



The Great Lakes Valuation Report



Holding 20% of the world’s surface freshwater, the Great Lakes are a finite resource with multiple uses and users. They are crucial to the cultural and ecological value of the region and 8 million people are dependent on their water resources, and recreational and commercial fisheries. Transboundary fisheries management in the Great Lakes is increasingly integrating the biological and social sciences, which is critical to long-term resource sustainability.

The lakes’ benefits are susceptible to a multitude of human-caused factors and threats (e.g., aquatic invasive species, agricultural runoff, climate change), which will ultimately influence regional economies and quality of life. Policymakers at all levels must make allocation decisions regarding the Great Lakes including providing water for agricultural, industrial, and commercial and recreational fisheries uses. To support these allocation decisions, this study provides two different types of economic information: 1) economic benefits created by people directly using the lakes, and 2) the value

held by the public related to the lakes’ existence, indirect use and potential benefits. Both types of economic information are important to these globally important fisheries.

Economic Contributions

This study also looks at direct economic contributions, such as jobs and income, to illustrate the fisheries as an important economic engine. Measures of economic contributions convey the magnitude of economic losses that would result if fisheries were allowed to decline.

Recreational Sportfishing

The Great Lakes fisheries provided robust opportunities for an estimated 1.1 million licensed anglers in 2020 who spent at least one day fishing the Great Lakes and their tributaries. Accounting for anglers who fished more than one lake plus those not needing a license,

We estimate 1.4 million people spent 34.1 million days fishing in 2020 which is how long it would take if you could walk to Pluto.

STATE	TOTAL ANGLERS	TOTAL FISHING DAYS ('000)
Illinois	58,210	1,307.6
Indiana	24,700	784.5
Michigan	379,313	8,376.9
Minnesota	33,211	586.6
New York	341,187	7,799.9
Ohio	321,587	8,381.6
Pennsylvania	116,731	3,789.5
Wisconsin	154,200	3,073.4
TOTAL	1.4 MILLION	34.1 MILLION

Recreational anglers made large financial contributions to national, state, and regional economies. We estimated that US anglers spent \$3.8 billion (US\$) in 2020, while Ontario estimated their anglers spent \$285 million (USD) on Great Lakes fishing.

The \$4.1 billion of angler spending supported 35,800 jobs, provided \$1.9 billion dollars of income, and \$5.1 billion in total economic output from recreational fishing.

Economic Contributions by State (in \$US millions)

STATE/PROVINCE	RETAIL SALES	TOTAL ECONOMIC OUTPUT	SALARIES & WAGES	JOBS (in thousands)	FEDERAL, STATE, PROVINCIAL, & LOCAL TAX REVENUES
Illinois	\$95.5	\$85.1	\$28.4	0.5	\$14.2
Indiana	\$83.7	\$71.6	\$19.6	0.4	\$10.5
Michigan	\$1,266.7	\$2,704.0	\$1,063.9	18.7	\$374.7
Minnesota	\$126.8	\$104.9	\$34.5	0.7	\$15.9
New York	\$365.3	\$257.0	\$102.6	1.8	\$48.2
Ohio	\$1,185.9	\$992.5	\$319.9	6.6	\$157.8
Pennsylvania	\$285.0	\$283.1	\$105.8	2.1	\$45.0
Wisconsin	\$353.3	\$354.2	\$125.7	2.7	\$52.1
U.S. REGIONAL TOTAL	\$3,762.2	\$4,852.4	\$1,800.4	33.5	\$718.4
Ontario Province	\$285.5	\$276.1	\$89.8	2.3	\$52.4
GRAND TOTAL	\$4,047.7	\$5,128.5	\$1,890.2	35.8	\$770.8

Did you know?

- Anglers spend \$4 billion annually to fish the Great Lakes, enough to buy the Green Bay Packers twice!
- Each year, approximately 1.1 million recreational anglers fish the Great Lakes. This is greater than the population of Montana, or more than the combined populations of the cities of Minneapolis and Milwaukee.
- The recreational fishery in the Great Lakes supports 35,800 jobs, more than nearly 300 of the Fortune 500 firms, and twice as many employees as Cabela's has in North America.
- The total economic contributions of recreational fishing in the Great Lakes is greater than the combined U.S. box office receipts for 2023's top 10 movies.
- Great Lakes anglers provided \$1.9 billion dollars of income in 2020, more than the U.S. National Hockey League's ticket receipts in 2020.
- Great Lakes angler spending supports over 35,000 jobs within the region, about the same as General Motors employees in Michigan.

Comparatives to Prior Sportfishing in America Reports

Historically, the U.S. Fish and Wildlife Service conducts a National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (National Survey) study in conjunction with the U.S. Census Bureau every five years. Estimates of the direct retail spending associated with recreational fishing on the Great Lakes per state were derived from this source for decades. As of 2016, state-level spending data from this resource was discontinued. The new 2020 GLFC study has replaced these estimates with a more robust and detailed report.

The methodologies used to estimate Great Lakes economic impacts based on the National Surveys are different than those used in the new 2020 GLFC study, and thus the results are not comparable.

*New Methodology

SURVEY/STUDY	Illinois	Indiana	Michigan	Minnesota	New York	Ohio	Pennsylvania	Wisconsin	REGIONAL TOTAL
RETAIL SALES (MILLIONS)									
2011 National Survey	\$67.3	\$21.8	\$1,463.9	\$98.0	\$705.1	\$559.7	\$63.5	\$131.6	\$3,110.9
2016 National Survey	\$61.9	\$22.6	\$1,417.6	**	\$303.7	\$573.5	\$33.0	\$127.4	\$2,539.7
2020 GLFC Study*	\$95.5	\$83.7	\$1,266.7	\$126.8	\$365.3	\$1,185.9	\$285.0	\$353.3	\$3,762.2
TOTAL MULTIPLIER* (MILLIONS)									
The total multiplier effect reports the dollar value of all the rounds of spending that occurred in the economy as a result of the retail sales.									
2011 National Survey	\$121.3	\$32.1	\$2,567.6	\$177.5	\$1,185.1	\$874.4	\$109.8	\$213.4	\$5,281.1
2016 National Survey	\$86.7	\$32.9	\$2,242.3	**	\$476.3	\$627.3	\$56.7	\$162.6	\$3,684.8
2020 GLFC Study*	\$85.1	\$71.6	\$2,704.0	\$104.9	\$257.0	\$992.5	\$283.1	\$354.2	\$4,852.4

Commercial Economic Contributions

The Great Lakes commercial fishery supports nearly 3,000 jobs. While this is down from the peak of over 10,000 jobs (Brenden et al., 2013), this fishery is still important as it contributed \$123.2 million dollars to North America's Gross Domestic Product and generated \$89 million dollars in household income.

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Economic Value

Estimating economic value provides information needed to most efficiently allocate public resources. Once we clearly understand the values that society places on fisheries resources, the most efficient and beneficial decisions can be made. For this reason, researchers focus on the amount of money that someone (or some entity) is willing to pay to avoid a reduction in fisheries harvests instead of simply reporting the actual dollars spent by anglers or on fish consumption.

Residents of Great Lakes states place value on maintaining sustainable fisheries catch rates, even if they don't fish.

These “non-use” values include altruistic, bequest, and ecological reasons. As such, the total value of the Great Lakes recreational fishery includes both recreational use and non-use values. This report uses both measures to quantify the amount the public is willing to pay to avoid 10%, 25% and 50% decreases in harvests for warm and cold water species.

We estimated that the aggregate economic value to Great Lakes states and Ontario residents of avoiding a 10% reduction in the sustainable recreational harvest is \$1.1 billion and even greater for 25% and 50% reductions – or, about the value of the Detroit Red Wings U.S. National Hockey League franchise. The willingness to pay indicates that respondents hold substantial economic value for maintaining recreational fishing harvests. Willingness to pay is greatest for recreational users, but still significant for those who do not fish.

Great Lakes Residents Trust the Government to Manage the Fisheries

Residents in the Great Lakes region are equally split on the status of recreational Great Lakes fisheries. Status is reported in three forms: improving, staying the same, and deteriorating. Individuals aged 25-44 were more likely to indicate it was improving (41%). More than two-thirds (68%) indicated confidence in the government's ability to manage the Great Lakes fisheries.

Regarding the impacts of environmental issues on fisheries, the majority of residents indicate each have negative impacts:

FACTORS AFFECTING THE GREAT LAKES RECREATIONAL FISHERIES	PERCENT INDICATING A NEGATIVE IMPACT
Climate change/Global warming	64%
Industrial pollution	72%
Algae blooms	62%
Aquatic invasive species	68%
Agricultural runoff	64%
Loss of wetlands	67%
Municipal wastewater runoff	71%

The high levels of perceived threats to fisheries results in strong support for all of the potential regulatory/policy responses tested:

REGULATION/POLICY	PERCENT INDICATING SUPPORT
Reduce industrial water pollution	86%
Ballast water regulation and the construction of permanent barriers	78%

GREAT LAKES MANAGEMENT PLAN COMPONENTS

Restoration of coastal wetlands	82%
Well-balanced and productive fish populations	85%
Sustainable fisheries harvest	86%
One-time tax increase to fund the plan	63%