

WHERE IS DEMAND FOR SPORTFISHING THE GREATEST?

MISSOURI'S REPORT



This Project was funded by a Multistate Conservation Grant (F25AP00181-00) from U.S. Fish and Wildlife Service and jointly administered with the Association of Fish and Wildlife Agencies.



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In a continuous cycle, some people take up fishing while others quit. Simultaneously, people move from place to place, transforming communities in the process. As these changes occur, demand for sportfishing access also shifts across communities. Insight from this research will provide state R3 programs and their partners a valuable tool to find potential new anglers, reactivate lapsed anglers, identify convenient access points, and initiate marketing campaigns that focus on those areas and type of anglers.

Identifying areas where **unmet fishing demand is currently greatest** and **access points are most needed**, while also **characterizing communities** where anglers live to provide geographically specific marketing strategies uses three key approaches:

- **Resident angler license purchase data:** Fishing license sales of any type from 2015 through 2024 were provided and explored in two ways. The first, through a 10-year and 5-year customer look-back period. The second, through an R3-based purchase/demographic profile, with additional details provided on the next slide. All customers who met the study's age requirement, holding any type of licenses, from one-day to annual, were considered.
- **Mapping and Tapestry™ lifestyle data:** To gain a spatial perspective about purchase profiles, the address data from a representative sample of the license records were mapped using ArcGIS tools available through ESRI and each address was assigned a Tapestry™ lifestyle segment. ESRI's Tapestry Segmentation identifies 67 distinctive markets in the US based on socioeconomic and demographic characteristics to provide an accurate, comprehensive profile of communities.
- **Waterbody locations and access:** To explore what angler access and fishing opportunities exist within the state, another layer of information was added to the maps: mapped waterbodies from the U.S. Geological Survey. By using this data in combination with the state's fish & wildlife agency's fishing information, it was possible to investigate how fishing opportunity might align with angler population density.



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APPROACH: ANGLER LICENSE DATA & R3 CATEOGRY

The ten-year purchase history data enabled an exploration of the angling population within the state beyond a simple license holder distribution. Each license holder was categorized in a way that aligned with R3 efforts and placed into one of three categories based on their license purchase history during the last decade. Results specific to R3 categories are reflective of a random sample of 120,000 anglers, split evenly amongst the three categories.

Angler R3 Categories	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
New (Recruit)	No purchases								At least 1 purchase	
Steady (Retain)	At least 2 purchases					At least 1 purchase			At least 1 purchase	
Lapsed (Reactivate)	No purchases			No more than 2 purchases					No purchases	
	At least 5 purchases								No purchases	

Notes:

- Categories were designed to be mutually exclusive and conceptualized to develop actionable recommendations for state fish and wildlife agencies. As such, some anglers did not fall within a category, including many one-time license purchasers or anglers not requiring the purchase of a license due age restrictions (e.g., youth or seniors). Age restrictions were applied to ensure accurate classification: anglers in “New” category must be 21 or older to exclude first-time youth license buyers, while “Steady” and “Lapsed” anglers must be at least 25 years or older.
- The license data used for this study was collected from states, cleaned and processed so that the remaining data sample consisted of resident anglers who had purchased at least one fishing license during the 10-year timeframe. Missing data fields for personal identifying information resulted in a license holder being removed from the final sample.

Results are organized into three sections in this report:

- **Anglers by city:** License holder population distribution across the state
- **Anglers by R3 category:** Categorized license holder population distribution and characteristics by age, gender, urbanization, and Tapestry segment
- **Columbia Case Study:** License holder population distribution in the focal area and R3 category by Tapestry segment

A companion workbook with detailed tables is also provided separately.

RESULTS: ANGLERS BY CITY

Missouri has experienced geographical shifts in its angler population along the urban-rural continuum over the past decade, with an increasing share of licensed anglers residing in metropolitan core areas. Overall, slightly more than 1/2th of anglers live in metropolitan core and commuting areas. Therefore, increasing access and awareness of fishing opportunities in urban areas could have an outsized effect on angler participation.

Urban-Rural Classification of Resident License Holder Address			
Urban-Rural*	Percent of Angling Population (10-year average)	Angler Percent Change (2015 – 2024)	Angler Percent Change (2019 – 2024)
Metropolitan core	37.9%	0.6%	2.7%
Metropolitan commuting	20.1%	2.1%	-0.2%
Micropolitan/Small cities/Suburbs	15.1%	-0.1%	-0.3%
Small Town	9.2%	-3.2%	-4.9%
Rural	17.6%	-1.9%	-2.7%

**To designate a location as metropolitan, micropolitan, and small town/rural, the latest processed census data from 2020 was leveraged and aggregated from ten categories to five for reporting purposes, Rural-Urban Commuting Area Codes - Documentation | Economic Research Service.*

RESULTS: ANGLERS BY CITY

Reflected in the table are the top ten cities with the largest proportion of licensed anglers in 2024. The highest percentage of anglers in the state are found in Saint Louis, Kansas City, and Springfield (column A). Naturally these counties also hold more of the state's population generally (column D).

Across the decade from 2015 to 2024, the angler population in these top ten cities was contracting even when overall population has shown growth in most (Column B & E). From 2019 through 2024, angler numbers saw growth (column C).

City Name*	A Percent of all anglers in 2024	B Angler Percent Change (2015 - 2024)	C Angler Percent Change (2019 - 2024)	D Percent of Total Population (2024)	E Total Population Percent Change (2015-2024)**
Saint Louis	5.1%	-14.4%	2.0%	14.2%	-4.2%
Kansas City	4.9%	-3.9%	9.0%	9.7%	8.8%
Springfield	3.4%	-4.9%	4.0%	3.8%	4.9%
Columbia	1.8%	-4.5%	5.9%	2.6%	8.7%
Saint Charles	1.7%	-11.1%	2.8%	2.3%	3.4%
Independence	1.7%	-10.2%	2.1%	2.0%	3.2%
O Fallon	1.4%	-6.1%	3.7%	1.6%	8.4%
Lees Summit	1.4%	-5.8%	5.0%	1.8%	12.8%
Saint Joseph	1.3%	-10.7%	5.8%	1.3%	-6.1%
Jefferson City	1.2%	-5.8%	3.3%	1.1%	0.4%

Note: To a certain extent the percent change in license holders reflects a variability in license records due to incomplete data for Personally Identifiable Information (PII) in earlier years. Additionally, percent changes may be exaggerated in cities with small angler populations, where even minor changes can produce large percentage shifts. Interpret results alongside each cities' overall share of anglers.

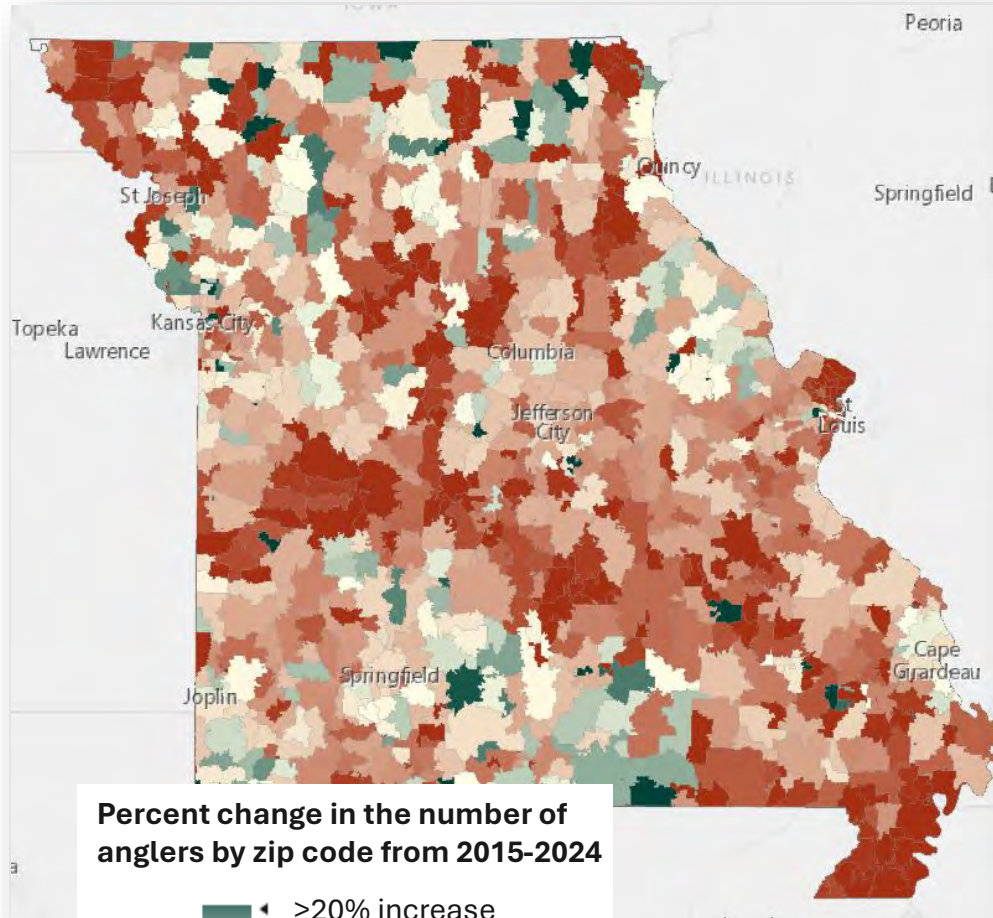
*Represents the top ten cities across the angling population in the state.

**Population data provided by the Census American Community Survey (ACS).

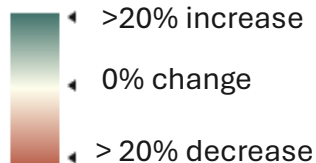
RESULTS: ANGLER CHANGE BY CITY

These two maps broaden the geographical scope. Over the last ten years, the areas with greater stability of the angler population are cities and larger populations (Kansas City, Columbia, Joplin). In the last 5 years, however, Missouri experienced growth of angler populations in those same areas as well as slight stability in the angler population in the more rural regions of the state.

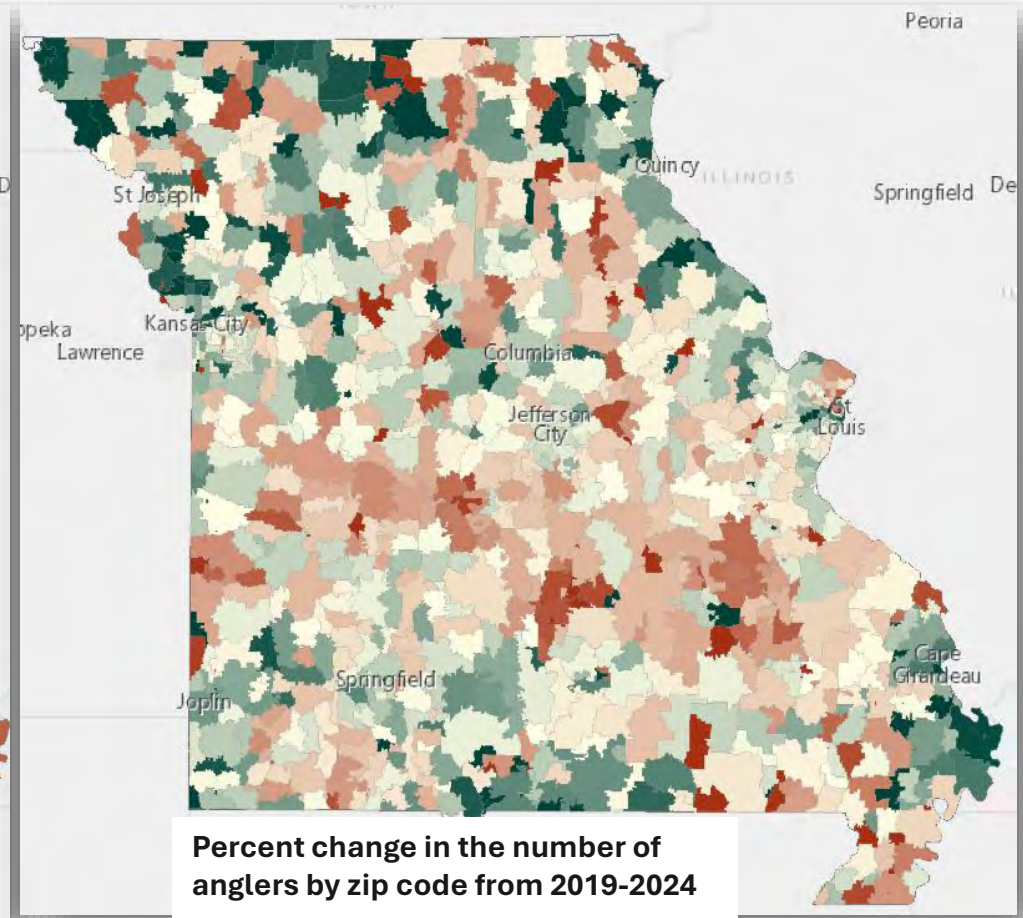
**Ten-year timeframe
(2015 through 2024)**



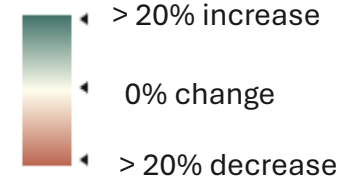
Percent change in the number of anglers by zip code from 2015-2024



**Five-year timeframe
(2019 through 2024)**



Percent change in the number of anglers by zip code from 2019-2024



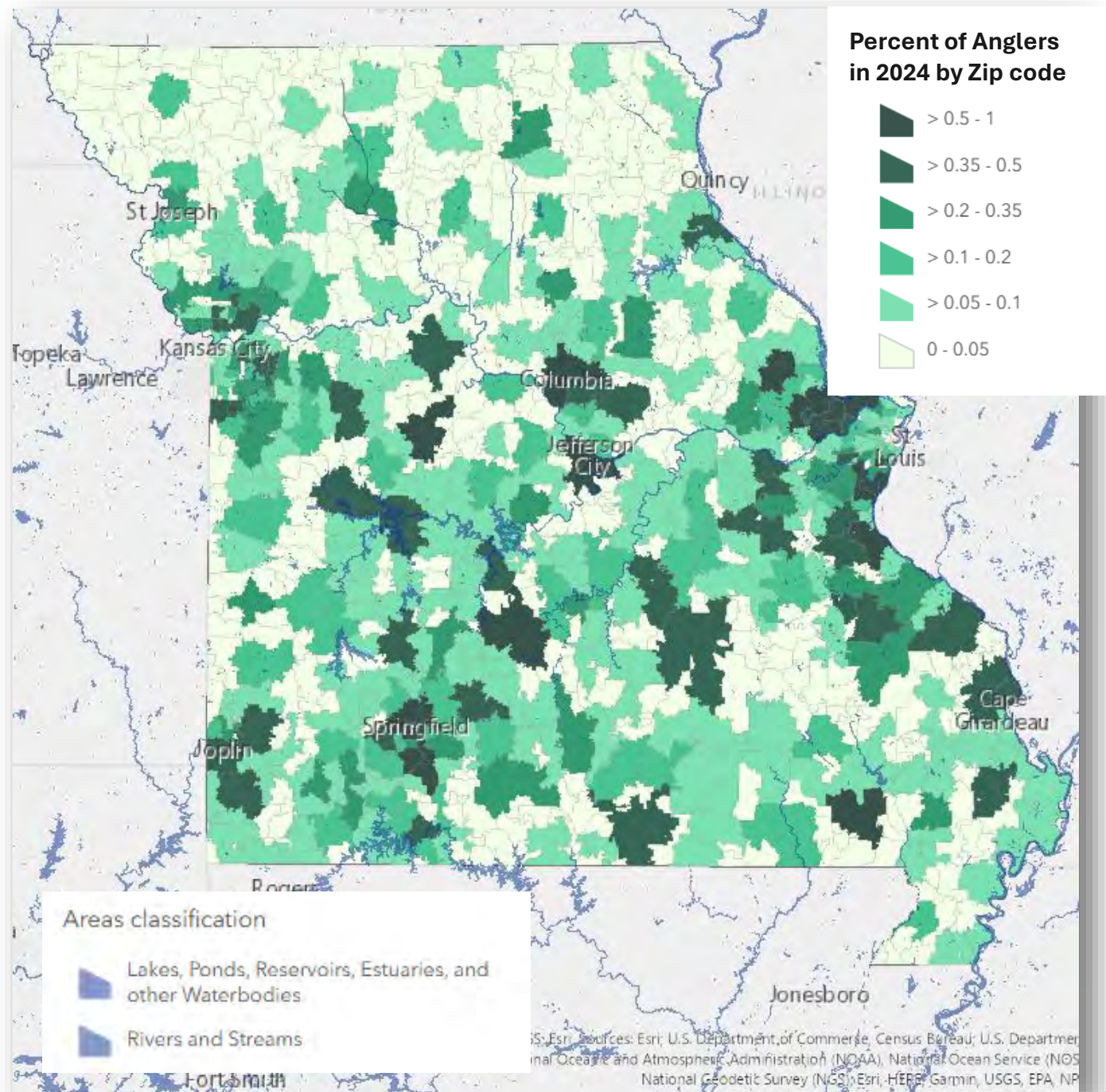
Note: To a certain extent the percent change in license holders reflects a variability in license records due to incomplete data for Personally Identifiable Information (PII) in earlier years.

RESULTS: ANGLERS & FISHING OPPORTUNITY

Decision drivers to try or return to fishing may not be the presence of opportunity. They may instead be access, awareness, crowding, or the perceived ease of trying something new.

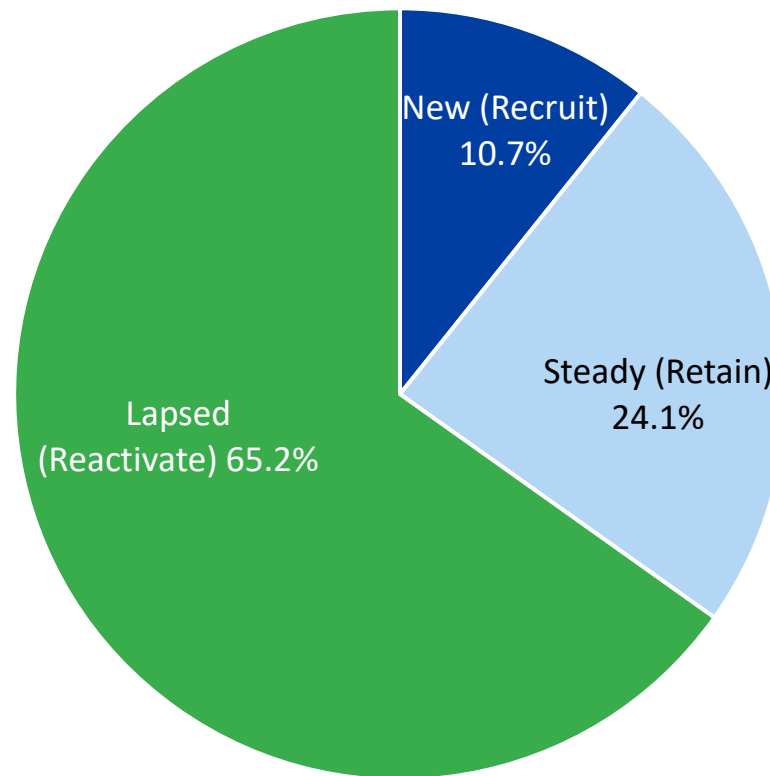
Many anglers reside in urban areas where fishing access is not always abundant.

Improving access to and awareness of local fishing opportunities, particularly in urban areas, can help to support the existing angling community, and the initial learning phases someone needs to try fishing.



RESULTS: ANGLER R3 CATEGORY

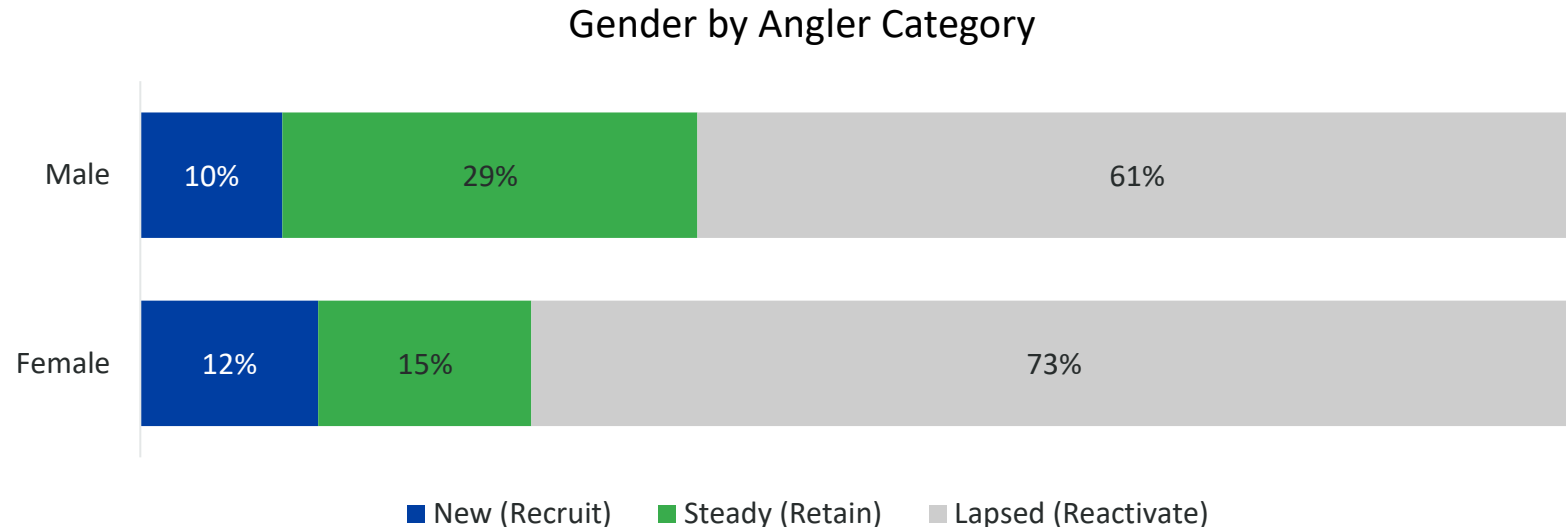
A total of 1.3 million anglers were classified into one of the R3 three categories. Almost 2/3 of Missouri's angler population is lapsed, meaning they didn't purchase a license in 2023 or 2024 despite having purchased in previous years. This represents a significant opportunity to re-engage with the angling population in the state. In the next pages, we'll explore the gender, age, urban-rural, and geographic specifics of these angler categories.



RESULTS: GENDER BY ANGLER R3 CATEGORY

Like many states, Missouri's angler population over the last decade is predominantly male, with men comprising roughly two times as many anglers as women. Proportionally male anglers are more likely to be steady, while female anglers are more likely to be lapsed. In the recent years new anglers are fairly evenly divided between male and female.

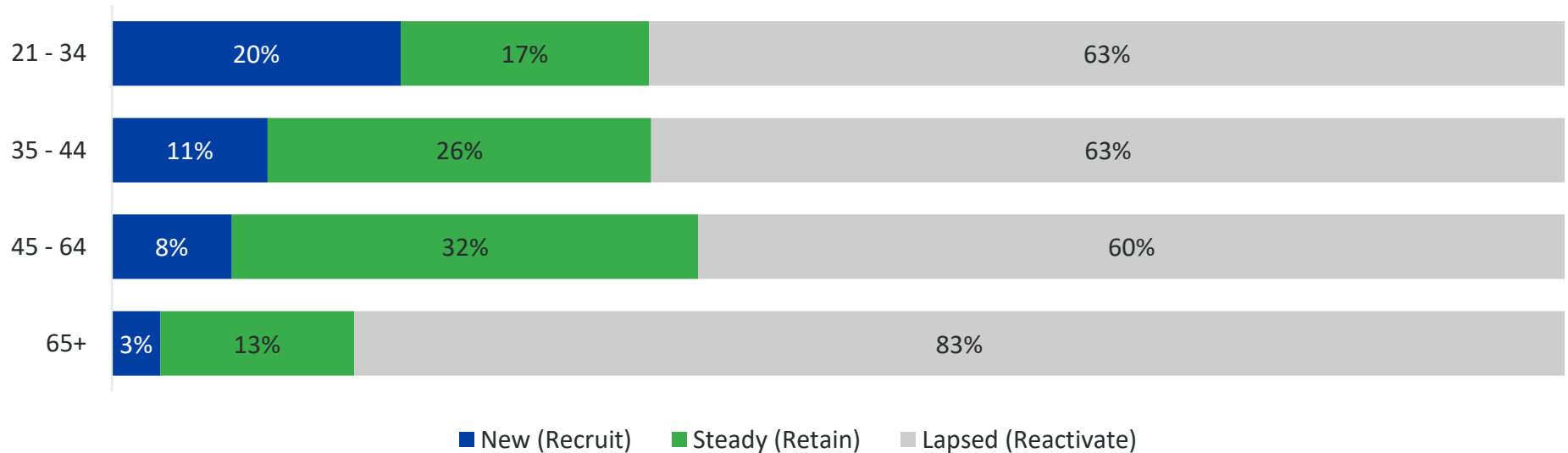
This suggests an R3 opportunity for Missouri to develop targeted strategies that reduce barriers and support early experiences, such as women-focused fishing programs and mentorship opportunities, to help improve retention outcomes for female anglers.



RESULTS: AGE BY ANGLER R3 CATEGORY

Most steady anglers are in the 45-64 age range; likely, this is because adults in this age range are no longer caretaking young children and they have more time available for recreation. The lapsed angler category has the highest percentage of 65+ year olds, but this may reflect that you are no longer required to buy a license in Missouri when you are 65 or older.

Age by Angler Category

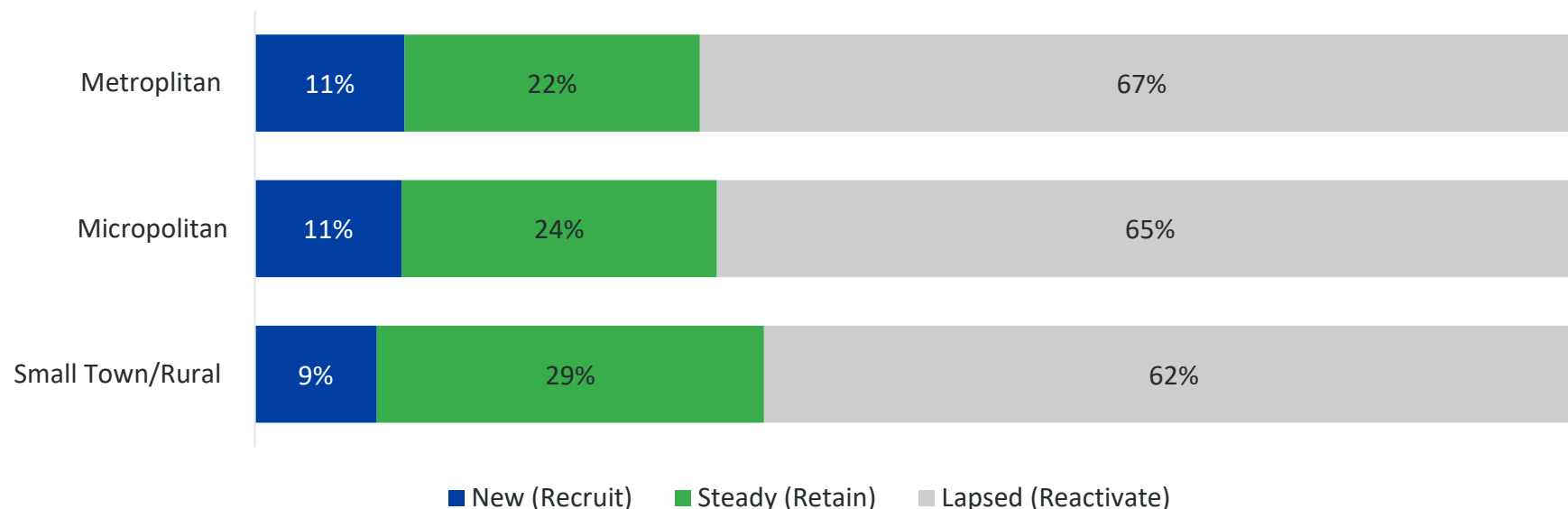


Note: The R3 category system applies age restrictions to ensure multi-year behavior is captured. For example, anglers categorized as “New” in 2025 must be at least 21, which helps exclude individuals who were previously fishing but only recently required a license due to the minimum age requirement of 16.

RESULTS: R3 CATEGORY BY URBANIZATION

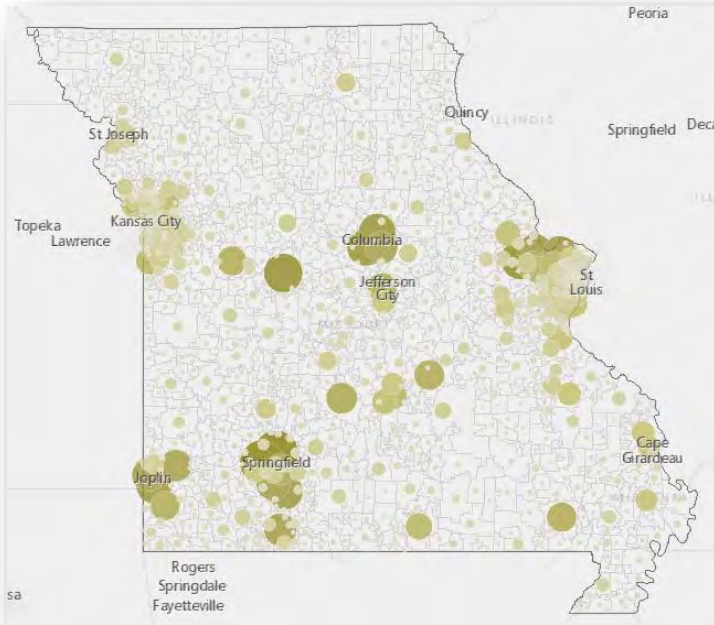
Anglers living in small town and rural areas are slightly more likely to be steady participants (29%), while those residing in metropolitan areas are slightly more likely to be either new (11%) or lapsed (67%) anglers. This pattern suggests that urban residents are entering fishing but are less likely to continue participation. From an R3 perspective, urban areas could represent a greater opportunity to improve retention by implementing targeted efforts that support early experiences and reduce barriers for urban anglers. Reactivation campaigns in cities/urban areas could recover a substantial share of lapsed anglers.

Urban-Rural Classification of Resident License Holder Address by R3 Category

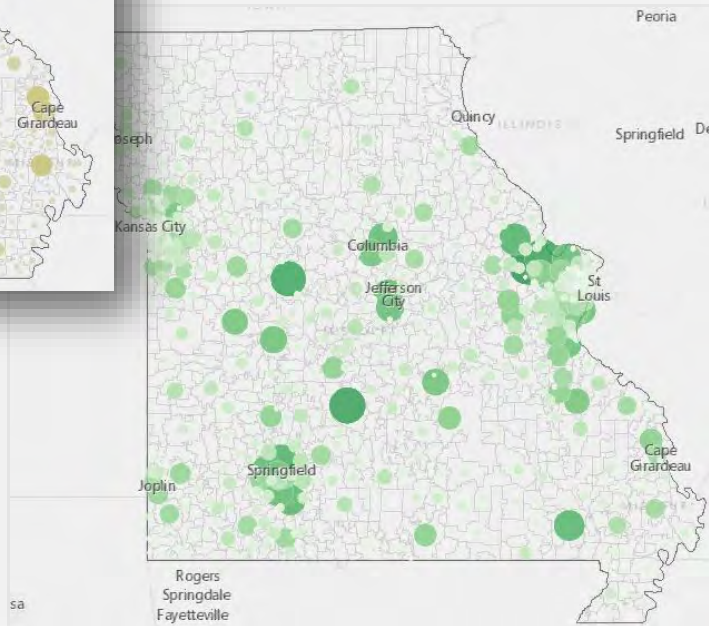


RESULTS: ANGLER CATEGORY BY ZIP CODE

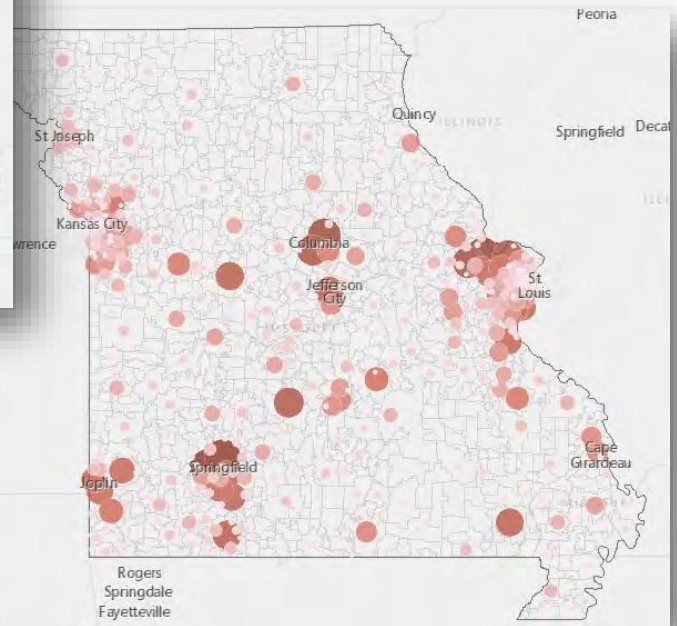
Ultimately, this project is meant to help guide state efforts to find potential new anglers, identify areas where demand for access might be growing, initiate marketing campaigns that focus on those areas, and inform the location of new sportfishing access. Mapping license holders within each R3 category reinforces the finding that new or lapsed anglers are proportionally less likely to reside inside Missouri's more rural areas.



**New anglers
(Recruit)**



**Steady anglers
(Retain)**



**Lapsed anglers
(Reactivate)**

Dots are sized according to total number of anglers in the indicated angler category in that zip code.

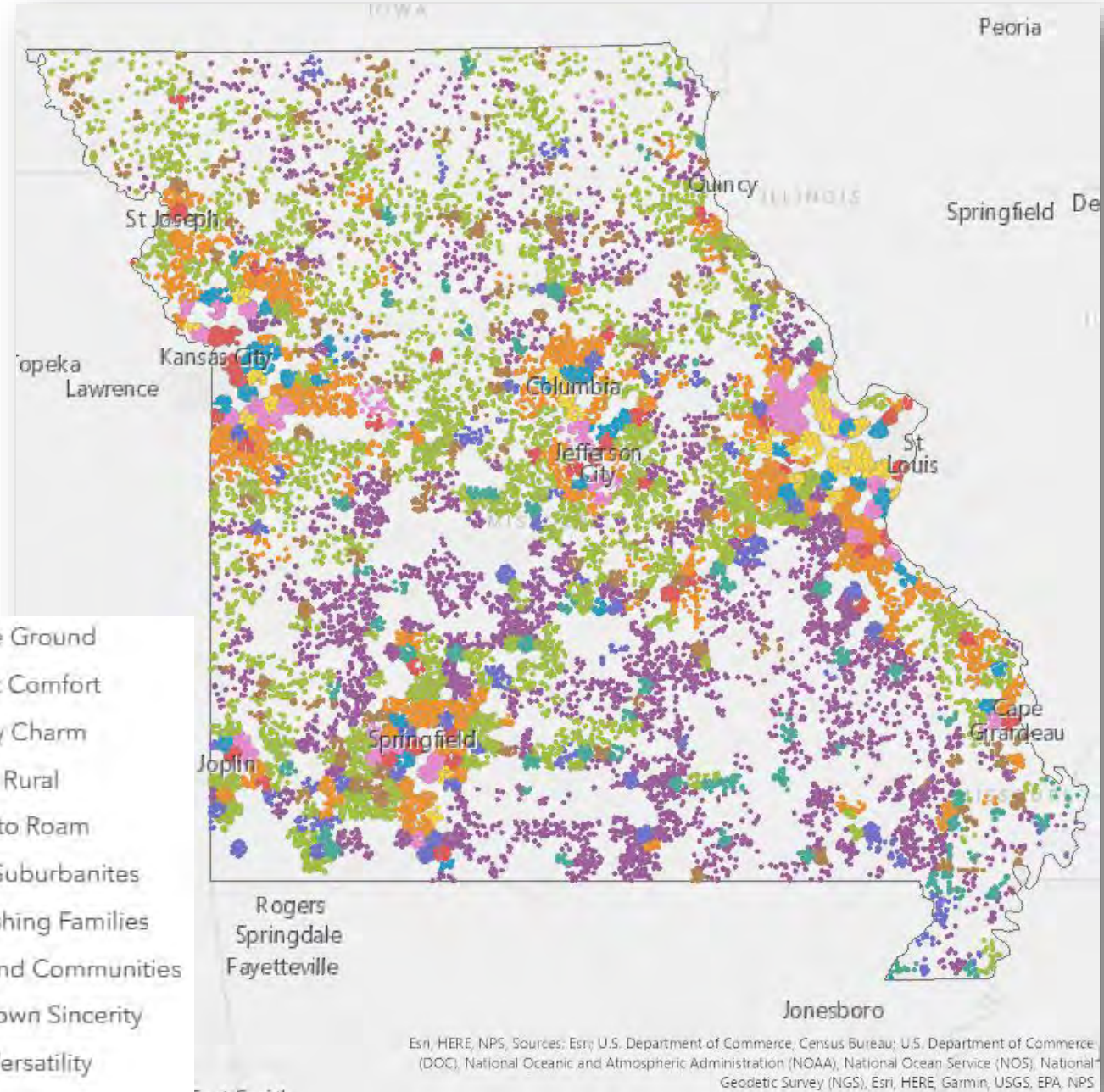
Maps developed using a representative sample of all license holders.

RESULTS: TOP ANGLER TAPESTRY SEGMENTS

Significant lifestyle differences can exist between two people of the same age, gender and income. Lifestyle analyses help describe a state's angler population, including their current stages in life, their recreational and hobby preferences, financial status, purchasing, entertainment preferences, and more.

The top ten angler Tapestry segments are mapped here. Areas without a Tapestry segment displayed signify the presence of Tapestry communities with smaller populations within the angler community and/or the overall state population. The results show Missouri has a rich mix of communities.

- K2: Middle Ground
- K4: Classic Comfort
- I7: Country Charm
- I4: Rooted Rural
- K7: Room to Roam
- L1: Savvy Suburbanites
- H1: Flourishing Families
- I3: Heartland Communities
- I1: Small Town Sincerity
- E5: Rural Versatility



Map developed using a representative sample of all license holders.

RESULTS: TOP TAPESTRY SEGMENTS BY CITY

The Middle Ground segment made up the highest percentage of anglers in 2024, followed closely by Country Charm, Classic Comfort, and Rooted Rural segments. However, there is declining participation from Country Charm and Rooted Rural while Middle Ground and Classic Comfort segments are increasing in participation. Targeted messaging to the segments experiencing organic growth could support the continued increase in participation from these groups, especially considering the significant growth from segments like Savvy Suburbanites. The next page shares more about the Middle Ground segment.

Tapestry Code	Name*	Percent of Anglers in 2024***	Angler Percent Change (2015 - 2024)***	Angler Percent Change (2019 – 2024)***	Percent of Total Population (2025)
K2	Middle Ground**	9.5%	7.6%	10.1%	6.3%
I7	Country Charm	8.4%	-10.6%	-13.2%	5.8%
K4	Classic Comfort	7.6%	2.1%	4.0%	6.4%
I4	Rooted Rural	7.5%	-14.4%	-16.1%	4.9%
K7	Room to Roam**	6.6%	-12.8%	-13.8%	7.2%
L1	Savvy Suburbanites**	6.3%	2.0%	5.6%	5.6%
H1	Flourishing Families	6.1%	3.1%	3.9%	5.2%
I3	Heartland Communities**	5.7%	-11.2%	-8.9%	4.0%
I1	Small Town Sincerity**	4.3%	-9.2%	-9.2%	2.5%
E5	Rural Versatility	4.0%	0.0%	0.2%	3.0%

**Tapestry Segmentation information can be found in the state companion workbook and via ESRI's Segment Infographics Dashboard.*

*** = segment enjoys outdoor activities*

****Tables developed using a representative sample of all license holders.*

CASE STUDY: MIDDLE GROUND SEGMENT

Typical communities that fit the Middle Ground Tapestry Segment and are described as:

	Tapestry Segment K2 Middle Ground	9.5% of MO anglers* 6.3% of MO population
• Suburban neighborhoods that are slightly younger than U.S. average • Tend to consist of married couples, cohabitating couples, and single-person households • Tend to shop at discount grocery chains and frequent fast-food restaurants • Use social media as well as newspapers and magazines • Recreational interests often include professional and college sports, fishing, and gardening • Vacations are typically taken to nearby states, especially those offering beaches or sightseeing opportunities		

With these insights, R3 messaging topics that would best resonate are:

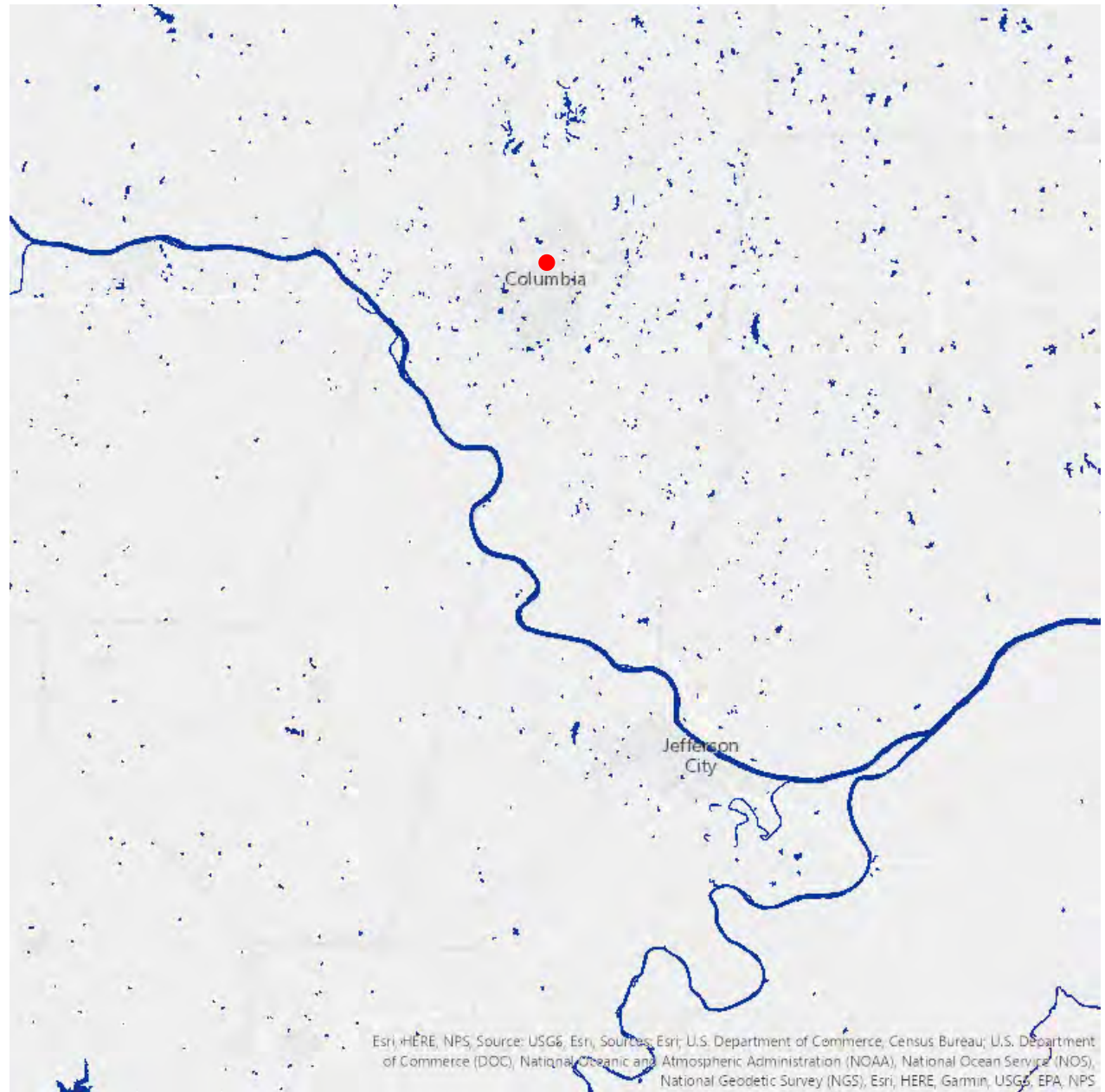
- Fishing as a way to **spend time with children**. Research has shown that people take their kids fishing at a young age because their parents did the same.
- Facilitate opportunities for **social connection** with friends and other couples.
- Use the emails in Missouri's license system to connect with anglers and **create custom messages** that connect people with the information the "Where to Fish" resources on the agency's website.
- Work with the diverse range of universities in Missouri to **message to students** about the great fishing in their area.

*Estimates reflect the 2024 population
Data provided by ESRI's Segment Infographics Dashboard.

CASE STUDY: COLUMBIA

Agencies frequently reach out to their angler population to encourage license renewals. However, fishing as an outdoor recreational activity competes with a host of other outdoor activities. The results presented in this section can be used to identify the ideal mix of communication strategies which could be used to recruit, retain, and reactivate anglers within the state or targeted areas.

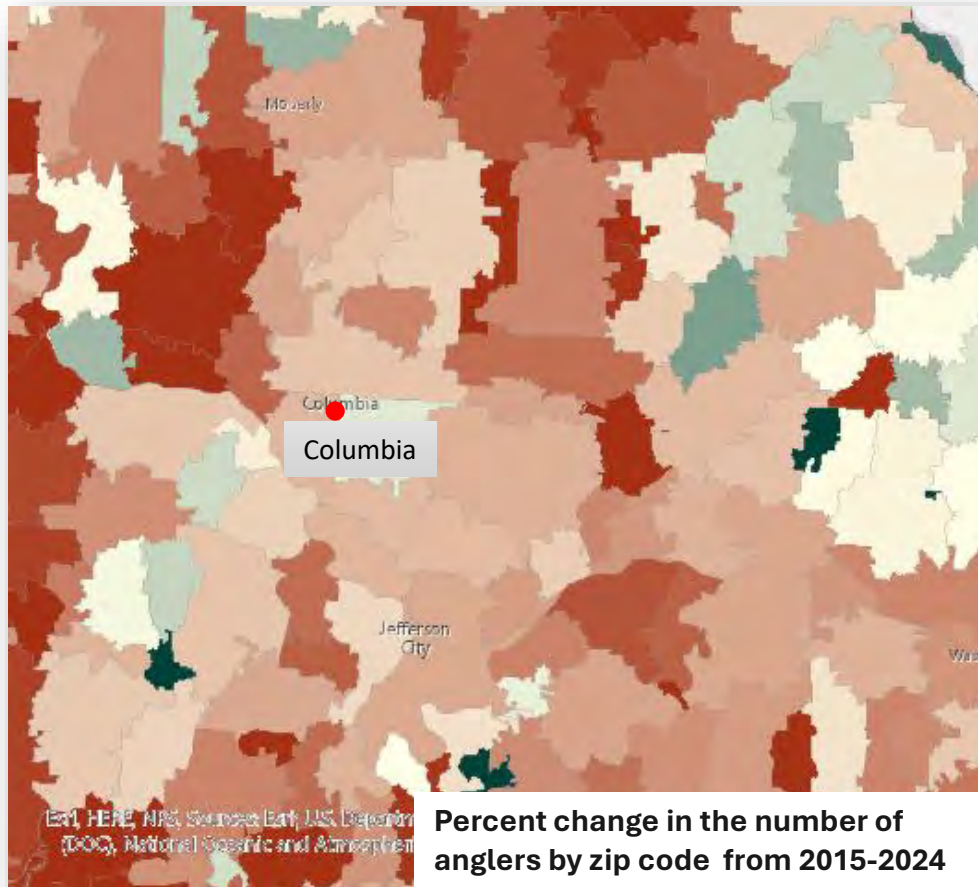
We are using the Columbia and surrounding area as a case study.



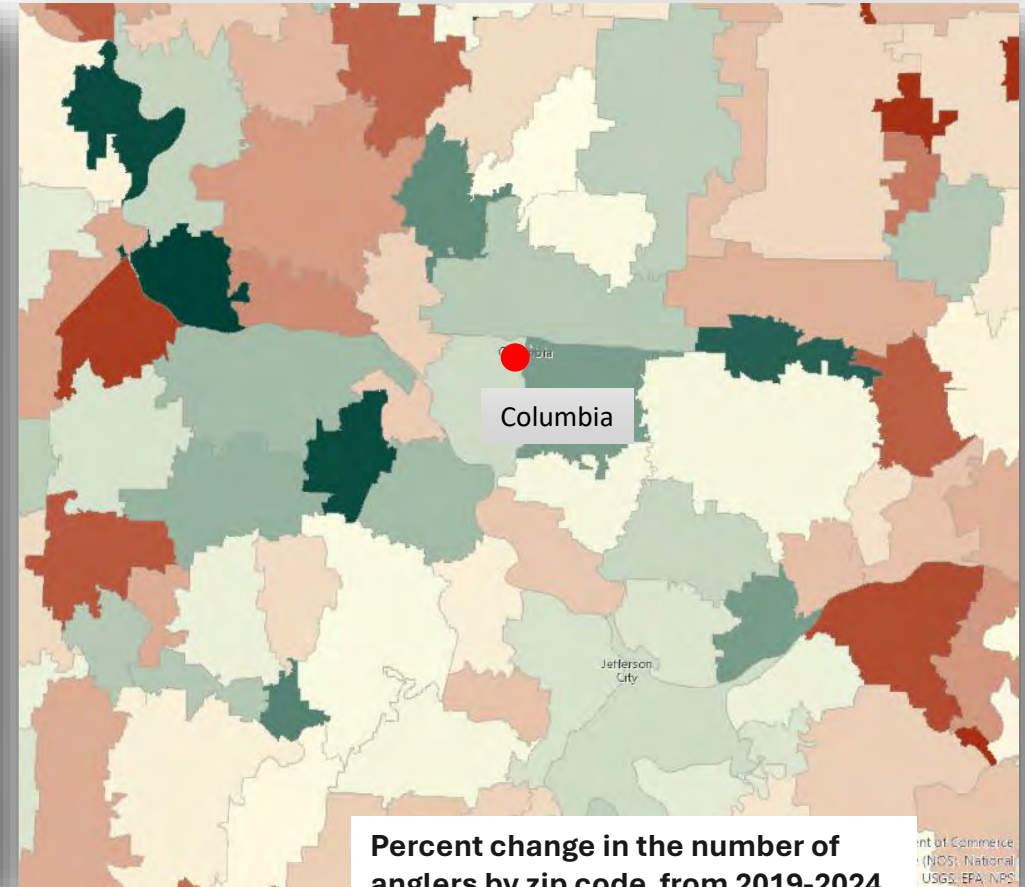
CASE STUDY: COLUMBIA ANGLER CHANGE

Over the last decade, Columbia and the surrounding area experienced some of the strongest contraction of the license angler population. While in the short term, the last five years these areas have seen growth in the population of anglers.

Ten-year timeframe



Five-year timeframe

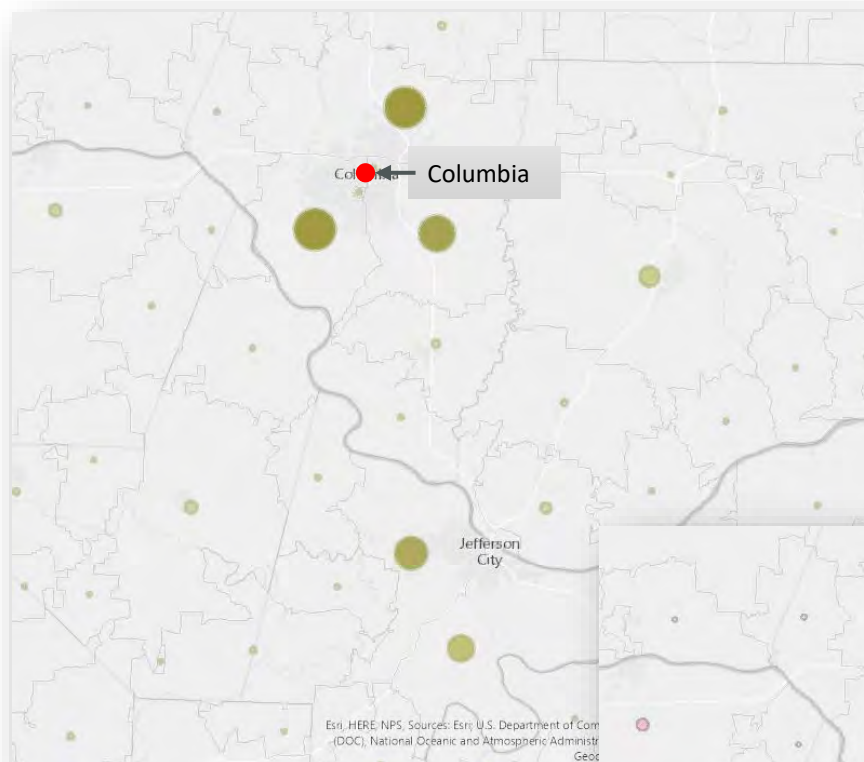


Note: To a certain extent the percent change in license holders reflects a variability in license records due to incomplete data for Personally Identifiable Information (PII) in earlier years.

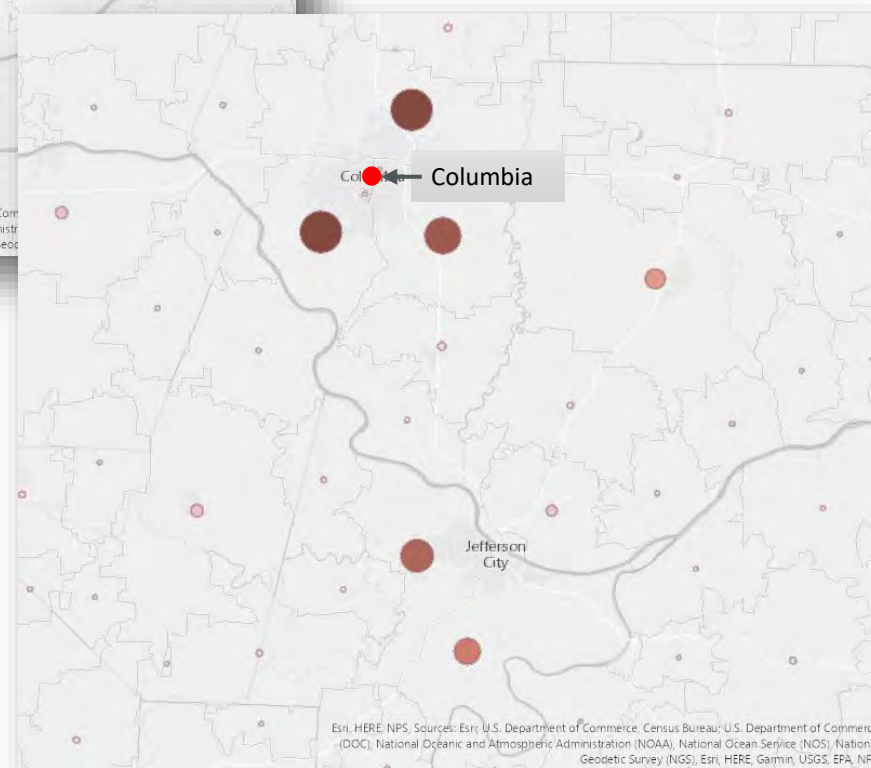
CASE STUDY: ANGLERS BY R3 CATEGORY

Although Columbia has a strong population of steady anglers, we see there are opportunities with other populations.

By zooming in closer, we see there are large numbers of new and lapsed anglers mainly in the city rather than the surrounding suburban area.



New anglers (Retain)



Lapsed anglers (Reactivate)

Dots are sized according to total number of anglers in the indicated angler category in that zip code.

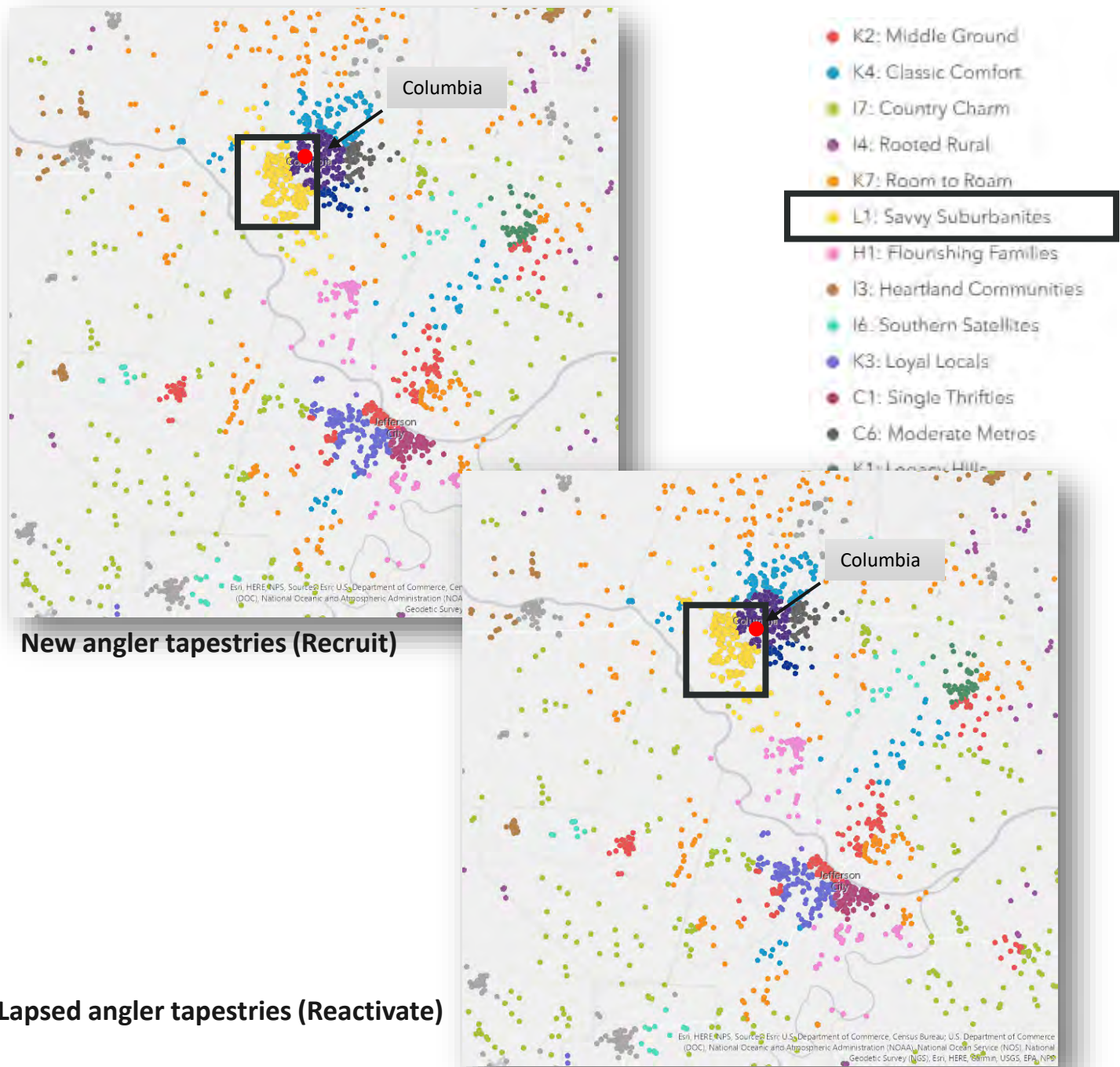
Maps developed using a representative sample of all license holders.

CASE STUDY: ANGLER TAPESTRY SEGMENTS

Tapestry segments for both new and lapsed anglers are shown in these two maps. A high degree of similarities is present across these two groups

This can be advantageous for marketing efforts because common themes to reengage or spur interest in fishing can be employed across both groups.

For example, communities southeast of the Columbus metro area fit the 'Savvy Suburbanites' profile.



Maps developed using a representative sample of all license holders.

RESULTS: SAVVY SUBURBANITES TAPESTRY SEGMENT

The Tapestry segmentation process paints a picture of the type of community an angler lives in and identifies their most likely habits and preferences. For example:

	Tapestry Segment L1 Savvy Suburbanites	6.3% of MO anglers* 5.6% of MO population
• Some have children who have grown up and left and around one-quarter still have kids at home • Gravitate toward suburban communities, which includes both newly developed and well-established areas, within major metropolitan areas • Combined wages of both spouses position these families solidly in the middle to upper income tiers • Tend to invest a significant resources on home improvement and landscaping • Tend to have access to cell phones and the internet to stay connected • Vacation destinations often include beaches and national parks		

With these insights, R3 messaging topics that would best resonate are:

- Identify fishing as a way for **families to connect** their children with fishing.
- Highlight the **abundance of fishing areas** in urban and suburban areas.
- Draw attention to **fishing opportunities at their vacation destinations**, which are often cabins in the north country.

*Estimates reflect the 2024 population
Data provided by ESRI's Segment Infographics Dashboard.

RECOMMENDATIONS TO ENGAGE ANGLERS

Even if fishing is someone's preferred outdoor activity, it faces stiff competition. Other activities perceived to be easier compete for our time. Outlined below are key recommendations and supporting research to help agencies position fishing as a preferred choice among anglers balancing competing demands on their time.

- **Fishing information should be in one easy to find place.** More than anything, anglers go to the agency website for information. Easy to understand regulations, area fishing maps and nearby fishing opportunities should be readily available. Include boat launches, shore fishing opportunities, and nearby available services, like parks and restaurants.
- **Make fishing trip planning easy.** Helping anglers with planning can recapture lapsed anglers and facilitate participation for new and steady anglers. Pairing fishing with other activities (especially with kids or grandkids) is a great marketing strategy.
- **Put educational material on the state agency website.** New anglers come back when they catch fish. But, they may lack or feel intimidated by the specialized knowledge and equipment required. Prior research has shown state agency websites are the preferred media platform to locate instructional materials ([ASA and Southwick Associates 2025](#)). Agencies should also be active on YouTube.
- **Focus on anglers where they live with marketing materials that truly resonate.** By using Tapestry™ data, marketing and communications teams can identify exactly who they're talking to and the best media channel for people in that area.
- **Additional research resources include:**
 - American Sportfishing Association and Southwick Associates (2025). [Why Anglers Quit and How Can We Improve Retention Rates](#). Funded by Multi-State Conservation Grant F24AP00087 as part of the Wildlife and Sport Fish Restoration Programs of the U.S. Fish and Wildlife Service.
 - Recreational Boating and Fishing Foundation and Ipsos (2024). [Psychology of Churn: Understanding Fishing & Boating Attrition](#). Funded by the U.S. Fish and Wildlife Service F23AC00806 as part of the Wildlife and Sport Fish Restoration Programs of the U.S. Fish and Wildlife Service.
 - American Sportfishing Association and Southwick Associates (2020). [Angler Personas: Understanding Anglers' Motivations](#). Funded by Multi-State Conservation Grant F19AP00114 as part of the Wildlife and Sport Fish Restoration Programs of the U.S. Fish and Wildlife Service.
 - Recreational Boating & Fishing Foundation and Responsive Management (2019). [Actionable Strategies for Angler Recruitment, Retention, and Reactivation](#). Funded by Multi-State Conservation Grant F18AP00165 as part of the Wildlife and Sport Fish Restoration Programs of the U.S. Fish and Wildlife Service.



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