

Target Shooting by Hunters and Their Use of Shooting Ranges: 1975, 1991, and 2011

*Addendum to the 2011 National
Survey of Fishing, Hunting, and
Wildlife-Associated Recreation*

Report 2011-3



Cover Photo: Island Lake Shooting range, trap and skeet field which is located at 13600 East Grand River Avenue, Brighton, Michigan 48116.

The shooting range has 25, 50 and 100 yard rifle/pistol ranges, a sporting clay course and the trap and skeet fields. The range cost \$2,984,498 million to construct with 25% state funds and 75% Federal Pittman-Robertson. The range opened in 2000.

Target Shooting by Hunters and Their Use of Shooting Ranges: 1975, 1991, and 2011

*Addendum to the 2011 National
Survey of Fishing, Hunting, and
Wildlife-Associated Recreation*

Report 2011-3



June 2014

Richard Aiken
U.S Fish and Wildlife Service
Division of Policy and Programs
Arlington, VA

This report is intended to complement the National and State reports from the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. The conclusions are the authors and do not represent official positions of the U.S. Fish and Wildlife Service.

The author thanks Sylvia Cabrera, Rob Southwick, and Matthew Fuller for their input into this report.

Target Shooting by Hunters and Their Use of Shooting Ranges: 1975, 1991, and 2011

Target practice is a common activity for shooters preparing for hunting season. Whether it is plinking at a pop can on a hillside after a day of hunting or signing up at a shooting range for a lane, target shooting for many people is an integral part of getting ready for hunting. Improving the aim of a weapon is part of the standard procedure to prepare for hunting. The extent of target shooting by hunters is the subject of this report.

The 1975, 1991 and 2011 National Surveys of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) asked hunters about their target shooting and usage of shooting

ranges. The hunting respondents were first asked if they target shot in preparation for hunting. If yes, they were asked if they used a shooting range.

In 2011, further questions were asked about what kind of weapons were used at the shooting range. A nuance of the data is that in 1991, it was target shooting in the state of residence that was measured. In 2011, it was target shooting anywhere. Since most hunters both hunt and target shoot in their state of residence, this difference in the questions is not significant. There is no information on how big the range was, who owned it, or if it was indoor or outdoor.

Table 1. Target Shooting by Hunters In Preparation for Hunting: 2011

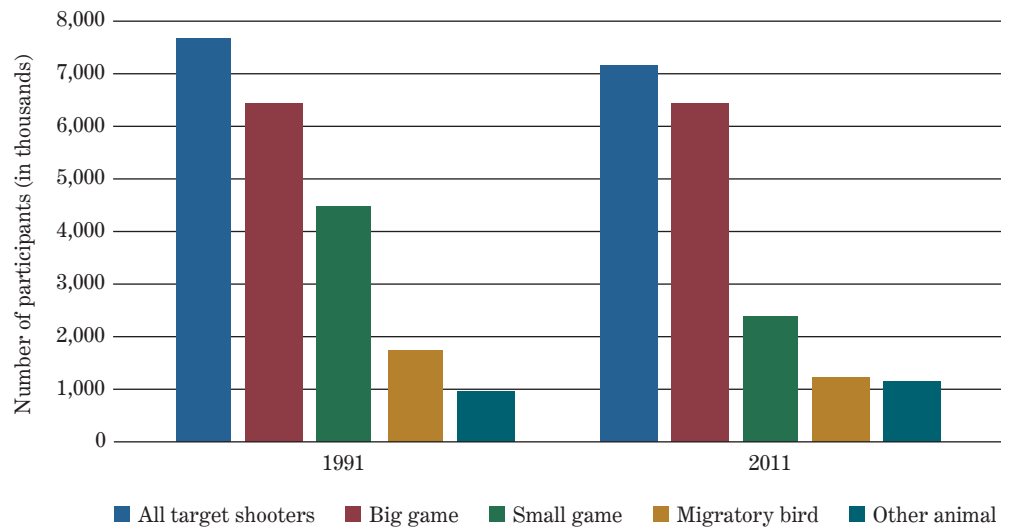
(Population 16 years old and older. Numbers in thousands)

	<i>Number</i>	<i>Percent</i>	<i>Percent of type of hunter</i>
Total hunters	13,674	100	(X)
Target shot in preparation for hunting	7,178	52	(X)
Used shooting ranges	2,943	22	(X)
<i>Target shooting by type of hunter</i>			
All target shooters	7,178	100	52
Big game	6,504	91	56
Small game	2,381	33	53
Migratory bird	1,234	17	48
Other animal	1,185	17	55
<i>Range use by type of hunter</i>			
All range users	2,943	100	22
Big game	2,672	91	23
Small game	1,088	37	24
Migratory bird	514	17	20
Other animal	552	19	25

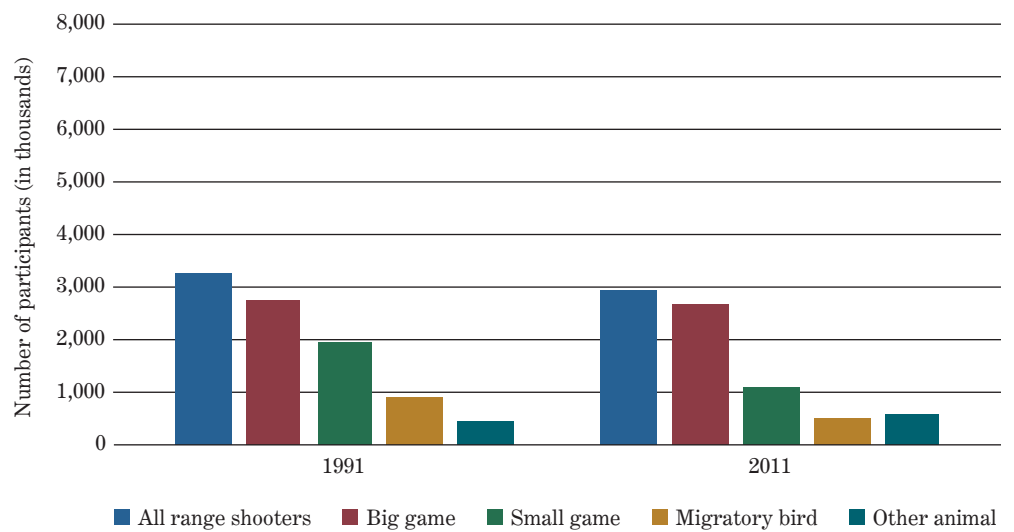
(X) These categories were not divided into types of hunting.

Half of all hunters target shot at least once in 2011, and 40% of these target shooters used a range. Most target shooters were big game hunters (most hunters were big game hunters). Migratory bird hunters were least likely to target shoot. Most range users were big game hunters as well. And similar to target shooting, migratory bird hunters were least likely to use a range.

Graph 1. Target Shooting by Type of Hunter: 1991 and 2011



Graph 2. Shooting Range Use by Type of Hunter: 1991 and 2011



Most, 79%, of all range users preparing for hunting used rifles. Also popular at ranges were shotguns, which were used by almost 40%. Next in popularity was muzzleloaders, with 19%. Fourteen percent used handguns, and another 14% used bows. Lastly, 3% practiced with a crossbow, 1% used airguns, and 2% used other equipment.

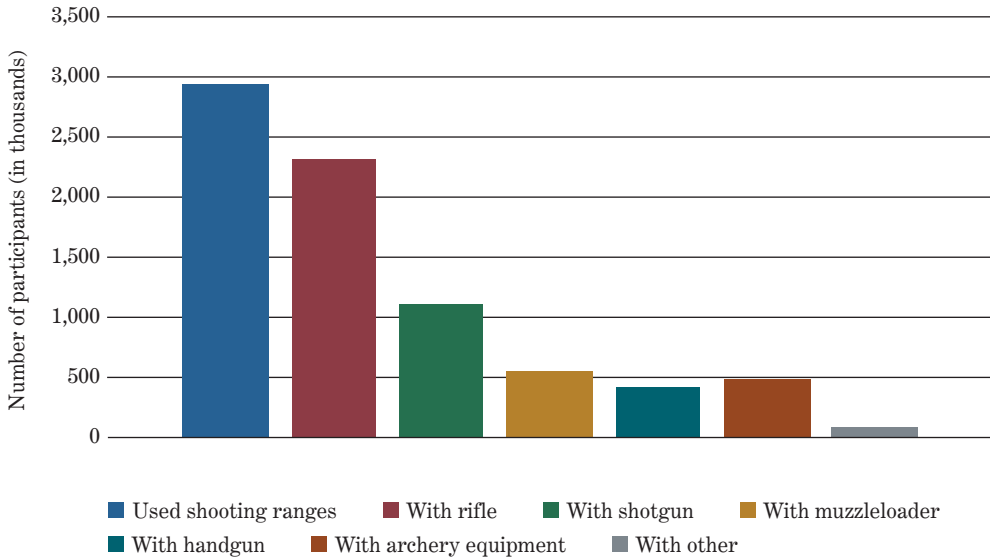
Table 2. Types of weapons used at shooting ranges by hunters: 2011

(Population 16 years old and older. Numbers in thousands)

Type of weapons	Number	Percent
Total range users	2,943	100
rifle	2,322	79
shotgun	1,110	38
muzzleloader	564	19
handgun	420	14
bow and arrow	406	14
crossbow	93*	3*
airgun	31*	1*
other equipment	47*	2*

* Sample size between 10 and 29.

Graph 3. Hunting Preparation by Target Shooting at Shooting Ranges, by Firearm: 2011



Hunters were roughly equal in their likelihood to target shoot throughout the country; 52% of hunters nationwide target shot and between 47% and 61% of hunters by region did. But the use of ranges by region is more diverse. East South Central hunters were least likely to use ranges; 9% of them did. Mountain and Pacific hunters were more likely; 29% of them used a range to target shoot. Whether this disparity is due to differences in shooting range access or some cultural difference is not known to this author.

Table 3. Target Shooting and Range Using by Census Division: 2011

(Population 16 years old and older. Numbers in thousands)

<i>Census Division</i>	<i>All hunters Number</i>	<i>Target shooter Number</i>	<i>Percent of hunters</i>	<i>Range user Number</i>	<i>Percent of hunters</i>
Total	13,674	7,178	52	2,943	22
New England	420	230	55	110	26
Middle Atlantic	1,558	811	52	409	26
East North Central	2,688	1,466	55	619	23
West North Central	1,661	942	57	342	21
South Atlantic	1,870	903	48	346	19
East South Central	1,531	727	47	142	9
West South Central	1,909	927	49	385	20
Mountain	1,043	635	61	300	29
Pacific	996	537	54	288	29

Map 1. Target Shooting In Preparation for Hunting in 2011

(Percent of all target shooters by Census Division)

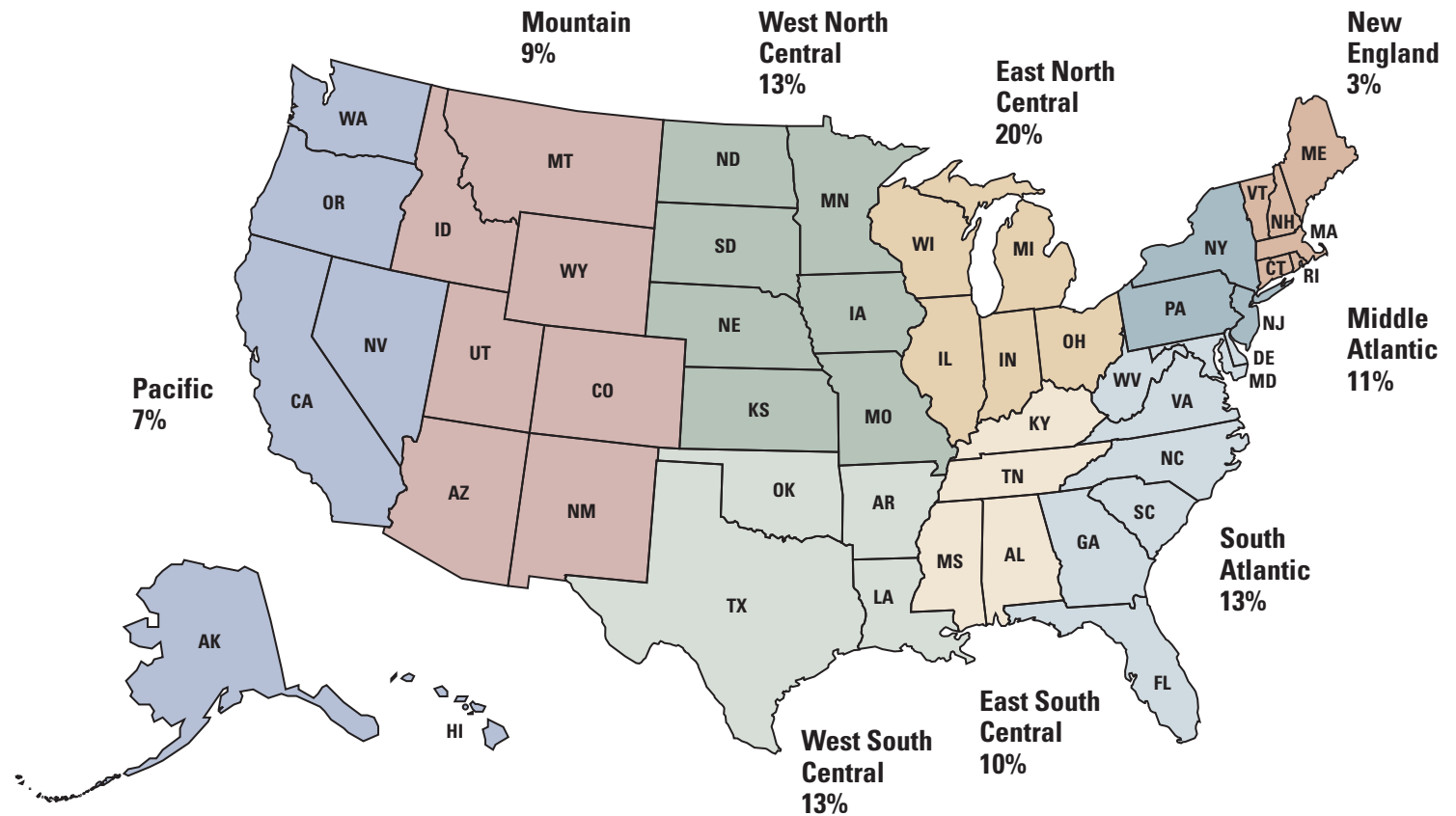


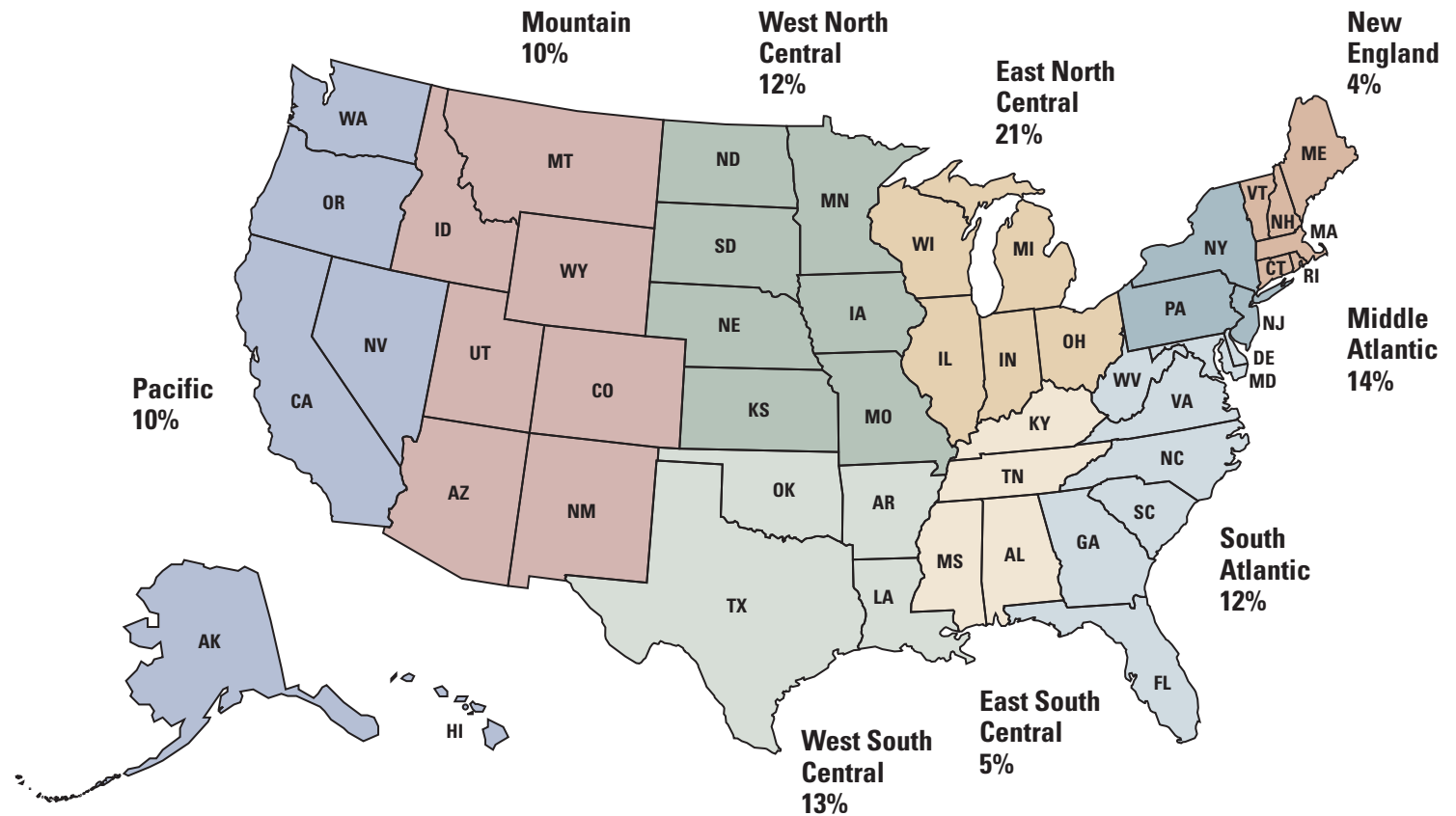
Table 4. Target shooter and range user by Census Division: 2011

(Population 16 years old and older. Numbers in thousands)

Census Division	All hunters		Target shooter		Range user	
	Number	Percent	Number	Percent	Number	Percent
Total	13,674	100	7,178	100	2,943	100
New England	420	3	230	3	110	4
Middle Atlantic	1,558	11	811	11	409	14
East North Central	2,688	20	1,466	20	619	21
West North Central	1,661	12	942	13	342	12
South Atlantic	1,870	14	903	13	346	12
East South Central	1,531	11	727	10	142	5
West South Central	1,909	14	927	13	385	13
Mountain	1,043	8	635	9	300	10
Pacific	996	7	537	7	288	10

Map 2. Range Use in Preparation for Hunting in 2011

(Percent of all range users by Census Division)



1975, 1991, and 2011 Trends

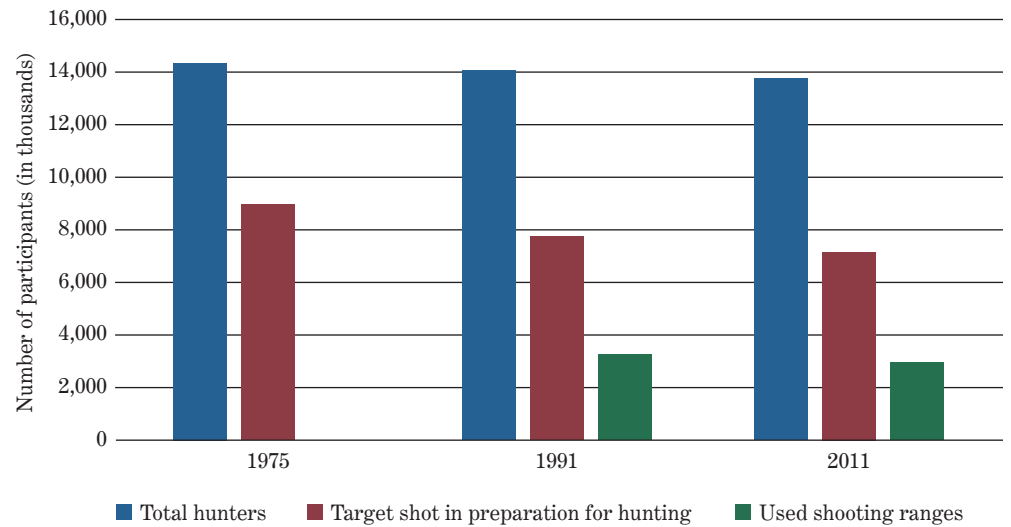
To put the activity in historical context, the number of all hunters has been roughly constant over the years of this study: 14.3 million in 1975, 14.1 million in 1991, and 13.7 million in 2011. These estimates fall within 2011's 95% confidence interval, so there is no statistically significant difference in the amount of hunting participation for those three years. Of those hunters, 9 million target shot in 1975, 7.7 million in 1991, and 7.2 million in 2011.

Table 5. Comparison of target shooting by hunters in 1975, 1991, and 2011
(16 years old and older. Numbers in thousands)

	1975		1991		2011	
	Number	Percent	Number	Percent	Number	Percent
Total hunters	14,282	100	14,063	100	13,674	100
Target shot in preparation for hunting	8,998	63	7,731	55	7,178	52
Used shooting range	(NA)	(NA)	3,258	23	2,943	22

(NA) Not available.

Graph 4. Hunting Preparation by Target Shooting at Shooting Ranges



Note: Shooting range data not available for 1975.

The demographics of target shooters closely matches the demographics of all hunters in every measured category. See the 2011 FHWR National Report at <http://www.census.gov/prod/2012pubs/fhw11-nat.pdf> for more detail on overall hunter demographics. The profile of the 2011 target shooter who hunted was 45 years old and older; rural, male, above median income, white, and Midwestern.

Table 6. Demographics of target shooters: 2011

(16 years old and older. Numbers in thousands)

	<i>Target shooting in preparation for hunting</i>	
	<i>Number</i>	<i>Percent</i>
Total	7,178	100
<i>Age group</i>		
16–17	282	4
18–24	672	9
25–34	1,006	14
35–44	1,299	18
45–54	1,732	24
55–64	1,586	22
65 and older	601	8
<i>Urban/rural</i>		
Urban	3,054	43
Rural	4,124	57
<i>Gender</i>		
Male	6,443	90
Female	736	10
<i>Income</i>		
Under \$10,000	195	3
\$10,000 to \$19,999	448	6
\$20,000 to \$24,999	183	3
\$25,000 to \$29,999	238	3
\$30,000 to \$49,999	1,269	18
\$50,000 to \$74,999	1,654	23
\$75,000 or more	3,190	44
<i>Census Division</i>		
New England	230	3
Middle Atlantic	811	11
East North Central	1,466	20
West North Central	942	13
South Atlantic	903	13
East South Central	727	10
West South Central	927	13
Mountain	635	9
Pacific	537	7
<i>Race</i>		
White	6,857	96
Black	...	...
American Indian, Aleut, or Eskimo	93*	1*
Asian or Pacific Islander	...	...
Other	49*	1*

... Sample size less than 10.

*Sample size less than 30 and more than 9.

Range users did not follow the dominant hunting profile as closely as other target shooters did. Range users were more likely to be older and male. A major distinction of range users is that while target shooters in general were more likely to be rural, range users were more likely to be urban.

Table 7. Demographic of range users who were preparing for hunting: 2011
(16 years old and older. Numbers in thousands)

	<i>Used shooting ranges</i>	
	<i>Number</i>	<i>Percent</i>
Total	2,943	100
<i>Age group</i>		
16–17	130*	4*
18–24	154	5
25–34	341	12
35–44	538	18
45–54	753	26
55–64	733	25
65 and older	294	10
<i>Urban/rural</i>		
Urban	1,699	58
Rural	1,244	42
<i>Gender</i>		
Male	2,727	93
Female	216	7
<i>Income</i>		
Under \$10,000	...	...
\$10,000 to \$19,999	174*	6*
\$20,000 to \$24,999	144*	5*
\$25,000 to \$29,999	...	...
\$30,000 to \$49,999	400	14
\$50,000 to \$74,999	457	16
\$75,000 or more	1,703	58
<i>Census Division</i>		
New England	110	4
Middle Atlantic	409	14
East North Central	619	21
West North Central	342	12
South Atlantic	346	12
East South Central	142*	5*
West South Central	385*	13*
Mountain	315	11
Pacific	273	9
<i>Race</i>		
White	2,744	93
Black	...	...
American Indian, Aleut, or Eskimo	25*	1*
Asian or Pacific Islander	...	...
Other	...	...

... Sample size less than 10.

*Sample size less than 30 and more than 9.

The proportion of total hunters who target shot has fallen from nearly two-thirds in 1975 (63%, to be exact) to approximately half in 2011 (52%). What stands out is the drop-off in the number of younger adults who target shot. The median age of target shooters was 30 in 1975, 34 in 1991, and 46 in 2011. The age cohort with the biggest increase in the percent of target shooters was the 55–64 year olds. The age cohort with the biggest decrease was the 25–34 year olds.

Also, the decrease in below median income target shooters from 1991 to 2011 is notable. In 1991 41% of target shooters had below median household income; in 2011 33% had below median income. This reflects the distribution of overall hunter income, where in 1991 43% were below median income, and in 2011 38% had below median income. The number of lower income people who target shot has dropped 26% in the twenty years from 1991 to 2011.

Table 8. Demographic Trends in Target Shooting by Hunters: 1975, 1991, and 2011
(16 years old and older. Numbers in thousands)

	1975		1991		2011	
	Number	Percent	Number	Percent	Number	Percent
Total	8,998	100	7,731	100	7,178	100
<i>Age group</i>						
16–17	540	6	357	5	282	4
18–24	2,250	25	1,164	15	672	9
25–34	2,879	32	2,334	30	1,006	14
35–44	1,440	16	1,931	25	1,299	18
45–54	1,080	12	1,078	14	1,732	24
55–64	540	6	556	7	1,586	22
65 and older	270	3	311	4	601	8
<i>Urban/rural</i>						
Urban	(NA)	(NA)	3,461	45	3,054	43
Rural	(NA)	(NA)	4,270	55	4,124	57
<i>Gender</i>						
Male	(NA)	(NA)	7,209	93	6,443	90
Female	(NA)	(NA)	522	7	736	10
<i>Income</i>						
Below median	(NA)	(NA)	3,169	41	2,333	33
Above median	(NA)	(NA)	4,561	59	4,844	67
<i>Census Division</i>						
Total	(NA)	(NA)	7,731	100	7,178	100
New England	(NA)	(NA)	275	4	230	3
Middle Atlantic	(NA)	(NA)	1,179	15	811	11
East North Central	(NA)	(NA)	1,605	21	1,466	20
West North Central	(NA)	(NA)	940	12	942	13
South Atlantic	(NA)	(NA)	1,034	13	903	13
East South Central	(NA)	(NA)	588	8	727	10
West South Central	(NA)	(NA)	810	10	927	13
Mountain	(NA)	(NA)	672	9	635	9
Pacific	(NA)	(NA)	628	8	537	7
<i>Race</i>						
White	(NA)	(NA)	7,562	98	6,857	96
Black	(NA)	(NA)	...	...	...	...
American Indian, Aleut, or Eskimo	(NA)	(NA)	...	...	93*	1*
Asian or Pacific Islander	(NA)	(NA)	...	...	...	...
Other	(NA)	(NA)	...	...	49*	1*

(NA) Not available.

... Sample size less than 10.

*Sample size less than 30 and more than 9.

Graph 5. Target Shooting by Age Group

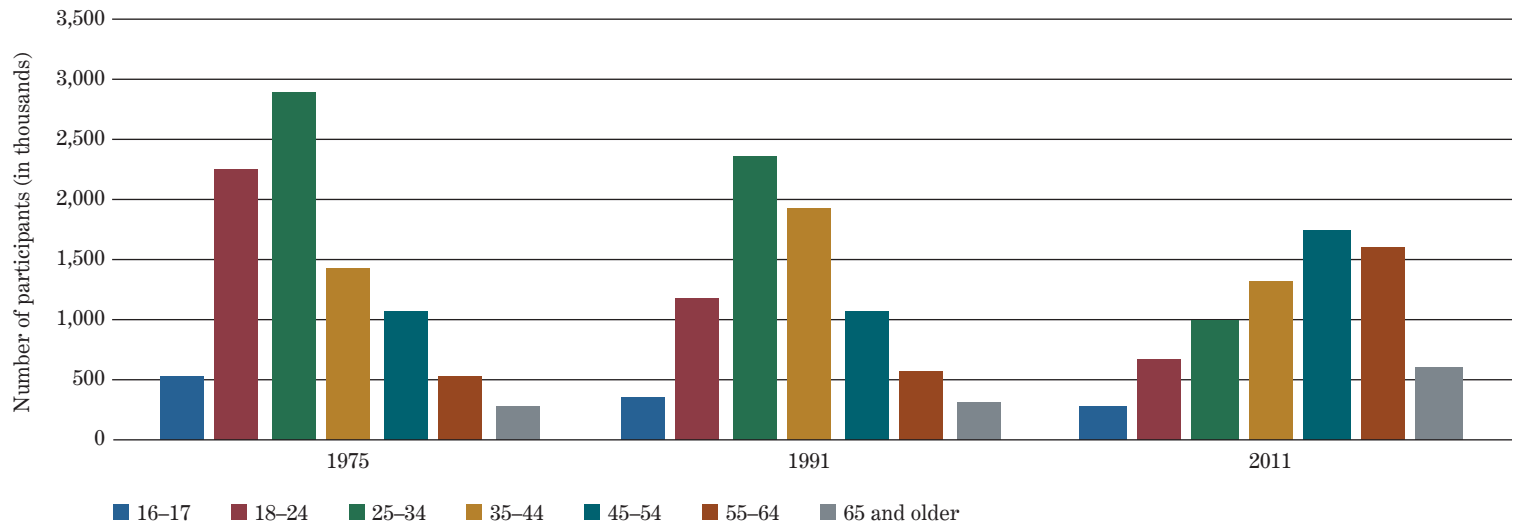


Chart 1. 1991 Target Shooters by Residence

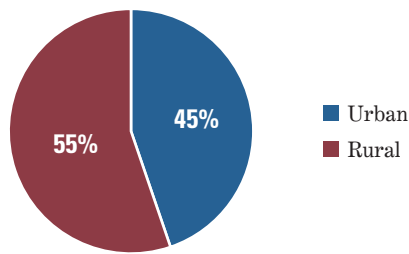


Chart 2. 2011 Target Shooters by Residence

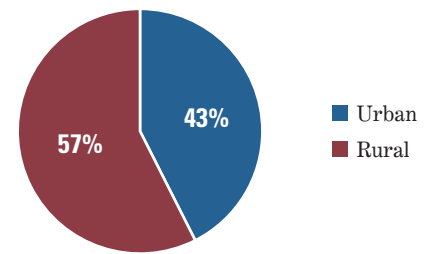


Chart 3. 1991 Target Shooters by Gender

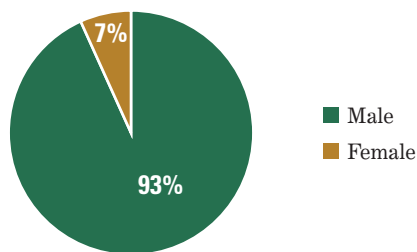


Chart 4. 2011 Target Shooters by Gender

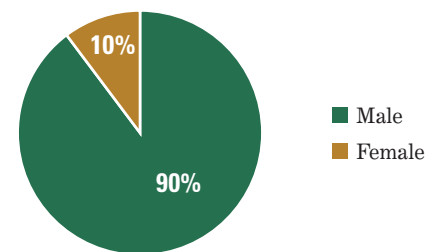


Chart 5. 1991 Target Shooters by Income

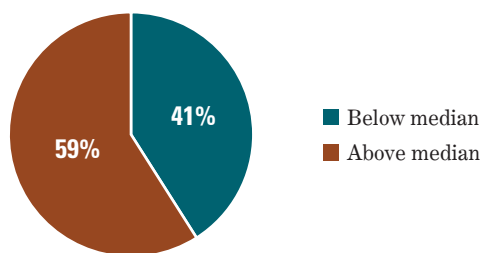
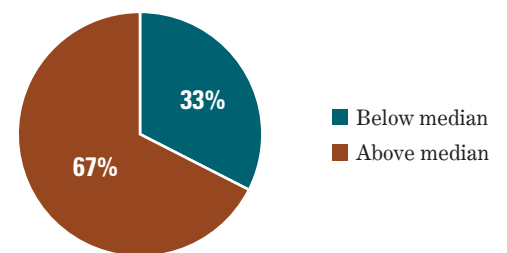


Chart 6. 2011 Target Shooters by Income



In 1991 3.3 million hunters, 23% of all hunters, used shooting ranges. In 2011 2.9 million, 22% of all hunters, used them. Of all target shooters who hunted, 42% used shooting ranges in both 1991 and 2011.

As in overall target shooting, there was a change by age cohort in shooting range usage. In 1991 the biggest age cohort was 25–34 year olds (31% of all users), while in 2011 the biggest cohort was 45–54 year olds (26%). It is interesting to recognize that the 25–34 year olds of 1991 were the 45–54 years olds of 2011. This is the Baby Boomer bump as it progressed through the years.

Table 9. Demographic Trends in Range Use by Hunters: 1975, 1991, and 2011
(16 years old and older. Numbers in thousands)

	1991		2011	
	Number	Percent	Number	Percent
Total	3,258	100	2,943	100
<i>Age group</i>				
16–17	123	4	130*	4*
18–24	510	16	154	5
25–34	1,005	31	341	12
35–44	822	25	538	18
45–54	486	15	753	26
55–64	215	7	733	25
65 and older	96	3	294	10
<i>Census Division</i>				
New England	132	4	110	4
Middle Atlantic	576	18	409	14
East North Central	667	20	619	21
West North Central	321	10	342	12
South Atlantic	413	13	346	12
East South Central	148	5	142	5
West South Central	353	11	385	13
Mountain	323	10	315	11
Pacific	325	10	273	9
<i>Urban/rural</i>				
Urban	2,234	69	1,699	58
Rural	1,015	31	1,244	42
<i>Gender</i>				
Male	3,075	94	2,727	93
Female	184	6	216	7
<i>Income</i>				
Below median	1,058	32	783	27
Above median	2,199	68	2,160	73
<i>Race</i>				
White	3,171	97	2,744	93
Black	42	1	...	...
American Indian, Aleut, or Eskimo	21	1	25*	1*
Asian or Pacific Islander	...	...	...	...
Other	...	...	...	...

... Sample size less than 10.

*Sample size less than 30 and more than 9.

Graph 6. Shooting Range Use by Age Group

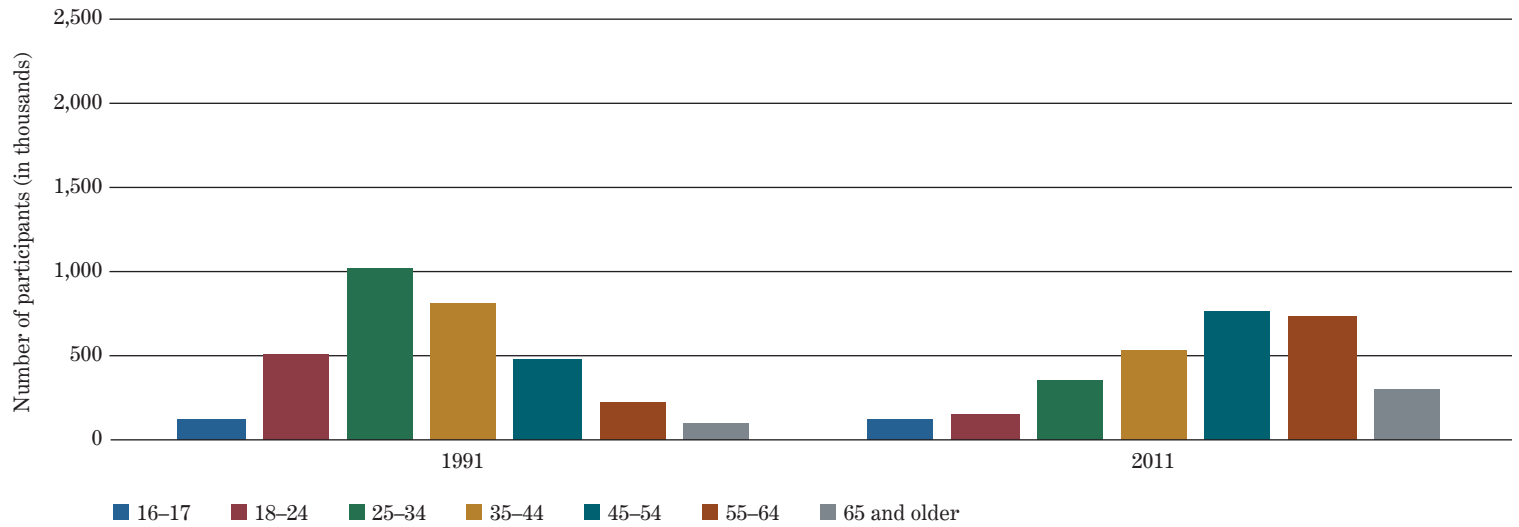


Chart 7. 1991 Range Users by Residence

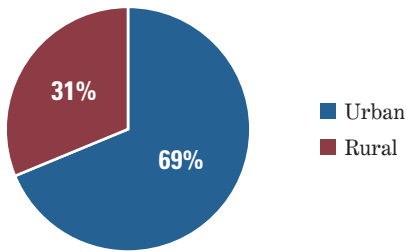


Chart 8. 2011 Range Users by Residence

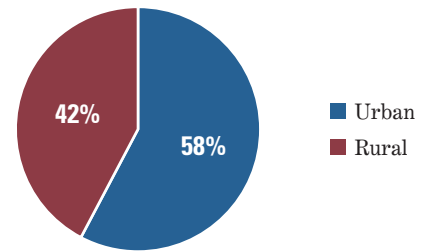


Chart 9. 1991 Range Users by Gender

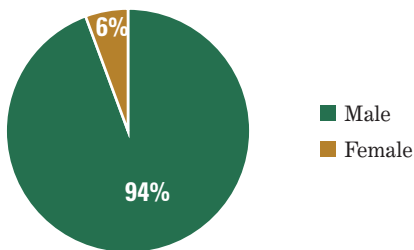


Chart 10. 2011 Range Users by Gender

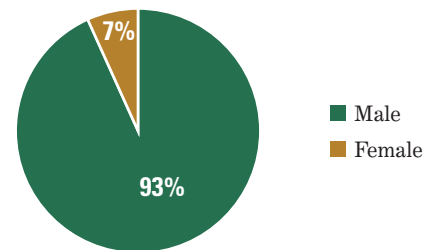


Chart 11. 1991 Range Users by Income

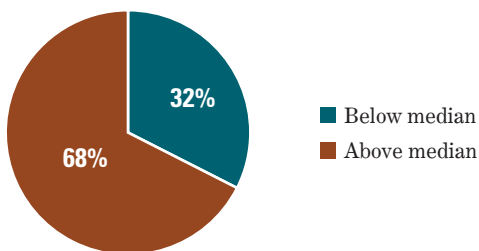
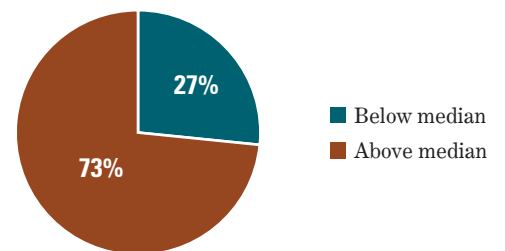


Chart 12. 2011 Range Users by Income



The states with the most resident hunters who target shot were Texas, Wisconsin, New York, Pennsylvania, Michigan, and Minnesota. The states with the most resident hunters who used shooting ranges were Wisconsin, New York, Pennsylvania, Minnesota, California, and Ohio. The estimate for resident Texas range users was based on a sample size too small to be reported.

Table 10. Target Shooting and Range Use in Preparation for Hunting, by State of Residence: 2011

(16 years old and older. Numbers in thousands)

<i>State of Residence</i>	<i>Target shooters Number</i>	<i>Range users Number</i>
Alabama	107*	...
Alaska	58	32*
Arizona	168*	75*
Arkansas	172*	81*
California	190	107*
Colorado	119	73*
Connecticut	32*	...
Delaware	8*	...
Florida	147*	71*
Georgia	145*	...
Hawaii	...	...
Idaho	56*	...
Illinois	261	...
Indiana	137*	...
Iowa	131	72*
Kansas	101	28*
Kentucky	222*	...
Louisiana	94*	...
Maine	71	20*
Maryland	48*	36*
Massachusetts	50*	37*
Michigan	329	99*
Minnesota	316	131*
Mississippi	186*	...
Missouri	269	76*
Montana	79	29*
Nebraska	52	19*
Nevada	31*	15*
New Hampshire	19*	...
New Jersey	65*	32*
New Mexico	43*	18*
New York	382	234*
North Carolina	178	...
North Dakota	(NA)	(NA)
Ohio	273*	107*
Oklahoma	102*	...
Oregon	103*	...
Pennsylvania	365	143*
Rhode Island	7*	6*
South Carolina	82*	...
South Dakota	60*	...
Tennessee	213*	...
Texas	558*	...
Utah	112	61*
Vermont	50	23*
Virginia	176	77*
Washington	148	85*
West Virginia	119	45*
Wisconsin	467	333*
Wyoming	58	29*

(NA) Not available.

... Sample size less than 10.

*Sample size less than 30 and more than 9.

Summary

Along with scouting hunting areas and acquiring equipment, target shooting is a common activity for people preparing to hunt. Half of all hunters target practiced in 2011, and a fifth of all hunters used a shooting range. Hunters anywhere in the country have the same propensity to target shoot, but range use varies. Westerners were three times more likely to go to a shooting range than southerners from Kentucky down to Mississippi. There has been a decrease in the number of hunters who target shot since 1975, from 9 million to 7.2 million.

Hunters who target shoot and their subgroup range users followed the demographic profile of all hunters in many categories, except for one interesting difference. Range users were more likely to live in urban areas, unlike hunters in general and those who target shoot specifically.

The FHWAR Survey gives us an in-depth picture of the hunting activity of Americans throughout the survey year. Seeing how many hunters target shoot and use ranges illustrates the extent of their commitment as they ready themselves for the hunting season.

**U.S. Department of the Interior
U.S. Fish & Wildlife Service**



June 2014