

Birding in the United States: A Demographic and Economic Analysis

Addendum to the 2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation



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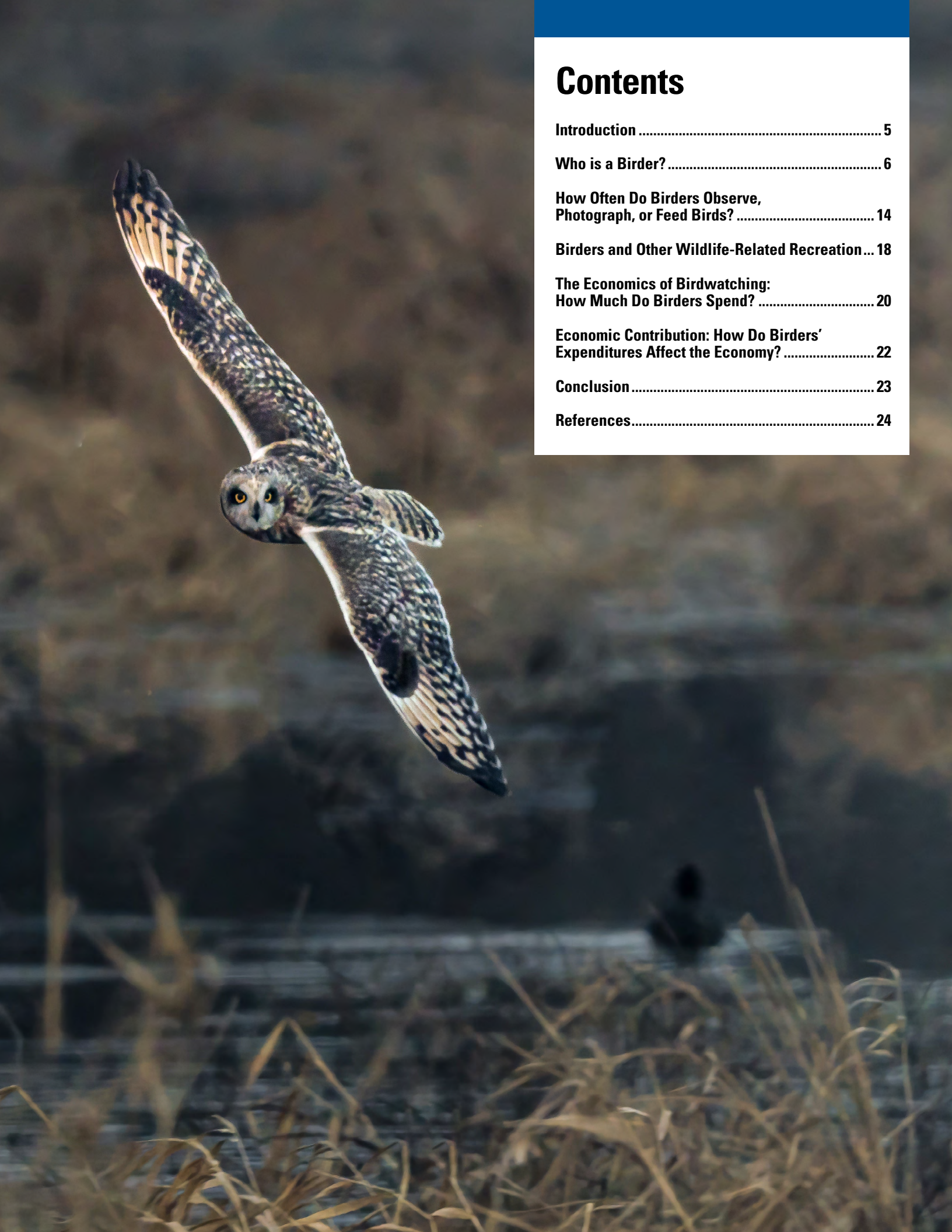


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Introduction



The following report provides economic and demographic information on bird watching in the United States. The information is of use to a litany of public interest groups and policy makers. This report identifies the characteristics of those who watch, feed, or provide habitat for birds, such as where they live, and their level of interest or avidity toward birds and bird watching. In addition to demographic information, this report also provides economic measures of birding. It estimates how much bird watchers, hereafter called birders, spend on their activities and the economic contribution of these expenditures.

By understanding birders, they can be more easily reached and informed about pressures facing birds and bird habitats. The data inform those who service birders and supporting industries, as well as

conservation agencies. The information presented here can be used by resource managers and policy makers to demonstrate the economic might of birders.

All estimates presented here are from the wildlife-watching section of the *2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (Survey). It is the most comprehensive survey of wildlife-related pursuits in the United States. Overall, about 59,000 detailed wildlife-watching interviews were completed. These respondents were a representative cross section of all wildlife watchers in the United States. Their responses were used to calculate the total number of birders in 2022. The Survey focused on 2022 participation and expenditures by residents 16 years of age and older.

Who is a Birder?

In 2022, there were 96 million birders, 16 years of age and older, in the United States — 37 percent of the population. Who is a birder? The Survey uses a conservative definition. To be counted as a birder, an individual must have either taken a trip one mile or more from home for the primary purpose of observing birds or closely observed or tried to identify birds around the home. Thus, people who happened to notice birds while they were mowing the lawn or picnicking at the beach were not counted as birders. Trips to zoos or observing captive birds did not qualify and were not tallied in the Survey.

Backyard birding is the most prevalent form of birding with 95 percent (91 million) of participants watching birds from the comfort of their homes — 35 percent of the population. The more active form of birding, taking trips one mile or more away from home, is less common with 44 percent (43 million) of birders partaking — 16 percent of the population.

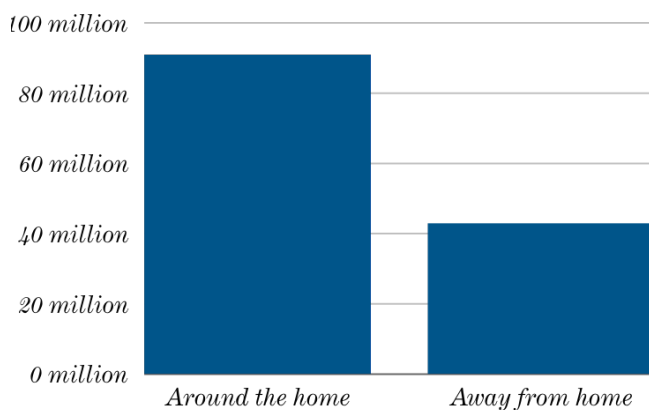
The average birder is 49 years old and more than likely has a better than average income and education. He or she is equally likely to be male or female, and highly likely to be White. There is also a good chance that this birder lives in the South in an urban area. Does this paint an accurate picture of a birder? Like all generalizations, the description of an “average” birder does not reflect the variety of birders, with millions falling outside this box. The following tables and charts show numbers and percentages of birders by various demographic breakdowns.

The tendency of birders to be middle-aged or older is reflected in both the number of birders and participation rates. Looking at the different age categories in Table 1, the greatest number of birders were in the 65-plus age group (23 million) followed by the 55 to 64 years age group (19 million). Forty-four percent of all birders are over the age of 55 years. Overall, participation rates gradually increase with age (Chart 2) until people are over 65 years (except for people ages 18 to 24). People over the age of 55 had the highest participation rates while the participation rates across the younger cohorts were relatively similar ranging from 30 percent to 36 percent. This positive correlation between age and participation is similar for birders around the home and birders away from home.



Chart 1. Birders in the United States: 2022

Total birders: 96 million (16 years of age and older)



Note: Detail does not add to total because of multiple responses.

Male birders are slightly older (50 years) than the average female birder (49 years); however, birders of other genders are considerably younger (35 years) (Chart 3).

Table 1. Age Distribution of the U.S. Population and Birders: 2022

Population 16 years of age and older. Numbers in thousands.

Age	U.S. Population	Number of Birders	Away from Home	Around the Home
16 to 17 years	8,499	2,745	1,268	2,381
18 to 24 years	26,878	8,080	4,137	7,114
25 to 34 years	44,002	14,181	7,063	13,003
35 to 44 years	42,987	14,687	7,195	13,821
45 to 54 years	39,901	14,384	6,840	13,626
55 to 64 years	42,137	18,910	7,997	18,405
65 years and older	54,355	23,096	7,983	22,575

Chart 2. Birders' Participation Rate by Age

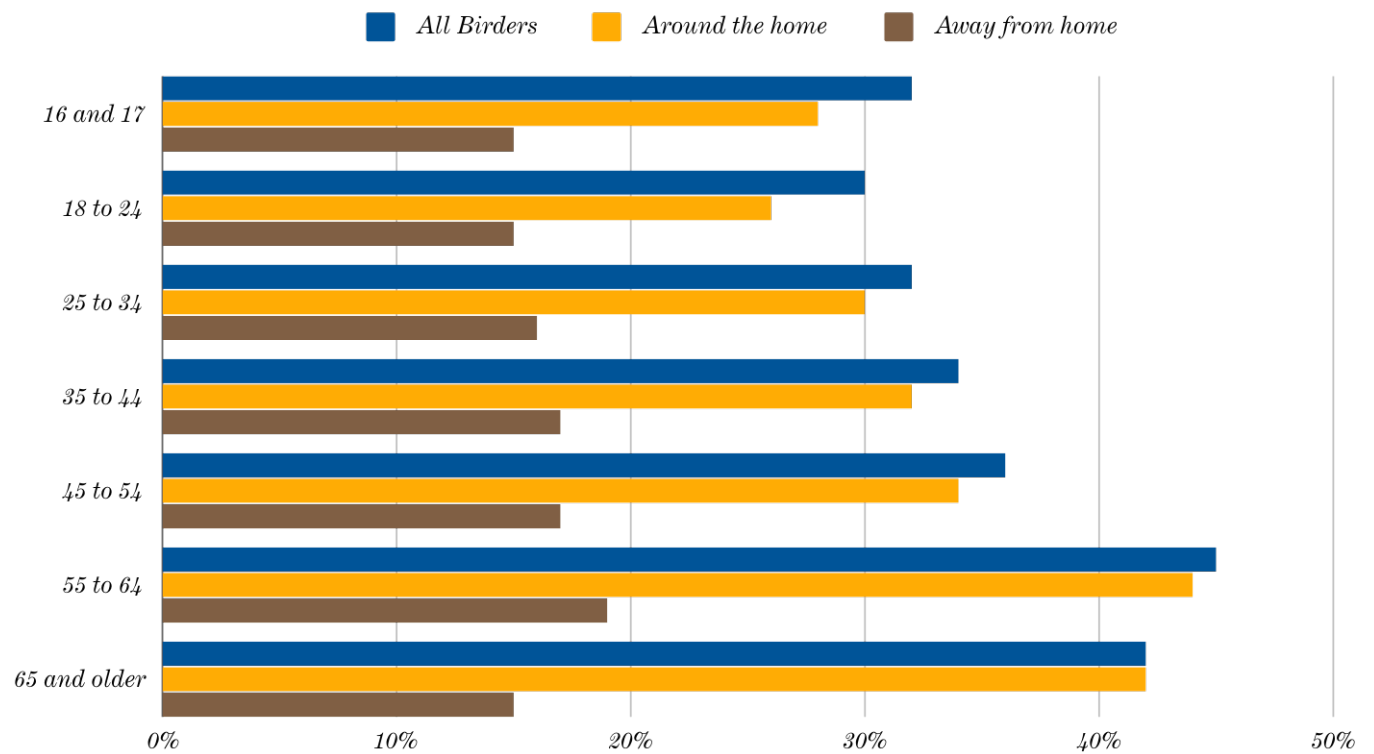
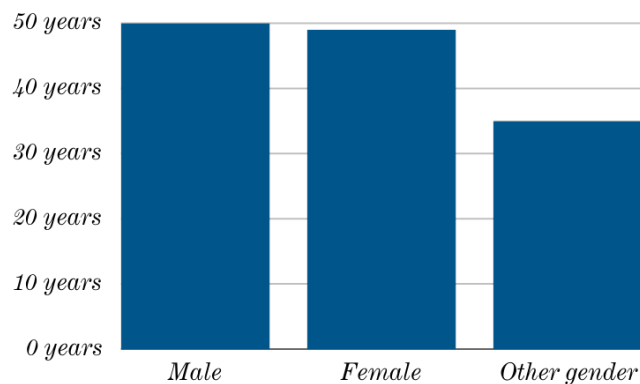


Chart 3. Birders' Participation by Age and Gender



The higher the annual income and education level the more likely a person is to be a birder. With the exception of birders with income over \$200,000, income and participation rates are positively correlated (Table 2). This same association holds

for birders around the home and birders away from home (Chart 4). Chart 5 shows that by gender, both female birders and other gender birders are below the birder's average income of \$100,000 to \$149,000.

Table 2. Income Distribution of the U.S. Population and Birders: 2022

Population 16 years of age and older. Numbers in thousands.

Household Income	U.S. Population	Number of Birders	Away from Home	Around the Home
Less than \$10,000	29,217	6,622	2,729	6,036
\$10,000 to \$14,999	14,251	4,552	1,984	4,282
\$15,000 to \$24,999	23,940	8,371	3,638	7,869
\$25,000 to \$34,999	27,338	10,006	4,390	9,403
\$35,000 to \$49,999	33,368	12,381	5,509	11,697
\$50,000 to \$74,999	42,228	17,053	7,437	16,176
\$75,000 to \$99,999	30,728	12,390	5,669	11,773
\$100,000 to \$149,999	30,108	12,835	5,880	12,273
\$150,000 to \$199,999	11,558	5,166	2,533	4,967
\$200,000 or more	11,431	4,635	2,008	4,410

Note: Summing participant subcategories does not add to total birders (96 million) because some respondents did not provide all demographic information.

Chart 4. Birders' Participation Rate by Annual Household Income

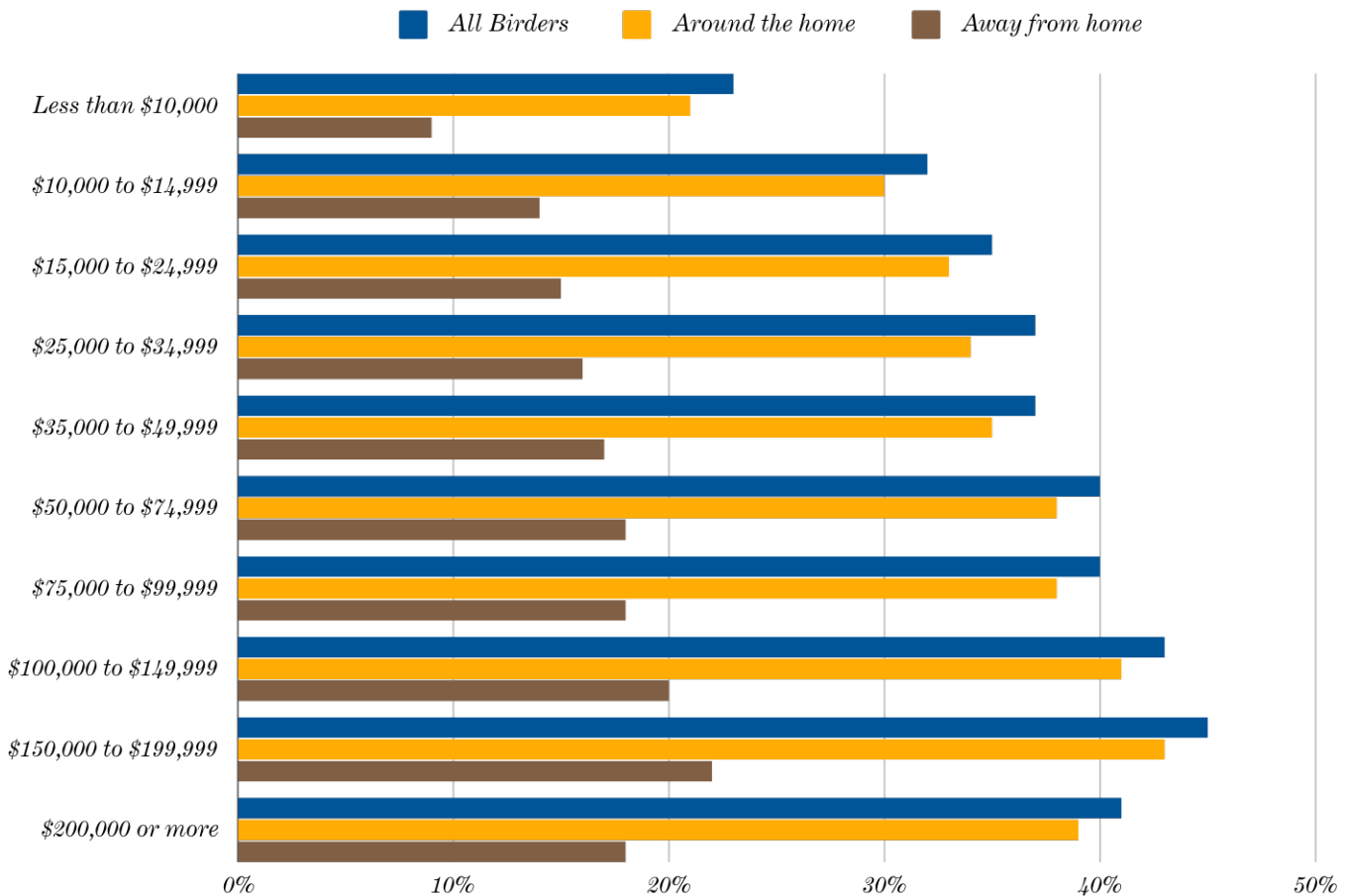
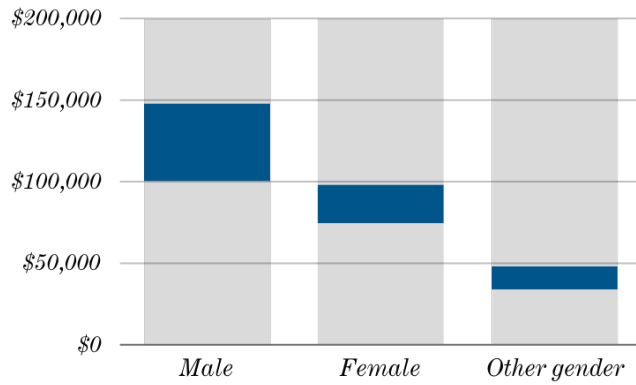


Chart 5. Birders' Participation by Household Income Range and Gender



Education, which is often highly correlated with income, shows the same positive participation rate trend. People with less than high school education participated at 25 percent — far below the national average of 37 percent. People with some college education participated at 40 percent and those with a bachelor's degree participated at 47 percent. Birders with graduate school dipped down slightly from this trend to the 36 percent participation rate. There is no difference in the average education level for birders of different genders. See Table 3 and Chart 6 for more information.

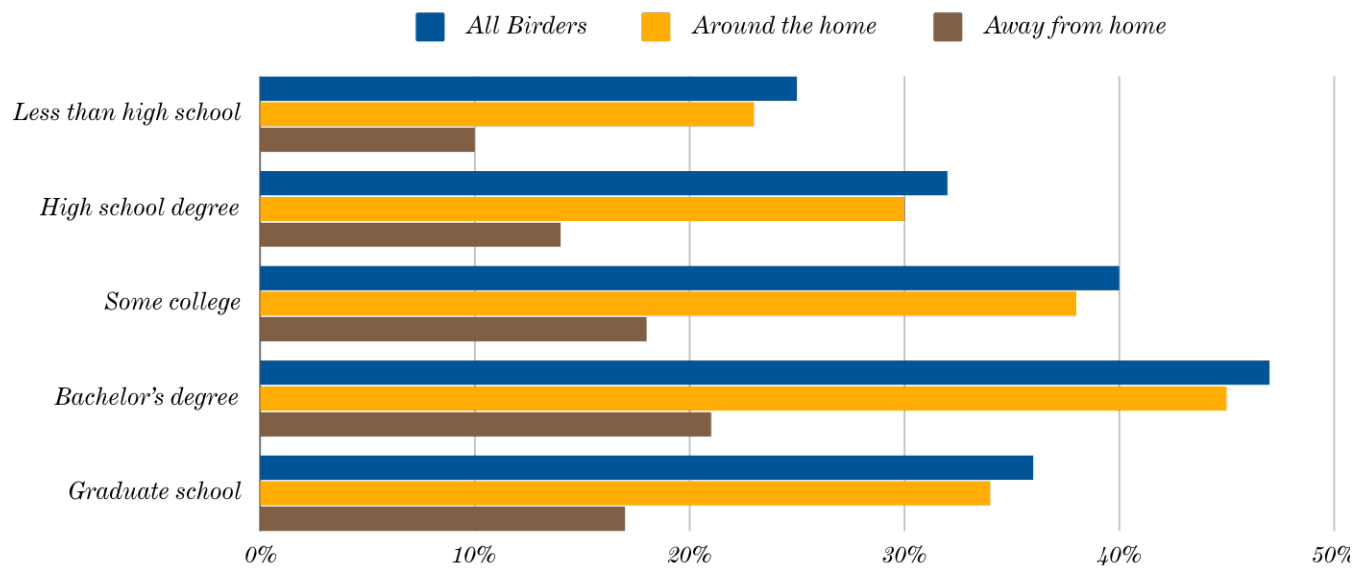
Table 3. Educational Distribution of the U.S. Population and Birders: 2022

Population 16 years of age and older. Numbers in thousands.

Education	U.S. Population	Number of Birders	Away from Home	Around the Home
Less than high school	14,682	3,622	1,456	3,336
High school degree	86,266	27,829	11,742	26,018
Some college	72,864	29,376	13,022	27,948
Bachelor's degree	44,926	21,035	9,569	19,996
Graduate school	37,463	13,363	6,278	12,807

Note: Summing participant subcategories does not add to total birders (96 million) because some respondents did not provide all demographic information.

Chart 6. Birders' Participation Rate by Education



Unlike hunting and fishing participation, females and males comprise the same percentage of all birders and around the home birders — 49 percent in 2022, followed by 1 percent for other genders (See Chart 7). Away from home birders are slightly more likely to be males (51 percent are males, 48 percent are females, and 2 percent are other genders). Birders hover at similar participation rates as the national average with 36 percent for females, 38 percent for males and 35 percent for other genders.

Chart 7. Percent of Birders by Gender: 2022

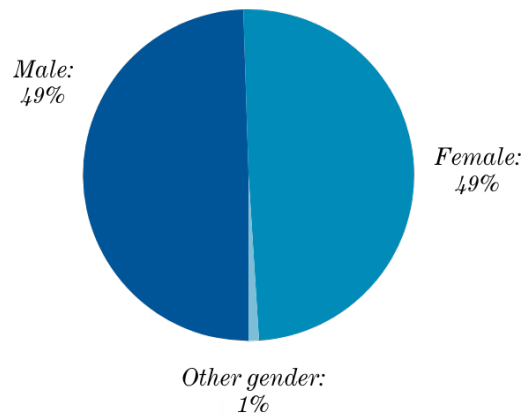


Table 4. Gender Distribution of the U.S. Population and Birders: 2022

Population 16 years of age and older.

Gender	U.S. Population	Number of Birders	Away from Home	Around the Home
Female	130,810,173	47,223,975	20,184,276	44,957,245
Male	124,186,349	47,485,475	21,649,599	44,673,795
Other gender	3,693,781	1,285,452	639,428	1,207,770

Note: Summing participant subcategories does not add to total birders (96 million) because some respondents did not provide all demographic information.



Excluding people that categorize their race as “Other,” birders are homogenous. Seventy-five percent of birders identified themselves as White. However, Asian Americans participated at the highest rate of any group (47 percent). Other minority birders have low numbers not just as a reflection of their relatively low numbers in the population at large but also as a function of low participation rates. The participation rates of Hispanics, African Americans, and All Others were 34 percent, 26 percent, and 19

percent, respectively, which were all below the 37 percent national average.

The more sparsely populated an area, the more likely its residents were to watch birds. The participation rate for people living outside of the largest cities was slightly above the national average. Whereas large metropolitan areas (1 million residents or more) had the greatest number of birders, their residents had the lowest participation rate, 35 percent. See Table 6.

Table 5. Racial and Ethnic Distribution of the U.S. Population and Birders: 2022

Population 16 years of age and older. Numbers in thousands.

Race	U.S. Population	Number of Birders	Away from Home	Around the Home
Hispanic	44,808	15,341	7,791	14,005
White	178,338	73,395	31,737	70,136
African American	36,128	9,315	4,240	8,460
Asian American	10,859	5,062	2,366	4,739
All Others	51,100	9,848	4,746	9,053

Note: Summing participant subcategories adds to more than total birders (96 million) because respondents fell into more than one demographic category. Those with Hispanic ethnicity are also included in the White, African American, Asian American, and All Others race categories.

Chart 8. Birders' Participation Rate by Race and Ethnicity

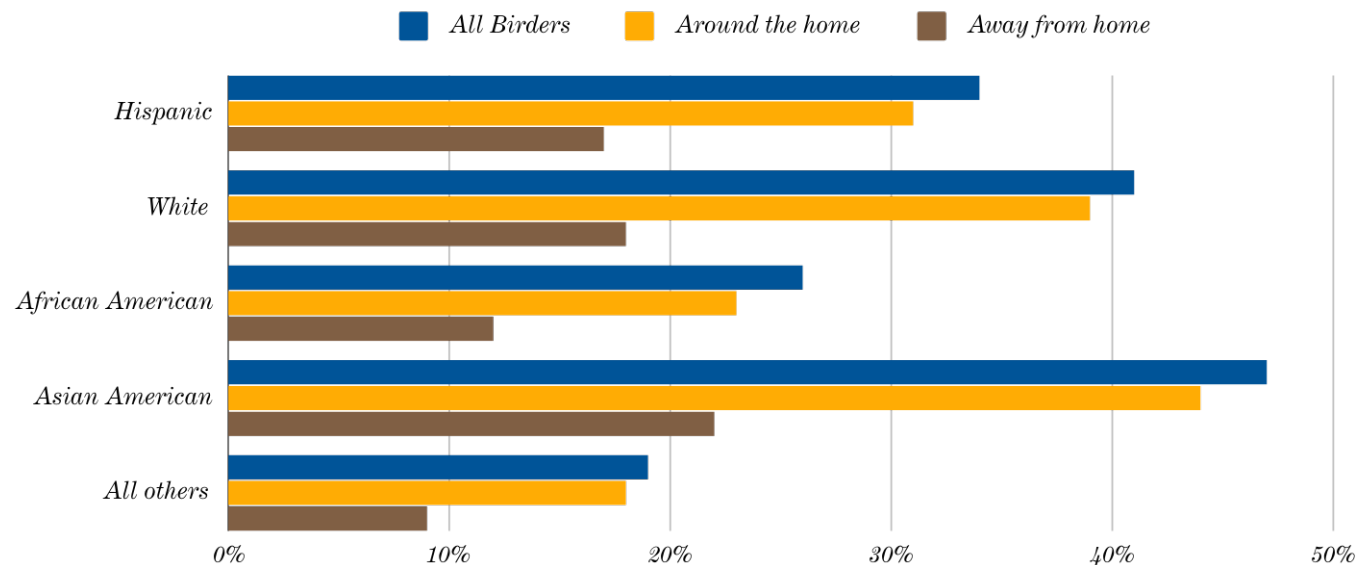


Table 6. Number Who Birded by Residence: 2022

Population 16 years of age and older. Numbers in thousands.

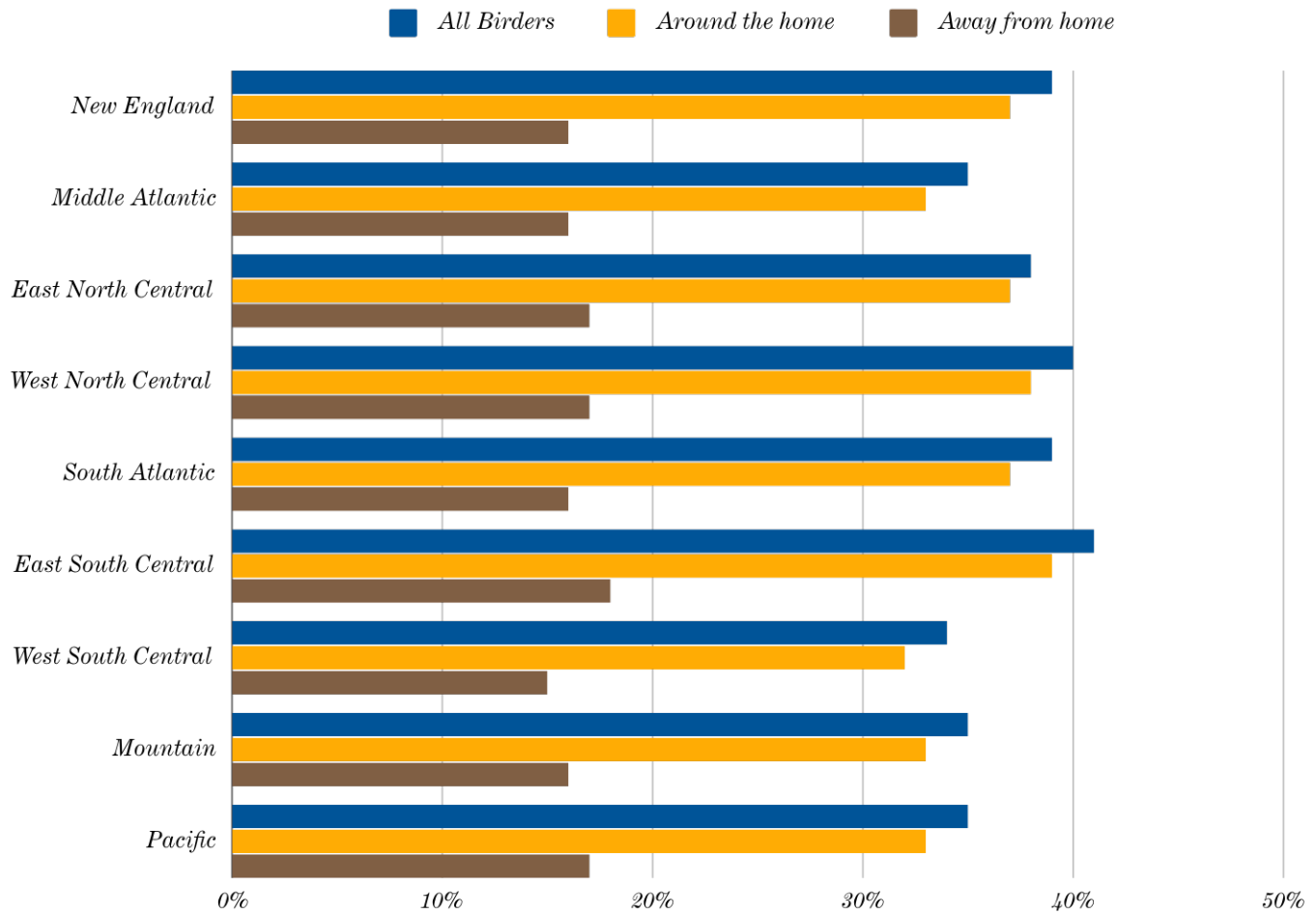
Metropolitan Statistical Area	U.S. Population	Number of Birders	Away from Home	Around the Home
1,000,000 or more	120,313	41,748	18,548	39,388
250,000 to 999,999	45,158	17,700	7,820	16,789
50,000 to 249,999	21,052	8,648	3,599	8,117
Outside MSA	72,302	28,044	12,526	26,705

Participation rates are varied across the United States, reported here by U.S. Census Bureau's Divisions. The highest participation rates occur in the East South Central (Kentucky, Tennessee, Mississippi, and Alabama) at 41 percent, followed by

the West North Central (North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, and Missouri), with 40 a percent participation rate. See Chart 9 for more details.

Chart 9. Birding Participation Rates by Census Division Residents: 2022

16 years of age and older



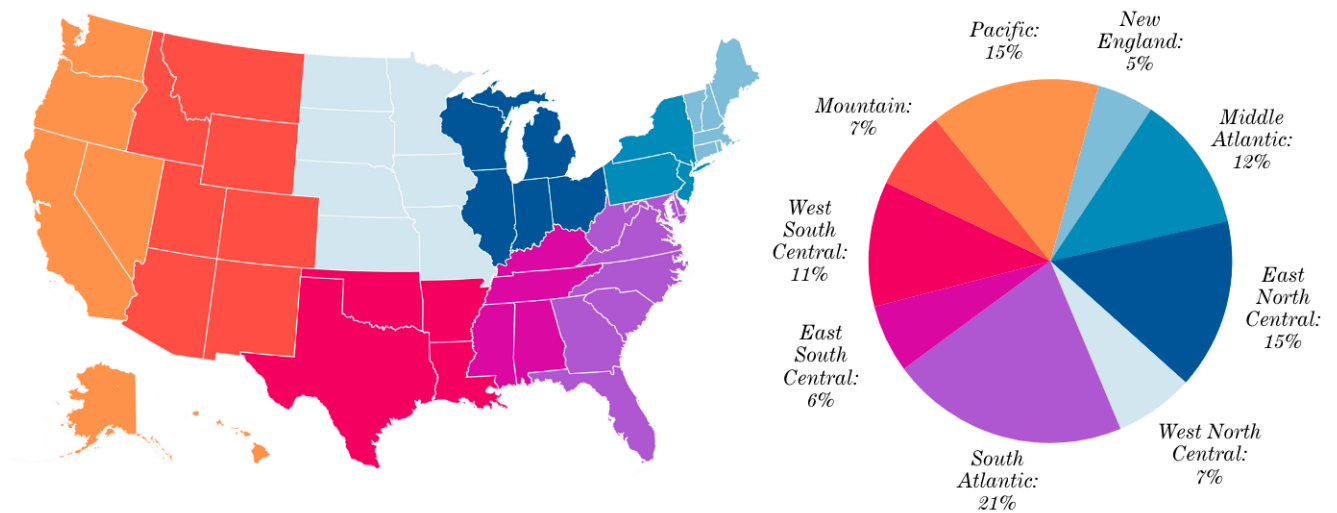


By sheer numbers, most birders were concentrated in the South Atlantic (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida), with

approximately 20.6 million birders or 21 percent of birders (see Figure 1). Conversely, New England had the least number of birders (4.7 million birders or 5 percent).

Figure 1. Divisional Distribution of Birders by Region of Residence: 2022

Total: 96 million birders, 16 years of age and older.



How Often Do Birders Observe, Photograph, or Feed Birds?

All people identified as birders in this report said that they took an active interest in birds — defined as trying to closely observe or identify different species. But what is the extent of their interest? The number of days spent birding determined avidity.

Presumably because of the relative ease of backyard birding, birders around the home spent four times as many days watching birds as did people who traveled more than a mile from home to bird watch. Birders observed birds for 7.5 billion days in 2022. The mean number of days for all birders was 78; for backyard birders it was 67; and for away-from-home birders it was 34. Avidity for all birders is shown in Chart 10. Avidity varies across the country (Chart 11). East North Central (Wisconsin, Michigan, Illinois, Indiana, and Ohio) averaged 96 days per birder while birders in the Pacific (Alaska, Washington, Oregon, California, and Hawaii) were the most avid away from home birders at 61 days.

Chart 10. Average Birding Days in the United States: 2022
16 years of age and older

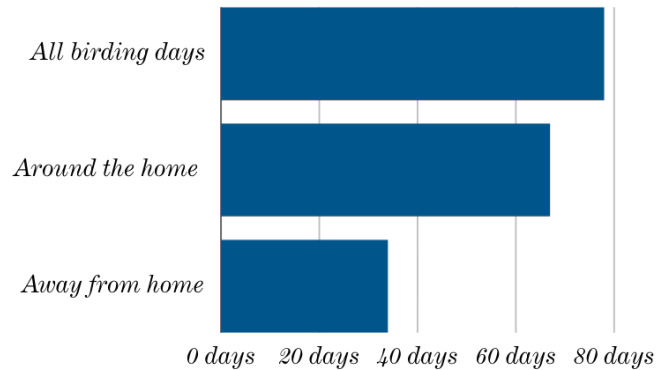
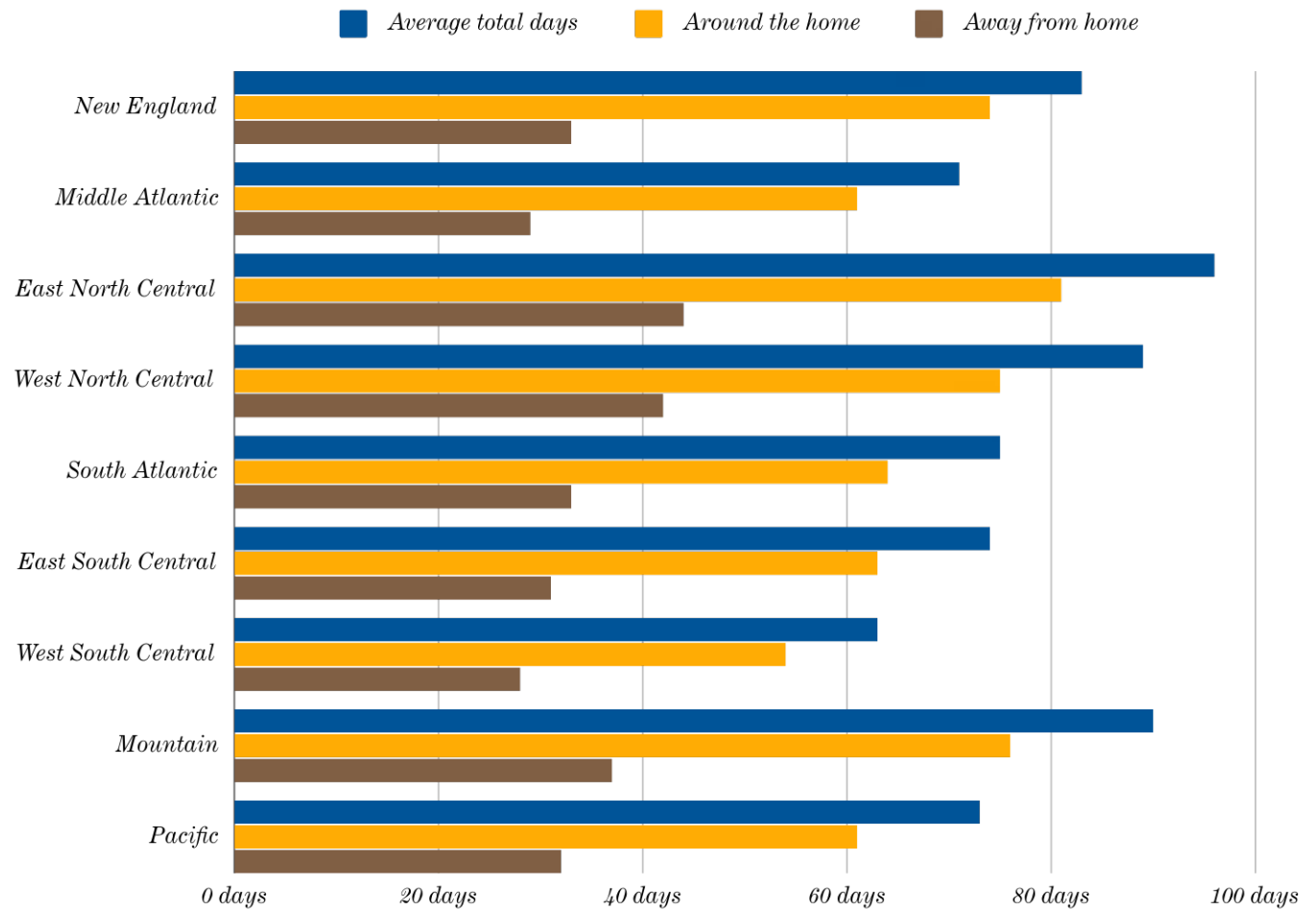




Chart 11. Birding Avidity by Census Division 2022

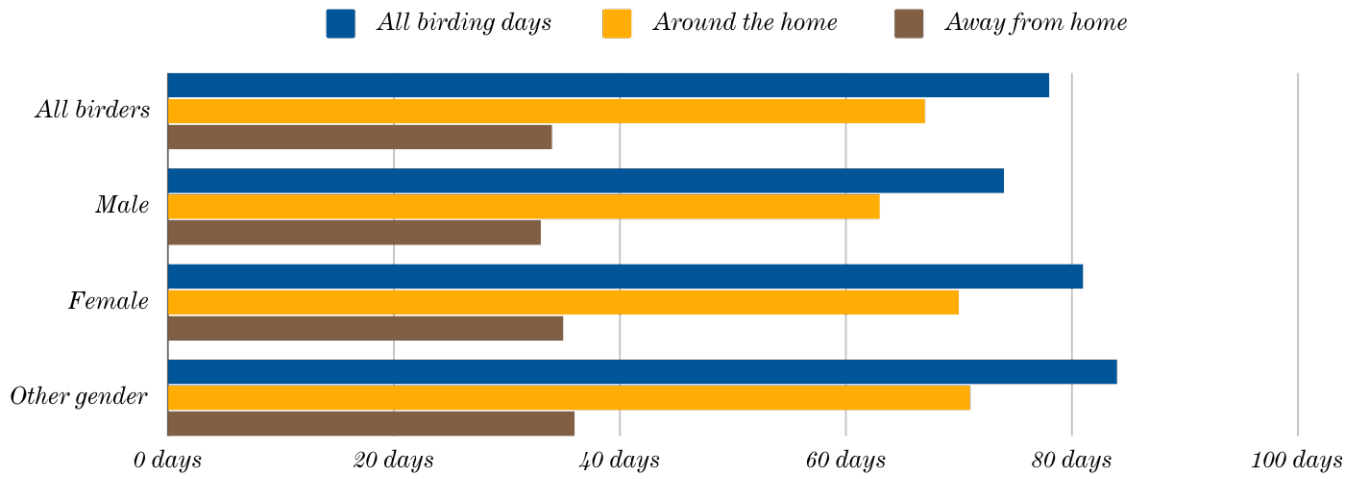
16 years of age and older



By gender, females and other genders average more birding days for both around the home and away from home compared to males (Chart 12). Males have below

average birding days for all birding days, around the home, and away from home.

Chart 12. Average Number of Birding Days by Gender: 2022





Birders and Other Wildlife-Related Pursuits

Chart 13 shows birders also participate in other wildlife-related pursuits. Twenty-four percent of birders fish; a separate 8 percent of birders hunt; and yet another 6 percent of birders both fish and hunt. On average, females and other genders are more likely to be only birders and less likely to participate in fishing or hunting (Table 7). Males, however, are less likely to be only birders and more likely to participate

in fishing and hunting. Table 8 shows that compared to the average birder, African Americans and Asian Americans are more likely to be both birders and anglers (28 percent and 31 percent, respectively) or both birders and hunters (10 percent and 7 percent, respectively). African American birders are also more likely to also participate in all three wildlife-related pursuits (8 percent).

Chart 13. Birders Who Participate in Other Wildlife Related Recreation: 2022

16 years of age and older

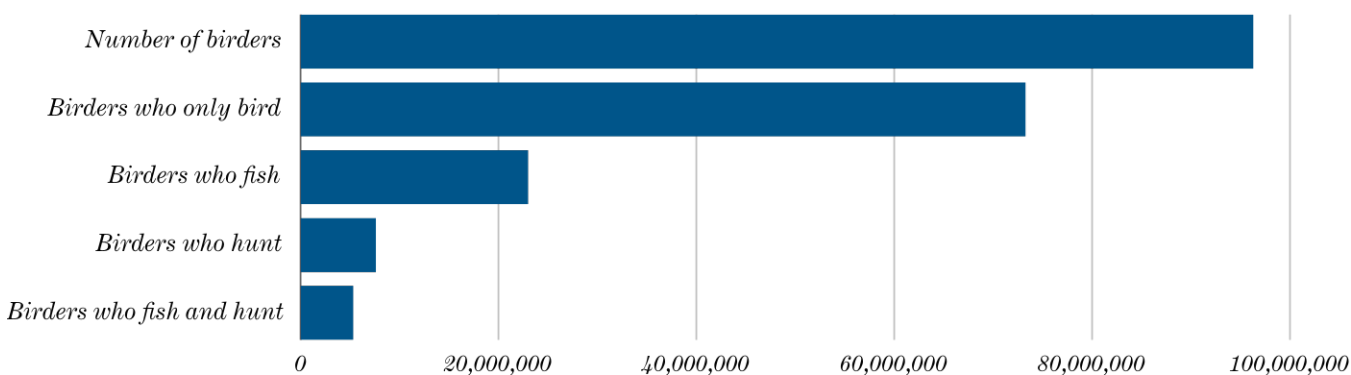


Table 7. Birders Who Participate in Other Wildlife-Related Recreation by Gender: 2022

Population 16 years of age and older.

Gender	Birders who only bird	Birders who fish	Birders who hunt	Birders who fish and hunt
Females	83%	17%	4%	2%
Males	69%	31%	12%	9%
Other Genders	83%	17%	6%	*

*Sample is too small to report.

Table 8. Birders who Participate in Other Wildlife Related Recreation by Race and Ethnic Distribution: 2022

Population 16 years of age and older.

Race and Ethnicity	Birders who only bird	Birders who fish	Birders who hunt	Birders who fish and hunt
Hispanic	74%	26%	7%	6%
White	77%	23%	8%	6%
African American	72%	28%	10%	8%
Asian American	69%	31%	7%	5%



The Economics of Birding: How Much Do Birders Spend?

Birders spend money on a variety of goods and services for their trip-related and equipment-related purchases. Trip-related expenditures include food, lodging, transportation, and other incidental expenses. Equipment expenditures consist of binoculars, cameras, camping equipment, land, and other costs.

Table 9 highlights birders' trip-related and equipment-related expenditures in 2022.¹ Birders spent an estimated \$14 billion on their trips and \$93 billion on equipment and land in 2022. For trip expenditures, 49 percent was food and lodging, 36 percent was transportation, and 15 percent was other costs such as guide fees, user fees, and equipment rental (Chart 14). In terms of equipment expenditures, the "other items" category has the highest expenditures (44 percent), where the majority of this category was from the cost of property used for observing, photographing, or feeding wildlife, including birds (\$31 billion). These were followed by special equipment (38 percent), wildlife-watching equipment (14 percent), and auxiliary equipment (4 percent).

Chart 14. Birders' Trip-Related Expenditures

Total expenditures: \$14.5 billion

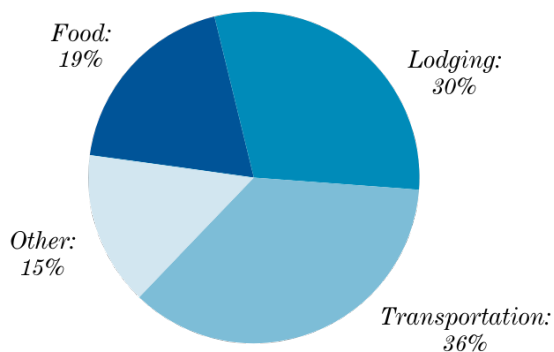


Table 9. Trip and Equipment Expenditures for Birding by Category: 2022

Total Trip and Equipment Expenditures	\$107,588,227,000
Trip-Related Expenditures*, total	\$14,490,700,000
<i>Food</i>	\$2,807,773,000
<i>Lodging</i>	\$4,296,998,000
<i>Transportation</i>	\$5,225,194,000
<i>Other</i>	\$2,160,735,000
Equipment**, total	\$93,097,527,000
<i>Wildlife-watching equipment</i>	\$12,582,608,000
<i>Auxiliary equipment</i>	\$3,469,905,000
<i>Special equipment</i>	\$35,719,186,000
<i>Other items</i>	\$41,325,828,000

*Trip-related expenditures include food, drink, lodging; public and private transportation; and other trip-related costs such as guide fees, pack trip or package fees, public and private land use access fees, equipment rental, boating costs, and heating and cooking fuel.

**Wildlife-watching equipment expenditures include: bird food, nest boxes, bird houses, bird baths, binoculars, cameras and camera equipment, photo processing, day packs, carrying cases, special clothing and other wildlife-watching items such as field guides and maps.

Auxiliary equipment includes tents, tarps, frame packs, and backpacking equipment, and other camping equipment, and other auxiliary equipment such as blinds and GPS devices.

Special equipment includes big ticket items such as boats and boat accessories, campers, trucks, and cabins.

Other items include land leasing and ownership, plantings, membership dues and contributions, and magazines, books, and DVDs.

¹ The Survey does not have an expenditure category for birding. Therefore, expenditures are prorated by multiplying wildlife watching expenditures by a ratio to derive birding expenditures. For trip-related expenditures, the ratio includes only away-from-home birders and is (total number of away-from-home days watching birds)/(total number of away-from-home days watching wildlife). For equipment-related expenditures, the ratio includes both away-from-home birders and around-the-home birders. The equipment-related expenditure ratio is (total number of days watching birds)/(total number of days watching wildlife).



Table 10 illustrates average trip and equipment expenditures per birder. Birders averaged \$3,738 for all trip-related and equipment expenditures. Table 11 shows female birders spend the most in every expenditure category except auxiliary

equipment. Females spend more than males for total expenditures (12 percent more), trip-related expenditures (9 percent more), and equipment expenditures (12 percent more). Males spend slightly more (2 percent) compared to other genders.

Chart 15. Birders' Equipment Expenditures

Total expenditures: \$93.1 billion

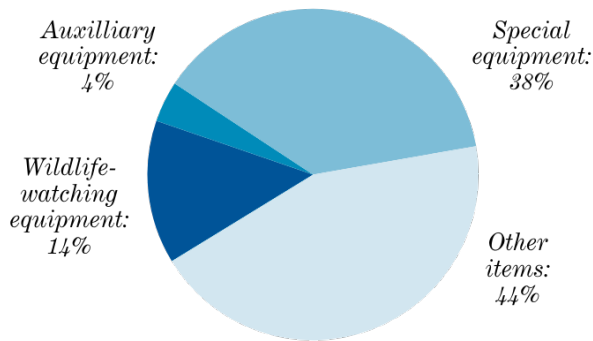


Table 10. Average Trip and Equipment Expenditures per Birder: 2022

	All Birders
Total Trip and Equipment Expenditures	\$3,738
<i>Trip-related expenditures</i>	\$339
Equipment	
<i>Wildlife-watching equipment</i>	\$182
<i>Auxiliary equipment</i>	\$124
<i>Special equipment</i>	\$2,357
<i>Other items</i>	\$737

Table 11. Average Trip and Equipment Expenditures per Birder by Gender: 2022

	Females	Males	Other Gender
Total Trip and Equipment Expenditures	\$3,991	\$3,565	\$3,489
Trip-Related Expenditures	\$356	\$327	\$260
Equipment			
<i>Wildlife-watching equipment</i>	\$186	\$178	\$176
<i>Auxiliary equipment</i>	\$122	\$126	\$116
<i>Special equipment</i>	\$2,589	\$2,200	\$2,235
<i>Other items</i>	\$738	\$734	\$703

Economic Contribution: How Do Birders' Expenditures Affect the Economy?

Expenditures by birders support jobs and business activity in local economies across the country. By having ripple effects throughout the economy, direct trip-related and equipment expenditures are only part of the economic contribution of birding. The effect on the economy in excess of these direct expenditures is known as the multiplier effect. For example, a birder may purchase a bird house to enhance birding at home. Part of the purchase price will stay with the local retailer. The local retailer, in turn, purchases the bird house from input suppliers (such as the wholesaler who in turn pays the manufacturer of the bird houses) which creates indirect effects. Employees of directly affected businesses (e.g., the retailer selling the bird house) and employees of input suppliers (e.g., the manufacturer of the bird house) use their income to purchase goods and services, which generates induced effects. In this sense, each dollar of local retail expenditures can affect a variety of businesses across the economy. Thus, expenditures associated with birding ripples through the economy by stimulating economic activity, affecting employment, and household income. To measure these effects, economic input-output models² derive estimates for total industry output, jobs, labor income, value added and tax revenue associated with birding. Total industry output includes the direct, indirect, and induced effects of the expenditures associated with birding. Value added is the difference between the value of industry production (output) and the cost of intermediate inputs required to produce the goods and services; it is the contribution to Gross Domestic Product.

Table 12 lists the economic contributions of birding expenditures in 2022. Birders' trip-related and equipment expenditures of \$108 billion contributed to 1.4 million jobs with \$90.2 billion in labor income. Value added totaled \$152 billion from total industry output of \$279 billion. Birders' expenditures also contributed to County tax revenue (\$7 billion), State tax revenue (\$9 billion), and Federal tax revenue (\$22 billion).

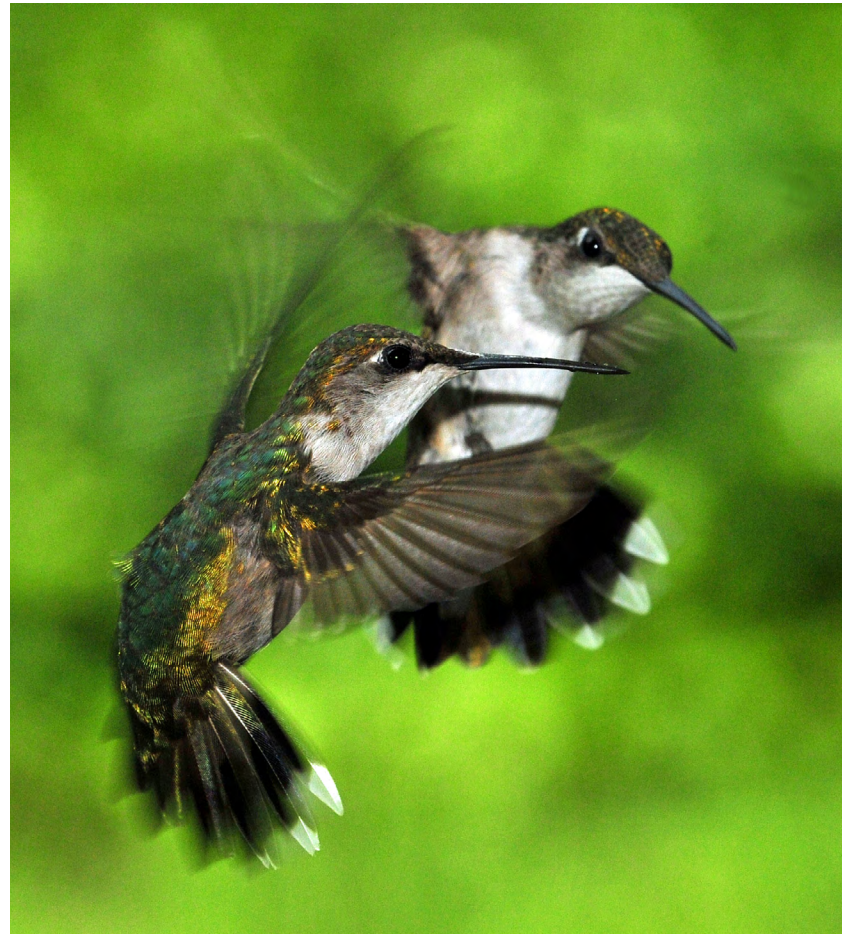


Table 12. 2022 Economic Contributions of Birding

<i>Birders</i>	96 million
<i>Total Expenditures</i>	\$107,588,228,000
<i>Total Output</i>	\$279,456,100,000
<i>Jobs</i>	1,405,000
<i>Employment Income</i>	\$90,170,459,000
<i>County Tax Revenue</i>	\$6,965,156,000
<i>State Tax Revenue</i>	\$9,378,028,000
<i>Federal Tax Revenue</i>	\$22,214,921,000

² The estimates for total industry output, employment, employment income, and federal and state taxes were derived using IMPLAN, a regional input-output model and software system.

Conclusion



This report presented information on the participation and expenditure patterns of 96 million birders in 2022. Birders of all backgrounds have a profound effect; their expenditures contribute to economies both around their neighborhoods and around the country. Trip-related and equipment-related expenditures associated with birding in 2022 supported \$279 billion in total industry output, 1.4 million jobs, and \$90 billion in job income. This economic contribution is distributed across local, state, and national economies.

Birding positively influences people through its aesthetic and intrinsic value. This pursuit, sometimes done from the comfort of a kitchen window, or conversely on a trek far from home, either way, birding connects people with nature in a way where they become more intimate with their surroundings. Birding can be physically rigorous or passive, educational and entertaining, and therapeutic.

The data presented in this report may help planners, natural resource managers, and industries better understand those who they serve. This information is relevant for economic planning at the community, state, and larger geographical levels, such as Statewide Comprehensive Outdoor Recreation Plans, Federal land management planning processes for the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service's National Wildlife Refuge System, and Bureau of Land Management.

Tourism and visitor bureaus ranging from the community to the state level, as well as economic development offices, private research and planning firms, and university researchers may find utility in the data for planning advertising or infrastructure needs into the future.

Minority groups are of interest to state and federal government programs concerned with broadening the spectrum of individuals who participate in birding and other outdoor pursuits. This report offers a benchmark in time of current participation and lends itself to managers and planners for setting future participation goals.

Expenditure data provides manufacturers, wholesalers and retailers of specialized equipment used by ardent birders with a better understanding of how their customers and potential consumers spend their time and money. Data related to trip and equipment expenditures may allow an assessment of customer needs and interests and a refinement of advertising and product development.

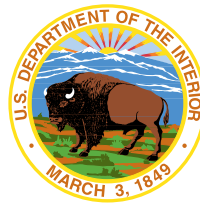
Researchers and planners are encouraged to also consult the full spectrum of data presented in the *2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*.



References

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