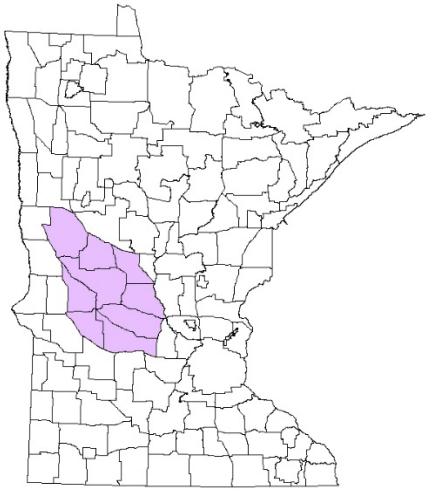
DEPARTMENT OF NATURAL RESOURCES

Division of Fish and Wildlife

Attitude Survey Report

Block 9: Central Hills Prairie



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Statement of Purpose and Scope of Data

The Minnesota Department of Natural Resources (MNDNR) periodically conducts opinion surveys of deer hunters and landowners to assess preferences for deer populations, experiences with deer hunting and impacts of deer populations to inform the deer population goal setting process. Data from these studies directly inform decision making for deer populations in the future. Landowners and hunters are selected randomly from county tax parcel records, or MNDNR deer license information respectively for participation. Therefore, the results of these studies are representative of a stakeholder group, and differ substantially from results of self-selected public input processes. The values in these reports should be interpreted as the average values for the given question within the population of interest (e.g., Goal Setting Block).

Data Collection Process

Hunters and landowners were surveyed using a mixed mode design that included two waves of letters requesting that participants complete a questionnaire online, and a third mailing that included a paper copy of the survey with a postage-paid self-addressed return envelope.

Hunters

Within a block, hunters were randomly selected from the list of all firearm deer license holders in the given year to receive a goal setting survey. Surveys were only sent to adults over the age of 18 at the time the sample was drawn. The number of hunters selected in each DPA was proportional to the distribution of hunters hunting across DPAs, after accounting for the minimum sample size needed to make statistically valid inference about the population at the goal setting block level. Participants may not be residents of the DPA, but have indicated that the given DPA is the primary location where they hunt deer.

Landowners

Within a block, landowners were randomly selected from a list of all landowners with a parcel greater than or equal to 2 acres in size. The sample was further stratified by acres to ensure a representative coverage of land use types and interests. Land acres strata were: 2-19.9, 20-79.9, 80-319.9, and >=320 acres. Similar to hunters, the number of landowners selected for each DPA was proportional to the total number of landowners in the DPA and after determining the minimum sample size needed for statistically valid inference at the goal block scale.

Data Context

Results presented in this report are from a study conducted in fall 2014 and winter 2015. Therefore, the data refer to deer populations, hunting experience, and deer damage during the 2014 season, but may be applicable to recent experiences with deer hunting and deer damage within the goal setting block. Frequencies are

reported for responses by DPA to show general trends. However, estimates are statistically valid with 95% confidence for the goal block scale only (rows marked total).

Deer population management

Deer population goals for Block 9 DPAs were last set in 2007 (Table 1). A goal was set to stabilize the deer population for two DPAs. Only one DPA set a goal to decrease the deer population by 10%. The remaining DPAs 6/9 set a goal to increase the population by 25%.

At the time of the attitude survey (2014) population density estimates ranged from 6 deer per square mile for DPA 273, to 25 deer per square mile for DPA 214. All Block 9 DPAs were either managed as Hunters Choice or Lottery in 2014.

Table 1. Historic deer population and management by DPA

	Goal Setting Period - 2007			Attitude Survey Period - 2014		2019
DPA	**Year Last Goal Set**	**Population Est. 2006 (Deer/Sq. Mile)**	**Population Goal**	**Population Est. 2014 (Deer/Sq. Mile)**	**DPA Mgmt. at Time of Survey**	**Current Population Est. Deer/Sq. Mile**
213	2007	13	+25	15	Lottery (2000)	23
214	2007	16	-10%	25	Hunters Choice	35
215	2007	5	+25%	18	Hunters Choice	26
218	2007	6	+25%	10	Hunters Choice	18
239	2007	25	Stable	12	Hunters Choice	15
240	2007	42	Stable	20	Hunters Choice	29
273	2007	8	+25%	6	Lottery (1000)	10
276	2007	9	+25%	9	Lottery (1100)	16
277	2007	10	+25%	12	Lottery (2000)	18

*Population estimates are derived from the deer population model

Harvest

The total annual deer harvests in 2012/13 and 2013/14 were 186,634 and 172,781 animals respectively. The 1990 to 2018 long-term average annual harvest is 204,055 deer. Therefore, the year of survey (2013/14) and previous year (2012/13) saw harvests 9% and 15% below the long-term average respectively.

Winter Severity

The Winter Severity Index (WSI) is a metric used to track the potential impact of winter conditions on white-tailed deer over winter survival and populations. One point is accumulated for every day with average ambient temperature <=0 degrees Fahrenheit, and/or 15 inches of snow depth on the ground. A WSI greater than 180 is considered a severe winter. The WSI for Block 6 during the winters of 12/13 and 13/14 by DPA is presented in Table 2.

Table 2. Winter severity index by DPA

DPA	WSI 2012/13	WSI 2013/14
213	84	103
214	83	127
215	67	119
218	59	84
239	110	104
240	95	120
273	83	71
276	65	66
277	55	70
Average	***78***	***96***

Block 9: Central Hills Prairie

The data presented herein are from a statistically representative survey of Minnesota deer hunters and landowners in goal setting Block 9. This area includes deer permit areas: 213, 214, 215, 218, 239, 240, 273, 276, and 277 in the central part of the state (Figure 1). Frequencies are reported for responses by DPA to show general trends. However, estimates are statistically valid with 95% confidence for the goal block scale (rows marked total).

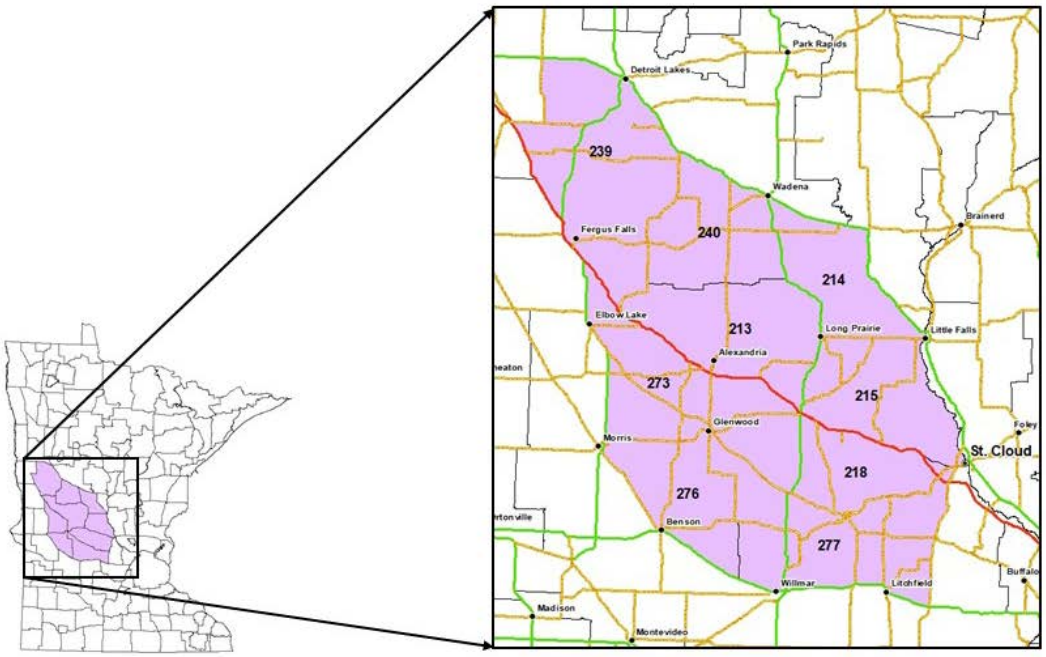


Figure 1. Goal setting Block 9 DPA boundaries

Response Rates

Hunters

A total of 2,601 hunters were originally sampled for participation in the study. The sample frame was reduced by 131 cases after accounting for undeliverable postal address and individuals that has passed away. Survey efforts yielded 1,097 usable responses, for an effective response rate of 43.9%

Landowners

A total of 2,713 landowners were originally sampled for participation in the study. The sample frame was reduced by 239 cases after accounting for undeliverable postal address and individuals that has passed away. Survey efforts yielded 961 usable responses, for an effective response rate of 38.8%

Hunters

Demographics and hunting behavior

Respondents were on average 49.3 years of age at the time the data were collected, and had been living in Minnesota for an average of 46.1 years. The vast majority of respondents were male (87.2%). This disparity, however, reflects the lower participation rate in hunting among females in the state. Respondents were fairly well educated, with nearly 31% reporting having completed a four year college degree or greater.

Firearms hunters, on average, spent 4.8 days hunting during the firearms season. While, archery hunters and muzzleloader hunters spent 17.6 and 5.8 days afield respectively. The majority of hunters (67%) reported that they do not spend any time hunting on public land. Around forty-percent indicated that they do all of their hunting on private land that they own, and another 31% hunt entirely on private land that they do not own. Over 90% of hunter reported that they do not hunt on land that they lease (Table 3).

Deer population preferences

Hunters were asked their preference for the future of deer populations in the permit area where they hunt most often. On average, 60.2% of hunters in goal setting Block 9, preferred an increase in the white-tailed deer population. This result did not vary substantively by DPA (Table 4). Roughly 24% of hunters preferred an increase in the deer population of 25%, and 11% preferred an increase of 50% (Table 5).

In addition to future deer populations, hunters were queried about their perception of the change in deer population over the last 5 years (Table 6). Around 56% of hunter respondents reported seeing fewer deer at the time of survey than they did 5 years prior.

Hunters were split between a perception that the current deer population is “too low” (49%), and that it is “about right” (44%) (Table 7). This same sentiment was reflected in hunters’ overall satisfaction with deer populations (Table 8). Nearly half of respondent hunters in Block 9 reported dissatisfaction with current deer populations. Hunters were, on average, satisfied with the number of antlerless deer that they saw, and that they heard about or saw bucks. However, there was substantive disagreement with statements about their satisfaction with the number and quality of bucks in the area where they hunt, and the total number of deer (Table 9).

Finally, hunters evaluated statements about the deer goal setting process in general (Table 10). They were asked how important different priorities were to them when considering goals for deer populations in the area where they hunt. Respondents indicated that sever winter mortality, and deer hunting heritage and tradition were particularly import factors to consider. Whereas, deer impacts on forests and other wildlife were not salient concerns (Figure 4).

Table 3. Amount of time hunters spent hunting on different types of land, in 2014

	None	Some	Most	All
Public land	66.5 (558)	24.3 (204)	5.5 (46)	3.7 (31)
Private land that I do not own or lease	34.8 (325)	15.4 (144)	16.8 (157)	32.9 (307)
Private land that I lease for hunting	91.5 (720)	3.3 (26)	2.3 (18)	2.9 (23)
Private land that I own	35.9 (331)	8.0 (74)	16.7 (154)	39.3 (362)

*Data are Percent of Respondents and (Total Number of Respondents)

Table 4. Hunters' preference for future deer population by permit area, in 2014

DPA	Decrease	No change	Increase
213	18.6 (33)	24.9 (44)	56.5 (100)
214	11.0 (16)	35.9 (52)	53.1 (77)
215	6.8 (8)	37.3 (44)	55.9 (66)
218	15.2 (15)	28.3 (28)	56.6 (56)
239	5.1 (8)	22.4 (35)	72.4 (113)
240	10.1 (14)	31.2 (43)	58.7 (81)
273	4.9 (2)	14.6 (6)	80.5 (33)
276	9.7 (6)	17.7 (11)	72.6 (45)
277	21.7 (28)	24.0 (31)	54.3 (70)
Total	***12.2 (130)***	***27.6 (294)***	***60.2 (641)***

*Data are Percent of Respondents and (Total Number of Respondents)

Figure 2. Hunters' preference for future deer population level, in 2014

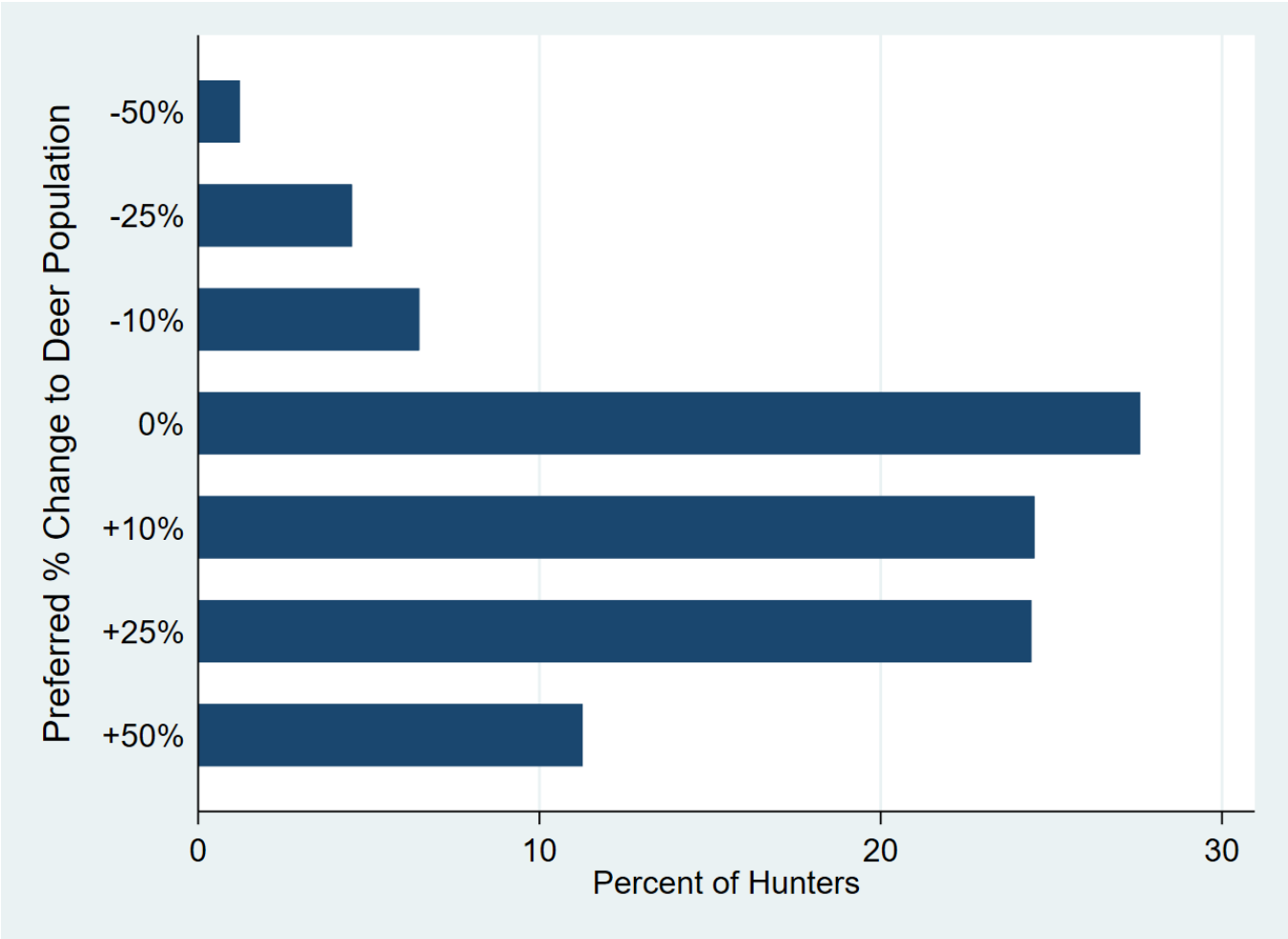


Figure 3. Hunters' preference for future deer population, in 2014

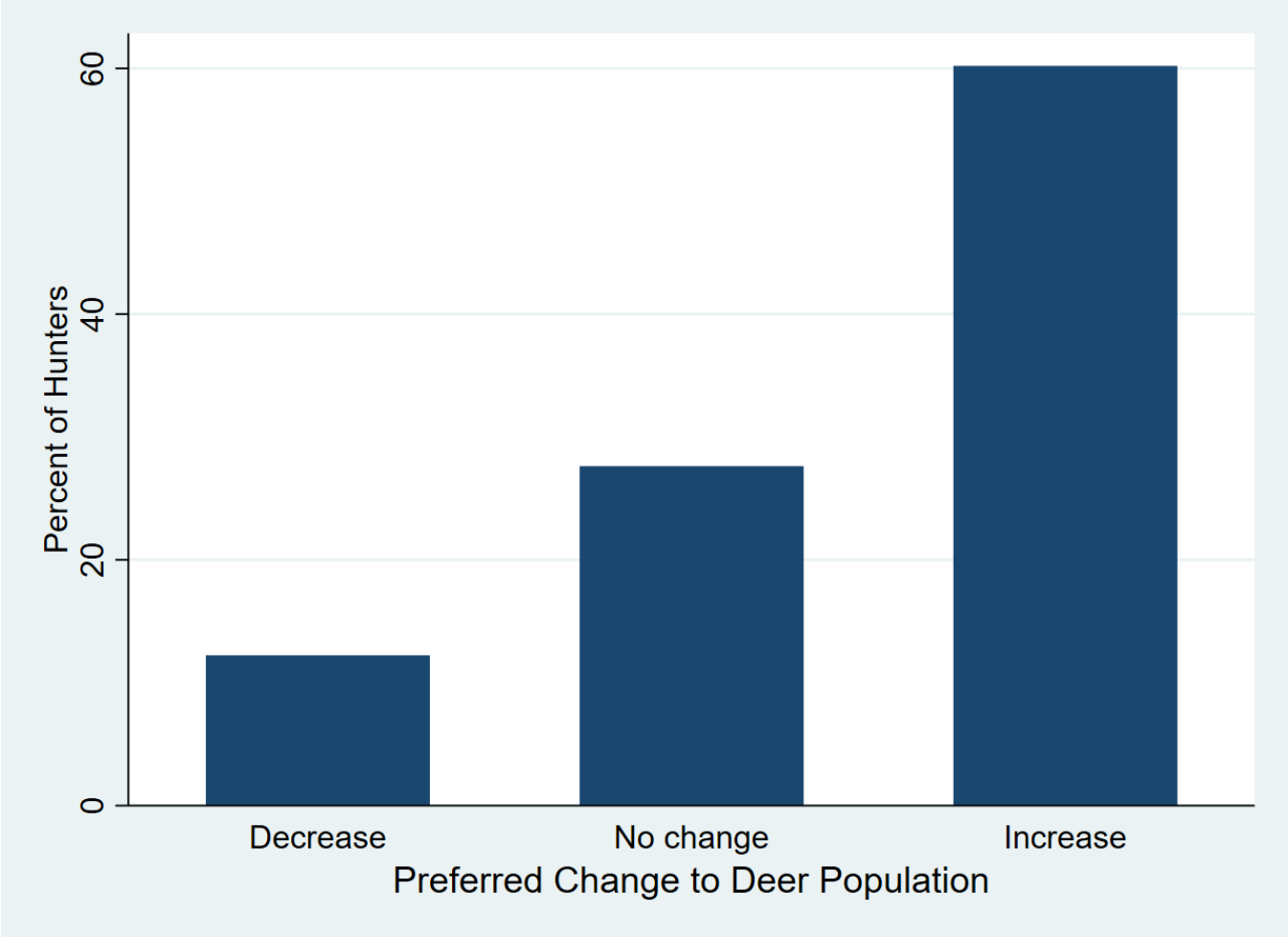


Table 5. Hunters' preferred future deer population by DPA, in 2014

DPA	-50%	-25%	-10%	No change	+10%	+25%	+50%
213	2.3 (4)	7.3 (13)	9.0 (16)	24.9 (44)	24.3 (43)	22.0 (39)	10.2 (18)
214	1.4 (2)	4.8 (7)	4.8 (7)	35.9 (52)	22.8 (33)	20.0 (29)	10.3 (15)
215	-	2.5 (3)	4.2 (5)	37.3 (44)	28.8 (34)	22.9 (27)	4.2 (5)
218	1.0 (1)	5.1 (5)	9.1 (9)	28.3 (28)	31.3 (31)	16.2 (16)	9.1 (9)
239	0.6 (1)	1.9 (3)	2.6 (4)	22.4 (35)	24.4 (38)	31.4 (49)	16.7 (26)
240	1.4 (2)	4.3 (6)	4.3 (6)	31.2 (43)	21.0 (29)	25.4 (35)	12.3 (17)
273	-	2.4 (1)	2.4 (1)	14.6 (6)	26.8 (11)	39.0 (16)	14.6 (6)
276	1.6 (1)	3.2 (2)	4.8 (3)	4.8 (3)	17.7 (11)	24.2 (15)	27.4 (17)
277	1.6 (2)	6.2 (8)	14.0 (18)	24.0 (31)	20.9 (27)	24.8 (32)	8.5 (11)
Total	***1.2 (13)***	***4.5 (48)***	***6.5 (69)***	***27.6 (294)***	***24.5 (261)***	***24.4 (260)***	***11.3 (120)***

**Data are Percent of Respondents and (Total Number of Respondents)*

Table 6. Hunters' perception of the deer population over the last 5 years by DPA

DPA	Fewer	About the same	More
213	48.3 (84)	27.6 (48)	24.1 (42)
214	61.8 (89)	25.7 (37)	12.5 (18)
215	50.4 (60)	26.9 (32)	22.7 (27)
218	43.1 (44)	39.2 (40)	17.6 (18)
239	73.5 (115)	15.5 (24)	11.0 (17)
240	58.0 (80)	29.7 (41)	12.3 (17)
273	69.0 (29)	19.0 (8)	11.9 (5)
276	68.3 (43)	22.2 (14)	9.5 (6)
277	45.4 (59)	30.0 (39)	24.6 (32)
Total	***56.4 (602)***	***26.5 (283)***	***17.1 (182)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 7. Hunters' perception of the current deer population by DPA

DPA	Too low	About right	Too high
213	47.5 (84)	38.4 (68)	14.1 (25)
214	40.3 (58)	53.5 (77)	6.3 (9)
215	38.1 (45)	59.3 (70)	2.5 (3)
218	42.0 (42)	52.0 (52)	6.0 (6)
239	62.2 (97)	35.3 (55)	2.6 (4)
240	50.7 (70)	43.5 (60)	5.8 (8)
273	68.3 (28)	29.3 (12)	2.4 (1)
276	57.1 (36)	41.3 (26)	1.6 (1)
277	45.2 (57)	41.3 (52)	13.5 (17)
Total	***48.6 (517)***	***44.4 (472)***	***7.0 (74)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 8. Hunters' satisfaction with deer populations by DPA

DPA	Dissatisfied	Neither	Satisfied
213	46.6 (81)	17.2 (30)	36.2 (63)
214	41.7 (60)	16.7 (24)	41.7 (60)
215	42.0 (50)	13.4 (16)	44.5 (53)
218	43.6 (44)	24.8 (25)	31.7 (32)
239	58.7 (91)	8.4 (13)	32.9 (51)
240	50.7 (70)	11.6 (16)	37.7 (52)
273	69.0 (29)	11.9 (5)	19.0 (8)
276	55.6 (35)	22.2 (14)	22.2 (14)
277	42.3 (55)	16.9 (22)	40.8 (53)
Total	***48.3 (515)***	***15.5 (165)***	***36.2 (386)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 9. Hunters' satisfaction with deer populations by DPA

	Response	213	214	215	218	239	240	273	276	277	Total
Number of legal bucks	Disagree	42.2	36.4	33.6	46.5	55.4	41.2	66.7	60.3	56.2	***46.5***
	Neither	11.0	13.3	18.1	19.8	14.0	20.6	21.4	12.7	15.4	***15.7***
	Agree	46.8	50.3	48.3	33.7	30.6	38.2	11.9	27.0	28.5	***37.9***
Quality of bucks	Disagree	42.0	41.7	39.3	50.5	49.0	43.4	68.3	56.5	53.1	***46.9***
	Neither	17.8	16.0	17.9	14.9	18.5	51.3	12.2	11.3	20.8	***17.6***
	Agree	40.2	42.4	42.7	34.7	32.5	35.3	19.5	32.3	26.2	***35.5***
Heard about or saw legal bucks while hunting	Disagree	24.4	21.7	15.4	24.8	30.5	21.3	35.7	24.6	26.6	***24.3***
	Neither	12.2	11.9	13.7	11.9	11.7	16.2	16.7	13.1	18.0	***13.7***
	Agree	63.4	66.4	70.9	63.4	57.8	62.5	47.6	62.3	55.5	***62.1***
Total number of antlerless deer	Disagree	34.3	30.6	29.9	22.8	45.5	34.6	46.3	32.3	33.8	***34.2***
	Neither	11.0	11.8	14.5	15.8	14.7	14.7	22.0	19.34	13.1	***14.2***
	Agree	54.7	57.6	55.6	61.4	39.7	50.7	31.7	48.4	53.1	***51.7***
Total number of deer I saw while hunting	Disagree	42.5	37.9	35.6	35.0	55.1	46.7	59.0	57.1	38.5	***44.2***
	Neither	8.6	11.7	11.0	13.6	8.9	8.8	11.9	11.1	11.5	***10.5***
	Agree	48.9	50.3	53.4	51.5	36.1	44.5	19.0	31.7	50.0	***45.3***

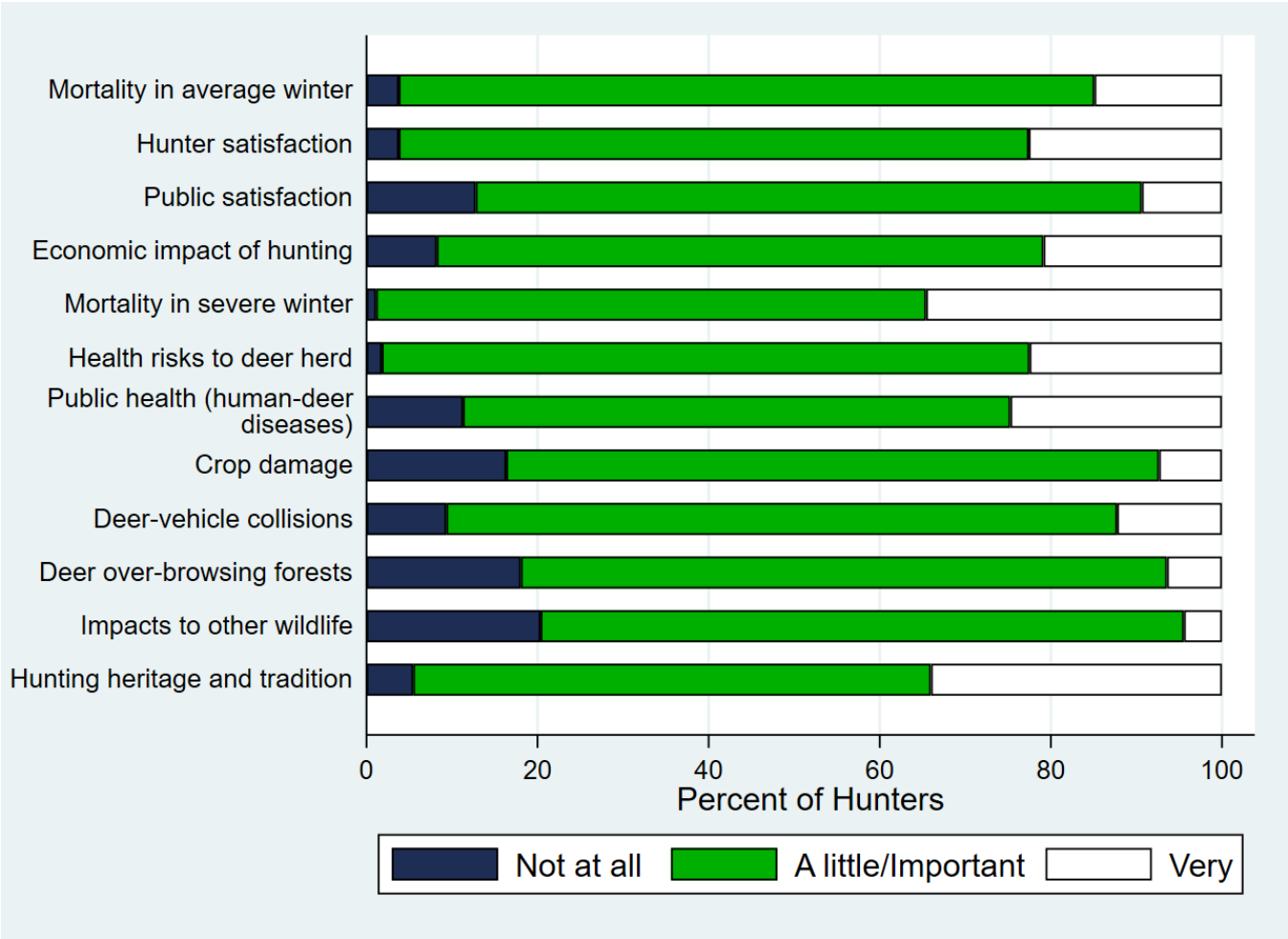
*Data are Percent of Respondents

Table 10. Hunters' reported importance of attributes of deer population goal setting

Question	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	3.7	12.9	25.6	42.8	15.0
Hunter satisfaction with deer numbers	3.6	6.9	22.4	44.3	22.7
Public satisfaction with deer numbers	12.6	20.8	28.7	28.7	9.1
Impact of deer hunting on the local economy	8.0	12.6	24.2	34.2	21.0
Amount of deer mortality during a severe winter	1.0	5.6	18.7	40.3	34.4
Potential health risks to deer herd	1.8	10.7	21.4	43.8	22.3
Public health (human-deer diseases)	11.1	18.5	20.0	25.7	24.8
Amount of crop damage	16.0	28.8	28.2	19.7	7.3
Deer over-browsing of forests	17.8	24.5	28.5	22.8	6.4
The number of deer-vehicle collisions	9.3	23.5	27.0	28.2	11.9
Impacts of deer on other wildlife species	19.6	27.1	27.5	21.3	4.4
Deer hunting heritage and tradition	5.1	8.3	17.7	34.7	34.2

*Data are Percent of Respondents

Figure 4. Hunters' reported importance of attributes of deer population goal setting, in 2014



Caption: Percent of hunters indicating that each factor is either not at all important, moderately important (collapsed "a little", "moderately" and "important") or very important to them as priorities to consider when setting deer population goals.

Landowners

Demographics and hunting behavior

Respondents were on average 60.5 years of age at the time the data were collected, and had been living in Minnesota for an average of 56.1 years. The vast majority of respondents were male (86.5%). Roughly, one third of respondents had completed a college degree or achieved some greater level of education. The mean acres of parcels represented in the sample was 180.9 (self-reported).

Nearly 59% of landowners reported that they had hunted during one of the last three deer seasons at the time of data collection. Substantive differences were observed in the pattern of response by hunting status. Therefore, estimates were made for landowners' population preferences by whether or not they indicated that they were a hunter.

Most landowners that indicated that they hunted, spent all of their time hunting on private land that they owned (62.6%). Roughly 93% reported that they did not hunt leased land at all. Around one third of landowners indicated that they spent at least some of their time hunting private land that they do not own. A smaller proportion (26%) reported hunting on public land (Table 11).

Deer damage

Landowners were asked to indicate whether or not they experienced property damage from deer in three categories; crops, residential, and forests. They were also asked to rate the overall intensity of the damage that they experienced from deer across the three categories. Around 37% of landowners indicated that they experienced damage to crops from deer. Nearly 20% reported that they experienced damage to residential property, and 8% reported damage to forestland (Table 12). Crop damage was associated with parcel size, where larger landowners were more likely to report experiencing damage from deer. Whereas the percent of landowners reporting damage to forest and residential property was similar across acres strata. Regardless of the amount of land they owned, the vast majority of landowners reported that the intensity of the damage they experienced from deer was minor or moderate (Table 13).

Population preferences

Landowners, on average, were split between a belief that the deer population at the time of survey was either "too low" (41%), or about right (46%) (Table 14). Relatively few landowner believed that the deer population was too high.

On average, landowners have perceived a decline in the deer population over the last 5 years. Roughly 52% have seen "fewer" as opposed to "about the same" (28%) or "more" (20%) deer compared to 5 years prior (Table 15).

Landowners expressed a preference for an increase in future deer populations (Table 16). Around 31% of landowners would like to see an increase of either 25% or 50% , while 20% would like to see an increase of 10%

(Table 17). Hunting landowners (62%) were roughly twice as likely prefer an increase in the deer population than non-hunting landowners (35.1) (Table 18).

Respondents placed relatively high importance on severe winter deer mortality and deer hunting heritage and tradition as factors DNR should consider when setting deer population goals. Conversely, the impacts that deer may have on other wildlife species or forests were given comparatively less importance among factors evaluated (Table 19).

Table 11. Amount of time hunting landowners spent hunting on different types of land, in 2014

	None	Some	Most	All
Public land	74.4 (305)	18.8 (77)	4.4 (18)	2.4 (10)
Private land that I do not own or lease	62.7 (267)	19.7 (84)	10.3 (44)	7.3 (31)
Private land that I lease for hunting	93.2 (345)	3.8 (14)	1.4 (5)	1.6 (6)
Private land that I own	7.6 (44)	8.5 (49)	21.3 (123)	62.6 (362)

*Data are Percent of Respondents and (Total Number of Respondents)

Table 12. Percent of landowners that experienced damage to different land uses by acres, in 2014

	Percent "Yes"				
	2-19.9	20-79.9	80-319.9	>=320	***Total***
Crops	19.5	22.3	43.3	52.7	***36.8***
Woods	6.3	7.3	10.7	6.7	***7.8***
Residential	24.4	15.0	19.7	19.5	***19.7***

*Data are Percent of Respondents

Figure 5. Percent of landowners experiencing damage from deer by land use, in 2014

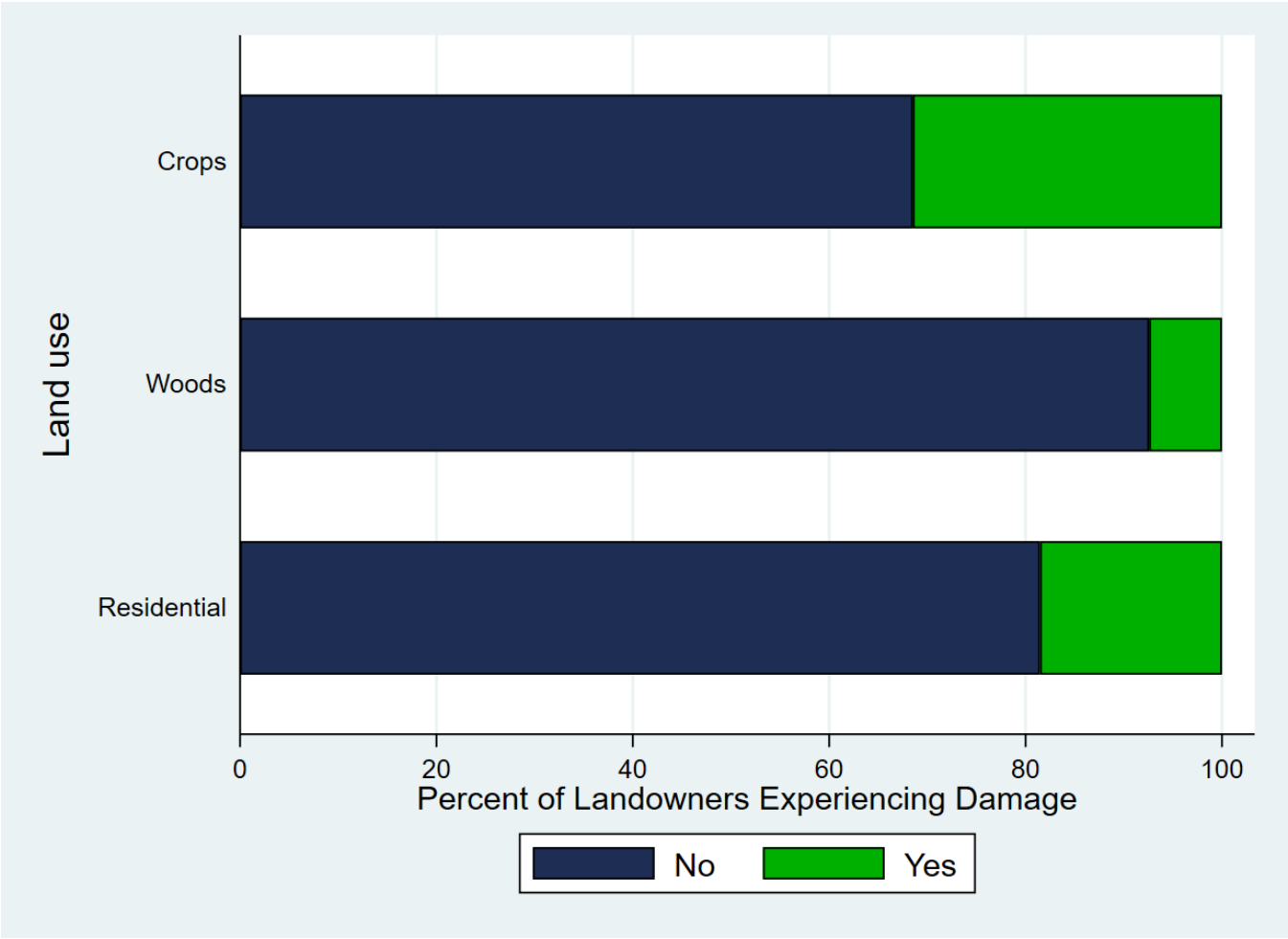


Table 13. Intensity of damage from deer, for those that experienced damage by land use, in 2014

	Negligible	Minor/Moderate	Severe/Very Severe
Crops	11.9	74.6	13.5
Woods	12.5	78.8	8.9
Residential	14.6	71.5	13.9

*Data are Percent of Respondents

Table 14. Non-hunting landowners' perception of the deer population by DPA, in 2014

DPA	Too low	About right	Too high
213	38.3 (31)	40.7 (33)	21.0 (17)
214	7.7 (2)	73.1 (19)	19.2 (5)
215	25.6 (11)	51.2 (22)	23.3 (10)
218	18.0 (9)	64.0 (32)	18.0 (9)
239	36.1 (26)	55.6 (40)	8.3 (6)
240	40.0 (10)	48.0 (12)	12.0 (3)
273	38.5 (15)	43.6 (17)	17.9 (7)
276	14.3 (3)	57.1 (12)	28.6 (6)
277	12.5 (1)	57.1 (12)	28.6 (6)
Total	***29.6 (108)***	***52.6 (192)***	***17.8 (65)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 14 Continued. Hunting landowners' perception of the deer population by DPA, in 2014

DPA	Too low	About right	Too high
213	40.9 (38)	41.9 (39)	17.2 (16)
214	34.2 (27)	54.4 (43)	11.4 (9)
215	37.8 (31)	53.7 (44)	8.5 (7)
218	46.0 (23)	50.0 (25)	4.0 (2)
239	69.9 (58)	24.1 (20)	6.0 (5)
240	48.2 (40)	43.4 (36)	8.4 (7)
273	75.5 (37)	22.4 (11)	2.0 (1)
276	42.9 (12)	46.4 (13)	10.7 (3)
277	25.0 (1)	25.0 (1)	50.0 (2)
Total	***48.5 (267)***	***42.1 (232)***	***9.4 (52)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 14 Continued. Landowners' overall perception of the deer population by DPA, in 2014

DPA	Too low	About right	Too high
213	39.7 (69)	41.4 (72)	19.0 (33)
214	27.6 (29)	59.0 (62)	13.3 (14)
215	33.6 (42)	52.8 (66)	13.6 (17)
218	32.0 (32)	57.0 (57)	11.0 (11)
239	54.2 (84)	38.7 (60)	7.1 (11)
240	46.3 (50)	44.4 (48)	9.3 (10)
273	59.1 (52)	31.8 (28)	9.1 (8)
276	30.6 (15)	51.0 (25)	18.4 (9)
277	16.7 (2)	50.0 (6)	33.3 (4)
Total	***40.9 (375)***	***46.3 (424)***	***12.8 (117)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 15. Landowners' perception over the last 5 years by DPA, in 2014

DPA	Fewer	About the same	More
213	46.6 (83)	30.3 (54)	23.0 (41)
214	46.2 (49)	31.1 (33)	22.6 (24)
215	42.1 (53)	31.0 (39)	27.0 (34)
218	40.2 (41)	35.3 (36)	24.5 (25)
239	66.9 (105)	24.2 (38)	8.9 (14)
240	61.1 (66)	23.1 (25)	15.7 (17)
273	68.5 (61)	21.3 (19)	10.1 (9)
276	44.9 (22)	26.5 (13)	28.6 (14)
277	33.3 (4)	33.3 (4)	33.3 (4)
Total	***52.2 (484)***	***28.2 (261)***	***19.6 (182)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 16. Landowners' preferred future deer population by DPA, in 2014

DPA	-50%	-25%	-10%	No change	+10%	+25%	+50%
213	5.3 (9)	8.2 (14)	7.6 (13)	31.6 (54)	17.5 (30)	20.5 (35)	9.4 (16)
214	6.7 (7)	8.6 (9)	4.8 (5)	38.1 (40)	21.9 (23)	13.3 (14)	6.7 (7)
215	4.8 (6)	4.0 (5)	4.8 (6)	40.0 (50)	23.2 (29)	16.0 (20)	7.2 (9)
218	2.0 (2)	6.9 (7)	5.9 (6)	37.6 (38)	21.8 (22)	17.8 (18)	7.9 (8)
239	1.3 (2)	3.9 (6)	5.2 (8)	26.5 (41)	20.0 (31)	29.7 (46)	13.5 (21)
240	1.9 (2)	5.6 (6)	6.5 (7)	29.9 (32)	22.4 (24)	21.5 (23)	12.1 (13)
273	2.3 (2)	2.3 (2)	9.2 (8)	24.1 (21)	12.6 (11)	35.6 (31)	13.8 (12)
276	10.2 (5)	2.0 (1)	8.2 (4)	36.7 (18)	18.4 (9)	16.3 (8)	8.2 (4)
277	8.3 (1)	16.7 (2)	8.3 (1)	50.0 (6)	8.3 (1)	8.3 (1)	-
Total	***4.0 (36)***	***5.7 (52)***	***6.4 (58)***	***32.9 (300)***	***19.7 (180)***	***21.5 (196)***	***9.9 (90)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 17. Landowners' preferred future deer population by DPA summarized, in 2014

DPA	Decrease	No change	Increase
213	21.1 (36)	31.6 (54)	47.4 (81)
214	20.0 (21)	38.1 (40)	41.9 (44)
215	13.6 (17)	40.0 (50)	46.4 (58)
218	14.9 (15)	37.6 (38)	47.5 (48)
239	10.3 (16)	26.5 (41)	63.2 (98)
240	14.0 (15)	29.9 (32)	56.1 (60)
273	13.8 (12)	24.1 (21)	62.1 (54)
276	20.4 (10)	36.7 (18)	42.9 (21)
277	33.3 (4)	50.0 (6)	16.7 (2)
Total	***16.0 (146)***	***32.9 (300)***	***51.1 (466)***

*Data are Percent of Respondents and (Total Number of Respondents)

Figure 6. Landowners' preference for future deer population level by hunting status, in 2014

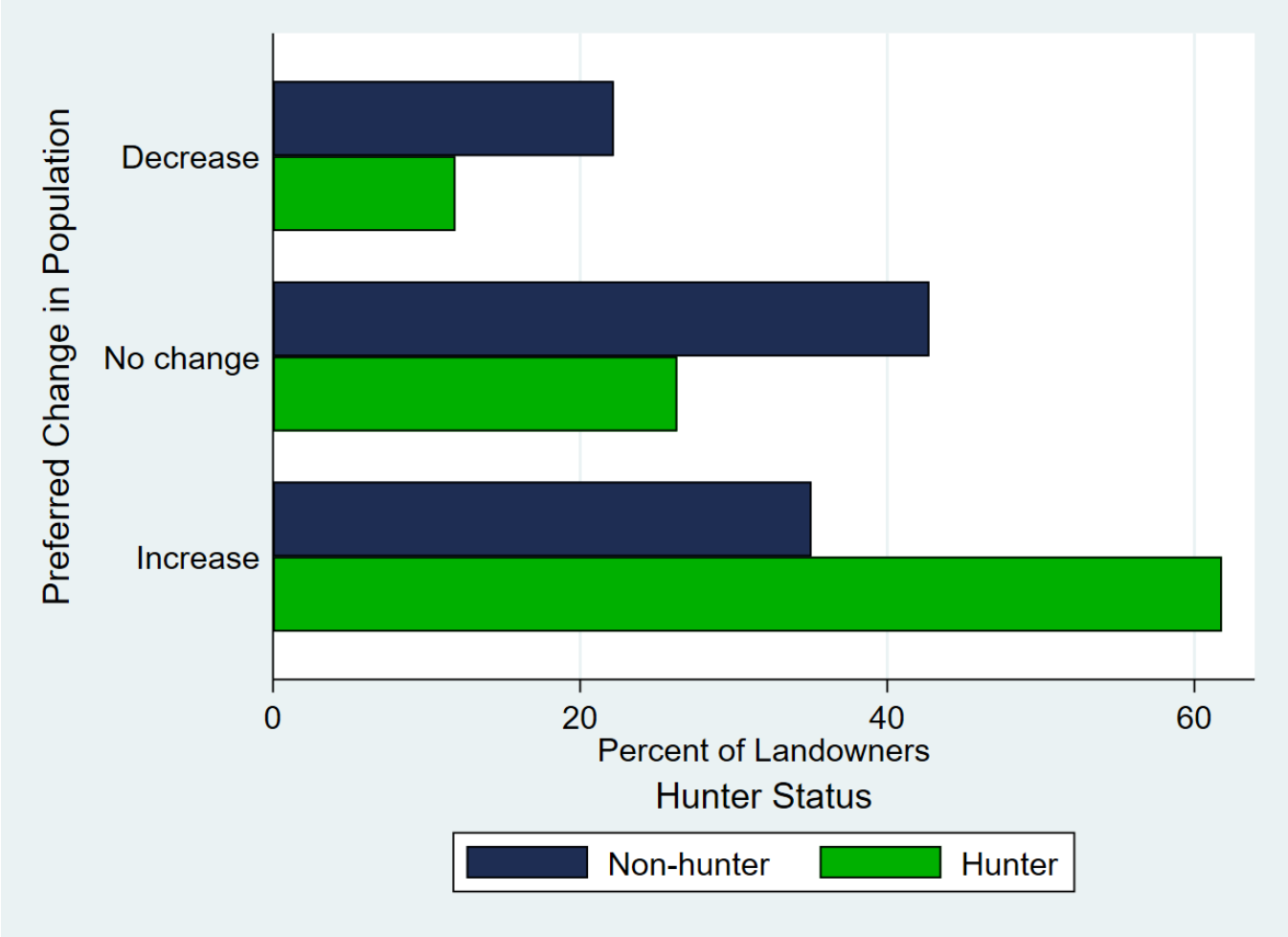


Table 18. Non-hunting landowners' preference for future deer population by DPA, in 2014

DPA	-50%	-25%	-10%	No change	+10%	+25%	+50%
213	8.8 (7)	10.0 (8)	7.5 (6)	35.0 (28)	13.8 (11)	16.3 (13)	8.8 (7)
214	11.5 (3)	11.5 (3)	3.8 (1)	50.0 (13)	19.2 (5)	3.8 (1)	-
215	11.6 (5)	7.0 (3)	2.3 (1)	46.5 (20)	16.3 (7)	16.3 (7)	-
218	3.9 (2)	9.8 (5)	9.8 (5)	52.9 (27)	9.8 (5)	13.7 (7)	-
239	1.4 (1)	6.9 (5)	4.2 (3)	44.4 (32)	18.1 (13)	18.1 (13)	6.9 (5)
240	-	8.0 (2)	12.0 (3)	40.0 (10)	20.0 (5)	20.0 (5)	-
273	5.1 (2)	5.1 (2)	15.4 (6)	33.3 (13)	15.4 (6)	15.4 (6)	10.3 (4)
276	14.3 (3)	4.8 (1)	9.5 (2)	38.1 (8)	23.8 (5)	4.8 (1)	4.8 (1)
277	12.5 (1)	12.5 (1)	-	62.5 (5)	-	12.5 (1)	-
Total	***6.6 (24)***	***8.2 (30)***	***7.4 (27)***	***42.7 (156)***	***15.6 (57)***	***14.8 (54)***	***4.7 (17)***

*Data are Percent of Respondents and (Total Number of Respondents)

Table 18 Continued. Hunting landowners' preference for future deer population by DPA, in 2014

DPA	-50%	-25%	-10%	No change	+10%	+25%	+50%
213	2.2 (2)	6.6 (6)	7.7 (7)	28.6 (28)	20.9 (19)	24.2 (22)	9.9 (9)
214	5.1 (4)	7.6 (6)	5.1 (4)	34.2 (27)	22.8 (18)	16.5 (13)	8.9 (7)
215	1.2 (1)	2.4 (2)	6.1 (5)	36.6 (30)	26.8 (22)	15.9 (13)	11.0 (9)
218	-	4.0 (2)	2.0 (1)	22.0 (11)	34.0 (17)	22.0 (11)	16.0 (8)
239	1.2 (1)	1.2 (1)	6.0 (5)	10.8 (9)	21.7 (18)	39.8 (33)	19.3 (16)
240	2.4 (2)	4.9 (4)	4.9 (4)	26.8 (22)	23.2 (19)	22.0 (18)	15.9 (13)
273	-	-	4.2 (2)	16.7 (8)	10.4 (5)	52.1 (25)	16.7 (8)
276	7.1 (2)	-	7.1 (2)	35.7 (10)	14.3 (4)	25.0 (7)	10.7 (3)
277	-	25.0 (1)	25.0 (1)	25.0 (1)	25.0 (1)	-	-
Total	***2.2 (12)***	***4.0 (22)***	***5.7 (31)***	***26.3 (144)***	***22.5 (123)***	***26.0 (142)***	***13.4 (73)***

*Data are Percent of Respondents and (Total Number of Respondents)

Figure 7. Landowners' preference for future deer population level, in 2014

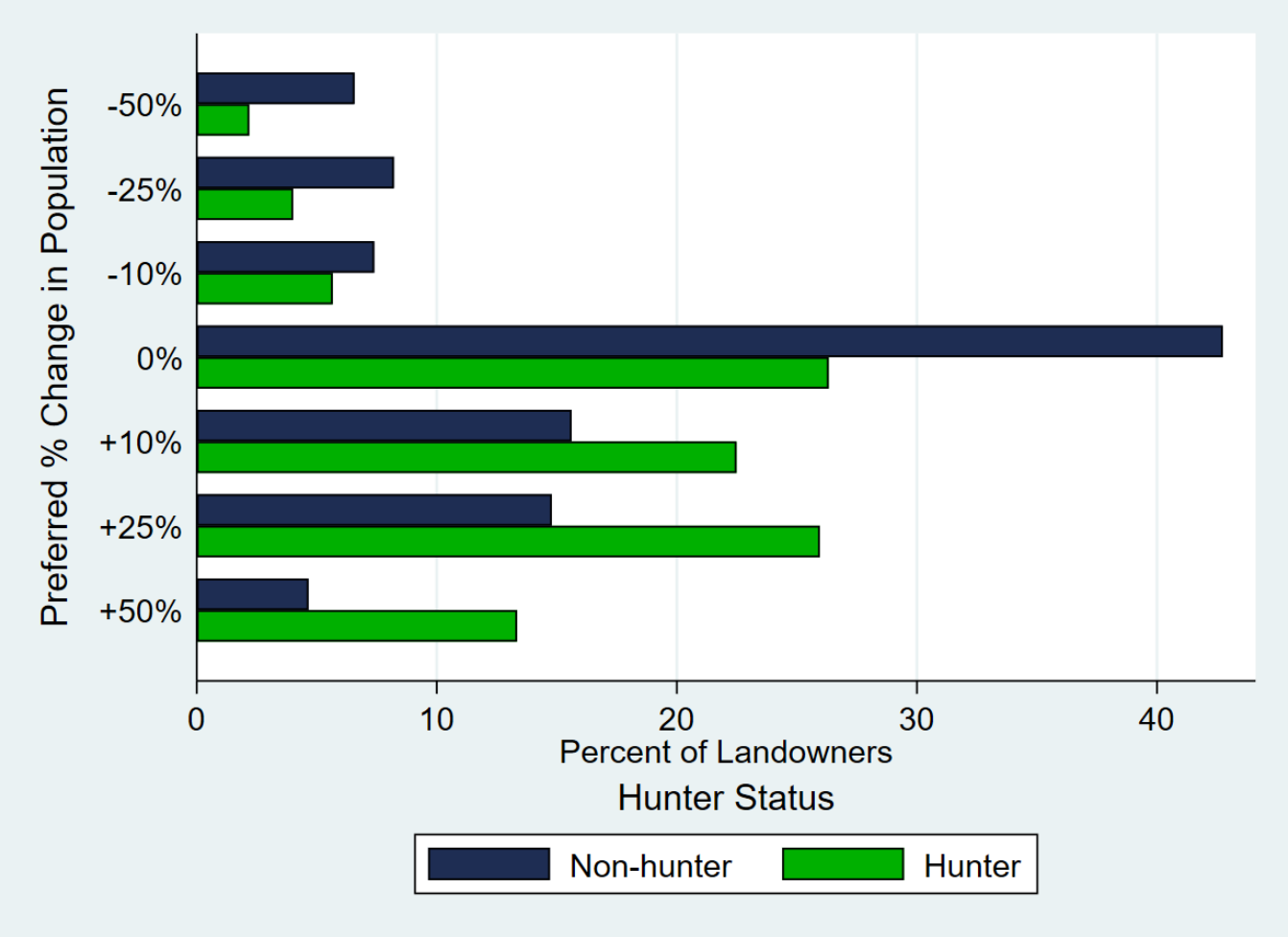
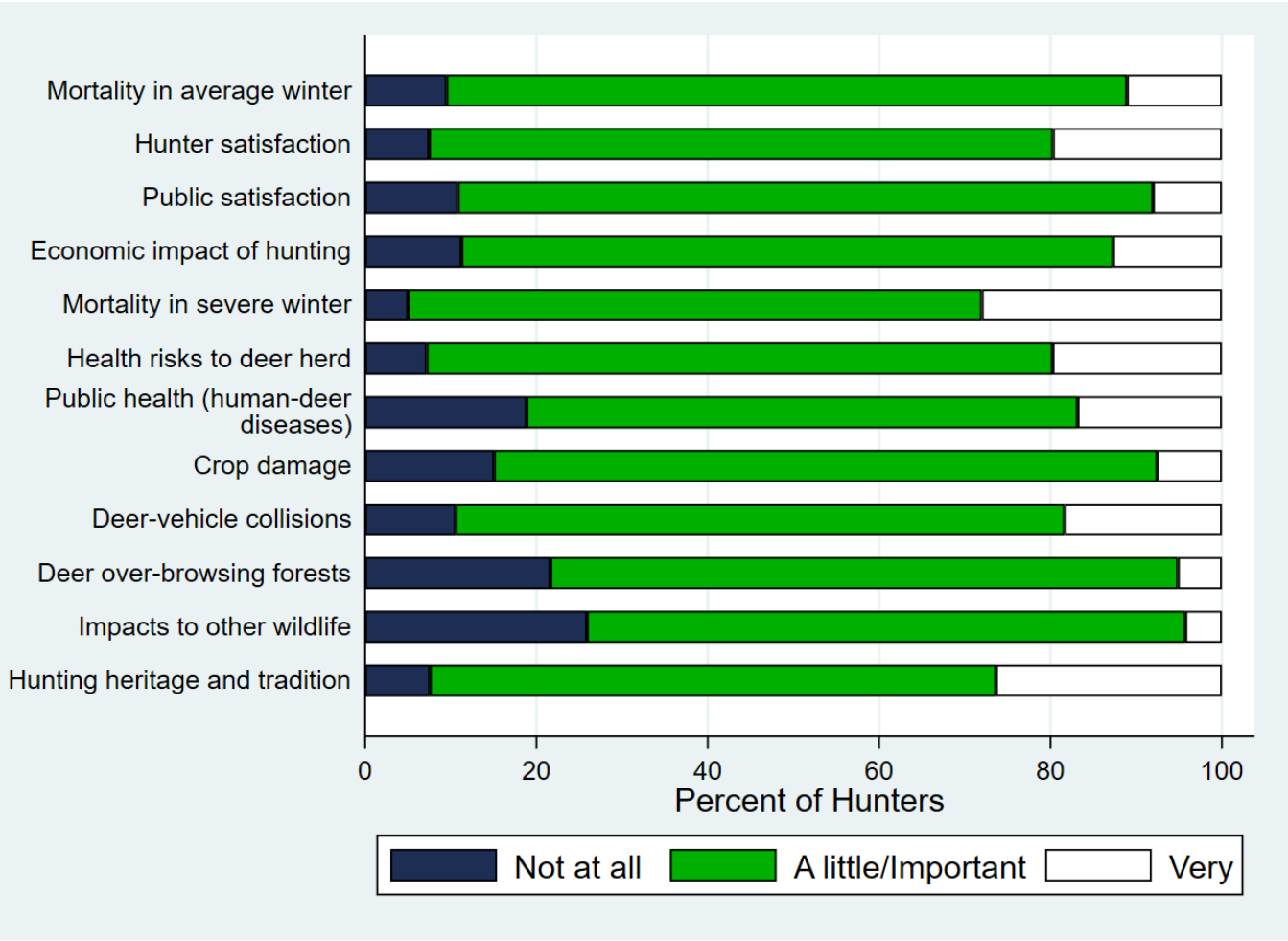


Table 19. Landowners' reported importance of attributes of deer population goal setting

Question	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	9.5	17.0	29.3	33.0	11.3
Hunter satisfaction with deer numbers	7.7	11.5	26.9	34.4	19.5
Public satisfaction with deer numbers	11.3	20.6	36.2	23.8	8.1
Impact of deer hunting on the local economy	11.4	16.8	29.8	29.3	12.7
Amount of deer mortality during a severe winter	5.1	12.1	20.9	33.8	28.1
Potential health risks to deer herd	7.2	15.4	25.5	32.0	19.8
Public health (human-deer diseases)	18.5	19.3	22.5	22.9	16.7
Amount of crop damage	15.3	28.4	30.2	18.4	7.7
The number of deer-vehicle collisions	10.3	19.7	26.5	25.3	18.3
Deer over-browsing of forests	21.2	25.1	18.7	19.5	5.5
Impacts of deer on other wildlife species	25.4	24.8	29.5	16.1	4.2
Deer hunting heritage and tradition	7.8	10.4	24.0	31.7	26.1

**Data are Percent of Respondents*

Figure 8. Landowners' reported importance of attributes of deer population goal setting



Caption: Percent of landowners indicating that each factor is either not at all important, moderately important (collapsed "a little", "moderately" and "important") or very important to them as priorities to consider when setting deer population goals.