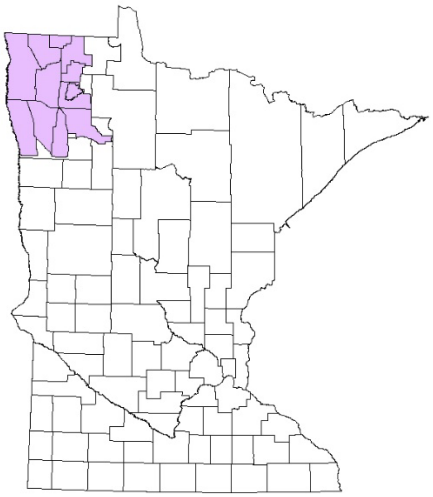
DEPARTMENT OF NATURAL RESOURCES

Division of Fish and Wildlife

Attitude Survey Report

Block 7: Northwest Parkland-Prairie



Contents

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 2013 and winter 2014. Therefore, the data refer to deer populations, hunting experience, and deer damage during the 2013/14 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 were last set for Block 7 DPAs in 2005 (Table 1). A goal to decrease the population by 25% was set by 7 of the DPAs. Two DPAs, 201 and 203, had established a goal to increase the deer population by 10%, and two DPAs established a goal to decrease by 10%. One DPA (268), had established a goal to stabilize.

At the time of the attitude survey (2014) deer population density estimates ranged from a low of 3 deer per square mile for DPAs 260 and 261, to a high of 28 for DPA 203. Block 7 DPAs were managed as either Hunters Choice or Lottery in 2014.

Table 1. Historic deer population and management by DPA

DPA	Goal Setting Period - 2005			Attitude Survey Period - 2014		2019
	Year Last Goal Set	Population Est. 2004 (Deer/Sq. Mile)	Population Goal	Population Est. 2014 (Deer/Sq. Mile)	DPA Mgmt. at Time of Survey	Current Population Est. Deer/Sq. Mile
201	2005	4	+10%	9	Hunters Choice	16
203	2005	12	+10%	28	Lottery (25)	NM
208	2005	4	-10%	4	Lottery (100)	8
209	2005	7	-25%	7	Hunters Choice	10
256	2005	7	-25%	7	Hunters Choice	9
257	2005	8	-25%	8	Hunters Choice	12
260	2005	4	-25%	3	Lottery (100)	7
261	2005	4	-25%	3	Lottery (150)	7
263	2005	5	-10%	8	Lottery (100)	14
264	2005	7	-25%	12	Lottery (500)	19
267	2005	4	-25%	4	Lottery (100)	5

DPA	Goal Setting Period - 2005			Attitude Survey Period - 2014		2019
	Year Last Goal Set	Population Est. 2004 (Deer/Sq. Mile)	Population Goal	Population Est. 2014 (Deer/Sq. Mile)	DPA Mgmt. at Time of Survey	Current Population Est. Deer/Sq. Mile
268	2005	9	Stabilize	5	Lottery (100)	10

*Population estimates are derived from the deer population model, NM = not yet modeled

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 WSIs for Block 7 during the winters of 12/13 and 13/14 by DPA are presented in Table 2.

Table 2. Winter severity index by DPA

DPA	WSI 2012/13	WSI 2013/14
201	106	174
203	96	141
208	98	145
209	102	154
256	85	134
257	92	146
260	93	153
261	64	100
263	102	166
264	89	153
267	103	168
268	100	153
Average	***94***	***149***

Block 7: Northwest Parkland-Prairie

The data presented herein are from a statistically representative survey of Minnesota deer hunters and landowners in goal setting Block 7. This area includes deer permit areas: 201, 203, 208, 209, 256, 257, 260, 261, 263, 264, and 267 in the northwest corner of the state (Figure 1). It should be noted that DPA 203 is comprised of the Agassiz National Wildlife Refuge and Elm Lake Wildlife Management Area. Therefore, no landowner estimates are provided as this DPA is entirely publicly owned.

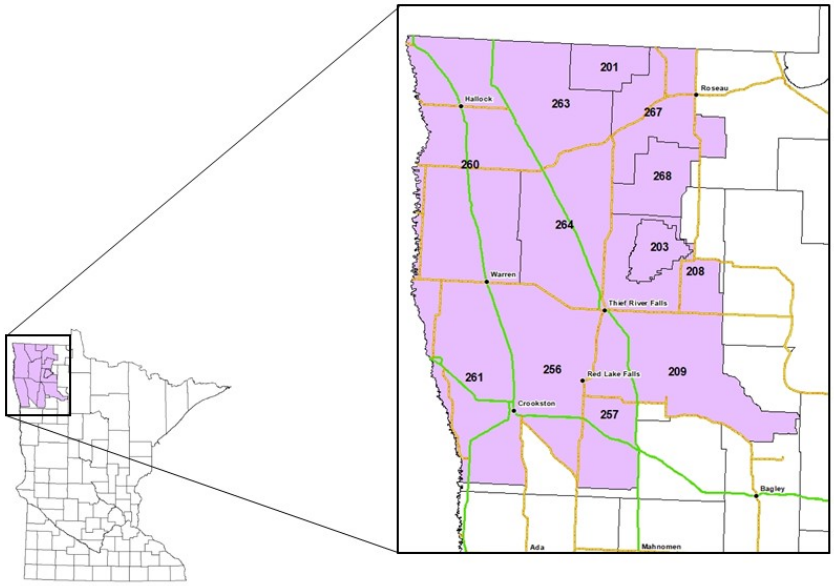


Figure 1. Goal setting Block 7 DPA boundaries

Response Rates

Hunters

A total of 2,600 hunters were originally sampled for participation in the study. The sample frame was reduced by 107 cases after accounting for undeliverable postal address and individuals that has passed away. Survey efforts yielded 986 usable responses, for an effective response rate of 39.6%

Landowners

A total of 2,009 landowners were originally sampled for participation in the study. The sample frame was reduced by 119 cases after accounting for undeliverable postal address and individuals that has passed away. Survey efforts yielded 566 usable responses, for an effective response rate of 29.9%

Hunters

Demographics and hunting behavior

Respondents were on average 50.7 years of age at the time the data were collected, and had been living in Minnesota for an average of 46.4 years. The vast majority of respondents were male (88.4%). This disparity, however, reflects the lower participation rate in hunting among females in the state. Nearly 35% of respondents reported having completed a four year college degree or greater.

Firearms hunters, on average, spent 5.4 days hunting during the firearms season. While, archery hunters and muzzleloader hunters spent 13.4 and 5.8 days afield respectively. Around a third of hunters reported that they spent all of their time hunting on private land that they own (32%). A small minority of hunters reported doing any hunting on leased land (~6%). Only around 7% of hunters spent all of their time hunting on public land, but around half reported doing at least some hunting on public land (Table 3).

Population preferences

Hunters were asked their preference for future deer populations in the permit area where they hunt most often. On average, 73% of hunters in goal setting Block 7 preferred an increase in the white-tailed deer population. This result did not vary substantively by DPA (Table 4). Roughly, 33% of hunters preferred an increase in the deer population of 25% and 18% preferred an increase of 50% (Table 5).

In addition to future deer populations, hunters were queried about their perception of the trend in the deer population over the last 5 years (Table 6). Most hunters (79%) reported seeing fewer deer in goal Block 7 at the time of survey compared to 5 years prior.

A majority (65%) of Block 7 hunters reported that the current deer population was too low. This pattern held consistently across DPAs (Table 7). This same sentiment was reflected in hunters' overall satisfaction with deer populations (Table 8). Around 60% of respondent hunters in Block 7 reported dissatisfaction with current deer populations. However, an evaluation of hunters' satisfaction with elements of deer hunting and populations revealed more heterogeneity (Table 9). Around half of the hunters surveyed disagreed with statements about their satisfaction with the number and quality of bucks in the area where they hunt, and the total number of deer they saw while hunting. Hunters were more evenly split between satisfaction and dissatisfaction with the number of antlerless deer they saw. A majority of hunters agreed that they saw or heard about bucks.

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 deer mortality during severe winters and deer hunting heritage and tradition were particularly import factors to consider. Whereas, deer impacts on crops, forest, and other wildlife were not salient concerns (Figure 4).

Table 3. Amount of time hunters spent hunting on different types of land in 2015

	None	Some	Most	All
Public land	48.1 (387)	36.3 (292)	9.0 (72)	6.6 (53)
Private land that I do not own or lease	33.7 (284)	22.5 (190)	18.3 (154)	25.5 (215
Private land that I lease for hunting	93.8 (652)	3.3 (23)	2.0 (14)	0.9 (6)
Private land that I own	33.8 (284)	13.3 (112)	21.3 (179)	31.6 (265)

*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
201	3.2 (1)	22.6 (7)	74.2 (23)
203	-	16.7 (3)	83.3 (15)
208	7.7 (4)	11.5 (6)	80.8 (42)
209	9.4 (13)	23.7 (33)	66.9 (93)
256	4.1 (5)	24.6 (30)	71.3 (87)
257	7.9 (8)	23.8 (24)	68.3 (69)
260	5.1 (5)	10.2 (10)	84.7 (83)
261	14.3 (5)	20.0 (7)	65.7 (23)
263	5.1 (5)	18.2 (18)	76.8 (76)
264	11.4 (20)	19.9 (35)	68.8 (121)
267	8.8 (3)	11.8 (4)	79.4 (27)
268	8.9 (5)	8.9 (5)	82.1 (46)
Total	***7.7 (74)***	***18.9 (182)***	***73.4 (705)***

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

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

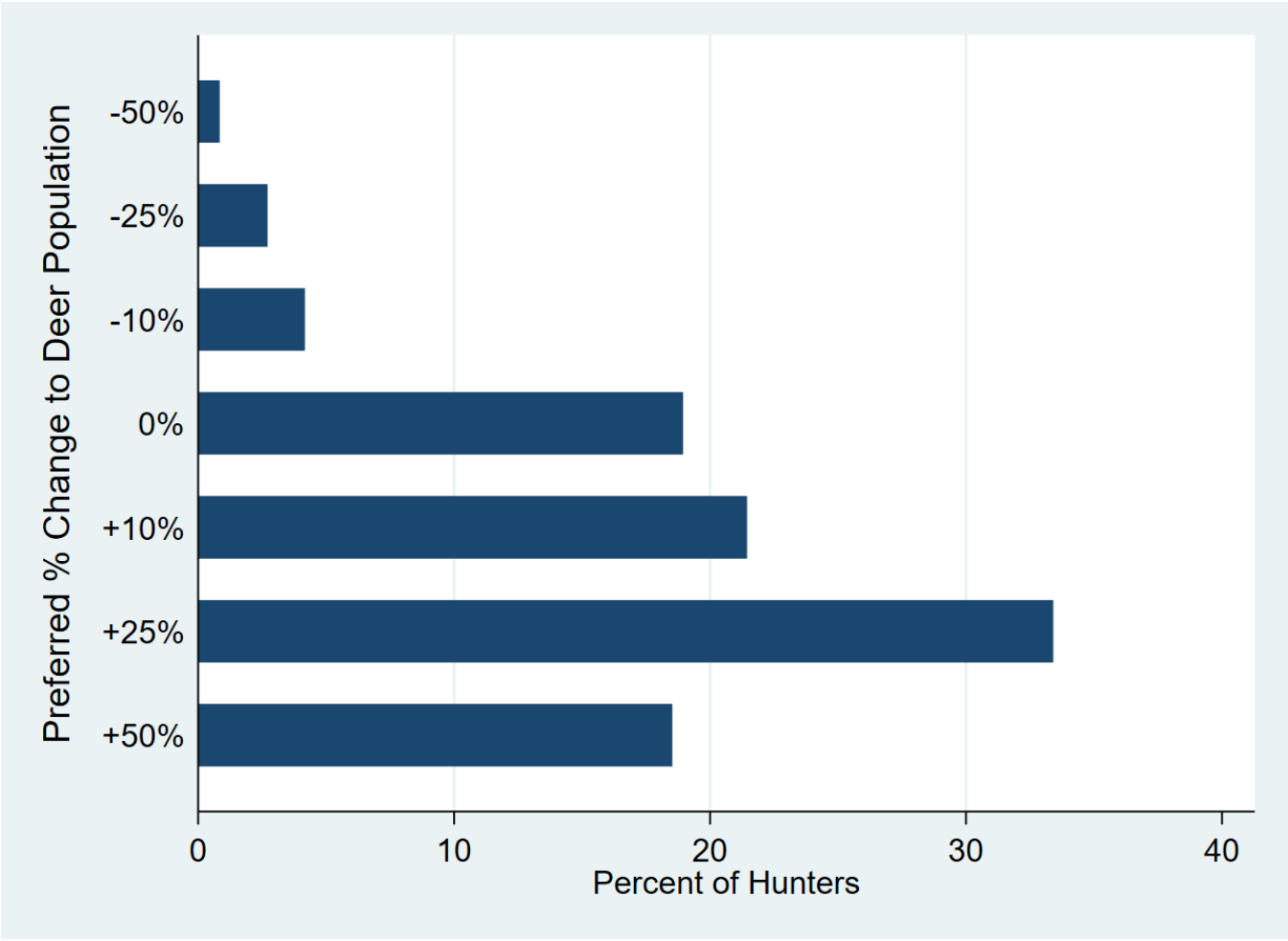


Figure 3. Hunters' preference for future deer population level, in 2014

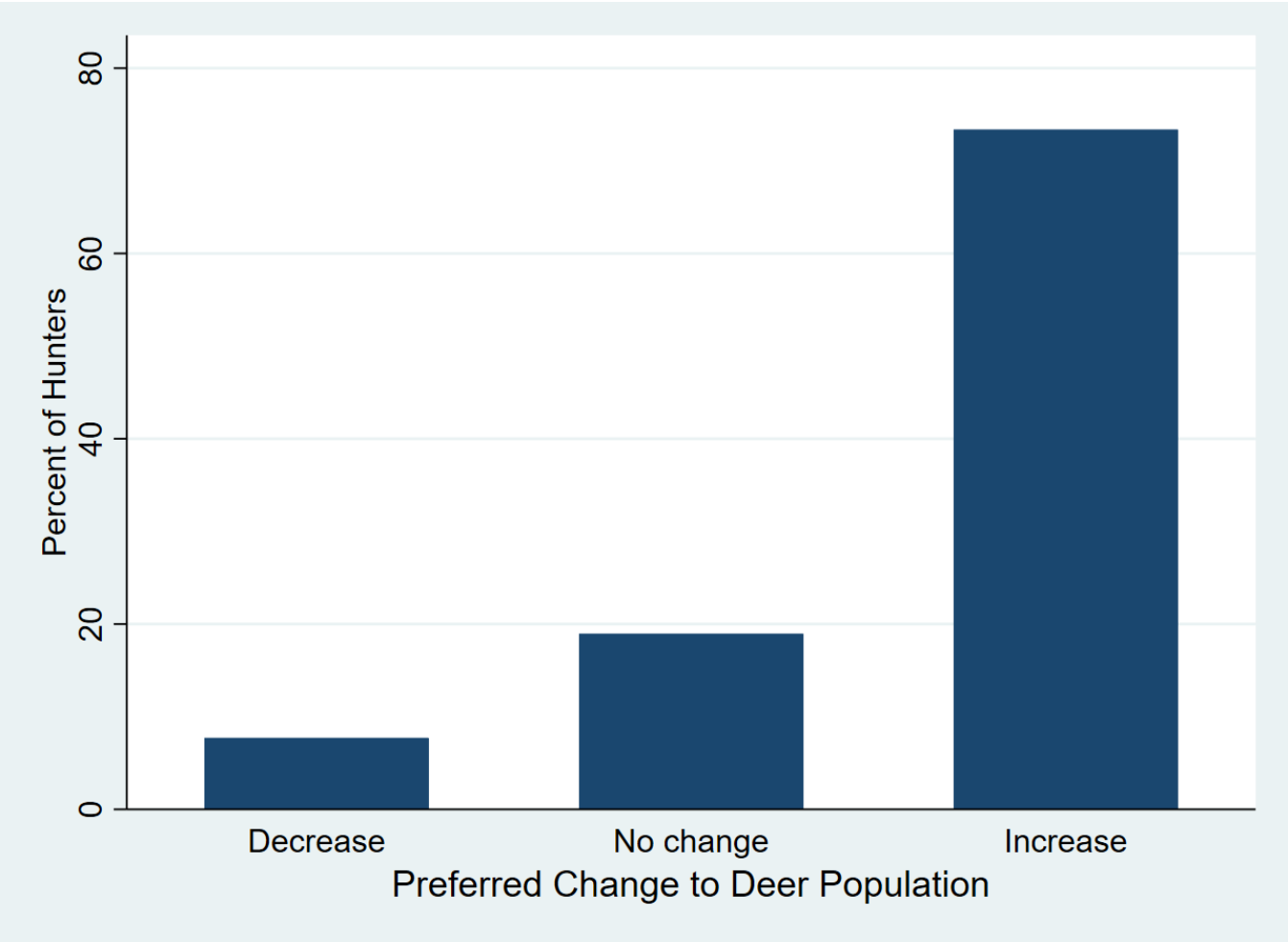


Table 5. Hunters' preferred future deer population by DPA, in 2014

DPA	-50%	-25%	-10%	No change	+10%	+25%	+50%
201	-	-	3.2 (1)	22.6 (7)	25.8 (8)	25.8 (8)	22.6 (7)
208	-	-	-	16.7 (3)	11.1 (2)	38.9 (7)	33.3 (6)
209	-	5.8 (3)	1.9 (1)	11.5 (6)	23.7 (33)	28.1 (39)	16.5 (23)
256	2.2 (3)	3.6 (5)	3.6 (5)	23.7 (33)	22.3 (31)	28.1 (39)	13.1 (16)
257	1.0 (1)	2.0 (2)	5.0 (5)	23.8 (24)	20.8 (21)	27.7 (28)	19.8 (20)
260	-	-	5.1 (5)	10.2 (10)	13.3 (13)	46.9 (46)	24.5 (24)
261	-	5.7 (2)	8.6 (3)	20.0 (7)	20.0 (7)	40.0 (14)	5.7 (2)
263	2.0 (2)	1.0 (1)	2.0 (2)	18.2 (18)	22.2 (22)	33.3 (33)	21.2 (21)
264	0.6 (1)	5.1 (9)	5.7 (10)	19.9 (35)	19.9 (35)	34.7 (61)	14.2 (25)
267	2.9 (1)	5.9 (2)	-	11.8 (4)	20.6 (7)	38.2 (13)	20.6 (7)
268	-	1.8 (1)	7.1 (4)	8.9 (5)	19.6 (11)	35.7 (20)	26.8 (15)
Total	***0.8 (8)***	***2.7 (26)***	***4.2 (40)***	***18.9 (182)***	***21.4 (206)***	***33.4 (321)***	***18.5 (178)***

**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, in 2014

DPA	Fewer	About the same	More
201	64.5 (20)	29.0 (9)	6.5 (2)
203	78.9 (15)	21.1 (4)	-
208	75.5 (40)	22.6 (12)	1.9 (1)
209	78.4 (109)	16.5 (23)	5.0 (7)
256	86.0 (104)	9.9 (12)	4.1 (5)
257	84.0 (84)	10.0 (10)	6.0 (6)
260	86.7 (85)	7.1 (7)	6.1 (6)
261	80.0 (28)	14.3 (5)	5.7 (2)
263	72.4 (71)	14.3 (5)	13.3 (13)
264	79.3 (138)	14.4 (25)	6.3 (11)
267	72.2 (26)	13.9 (5)	13.9 (5)
268	81.0 (47)	10.3 (6)	8.6 (5)
Total	***79.7 (767)***	***13.7 (132)***	***6.6 (63)***

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

Table 7. Hunters' perception of the current deer population by DPA, in 2014

DPA	Too low	About right	Too high
201	58.1 (18)	35.5 (11)	6.5 (2)
203	83.3 (15)	16.7 (3)	-
208	66.0 (35)	32.1 (17)	1.9 (1)
209	62.8 (86)	34.3 (47)	2.9 (4)
256	58.2 (71)	39.3 (48)	2.5 (3)
257	59.4 (60)	37.6 (38)	3.0 (3)
260	79.6 (78)	20.4 (20)	-
261	62.9 (22)	28.6 (10)	8.6 (3)
263	70.4 (69)	26.5 (26)	3.1 (3)
264	60.7 (105)	34.7 (60)	4.6 (8)
267	65.7 (23)	28.6 (10)	5.7 (2)
268	72.7 (40)	23.6 (13)	3.6 (2)
Total	***65.1 (622)***	***31.7 (303)***	***3.2 (31)***

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

Table 8. Hunters' satisfaction with deer populations by DPA, in 2014

DPA	Dissatisfied	Neither	Satisfied
201	51.6 (16)	22.6 (7)	58.8 (8)
203	73.7 (14)	15.8 (3)	10.5 (2)
208	56.6 (30)	17.0 (9)	26.4 (14)
209	54.0 (75)	18.0 (25)	28.1 (39)
256	55.4 (67)	14.9 (18)	29.8 (36)
257	54.5 (55)	20.8 (21)	24.8 (25)
260	74.5 (55)	12.2 (12)	13.3 (13)
261	60.0 (21)	17.1 (6)	22.9 (8)
263	63.3 (62)	21.4 (21)	15.3 (15)
264	58.3 (102)	14.3 (25)	27.4 (48)
267	63.9 (23)	11.1 (4)	25.0 (9)
268	70.7 (41)	10.3 (6)	19.0 (11)
Total	***60.1 (579)***	***16.3 (157)***	***23.7 (228)***

Table 9. Hunters' satisfaction with deer populations by DPA, in 2014

	Response	201	203	208	209	256	257	260	261	263	264	267	268	Total
Number of legal bucks	Disagree	51.7	52.6	62.3	47.4	43.3	48.5	68.8	41.2	53.1	53.8	38.9	64.3	***52.4***
	Neither	10.3	15.8	13.2	21.2	22.5	24.2	9.4	2.9	17.3	17.3	16.7	12.5	***17.2***
	Agree	37.9	31.6	24.5	31.4	34.2	27.3	21.9	55.9	29.6	28.9	44.4	23.2	***30.4***
Quality of bucks	Disagree	41.4	42.1	51.0	47.1	44.2	44.4	60.8	47.1	52.0	51.5	36.1	62.5	***49.6***
	Neither	17.2	31.6	19.6	19.9	27.5	24.2	14.4	2.9	19.4	19.3	27.8	14.3	***20.1***
	Agree	41.4	26.3	29.4	33.1	28.3	31.3	24.7	50.0	28.6	29.2	36.1	23.2	***30.3***
Heard about or saw legal bucks while hunting	Disagree	19.4	26.3	32.7	24.3	23.5	31.3	34.0	20.6	26.0	25.0	22.2	28.6	***26.6***
	Neither	25.8	10.5	15.4	12.5	16.0	8.1	10.3	5.9	14.6	15.1	19.4	7.1	***13.2***
	Agree	54.8	63.2	51.9	63.2	60.5	60.6	55.7	73.5	59.4	59.9	58.3	64.3	***60.2***
Total number of antlerless deer	Disagree	41.9	42.1	34.6	41.3	40.3	44.4	49.5	26.5	54.1	40.9	33.3	48.2	***42.8***
	Neither	9.7	21.1	15.4	13.8	9.2	17.2	16.5	11.8	16.3	17.0	16.7	10.7	***14.6***
	Agree	48.4	36.8	50.0	44.9	50.4	38.4	34.0	61.8	29.6	42.1	50.0	41.1	***42.5***
Total number of deer I saw while hunting	Disagree	45.2	57.9	50.0	54.0	43.8	50.0	63.5	37.1	61.2	49.1	55.6	61.4	***52.6***
	Neither	-	15.8	17.3	12.2	14.9	15.0	11.5	14.3	11.2	14.5	16.7	5.3	***12.9***
	Agree	54.8	26.3	32.7	33.8	41.3	35.0	25.0	48.6	27.6	36.4	27.8	33.3	***34.6***

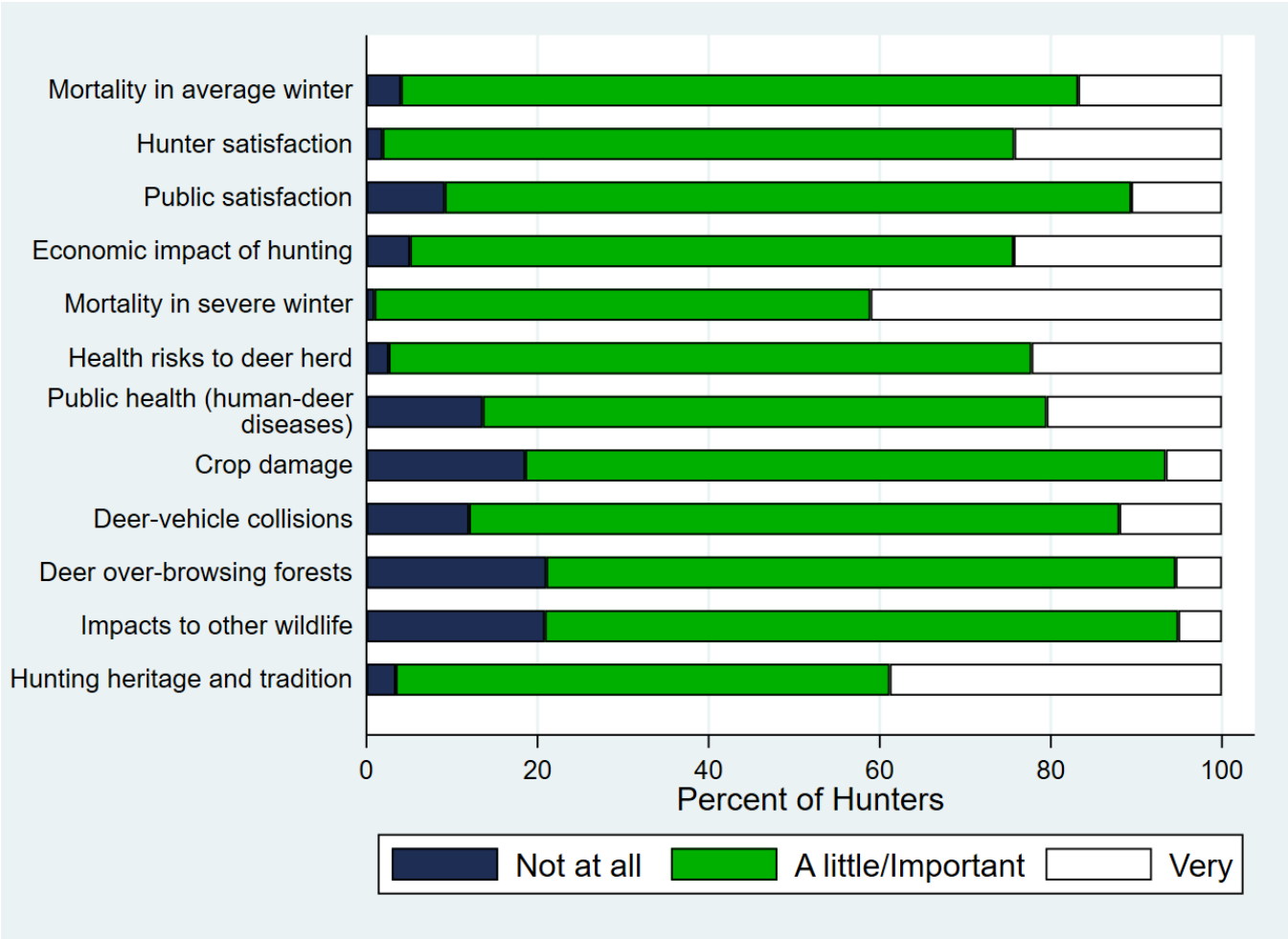
*Data are Percent of Respondents

Table 10. Hunters' reported importance of attributes of deer population goal setting, in 2014

Question	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	4.2	10.4	26.8	42.0	16.6
Hunter satisfaction with deer numbers	2.0	10.3	24.3	29.3	24.2
Public satisfaction with deer numbers	9.2	22.6	31.5	26.2	10.5
Impact of deer hunting on the local economy	5.2	12.6	22.8	34.8	24.6
Amount of deer mortality during a severe winter	0.9	5.7	16.8	35.6	41.0
Potential health risks to deer herd	2.4	11.8	24.1	39.4	22.3
Public health (human-deer diseases)	13.3	19.7	21.4	24.9	20.6
Amount of crop damage	18.5	29.9	27.4	17.6	6.5
The number of deer-vehicle collisions	11.9	25.6	26.5	23.9	12.1
Deer over-browsing of forests	20.5	26.6	29.3	18.1	5.5
Impacts of deer on other wildlife species	20.6	28.6	27.4	18.2	5.1
Deer hunting heritage and tradition	3.3	6.6	17.5	33.9	38.7

*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 59.3 years of age at the time the data were collected, and had been living in Minnesota for an average of 52.3 years. The vast majority of respondents were male (85.9%). Roughly 32% of respondents had completed a college degree or achieved some greater level of education. The mean acres of parcels represented in the sample was 141 acres (self-reported).

Nearly 55% 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.

Nearly half of landowners that hunt spent all of their time hunting on private land that they owned. A full 92% reported that they did not hunt leased land at all. Roughly, half of landowners indicated that they spent at least some of their time hunting either private land that they do not own, or public land respectively (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 25.5% of landowners indicated that they experienced damage to crops from deer. Around 18% of landowners reported that they experienced damage to residential property, and 6% reported damage to forestland that they lease or own (Table 12). Crop damage was associated with parcel size, where larger landowners were more likely to report experiencing damage from deer. Whereas a minority of landowners reported damage to forest and residential property regardless of the amount of land they owned. Among those that experienced some form of damage, the vast majority reported that the intensity of the damage was minor or moderate (Table 13).

Population preferences

Landowners, on average, expressed a belief that the deer population at the time of survey was too low. This belief, however, was moderated by hunting status. Non-hunting landowners were more likely to indicate the current population was about right (46%) as opposed to hunting landowners (32%) (Table 14).

On average, landowners have perceived a decline in the deer population over the last 5 years. Roughly 74% have seen "fewer" as opposed to "about the same" (16%) or "more" (10%) deer compared to 5 years prior (Table 15).

Landowners expressed a preference for an increase in future deer populations (Table 16). Around 15% of landowners expressed a preference for an increase of 50%, while 24% preferred no change. Greater than 60% of landowners would like to see an increase in the deer population, while 12% would prefer the opposite. The remainder indicated a preference for no change (Table 17). Hunting landowners prefer a greater increase in the

deer population than non-hunting landowners. For instance, 19% of hunters would like to see an increase of 50%, whereas 8% of non-hunting landowners indicated the same (Table 18).

Respondents placed relatively high importance on severe winter deer mortality and hunting heritage and tradition as factors DNR should consider when setting deer population goals. Conversely, impacts on other wildlife and over-browsing of forests were given the least 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	21.9 (231)	30.5 (321)	20.6 (217)	27.0 (284)
Private land that I do not own or lease	50.4 (458)	21.4 (194)	12.3 (112)	15.9 (144)
Private land that I lease for hunting	92.4 (716)	2.7 (21)	2.8 (22)	2.1 (16)
Private land that I own	37.5 (378)	18.0 (181)	19.6 (198)	24.9 (251)

*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	17.7	19.5	31.0	36.1	***25.7***
Woods	6.1	6.7	3.3	6.5	***5.5***
Residential	22.0	13.8	15.7	21.0	***17.7***

*Data are Percent of Respondents

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

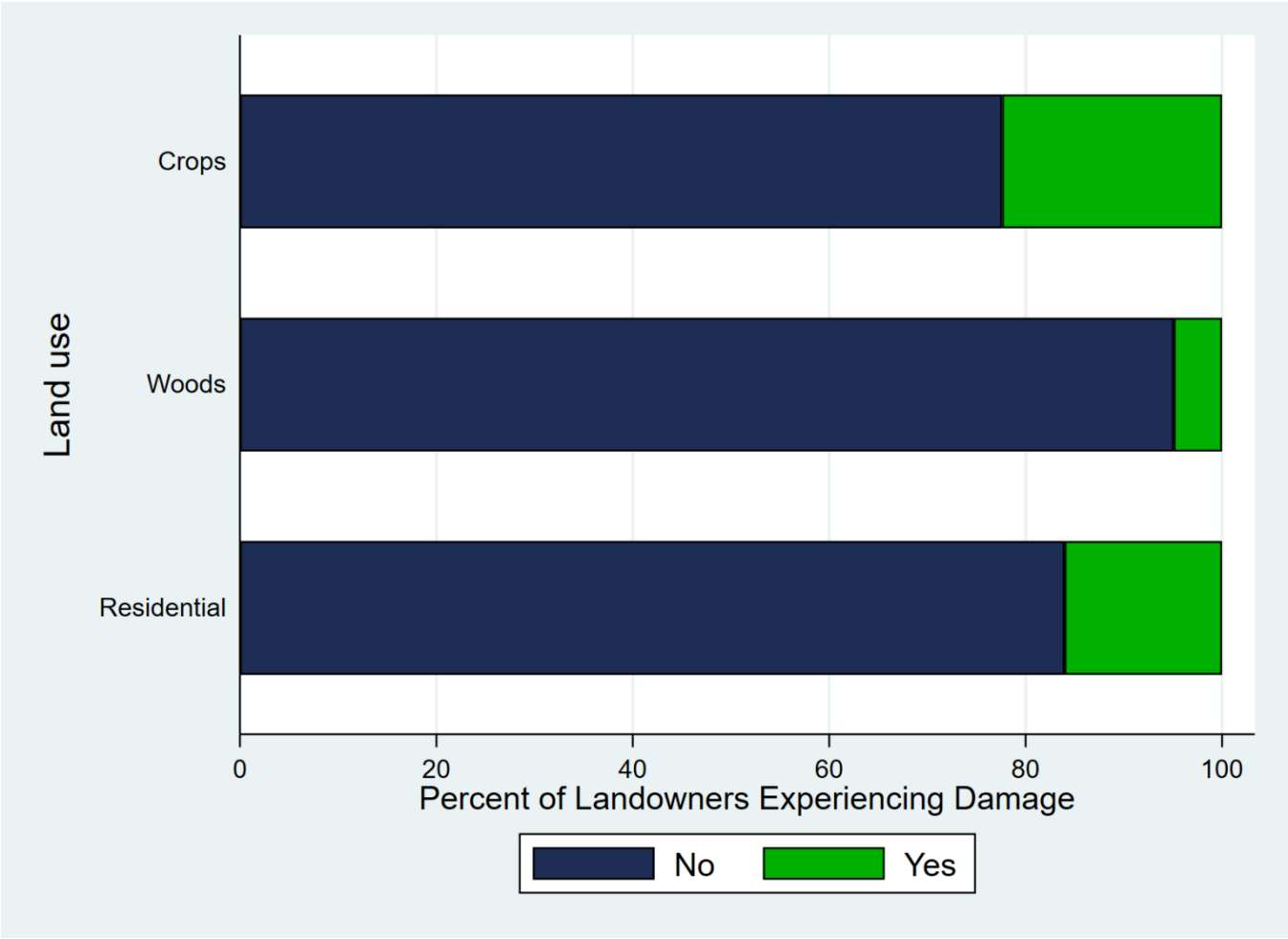


Table 13. Intensity of damage from deer, for those that experienced damage by land use, in 2014

	Negligible	Minor/Moderate	Severe/Very Severe
Crops	23.3	70.4	6.3
Woods	23.8	70.7	5.5
Residential	22.4	71.5	6.2

*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
201	50.0 (1)	-	50.0 (1)
208	-	-	-
209	71.4 (5)	28.6 (2)	-
256	40.0 (10)	40.0 (10)	-
257	28.1 (9)	53.1 (17)	20.0 (5)
260	31.0 (9)	55.2 (16)	13.8 (4)
261	43.1 (28)	44.6 (29)	12.3 (8)
263	50.0 (7)	50.0 (7)	-
264	33.3 (3)	44.4 (4)	22.2 (2)
267	45.7 (16)	42.9 (15)	11.4 (4)
268	50.0 (1)	50.0 (1)	-
Total	***40.5 (89)***	***45.9 (101)***	***13.6 (30)***

*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
201	50.0 (4)	50.0 (4)	-
208	100.0 (3)	-	-
209	65.4 (17)	34.6 (9)	-
256	59.1 (13)	31.8 (7)	9.1 (2)
257	52.4 (11)	47.6 (10)	-
260	65.9 (29)	31.8 (14)	2.3 (1)
261	67.6 (25)	32.4 (12)	-
263	71.7 (38)	24.5 (13)	3.8 (2)
264	57.7 (15)	30.8 (8)	11.5 (3)
267	66.7 (48)	31.9 (23)	1.4 (1)
268	69.2 (9)	30.8 (4)	-
Total	***65.2 (212)***	***32.0 (104)***	***2.8 (9)***

*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
201	50.0 (5)	40.0 (4)	10.0 (1)
208	100.0 (3)	-	-
209	66.7 (22)	33.3 (11)	-
256	48.9 (23)	36.2 (17)	14.9 (7)
257	37.7 (20)	50.9 (27)	11.3 (6)
260	52.1 (38)	41.1 (30)	6.8 (5)
261	52.0 (53)	40.2 (41)	7.8 (8)
263	67.2 (4)5)	29.9 (20)	3.0 (2)
264	51.4 (18)	34.3 (12)	14.3 (5)
267	59.8 (64)	35.5 (38)	4.7 (5)
268	66.7 (10)	33.3 (5)	-
Total	***55.2 (301)***	***37.6 (205)***	***7.2 (39)***

*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
201	70.0 (7)	20.0 (2)	10.0 (1)
208	100.0 (3)	-	-
209	91.2 (31)	5.9 (2)	2.9 (1)
256	72.9 (35)	4.6 (7)	12.5 (6)
257	70.4 (38)	22.2 (12)	12.5 (6)
260	81.1 (60)	12.2 (9)	6.8 (5)
261	69.8 (74)	14.2 (15)	16.0 (17)
263	76.5 (52)	14.7 (10)	8.8 (6)
264	64.7 (22)	20.6 (7)	14.7 (10)
267	71.0 (76)	18.7 (20)	10.3 (11)
268	75.0 (12)	18.8 (3)	6.3 (1)
Total	***74.0 (410)***	***15.7 (87)***	***10.3 (57)***

*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%
201	-	11.1 (1)	-	11.1 (1)	22.2 (2)	33.3 (3)	22.2 (2)
208	-	-	-	-	33.3 (1)	66.7 (2)	-
209	3.0 (1)	-	-	18.2 (6)	24.2 (8)	45.5 (15)	9.1 (3)
256	6.5 (3)	6.5 (3)	10.9 (5)	23.9 (11)	19.6 (9)	28.3 (13)	4.3 (2)
257	5.7 (3)	7.5 (4)	1.9 (1)	35.8 (19)	17.0 (9)	26.4 (14)	22.2 (16)
260	2.8 (2)	4.2 (3)	2.8 (2)	27.8 (20)	13.9 (10)	26.4 (19)	22.2 (16)
261	3.0 (3)	5.9 (6)	5.0 (5)	27.7 (28)	24.8 (25)	23.8 (24)	9.9 (10)
263	2.9 (2)	2.9 (2)	2.9 (2)	19.1 (13)	19.1 (13)	35.3 (24)	17.6 (12)
264	5.7 (2)	2.9 (2)	5.7 (2)	25.7 (9)	20.0 (7)	20.0 (7)	20.0 (7)
267	1.9 (2)	4.7 (5)	0.9 (1)	21.5 (23)	24.3 (26)	26.2 (28)	20.6 (22)
268	6.7 (1)	6.7 (1)	-	13.3 (2)	13.3 (2)	46.7 (7)	13.3 (2)
Total	***3.5 (19)***	***4.8 (26)***	***3.3 (18)***	***24.4 (132)***	***20.7 (112)***	***28.8 (156)***	***14.6 (79)***

*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
201	11.1 (1)	11.1 (1)	77.8 (7)
208	-	-	100.0 (3)
209	3.0 (1)	18.2 (6)	78.8 (26)
256	23.9 (11)	23.9 (11)	52.2 (24)
257	15.1 (8)	35.8 (19)	49.1 (26)
260	9.7 (7)	27.8 (20)	62.5 (45)
261	13.9 (14)	27.7 (28)	58.4 (59)
263	8.8 (6)	19.1 (13)	72.1 (49)
264	14.3 (5)	25.7 (9)	60.0 (21)
267	7.5 (8)	21.5 (23)	71.0 (76)
268	13.3 (2)	13.3 (2)	73.3 (11)
Total	***11.6 (63)***	***24.4 (132)***	***64.0 (347)***

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

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

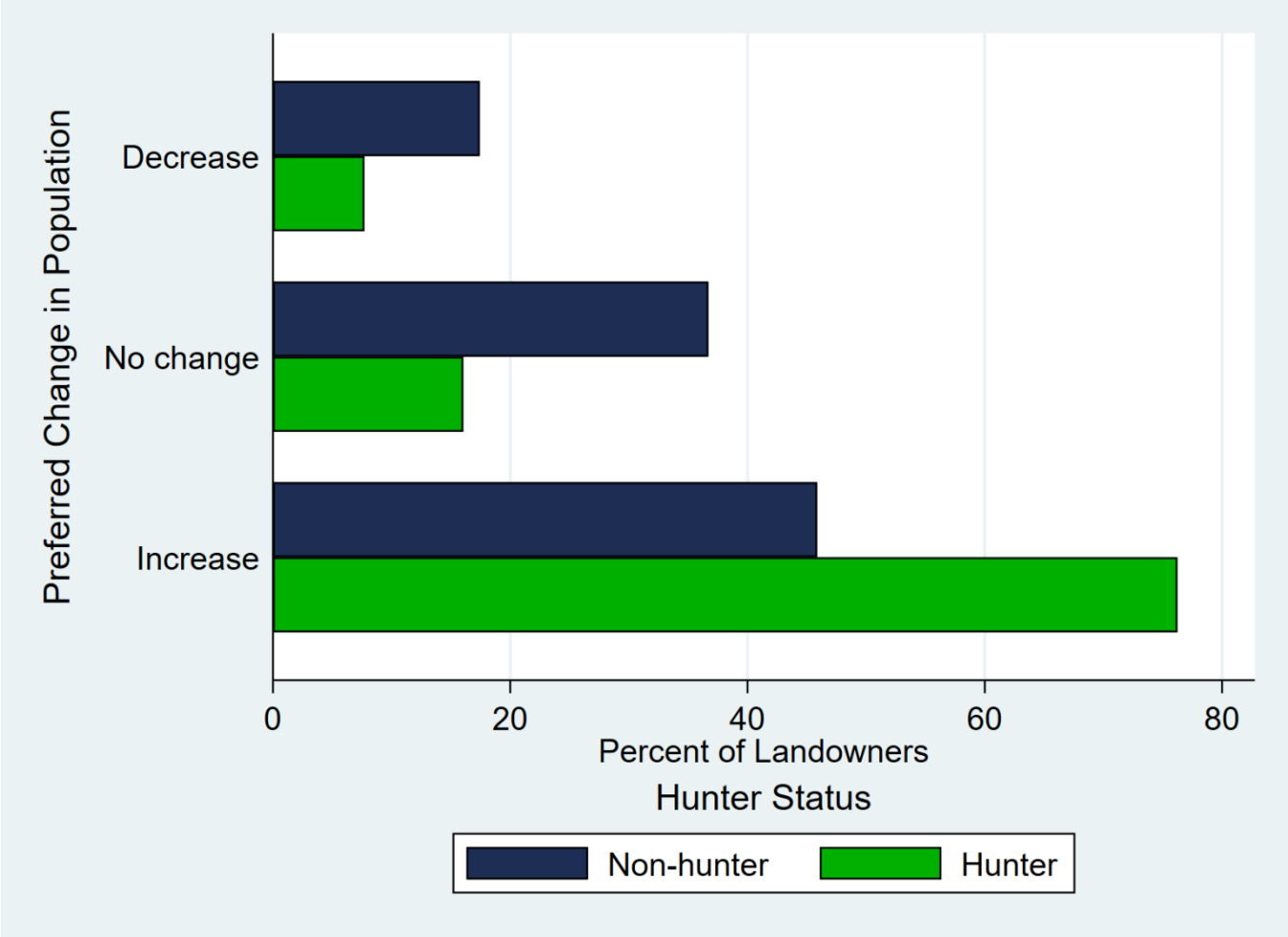


Table 18. Non-hunting landowners preference for future deer population by DPA, in 2014

DPA	-50%	-25%	-10%	No change	+10%	+25%	+50%
201	-	50.0 (1)	-	-	-	50.0 (1)	-
208	-	-	-	-	-	-	-
209	-	-	-	14.3 (1)	14.3 (1)	71.4 (5)	-
256	4.2 (1)	12.5 (3)	8.3 (2)	33.3 (8)	16.7 (4)	25.0 (6)	-
257	9.4 (3)	6.3 (2)	3.1 (1)	40.6 (13)	21.9 (7)	15.6 (5)	3.1 (1)
260	6.9 (2)	3.4 (1)	6.9 (2)	41.1 (12)	17.2 (5)	10.3 (3)	13.8 (4)
261	4.7 (3)	9.4 (6)	6.3 (4)	37.5 (24)	18.8 (12)	17.2 (11)	6.3 (4)
263	7.1 (1)	-	-	35.7 (5)	14.3 (2)	28.6 (4)	14.3 (2)
264	11.1 (1)	11.1 (1)	-	44.4 (4)	11.1 (1)	11.1 (1)	11.1 (1)
267	5.7 (2)	2.9 (1)	2.9 (1)	34.3 (12)	20.0 (7)	20.0 (7)	14.3 (5)
268	-	-	-	50.0 (1)	-	50.0 (1)	-
Total	***6.0 (13)***	***6.9 (15)***	***4.6 (10)***	***36.7 (80)***	***17.9 (39)***	***20.2 (44)***	***7.8 (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%
201	-	-	-	14.3 (1)	28.6 (2)	28.6 (2)	28.6 (2)
208	-	-	-	-	33.3 (1)	66.7 (2)	-
209	3.8 (1)	-	-	19.2 (5)	26.9 (7)	38.5 (10)	11.5 (3)
256	9.1 (2)	-	13.6 (3)	13.6 (3)	22.7 (5)	31.8 (7)	9.1 (2)
257	-	9.5 (2)	-	28.6 (6)	9.5 (2)	42.9 (9)	9.5 (2)
260	-	4.7 (2)	-	18.6 (8)	11.6 (5)	37.2 (16)	27.9 (12)
261	-	-	2.7 (1)	10.8 (4)	35.1 (13)	35.1 (13)	16.2 (6)
263	1.9 (1)	3.7 (2)	3.7 (2)	14.8 (8)	20.4 (11)	37.0 (20)	18.5 (10)
264	3.8 (1)	-	7.7 (2)	19.2 (5)	23.1 (6)	23.1 (6)	23.1 (6)
267	-	5.6 (4)	-	15.3 (11)	26.4 (19)	29.2 (21)	23.6 (17)
268	7.7 (1)	7.7 (1)	-	7.7 (1)	15.4 (2)	46.2 (6)	15.4 (2)
Total	**1.9 (6)**	**3.4 (11)**	**2.5 (8)**	**16.1 (52)**	**22.5 (73)**	**34.6 (112)**	**19.1 (62)**

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

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

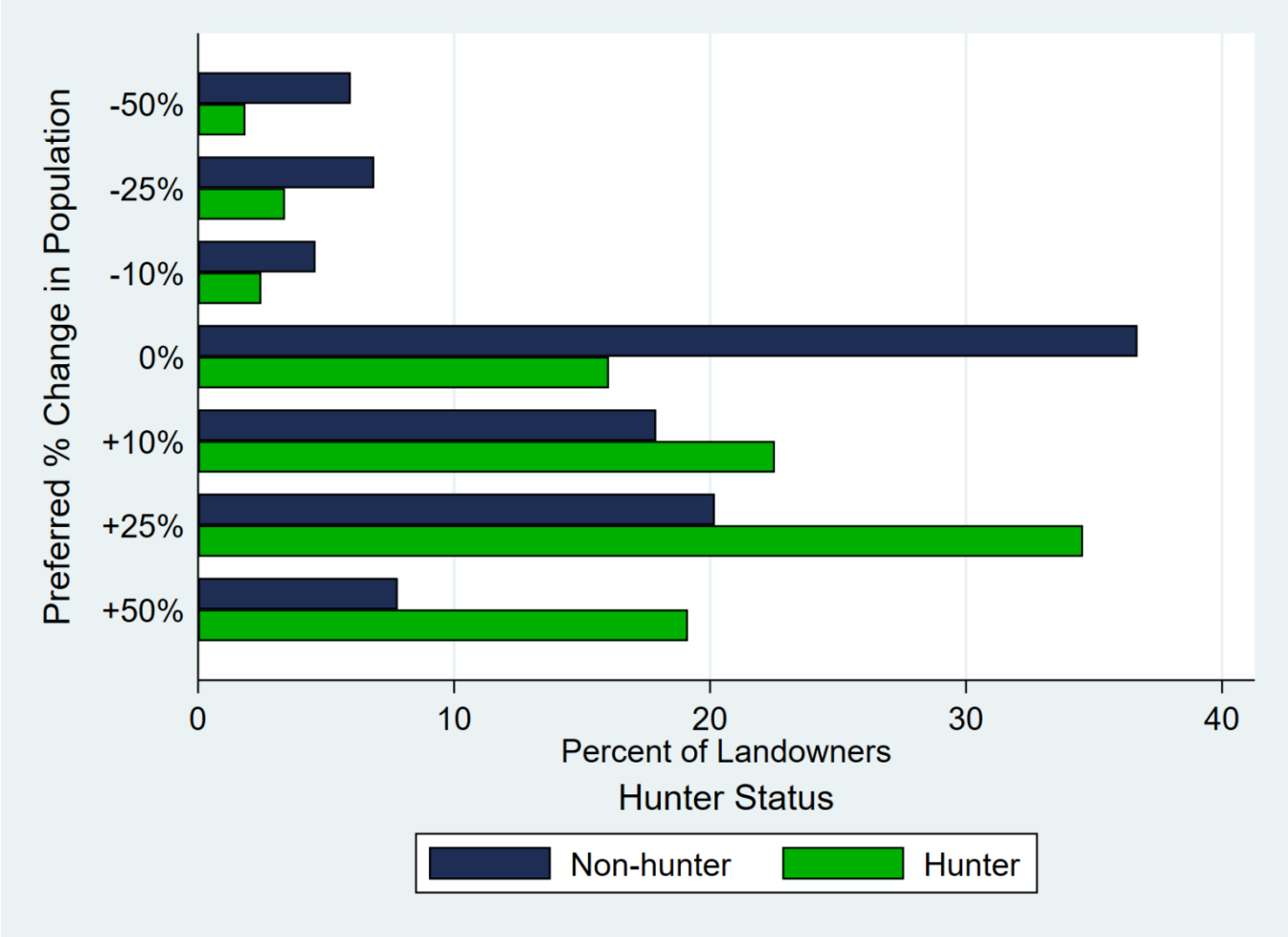
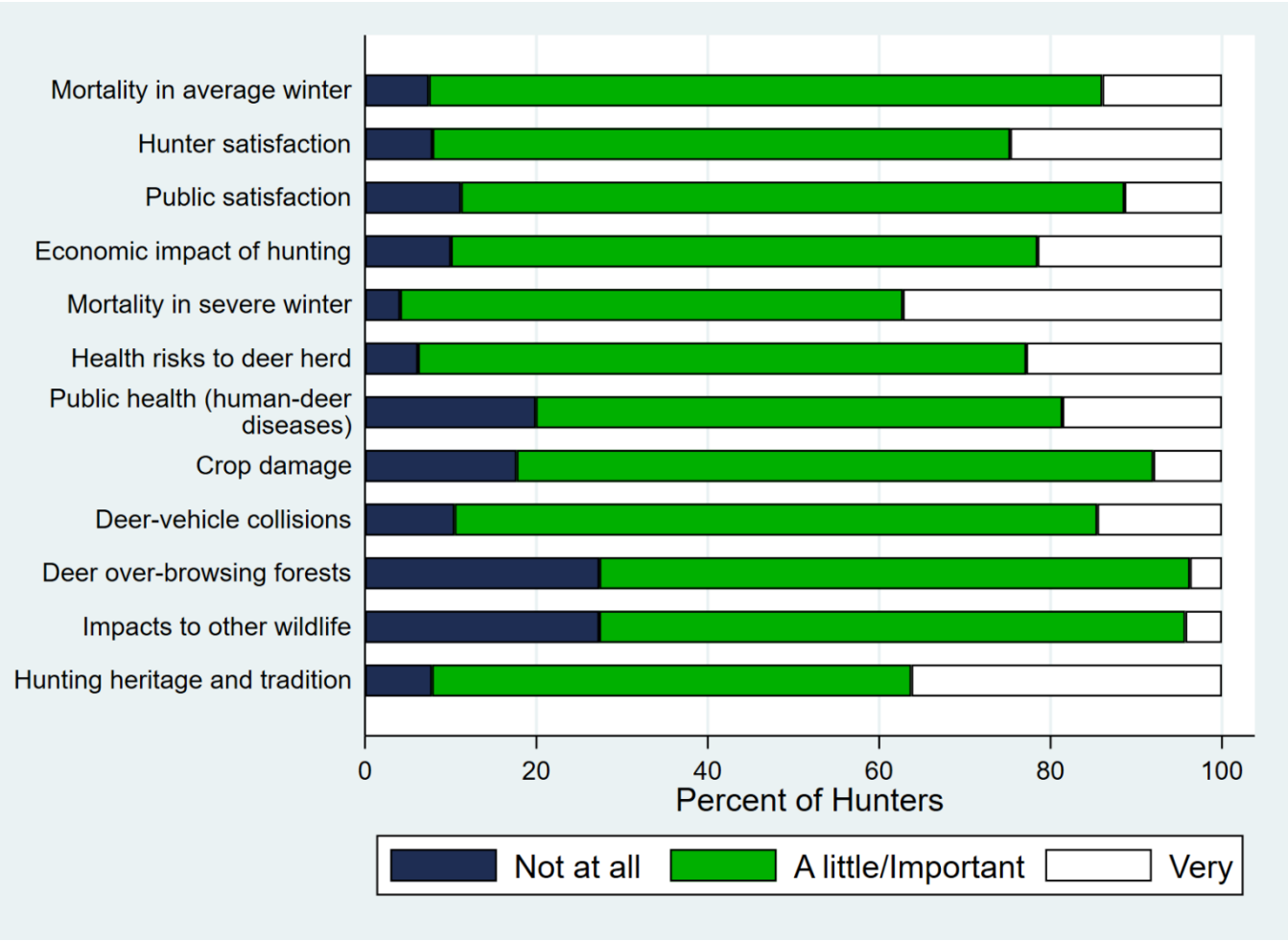


Table 19. Landowners' reported importance of attributes of deer population goal setting, in 2014

Question	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	7.5	12.5	28.2	38.7	13.1
Hunter satisfaction with deer numbers	7.5	10.9	23.8	32.9	24.8
Public satisfaction with deer numbers	11.1	20.0	33.1	24.6	11.1
Impact of deer hunting on the local economy	10.0	13.5	27.1	27.8	21.5
Amount of deer mortality during a severe winter	4.4	8.7	15.7	33.9	37.3
Potential health risks to deer herd	6.2	18.8	24.8	27.8	22.4
Public health (human-deer diseases)	20.0	20.8	22.0	18.5	18.7
Amount of crop damage	17.9	28.2	30.2	16.3	7.5
The number of deer-vehicle collisions	10.5	20.2	28.6	26.4	14.3
Deer over-browsing of forests	27.0	24.6	29.6	15.1	3.8
Impacts of deer on other wildlife species	27.0	28.6	25.8	14.3	4.4
Deer hunting heritage and tradition	8.1	9.7	17.1	28.6	36.5

*Data are Percent of Respondents

Figure 8. Landowners' reported importance of attributes of deer population goal setting, in 2014



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.