

Responsive Management™



OPINIONS ON QUALITY DEER MANAGEMENT IN WESTERN MARYLAND

Conducted for the Maryland Department of Natural Resources

by Responsive Management

2013

OPINIONS ON QUALITY DEER MANAGEMENT IN WESTERN MARYLAND

2013

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EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Maryland Department of Natural Resources (DNR) to determine hunters' and landowners' opinions on quality deer management in western Maryland. The study entailed a telephone survey of three groups: deer hunters who live in western Maryland (either Allegany or Garrett Counties—in the report and on the graphs, they are referred to as “residents” but understood to be “deer hunters who are residents”), deer hunters who live outside of western Maryland, and landowners in western Maryland who own at least 20 acres (again, either Allegany or Garrett Counties—keep in mind that any references to “landowners” in the report does not mean all landowners, but those who own at least 20 acres). For this survey, western Maryland is defined as all of Allegany and Garrett Counties and the western portion of Washington County west of Clear Spring; this area is also known as Deer Management Region A.

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among the three groups (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

The telephone survey questionnaire was developed cooperatively by Responsive Management and the DNR. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

The sample of deer hunters who live in western Maryland was obtained from the DNR through license records; the survey included a screener to ensure that the hunters had hunted deer. The sample of deer hunters from outside of western Maryland was also obtained from the DNR through license records in combination with harvest records. These hunters were required to have hunted deer in western Maryland to participate in the survey, and a screener ensured that

they had. The sample was targeted to western Maryland by using records of those who had harvested a deer in western Maryland. Keep in mind that this sample consists almost entirely of those who had harvested a deer in western Maryland.

The sample of landowners in western Maryland was obtained from the Garrett County Assessment Office and from SpecPrint, Inc., a firm that specializes in providing scientifically valid samples for surveys. The Spec Print sample was also based on county real estate assessment records. This landowner sample was limited to only those landowners who owned at least 20 acres in a tract, and a screener ensured that they met this size requirement. The landowners were not required to live on the tract in western Maryland.

A central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of outdoor recreation and natural resources.

Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in October and November 2013. The software used for data collection was Questionnaire Programming Language.

Responsive Management obtained a total of 680 completed interviews. This included 472 completed interviews with deer hunters: 153 with deer hunters who live in Allegany County, 162 with deer hunters who live in Garrett County, and 157 with deer hunters who live outside of western Maryland. This total also included 208 landowners: 104 with landowners who own land in Allegany County, and 104 with landowners who own land in Garrett County. The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

OPINIONS ON CURRENT DEER MANAGEMENT

- In their opinions on whether there should be more deer or fewer deer in western Maryland, hunters and landowners are at odds. A majority of deer hunters who live in western Maryland want more deer (62% from Allegany County and 54% from Garrett County). The “about the same” response is in the middle of popularity ahead of the percent of hunters wanting fewer deer. Meanwhile, landowners are about evenly split in thirds: from 28% to 32% want more, from 31% to 35% want the same, and from 23% to 28% want fewer deer. In short, hunters are much more likely to want more deer than are landowners.

CURRENT STRATEGIES FOLLOWED WHEN HUNTING

- The survey asked about how frequently hunters focus on harvesting does rather than yearling bucks in western Maryland. Among the hunter samples, the majority of hunters who hunt deer in western Maryland practice the approach *often* or *sometimes*: 53% of Allegany County residents, 68% of Garrett County residents, and 59% of those from outside western Maryland.
 - Those landowners who hunt deer (about half of them do) were also asked this question. Nearly half of landowners who deer hunt (46% for both counties) practice the approach *often* or *sometimes*.

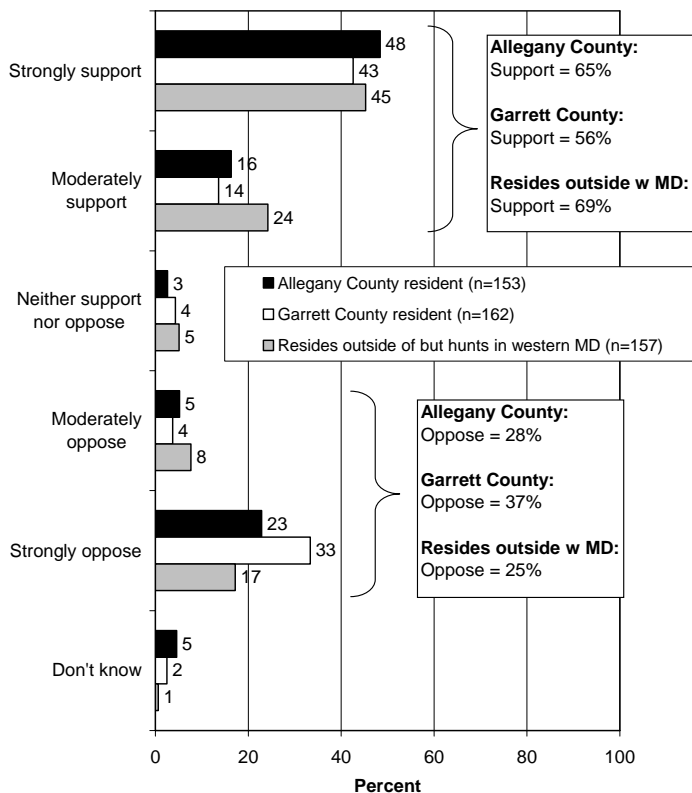
KNOWLEDGE OF QUALITY DEER MANAGEMENT STRATEGIES

- A majority of all hunter groups say that they know *a great deal* or *a moderate amount* about quality deer management (61% of Allegany County residents, 64% of Garrett County residents, and 76% of those deer hunters from outside western Maryland) and about antler restrictions on deer hunting (71% of Allegany County residents, 67% of Garrett County residents, and 81% of those from outside western Maryland).
- Self-professed knowledge levels of landowners are a little below that of hunters on these questions. Specifically, 47% of Allegany County landowners and 41% of Garrett County landowners know *a great deal* or *a moderate amount* about quality deer management. Also, 50% of Allegany County landowners and 43% of Garrett County landowners know *a great deal* or *a moderate amount* about antler restrictions.

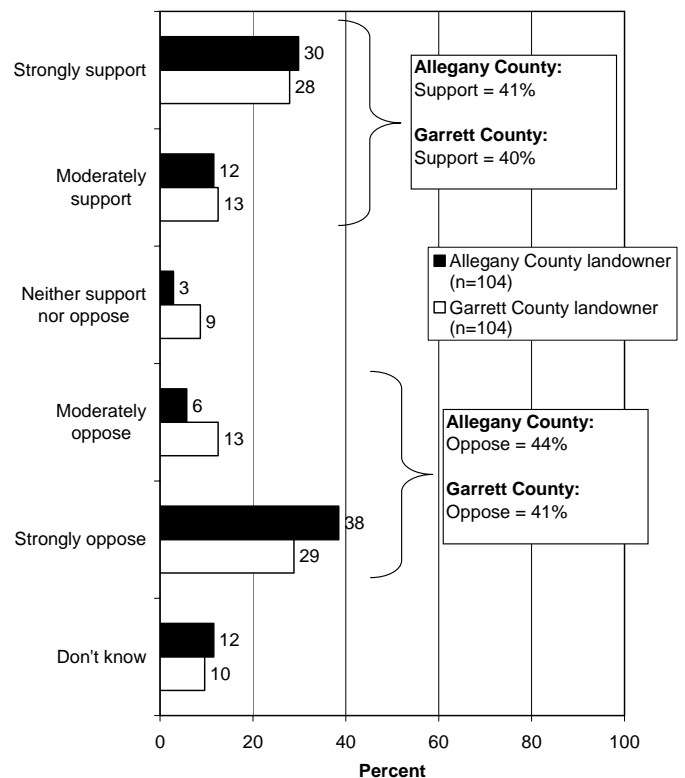
OPINIONS ON ANTLER RESTRICTIONS IN GENERAL

- The survey asked about support or opposition to having the DNR establish mandatory antler restriction regulations on all lands in western Maryland. The question was asked after some information about quality deer management was provided to respondents. (The information that was provided is presented in the main report in the section “Opinions on Antler Restrictions and Bag Limits.” The same question was also asked before any information was provided, which showed that the information had minimal effect on hunters’ opinions.)
 - After the information was provided, support among deer hunters was at 65% among Allegany County residents, 56% among Garrett County residents, and 69% among those from outside western Maryland who hunt deer.
 - Landowners were also given the information and asked the question. After the information was provided, 41% of Allegany County landowners and 40% of Garrett County landowners support.

Q63. After hearing that information, would you support or oppose the DNR establishing mandatory antler restriction regulations on all lands in western Maryland? (Deer Hunters)



Q63. After hearing that information, would you support or oppose DNR establishing mandatory antler restriction regulations on all lands in western Maryland? (Landowners)



- Those in support were asked for their reasons for supporting having the DNR establish mandatory antler restriction regulations on all lands in western Maryland; those who opposed were asked for their reasons for opposing.
 - Top reasons to support among hunters include that doing so would improve the quality of bucks and/or that the deer population is currently too low.
 - Among landowners, the top reasons for supporting are to improve the quality/size of bucks (note that many landowners hunt deer) and/or that the harvest of young bucks is too high.
 - Top reasons for opposing among hunters include a general dislike of government regulations and/or that the respondent thinks there will be problems enforcing the regulations.
 - Among landowners, the top reason by far to oppose is that they are against government regulations on their land in general.

CONDITIONAL OPINION ON ANTLER RESTRICTIONS

- The survey asked about support for or opposition to antler restrictions on *private* lands and *public* lands. Regarding private lands, hunters (who mostly support) and landowners (who mostly oppose) have quite different opinions. However, they are in agreement about antler restrictions on public lands, where hunters and landowners have more support than opposition.
 - Among the hunter groups, support ranges from 52% to 63% for establishing mandatory antler restrictions on all *private* lands in western Maryland. Nonetheless, opposition is substantial (from 30% to 38%).
 - Among landowners, there is more opposition than support to establishing mandatory antler restrictions on all *private* lands in western Maryland (the opposite of hunters' opinions). Landowners' support ranges from 35% to 36%, while opposition ranges from 53% to 54%.
 - Support is even greater among hunters for antler restrictions on *public* lands in western Maryland: from 60% to 73% support. Opposition ranges from a about a quarter to a third (22% to 31%).

- Among landowners, there is more support than opposition to antler restrictions on *public* lands: 48% to 50% of landowners support, compared to opposition at 33% to 36%.
- Two questions started with the supposition that there would be antler restrictions. The questions then asked if youth (16 years or younger) or senior (over 65 years old) hunters should be exempted from having to follow those restrictions. For the most part, there is more support than opposition for both exemptions.
- Among the hunter groups, there is much more support for than opposition to exempting youth hunters: 57% to 70% support.
 - Among Allegany County landowners, support (43%) is about the same as opposition (44%) for exempting youth; among Garrett County landowners, there is much more support (62%) than opposition (27%).
 - Regarding exempting senior hunters, a majority in each hunter group supports exempting seniors. Support of exempting senior hunters ranges from 52% to 56%; opposition ranges from 36% to 42% among hunters.
 - For landowners in both counties, there is a majority in support of exempting seniors: 51% to 60%. Meanwhile, opposition ranges from 30% to 36%.
- The survey asked hunters and landowners if they would prefer having the DNR either establish *mandatory* antler restrictions or continue to promote *voluntary* quality deer management. While results are close among hunters, there are more in favor of voluntary action over mandatory action. Landowners, by decisive margins, favor voluntary over mandatory action.
- There is a nearly even split in the hunter groups, with just slightly more favoring *voluntary* action over *mandatory* action: among Allegany County residents, it is 46% for voluntary to 41% for mandatory; among Garrett County residents, it is 41% to 39%; and among those from outside western Maryland, it is 48% to 45%.
 - Landowners are about twice as likely to favor *voluntary* action over *mandatory* action: among Allegany County landowners, 56% choose voluntary and 23% choose mandatory; among Garrett County landowners, it is 46% to 25% in favor of voluntary.

CONDITIONAL OPINION ON ANTLERLESS DEER SEASONS AND BAG LIMITS

- In the hunter groups, there is more opposition (ranging from 48% to 56%) than support (ranging from 38% to 43%) for reducing the antlerless deer seasons and bag limits in western Maryland for several years, if antler restrictions are implemented. The landowners have no consensus: among Allegany County landowners, 43% support and 38% oppose; among Garrett County landowners, 36% support and 46% oppose.

COMPARISON OF OPINION ON A SERIES OF QUESTIONS ON ANTLER RESTRICTIONS AND BAG LIMITS

- The survey also presented a series of questions on antler restrictions and bag limits.
 - There were three questions asking about bag limit changes (increasing the antlerless bag limit from 3 to 4 deer, decreasing the antlerless bag limit from 3 to 2 deer, and decreasing the antlerless deer bag limit from 3 to 1 deer).
 - There were two questions that asked about the number of points on one side (3 points and 4 points).
 - There were two questions that asked about antler spreads (of 14 inches and of 15 inches).
- In looking at the results of this series of questions, some of the salient findings among the hunter groups include:
 - The most support is for having a 3-point rule (it is the only option that had a majority of all three hunter groups in support). Part of the relatively high support, particularly in comparison to antler spreads, is that a hunter can easily distinguish points. There is *not* this level of support, however, for a 4-point rule.
 - The antler restrictions based on the inches of spread are in disfavor among hunters. They are the lowest ranked in percentage who support. Hunters expressed concern about being able to distinguish the antler spread at the typical shooting distance.
 - There is a split regarding reducing or increasing antlerless bag limits among hunters. There is almost as much support for *decreasing* the antlerless bag limit from 3 to 2 as there is for *increasing* the limit from 3 to 4. The option of decreasing the antlerless bag limit from 3 to 1 has little support, and the least support of all the options that involve changing bag limits.

- In summary, the most support among hunters is for the 3-point rule, followed by either decreasing the antlerless bag limit from 3 to 2 or increasing the bag limit from 3 to 4. All of the other options had a majority of all three hunter groups in opposition: thresholds based on 14- or 15-inch spreads, the 4-point rule, and decreasing the antlerless bag limit to 1 deer.
- The salient findings among landowners include:
- The most support among landowners is for having a 3-point rule as the threshold or for decreasing the bag limit from 3 deer to 2 deer. There is *not* this level of support, however, for a 4-point rule, which is near or at the bottom of the ranking for the two landowner groups.
 - Among landowners, the antler restrictions based on the inches of spread are in disfavor.
 - There is somewhat of a split among landowners regarding reducing or increasing antlerless bag limits.

OPINIONS ON ANTLERED BAG LIMITS AND ANTLER RESTRICTIONS

- The survey also asked about the *antlered* bag limit (previous questions had asked about the antlerless limits).
- When asked about reducing the *antlered* bag limit from 3 to 2 deer, a large majority of all three hunter groups were in support: 65% supported among Allegany County residents, 57% supported among Garrett County residents, and 59% supported among those from outside western Maryland. Nonetheless, opposition was not insubstantial, ranging from 32% to 38%.
 - Among landowners, there was more support (52% of Allegany County landowners and 48% of Garrett County landowners) than opposition (35% and 38%, respectively).

SUMMARY OF ALL SUPPORT-OPPOSITION QUESTIONS

- The following tabulation shows the results of all the support-opposition questions. Shading denotes a majority: light gray for 50% to 59%, dark gray for 60% or more.

Regulation in Question	Group	Strongly support	Moderately support	Overall support	Strongly oppose	Moderately oppose	Overall oppose
51. The DNR establishing mandatory antler restriction regulations on all lands in western Maryland (<i>pre-information</i>)	Hunt 1	47	14	61	23	5	28
	Hunt 2	42	13	55	31	5	36
	Hunt 3	40	24	64	22	8	30
	Land 1	24	11	35	38	7	44
	Land 2	25	9	34	28	11	38
63. The DNR establishing mandatory antler restriction regulations on all lands in western Maryland (<i>post-information</i>)	Hunt 1	48	16	65	23	5	28
	Hunt 2	43	14	56	33	4	37
	Hunt 3	45	24	69	17	8	25
	Land 1	30	12	41	38	6	44
	Land 2	28	13	40	29	13	41
66. Establishing mandatory antler restriction regulations on all <i>private</i> land in western Maryland	Hunt 1	44	12	56	28	8	37
	Hunt 2	42	10	52	32	6	38
	Hunt 3	39	24	63	21	9	30
	Land 1	28	7	35	45	8	53
	Land 2	25	11	36	44	10	54
67. Establishing mandatory antler restriction regulations on all <i>public</i> land in western Maryland	Hunt 1	56	12	69	20	5	25
	Hunt 2	52	8	60	26	6	31
	Hunt 3	51	22	73	15	8	22
	Land 1	36	13	48	30	6	36
	Land 2	40	10	50	28	5	33
69. If antler restrictions were implemented, exempting <i>youth</i> deer hunters from mandatory antler restrictions	Hunt 1	48	8	57	29	9	39
	Hunt 2	46	12	59	27	6	33
	Hunt 3	51	19	70	15	11	25
	Land 1	34	10	43	40	4	44
	Land 2	47	14	62	23	4	27
70. If antler restrictions were implemented, exempting <i>senior</i> deer hunters from mandatory antler restrictions	Hunt 1	46	10	56	28	8	36
	Hunt 2	43	13	56	31	8	39
	Hunt 3	41	11	52	27	15	42
	Land 1	39	12	51	31	5	36
	Land 2	51	9	60	24	6	30
80. Requiring a buck to have an antler <i>spread</i> of at least <i>14 inches</i> to be legal	Hunt 1	9	8	18	66	10	76
	Hunt 2	15	8	23	59	8	67
	Hunt 3	8	13	22	54	20	74
	Land 1	12	8	19	69	12	81
	Land 2	10	2	13	75	4	79
73. Requiring a buck to have an antler <i>spread</i> of at least <i>15 inches</i> to be legal	Hunt 1	9	9	18	59	16	76
	Hunt 2	17	10	27	57	10	67
	Hunt 3	11	8	20	57	18	75
	Land 1	13	6	19	71	10	81
	Land 2	8	0	8	73	10	83

“Hunt 1” denotes deer hunters residing in Allegany County; “Hunt 2” denotes deer hunters residing in Garrett County; “Hunt 3” denotes deer hunters residing outside of western Maryland who hunt deer there; “Land 1” denotes those who own land in Allegany County; “Land 2” denotes those who own land in Garrett County. Rounding may cause apparent discrepancies in sums of 1 percentage point; all sums are of unrounded numbers. Cells that are at 50% are shaded, even though they may not be a true majority (e.g., 49.5% would round to 50%).

Question	Group	Strongly support	Moderately support	Overall support	Strongly oppose	Moderately oppose	Overall oppose
74. Requiring a buck to have at least 3 antler points on one side to be legal	Hunt 1	56	14	70	22	7	28
	Hunt 2	51	14	65	26	5	31
	Hunt 3	55	19	75	18	5	23
	Land 1	35	12	46	48	6	54
	Land 2	42	10	52	33	4	38
78. Requiring a buck to have at least 4 antler points on one side to be legal	Hunt 1	26	8	35	46	16	63
	Hunt 2	24	10	34	54	9	62
	Hunt 3	10	13	23	44	29	73
	Land 1	12	6	17	71	10	81
	Land 2	19	6	25	58	13	71
75. Increasing the antlerless deer bag limit from 3 deer to 4 deer in western Maryland	Hunt 1	37	10	47	41	10	50
	Hunt 2	45	8	53	34	8	42
	Hunt 3	35	15	50	31	13	45
	Land 1	31	4	35	44	19	63
	Land 2	21	13	33	44	13	56
79. Decreasing the antlerless deer bag limit from 3 deer to 2 deer in western Maryland	Hunt 1	33	17	50	32	13	45
	Hunt 2	28	14	42	42	12	54
	Hunt 3	21	22	43	33	15	48
	Land 1	35	15	50	37	8	44
	Land 2	33	13	46	35	15	50
81. Decreasing the antlerless deer bag limit from 3 deer to 1 deer in western Maryland	Hunt 1	27	10	37	51	8	59
	Hunt 2	23	4	28	58	10	69
	Hunt 3	15	16	31	48	13	62
	Land 1	17	17	35	56	8	63
	Land 2	23	6	29	63	4	67
76. Banning the harvest of bucks in certain years	Hunt 1	22	12	34	47	11	58
	Hunt 2	16	10	27	56	10	65
	Hunt 3	11	13	24	48	22	70
	Land 1	13	13	27	58	10	67
	Land 2	15	4	19	65	15	79
82. Reducing the antlerless deer seasons and bag limits for several years if antler restrictions were implemented	Hunt 1	29	14	43	37	11	48
	Hunt 2	27	12	38	45	11	56
	Hunt 3	19	22	41	35	17	52
	Land 1	31	13	43	31	8	38
	Land 2	27	9	36	36	11	46
83. Reducing the antlered bag limits in western Maryland from 3 antlered deer to 2	Hunt 1	48	18	65	23	9	32
	Hunt 2	46	10	57	28	10	38
	Hunt 3	32	26	59	27	10	38
	Land 1	38	14	52	26	9	35
	Land 2	34	14	48	31	7	38
84. If the antlered bag limit were reduced to 2 bucks, placing antler restrictions on one of the bucks	Hunt 1	42	21	63	27	8	35
	Hunt 2	40	14	54	35	6	41
	Hunt 3	35	26	61	25	11	37
	Land 1	27	15	42	38	5	42
	Land 2	28	13	41	35	11	45

“Hunt 1” denotes deer hunters residing in Allegany County; “Hunt 2” denotes deer hunters residing in Garrett County; “Hunt 3” denotes deer hunters residing outside of western Maryland who hunt deer there; “Land 1” denotes those who own land in Allegany County; “Land 2” denotes those who own land in Garrett County. Rounding may cause apparent discrepancies in sums of 1 percentage point; all sums are of unrounded numbers. Cells that are at 50% are shaded, even though they may not be a true majority (e.g., 49.5% would round to 50%).

DEER MANAGEMENT ON OWN LAND

- A majority of landowners in the survey allow other people to hunt on their land in western Maryland: 59% of Allegany County landowners and 71% of Garrett County landowners allow others to hunt deer on their land. Of those landowners who allow others to hunt on their land, about 1 in 5 have established antler restrictions for bucks harvested on their land.

VENISON DONATION PROGRAM

- Awareness of the state's venison donation program is high, ranging from 85% to 94% among the hunter groups. In fact, a large majority of all three hunter groups indicated being *very* aware: 71% among Allegany County deer hunting residents, 85% among Garrett County deer hunting residents, and 83% among those deer hunters from outside western Maryland. Among landowners, awareness ranges from 75% to 79% (with 70% to 72% being *very* aware).
- Follow-up questions about the venison donation program were asked of hunters only. Among hunters, a small percentage of Allegany County residents and Garrett County residents had donated to the program (11% and 15%, respectively); meanwhile, more than a third of those deer hunters from outside western Maryland did so (37% donated a deer).
 - Those who did not donate a deer were asked for their reasoning for not doing so. The top reasons among hunters include wanting to keep the meat for their own use and that they already donate to friends and family. Lack of awareness is not a huge problem, although from 7% to 16% of those who did not donate say they were not aware of the program (it is unknown whether these 7% and 16% would have donated to the program otherwise).
- Majorities of all three hunter groups indicated being *very* or *somewhat* likely to donate to a venison program if there were a cooperating butcher shop close to where they live: 56% of Allegany County residents, 57% of Garrett County residents, and 73% of those from outside western Maryland.

HUNTING BEHAVIORS

- Hunters who had hunted deer in western Maryland were asked about hunting on public or private land (or both), as well as about hunting on their own land. Landowners were asked about hunting on their own land.
 - Private land dominates public land for deer hunting in western Maryland. Among hunters, 92% of Allegany County residents, 91% of Garrett County residents, and 78% of those from outside western Maryland hunted on *private* land in western Maryland at least part of the time. Meanwhile, 64% of Allegany County residents, 74% of Garrett County residents, and 55% of those from outside western Maryland hunted on *public* land at least some of the time (some hunted on both types of land).
 - Regarding hunting on their own land, among the hunter groups, 22% of Allegany County residents had done so, and 43% of Garrett County residents had done so.
 - Among landowners, from 46% to 49% had hunted deer on their own land in western Maryland.

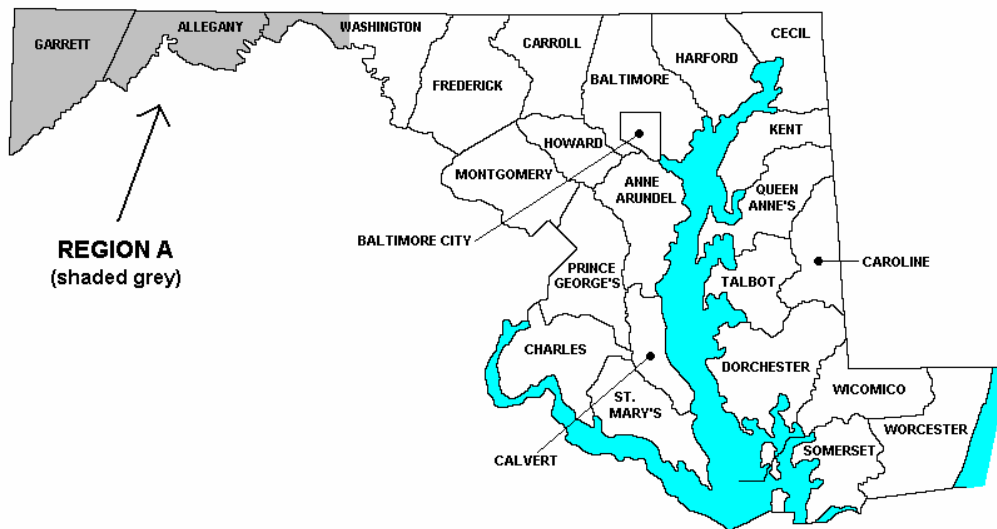
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INTRODUCTION AND METHODOLOGY

This study was conducted for the Maryland Department of Natural Resources (DNR) to determine hunters' and landowners' opinions on quality deer management in western Maryland. The study entailed a telephone survey of three groups: deer hunters who live in western Maryland (either Allegany or Garrett Counties—in the report and on the graphs, they are referred to as “residents” but understood to be “deer hunters who are residents”), deer hunters who live outside of western Maryland, and landowners in western Maryland (again, either Allegany or Garrett Counties). For this survey, western Maryland is defined as all of Allegany and Garrett Counties and the western portion of Washington County west of Clear Spring; this area is also known as Deer Management Region A (see map below). Specific aspects of the research methodology are discussed below.

WESTERN MARYLAND (DEER MANAGEMENT REGION A)



USE OF TELEPHONES FOR THE SURVEY

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among the groups (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates,

are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

QUESTIONNAIRE DESIGN

All groups were surveyed using the same survey instrument, with skip-outs and flow depending on the group being surveyed, although many questions were asked of all groups. The telephone survey questionnaire was developed cooperatively by Responsive Management and the DNR, based on the research team's familiarity with deer management, as well as natural resources and hunting. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

SURVEY SAMPLE

The sample of deer hunters who live in western Maryland (Allegany or Garrett Counties; because not all of Washington County is included in Region A, it was not included in the sample) was obtained from the DNR through license records; the survey included a screener to ensure that the hunters had hunted deer. Note that these deer hunters did *not* need to have hunted deer *in western Maryland* to participate in the survey, although most of them had (99.3% of the sample from Allegany County and 99.4% of the sample from Garrett County). On hunter graphs, these groups are referred to as "Allegany County residents" or "Garrett County residents" to indicate that they are deer hunters who reside in those counties; these groups should not be confused with *general* residents of the counties, who were not surveyed.

The sample of deer hunters from outside of western Maryland was also obtained from the DNR through license records in combination with harvest records. These hunters were required to have hunted deer in western Maryland to participate in the survey, and a screener ensured that they had. The sample was targeted to western Maryland by using records of those who had harvested a deer in western Maryland. Keep in mind that this sample consists almost entirely of those who had harvested a deer in western Maryland—98% of them indicated that they had harvested a deer in western Maryland (the sample of deer hunters who live in western Maryland was selected with no correlation to harvest success—74% of Allegany County residents and 76%

of Garrett County residents had harvested a deer). Although the difference in harvest success among the three groups of hunters is not expected to cause a great difference in opinions relative to other factors, this harvest success difference should be considered when comparing the results among hunter groups.

The sample of landowners in western Maryland was obtained from two sources: from the Garrett County Assessment Office and from SpecPrint, Inc., a firm that specializes in providing real estate information, which provided real estate assessment records for both Garrett and Allegany Counties. The final landowner sample was an amalgamation of the data from these two sources; amalgamating the two sources required de-duplication of the database (i.e., the same person in the database twice was reduced to only one entry so that each landowner would have the same chance of being chosen for the survey). The resulting landowner sample contained nearly all property owners in the two counties but was limited for the survey to only those landowners who owned at least 20 acres in a tract (they may or may not have had other tracts of smaller sizes), and a screener ensured that they met this size requirement. The landowners were not required to live on the tract in western Maryland, although most of them did. References to “landowners” in the text and on the graphs actually refer to landowners *who own at least 20 acres in a single tract*; because this phrase would be unwieldy to repeat throughout the report, they are referred to simply as “landowners.”

TELEPHONE INTERVIEWING FACILITIES

A central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of outdoor recreation and natural resources.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a project briefing with the interviewers

prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

INTERVIEWING DATES AND TIMES

Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in October and November 2013.

TELEPHONE SURVEY DATA COLLECTION AND QUALITY CONTROL

The software used for data collection was Questionnaire Programming Language (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data. The survey questionnaire itself contains error checkers and computation statements to ensure quality and consistent data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness.

Responsive Management obtained a total of 680 completed interviews. This included 472 completed interviews with deer hunters: 153 with deer hunters who live in Allegany County, 162 with deer hunters who live in Garrett County, and 157 with deer hunters who live outside of western Maryland but hunt deer in western Maryland. This total also included 208 landowners: 104 with landowners who own land in Allegany County, and 104 with landowners who own land in Garrett County.

DATA ANALYSIS

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. The data were analyzed for the three hunter groups separately and the two landowner groups separately (in other words, the groups were not amalgamated into one group of hunters and one group of landowners).

For most questions, the report will present two primary graphs: one graph showing hunters and a second graph showing landowners.

- There are three subsets of hunters (the graph has three bars):
 - Deer hunters who reside in Allegany County. (May or may not hunt deer in western Maryland; they are referred to as “Allegany County residents”).
 - Deer hunters who reside in Garrett County. (May or may not hunt deer in western Maryland; they are referred to as “Garrett County residents”).
 - Deer hunters from outside western Maryland who hunt deer in western Maryland (Indicated on the graph as “Resides outside of but hunts in western Maryland.”)
- There are two subsets of landowners who must own a tract of at least 20 acres (the graph has two bars):
 - Landowners who own land in Allegany County. (May or may not live there.)
 - Landowners who own land in Garrett County. (May or may not live there.)

On questions that asked respondents to provide a number (e.g., number of acres), the graph shows ranges of numbers rather than the precise numbers. Nonetheless, in the survey each respondent provided a precise number, and the dataset includes this precise number, even if the graph shows only ranges of numbers. Note that the calculation of means and medians used the precise numbers that the respondents provided.

SAMPLING ERROR

Sampling errors for deer hunters who resided in Allegany County and deer hunters who resided in Garrett County were calculated using the formula and based on the sample sizes that follow.

Sampling Error Equation

$$B = \left(\sqrt{\frac{N_p(.25)}{N_s} - .25} \right) (1.96)$$

Where: B = maximum sampling error (as decimal)
 N_p = population size (i.e., total number who could be surveyed)
 N_s = sample size (i.e., total number of respondents surveyed)

Derived from formula: p. 206 in Dillman, D. A. 2000. *Mail and Internet Surveys*. John Wiley & Sons, NY.

Note: This is a simplified version of the formula that calculates the maximum sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

Sampling Errors

	Allegany	Garrett
Deer hunters residing in the given county in sample	153	162
Population of deer hunters residing in the given county	3,638	2,742
Sampling error	7.76	7.47

Note: Sampling error was not determined for hunters residing outside of western Maryland because the population of such deer hunters could not be precisely determined. No sampling errors for landowners owning at least 20 acres were determined, again because the populations of such landowners are not precisely known.

QUESTION TYPES

In examining the results, it is important to be aware that the questionnaire included several types of questions:

- Open-ended questions are those in which no answer set is read to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Single or multiple response questions: Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as excellent-good-fair-poor.
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of

the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

MEANS, MEDIANS, AND ROUNDING

Some graphs show an average, either the mean or median (or both). The mean is simply the sum of all numbers divided by the number of respondents. Because outliers (extremely high or low numbers relative to most of the other responses) may skew the mean, the median may be shown. The median is the number at which half the sample is above and the other half is below. In other words, a median of 75 acres means that half the sample gave an answer of more than 75 and the other half gave an answer of less than 75 acres.

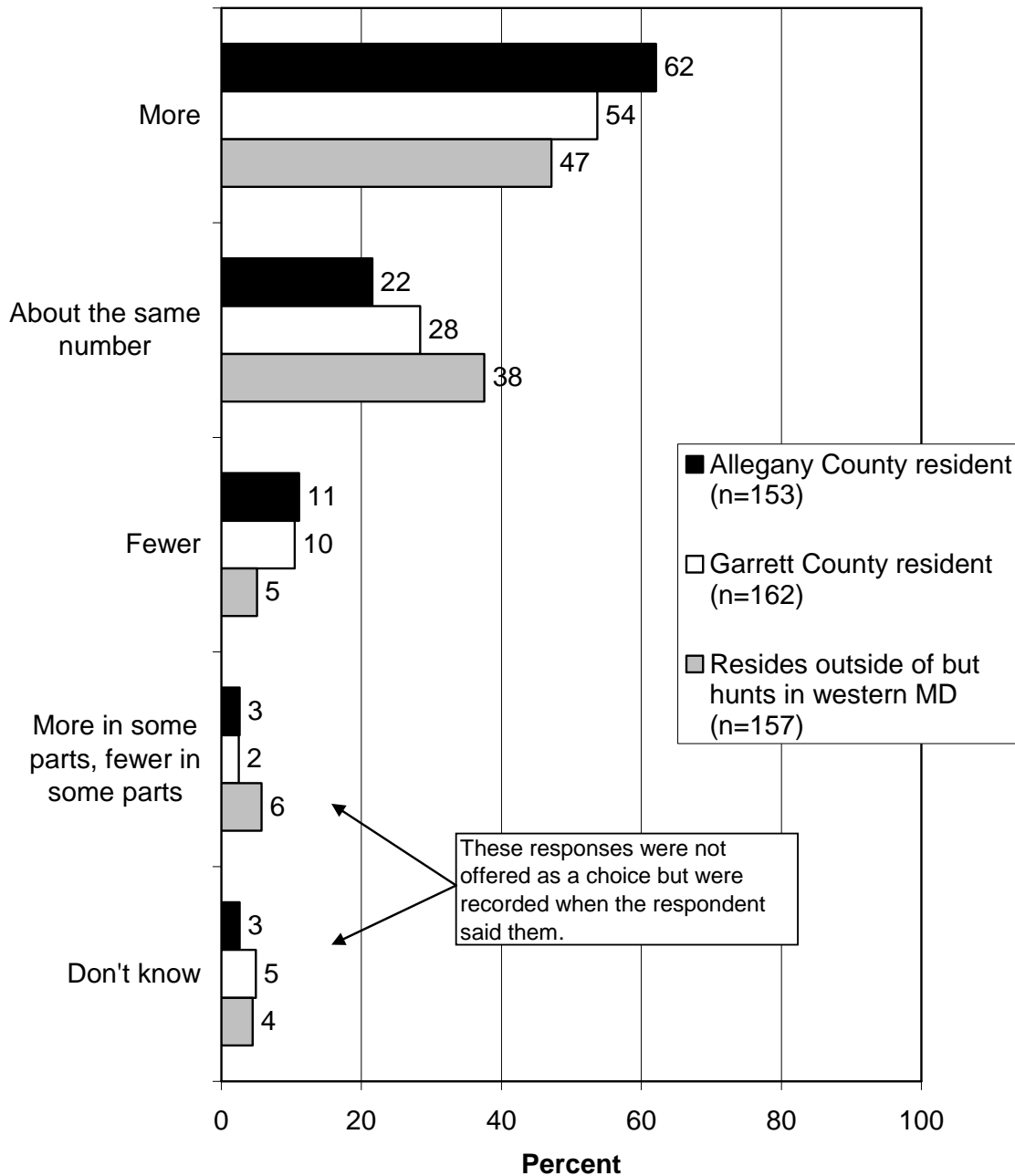
Most graphs show results rounded to the nearest integer; however, all data are stored in decimal format, and all calculations are performed on unrounded numbers. For this reason, some results may not sum to exactly 100% because of this rounding on the graphs. Additionally, rounding may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when “strongly support” and “moderately support” are summed to determine the total percentage in support).

OPINIONS ON QUALITY DEER MANAGEMENT STRATEGIES

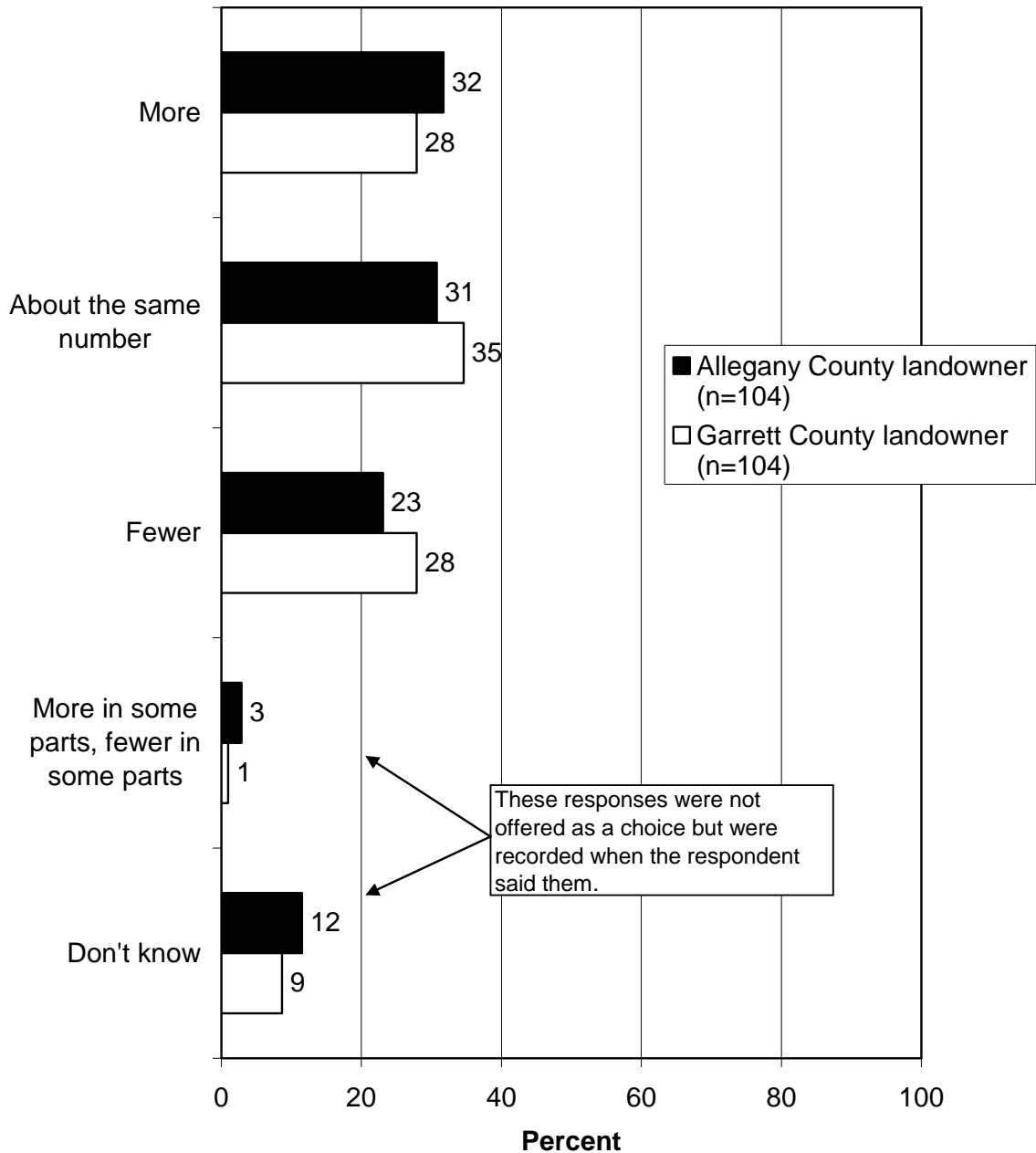
OPINIONS ON CURRENT DEER MANAGEMENT GOALS

- Respondents were asked if the DNR should manage the deer herd in western Maryland so that there are more deer, about the same amount of deer, or fewer deer.
 - Among hunters, those wanting more deer outnumber those wanting fewer deer (with “about the same” in the middle of popularity). The most common response among hunters is that they want more deer (62% of Allegany County residents, 54% of Garrett County residents, and 47% of those from outside western Maryland).
 - Landowners are about evenly split in thirds: from 28% to 32% want more, from 31% to 35% want the same, and from 23% to 28% want fewer deer.
 - An important difference between hunters and landowners is that hunters are much more likely to want more deer than are landowners.

Q34. Would you say that the DNR should manage the deer herd in western Maryland so that there are more deer, about the same number of deer, or fewer deer? (Deer Hunters)



Q34. Would you say that the DNR should manage the deer herd in western Maryland so that there are more deer, about the same number of deer, or fewer deer? (Landowners)

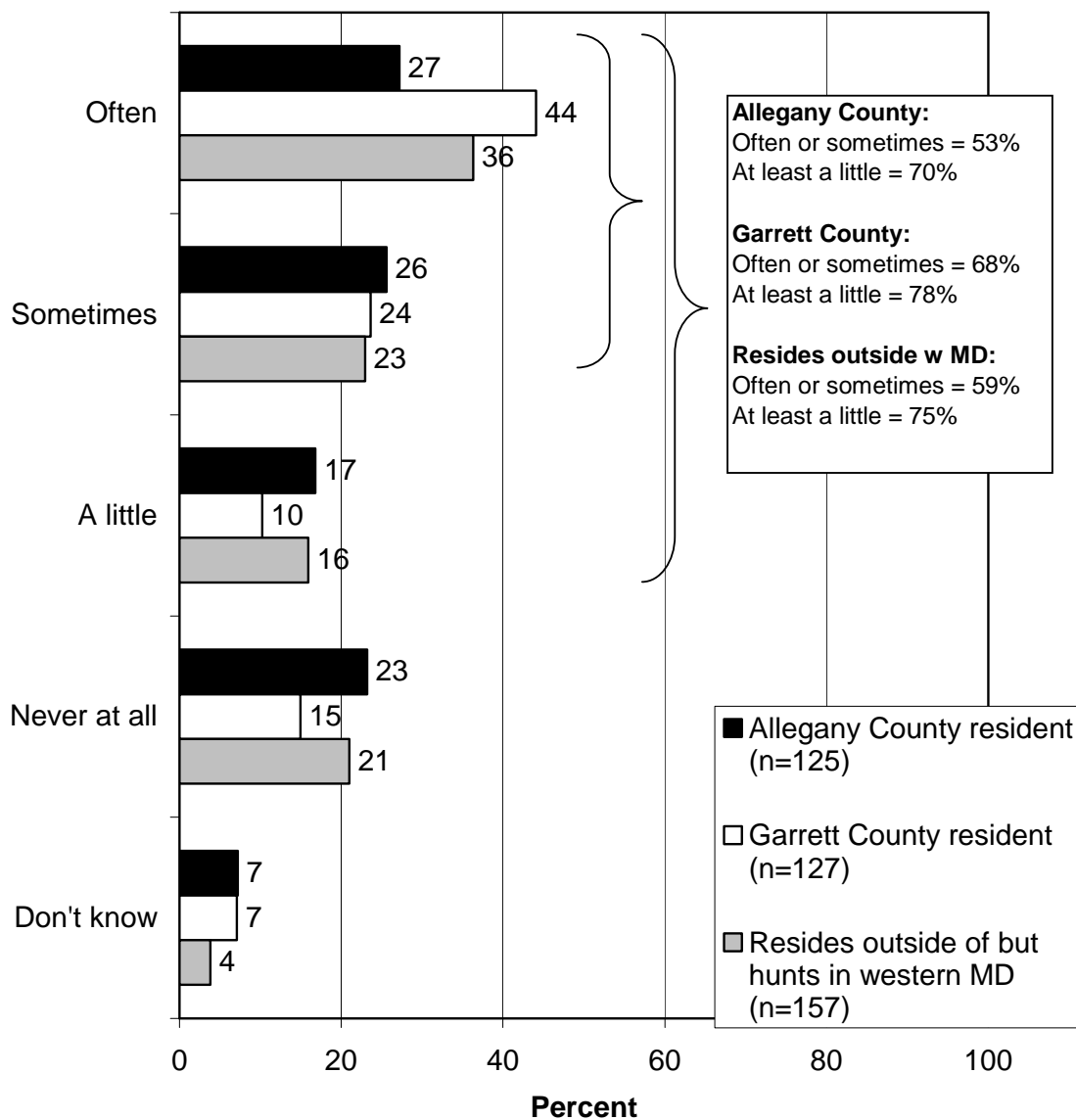


CURRENT STRATEGIES FOLLOWED WHEN HUNTING

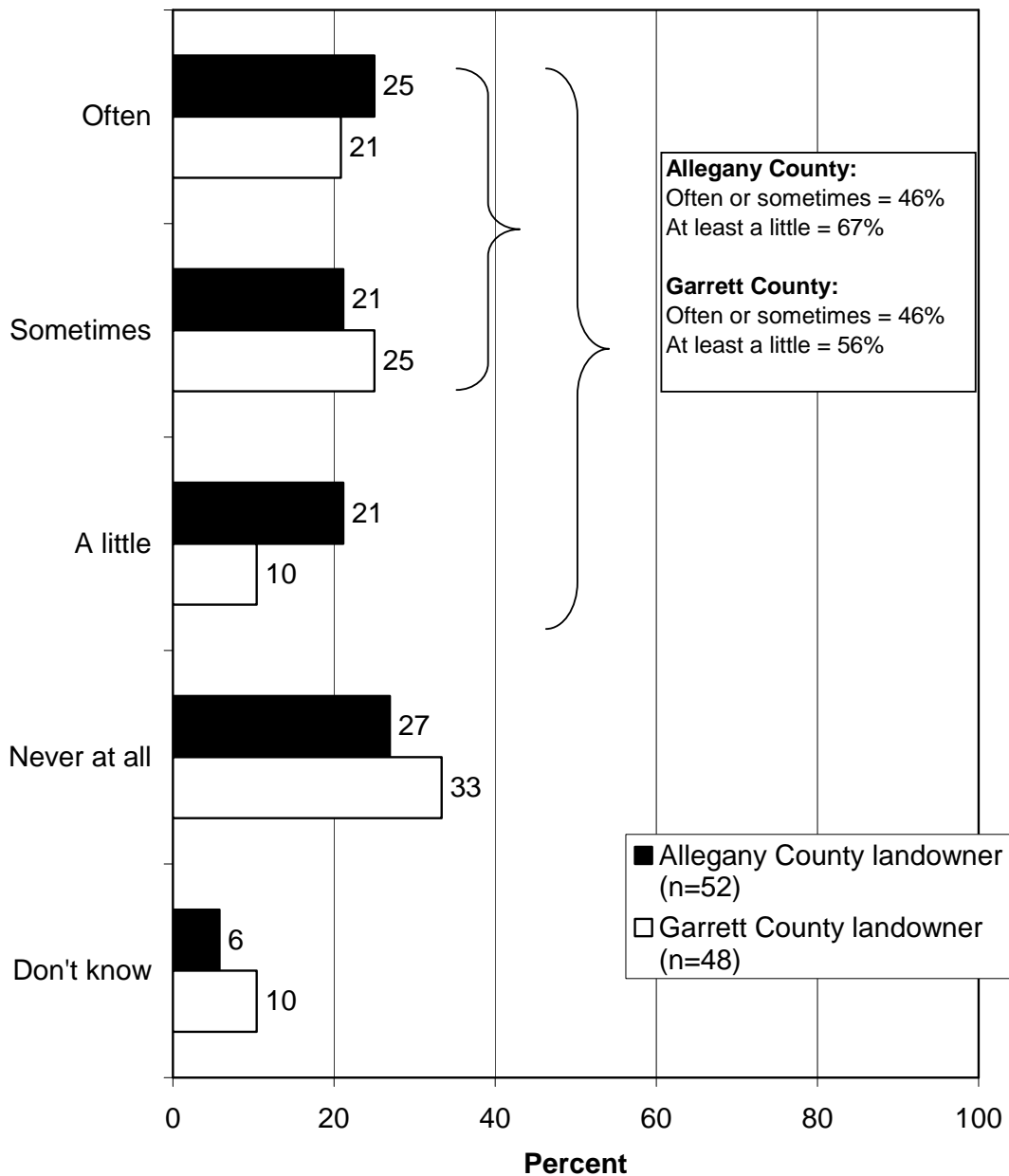
- The survey asked about how frequently hunters focus on harvesting does rather than yearling bucks in western Maryland. Among the hunter samples, the majority of hunters who hunt deer in western Maryland practice the approach *often* or *sometimes*: 53% of Allegany County residents, 68% of Garrett County residents, and 59% of those from outside western Maryland.
 - Those landowners who hunt deer (about half of them do) were also asked this question. Nearly half of landowners who deer hunt (46% for both counties) practice the approach *often* or *sometimes*.

- Germaine to the current strategy followed by hunters involves their perceptions of what they consider to be a quality buck. Among all hunter groups, a 6-point buck is the median answer. At 9 points, nearly all hunters would consider the buck to be a quality buck.
 - (Landowners were not asked this question.)

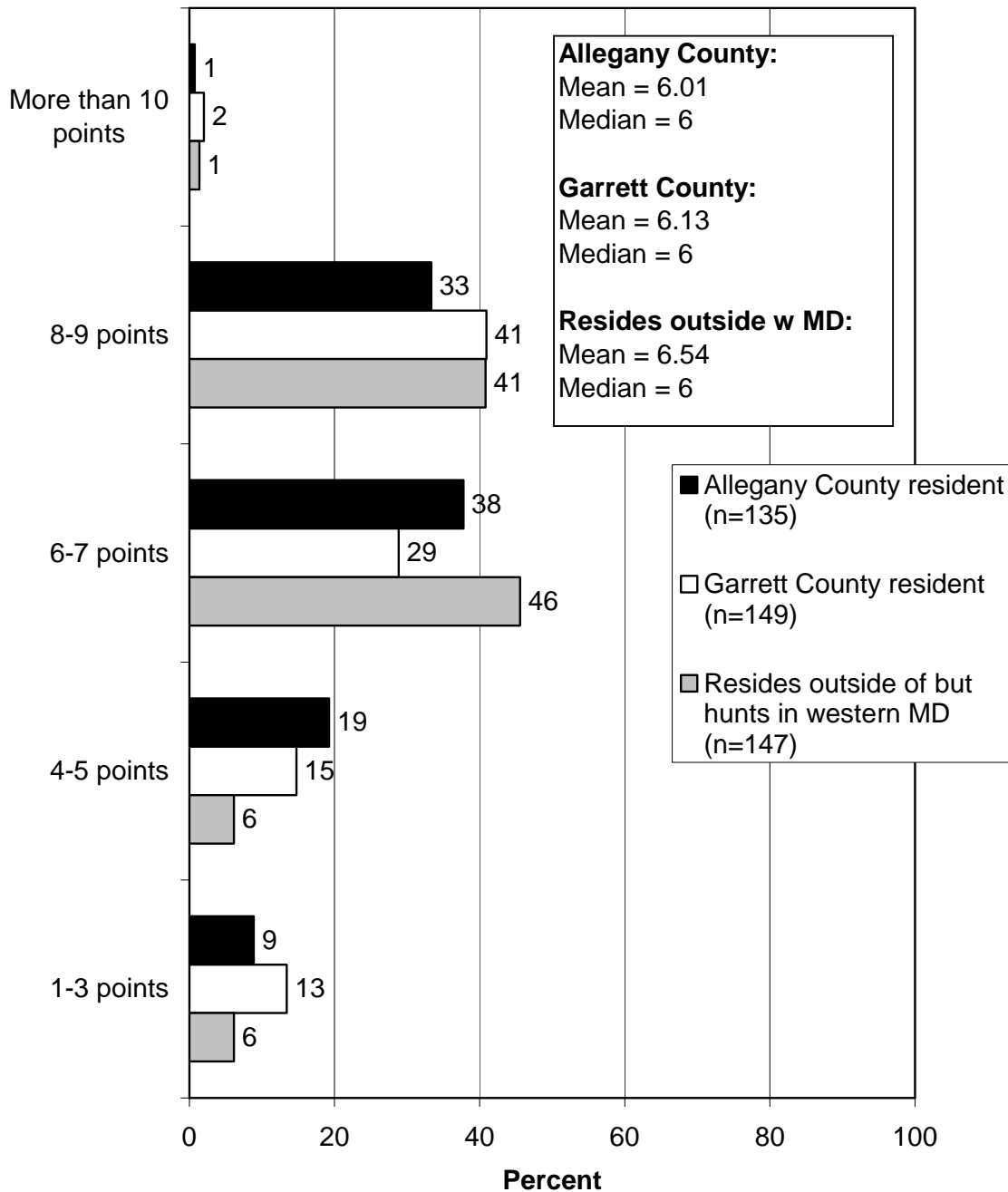
Q43. How frequently would you say your approach to hunting is to focus on harvesting does rather than harvesting yearling bucks when deer hunting in western Maryland? Would you say...? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Deer Hunters)



Q43. How frequently would you say your approach to hunting is to focus on harvesting does rather than harvesting yearling bucks when deer hunting in western Maryland? Would you say...? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Landowners)



Q57. What size buck do you consider to be a quality deer? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Deer Hunters)

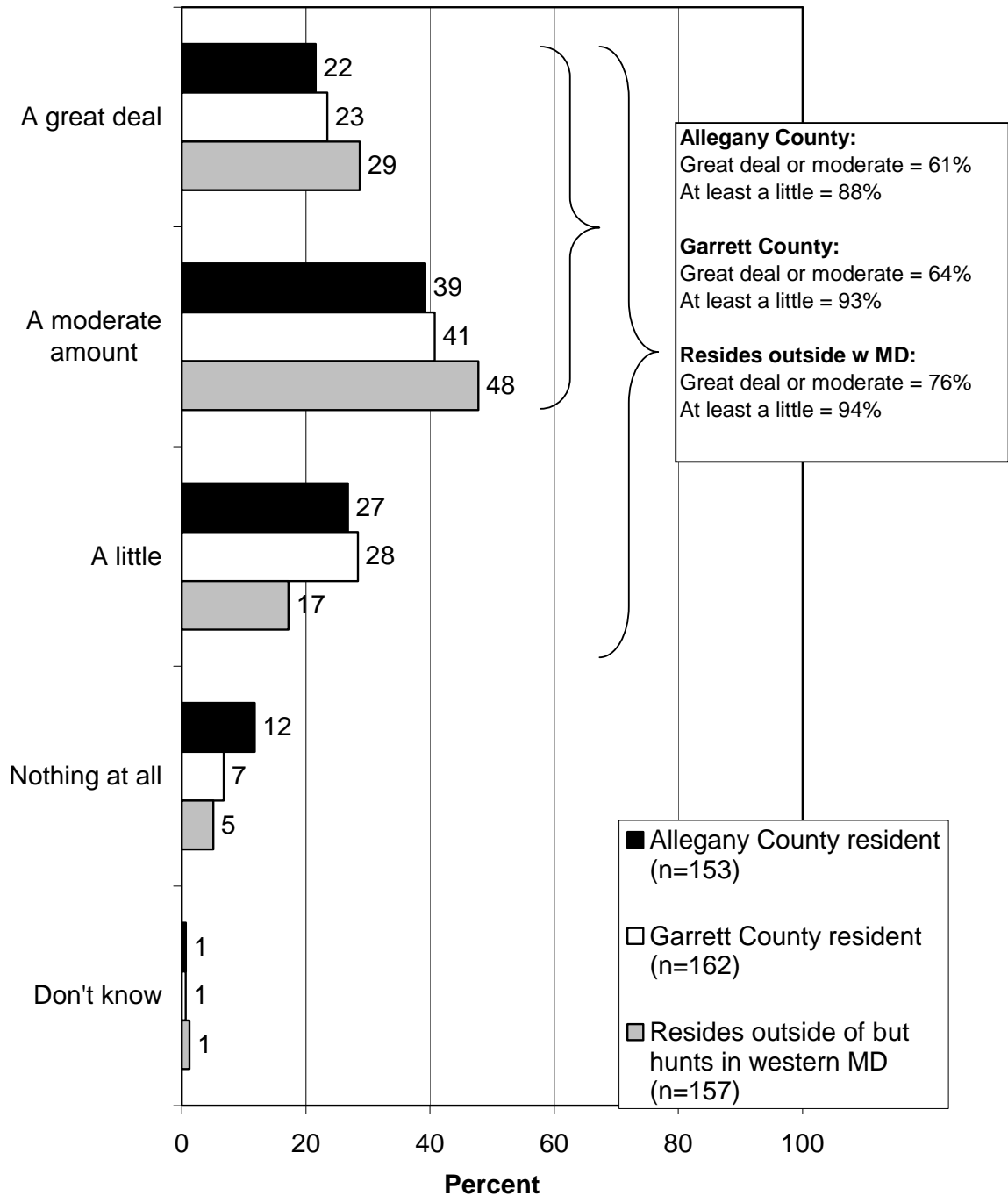


KNOWLEDGE OF QUALITY DEER MANAGEMENT STRATEGIES

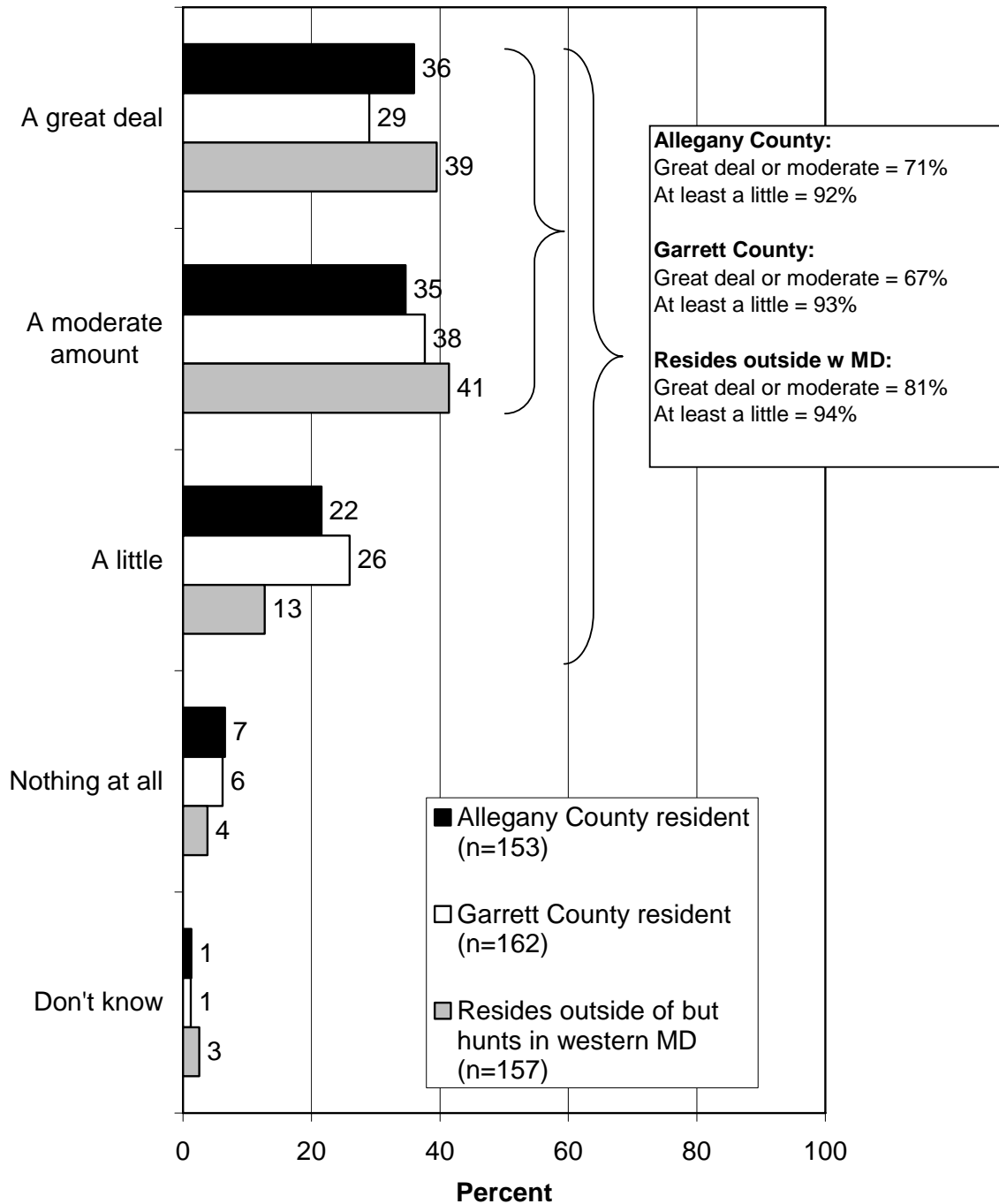
- A majority of all hunter groups say that they know *a great deal* or a *moderate amount* about quality deer management (61% of Allegany County residents, 64% of Garrett County residents, and 76% of those from outside western Maryland) and about antler restrictions on deer hunting (71% of Allegany County residents, 67% of Garrett County residents, and 81% of those from outside western Maryland).
 - When looking at the percentages of deer hunters who know at least *a little* on the two questions, the range is 88% to 94%, or roughly speaking, about 9 out of 10 people claim a little knowledge.

- Knowledge levels of landowners are a little below that of hunters on these questions. Specifically, 47% of Allegany County landowners and 41% of Garrett County landowners know *a great deal* or a *moderate amount* about quality deer management. Also, 50% of Allegany County landowners and 43% of Garrett County landowners know *a great deal* or a *moderate amount* about antler restrictions.
 - When looking at the percentages of landowners who know at least *a little* on the two questions, the range is 69% to 78%, which is approximately three-quarters who claim a little knowledge.

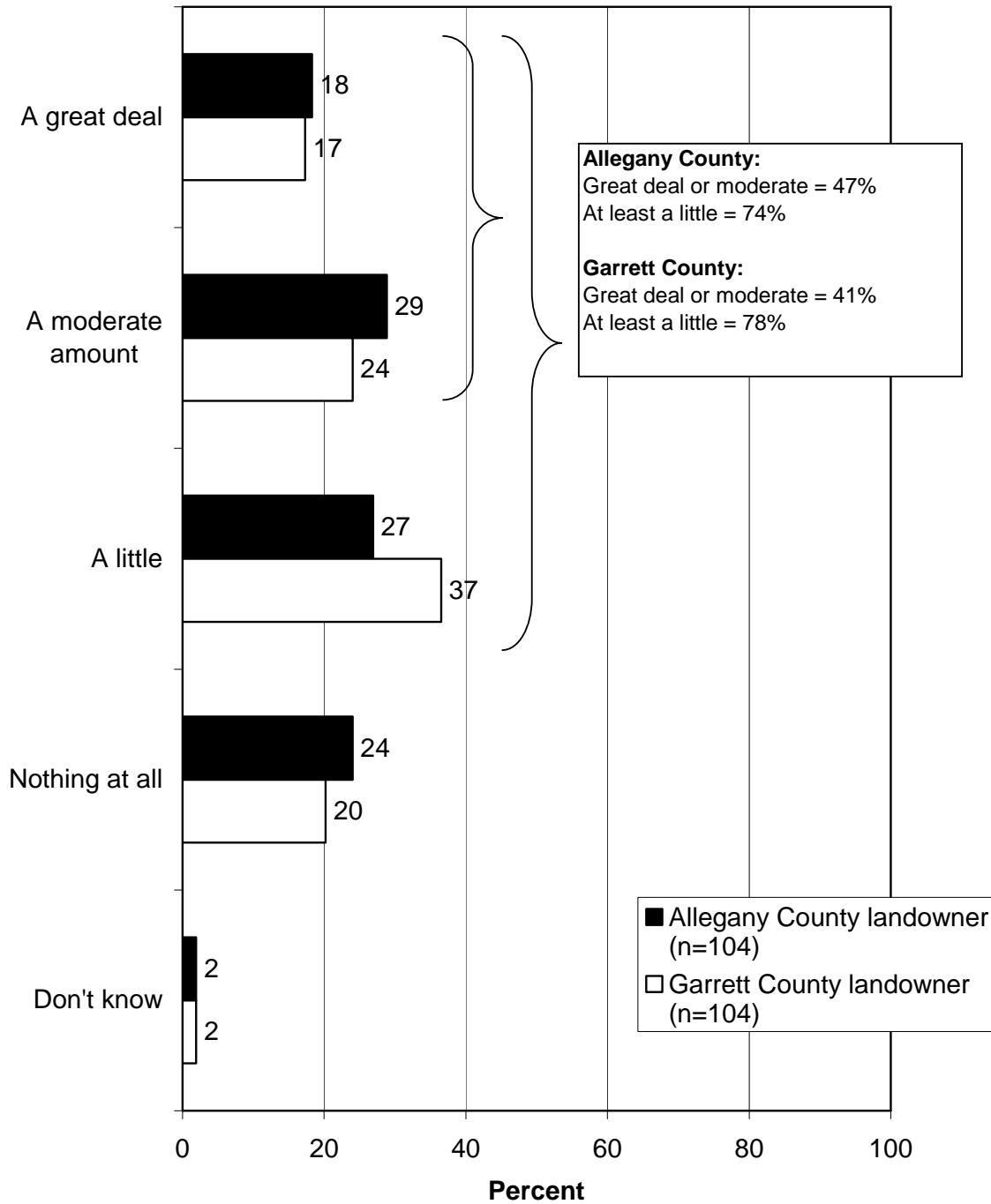
Q49. How much would you say you know about quality deer management? (Deer Hunters)



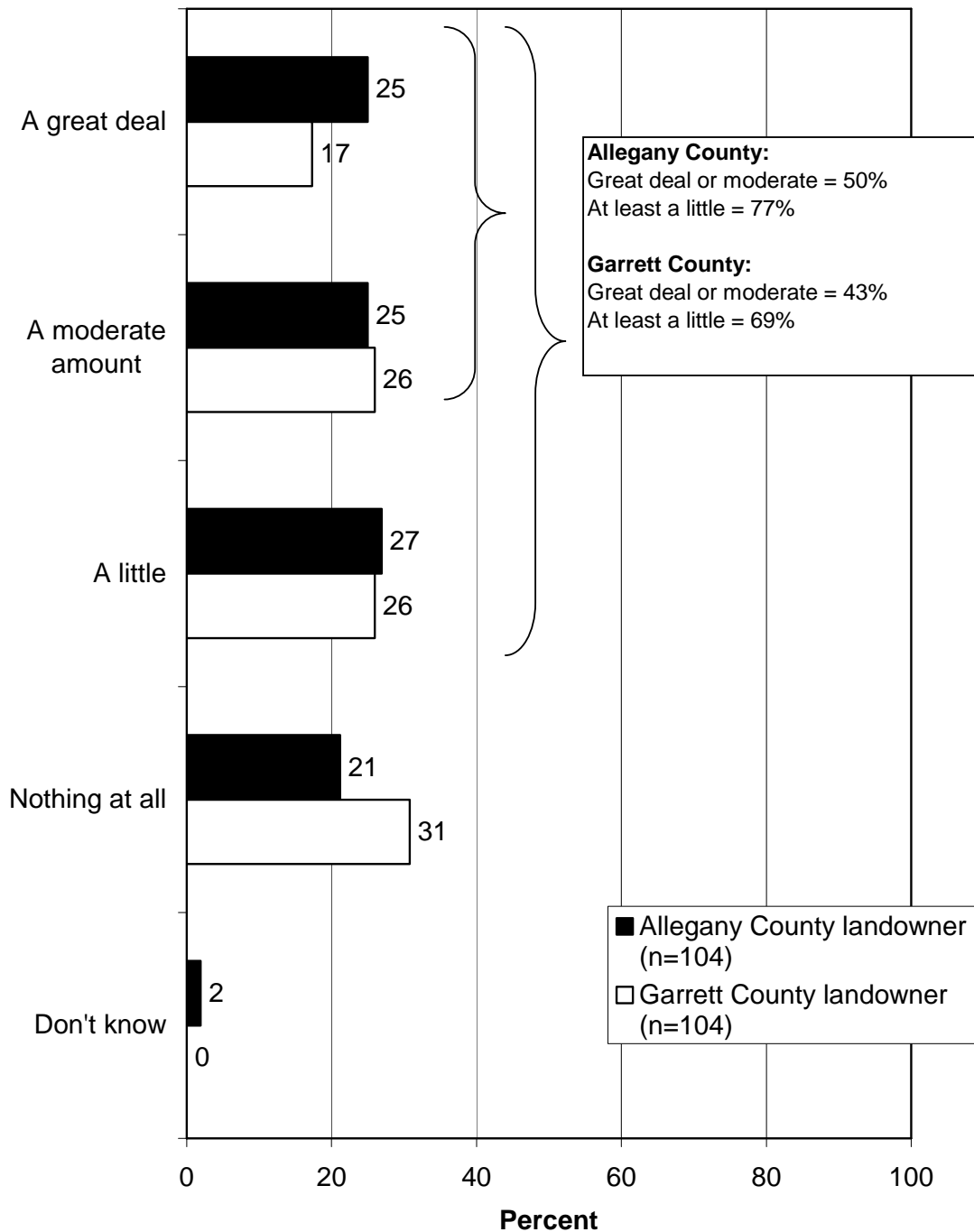
Q50. How much would you say you know about antler restrictions on deer hunting? (Deer Hunters)



Q49. How much would you say you know about quality deer management? (Landowners)



Q50. How much would you say you know about antler restrictions on deer hunting? (Landowners)



OPINIONS ON ANTLER RESTRICTIONS AND BAG LIMITS

Opinion Pre- and Post-Information on Antler Restrictions in General

➤ The survey asked a general question about whether respondents support or oppose having the DNR establish mandatory antler restriction regulations on all lands in western Maryland.

The question was asked near the beginning of the survey and then after some information was provided to respondents, and comparisons were made of the results of the two questions.

The information provided was as follows:

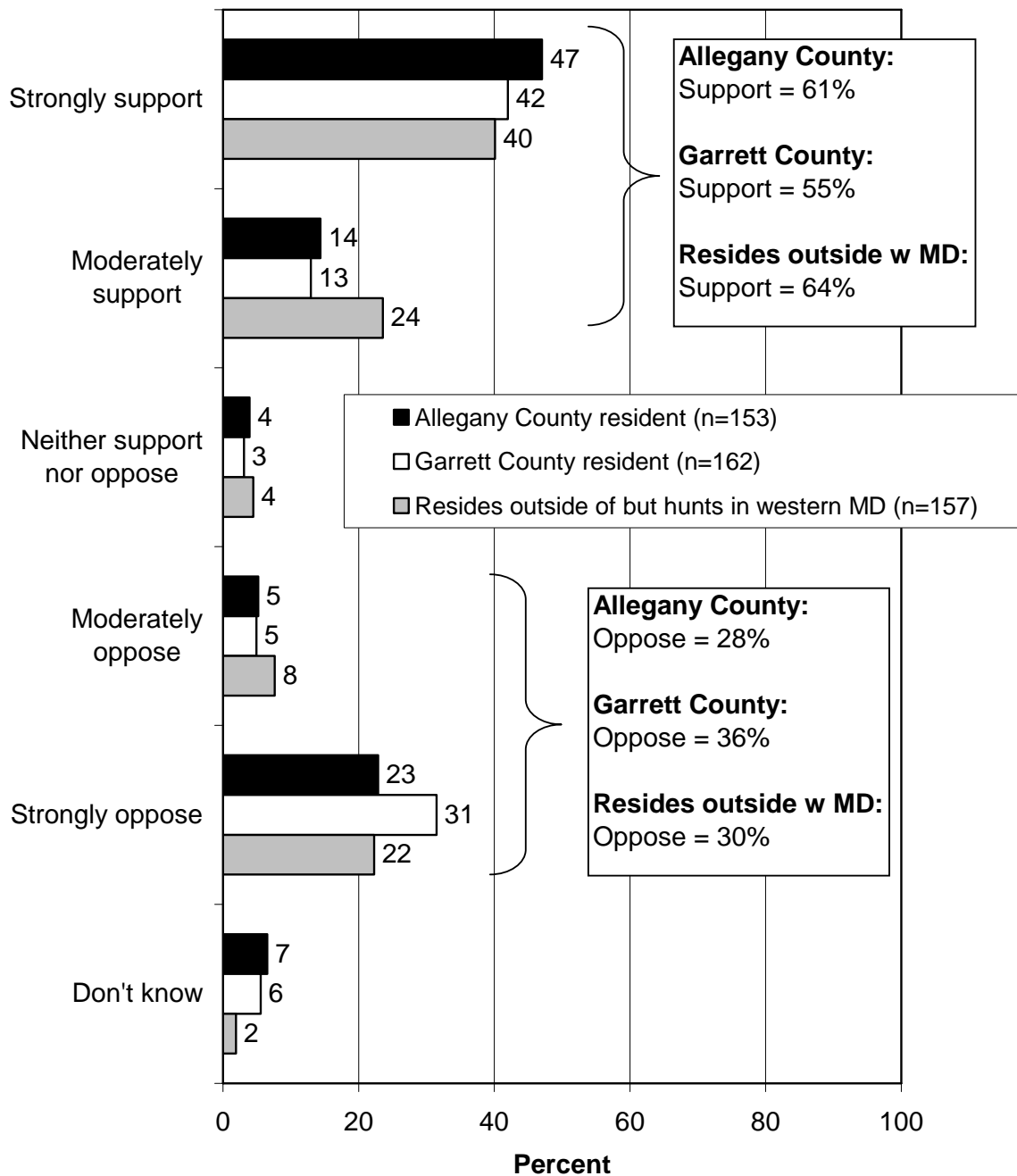
- The survey is gathering information regarding public opinion on options to reduce the harvest of young bucks, called yearling bucks. Reducing the harvest of yearling bucks and increasing the harvest of antlerless deer to balance the population are cornerstones of a larger approach termed Quality Deer Management.
- The primary way to protect yearling bucks is to set antler restrictions, or a minimum antler size for harvest. These are typically expressed as a certain number of points, for instance at least 4 points on one side, or a minimum antler spread, for instance at least a 14-inch spread between the antler beams.
- Antler restrictions typically make it illegal for hunters to harvest bucks with spikes, forked horns, or racks with less than 6 points. Additionally, hunters are encouraged to harvest antlerless deer in sufficient numbers to balance the deer population.
- Antler restrictions can increase the number of older bucks with larger antlers in the deer population. However, antler restrictions are not a guarantee that you will see and harvest larger bucks every year. Not all bucks that are protected will be available for harvest in following years. Some die from causes other than hunting, and some do not ever grow larger antlers.
- Antler restrictions can result in more hunting pressure on antlerless deer when first implemented because most yearling bucks are no longer legal for harvest. This increased pressure can help balance a deer population if the population is too high. However, if the population is too low, additional regulations may be needed to restrict antlerless hunting opportunities to prevent over harvest.
- Right now, western Maryland has the highest harvest rate of yearling bucks in Maryland, with approximately 75% of all harvested antlered bucks being yearlings. Statewide, approximately 55% of the antlered buck harvest is made up of yearlings.

- Before any information was provided to respondents, a majority of all hunter groups supported the establishment of antler restrictions: 61% of Allegany County residents, 55% of Garrett County residents, and 64% of those from outside western Maryland. After the information was provided, the results are almost the same (i.e., the information had little effect on opinion, which was already mostly in support): support is at 65% among Allegany County residents, 56% among Garrett County residents, and 69% among those from outside western Maryland.
 - In directly comparing the results of the two questions and the effect of the information that was provided, there were gains in support among all three hunter groups, but the gains were slight: 3.3 percentage points among Allegany County residents, 1.2 percentage points among Garrett County residents, and 5.7 percentage points among those from outside western Maryland.
 - The following hunter graphs are shown: the results of the pre-information question (Q51), the results of the post-information question (Q63), a comparison of results in Allegany County, a comparison of results in Garrett County, and a comparison of results among those from outside western Maryland, and finally a graph showing the amount of change in all three hunter groups.

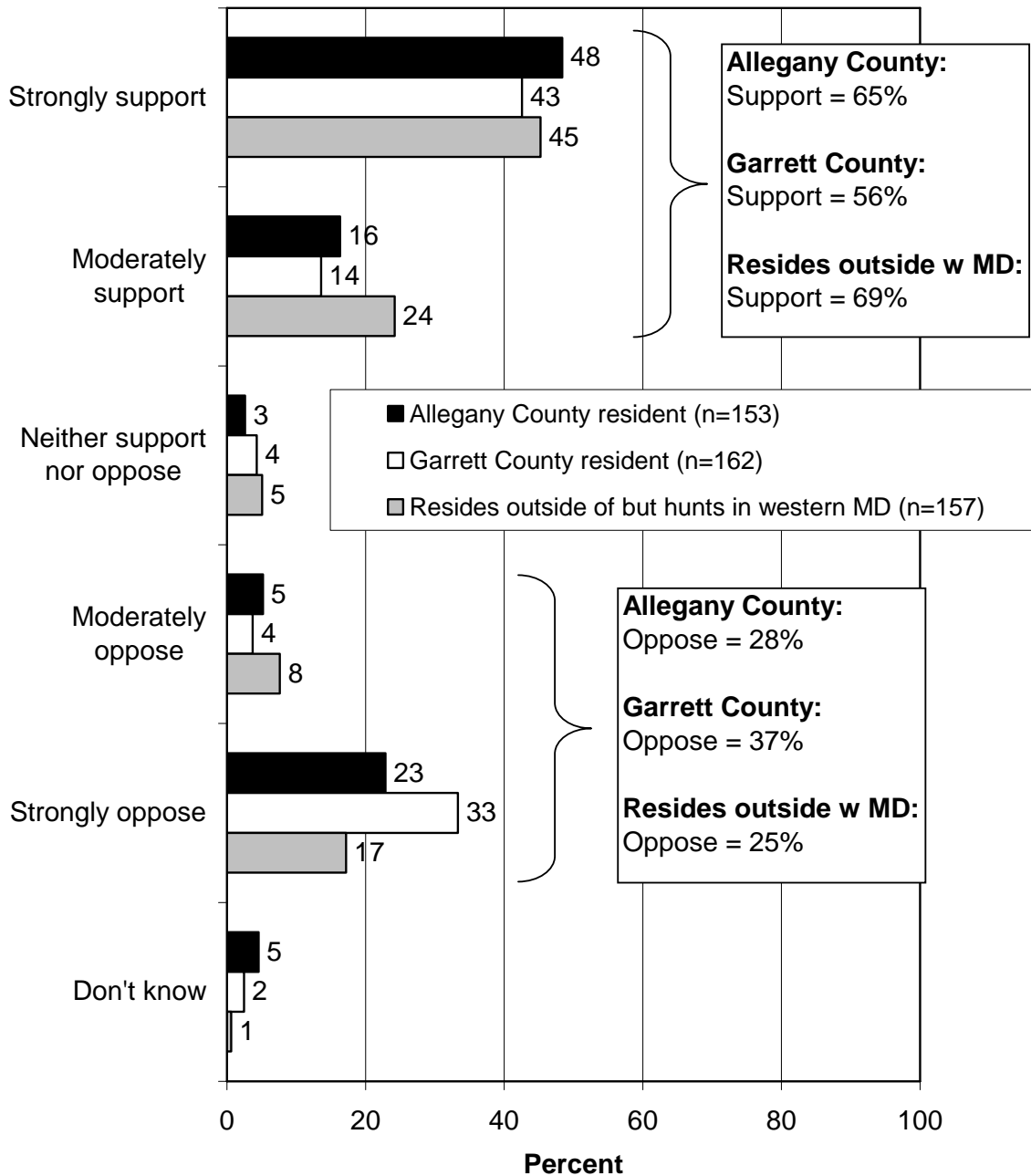
- Landowners were asked the same questions as discussed immediately above. Prior to any information being provided to respondents, about a third of landowners (35% of Allegany County landowners and 34% of Garrett County landowners) supported the establishment of antler restrictions. After the information was provided, support increased a little: support is at 41% among Allegany County landowners and 40% among Garrett County landowners.
 - In directly comparing the results of the two questions, there were gains in support among both landowner groups: 6.7 percentage points among both Allegany County landowners and Garrett County landowners.
 - The following landowner graphs are shown: the results of the pre-information question (Q51), the results of the post-information question (Q63), two graphs of comparisons of results in Allegany County and in Garrett County, and a graph showing the amount of change in both landowner groups.

- Those in support were asked for their reasons for supporting having the DNR establish mandatory antler restriction regulations on all lands in western Maryland; those who opposed were asked for their reasons for opposing. On both questions, multiple responses were allowed.
- Top reasons to support among hunters include that doing so would improve the quality of bucks and/or that the deer population is currently too low.
 - Among landowners, the top reasons for supporting are to improve the quality/size of bucks and/or that the harvest of young bucks is too high.
 - Top reasons for opposing among hunters include a general dislike of government regulations and/or that the respondent thinks there will be problems enforcing the regulations.
 - Among landowners, the top reason by far to oppose is that they are against government regulations on their land in general.

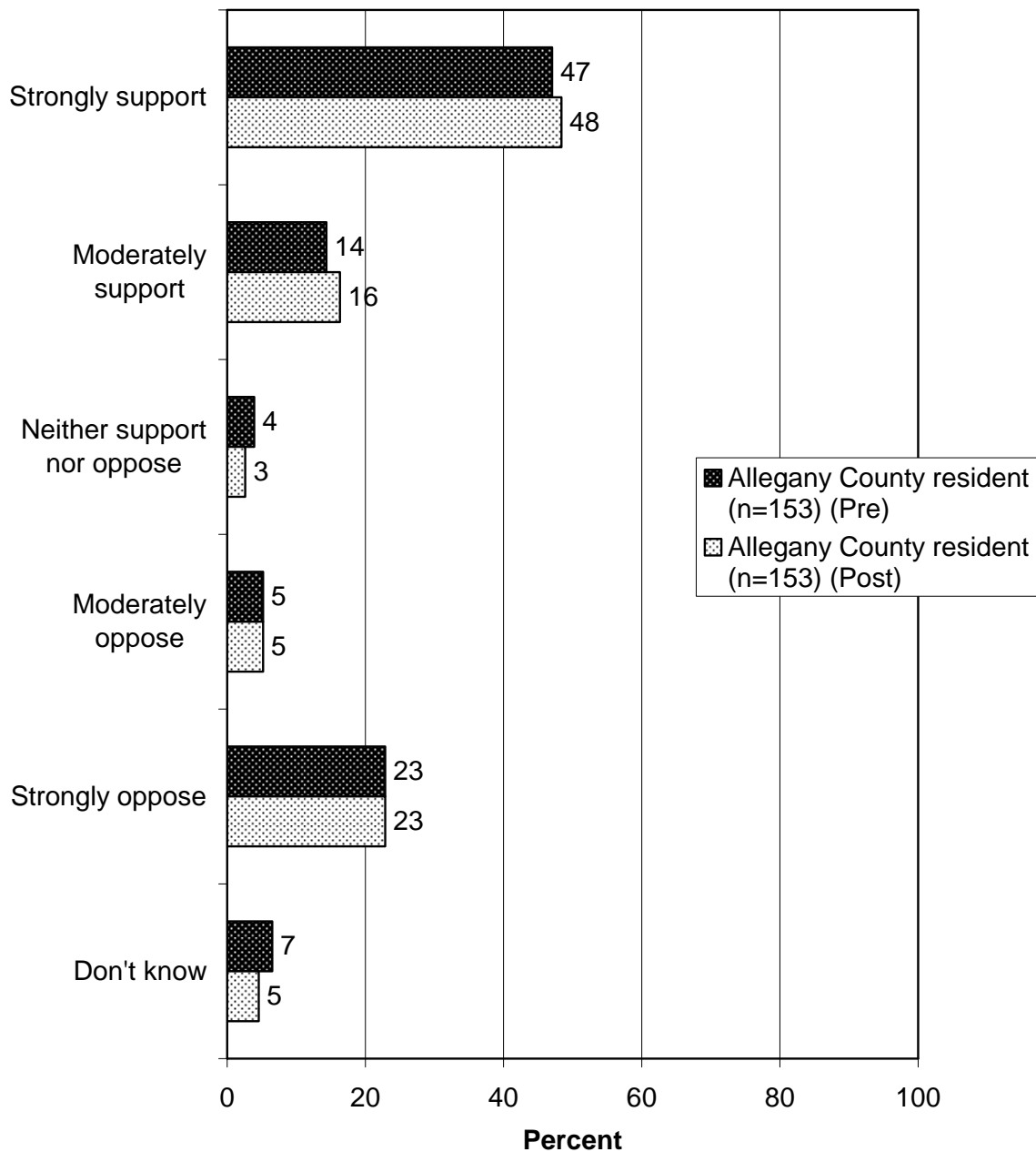
**Q51. Would you support or oppose the DNR establishing mandatory antler restriction regulations on all lands in western Maryland?
(Deer Hunters)**



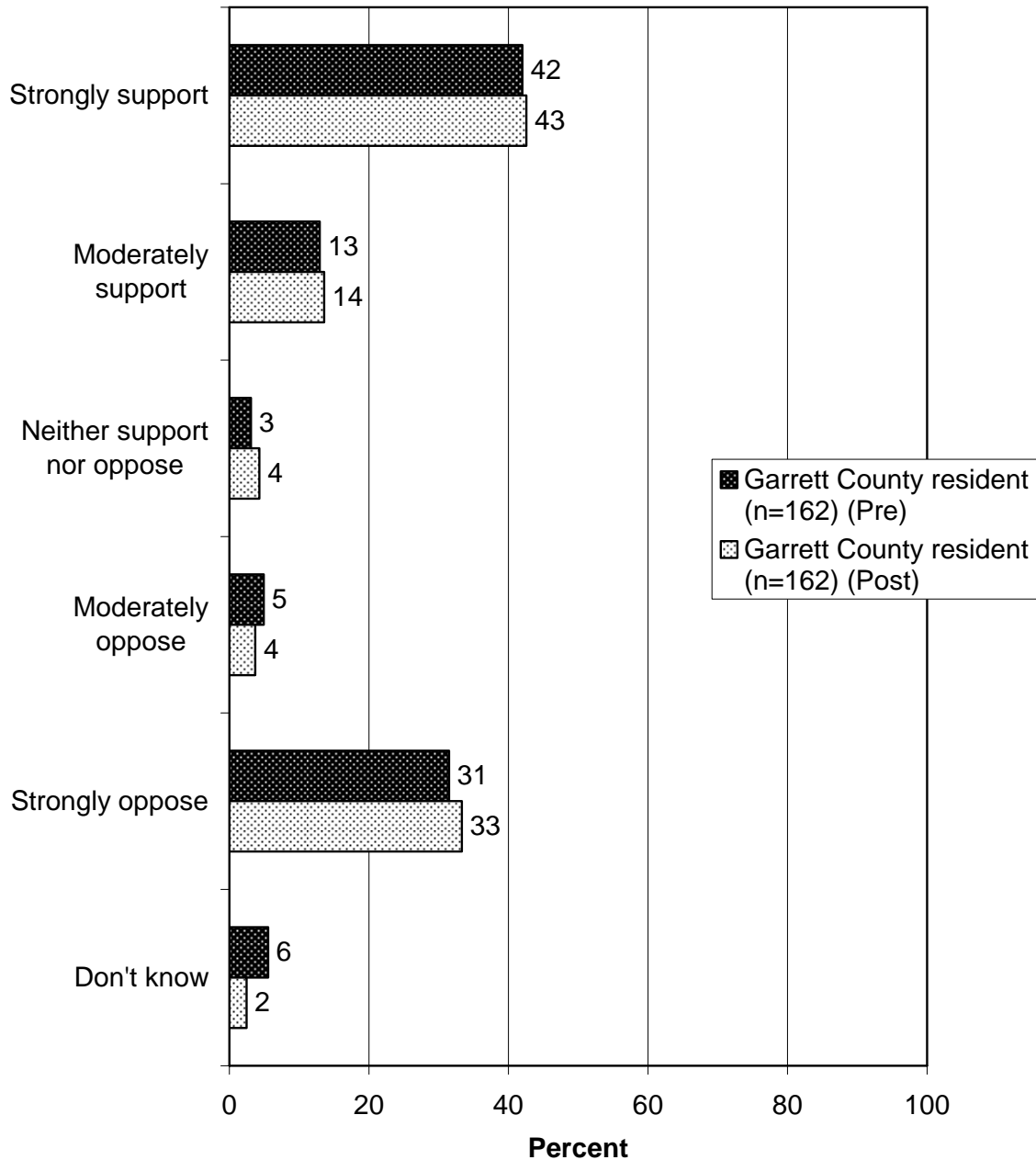
Q63. After hearing that information, would you support or oppose the DNR establishing mandatory antler restriction regulations on all lands in western Maryland? (Deer Hunters)



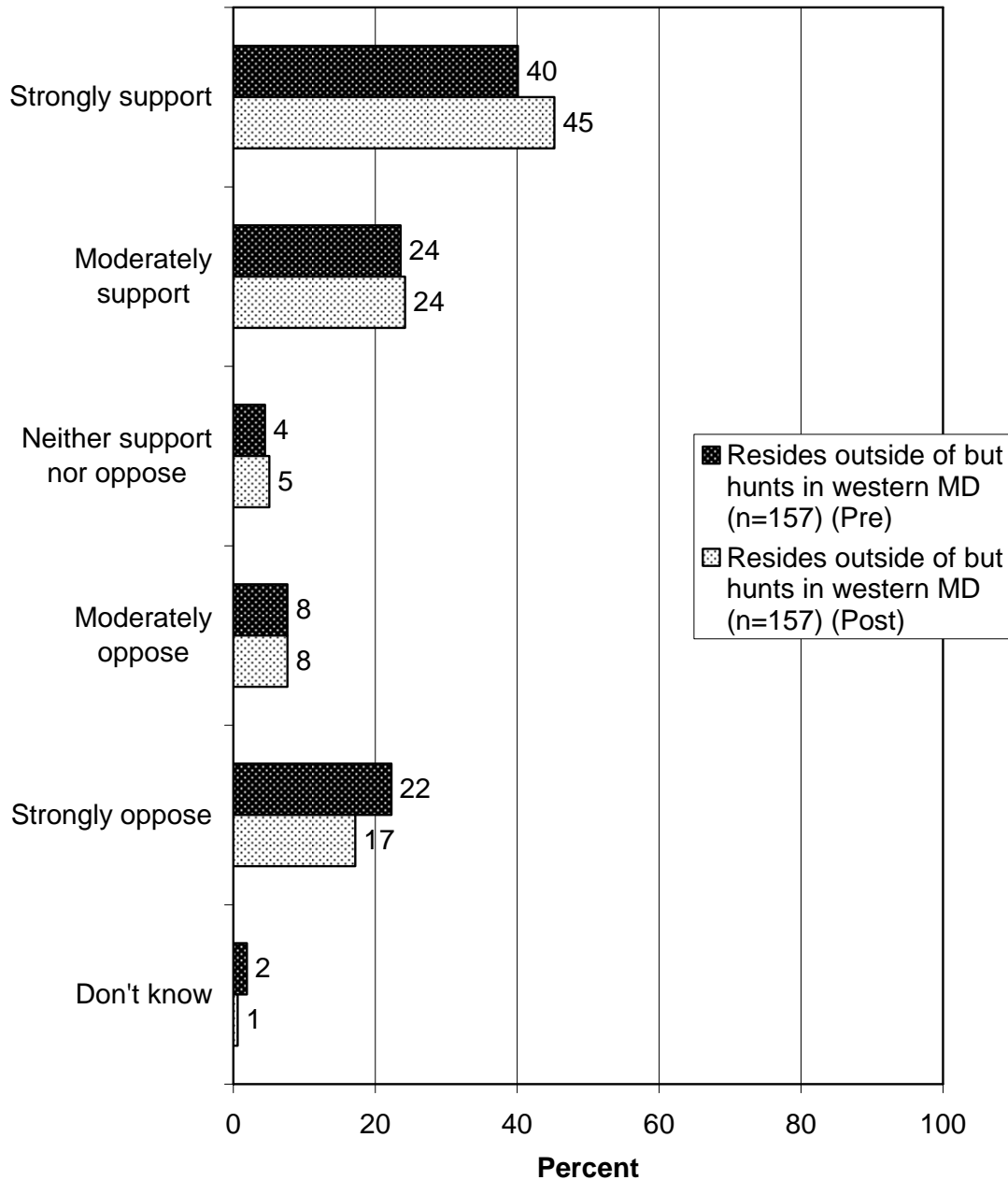
**Q51/Q63. Before and after information provided:
 Would you support or oppose the DNR establishing
 mandatory antler restriction regulations on all
 lands in western Maryland?
 (Deer Hunters - Allegany County)**



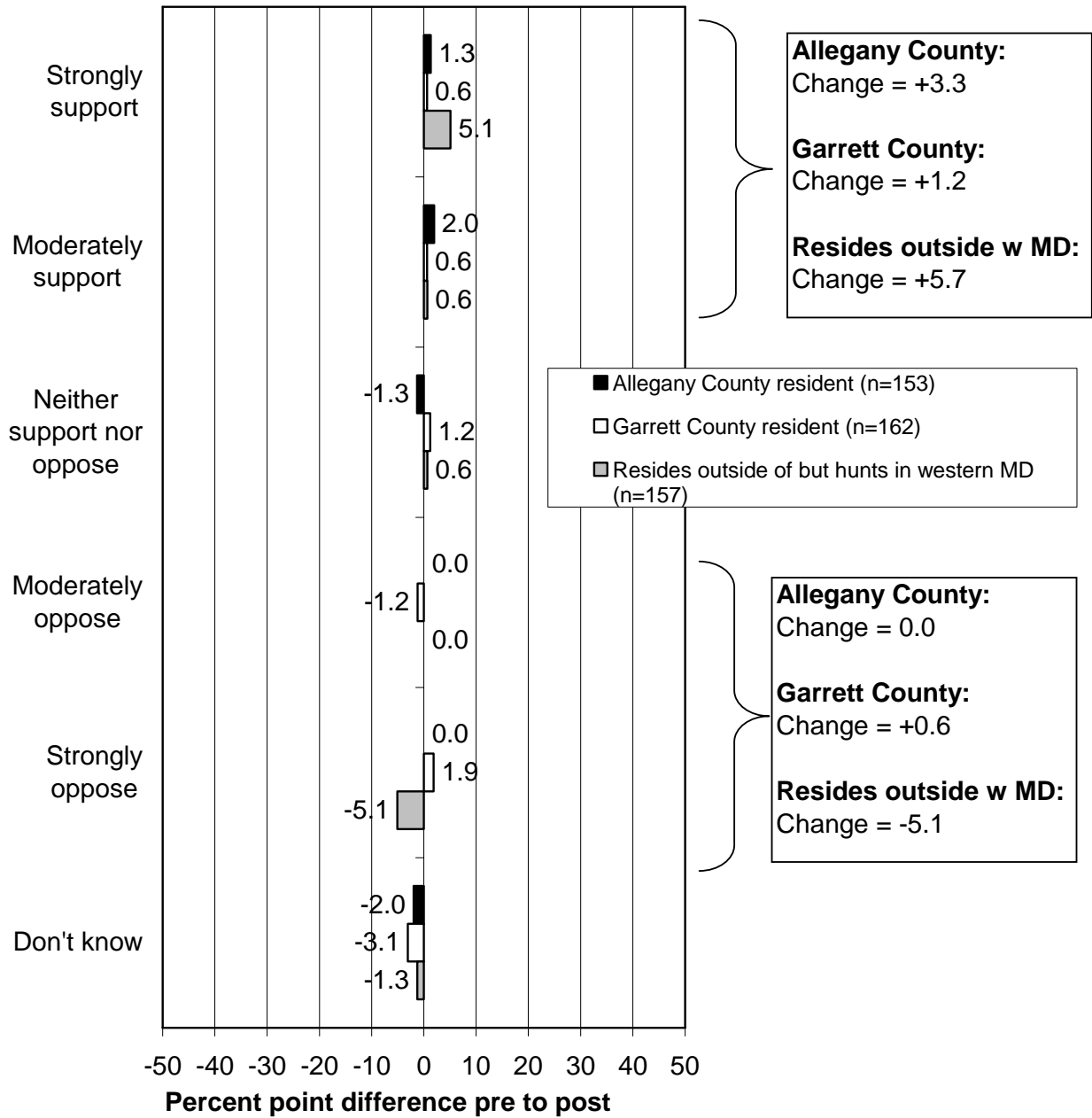
**Q51/Q63. Before and after information provided:
 Would you support or oppose the DNR establishing
 mandatory antler restriction regulations on all
 lands in western Maryland?
 (Deer Hunters - Garrett County)**



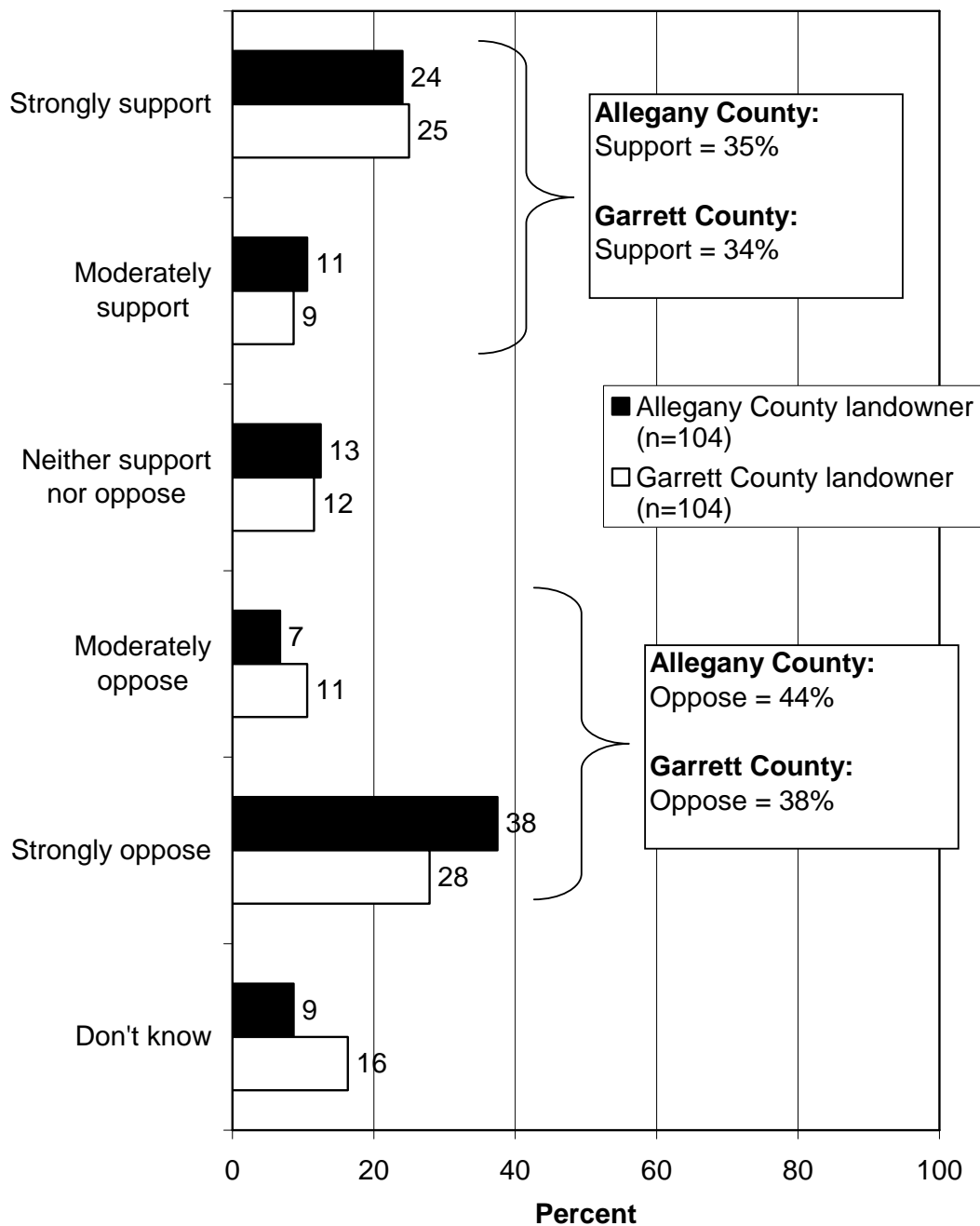
**Q51/Q63. Before and after information provided:
 Would you support or oppose the DNR establishing
 mandatory antler restriction regulations on all
 lands in western Maryland?
 (Deer Hunters - outside western Maryland)**



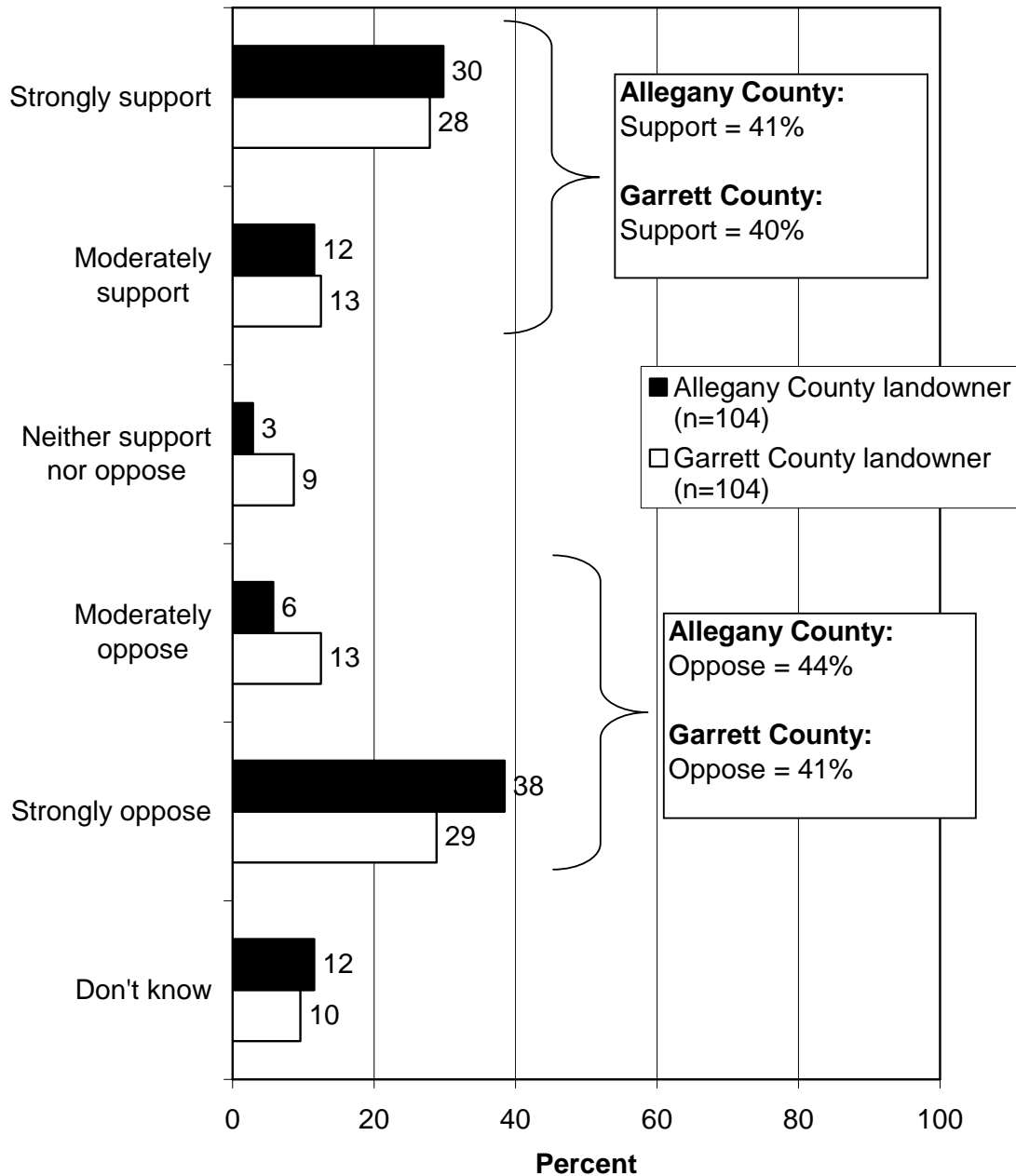
**Q51/Q63. Before and after information provided:
Would you support or oppose the DNR establishing
mandatory antler restriction regulations on all
lands in western Maryland?
(Deer Hunters)**



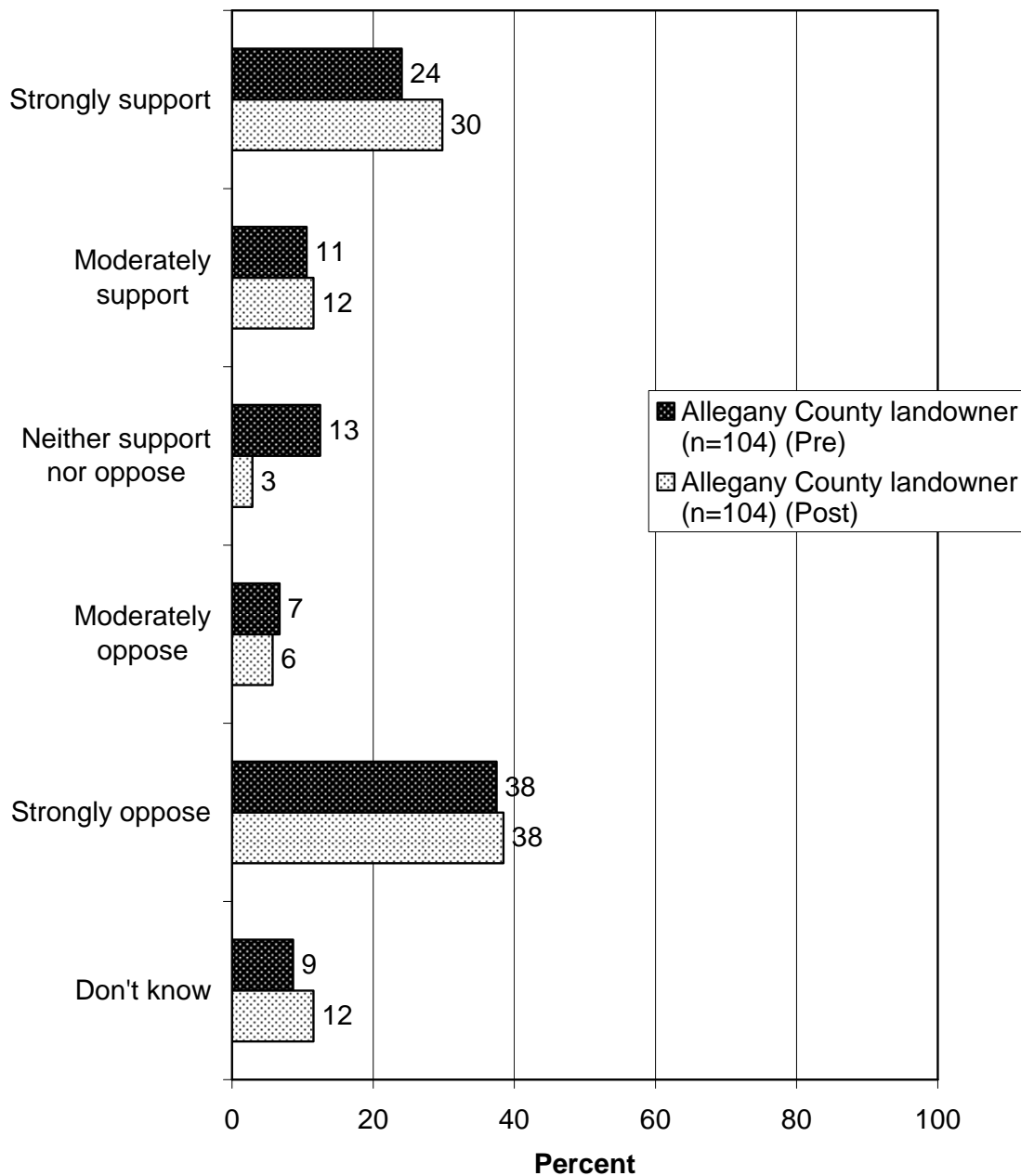
**Q51. Would you support or oppose DNR establishing mandatory antler restriction regulations on all lands in western Maryland?
(Landowners)**



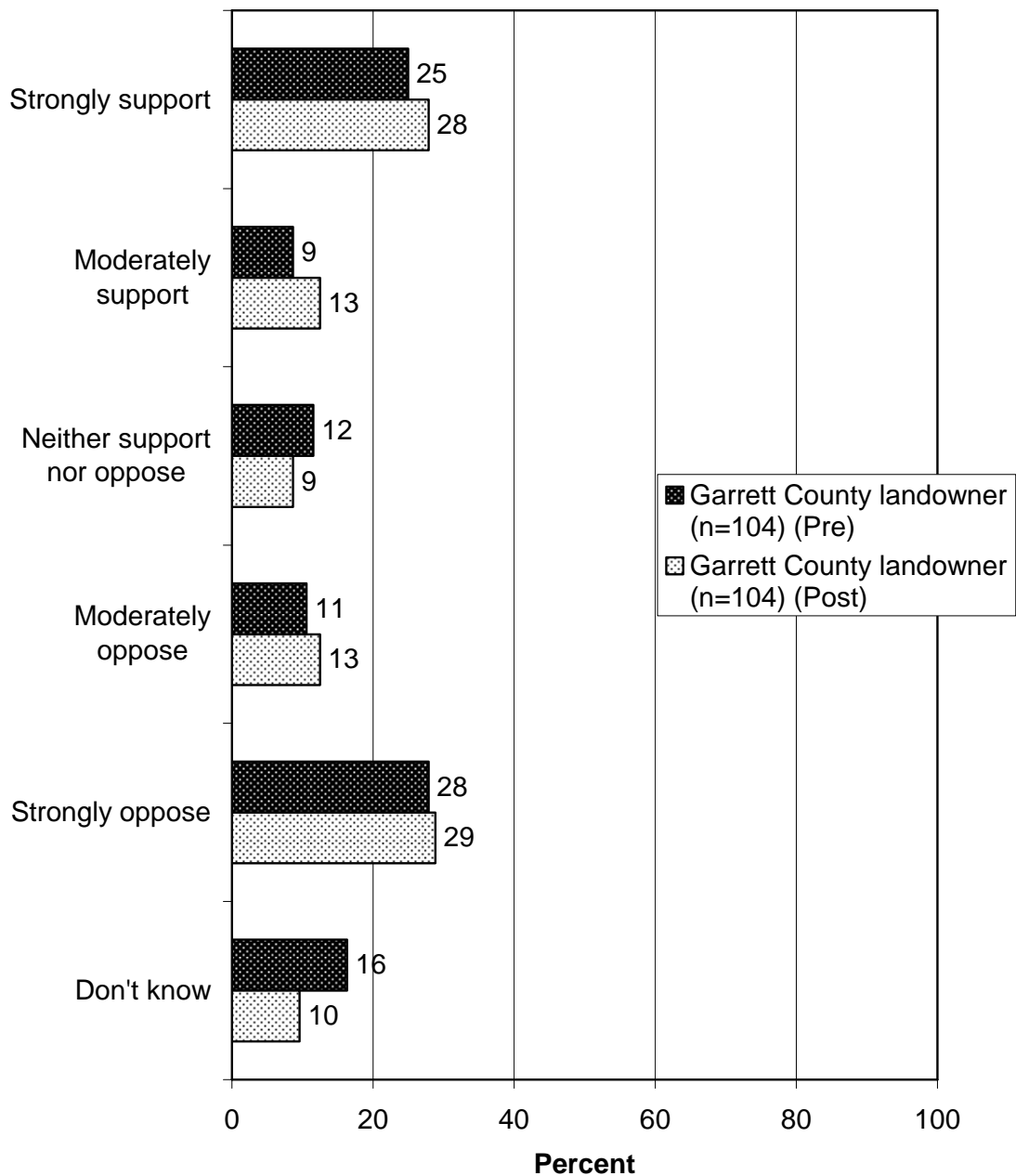
Q63. After hearing that information, would you support or oppose DNR establishing mandatory antler restriction regulations on all lands in western Maryland? (Landowners)



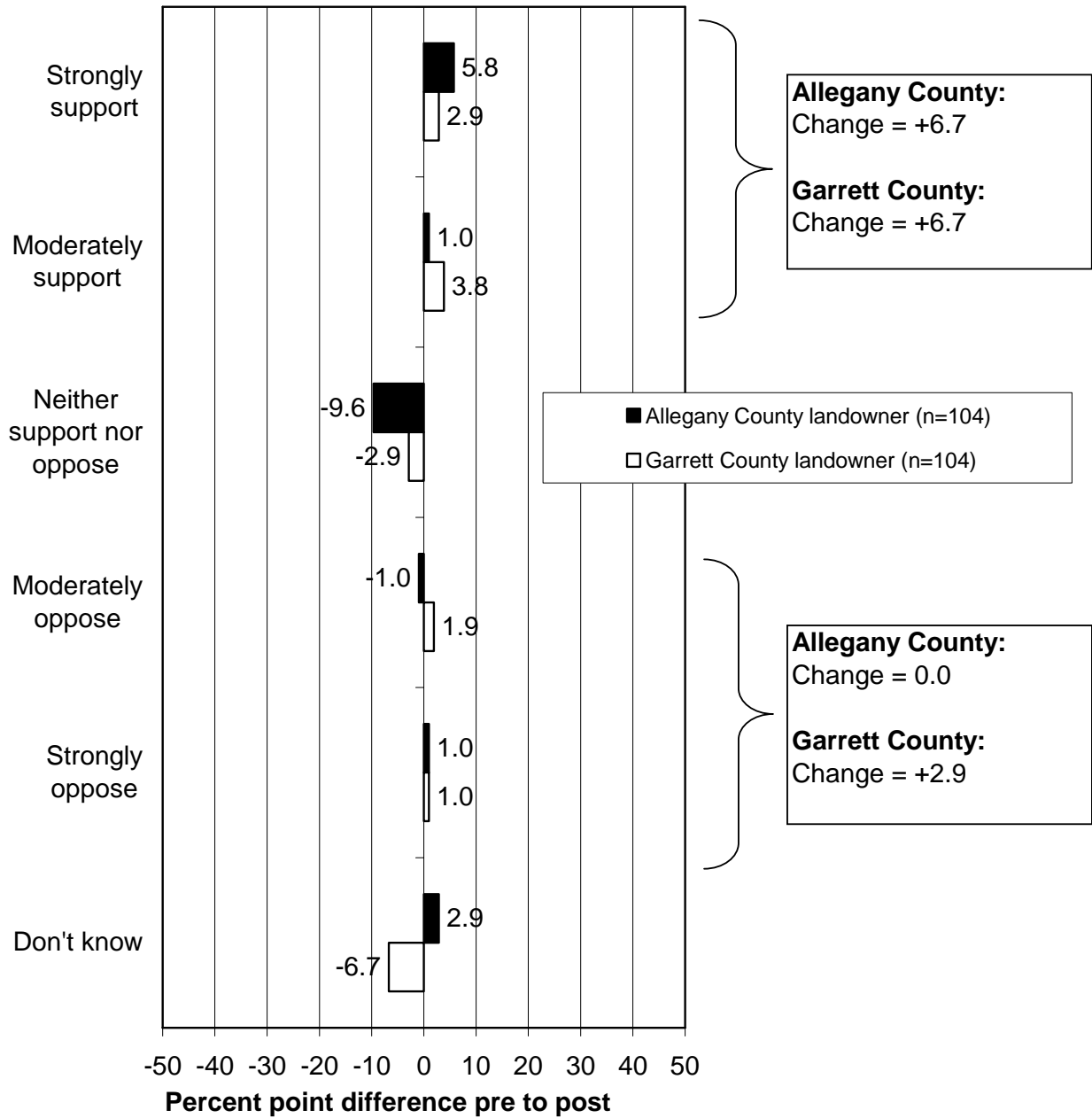
**Q51/Q63. Before and after information provided:
Would you support or oppose the DNR establishing
mandatory antler restriction regulations on all
lands in western Maryland? (Landowners -
Allegany County)**



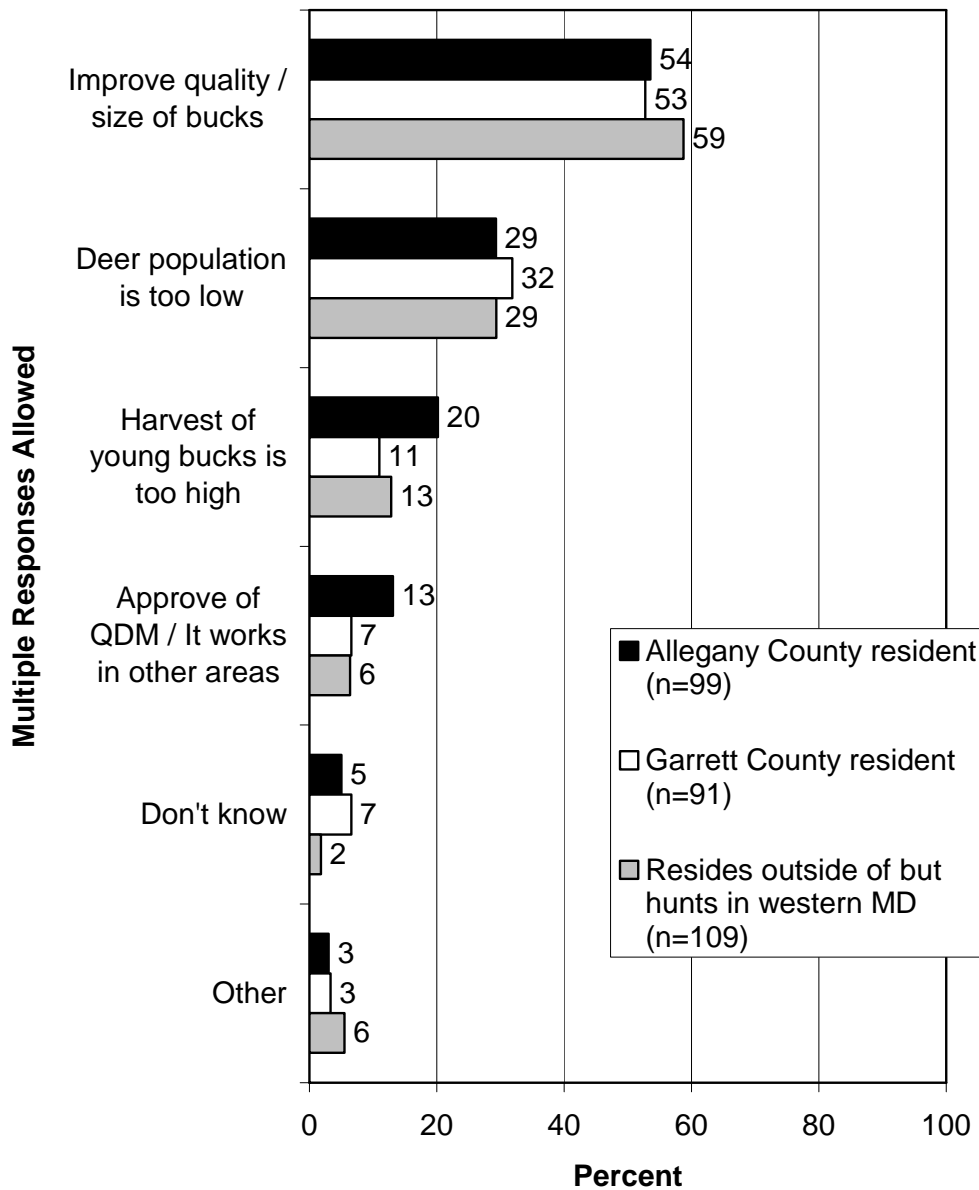
**Q51/Q63. Before and after information provided:
Would you support or oppose the DNR establishing
mandatory antler restriction regulations on all
lands in western Maryland? (Landowners - Garrett
County)**



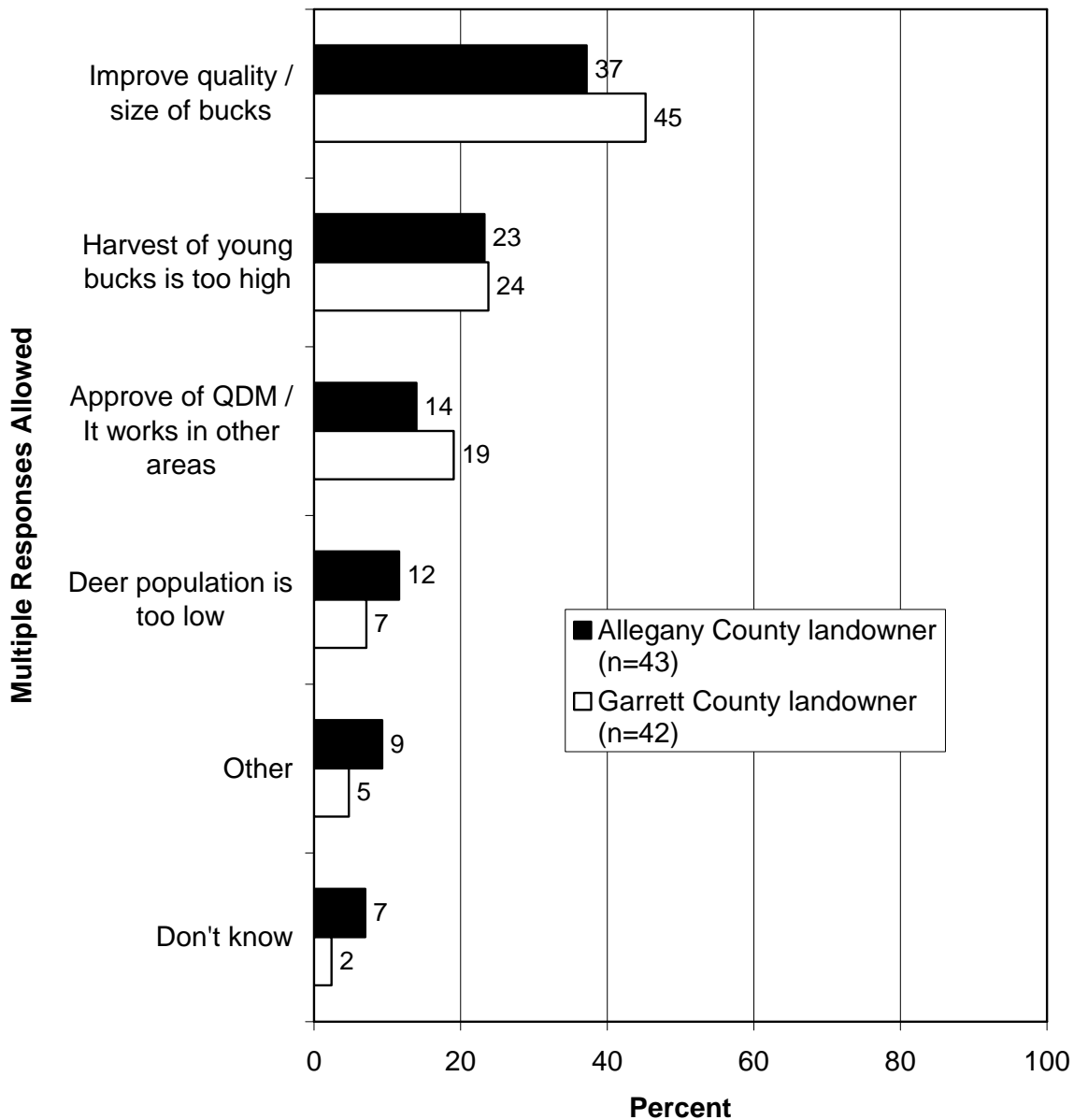
**Q51/Q63. Before and after information provided:
Would you support or oppose the DNR establishing
mandatory antler restriction regulations on all
lands in western Maryland?
(Landowners)**



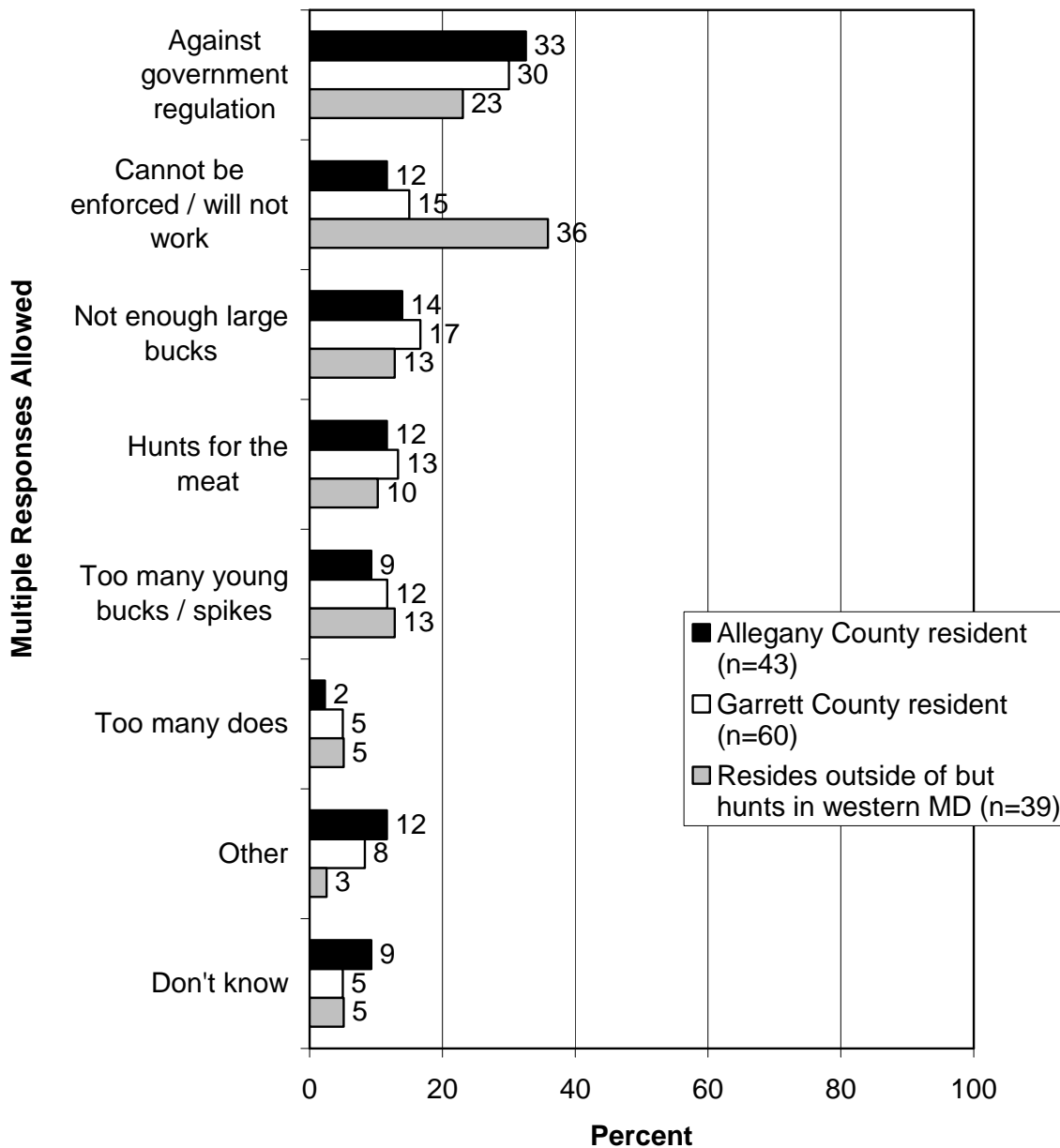
**Q64. In a few words, why do you support the DNR establishing mandatory antler restrictions in western Maryland? (Asked of those who indicated support for having the DNR establish mandatory antler restrictions in western Maryland.)
(Deer Hunters)**



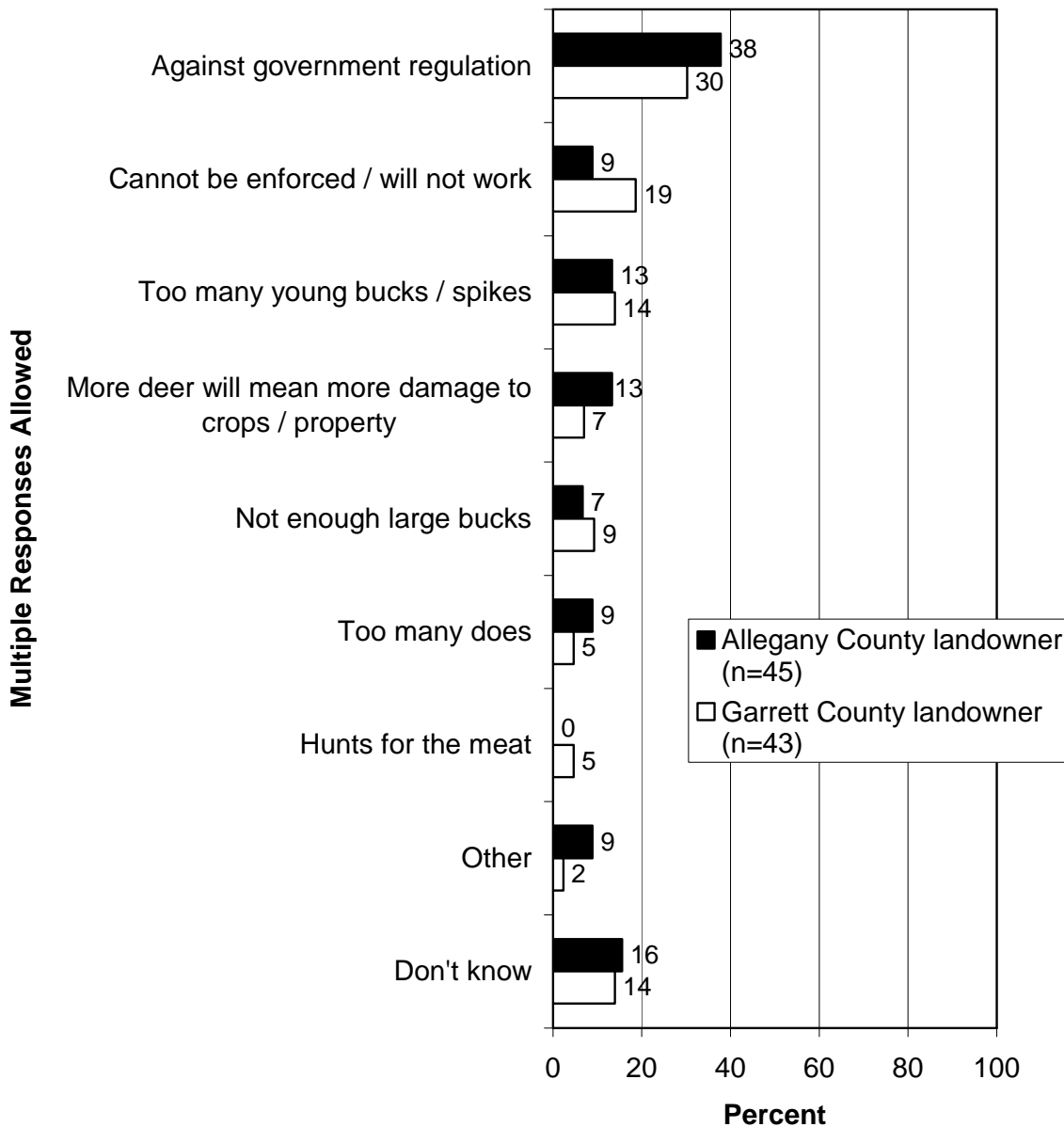
**Q64. In a few words, why do you support the DNR establishing mandatory antler restrictions in western Maryland? (Asked of those who indicated support for having the DNR establish mandatory antler restrictions in western Maryland.)
(Landowners)**



**Q65. In a few words, why do you oppose the DNR establishing mandatory antler restrictions in western Maryland? (Asked of those who indicated opposition to having the DNR establish mandatory antler restrictions in western Maryland.)
(Deer Hunters)**



**Q65. In a few words, why do you oppose the DNR establishing mandatory antler restrictions in western Maryland? (Asked of those who indicated opposition to having the DNR establish mandatory antler restrictions in western Maryland.)
(Landowners)**



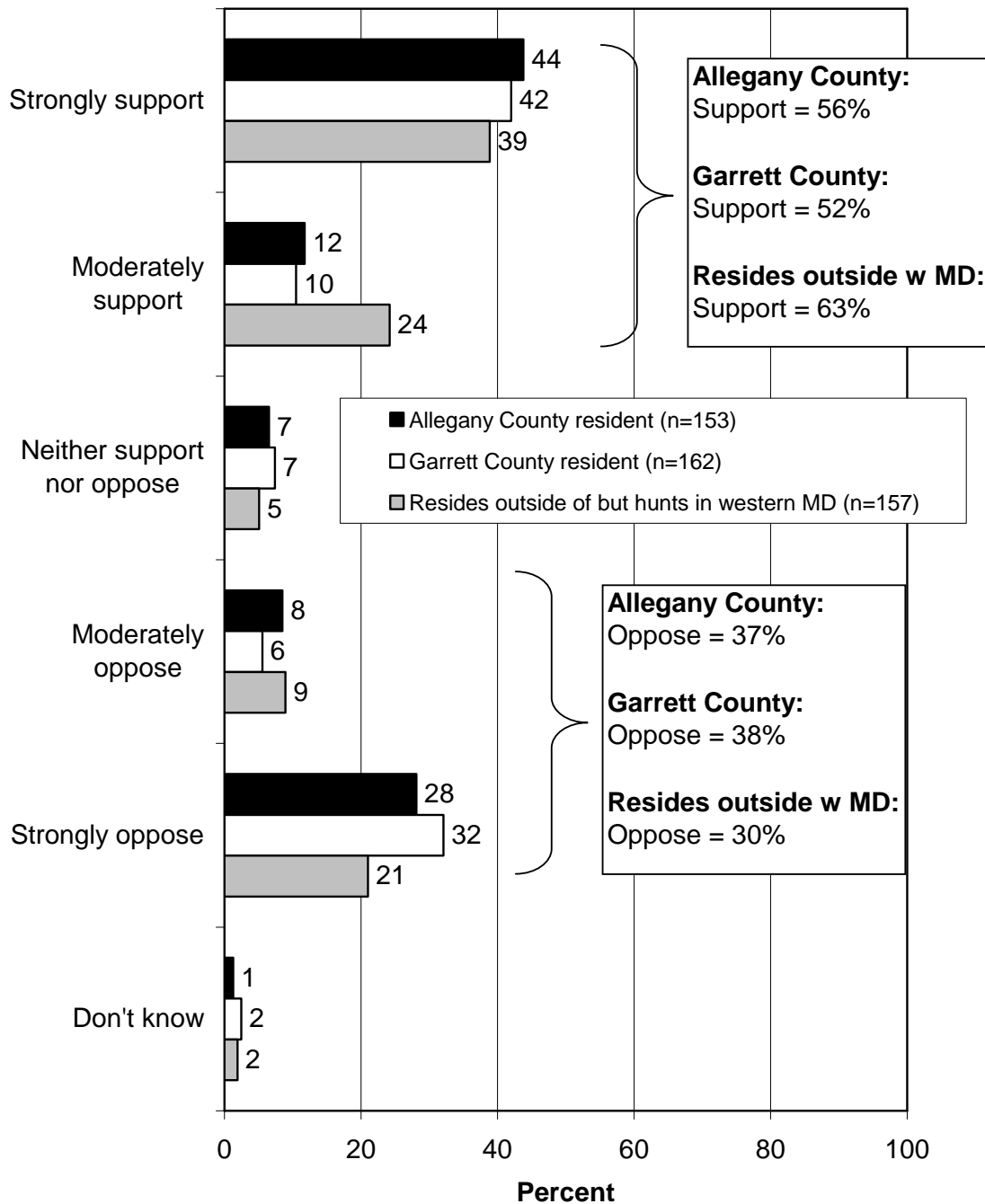
Conditional Opinion on Antler Restrictions

- The survey asked about support for or opposition to antler restrictions on *private* lands and *public* lands. Regarding *private* lands, hunters (who mostly support) and landowners (who mostly oppose) have quite different opinions. However, they are in agreement about antler restrictions on *public* lands, where hunters and landowners have more support than opposition.
 - Among the hunter groups, there is more support than opposition to establishing mandatory antler restrictions on all private lands in western Maryland: 56% support in Allegany County, 52% support in Garrett County, and 63% support among deer hunters from outside western Maryland. Nonetheless, opposition is substantial (37%, 38%, and 30%, respectively).
 - Among landowners, there is less support than opposition to establishing mandatory antler restrictions on all private lands in western Maryland (the opposite of hunters' opinions). In Allegany County, 35% of landowners support, but 53% oppose. In Garrett County, 36% of landowners support, but 54% oppose. Most opposition among landowners is *strong* opposition.
 - Support is even greater among hunters for antler restrictions on public lands in western Maryland: 69% support in Allegany County, 60% support in Garrett County, and 73% support among deer hunters from outside western Maryland. Opposition ranges from a quarter to a third (25%, 31%, and 22%, respectively).
 - Among landowners, there is more support than opposition to antler restrictions on public lands: 48% of Allegany County landowners and 50% of Garrett County landowners support, compared to opposition at 36% and 33%, respectively.

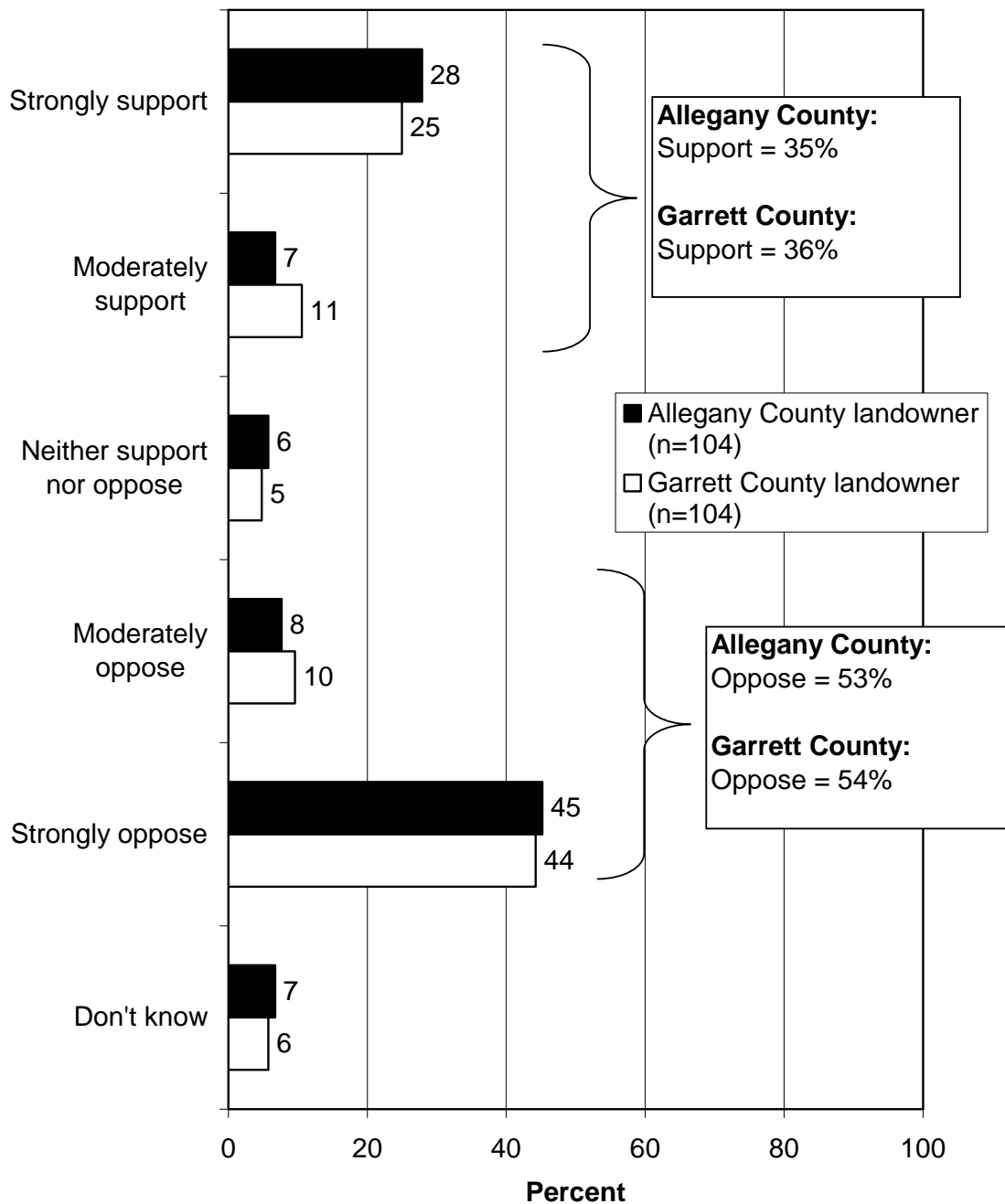
- Two questions started with the supposition that there would be antler restrictions. The questions then asked if youth (16 years or younger) or senior (over 65 years old) hunters should be exempted from having to follow those restrictions. For the most part, there is more support than opposition for both exemptions.
 - Among the hunter groups, there is much more support for than opposition to exempting youth hunters: 57% of Allegany County residents support, 59% of Garrett County residents do so, and 70% of those from outside western Maryland support (in fact, just about half of all three groups *strongly* support).

- Among Allegany County landowners, support (43%) is about the same as opposition (44%) for exempting youth; among Garrett County landowners, there is much more support (62%) than opposition (27%).
 - Regarding exempting senior hunters, there is slightly less support as there was for exempting youths, but still a majority of each hunter group supports exempting seniors. Support for exempting senior hunters is at 56% among Allegany County residents, 56% among Garrett County residents, and 52% among those from outside western Maryland; opposition stands at 36%, 39%, and 42%, respectively.
 - For landowners in both counties, there is a majority in support of exempting seniors: 51% of Allegany County landowners and 60% of Garrett County landowners; opposition stands at 36% and 30%, respectively.
- The survey asked hunters and landowners if they would prefer having the DNR either establish *mandatory* antler restrictions or continue to promote *voluntary* quality deer management. While results are close among hunters, there are more in favor of voluntary action over mandatory action. Landowners, by decisive margins, favor voluntary over mandatory action.
- There is a nearly even split in the hunter groups, with just slightly more favoring *voluntary* action over *mandatory* action: among Allegany County residents, it is 46% for voluntary to 41% for mandatory; among Garrett County residents, it is 41% to 39%; and among those from outside western Maryland, it is 48% to 45%.
 - Landowners are about twice as likely to favor *voluntary* action over *mandatory* action: among Allegany County landowners, 56% choose voluntary and 23% choose mandatory; among Garrett County landowners, it is 46% to 25% in favor of voluntary.
 - A follow-up question asked those who support mandatory action about several options: the most support among both hunters and landowners was for reducing the buck limit to 2 bucks, with antler restrictions on both of them. Among hunters, there was also substantial support for keeping the 3-buck limit with antler restrictions on all of them. In looking at combinations of answers, a majority of all three hunter groups and both landowner groups supported having the antler restrictions apply to all the bucks in the bag limit (ranging from 63% to 73% among hunters and 58% to 62% among landowners).

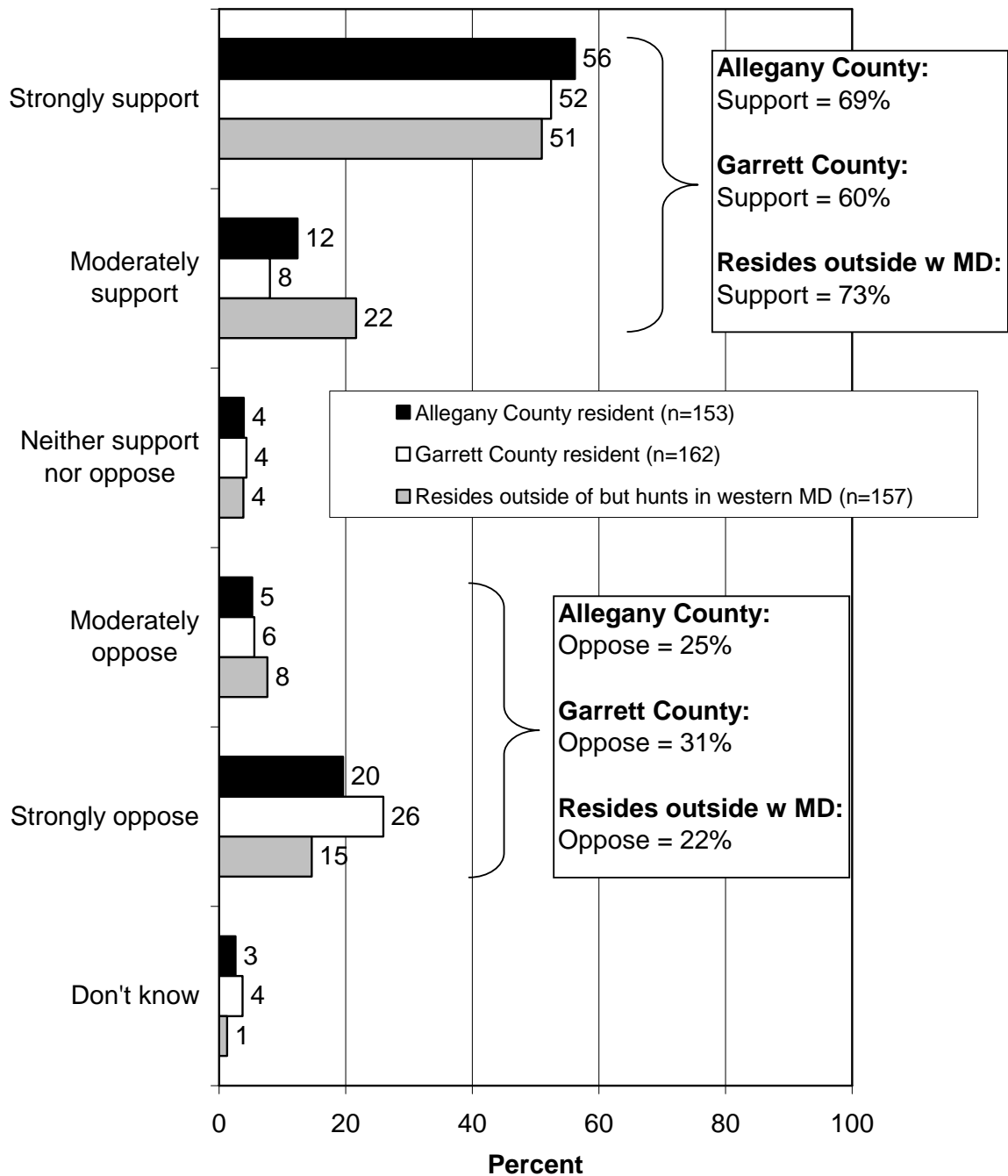
Q66. Would you support or oppose establishing mandatory antler restriction regulations on all private land in western Maryland? (Deer Hunters)



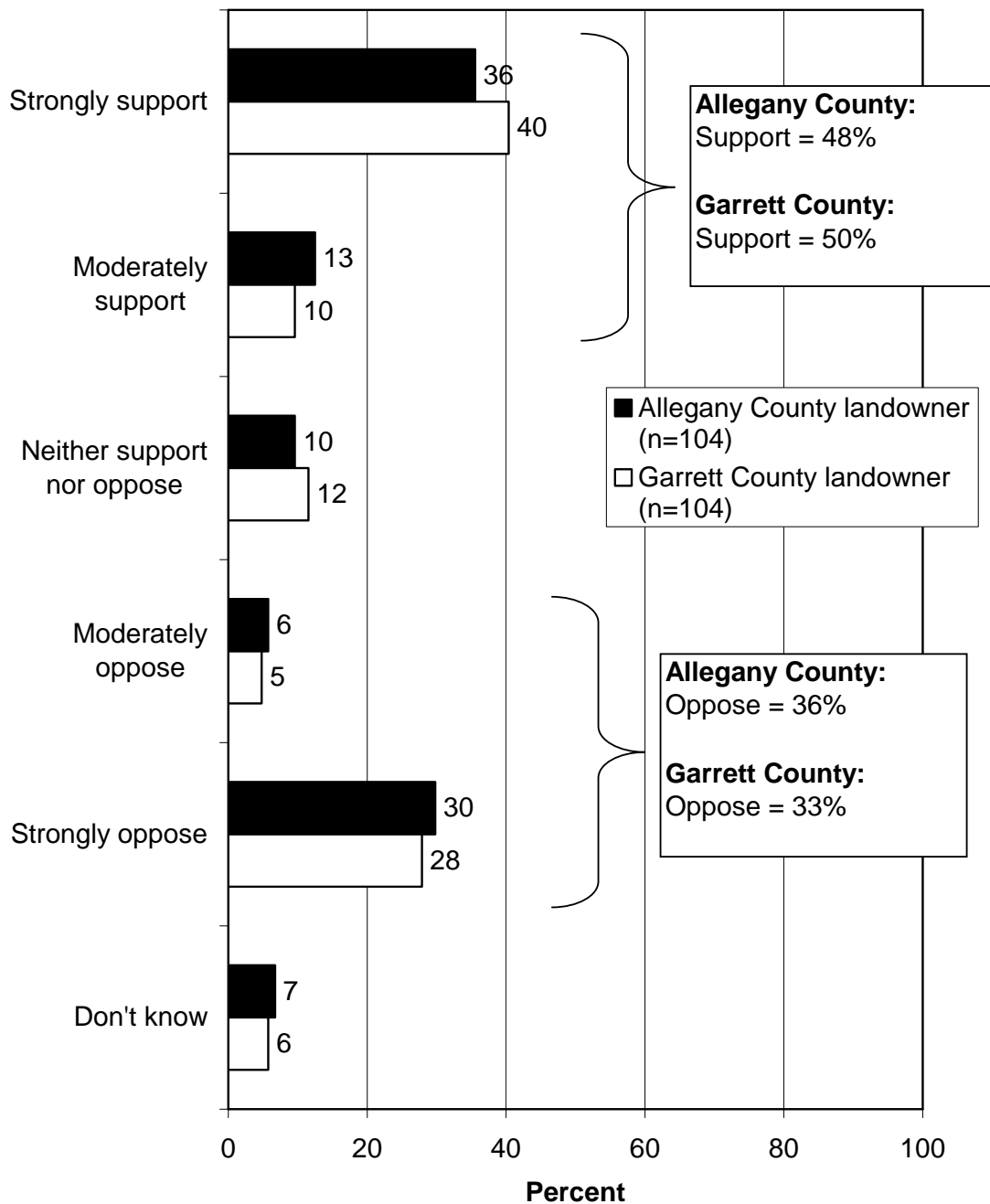
Q66. Would you support or oppose establishing mandatory antler restriction regulations on all private land in western Maryland? (Landowners)



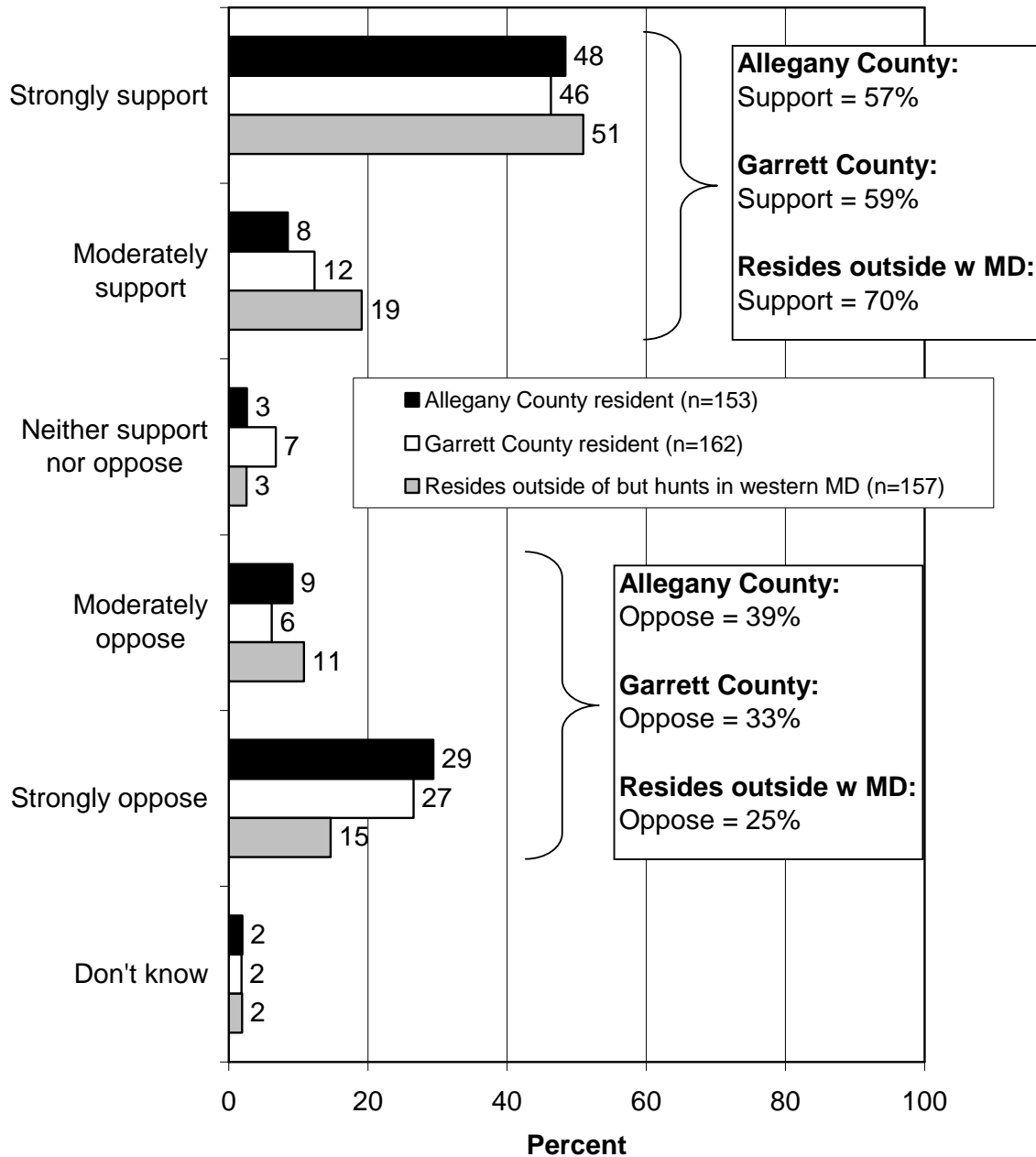
Q67. Would you support or oppose establishing mandatory antler restriction regulations on all public land in western Maryland? (Deer Hunters)



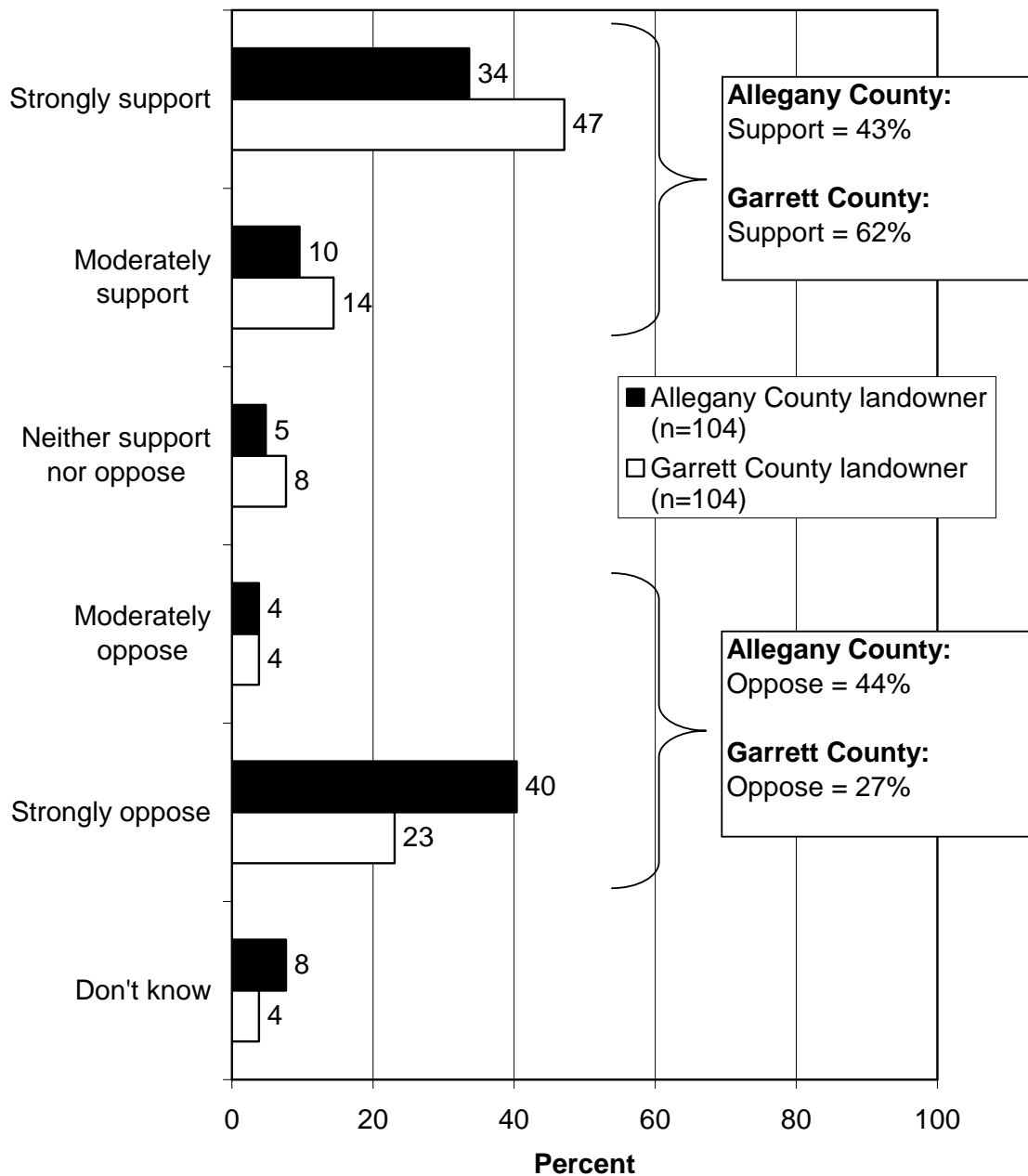
Q67. Would you support or oppose establishing mandatory antler restriction regulations on all public land in western Maryland? (Landowners)



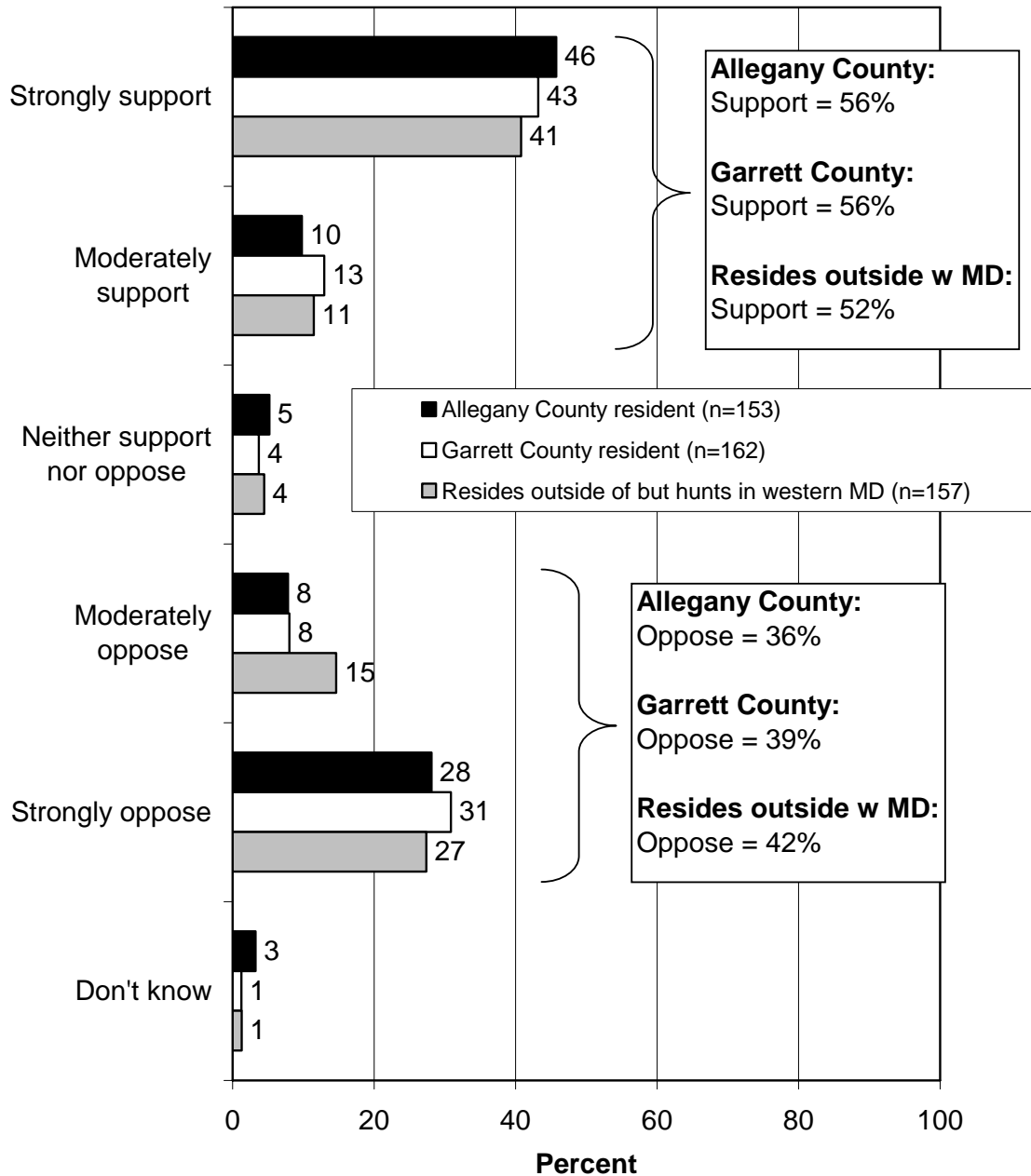
**Q69. If antler restrictions were implemented in western Maryland, would you support or oppose exempting youth deer hunters, 16 years or younger, from mandatory antler restrictions?
(Deer Hunters)**



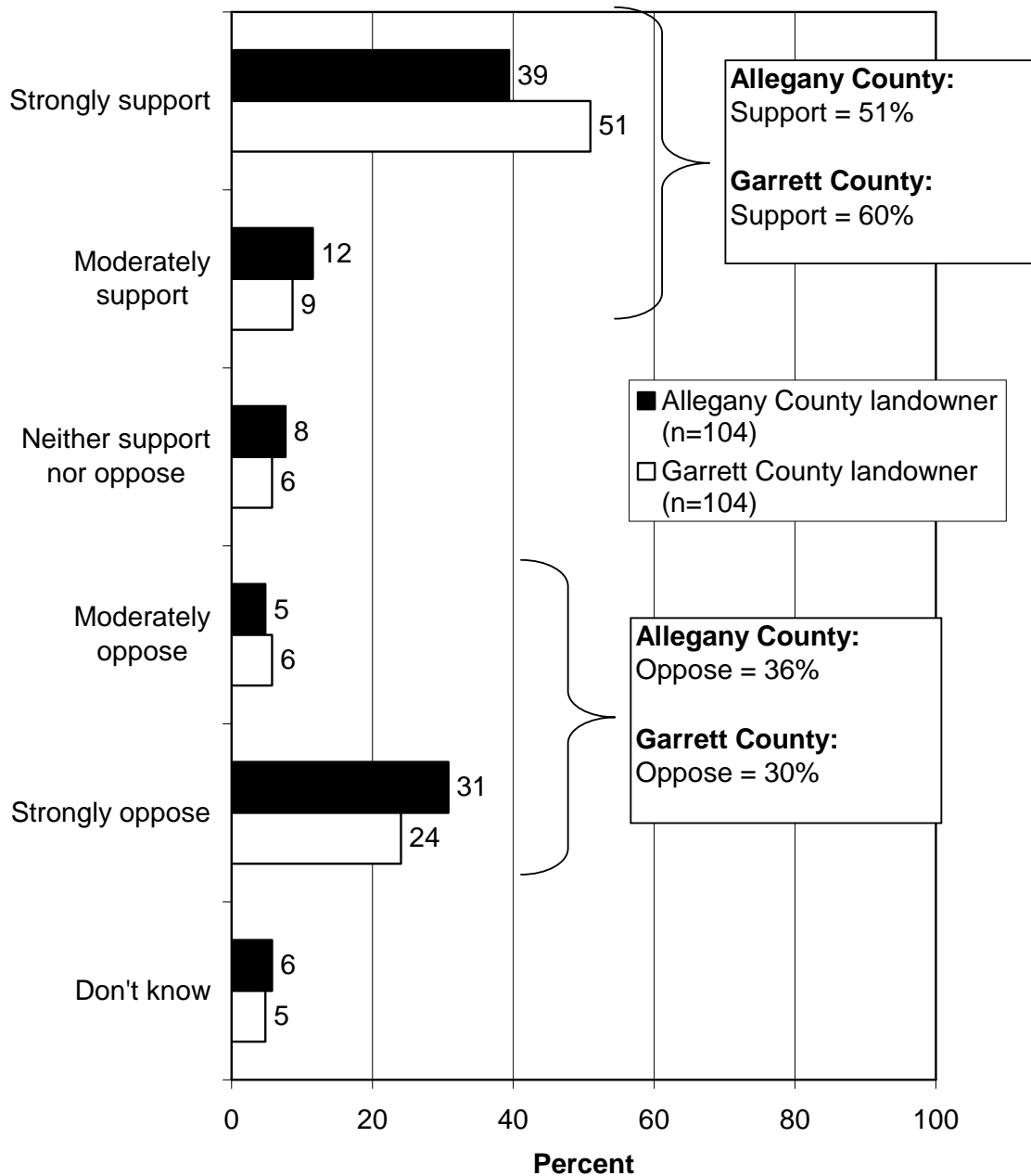
**Q69. If antler restrictions were implemented in western Maryland, would you support or oppose exempting youth deer hunters, 16 years or younger, from mandatory antler restrictions?
(Landowners)**



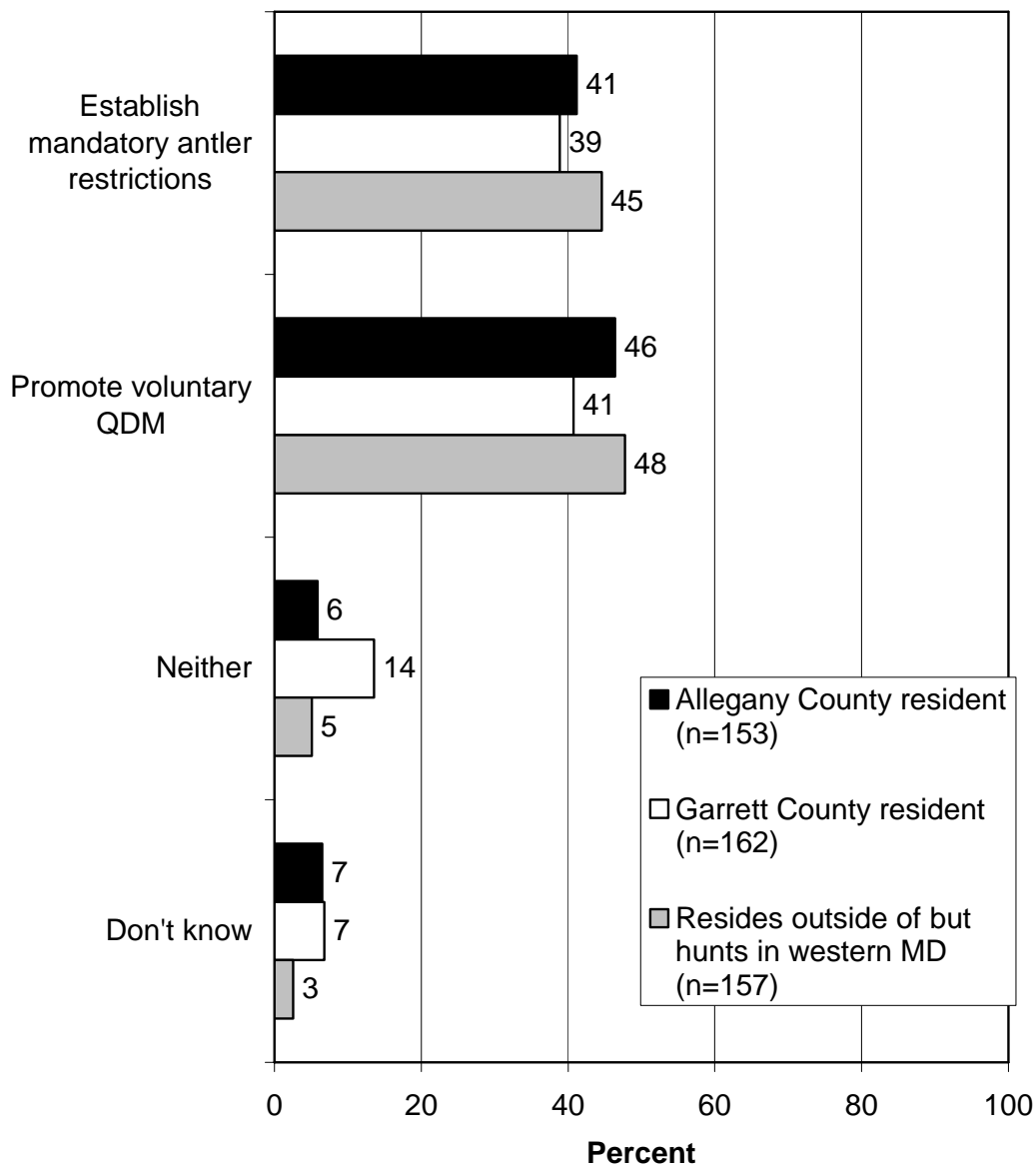
**Q70. If antler restrictions were implemented in western Maryland, would you support or oppose exempting senior deer hunters, those 65 years or older, from mandatory antler restrictions?
(Deer Hunters)**



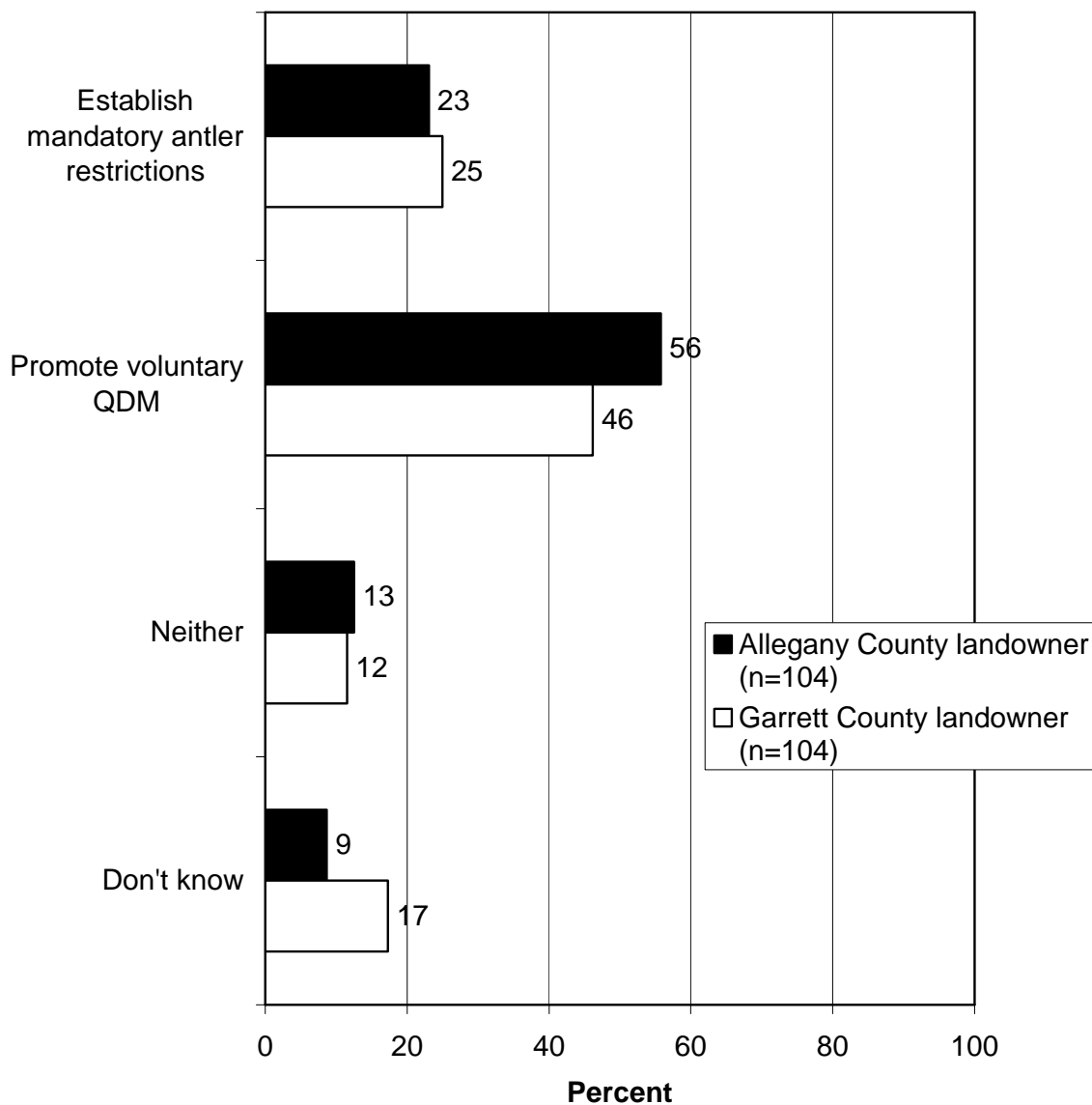
**Q70. If antler restrictions were implemented in western Maryland, would you support or oppose exempting senior deer hunters, those 65 years or older, from mandatory antler restrictions?
(Landowners)**



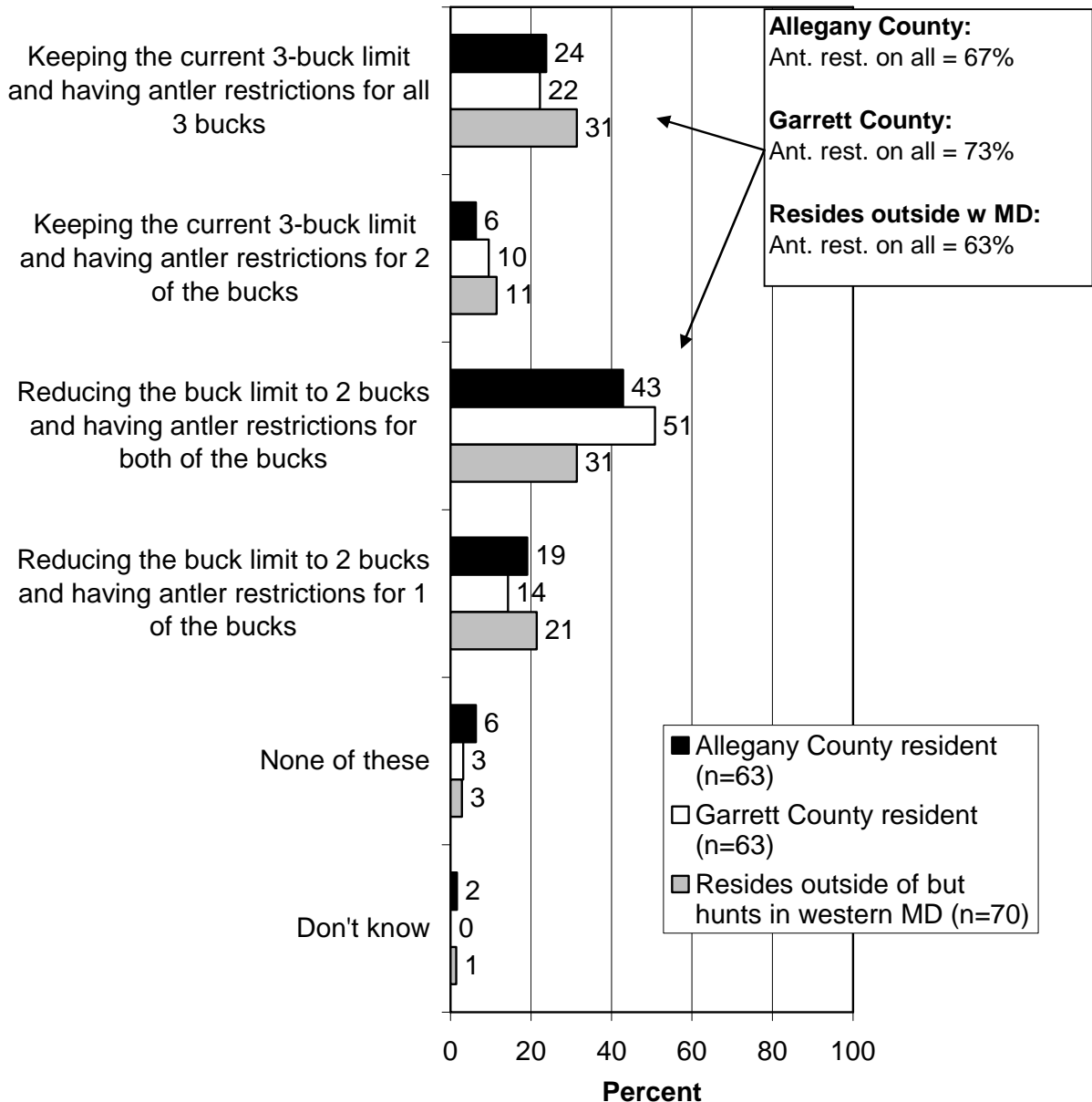
**Q85. Which would you prefer, if you had to choose:
Would you prefer having the DNR establish mandatory
antler restrictions, or would you prefer having the DNR
continue to promote voluntary Quality Deer
Management through its annual hunting license guide
and website? (Deer Hunters)**



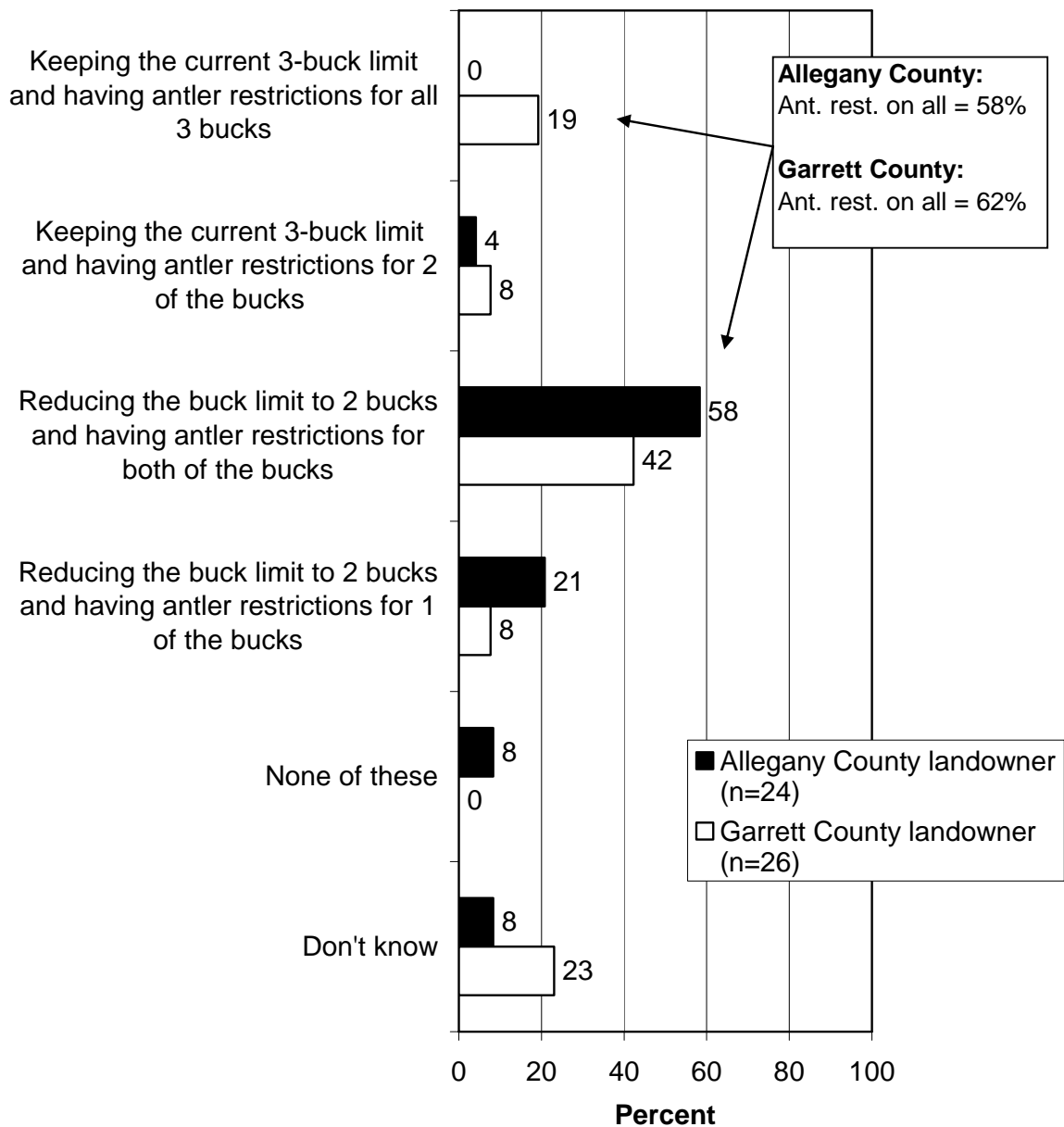
**Q85. Which would you prefer, if you had to choose:
Would you prefer having the DNR establish mandatory
antler restrictions, or would you prefer having the DNR
continue to promote voluntary Quality Deer Management
through its annual hunting license guide and website?
(Landowners)**



Q86. Please let me know which of the following antler restriction scenarios you would support most. (Asked of those who would prefer the DNR establishing mandatory antler restrictions rather than promoting voluntary QDM.) (Deer Hunters)



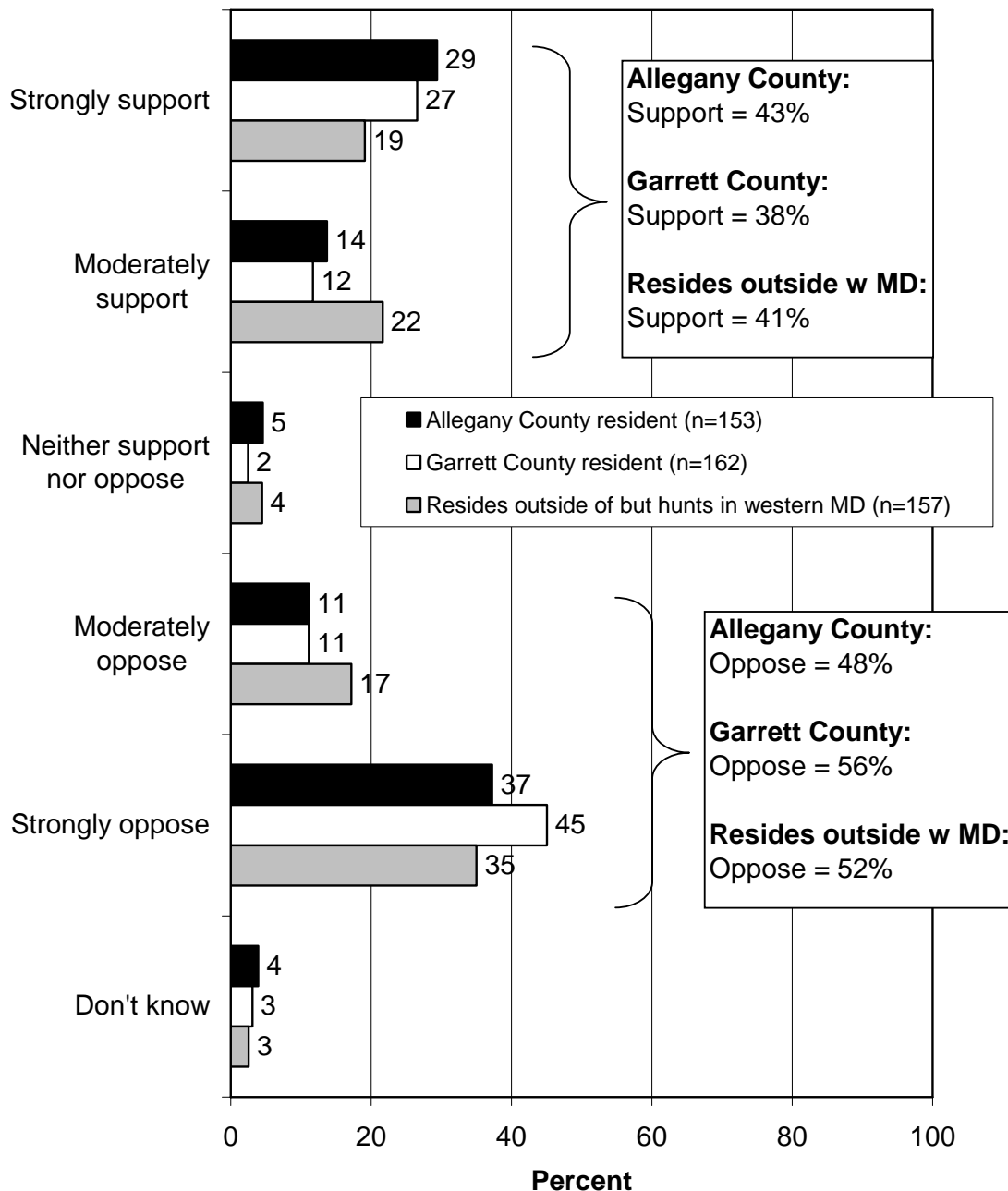
Q86. Please let me know which of the following antler restriction scenarios you would support most. (Asked of those who would prefer the DNR establishing mandatory antler restrictions rather than promoting voluntary QDM.) (Landowners)



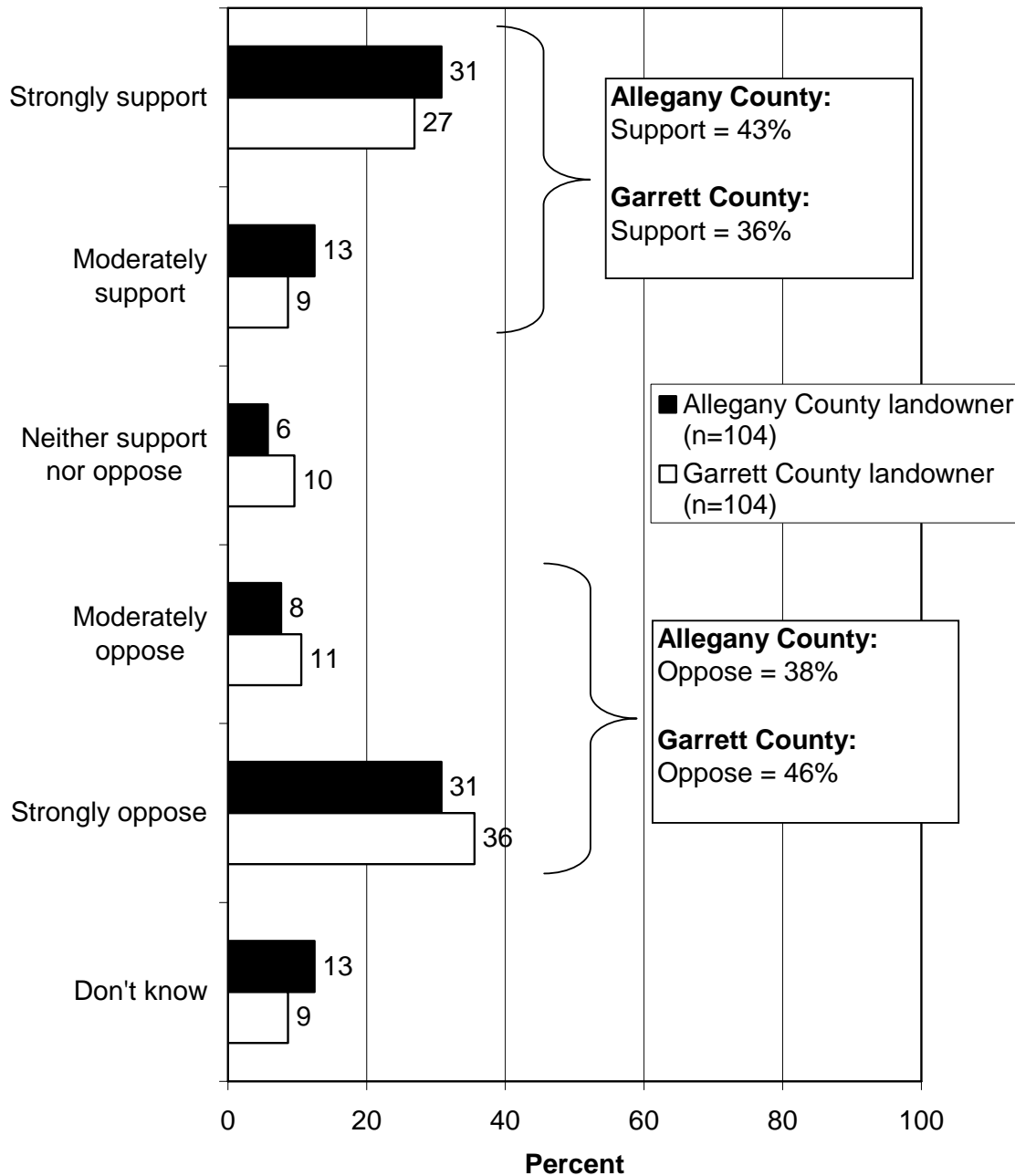
Conditional Opinion on Antlerless Deer Seasons and Bag Limits

- In the hunter groups, there is more opposition (ranging from 48% to 56%) than support (ranging from 38% to 43%) for reducing the antlerless deer seasons and bag limits in western Maryland for several years, if antler restrictions are implemented. A further challenge regarding this split is that, in general, most support and most opposition is *strong* rather than *moderate*. The landowners have no consensus: among Allegany County landowners, 43% support and 38% oppose; among Garrett County landowners, 36% support and 46% oppose.

Q82. Would you support or oppose reducing the antlerless deer seasons and bag limits in western Maryland for several years if antler restrictions were implemented? (Deer Hunters)



Q82. Would you support or oppose reducing the antlerless deer seasons and bag limits in western Maryland for several years if antler restrictions were implemented? (Landowners)



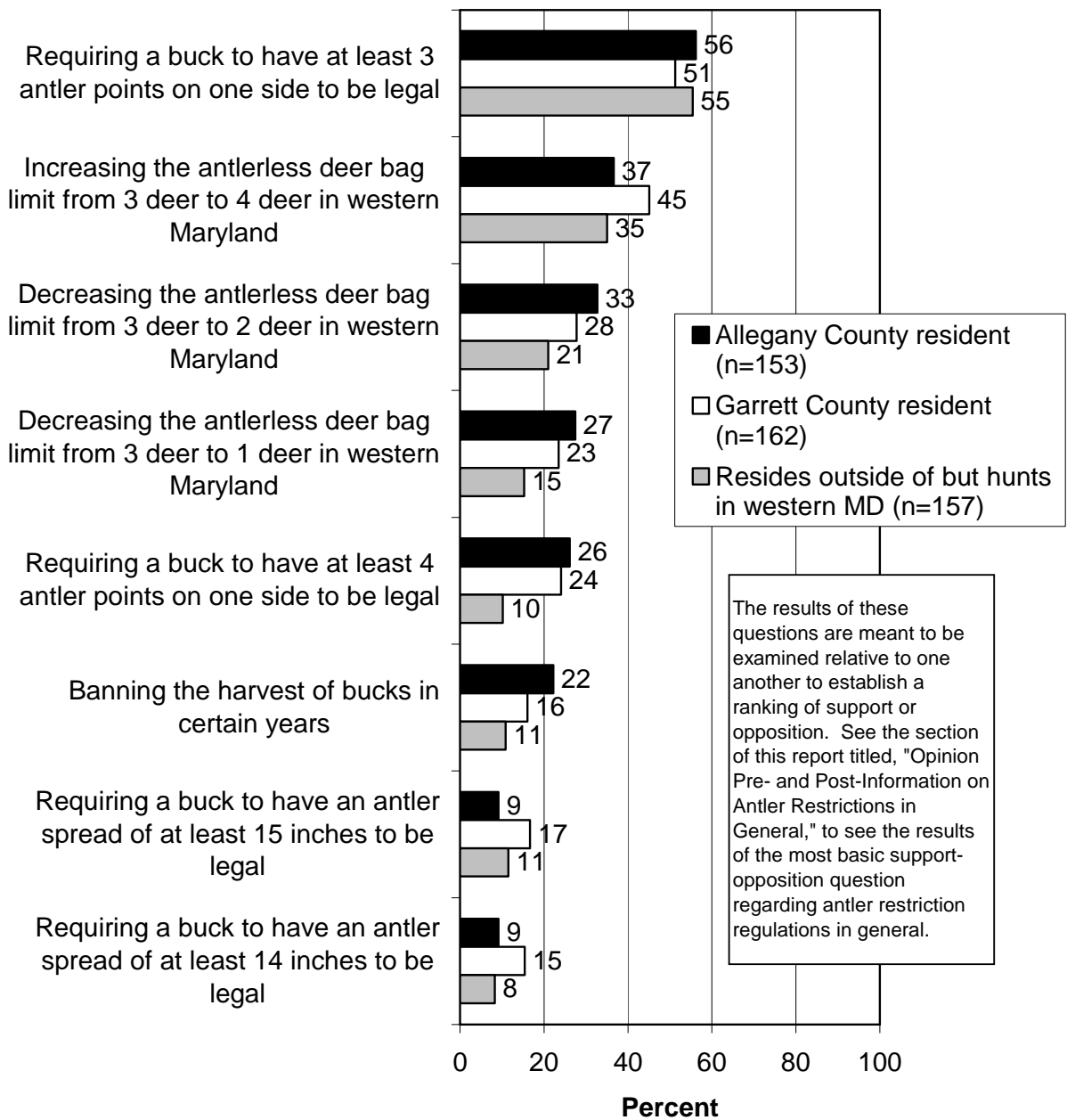
Comparison of Opinion on a Series of Questions on Antler Restrictions and Bag Limits

- The survey also presented a series of questions on antler restrictions and bag limits. Each question is meant to be looked at relative to all other questions in the series rather than by itself. The line of questioning reveals a *ranking* of items in the series—in this case, different options for quality deer management. Of more importance than the actual percentages attached to each option is how the option fared relative to other options. (Recall that, as previously reported, in a basic question about support or opposition to antler restriction regulations in general, overall support—either *strong* or *moderate*—stood at 65% among deer hunters from Allegany County, 56% among deer hunters from Garrett County, 69% among deer hunters from outside western Maryland, 41% among Allegany County landowners, and 40% among Garrett County landowners.)
 - There were three questions in the series asking about bag limit changes (increasing the antlerless bag limit from 3 to 4 deer, decreasing the antlerless bag limit from 3 to 2 deer, and decreasing the antlerless deer bag limit from 3 to 1 deer).
 - There were two questions that asked about the number of points on one side (3 points and 4 points).
 - There were two questions in the series that asked about antler spreads (of 14 inches and of 15 inches).
 - In the middle of this series of questions, a “dummy” question was added by the survey writers to break up the other questions: it asked about banning the harvest of bucks in some years. This is not a regulation under consideration by the DNR, but was added to ensure that the randomly ordered questions in the series were broken up by a question with no reference to antler spreads, antler points, or bag limits.
- In looking at the results of this series, some of the salient findings among the hunter groups include:
 - The most support is for having a 3-point rule (it is the only option that had a majority of all three hunter groups in support). Part of the relatively high support, particularly in comparison to antler spreads, is that a hunter can easily distinguish points. There is *not*

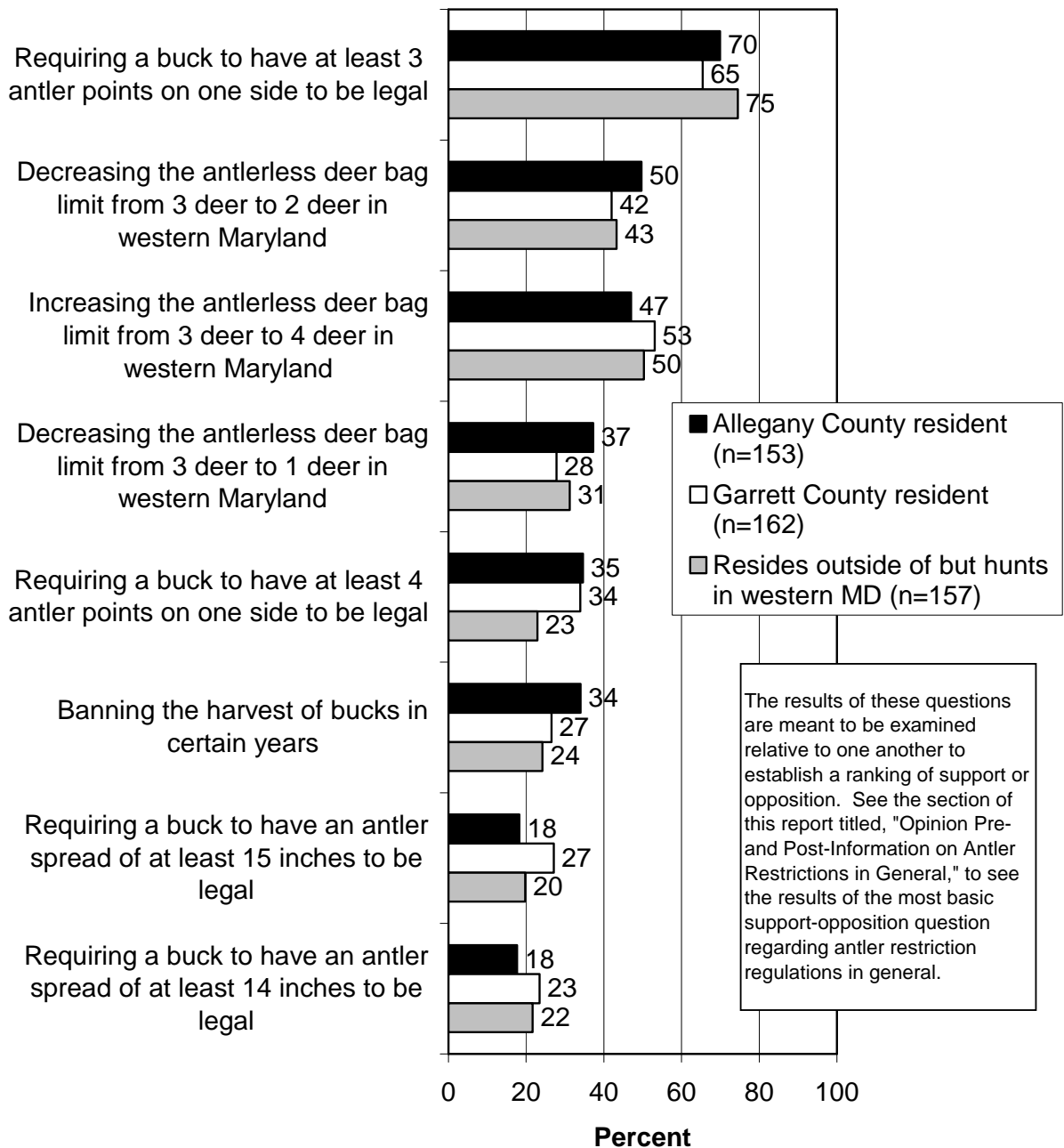
this level of support, however, for a 4-point rule. (The questions specified that the points are measured on *one side*.)

- The antler restrictions based on the inches of spread are in disfavor. They are the lowest ranked in percentage who support. (For the most part, even lower in support than the “dummy” question that was expected to have little support.)
 - An anecdotal finding was that much of the opposition to inch spreads centers around the hunters’ inability to distinguish the antler spread at the typical shooting distance, particularly when the survey asked about both 14- and 15-in spreads. This is said to be “anecdotal” because no quantitative data were gathered about this aspect of antler spreads; the finding is based on conversations with the interviewers about the question results—from conversations they had with the hunters when administering the questionnaire.
 - There is a split regarding reducing or increasing antlerless bag limits. There is almost as much support for *decreasing* the antlerless bag limit from 3 to 2 as there is for *increasing* the limit from 3 to 4.
 - The option of decreasing the antlerless bag limit from 3 to 1 has little support and has the least support of all the options that involve changing bag limits.
 - In summary, the most support among hunters is for the 3-point rule, followed by either decreasing the antlerless bag limit from 3 to 2 or increasing the bag limit from 3 to 4. All of the other options had a majority of all three hunter groups in opposition: thresholds based on 14- or 15-inch spreads, the 4-point rule, and decreasing the antlerless bag limit to 1 deer.
- The salient findings among landowners who hunted in western Maryland include:
- The most support among landowners is for having a 3-point rule or for decreasing the bag limit from 3 deer to 2 deer. There is *not* this level of support, however, for a 4-point rule, which is near or at the bottom of the ranking for the two landowner groups. (The questions specified that the points are measured on *one side*.)
 - Among landowners, the antler restrictions based on the inches of spread are in disfavor.
 - There is somewhat of a split among landowners regarding reducing or increasing antlerless bag limits.

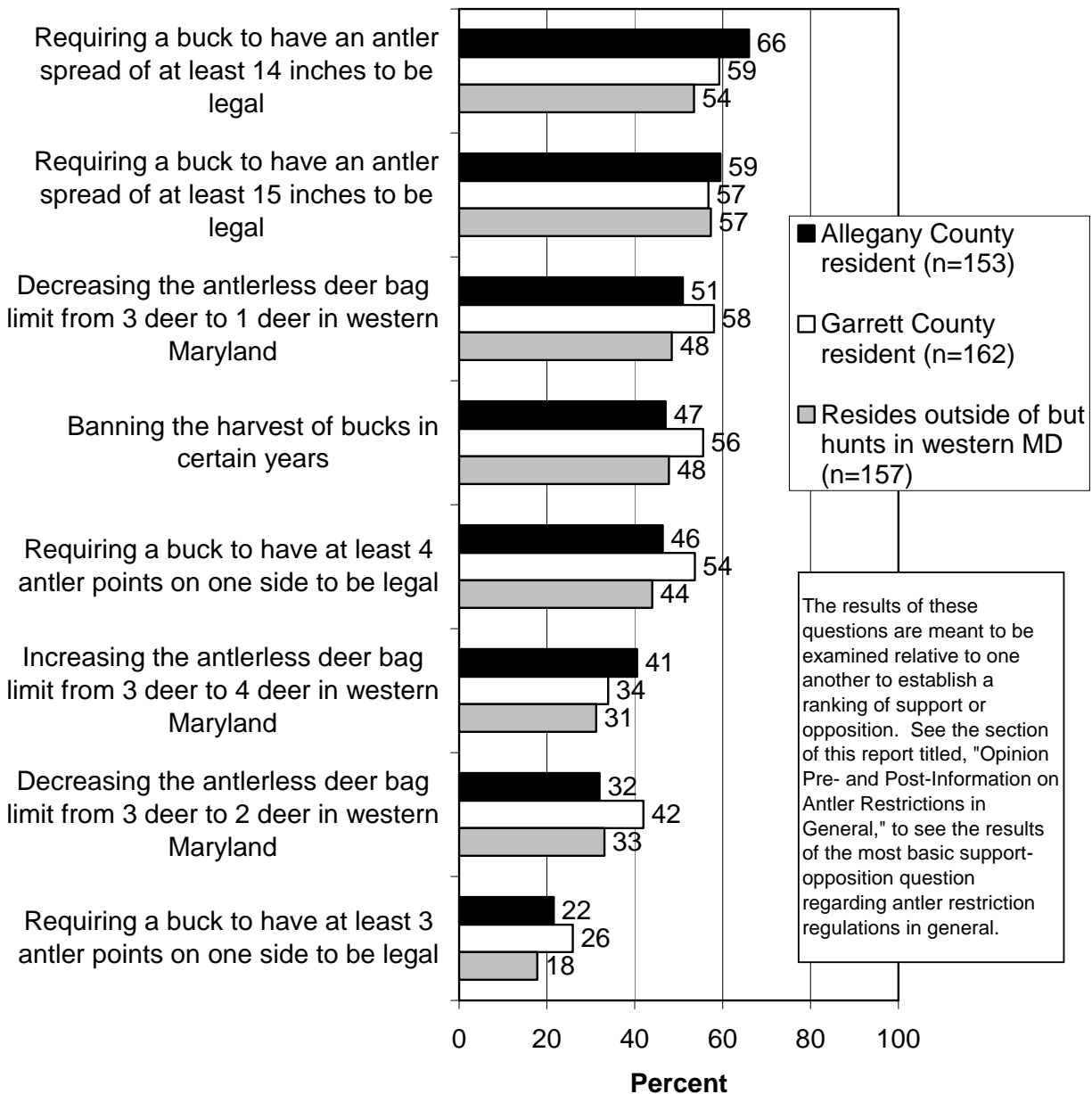
Q73-Q81. Percent of respondents who indicated that they strongly support each of the following, from a list of options presented to them. (Deer Hunters)



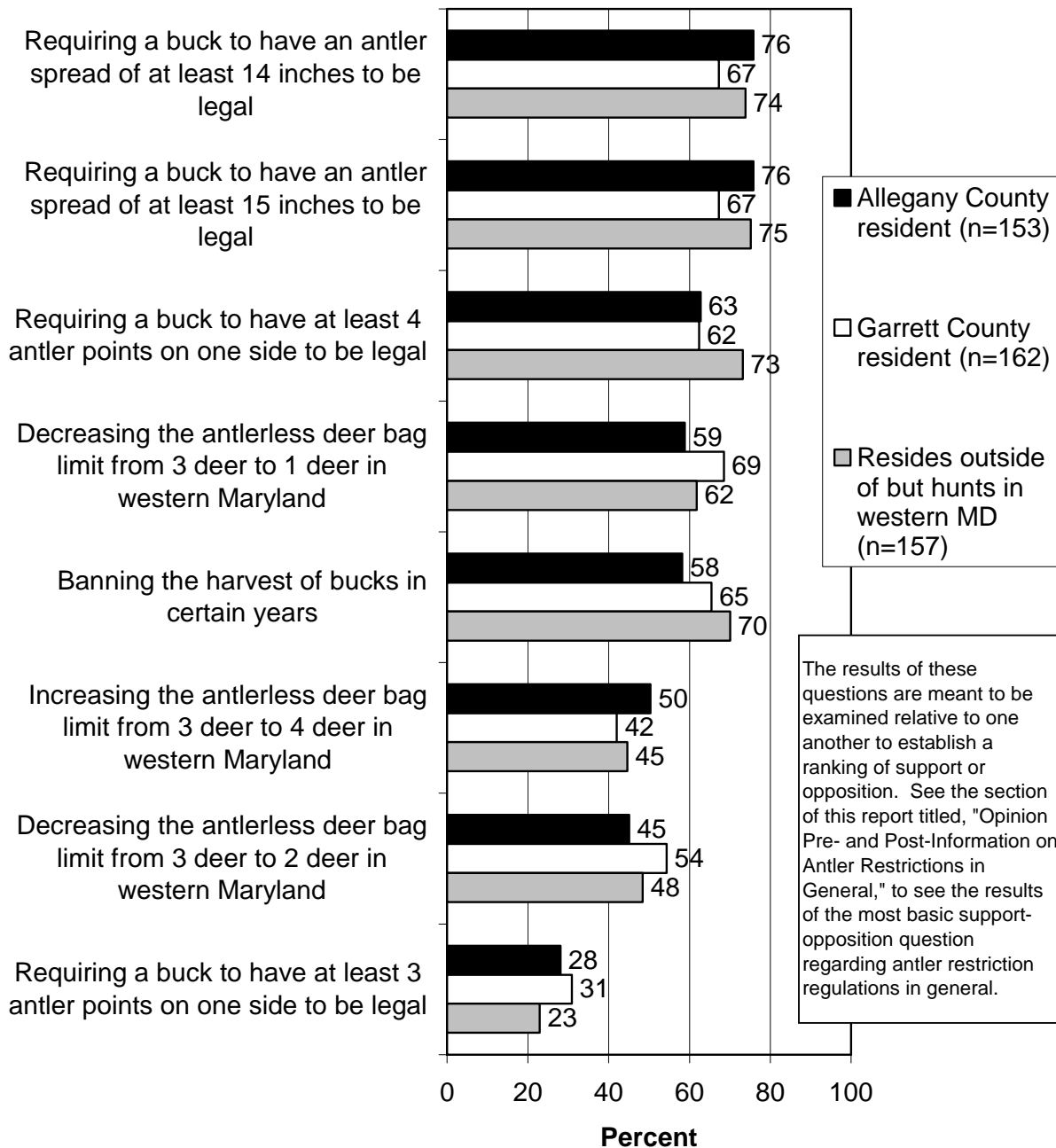
Q73-Q81. Percent of respondents who indicated that they strongly or moderately support each of the following, from a list of options presented to them. (Deer Hunters)



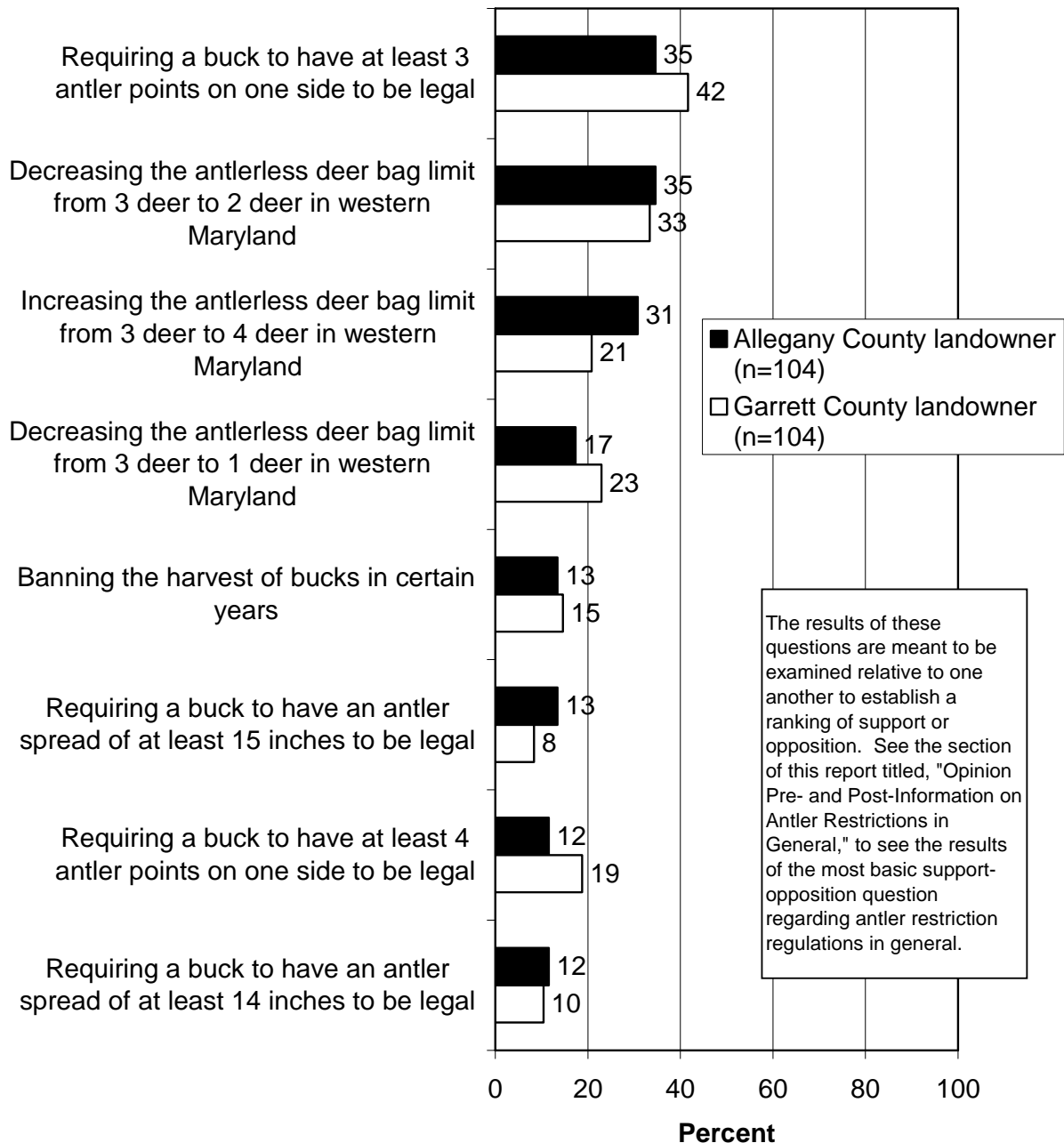
Q73-Q81. Percent of respondents who indicated that they strongly oppose each of the following, from a list of options presented to them. (Deer Hunters)



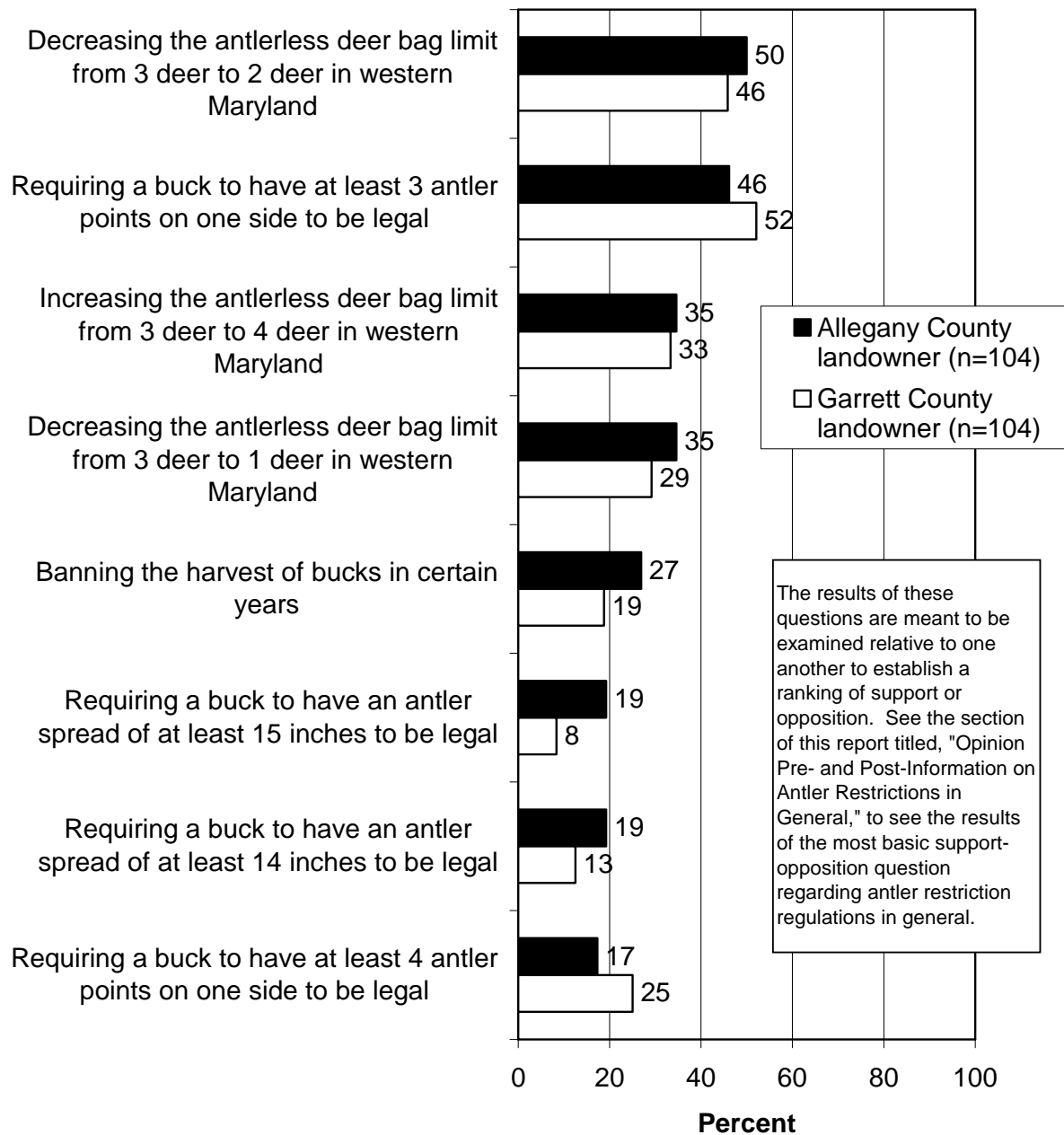
Q73-Q81. Percent of respondents who indicated that they strongly or moderately oppose each of the following, from a list of options presented to them. (Deer Hunters)



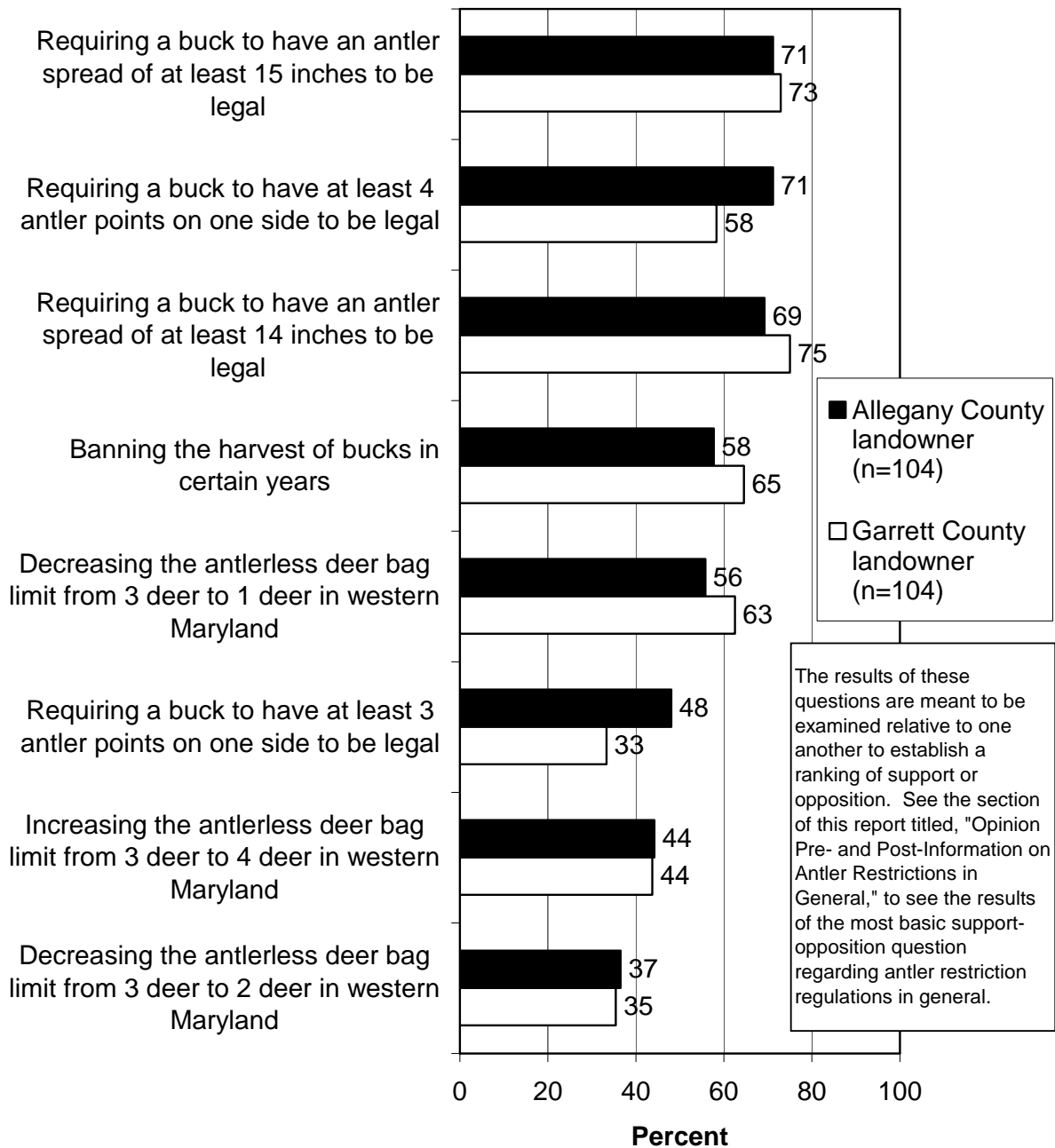
Q73-Q81. Percent of respondents who indicated that they strongly support each of the following, from a list of options presented to them. (Landowners)



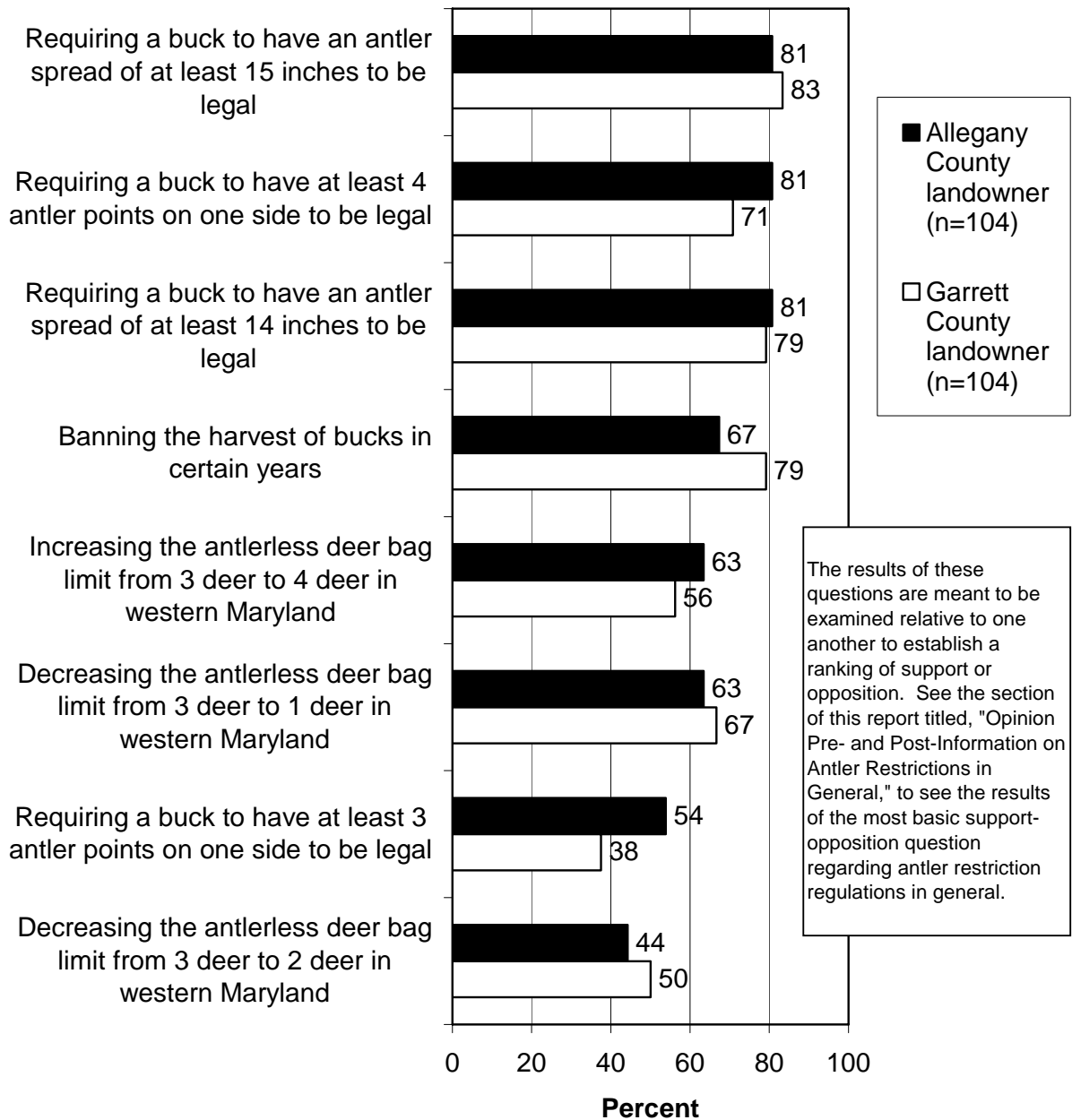
Q73-Q81. Percent of respondents who indicated that they strongly or moderately support each of the following, from a list of options presented to them. (Landowners)



Q73-Q81. Percent of respondents who indicated that they strongly oppose each of the following, from a list of options presented to them. (Landowners)



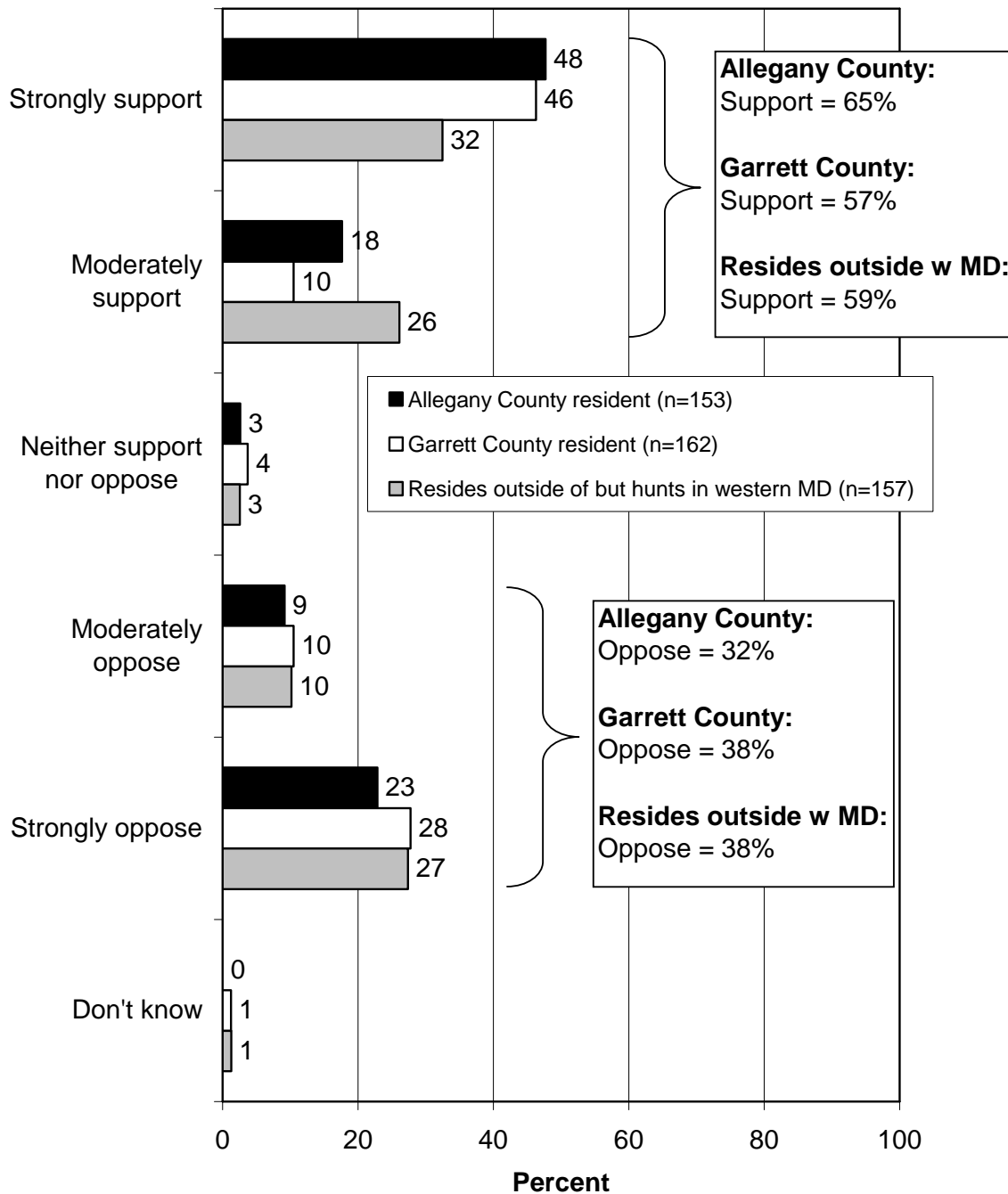
Q73-Q81. Percent of respondents who indicated that they strongly or moderately oppose each of the following, from a list of options presented to them. (Landowners)



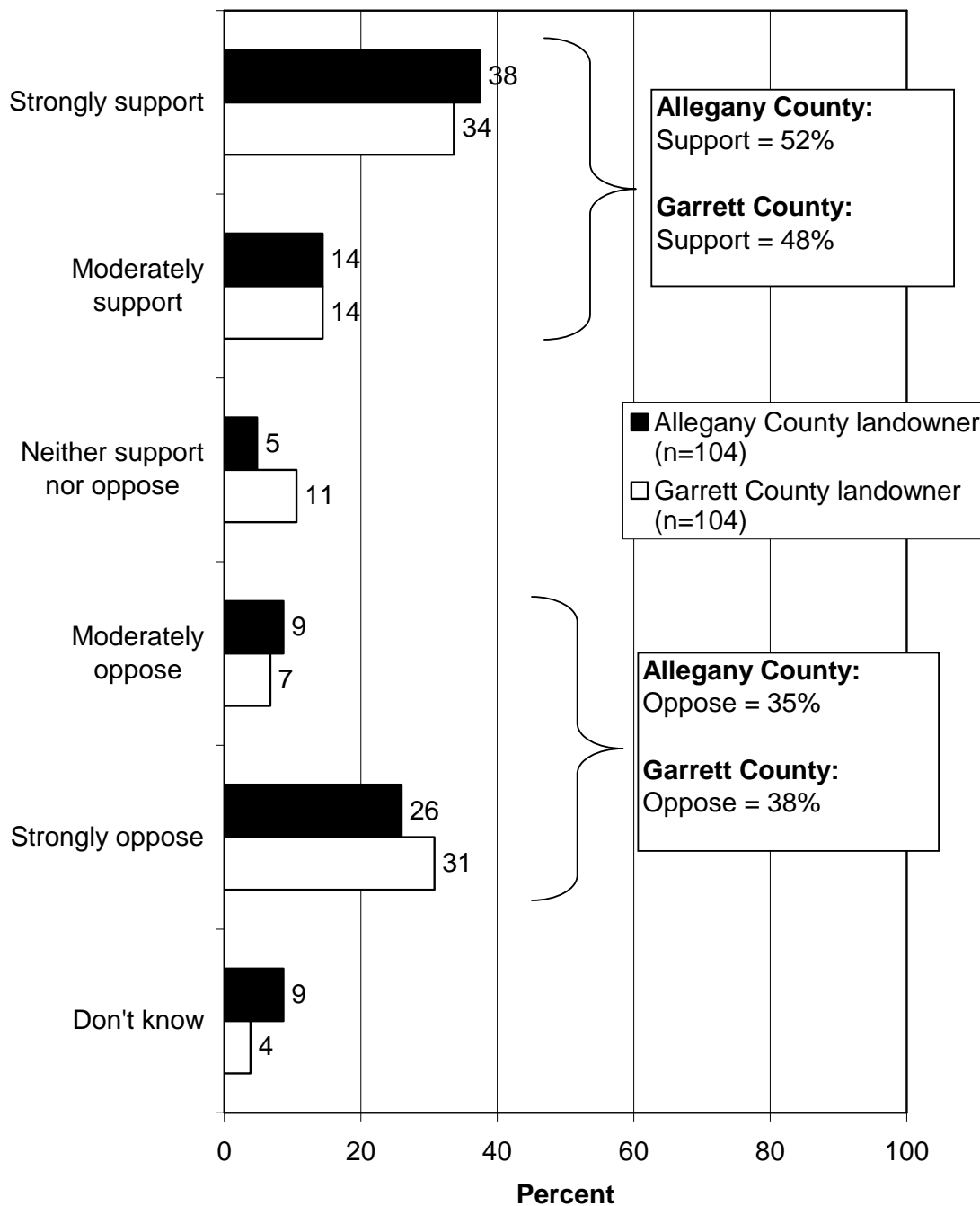
Opinions on Antlered Bag Limits and Antler Restrictions

- The survey also asked about the *antlered* bag limit (previous questions had asked about the antlerless limits), and respondents were clearly made aware of this change of focus in the questioning.
 - When asked about reducing the *antlered* bag limit from 3 to 2 deer, a large majority of all three deer hunter groups were in support: 65% supported among Allegany County residents, 57% supported among Garrett County residents, and 59% supported among those from outside western Maryland. Nonetheless, opposition was not insubstantial, ranging from 32% to 38% among deer hunters. Again, the survey reveals a challenge in that most support and opposition is *strong* rather than *moderate*.
 - Among landowners, there was more support (52% of Allegany County landowners and 48% of Garrett County landowners) than opposition (35% and 38%, respectively).
 - Regardless of whether they supported or opposed reducing the *antlered* bag limit as discussed above, respondents were presented with an option if such a limit were placed: there would be an antlered bag limit of 2 deer, but antler restrictions would be placed on only 1 of the 2 deer. A majority of all three hunter groups support, ranging from 54% to 63%. But a schism again exists, with not insubstantial opposition, ranging from 35% to 41%, and most opinion being *strong* rather than *moderate*. Landowners are about evenly split: among Allegany County landowners, 42% support and 42% oppose; among Garrett County landowners, 41% support and 45% oppose.

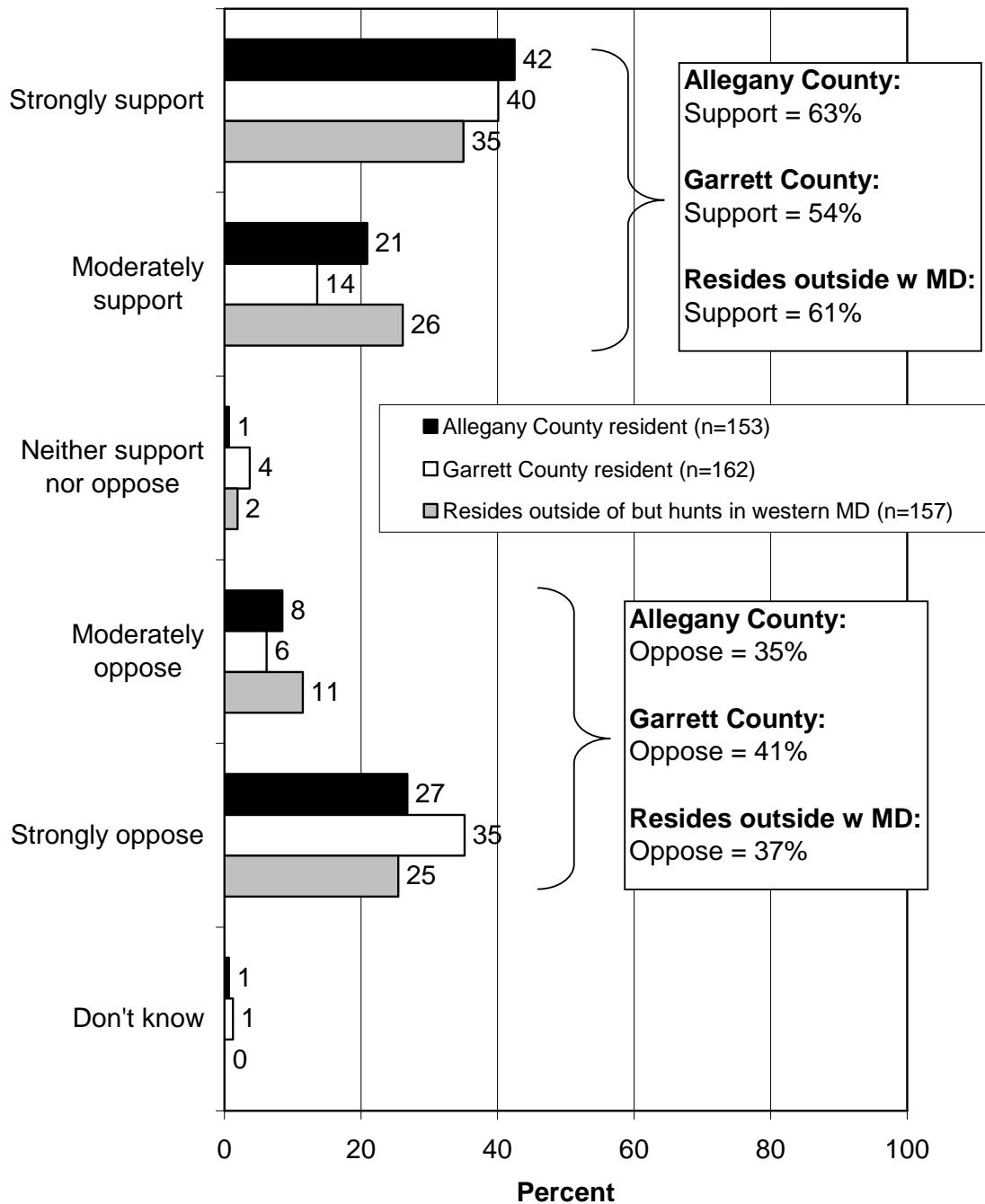
Q83. Would you support or oppose reducing the antlered bag limits in western Maryland from 3 antlered deer to 2? (Deer Hunters)



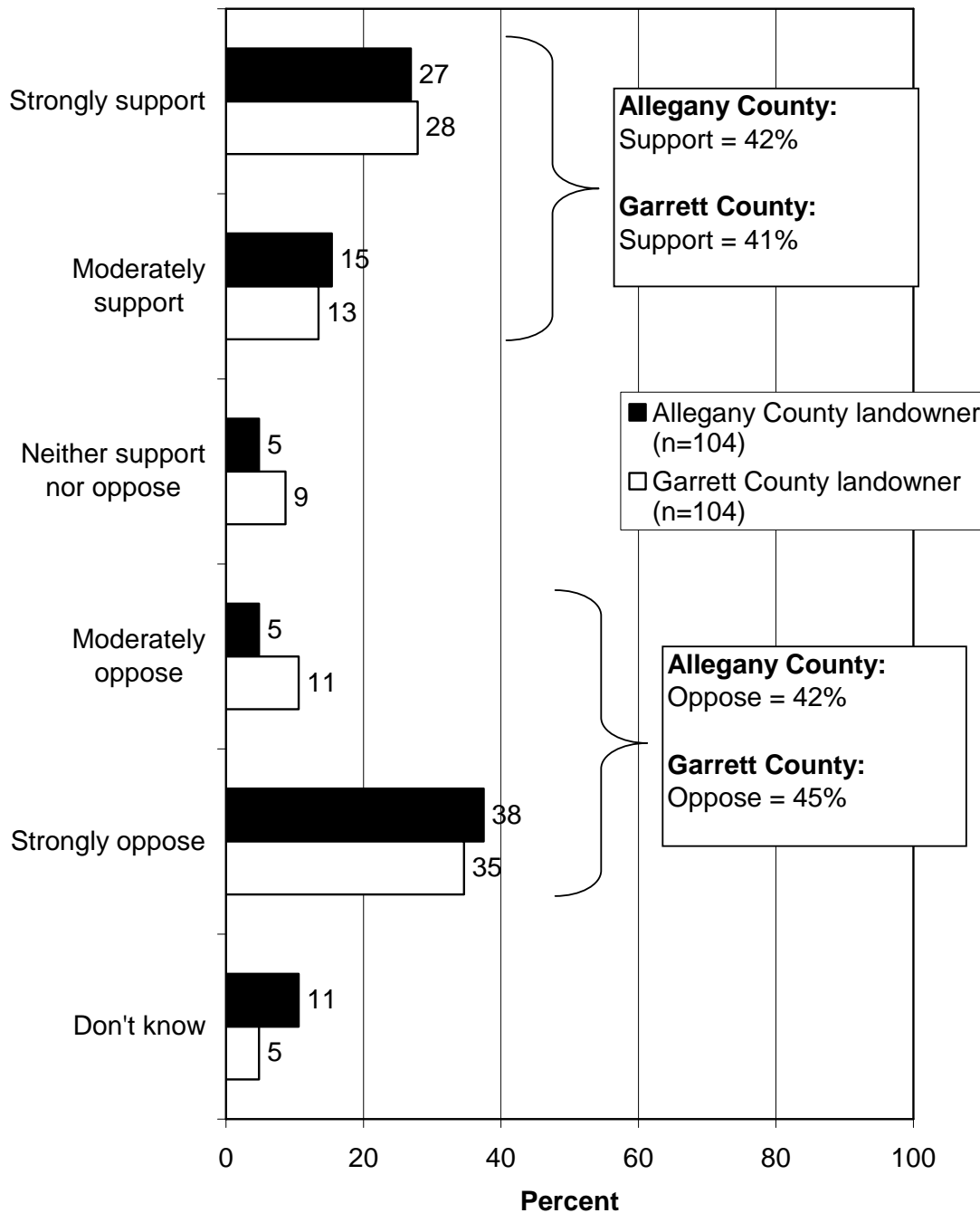
Q83. Would you support or oppose reducing the antlered bag limits in western Maryland from 3 antlered deer to 2? (Landowners)



Q84. If the antlered bag limit were reduced to 2 bucks, would you support or oppose placing antler restrictions on one of the bucks? (Deer Hunters)



Q84. If the antlered bag limit were reduced to 2 bucks, would you support or oppose placing antler restrictions on one of the bucks? (Landowners)



Summary of All Support-Opposition Questions

- The following tabulation shows the results of all the support-opposition questions. Shading denotes a majority: light gray for 50% to 59%, dark gray for 60% or more.

Regulation in Question	Group	Strongly support	Moderately support	Overall support	Strongly oppose	Moderately oppose	Overall oppose
51. The DNR establishing mandatory antler restriction regulations on all lands in western Maryland (<i>pre-information</i>)	Hunt 1	47	14	61	23	5	28
	Hunt 2	42	13	55	31	5	36
	Hunt 3	40	24	64	22	8	30
	Land 1	24	11	35	38	7	44
	Land 2	25	9	34	28	11	38
63. The DNR establishing mandatory antler restriction regulations on all lands in western Maryland (<i>post-information</i>)	Hunt 1	48	16	65	23	5	28
	Hunt 2	43	14	56	33	4	37
	Hunt 3	45	24	69	17	8	25
	Land 1	30	12	41	38	6	44
	Land 2	28	13	40	29	13	41
66. Establishing mandatory antler restriction regulations on all <i>private</i> land in western Maryland	Hunt 1	44	12	56	28	8	37
	Hunt 2	42	10	52	32	6	38
	Hunt 3	39	24	63	21	9	30
	Land 1	28	7	35	45	8	53
	Land 2	25	11	36	44	10	54
67. Establishing mandatory antler restriction regulations on all <i>public</i> land in western Maryland	Hunt 1	56	12	69	20	5	25
	Hunt 2	52	8	60	26	6	31
	Hunt 3	51	22	73	15	8	22
	Land 1	36	13	48	30	6	36
	Land 2	40	10	50	28	5	33
69. If antler restrictions were implemented, exempting <i>youth</i> deer hunters from mandatory antler restrictions	Hunt 1	48	8	57	29	9	39
	Hunt 2	46	12	59	27	6	33
	Hunt 3	51	19	70	15	11	25
	Land 1	34	10	43	40	4	44
	Land 2	47	14	62	23	4	27
70. If antler restrictions were implemented, exempting <i>senior</i> deer hunters from mandatory antler restrictions	Hunt 1	46	10	56	28	8	36
	Hunt 2	43	13	56	31	8	39
	Hunt 3	41	11	52	27	15	42
	Land 1	39	12	51	31	5	36
	Land 2	51	9	60	24	6	30
80. Requiring a buck to have an antler <i>spread</i> of at least <i>14 inches</i> to be legal	Hunt 1	9	8	18	66	10	76
	Hunt 2	15	8	23	59	8	67
	Hunt 3	8	13	22	54	20	74
	Land 1	12	8	19	69	12	81
	Land 2	10	2	13	75	4	79
73. Requiring a buck to have an antler <i>spread</i> of at least <i>15 inches</i> to be legal	Hunt 1	9	9	18	59	16	76
	Hunt 2	17	10	27	57	10	67
	Hunt 3	11	8	20	57	18	75
	Land 1	13	6	19	71	10	81
	Land 2	8	0	8	73	10	83

“Hunt 1” denotes deer hunters residing in Allegany County; “Hunt 2” denotes deer hunters residing in Garrett County; “Hunt 3” denotes deer hunters residing outside of western Maryland; “Land 1” denotes those who own land in Allegany County; “Land 2” denotes those who own land in Garrett County. Rounding may cause apparent discrepancies in sums of 1 percentage point; all sums are of unrounded numbers. Cells that are at 50% are shaded, even though they may not be a true majority (e.g., 49.5% would round to 50%).

Question	Group	Strongly support	Moderately support	Overall support	Strongly oppose	Moderately oppose	Overall oppose
74. Requiring a buck to have at least 3 antler points on one side to be legal	Hunt 1	56	14	70	22	7	28
	Hunt 2	51	14	65	26	5	31
	Hunt 3	55	19	75	18	5	23
	Land 1	35	12	46	48	6	54
	Land 2	42	10	52	33	4	38
78. Requiring a buck to have at least 4 antler points on one side to be legal	Hunt 1	26	8	35	46	16	63
	Hunt 2	24	10	34	54	9	62
	Hunt 3	10	13	23	44	29	73
	Land 1	12	6	17	71	10	81
	Land 2	19	6	25	58	13	71
75. Increasing the antlerless deer bag limit from 3 deer to 4 deer in western Maryland	Hunt 1	37	10	47	41	10	50
	Hunt 2	45	8	53	34	8	42
	Hunt 3	35	15	50	31	13	45
	Land 1	31	4	35	44	19	63
	Land 2	21	13	33	44	13	56
79. Decreasing the antlerless deer bag limit from 3 deer to 2 deer in western Maryland	Hunt 1	33	17	50	32	13	45
	Hunt 2	28	14	42	42	12	54
	Hunt 3	21	22	43	33	15	48
	Land 1	35	15	50	37	8	44
	Land 2	33	13	46	35	15	50
81. Decreasing the antlerless deer bag limit from 3 deer to 1 deer in western Maryland	Hunt 1	27	10	37	51	8	59
	Hunt 2	23	4	28	58	10	69
	Hunt 3	15	16	31	48	13	62
	Land 1	17	17	35	56	8	63
	Land 2	23	6	29	63	4	67
76. Banning the harvest of bucks in certain years	Hunt 1	22	12	34	47	11	58
	Hunt 2	16	10	27	56	10	65
	Hunt 3	11	13	24	48	22	70
	Land 1	13	13	27	58	10	67
	Land 2	15	4	19	65	15	79
82. Reducing the antlerless deer seasons and bag limits for several years if antler restrictions were implemented	Hunt 1	29	14	43	37	11	48
	Hunt 2	27	12	38	45	11	56
	Hunt 3	19	22	41	35	17	52
	Land 1	31	13	43	31	8	38
	Land 2	27	9	36	36	11	46
83. Reducing the antlered bag limits in western Maryland from 3 antlered deer to 2	Hunt 1	48	18	65	23	9	32
	Hunt 2	46	10	57	28	10	38
	Hunt 3	32	26	59	27	10	38
	Land 1	38	14	52	26	9	35
	Land 2	34	14	48	31	7	38
84. If the antlered bag limit were reduced to 2 bucks, placing antler restrictions on one of the bucks	Hunt 1	42	21	63	27	8	35
	Hunt 2	40	14	54	35	6	41
	Hunt 3	35	26	61	25	11	37
	Land 1	27	15	42	38	5	42
	Land 2	28	13	41	35	11	45

“Hunt 1” denotes deer hunters residing in Allegany County; “Hunt 2” denotes deer hunters residing in Garrett County; “Hunt 3” denotes deer hunters residing outside of western Maryland; “Land 1” denotes those who own land in Allegany County; “Land 2” denotes those who own land in Garrett County. Rounding may cause apparent discrepancies in sums of 1 percentage point; all sums are of unrounded numbers. Cells that are at 50% are shaded, even though they may not be a true majority (e.g., 49.5% would round to 50%).

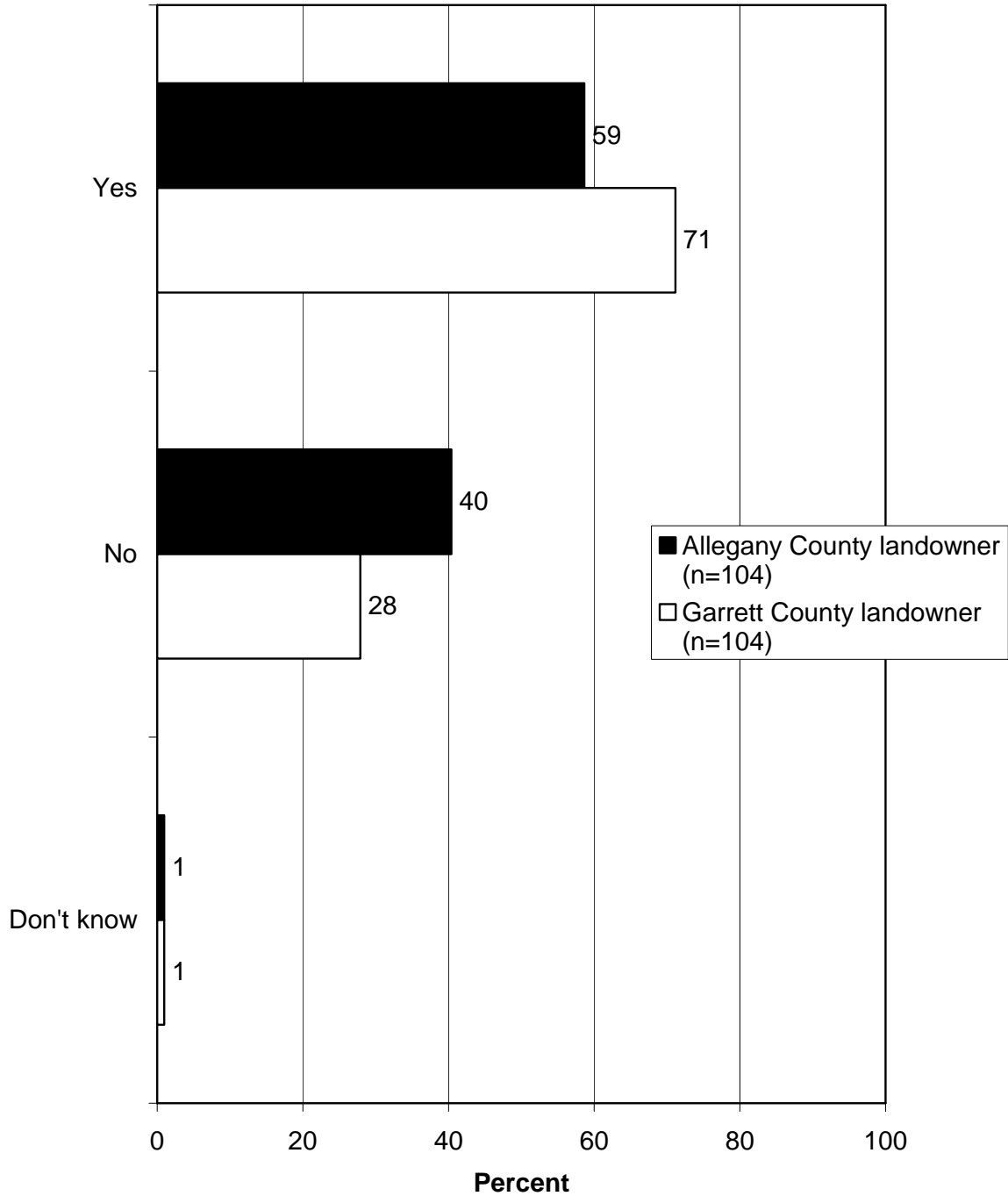
DEER MANAGEMENT ON OWN LAND

- A majority of landowners in the survey allow other people to hunt on their land in western Maryland: 59% of Allegany County landowners and 71% of Garrett County landowners allow others to hunt deer on their land. Note that a greater percentage of landowners allow other people to hunt deer on their land than hunt deer on it themselves (49% of Allegany County landowners and 46% of Garrett County landowners hunted on their land).
- Of those landowners who allow others to hunt on their land, about 1 in 5 have established antler restrictions for bucks harvested on their land: 18% of those landowners from Allegany County and 22% of those landowners from Garrett County.
 - In looking at whether any hunting takes place on landowners' lands, 75% of Allegany County landowners and 86% of Garrett County landowners either hunt deer on their own land or allow others to hunt deer on the land.

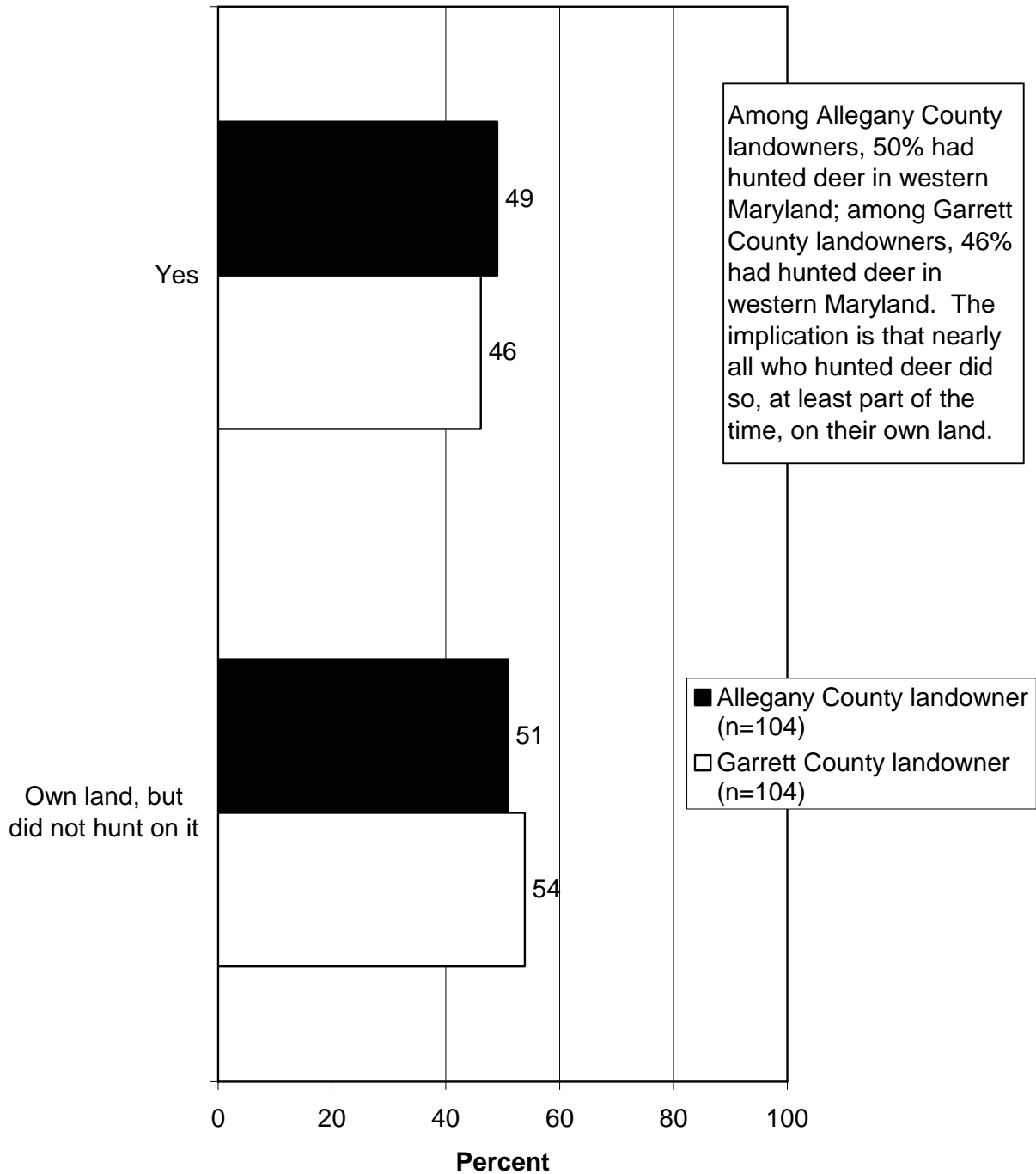
Hunting Taking Place on Land

	Allegany	Garrett
Percent who hunt on own land	49	46
Percent who allow others to hunt on land	59	71
Total percent who either hunt on own land or allow others to do so (not simply a sum because some landowners did both)	75	86

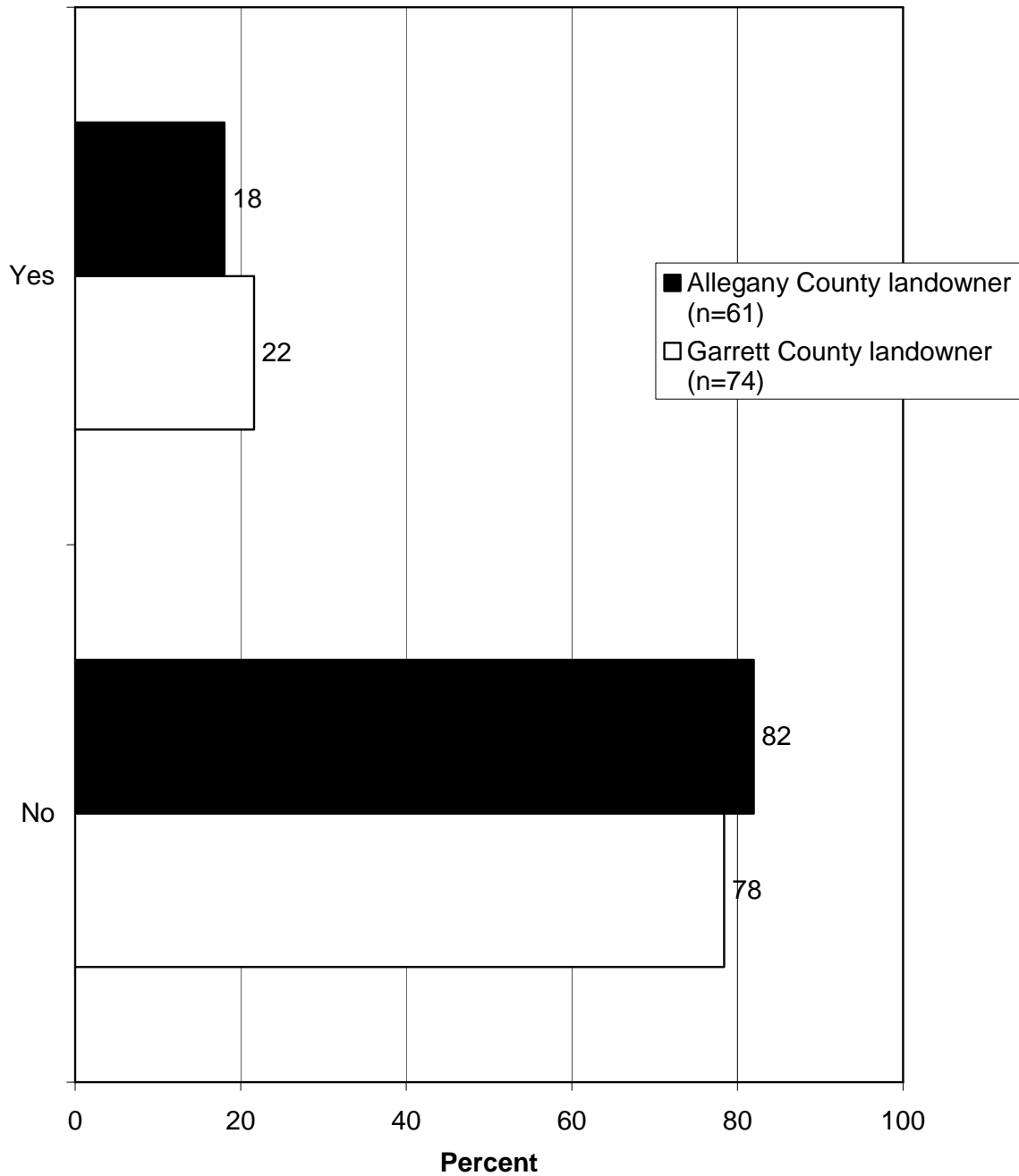
Q60. Do you allow other people to hunt on your land in western Maryland? (Landowners)



Q42. Did you hunt deer on your own land in western Maryland? (Landowners)



Q88. Have you established antler restrictions for bucks harvested on your land? (Asked of those who allow deer hunting on their land.) (Landowners)



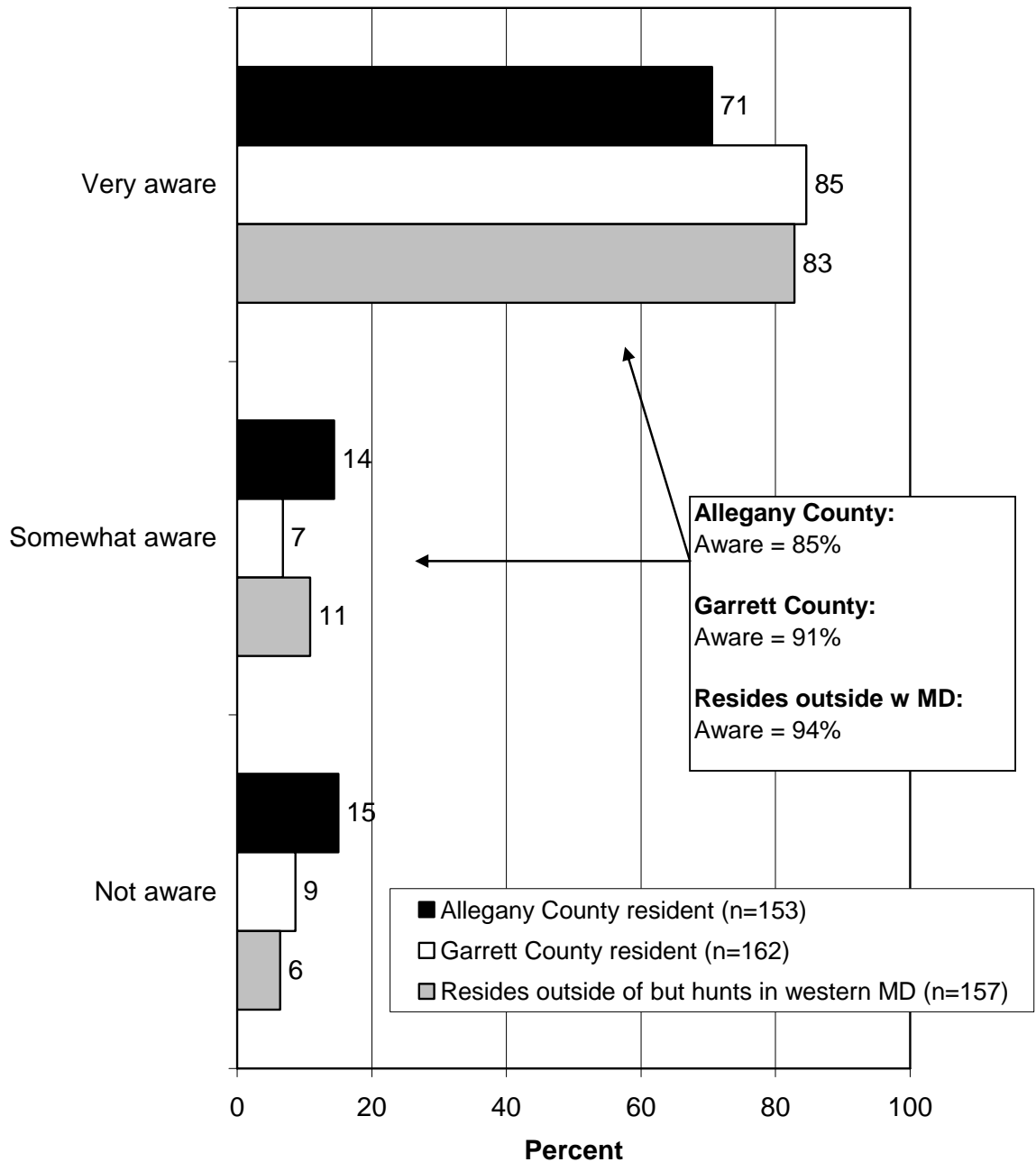
VENISON DONATION PROGRAM

- Awareness of the state's venison donation program is high, ranging from 85% to 94% among the hunter groups. In fact, a large majority of all three hunter groups indicated being *very* aware: 71% among Allegany County residents, 85% among Garrett County residents, and 83% among those from outside western Maryland. Among landowners, awareness ranges from 75% to 79% (with 70% to 72% being *very* aware).

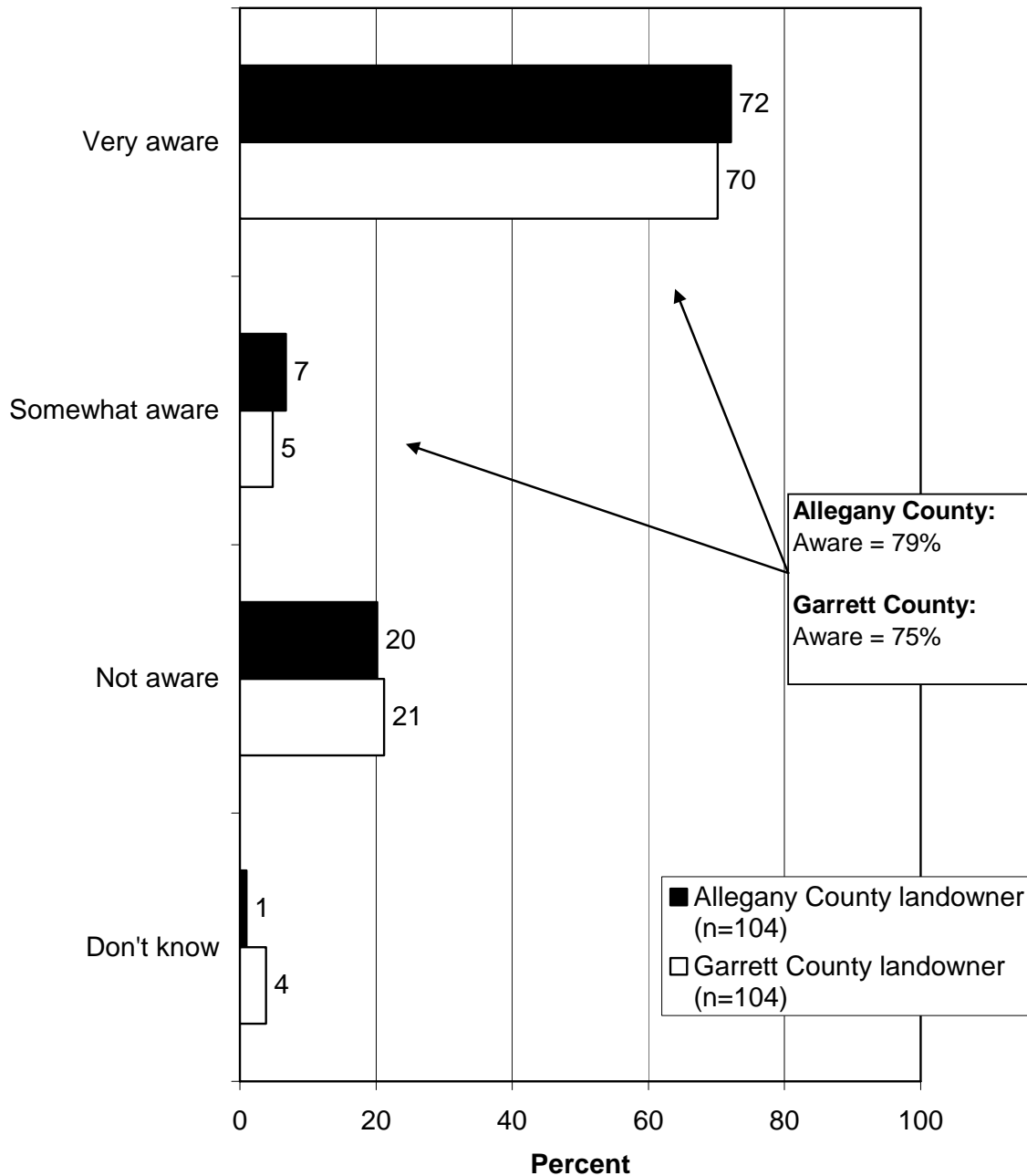
- Follow-up questions about the venison donation program were asked of hunters only. Among deer hunters, a small percentage of Allegany County residents and Garrett County residents had donated to the program (11% and 15%, respectively); meanwhile, more than a third of those from outside western Maryland did so (37% donated a deer).
 - Those who did not donate a deer were asked for their reasoning for not doing so. The top reasons among hunters include wanting to keep the meat for their own use, that they do not harvest enough deer to be able to give some away, or that they already donate to friends and family. Lack of awareness is not a huge problem, although from 7% to 16% of those who did not donate say they were not aware of the program (it is unknown whether these 7% and 16% would have donated to the program otherwise).

- Majorities of all three hunter groups indicated being *very* or *somewhat* likely to donate to a venison program if there were a cooperating butcher shop close to where they live: 56% of Allegany County residents, 57% of Garrett County residents, and 73% of those from outside western Maryland.
 - Another question asked about the maximum extra distance that hunters would drive to donate to a venison donation program: the median is 15 extra miles among all three hunter groups.

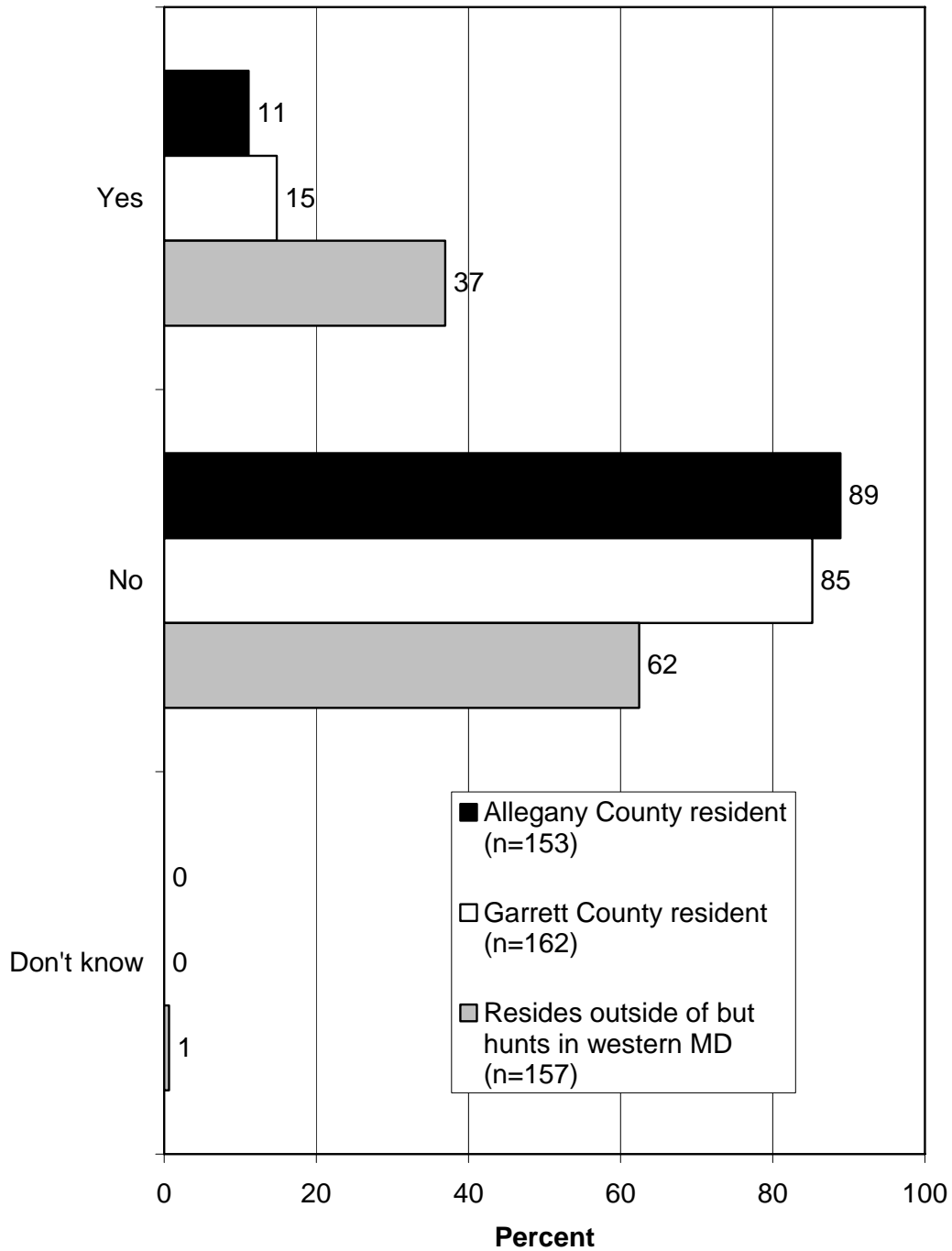
Q89. Before this survey, were you aware there is a venison donation program available in Maryland that allows hunters to donate deer to feed the hungry? (Deer Hunters)



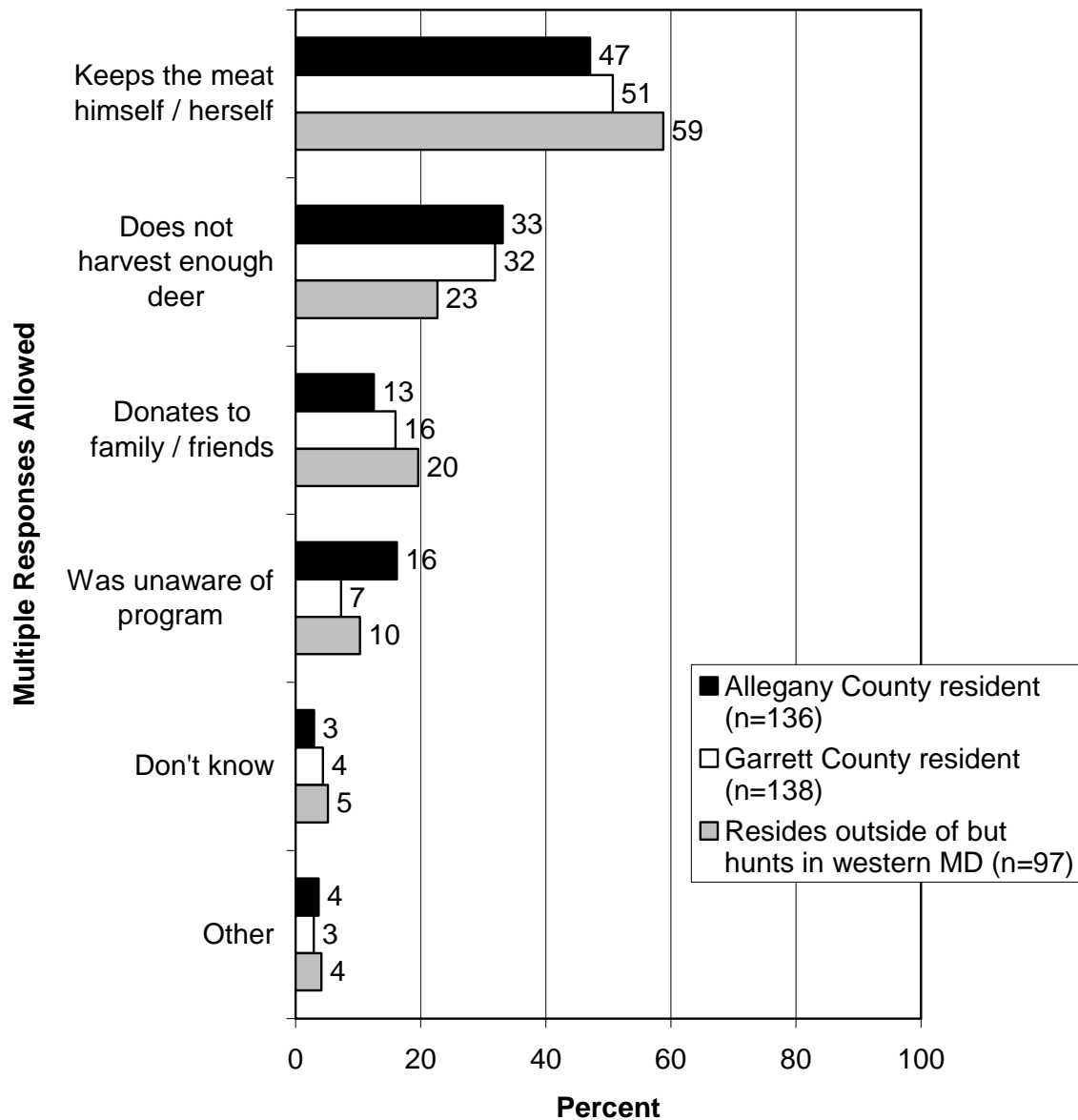
Q89. Before this survey, were you aware there is a venison donation program available in Maryland that allows hunters to donate deer to feed the hungry? (Landowners)



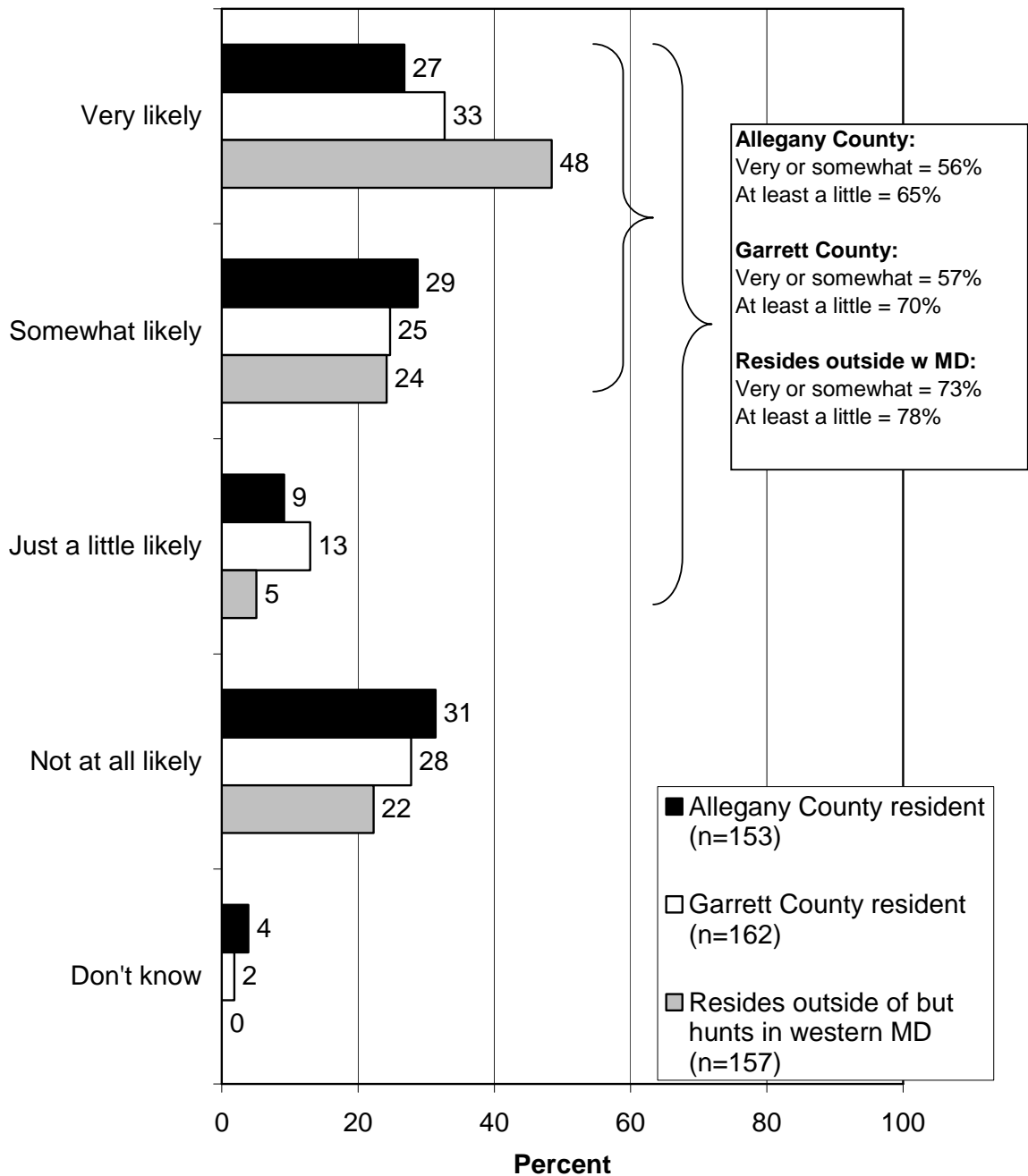
Q91. Have you ever donated a deer to a venison donation program in Maryland? (Deer Hunters)



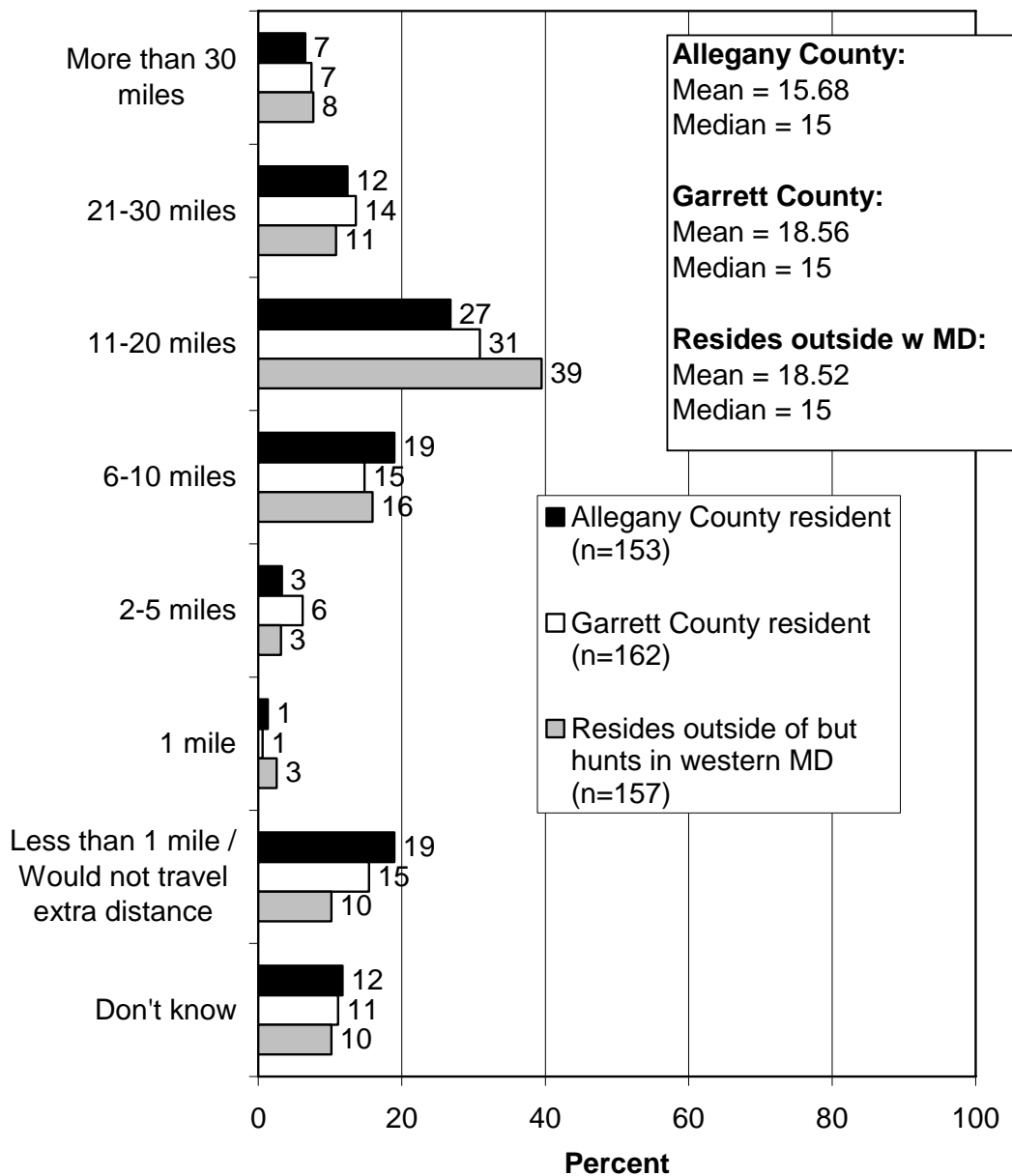
Q92. What is the primary reason you have not donated a deer? (Asked of those who have not donated a deer to the venison donation program in Maryland.) (Deer Hunters)



**Q93. How likely would you be to donate deer to a venison program if there were cooperating butcher shops close to where you live or hunt?
(Deer Hunters)**



Q94. What is the maximum extra distance you would be willing to drive, over what you typically drive to hunt, to donate a deer to a venison donation program? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Deer Hunters)



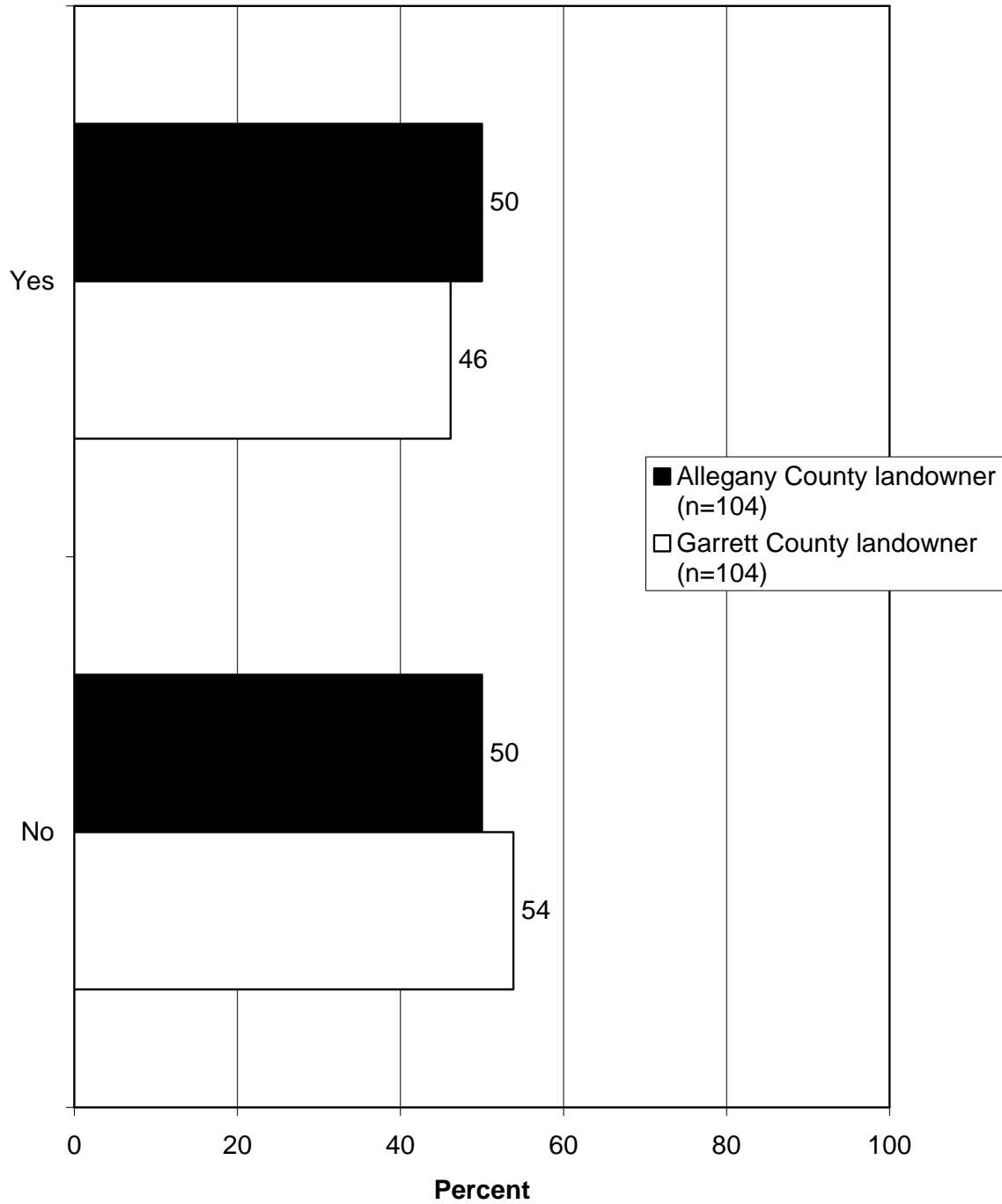
HUNTING BEHAVIORS

- The survey asked about participation in deer hunting in western Maryland in the previous 3 years.
 - Of the three hunter groups, only deer hunters living in Allegany County or Garrett County were asked this question about hunting in western Maryland, with nearly unanimous results: 99.3% of Allegany County residents and 99.4% of Garrett County residents had hunted in western Maryland in the past 3 years. (Because of the almost unanimous results, no graph is shown for this question among hunters.) (All of the third hunter group, those from outside western Maryland, had done so because they were required to have hunted deer in western Maryland to participate in the survey.)
 - Among landowners, 50% of those from Allegany County and 46% of those from Garrett County have hunted deer in western Maryland in the past 3 years.
 - Another question asked about the western Maryland counties in which they had hunted.
 - Among Allegany County residents, 93% had hunted deer in Allegany County, while 26% had traveled to Garrett County and 3% had traveled to western Washington County to hunt deer (some hunted in multiple counties).
 - Among Garrett County residents, 98% had hunted deer in Garrett County, while 8% had traveled to Allegany County and 2% had traveled to Washington County to hunt deer (some hunted in multiple counties).
 - Among those from outside western Maryland, 35% hunted in Allegany County, 44% had hunted in Garrett County, and 39% had hunted in western Washington County.
 - (Landowners were not asked about in which western Maryland counties they had hunted.)
- Hunters who had hunted deer in western Maryland were asked about hunting on public or private land (or both), as well as about hunting on their own land and harvesting on their own land. Landowners were asked about hunting and harvesting on their own land.
 - Private land dominates public land for deer hunting in western Maryland. Among hunters, 92% of Allegany County residents, 91% of Garrett County residents, and 78% of those from outside western Maryland hunted on *private* land in western Maryland. Meanwhile, 64% of Allegany County residents, 74% of Garrett County residents, and

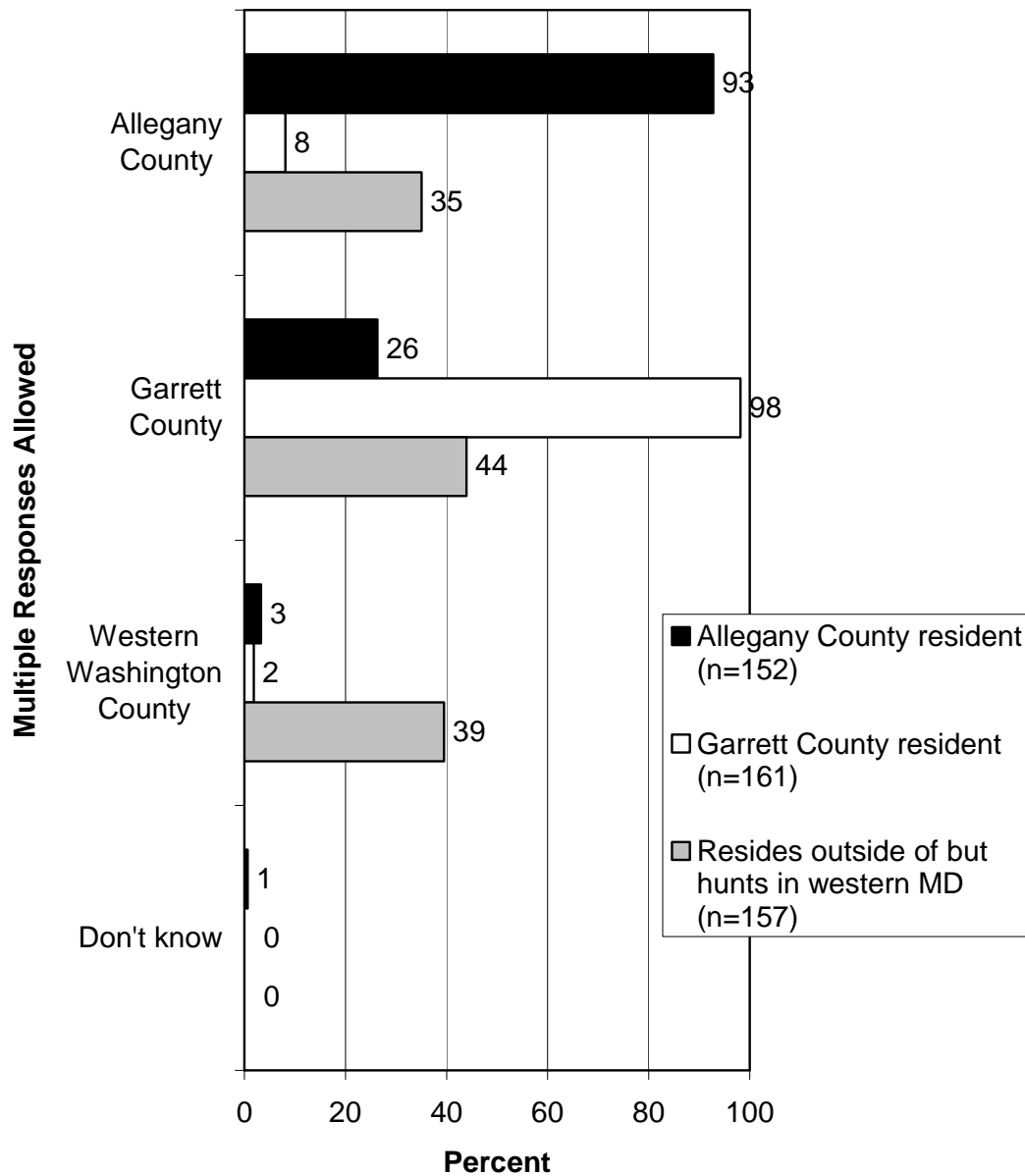
55% of those from outside western Maryland hunted on *public* land (some hunted on both types of land).

- Regarding hunting on their own land, among the hunter groups, 22% of Allegany County residents had done so, and 43% of Garrett County residents had done so. Some of those who lived outside of western Maryland owned land there; in all, 12% of those from outside western Maryland hunted on their own land in western Maryland.
- Among landowners, from 46% to 49% had hunted deer on their own land in western Maryland. (This finding was reported earlier, but it is pertinent to this section as well and so, for the reader's convenience, is reported here as well. No graph is shown in this section.)
- Those who had hunted deer in western Maryland were asked if they had harvested a deer there in the past 3 years, and about three-quarters of those in the hunter groups had done so: 74% of Allegany County residents and 76% of Garrett County residents. (The graph does not include those from outside western Maryland because that sample was chosen based on harvest records; they had to have filed a harvest record to be in the sample.)
- Among landowners who had hunted deer in western Maryland, 73% of those from Allegany County and 79% of those from Garrett County had harvested a deer in western Maryland.
- Finally, the survey asked about harvesting on their own land in western Maryland. Among the hunter groups, 14% of Allegany County residents, 27% of Garrett County residents, and 10% of those from outside western Maryland had harvested on their own land in western Maryland.
- About a third of landowners (34% of both landowner groups) had harvested a deer on their own land in western Maryland in the past 3 years.

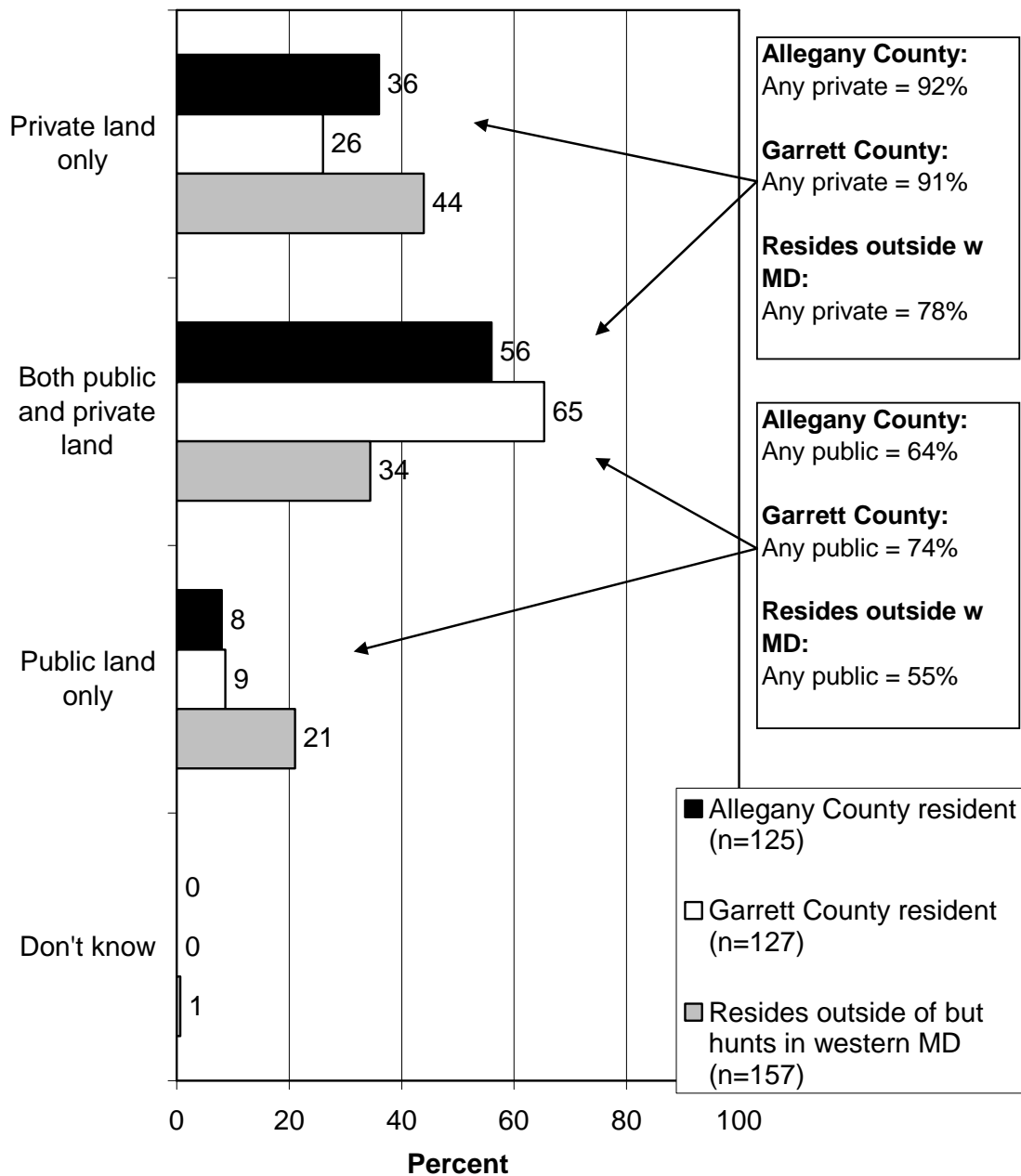
Q36. In the past 3 years, have you hunted deer in western Maryland? (Landowners)



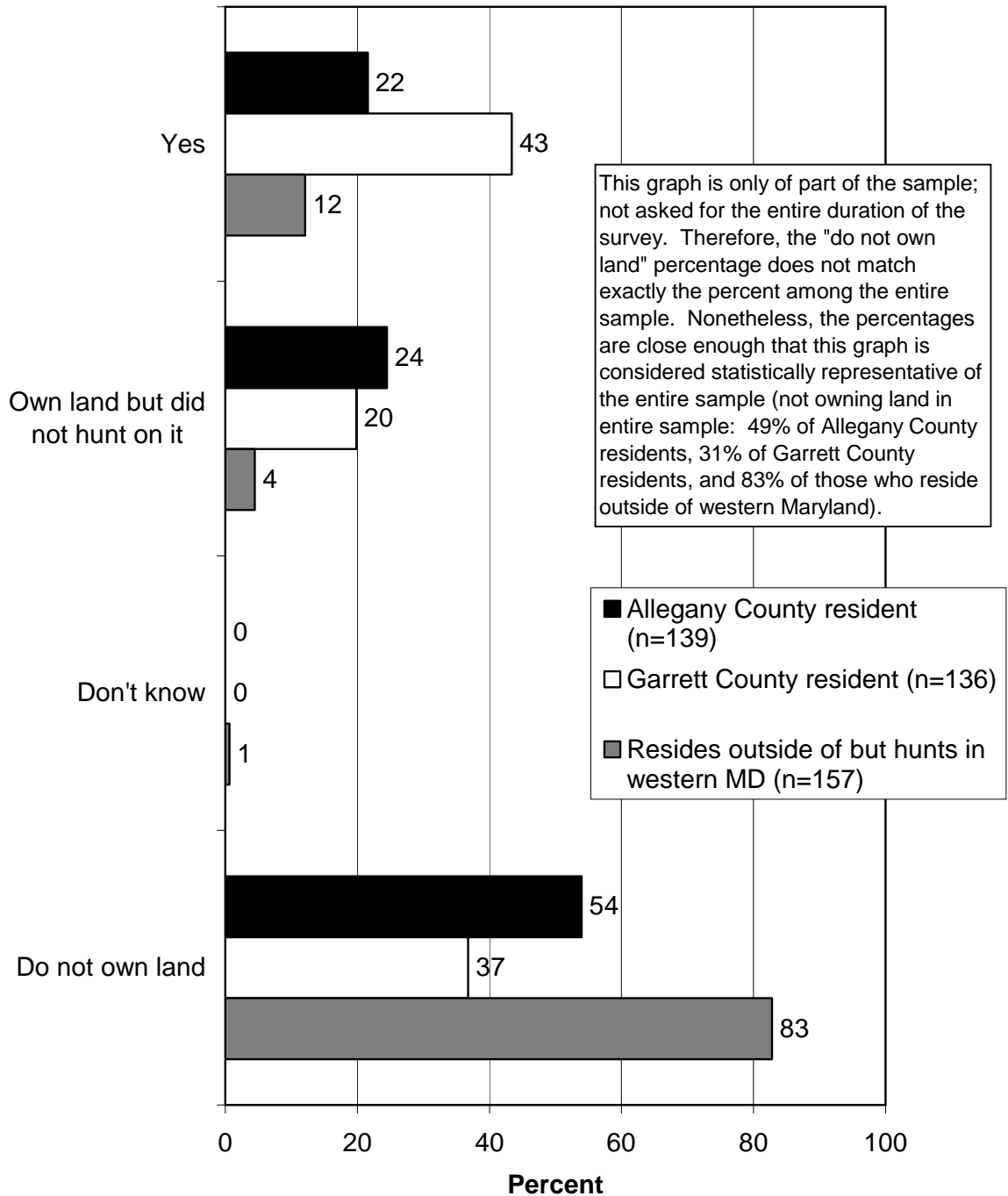
**Q39. In which of those western Maryland counties did you hunt deer? (Asked of those who hunted deer in western Maryland in the past 3 years.)
(Deer Hunters)**



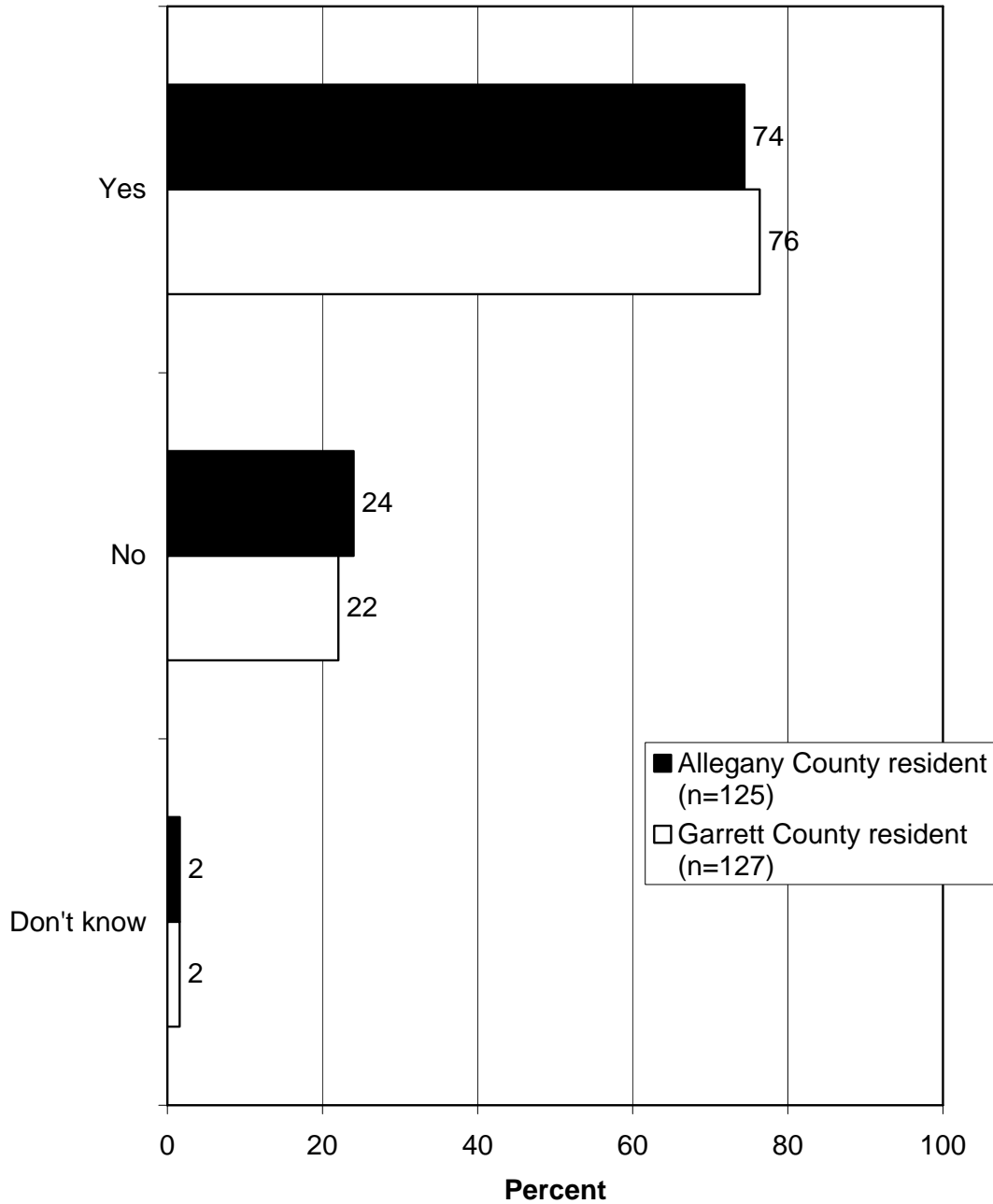
Q41. In the past 3 years, have you hunted deer on private land, public land, or both in western Maryland? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Deer Hunters)



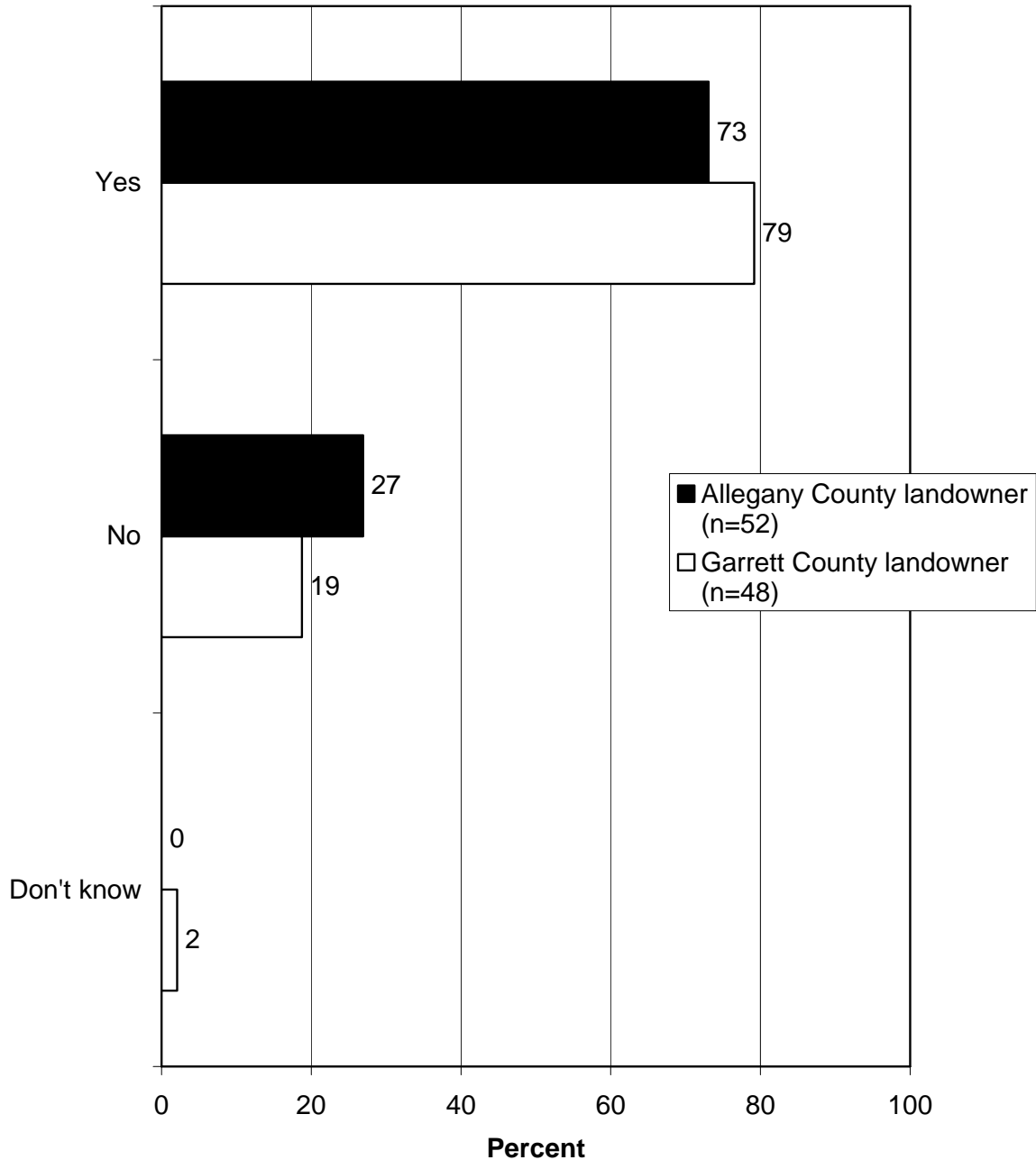
Q42. Did you hunt deer on your own land in western Maryland? (Deer Hunters)



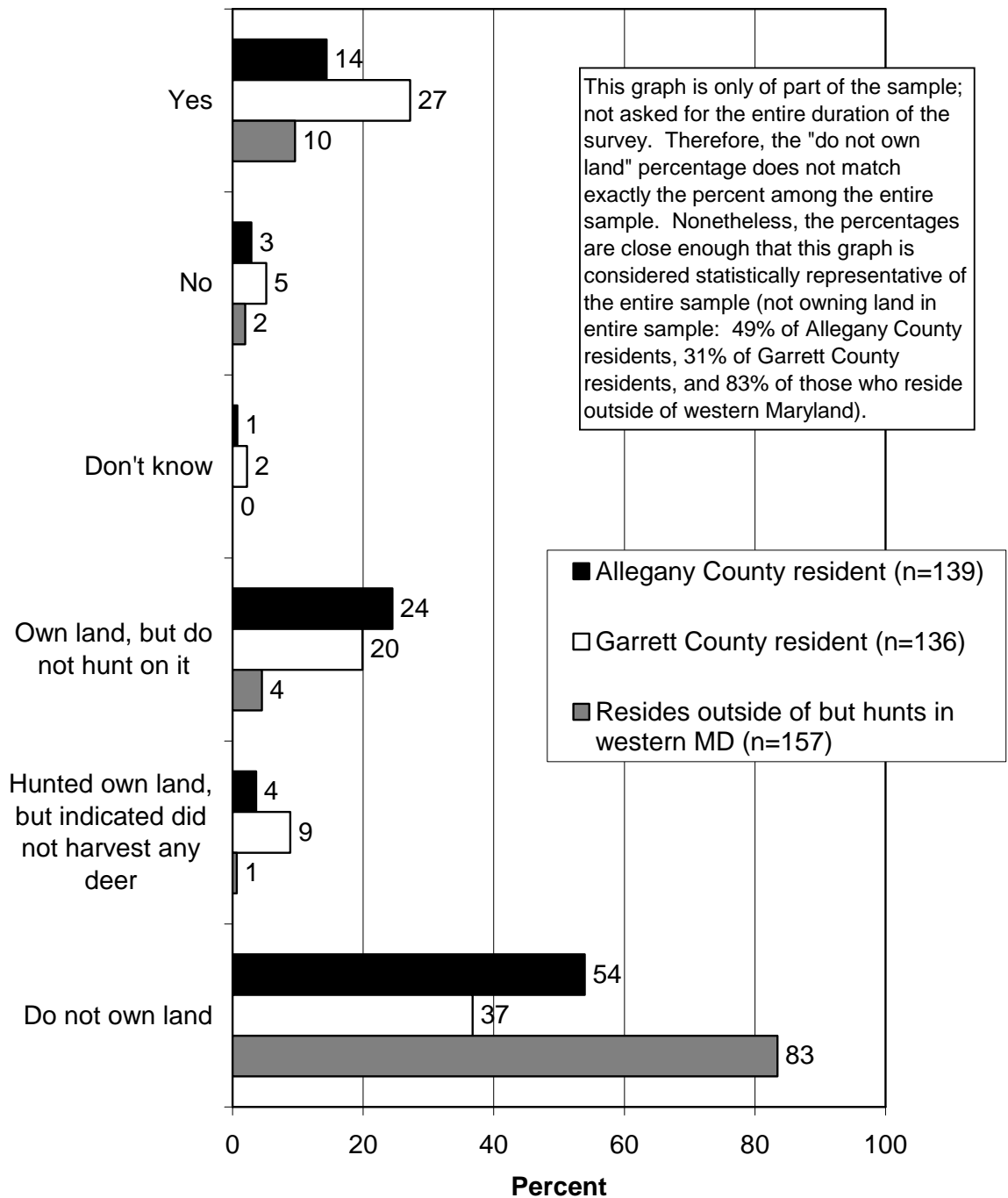
Q44. Have you harvested a deer in western Maryland in the past 3 years? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Deer Hunters)



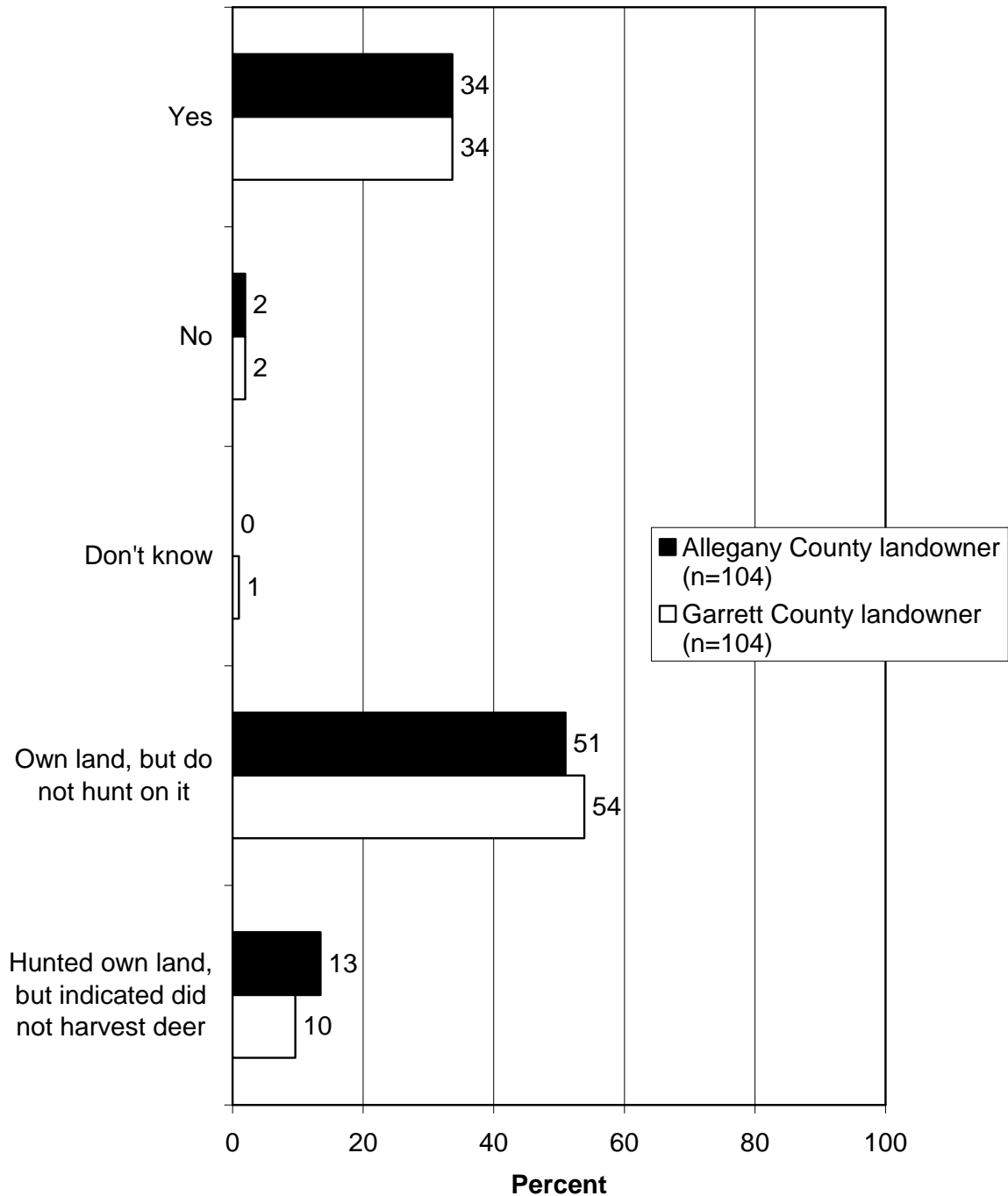
Q44. Have you harvested a deer in western Maryland in the past 3 years? (Asked of those who hunted deer in western Maryland in the past 3 years.) (Landowners)



Q45. Have you harvested a deer on your own land in western Maryland in the past 3 years? (Deer Hunters)



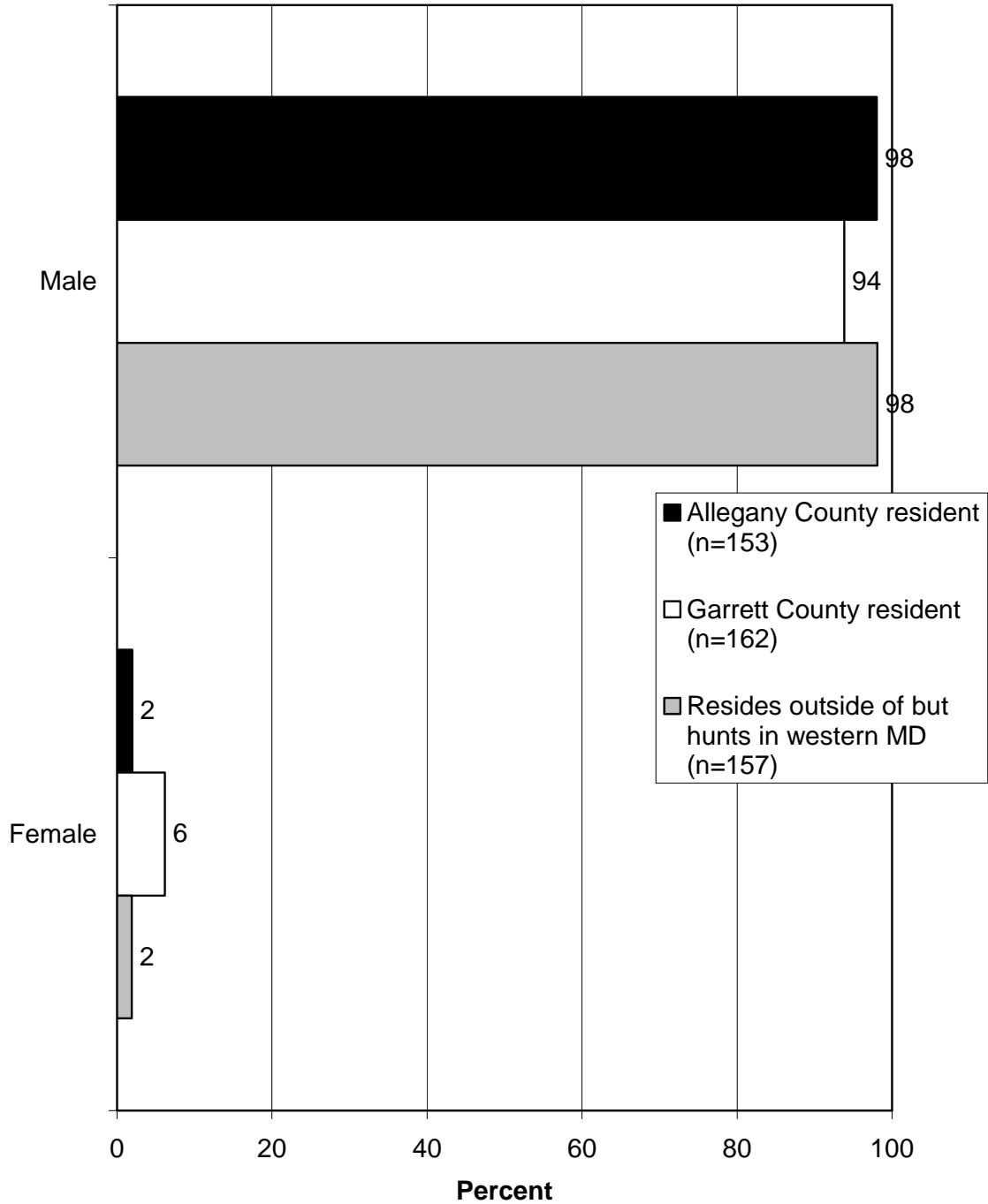
**Q45. Have you harvested a deer on your own land
in western Maryland in the past 3 years?
(Landowners)**



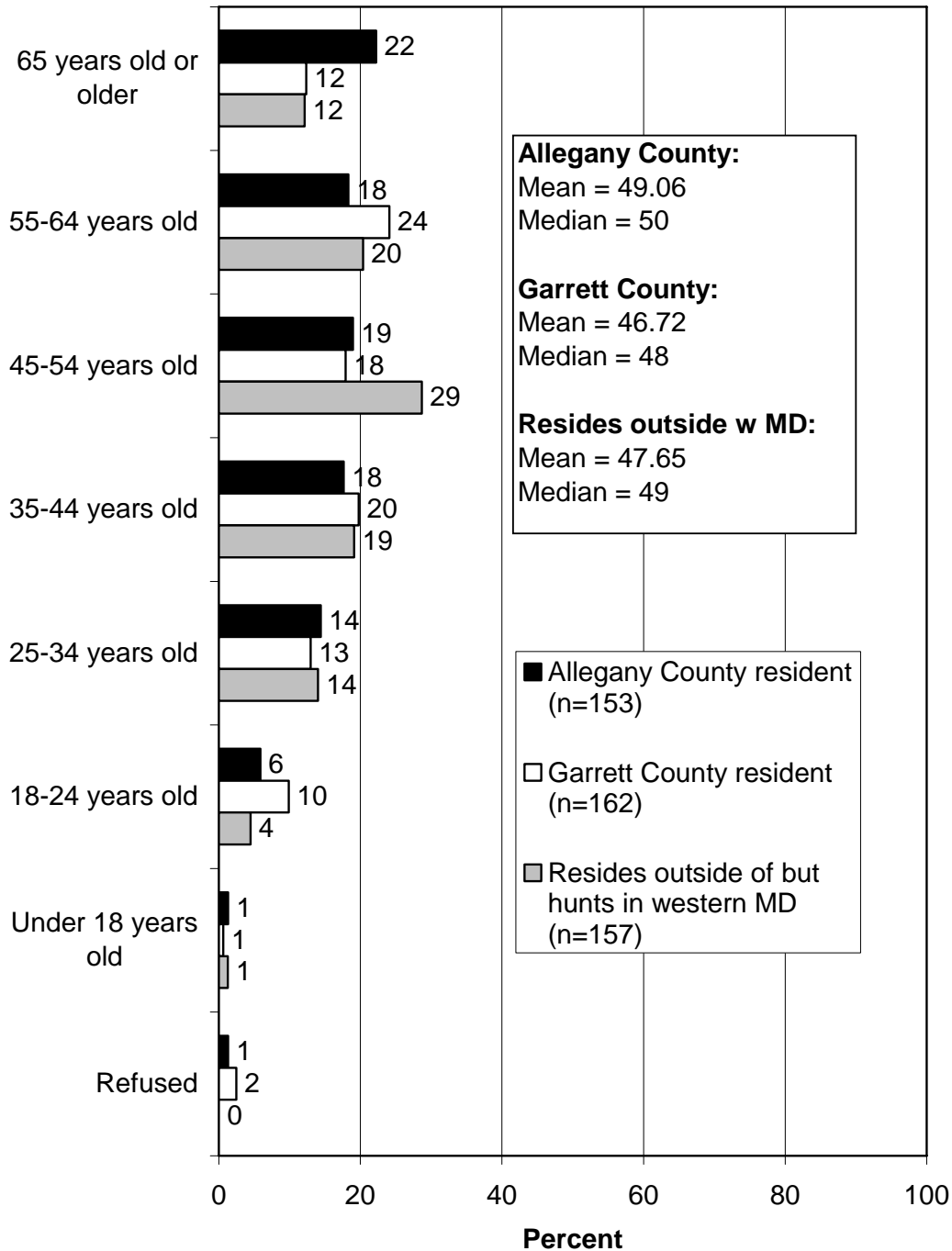
DEMOGRAPHIC DATA

- The survey asks about some demographic information primarily for analysis purposes. The demographic data gathered and presented below are:
 - Gender of hunters. (Gender was not shown for landowners because much land is co-owned by spouses; the gender results would reflect the people who answered the survey rather than the true gender breakdown of owners.)
 - The age of respondents.
 - Educational attainment.
 - Graphs about landownership. For hunters, graphs include land ownership, counties in which the land was owned, and acreage. For landowners, graphs include acreage and years owned the land.
 - Characteristic of the area of residence (rural or urban). (This is not shown for landowners, as their *residence* is irrelevant; the survey was concerned with their land owned in western Maryland, not their residence.)

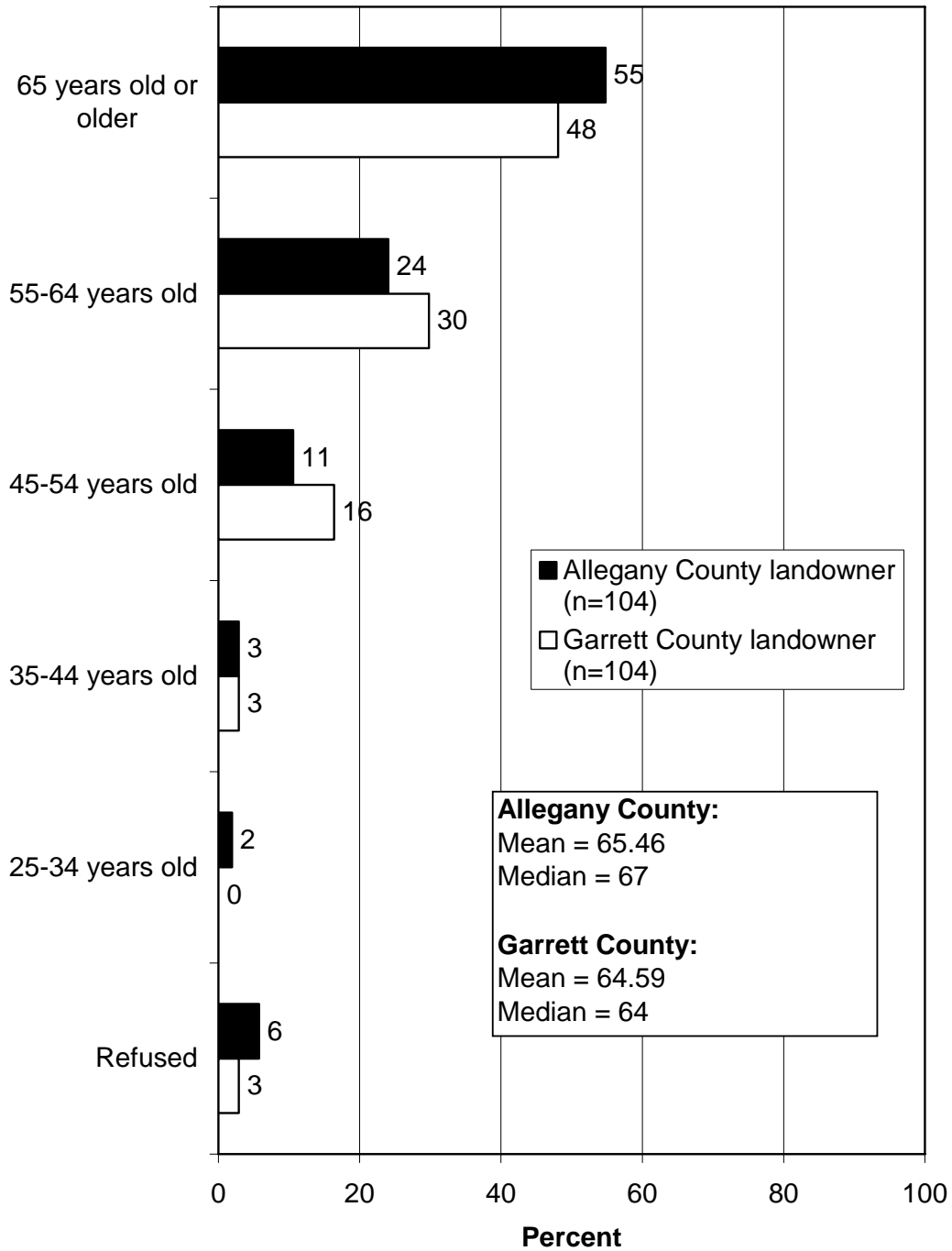
**Q111. Respondent's gender (observed; not asked).
(Deer Hunters)**



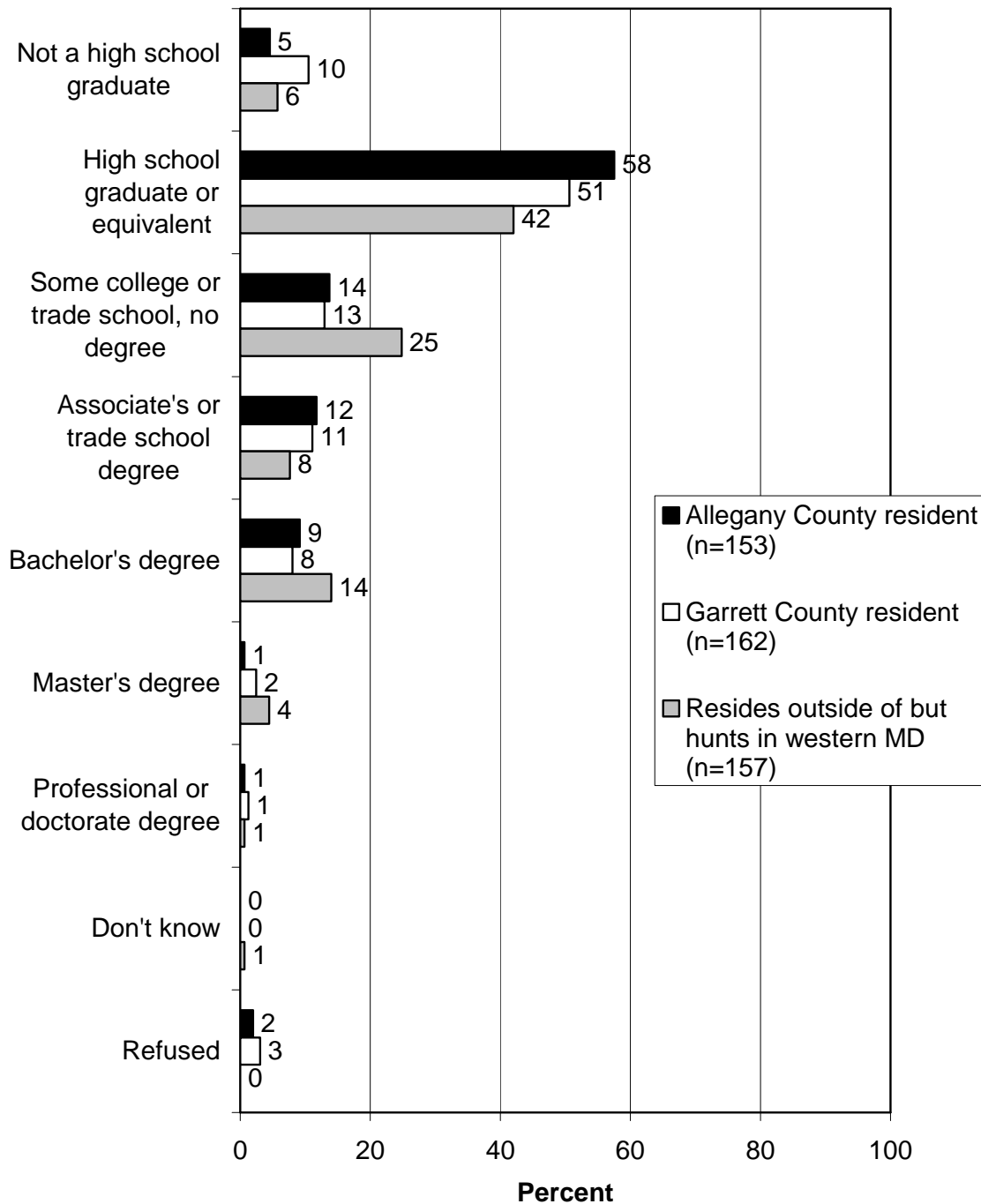
Q104. May I ask your age? (Deer Hunters)



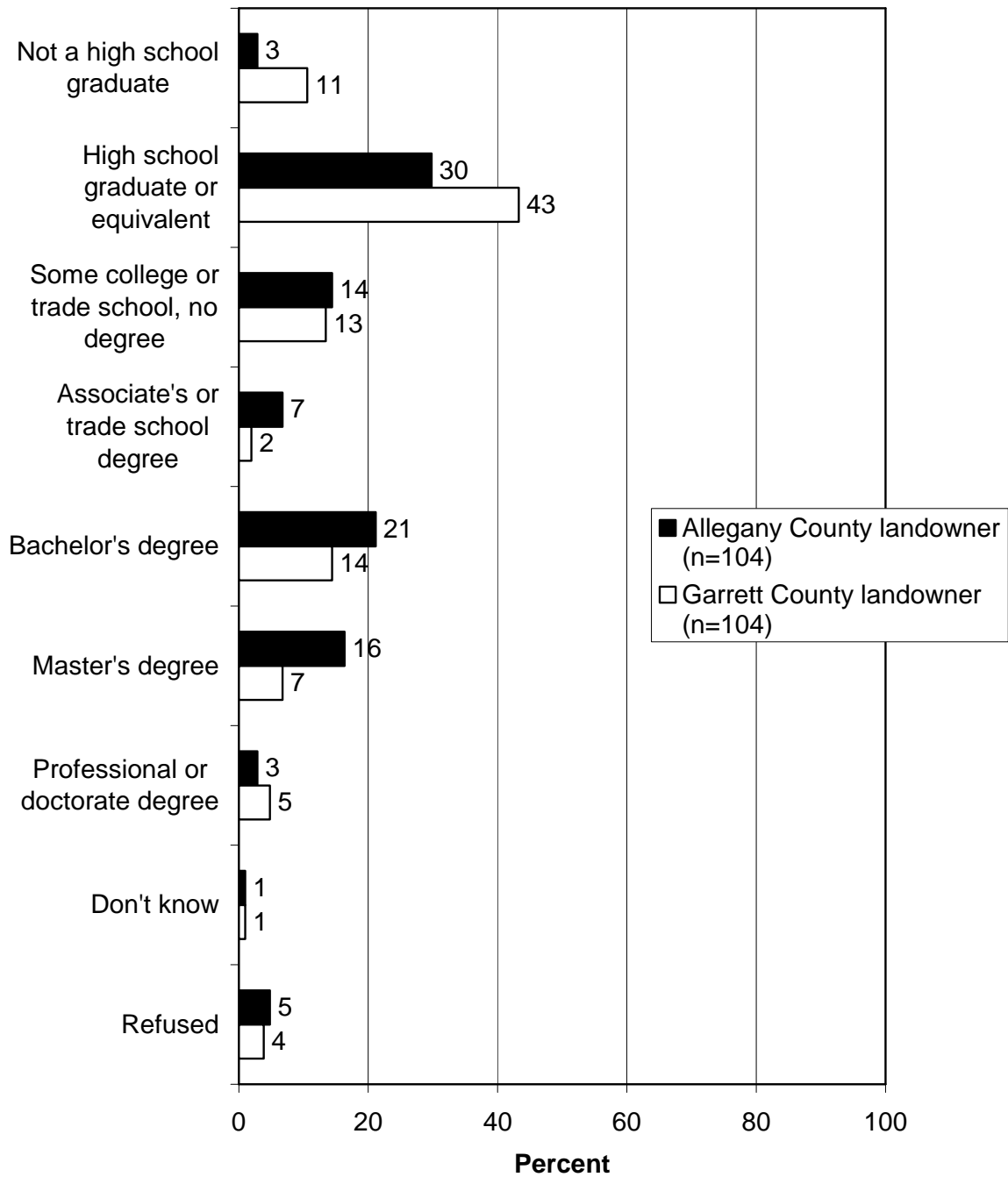
Q104. May I ask your age? (Landowners)



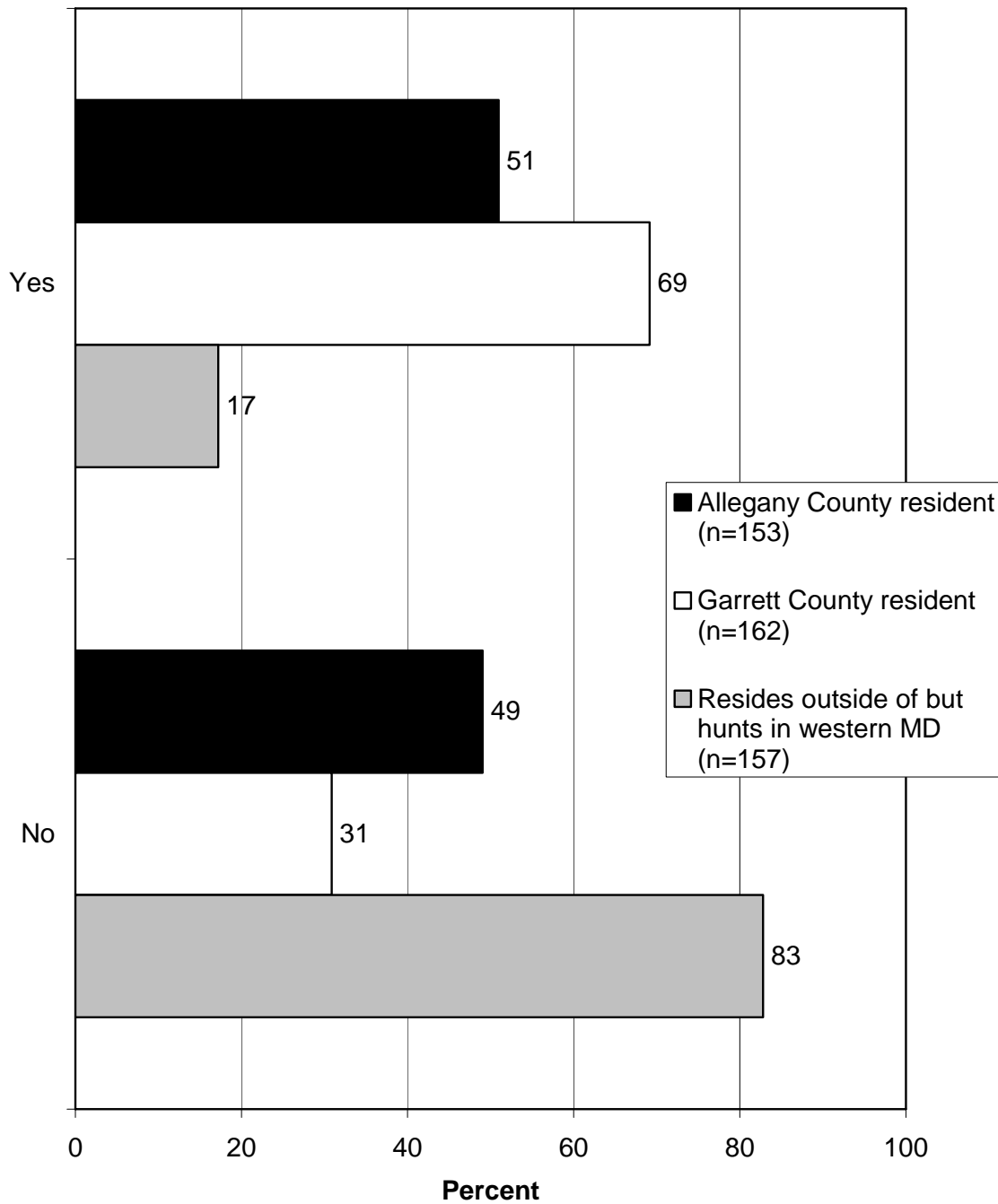
Q103. What is the highest level of education you have completed? (Deer Hunters)



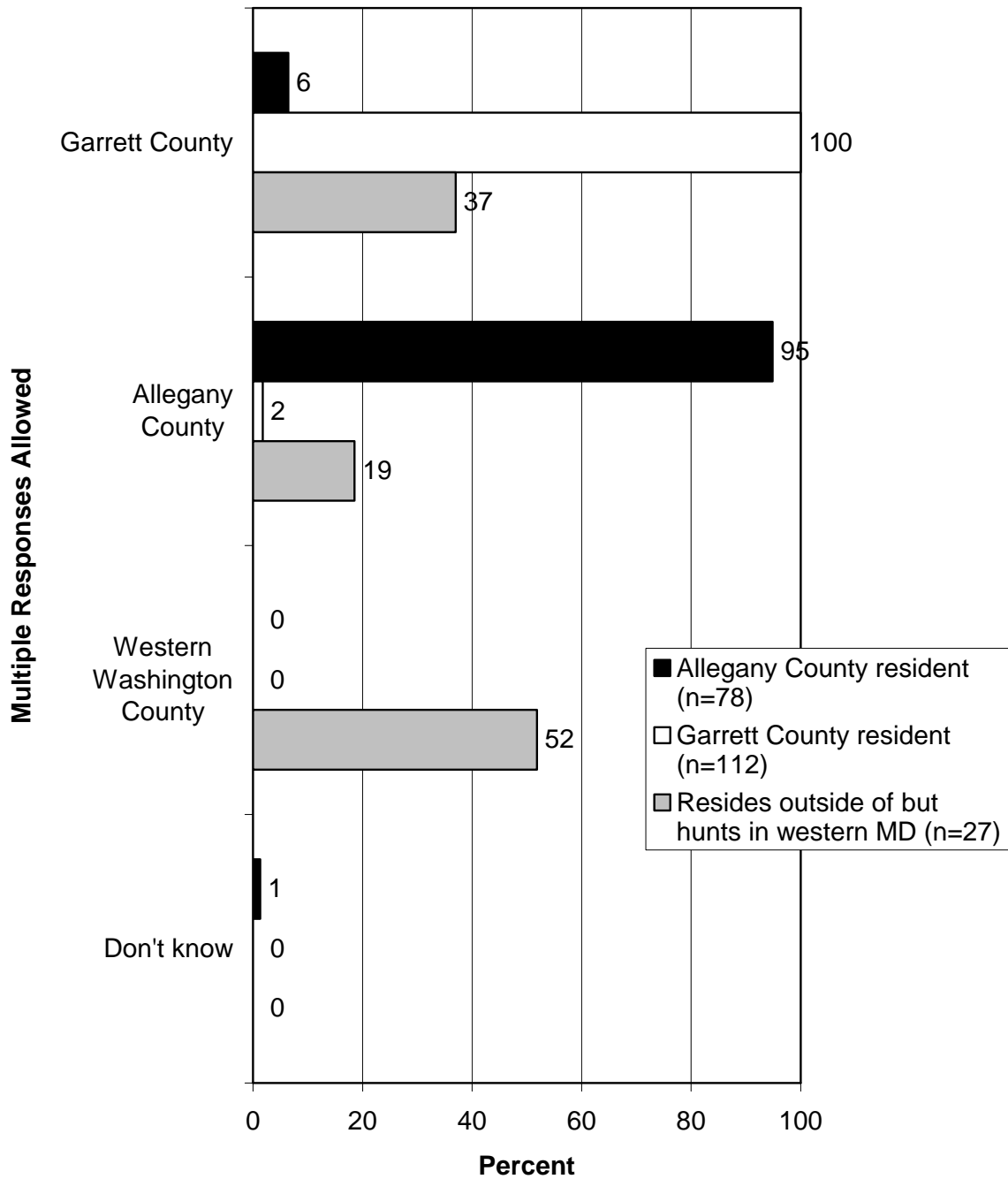
Q103. What is the highest level of education you have completed? (Landowners)



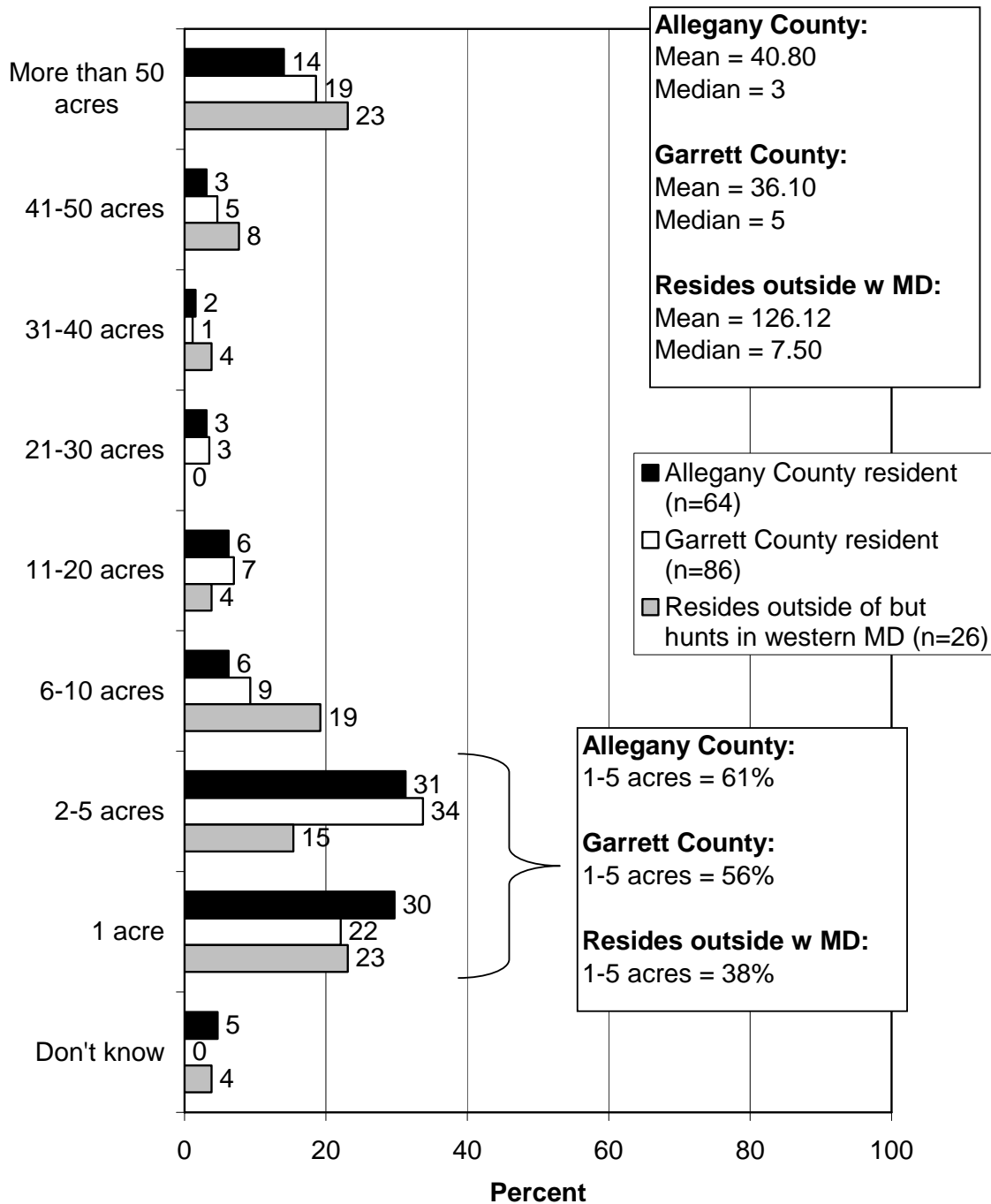
Q21. Do you own land in western Maryland? (Deer Hunters)



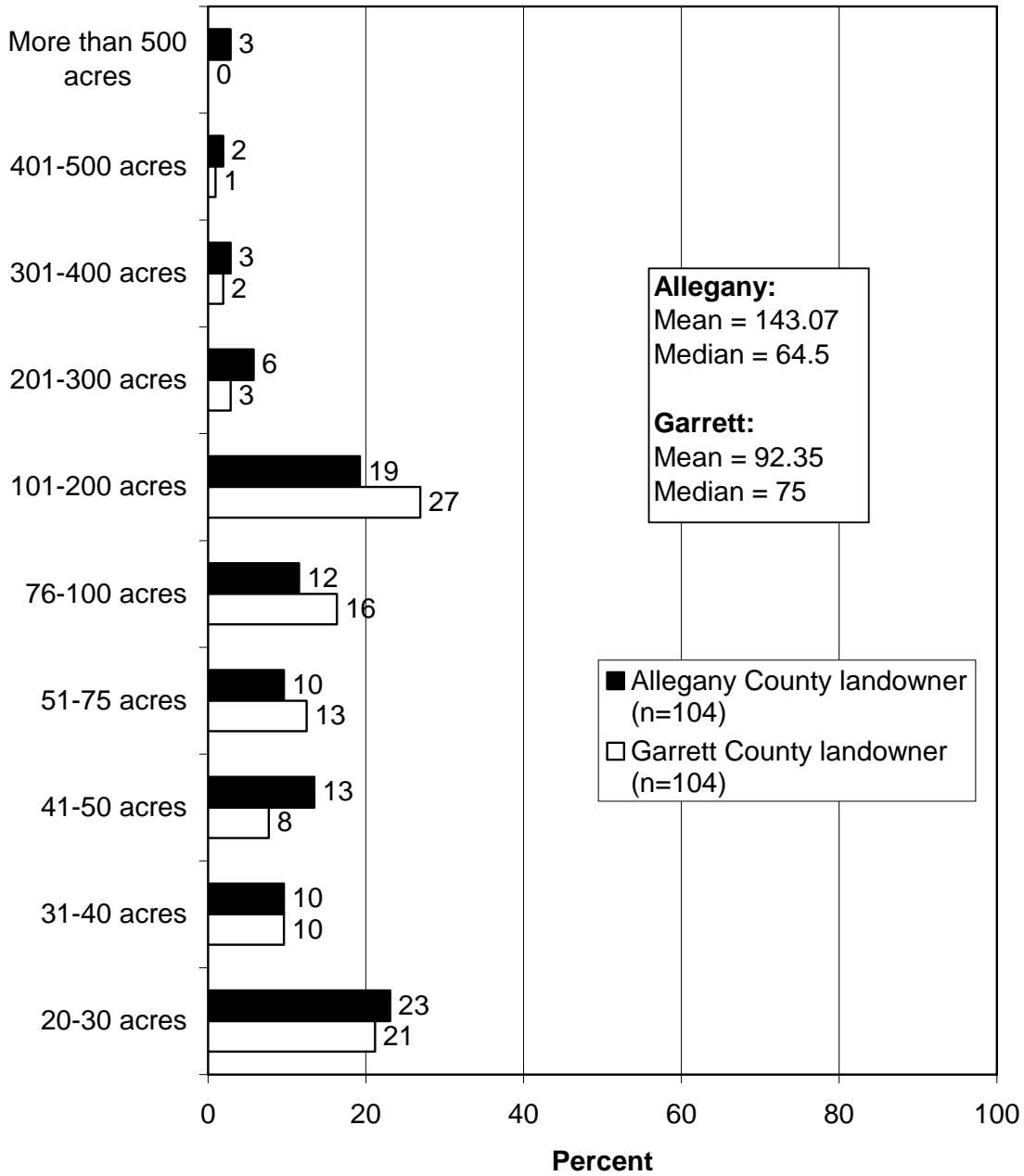
**Q29. In which of those counties do you own land?
(Asked of those who own land in western
Maryland.) (Deer Hunters)**



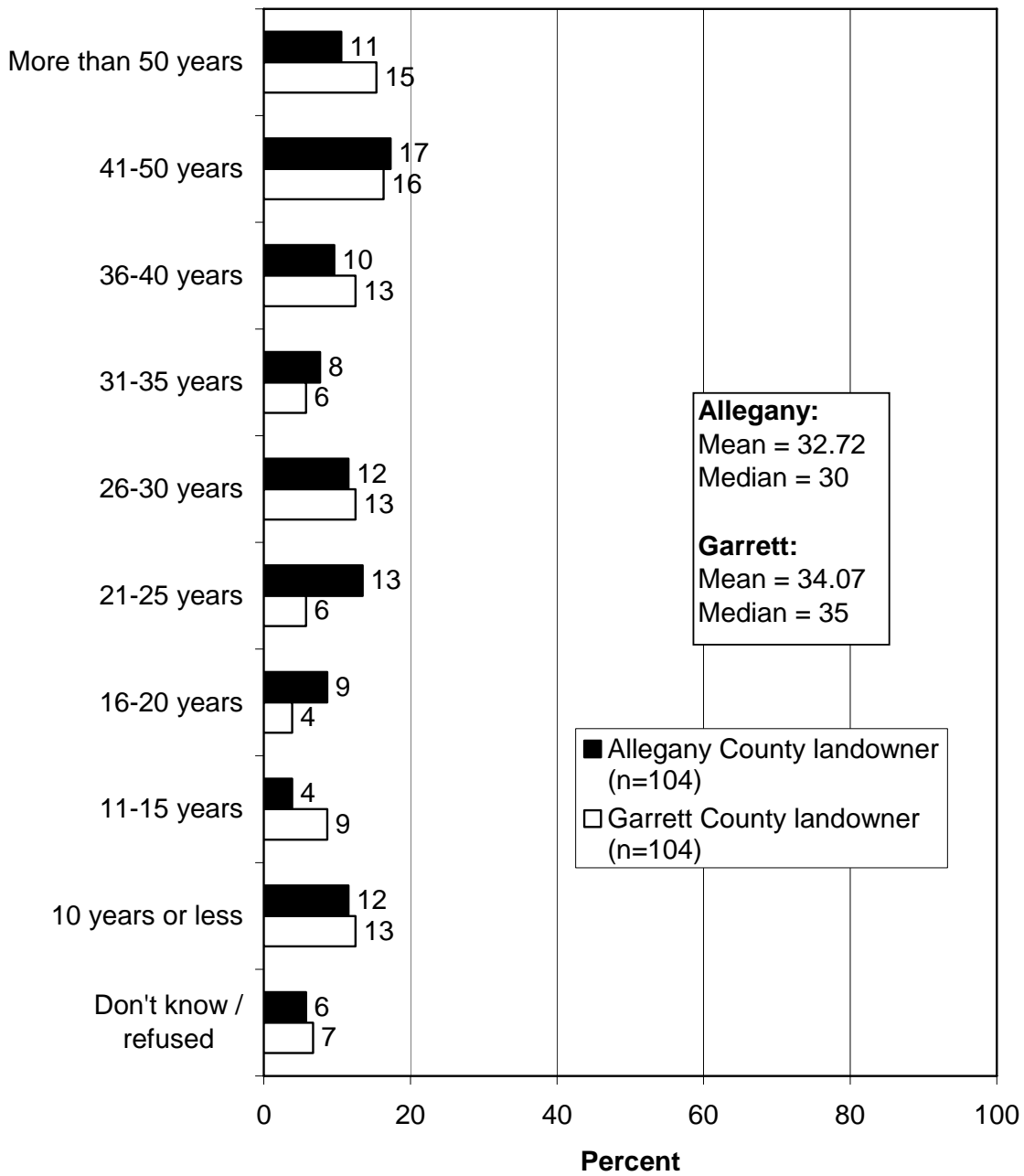
Q23. How many acres do you own in the biggest tract? (Asked of those who own land in western Maryland.) (Deer Hunters)



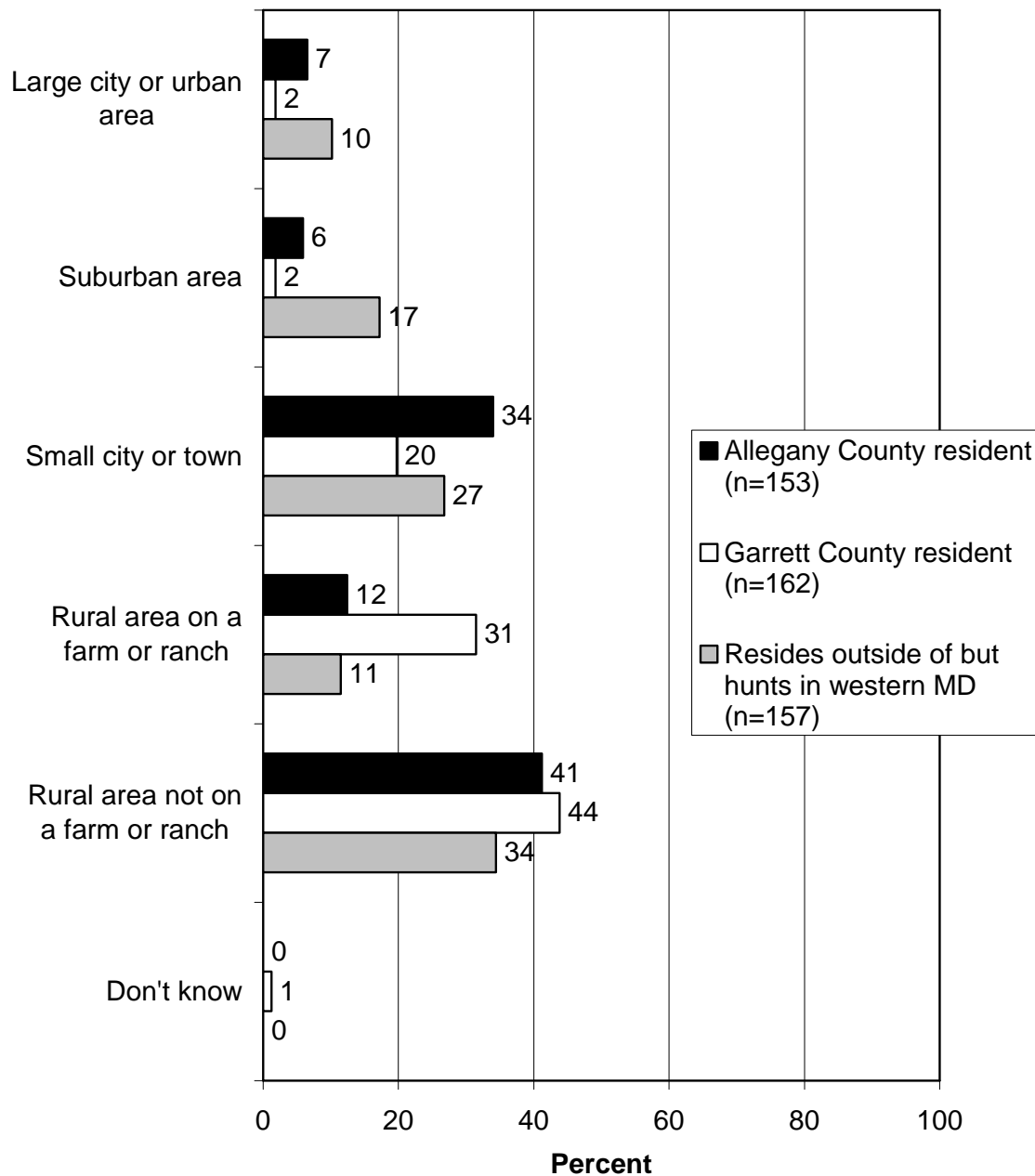
Q23. How many acres do you own in the biggest tract? (Asked of those who own land in western Maryland.) (Landowners)



Q99. How many years have you owned land in western Maryland? (Asked of those who own land in western Maryland.) (Landowners)



**Q102. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?
(Deer Hunters)**



ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies and organizations better understand and work with their constituents, customers, and the public.

Utilizing our in-house, full-service telephone, mail, and web-based survey center with 50 professional interviewers, we have conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communication plans, needs assessments, and program evaluations.

Clients include the federal natural resource and land management agencies, most state fish and wildlife agencies, state departments of natural resources, environmental protection agencies, state park agencies, tourism boards, most of the major conservation and sportsmen's organizations, and numerous private businesses. Responsive Management also collects attitude and opinion data for many of the nation's top universities.

Specializing in research on public attitudes toward natural resource and outdoor recreation issues, Responsive Management has completed a wide range of projects during the past 22 years, including dozens of studies of hunters, anglers, wildlife viewers, boaters, park visitors, historic site visitors, hikers, birdwatchers, campers, and rock climbers. Responsive Management has conducted studies on endangered species; waterfowl and wetlands; and the reintroduction of large predators such as wolves, grizzly bears, and the Florida panther.

Responsive Management has assisted with research on numerous natural resource ballot initiatives and referenda and has helped agencies and organizations find alternative funding and increase their membership and donations. Additionally, Responsive Management has conducted major organizational and programmatic needs assessments to assist natural resource agencies and organizations in developing more effective programs based on a solid foundation of fact.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management has also conducted focus groups and personal interviews with residents of the African countries of Algeria, Cameroon, Mauritius, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe.

Responsive Management routinely conducts surveys in Spanish and has conducted surveys in Chinese, Korean, Japanese and Vietnamese and has completed numerous studies with specific target audiences, including Hispanics; African-Americans; Asians; women; children; senior citizens; urban, suburban, and rural residents; large landowners; and farmers.

Responsive Management's research has been upheld in U.S. District Courts; used in peer-reviewed journals; and presented at major natural resource, fish and wildlife, and outdoor recreation conferences across the world. Company research has been featured in most of the nation's major media, including CNN, *The New York Times*, *The Wall Street Journal*, and on the front pages of *USA Today* and *The Washington Post*. Responsive Management's research has also been highlighted in *Newsweek* magazine.

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