



NEW YORK

Bridging the 50-State Survey
of Fishing, Hunting, and Wildlife-
Associated Recreation with
Previous National Survey of
Fishing, Hunting, and Wildlife-
Associated Recreation Trends

Final Methodology Overview

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OVERVIEW

In 2016, the Rockville Institute conducted the 50-State Survey of Fishing, Hunting and Wildlife-Associated Recreation (FHWAR); see more details in Rockville Institute (2018). Concurrently, the Census Bureau conducted the 2016 National Survey of FHWAR; see more details in U.S. Department of the Interior, U.S. Fish & Wildlife Service, and U.S. Department of Commerce U.S. Census Bureau (2018). The two surveys were based on samples of addresses intended to be representative of the United States population living in households, and used questionnaires as nearly identical as possible. Both surveys identified likely sports-persons and wildlife watchers within sampled households, and individual participation surveys covered all of calendar year 2016. However, differences in sample design, sample selection process and mode of data collection resulted in estimates that were substantially different between the surveys.

Estimates from the 2016 National Survey of FHWAR are directly comparable to those from previous surveys such as the 2011 National Survey of FHWAR; see U.S. Department of the Interior, U.S. Fish & Wildlife Service, and U.S. Department of Commerce U.S. Census Bureau (2014). Due to its modest sample size, it can only produce reliable estimates at the national and census division level. In contrast, the 50-State Survey of FHWAR produced state-level estimates, but these estimates are not directly comparable to those from previous surveys. The Rockville Institute therefore completed a project to create new state-level estimates that are calibrated to those of the 2016 National Survey of FHWAR. The dual purpose of these calibrated estimates is to maintain the fine level of granularity of the 50-State Survey of FHWAR but enable comparison to previous National Surveys of FHWAR.

Through this bridging project, the Rockville Institute created new state-level tables showing adjusted survey

estimates by state of residency of the participants. These tables show the estimated demographics, participation, days, trips and expenditures, for fishing, hunting and wildlife-related activities for residents of each of the 50 states and DC. The tables correspond to Tables 5, 15, 22, 28, 30, 33, 35, and 36 in the state reports released by the Rockville Institute in 2018, with the exception of Tables 28 and 33, where we report an extended set of statistics compared to those reported in the 50-State Survey of FHWAR report.

The calibration procedure used to create these tables involved a combination of data harmonization and statistical modeling of the differences between the two surveys. The procedure consisted of the following major steps. First, the estimated demographic compositions of both surveys were aligned at the census division level, using survey calibration methods. Second, a statistical model was developed to account for the differences in participation rates in hunting, fishing and wildlife-related activities between the two surveys. This “bridging model” was used to predict state-level participating rates that are consistent with those obtained using the Census Bureau methodology. By combining these predicted participation rates with the harmonized population estimates, calibrated estimates of the numbers of participants in each state were obtained. Third, the characteristics of the participants’ activities, such as the number and type of activities, days of participation and types of associated expenditures, were adjusted by means of estimated products or ratios of these characteristics between the two surveys. Finally, applying these products or ratios to the calibrated estimates of the participant numbers made it possible to produce the calibrated tables of estimates mentioned above. For more details about the bridging project, see Rockville Institute (2020).

References

- Rockville Institute. 2018. *2016 50-State Survey of Fishing, Hunting, and Wildlife-Related Recreation: National*.
- Rockville Institute. 2020. *Bridging the 50-State Surveys of Fishing, Hunting, and Wildlife-Associated Recreation with Previous National Survey of Fishing, Hunting, and Wildlife-Associated Recreation Trends. Final Methodology Report*.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce U.S. Census Bureau. 2014. *2011 National Survey of Fishing, Hunting, and Wildlife-Related Recreation*.
- U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce U.S. Census Bureau. 2018. *2016 National Survey of Fishing, Hunting, and Wildlife-Related Recreation*.

APPENDIX A: POINT ESTIMATES

The tables in Appendix A depict the calibrated point estimates, subject to rounding error. The format of the calibrated tables in this appendix matches closely the format used in the 50-State Survey of FHWAR reports. Summary statistics reported in the calibrated tables are described below, by table.

Table 5

Fishing and hunting, participation, days, and trips

- Total fishing participation and total hunting participation: product-type statistics derived using model predictions for percent participation in the population and total population based on adjusted 50-State Survey of FHWAR weights.
- Total freshwater, freshwater except Great Lakes, Great Lakes, and saltwater fishing participation, total big game, small game, migratory birds, and other animals hunting participation: product-type statistics derived using total fishing participation, total hunting participation, percent participation of freshwater, freshwater except Great Lakes, Great Lakes, and saltwater fishing in all fishing, and percent participation of big game, small game, migratory birds, and other animals hunting in all hunting (columns denoted by %).
- Total fishing (all and subcategories) days/trips of participation and total hunting (all and subcategories) days/trips of participation: product-type statistics derived using total number of fishing (all and subcategories) participants, total number of hunting (all and subcategories) participants, and days/trips per participant (not displayed).
- Percent participation (columns denoted by %): statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the fishing or hunting survey for the fishing and hunting sections, respectively.

Table 15

Fishing and hunting, demographics

- Total population (all and subcategories): composite statistics constructed using 2-way composite factors to adjusted 50-State Survey of FHWAR final weights, using data from both the fishing and the hunting surveys.
- Total number of anglers and total number of hunters: product-type statistics derived using model predictions for percent participation in the population (columns denoted by % Pop.), and total population based on adjusted 50-State Survey of FHWAR final weights.
- Total number of sportspersons: ratio-type statistics derived using total number of anglers and percent anglers in sportspersons (not displayed).
- Total population, sportspersons, anglers, hunters, by demographics: product-type statistics, derived using total population, sportspersons, anglers, hunters participation, and percent demographic-specific participation in total participation (columns denoted by %).
- Percent demographic-specific population, sportspersons, anglers, hunters participation in total participation (columns denoted by %): composite statistics constructed using 2-way composite factors to adjusted 50-State Survey of FHWAR final weights, using data from the fishing and hunting surveys.
- Percent demographic-specific anglers and hunters participation in the total demographic-specific population (columns denoted by % Pop.): ratio-type statistics, derived using total demographic-specific anglers and hunters participation and total demographic-specific population.

- Percent total and demographic-specific sportspersons participation in the total and demographic-specific population (column denoted by % Pop.): ratio-type statistics, derived using total population and sportspersons participation.

Table 22

Fishing and hunting, spenders and expenses

- Total fishing and hunting expenditure (all and subcategories) amount, total fishing expenditure (all and subcategories) amount, total hunting expenditure (all and subcategories) amount, and total unspecified expenditure amount: product-type statistics derived using expenditure amount per participant (columns denoted by Average Per Sportsperson), and total sportspersons participation (all and subcategories), total anglers participation (all and subcategories), total hunters participation (all and subcategories) and total sportspersons participation, respectively.
- Expenditure amount per participant (columns denoted by Average Per Sportsperson) and expenditure amount per spender (columns denoted by Average Per Spender):
 - > Fishing section: statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the fishing survey only.
 - > Hunting section: statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the hunting survey only.
 - > Fishing and hunting, and unspecified sections: except for some expenses and spenders noted in the table footnotes, these are composite statistics constructed using 2-way composite factors to adjusted 50-State Survey of FHWAR final weights, using data from the fishing and hunting surveys.
- Total fishing and hunting (all and subcategories) number of spenders, total fishing (all and subcategories) number of spenders, total hunting (all and subcategories) number of spenders, and total unspecified number of spenders: product-type statistics derived using the percent spenders in total participation (not displayed), and total sportspersons participation (all and subcategories),

total anglers participation (all and subcategories), total hunters participation (all and subcategories) and total sportspersons participation, respectively.

Table 28

Wildlife watching, participation, days, and trips

- Total wildlife watching participation: product-type statistics derived using model predictions for percent participation in the population, and total population based on adjusted 50-State Survey of FHWAR final weights.
- Total away from home (all and subcategories) and around the home (all and subcategories) wildlife watching participation: product-type statistics derived using total wildlife watching participation, and percent participation of away from home (all and subcategories) and around the home (all and subcategories) wildlife watching in all wildlife watching (columns denoted by %).
- Total wildlife watching (all and subcategories) days/trips of participation: product-type statistics derived using total number of wildlife watching (all and subcategories) participants and days/trips per participant (not displayed).
- Percent participation (columns denoted by %): statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the wildlife watching survey.
- Percent participation in the total population (column denoted by % Pop.): ratio-type statistics, derived using total population from Table 30 and wildlife watching participation.

Table 30

Wildlife watching, demographics

- Total population (all and subcategories): composite statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the wildlife watching survey. Note that the total population estimates in Tables 15 and 30 differ due to demographic harmonization without state targets estimated from the National Survey of FHWAR (information not available); see Rockville Institute (2020) for more details about the demographic harmonization.

- Total number of wildlife watchers: product-type statistics derived using model predictions for percent participation in the population (columns denoted by % Pop.) and total population based on adjusted 50-State Survey of FHWAR weights.
- Total number of away from home or around the home wildlife watchers: product-type statistics derived using total number of wildlife watchers, and percent away from home or around the home wildlife watchers in all wildlife watchers (columns denoted by % Pop. in Table 35; not displayed).
- Total population, wildlife watchers, away from home, around the home, by demographics: product-type statistics, derived using total population, wildlife watchers, away from home, around the home participation, and percent demographic-specific participation in total participation (columns denoted by %).
- Percent demographic-specific population, wildlife watchers, away from home, around the home participation in total participation (columns denoted by %): composite statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the wildlife watching survey.
- Percent demographic-specific wildlife watchers, participation in the total demographic-specific population (column denoted by % Pop.): ratio-type statistics, derived using total demographic-specific wildlife watchers participation and total demographic-specific population.
- Percent total and demographic-specific away from home and around the home participation in the total and demographic-specific population (columns denoted by % Pop.): ratio-type statistics, derived using total population and away from home and around the home participation, respectively.

Table 33

Wildlife watching, spenders and expenditures — three versions for all wildlife watchers, away from home wildlife watchers, and around the home wildlife watchers

- Total wildlife watching expenditure (all and subcategories) amount: product-type statistics derived using total number of wildlife watching (all and subcategories)

- participants and expenditure amount per participant (columns denoted by Average Per Wildlife Watcher).
- Expenditure amount per participant (columns denoted by Average Per Wildlife Watcher) and expenditure amount per spender (columns denoted by Average Per Spender): statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the wildlife watching survey only.
- Total wildlife watching (all and subcategories) number of spenders: product-type statistics derived using total number of wildlife watching (all and subcategories) participants and the percent spenders in total participation (columns denoted by Percent of Wildlife Watchers).
- Percent spenders in total participation (columns denoted by Percent of Wildlife Watchers): statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the wildlife watching survey only.

Table 35

Wildlife watchers participating in fishing and hunting

- Total number of wildlife watchers: product-type statistics derived using model predictions for percent participation in the population (columns denoted by % Pop. in Table 30), and total population based on adjusted 50-State Survey of FHWAR final weights (displayed in Table 30).
- Total number of away from home or around the home wildlife watchers: product-type statistics derived using total number of wildlife watchers, and percent away from home or around the home wildlife watchers in all wildlife watchers (columns not displayed).
- Total number of wildlife watchers, away from home, around the home who did not fish or hunt, fished or hunted, fished, hunted: product-type statistics, derived using total number of wildlife watchers, and percent sportsperson-specific category in the corresponding total participation (columns denoted by %).
- Percent sportsperson-specific category in the corresponding total participation (columns denoted by %): statistics constructed using full adjusted 50-State Survey of FHWAR final weights, using data from the wildlife watching survey.

Table 36

Sportspersons participating in wildlife watching

- Total number of sportspersons: ratio-type statistics derived using total number of anglers, percent anglers in sportspersons (not displayed).
- Total number of anglers or total number of hunters: product-type statistics derived using model predictions for percent participation in the population (columns denoted by % Pop. in Table 15), and total population based on adjusted 50-State Survey of FHWAR final weights (displayed in Table 15).
- Total number of sportspersons, anglers, or hunters who did not wildlife watch, wildlife watch, wildlife watch away from home, wildlife watch around the home: product-type statistics, derived using total number of sportspersons, anglers, or hunters, and percent wildlife watcher-specific category in the corresponding total participation (columns denoted by %).
- Percent wildlife watcher-specific category in the corresponding total participation (columns denoted by %): composite statistics constructed using 3-way composite factors to adjusted 50-State Survey of FHWAR final weights, using data from the fishing, hunting, and wildlife watching surveys.

Table 5 New York Resident Anglers and Hunters, Days of Participation and Trips in the United States,
by Type of Fishing and Hunting: 2016
(Population 16 years and older. Numbers in thousands)

	PARTICIPANTS		DAYS OF PARTICIPATION		TRIPS	
	#	%	#	%	#	%
ALL FISHING	1,574	100	26,484	100	13,692	100
All freshwater	1,036	66	16,620	63	6,010	44
Freshwater, except Great Lakes	993	63	13,437	51	4,145	30
Great Lakes	409	26	3,184	12	1,866	14
Saltwater	802	51	9,863	37	7,682	56
ALL HUNTING	449	100	7,889	100	8,158	100
Big game	444	99	7,058	89	6,491	80
Small game	108	24	1,298	16	879	11
Migratory birds	35	8	540	7	496	6
Other animals	74	16	369	5	291	4

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

Table 15 New York Resident Anglers and Hunters, by Selected Characteristics: 2016
(State population 16 years and older. Numbers in thousands)

	POPULATION		SPORTSPERSONS			ANGLERS			HUNTERS		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
TOTAL	16,133	100	1,895	12	100	1,574	10	100	449	3	100
RESIDENCE DENSITY											
Urban	14,139	88	1,434	10	76	1,257	9	80	273	2	61
Rural	1,993	12	461	23	24	318	16	20	176	9	39
RESIDENCE SIZE											
Metropolitan Statistical Area (MSA)	15,733	98	1,860	12	98	1,541	10	98	438	3	97
1,000,000 or more	12,396	77	981	8	52	847	7	54	151	1	34
250,000 to 999,999	1,822	11	465	26	25	455	25	29	133	7	30
50,000 to 249,999	1,516	9	413	27	22	239	16	15	153	10	34
Outside MSA	399	2	35	9	2	34	8	2	11	3	3
SEX											
Male	7,970	49	1,142	14	60	923	12	59	300	4	67
Female	8,163	51	752	9	40	652	8	41	149	2	33
AGE											
16 to 17 years	326	2	84	26	4	42	13	3	33	10	7
18 to 24 years	2,851	18	120	4	6	54	2	3	32	1	7
25 to 34 years	2,214	14	399	18	21	372	17	24	79	4	18
35 to 44 years	2,190	14	488	22	26	473	22	30	126	6	28
45 to 54 years	3,332	21	262	8	14	188	6	12	51	2	11
55 to 64 years	2,710	17	179	7	9	148	5	9	25	1	5
65 years and older	2,509	16	363	14	19	296	12	19	104	4	23
65 to 74 years	1,395	9	172	12	9	166	12	11	17	1	4
75 and older	1,114	7	191	17	10	130	12	8	87	8	19
ETHNICITY											
Hispanic	4,879	30	56	1	3	58	1	4	6	0	1
Non-Hispanic	11,253	70	1,839	16	97	1,516	13	96	443	4	99
RACE											
White	12,926	80	1,643	13	87	1,401	11	89	392	3	87
African American	1,392	9	112	8	6	116	8	7	—	—	—
All Others	1,815	11	140	8	7	58	3	4	58	3	13

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Table 15 New York Resident Anglers and Hunters, by Selected Characteristics: 2016 (continued)
(State population 16 years and older. Numbers in thousands)

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	POPULATION		SPORTSPERSONS			ANGLERS			HUNTERS		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
ANNUAL HOUSEHOLD INCOME											
Less than \$20,000	1,403	9	94	7	5	80	6	5	22	2	5
\$20,000 to \$29,999	1,371	9	42	3	2	44	3	3	11	1	2
\$30,000 to \$39,999	574	4	98	17	5	61	11	4	31	5	7
\$40,000 to \$49,999	724	4	9	1	0	5	1	0	4	1	1
\$50,000 to \$74,999	2,859	18	501	18	26	455	16	29	82	3	18
\$75,000 to \$99,999	1,397	9	218	16	11	202	14	13	23	2	5
\$100,000 to \$149,999	2,545	16	286	11	15	143	6	9	109	4	24
\$150,000 or more	1,687	10	303	18	16	298	18	19	22	1	5
Not reported	3,572	22	345	10	18	286	8	18	145	4	32
EDUCATION											
8 years or less	1,014	6	19	2	1	20	2	1	8	1	2
9 to 12 years	4,512	28	492	11	26	330	7	21	159	4	35
1 to 3 years of college	5,081	31	587	12	31	440	9	28	144	3	32
4 years or more of college	5,526	34	797	14	42	784	14	50	138	3	31

— No sample data

NOTE: Detail does not add to total because of multiple responses. Percent population (% Pop.) columns show the percentage of each row's population who participated in the activity named by the column (the percentage of the population living in urban areas who fished, etc.). Columns labeled "%" under Sportspeople, Anglers, and Hunters show the percentage of each column's participants who are described by the row heading (the percentage of anglers who lived in urban areas, etc.).

Table 22 Expenditures by New York Residents for Fishing and Hunting Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER SPORTSPERSON (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)
FISHING AND HUNTING	7,654,919	4,040	4,245	1,803
Food and lodging	1,039,925	549	700	1,487
Transportation	405,249	214	278	1,456
Other trip costs ²	804,049	424	674	1,192
Equipment (fishing, hunting)	847,804	447	640	1,325
Auxiliary equipment ³	255,392	135	264	966
Special equipment ⁴	3,726,694	1,967	12,418	300
Magazines, books, and DVDs	20,833	11	103	202
Membership dues/contributions	30,135	16	87	345
Other ⁵	524,838	277	463	1,133
FISHING	2,832,626	1,799	1,859	1,524
Food and lodging	873,820	555	668	1,307
Transportation	234,085	149	176	1,327
Other trip costs ²	561,422	357	429	1,308
Fishing equipment	361,482	230	291	1,241
Auxiliary equipment ³	63,771	41	119	534
Special equipment ⁴	589,340	374	1,815	325
Magazines, books, and DVDs	6,697	4	116	58
Membership dues/contributions	16,436	10	77	215
Other ⁵	125,573	80	186	675
HUNTING	1,022,202	2,275	2,321	440
Food and lodging	111,352	248	309	361
Transportation	91,452	204	284	322
Other trip costs ²	137,660	306	1,841	75
Hunting equipment	240,679	536	914	263
Auxiliary equipment ³	44,005	98	293	150
Special equipment ⁴	188,058	419	17,200	11
Magazines, books, and DVDs	5,619	13	88	64
Membership dues/contributions	5,937	13	144	41
Other ⁵	197,441	439	461	428
UNSPECIFIED ⁶	2,904,633	1,533	8,336	348

1 Average expenditures are annual estimates.

2 Includes boating costs, equipment rental, guide fees, access fees, heating and cooking fuel, and ice and bait (for fishing only).

3 Includes sleeping bags, packs, duffel bags, tents, binoculars and field glasses, special fishing and hunting clothing, foul weather gear, boots and waders, maintenance and repair of equipment, processing and taxidermy costs, and electronic equipment such as a GPS device.

4 Includes big-ticket items bought primarily for hunting and fishing, including boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

5 Includes land leasing and ownership, licenses, stamps, tags, permits, and plantings (for hunting only).

6 Respondent could not specify whether expenditure was primarily for either fishing or hunting.

NOTE: Individual estimates do not add to total because of multiple responses, nonresponse, the independent bridging of fishing and hunting participation, and the bridging of sportspersons participation relative to fishing participation.

Table 28 New York Resident Wildlife Watchers Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	PARTICIPANTS			DAYS OF PARTICIPATION		TRIPS	
	#	%	% Pop.	#	%	#	%
WILDLIFE WATCHERS	5,479	100	35	501,322	100	22,035	100
Away from home	2,621	48	17	65,944	13	22,035	100
Observe wildlife	2,124	39	14	52,347	10	x	x
Photograph wildlife	1,509	28	10	33,241	7	x	x
Feed wildlife	917	17	6	40,909	8	x	x
Around the home	5,095	93	33	435,377	87	x	x
Observe wildlife	2,842	52	18	353,002	70	x	x
Photograph wildlife	2,423	44	15	38,920	8	x	x
Feed wildlife	3,521	64	22	x	x	x	x
Visit parks or natural areas ¹	1,931	35	12	43,454	9	x	x
Maintain plantings or natural areas	885	16	6	x	x	x	x

x Not applicable

¹ Includes visits only to parks or natural areas within one mile of home.

NOTE: Detail does not add to total because of multiple responses. Percent population (% Pop.) columns show the percentage of each row's population who participated in the activity named by the column (the percentage of the population who observed wildlife away from home, etc.). Columns labeled "%" show the percentage of each column's participants who are described by the row heading (the percentage of wildlife watchers who observed wildlife away from home, etc.).

Table 30 New York Resident Wildlife Watchers, by Selected Characteristics: 2016
(State population 16 years and older. Numbers in thousands)

	POPULATION		TOTAL			AWAY FROM HOME			AROUND THE HOME		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
TOTAL	15,676	100	5,479	35	100	2,621	17	100	5,095	33	100
RESIDENCE DENSITY											
Urban	14,055	90	4,622	33	84	2,495	18	95	4,239	30	83
Rural	1,620	10	856	53	16	127	8	5	856	53	17
RESIDENCE SIZE											
Metropolitan Statistical Area (MSA)	14,964	95	5,080	34	93	2,621	18	100	4,697	31	92
1,000,000 or more	12,469	80	4,239	34	77	2,412	19	92	3,856	31	76
250,000 to 999,999	1,529	10	397	26	7	59	4	2	397	26	8
50,000 to 249,999	966	6	444	46	8	151	16	6	444	46	9
Outside MSA	711	5	398	56	7	—	—	—	398	56	8
SEX											
Male	6,527	42	2,787	43	51	1,250	19	48	2,404	37	47
Female	9,149	58	2,691	29	49	1,371	15	52	2,691	29	53
AGE											
16 to 17 years	250	2	46	18	1	—	—	—	46	18	1
18 to 24 years	914	6	342	37	6	162	18	6	342	37	7
25 to 34 years	3,262	21	1,277	39	23	526	16	20	1,154	35	23
35 to 44 years	3,202	20	881	28	16	564	18	22	742	23	15
45 to 54 years	1,880	12	866	46	16	585	31	22	744	40	15
55 to 64 years	2,692	17	1,011	38	18	280	10	11	1,011	38	20
65 years and older	3,476	22	1,056	30	19	505	15	19	1,056	30	21
65 to 74 years	1,468	9	309	21	6	185	13	7	309	21	6
75 and older	2,008	13	747	37	14	320	16	12	747	37	15
ETHNICITY											
Hispanic	3,260	21	593	18	11	384	12	15	593	18	12
Non-Hispanic	12,416	79	4,885	39	89	2,238	18	85	4,502	36	88
RACE											
White	11,915	76	4,181	35	76	1,883	16	72	3,877	33	76
African American	1,374	9	657	48	12	201	15	8	657	48	13
All Others	2,386	15	641	27	12	537	23	20	562	24	11

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Table 30 New York Resident Wildlife Watchers, by Selected Characteristics: 2016 (continued)
(State population 16 years and older. Numbers in thousands)

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	POPULATION		TOTAL			AWAY FROM HOME			AROUND THE HOME		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
ANNUAL HOUSEHOLD INCOME											
Less than \$20,000	1,481	9	632	43	12	343	23	13	632	43	12
\$20,000 to \$29,999	1,389	9	502	36	9	296	21	11	470	34	9
\$30,000 to \$39,999	1,047	7	302	29	6	157	15	6	302	29	6
\$40,000 to \$49,999	405	3	135	33	2	96	24	4	135	33	3
\$50,000 to \$74,999	1,798	11	570	32	10	126	7	5	570	32	11
\$75,000 to \$99,999	1,960	13	922	47	17	233	12	9	922	47	18
\$100,000 to \$149,999	2,690	17	982	37	18	493	18	19	737	27	14
\$150,000 or more	2,594	17	1,082	42	20	786	30	30	975	38	19
Not reported	2,313	15	352	15	6	91	4	3	352	15	7
EDUCATION											
8 years or less	444	3	122	27	2	—	—	—	122	27	2
9 to 12 years	4,908	31	1,584	32	29	815	17	31	1,461	30	29
1 to 3 years of college	4,073	26	1,125	28	21	398	10	15	1,125	28	22
4 years or more of college	6,251	40	2,649	42	48	1,409	23	54	2,388	38	47

— No sample data

NOTE: Detail does not add to total because of multiple responses and nonresponse. Percent population (% Pop.) columns show the percentage of each row's population who participated in the activity named by the column (the percentage of the population living in urban areas who participated, etc.). Columns labeled "% under TOTAL, Away From Home, and Around the Home show the percentage of each column's participants who are described by the row heading (the percentage of those who lived in urban areas, etc.).

Table 33A Expenditures by New York Residents for All Wildlife Watching Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER WILDLIFE WATCHER (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)	PERCENT OF WILDLIFE WATCHERS
ALL EXPENDITURES	6,377,465	1,164	1,448	4,405	80
TRIP-RELATED EXPENDITURES	2,742,382	501	1,253	2,188	40
Food and lodging	1,647,256	301	922	1,787	33
Food	980,363	179	563	1,743	32
Lodging	666,893	122	809	825	15
Transportation	854,669	156	405	2,113	39
Other trip costs ²	240,457	44	245	980	18
EQUIPMENT AND OTHER EXPENDITURES	3,635,083	664	943	3,857	70
Wildlife-watching equipment	1,284,107	234	366	3,511	64
Binoculars, spotting scopes	180,835	33	260	694	13
Film and photo processing	34,619	6	82	424	8
Cameras, special lenses, video cameras, and other photographic equipment, including memory cards	258,240	47	272	950	17
Day packs, carrying cases, and special clothing	168,311	31	195	862	16
Bird food	360,228	66	143	2,511	46
Food for other wildlife	90,784	17	84	1,085	20
Nest boxes, bird houses, bird feeders, and bird baths	176,720	32	97	1,829	33
Other equipment (including field guides)	14,370	3	39	369	7
Auxiliary equipment ³	164,229	30	213	771	14
Special equipment ⁴	818,314	149	2,963	276	5
Magazines, books, and DVDs	39,506	7	75	529	10
Membership dues and contributions	144,107	26	146	985	18
Land leasing and ownership	1,036,906	189	5,123	202	4
Plantings	147,903	27	263	562	10

1 Average expenditures are annual estimates.

2 Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.

3 Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.

4 Includes boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

NOTE: Detail does not add to total because of multiple responses and nonresponse.

Table 33B

Expenditures by New York Residents for Away-from-home Wildlife Watching Both In and Out of New York: 2016

(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER WILDLIFE WATCHER (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)	PERCENT OF WILDLIFE WATCHERS
ALL EXPENDITURES	5,002,526	1,908	1,956	2,557	98
TRIP-RELATED EXPENDITURES	2,892,321	1,103	1,131	2,557	98
Food and lodging	1,843,323	703	819	2,250	86
Food	1,167,119	445	519	2,250	86
Lodging	676,204	258	554	1,220	47
Transportation	956,067	365	401	2,382	91
Other trip costs ²	92,930	35	118	785	30
EQUIPMENT AND OTHER EXPENDITURES	2,110,205	805	2,952	715	27
Wildlife-watching equipment	170,295	65	329	518	20
Binoculars, spotting scopes	48,090	18	350	137	5
Film and photo processing	—	—	—	—	—
Cameras, special lenses, video cameras, and other photographic equipment, including memory cards	—	—	—	—	—
Day packs, carrying cases, and special clothing	75,771	29	377	201	8
Bird food	4,108	2	17	240	9
Food for other wildlife	1,429	1	12	123	5
Nest boxes, bird houses, bird feeders, and bird baths	37,270	14	165	226	9
Other equipment (including field guides)	3,625	1	20	181	7
Auxiliary equipment ³	21,985	8	160	137	5
Special equipment ⁴	—	—	—	—	—
Magazines, books, and DVDs	3,153	1	25	126	5
Membership dues and contributions	22,090	8	92	241	9
Land leasing and ownership	1,892,685	722	15,000	126	5
Plantings	—	—	—	—	—

— No sample data

¹ Average expenditures are annual estimates.² Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.³ Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.⁴ Includes boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

NOTE: Detail does not add to total because of multiple responses and nonresponse.

Table 33C Expenditures by New York Residents for Around-the-home Wildlife Watching Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER WILDLIFE WATCHER (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)	PERCENT OF WILDLIFE WATCHERS
ALL EXPENDITURES	1,670,069	328	513	3,257	64
TRIP-RELATED EXPENDITURES	x	x	x	x	x
Food and lodging	x	x	x	x	x
Food	x	x	x	x	x
Lodging	x	x	x	x	x
Transportation	x	x	x	x	x
Other trip costs ²	x	x	x	x	x
EQUIPMENT AND OTHER EXPENDITURES	1,670,069	328	513	3,257	64
Wildlife-watching equipment	735,003	144	238	3,088	61
Binoculars, spotting scopes	38,969	8	142	274	5
Film and photo processing	31,907	6	155	207	4
Cameras, special lenses, video cameras, and other photographic equipment, including memory cards	203,839	40	346	589	12
Day packs, carrying cases, and special clothing	62,448	12	186	336	7
Bird food	273,258	54	138	1,981	39
Food for other wildlife	31,673	6	42	752	15
Nest boxes, bird houses, bird feeders, and bird baths	91,176	18	56	1,617	32
Other equipment (including field guides)	1,743	0	10	174	3
Auxiliary equipment ³	20,590	4	79	262	5
Special equipment ⁴	842,897	165	3,022	279	5
Magazines, books, and DVDs	9,085	2	46	197	4
Membership dues and contributions	43,270	8	110	394	8
Land leasing and ownership	—	—	—	—	—
Plantings	19,230	4	73	265	5

— No sample data x Not applicable

¹ Average expenditures are annual estimates.

² Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.

³ Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.

⁴ Includes boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

NOTE: Detail does not add to total because of multiple responses and nonresponse.

Table 35 New York Resident Wildlife Watchers Participating in Fishing or Hunting: 2016
(State population 16 years and older. Numbers in thousands)

	TOTAL		AWAY FROM HOME		AROUND THE HOME	
	#	%	#	%	#	%
ALL WILDLIFE WATCHERS	5,479	100	2,621	100	5,095	100
Did not fish or hunt	3,883	71	1,710	65	3,650	72
Fished or hunted	1,595	29	912	35	1,445	28
Fished	1,383	25	721	28	1,356	27
Hunted	616	11	410	16	493	10

NOTE: Detail does not add to total because of multiple responses and nonresponse.

Table 36 New York Resident Sportspersons Participating in Wildlife Watching: 2016
(State population 16 years and older. Numbers in thousands)

	SPORTSPERSONS		ANGLERS		HUNTERS	
	#	%	#	%	#	%
ALL SPORTSPERSONS	1,895	100	1,574	100	449	100
Did not watch wildlife	547	29	398	25	125	28
Watched wildlife	1,348	71	1,176	75	324	72
Away from home	834	44	706	45	221	49
Around the home	1,257	66	1,134	72	296	66

NOTE: Detail does not add to total because of multiple responses and nonresponse.

APPENDIX B: STANDARD ERRORS

The tables in Appendix B depict the standard errors, subject to rounding error, corresponding to the calibrated point estimates reported in the tables in Appendix A. Summary statistics reported in these calibrated tables are described below, by table.

Table 5

Fishing and hunting, participation, days, and trips

- Standard errors of total fishing participation and total hunting participation: product-type statistics derived using model point estimates and standard errors of percent participation in the population and survey point estimates and standard errors of total population based on adjusted 50-State Survey of FHWAR weights.
- Standard errors of total freshwater, freshwater except Great Lakes, Great Lakes, and saltwater fishing participation, total big game, small game, migratory birds, and other animals hunting participation: product-type statistics derived using point estimates and standard errors of total fishing participation, point estimates and standard errors of total hunting participation, point estimates and standard errors of percent participation of freshwater, freshwater except Great Lakes, Great Lakes, and saltwater fishing in all fishing, and point estimates and standard errors of percent participation of big game, small game, migratory birds, and other animals hunting in all hunting (columns denoted by %).
- Standard errors of total fishing (all and subcategories) days/trips of participation and total hunting (all and subcategories) days/trips of participation: product-type statistics derived using point estimates and standard errors of total number of fishing (all and subcategories) participants, point estimates and standard errors of total number of hunting (all and subcategories) participants, and point estimates and standard errors of days/trips per participant (not displayed).

- Standard errors of percent participation (columns denoted by %): statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the fishing or hunting survey for the fishing and hunting sections, respectively.

Table 15

Fishing and hunting, demographics

- Standard errors of total population (all and subcategories): composite statistics constructed using 2-way composite factors to adjusted 50-State Survey of FHWAR final and replicate weights, using data from both the fishing and the hunting surveys.
- Standard errors of total number of anglers and total number of hunters: product-type statistics derived using model point estimates and standard errors for percent participation in the population (columns denoted by % Pop.) and survey point estimates and standard errors of total population based on adjusted 50-State Survey of FHWAR final and replicate weights.
- Standard errors of total number of sportspersons: ratio-type statistics derived using point estimates and standard errors of total number of anglers and point estimates and standard errors of percent anglers in sportspersons (not displayed).
- Standard errors of total population, sportspersons, anglers, hunters, by demographics: product-type statistics, derived using point estimates and standard errors of total population, sportspersons, anglers, hunters participation, and point estimates and standard errors of percent demographic-specific participation in total participation (columns denoted by %).

- Standard errors of percent demographic-specific population, sportspersons, anglers, hunters participation in total participation (columns denoted by %): composite statistics constructed using 2-way composite factors to adjusted 50-State Survey of FHWAR final and replicate weights, using data from the fishing and hunting surveys.
- Standard errors of percent demographic-specific anglers and hunters participation in the total demographic-specific population (columns denoted by % Pop.): ratio-type statistics, derived using point estimates and standard errors of total demographic-specific anglers and hunters participation and total demographic-specific population.
- Standard errors of percent total and demographic-specific sportspersons participation in the total and demographic-specific population (column denoted by % Pop.): ratio-type statistics, derived using point estimates and standard errors of total population and sportspersons participation.

Table 22

Fishing and hunting, spenders and expenses

- Standard errors of total fishing and hunting expenditure (all and subcategories) amount, total fishing expenditure (all and subcategories) amount, total hunting expenditure (all and subcategories) amount, and total unspecified expenditure amount: product-type statistics derived using point estimates and standard errors of expenditure amount per participant (columns denoted by Average Per Sportsperson), and point estimates and standard errors of total sportspersons participation (all and subcategories), point estimates and standard errors of total anglers participation (all and subcategories), point estimates and standard errors of total hunters participation (all and subcategories) and point estimates and standard errors of total sportspersons participation, respectively.
- Standard errors of expenditure amount per participant (columns denoted by Average Per Sportsperson) and expenditure amount per spender (columns denoted by Average Per Spender):
 - > Fishing section: statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the fishing survey only.

- > Hunting section: statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the hunting survey only.
- > Fishing and hunting, and unspecified sections: except for some expenses and spenders noted in the table footnotes, these are composite statistics constructed using 2-way composite factors to adjusted 50-State Survey of FHWAR final and replicate weights, using data from the fishing and hunting surveys.
- Standard errors of total fishing and hunting (all and subcategories) number of spenders, total fishing (all and subcategories) number of spenders, total hunting (all and subcategories) number of spenders, and total unspecified number of spenders: product-type statistics derived using the point estimates and standard errors of percent spenders in total participation (not displayed), and point estimates and standard errors of total sportspersons participation (all and subcategories), point estimates and standard errors of total anglers participation (all and subcategories), point estimates and standard errors of total hunters participation (all and subcategories) and point estimates and standard errors of total sportspersons participation, respectively.

Table 28

Wildlife watching, participation, days, and trips

- Standard errors of total wildlife watching participation: product-type statistics derived using model point estimates and standard errors of percent participation in the population, and survey point estimates and standard errors of total population based on adjusted 50-State Survey of FHWAR final and replicate weights.
- Standard errors of total away from home (all and subcategories) and around the home (all and subcategories) wildlife watching participation: product-type statistics derived using point estimates and standard errors of total wildlife watching participation, point estimates and standard errors of percent participation of away from home (all and subcategories) and point estimates and standard errors of around the home (all and subcategories) wildlife watching in all wildlife watching (columns denoted by %).

- Standard errors of total wildlife watching (all and sub-categories) days/trips of participation: product-type statistics derived using point estimates and standard errors of total number of wildlife watching (all and subcategories) participants and point estimates and standard errors of days/trips per participant (not displayed).
- Standard errors of percent participation (columns denoted by %): statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the wildlife watching survey.
- Standard errors of percent participation in the total population (column denoted by % Pop.): ratio-type statistics, derived using point estimates and standard errors of total population from Table 30 and point estimates and standard errors of wildlife watching participation.

Table 30

Wildlife watching, demographics

- Standard errors of total population (all and subcategories): composite statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the wildlife watching survey. Note that the standard errors of total population estimates in Tables 15 and 30 differ due to demographic harmonization without state targets estimated from the National Survey of FHWAR (information not available); see Rockville Institute (2020) for more details about the demographic harmonization.
- Standard errors of total number of wildlife watchers: product-type statistics derived using model point estimates and standard errors of percent participation in the population (columns denoted by % Pop.) and survey standard error of total population based on adjusted 50-State Survey of FHWAR final and replicate weights.
- Standard errors of total number of away from home or around the home wildlife watchers: product-type statistics derived using point estimates and standard errors of total number of wildlife watchers and point estimates and standard errors of percent away from home or around the home wildlife watchers in all wildlife watchers (columns denoted by % Pop. in Table 35).

- Standard errors of total population, wildlife watchers, away from home, around the home, by demographics: product-type statistics, derived using point estimates and standard errors of total population, wildlife watchers, away from home, around the home participation and point estimates and standard errors of percent demographic-specific participation in total participation (columns denoted by %).
- Standard errors of percent demographic-specific population, wildlife watchers, away from home, around the home participation in total participation (columns denoted by %): composite statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the wildlife watching survey.
- Standard errors of percent demographic-specific wildlife watchers in the total demographic-specific population (column denoted by % Pop.): ratio-type statistics, derived using point estimates and standard errors of total demographic-specific wildlife watchers participation and point estimates and standard errors of total demographic-specific population.
- Standard errors of percent total and demographic-specific away from home and around the home participation in the total and demographic-specific population (columns denoted by % Pop.): ratio-type statistics, derived using point estimates and standard errors of total population and away from home and around the home participation, respectively.

Table 33

Wildlife watching, spenders and expenditures — three versions for all wildlife watchers, away from home wildlife watchers, and around the home wildlife watchers

- Standard errors of total wildlife watching expenditure (all and subcategories) amount: product-type statistics derived using point estimates and standard errors of total number of wildlife watching (all and subcategories) participants and point estimates and standard errors of expenditure amount per participant (columns denoted by Average Per Wildlife Watcher).

- Standard errors or expenditure amount per participant (columns denoted by Average Per Wildlife Watcher) and expenditure amount per spender (columns denoted by Average Per Spender): statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the wildlife watching survey only.
- Standard errors of total wildlife watching (all and subcategories) number of spenders: product-type statistics derived using point estimates and standard errors of total number of wildlife watching (all and subcategories) participants and point estimates and standard errors of the percent spenders in total participation (columns denoted by Percent of Wildlife Watchers).
- Standard errors of percent spenders in total participation (columns denoted by Percent of Wildlife Watchers): statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the wildlife watching survey only.

Table 35

Wildlife watchers participating in fishing and hunting

- Standard errors of total number of wildlife watchers: product-type statistics derived using model point estimates and standard errors of percent participation in the population (columns denoted by % Pop. in Table 30) and survey point estimates and standard errors of total population based on adjusted 50-State Survey of FHWAR final and replicate weights (displayed in Table 30).
- Standard errors of total number of away from home or around the home wildlife watchers: product-type statistics derived using point estimates and standard errors of total number of wildlife watchers and point estimates and standard errors of percent away from home or around the home wildlife watchers in all wildlife watchers (columns not displayed).
- Standard errors of total number of wildlife watchers, away from home, around the home who did not fish

or hunt, fished or hunted, fished, hunted: product-type statistics, derived using point estimates and standard errors of total number of wildlife watchers and point estimates and standard errors of percent sportsperson-specific category in the corresponding total participation (columns denoted by %).

- Standard errors or percent sportsperson-specific category in the corresponding total participation (columns denoted by %): statistics constructed using full adjusted 50-State Survey of FHWAR final and replicate weights, using data from the wildlife watching survey.

Table 36

Sportspersons participating in wildlife watching

- Standard errors of total number of sportspersons: ratio-type statistics derived using point estimates and standard errors of total number of anglers and point estimates and standard errors of percent anglers in sportspersons (not displayed).
- Standard errors of total number of anglers or total number of hunters: product-type statistics derived using model point estimates and standard errors of percent participation in the population (columns denoted by % Pop. in Table 15) and survey point estimates and standard errors of total population based on adjusted 50-State Survey of FHWAR weights (displayed in Table 15).
- Standard errors of total number of sportspersons, anglers, or hunters who did not wildlife watch, wildlife watch, wildlife watch away from home, wildlife watch around the home: product-type statistics, derived using point estimates and standard errors of total number of sportspersons, anglers, or hunters and point estimates and standard errors of percent wildlife watcher-specific category in the corresponding total participation (columns denoted by %).
- Standard errors of percent wildlife watcher-specific category in the corresponding total participation (columns denoted by %): composite statistics constructed using 3-way composite factors to adjusted 50-State Survey of FHWAR final and replicate weights, using data from the fishing, hunting, and wildlife watching surveys.

Table 5 SE Standard Errors of New York Resident Anglers and Hunters, Days of Participation and Trips in the United States,
by Type of Fishing and Hunting: 2016
(Population 16 years and older. Numbers in thousands)

	PARTICIPANTS		DAYS OF PARTICIPATION		TRIPS	
	#	%	#	%	#	%
ALL FISHING	363.07	0.00	7,660.32	0.00	4,599.29	0.00
All freshwater	312.75	13.18	6,762.82	16.34	2,253.10	17.07
Freshwater, except Great Lakes	308.34	13.49	5,639.18	13.44	1,575.31	12.09
Great Lakes	229.57	13.67	1,927.76	5.73	1,340.54	7.30
Saltwater	294.08	14.93	4,954.80	16.34	4,471.69	17.07
ALL HUNTING	155.99	0.00	3,793.08	0.00	4,503.55	0.00
Big game	154.15	1.03	3,425.46	5.58	3,931.26	15.29
Small game	61.97	11.73	811.39	8.45	647.31	8.95
Migratory birds	22.46	4.51	428.26	4.89	408.82	5.50
Other animals	52.19	10.80	306.24	3.62	269.84	3.84

Table 15 SE Standard Errors of New York Resident Anglers and Hunters, by Selected Characteristics: 2016
(State population 16 years and older. Numbers in thousands)

	POPULATION		SPORTSPERSONS			ANGLERS			HUNTERS		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
TOTAL	570.30	0.00	455.45	2.85	0.00	363.07	2.23	0.00	155.99	0.96	0.00
RESIDENCE DENSITY											
Urban	649.21	2.50	374.06	2.69	7.89	322.09	2.31	9.18	110.24	0.78	13.37
Rural	407.61	2.50	182.53	10.30	7.89	158.48	8.59	9.18	83.19	4.55	13.37
RESIDENCE SIZE											
Metropolitan Statistical Area (MSA)	538.21	1.43	447.30	2.87	0.92	355.74	2.29	1.13	152.20	0.97	1.74
1,000,000 or more	810.84	3.92	290.44	2.40	9.21	261.32	2.15	11.33	70.92	0.58	11.31
250,000 to 999,999	468.55	2.96	213.90	13.46	9.91	208.30	13.12	11.75	80.56	4.81	15.66
50,000 to 249,999	357.39	2.24	164.41	12.60	7.13	120.99	8.80	7.04	75.53	5.52	12.71
Outside MSA	233.88	1.43	18.91	7.01	0.92	18.92	6.83	1.13	8.34	2.68	1.74
SEX											
Male	818.26	4.80	304.35	4.09	7.14	252.91	3.39	8.93	112.64	1.47	10.19
Female	822.08	4.80	223.44	2.89	7.14	203.17	2.62	8.93	67.32	0.85	10.19
AGE											
16 to 17 years	144.62	0.91	50.81	19.34	2.54	28.22	10.41	1.73	22.77	8.31	4.67
18 to 24 years	784.88	4.74	81.24	3.08	4.13	57.39	2.08	3.66	28.65	1.05	6.26
25 to 34 years	496.54	3.04	183.51	9.22	8.51	179.26	8.93	10.28	52.97	2.52	10.76
35 to 44 years	550.62	3.47	211.20	11.15	9.55	197.16	10.52	10.72	71.59	3.57	13.48
45 to 54 years	514.89	3.33	96.19	3.13	3.95	72.59	2.35	3.80	29.41	0.91	5.56
55 to 64 years	800.47	4.82	66.79	3.14	2.78	61.56	2.79	3.34	13.05	0.55	2.34
65 years and older	334.54	2.15	146.15	6.14	6.37	128.07	5.34	7.07	61.00	2.49	11.68
65 to 74 years	205.14	1.34	72.08	5.47	3.21	72.61	5.49	4.03	11.08	0.82	2.21
75 and older	297.30	1.84	118.71	11.60	5.95	102.66	9.73	6.41	57.86	5.59	11.74
ETHNICITY											
Hispanic	1,174.28	6.54	39.51	0.86	2.02	40.98	0.89	2.53	6.86	0.14	1.54
Non-Hispanic	828.87	6.54	443.57	4.12	2.02	351.89	3.28	2.53	153.88	1.40	1.54
RACE											
White	832.37	4.28	412.76	3.30	6.52	340.96	2.73	7.12	139.69	1.10	7.64
African American	501.05	3.09	105.50	8.11	5.55	109.16	8.39	6.91	—	—	—
All Others	526.88	3.27	77.89	4.84	3.82	36.10	2.19	2.19	37.93	2.29	7.64

(continued on next page)

Table 15 SE Standard Errors of New York Resident Anglers and Hunters, by Selected Characteristics: 2016 (continued)
(State population 16 years and older. Numbers in thousands)

(continued from previous page)

	POPULATION		SPORTSPERSONS			ANGLERS			HUNTERS		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
ANNUAL HOUSEHOLD INCOME											
Less than \$20,000	413.55	2.56	45.48	3.79	2.15	43.13	3.50	2.55	15.40	1.19	3.19
\$20,000 to \$29,999	352.84	2.20	25.52	2.02	1.27	26.56	2.10	1.60	9.23	0.71	1.99
\$30,000 to \$39,999	231.56	1.45	45.66	10.54	2.12	33.88	7.30	2.01	19.22	4.01	3.76
\$40,000 to \$49,999	334.59	2.12	6.65	1.07	0.34	5.51	0.83	0.35	3.32	0.53	0.71
\$50,000 to \$74,999	662.87	4.21	208.20	8.34	9.23	198.11	7.85	10.97	55.08	2.04	11.20
\$75,000 to \$99,999	320.86	2.10	103.51	8.22	4.86	101.95	8.01	5.92	13.58	1.04	2.63
\$100,000 to \$149,999	721.69	4.59	154.92	6.87	7.55	91.32	3.93	5.56	71.97	3.08	14.51
\$150,000 or more	383.84	2.40	148.88	9.72	7.06	150.57	9.79	8.74	17.03	1.05	3.61
Not reported	1,139.82	6.55	179.89	5.90	8.68	169.59	5.39	10.20	84.26	2.69	16.03
EDUCATION											
8 years or less	830.94	5.12	15.34	2.16	0.80	15.96	2.23	1.00	7.21	0.95	1.59
9 to 12 years	641.28	4.29	172.34	4.12	6.82	128.72	3.04	6.78	72.77	1.69	11.22
1 to 3 years of college	1,017.25	6.19	197.38	4.52	7.51	172.18	3.81	9.08	70.79	1.50	11.90
4 years or more of college	651.39	4.14	245.39	4.76	8.34	232.02	4.52	9.49	73.43	1.36	13.18

— No sample data

NOTE: Percent population (% Pop.) columns show the percentage of each row's population who participated in the activity named by the column (the percentage of the population living in urban areas who fished, etc.). Columns labeled "%" under Sportspeople, Anglers, and Hunters show the percentage of each column's participants who are described by the row heading (the percentage of anglers who lived in urban areas, etc.).

Table 22 SE Standard Errors of Expenditures by New York Residents for Fishing and Hunting Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER SPORTSPERSON (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)
FISHING AND HUNTING	3,312,311.61	1,497.48	1,516.62	501.07
Food and lodging	496,009.15	232.93	286.99	432.70
Transportation	157,983.36	67.63	85.48	422.26
Other trip costs ²	360,171.08	165.25	247.26	379.94
Equipment (fishing, hunting)	310,674.31	127.50	162.47	392.66
Auxiliary equipment ³	90,618.61	36.24	70.03	335.63
Special equipment ⁴	2,236,495.66	1,114.20	4,643.57	169.99
Magazines, books, and DVDs	10,141.84	4.80	50.22	92.53
Membership dues/contributions	14,467.74	6.81	29.26	177.50
Other ⁵	269,933.64	129.75	240.48	370.76
FISHING	1,051,535.18	537.93	551.46	353.05
Food and lodging	464,050.96	272.90	317.85	322.11
Transportation	85,620.30	43.38	50.11	325.37
Other trip costs ²	234,884.47	127.94	147.91	321.85
Fishing equipment	137,067.40	71.03	76.68	343.47
Auxiliary equipment ³	26,878.56	14.69	57.12	248.33
Special equipment ⁴	519,064.41	327.05	2,547.55	230.79
Magazines, books, and DVDs	4,019.49	2.42	23.85	30.95
Membership dues/contributions	12,224.87	7.59	32.59	151.96
Other ⁵	108,448.96	68.23	173.94	277.08
HUNTING	593,238.46	1,128.19	1,164.59	153.16
Food and lodging	64,451.52	122.39	183.10	132.50
Transportation	59,492.29	119.40	209.09	126.35
Other trip costs ²	122,662.39	268.10	1,255.48	45.48
Hunting equipment	141,128.90	269.92	323.08	132.82
Auxiliary equipment ³	24,829.68	46.45	65.24	81.45
Special equipment ⁴	204,131.86	459.01	18,553.31	9.60
Magazines, books, and DVDs	4,435.10	9.45	79.06	45.18
Membership dues/contributions	3,997.36	8.13	48.84	25.45
Other ⁵	131,768.06	267.07	286.07	149.19
UNSPECIFIED ⁶	2,069,519.16	1,059.24	4,290.87	172.62

1 Average expenditures are annual estimates.

2 Includes boating costs, equipment rental, guide fees, access fees, heating and cooking fuel, and ice and bait (for fishing only).

3 Includes sleeping bags, packs, duffel bags, tents, binoculars and field glasses, special fishing and hunting clothing, foul weather gear, boots and waders, maintenance and repair of equipment, processing and taxidermy costs, and electronic equipment such as a GPS device.

4 Includes big-ticket items bought primarily for hunting and fishing, including boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

5 Includes land leasing and ownership, licenses, stamps, tags, permits, and plantings (for hunting only).

6 Respondent could not specify whether expenditure was primarily for either fishing or hunting.

Table 28 SE Standard Errors of New York Resident Wildlife Watchers Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	PARTICIPANTS			DAYS OF PARTICIPATION		TRIPS	
	#	%	% Pop.	#	%	#	%
WILDLIFE WATCHERS	495.78	0.00	2.80	113,567.08	0.00	6,729.42	0.00
Away from home	455.82	7.13	2.99	23,734.00	2.56	7,616.46	0.00
Observe wildlife	369.68	5.79	2.43	20,241.80	2.80	x	x
Photograph wildlife	385.64	6.61	2.49	19,049.19	3.24	x	x
Feed wildlife	273.06	4.77	1.76	19,882.02	3.20	x	x
Around the home	500.83	3.58	3.48	95,930.61	2.56	x	x
Observe wildlife	473.66	7.29	3.12	95,524.88	4.47	x	x
Photograph wildlife	426.00	6.69	2.80	12,437.59	2.54	x	x
Feed wildlife	464.21	6.19	3.11	x	x	x	x
Visit parks or natural areas ¹	325.65	5.04	2.14	13,094.77	3.02	x	x
Maintain plantings or natural areas	191.29	3.18	1.24	x	x	x	x

x Not applicable

¹ Includes visits only to parks or natural areas within one mile of home.

NOTE: Percent population (% Pop.) columns show the percentage of each row's population who participated in the activity named by the column (the percentage of the population who observed wildlife away from home, etc.). Columns labeled "%" show the percentage of each column's participants who are described by the row heading (the percentage of wildlife watchers who observed wildlife away from home, etc.).

Table 30 SE Standard Errors of New York Resident Wildlife Watchers, by Selected Characteristics: 2016
(State population 16 years and older. Numbers in thousands)

	POPULATION		TOTAL			AWAY FROM HOME			AROUND THE HOME		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
TOTAL	663.94	0.00	495.78	2.80	0.00	455.80	2.99	0.00	500.84	3.48	0.00
RESIDENCE DENSITY											
Urban	798.11	2.89	485.51	3.93	4.52	437.80	3.27	2.30	483.21	3.84	4.82
Rural	449.39	2.89	258.34	21.65	4.52	63.25	4.47	2.30	258.73	21.67	4.82
RESIDENCE SIZE											
Metropolitan Statistical Area (MSA)	759.90	2.35	503.75	3.78	3.78	455.80	3.17	0.00	505.43	3.73	4.06
1,000,000 or more	882.35	3.97	478.80	4.53	5.25	429.33	3.71	3.56	475.36	4.40	5.66
250,000 to 999,999	424.10	2.73	142.85	11.80	2.53	44.10	3.07	1.66	143.48	11.83	2.72
50,000 to 249,999	237.54	1.52	131.62	17.70	2.30	81.49	9.27	2.99	133.79	17.88	2.49
Outside MSA	367.80	2.35	209.10	41.28	3.78	—	—	—	209.41	41.31	4.06
SEX											
Male	820.89	5.23	480.74	9.12	7.50	312.89	5.37	8.72	493.13	8.86	8.54
Female	964.77	5.23	476.24	6.06	7.50	327.78	3.92	8.72	507.27	6.35	8.54
AGE											
16 to 17 years	199.83	1.27	49.50	24.63	0.90	—	—	—	49.59	24.66	0.97
18 to 24 years	342.67	2.14	164.17	22.78	2.96	113.31	14.06	4.25	165.85	22.93	3.20
25 to 34 years	620.77	4.16	326.60	12.48	5.60	269.08	8.80	9.80	326.13	12.05	6.03
35 to 44 years	811.30	4.89	267.54	10.88	4.68	243.04	8.81	8.62	242.22	9.58	4.56
45 to 54 years	474.52	3.00	256.69	17.94	4.48	231.29	14.60	8.05	242.60	16.32	4.56
55 to 64 years	453.66	2.94	236.35	10.82	3.99	114.31	4.59	4.01	237.19	10.85	4.25
65 years and older	530.54	3.25	259.75	8.79	4.43	214.84	6.57	7.60	266.32	8.96	4.84
65 to 74 years	359.01	2.24	85.40	7.77	1.48	77.72	6.13	2.74	90.10	8.01	1.67
75 and older	458.92	2.90	244.84	14.86	4.31	202.61	10.73	7.55	245.21	14.88	4.61
ETHNICITY											
Hispanic	926.33	5.54	256.60	9.42	4.60	217.24	7.46	8.01	256.74	9.42	4.93
Non-Hispanic	812.57	5.54	508.34	4.84	4.60	440.60	3.74	8.01	508.28	4.73	4.93
RACE											
White	1,021.57	5.94	546.75	5.49	7.23	442.05	3.95	11.50	524.32	5.21	7.10
African American	545.87	3.40	277.17	27.70	4.96	152.25	12.52	5.74	281.27	27.92	5.40
All Others	780.44	4.96	278.15	14.60	4.99	243.95	12.60	8.73	249.62	12.99	4.80

(continued on next page)

Table 30 SE Standard Errors of New York Resident Wildlife Watchers, by Selected Characteristics: 2016 (continued)
(State population 16 years and older. Numbers in thousands)

(continued from previous page)

	POPULATION		TOTAL			AWAY FROM HOME			AROUND THE HOME		
	Total	%	Total	% Pop.	%	Total	% Pop.	%	Total	% Pop.	%
ANNUAL HOUSEHOLD INCOME											
Less than \$20,000	548.52	3.51	280.65	24.68	5.04	226.73	17.56	8.47	282.40	24.78	5.43
\$20,000 to \$29,999	481.33	3.08	223.46	20.40	4.01	206.28	16.59	7.74	222.64	19.87	4.30
\$30,000 to \$39,999	415.95	2.65	120.49	16.24	2.15	92.13	10.64	3.41	120.53	16.24	2.30
\$40,000 to \$49,999	136.64	0.88	59.28	18.50	1.06	50.83	14.88	1.86	59.42	18.53	1.14
\$50,000 to \$74,999	378.46	2.50	171.31	11.63	2.99	77.49	4.56	2.88	172.43	11.69	3.22
\$75,000 to \$99,999	664.30	4.33	357.63	24.22	6.37	102.67	6.61	3.66	349.94	23.93	6.67
\$100,000 to \$149,999	654.65	4.21	298.19	14.21	5.22	223.20	9.42	7.98	240.33	11.15	4.52
\$150,000 or more	731.35	4.56	372.06	18.54	6.58	370.89	16.65	13.36	318.70	16.23	5.99
Not reported	872.46	5.27	179.94	9.67	3.25	69.52	3.35	2.62	181.66	9.73	3.52
EDUCATION											
8 years or less	301.03	1.91	105.17	30.10	1.92	—	—	—	105.39	30.14	2.06
9 to 12 years	971.87	5.80	402.00	10.39	6.88	325.34	7.40	11.34	387.60	9.85	7.10
1 to 3 years of college	856.39	5.52	391.83	11.24	6.94	144.13	4.09	4.90	382.48	11.04	7.22
4 years or more of college	888.28	5.62	440.87	9.27	6.78	384.48	6.93	11.48	401.45	8.41	6.42

— No sample data

NOTE: Percent population (% Pop.) columns show the percentage of each row's population who participated in the activity named by the column (the percentage of the population living in urban areas who participated, etc.). Columns labeled "% under TOTAL, Away From Home, and Around the Home show the percentage of each column's participants who are described by the row heading (the percentage of those who lived in urban areas, etc.).

Table 33A SE Standard Errors of Expenditures by New York Residents for All Wildlife Watching Both In and Out of New York: 2016
(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER WILDLIFE WATCHER (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)	PERCENT OF WILDLIFE WATCHERS
ALL EXPENDITURES	1,607,570.65	275.00	330.51	526.64	6.31
TRIP-RELATED EXPENDITURES	677,118.08	115.47	254.60	398.52	6.34
Food and lodging	486,402.29	84.86	229.60	365.07	6.00
Food	260,353.21	44.86	102.25	361.64	5.96
Lodging	284,570.17	50.97	295.64	238.30	4.15
Transportation	211,838.74	36.15	81.92	396.42	6.36
Other trip costs ²	107,864.44	19.36	110.43	268.45	4.64
EQUIPMENT AND OTHER EXPENDITURES	1,210,415.44	213.50	294.04	458.64	5.45
Wildlife-watching equipment	275,054.74	45.69	65.60	442.06	5.63
Binoculars, spotting scopes	91,312.97	16.47	128.25	240.83	4.26
Film and photo processing	16,050.98	2.89	50.89	221.31	4.00
Cameras, special lenses, video cameras, and other photographic equipment, including memory cards	109,422.98	19.59	64.61	312.58	5.51
Day packs, carrying cases, and special clothing	60,198.07	10.67	48.15	249.83	4.35
Bird food	83,791.57	14.15	24.60	437.55	6.85
Food for other wildlife	34,518.14	6.14	30.65	384.04	6.80
Nest boxes, bird houses, bird feeders, and bird baths	46,679.43	8.04	18.82	407.95	6.83
Other equipment (including field guides)	7,430.67	1.34	19.53	148.98	2.66
Auxiliary equipment ³	68,661.08	12.29	72.11	288.87	5.14
Special equipment ⁴	410,549.95	74.01	1,364.82	138.62	2.50
Magazines, books, and DVDs	23,190.90	4.20	39.87	152.72	2.66
Membership dues and contributions	53,365.64	9.48	41.94	214.07	3.57
Land leasing and ownership	777,932.86	141.54	6,853.68	142.49	2.59
Plantings	69,819.92	12.56	108.08	155.21	2.69

¹ Average expenditures are annual estimates.

² Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.

³ Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.

⁴ Includes boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

Table 33B SE Standard Errors of Expenditures by New York Residents for Away-from-home Wildlife Watching
Both In and Out of New York: 2016

(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER WILDLIFE WATCHER (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)	PERCENT OF WILDLIFE WATCHERS
ALL EXPENDITURES	2,553,708.65	930.13	953.48	449.65	2.60
TRIP-RELATED EXPENDITURES	756,043.78	218.69	221.70	449.65	2.60
Food and lodging	545,715.68	171.10	177.01	459.95	9.37
Food	360,506.99	115.43	116.72	459.95	9.37
Lodging	298,671.27	106.36	192.14	451.43	15.44
Transportation	246,202.28	70.35	72.77	437.87	5.50
Other trip costs ²	56,905.66	21.14	53.48	387.99	14.07
EQUIPMENT AND OTHER EXPENDITURES	2,045,416.61	779.52	2,787.16	316.27	11.27
Wildlife-watching equipment	170,965.10	65.23	314.82	257.11	9.33
Binoculars, spotting scopes	52,361.88	20.02	0.00	149.60	5.72
Film and photo processing	—	—	—	—	—
Cameras, special lenses, video cameras, and other photographic equipment, including memory cards	—	—	—	—	—
Day packs, carrying cases, and special clothing	76,385.58	29.15	305.03	168.87	6.40
Bird food	3,356.00	1.27	5.81	175.66	6.61
Food for other wildlife	1,078.58	0.41	3.74	96.73	3.66
Nest boxes, bird houses, bird feeders, and bird baths	36,239.32	13.81	136.99	179.22	6.77
Other equipment (including field guides)	3,153.29	1.20	0.00	157.68	5.98
Auxiliary equipment ³	23,936.83	9.15	0.00	149.60	5.72
Special equipment ⁴	—	—	—	—	—
Magazines, books, and DVDs	3,348.83	1.28	0.00	133.95	5.12
Membership dues and contributions	18,746.35	7.11	55.77	165.32	6.20
Land leasing and ownership	2,009,334.71	767.89	0.00	133.95	5.12
Plantings	—	—	—	—	—

— No sample data

¹ Average expenditures are annual estimates.

² Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.

³ Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.

⁴ Includes boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

Table 33C SE Standard Errors of Expenditures by New York Residents for Around-the-home Wildlife Watching
Both In and Out of New York: 2016

(State population 16 years and older. Numbers in thousands)

	AMOUNT (thousands of \$)	AVERAGE PER WILDLIFE WATCHER (\$) ¹	AVERAGE PER SPENDER (\$) ¹	NUMBER OF SPENDERS (thousands)	PERCENT OF WILDLIFE WATCHERS
ALL EXPENDITURES	638,896.76	121.77	177.43	602.15	10.06
TRIP-RELATED EXPENDITURES	x	x	x	x	x
Food and lodging	x	x	x	x	x
Food	x	x	x	x	x
Lodging	x	x	x	x	x
Transportation	x	x	x	x	x
Other trip costs ²	x	x	x	x	x
EQUIPMENT AND OTHER EXPENDITURES	638,896.76	121.77	177.43	602.15	10.06
Wildlife-watching equipment	186,329.43	33.87	39.05	595.60	10.11
Binoculars, spotting scopes	20,584.39	3.99	30.00	138.59	2.68
Film and photo processing	22,052.86	4.30	20.86	142.17	2.78
Cameras, special lenses, video cameras, and other photographic equipment, including memory cards	142,321.09	27.79	157.58	323.16	6.27
Day packs, carrying cases, and special clothing	40,484.24	7.89	75.19	164.46	3.18
Bird food	105,453.17	20.11	26.79	631.91	11.86
Food for other wildlife	30,001.82	5.88	27.44	606.40	11.87
Nest boxes, bird houses, bird feeders, and bird baths	46,137.53	8.93	14.27	607.18	11.56
Other equipment (including field guides)	1,815.79	0.36	0.00	181.58	3.56
Auxiliary equipment ³	13,745.29	2.68	28.49	189.58	3.70
Special equipment ⁴	572,012.70	111.62	2,970.66	194.68	3.80
Magazines, books, and DVDs	5,303.58	1.03	8.92	105.08	2.04
Membership dues and contributions	19,751.16	3.80	23.64	159.44	3.05
Land leasing and ownership	—	—	—	—	—
Plantings	9,119.87	1.76	26.87	132.64	2.56

— No sample data x Not applicable

¹ Average expenditures are annual estimates.

² Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.

³ Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.

⁴ Includes boats, campers, cabins, trail bikes, dune buggies, 4 x 4 vehicles, ATVs, 4-wheelers, snowmobiles, pickups, vans, travel and tent trailers, motor homes, house trailers, recreational vehicles (RVs) and other special equipment.

Table 35 SE Standard Errors of New York Resident Wildlife Watchers Participating in Fishing or Hunting: 2016
(State population 16 years and older. Numbers in thousands)

	TOTAL		AWAY FROM HOME		AROUND THE HOME	
	#	%	#	%	#	%
ALL WILDLIFE WATCHERS	495.78	0.00	455.80	0.00	500.84	0.00
Did not fish or hunt	521.08	7.05	362.34	8.03	517.57	7.36
Fished or hunted	410.92	7.05	260.86	8.03	399.20	7.36
Fished	403.88	7.04	233.57	7.63	398.42	7.40
Hunted	199.64	3.51	168.28	5.90	173.11	3.28

Table 36 SE Standard Errors of New York Resident Sportspersons Participating in Wildlife Watching: 2016
(State population 16 years and older. Numbers in thousands)

	SPORTSPERSONS		ANGLERS		HUNTERS	
	#	%	#	%	#	%
ALL SPORTSPERSONS	455.45	0.00	363.07	0.00	155.99	0.00
Did not watch wildlife	184.52	7.04	152.40	7.94	61.37	10.27
Watched wildlife	348.94	7.04	297.27	7.94	120.50	10.27
Away from home	244.87	7.64	212.65	8.92	90.08	11.22
Around the home	330.93	7.35	289.31	8.08	112.46	10.75

