ECONOMIC CONTRIBUTION OF Cold-Water and Warm-Water Fishing in Montana

BBER

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Dr. Jeffrey Michael, Director
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Executive Summary

The 2023 Montana Legislature requested that Montana Fish, Wildlife & Parks (FWP) partner with the University of Montana Bureau of Business and Economic Research (BBER) to estimate the economic contributions of cold- and warm-water fishing across the state. Findings from this study will be reported to the Environmental Quality Council (EQC) and the Interim Budget Committee for Natural Resources and Transportation (IBC) in September 2025.

Purpose and Scope

This study analyzes the economic contributions of cold- and warm-water fishing across the state of Montana. This analysis quantifies how angler spending flows through Montana's economy, supporting jobs, income, and local business activity.

The study focuses on trip-related expenditures — including lodging, food, fuel, guide services, and equipment rentals — made by licensed anglers aged 18 and older who fished in Montana during the 2024 season. Using the REMI input-output model, the analysis captures both the direct effects of this spending and the broader indirect and induced economic impacts that result.

Cold- and warm-water angling differ by species targeted, geographic reach, and spending behavior:

- Cold-water fishing targets species in the family "Salmonidae," including introduced and native trout (including bull trout), salmon, grayling, and whitefish. These trips are typically longer, involve more travel, and generate higher spending on lodging, guides, and dining.
- Warm-water fishing targets species such as burbot, walleye, northern pike, bass, crappie, catfish, paddlefish, sturgeon, and yellow perch. These trips are overwhelmingly driven by Montana residents, often close to home and more frequent, with spending concentrated on fuel, groceries, and local retail.

Key Findings

More than 450,000 anglers aged 18 and older purchased a Montana fishing license in 2024. These residents and nonresident license holders spent a combined $1.27 billion on fishing trips. In total, angler activity supported:

- 15,978 jobs across Montana,
- $427 million in personal income,
- $919 million in value-added (contribution to Montana's GDP),
- And $1.5 billion in total output (gross receipts to Montana businesses).

Cold-water Fishing

Cold-water fishing generated $1.1 billion in trip-related expenditures and:

- Supported 14,355 jobs,
- Generated $385.3 million in personal income,
- Contributed $828.4 million in value-added,
- Resulted in $1.35 billion in total output, and

Nonresidents accounted for more than 70% of cold-water-related spending.

Warm-water Fishing

Warm-water fishing generated $170 million in trip-related expenditures and:

- Supported 1,623 jobs,
- Generated $41.9 million in personal income,
- Contributed $90.7 million in value-added,
- Resulted in $147.6 million in total output, and

Two-thirds of warm-water spending came from Montana residents.

The BBER analysis finds that cold-water fishing accounts for most economic activity, particularly among nonresidents. Warm-water fishing, while smaller in economic scale, plays a more locally focused role. It is largely driven by Montana residents and supports steady economic activity in regions near lakes and reservoirs. These trips are typically shorter and more frequent, making warm-water angling an especially important contributor to local businesses and residents in less populated or less tourism-driven areas of the state. In both cases, the impact of angler spending extends well beyond the state's lakes and rivers. Whether

through the wages paid to workers, the profits earned by local businesses, or the taxes collected by governments, the dollars spent by anglers flow throughout Montana's economy.

Introduction

The outdoors, water, and fishing are central to Montana's identity. For many residents, fishing is more than a hobby — it is a tradition, a way to connect with nature, and a part of everyday life. It is also one of the reasons people choose to continue calling Montana home, or to move here and raise their families. Montana's world-class fisheries also draw visitors from across the country, who spend their time and money at local businesses — from hotels and gas stations to restaurants, fishing shops, and guides — bringing additional economic activity into communities across the state. Whether fishing cold mountain streams or warm prairie reservoirs, anglers spend money in communities across Montana, and this study focuses specifically on the impact of that trip spending. Their presence and spending ripple through small towns, rural communities, and gateway destinations alike, making fishing not just a cultural cornerstone, but a meaningful contributor to Montana's economy.

In 2024, more than 450,000 anglers aged 18 and older, both residents and nonresidents, purchased fishing licenses in Montana. Their collective presence and spending represent a significant contribution to the state economy. To better understand and quantify this impact, the 2023 Montana Legislature requested that Montana Fish, Wildlife & Parks (FWP) partner with the University of Montana to conduct a formal analysis of the economic contributions of cold-water and warm-water fishing.

This study was conducted by BBER at the University of Montana in partnership with FWP. Cold-water angling, which targets species in the family "Salmonidae" such as introduced and native trout (including bull trout), salmon, whitefish, and grayling, differs in geography, timing, and angler experience from warm-water fishing, which centers on species such as burbot, walleye, northern pike, bass, crappie, catfish, paddlefish, sturgeon and yellow perch. Separating cold- and warm-water fishing provides a clearer understanding of the size and scale of each activity's economic impact. The analysis also accounts for differences between resident and nonresident anglers. Resident spending reflects in-state income circulating through the Montana economy, while nonresident spending brings new dollars into the state — particularly important for communities supported by fishing tourism from outside the state.

Scope of the Analysis

This report focuses on trip-related expenditures made by licensed U.S. citizen anglers aged 18 and older who fished in Montana during the 2024 season. These direct expenditures include lodging, fuel, food, guide services, equipment rentals, and other spending tied to fishing trips. This spending reflects a steady stream of economic activity that supports local businesses and contributes to the vitality of communities across Montana.

To estimate the full economic contribution of this spending, we used the REMI PI+ model to simulate both the direct and the ripple effects from the spending on the regional economy (REMI, Inc 2025). In addition to the direct effects of angler spending, the model estimates indirect effects, which result from business-to-business transactions, and induced effects, which stem from household spending supported by jobs and income in angler-related industries. For example, when an angler buys lunch in a restaurant, the direct effect includes jobs and wages in the restaurant itself. Indirect effects stem from restaurant purchasing inputs such as food, furnishings, or accounting services from other businesses. Induced effects are generated by restaurant employees and owners spending income they received from the angler purchase.

Together, this contribution analysis provides a comprehensive picture of how cold- and warm-water fishing support economic activity across Montana.

Angler Spending Survey

To estimate the economic contribution of fishing in Montana, we collected detailed information on angler behavior and spending through a statewide survey. Designed and administered by Montana Fish, Wildlife & Parks (FWP) and the Bureau of Business and Economic Research (BBER) at the University of Montana, the survey was conducted between November 2024 and May 2025. A stratified random sample of adults who purchased a Montana fishing license during the 2024 season were asked to complete either a hardcopy or

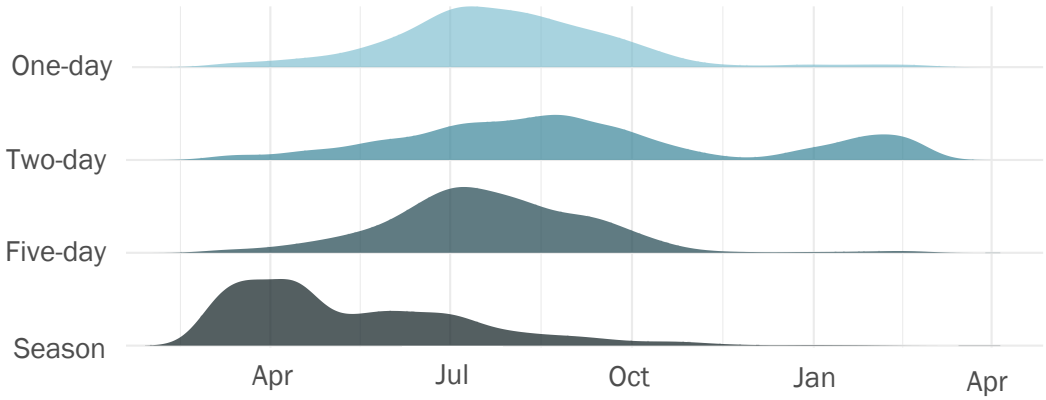
online questionnaire. The final dataset includes 1,181 completed responses, representing a 30.6% response rate (AAPOR 2023). To ensure representativeness and adjust for potential nonresponse bias, the results were weighted using FWP license data as well as demographic benchmarks from the U.S. Census Bureau, IRS, and Dynata, Inc. See the appendix for more details on survey methodology and weighting.

Respondents were asked to report the number of trips they took, the types of water bodies fished, species targeted, and the number of days spent fishing. They also provided detailed spending information related to travel, lodging, food, guides, equipment, and other trip-related expenses. These spending categories formed the foundation of the economic analysis that follows.

Most licenses are short-duration permits, particularly one- and two-day licenses, which reflect the concentration of fishing trips during peak travel periods, shown in Figure 1. Purchases of these short-term licenses peak in July, coinciding with Montana's tourism season and the height of summer fishing activity. In contrast, season-long licenses — most held by Montana residents — are typically purchased earlier in the year and gradually taper off as the season progresses. This reflects the behavior of resident anglers who prepare for fishing trips throughout the season.

A notable secondary spike in two-day license purchases occurs during the winter months, driven by Montana's ice fishing opportunities. These winter trips generate additional activity for rural and recreation-focused communities across the state, extending the economic impact of angling beyond the traditional summer peak.

Figure 1: Distribution of License Start Dates by Type of License, 2024–2025 Season



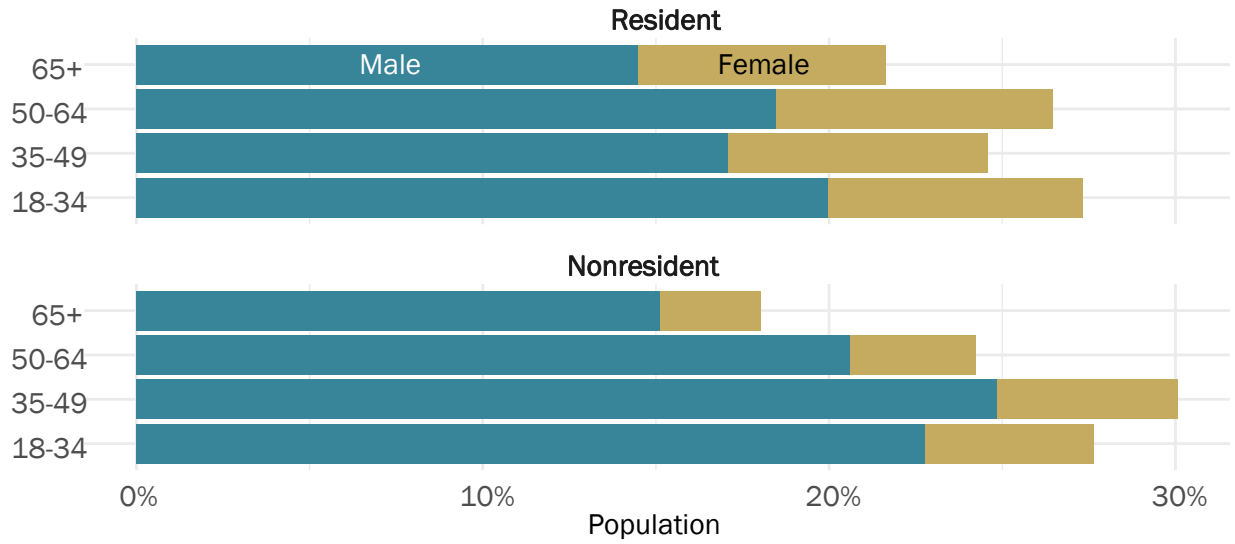
Profile of Licensed Anglers

Licensed anglers in Montana differ in meaningful ways depending on whether they reside in the state. Drawing on responses from the 2024 angler survey, this section explores those differences—highlighting variation in fishing behavior, trip length, and spending patterns between resident and nonresident anglers. The results are designed to represent the full population of licensed anglers during the 2024 license year.

Montana residents tend to fall into two primary age ranges: 18 to 34 and 50 to 64. These groups account for more than half of licenses and reflect both younger participants and those approaching retirement. In contrast, nonresident anglers are more heavily concentrated in the 35 to 49 age group, with much lower representation among anglers aged 50 and older. This pattern suggests that nonresident anglers are more likely to be mid-career travelers or family vacationers, whereas resident anglers include a wider span of ages, including older adults with more consistent access to fishing opportunities throughout the year.

Figure 2 also depicts a notable difference in sex composition. Montana residents include a higher share of female anglers compared to nonresidents, indicating a greater propensity for women in Montana to fish in their state.

Figure 2: License Holders' Age and Sex Breakdown by Residency, 2024–2025 Season



Not all license holders took fishing trips during the 2024 season, and participation rates differ meaningfully between residents and nonresidents. Table 1 summarizes the share of license holders who reported going fishing at least once during the license year.

Overall, a little less than two-thirds of license holders reported taking a fishing trip since March 1, 2024, while about one-third did not. Participation was significantly higher among nonresidents, with 75 percent reporting they fished, compared to just 59 percent of residents. This difference reflects the nature of license purchasing — nonresidents are more likely to purchase a license for a specific trip, while Montana residents may buy an annual license with the intention to fish, even if they do not ultimately go.

Table 1: License Holders by Residence and Fishing Activity, 2024–2025 Season

Residence	*Residents*	*Nonresidents*	*License Holders*
Fishers	59%	75%	66.4%
Did not fish	41%	25%	33.6%

The higher share of non-fishers among resident license holders is largely driven by older Montanans. Among residents aged 50 and older, nearly half reported purchasing a license but did not report a fishing trip. In contrast, older nonresidents who purchase a Montana fishing license are more likely to use it. Only about 24 percent of nonresident license holders aged 50 and older reported not taking a fishing trip during the year.

In addition to differences in license use, resident and nonresident anglers vary in the types of species they pursue. For this analysis, “fishers” refers to license holders who reported fishing at least once during the 2024 season. Table 2 shows the share of these fishers who reported that they were targeting cold-water species, warm-water species, or both, broken down by residency.

Cold-water fishing — which includes species such as trout, salmon, grayling, and whitefish — was more common than warm-water fishing overall, reported by 70 percent of fishers. Among nonresidents, cold-water-only fishing dominated, with 86 percent reporting fishing exclusively for cold-water species. A smaller share, about 10 percent, reported fishing for both cold- and warm-water species, and only a very small percentage fished solely for warm-water species.

Table 2: Share of License Holders Who Fished by Residence and Target Species Group, 2024–2025 Season

Species Group	Montana Resident	Nonresident	All Licensed Fishers
Cold-water	52%	86%	70%
Warm-water	11%	4%	8%
Both	37%	10%	22%

Among Montana residents, cold-water fishing was still the most common targeted species group, but warm-water fishing played a much larger role. Thirty-seven percent of resident fishers reported targeting both species groups, reflecting in part local access, but also a generally more varied species targeting among Montana's fishers. Warm-water-only fishing remains relatively rare, even among residents, with just 11 percent reporting only warm-water trips.

Anglers in Montana vary widely in how often they fish, how long their trips last, and who they fish with. Table 3 summarizes average trip behavior across all fishing license holders who fished during the 2024 season and is broken down by residency. Montana residents reported significantly more fishing activity over the course of the season. On average, resident fishers took six fishing trips totaling seven days on the water, while nonresidents averaged just one trip and 3.7 days fished. These differences reflect the accessibility of in-state waters for residents and the more limited travel windows available to visiting anglers.

Table 3: Summary of Angler Behavior by Residence, All Trips, 2024–2025 Season

Averages	Montana Resident	Nonresident	License Holders
Fishing Trips	6.0	1.0	3.6
Fishing Days	7.0	3.7	5.5
Cold-water Days	5.1	3.6	4.4
Warm-water Days	2.6	0.3	1.5
Group Size	1.3	2.3	1.7

Note: Cold-water and warm-water days may not sum to total fishing days due to overlapping efforts.

When broken down by targeted species group — that is, the number of days anglers reported fishing for cold-water, warm-water, or both species throughout the season — some overlap is expected. The survey allowed respondents to report fishing for both species types on the same day, so the total number of cold-water and warm-water days may exceed the total number of fishing days. On average, resident anglers reported more warm-water effort (2.6 days) compared to nonresidents (0.3 days), while cold-water fishing days were more split, with residents averaging 5.1 and nonresidents averaging 3.6 days.

Differences in group size reflect both access and fishing habits. Nonresidents reported an average group size of 2.3 people, compared to 1.3 for Montana residents. This gap reflects the different ways people approach fishing while in the state. Nonresident trips are often part of a planned vacation and include friends or family, with travel, overnight stays, and fishing organized as part of a broader trip. Montana residents, on the other hand, are more likely to take shorter, more frequent trips close to home — often fishing alone or with one other person. These local trips are typically less structured and easier to fit into a single day, without the added costs of lodging, dining out, or long-distance travel. These behavioral differences have clear implications for spending.

Angler Expenditures

Angler spending varies significantly between residents and nonresidents, not only in total amounts but in the kinds of purchases made. The following table summarizes average annual expenditures per license holder — including those who did not fish — based on responses to the 2024 angler survey. This approach provides a conservative, population-wide estimate of the annual economic activity associated with fishing licenses in Montana.

As expected, nonresidents spend substantially more on travel-related items such as accommodations, outfitter and guide services, restaurants and bars, and vehicle rentals. On average, nonresident license holders spent $3,923 annually, more than double the $1,897 spent by Montana residents. These higher costs reflect the tourism-based nature of nonresident fishing trips, which often involve higher travel expenses and overnight accommodations.

Table 4: Average Annual Trip Expenditures of Resident and Nonresident License Holders ($Millions), 2024–2025 Season

Expense	*Resident*	*Nonresident*
Accommodation	$331	$1,490
Outfitter and guide fees	$177	$704
Restaurants and bars	$243	$436
Groceries	$204	$309
Auto, truck rental	$12	$213
Fuel	$337	$204
Retail purchases	$284	$196
License and entrance fees	$131	$131
Large equipment purchases	$75	$107
Other expenses	$38	$72
Campground and RV park fees	$41	$22
Equipment rental	$6	$21
Vehicle, equipment repairs	$18	$18
Average Annual Expenditures	**$1,897**	**$3,923**

Note: Expenditures are averaged using total license holder population and therefore reflect the average annual spending per license holder including those who did not report having fished.

Montana residents, by contrast, tend to spend more frequently on shorter, in-state trips. While their average spending is lower overall, residents spend more annually on fuel, retail purchases, and campground or RV park fees. This pattern aligns with resident behavior — shorter, more frequent trips that are often taken within driving distance rather than out-of-state travel.

Some spending categories were similar across both groups. License and entrance fees were identical on average, and expenditures on large equipment purchases and vehicle or equipment repairs were nearly the same, suggesting similar investment in fishing equipment in the state regardless of residency. Groceries, while slightly higher among nonresidents, reflect general purchases tied to their trip in Montana.

Table 5 breaks down average annual fishing trip expenditures for Montana resident license holders who reported fishing during the 2024 season, with spending allocated by target species group. Spending on cold-water fishing accounts for 76 percent of total resident expenditures, while warm-water fishing accounts for the remaining 24 percent. This reflects both higher spending per trip and broader participation — over half of resident anglers reported fishing only for cold-water species, while just 11 percent fished exclusively for warm-water. Because this table excludes license holders who did not fish, the totals differ from the population-wide averages shown in Table 4.

Table 5: Resident Average Annual Fishing Trip Expenditures by Target Species Group — License Holders Who Fished ($Millions), 2024–2025 Season

Expense	*Cold-water*	*Warm-water*	*Total*
Fuel	$392.28	$178.49	**$570.76**
Accommodation	$460.15	$100.84	**$561.00**
Retail purchases	$338.61	$141.94	**$480.55**
Restaurants and bars	$326.44	$86.16	**$412.60**
Groceries	$250.07	$96.35	**$346.43**
Outfitter and guide fees	$288.78	$10.44	**$299.22**
License and entrance fees	$166.00	$55.71	**$221.71**
Large equipment purchases	$103.12	$23.99	**$127.11**
Campground and RV park fees	$38.94	$30.02	**$68.96**
Any other expense	$29.90	$35.10	**$65.00**
Vehicle, equipment repairs	$10.28	$20.74	**$31.02**
Auto, truck rental	$18.85	$2.11	**$20.96**
Equipment rental	$9.46	$0.48	**$9.94**
Average Annual Expenditures	**$2,432.88**	**$782.37**	**$3,215.25**

Note: Expenditures are allocated based on the proportion of time spent fishing for each species group. As a result, this table excludes license holders who did not report a fishing trip, and the totals do not sum to the $1,897 average shown in Table 4, which includes all resident license holders.

Outfitter and guide fees show a notable difference: residents spent an average of $289 on guided cold-water trips, compared to just $10 on warm-water. This aligns with the finding that cold-water fishing more often involves travel and planning, while warm-water fishing more often involves shorter, local day trips.

A similar pattern appears among nonresidents. As shown in Table 6, most of their annual fishing trip expenditures are tied to cold-water fishing, which accounts for nearly 93 percent of the total. Accommodation, outfitter and guide fees, and food away from home are especially prominent in cold-water trips. Warm-water spending, while still notable, represents a small share of overall nonresident trip-related expenditures. Because Table 6 reflects only license holders who reported fishing, the values differ from the broader population averages shown in Table 4.

Table 6: Nonresident Average Annual Fishing Trip Expenditures by Target Species Group — License Holders Who Fished ($Millions), 2024–2025 Season

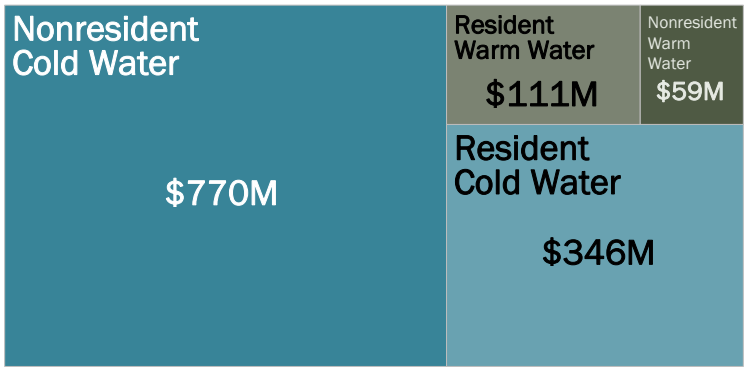
Expense	*Cold-water*	*Warm-water*	*Total*
Accommodation	$1,867.52	$127.68	**$1,995.20**
Outfitter and guide fees	$929.32	$12.90	**$942.22**
Restaurants and bars	$543.44	$40.37	**$583.81**
Groceries	$353.81	$65.55	**$419.37**
Auto, truck rental	$278.46	$14.72	**$293.18**
Fuel	$244.84	$32.00	**$276.84**
Retail purchases	$241.09	$21.69	**$262.78**
License and entrance fees	$158.78	$16.60	**$175.38**
Large equipment purchases	$120.04	$23.43	**$143.47**
Any other expense	$85.72	$10.24	**$95.96**
Campground and RV park fees	$26.42	$4.13	**$30.54**
Equipment rental	$25.91	$2.75	**$28.66**
Vehicle, equipment repairs	$16.89	$6.91	**$23.80**
Average Annual Expenditures	**$4,892.25**	**$378.97**	**$5,271.22**

Note: Expenditures are allocated based on the proportion of time spent fishing for each species group. As a result, this table excludes license holders who did not report a fishing trip, and the totals do not sum to the $3,923 average shown in Table 4, which includes all nonresident license holders.

Licensed anglers in Montana contribute a substantial amount of annual spending tied to both cold- and warm-water fishing. Among nonresidents, spending is overwhelmingly focused on cold-water fishing, totaling an estimated $770 million annually, compared to $59 million for warm-water fishing. Resident anglers, by contrast, contributed $346 million and $111 million, respectively, in cold- and warm-water, trip-related expenditures. These totals reflect meaningful differences in participation, trip frequency, and spending behavior across angler groups.

The economic footprint of fishing in Montana varies significantly by species group and angler residence. While nonresidents account for most cold-water fishing expenditures, warm-water fishing is dominated by resident anglers. Residents are responsible for nearly two-thirds of all warm-water-related spending, underscoring the importance of warm-water fisheries to Montana's communities and their local anglers. As shown in Figure 3, the relative scale of each category illustrates how species preferences and residency status shape overall angler spending across the state.

Figure 3: Share of License Holders' Total Annual Spending by Residence and Target Species Group ($Millions), 2024–2025 Season



In total, anglers spent an estimated $1.29 billion during the 2024–2025 season on fishing-related goods and services — from lodging, food, and fuel to licenses, guide fees, and equipment. A detailed breakdown of total spending by residence and species group is provided in Table 7. These purchases represent a substantial injection of activity into Montana's economy, with different regions and industries benefiting depending on the type of fishing and the origin of the angler.

Table 7: Total Annual License Holder Spending Breakdown by Residence and Species Target ($Millions), 2024–2025 Season

	Resident		Nonresident		
Expense	Cold-water	Warm-water	Cold-water	Warm-water	Total
Accommodation	$65.53	$14.36	$297.64	$20.35	**$397.88**
Outfitter and guide fees	$41.13	$1.49	$148.11	$2.06	**$192.78**
Restaurants and bars	$46.49	$12.27	$86.61	$6.43	**$151.81**
Fuel	$55.87	$25.42	$36.82	$4.81	**$122.92**
Groceries	$35.61	$13.72	$53.48	$9.91	**$112.72**
Retail purchases	$48.22	$20.21	$38.42	$3.46	**$110.32**
License and entrance fees	$23.64	$7.93	$25.31	$2.65	**$59.53**
Auto, truck rental	$2.68	$0.30	$40.25	$2.13	**$45.37**
Large equipment purchases	$14.69	$3.42	$19.13	$3.73	**$40.97**
Other expenses	$4.26	$5.00	$13.66	$1.63	**$24.55**
Campground and RV park fees	$5.55	$4.28	$3.76	$0.59	**$14.16**
Vehicle, equipment repairs	$1.46	$2.95	$2.69	$1.10	**$8.21**
Equipment rental	$1.35	$0.07	$4.13	$0.44	**$5.98**
Total Annual Expenditures	**$346.48**	**$111.42**	**$770.02**	**$59.28**	**$1,287.2**

This angler spending, in turn, drives additional economic activity in communities across the state, forming the foundation for the economic contribution estimates presented in the next section.

Economic Contribution Analysis

Overview of the Analysis

To understand the broader impact of angler spending in Montana, we used an input-output modeling approach to estimate how resident and nonresident trip-related expenditures support jobs, income, and economic outcomes across the state. The analysis was conducted using the REMI PI+ model, with the study area defined as Montana statewide. A more detailed explanation of the REMI model and its application in this study is provided in the appendix.

This report focuses on the ongoing economic activity generated by fishing trips. For that reason, we did not use the dynamic population and capital expenditure forecasting features of the REMI model, which is more appropriate for applications that simulate long-term policy changes or new investment projects. This more conservative approach provides a static, transparent snapshot of the ongoing annual economic contributions, grounded in the survey trip spending responses.

Inputs and Model Assumptions

The primary inputs to the model are the total annual trip-related expenditures of resident and nonresident anglers, broken out by cold- and warm-water fishing. These spending totals were assigned to corresponding REMI industries based on the category of purchase. For example, restaurant and bar expenditures were assigned to the Food Services and Drinking Places Industry, NAICS 722.

Where applicable, margins were applied to retail purchases to reflect only the value added within Montana, excluding the cost of goods produced elsewhere. We also accounted for local purchasing rates, adjusting for the share of spending that remains in-state versus what leaks out to other regions through imports.

This approach allowed us to estimate not only the primary effects of angler spending but also the resulting secondary impacts. Indirect effects capture the increased demand between businesses, for example, when a hotel purchases supplies or hires services to accommodate more guests. Induced effects reflect the income paid to workers who then spend a fraction of their disposable income in local businesses. Together, these linkages illustrate how angler spending contributed to the size of Montana's economy over the course of the 2024–2025 fishing season.

Total Economic Contributions

Table 8 summarizes the total economic contributions of cold- and warm-water fishing in Montana during the 2024–2025 season. Altogether, angler trip-related spending supported an estimated 15,978 jobs, generated $427 million in personal income, and produced nearly $1.5 billion in total economic output, representing the gross receipts to Montana businesses for goods and services supported by angler trips.

While output reflects the total value of business transactions, a more meaningful measure is value-added, which captures the net contribution to Montana's gross domestic product (GDP). Value-added excludes the cost of intermediate goods and services purchased by businesses at each stage of the supply chain, whereas output can double-count the value of an item if it is embedded in multiple purchases along the supply chain. For example, a retail sale of a product that was not manufactured in Montana, the value-added by a retail sale only includes the markup retained by local retail businesses is captured in the Montana economy. As a result, value-added provides a clearer picture of the new economic value created within the state. In this case, angler trips generated over $919 million in value-added, with cold-water fishing accounting for more than 90 percent of that total.

Table 8: The Economic Impact of Angler Spending — Summary ($Millions), 2024–2025 Season

Category	Cold Water	Warm Water	Total
Total Employment	14,355	1,623	***15,978***
Personal Income	$385.30	$41.90	***$427.20***
Disposable Personal Income	$327.20	$35.30	***$362.50***
Value-Added	$828.40	$90.70	***$919.10***
Output	$1,349.00	$147.50	***$1,496.60***

Economic Contribution of Fishing for Cold-water Species

Cold-water fishing plays a substantial role in Montana's angling contribution, accounting for most total spending. This section presents the estimated economic contributions of cold-water fishing trips during the 2024–2025 season, including employment, income, value-added, and output impacts. Results are based on spending patterns reported in the angler survey and modeled using REMI to capture the full range of direct, indirect, and induced economic activity generated throughout the state.

Table 9 summarizes the total economic impact of cold-water fishing in Montana during the 2024–2025 season, with results presented separately for resident and nonresident anglers. In total, cold-water anglers spent $1.1 billion on trip-related expenses, generating substantial economic activity across the state. This spending:

- Supported an estimated 14,355 jobs statewide,
- Generated $385.3 million in personal income,
- Contributed over $828 million in value-added, representing new economic value added to Montana's GDP,
- And resulted in $1.349 billion in total output, representing the gross receipts to Montana businesses for all goods and services produced in response to cold-water trip spending.

Table 9: The Economic Impact of Cold-water Fishing — Summary ($Millions), 2024–2025 Season

Category	Resident	Nonresident	Total
Total Employment	3,887	10,468	**14,355**
Personal Income	$99.1	$286.2	**$385.3**
Disposable Personal Income	$84.0	$243.2	**$327.2**
Value-Added	$211.2	$617.2	**$828.4**
Output	$347.9	$1,001.2	**$1,349.1**

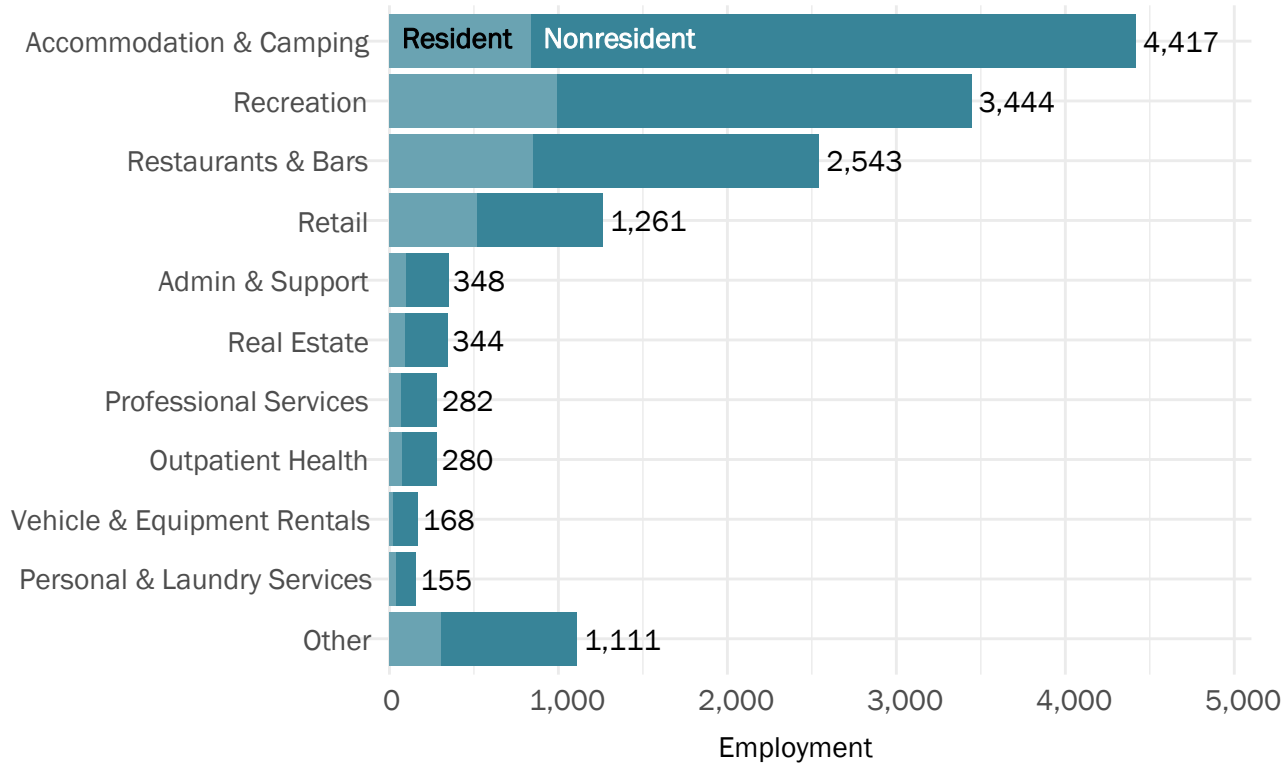
Although nonresident cold-water anglers took fewer trips per license holder than residents, their annual trip expenditures were significantly higher. This difference reflects the nature of their travel: nonresidents often fish in larger groups and incur broader categories of spending — such as lodging, meals, and travel-related grocery purchases — that are directly attributable to their fishing trips. These additional expenditures drive the substantially higher economic impacts shown in Table 9.

Employment

Cold-water fishing in Montana supported an estimated 14,355 jobs during the 2024–2025 season. These jobs reflect not only the direct employment tied to angler spending, such as hotel staff, guides, and retail workers, but also the indirect and induced employment generated through business supply chains and household spending. Employment includes self-employed proprietors as well as wage and salary employment. Wage and salary employment represents an annual average of part-time and full-time jobs over 12 months of the year. Thus, four jobs with a duration of three months are represented as one job in the REMI models employment estimate.

Employment impacts span a wide range of industries, including accommodation, food services, retail, transportation, and recreational services, as shown in Figure 4. Directly affected industries such as accommodation and food services and retail trade experienced the largest job impacts. Real estate and outpatient health services industries appear primarily through induced effects, as income earned from fishing-related activity is spent on housing and personal services within local communities.

Figure 4: Employment Supported by Cold-water Fishing Trips by Industry and Angler Residency, 2024–2025 Season



In addition to supporting thousands of jobs across the state, cold-water fishing also generates significant labor income for Montana workers and business owners. These earnings include both wages and salaries paid to employees, as well as income to self-employed individuals such as outfitters and guides. The scale and distribution of labor income reflect the broad economic reach of angler spending across directly and indirectly affected industries.

Labor and Personal Income Contributions

Another dimension of the economic contribution of cold-water fishing is its impact on the income received by Montana households. These impacts represent the total annual flows of income from all sources that are supported by cold-water fishing trips across the state.

Cold-water fishing generated an estimated $456.5 million in total earnings for Montana workers and business owners during the 2024–2025 season. Most of this income comes in the form of wages and salaries ($341.1 million) and employer-provided supplements ($60.5 million) such as retirement contributions and health insurance. In addition, $54.8 million in proprietors' income flowed to self-employed workers including those who operate small fishing-related businesses, summarized in Table 10.

Table 10: Components of Labor Earnings from Cold-water Fishing ($Millions), 2024–2025 Season

Income Type	*Total*
Wages and Salaries	$341.1
Supplements to Wages and Salaries	+$60.5
Compensation	= $401.6
Proprietors' Income	+$54.8
Earnings by Place of Work	**= $456.5**

Table 11 provides a further breakdown of these income flows and how they translate into Montana households' personal income. After accounting for social insurance contributions and reduced government transfer payments to individuals through social insurance programs, these earnings result in $385.3 million in personal income for Montana residents.

Table 11: Breakdown of Personal and Disposable Income from Cold-water Fishing ($Millions), 2024–2025 Season

Category	*Total*
Earnings by Place of Work	$456.5
Contributions for Government Social Insurance	-$58.7
Adjustment for Residence	-$0.7
Net Earnings by Place of Residence	= $397.1
Personal Current Transfer Receipts	-$11.8
Personal Income	= $385.3
Personal Current Taxes	-$58.0
Disposable Personal Income	**= $327.2**

Once taxes are deducted, this income yields $327.2 million in disposable personal income, expanding the spending capacity of Montana households. Much of that income is spent locally, supporting jobs and revenue across a wide range of industries, even in sectors with no direct connection to recreational fishing.

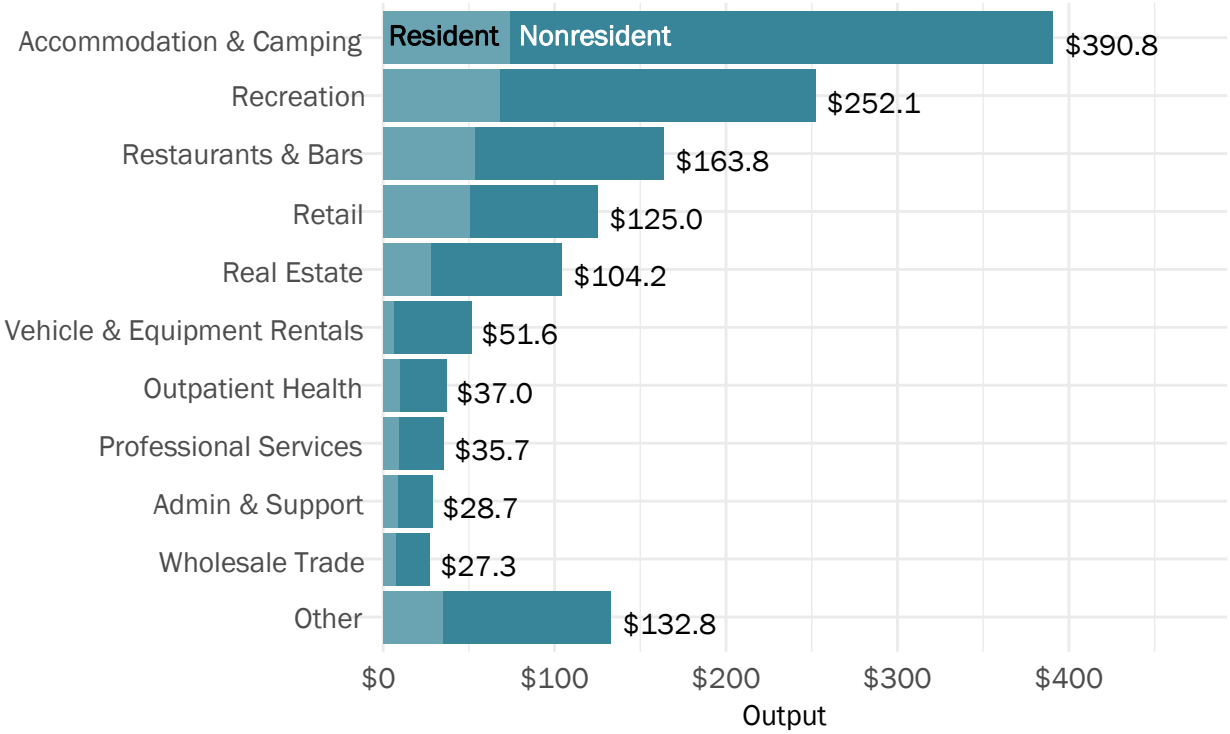
A broader economic chain reaction is represented in these figures. On the supply side, fishing-driven demand increases activity in upstream industries — for example, a local restaurant may purchase more goods from food suppliers to serve visiting anglers. At the same time, the income paid to workers in both the local restaurant and the food supplier circulates downstream, as households spend their income on routine expenses like rent, utilities, and groceries. These inter-industry linkages and household expenditures are reflected in the total output supported by angler spending, and in the value-added estimates that quantify the ongoing economic contribution of cold-water fishing retained in Montana's economy.

Output and Value-Added Contributions

In addition to employment and labor income, cold-water fishing contributes significantly to overall economic output and value-added within Montana. Output refers to the total gross receipts to Montana businesses — the full value of all goods and services produced in response to angler spending. However, value-added is the more meaningful metric for gauging the contribution to Montana's economy, as it measures the supported economic value created within the state. Value-added excludes the cost of intermediate goods and services (e.g., the fraction of goods produced elsewhere) and aligns conceptually with gross domestic product (GDP).

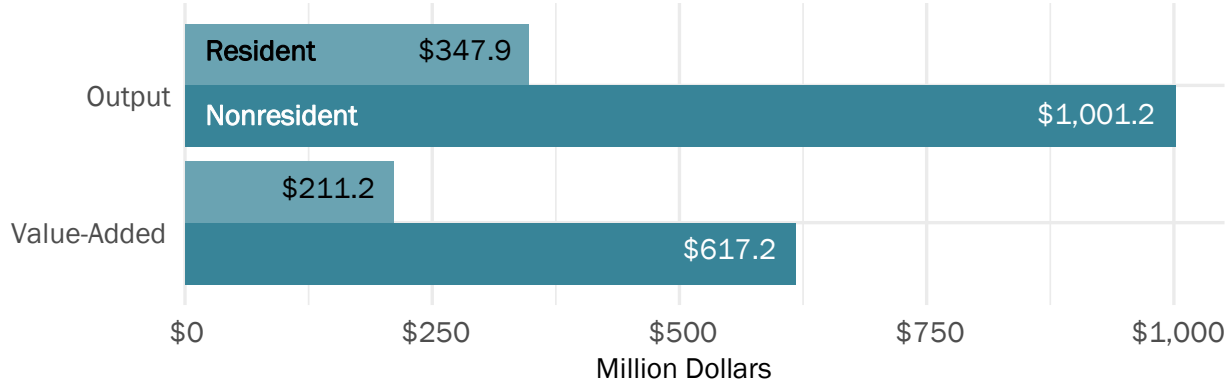
The industries most affected in terms of output include accommodation and food services, real estate, retail trade, and vehicle and equipment rentals, sectors with strong direct ties to angler spending. Other highly impacted industries reflect a mix of indirect and induced effects. For example, dining at a restaurant is a direct result of an angler's trip, but meeting this demand requires inputs from suppliers such as wholesale food distributors. In contrast, sectors like real estate reflect induced effects, where income earned by workers — such as restaurant employees or fishing guides — is spent on essentials like housing and health care.

Figure 5 Output Supported by Cold-Water Fishing Trips by Industry and Angler Residency ($Millions), 2024–2025 Season



Output represents the total gross receipts to Montana businesses — the full value of all goods and services produced in response to angler activity. However, it includes intermediate goods and services, many of which originate outside the state. For example, when an angler purchases a raft manufactured in another state, the full cost is counted in output, but only the local markup retained by a Montana boat dealer appears in value-added. Value-added captures only the net new economic value supported within Montana, making it a more accurate measure of the fishing industry's contribution to the Montana economy.

Figure 6: Gross Output vs. Value-Added Contributions of Cold-water Angler Spending ($Millions), 2024–2025 Season



While nonresident anglers account for most cold-water-related spending, a substantial portion of that spending leaks out of the Montana economy. In contrast, resident anglers, though responsible for less overall spending, tend to make purchases that more directly support local businesses and industries. As a result, a larger share of resident cold-water-related spending is estimated to contribute to Montana's gross domestic product. This contrast is clearly illustrated in Figure 6, which compares output and value-added contributions by residency.

Economic Contribution of Fishing for Warm-water Species

While warm-water fishing represents a smaller scale of overall angler spending in Montana, it remains an important contributor to local economies — particularly for residents. This section summarizes the economic contributions of warm-water fishing during the 2024–2025 season, including its impacts on employment, income, value-added, and output. Results are based on spending patterns reported in the angler survey and modeled using REMI to capture the full range of direct, indirect, and induced economic activity generated throughout the state.

Table 12 summarizes the total economic impact of warm-water fishing in Montana during the 2024–2025 season, with results presented separately for resident and nonresident anglers. In total, warm-water anglers spent $170 million on trip-related expenses, generating meaningful economic activity in less populated areas across the state. This spending:

- Supported an estimated 1,623 jobs statewide,
- Generated $41.9 million in personal income,
- Contributed $90.7 million in value-added, representing new economic value added to Montana's GDP, and
- Resulted in $147.6 million in total output, representing the gross receipts to Montana businesses for all goods and services produced in response to warm-water trip spending.

Table 12: The Economic Impact of Warm-Water Fishing — Summary ($Millions), 2024–2025 Season

Category	Resident	Nonresident	Total
Total Employment	1,036	587	**1,623**
Personal Income	$27.3	$14.6	**$41.9**
Disposable Personal Income	$23.2	$12.2	**$35.4**
Value-Added	$57.2	$33.5	**$90.7**
Output	$93.7	$53.9	**$147.6**

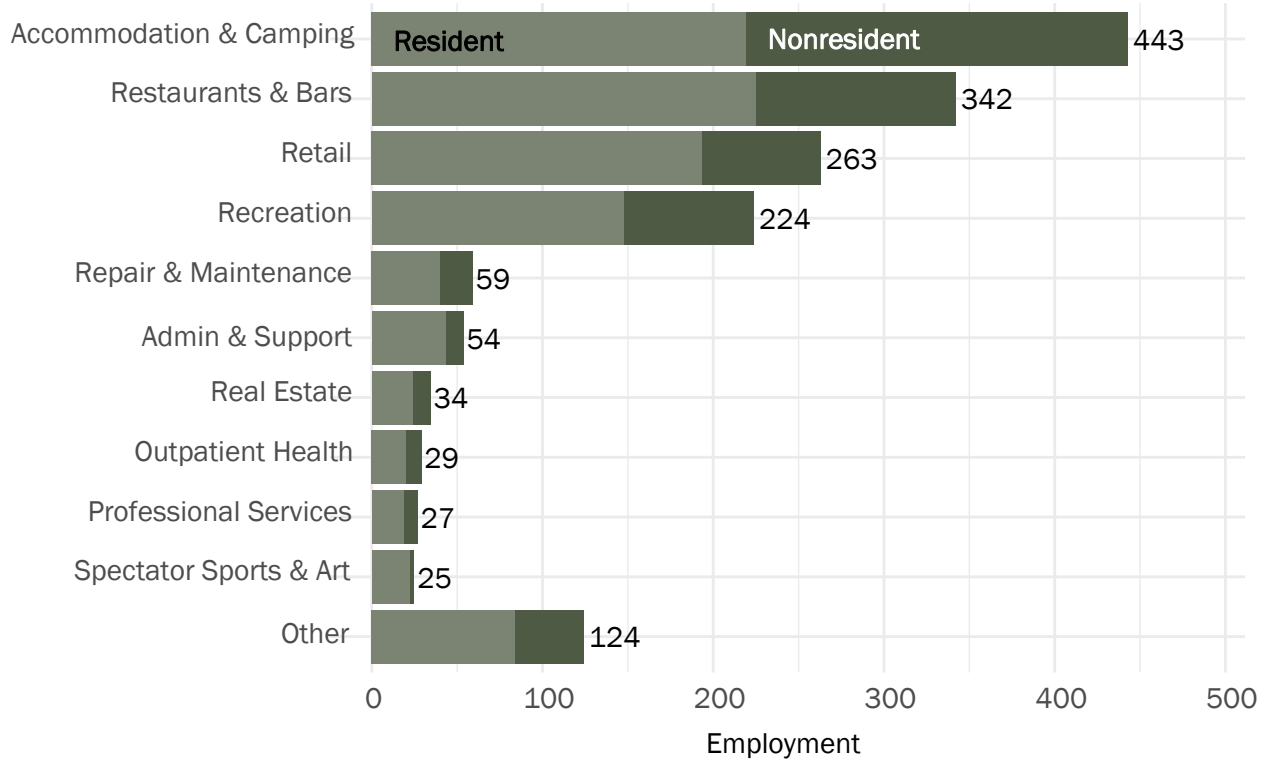
While resident anglers spent fewer total days targeting warm-water species compared to cold water overall, their annual warm-water trip expenditures were significantly higher than those of nonresidents. Nonresidents, by contrast, spent much less time and money targeting warm-water species. This difference reflects the nature of resident travel to warm-water fisheries, involving frequent, short, local trips that accumulate significant in-state spending overtime, compared to the less frequent but higher-cost trips taken by nonresidents. Though smaller in overall scale relative to cold-water fishing, warm-water fishing still represents an important source of in-state tourism and local spending — particularly for the anglers and businesses surrounding warm-water fisheries.

Employment

Warm-water fishing in Montana supported an estimated 1,623 jobs during the 2024–2025 season. These jobs reflect not only direct employment tied to angler spending — such as staff at convenience stores, campgrounds, and local restaurants — but also the indirect and induced employment supported through business supply chains and household spending.

Employment impacts span a range of industries, including accommodation, food services, retail, recreation services, and repair and maintenance. Direct spending in hospitality industries — such as lodging, camping, food and beverage establishments — accounts for the largest job impacts, the top two industries shown in Figure 7. Retail and repair-related sectors also show significant employment effects, reflecting the role of boat dealers, mechanics, and equipment suppliers that support motorized fishing on Montana's lakes. Other sectors — such as real estate and outpatient health services — appear primarily through induced effects, as income earned by workers is spent on support industries, housing, and health care.

Figure 7: Employment Supported by Warm-Water Fishing Trips by Industry and Angler Residency, 2024–2025 Season



Labor and Personal Income Contributions

The economic importance of warm-water fishing in Montana extends beyond spending — it also supports income for workers and small business owners across the state. These earnings represent ongoing annual flows of labor income tied to warm-water fishing activity.

In total, warm-water fishing contributed an estimated $49.6 million in labor income during the 2024–2025 season. The majority of this came through wages and salaries ($36.3 million) and employer-provided benefits ($6.5 million) such as health insurance and retirement contributions. Another $6.8 million in proprietors' income accrued to self-employed individuals and small operations that serve warm-water anglers — from bait shops and campground hosts to independent guides. These components are outlined in Table 13.

Table 13: Components of Labor Earnings from Warm-Water Fishing ($Millions), 2024–2025 Season

Income Type	*Total*
Wages and Salaries	$36.30
Supplements to Wages and Salaries	$6.54
Compensation	$42.84
Proprietors' Income	$6.75
Earnings by Place of Work	**=$49.59**

After adjusting for social insurance contributions and place-of-residence shifts, these labor earnings translate to $41.9 million in personal income for Montana residents, as shown in Table 14. This total includes both earned income and net transfer receipts. Notably, transfer receipts are slightly lower in the model due to the type of employment generated by tourism-related fishing, reflecting a reduced need for government assistance as more households receive income from work. After accounting for taxes, warm-water fishing results in $35.3 million in disposable personal income available to Montana households.

Table 14: Breakdown of Personal and Disposable Income from Warm-water Fishing ($Millions), 2024–2025 Season

Category	*Income*
Total Earnings by Place of Work	$49.59
Contributions for Government Social Insurance	-$6.20
Adjustment for Residence	-$0.09
Net Earnings by Place of Residence	=$43.30
Personal Current Transfer Receipts	-$1.39
Personal Income	=$41.92
Personal Current Taxes	-$6.58
= Disposable Personal Income	**=$35.34**

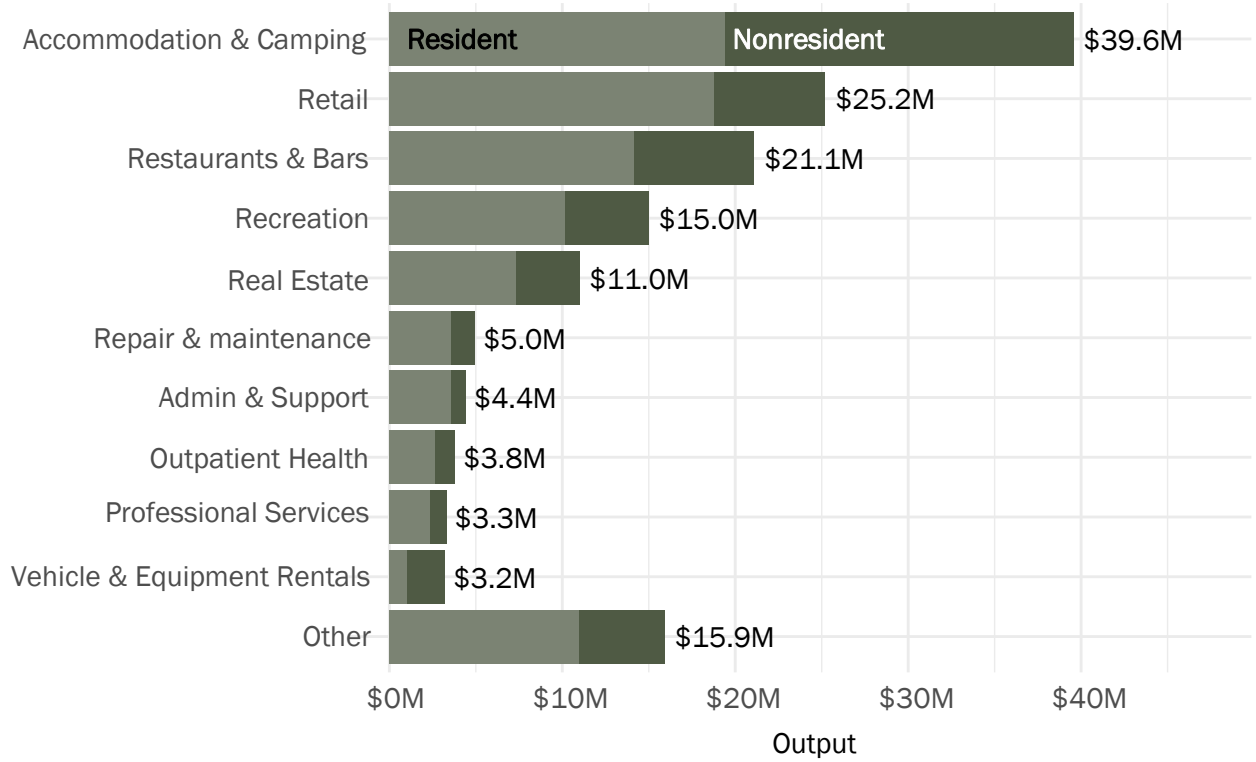
This disposable income helps fuel continued economic activity in communities near Montana's warm-water fisheries. Much of it is spent locally, supporting a wide spectrum of businesses — from grocery stores and auto repair shops to clinics and landlords. These income flows generate ripple effects throughout the economy. On the supply side, increased demand from anglers boosts upstream business activities such as wholesale distributors or equipment suppliers — while on the household side, worker earnings circulate into downstream sectors as families pay for everyday needs. Together, these dynamics are captured in the broader measures of output and value-added, which quantify warm-water fishing's role in sustaining Montana's economy.

Output and Value-added Contributions

Warm-water fishing in Montana generated an estimated $257.4 million in total industry output during the 2024–2025 season. This figure represents the total value of all goods and services produced in response to angler spending, including both the direct purchases made by anglers and the cascading rounds of business-to-business and household spending that follow.

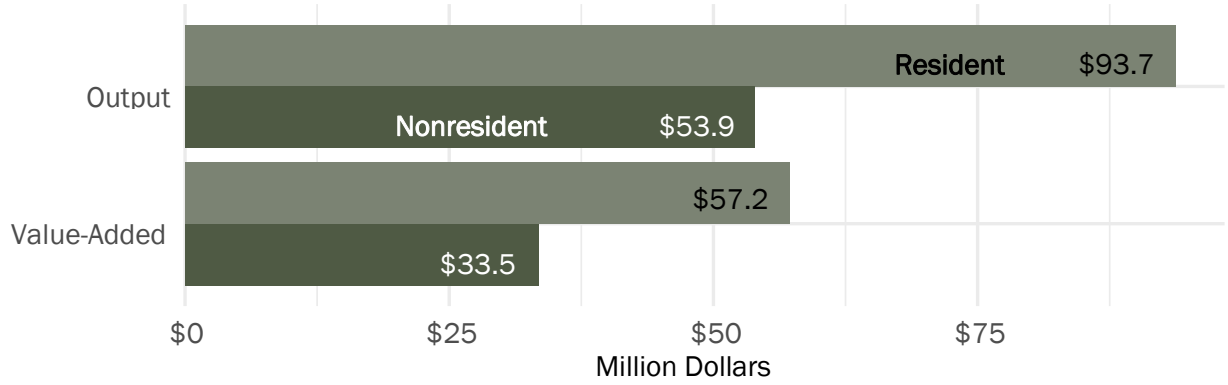
As shown in Figure 8, output contributions are concentrated in a handful of core industries. Hospitality-related sectors saw the largest direct impacts, reflecting the central role these services play in supporting warm-water fishing activity. Additional contributions appear in sectors like vehicle and equipment rentals, repair and maintenance, and real estate, which either supply goods and services directly to anglers or benefit indirectly from increased local economic activity.

Figure 8: Output Supported by Warm-Water Fishing Trips by Industry and Angler Residency ($Millions), 2024–2025 Season



However, output alone may overstate the local economic value by including the cost of intermediate goods and imported inputs. A more meaningful measure is value-added contributions, which capture the net contribution of warm-water fishing to Montana's gross domestic product. Value-added reflects wages, business income, and returns to capital retained within the state economy, excluding the value of goods and services purchased from outside Montana.

Figure 9: Gross Output vs. Value-Added Contributions of Warm-water Angler Spending ($Millions), 2024–2025 Season



As shown in Figure 9, warm-water fishing produced an estimated $158.1 million in value-added, offering a clearer picture of the activity's contribution to Montana's gross domestic product. Value-added represents the share of total output that remains in the state as wages, proprietors' income, and business profits — excluding the value of intermediate inputs purchased from outside Montana.

Just over 60 cents of every dollar of output tied to warm-water fishing reflects locally retained economic value. While smaller in total magnitude than cold-water fishing, the impact of warm-water angling is driven primarily by Montana residents and is, therefore, more localized in nature. This makes warm-water fishing an especially important source of local enjoyment and economic activity in communities near warm-water fisheries, where even modest levels of spending can have a meaningful effect on local businesses and employment.

Conclusion

Fishing is deeply woven into the cultural and economic fabric of Montana. This study demonstrates that cold-water and warm-water fishing are not only popular recreational activities but also powerful economic drivers that support jobs, income, and business activity across the state.

The economic contributions of fishing in Montana reflect the size and diversity of its angler population. In total, more than 450,000 licensed anglers generated nearly $1.5 billion in business output and supported over 15,900 jobs during the 2024–2025 season. These impacts arise from a broad spectrum of spending — including lodging, fuel, food, guides, and gear — and ripple through communities across Montana, from high-traffic tourist destinations to small rural towns.

Cold-water fishing accounts for most economic activity, particularly among nonresidents whose travel-based expenditures bring substantial new dollars into the state economy. These trips support a wide range of industries and generate hundreds of millions in value-added, which includes labor income, profits and property income and taxes. Value-added is comparable to the amount of Montana's gross domestic product attributable to angler activity.

Warm-water fishing, while smaller in overall scale, plays a more locally focused role. It is largely driven by Montana residents and supports steady economic activity in regions near lakes and reservoirs. These trips are typically shorter and more frequent, making warm-water angling an especially important contributor to local businesses and employment in less populated or less tourism driven areas of the state.

In both cases, the impact of angler spending extends well beyond the state's lakes and rivers. Whether through the wages paid to workers, the profits earned by local businesses, or the taxes collected by governments, the dollars spent by anglers flow throughout Montana's economy. These findings represent trip related expenditures of adult license holders and therefore a conservative estimate of the contribution of Montana's numerous fisheries, not just for the enjoyment of anglers, but for the economic wellbeing of communities across Montana.

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Appendix

Survey Design and Methodology

To estimate the economic contribution of recreational fishing in Montana, a statewide survey was conducted targeting adults who purchased a Montana fishing license during the 2024–2025 license year. The survey was developed by the Bureau of Business and Economic Research (BBER) at the University of Montana in collaboration with Montana Fish, Wildlife & Parks (FWP). FWP led the data collection effort for this survey.

Sampling Frame

The study population consisted of individuals aged 18 and older who purchased a Montana fishing license between March 1, 2024, and February 28, 2025. The sampling frame was stratified by residency status (resident vs. nonresident) and license purchase date, allowing for balanced representation across different angler groups and seasonal patterns of fishing activity.

Survey Modes

Surveys were administered using a mixed-mode approach, in which selected license holders were mailed a self-administered questionnaire along with a link to complete the survey online. Respondents could choose their preferred mode. This approach increased accessibility and helped improve response rates across demographic and geographic groups. FWP mailed all respondent contacts for this survey.

Response Rates and Weighting

The survey was fielded from November 2024 through May 2025. A total of 1,181 completed responses were received, yielding a 30.6% response rate, calculated using AAPOR's Response Rate 1 (RR1) definition (AAPOR 2023). To adjust for potential nonresponse bias and ensure that results reflected the statewide angling population, survey responses were weighted using data from FWP's license sales system and external demographic benchmarks from the U.S. Census Bureau, Internal Revenue Service (IRS), and Dynata, Inc. Final weights account for differences in sampling probability and response propensity by residency status and angler characteristics.

Cold-Water vs. Warm-Water Classification Criteria

Fishing activity was classified as cold-water or warm-water based on survey questions that asked anglers to report the number of days they spent targeting each species group. Cold-water species included trout and salmon, while warm-water species included bass, walleye, and northern pike. These self-reported species-specific effort days were used to allocate both effort and expenditures.

For anglers whose total fishing days did not match the sum of cold- and warm-water days, proportions from the most recent trip were used to impute species shares. This ensured that all effort and expenditures could be consistently classified — even in cases of unbalanced reporting or overlapping trips.

This approach allows us to:

- Allocate mixed or unbalanced effort between cold- and warm-water fishing,
- Scale last-trip expenditures to full-season totals, and
- Properly weight and sum those estimates to the population level.

By integrating reported effort, trip structure, and species targeting, this method improves the fidelity of the expenditure estimates derived from the survey and ensures internal consistency throughout the analysis.

Overview of REMI Methodology

This analysis uses the REMI PI+ model in a static input-output configuration to estimate the economic contribution of recreational angler spending in Montana during the 2024–2025 license year. Rather than modeling a structural change or future projection, the model was used to quantify the ongoing economic activity supported by fishing-related expenditures.

To reflect ongoing annual activity rather than a structural or policy-induced change, REMI's dynamic feedback mechanisms — such as labor market responses, migration, and capital adjustment — were turned off for this analysis. The model was used as a traditional input-output tool, providing a snapshot of the economic contribution of angler spending under fixed-price and fixed-resource assumptions.

Key assumptions include:

- All angler spending is treated as final demand, with nonresident expenditures considered new to the Montana economy and resident spending representing sustained recreational activity that supports local businesses.
- Multipliers reflect industry-specific supply chains and labor intensity, but do not adjust over time or incorporate behavioral change.
- The analysis measures gross annual economic activity supported by fishing expenditures during the 2024–2025 license year, rather than long-run growth or displacement effects.

REMI Key Terminology

The following economic metrics are reported:

- Employment: The estimated number of jobs supported, including both full- and part-time positions. Employment includes self-employed proprietors as well as wage and salary employment. Wage and salary employment represents an annual average of part-time and full-time jobs over 12 monthly observations over a year.
- Personal Income: Labor income received by workers, including wages, salaries, proprietors' income, with adjustments for contributions to and receipts from government social programs.
- Disposable Personal Income: Personal income net of taxes — a measure of household purchasing power.
- Value-Added: The contribution to Montana's Gross State Product (GSP), total gross receipts net of intermediate inputs.
- Output: The total gross receipts to Montana businesses — including the full value of all goods and services sold.