

Federal Aid in Wildlife Restoration Project No: W-15-R
Title of Job: Fall 2016 Turkey Hunter Survey

Job: E2



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The fall 2016 turkey hunter survey is conducted each year at the end of the fall season. The season closes on 31 January 2017. The objective of the survey is to obtain information on the fall turkey harvest and success, and to assess characteristics of the hunt and hunters (e.g., satisfaction). This year's survey was available to hunters between 20 March and 3 April 2017, inclusive. A summary of hunter harvest and success is provided in a separate report, *2016 Fall Wild Turkey Harvest*.

Caveats. The fall Wild Turkey Hunter Survey samples primarily fall turkey hunters who provided valid email addresses at the time they purchased their permit(s). Additionally, the survey is also available on the Game & Parks website to anyone who wishes to complete it. Although the website version is promoted through various media avenues, participation is low. As such, the results might be biased and not strictly generalizable to the population of all fall turkey hunters. For the fall 2016 season, however, 65.7% of unique permit buyers provided an email address.

Interpretations. Total permit sales were down 12% for the fall 2016 season (8,589 permits sold) compared to the fall 2015 season (9,744 permits sold). However, some hunters purchased 2 permits for the fall season, after accounting for these extra permits, there were 8,188 turkey hunters in 2016 who purchased at least one fall permit. For the fall 2015 season, there were 9,230 individual turkey hunters, resulting in an 11.3% decline in actual fall turkey hunters between 2015 and 2016. The percentage of hunters who purchased multiple permits declined slightly from 5.3% in 2015 to 4.9% in 2016. Survey response rates (21.4% raw response, 25.3% permit response) were comparable to previous years' surveys. Colorado topped the list of states from which non-resident hunters originated, and 19% of non-resident hunters had been Nebraskans at some point in the past. Nebraska turkey hunters continue to be loyal to the state, with only 2% of residents and 23% of non-residents turkey hunting in other states (mostly Kansas and Colorado). The average fall turkey hunter spent 6.4 days afield during the 2016 fall season. Most (76%) hunters were pursuing no particular sub-species. Further, most hunters said that plumage coloration (73%) and genetic purity (72%) of their harvested turkey was somewhat unimportant or not important at all, although there was some variation depending on the sub-species they reported pursuing. Regardless of residency, most hunters (98% of both resident and non-resident hunters) said that they would hunt turkeys in Nebraska again. Turkey abundance, availability of permits, and family or friends to stay with, were the top reasons non-residents gave for choosing to hunt turkeys in Nebraska. Hunters did not feel overcrowded (81%) and were satisfied with their hunting experience (63%). Private residence of family or friends and motels topped the list of where non-resident hunters stayed while hunting turkeys in Nebraska.

Take-home Message. Although the popularity of the fall season continues to decline along with harvest success (see 2016 Fall Turkey Harvest Report), turkey hunters continue to be satisfied with their hunting experiences during the fall season. Most fall turkey hunters are not pursuing particular sub-species, and neither the feather coloration nor the genetic purity of the harvested turkey was of much importance to them.

Methods. This year's survey was composed and administered in-house using Snap Survey development software (Snap v11) and Snap Webhosting service. An initial invitation to participate in the survey for the fall 2016 season was sent to 5,356 (65.4% of unique permit buyers) permit buyers, but 251 were bounced back as undeliverable, giving an effective sample size of 5,105 permitted hunters. Initial invitations were emailed on 20 March 2017, and a reminder email was sent to all non-responding hunters on 27 March 2017. The survey was closed on 3 April 2017. The survey was also available on the NGPC website for hunters who did not have valid emails associated with their permits. The website survey was open over the same period as the invitation-only version. At the end of the survey period, responses had been received from 1,114 spring turkey hunters, 1,091 from the invitation-only version and 23 from the website version. These responses represent 1,291 individual permits for the fall 2016 season. The raw response rate was, therefore, 21.4% and the permit response rate was 25.3%. Each survey respondent represented 6.653 fall 2016 permit buyers.

Results. Below are figures and tables that summarize hunter responses to survey questions. In most cases, the results are presented for residents, non-residents, and all hunters combined.

Table 1. Minimum, maximum, mean, and median time (in minutes) participants took to complete the survey.

Counts Respondents	Total	Descriptive Statistics				
		Minimum	Maximum	Mean	Median	Standard Error of the Mean
Duration of interview	1114	0.48	193.62	6.5	4.9	0.31

Table 2. Top ten states of residence for non-resident hunters during the 2016 fall season.

Total	202
Please select your state of residence.	
Colorado	74
California	12
Texas	9
Utah	9
Minnesota	8
Wyoming	8
Louisiana	5
Nevada	5
Pennsylvania	5
South Dakota	5
Wisconsin	5

Table 3. Number and percent of non-resident hunters who reported being a Nebraska resident as some point in the past.

Counts Respondents	
Total	199
Were you ever a resident of the state of Nebraska?	
Yes	37
	19%
No	162
	81%

Table 4. Among Nebraska residents, the top ten counties of residence.

Respondents	
Total	912
In which Nebraska county do you reside?	
Lancaster	130
Douglas	121
Sarpy	69
Buffalo	42
Lincoln	36
Hall	35
Dawson	26
Adams	23
Saunders	23
Seward	22

Table 5. Number and type (regular, youth) of permits purchased for the fall 2016 season overall, and by residents and non-residents.

Counts Analysis % Respondents	Overall			Resident			Non-resident		
	0	1	2	0	1	2	0	1	2
Total	1102 49%	961 43%	165 7%	881 48%	823 45%	120 7%	221 55%	138 34%	45 11%
Youth Permits	912 82%	166 15%	36 3%	737 81%	149 16%	26 3%	175 87%	17 8%	10 5%
Regular/Landowner	190 17%	795 71%	129 12%	144 16%	674 74%	94 10%	46 23%	121 60%	35 17%

Table 6. Number and percent of residents and non-residents (and overall) who indicated they hunted turkeys in other states than Nebraska during the 2016 fall season.

Did you hunt turkeys during the fall 2016 season in any other state?	Overall	Resident	Non-resident
	1112	910	202
Yes	62 6%	16 2%	46 23%
No	1050 94%	894 98%	156 77%

Table 7. Top ten states where hunters who hunted in other states reported hunting. Due to low response rates to this question ($n = 51$) responses are not displayed by residency.

County	All Hunters
Kansas	10
Colorado	9
Pennsylvania	5
Texas	4
Minnesota	3
South Dakota	3
Illinois	2
New York	2
Virginia	2
Wisconsin	2

Table 8. Number and percent of resident and non-resident hunters who reported going afield to hunt during the fall 2016 turkey season.

Did you hunt wild turkeys in Nebraska during the fall 2016 season?	Overall	Resident	Non-resident
Total	1114	912	202
Yes	932 84%	752 82%	180 89%
No	182 16%	160 18%	22 11%

Table 9. Total and average number of days afield reported by resident and non-resident hunters who hunted during the 2016 fall turkey season.

How many days did you hunt turkeys in Nebraska in the fall of 2016?	Overall	Resident	Non-resident
Total Responses	1114	912	202
Total Days	5949	5215	734
Days per Hunter	6.4	6.95	4.08

Table 10. Top ten counties and number of respondents where resident and non-resident hunters indicated that they harvested most of their turkeys during the 2016 fall turkey season.

Overall		Resident		Non-resident	
Dawes	27	Dawes	20	Unknown	8
Red Willow	17	Buffalo	13	Dawes	7
Custer	16	Custer	11	Red Willow	7
Buffalo	15	Dawson	11	Custer	5
Lincoln	15	Lincoln	11	Cherry	4
Dawson	11	Red Willow	10	Furnas	4
Holt	10	Holt	8	Lincoln	4
Cherry	9	Cass	7	Chase	3
Unknown	9	Harlan	7	Dundy	3
Keya Paha	8	Douglas	6	Hitchcock	3

Table 11. Number and percent of resident and non-resident hunters who reported pursuing a particular sub-species of wild turkey during the 2016 fall season. Hunters were allowed to select more than one sub-species, so responses will not equal Total Respondents. Percentages are based on total responses, not respondents.

Sub-species	Overall	Resident	Non-resident
Total Respondents	925	747	178
Eastern	61 6%	51 7%	10 6%
Merriam's	168 17%	121 16%	47 25%
Rio Grande	34 4%	19 2%	15 8%
No particular sub-species	700 73%	587 75%	113 61%

Table 12. Hunter reported importance that a turkey they have harvested has the correct plumage coloration for pursued sub-species by sub-species pursued.

Importance of feather coloration	Total	Which sub-species of wild turkey were you pursuing?			
		Eastern	Merriam's	Rio Grande	No particular sub-species
Total	924	61	168	34	699
Very Important	31	2	17	5	11
	3%	3%	10%	15%	2%
Neutral	67	10	23	6	33
	7%	16%	14%	18%	5%
	161	13	49	10	101
	17%	21%	29%	29%	14%
Not Important at all	103	8	20	2	76
	11%	13%	12%	6%	11%
	562	28	59	11	478
	61%	46%	35%	32%	68%

Table 13. Resident hunter-reported importance that a turkey they have harvested has the correct plumage coloration for the sub-species pursued by sub-species pursued.

Importance of feather coloration	Total	Which sub-species of wild turkey were you pursuing? (Residents)			
		Eastern	Merriam's	Rio Grande	No particular sub-species
Total	746	51	121	19	586
Very Important	22	1	11	3	9
	3%	2%	9%	16%	2%
Neutral	45	8	17	2	23
	6%	16%	14%	11%	4%
	133	12	39	7	85
	18%	24%	32%	37%	15%
Not Important at all	83	6	14	1	65
	11%	12%	12%	5%	11%
	463	24	40	6	404
	62%	47%	33%	32%	69%

Table 14. Non-resident hunter-reported importance that a turkey they have harvested has the correct plumage coloration for the sub-species pursued by sub-species pursued.

Importance of feather coloration	Total	Which sub-species of wild turkey were you pursuing? (Non-residents)			
		Eastern	Merriam's	Rio Grande	No particular sub-species
Total	178	10	47	15	113
Very Important	9	1	6	2	2
	5%	10%	13%	13%	2%
Neutral	22	2	6	4	10
	12%	20%	13%	27%	9%
Not Important at all	28	1	10	3	16
	16%	10%	21%	20%	14%
Not Important at all	20	2	6	1	11
	11%	20%	13%	7%	10%
Not Important at all	99	4	19	5	74
	56%	40%	40%	33%	65%

Table 15. Hunter reported importance that a turkey they have harvested is a genetically pure specimen of the pursued sub-species by sub-species pursued.

Importance of genetic purity	Total	Which sub-species of wild turkey were you pursuing?			
		Eastern	Merriam's	Rio Grande	No particular sub-species
Total	924	60	168	34	700
Very Important	41	3	22	4	15
	4%	5%	13%	12%	2%
Neutral	65	5	26	5	33
	7%	8%	15%	15%	5%
Not Important at all	156	17	42	10	100
	17%	28%	25%	29%	14%
Not Important at all	107	6	25	3	77
	12%	10%	15%	9%	11%
Not Important at all	555	29	53	12	475
	60%	48%	32%	35%	68%

Table 16. Resident hunter-reported importance that a turkey they have harvested is a genetically pure specimen of the pursued sub-species by sub-species pursued.

Importance of genetic purity	Which sub-species of wild turkey were you pursuing? (Resident)				
	Total	Eastern	Merriam's	Rio Grande	No particular sub-species
Total	747	51	121	19	587
Very Important	29	3	15	2	11
	4%	6%	12%	11%	2%
Neutral	46	5	17	2	25
	6%	10%	14%	11%	4%
	123	13	32	7	83
Not Important at all	16%	25%	26%	37%	14%
	93	6	22	1	67
Not Important at all	12%	12%	18%	5%	11%
	456	24	35	7	401
	61%	47%	29%	37%	68%

Table 17. Non-resident hunter-reported importance that a turkey they have harvested is a genetically pure specimen of the pursued sub-species by sub-species being pursued by the hunter.

Importance of genetic purity	Which sub-species of wild turkey were you pursuing? (non-resident)				
	Total	Eastern	Merriam's	Rio Grande	No particular sub-species
Total	177	9	47	15	113
Very Important	12	-	7	2	4
	7%	-	15%	13%	4%
Neutral	19	-	9	3	8
	11%	-	19%	20%	7%
	33	4	10	3	17
Not Important at all	19%	44%	21%	20%	15%
	14	-	3	2	10
Not Important at all	8%	-	6%	13%	9%
	99	5	18	5	74
	56%	56%	38%	33%	65%

Table 18. Age and sex distribution of the fall 2016 turkey harvest by residency.

Sex and Age	Overall					Resident					Non-resident				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Total	575	390	130	11	11	477	288	97	10	6	98	102	33	1	5
Adult males (toms)	84 29%	146 51%	50 17%	4 1%	3 1%	74 34%	105 48%	35 16%	4 2%	2 1%	10 15%	41 61%	15 22%	- -	1 1%
Juvenile males (jakes)	113 49%	90 39%	24 10%	2 1%	3 1%	91 48%	73 38%	21 11%	2 1%	3 2%	22 52%	17 40%	3 7%	- -	- -
Adult hens	95 36%	121 46%	40 15%	4 2%	4 2%	77 39%	87 44%	29 15%	3 2%	1 1%	18 27%	34 51%	11 16%	1 1%	3 4%
Juvenile hens	136 76%	31 17%	11 6%	- -	- -	112 79%	21 15%	9 6%	- -	- -	24 67%	10 28%	2 6%	- -	- -
Unknown age and sex	147 94%	2 1%	5 3%	1 1%	1 1%	123 95%	2 2%	3 2%	1 1%	- -	24 89%	- -	2 7%	- -	1 4%

Table 19. Hunter identified sub-species by sub-species pursued.

Which sub-species did you harvest	Total	Which sub-species of wild turkey were you pursuing during ...			
		Eastern	Merriam's	Rio Grande	No particular sub-species
Total	412	26	92	20	297
Eastern Wild Turkey	78 19%	16 62%	8 9%	2 10%	57 19%
Rio Grande Wild Turkey	58 14%	- -	6 7%	11 55%	44 15%
Merriam's Wild Turkey	105 25%	5 19%	57 62%	4 20%	48 16%
A mixture of one or more of these (hybrid)	81 20%	5 19%	13 14%	3 15%	66 22%
None of these	1 0%	- -	- -	- -	1 0%
Do not remember	89 22%	- -	8 9%	- -	81 27%

Table 20. Resident and non-resident harvest and days spent afield by week of season for the fall 2016 season.

Period of season	Overall		Resident		Non-resident	
	Days	Harvested	Days	Harvested	Days	Harvested
15-30 September	190	60	163	41	27	19
1-31 October	548	202	486	161	62	41
1-13 November	269	96	222	63	47	33
14-22 November	210	112	169	76	41	36
23-30 November	96	36	87	30	9	6
1-31 December	306	119	263	94	43	25
1-31 January	222	78	193	71	29	7

Table 20. Number of resident and non-resident hunters who reported harvesting 0-4 turkeys on public land or on private land where permission was required during the 2016 fall turkey season.

How many turkeys did you harvest on	Overall					Resident					Non-resident				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Total	409	188	191	20	18	304	147	134	19	14	105	41	57	1	4
...private land where permission was required?	48	162	172	16	15	33	127	123	15	11	15	35	49	1	4
	12%	39%	42%	4%	4%	11%	41%	40%	5%	4%	14%	34%	47%	1%	4%
...land open to public hunting?	361	26	19	4	3	271	20	11	4	3	90	6	8	-	-
	87%	6%	5%	1%	1%	88%	6%	4%	1%	1%	87%	6%	8%	-	-

Table 21. Number and percent of resident and non-resident hunters who would or would not hunt in Nebraska again given their experiences during the fall 2016 season.

Will you hunt turkey in Nebraska again given your experiences in the fall 2016 season?	Overall	Resident	Non-resident
Total	928	749	179
Yes	911 98%	736 98%	175 98%
No	17 2%	13 2%	4 2%

Figure 1. Word cloud summarizing free responses from hunters who indicated that they would not hunt in Nebraska again given their experiences during the 2016 fall season.

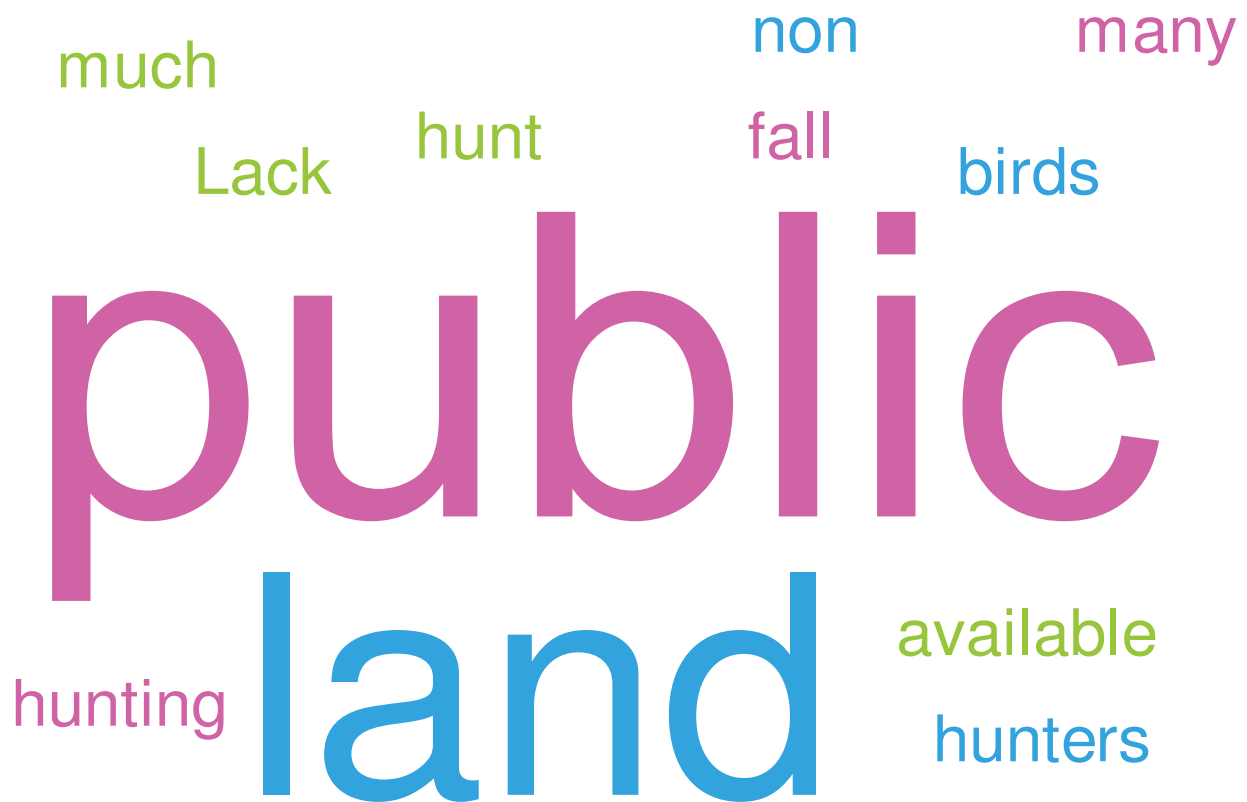


Figure 2. Percentage of overall, resident, and non-resident turkey hunting experience in years.

"How many years of experience do you have hunting turkeys?"

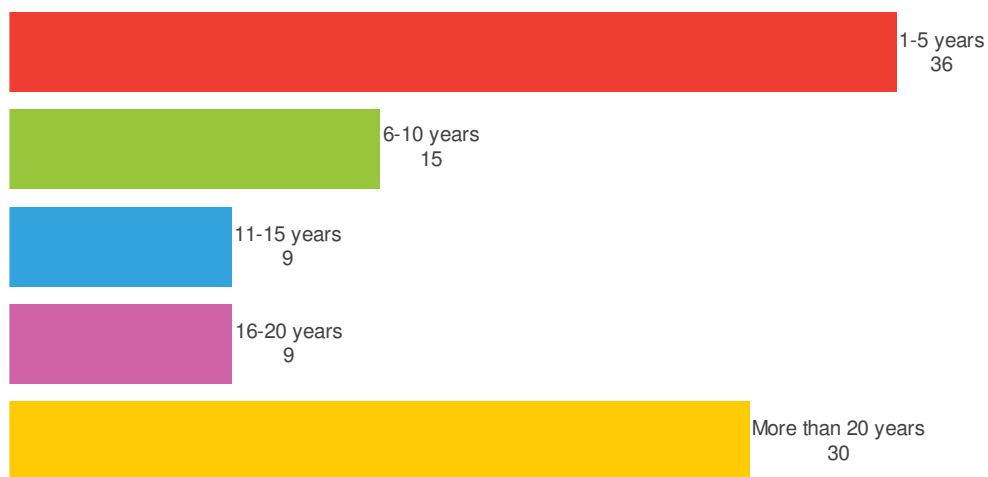
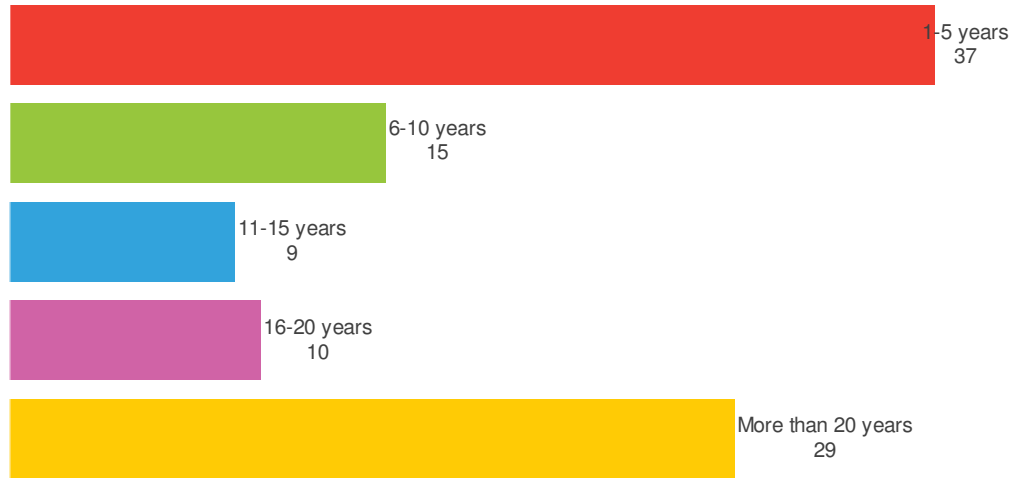


Figure 2. Continued, resident and non-resident hunters.

"How many years of experience do you have hunting turkeys?"



"How many years of experience do you have hunting turkeys?"

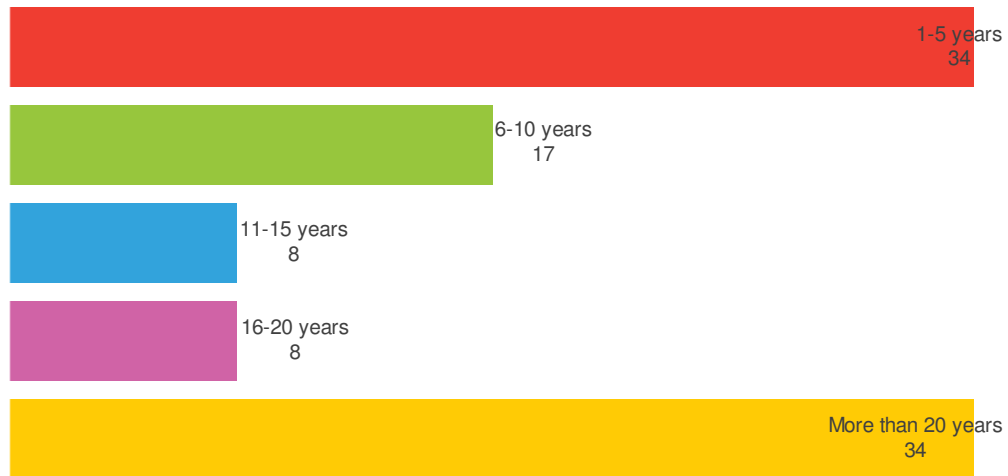


Table 22. Resident and non-resident hunters’ reasons for hunting wild turkey in Nebraska during the 2016 fall season. Options with >50% support are highlighted in bold.

Why did you choose to hunt in Nebraska?	Overall	Resident	Non-resident
Total	931	751	180
Availability of Public Land to hunt	340 37%	284 38%	56 31%
Family and/or friends who live in state	428 46%	317 42%	111 62%
Ability to hunt a different sub-species of turkey	109 12%	76 10%	33 18%
Availability of permits	547 59%	435 58%	112 62%
Permit costs	396 43%	335 45%	61 34%
Number of permits allowed per hunter	323 35%	262 35%	61 34%
Hunter success rate	291 31%	230 31%	61 34%
Turkey population abundance	617 66%	495 66%	122 68%
Other	94 10%	82 11%	12 7%

Figure 3. Word cloud of significant terms from the free responses received for “Other,” about why hunters chose to hunt turkey in Nebraska during the 2016 fall season.



Table 23. Resident and non-resident agreement with statements related to their hunting experiences in Nebraska during the 2016 fall season.

	Overall					Resident					Non-resident				
	Strongly Disagree				Strongly Agree	Strongly Disagree				Strongly Agree	Strongly Disagree				Strongly Agree
Total	776	541	969	719	708	624	457	810	593	510	152	84	159	126	198
"I saw too many hunters"	536	217	127	28	21	420	172	113	26	18	116	45	14	2	3
	58%	23%	14%	3%	2%	56%	23%	15%	3%	2%	64%	25%	8%	1%	2%
"I was satisfied with the number of turkeys seen"	101	111	207	222	286	87	97	177	180	206	14	14	30	42	80
	11%	12%	22%	24%	31%	12%	13%	24%	24%	28%	8%	8%	17%	23%	44%
"I was satisfied with the amount of land open to public hunting"	97	129	420	181	99	80	116	333	145	73	17	13	87	36	26
	10%	14%	45%	20%	11%	11%	16%	45%	19%	10%	9%	7%	49%	20%	15%
"Overall I was satisfied with the quality of my hunting experience"	42	84	215	288	302	37	72	187	242	213	5	12	28	46	89
	5%	9%	23%	31%	32%	5%	10%	25%	32%	28%	3%	7%	16%	26%	49%

Figure 4. Percentage hunter agreement with the statement “I saw too many hunters” during the 2016 fall turkey season.

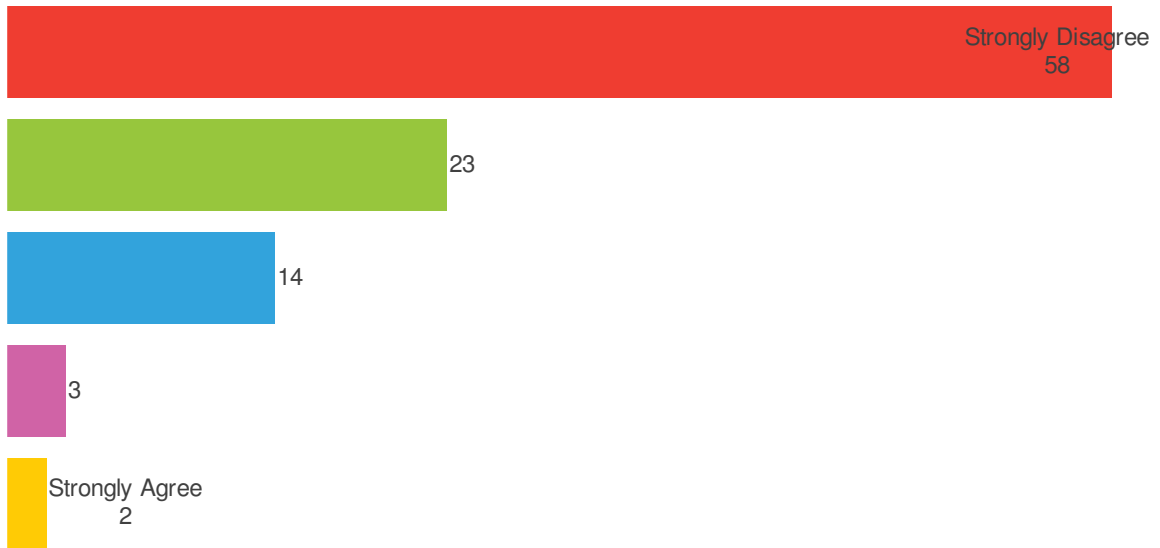


Figure 5. Percentage hunter agreement with the statement, “I was satisfied with the number of turkeys seen” while hunting turkeys during the 2016 fall season.

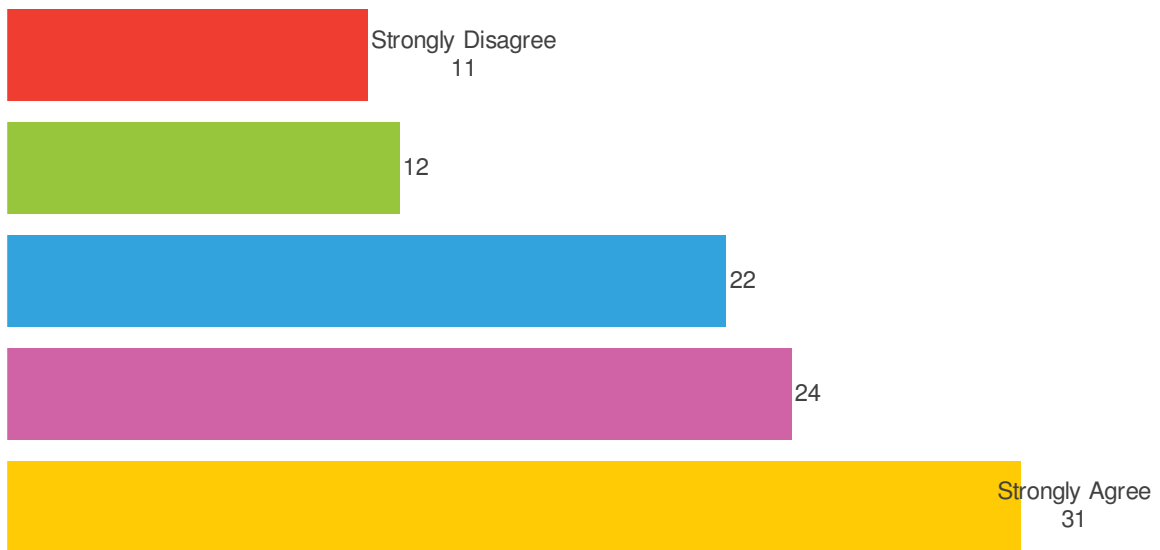


Figure 6. Percentage hunter agreement with the statement, “I was satisfied with the amount land open to public hunting” during the 2016 fall season.

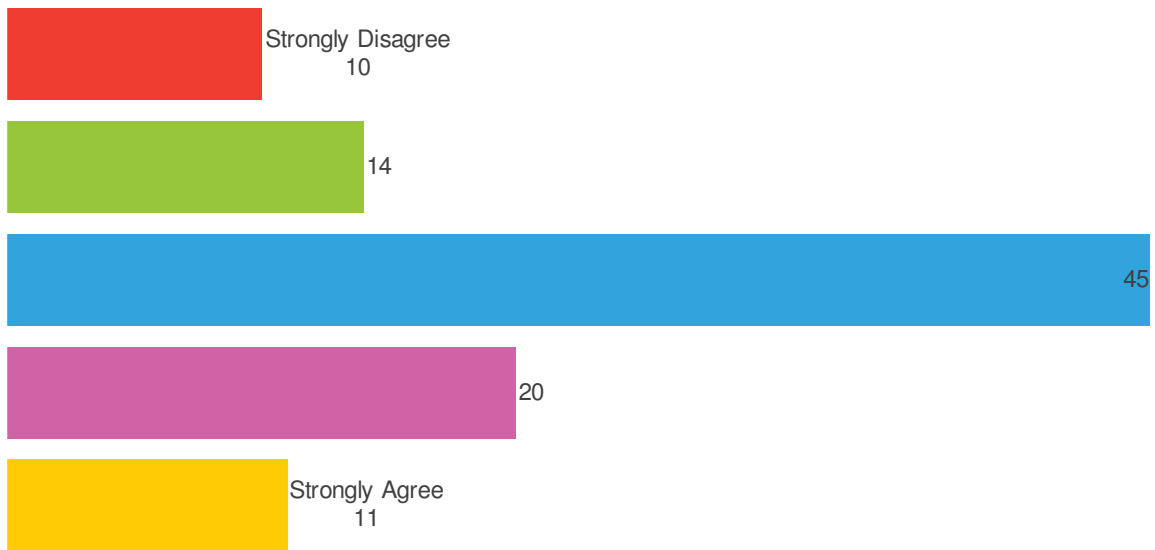


Figure 7. Hunter agreement with the statement, “Overall I was satisfied with the quality of my hunting experience” during the 2016 fall season.

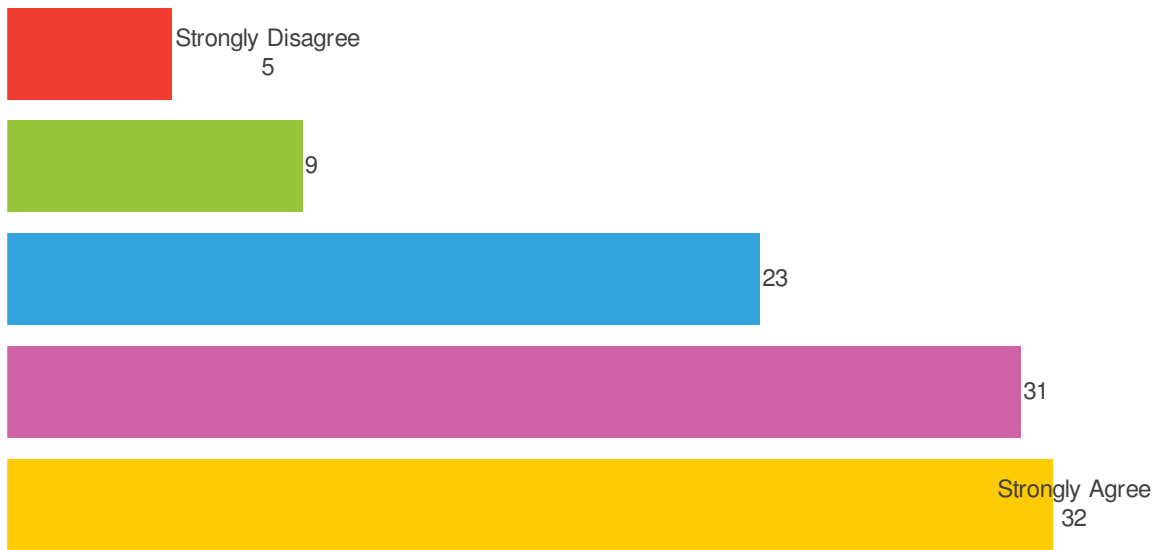


Table 24. Non-resident hunter accommodation types when hunting in Nebraska during the 2016 fall turkey season.

Where did you stay while hunting turkeys in Nebraska?	Non-resident responses and percent
Total	180
Hotel/Motel	54 30%
Commercial campground (e.g., KOA) or hunting lodge	4 2%
Public camping sites/lodge (e.g., State Parks)	16 9%
Private residence of family or friends	92 51%
Personal home	3 2%
Other	11 6%

Figure 8. Word cloud for “Other” responses to where hunters stayed while hunting turkey in Nebraska during the 2016 fall season.



Figure 9. Percentage of responding hunters who indicated they accompanied various groups of hunters in the field during the 2016 fall turkey season.

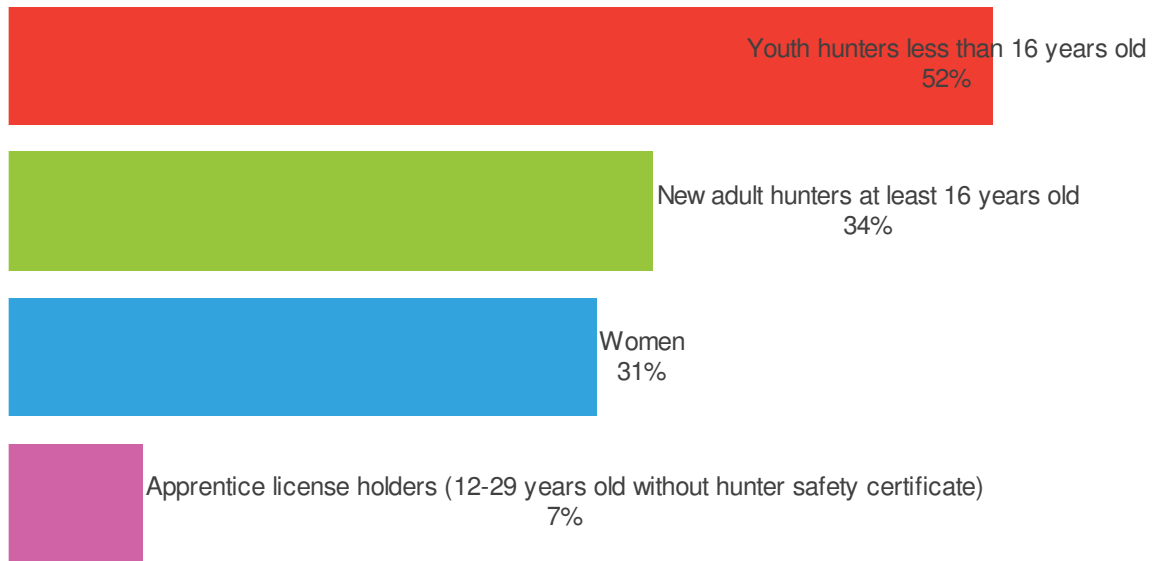


Table 25. Numbers of youth, novice, women, and apprentice hunters that hunters reported taking into the field during the 2016 fall turkey season.

Type of hunter	Total
	Total
Youth hunters less than 16 years old	180
New adult hunters at least 16 years old	120
Women	104
Apprentice license holders	21