacted and the type of contact. The right y-axis and dotted line show the overall mean rating for three attributes (Courteous personnel, Professional personnel, and Knowledgeable personnel).

ODNR on-the-water Contact with Boaters



Local Marine Patrol

2%

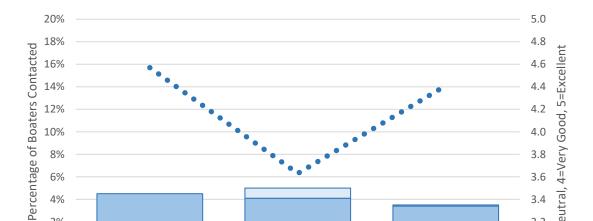
0%

Lake Erie

Assistance

Some 4.5% of Lake Erie boaters received on-the-water contact with local marine patrol, 5% of Ohio River boaters were contacted, and 3.5% of Inland boaters interacted with local marine patrol.

Figure 76 shows the local marine patrol on-the-water Contract with Lake Erie, Ohio River, and Inland boaters. The left y-axis and stacked bars shows the percentage of boaters contacted and the type of contact. The right y-axis and dotted line show the overall mean rating for three attributes (Courteous personnel, Professional personnel, and Knowledgeable personnel). 85



Ohio River

Violation Stop

Safety Check

3.2

3.0

Inland

Local Marine Patrol on-the-water Contact with Boaters

⁸⁵ Ten Ohio River boaters provided ratings for their local marine patrol.

ODNR Information Preferences

Boaters were asked to identify any or all options to receive information from ODNR Parks and Watercraft. Across all Ohio, ODNR's website was selected by 70.5% as an information source and 26.2% selected that they would like to receive a monthly newsletter from ODNR.

Other analysis shows that interest in social media communications (Facebook, Twitter, and Instagram) was negatively correlated to age.

Other information dissemination preferences had significant appeal to specific regions.

- Lake Erie boaters were significantly more likely to want ODNR Parks and Watercraft information from marinas (29%), boat shows (26.2%), and boating classes (13.2%) compared to Ohio River and Inland boaters⁸⁶.
- Ohio River boaters were significantly more likely to want ODNR Parks and Watercraft information via the mail (30.7%) compared to Lake Erie and Inland boaters (21% and 22.9%, respectively).
- Inland boaters were significantly more likely to want ODNR Parks and Watercraft information from Watercraft offices (17.1%), campgrounds (16.4%), and signage (8.8%) compared to Lake Erie and Ohio River boaters⁸⁷.

⁸⁶ Ohio River boaters selected marinas 21.4% of the time, boat shows 20% of the time, and 10.2% chose boating classes. Inland boaters selected marinas 21.5% of the time, boat shows 16.6%, and 7.3% chose boating classes.

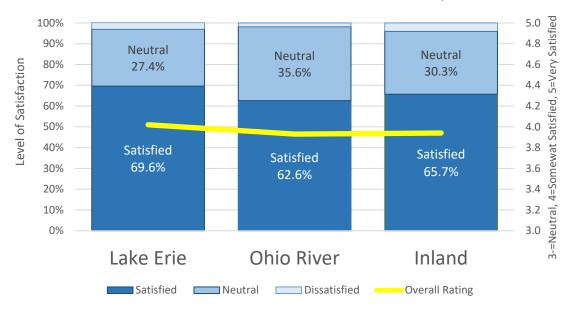
⁸⁷ Lake Erie boaters selected Watercraft offices 16.3% of the time, campgrounds 8.5% of the time, and signage 6.7% of the time. Ohio River boaters selected Watercraft offices 14.9% of the time, campgrounds 11.2% of the time, and signage 10.7% of the time (although this result was not significant because the base for the Ohio River was 215, whereas the base for Inland was 3,522).

ODNR Website

Some 36.9% of Lake Erie boaters were Very Satisfied and 32.7% were Somewhat Satisfied with the user-friendliness of ODNR Parks and Watercraft website. Ohio River boaters were more likely to rate the website Neutral for user-friendliness compared to Lake Erie and Inland boaters. Four percent of Inland boaters indicated they were dissatisfied with the user-friendliness of the website, which compares to 3.1% of Lake Erie boaters and 1.8% of Ohio River boaters being dissatisfied.

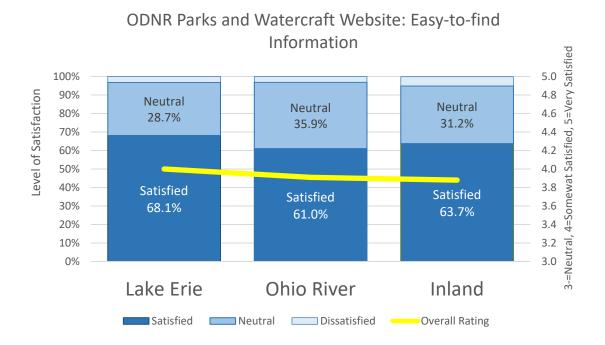
Figure 77's left y-axis show and bars show the level of satisfaction with ODNR Parks and Watercraft website for being user-friendly by Lake Erie, Ohio River, and Inland boaters as percentages. The right y-axis and yellow line show the mean level of satisfaction.

ODNR Parks and Watercraft Website: User-Friendly



Some 35.7% of Lake Erie boaters were Very Satisfied and 32.4% were Somewhat Satisfied with their ability to find information on the ODNR Parks and Watercraft website. Five percent of Inland boaters indicated they were dissatisfied with their ability to find information on the website, which compares to 3.2% of Lake Erie boaters and 0.9% of Ohio River boaters.

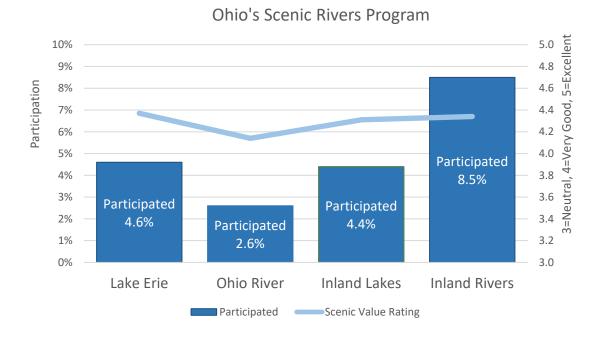
Figure 78's left y-axis show and bars show the level of satisfaction with ODNR Parks and Watercraft website for being easy-to-find by Lake Erie, Ohio River, and Inland boaters as percentages. The right y-axis and yellow line show the mean level of satisfaction.



Ohio Scenic Rivers and Ohio Water Trails

The data show that the Ohio Scenic Rivers program has significantly higher participation among Inland Rivers boaters. In addition to 8.5% participation by Inland Rivers boaters, 74% were aware or interested in the program.⁸⁸

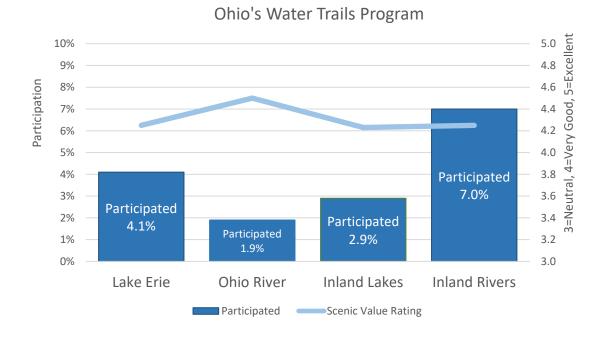
Figure 79's left y-axis and bars show the percentage of participation in the Ohio Scenic Rivers program by Lake Erie, Ohio River, Inland Lakes, and Inland Rivers boaters. The right y-axis and yellow line show the mean rating for the Ohio Scenic Rivers program for Scenic Value.



⁸⁸ For comparison, 56.7% of Lake Erie boaters were aware or had an interest in the Ohio Scenic Rivers program, 62% of Ohio River boaters were aware or interested, and 60.4% of Inland Lakes boaters were aware or interested in the program.

Although the Ohio Water Trails program had less overall participation (5.1% of Scenic Rivers, 3.8% for Water Trails), the data show that the Ohio Water Trails program has significantly higher participation among Inland Rivers boaters. In addition to 7% participation by Inland Rivers boaters, 72.2% were aware or interested in the program.⁸⁹

Figure 80's left y-axis and bars show the percentage of participation in the Ohio Water Trails program by Lake Erie, Ohio River, Inland Lakes, and Inland Rivers boaters. The right y-axis and yellow line shows the mean rating for the Ohio Water Trails program for Scenic Value.



⁸⁹ For comparison, 55.8% of Lake Erie boaters were aware or had an interest in the Ohio Water Trails program, 58.3% of Ohio River boaters were aware or had an interest, and 58.3% of Inland Lakes boaters were aware or had an interest in the program.

Demographics

Across all regions, 43.5% of Ohio's primary boat operators were retired and 20.5% were employed in professional/technical occupations.

Lake Erie boaters were more likely to be in executive/management positions (12%) compared to Ohio River and Inland boaters (9.1% and 9.4%, respectively).

Ohio River boaters were more likely to be in construction (8.3%), self-employed (3%), administration (3%), or trades (2.3%) compared to Lake Erie and Inland boaters (5% and 4.9% for construction; 1.2% and 0.9% for self-employed; 1% and 1.6% for administration; 0.9% and 1% for trades, respectively).

Inland boaters were more likely to be in retail/food service (1.5%) or government (0.7%) compared to Lake Erie and Ohio River boaters (0.6% and 0.8% for retail/food service, respectively; 0.3% and zero for government, respectively).

Some 12.8% of Inland primary boat operators were female, which compared to 5.9% being female among Lake Erie primary boat operators and 9.7% for Ohio River boaters.

One percent of Lake Erie boaters were Hispanic or Latino, a higher percentage than Ohio River and Inland boaters (0.4% and 0.5%, respectively).

Some 1.3% of Lake Erie boaters were American Indian or Alaska Native, which was significantly higher than American Indian or Alaska Native boaters boating on the Ohio River and Inland (1.1% and 0.8%, respectively). One percent of Lake Erie boaters were African American, which was significantly higher compared to African American boaters boating on the Ohio River and Inland. Asian boaters represent 0.2% of Lake Erie boaters, 0.8% of Ohio River Boaters, and 0.3% of Inland boaters.

Methodology

From a stratified random sample proportional to boating conditions and bodies of water in each Ohio county, 60,000 emails and 17,000 USPS mail invitations and reminders were deployed to boating households in Ohio between July and November 2022. Email invitations were broadcast 24 hours per day with a 60 second pause between each address. Mailed invitations included a questionnaire, URL and PIN#, and a pre-paid return envelope. The data file was closed in mid-December 2022 and 9,729 questionnaires from responding boaters were analyzed.

We used the IMPLAN calculation process to estimate the economic impact of boating in Ohio. IMPLAN provides estimated Indirect and Induced Effects of the given economic activity. As well as other factors, the given economic activity was defined from annual and per trip boating expenses for 30 boating-related items from ODNR Parks and Watercraft 2022 Recreational Boating Survey results.

For reports that includes ODNR Parks and Watercraft 2022 Marine Trades Survey, please refer to the Ohio Recreational Boating and Marine Trades 2022 Economic Impact Report. For results by Ohio county and ODNR Districts, please refer to the 2022 District and County Profiles Report.

This ends ODNR Parks and Watercraft 2022 Recreational Boating Survey Subset: Lake Erie, Ohio River, and Inland Report

Appendix A: Additional Reports

The following Bodies of Water have sufficient sample for subset reports.

Body of Water	County/Counties	# of Boating Households	Sample Size	Confidence Interval ⁹⁰
Lake Erie – Ottawa (Put-in-Bay)	Ottawa	3,045	750	±3.1
Ohio River	Adams, Belmont, Brown, Clermont, Gallia, Hamilton, Jefferson, Lawrence, Meigs, Monroe, Scioto, and Washington	25,811	576	±4.05
Alum Creek Reservoir and River	Delaware	6,068	543	±4
Caesar Creek	Warren	5,167	508	±4.13
Lake Erie – Erie	Erie	2,745	489	±4.02
Indian Lake	Logan	1,871	452	±3.99
Buckeye Lake	Fairfield and Licking	8,914	422	±4.64
Lake Erie – Sandusky (Sandusky Bay)	Sandusky	1,640	348	±4.66
Maumee River	Defiance, Henry, Lucas, Paulding, Wood	11,040	304	±5.5
Salt Fork Lake	Guernsey	1,513	297	±5.6
Lake Erie – Lorain	Lorain	6,195	274	±5.8
Atwood ⁹¹ , Leesville, and Mohawk lakes	Carroll	1,090	271	±5.15
Lake Erie – Cuyahoga	Cuyahoga	12,195	241	±6.51
Lake Erie – Lucas	Lucas	5,692	235	±6.25
Clendening and Tappan	Harrison	793	226	±5.5
Portage Lake	Summit	10,292	215	±6.6
Rocky Fork Lake	Highland	1,192	205	±6.2
Seneca Lake	Noble	350	205	±4.4
West Branch Reservoir	Portage	4,698	204	±6.7
East Fork Reservoir	Clermont	4,143	195	±6.9
Berlin Reservoir	Mahoning and Portage	8,195	192	±7
Little Miami River	Hamilton and Warren	13,399	191	±7.04
Cowen Lake	Clinton	1,384	186	±6.7
Hoover Reservoir	Delaware	6,068	179	±7.21
Mosquito Lake	Trumbull	4,323	162	±7.59

^{90 95%} Confidence Level

⁹¹ Atwood Lake was both the #1 rated body of water and the #1 rate ramp Inland.

Body of Water	County/Counties	# of Boating Households	Sample Size	Confidence Interval ⁹⁰
Muskingum River	Coshocton, Morgan, Muskingum, and Washington	6,445	161	±7.6
Grand Lake St. Marys	Auglaize and Mercer	2,858	159	±7.59
Deer Creek Lake	Pickaway	1,324	139	±7.9
Buck Creek Lake	Clark	2,445	132	±8.1
Delaware Reservoir	Delaware	6,068	132	±8.4
Acton Lake	Butler and Preble	8,370	130	±8.5
Great Miami River	Butler and Hamilton	13,552	127	±8.6