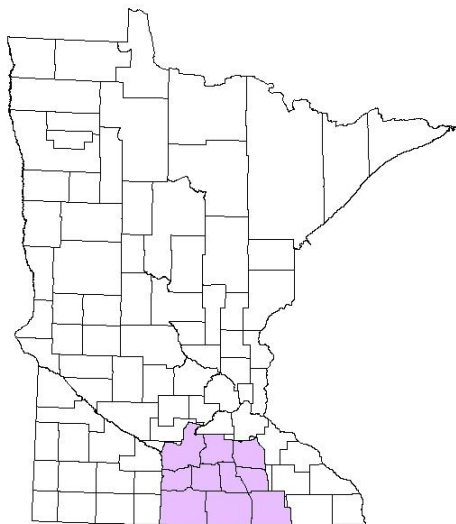


## Fish and Wildlife Division

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# Deer Goal Setting Attitude Survey Report

## Block 11: South Central



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## Statement of Purpose and Scope

The MNDNR sets white-tailed deer (*Odocoileus virginianus*) population goals for Deer Permit Areas (DPAs) in accordance with the [Minnesota Deer Management Plan](#). Deer population [goal setting](#) is a public engagement process that occurs in partnership between MNDNR, individual stakeholders and stakeholder groups, and in consultation with sovereign tribal governments that share a geography with the state. Decisions made about deer population goals dictate the management strategy for DPAs for the goal period. A deer population goal for a DPA may be to increase the population by 25% over 10 years, from the time the goal is set. Annual harvest within a DPA, and estimates derived from the Minnesota Deer Population Model, inform management designation in reference to the population goal over time. Many pieces of information go into decisions about deer population goals, including area wildlife manager's expert opinion, trends in harvest, disease management concerns, and the preferences of stakeholders, among many others.

The 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 on property to inform the deer population goal setting process. Data presented in this report are of one such investigation. Results of this study directly inform decision making for deer population goals during the winter of 2021.

Results of this study are representative of the populations of deer hunters and landowners surveyed, and may differ substantially from results of self-selected public input processes, as a function of the scientific study design. The values in these reports are the average for all individuals within a given population of interest (e.g., hunters and landowners in a deer permit area), not just respondents to the survey.

## Data Collection Process

We surveyed deer hunters and landowners during the winter and spring of 2020 using a mixed mode design that included two solicitations. Selected participants received a letter directing them to complete a questionnaire online, and non-respondents received a paper copy of the survey with a postage-paid self-addressed return envelope. Copies of these questionnaires are found in Appendices A and B of this report and cover a range of topics related to deer populations, deer hunting, property damage from deer, and deer management.

### Deer Hunters

We randomly selected individuals with a valid firearms deer hunting license aged 18 years and older within DPAs to receive a goal setting survey. The number of hunters selected in each DPA was determined by estimating the minimum sample size needed to make statistically valid inference about the population at the DPA level at 90% confidence. Participants may not be residents of the DPA, but have indicated that a given DPA is the primary location where they hunt deer.

## Landowners

We randomly selected individual land parcels within a DPA from all parcels greater than or equal to 2 acres in size to receive a goal setting survey, considering owners of multiple parcels in a DPA. Participant contact information associated with parcel ownership derived from county tax records. Stratification occurred by quantiles of parcels by acres to ensure a representative coverage of land use types and interests. Land acres strata were 2-19, 20-79, 80-319, and  $\geq 320$  acres respectively. 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 DPA scale with 90% confidence.

## Block 11: South Central

Goal setting Block 11 (South Central) includes deer permit areas: 230, 232, 233, 253, 254, 255, 291, 292, 293, and 299 in the southcentral part of the state (Figure 1).

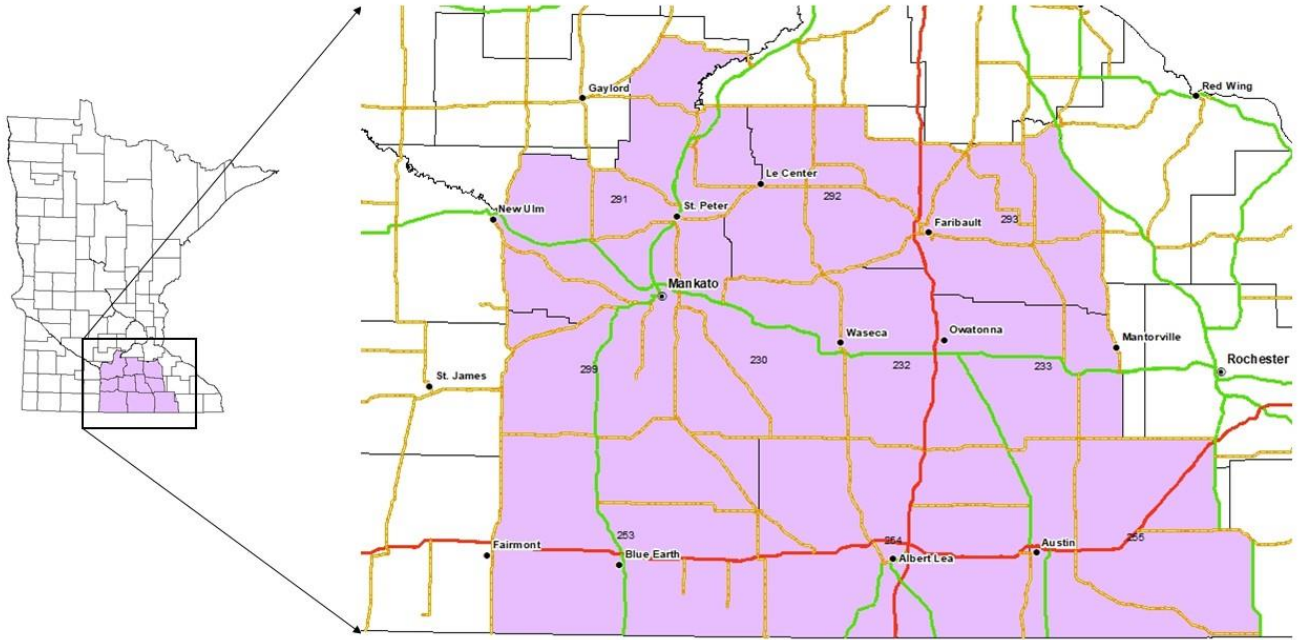


Figure 1. Goal setting Block 11 DPA boundaries



## Response Rates and Weighting

### Hunters

After accounting for undeliverable mail, the adjusted response rate for the Block 11 hunter sample was 40%. Response rates by DPA ranged from a low of 33% for DPA 233, to a high of 47% for DPAs 253, 291, and 299. A summary of response rates by DPA is located in Table 1.

We weighted responses in proportion to quantiles derived from the population of aged 18+ firearms deer hunters in Minnesota, during the 2019 hunting season. Respondents (mean=50) were on average older than the population (mean=46) from which the sample was drawn. To attend to this, we estimated population estimates according to the weight schedule presented in Table 2. Weights apply to the population rather than the block level, under an assumption that there is no correlation between age and preferred hunt location.

### Landowners

After accounting for undeliverable mail, the adjusted response rate for the Block 11 landowner sample was 38%. Response rates by DPA ranged from a low of 32% for DPA 230, to a high of 40% for DPAs 253, 254, and 255. A summary of response rates by DPA is located in Table 3.

We drew samples of landowners equally within four strata (2-19, 20-70, 80-319, and 320+) corresponding to parcel acres to ensure representation of small, medium, and large landholders, and thus, the potential array of interests associated with different land uses. We calculated weights within Block to generate estimates representative of the population according to the schedule presented in Table 4.

Table 1. Response rates for hunter samples, by DPA

DPA	Initial Sample	Undeliverable	Respondents	Adjusted sample	Raw response rate	Adjusted response rate
230	468	11	179	457	0.38	0.39
232	486	12	191	474	0.39	0.40
233	464	11	148	453	0.32	0.33
253	497	11	226	486	0.45	0.47
254	506	9	196	497	0.39	0.39
255	475	13	156	462	0.33	0.34
291	516	5	240	511	0.47	0.47
292	514	12	175	502	0.34	0.35
293	523	9	212	514	0.41	0.41
299	462	10	211	452	0.46	0.47
<b>Block Average</b>	<b>4911</b>	<b>103</b>	<b>1934</b>	<b>4808</b>	<b>0.39</b>	<b>0.40</b>

Table 2. Population and sample proportions by age quantile, and weights

Age Quantile	Population Proportion	Sample Proportion	Weight*
18-32	.25	.16	1.599
33-45	.25	.21	1.204
45-58	.25	.28	0.9019
59+	.25	.36	0.6962

\*Weight =  $1/(\text{Sample Proportion}/\text{Population Proportion})$

Table 3. Response rates for landowner samples, by DPA

DPA	Initial Sample	Undeliverable	Respondents	Adjusted sample	Raw response rate	Adjusted response rate
230	493	25	152	468	0.31	0.32
232	452	16	167	436	0.37	0.38
233	442	25	162	417	0.37	0.39
253	488	31	167	457	0.34	0.37
254	499	11	190	488	0.38	0.40
255	477	13	184	464	0.39	0.40
291	497	8	198	489	0.40	0.40
292	516	9	199	507	0.39	0.39
293	467	8	180	459	0.39	0.39
299	456	31	151	425	0.33	0.36
<b>Block Average</b>	<b>4787</b>	<b>177</b>	<b>1750</b>	<b>4610</b>	<b>0.37</b>	<b>0.38</b>

Table 4. Population and sample proportions by acres strata, and weights

Acres strata	Population proportion	Sample proportion	Weight*
2-19	.50	.29	1.739
20-79	.19	.26	0.729
80-319	.24	.25	0.926
320+	.08	.20	0.385

\*Weight = 1/(Sample Proportion/Population Proportion)

## Summary of Deer Population Preferences

Landowners, on average, preferred stability in the deer population. Landowners in DPAs 232 and 292, on average, preferred a small increase (5%) in the deer population. Conversely, landowners in DPAs 253 (-10%), 255 (-5%), and 293 (-4%) preferred a small decrease in the deer population. Figure 2 contains mean estimates with 95% confidence intervals of hunters' and landowners' preferred percent change in the deer population in the DPA where they hunt or their land is located respectively. We coded individuals that preferred no change in the population with a value of zero for this analysis. On average, and for most DPAs, deer hunters preferred a moderate increase in the deer population, with mean estimates ranging from an 8% increase for DPA 253, to a 21% increase for DPA 299.

Figures 3 through 12 contain DPA level estimates for the percent of hunters and landowners that preferred to see future deer populations decrease, stay the same, or increase. In most cases, the majority of hunters expressed a preference for an increase in the deer population in the DPA where they hunt, whereas a plurality or majority of landowners expressed a preference for the deer population where their land is located to remain the same.

Figure 2. Landowners' and hunters' mean desired percent change in the deer population, by DPA

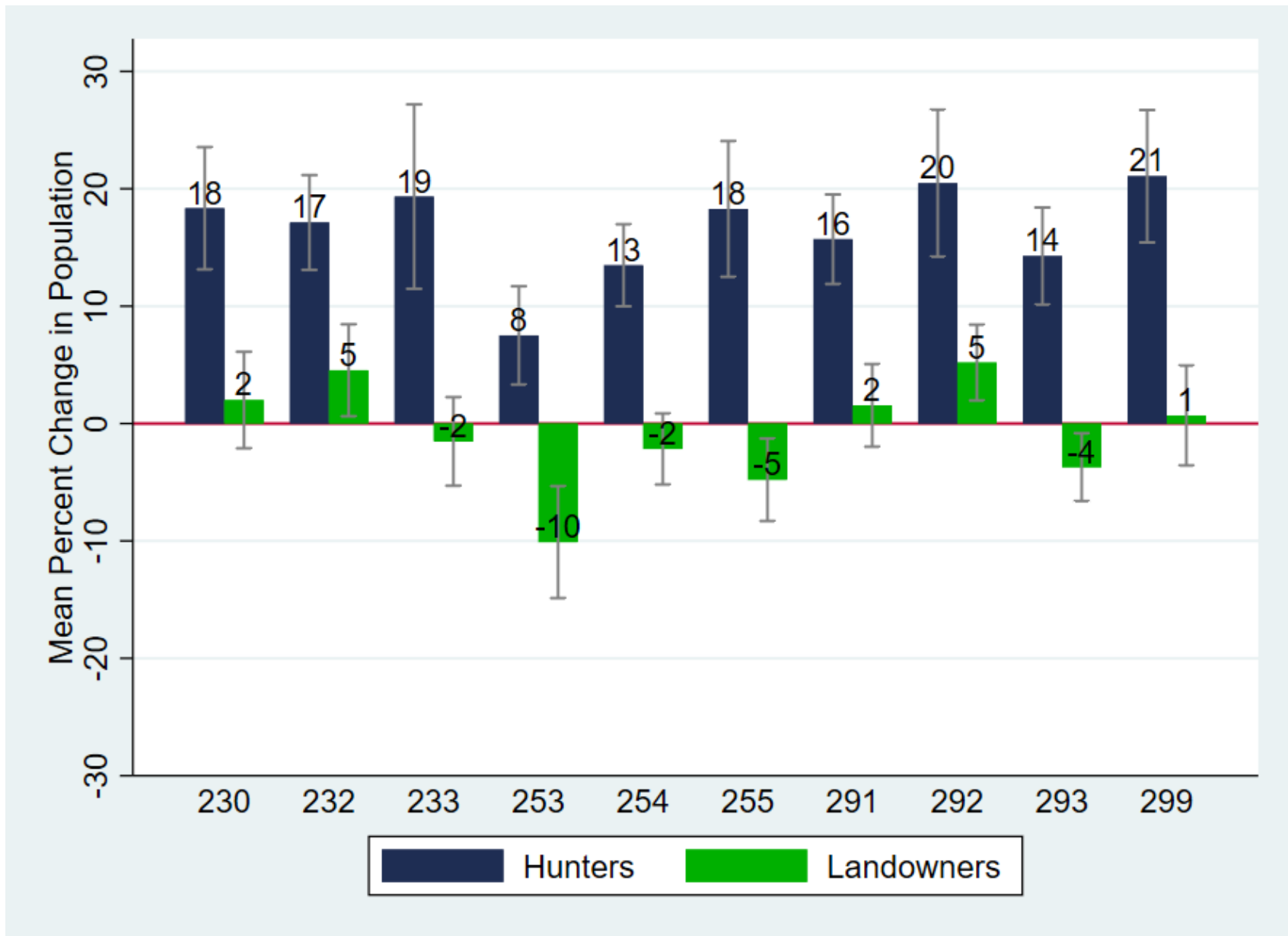


Figure 3. Deer permit area 230 landowners' and hunters' preference for future deer population

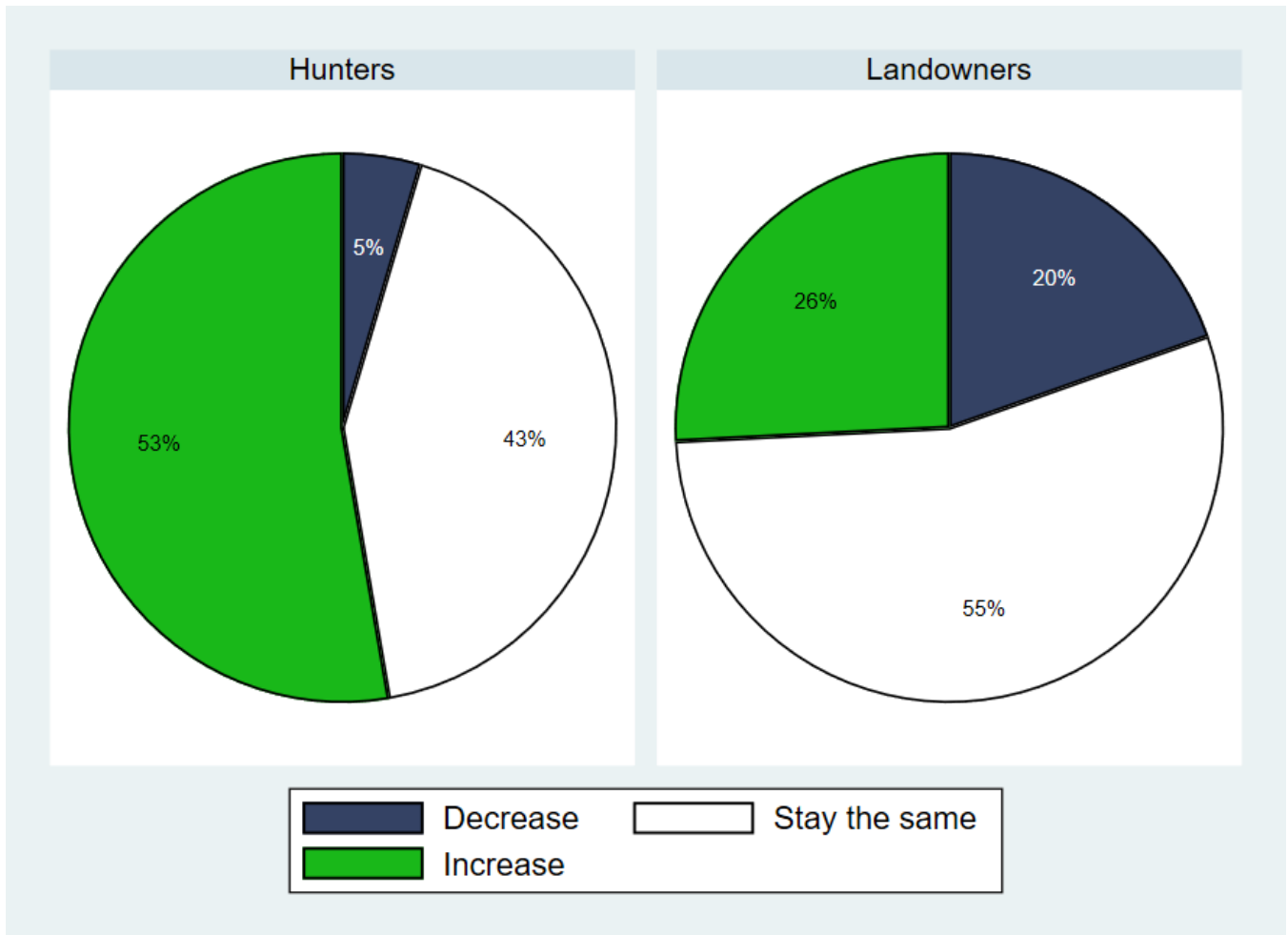




Figure 4. Deer permit area 232 landowners' and hunters' preference for future deer population

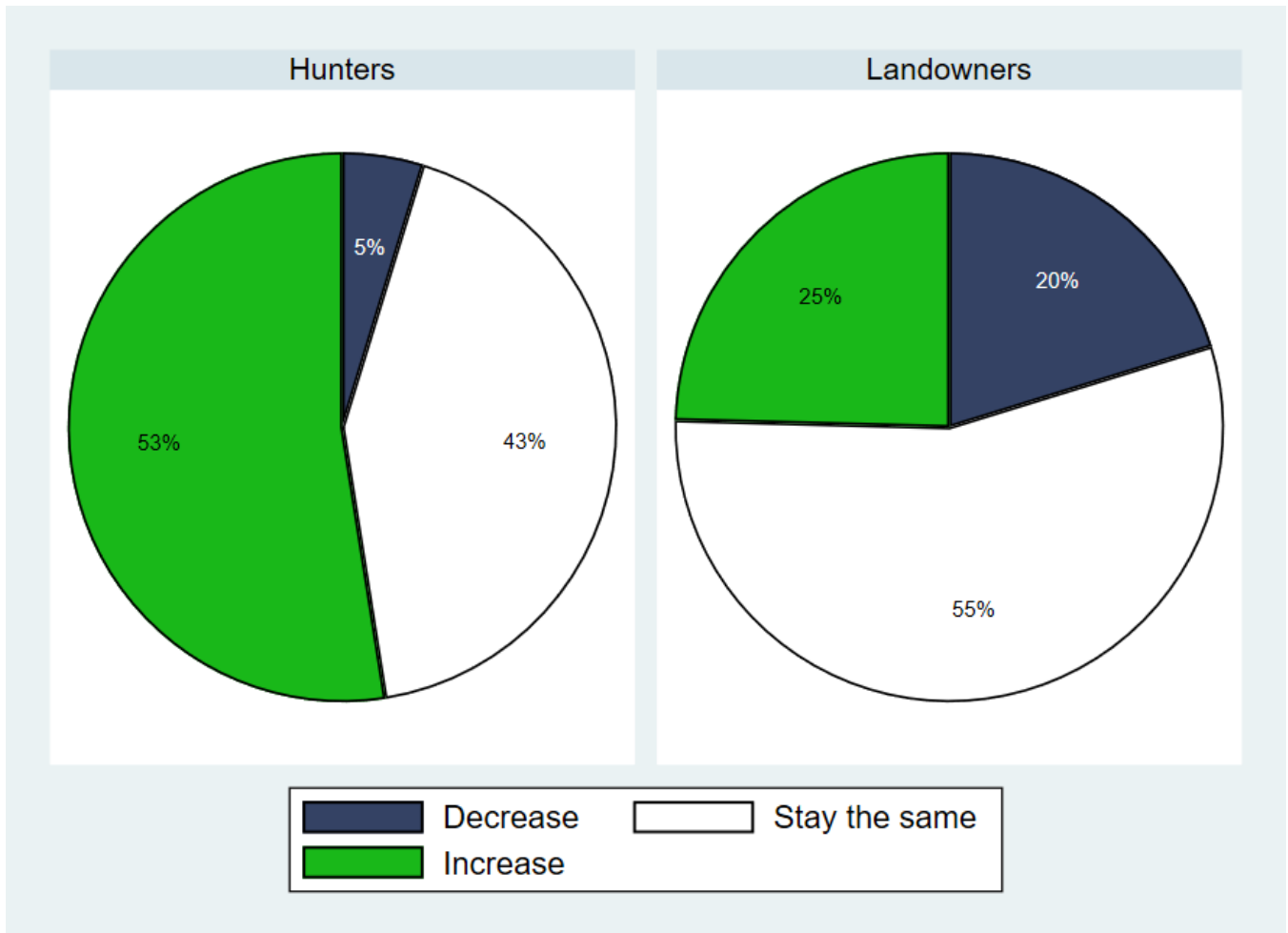


Figure 5. Deer permit area 233 landowners' and hunters' preference for future deer population

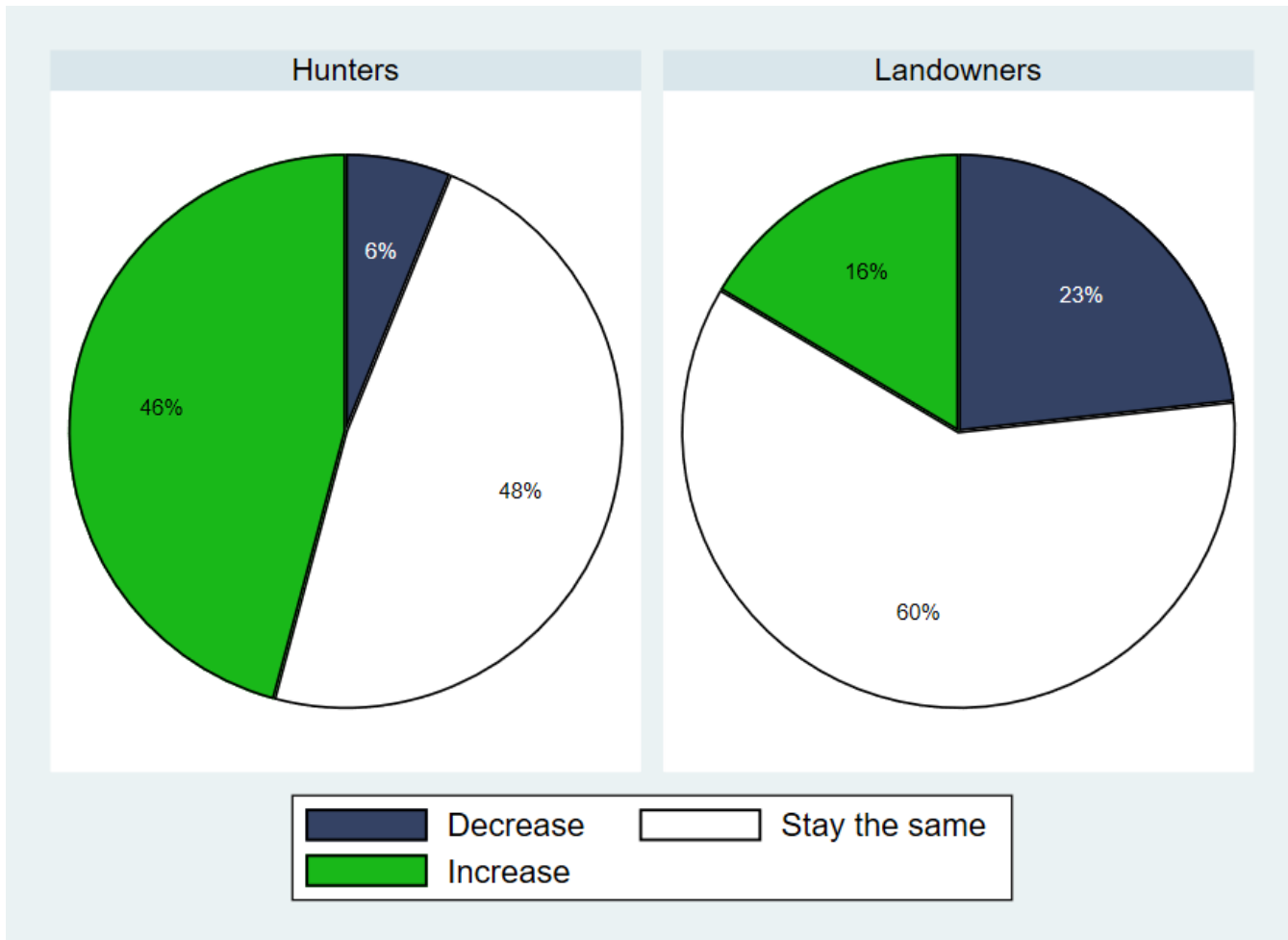


Figure 6. Deer permit area 253 landowners' and hunters' preference for future deer population

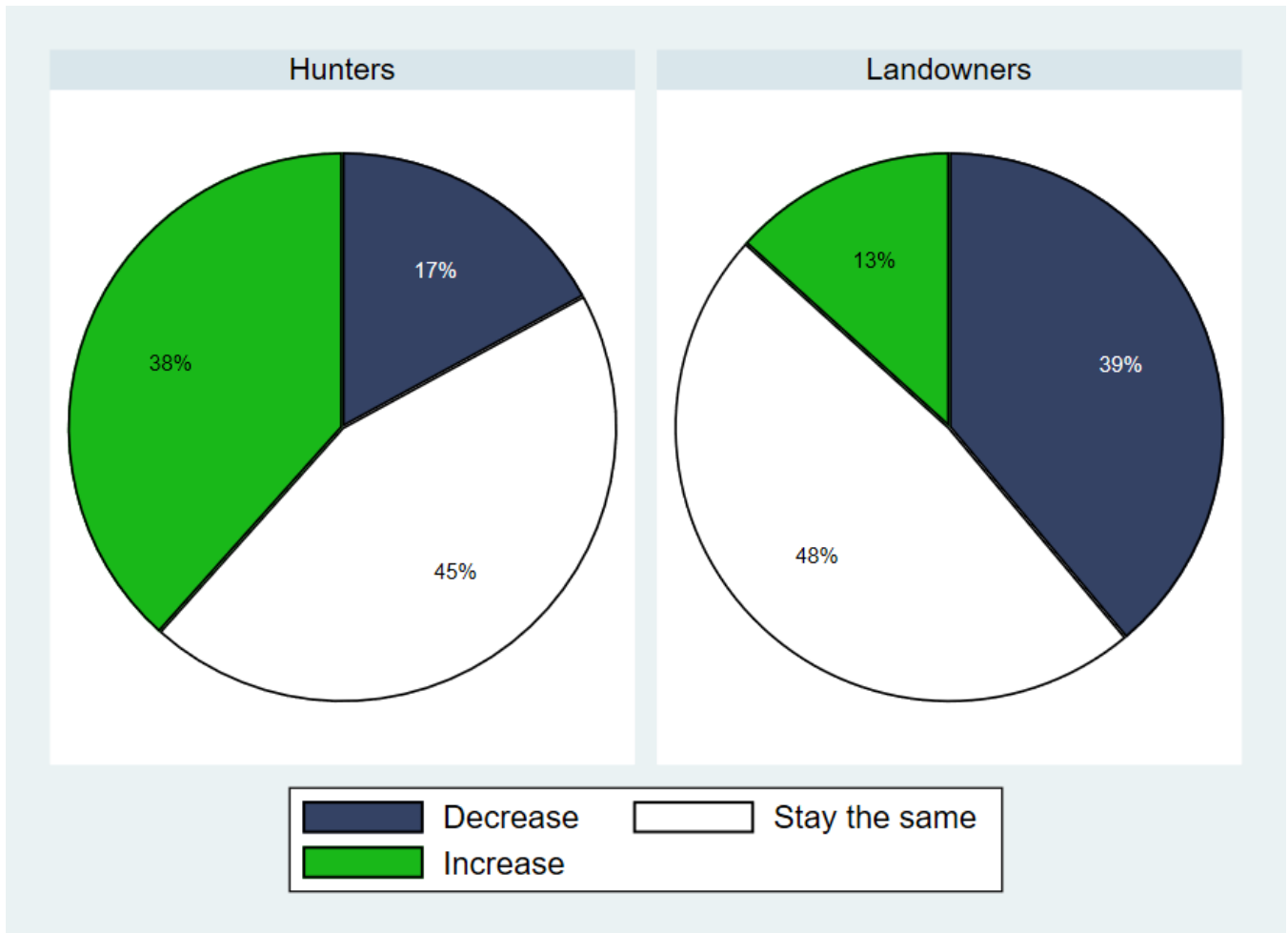


Figure 7. Deer permit area 254 landowners' and hunters' preference for future deer population

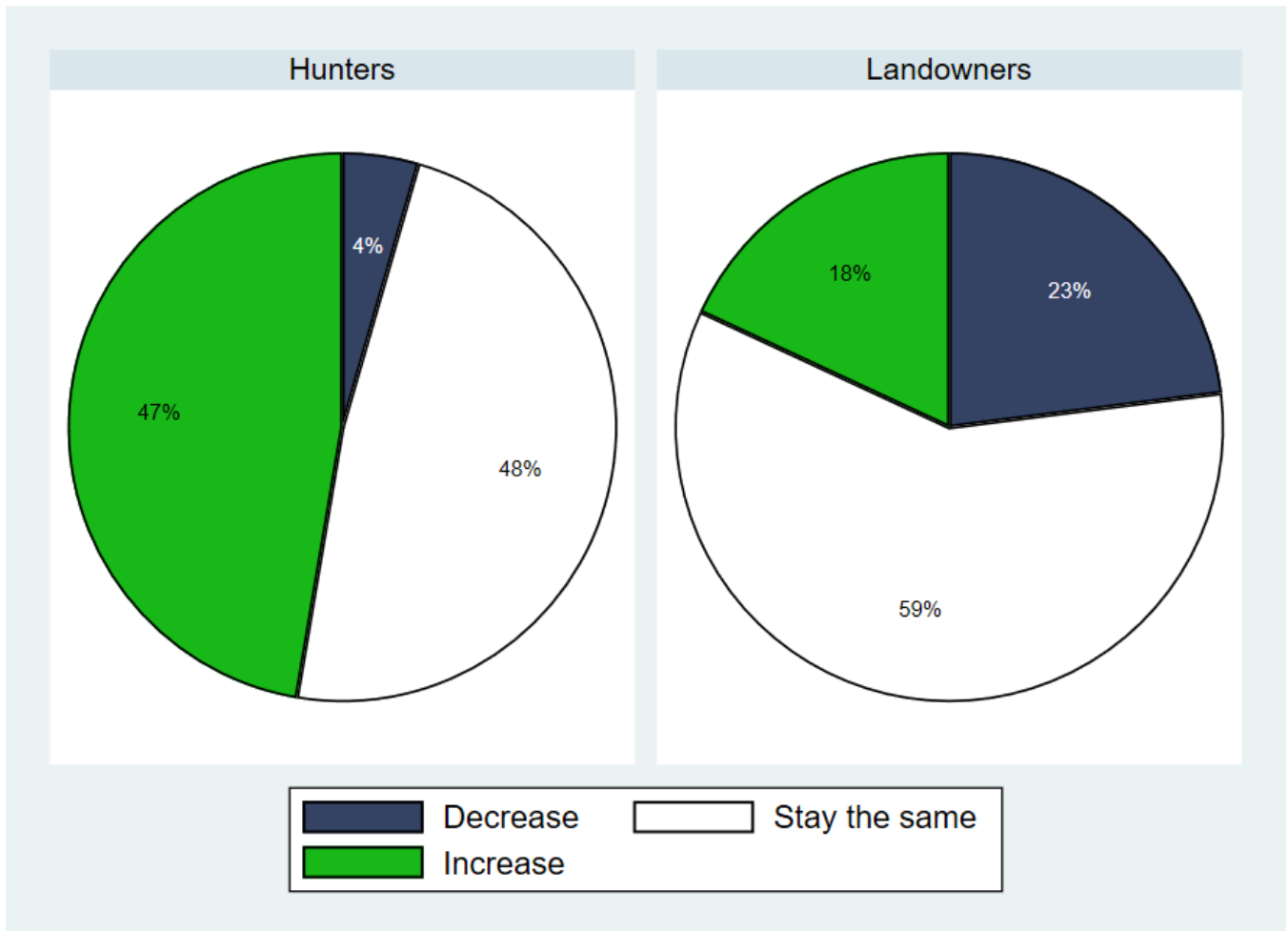


Figure 8. Deer permit area 255 landowners' and hunters' preference for future deer population

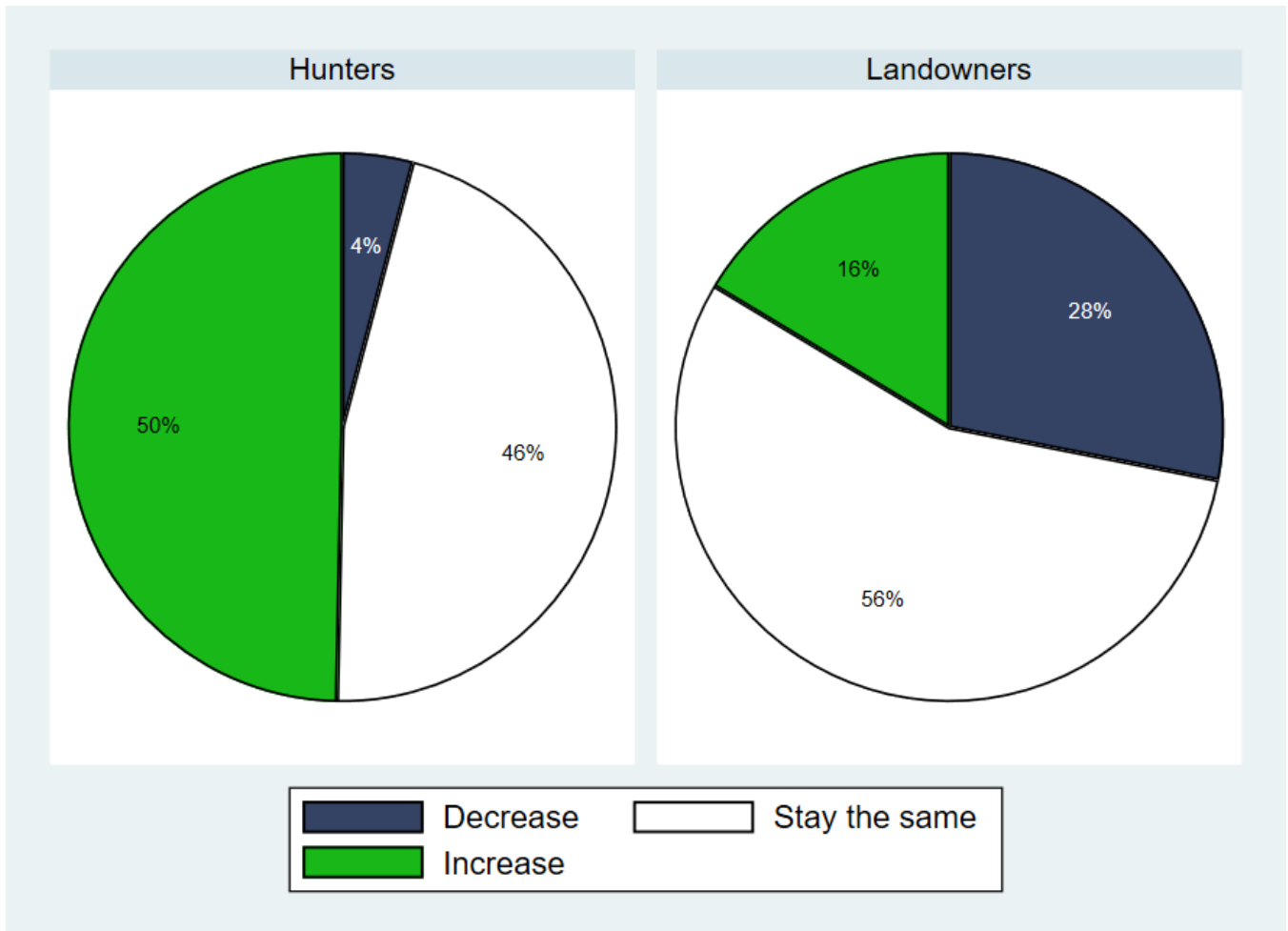


Figure 9. Deer permit area 291 landowners' and hunters' preference for future deer population

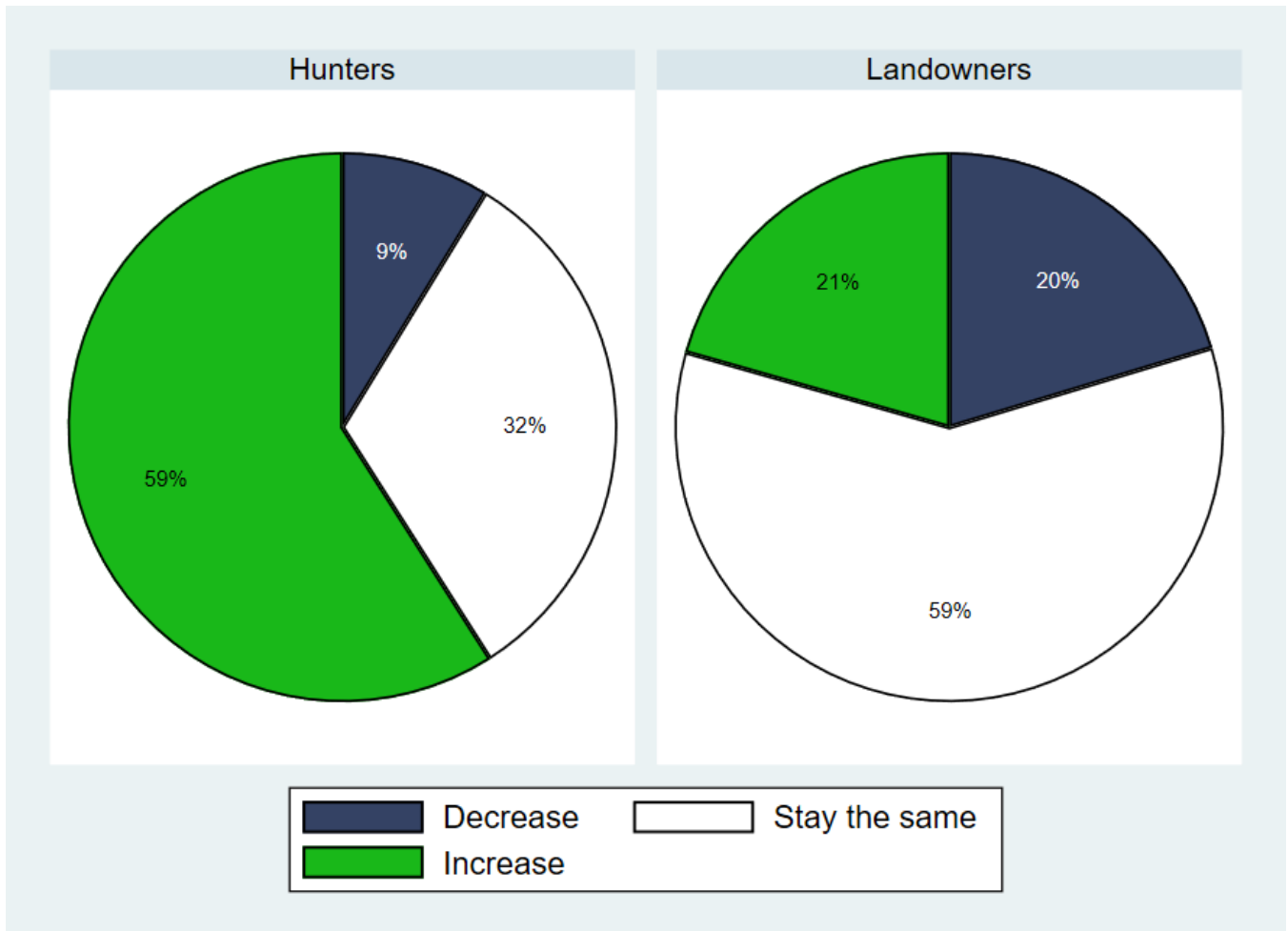


Figure 10. Deer permit area 292 landowners' and hunters' preference for future deer population

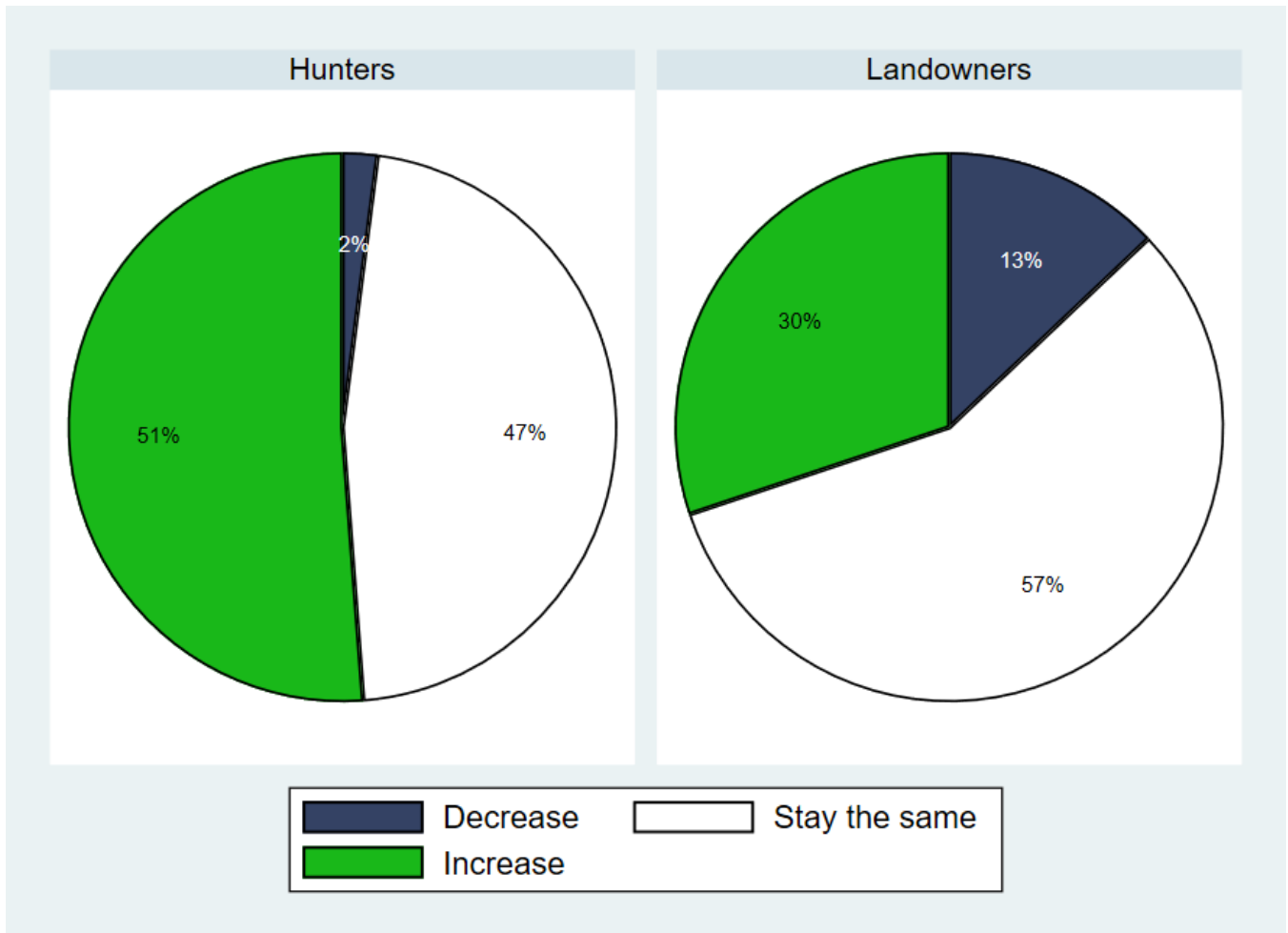


Figure 11. Deer permit area 293 landowners' and hunters' preference for future deer population

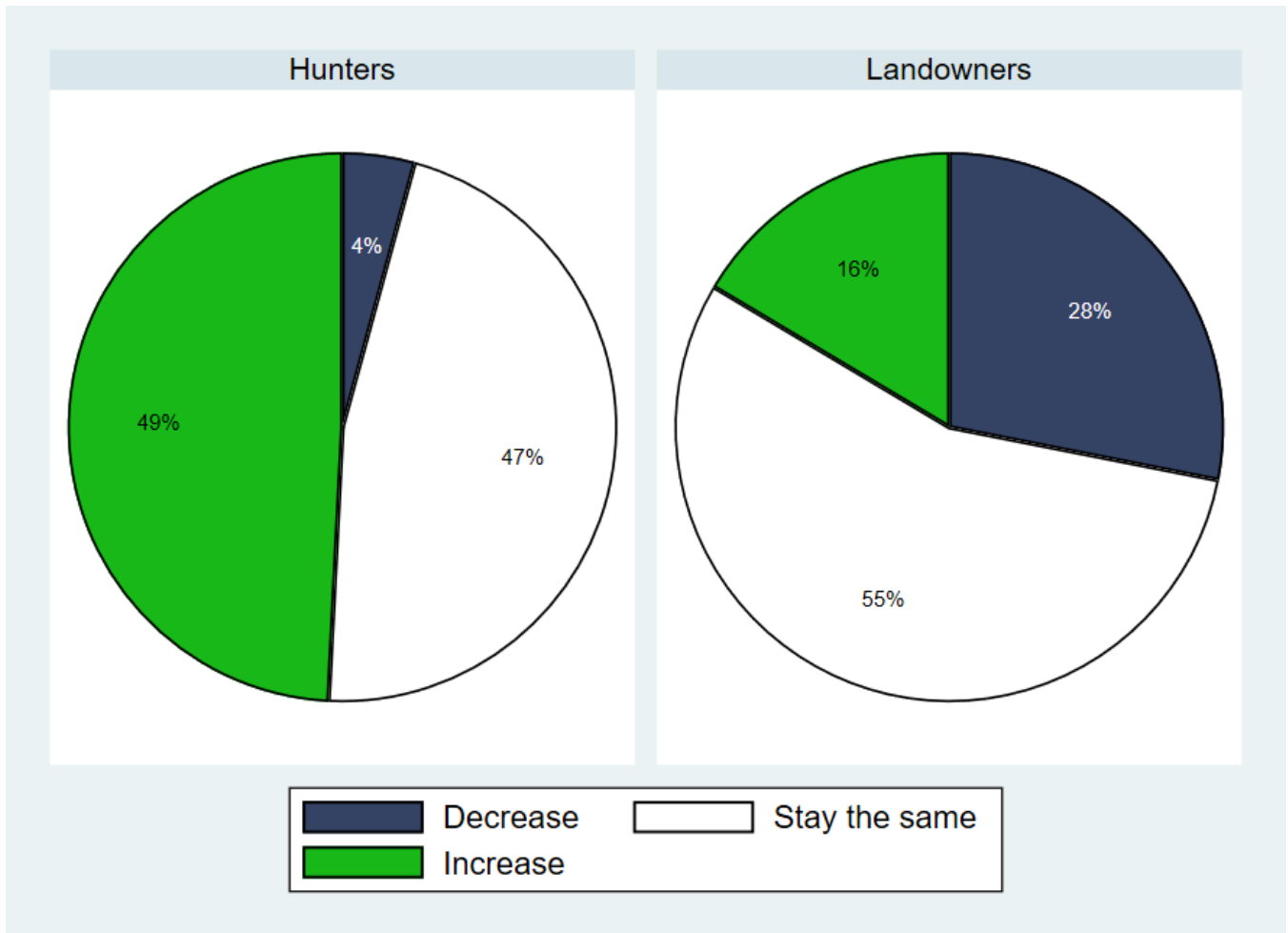
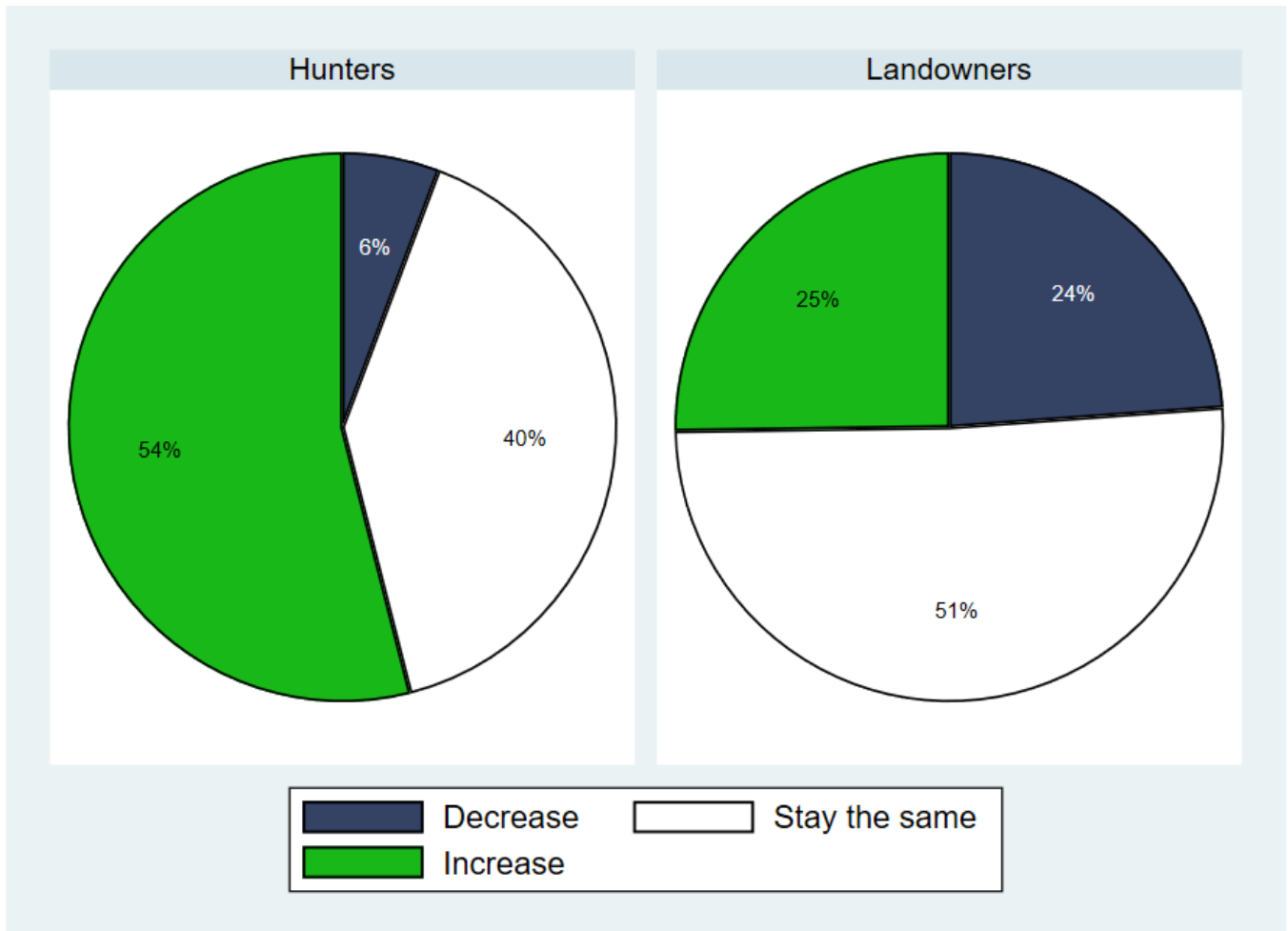




Figure 12. Deer permit area 299 landowners' and hunters' preference for future deer population



## Hunters

We asked hunters to report their recent deer hunting activity. The vast majority (>90%) of hunters reported having hunted deer during the last three years (Table 5). Among these hunters, around 50% reported that they hunted during the archery season in 2019, while 40% participated in muzzleloader season, and nearly all reported hunting during the firearms season (Table 6). Around a third of hunters reported spending all of their time hunting on private land that they own, while 3%, 47%, and 7% of Block 11 hunters reported spending all of their hunting time on land that they lease, private land that they do not own, and public land respectively (Table 7). Roughly three-quarters of hunters reported that there were no harvest restriction in place on land they hunted in 2019 (Table 8).

A majority (67%) of hunters reported they were either slightly satisfied, or very satisfied with their most recent deer hunting season in Minnesota (Table 9). This value did not vary substantial by DPA. Hunters were split between agreement and disagreement with statements about their satisfaction with the number and quality of bucks during the last season they hunters. While, majorities of hunters reported agreement with statements about their satisfaction with the total number of deer and the number antlerless deer they saw, and whether or not they heard about or saw legal bucks while hunting (Table 10).

Hunters evaluated the trend in the deer population over the last 5 years in the DPA where they hunt, their satisfaction with the deer population in the DPA where they hunt, and their likelihood to harvest an antlerless deer given the opportunity. Roughly, 40% of hunters reported seeing about the same number of deer, whereas 30% and 29% of hunters reported seeing more and fewer deer compared to 5 years ago, respectively (Table 11). A slight majority (54%) of Block 11 hunters reported feeling either slightly satisfied or very satisfied with the deer population in the DPA where they hunt (Table 12). A clear majority (88%) of hunters reported that they would shoot an antlerless deer given the opportunity (Table 13).

We asked hunters to rate the importance of several competing priorities MNDNR could consider when setting deer population goals. Among these priorities, Block 11 hunters rated deer mortality during a severe winter, herd health, and deer hunting heritage and tradition the highest (Table 14).

Hunters evaluated the current deer population in the DPA where they hunt, on a scale of much too low to much too high. A majority (59%) of hunters felt that the current population where they hunt is “about right,” while, on average, 32% of Block 11 hunters felt it was too low or much too low, and 9% felt it was too high or much too high (Table 15).

When asked if hunters prefer to see the deer population decrease, stay the same, or increase. Half of hunters indicated a preference for increase, while 43% preferred stability, and 7% preferred decrease (Table 16). On average, hunters in Block 11 wish to see an 16% increase in the deer population (Table 17). Outliers in open-ended responses to the question measuring preferred percent change in the deer population (e.g., +10,000%) were excluded from analysis if they were +/-3 standard deviations from the grand mean for the block, corresponding to a 99.7% confidence interval around the point estimate. A majority of hunters in Block 11 (59%) supported establishing regulations to increase the proportion of adult bucks in the DPA where they hunt (Table 18).

We asked hunters how long they have been hunting deer in Minnesota, whether they place feed or minerals out for deer to consume, and if they belong to a deer hunting organization. On average, Block 11 deer hunters have been hunting in Minnesota for 26 years (Table 19). Roughly, 92% of hunters reported that they do not set out feed for deer (Table 20), while 29% reported placing minerals for deer to consume (Table 21). Around 8% of Block 11 hunters reported that they belong to a deer hunting organization (Table 22).

Hunters reported their agreement with statements about their trust in the MNDNR on a scale where 1 = strongly disagree, 3 = neither, and 5 = strongly agree. On average, hunters reported moderate amounts of trust with mean values falling between 3.3 and 3.7 (Table 23).

*Table 5. Percent of respondents reporting hunting deer during the last three years, by DPA*

<b>DPA</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Did not hunt</b>
230	88	89	98	2
232	91	94	99	0
233	91	89	96	1
253	87	91	96	3
254	93	92	97	1
255	89	88	98	1
291	92	93	97	1
292	90	93	97	1
293	92	90	97	1
299	89	91	94	3
<b>Block Average</b>	<b>90</b>	<b>91</b>	<b>97</b>	<b>1</b>

*Table 6. Percent of 2019 deer hunters participating in deer hunting seasons, by DPA*

<b>DPA</b>	<b>Archery</b>	<b>Firearm</b>	<b>Muzzleloader</b>
230	44	92	38
232	47	93	47
233	52	84	44
253	47	91	46
254	37	88	36
255	56	91	37
291	45	87	34
292	55	95	44
293	45	94	36
299	57	89	37
<b>Block Average</b>	<b>48</b>	<b>91</b>	<b>40</b>

Table 7. Percent of deer hunters' time spent hunting on different land ownership types, by DPA

Question	Response	230	232	233	253	254	255	291	292	293	299	Avg.
Private land that I own	None	43	38	52	39	48	46	30	37	38	39	40
	Some	10	14	12	11	7	19	6	8	8	13	10
	Most	8	13	13	21	12	6	13	19	13	16	14
	All	38	34	24	29	33	28	51	37	40	31	35
Private land that I lease for hunting	None	93	91	90	90	90	92	95	96	91	94	92
	Some	2	1	8	6	3	1	1	0	4	2	3
	Most	4	4	0	2	4	2	1	2	1	1	2
	All	2	3	2	2	3	4	3	1	4	3	3
Private land that I do not own or lease	None	23	20	11	17	19	19	21	21	25	12	19
	Some	14	15	14	16	14	15	17	12	14	14	15
	Most	20	21	19	23	20	26	12	18	14	22	20
	All	43	44	56	44	48	40	50	49	47	51	47
Public land	None	53	49	48	51	54	37	59	53	69	49	53
	Some	34	28	26	38	29	40	28	31	21	33	31
	Most	6	9	10	7	11	17	9	7	4	11	9
	All	7	14	16	3	6	5	4	9	6	7	7

values are the percent of respondents reporting each category

Table 8. Percent of deer hunters hunting on properties with different harvest restrictions above and beyond state regulations, by DPA

DPA	Antlerless harvest is restricted, but hunters can take any legal buck	Buck harvest is restricted to large antlered bucks, but hunters can take any antlerless deer	Buck harvest is restricted to large antlered bucks, and antlerless harvest is also restricted	No restrictions on the type of deer that can be harvested	Other
230	5	3	0	89	3
232	7	5	1	86	2
233	3	7	2	86	2
253	44	2	0	49	5
254	6	4	3	87	1
255	6	4	1	85	3
291	52	2	3	42	1
292	8	5	2	84	2
293	2	6	0	86	5
299	33	3	1	60	3
<b>Block Average</b>	<b>18</b>	<b>4</b>	<b>1</b>	<b>73</b>	<b>3</b>

values are the percent of respondents reporting each category

Table 9. Deer hunters' satisfaction with their most recent deer hunting season, by DPA

DPA	Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
230	6	17	11	31	35
232	5	15	13	59	38
233	5	12	10	29	44
253	10	21	10	32	28
254	4	14	16	26	41
255	8	18	13	27	34
291	9	13	8	35	35
292	7	18	8	30	37
293	6	9	8	36	42
299	9	12	14	35	30
<b>Block Average</b>	<b>7</b>	<b>15</b>	<b>11</b>	<b>31</b>	<b>36</b>

values are the percent of respondents reporting each category



Table 10. Deer hunters' agreement with elements of their satisfaction with their most recent deer hunting season, by DPA

I was satisfied with the...	Response	230	232	233	253	254	255	291	292	293	299	Avg.
Number of legal bucks	Strongly disagree	21	22	15	26	17	17	24	25	15	23	21
	Slightly disagree	19	19	24	24	19	24	25	18	23	29	22
	Neither	15	13	16	12	17	13	12	16	12	9	13
	Slightly agree	32	34	27	26	32	29	29	29	35	25	30
	Strongly agree	14	12	18	11	15	18	11	12	14	14	14
Quality of bucks	Strongly disagree	22	26	19	25	19	19	28	26	16	29	23
	Slightly disagree	18	17	21	24	27	26	22	20	23	25	22
	Neither	18	17	15	17	18	18	13	17	15	8	16
	Slightly agree	28	27	30	23	25	20	28	28	34	25	27
	Strongly agree	14	12	15	11	11	16	10	10	12	12	12

Table 10. Continued.

I was satisfied with the...	Response	230	232	233	253	254	255	291	292	293	299	Avg.
I heard about or saw legal bucks while hunting	Strongly disagree	11	9	10	10	9	10	12	17	8	13	11
	Slightly disagree	10	11	12	10	12	9	6	6	11	9	10
	Neither	10	12	11	11	12	9	11	11	9	11	11
	Slightly agree	38	38	32	43	35	38	37	37	34	42	37
	Strongly agree	31	30	34	26	32	34	29	29	38	26	31
The number of antlerless deer I saw	Strongly disagree	8	6	8	11	5	9	8	11	4	6	8
	Slightly disagree	11	15	13	9	9	9	17	16	16	19	13
	Neither	12	9	12	14	9	9	11	12	8	10	11
	Slightly agree	33	39	26	28	34	34	28	31	36	30	32
	Strongly agree	36	31	41	38	43	39	36	30	36	34	36

Table 10. Continued

I was satisfied with the...	Response	230	232	233	253	254	255	291	292	293	299	Avg.
The number of deer I saw while hunting	Strongly disagree	12	10	10	7	8	11	12	20	7	11	11
	Slightly disagree	16	21	14	16	14	17	19	17	20	23	18
	Neither	10	12	11	16	12	15	13	12	9	9	12
	Slightly agree	32	34	35	35	33	29	27	25	35	32	32
	Strongly agree	30	23	30	26	32	28	29	27	29	24	28

values are the percent of respondents reporting each category

Table 11. Deer hunters' perceived change in the deer population over last 5 years, by DPA

DPA	Many fewer deer	Slightly fewer deer	About the same	Slightly more deer	Many more deer
230	6	23	41	22	7
232	13	21	36	23	7
233	10	20	43	18	9
253	6	13	41	25	14
254	8	18	40	25	8
255	15	26	34	20	6
291	9	21	41	21	8
292	14	17	41	20	7
293	9	17	38	26	9
299	15	20	41	19	6
<b>Block Average</b>	<b>10</b>	<b>19</b>	<b>40</b>	<b>22</b>	<b>8</b>

values are the percent of respondents reporting each category

Table 12. Deer hunters' satisfaction with the deer population where they hunt, by DPA

DPA	Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
230	10	21	17	35	18
232	8	24	19	30	18
233	10	19	11	27	32
253	11	17	21	34	17
254	6	19	14	40	21
255	9	24	13	33	20
291	9	24	17	32	17
292	12	19	17	28	24
293	6	15	14	37	29
299	10	25	17	32	16
<b>Block Average</b>	<b>9</b>	<b>21</b>	<b>16</b>	<b>33</b>	<b>21</b>

values are the percent of respondents reporting each category

*Table 13. Percent of deer hunters that would shoot an antlerless deer, by DPA*

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	88	12
232	83	17
233	91	9
253	92	8
254	88	12
255	90	10
291	89	11
292	82	18
293	88	11
299	91	9
<b>Block Average</b>	<b>88</b>	<b>12</b>

values are the percent of respondents reporting each category

Table 14. Deer hunters' mean stated importance for factors to consider in making deer population goals, by DPA

Item	230	232	233	253	254	255	291	292	293	299	Avg.
Amount of deer mortality during an average winter	3.6	3.6	3.5	3.4	3.7	3.3	3.6	3.6	3.5	3.5	3.5
Amount of deer mortality during a severe winter	3.9	3.9	3.8	3.7	4.0	3.7	3.9	3.9	3.9	3.9	3.9
Potential health risks to the deer herd	4.1	3.9	3.8	3.9	4.0	4.0	4.0	4.0	4.1	4.0	4.0
Public health (human-deer diseases)	3.8	3.5	3.6	3.6	3.5	3.6	3.5	3.6	3.8	3.6	3.6
Amount of crop damage from deer	2.8	2.5	2.6	3.0	2.7	2.8	2.7	2.6	2.7	2.6	2.7
Number of deer vehicle collisions	3.4	3.2	3.1	3.6	3.3	3.2	3.4	3.2	3.3	3.3	3.3
Deer over-browsing of forests	2.7	2.6	2.9	2.8	2.8	2.8	2.7	2.8	3.0	2.8	2.8
Impacts of deer on other wildlife species	2.8	2.6	2.8	2.8	2.8	2.8	2.6	2.7	2.8	2.8	2.7
Deer hunting heritage and tradition	3.9	4.0	3.9	3.9	3.9	4.1	4.1	4.0	4.1	4.1	4.0
Hunter satisfaction with deer numbers	3.7	3.7	3.7	3.8	3.7	3.7	3.7	3.8	3.7	3.8	3.7
*Public satisfaction with deer numbers	3.1	3.2	2.9	3.1	3.1	3.0	3.1	3.2	3.1	3.0	3.1
Impact of deer hunting on the local economy	3.4	3.4	3.4	3.2	3.5	3.4	3.3	3.4	3.4	3.5	3.4
Quality of bucks (antler size)	3.5	3.7	3.8	3.6	3.8	3.6	3.6	3.6	3.5	3.6	3.6
Damage to gardens and landscaping	2.4	2.1	2.4	2.5	2.4	2.5	2.3	21.1	2.4	2.4	2.3
The ratio of bucks to does	3.5	3.6	3.6	3.9	3.6	3.6	3.7	3.6	3.5	3.7	3.7

\*this item was accidentally omitted from the online version, results are for mailed responses only  
 responses measured on a unipolar scale, where 1 = not at all important, and 5 = very important

Table 15. Deer hunters' perception of the deer population in the DPA where they hunt, by DPA

DPA	Much too low	Too low	About right	Too high	Much too high
230	5	29	60	4	3
232	7	26	59	7	1
233	5	28	59	8	1
253	3	20	53	15	8
254	4	20	66	8	1
255	6	28	61	5	1
291	3	36	50	8	3
292	7	25	63	4	1
293	4	21	67	7	1
299	5	38	52	4	1
<b>Block Average</b>	<b>5</b>	<b>27</b>	<b>59</b>	<b>7</b>	<b>2</b>

values are the percent of respondents reporting each category



Table 16. Deer hunters' preference for future deer populations, by DPA

DPA	Decrease	Stay the Same	Increase
230	5	43	53
232	5	43	53
233	6	48	46
253	17	45	38
254	4	48	47
255	4	46	50
291	9	32	59
292	2	47	51
293	4	47	49
299	6	40	54
<b>Block Average</b>	<b>7</b>	<b>43</b>	<b>50</b>

values are the percent of respondents reporting each category

Table 17. Deer hunters' mean preferred percent change in the deer population, by DPA

DPA	Mean percent change	Median percent change	Minimum	Maximum
230	18	10	-50	333
232	17	10	-50	200
233	19	0	-60	300
253	8	0	-50	300
254	13	0	-60	100
255	18	0	-50	250
291	16	10	-50	250
292	20	10	-50	400
293	14	0	-38	300
299	21	15	-55	300
<b>Block Average</b>	<b>16</b>	<b>0</b>	<b>-60</b>	<b>400</b>

Table 18. Deer hunters' support for regulations to increase proportion of antlered bucks in the area they hunt, by DPA

DPA	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support
230	6	9	32	23	31
232	7	11	24	24	34
233	9	9	25	22	36
253	5	7	20	29	39
254	9	4	29	32	27
255	9	9	24	31	28
291	4	8	19	34	35
292	11	12	28	22	27
293	8	10	31	28	24
299	3	9	19	26	44
<b>Block Average</b>	<b>7</b>	<b>9</b>	<b>25</b>	<b>27</b>	<b>32</b>

values are the percent of respondents reporting each category

Table 19. Mean number of years that deer hunters have been hunting deer in Minnesota, by DPA

<b>DPA</b>	<b>Mean</b>
230	24
232	26
233	26
253	23
254	27
255	25
291	28
292	25
293	26
299	26
<b>Block Average</b>	<b>26</b>

Table 20. Percent of deer hunters that set out food for deer to consume, by DPA

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	8	92
232	4	96
233	3	97
253	9	91
254	6	94
255	4	96
291	14	86
292	10	90
293	11	89
299	7	93
<b>Block Average</b>	<b>8</b>	<b>92</b>

values are the percent of respondents reporting each category

Table 21. Percent of deer hunters that set out minerals for deer to consume, by DPA

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	31	69
232	25	75
233	21	79
253	28	72
254	20	80
255	11	89
291	41	59
292	43	57
293	32	68
299	34	66
<b>Block Average</b>	<b>29</b>	<b>71</b>

values are the percent of respondents reporting each category

Table 22. Percent of deer hunters that belong to a deer hunting organization, by DPA

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	9	91
232	3	97
233	8	92
253	16	84
254	9	91
255	7	93
291	5	95
292	5	95
293	4	96
299	11	89
<b>Block Average</b>	<b>8</b>	<b>92</b>

values are the percent of respondents reporting each category

*Table 23. Deer hunters' mean level of agreement with statements about the MNDNR, by DPA*

	<b>230</b>	<b>232</b>	<b>233</b>	<b>253</b>	<b>254</b>	<b>255</b>	<b>291</b>	<b>292</b>	<b>293</b>	<b>299</b>	<b>Avg.</b>
The MNDNR does a good job managing deer in MN	3.5	3.3	3.4	3.0	3.5	3.2	3.4	3.5	3.6	3.4	3.4
When deciding about deer management in MN, the MNDNR will be open and honest in the things they say and do	3.5	3.3	3.3	3.4	3.5	3.4	3.5	3.4	3.5	3.5	3.5
The MNDNR can be trusted to make decisions about deer management that are good for the resource	3.5	3.4	3.4	3.2	3.6	3.3	3.5	3.4	3.5	3.5	3.4
The MNDNR will make decisions about deer management in a way that is fair	3.6	3.5	3.4	3.2	3.6	3.3	3.5	3.5	3.6	3.5	3.5
The MNDNR has deer managers and biologists who are well-trained for their jobs	3.7	3.6	3.5	3.5	3.8	3.7	3.7	3.6	3.7	3.7	3.7
The MNDNR listens to the concerns of deer hunters	3.4	3.2	3.2	3.1	3.3	3.3	3.3	3.2	3.4	3.3	3.3

responses measured on a bipolar scale, where 1 = strongly disagree, 3=neither, and 5 = strongly agree



## Landowners

Landowners reported the number of acres that they own or lease within a DPA. On average, Block 11 landowners reported owning 135 acres and leasing 432 (Table 24). Roughly, 68% of landowners reported having agricultural land use on their property. Of these landowners, 30% reported experiencing damage from deer. Too few individuals reported experiencing damage to estimate severity (Table 25). Slightly less than half (46%) of landowners, reported having forest land use on their property. Of these individuals, 9% reported having experienced damage from deer. Too few landowners experienced damage to forest land use to estimate severity (Table 26). Around three-quarters of landowners reported having residential land use on their property, and 23% experienced damage from deer. Landowners experiencing damage from deer to residential land use reported damage that was minor/negligible (48%), moderate (33%), and severe/very severe (20%) (Table 27).

Landowners assessed the damage they have experienced from deer compared to five years ago, and the change they have observed in the deer population on their property. Of landowners that have owned their property for five years or longer, the majority (62%) indicated that the amount of damage they have experienced from deer has remained about the same. The remainder split between experiencing more or less damage from deer over the last five years (Table 28). A plurality of landowners (40%) reported seeing about the same number of deer on their property compared to five years ago, and 37% reported seeing more (Table 29).

A plurality (46%) of landowners were neither satisfied nor dissatisfied with the current deer population on their property, while 27% were dissatisfied and satisfied respectively (Table 30). Hunting landowners reported higher levels of both satisfaction and dissatisfaction than non-hunting landowners, while non-hunters were more likely to report neutrality regarding their satisfaction with the deer population on their land (Table 31). A majority (59%) of landowners indicated that the population of deer on their land was “about right,” compared to too low or too high (Table 32). Non-hunting landowners (63%) were more likely to hold a belief that the current population on their property was “about right” than hunting landowners (54%). Similarly, a higher percentage of hunting landowners (26%) than non-hunting landowners (10%) expressed a belief that the current deer population on their property was too low (Table 33)

When asked what they would like to see happen with future deer populations on their land, a majority (56%) of Block 11 landowners preferred to see it stay the same, compared to 21% that would like to see an increase, and 24% a decrease (Table 34). A higher proportion of non-hunting landowners preferred stability in the deer population (60%) than hunting landowners (50%). Conversely, more hunting landowners indicated a preference for increase (32%) than non-hunting landowners (12%) (Table 35). Landowners mean preferred change in the deer population was -1%, very close to no change (Table 36). Outliers in open-ended responses to the question measuring preferred percent change in the deer population (e.g., +10,000%) were excluded from analysis if they were +/-3 standard deviations from the grand mean for the block, corresponding to a 99.7% confidence interval around the point estimate.

We asked landowners if they were aware that MNDNR offers technical assistance for deer damage issues, if they allow hunting on their property, if they lease any of their property for deer hunting, and if they impose any deer harvest restrictions on their property. Regardless of the number of acres a landowner owned, roughly a quarter were aware of DNR technical assistance (Table 37). The proportion of landowners allowing

hunting on their property increased with the amount of land they owned, where roughly 40% of landowners with 2-19 acres allowed hunting on their property. This is compared to 84% who own 320 acres or more (Table 38). Very few (~2%) of landowners lease their land for deer hunting (Table 39). The majority of landowners (81%) did not impose any restrictions on the deer that hunters could take on their property (Table 40).

We asked landowners several questions about their deer hunting activity. Around a third of Block 11 landowners reported hunting deer in each of 2017, 2018, and 2019 respectively. Roughly, 10% indicated that they hunt deer but did not hunt during one of those three years, and around half indicated that they do not hunt deer at all (Table 41). Among deer hunting landowners, 43% reported doing all of their hunting on private land that they own, while 4%, 17% and 6% of landowners reported doing all of their hunting on land that they lease, private land that they do not own, and public land, respectively (Table 42). Around three-quarters of landowners indicated that they would shoot an antlerless deer given the opportunity (Table 43), and landowners have been hunting deer in Minnesota for an average of 32 years (Table 44).

Landowners rated their agreement with five statements about their trust in the MNDNR on scale from 1 = strongly disagree, to strongly agree, and a mid-point of neither. Landowners, on average, were neutral regarding their trust in the MNDNR. Mean values ranged from 3.4 to 3.7 for trust items (Table 45).

Respondents were asked to rate the importance of several priorities MNDNR could consider when setting deer population goals. Responses were recorded on a scale where 1 = not at all important, and 5 = very important. Among the items evaluated, landowners placed the highest importance on deer herd health, public health, and deer-vehicle collisions as issues to consider when setting deer population goals (Table 46).

We asked landowners if they place food or minerals out for deer to consume. A small number of landowners (8%) reported feeding deer (Table 47). However, a larger proportion (16%) of landowner indicated that they place minerals out for deer to consume (Table 48).

Table 24. Mean acres owned and leased by landowners, by DPA

DPA	Acres Owned			Acres Leased		
	Mean	Min	Max	Mean	Min	Max
230	148	2	1480	531	10	3100
232	113	3	1750	443	3	1650
233	131	2	3500	507	2	3780
253	145	2	6000	414	3	2900
254	179	2	2500	515	2	3000
255	133	2	2000	363	3	1500
291	144	2	4000	519	5	7600
292	99	2	1200	230	1	750
293	126	2	4200	303	3	1700
299	141	2	2200	517	6	2100
<b>Block Average</b>	<b>135</b>	<b>2</b>	<b>6000</b>	<b>432</b>	<b>1</b>	<b>7600</b>

Table 25. Percent of landowners with agriculture on their land, percent experiencing damage from deer, and severity of damage, by DPA

Agriculture	Own or lease		Experience damage		Severity of Damage*		
	Yes	No	Yes	No	Minor/ Negligible	Moderate	Severe/ Very Severe
230	71	29	33	67			
232	68	32	28	72			
233	67	33	32	68			
253	76	24	36	64			
254	75	25	33	67			
255	67	33	33	67			
291	69	32	27	73			
292	64	36	19	81			
293	62	38	28	72			
299	62	38	28	72			
<b>Block Average</b>	<b>68</b>	<b>32</b>	<b>30</b>	<b>70</b>			

values are the percent of respondents reporting each category

\*too few respondents reported experiencing damage, and prevented analysis of this question

Table 26. Percent of landowners with forest on their land, percent experiencing damage from deer, and severity of damage, by DPA

Forest DPA	Own or lease		Experience damage		Severity of Damage*		
	Yes	No	Yes	No	Minor/ Negligible	Moderate	Severe/Very Severe
230	48	52	12	88			
232	40	60	4	96			
233	45	55	2	98			
253	39	61	8	92			
254	35	62	4	96			
255	37	63	17	83			
291	50	50	12	88			
292	47	53	12	88			
293	58	42	9	91			
299	53	47	8	92			
<b>Block Average</b>	<b>46</b>	<b>54</b>	<b>9</b>	<b>91</b>			

values are the percent of respondents reporting each category

\*too few respondents reported experiencing damage, and prevented analysis of this question

Table 27. Percent of landowners with residential land use on their land, percent experiencing damage from deer, and severity of damage, by DPA

Residential DPA	Own or lease		Experience damage		Severity of Damage		
	Yes	No	Yes	No	Minor/ Negligible	Moderate	Severe/Very Severe
230	69	31	23	77	70	15	15
232	84	16	21	79	73	11	16
233	78	22	16	84	36	48	16
253	76	24	32	68	42	36	22
254	74	26	21	79	52	30	19
255	76	24	30	70	34	36	29
291	83	17	28	72	47	33	21
292	78	22	18	82	61	36	3
293	78	22	19	81	44	35	21
299	81	19	25	75	31	43	26
<b>Block Average</b>	<b>78</b>	<b>22</b>	<b>23</b>	<b>77</b>	<b>48</b>	<b>33</b>	<b>20</b>

values are the percent of respondents reporting each category

Table 28. Landowners' perceived trend in damage from deer over 5 years, by DPA

DPA	Much less damage	Slightly less damage	About the same damage	Slightly more damage	Much more damage
230	16	4	68	8	5
232	21	11	57	8	3
233	20	6	57	15	2
253	8	4	61	20	8
254	19	6	55	14	6
255	11	8	59	12	10
291	13	8	62	13	4
292	14	6	72	7	0
293	13	4	67	12	4
299	14	10	61	8	7
<b>Block Average</b>	<b>15</b>	<b>7</b>	<b>62</b>	<b>12</b>	<b>5</b>

values are the percent of respondents reporting each category

Table 29. Landowners' perceived trend in the deer population over the last 5 years, by DPA

DPA	Many fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Many more deer
230	10	17	33	24	16
232	12	17	35	28	9
233	7	12	39	31	10
253	4	8	36	22	29
254	6	16	46	21	11
255	7	17	36	25	15
291	11	14	44	21	10
292	13	12	44	22	8
293	6	8	44	28	14
299	10	14	42	21	13
<b>Block Average</b>	<b>9</b>	<b>14</b>	<b>40</b>	<b>24</b>	<b>13</b>

values are the percent of respondents reporting each category



Table 30. Landowners' satisfaction with the current deer population in the area of their property, by DPA

DPA	Very dissatisfied	Slightly dissatisfied	Neutral	Slightly satisfied	Very satisfied
230	12	21	38	9	21
232	10	19	50	7	15
233	12	12	43	14	18
253	14	19	47	11	9
254	9	18	48	9	16
255	14	12	46	11	17
291	9	14	51	14	13
292	14	14	44	12	16
293	8	15	45	13	19
299	11	20	42	9	16
<b>Block Average</b>	<b>11</b>	<b>16</b>	<b>46</b>	<b>11</b>	<b>16</b>

values are the percent of respondents reporting each category

Table 31. Landowners' satisfaction with the deer population on their land, by DPA and hunting status

DPA	Non-hunting Landowners			Hunting Landowners		
	Dissatisfied	Neutral	Satisfied	Dissatisfied	Neutral	Satisfied
230	29	45	27	38	30	32
232	20	58	22	36	42	22
233	26	42	31	22	44	34
253	32	57	10	35	33	32
254	31	52	18	22	36	42
255	26	50	25	28	37	35
291	13	66	21	31	39	30
292	23	49	28	32	38	30
293	23	47	30	21	43	36
299	29	46	25	33	41	27
<b>Block Average</b>	<b>25</b>	<b>51</b>	<b>24</b>	<b>30</b>	<b>39</b>	<b>31</b>

values are the percent of respondents reporting each category

Table 32. Landowners' perception of the deer population on their land, by DPA

DPA	Much too low	Too low	About right	Too high	Much too high
230	9	12	58	18	3
232	4	22	54	20	0
233	4	7	69	15	5
253	1	7	53	24	14
254	3	14	58	20	6
255	2	12	54	22	7
291	4	11	61	20	4
292	7	17	63	10	3
293	3	9	54	26	5
299	4	17	55	16	8
<b>Block Average</b>	<b>4</b>	<b>13</b>	<b>59</b>	<b>19</b>	<b>6</b>

values are the percent of respondents reporting each category

Table 33. Landowners' perception of the deer population on their land, by DPA and hunting status

DPA	Non-hunting Landowners			Hunting Landowners		
	Too low/much too low	About right	Too high/much too high	Too low/much too low	About right	Too high/much too high
230	15	60	25	28	55	17
232	10	65	25	41	45	15
233	6	68	26	18	70	12
253	7	58	35	10	47	43
254	10	59	31	28	60	12
255	8	62	30	26	48	26
291	8	69	23	21	54	25
292	11	74	15	36	52	12
293	11	51	38	12	64	23
299	13	60	27	31	50	20
<b>Block Average</b>	<b>10</b>	<b>63</b>	<b>28</b>	<b>26</b>	<b>54</b>	<b>20</b>

values are the percent of respondents reporting each category

Table 34. Landowners' preference for future deer populations, by DPA

DPA	Decrease	Stay the Same	Increase
230	20	55	26
232	20	55	25
233	23	60	16
253	39	48	13
254	23	59	18
255	28	56	16
291	20	59	21
292	13	57	30
293	28	56	16
299	24	51	25
<b>Block Average</b>	<b>24</b>	<b>56</b>	<b>21</b>

values are the percent of respondents reporting each category

Table 35. Landowners' preference for future deer populations, by DPA and hunting status

DPA	Non-hunting Landowners			Hunting Landowners		
	Decrease	Stay the same	Increase	Decrease	Stay the same	Increase
230	27	61	12	14	48	38
232	25	63	12	15	48	37
233	28	61	11	16	59	25
253	38	54	8	40	39	21
254	29	61	10	11	58	31
255	30	63	7	23	42	35
291	22	64	14	18	53	28
292	16	68	16	11	47	42
293	36	52	13	20	59	20
299	30	54	16	17	48	35
<b>Block Average</b>	<b>28</b>	<b>60</b>	<b>12</b>	<b>18</b>	<b>50</b>	<b>32</b>

values are the percent of respondents reporting each category

Table 36. Landowners' mean preferred percent change in the deer population, by DPA

DPA	Mean percent change	Median percent change	Minimum	Maximum
230	2	0	-75	100
232	5	0	-90	100
233	-2	0	-95	100
253	-10	0	-100	100
254	-2	0	-90	50
255	-5	0	-100	100
291	2	0	-100	100
292	5	0	-75	100
293	-4	0	-75	75
299	1	0	-75	100
<b>Block Average</b>	<b>-1</b>	<b>0</b>	<b>-100</b>	<b>100</b>

Table 37. Percent of landowners aware that MNDNR offers technical and financial assistance for deer depredation problems, by DPA, and acres owned

DPA	2-19 acres	20-79 acres	80-319 acres	320+ acres	Average
230	32	39	16	11	27
232	22	20	26	10	22
233	20	25	19	36	22
253	22	15	10	12	17
254	22	24	20	20	22
255	16	36	20	24	21
291	13	29	31	24	21
292	23	37	29	31	28
293	22	22	19	20	21
299	14	24	33	31	20
<b>Block Average</b>	<b>20</b>	<b>27</b>	<b>23</b>	<b>21</b>	<b>22</b>

values are the percent of respondents reporting each category



Table 38. Percent of landowners that allow hunting on their property, by DPA, and acres owned

DPA	2-19 acres	20-79 acres	80-319 acres	320+ acres	Average
230	39	56	74	87	56
232	38	79	68	70	55
233	27	64	81	76	49
253	40	55	61	93	53
254	43	60	73	83	59
255	42	65	69	82	55
291	35	60	74	86	53
292	24	63	86	89	52
293	54	55	81	81	62
299	53	45	78	80	60
<b>Block Average</b>	<b>40</b>	<b>62</b>	<b>75</b>	<b>84</b>	<b>55</b>

values are the percent of respondents reporting each category

*Table 39. Percent of landowners that leased their property for deer hunting, by DPA.*

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	2	98
232	0	100
233	3	97
253	2	98
254	0	100
255	0	100
291	6	94
292	1	99
293	1	99
299	2	98
<b>Block Average</b>	<b>2</b>	<b>98</b>

values are the percent of respondents reporting each category

Table 40. Percent of landowners imposing different harvest restrictions on their property, by DPA

DPA	Antlerless harvest is restricted, but hunters can take any legal buck	Buck harvest is restricted to large antlered bucks, but hunters can take any antlerless deer	Buck harvest is restricted to large antlered bucks, and antlerless harvest is also restricted	No restrictions on the type of deer that can be harvested	Other
230	2	6	9	76	8
232	5	7	5	79	5
233	1	8	6	81	5
253	5	6	3	82	4
254	0	3	0	89	8
255	1	3	2	85	9
291	3	7	6	78	7
292	2	7	3	83	5
293	2	10	1	82	5
299	4	6	9	75	6
<b>Block Average</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>81</b>	<b>6</b>

values are the percent of respondents reporting each category

Table 41. Percent of landowners reporting hunting deer during the last three years, and those that do not hunt, by DPA

DPA	2017	2018	2019	Did not hunt these years	Do not hunt
230	37	37	34	11	48
232	36	35	34	18	45
233	28	26	23	10	58
253	31	29	30	8	57
254	22	21	22	9	63
255	24	22	21	10	64
291	39	38	38	10	47
292	42	42	39	10	45
293	35	36	35	8	52
299	37	36	31	10	50
<b>Block Average</b>	<b>33</b>	<b>32</b>	<b>31</b>	<b>10</b>	<b>53</b>

values are the percent of respondents reporting each category

Table 42. Landowners' time spent hunting on different land ownership types, by DPA

	Response	230	232	233	253	254	255	291	292	293	299	Avg.
Private land that I own	None	28	28	31	26	29	33	26	34	17	17	26
	Some	10	21	15	19	21	18	13	13	12	17	16
	Most	13	16	20	22	13	14	13	13	14	28	16
	All	49	35	34	33	37	35	50	50	57	39	43
Private land that I lease for hunting	None	97	92	88	90	92	98	79	89	84	86	89
	Some	0	5	2	9	5	1	11	6	2	10	5
	Most	3	0	4	1	2	0	5	0	0	4	2
	All	0	3	6	0	0	2	5	5	14	0	4
Private land that I do not own or lease	None	35	47	50	38	35	42	51	43	53	40	44
	Some	21	20	31	20	32	31	20	17	16	28	23
	Most	23	27	8	28	12	11	8	14	15	16	16
	All	22	6	10	13	21	16	22	26	16	16	17
Public land	None	59	54	77	68	68	58	73	54	81	62	65
	Some	35	24	8	24	14	25	13	27	13	29	21
	Most	2	16	6	0	11	15	9	11	2	5	8
	All	5	6	9	8	7	1	4	7	4	4	6

values are the percent of respondents reporting each category

Table 43. Percent of hunting landowners that would shoot an antlerless deer, by DPA

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	68	32
232	75	25
233	75	25
253	81	19
254	76	24
255	76	24
291	69	31
292	72	28
293	76	24
299	74	26
<b>Block Average</b>	<b>74</b>	<b>26</b>

values are the percent of respondents reporting each category

Table 44. Mean number of years that hunting landowners have been hunting deer in Minnesota, by DPA

DPA	Mean
230	36
232	30
233	32
253	33
254	30
255	26
291	33
292	33
293	30
299	34
<b>Block Average</b>	<b>32</b>

Table 45. Landowners' mean level of agreement with statements about the MNDNR, by DPA

	230	232	233	253	254	255	291	292	293	299	Avg.
The MNDNR does a good job managing deer in MN	3.3	3.4	3.4	3.3	3.6	3.3	3.3	3.4	3.5	3.4	3.4
When deciding about deer management in MN, the MNDNR will be open and honest in the things they say and do	3.5	3.6	3.5	3.6	3.6	3.6	3.6	3.5	3.6	3.6	3.6
The MNDNR can be trusted to make decisions about deer management that are good for the resource	3.4	3.6	3.5	3.5	3.6	3.5	3.5	3.5	3.7	3.5	3.5
The MNDNR will make decisions about deer management in a way that is fair	3.5	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.7	3.7	3.6
The MNDNR has deer managers and biologists who are well-trained for their jobs	3.6	3.7	3.6	3.7	3.8	3.6	3.7	3.5	3.8	3.7	3.7
The MNDNR listens to the concerns of landowners	3.3	3.4	3.3	3.5	3.4	3.4	3.3	3.3	3.5	3.5	3.4

responses measured on a bipolar scale, where 1 = strongly disagree, 3=neither, and 5 = strongly agree



Table 46. Landowners' mean stated importance for factors to consider in making deer population goals, by DPA

	230	232	233	253	254	255	291	292	293	299	Avg.
Amount of deer mortality during an average winter	3.4	3.4	3.2	3.2	3.2	3.3	3.5	3.5	3.6	3.4	3.4
Amount of deer mortality during a severe winter	3.6	3.6	3.5	3.5	3.5	3.5	4.0	3.7	3.7	3.8	3.7
Potential health risks to the deer herd	3.8	3.9	3.7	3.7	3.7	3.7	4.0	3.9	4.0	3.9	3.9
Public health (human-deer diseases)	3.8	3.8	3.9	3.8	3.9	3.8	3.9	3.9	3.9	3.9	3.8
Amount of crop damage from deer	3.3	3.4	3.4	3.5	3.3	3.5	3.3	3.3	3.4	3.3	3.3
Number of deer vehicle collisions	3.7	3.8	3.9	3.9	3.8	3.9	3.9	3.8	3.9	3.8	3.8
Deer over-browsing of forests	3.0	3.1	3.4	3.2	3.3	3.4	3.2	3.1	3.4	3.3	3.2
Impacts of deer on other wildlife species	3.0	3.0	3.2	3.1	3.1	3.1	3.1	3.1	3.2	3.1	3.1
Deer hunting heritage and tradition	3.3	3.5	3.3	3.3	3.2	3.4	3.5	3.5	3.4	3.4	3.4
Hunter satisfaction with deer numbers	3.2	3.3	3.2	3.1	2.9	3.0	3.2	3.3	3.2	3.1	3.2
Public satisfaction with deer numbers	3.0	3.1	3.1	3.0	3.0	3.1	3.1	3.1	3.1	3.0	3.1
Impact of deer hunting on the local economy	3.1	3.3	3.1	2.9	3.0	3.0	3.1	3.3	3.2	3.0	3.1
Quality of bucks (antler size)	3.0	3.0	2.9	2.8	2.9	3.0	2.9	3.0	2.9	3.0	2.9
Damage to gardens and landscaping	2.9	3.1	3.1	3.5	3.1	3.3	3.0	3.0	3.0	3.2	3.1
The ratio of bucks to does	3.1	3.2	3.1	3.2	3.2	3.1	3.3	3.3	3.3	3.4	3.2

responses measured on a unipolar scale, where 1 = not at all important, and 5 = very important

Table 47. Percent of landowners that set out food for deer to consume, by DPA

DPA	Yes	No
230	5	95
232	8	92
233	6	94
253	8	92
254	2	98
255	1	99
291	15	85
292	13	57
293	8	92
299	13	87
<b>Block Average</b>	<b>8</b>	<b>92</b>

values are the percent of respondents reporting each category

Table 48. Percent of landowners that set out minerals for deer to consume, by DPA

<b>DPA</b>	<b>Yes</b>	<b>No</b>
230	21	79
232	12	88
233	10	90
253	17	83
254	10	90
255	4	96
291	21	79
292	24	76
293	19	81
299	23	77
<b>Block Average</b>	<b>16</b>	<b>84</b>

values are the percent of respondents reporting each category

## APPENDIX A. Hunter Questionnaire

**Q1.** For each of the last three years, please check the years that you hunted deer in Minnesota, or if you did not hunt deer during these years. *(Check all that apply).*

\_\_\_\_\_ **2017**    \_\_\_\_\_ **2018**    \_\_\_\_\_ **2019**    \_\_\_\_\_ I hunt deer, but didn't hunt these years *(Please skip to Q9).*

**Q2.** Which of the following seasons did you hunt in Minnesota in 2019? *(Check all that apply).*

\_\_\_\_\_ **Archery**            \_\_\_\_\_ **Firearm**            \_\_\_\_\_ **Muzzleloader**

**Q3.** How much of your deer hunting did you do on each of the following types of land during your most recent deer hunting season? *(Circle one number for each).*

	None	Some	Most	All
Private land that I own	1	2	3	4
Private land that I lease for hunting	1	2	3	4
Private land that I do not own or lease	1	2	3	4
Public land	1	2	3	4

**Q4.** Were there any deer harvest restrictions, other than state regulations, on the property you hunted during your most recent deer hunting season? *(Check only one)*

- Antlerless harvest is restricted, but hunters can take any legal buck
- Buck harvest is restricted to large antlered bucks, but hunters can take any antlerless deer
- Buck harvest is restricted to large antlered bucks, and antlerless harvest is also restricted
- No restrictions on the type of deer that can be harvested
- Other (please explain): \_\_\_\_\_

**Q5.** Overall, how satisfied were you with your most recent deer hunting season? *(Circle one number).*

Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
1	2	3	4	5

**Q6.** How much do you agree or disagree with the following statements about your most recent deer hunting season? *(Circle one number for each).*

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
I was satisfied with the number of legal bucks I saw	1	2	3	4	5
I was satisfied with the quality of bucks I saw	1	2	3	4	5
I heard about or saw legal bucks while hunting	1	2	3	4	5
I was satisfied with the number of antlerless deer I saw	1	2	3	4	5
I was satisfied with the number of deer I saw while hunting	1	2	3	4	5

**Q7.** Compared to 5 years ago, what trend have you seen in the deer population in the permit area where you hunt most often? (Circle one number). *If you weren't hunting this area 5 years ago, please skip to Q8.*

Many fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Many more deer
1	2	3	4	5

**Q8.** Overall, how satisfied are you with the current deer population in the permit area where you hunt most often? (Circle one number).

Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
1	2	3	4	5

**Q9.** Will you shoot an antlerless deer given the opportunity?

Yes     No

**Q10.** Please rate the importance of the following factors used in making deer population goals. (Circle one number for each).

	Not at all important	A little important	Moderately important	Important	Very important
Amount of deer mortality during an <b>average</b> winter	1	2	3	4	5
Amount of deer mortality during a <b>severe</b> winter	1	2	3	4	5
Potential health risks to the deer herd	1	2	3	4	5
Public health (human-deer diseases)	1	2	3	4	5
Amount of crop damage from deer	1	2	3	4	5
Number of deer-vehicle collisions	1	2	3	4	5
Deer-over browsing of forests	1	2	3	4	5
Impacts of deer on other wildlife species	1	2	3	4	5
Deer hunting heritage and tradition	1	2	3	4	5
Hunter satisfaction with deer numbers	1	2	3	4	5
Public satisfaction with deer numbers	1	2	3	4	5
Impact of deer hunting on the local economy	1	2	3	4	5
Quality of bucks (e.g., Antler size)	1	2	3	4	5
Damage to gardens and landscaping	1	2	3	4	5
The ratio of bucks to does	1	2	3	4	5
Other (please specify):	1	2	3	4	5

**Q11.** Do you think the deer population where you hunt most often is: (Circle one number)

Much too low	Too low	About right	Too high	Much too high
1	2	3	4	5

**Q12.** What would you like to happen to deer population levels in the area where you hunt most often in the next 5 years? (*Check one*).

**Decrease**     **Stay the same**     **Increase**

**Q12a.** If you would like the deer population in the area you hunt most often to increase or decrease, what percent would you like it to change? (e.g., 25%) →

**Increase or Decrease by \_\_\_\_\_ %**

**Q13.** How much would you support or oppose a regulation that would increase the proportion of antlered bucks in the deer permit area where you hunt most often? (*Circle one number*)

<b>Strongly oppose</b>	<b>Slightly oppose</b>	<b>Neither</b>	<b>Slightly support</b>	<b>Strongly support</b>
1	2	3	4	5

**Q14.** Including 2019, how many years have you been hunting deer in Minnesota? \_\_\_\_\_ **Years**

**Q15.** Do you deliberately set out food for wild deer to consume (e.g., deer feeder)? ***Do not report food plots.***

**Yes**     **No**

**Q16.** Do you deliberately set out minerals for wild deer to consume (e.g., salt blocks)?

**Yes**     **No**

**Q17.** Are you a member of a deer hunting organization (e.g., Minnesota Deer Hunters Association)?

**Yes**     **No**

**Q18.** How much do you agree or disagree with the following statements about the Minnesota Department of Natural Resources (MNDNR)? (*Circle one number for each*).

	<b>Strongly disagree</b>	<b>Slightly disagree</b>	<b>Neither</b>	<b>Slightly agree</b>	<b>Strongly agree</b>
The MNDNR does a good job of managing deer in Minnesota	1	2	3	4	5
When deciding about deer management in MN, the MNDNR will be open and honest in the things they say and do	1	2	3	4	5
The MNDNR can be trusted to make decisions about deer management that are good for the resource	1	2	3	4	5
The MNDNR will make decisions about deer management in a way that is fair	1	2	3	4	5
The MNDNR has deer managers and biologists who are well-trained for their jobs	1	2	3	4	5
The MNDNR listens to the concerns of deer hunters	1	2	3	4	5

## APPENDIX B. Landowner Questionnaire

**Q1.** How many total acres did you own and/or lease at the end of 2019?

\_\_\_\_\_ **Acres owned**      \_\_\_\_\_ **Acres leased**

**Q2.** Did you own or lease any land that was in the following land uses in 2019, and did deer cause any damage to those land uses in 2019? (*Check all that apply*).

Land use	Owned or leased		Experienced damage	
	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Agriculture</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Forest</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>Residential</b>	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

← **If you did not own or lease any of the following in 2019 please skip to Q6.**

**Q3.** How would you describe the total amount of damage from deer that you experienced in 2019? (*Circle one*).

Negligible	Minor	Moderate	Severe	Very Severe
1	2	3	4	5

**Q4.** How would you compare the total amount of damage from deer you experienced in 2019 to what you experienced 5 years ago? (*Circle one*). **If you did not own or lease land 5 years ago, please skip to Q6.**

Much less damage	Slightly less damage	About the same damage	Slightly more damage	Much more damage
1	2	3	4	5

**Q5.** Over the past 5 years, what trend have you seen in the deer population in the area of your property? (*Circle one*).

Many fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Many more deer
1	2	3	4	5

**Q6.** How satisfied are you with the current deer population in the area of your property? (*Circle one*).

Very dissatisfied	Slightly dissatisfied	Neutral	Slightly satisfied	Very satisfied
1	2	3	4	5

**Q7.** Do you think the deer population where you own land is: (*Circle one*)

Much too low	Too low	About right	Too high	Much too high
1	2	3	4	5

**Q8.** What would you like to happen to deer population levels in the area of your property in the next 5 years? (*Check one*).

\_\_\_\_\_ **Decrease**      \_\_\_\_\_ **Stay the same**      \_\_\_\_\_ **Increase**

**Q8a.** If you would like the deer population in the area of your property to increase or decrease, what percent would you like it to change? (e.g., 25%) →

**Increase or Decrease by \_\_\_\_\_ %**

**Q9.** Are you aware that MNDNR offers technical and financial assistance to landowners for deer depredation problems?

\_\_\_\_\_ **Yes**      \_\_\_\_\_ **No**

**Q10.** Did you allow hunting on your property during the 2019 deer seasons?

\_\_\_\_\_ **Yes**      \_\_\_\_\_ **No (Please skip to Q13).**

**Q11.** Do you lease any of your property for deer hunting?

\_\_\_\_\_ **Yes**      \_\_\_\_\_ **No**

**Q12.** Did you personally impose any deer harvest restrictions, other than state regulations on your property in 2019? *(Check one).*

- Antlerless harvest is restricted, but hunters can take any legal buck
- Buck harvest is restricted to large antlered bucks, but hunters can take any antlerless deer
- Buck harvest is restricted to large antlered bucks, and antlerless harvest is also restricted
- No restrictions on the type of deer that can be harvested
- Other (please explain): \_\_\_\_\_

**Q13.** For each of the last three years, please check the years that you hunted deer in Minnesota, or indicate if you are not a deer hunter. *(Check all that apply).*

\_\_\_\_\_ **2017**      \_\_\_\_\_ **2018**      \_\_\_\_\_ **2019**      \_\_\_\_\_ I hunt deer, but didn't hunt these years **(Please skip to Q15).**

\_\_\_\_\_ I do not hunt deer at all **(Please skip to Q17).**

**Q14.** How much of your deer hunting did you do on each of the following types of land during your most recent deer hunting season? *(Circle one for each).*

	<b>None</b>	<b>Some</b>	<b>Most</b>	<b>All</b>
Private land that I own	1	2	3	4
Private land that I lease for hunting	1	2	3	4
Private land that I do not own or lease	1	2	3	4
Public land	1	2	3	4

**Q15.** Will you shoot an antlerless deer given the opportunity?      \_\_\_\_\_ **Yes**      \_\_\_\_\_ **No**

**Q16.** Including 2019, how many years have you been hunting deer in Minnesota? \_\_\_\_\_ **Years**



**Q17.** How much do you agree or disagree with the following statements about the Minnesota Department of Natural Resources (MNDNR)? (*Circle one for each*).

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
The MNDNR does a good job of managing deer in Minnesota	1	2	3	4	5
When deciding about deer management in MN, the MNDNR will be open and honest in the things they say and do	1	2	3	4	5
The MNDNR can be trusted to make decisions about deer management that are good for the resource	1	2	3	4	5
The MNDNR will make decisions about deer management in a way that is fair	1	2	3	4	5
The MNDNR has deer managers and biologists who are well-trained for their jobs	1	2	3	4	5
The MNDNR listens to the concerns of landowners	1	2	3	4	5

**Q18.** Please rate the importance of the following factors used in making deer population goals. (*Circle one number for each*).

	Not at all important	A little important	Moderately important	Important	Very important
Amount of deer mortality during an <b>average</b> winter	1	2	3	4	5
Amount of deer mortality during a <b>severe</b> winter	1	2	3	4	5
Potential health risks to the deer herd	1	2	3	4	5
Public health (human-deer diseases)	1	2	3	4	5
Amount of crop damage from deer	1	2	3	4	5
Number of deer-vehicle collisions	1	2	3	4	5
Deer over-browsing of forests	1	2	3	4	5
Impacts of deer on other wildlife species	1	2	3	4	5
Deer hunting heritage and tradition	1	2	3	4	5
Hunter satisfaction with deer numbers	1	2	3	4	5
Public satisfaction with deer numbers	1	2	3	4	5
Impact of deer hunting on the local economy	1	2	3	4	5
Quality of bucks (e.g., Antler size)	1	2	3	4	5
Damage to gardens and landscaping	1	2	3	4	5
The ratio of bucks to does	1	2	3	4	5
Other (please specify):	1	2	3	4	5

**Q19.** Do you deliberately set out food for wild deer to consume (e.g., deer feeder)? ***Do not report food plots.***

\_\_\_\_\_ **Yes**      \_\_\_\_\_ **No**

**Q20.** Do you deliberately set out minerals for wild deer to consume (e.g., salt blocks)?

\_\_\_\_\_ **Yes**      \_\_\_\_\_ **No**