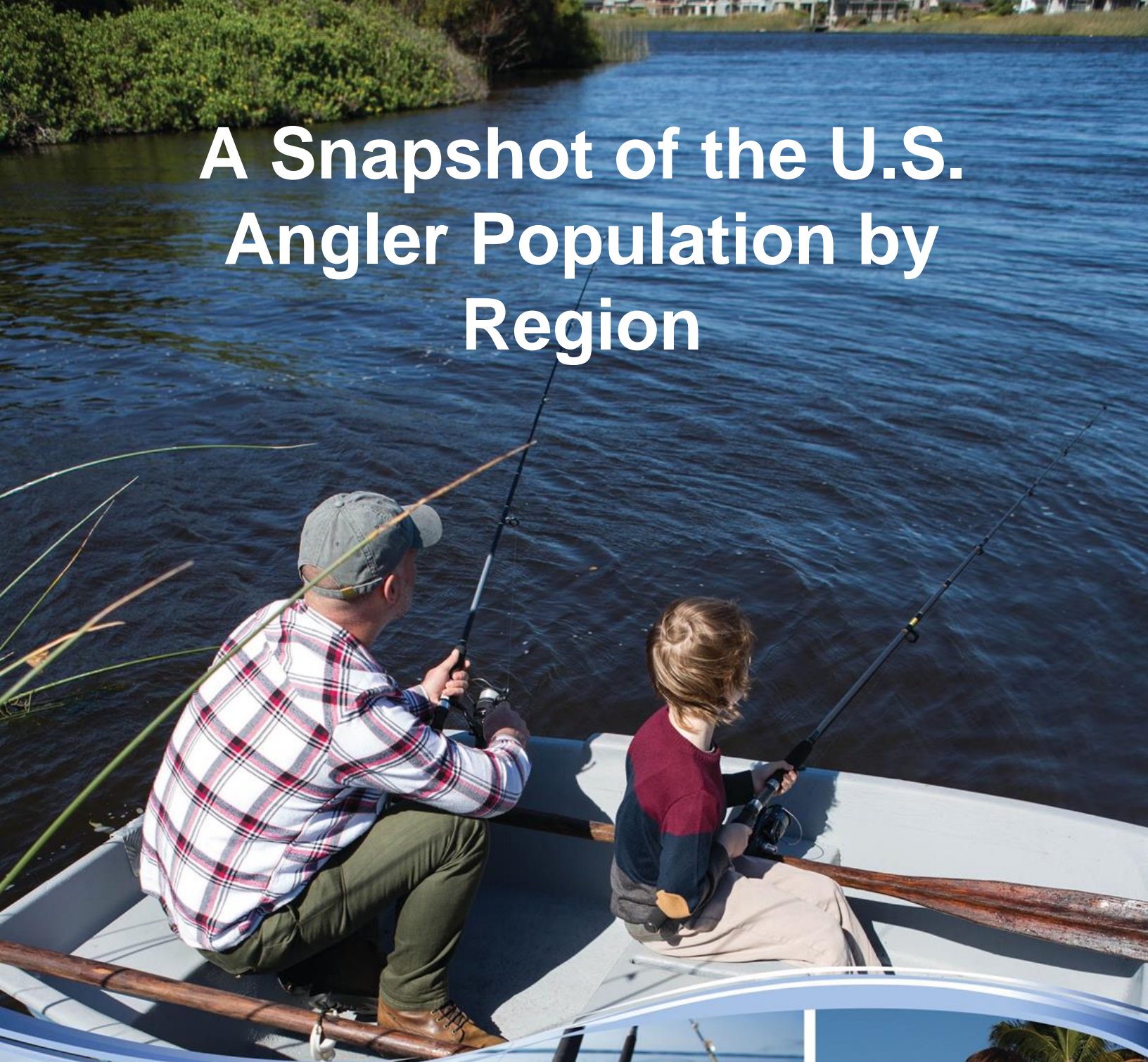


A Snapshot of the U.S. Angler Population by Region



American Sportfishing Association
Leading the Way for Sportfishing's Future

Report two of six in a series
September, 2015

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This report was developed by Southwick Associates. Southwick Associates thanks the ASA staff who contributed to this report. Also, we wish to thank the many state agency staff who took time to answer questions and provide critical data.

Regardless of the contributions of many, Southwick Associates remains responsible for the content within.

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Executive Summary

Ask a member of the sportfishing community in what region of the country anglers are most avid and you might expect the answer to be the Southeast, given well-known fishing meccas like the Florida Keys, or possibly the West, with California being such a hotspot for fishing. Indeed, Florida and California are consistently among the most popular sportfishing states. But this goes to show how relying on overall participation numbers can be misleading if that's the main statistic driving strategies to grow the sport.

This report, the second in a series produced for the American Sportfishing Association that examines anglers' participation rates and profiles, focuses on the regional differences and found that anglers in the Midwest and Northeast have the lowest rate of "churn," a term that refers to anglers transitioning in and out of the sport from year to year. Other regional details are presented that further investigate the most significant finding from the first report showing close to half of fishing license buyers in any given year do not renew their licenses the following year. However, the overall number of participants remains quite stable from year to year because about the same number of people joins and leaves the angling population each year. Additional findings are provided within.

These results are intended to aid organization and state agencies' effort to grow sportfishing participation. These efforts, commonly referred to as "R3" efforts, include targeted marketing toward retained, recruited, and reactivated anglers, categories that refer to angler participation rates from year to year.

While there were some significant differences among regions (highlighted below), in each region the analysis was consistent with what was found nationally: women, young people, and those who live in urban communities are more likely to lapse in their fishing from year to year. Highlights include:

- **Participation is growing slightly in about one-third of the states.** Between 2004 and 2013, 17 states experienced growth in the number of licensed anglers while the rest showed reductions. Most of the states showing growth are in the West and Southeast.
- **The West attracts the most non-resident anglers.** Nonresidents comprise as much as 29 percent (West) and as little as 19 percent (Midwest and Southeast) of the licensed angler population (it's 20 percent in the Northeast). Regardless of region, roughly 70 percent of all licensed non-resident anglers will buy a license in the same state in just one out of five years. They may buy in other states in these other years.
- **A higher proportion of anglers remain active in the Northeast and Midwest.** More than 20 percent of anglers purchased a license five out of five years in the Northeast and Midwest—compared to just eight percent and 16 percent of anglers in the Southeast and West, respectively.
- **The annual churn rate is highest in the Southeast and lowest in the Midwest.** In the Southeast, the average annual churn rate is highest, at 53 percent, while it is lowest, 28 percent, in the Midwest, considerably less than the national rate of about 45 percent. The rate is 39 percent in the West and 33 percent in the Northeast.
- **Regardless of region, the churn rate is highest among younger anglers.** The average annual churn rate is highest, with a range of 37-63 percent across all four regions, among licensed anglers between the ages of 18 and 24. Licensed anglers aged 55 to 64 years old have the lowest churn rate of all age groups, with a range of 22-46 percent across all four regions. Nationally, annual churn rates by age group fall within these regional ranges.

- **Regardless of region, the churn rate is higher among women.** The average annual churn rate among women is highest in the Southeast, where 64 percent of female anglers lapse in their fishing license renewals from year to year. It is lowest among women in the Midwest, at 41 percent. The rate is 48 percent in the Northeast and 50 percent in the West. Nationally, the rate is about 55 percent—about 13 percentage points higher than the churn rate for men.
- **Regardless of region, urban anglers have a higher churn rate.** The churn rate ranges from 34-60 percent for urban anglers across all four regions, from 30-55 percent for those residing in suburban communities, and from 24-46 percent for those in rural communities. The national churn rate in urban communities falls within this regional range; however, rural anglers' churn rate ranges lower than the national rate in the Midwest, Northeast, and West.

To produce these insights, 10 years of fishing license data covering 2004 to 2013 were compiled and studied for 12 states (CO, FL, GA, ME, MI, MN, MS, MT, NH, NY, UT, and WI) to provide regionally and nationally representative portraits of anglers for this and future reports in the series.

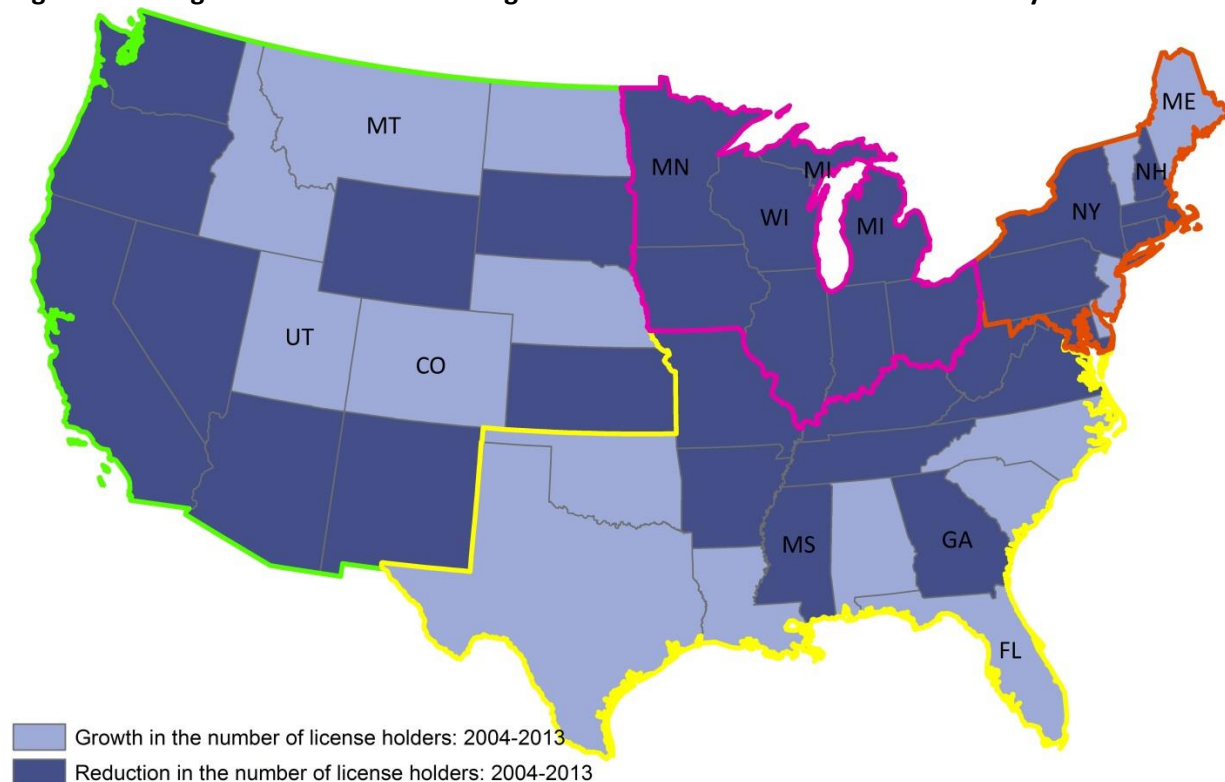
Introduction

This report is the second in a series of monographs that explores who fishes, plus trends in angler demographics and participation. This report specifically delves more deeply into topics uncovered in the first report.¹ Those initial results showed that, even as the total number of licensed anglers remains relatively stable from year to year, the population of licensed anglers undergoes a substantial level of turnover each year. In fact, approximately 45 percent of licensed anglers living in the examined states did not renew their fishing privileges each year over the previous five year period.

Trends vary region by region. Based on the certified number of license holders, less than half of all states experienced growth (light blue) while more than half experienced reductions (dark blue) in license holders between 2004 and 2013 (Figure 1).² In this report, Monograph #2, we examine differences at the regional level including the composition of the license holder population and the nature of angler turnover to inform efforts directed at the recruitment, retention and reactivation of anglers (R3). Through a better understanding at the regional level, R3 efforts can be effectively tailored to the segments of anglers most at risk of lapsing, those most likely to stay engaged, and those more likely to re-engage. These efforts in turn have the potential to boost license sales revenues and increase conservation funding generated by license sales and excise tax revenue.

The four regions include the Northeast, Midwest, Southeast, and West (Figure 1). Each region is represented by three states. Please see the Discussion section at the end of this report for a summary and interpretation of the data presented herein.

Figure 1. Change in the number of fishing license holders between 2004 and 2013 by state



¹ Southwick Associates. 2015. New Angler Recruitment and Retention Insights: Lessons from Angler License Sales - 2004 to 2013. Presented to the American Sportfishing Association.

² Percent change in the certified count of license holders is estimated using the USFWS Historical License Database. Available: <http://wsfrprograms.fws.gov/Subpages/LicenseInfo/LicenseIndex.htm>

Approach

This report explores the concept of churn by looking at trends in license purchase histories among anglers within the four regions of the country. Twelve states provided annual fishing license databases spanning a decade, from 2004 through 2013 (Table 1). These states were chosen to provide a regionally representative portrait of anglers. The database files were synchronized at the state-level to create one harmonized database of individuals along with their fishing license purchasing history over the entire decade.³

Table 1. Twelve participating states and regional assignments

Northeast	Midwest	Southeast	West
New Hampshire	Michigan	Florida	Colorado
New York	Minnesota	Georgia	Montana
Maine	Wisconsin	Mississippi	Utah

In the remainder of this report, we present three different measures of angler participation for each of the regions, focusing on the five-year period between 2009 and 2013. First, we show the number of years an angler purchases a license during that time. Second, we describe in detail the average annual rate of churn among the angler population, across selected demographic characteristics (age, gender, and neighborhood type). The distribution of these characteristics within the license holder population in each region is included in Table A1.

Finally, we introduce a categorization of anglers based on their purchase history to shed new light on the R3 strategy as it relates to the overall composition of the fishing population. Those categories are:⁴

Recruited anglers: anglers who purchased a license in a given year but had not purchased a license in any of the five preceding years.

Retained anglers: anglers who purchased a license in a given year and purchased a license in the preceding year. This group also includes anglers holding lifetime and multi-year licenses.

Re-activated anglers: anglers who purchased a license in a given year and purchased at least once in the previous five years but not the immediately preceding year.

The analysis is based on a five-year time frame, and as a result, it is possible for an angler to transition between multiple groups. For example, a licensed angler could shift from a recruited to a retained and then on to a re-activated angler between 2009 and 2013.

Turnover within any given state among non-residents can be higher than among residents. Therefore, their inclusion can inflate the overall churn rate, albeit the impact is based on the proportion of nonresident anglers compared to resident anglers. Nonresidents comprise as much as 29 percent (West) and as little as 19 percent (Midwest & Southeast) of the licensed angler population (Table 3).

³ For this churn analysis, the total angler pool was limited to those who were at least age 18 in 2004 and no older than 65 in 2013. This group is referred to as “licensed anglers” in the remainder of the report. In many states, youth and senior citizens are eligible for a special category of license by virtue of their age (e.g., youth license, senior discounted license, permanent license) that is not consistent with most state’s licensing options.

⁴ Each category of angler is defined by a set of criteria. For consistency, we use a stable definition criteria based around a purchase history over a fixed five-year time-span. With the available license history, it is possible to determine a five-year purchase history of angler beginning with the 2004 through 2009 cohort.

Table 2. Proportion of residents among license holder population (2009-2013)

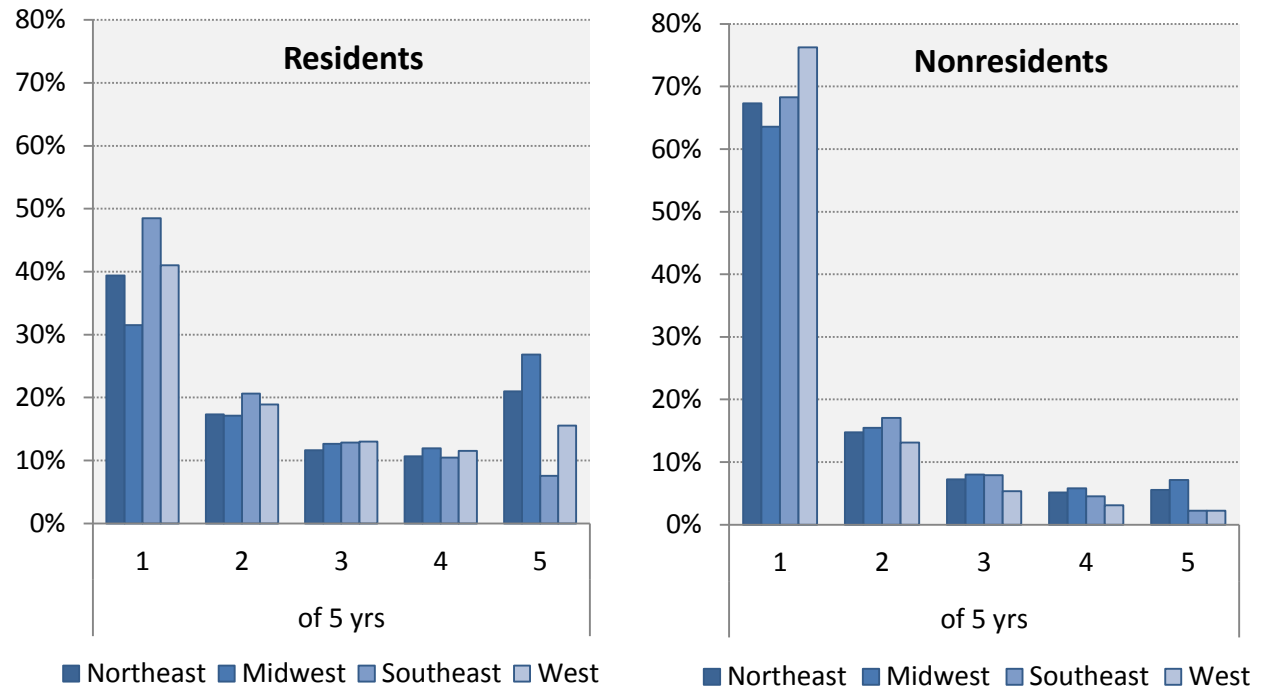
	Average proportion		
	Resident	Nonresident	Total
Northeast	80%	20%	100%
Midwest	81%	19%	100%
Southeast	81%	19%	100%
West	71%	29%	100%

NOTE: Except for comparisons of license holder turnover between residents and nonresidents of the participating states, the rest of this report analyzes churn rates and license holder composition among residents only. The measure of churn, then, reflects the turnover among a state’s resident anglers, unless otherwise stated.

Findings

Anglers who purchase year after year are comparatively more loyal than anglers who purchase only sporadically. To gain a better understanding of angler loyalty among residents and nonresidents within each region, we tracked their purchases between 2009 and 2013. In the Northeast and Midwest, more than twenty percent purchased five out of five years (Figure 2). Fewer anglers in the Southeast and West regions purchased each year, while many purchased just one out of five years. Regardless of region, nonresidents most commonly purchase in one out of five years.

Figure 2. Number of years an angler held a license between 2009 and 2013: by region and residency



Churn rates among participating states by region

The average annual churn rate among anglers holding an expiring license is presented by residency and for the group as a whole (Table 4). The churn rate is calculated as the proportion of licensed anglers who lapse (choose not to renew) among all anglers holding a license that is expiring in a given year. Resident churn rate is the highest in the Southeast region (55%) and the lowest in the Midwest region (33%). More than two-thirds of nonresidents lapse in both the Southeast and West regions. Detailed churn rates by state between 2009 and 2013 are presented in Table A2.

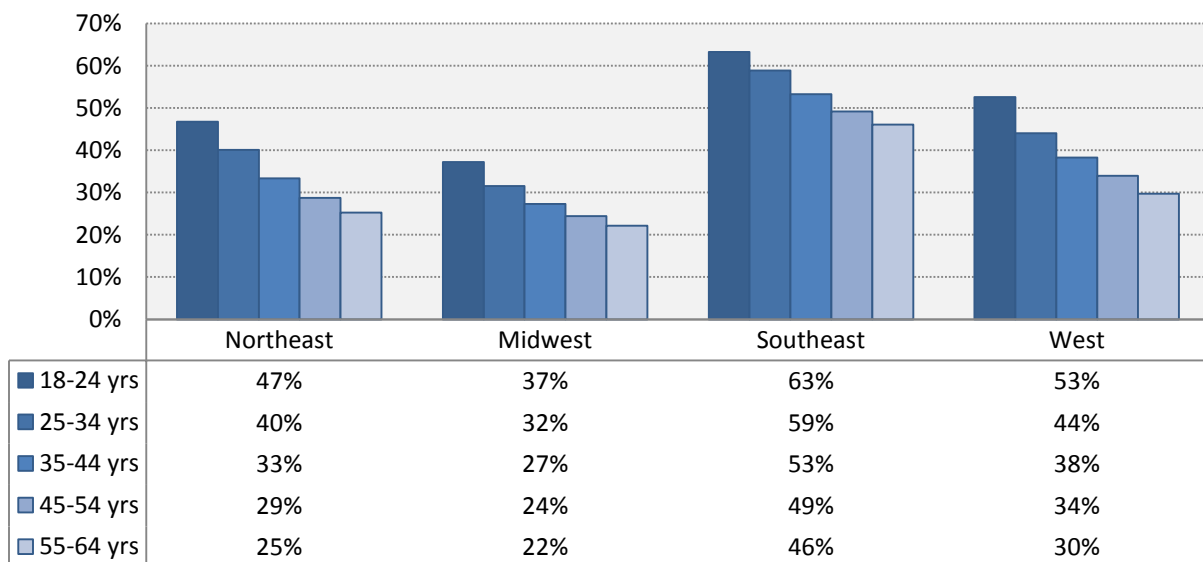
Churn within any given region among non-residents is higher than among residents. Therefore, their inclusion inflates the overall churn rate, albeit slightly based on the low proportion of nonresident anglers compared to resident anglers.

Table 3. Average annual churn rate by region and residency (2009-2013)

	Average annual churn		
	Resident license holders	Nonresident license holders	All license holders
Northeast	33%	58%	38%
Midwest	28%	55%	33%
Southeast	53%	66%	55%
West	39%	72%	48%

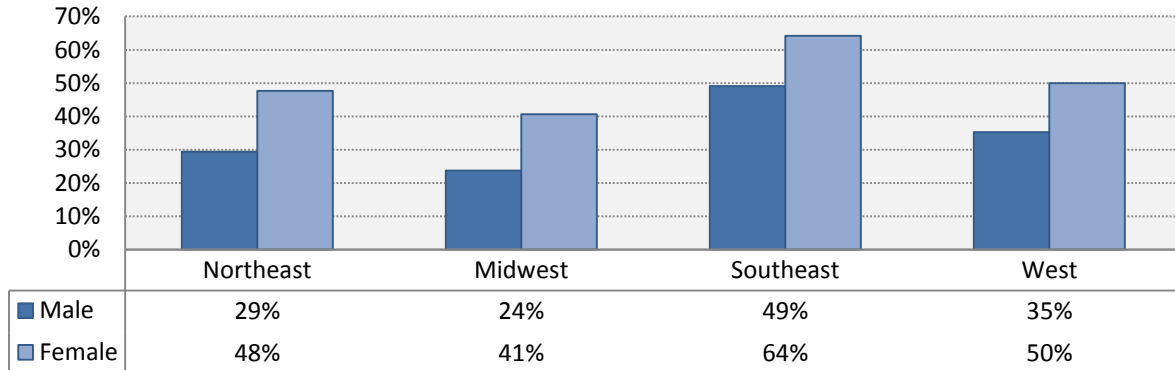
The average annual churn rate is highest (37%-63%) among licensed anglers between the ages of 18 – 24 years of age and declines steadily with age (Figure 3). Licensed anglers aged 55 to 64 years old have the lowest (22%-46%) churn rate of all age groups. Although churn rates vary by region, the effect of age is consistent across the regions: the younger the angler means the greater the likelihood of lapsing.

Figure 3. Average annual churn rate among residents by region and age (2009-2013)



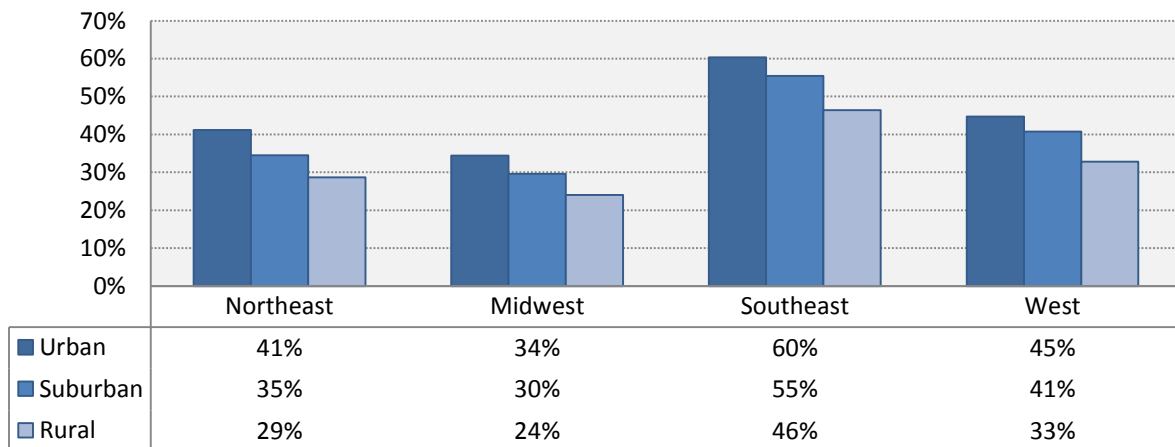
Fishing is a sport where the largest proportion of license holders is male, although the numbers of female anglers have grown in recent years. Women, however, are more likely than men to lapse after purchasing a fishing license (Table 4).

Figure 4. Average annual churn rate among residents by region and gender (2009-2013)



Anglers who reside in urban neighborhoods have a higher rate of lapsing (34%-60%) relative to anglers who reside in rural neighborhoods (24%-46%). An angler’s decision to renew a license is influenced by a number of factors such as time, other interests, and other commitments. The availability of alternative activities is greater in more urbanized areas and the relative costs associated with fishing (preparation time and travel time for example) are higher for those residing in urban neighborhoods, thereby leading to higher levels of turnover relative to anglers residing in other neighborhood types.

Figure 5. Average annual churn rate among residents by region and neighborhood type (2009-2013)



Composition of licensed angler population by region

This next section explores the composition of the licensed angler population from the perspective of the three categories defined earlier: recruited, retained, and reactivated anglers. Multi-year and lifetime licenses, offered by several of the states, are included within the retained category for those years for which the license is valid⁵. The majority (48%-72%) of licensed buyers in any given year can be described as retained anglers, those who purchased a license in the previous year and elected to purchase a license again during the current year. The remainder of the licensed fishing population (28%-52%) is comprised of recruited or reactivated anglers.

Figure 6. Composition of resident license holder population by region (2009-2013)

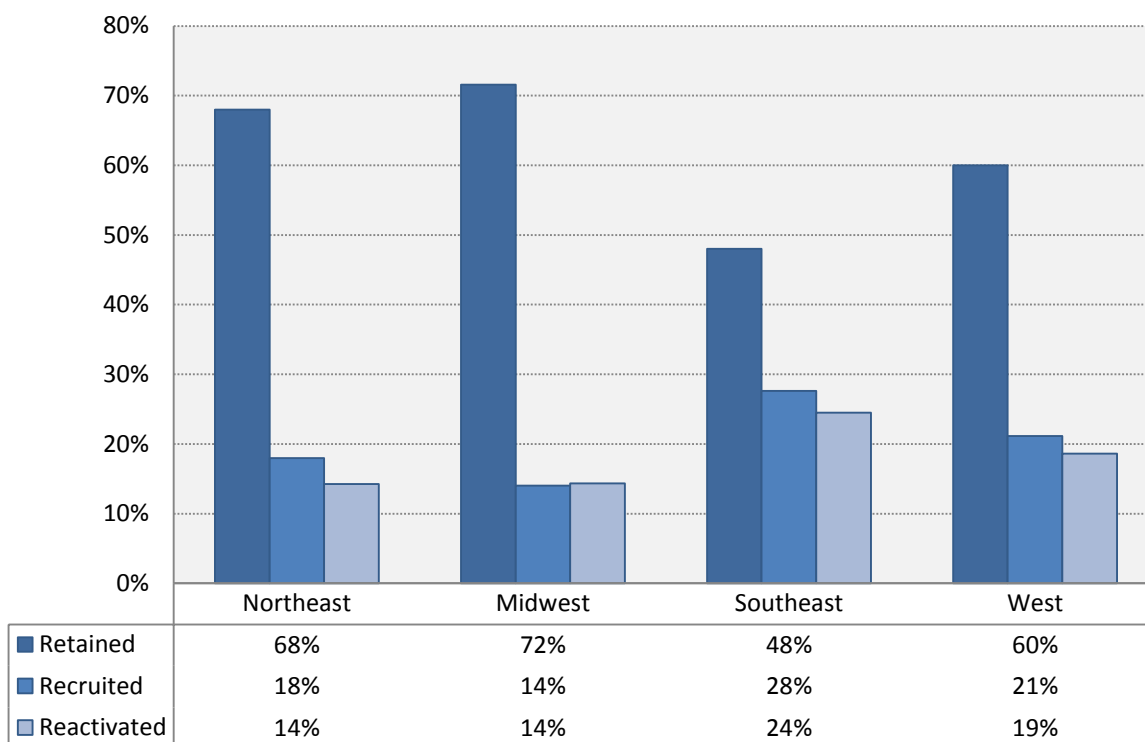


Figure 7 shows the distribution of the license holders across five age categories. In addition to the majority of the licensed angler population renewing each year, the influence of a person’s age on the recruited and reactivated angler population in the Southeast and the West regions becomes increasingly evident. Common trends show that licensed anglers who are 18 to 24 years old are more likely to be identified as recruited anglers and least likely to be retained anglers, relative to other age groups. This may be related to either a greater likelihood of anglers entering at older ages in these regions, or anglers that lapsed at a younger age and re-entered at an age when licenses were required allowing them to be identified in this analysis. Licensed anglers between the ages of 55 and 64 are most likely to be identified as retained anglers, relative to other groups. Licensed anglers who are 25 to 34 years old are more likely to be re-activated anglers, but only slightly more so than older anglers, which relates to the greater likelihood of lapsing as a younger angler and re-engaging at an older age.

⁵ Multi-year and lifetime licenses are available in states in only two of the regions. They represent a very small proportion of all licensed anglers in those states and their inclusion (or exclusion) has little effect on the overall results.

Figure 7. Composition of resident license holders by age and region (2009-2013)

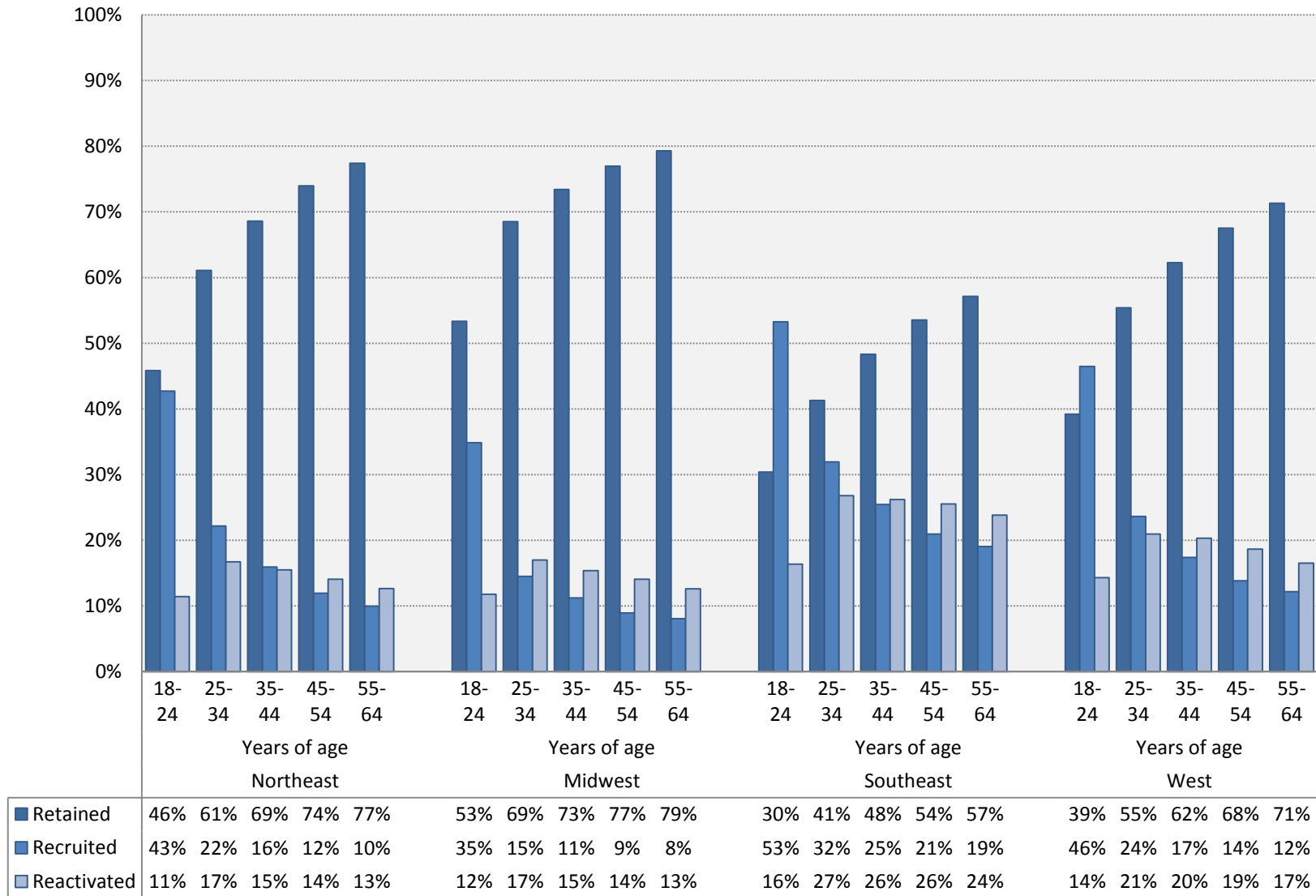
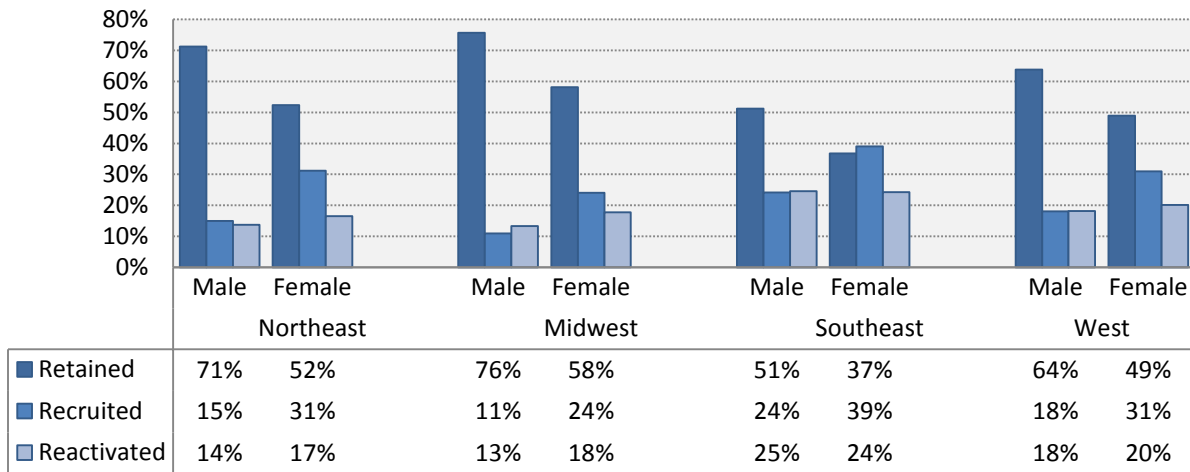


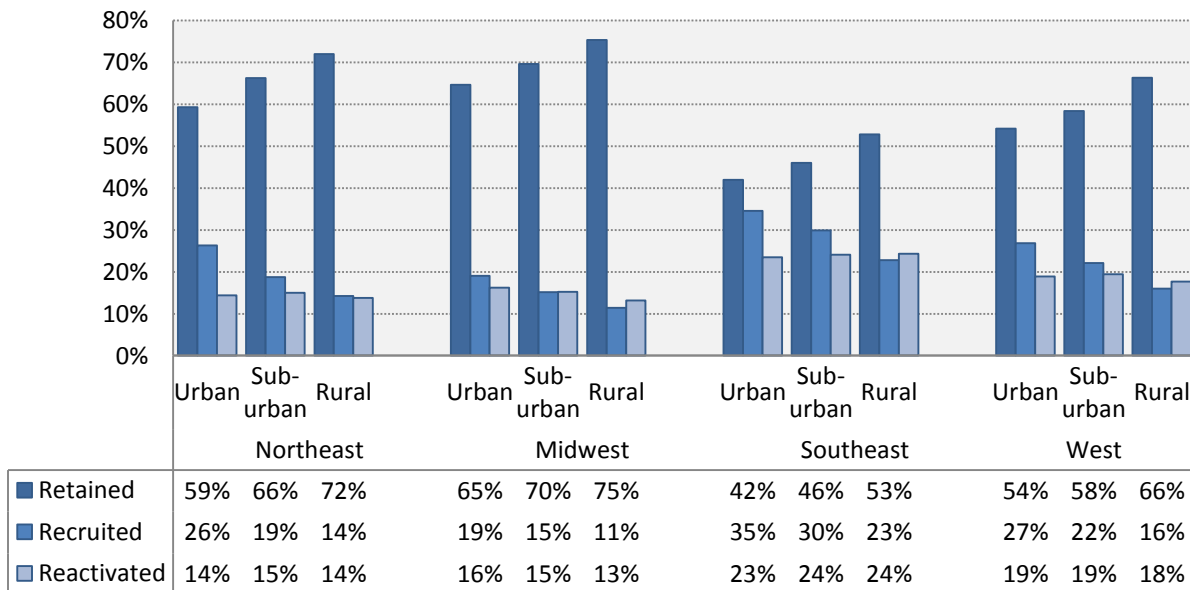
Figure 8 shows the composition of the resident license holder population across the regions among men and women. In general, the population within each group consists of anglers who renew their license. Consistent with the earlier findings related to churn rates between the groups, the proportion of female anglers renewing is smaller than among male anglers. And, the converse is true for recruited and reactivated anglers. These findings show that the most diverse population of anglers in terms of participation rates is among female license holders who reside in the Southeast.

Figure 8. Composition of resident license holder population by gender and region (2009-2013)



Licensed anglers who reside in rural neighborhoods are most likely to purchase a license the following year (i.e., retained anglers) relative to those in other neighborhoods (Figure 9), which probably reflects greater convenience of fishing in rural areas and possibly a greater cultural adherence to fishing in these regions. Conversely, the population of urban anglers has a larger portion of recruited anglers.

Figure 9. Composition of resident license holder population by neighborhood type and region (2009-2013)



Discussion

The licensed fishing population consists predominantly of anglers renewing a license. However, anglers who are recruited into the sport or who are reactivated with the sport are an important component in each of the regions. And, these findings do show variation in trends between regions and the potential for the fishing population to be influenced by the location of the communities in which they live.

Each year, states experience turnover within their angling population. In this monograph, we analyze license purchasing habits within four different regions of the country (Northeast, Midwest, Southeast, and West) to better understand the variation in angling trends and angler populations between regions.

It is interesting to note that the churn rates are lowest in the Northeast and Midwest (Figures 3, 4 and 5). Though uncertain, this may be related to people who are less motivated to fish. In the West and Southeast, people may find it easier to access areas to fish, while these same types of anglers will have a more difficult time finding quality fishing access in the Northeast and maybe the Midwest, which may cause many to simply stop angling altogether. The reason for the regional differences presented here is speculative and further investigation is needed to know for certain.

Traditionally, angling is a sport where the largest proportion of license holders is male, although the numbers of female anglers have grown in recent years. Women, however, are more likely than men to lapse after purchasing an angling license, meaning women anglers may be dropping out at rates that result in little or no net gains in female participation (Figure 4). Much has been said recently in the media about the increasing numbers of female anglers, but efforts are needed to keep women involved and maintain their interest.

Younger anglers and anglers who reside in urban neighborhoods have a higher rate of lapsing relative to anglers who reside in rural neighborhoods (Figures 7 and 9). An angler's decision to renew a license is influenced by a number of factors such as time, competing recreational interests, and other commitments. The availability of alternative activities is greater in more urbanized areas and the relative costs associated with angling (preparation time and travel time for example) are higher for those residing in urban neighborhoods, thereby leading to higher levels of turnover relative to anglers residing in other neighborhood types. Efforts to continually promote angling, and to plan their fishing trips in advance so no other plans are made may prove beneficial to help younger and urban anglers keep their interest in fishing.

This is the second in a series of reports sharing the results of this new research into anglers' loyalty to the sport, where they live, and their motivations to fish. Future monographs will examine anglers' lifestyles and explore the influence of both an individual's community and way of life on participation and renewal rates. We will also identify communities across the nation that have a high degree of similarity to the communities of current license holders, thereby identifying targeted locations where tailored R3 efforts can potentially be most effective.

Table A 1. Distribution of demographic characteristics across the resident license holder population

Characteristics	Regions			
	Northeast	Midwest	Southeast	West
Age categories				
18-24	12%	14%	12%	14%
25-34	19%	21%	20%	25%
35-44	22%	21%	23%	22%
45-54	27%	25%	26%	22%
55-64	21%	19%	20%	18%
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
Gender				
Male	83%	77%	77%	76%
Female	17%	23%	23%	24%
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
Neighborhood types				
Urban	17%	11%	16%	23%
Suburban	41%	46%	39%	52%
Rural	42%	43%	45%	25%
<i>Total</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>

Table A 2. Fishing license renewal rate between 2009 and 2013 by residency and state

Region	States in region						
Northeast	Maine		New Hampshire		New York		
		<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>
	2009	68%	39%	66%	45%	71%	44%
	2010	68%	39%	64%	44%	64%	42%
	2011	67%	39%	64%	42%	66%	42%
	2012	68%	39%	70%	46%	68%	44%
	2013	68%	39%	65%	42%	66%	42%
Midwest	Michigan		Minnesota		Wisconsin		
		<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>
	2009	71%	37%	74%	37%	77%	55%
	2010	69%	36%	73%	39%	74%	53%
	2011	68%	36%	72%	41%	74%	53%
	2012	70%	37%	74%	47%	75%	52%
	2013	69%	35%	72%	44%	74%	51%
Southeast	Florida		Georgia		Mississippi		
		<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>
	2009	46%	37%	41%	29%	62%	28%
	2010	45%	33%	47%	37%	60%	26%
	2011	44%	36%	45%	34%	60%	25%
	2012	42%	35%	44%	35%	61%	25%
	2013	43%	36%	45%	35%	59%	23%
West	Colorado		Montana		Utah		
		<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>	<i>Residents</i>	<i>Nonresidents</i>
	2009	63%	25%	75%	32%	54%	27%
	2010	61%	24%	73%	32%	53%	27%
	2011	61%	25%	72%	31%	53%	26%
	2012	61%	25%	75%	34%	52%	26%
	2013	61%	24%	74%	33%	51%	25%