

Responsive Management™



PUBLIC AWARENESS OF AND OPINION ON THE REINTRODUCTION OF ELK IN WESTERN MARYLAND

**Conducted for the Maryland Legislative Sportsmen's Foundation,
the Maryland Department of Natural Resources, and the Rocky
Mountain Elk Foundation**

by Responsive Management

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STUDY OVERVIEW

This study was conducted for the Maryland Legislative Sportsmen's Foundation, the Maryland Department of Natural Resources, and the Rocky Mountain Elk Foundation to determine public awareness of and support for the reintroduction of elk in western Maryland. The study entailed a telephone survey of 809 Maryland residents ages 18 years old and older; the sample was representative of all Maryland residents. Findings of the telephone survey are reported at a 95% confidence interval (or higher), with a sampling error of plus or minus 3.45 percentage points. For the complete study methodology, please see the report introduction beginning on page 1.

The majority of Maryland residents are satisfied with the overall performance of the Maryland Department of Natural Resources. A small percentage of residents have heard something about the proposed reintroduction of elk into western Maryland. Despite low overall awareness about the proposal, nearly three out of four Maryland residents would support the reintroduction of elk into western Maryland. In fact, support for the reintroduction as measured at both the beginning and end of the survey was largely the same: in an early survey question, 72% of respondents said they supported the reintroduction of elk into the state (37% of whom *strongly* supported it), while a similar question asked near the end of the survey (after respondents were given time to consider potential problems such as vehicle collisions, property/crop damage, disease risks, and the expense of the reintroduction) found 70% of Maryland residents in support of the reintroduction (35% *strongly* supporting it). These levels of support resemble findings from a 2011 survey of Kentucky residents, which determined that 78% of residents supported having elk in southeastern Kentucky (note that the Kentucky survey was conducted *after* elk had been repopulated in the state).¹

Despite that a clear majority of Maryland residents support the reintroduction of elk into the western part of the state, the survey determined that *strong* opposition is notable among several subsets of respondents, including individuals who believe that the reintroduction of elk will negatively affect their job or industry (43% of these individuals *strongly* oppose the reintroduction), individuals who think elk will likely be a nuisance to landowners in western Maryland (36% in *strong* opposition), individuals who do not support the hunting of elk in western Maryland (22% in *strong* opposition), and western Maryland landowners of 20 acres or more (20% in *strong* opposition). While none of these subsets had a majority of respondents in *strong* opposition to the reintroduction of elk into Maryland, it remains likely that these will be the groups most vocally opposed to the reintroduction of elk.

Maryland residents place particular importance on the knowledge that the state could benefit economically from tourists who come to watch or photograph elk; at the same time, the chance of a vehicle collision with an elk and the disease risk posed by elk are two of the most important potential concerns to Maryland residents. Additionally, a majority of them believe that the ecological effects of the elk reintroduction should be *very* important in decisions about whether to reintroduce elk in Maryland. Roughly three-quarters of Maryland residents support legal, regulated hunting, and about the same percentage would support the hunting of elk in western Maryland. A little more than half of the residents surveyed said they would be likely to take a trip to view elk in Maryland, and about the same proportion of hunters in the sample said they were likely to hunt elk given a healthy enough population.

¹ Responsive Management/Kentucky Department of Fish and Wildlife Resources. 2011. *Kentucky Residents' Awareness of and Opinions on Elk Restoration and Management Efforts*.

EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Maryland Legislative Sportsmen's Foundation, the Maryland Department of Natural Resources, and the Rocky Mountain Elk Foundation to determine public awareness of and support for the reintroduction of elk in western Maryland. Further objectives of the research included an assessment of public tolerance toward levels of elk-human conflicts and nuisance issues, such as crop damage and vehicle collisions, and an exploration of the potential economic impacts of elk hunting and wildlife viewing opportunities. The study entailed a scientific survey of Maryland residents ages 18 years old and older.

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among Maryland residents. 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. The telephone survey questionnaire was developed cooperatively by Responsive Management, the Maryland Legislative Sportsmen's Foundation, and the Maryland Department of Natural Resources. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey. The survey was conducted in April 2012.

Responsive Management obtained a total of 809 completed interviews, including 220 interviews with residents in three western Maryland counties where elk could be reintroduced (Garrett, Allegany, and Washington counties). The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. Crosstabulations were run on many questions, including a crosstabulation by two major regions in Maryland: Western Maryland included respondents residing within the proposed elk reintroduction zone (either in Garrett, Allegany, or Washington county); Central and Eastern Maryland included respondents residing throughout the rest of the state outside of the proposed elk reintroduction zone.

Findings of the telephone survey are reported at a 95% confidence interval (or higher). For the entire sample of Maryland residents, the sampling error is at most plus or minus 3.45 percentage points.

SATISFACTION WITH THE DEPARTMENT OF NATURAL RESOURCES AND SUPPORT FOR THE REINTRODUCTION OF ELK IN MARYLAND

- While a majority of Maryland residents (57%) were satisfied with the overall performance of the Maryland Department of Natural Resources (with more than a quarter being *very* satisfied), sizable percentages said they were neither satisfied nor dissatisfied (19%) or that they were unsure (17%). Just 8% of Maryland residents indicated being dissatisfied with the Department's overall performance.
- Residents who indicated being dissatisfied with the Department were asked about the reasons for their dissatisfaction: at the top of the ranking is the belief that the Department is not doing enough to combat pollution and/or land encroachment (30% of those who said they were dissatisfied gave this reason); this was followed by disagreement with the Department's wildlife management priorities (16%) and the need for tighter regulations and/or better enforcement of existing regulations (13%).
- The overwhelmingly majority of Maryland residents (87%) said they had heard nothing about the possible reintroduction of elk into Maryland. About one in ten residents (11%) had heard a little, and very small percentages said they had heard a moderate amount (2%) or a great deal (1%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to have heard *a little* or *a moderate amount* about the possible reintroduction of elk; by contrast, Central and Eastern Maryland residents were more likely to say they had heard *nothing*.
 - A crosstabulation examining Western Maryland landowners of 20 acres or more found that members of this group, compared to respondents in the rest of the sample, were more likely to have heard *a great deal*, *a moderate amount*, or *a little* about the elk reintroduction.

- A crosstabulation comparing hunters to non-hunters found that hunters, relative to non-hunters, were more likely to have heard *a little* about the elk reintroduction; on the other hand, non-hunters were more likely to have heard *nothing* about it.
 - Crosstabulations by residence type, household income, and education level found no major differences between the respective groups on this question.
 - A crosstabulation by age found that respondents older than the median age of 47, compared to respondents the median age or younger, were more likely to have heard *a little* about the elk reintroduction, while respondents the median age or younger were more likely to have heard *nothing* about it.
 - A crosstabulation by gender found no major differences between males and females on this question.
- Asked whether they would support or oppose the reintroduction of free-roaming, wild elk into western Maryland, a solid majority of Maryland residents (72%) said they would support it, with 37% indicating *strong* support. Meanwhile, 14% were in opposition (8% being *strong* opposition). Additionally, at the end of the survey (i.e., after they had had a chance to consider some of the potential problems associated with reintroducing elk into Maryland), respondents were re-asked the question regarding basic support and opposition to the reintroduction: here, overall support dropped just two percentage points from 72% to 70%, with overall *strong* support going from 37% to 35%. Thus, it would appear that even after learning about potential problems associated with a reintroduction of elk (e.g., vehicle collisions, property/crop damage, disease risks, the expense of the reintroduction), a sizable majority of residents support the proposed reintroduction of elk into western Maryland.
- The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were *less* likely to moderately support the reintroduction and *more* likely to moderately oppose it.
 - A crosstabulation examining Western Maryland landowners of 20 acres or more found that members of this group, compared to respondents in the rest of the sample, were more likely to both *strongly* support and *strongly* oppose the reintroduction of elk into Maryland. At the same time, respondents in the rest of the sample, compared

- to Western Maryland landowners of 20 acres or more, were more likely to *moderately* support the reintroduction.
- A crosstabulation comparing hunters to non-hunters found that hunters, relative to non-hunters, were more likely to *strongly* support the reintroduction of elk into the state; by contrast, non-hunters were more likely to *moderately* support the reintroduction.
 - A crosstabulation by residence type found that residents of small cities, towns, or rural areas, compared to residents of urban or suburban areas, were more likely to *strongly* support the elk reintroduction.
 - A crosstabulation by household income found no major differences between the two groups.
 - A crosstabulation by education level found that residents with at least a bachelor's degree, compared to residents whose education level was less than a bachelor's degree, were more likely to *moderately* support the reintroduction.
 - A crosstabulation by age found no major differences between respondents older than the median age of 47 and those the median age or younger.
 - A crosstabulation by gender found that males, compared to females, were more likely to *strongly* support the reintroduction of elk into western Maryland; by contrast, females were more likely to *strongly* oppose the reintroduction.
- In addition to the crosstabulated results discussed above, four tables that follow offer a breakdown of strong and moderate support and opposition to the reintroduction of elk into western Maryland according to individual respondent characteristics as measured through various questions throughout the survey (age, gender, hunting participation, land ownership, etc.). In the ranking by the percentage of each group who indicated *strongly supporting* the reintroduction of elk into western Maryland, the top categories are as follows:
- Being very or somewhat likely to try hunting elk in Western Maryland (79% of this group indicated *strongly* supporting the reintroduction of elk into the state);
 - Being a hunter (70%);
 - Not thinking that potential agricultural damage should be very or somewhat important in decisions about the elk reintroduction (59%);

- Not being concerned about elk being a nuisance on the respondent's property in Western Maryland (58%);
- Having had damage caused by wildlife in the past five years (non-landowners) (57%);
- Not thinking that potential vehicle collisions should be very or somewhat important in decisions about the elk reintroduction (53%);
- Being very or somewhat likely to take a trip to see elk in Western Maryland (51%).

In the ranking by the percentage of each group who indicated *moderately supporting* the reintroduction of elk into western Maryland, the top categories are as follows:

- Having an education level of at least a bachelor's degree (42%);
- Thinking the reintroduction of elk would positively affect the respondent's job or industry (40%);
- Supporting the hunting of elk in Western Maryland (40%).

In the ranking by the percentage of each group who indicated being *moderately opposed* to the reintroduction of elk into western Maryland, the top categories are as follows:

- Being concerned about elk being a nuisance on the respondent's Western Maryland property (19%);
- Thinking the reintroduction of elk would positively affect the respondent's job or industry (15%);
- Living in Western Maryland (Garrett, Allegany, or Washington county) (14%);
- Not supporting the hunting of elk in Western Maryland (12%);
- Not being very or somewhat likely to take a trip to view elk in Western Maryland (11%);
- Not supporting hunting (11%).

Finally, in the ranking by the percentage of each group who indicated being *strongly opposed* to the reintroduction of elk into western Maryland, the top categories are as follows:

- Thinking the reintroduction of elk would negatively affect the respondent's job or industry (43%);
- Being concerned about elk being a nuisance on the respondent's Western Maryland property (36%);

- Not supporting the hunting of elk in Western Maryland (22%);
 - Being a landowner of 20 acres or more in Western Maryland (20%);
 - Not thinking the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about the elk reintroduction (20%).
- Respondents were asked follow-up questions regarding the reasons they supported or opposed the reintroduction of elk into Maryland:
- The most common reason for supporting it was that elk have a right to land in Maryland and belong there as a native species (38%); this was followed by the principle of supporting biodiversity and healthy animal populations in general (17%), enjoying seeing animals and having different types of wildlife around (13%), having no particular reason to oppose the reintroduction (12%), and being in support of new hunting opportunities afforded through the reintroduction (11%).
 - The most common reasons for opposing the reintroduction included the belief that Maryland is overpopulated with deer and therefore does not have enough land to support elk (28%), the potential for car accidents, property damage, or damage to crops from elk (26%), and simply thinking the reintroduction of elk to the state is unnecessary (26%).

Percentage of each of the following groups that would <u>strongly support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Would be likely to try hunting elk in Western Maryland	79
Is a hunter	70
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	59
Is not concerned about elk being a nuisance on his / her Western Maryland property	58
Has had damage caused by wildlife in past 5 years (non-landowner)	57
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	53
Would be very or somewhat likely to take a trip to see elk in Western Maryland	51
Is a landowner of 20 acres or more in western Maryland	47
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	46
Resides in a small city / town or rural area	43
Is male	43
Has not experienced problems with wildlife on his / her property	41
Lives in Western Maryland (Garrett, Allegany, or Washington county)	41
Thinks the reintroduction of elk would positively affect his / her job or industry	41
Thinks that the economic benefits of having elk in Western Maryland should be very or	39

Percentage of each of the following groups that would <u>strongly support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
somewhat important in decisions about elk reintroduction	
Would support hunting of elk in Western Maryland	39
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	39
Supports hunting	38
Does not think that the ecological effects should be very or somewhat important in decisions about elk reintroduction	38
Has an education level of less than a bachelor's degree	38
Has a household income of at least \$60,000	38
Has a household income of less than \$60,000	38
Owens land in Maryland	37
Thinks the reintroduction of elk would not affect his / her job or industry	36
Is the median age (47) or younger	36
Is older than the median age (47)	36
Is not a landowner of 20 acres or more in western Maryland	35
Lives in Central or Eastern Maryland	35
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	35
Does not own land in Western Maryland	35
Does not own land in Maryland	33
Has an education level of at least a bachelor's degree	32
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	32
Resides in an urban or suburban area	29
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	29
Is not a hunter	29
Would not be likely to try hunting elk in Western Maryland	29
Is female	28
Has not had damage caused by wildlife in past 5 years (non-landowner)	28
Does not support hunting	27
Has experienced problems with wildlife on his / her property	27
Would not support hunting of elk in Western Maryland	26
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	26
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	25
Thinks the reintroduction of elk would negatively affect his / her job or industry	24
Would not be likely to take a trip to see elk in Western Maryland	17
Is concerned about elk being a nuisance on his / her Western Maryland property	14

Percentage of each of the following groups that would <u>moderately support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Has an education level of at least a bachelor's degree	42
Thinks the reintroduction of elk would positively affect his / her job or industry	40
Would support hunting of elk in Western Maryland	40
Would be very or somewhat likely to take a trip to see elk in Western Maryland	39
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	39
Has a household income of at least \$60,000	39
Resides in an urban or suburban area	39
Would not be likely to try hunting elk in Western Maryland	38
Supports hunting	38
Is the median age (47) or younger	38
Is not a hunter	38
Has not had damage caused by wildlife in past 5 years (non-landowner)	38
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	38
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	38
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	37
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	37
Has experienced problems with wildlife on his / her property	36
Is male	35
Owns land in Maryland	35
Lives in Central or Eastern Maryland	35
Has not experienced problems with wildlife on his / her property	35
Does not own land in Western Maryland	35
Is not a landowner of 20 acres or more in western Maryland	35
Thinks the reintroduction of elk would not affect his / her job or industry	35
Is female	35
Does not own land in Maryland	34
Is older than the median age (47)	33
Has a household income of less than \$60,000	31
Resides in a small city / town or rural area	31
Would not be likely to take a trip to see elk in Western Maryland	30
Is not concerned about elk being a nuisance on his / her Western Maryland property	30
Has an education level of less than a bachelor's degree	30
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	28
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	27
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	27
Lives in Western Maryland (Garrett, Allegany, or Washington county)	26
Thinks the reintroduction of elk would negatively affect his / her job or industry	25
Does not support hunting	25
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	23

Percentage of each of the following groups that would <u>moderately support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	22
Is concerned about elk being a nuisance on his / her Western Maryland property	21
Would not support hunting of elk in Western Maryland	20
Is a landowner of 20 acres or more in western Maryland	19
Is a hunter	17
Does not think that that the ecological effects should be very or somewhat important in decisions about elk reintroduction	17
Has had damage caused by wildlife in past 5 years (non-landowner)	14
Would be likely to try hunting elk in Western Maryland	12

Percentage of each of the following groups that would <u>moderately oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Is concerned about elk being a nuisance on his / her Western Maryland property	19
Thinks the reintroduction of elk would positively affect his / her job or industry	15
Lives in Western Maryland (Garrett, Allegany, or Washington county)	14
Would not support hunting of elk in Western Maryland	12
Would not be likely to take a trip to see elk in Western Maryland	11
Does not support hunting	11
Is female	9
Has experienced problems with wildlife on his / her property	9
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	9
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	9
Has a household income of less than \$60,000	9
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	8
Owns land in Maryland	8
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	8
Has not experienced problems with wildlife on his / her property	7
Is not a hunter	7
Has had damage caused by wildlife in past 5 years (non-landowner)	7
Would not be likely to try hunting elk in Western Maryland	7
Has an education level of less than a bachelor's degree	7
Does not think that that the ecological effects should be very or somewhat important in decisions about elk reintroduction	7
Resides in a small city / town or rural area	7
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	7
Is not a landowner of 20 acres or more in western Maryland	6
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	6
Does not own land in Western Maryland	6

Percentage of each of the following groups that would <u>moderately oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Resides in an urban or suburban area	6
Is a landowner of 20 acres or more in western Maryland	6
Lives in Central or Eastern Maryland	6
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	6
Is older than the median age (47)	6
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	6
Thinks the reintroduction of elk would not affect his / her job or industry	6
Is the median age (47) or younger	5
Has an education level of at least a bachelor's degree	5
Supports hunting	5
Is not concerned about elk being a nuisance on his / her Western Maryland property	5
Has a household income of at least \$60,000	5
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	5
Would support hunting of elk in Western Maryland	5
Does not own land in Maryland	4
Has not had damage caused by wildlife in past 5 years (non-landowner)	4
Thinks the reintroduction of elk would negatively affect his / her job or industry	3
Is a hunter	3
Is male	3
Would be very or somewhat likely to take a trip to see elk in Western Maryland	3
Would be likely to try hunting elk in Western Maryland	3
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	2

Percentage of each of the following groups that would <u>strongly oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Thinks the reintroduction of elk would negatively affect his / her job or industry	43
Is concerned about elk being a nuisance on his / her Western Maryland property	36
Would not support hunting of elk in Western Maryland	22
Is a landowner of 20 acres or more in western Maryland	20
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	20
Does not support hunting	19
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	19
Does not think that that the ecological effects should be very or somewhat important in decisions about elk reintroduction	19
Would not be likely to take a trip to see elk in Western Maryland	18
Has experienced problems with wildlife on his / her property	15
Has not had damage caused by wildlife in past 5 years (non-landowner)	14
Is female	14

Percentage of each of the following groups that would <u>strongly oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Does not own land in Maryland	13
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	12
Has a household income of less than \$60,000	11
Resides in an urban or suburban area	11
Has an education level of less than a bachelor's degree	11
Lives in Western Maryland (Garrett, Allegany, or Washington county)	11
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	11
Has had damage caused by wildlife in past 5 years (non-landowner)	10
Would not be likely to try hunting elk in Western Maryland	10
Is not a hunter	10
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	10
Is the median age (47) or younger	10
Is not a landowner of 20 acres or more in western Maryland	9
Does not own land in Western Maryland	9
Lives in Central or Eastern Maryland	9
Is older than the median age (47)	9
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	8
Thinks the reintroduction of elk would not affect his / her job or industry	8
Has an education level of at least a bachelor's degree	8
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	7
Has a household income of at least \$60,000	7
Owns land in Maryland	7
Resides in a small city / town or rural area	7
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	6
Supports hunting	6
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	6
Would support hunting of elk in Western Maryland	5
Is male	5
Is a hunter	4
Has not experienced problems with wildlife on his / her property	3
Thinks the reintroduction of elk would positively affect his / her job or industry	3
Would be likely to try hunting elk in Western Maryland	3
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	3
Would be very or somewhat likely to take a trip to see elk in Western Maryland	2
Is not concerned about elk being a nuisance on his / her Western Maryland property	1

VALUES ASSOCIATED WITH HAVING ELK IN MARYLAND AND CONCERN ABOUT PROBLEMS RELATED TO ELK

- Respondents were read a list of values related to having elk in western Maryland and asked to rate each one as *very* important, *somewhat* important, or *not at all* important. The list included knowing that wild elk would exist in western Maryland, knowing that people would have the opportunity to watch or photograph elk in western Maryland, knowing that people would have the opportunity to hunt elk in western Maryland once the population reached a certain threshold, knowing that opportunities to watch or photograph elk could bring tourists to western Maryland, and knowing that the state of Maryland could benefit economically from tourists who come to watch or photograph elk in western Maryland.
- In the ranking by the percentage of respondents who rated each value as *very* important, one item had nearly half of respondents considering it to be *very* important: knowing that the state of Maryland could benefit economically from tourists who come to watch or photograph elk in western Maryland (46% of residents described this as *very* important). The next three items had fairly similar percentages rating them as *very* important: knowing that opportunities to watch or photograph elk could bring tourists to western Maryland (40%), knowing that wild elk would exist in western Maryland (39%), and knowing that people would have the opportunity to watch or photograph elk in western Maryland (38%). Finally, one item had markedly fewer people considering it to be *very* important: knowing that people would have the opportunity to hunt elk in western Maryland once the population reached a certain threshold (just 22% of respondents said this was *very* important).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to consider as *very* important the knowledge that people would have the opportunity to hunt elk in western Maryland once the population reached a certain threshold.
- Following the list of values, respondents were read a series of six potential concerns associated with the reintroduction of elk to western Maryland and asked whether they were *very* concerned, *somewhat* concerned, or *not concerned at all* about each. The list included the following: that they could have a vehicle collision with an elk; that elk could carry

disease, which could impact other wildlife like white-tailed deer; the expense of reintroducing elk into western Maryland; that they might encounter an elk in the wild; that elk might damage agricultural crops; and that reintroducing elk might limit the resources available to manage other wildlife in the state.

- In the ranking by the percentage of residents who indicated being *very* concerned, two items stand out: that they could have a vehicle collision with an elk (38% of respondents said they were *very* concerned about this) and that elk could carry disease, which could impact other wildlife like white-tailed deer (37%). Other items about which at least a fifth of respondents said they were *very* concerned included the expense of reintroducing elk into western Maryland (31%), that elk might damage agricultural crops (26%), and that reintroducing elk might limit the resources available to manage other wildlife in Maryland (22%). Finally, only a small percentage of residents (12%) said they were *very* concerned about encountering an elk in the wild.
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were generally more likely to be *very* concerned about each of the items on the list; in particular, Western Maryland residents appeared much more likely to be *very* concerned about having a vehicle collision with an elk.
- Following the aforementioned list of concerns, respondents were asked whether they had any additional concerns related to the reintroduction of elk to western Maryland, and 14% of residents said that they did. (Interestingly, Central and Eastern Maryland residents, compared to Western Maryland residents, were more likely to say that they had additional concerns.) The most common issues named by this group in a follow-up question included concern about damage other than damage to vehicles or crops (14%), concern about the possible lack of habitat for elk (13%), concern about a lack of natural predators for elk (12%), concern about effects on other wildlife caused by the elk reintroduction (11%), and concern about whether the elk population would be properly controlled and managed (10%).
- A final series in this section asked respondents about five items potentially factoring into decisions about whether to reintroduce elk to western Maryland: the economic benefits of

having elk in western Maryland, the ecological effects, potential agricultural damage, potential vehicle collisions, and the possibility of elk-related recreation. Respondents were asked whether they thought each item in the series should be *very* important, *somewhat* important, or *not at all* important to decisions about whether to reintroduce elk in the state.

- In the ranking by the percentage of residents who rated each item as *very* important, one item stands out as markedly more important than the others: the ecological effects (at 58%, this was the only item with a majority of Maryland residents saying it should be *very* important in decisions about whether to reintroduce elk in western Maryland). Meanwhile, all four other items had at least a quarter of residents saying the item should be *very* important in elk reintroduction-related decisions: potential agricultural damage (43%), potential vehicle collisions (35%), the economic benefits of having elk in western Maryland (32%), and the possibility of elk-related recreation (28%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, appeared more likely to rate potential vehicle collisions as *very* important to decisions; by contrast, Central and Eastern Maryland residents, compared to Western Maryland residents, appeared more likely to rate ecological effects as *very* important to decisions about whether to reintroduce elk to Maryland.

LAND OWNERSHIP, PROBLEMS WITH WILDLIFE, AND ELK-RELATED CONCERNS AND BENEFITS

- A majority of the sample (61%) owned land in Maryland, with land ownership being more common among Western Maryland residents than Central and Eastern Maryland residents.
 - Most landowners surveyed (62%) owned no more than one acre of land; the median number of acres owned was 1, and the mean was 11.94.
 - The most common counties in which landowners owned tracts of land were Baltimore County (15%), Montgomery (15%), and Anne Arundel (10%). Overall, 7% of the landowners in the sample owned land in Garrett, Allegany, or Washington counties.
 - More than a quarter of landowners in the sample (29%) said they had experienced problems with wildlife on their property in the past five years.

- Deer were by far the most commonly named species associated with problems from wildlife (68% of landowners who experienced problems cited deer); meanwhile, smaller percentages indicated problems with fox (10%), raccoon (9%), and squirrel (9%).
 - Among landowners who reported problems with wildlife, damage to landscaping and non-agricultural plants was the most commonly named type of damage (57%), followed by damage to personal property in general (15%).
- A series of questions was asked only of those who owned land in Garrett, Allegany, or Washington counties (i.e., the state's potential elk restoration areas):
- The majority of those who owned land in Garrett, Allegany, or Washington counties (58%) said that the presence of elk would have no effect on the monetary value of their property in those areas; at the same time, about a third (32%) said the presence of elk would increase the value of their property (27% said the presence of elk would increase their property's value *a little*, compared to just 5% who said their property's value would increase *a lot*).
 - A follow-up question asked Garrett, Allegany, and Washington landowners whether they thought the presence of elk would increase or decrease their land's value in ways other than monetarily: again, the large majority (64%) answered that the presence of elk would have no effect. Otherwise, about a quarter (24%) said the presence of elk would increase the value of their property in ways other than monetarily (here, 10% said the presence of elk would increase their property's non-monetary value *a little*, compared to 14% who said their property's non-monetary value would increase *a lot*).
 - Most Garrett, Allegany, and Washington landowners (69%) said they were *not concerned at all* about elk being a nuisance or causing problems on their property in western Maryland; otherwise, 27% said they were concerned, with 11% being *very* concerned. Among those who indicated being concerned, the most commonly named concern was general property damage (62%), distantly followed by damage to crops (18%).
 - About a third of Garrett, Allegany, and Washington landowners (34%) believed that, as property owners, there would be benefits to having elk in western Maryland; the most commonly named benefits included the ability to hunt and/or eat elk (69%), the potential to view elk (23%), and a general positive influence on property values (9%).

- Non-landowners in the sample were asked if they had experienced any damage caused by wildlife to their personal property or the property where they lived in the past five years, and just 17% indicated that they had experienced such damage:
 - As before, deer were the most commonly named species associated with problems (64%), followed by raccoon (15%) and groundhog (14%).
 - Damage to plants (64%) was by far the most common type of damage, followed by general nuisance issues (23%), damage to other property (12%), and general threats of injury from wildlife (12%).
 - Non-landowners who had experienced damage from wildlife were asked about the county in which the damage occurred, the most commonly named of which included Baltimore County (38%), Montgomery (16%), Anne Arundel (14%), and Prince George's (13%).
- A final question asked of the entire sample measured whether respondents thought the presence of elk would make land more desirable or less desirable in terms of deciding whether to purchase the land: while 41% said that the presence of elk would have no effect (i.e., would make the land neither more nor less desirable), a further 40% indicated that the presence of elk would make the land more desirable (17% said it would make the land *much more* desirable).

SUPPORT FOR HUNTING, LIKELIHOOD OF HUNTING ELK IN MARYLAND, AND OTHER FACTORS AFFECTING SUPPORT FOR THE REINTRODUCTION OF ELK

- About three-quarters of the Maryland residents surveyed (74%) said they supported legal, regulated hunting, with 41% saying they *strongly* supported it. Otherwise, 20% opposed it (with 12% *strongly* opposing).
- Asked whether they would support or oppose the legal, regulated hunting of elk in Maryland (once an elk herd was established), three-quarters of Maryland residents (74%) said they would support it, with 39% *strongly* supporting it. (In total, 21% said they would oppose it, with 14% being in *strong* opposition.)

- Slightly more than a tenth of respondents (13%) said that knowing that elk might be hunted once the herd reached a certain threshold would change their opinion about the elk reintroduction in the state.

WILDLIFE VIEWING- AND HUNTING-RELATED ECONOMIC IMPACTS RELATED TO HAVING ELK IN MARYLAND

- A slight majority of Maryland residents (53%) would be likely to take a trip for the purpose of viewing elk in the state in the next two years, with 29% being *very* likely to do so. On the other hand, 45% say they would be *not at all* likely.
 - The majority of those who would be likely to take a trip to view elk (64%) said they would expect to spend no more than \$300 on items such as gas, food, and lodging; the median dollar amount named was \$200, while the mean was \$301.52.
- One question in this section asked respondents whether they thought the reintroduction of elk into western Maryland would have a positive or negative effect on the business or industry in which they worked, and the vast majority of residents (83%) said that the reintroduction would have no effect. (Just 8% believed the reintroduction would have a positive effect, while 3% said it would have a negative effect on their business or industry.)
- Less than a fifth of respondents to the survey (16%) said they considered themselves to be hunters, with Western Maryland residents being more likely to indicate this. It is important to note that this percentage represents only those individuals who self-identified as hunters (which may be a subjective judgment on the part of the respondent); this figure is *not* necessarily indicative of actual hunting participation or hunting license sales in Maryland.
 - In total, more than half of those who described themselves as hunters (52%) said they would be *very* likely to try to go elk hunting in Maryland (pending a huntable population of elk); a further 31% said they would be *somewhat* likely to go elk hunting, for a total of 83% of hunters who would be likely to go elk hunting.
 - Hunters in the sample were asked how much they were likely to spend on trips to go elk hunting, and the median dollar amount was \$200, while the mean was \$565.36.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Maryland Legislative Sportsmen's Foundation, the Maryland Department of Natural Resources, and the Rocky Mountain Elk Foundation to determine public awareness of and support for the reintroduction of elk in western Maryland. Further objectives of the research included an assessment of public tolerance toward levels of elk-human conflicts and nuisance issues, such as crop damage and vehicle collisions, and an exploration of the potential economic impacts of elk hunting and wildlife viewing opportunities. The study entailed a telephone survey of Maryland residents ages 18 years old and older. Specific aspects of the research methodology are discussed below.

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 Maryland residents. 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

The telephone survey questionnaire was developed cooperatively by Responsive Management, the Maryland Legislative Sportsmen's Foundation, and the Maryland Department of Natural Resources, based on the research team's familiarity with elk reintroduction issues, as well as natural resource and wildlife studies in general. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

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 April 2012.

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 809 completed interviews, including 220 interviews with residents in three western Maryland counties where elk could be reintroduced (Garrett, Allegany, and Washington counties). The total sample size on some questions is less than 809 because the survey asked some questions only of specific respondents in the survey. In particular, this was done when a follow-up question did not apply to some respondents. For instance, only those who owned land were asked follow-up questions concerning the land they owned.

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 results were weighted by demographic and geographic characteristics so that the sample was representative of residents across the two major regions of interest (i.e., the three counties comprising Western Maryland and the remainder of counties comprising Central and Eastern Maryland).

On questions that asked respondents to provide a number (e.g., number of acres of land owned), 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 only shows ranges of numbers. Note that the calculation of means and medians used the precise numbers that the respondents provided.

Crosstabulations were run on many questions, including a crosstabulation by region. For this crosstabulation, respondents were categorized into two groups:

- **Western Maryland:** These are respondents who reside within the proposed elk reintroduction zone (either in Garrett, Allegany, or Washington county).
- **Central and Eastern Maryland:** These are respondents who reside throughout the rest of the state outside of the proposed elk reintroduction zone.

Other crosstabulations were run, as appropriate, as part of the analysis. These crosstabulations are indicated on the graphs and discussed in the text, and require no explanation here.

SAMPLING ERROR

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval (or higher). For the entire sample of Maryland residents, the sampling error is at most plus or minus 3.45 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 3.45 percentage points of each other. Sampling error was calculated using the formula described below, with a sample size of 809 and a population size of 4,420,588 Maryland residents.

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).

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

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.

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 150 means that half the sample gave an answer of more than 150 and the other half gave an answer of less than 150.

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).

Finally, some graphs pertain to more than one section of the report, so these graphs are discussed in more than one section of the report. In these instances when the graph is discussed in more than one section, the graph is only shown in one section with a call-out in the other section indicating where the graph is located.

SATISFACTION WITH THE DEPARTMENT OF NATURAL RESOURCES AND SUPPORT FOR THE REINTRODUCTION OF ELK IN MARYLAND

- While a majority of Maryland residents (57%) were satisfied with the overall performance of the Maryland Department of Natural Resources (with more than a quarter being *very* satisfied), sizable percentages said they were neither satisfied nor dissatisfied (19%) or that they were unsure (17%). Just 8% of Maryland residents indicated being dissatisfied with the Department's overall performance.
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were generally more likely to be satisfied with the overall performance of the Department of Natural Resources.
 - A crosstabulation examining Western Maryland landowners of 20 acres or more found that members of this group, compared to respondents in the rest of the sample, were *more* likely to be very dissatisfied with the Department of Natural Resources and *less* likely to be very satisfied.
 - A crosstabulation comparing hunters to non-hunters found that hunters, relative to non-hunters, were generally more likely to be satisfied with the Department.
 - Crosstabulations by residence type, household income, and education level found no major differences between the respective groups on this question.
 - A crosstabulation by age found that respondents older than the median age of 47, compared to respondents the median age or younger, were more likely to be *somewhat* satisfied with the Department; respondents the median age or younger, on the other hand, were more likely to be neither satisfied nor dissatisfied with the Department.
 - A crosstabulation by gender found that males, compared to females, were more likely to be *very* satisfied with the Department; by contrast, females were more likely to say they did not know.
- Residents who indicated being dissatisfied with the Department were asked about the reasons for their dissatisfaction: at the top of the ranking is the belief that the Department is not doing enough to combat pollution and/or land encroachment (30% of those who said they

were dissatisfied gave this reason); this was followed by disagreement with the Department's wildlife management priorities (16%) and the need for tighter regulations and/or better enforcement of existing regulations (13%).

- The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to cite as reasons for dissatisfaction disagreement with the Department's wildlife management priorities, the cost/availability of licenses sold by the Department, and regulations perceived as burdensome; on the other hand, Central and Eastern Maryland residents were more likely to say that the Department was not doing enough to combat pollution/land encroachment.
- The overwhelmingly majority of Maryland residents (87%) said they had heard nothing about the possible reintroduction of elk into Maryland. About one in ten residents (11%) had heard a little, and very small percentages said they had heard a moderate amount (2%) or a great deal (1%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to have heard *a little* or *a moderate amount* about the possible reintroduction of elk; by contrast, Central and Eastern Maryland residents were more likely to say they had heard *nothing*.
 - A crosstabulation examining Western Maryland landowners of 20 acres or more found that members of this group, compared to respondents in the rest of the sample, were more likely to have heard *a great deal*, *a moderate amount*, or *a little* about the elk reintroduction.
 - A crosstabulation comparing hunters to non-hunters found that hunters, relative to non-hunters, were more likely to have heard *a little* about the elk reintroduction; on the other hand, non-hunters were more likely to have heard *nothing* about it.
 - Crosstabulations by residence type, household income, and education level found no major differences between the respective groups on this question.
 - A crosstabulation by age found that respondents older than the median age of 47, compared to respondents the median age or younger, were more likely to have heard

- a little* about the elk reintroduction, while respondents the median age or younger were more likely to have heard *nothing* about it.
- A crosstabulation by gender found no major differences between males and females on this question.
- Asked whether they would support or oppose the reintroduction of free-roaming, wild elk into western Maryland, a solid majority of Maryland residents (72%) said they would support it, with 37% indicating *strong* support. Meanwhile, 14% were in opposition (8% being *strong* opposition). Additionally, at the end of the survey (i.e., after they had had a chance to consider some of the potential problems associated with reintroducing elk into Maryland), respondents were re-asked the question regarding basic support and opposition to the reintroduction: here, overall support dropped just two percentage points from 72% to 70%, with overall *strong* support going from 37% to 35%. Thus, it would appear that even after learning about potential problems associated with a reintroduction of elk (e.g., vehicle collisions, property/crop damage, disease risks, the expense of the reintroduction), a sizable majority of residents support the proposed reintroduction of elk into western Maryland.
- The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were *less* likely to moderately support the reintroduction and *more* likely to moderately oppose it.
 - A crosstabulation examining Western Maryland landowners of 20 acres or more found that members of this group, compared to respondents in the rest of the sample, were more likely to both *strongly* support and *strongly* oppose the reintroduction of elk into Maryland. At the same time, respondents in the rest of the sample, compared to Western Maryland landowners of 20 acres or more, were more likely to *moderately* support the reintroduction.
 - A crosstabulation comparing hunters to non-hunters found that hunters, relative to non-hunters, were more likely to *strongly* support the reintroduction of elk into the state; by contrast, non-hunters were more likely to *moderately* support the reintroduction.

- A crosstabulation by residence type found that residents of small cities, towns, or rural areas, compared to residents of urban or suburban areas, were more likely to *strongly* support the elk reintroduction.
 - A crosstabulation by household income found no major differences between the two groups.
 - A crosstabulation by education level found that residents with at least a bachelor's degree, compared to residents whose education level was less than a bachelor's degree, were more likely to *moderately* support the reintroduction.
 - A crosstabulation by age found no major differences between respondents older than the median age of 47 and those the median age or younger.
 - A crosstabulation by gender found that males, compared to females, were more likely to *strongly* support the reintroduction of elk into western Maryland; by contrast, females were more likely to *strongly* oppose the reintroduction.
- In addition to the crosstabulated results discussed above, four tables in this section offer a breakdown of strong and moderate support and opposition to the reintroduction of elk into western Maryland according to individual respondent characteristics as measured through various questions throughout the survey (age, gender, hunting participation, land ownership, etc.). In the ranking by the percentage of each group who indicated *strongly supporting* the reintroduction of elk into western Maryland, the top categories are as follows:
- Being very or somewhat likely to try hunting elk in Western Maryland (79% of this group indicated *strongly* supporting the reintroduction of elk into the state);
 - Being a hunter (70%);
 - Not thinking that potential agricultural damage should be very or somewhat important in decisions about the elk reintroduction (59%);
 - Not being concerned about elk being a nuisance on the respondent's property in Western Maryland (58%);
 - Having had damage caused by wildlife in the past five years (non-landowners) (57%);
 - Not thinking that potential vehicle collisions should be very or somewhat important in decisions about the elk reintroduction (53%);
 - Being very or somewhat likely to take a trip to see elk in Western Maryland (51%).

In the ranking by the percentage of each group who indicated *moderately supporting* the reintroduction of elk into western Maryland, the top categories are as follows:

- Having an education level of at least a bachelor's degree (42%);
- Thinking the reintroduction of elk would positively affect the respondent's job or industry (40%);
- Supporting the hunting of elk in Western Maryland (40%).

In the ranking by the percentage of each group who indicated being *moderately opposed* to the reintroduction of elk into western Maryland, the top categories are as follows:

- Being concerned about elk being a nuisance on the respondent's Western Maryland property (19%);
- Thinking the reintroduction of elk would positively affect the respondent's job or industry (15%);
- Living in Western Maryland (Garrett, Allegany, or Washington county) (14%);
- Not supporting the hunting of elk in Western Maryland (12%);
- Not being very or somewhat likely to take a trip to view elk in Western Maryland (11%);
- Not supporting hunting (11%).

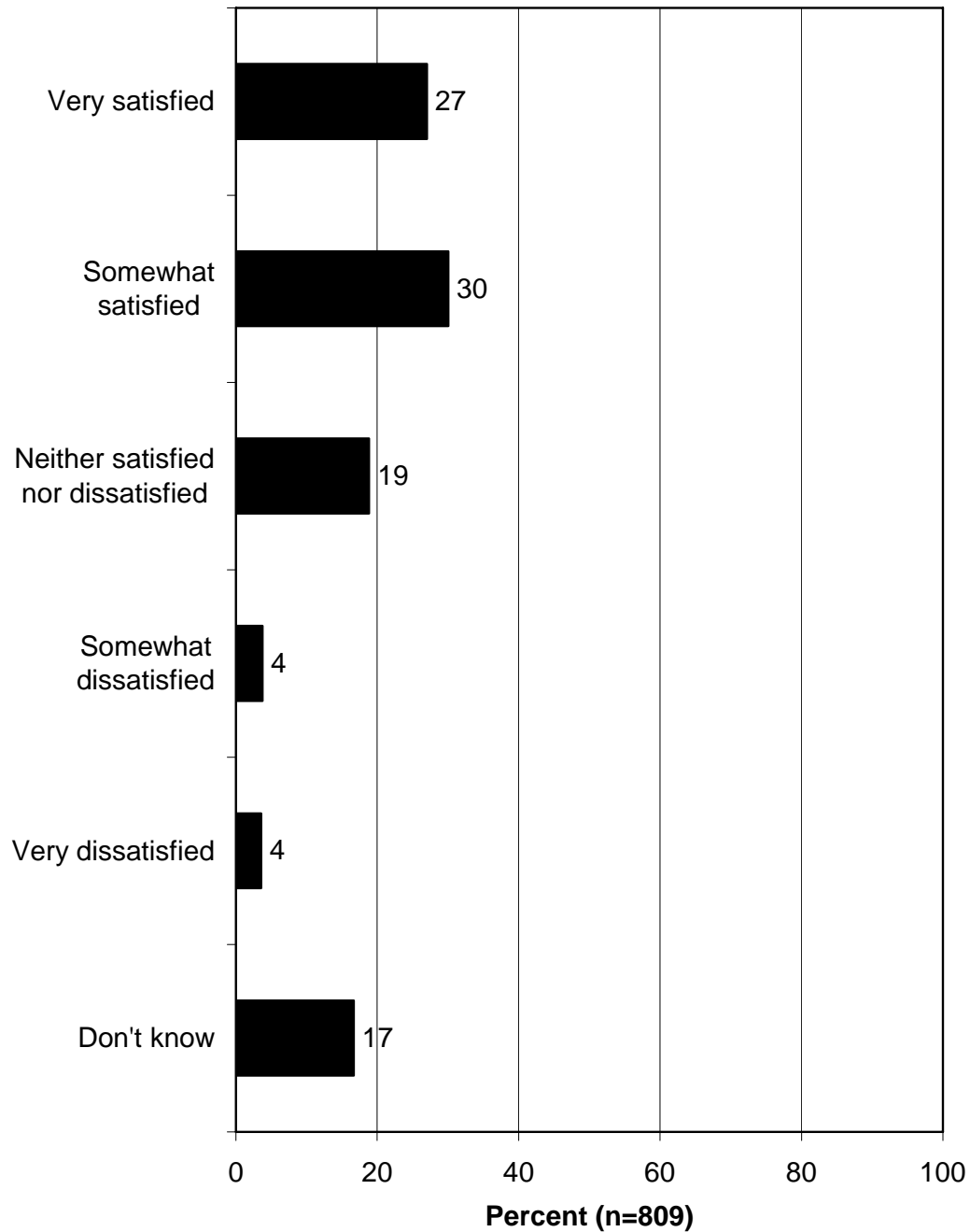
Finally, in the ranking by the percentage of each group who indicated being *strongly opposed* to the reintroduction of elk into western Maryland, the top categories are as follows:

- Thinking the reintroduction of elk would negatively affect the respondent's job or industry (43%);
- Being concerned about elk being a nuisance on the respondent's Western Maryland property (36%);
- Not supporting the hunting of elk in Western Maryland (22%);
- Being a landowner of 20 acres or more in Western Maryland (20%);
- Not thinking the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about the elk reintroduction (20%).

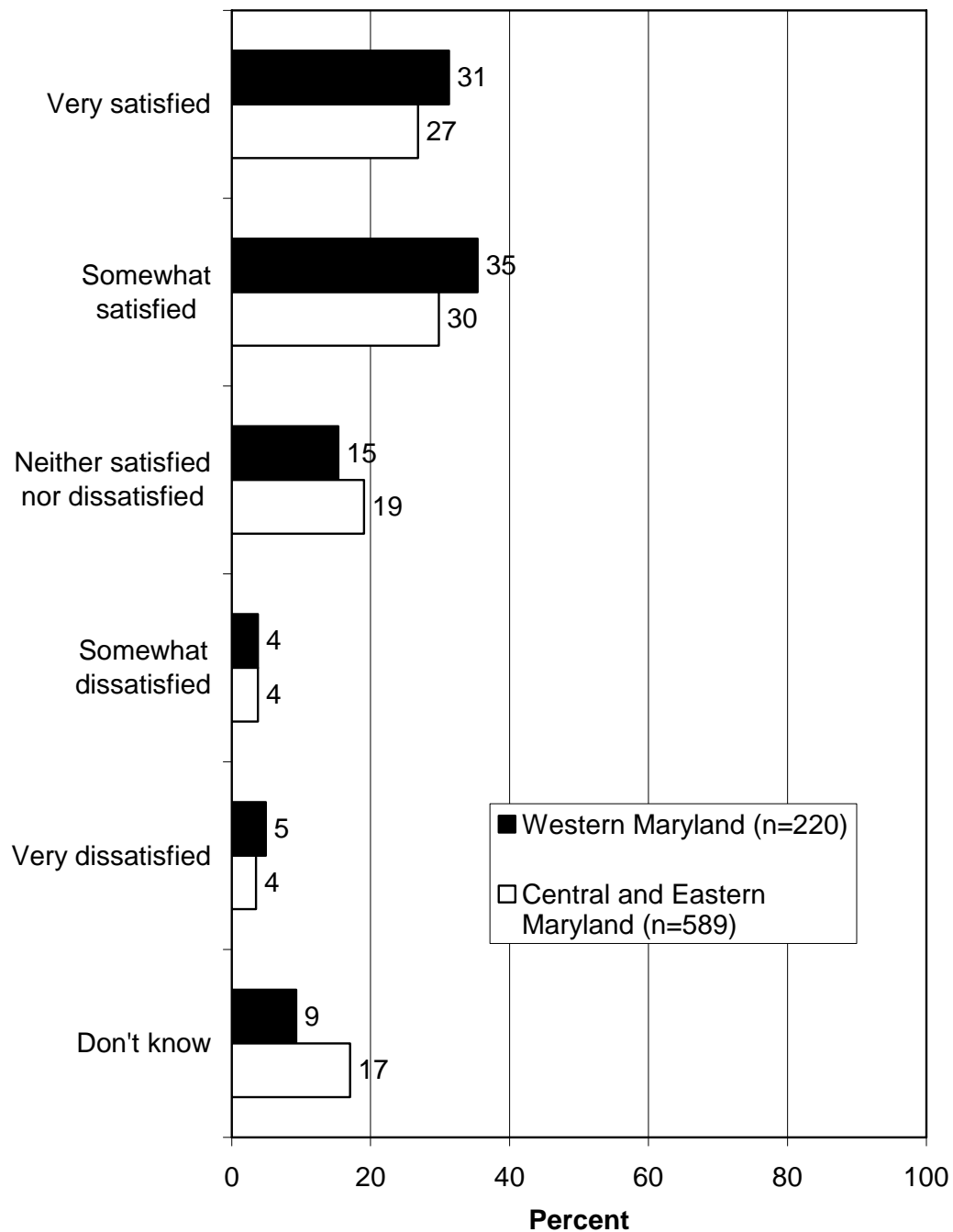
- Respondents were asked follow-up questions regarding the reasons they supported or opposed the reintroduction of elk into Maryland:

- The most common reason for supporting it was that elk have a right to land in Maryland and belong there as a native species (38%); this was followed by the principle of supporting biodiversity and healthy animal populations in general (17%), enjoying seeing animals and having different types of wildlife around (13%), having no particular reason to oppose the reintroduction (12%), and being in support of new hunting opportunities afforded through the reintroduction (11%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to cite elk hunting opportunities, whereas Central and Eastern Maryland residents were more likely to say that elk are a native species with a right to the land in Maryland.
- The most common reasons for opposing the reintroduction included the belief that Maryland is overpopulated with deer and therefore does not have enough land to support elk (28%), the potential for car accidents, property damage, or damage to crops from elk (26%), and simply thinking the reintroduction of elk to the state is unnecessary (26%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to cite the potential for car accidents, property damage, and crop damage; Central and Eastern Maryland residents, on the other hand, were more likely to oppose the reintroduction because of a similar opposition to elk being hunted.

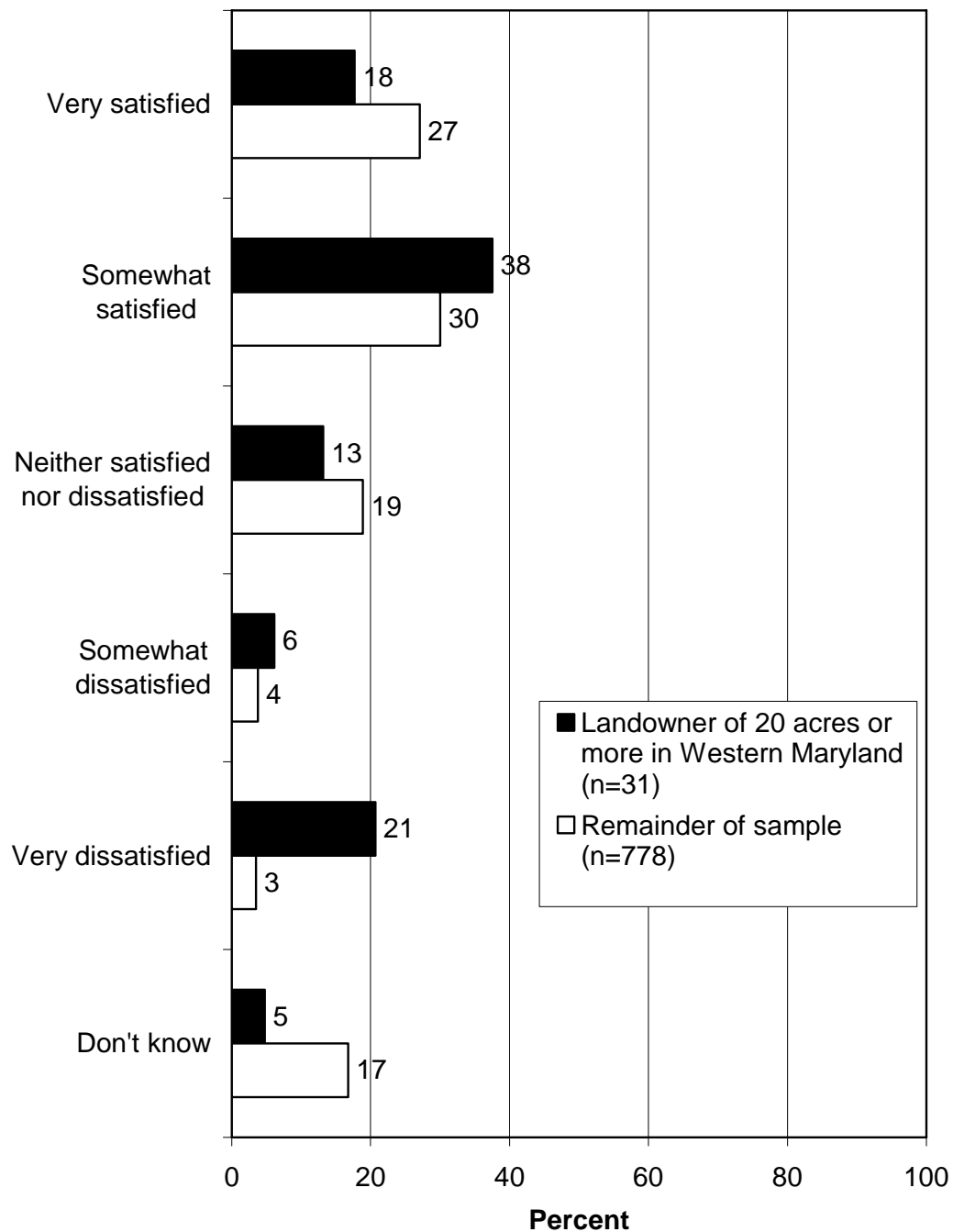
Q11. In general, how satisfied or dissatisfied are you with the current overall performance of the Department of Natural Resources?



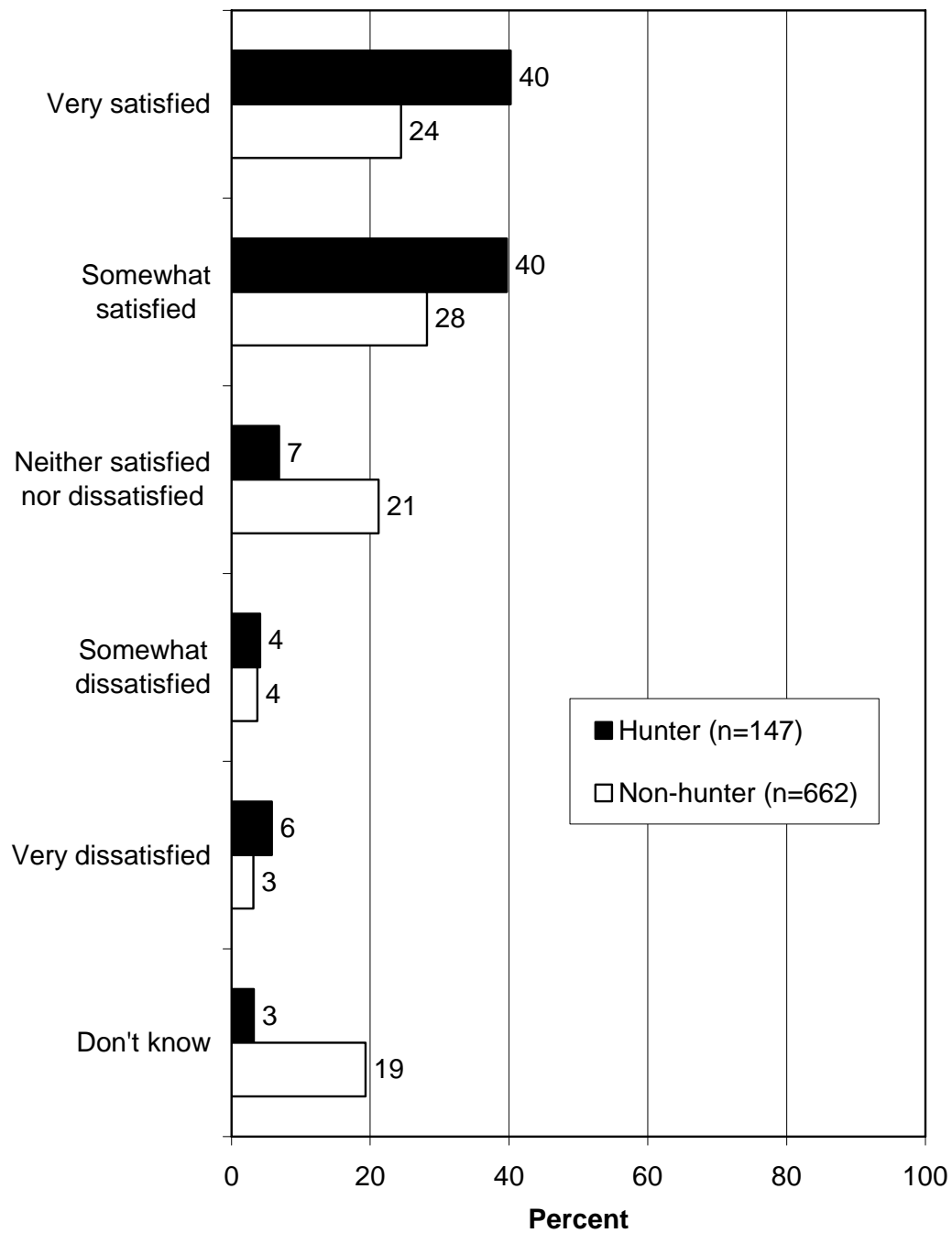
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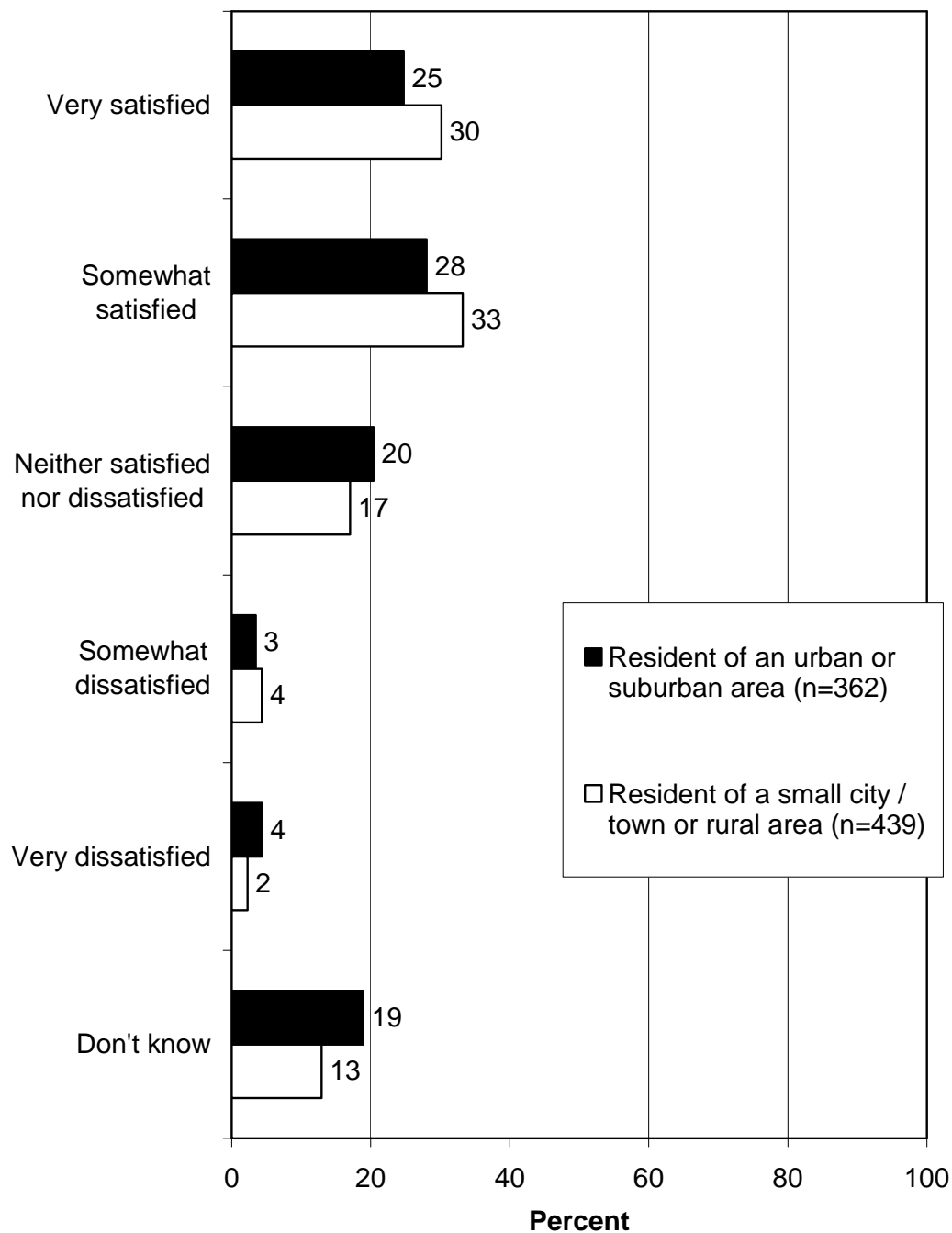
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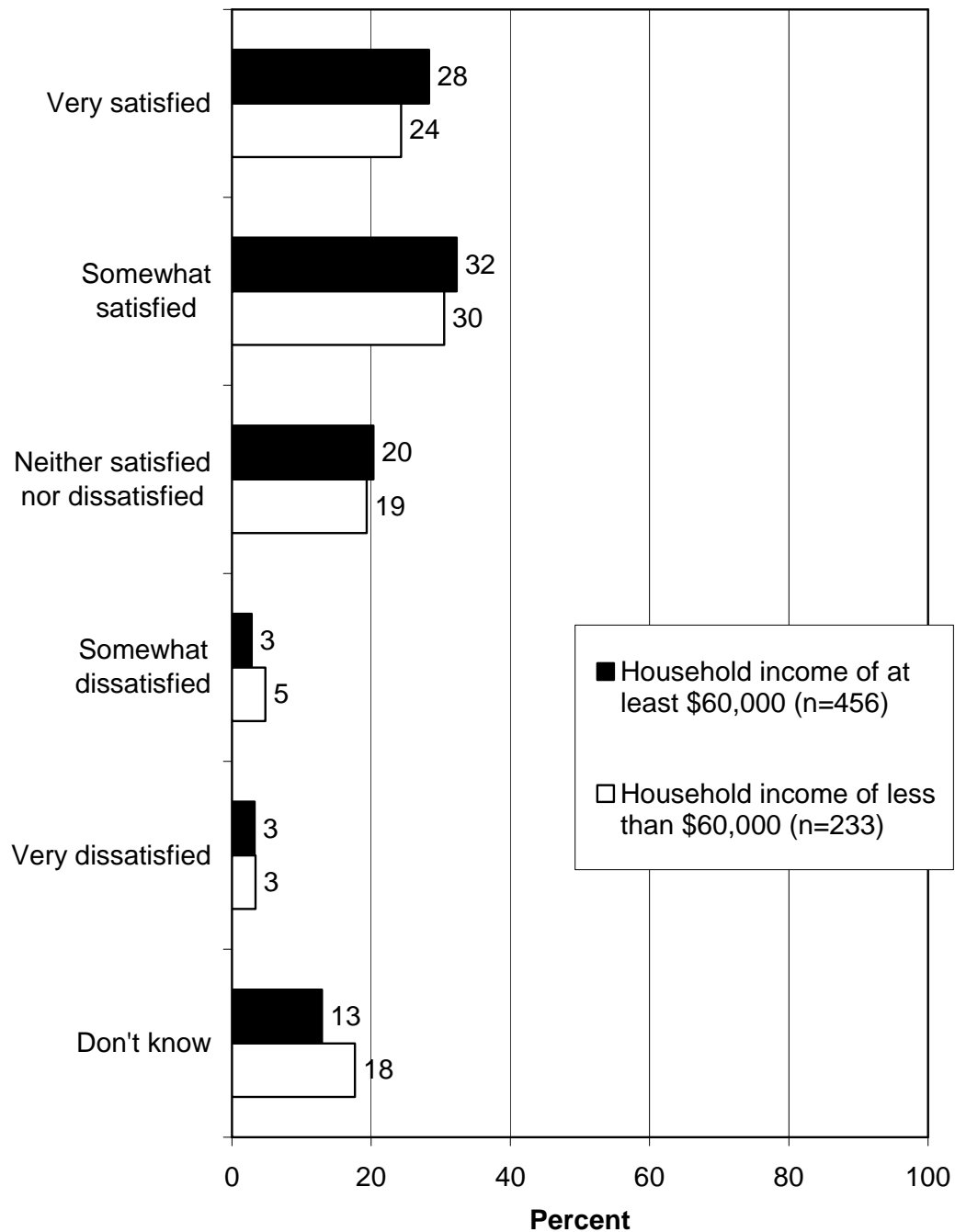
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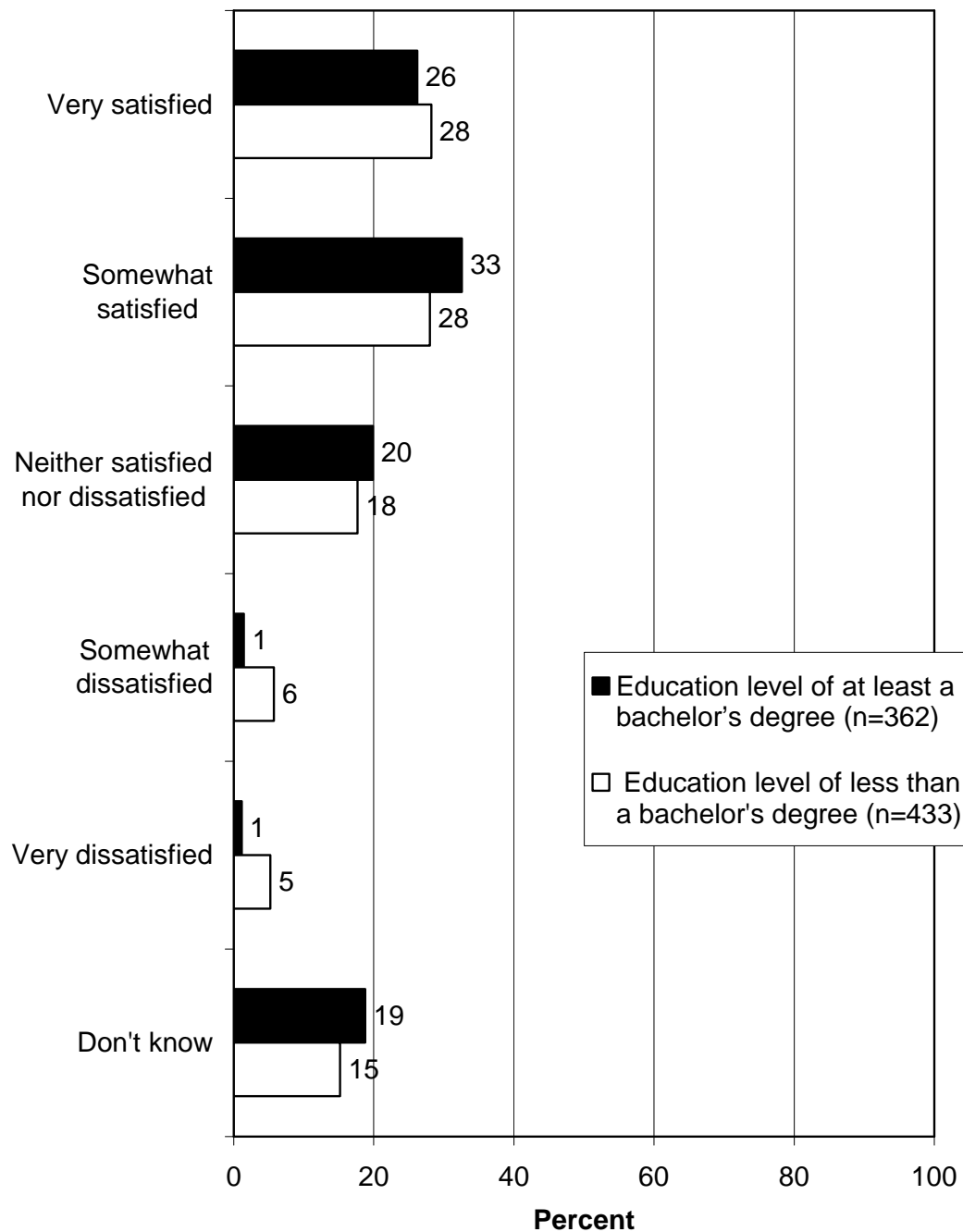
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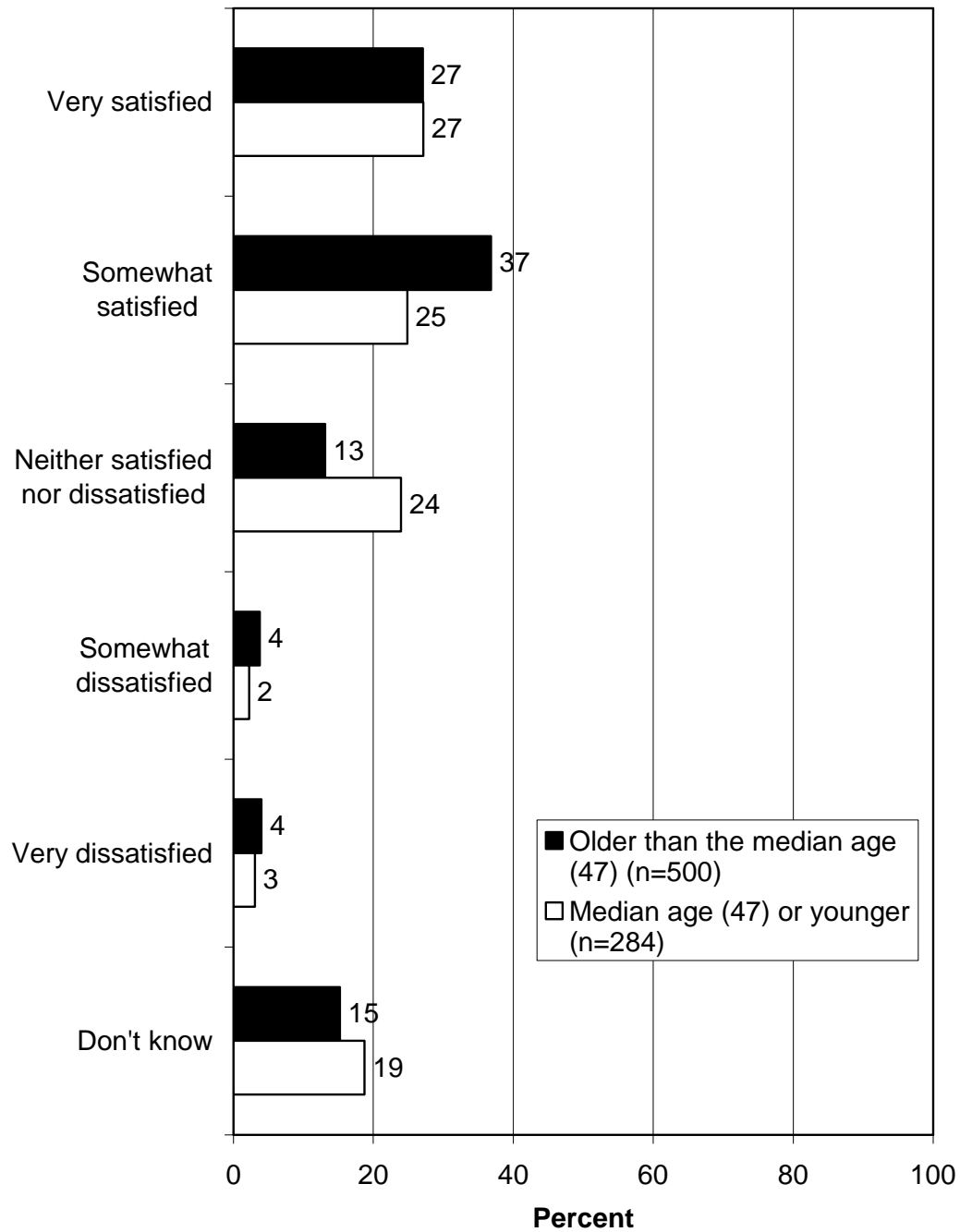
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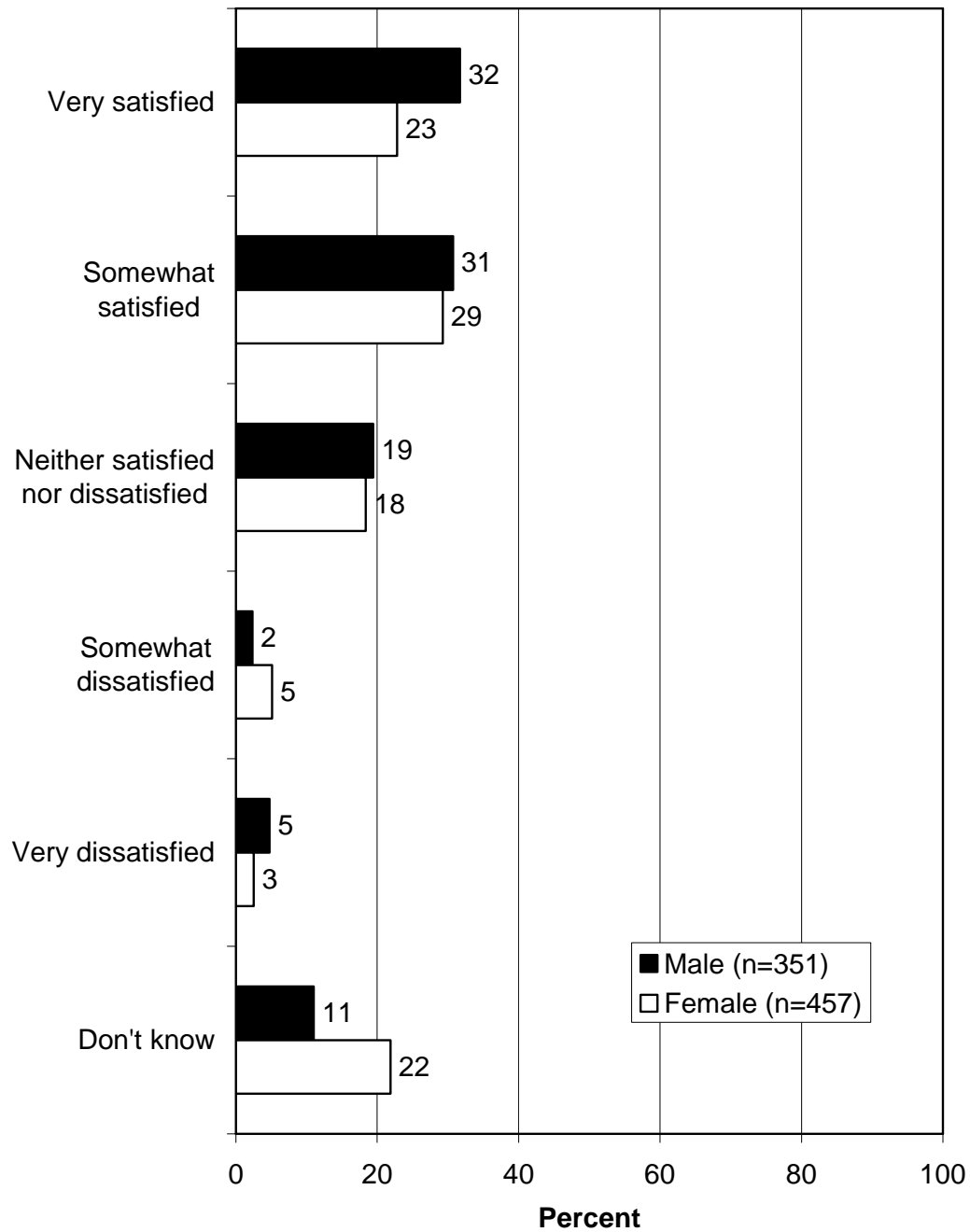
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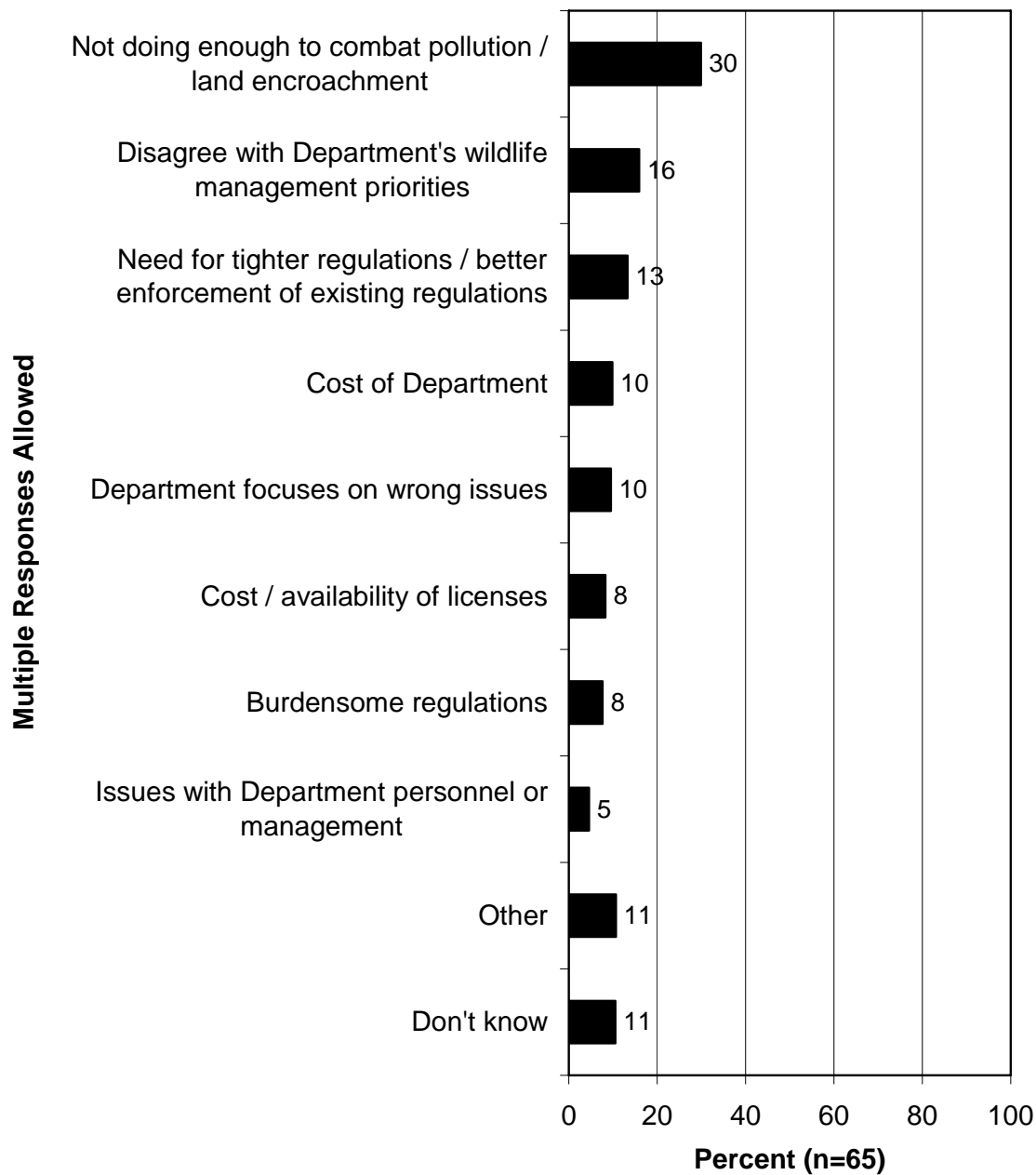
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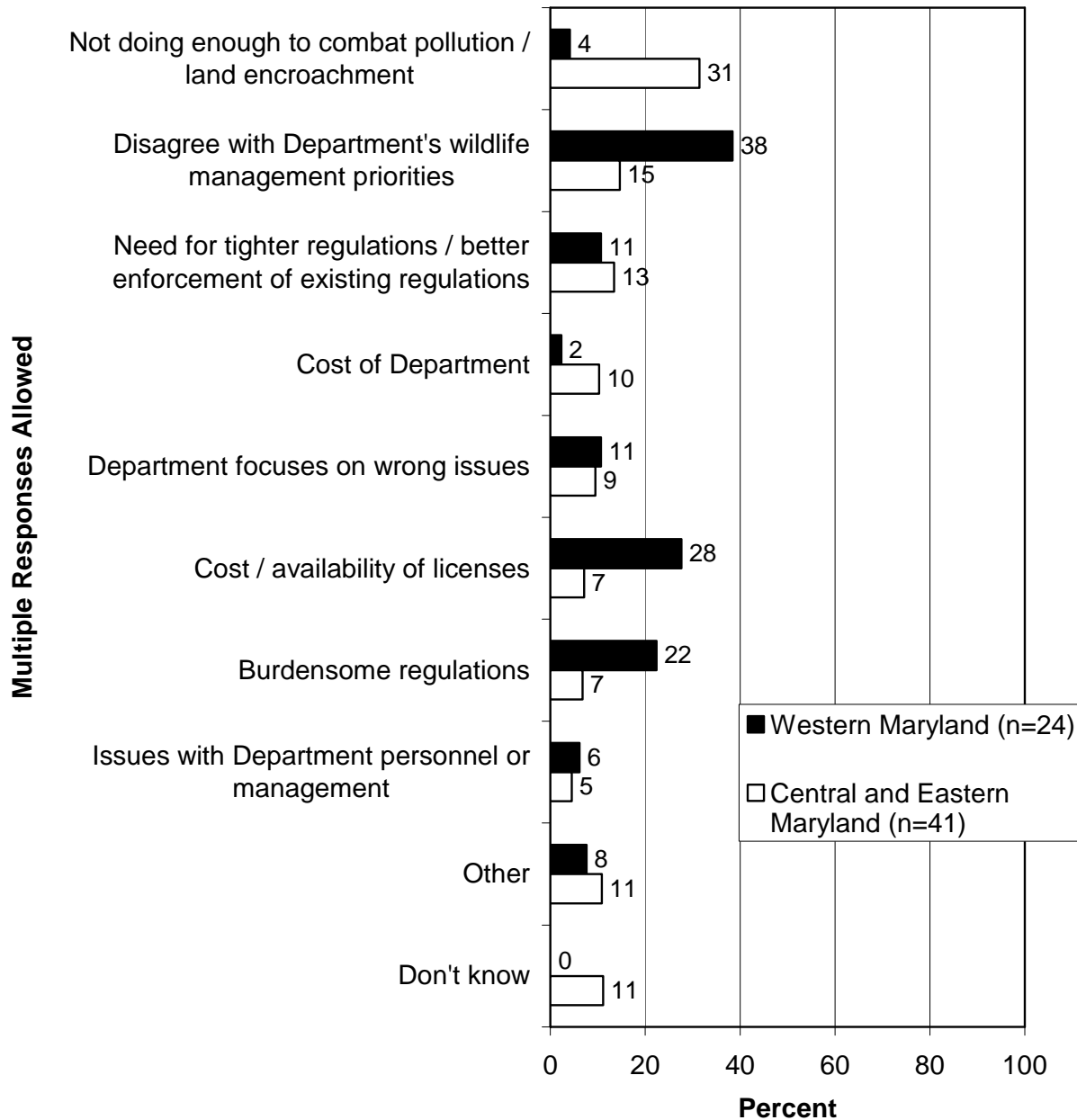
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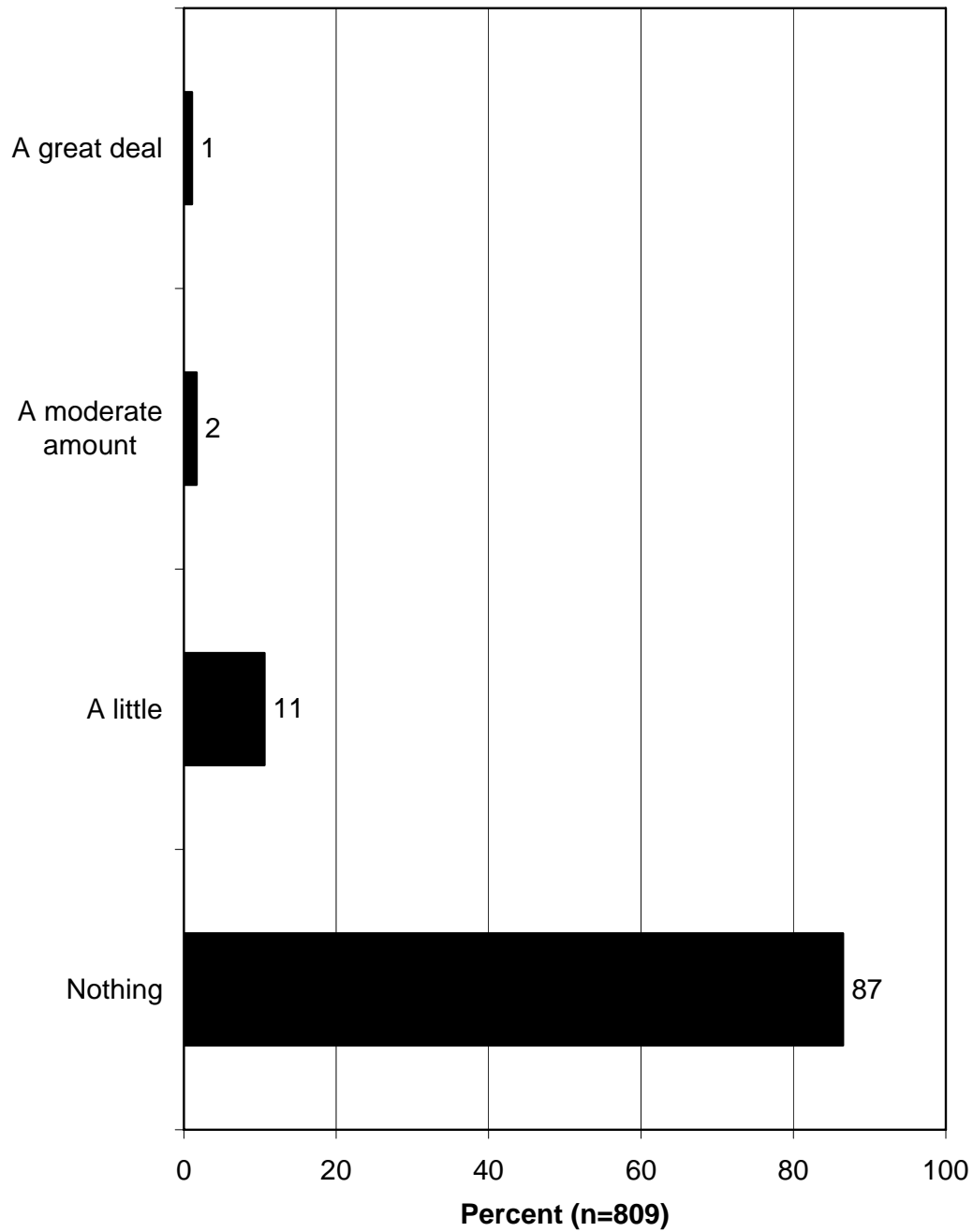
Q12. Why are you dissatisfied with the overall performance of the Maryland Department of Natural Resources? (Asked of those who indicated being dissatisfied with the overall performance of the Maryland DNR.)



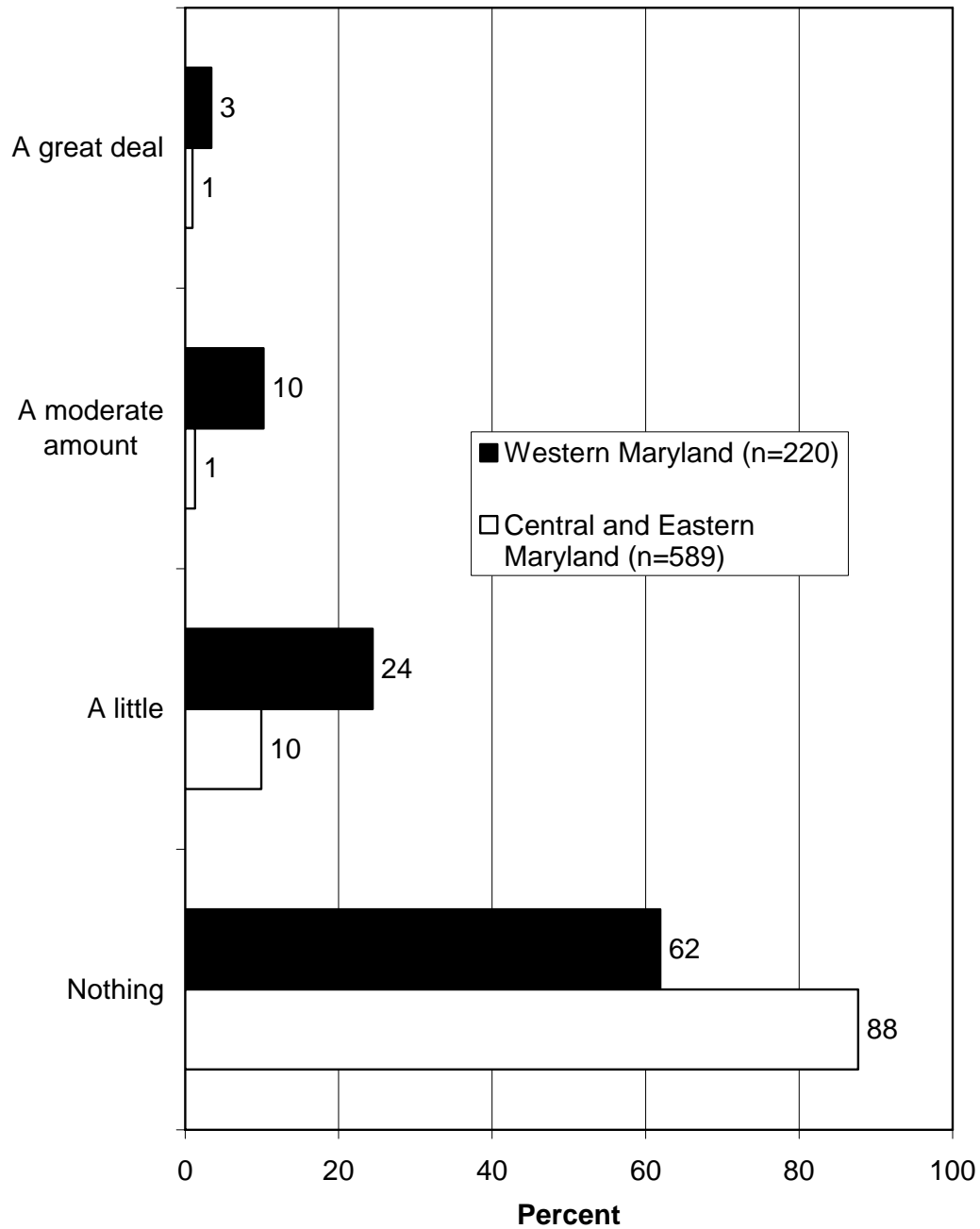
Q12. Why are you dissatisfied with the overall performance of the Maryland Department of Natural Resources? (Asked of those who indicated being dissatisfied with the overall performance of the Maryland DNR.)



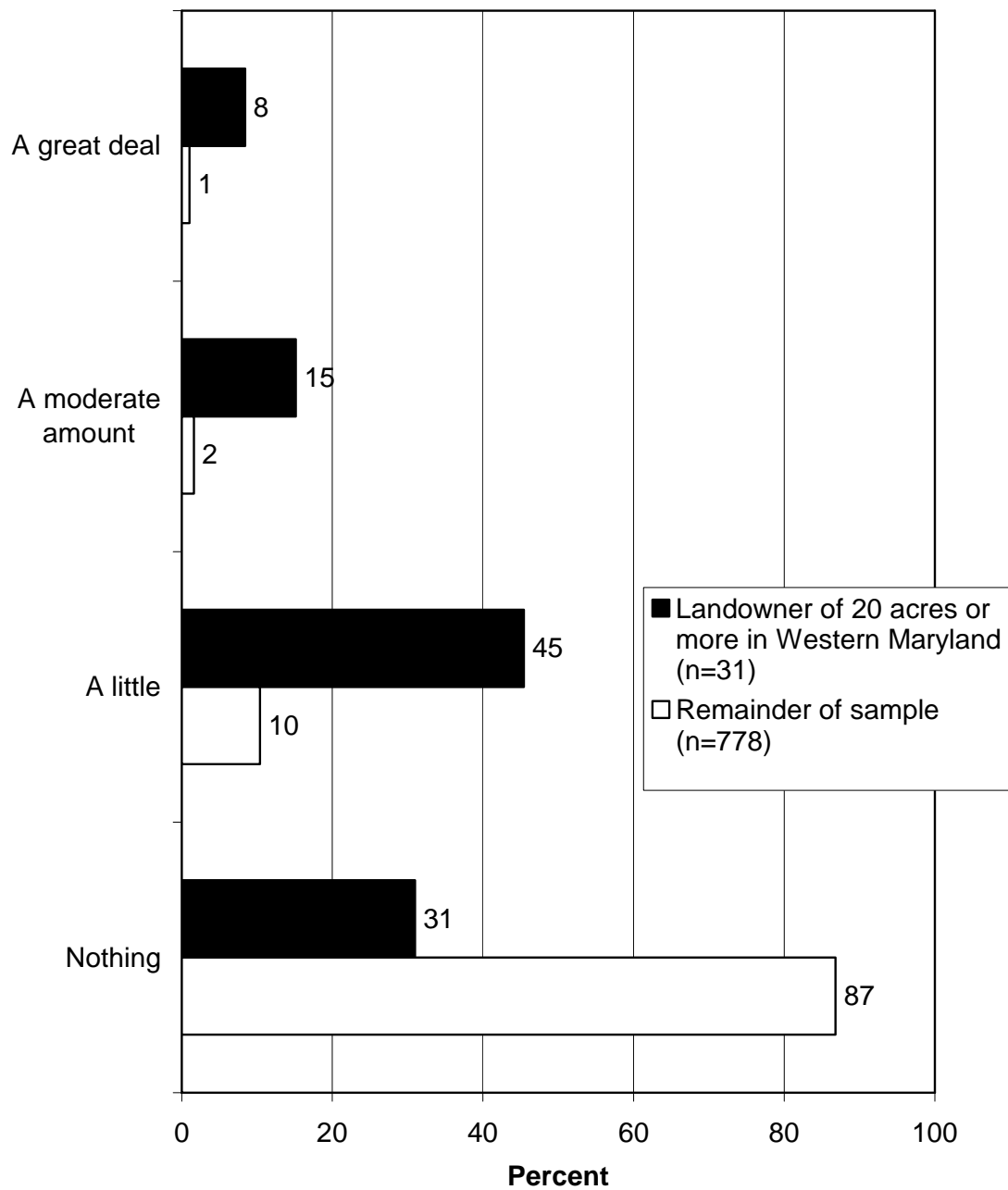
Q13. Before this survey, how much, if anything, had you seen or heard about the possible reintroduction of elk into Maryland?



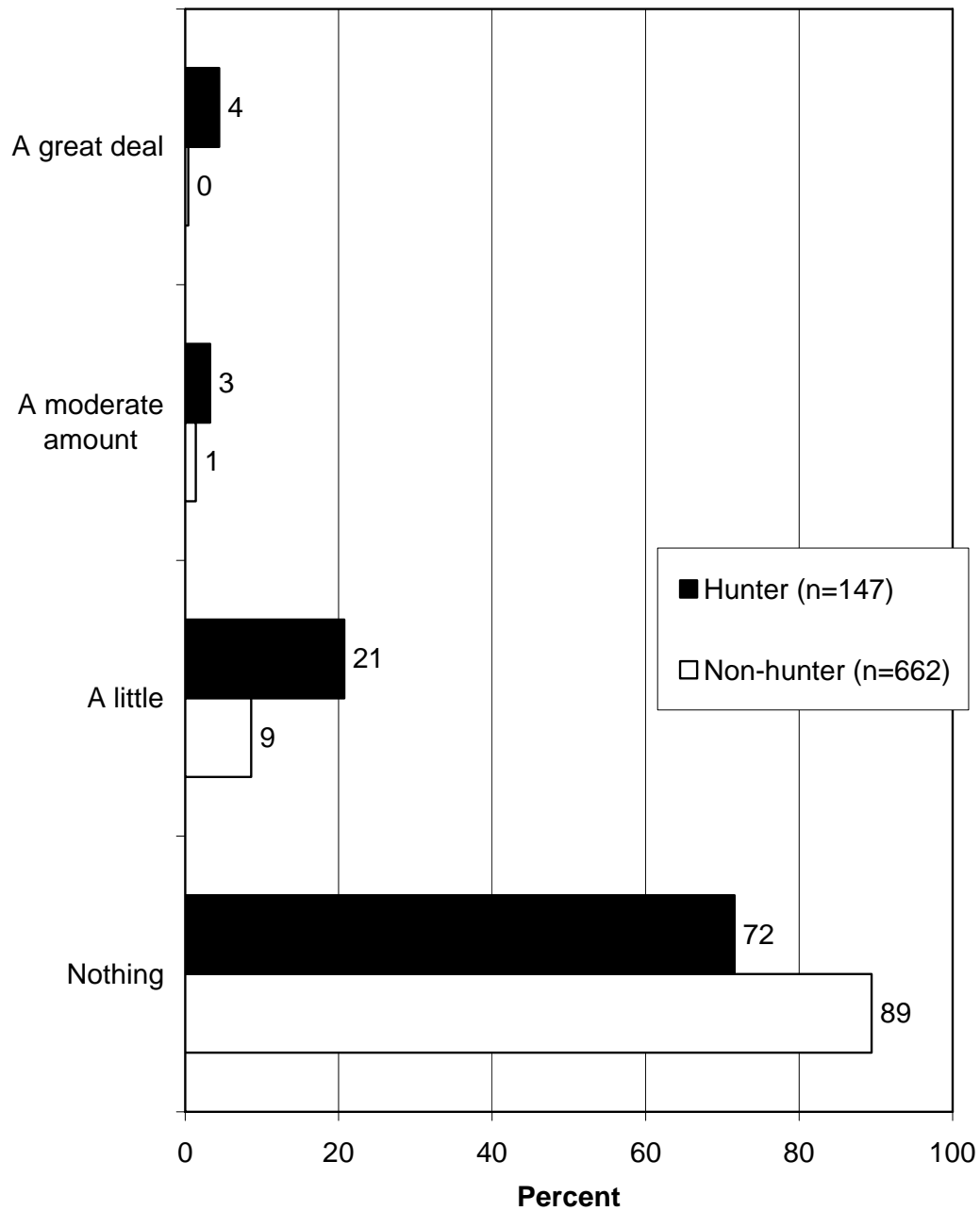
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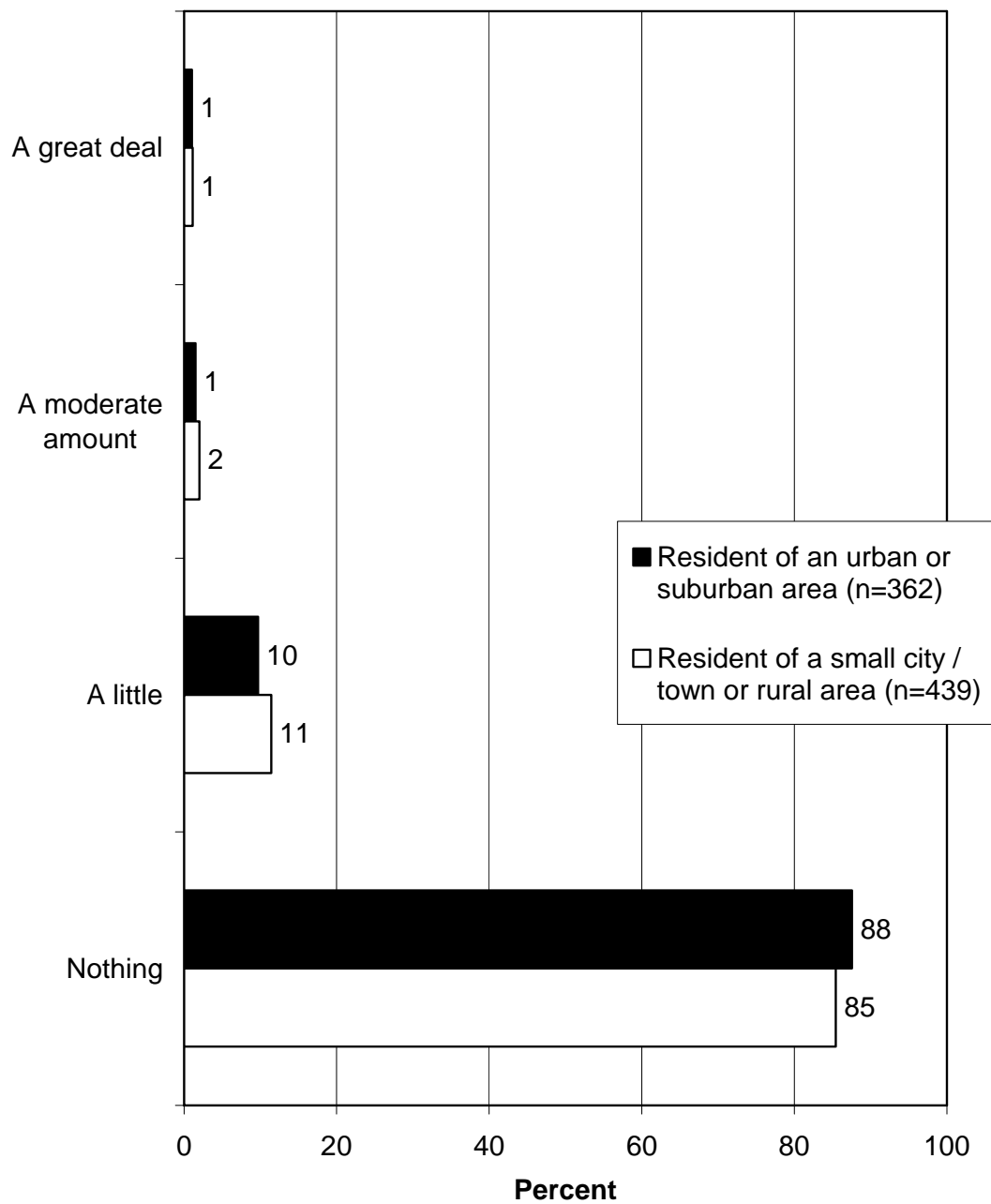
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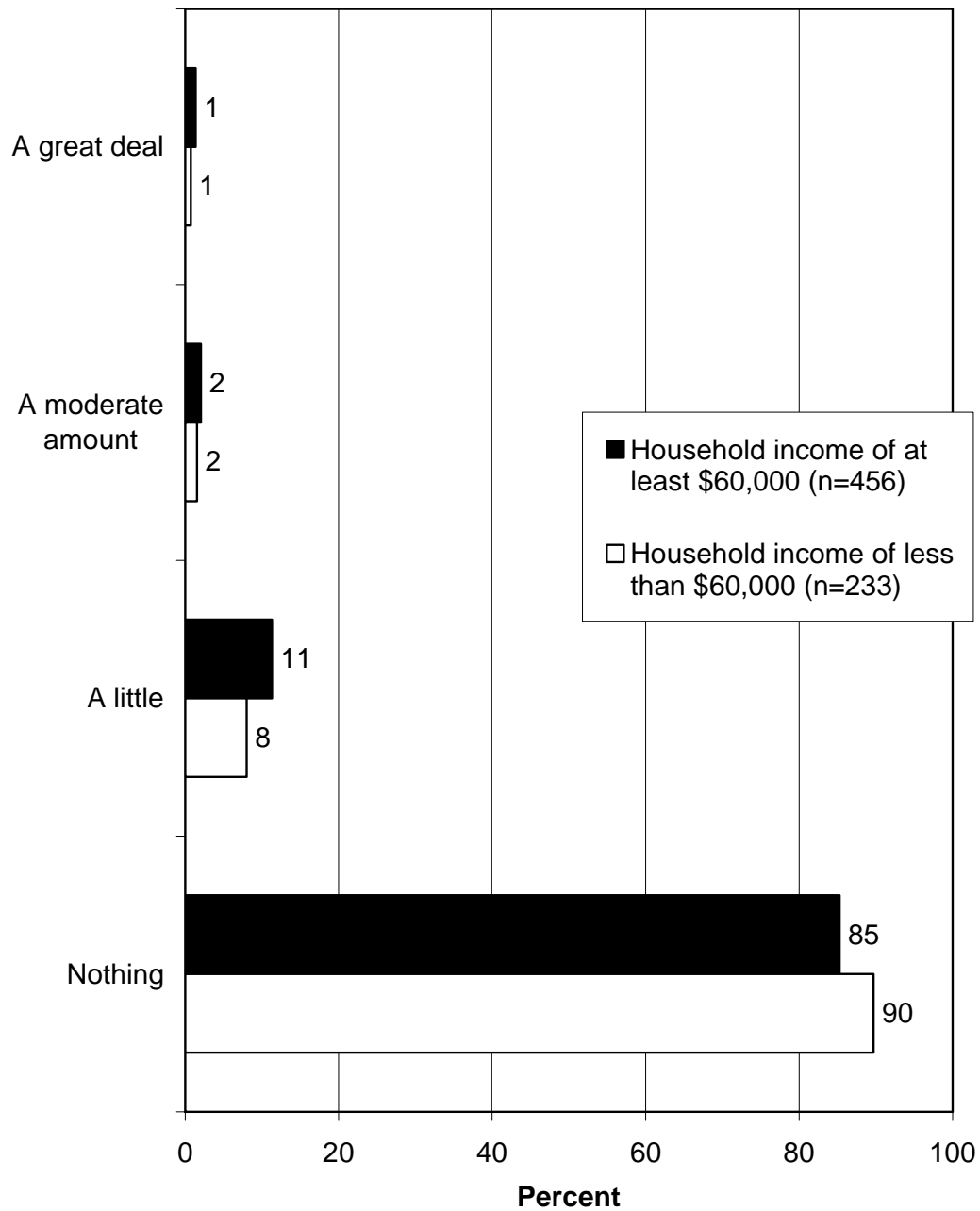
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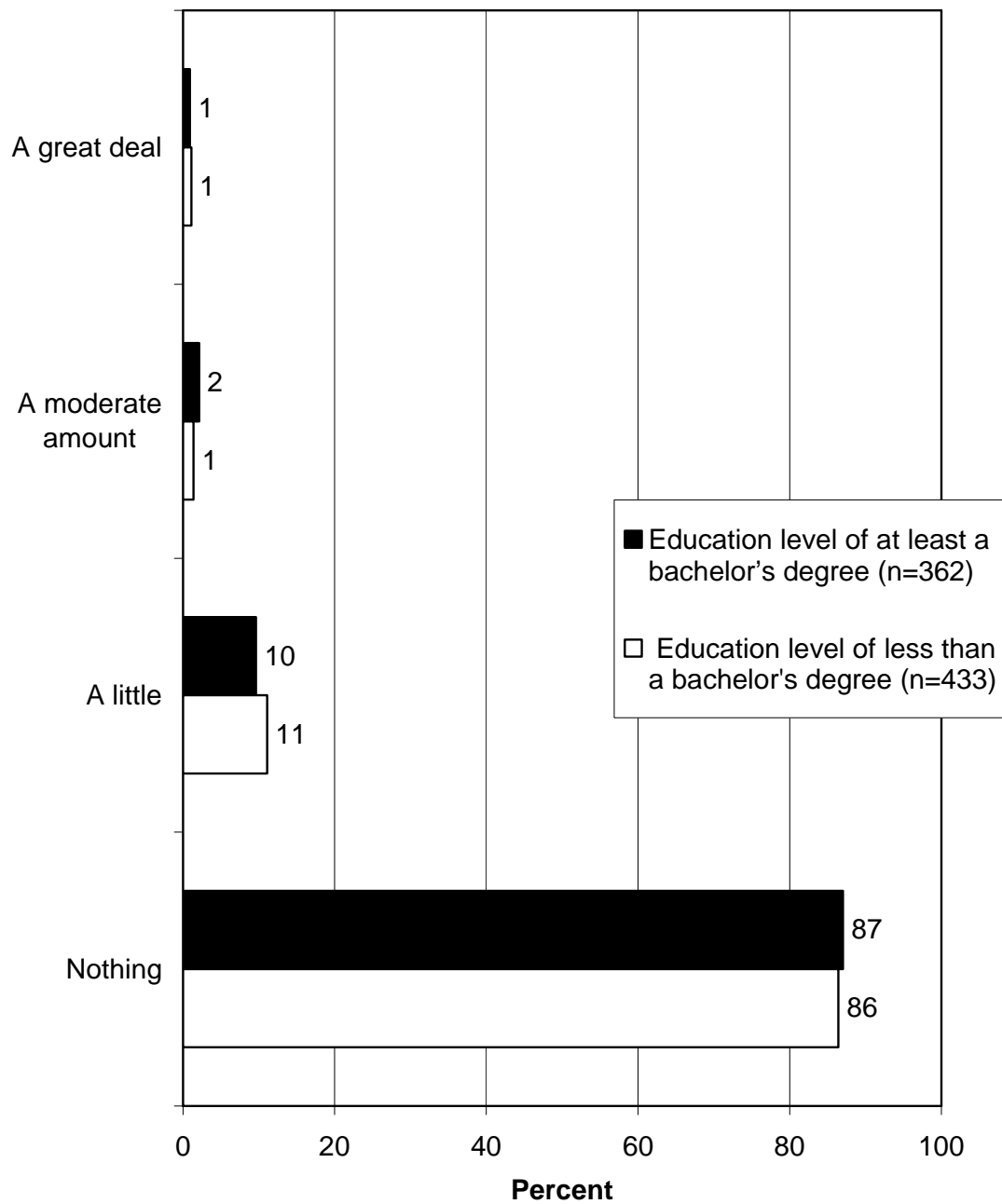
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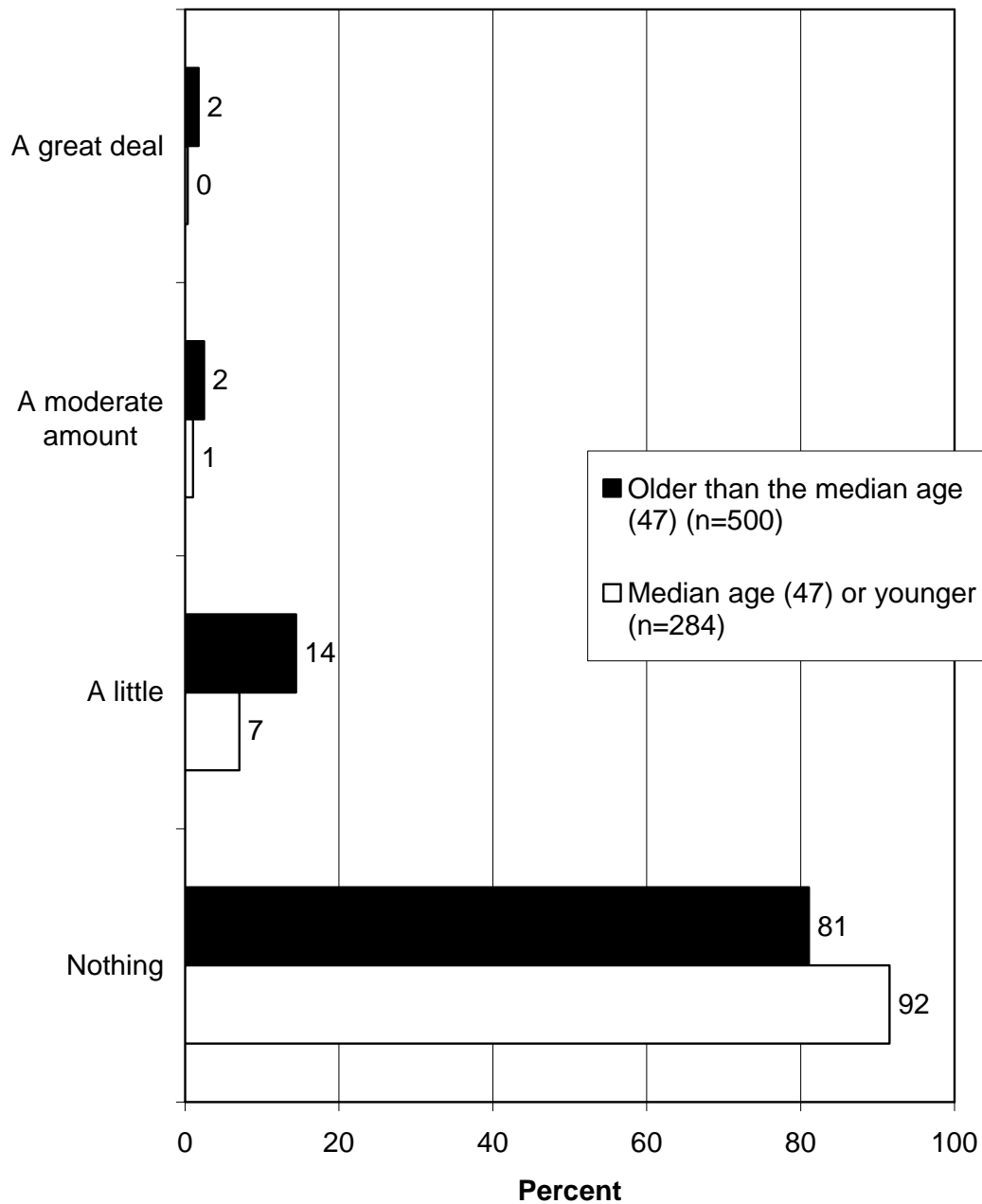
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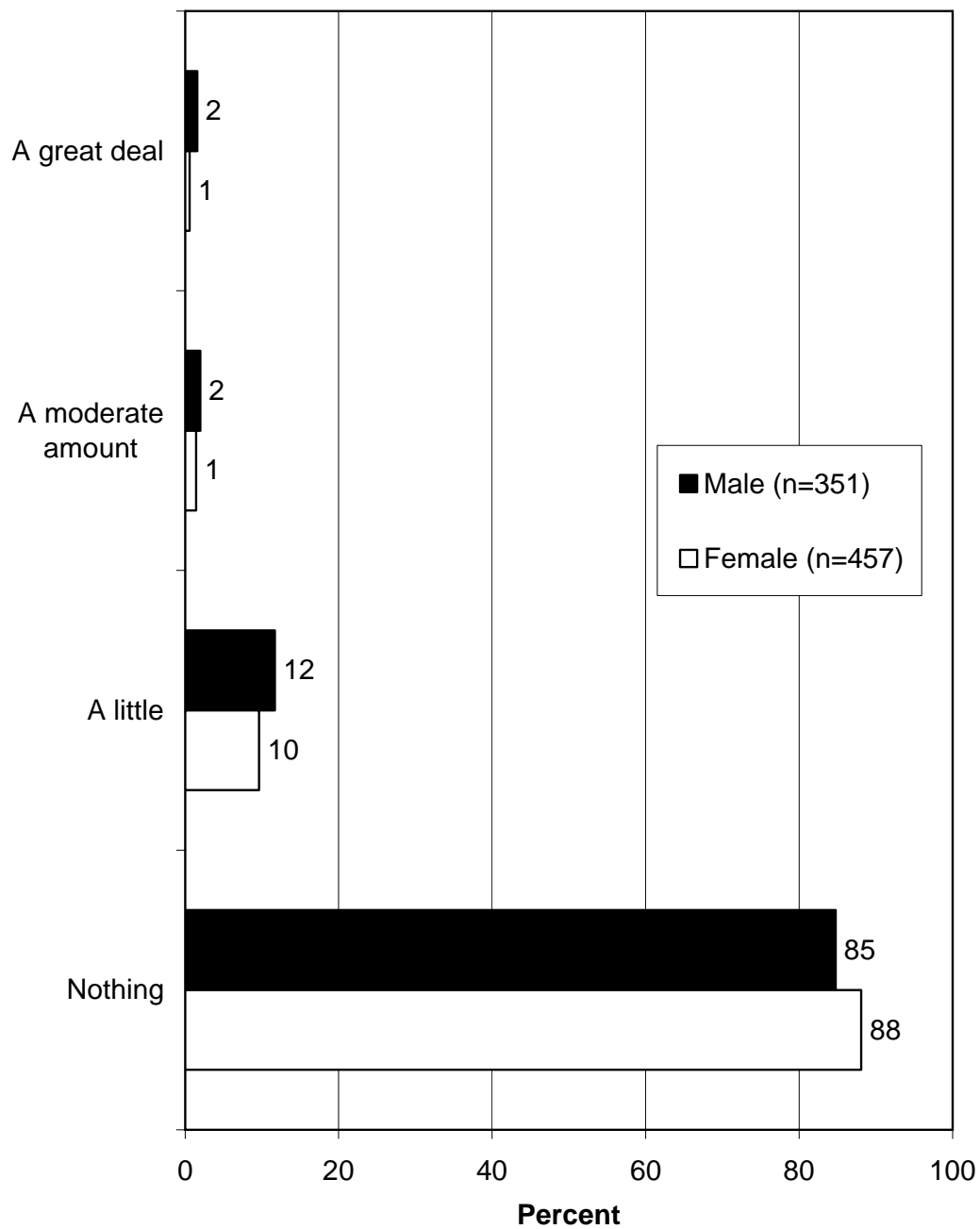
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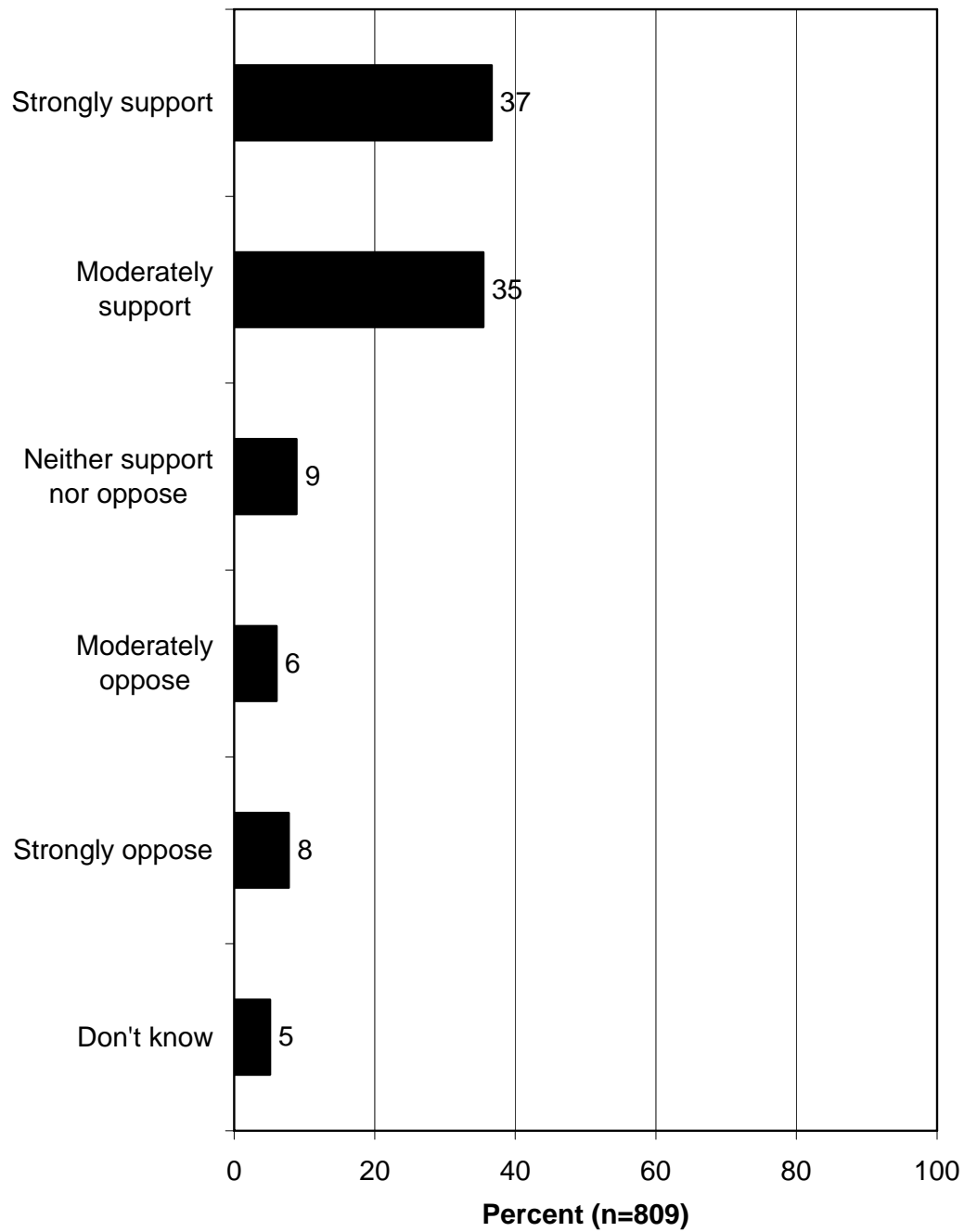
Q13. Before this survey, how much, if anything, had you seen or heard about the possible reintroduction of elk into Maryland?



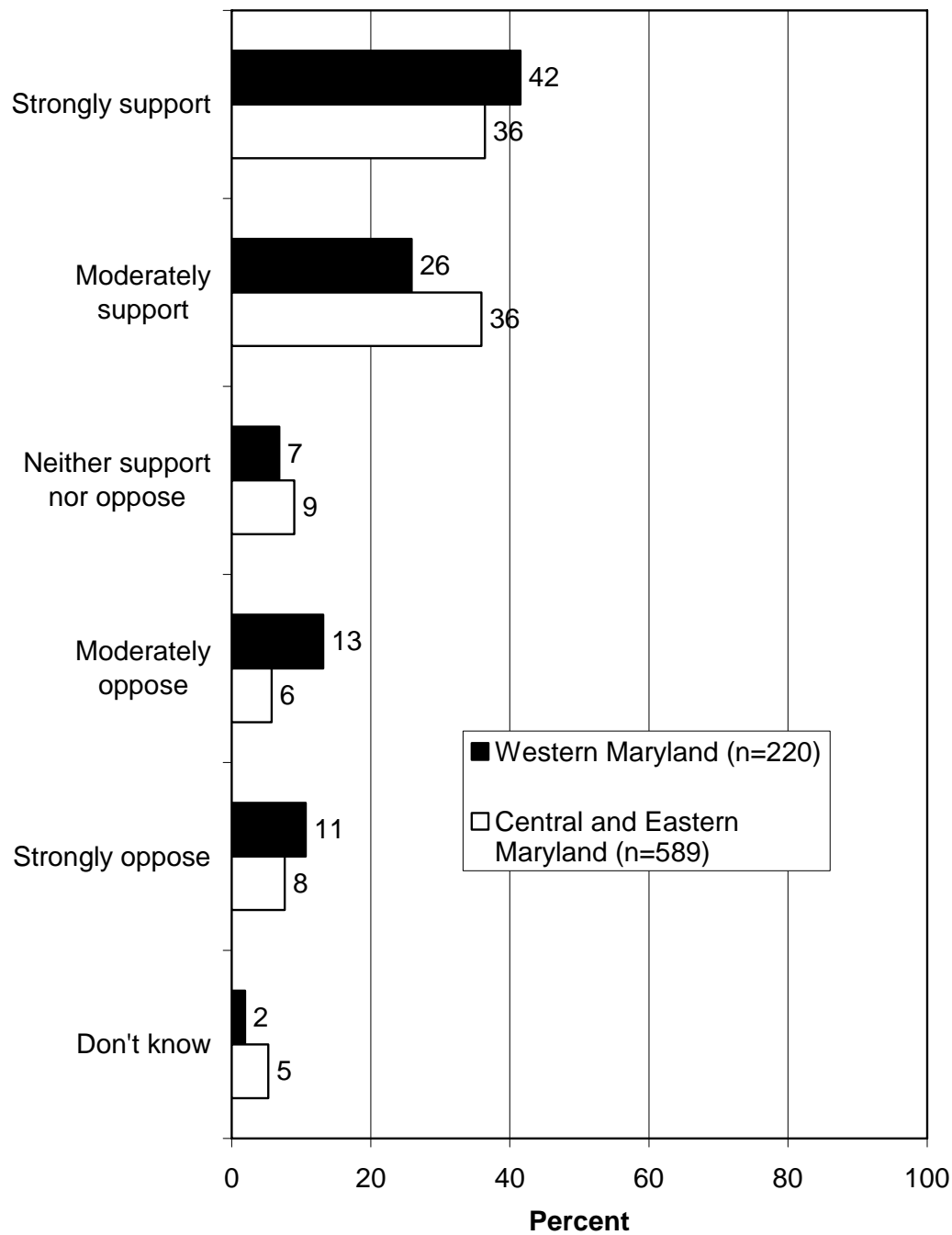
Q13. Before this survey, how much, if anything, had you seen or heard about the possible reintroduction of elk into Maryland?



Q16. In general, would you support or oppose the reintroduction of free-roaming, wild elk into western Maryland?

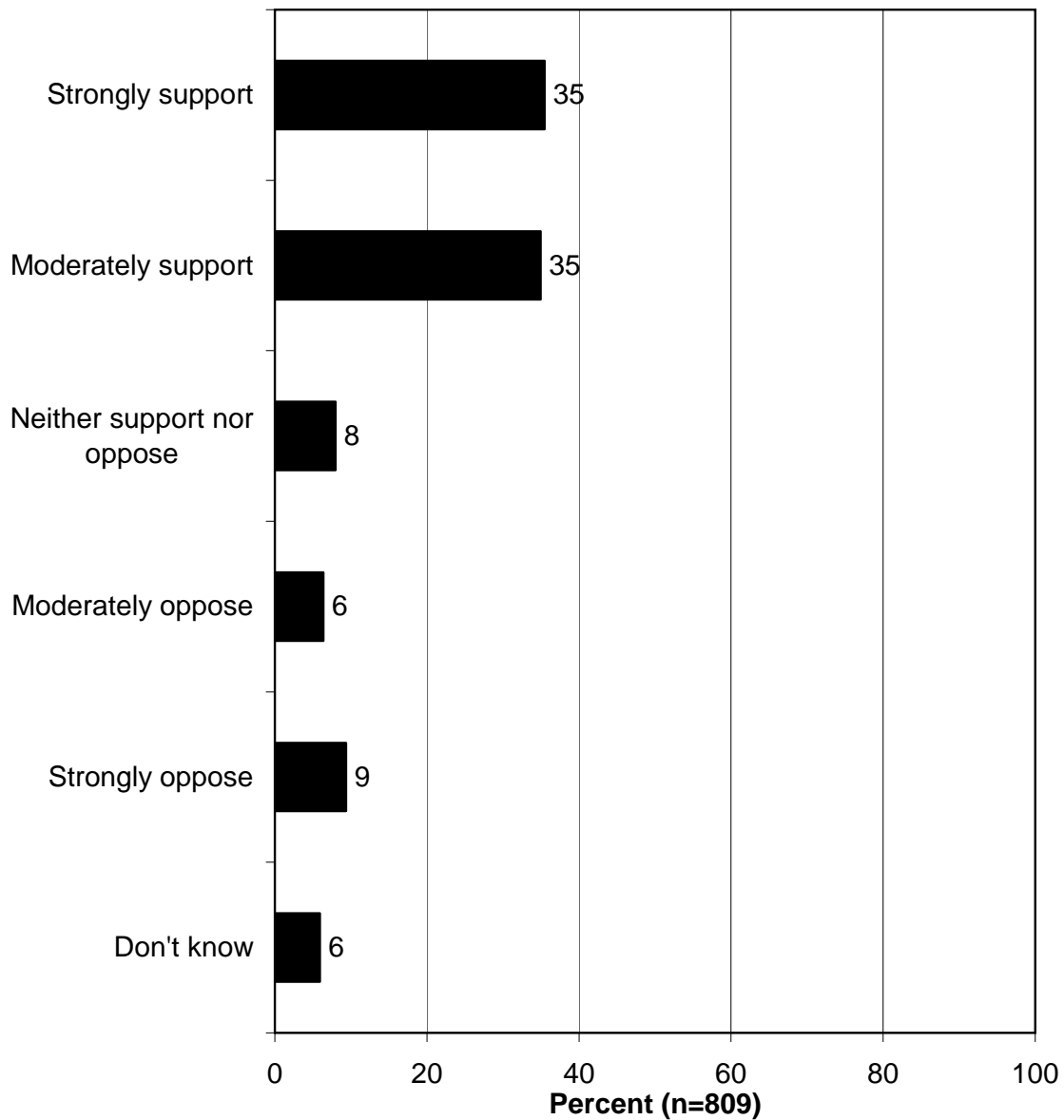


Q16. In general, would you support or oppose the reintroduction of free-roaming, wild elk into western Maryland?

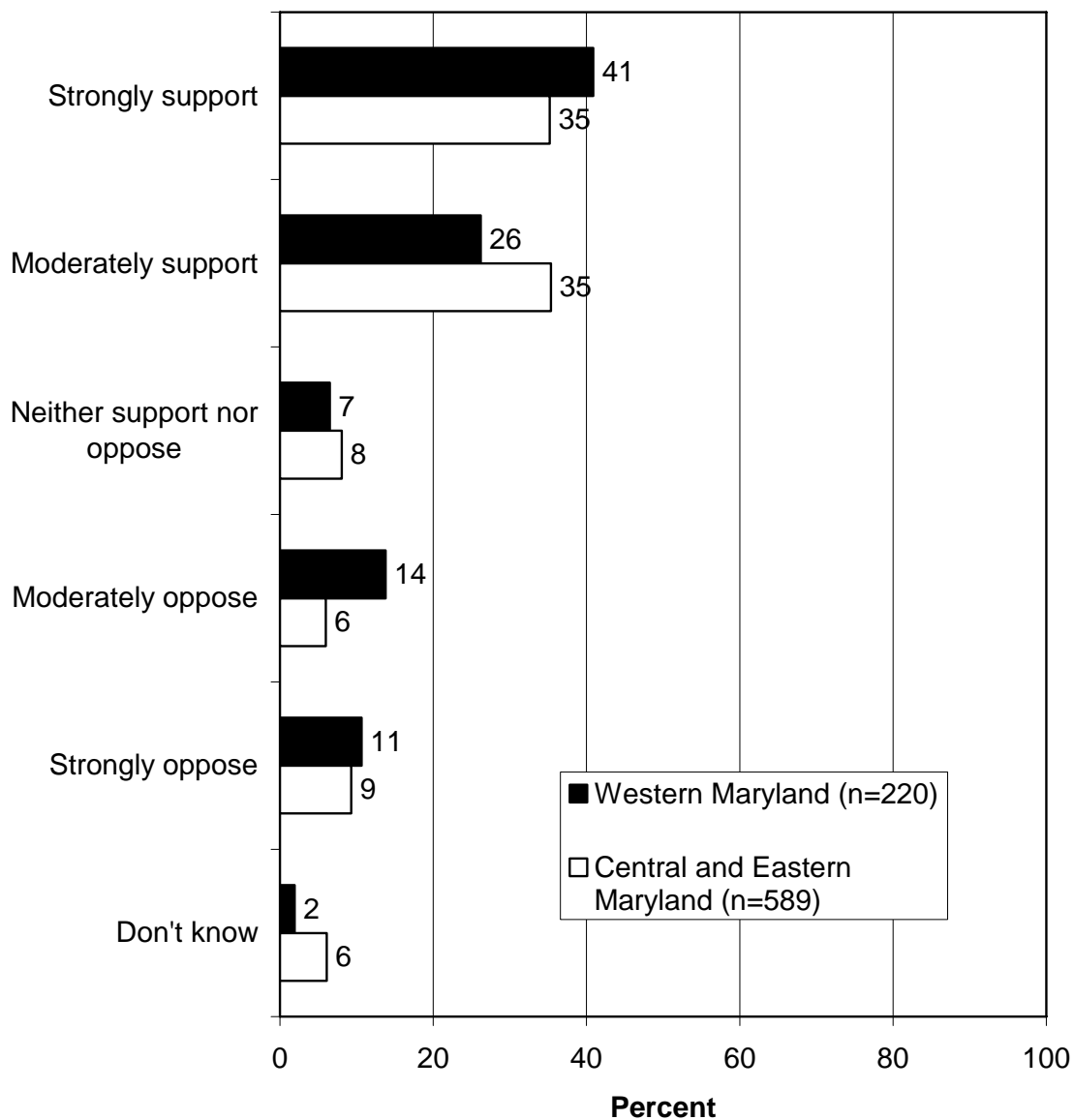


**Q16/Q81. In general, would you support or oppose
the reintroduction of free-roaming, wild elk into
western Maryland?**

**(Includes initial opinions as well as those who
indicated a change of opinion by the end of the
survey)**

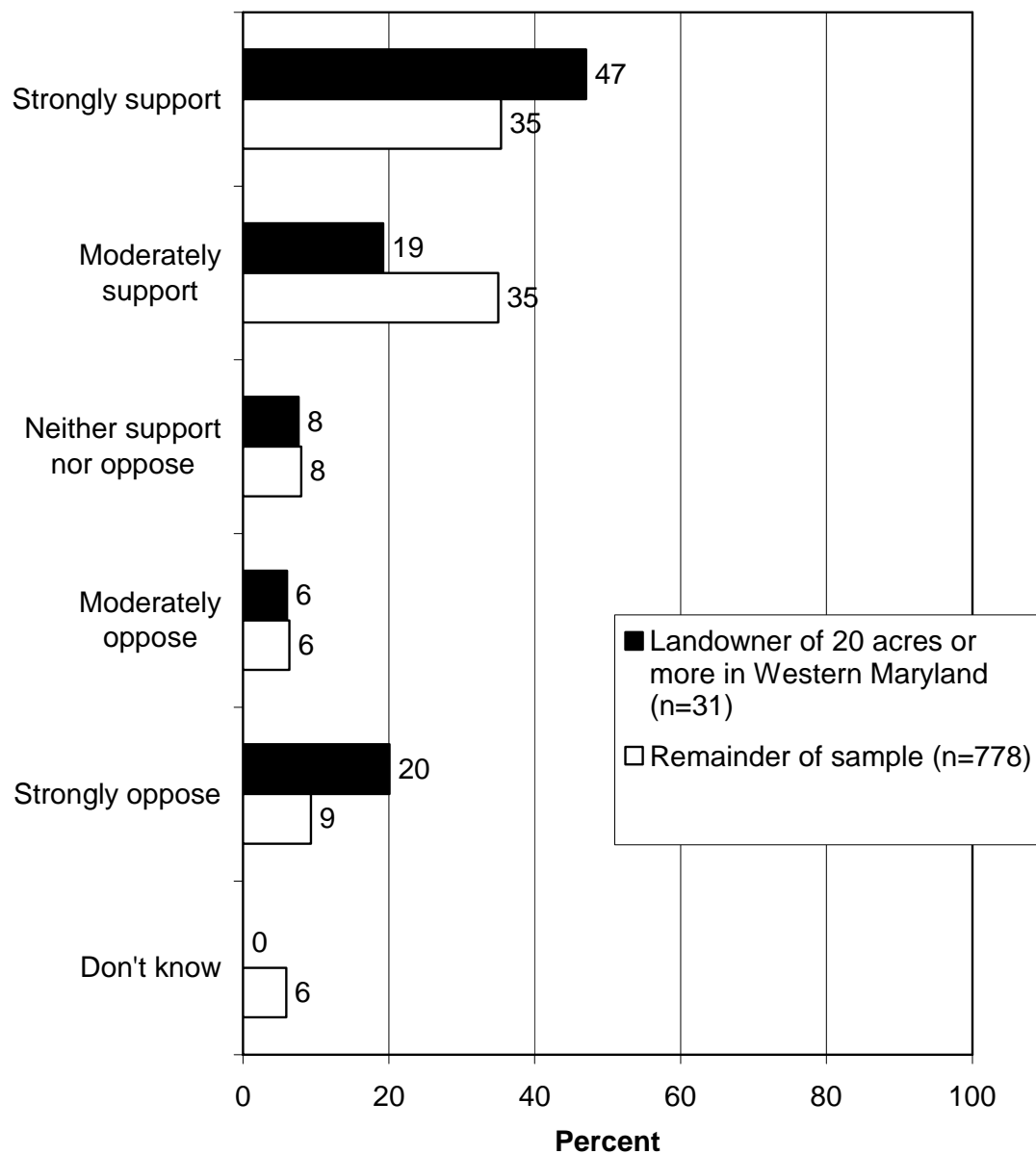


Q16/Q81. In general, would you support or oppose the reintroduction of free-roaming, wild elk into western Maryland?
(Includes initial opinions as well as those who indicated a change of opinion by the end of the survey)

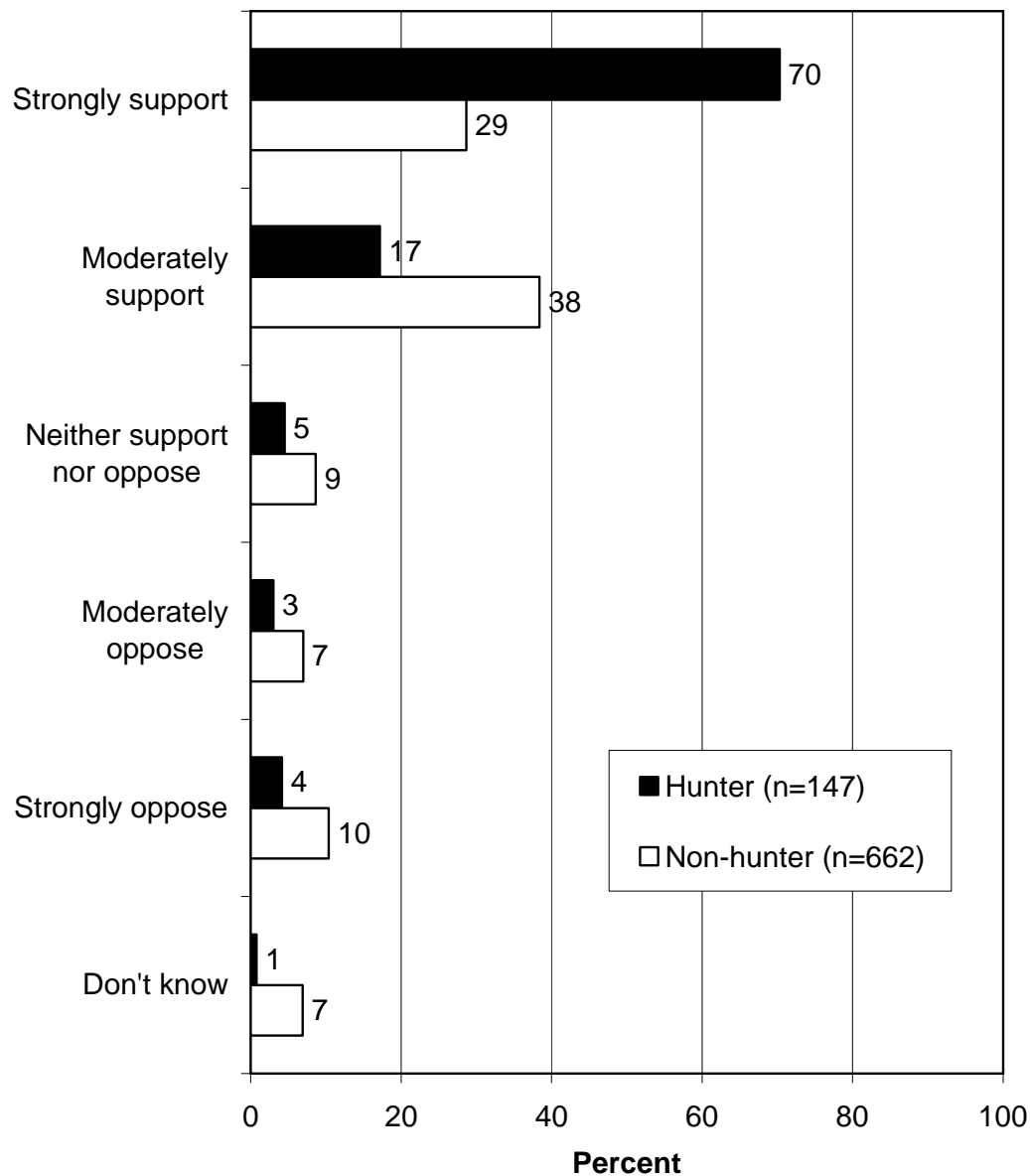


**Q16/Q81. In general, would you support or oppose
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western Maryland?**

**(Includes initial opinions as well as those who
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survey)**

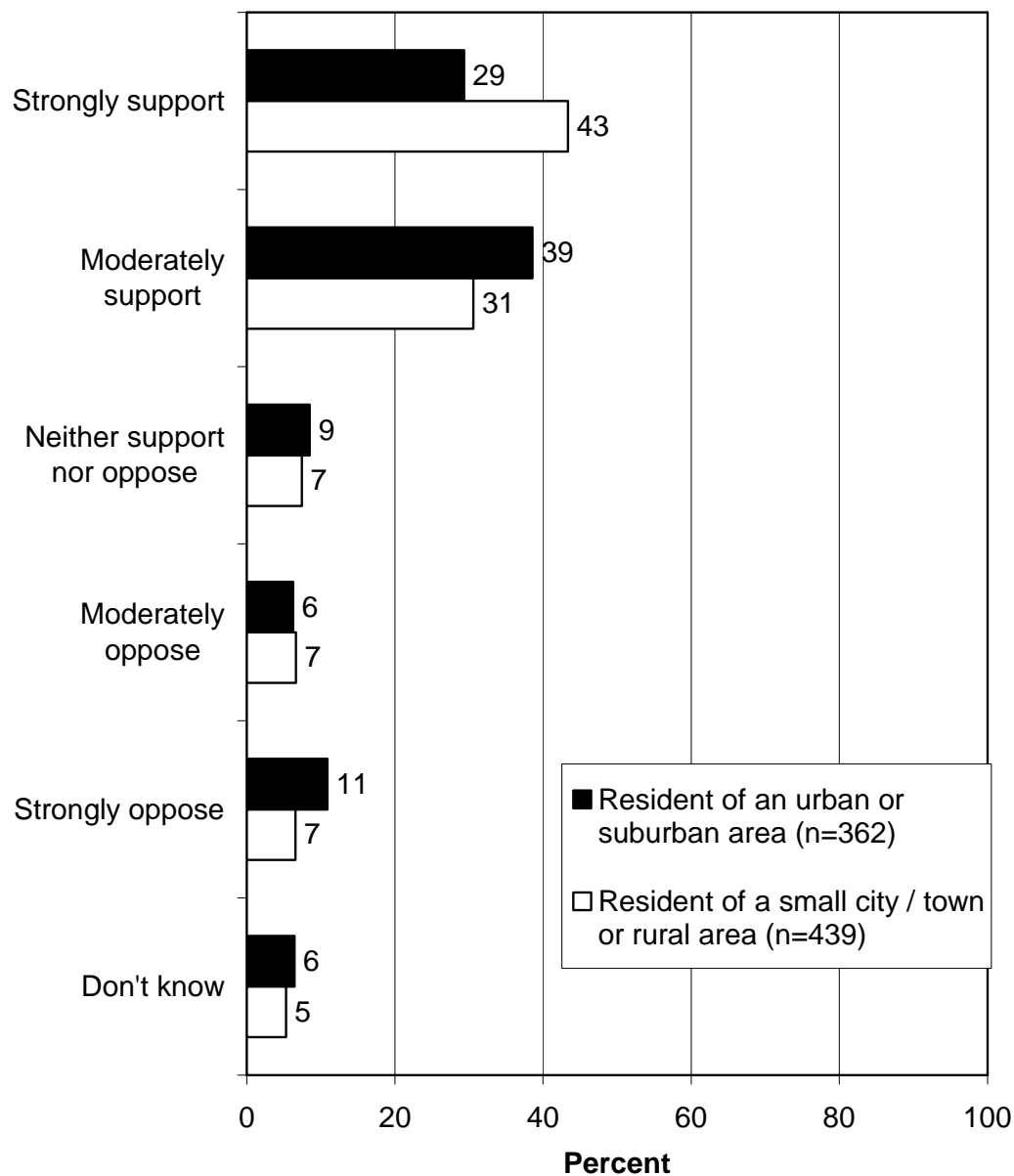


Q16/Q81. In general, would you support or oppose the reintroduction of free-roaming, wild elk into western Maryland?
(Includes initial opinions as well as those who indicated a change of opinion by the end of the survey)

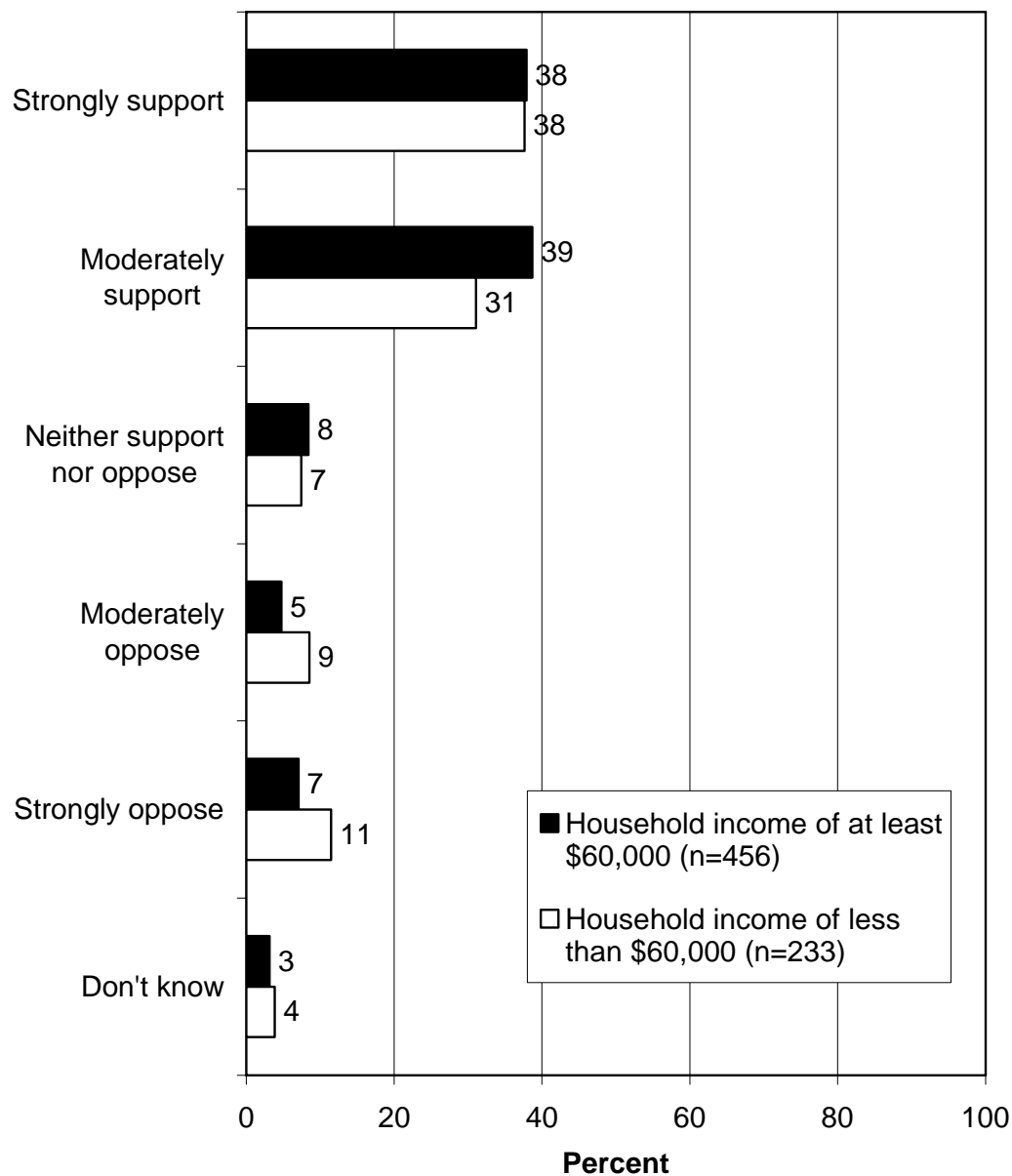


**Q16/Q81. In general, would you support or oppose
the reintroduction of free-roaming, wild elk into
western Maryland?**

**(Includes initial opinions as well as those who
indicated a change of opinion by the end of the
survey)**

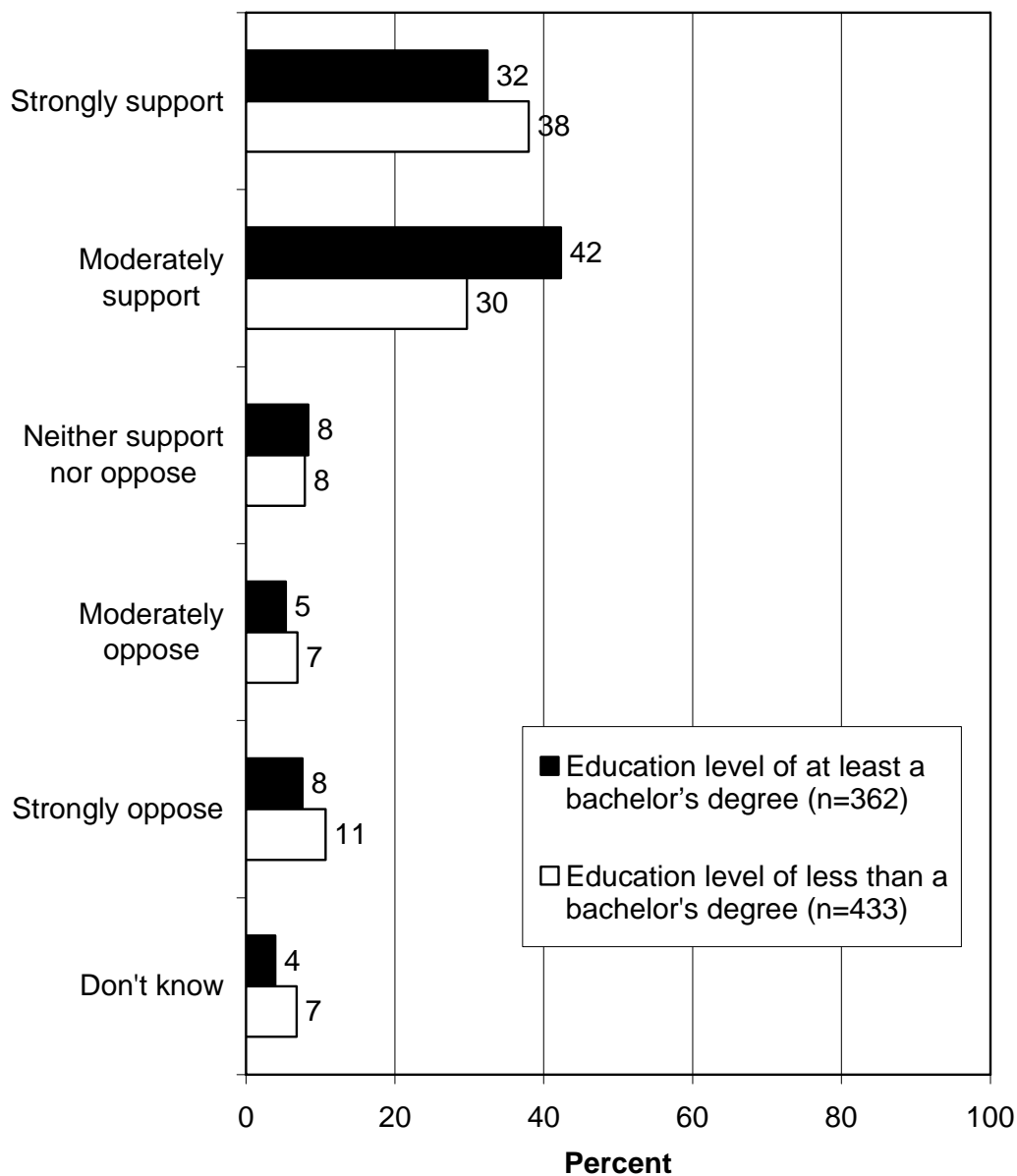


Q16/Q81. In general, would you support or oppose the reintroduction of free-roaming, wild elk into western Maryland?
(Includes initial opinions as well as those who indicated a change of opinion by the end of the survey)



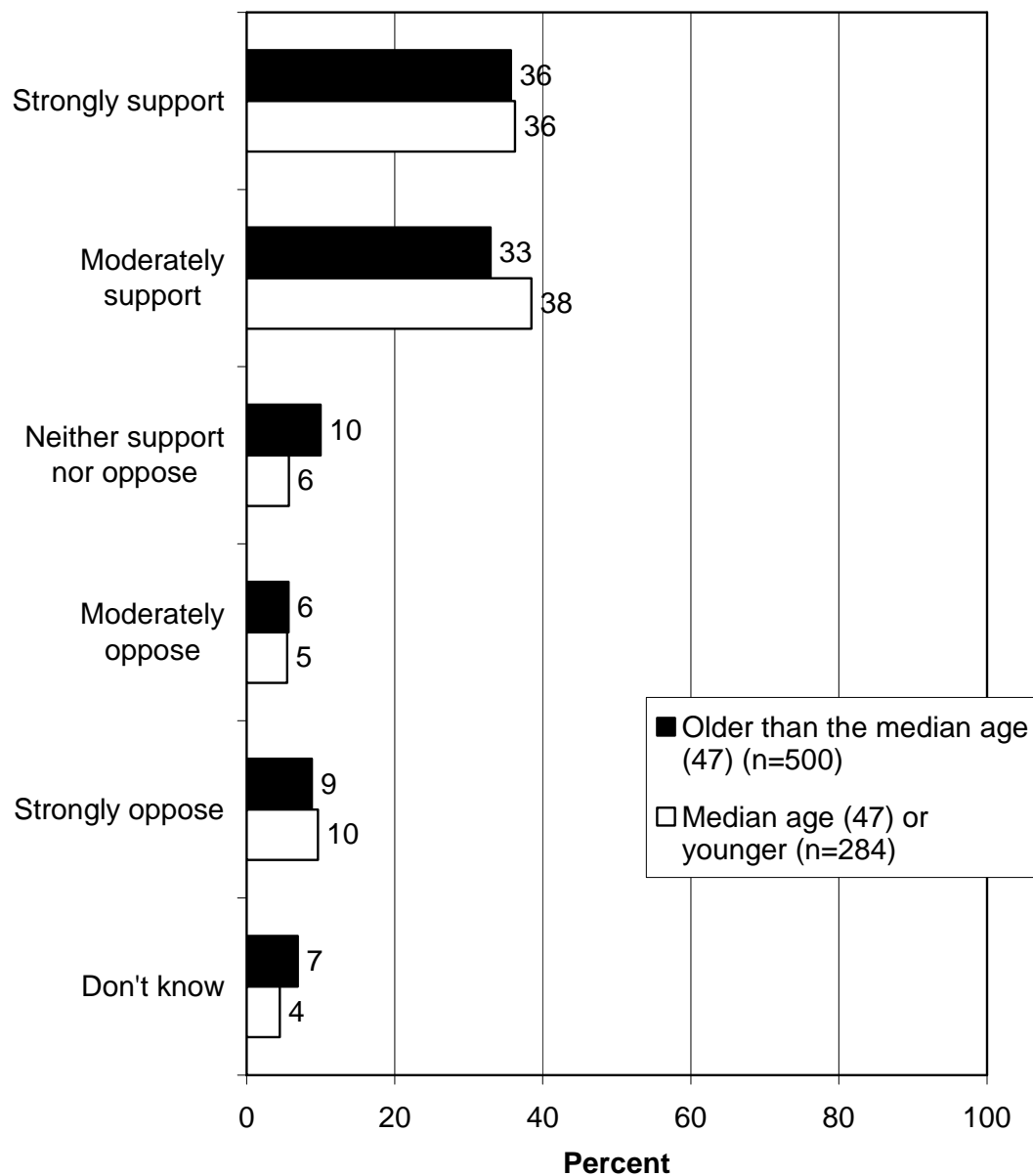
**Q16/Q81. In general, would you support or oppose
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western Maryland?**

**(Includes initial opinions as well as those who
indicated a change of opinion by the end of the
survey)**



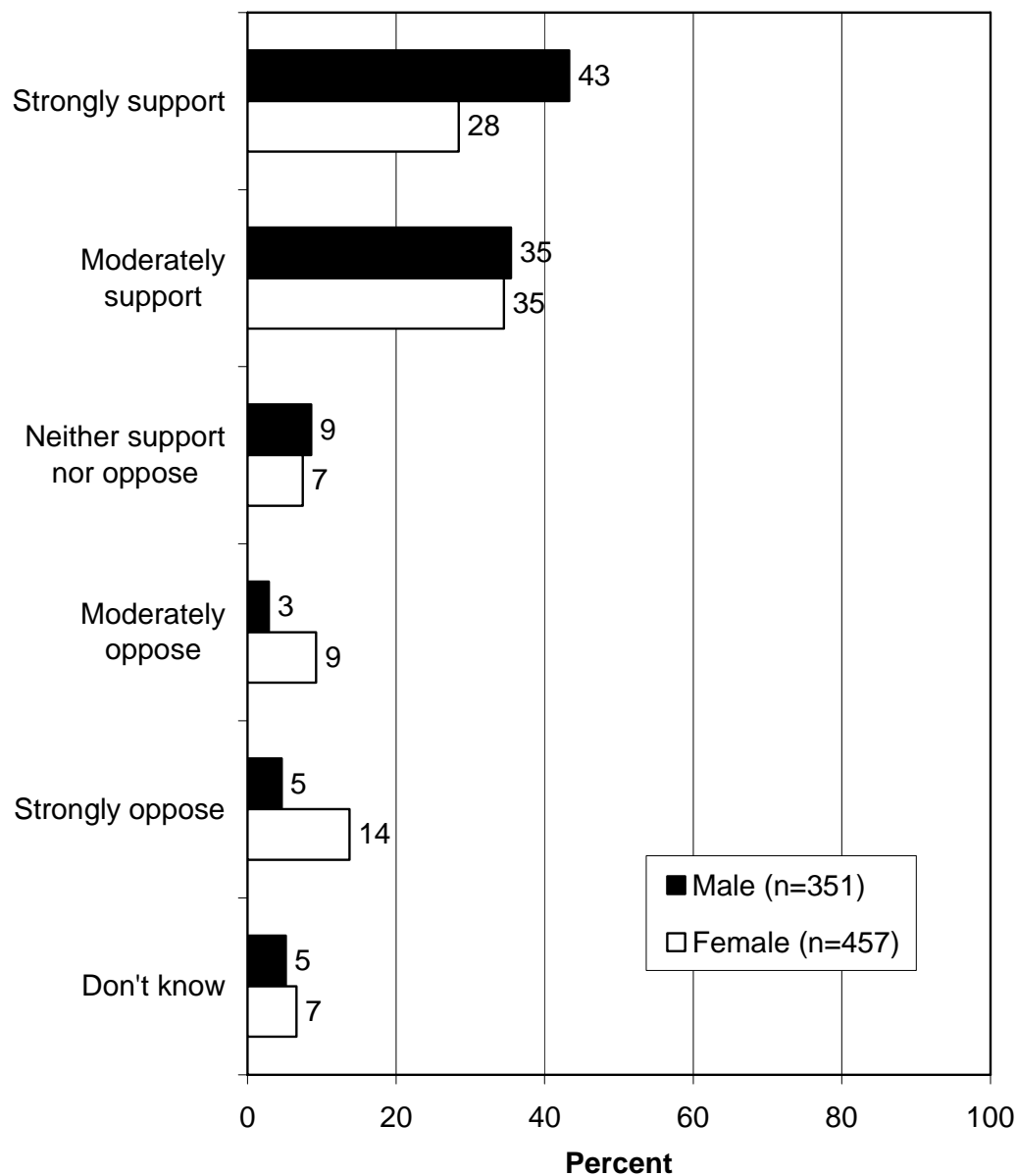
Q16/Q81. In general, would you support or oppose the reintroduction of free-roaming, wild elk into western Maryland?

(Includes initial opinions as well as those who indicated a change of opinion by the end of the survey)



**Q16/Q81. In general, would you support or oppose
the reintroduction of free-roaming, wild elk into
western Maryland?**

**(Includes initial opinions as well as those who
indicated a change of opinion by the end of the
survey)**



Percentage of each of the following groups that would <u>strongly support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Would be likely to try hunting elk in Western Maryland	79
Is a hunter	70
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	59
Is not concerned about elk being a nuisance on his / her Western Maryland property	58
Has had damage caused by wildlife in past 5 years (non-landowner)	57
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	53
Would be very or somewhat likely to take a trip to see elk in Western Maryland	51
Is a landowner of 20 acres or more in western Maryland	47
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	46
Resides in a small city / town or rural area	43
Is male	43
Has not experienced problems with wildlife on his / her property	41
Lives in Western Maryland (Garrett, Allegany, or Washington county)	41
Thinks the reintroduction of elk would positively affect his / her job or industry	41
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	39
Would support hunting of elk in Western Maryland	39
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	39
Supports hunting	38
Does not think that that the ecological effects should be very or somewhat important in decisions about elk reintroduction	38
Has an education level of less than a bachelor's degree	38
Has a household income of at least \$60,000	38
Has a household income of less than \$60,000	38
Owns land in Maryland	37
Thinks the reintroduction of elk would not affect his / her job or industry	36
Is the median age (47) or younger	36
Is older than the median age (47)	36
Is not a landowner of 20 acres or more in western Maryland	35
Lives in Central or Eastern Maryland	35
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	35
Does not own land in Western Maryland	35
Does not own land in Maryland	33
Has an education level of at least a bachelor's degree	32
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	32
Resides in an urban or suburban area	29
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	29
Is not a hunter	29
Would not be likely to try hunting elk in Western Maryland	29
Is female	28
Has not had damage caused by wildlife in past 5 years (non-landowner)	28

Percentage of each of the following groups that would <u>strongly support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Does not support hunting	27
Has experienced problems with wildlife on his / her property	27
Would not support hunting of elk in Western Maryland	26
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	26
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	25
Thinks the reintroduction of elk would negatively affect his / her job or industry	24
Would not be likely to take a trip to see elk in Western Maryland	17
Is concerned about elk being a nuisance on his / her Western Maryland property	14

Percentage of each of the following groups that would <u>moderately support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Has an education level of at least a bachelor's degree	42
Thinks the reintroduction of elk would positively affect his / her job or industry	40
Would support hunting of elk in Western Maryland	40
Would be very or somewhat likely to take a trip to see elk in Western Maryland	39
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	39
Has a household income of at least \$60,000	39
Resides in an urban or suburban area	39
Would not be likely to try hunting elk in Western Maryland	38
Supports hunting	38
Is the median age (47) or younger	38
Is not a hunter	38
Has not had damage caused by wildlife in past 5 years (non-landowner)	38
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	38
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	38
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	37
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	37
Has experienced problems with wildlife on his / her property	36
Is male	35
Owns land in Maryland	35
Lives in Central or Eastern Maryland	35
Has not experienced problems with wildlife on his / her property	35
Does not own land in Western Maryland	35
Is not a landowner of 20 acres or more in western Maryland	35
Thinks the reintroduction of elk would not affect his / her job or industry	35
Is female	35
Does not own land in Maryland	34
Is older than the median age (47)	33
Has a household income of less than \$60,000	31
Resides in a small city / town or rural area	31
Would not be likely to take a trip to see elk in Western Maryland	30
Is not concerned about elk being a nuisance on his / her Western Maryland property	30
Has an education level of less than a bachelor's degree	30
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	28
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	27
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	27
Lives in Western Maryland (Garrett, Allegany, or Washington county)	26
Thinks the reintroduction of elk would negatively affect his / her job or industry	25
Does not support hunting	25
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	23

Percentage of each of the following groups that would <u>moderately support</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	22
Is concerned about elk being a nuisance on his / her Western Maryland property	21
Would not support hunting of elk in Western Maryland	20
Is a landowner of 20 acres or more in western Maryland	19
Is a hunter	17
Does not think that that the ecological effects should be very or somewhat important in decisions about elk reintroduction	17
Has had damage caused by wildlife in past 5 years (non-landowner)	14
Would be likely to try hunting elk in Western Maryland	12

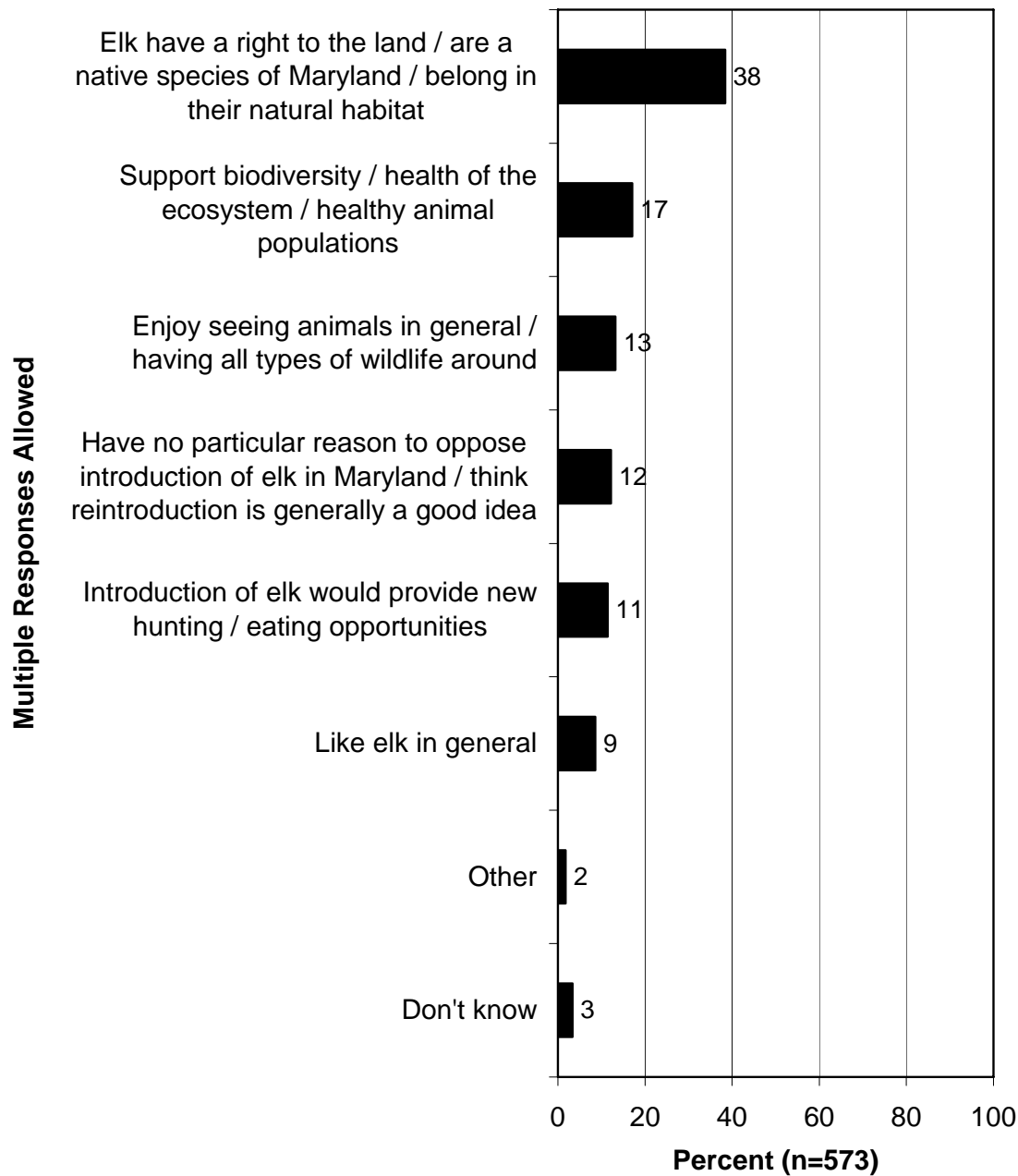
Percentage of each of the following groups that would <u>moderately oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Is concerned about elk being a nuisance on his / her Western Maryland property	19
Thinks the reintroduction of elk would positively affect his / her job or industry	15
Lives in Western Maryland (Garrett, Allegany, or Washington county)	14
Would not support hunting of elk in Western Maryland	12
Would not be likely to take a trip to see elk in Western Maryland	11
Does not support hunting	11
Is female	9
Has experienced problems with wildlife on his / her property	9
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	9
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	9
Has a household income of less than \$60,000	9
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	8
Owns land in Maryland	8
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	8
Has not experienced problems with wildlife on his / her property	7
Is not a hunter	7
Has had damage caused by wildlife in past 5 years (non-landowner)	7
Would not be likely to try hunting elk in Western Maryland	7
Has an education level of less than a bachelor's degree	7
Does not think that the ecological effects should be very or somewhat important in decisions about elk reintroduction	7
Resides in a small city / town or rural area	7
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	7
Is not a landowner of 20 acres or more in western Maryland	6
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	6
Does not own land in Western Maryland	6
Resides in an urban or suburban area	6
Is a landowner of 20 acres or more in western Maryland	6
Lives in Central or Eastern Maryland	6
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	6
Is older than the median age (47)	6
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	6
Thinks the reintroduction of elk would not affect his / her job or industry	6
Is the median age (47) or younger	5
Has an education level of at least a bachelor's degree	5
Supports hunting	5
Is not concerned about elk being a nuisance on his / her Western Maryland property	5
Has a household income of at least \$60,000	5
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	5

Percentage of each of the following groups that would <u>moderately oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Would support hunting of elk in Western Maryland	5
Does not own land in Maryland	4
Has not had damage caused by wildlife in past 5 years (non-landowner)	4
Thinks the reintroduction of elk would negatively affect his / her job or industry	3
Is a hunter	3
Is male	3
Would be very or somewhat likely to take a trip to see elk in Western Maryland	3
Would be likely to try hunting elk in Western Maryland	3
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	2

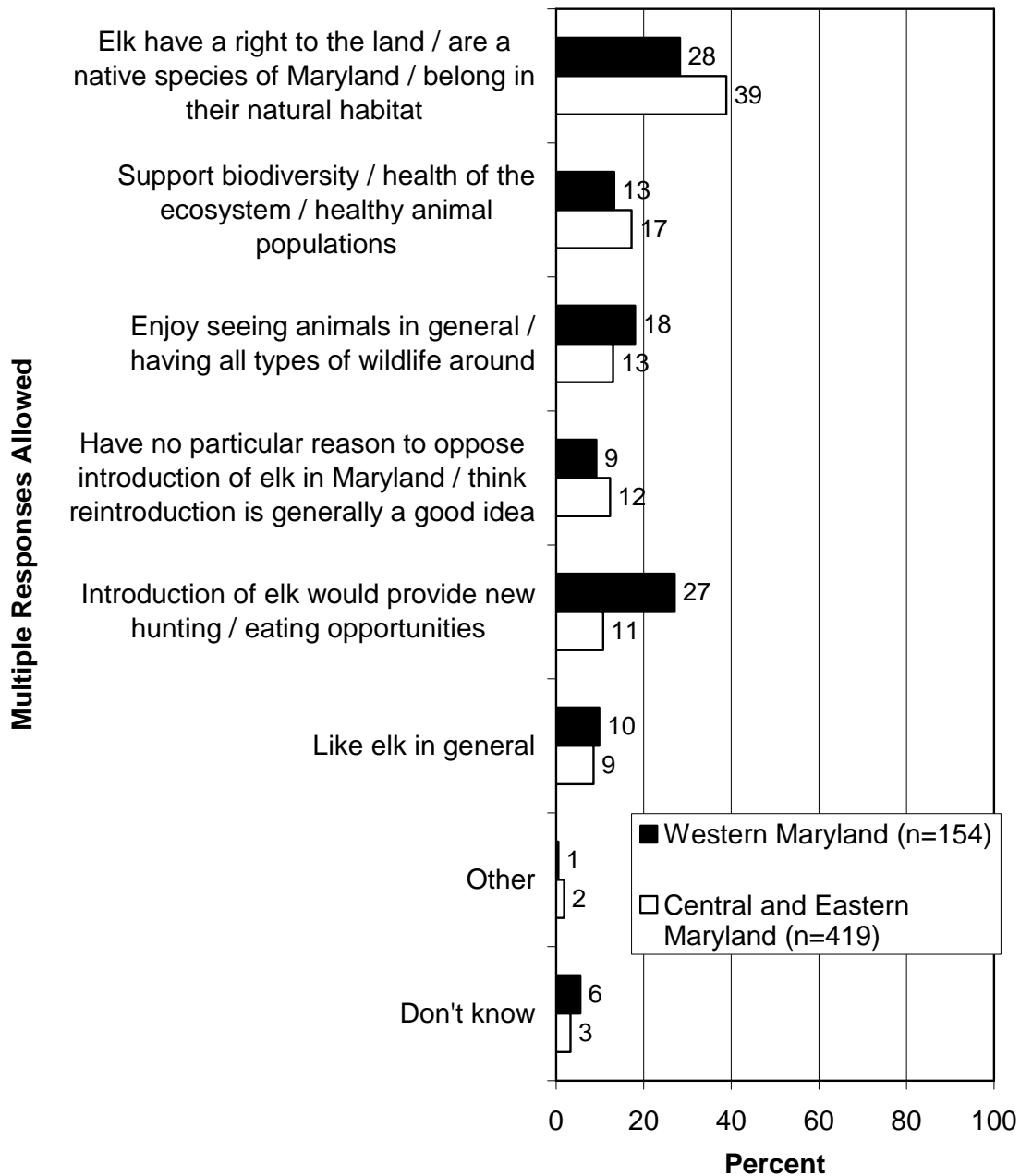
Percentage of each of the following groups that would <u>strongly oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Thinks the reintroduction of elk would negatively affect his / her job or industry	43
Is concerned about elk being a nuisance on his / her Western Maryland property	36
Would not support hunting of elk in Western Maryland	22
Is a landowner of 20 acres or more in western Maryland	20
Does not think that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	20
Does not support hunting	19
Does not think that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	19
Does not think that the ecological effects should be very or somewhat important in decisions about elk reintroduction	19
Would not be likely to take a trip to see elk in Western Maryland	18
Has experienced problems with wildlife on his / her property	15
Has not had damage caused by wildlife in past 5 years (non-landowner)	14
Is female	14
Does not own land in Maryland	13
Thinks that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	12
Has a household income of less than \$60,000	11
Resides in an urban or suburban area	11
Has an education level of less than a bachelor's degree	11
Lives in Western Maryland (Garrett, Allegany, or Washington county)	11
Owns land in Western Maryland (Garrett, Allegany, or Washington county)	11
Has had damage caused by wildlife in past 5 years (non-landowner)	10
Would not be likely to try hunting elk in Western Maryland	10
Is not a hunter	10
Thinks that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	10
Is the median age (47) or younger	10
Is not a landowner of 20 acres or more in western Maryland	9
Does not own land in Western Maryland	9
Lives in Central or Eastern Maryland	9
Is older than the median age (47)	9
Thinks that the ecological effects should be very or somewhat important in decisions about elk reintroduction	8
Thinks the reintroduction of elk would not affect his / her job or industry	8
Has an education level of at least a bachelor's degree	8
Does not think that potential agricultural damage should be very or somewhat important in decisions about elk reintroduction	7
Has a household income of at least \$60,000	7
Owns land in Maryland	7
Resides in a small city / town or rural area	7
Thinks that the possibility of elk-related recreation should be very or somewhat important in decisions about elk reintroduction	6
Supports hunting	6
Thinks that the economic benefits of having elk in Western Maryland should be very or somewhat important in decisions about elk reintroduction	6

Percentage of each of the following groups that would <u>strongly oppose</u> the reintroduction of free-roaming, wild elk into western Maryland:	
Would support hunting of elk in Western Maryland	5
Is male	5
Is a hunter	4
Has not experienced problems with wildlife on his / her property	3
Thinks the reintroduction of elk would positively affect his / her job or industry	3
Would be likely to try hunting elk in Western Maryland	3
Does not think that potential vehicle collisions should be very or somewhat important in decisions about elk reintroduction	3
Would be very or somewhat likely to take a trip to see elk in Western Maryland	2
Is not concerned about elk being a nuisance on his / her Western Maryland property	1

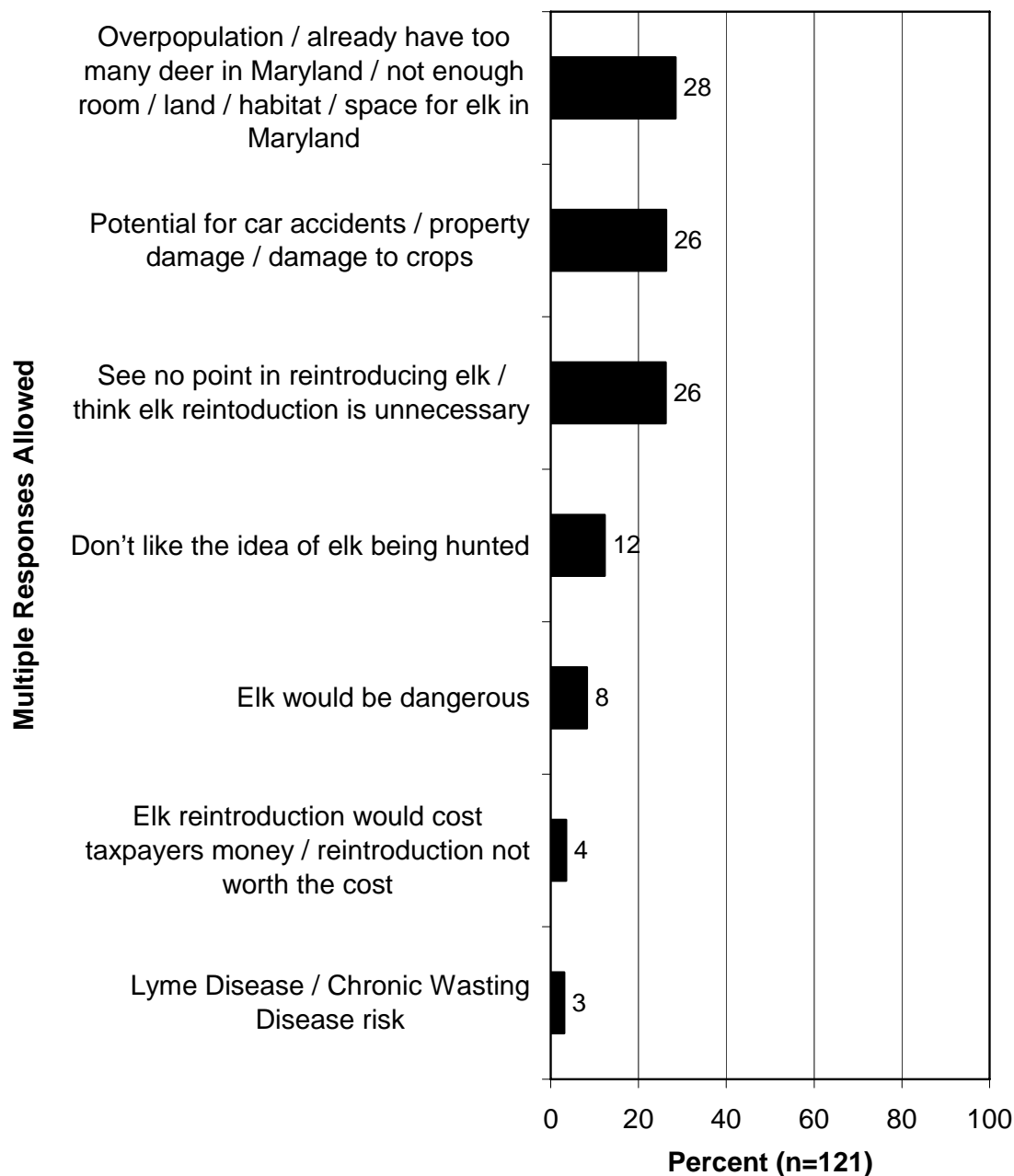
Q17. Why would you support the reintroduction of elk into western Maryland? (Asked of those who would support the reintroduction of elk into western Maryland.)



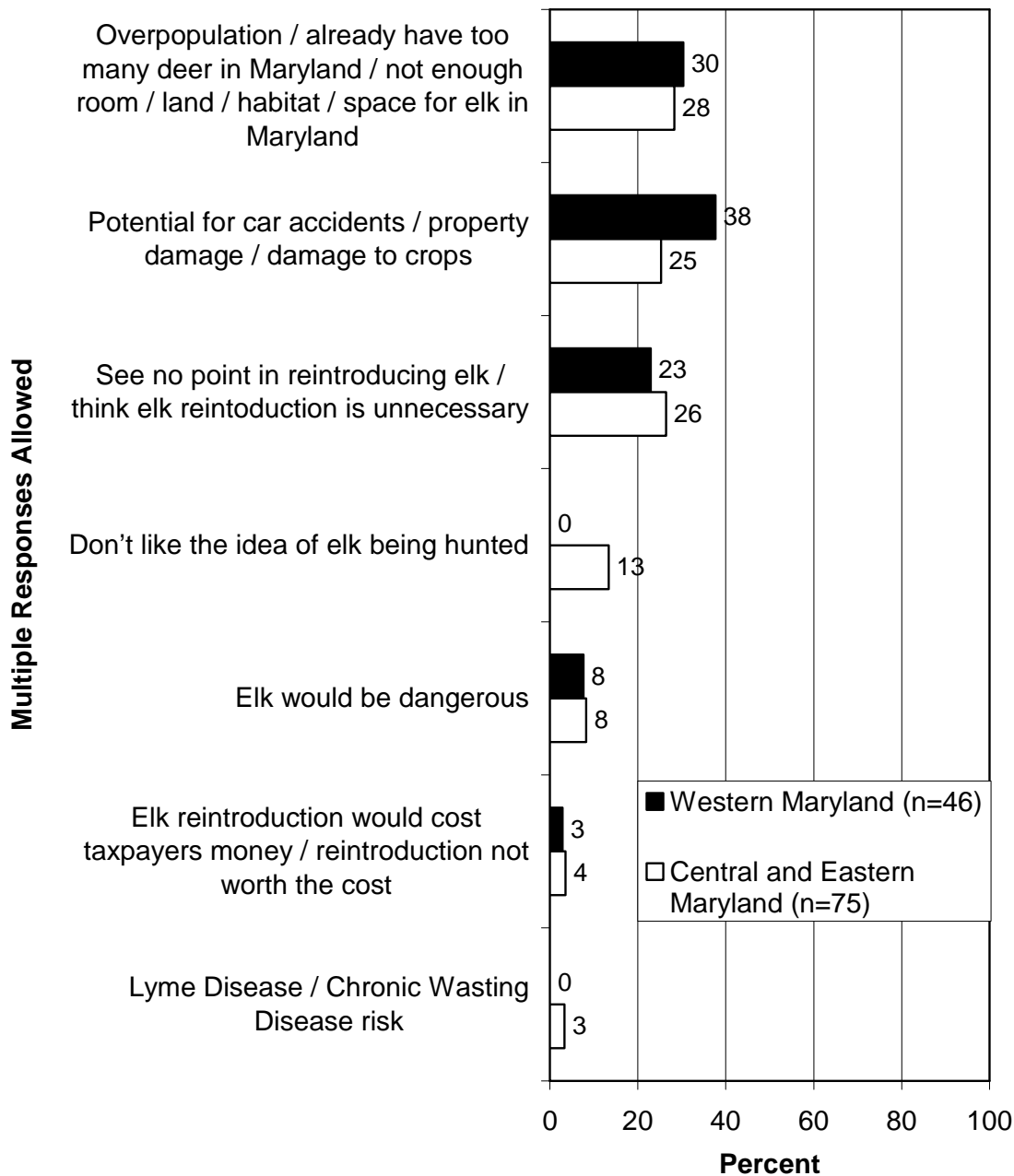
Q17. Why would you support the reintroduction of elk into western Maryland? (Asked of those who would support the reintroduction of elk into western Maryland.)



Q18. Why would you oppose the reintroduction of elk into western Maryland? (Asked of those who would oppose the introduction of elk into western Maryland.)



Q18. Why would you oppose the reintroduction of elk into western Maryland? (Asked of those who would oppose the introduction of elk into western Maryland.)



VALUES ASSOCIATED WITH HAVING ELK IN MARYLAND AND CONCERN ABOUT PROBLEMS RELATED TO ELK

- Respondents were read a list of values related to having elk in western Maryland and asked to rate each one as *very* important, *somewhat* important, or *not at all* important. The list included knowing that wild elk would exist in western Maryland, knowing that people would have the opportunity to watch or photograph elk in western Maryland, knowing that people would have the opportunity to hunt elk in western Maryland once the population reached a certain threshold, knowing that opportunities to watch or photograph elk could bring tourists to western Maryland, and knowing that the state of Maryland could benefit economically from tourists who come to watch or photograph elk in western Maryland.
- In looking at the ranking by the percentage of respondents who rated each value as *very* important, one item had nearly half of respondents considering it to be *very* important: knowing that the state of Maryland could benefit economically from tourists who come to watch or photograph elk in western Maryland (46% of residents described this as *very* important). The next three items had fairly similar percentages rating them as *very* important: knowing that opportunities to watch or photograph elk could bring tourists to western Maryland (40%), knowing that wild elk would exist in western Maryland (39%), and knowing that people would have the opportunity to watch or photograph elk in western Maryland (38%). Finally, one item had markedly fewer people considering it to be *very* important: knowing that people would have the opportunity to hunt elk in western Maryland once the population reached a certain threshold (just 22% of respondents said this was *very* important).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to consider as *very* important the knowledge that people would have the opportunity to hunt elk in western Maryland once the population reached a certain threshold.
- Following the list of values, respondents were read a series of six potential concerns associated with the reintroduction of elk to western Maryland and asked whether they were *very* concerned, *somewhat* concerned, or *not concerned at all* about each. The list included the following: that they could have a vehicle collision with an elk; that elk could carry

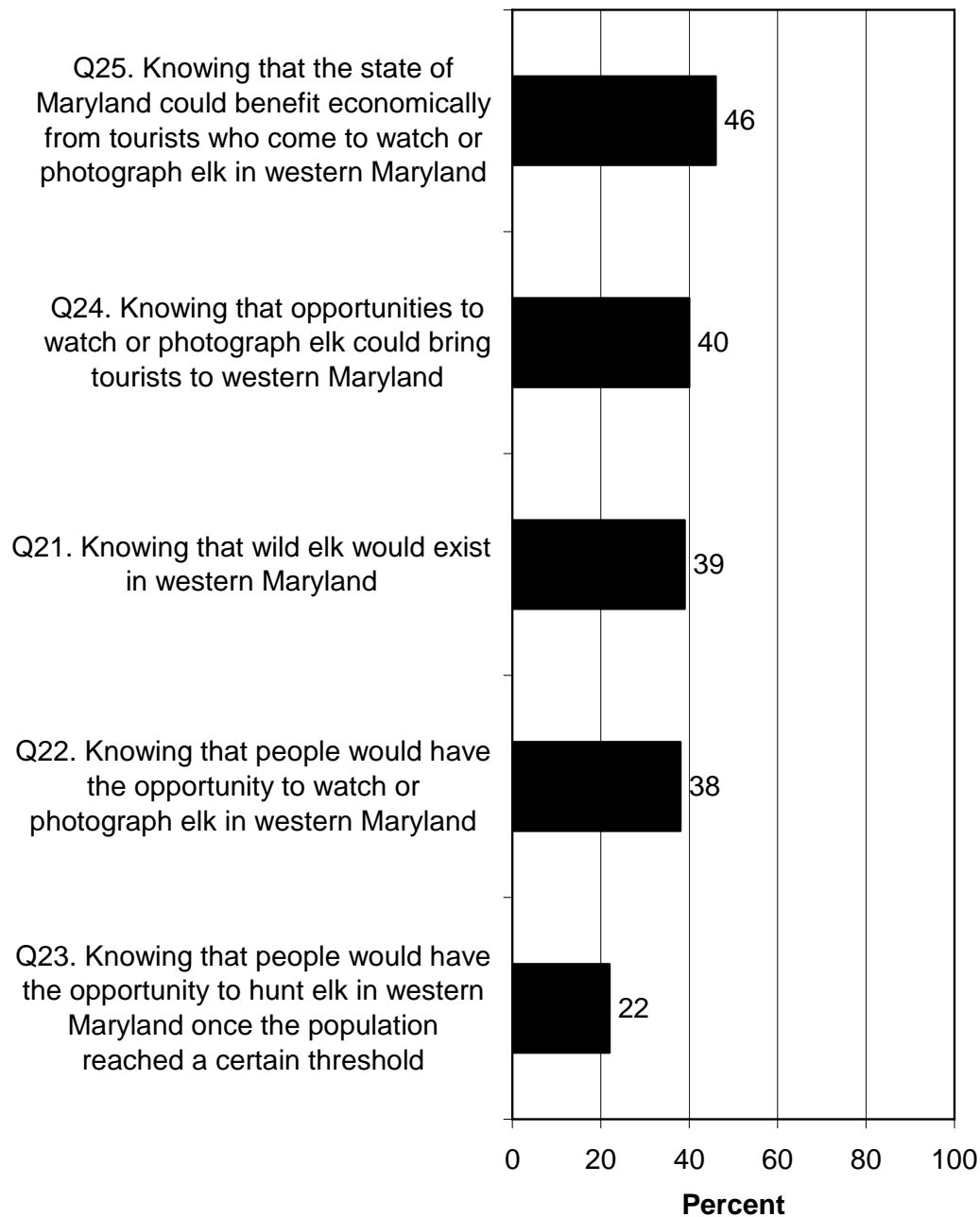
disease, which could impact other wildlife like white-tailed deer; the expense of reintroducing elk into western Maryland; that they might encounter an elk in the wild; that elk might damage agricultural crops; and that reintroducing elk might limit the resources available to manage other wildlife in the state.

- In looking at the ranking by the percentage of residents who indicated being *very* concerned, two items stand out: that they could have a vehicle collision with an elk (38% of respondents said they were *very* concerned about this) and that elk could carry disease, which could impact other wildlife like white-tailed deer (37%). Other items about which at least a fifth of respondents said they were *very* concerned included the expense of reintroducing elk into western Maryland (31%), that elk might damage agricultural crops (26%), and that reintroducing elk might limit the resources available to manage other wildlife in Maryland (22%). Finally, only a small percentage of residents (12%) said they were *very* concerned about encountering an elk in the wild.
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were generally more likely to be *very* concerned about each of the items on the list; in particular, Western Maryland residents appeared much more likely to be *very* concerned about having a vehicle collision with an elk.
- Following the aforementioned list of concerns, respondents were asked whether they had any additional concerns related to the reintroduction of elk to western Maryland, and 14% of residents said that they did. (Interestingly, Central and Eastern Maryland residents, compared to Western Maryland residents, were more likely to say that they had additional concerns.) The most common issues named by this group in a follow-up question included concern about damage other than damage to vehicles or crops (14%), concern about the possible lack of habitat for elk (13%), concern about a lack of natural predators for elk (12%), concern about effects on other wildlife caused by the elk reintroduction (11%), and concern about whether the elk population would be properly controlled and managed (10%).
- A final series in this section asked respondents about five items potentially factoring into decisions about whether to reintroduce elk to western Maryland: the economic benefits of

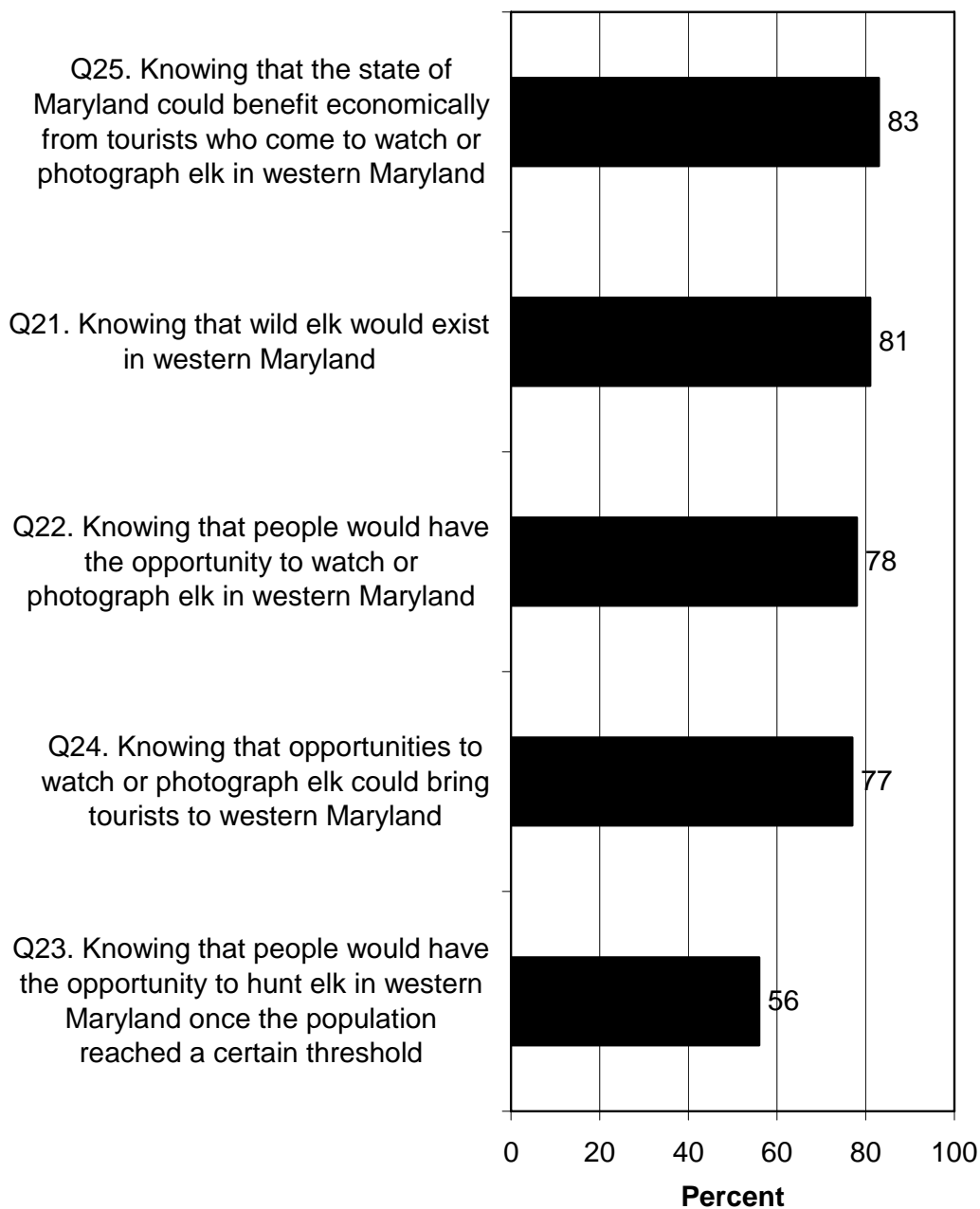
having elk in western Maryland, the ecological effects, potential agricultural damage, potential vehicle collisions, and the possibility of elk-related recreation. Respondents were asked whether they thought each item in the series should be *very* important, *somewhat* important, or *not at all* important to decisions about whether to reintroduce elk in the state.

- In the ranking by the percentage of residents who rated each item as *very* important, one item stands out as markedly more important than the others: the ecological effects (at 58%, this was the only item with a majority of Maryland residents saying it should be *very* important in decisions about whether to reintroduce elk in western Maryland). Meanwhile, all four other items had at least a quarter of residents saying the item should be *very* important in elk reintroduction-related decisions: potential agricultural damage (43%), potential vehicle collisions (35%), the economic benefits of having elk in western Maryland (32%), and the possibility of elk-related recreation (28%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, appeared more likely to rate potential vehicle collisions as *very* important to decisions; by contrast, Central and Eastern Maryland residents, compared to Western Maryland residents, appeared more likely to rate ecological effects as *very* important to decisions about whether to reintroduce elk to Maryland.

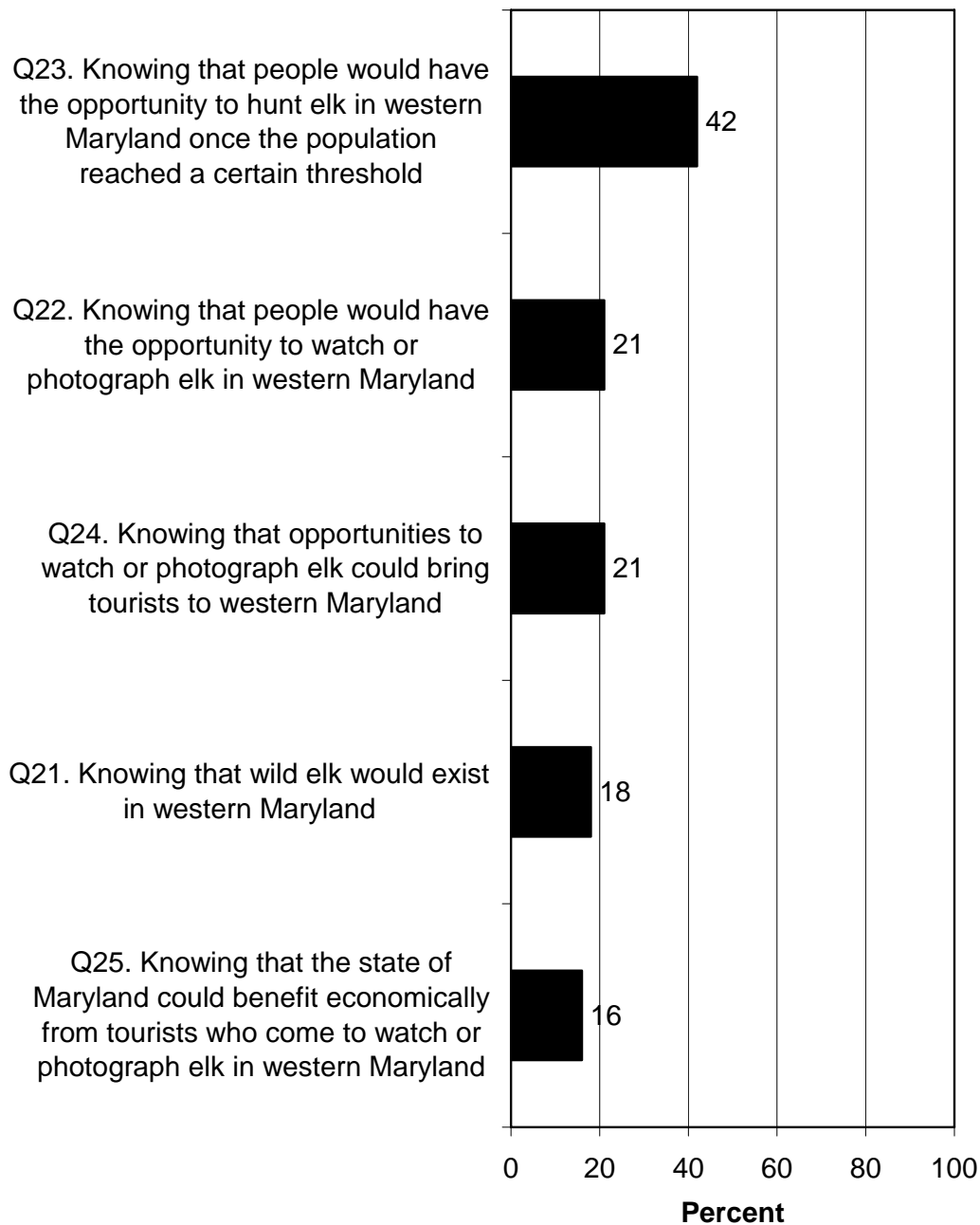
Q21-Q25. Percent of respondents who indicated that each of the following values related to having wild elk in western Maryland is very important to them.



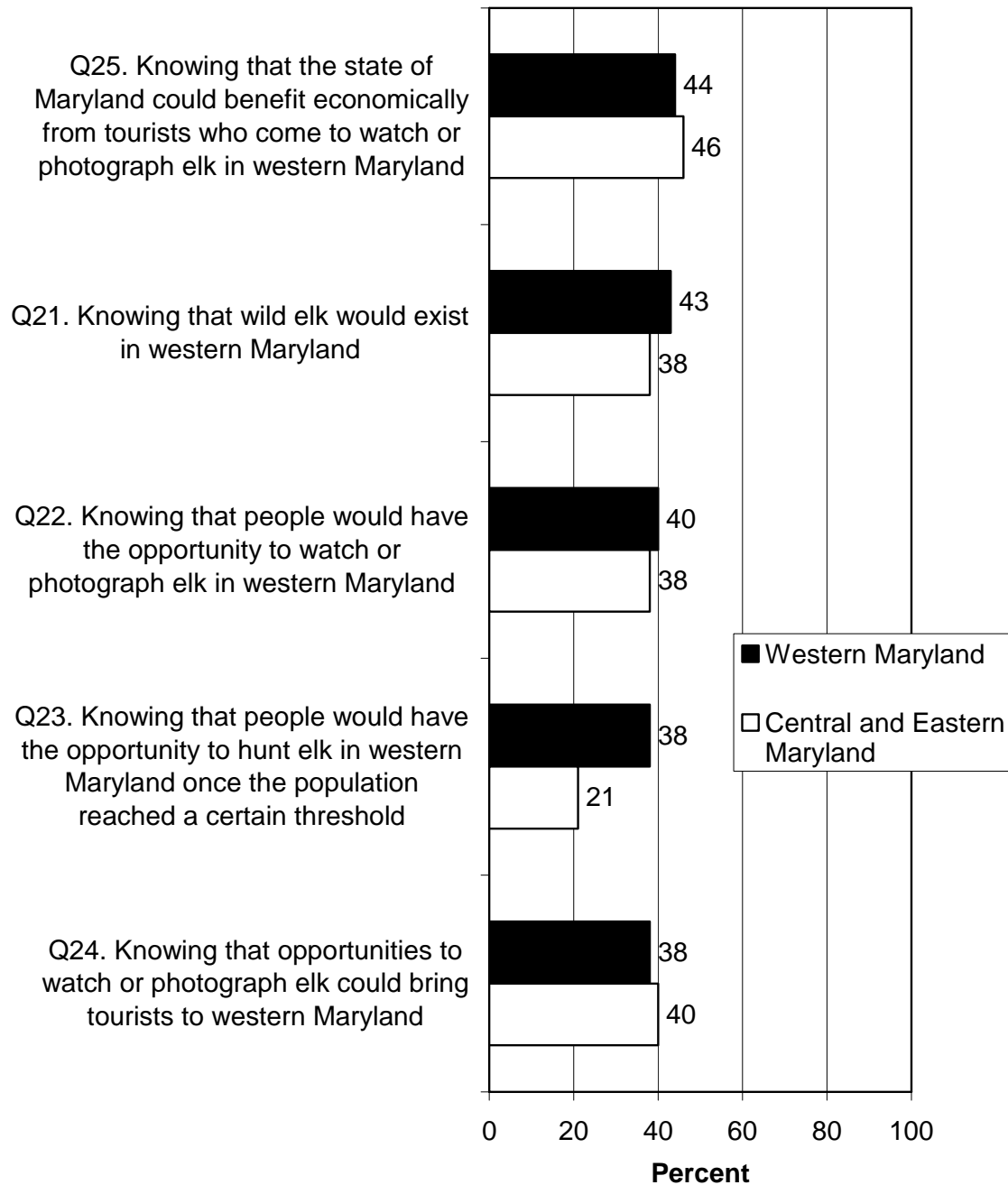
Q21-Q25. Percent of respondents who indicated that each of the following values related to having wild elk in western Maryland is very or somewhat important to them.



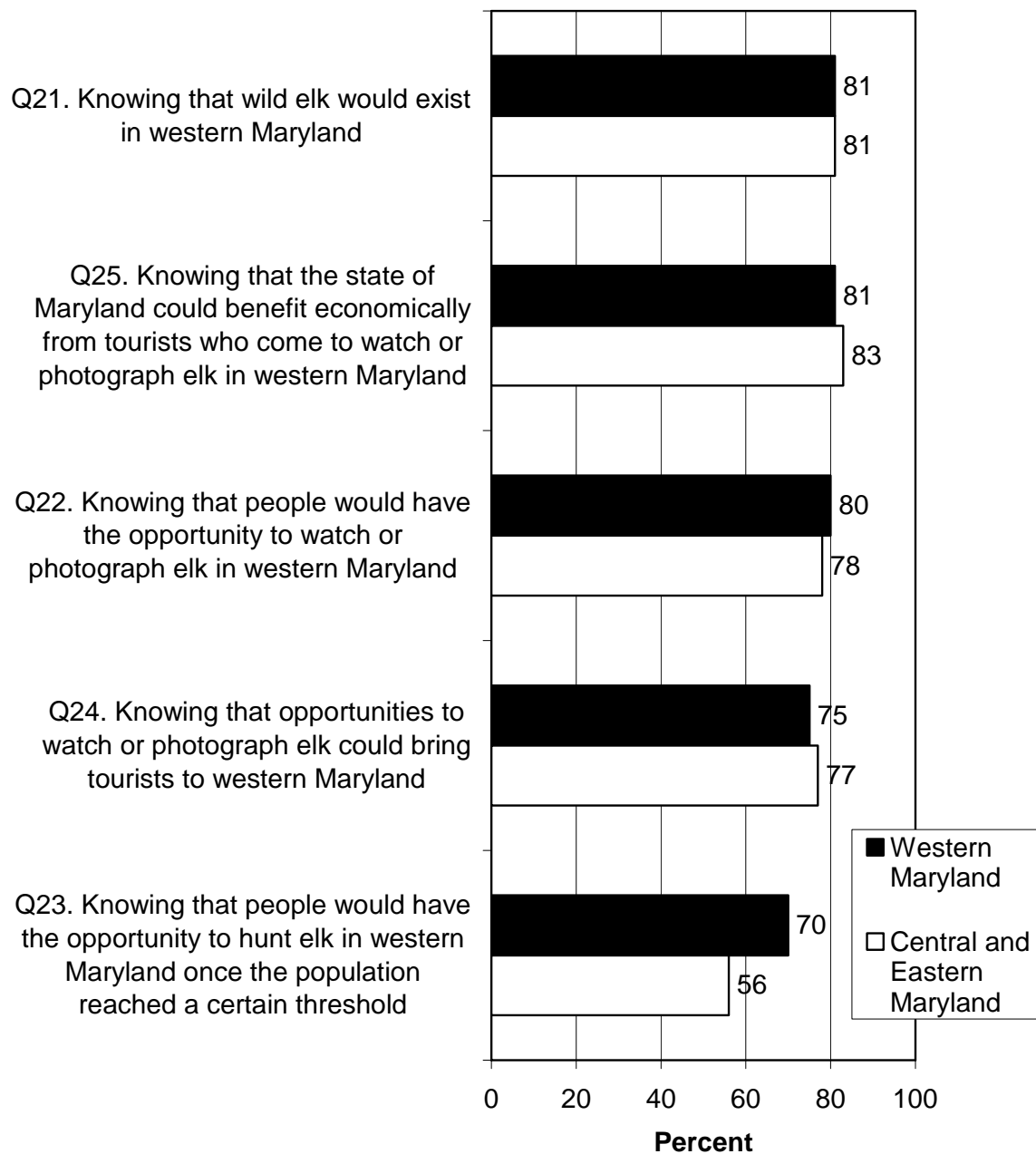
Q21-Q25. Percent of respondents who indicated that each of the following values related to having wild elk in western Maryland is not at all important to them.



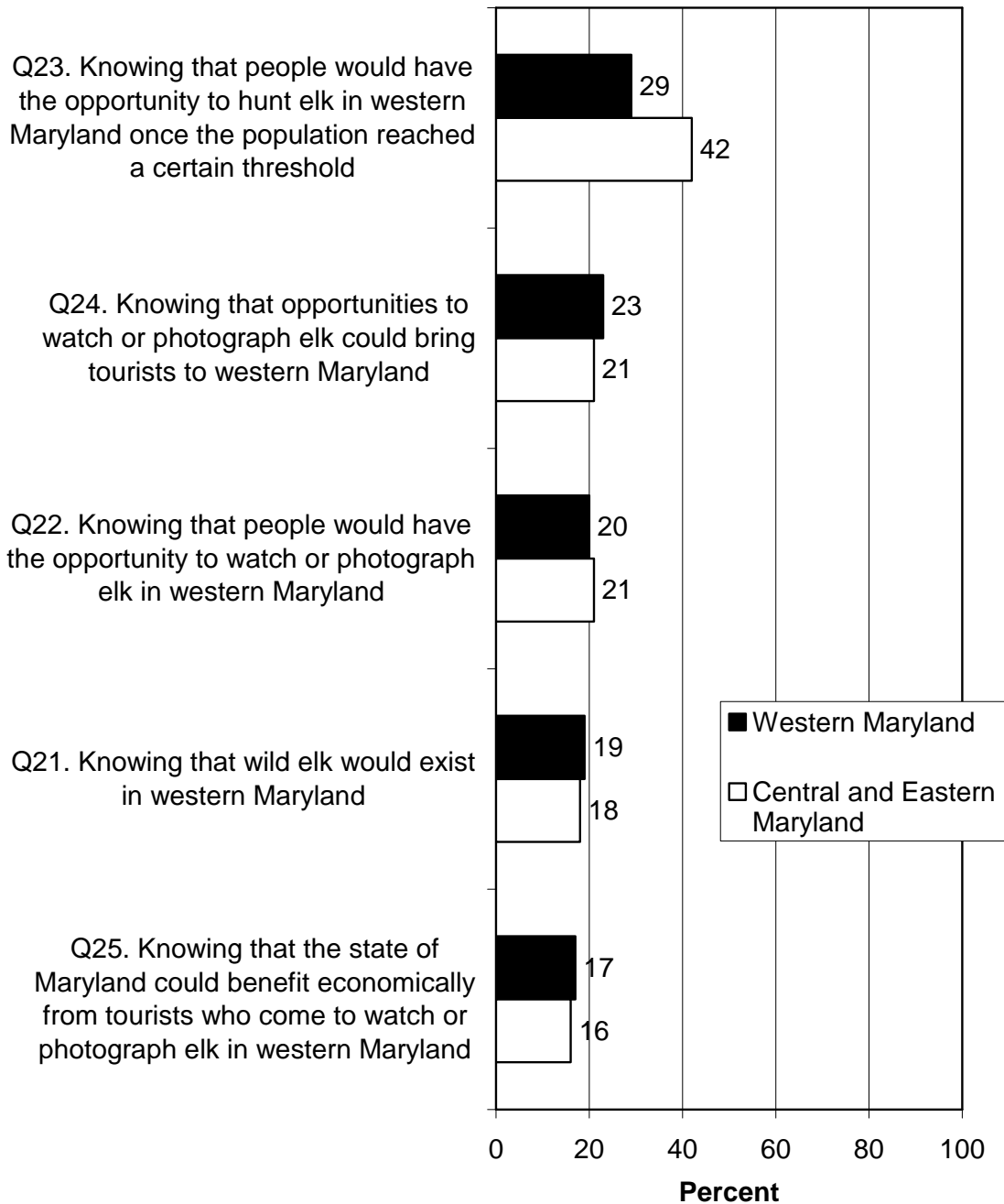
Q21-Q25. Percent of respondents who indicated that each of the following values related to having wild elk in western Maryland is very important to them.



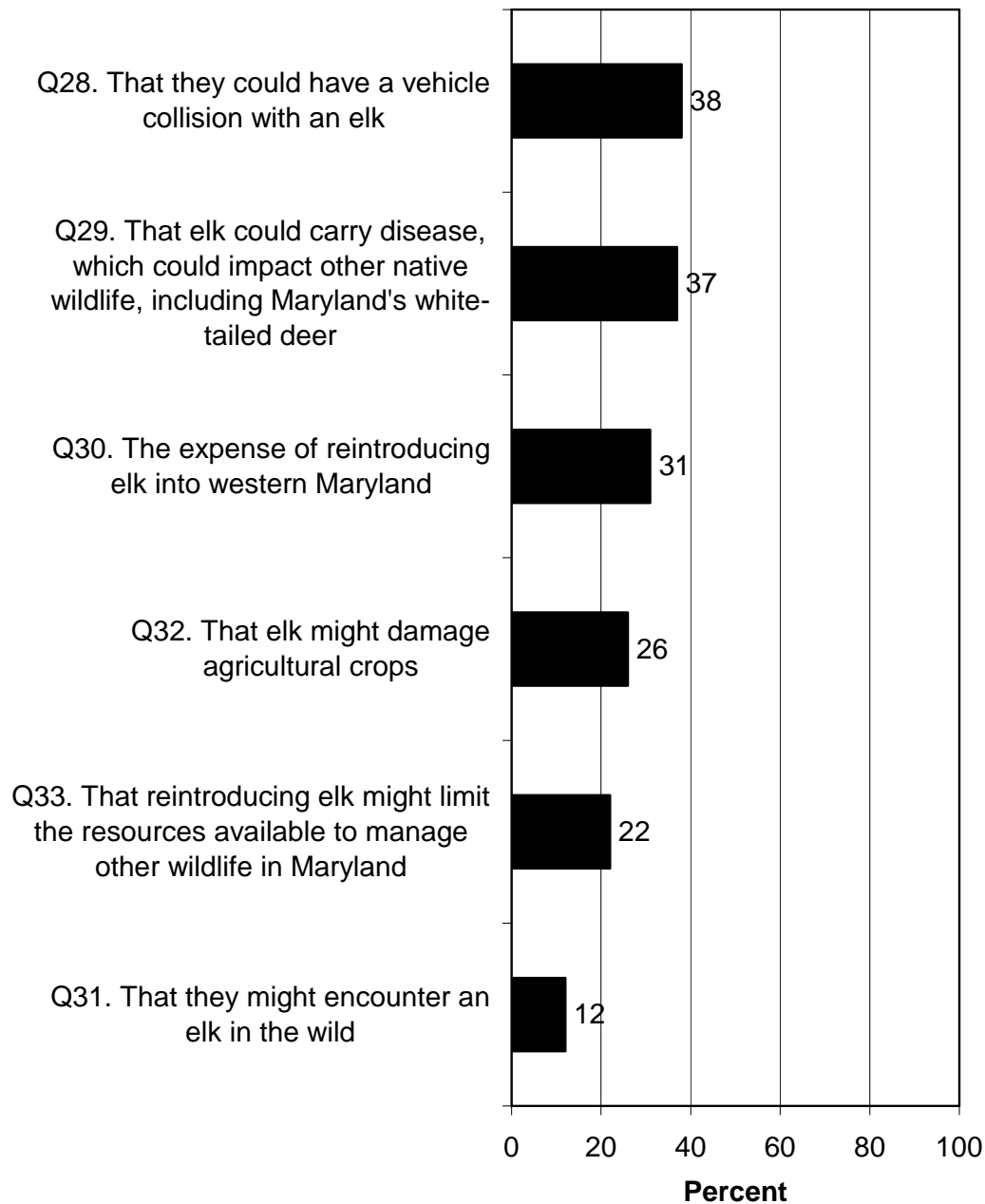
Q21-Q25. Percent of respondents who indicated that each of the following values related to having wild elk in western Maryland is very or somewhat important to them.



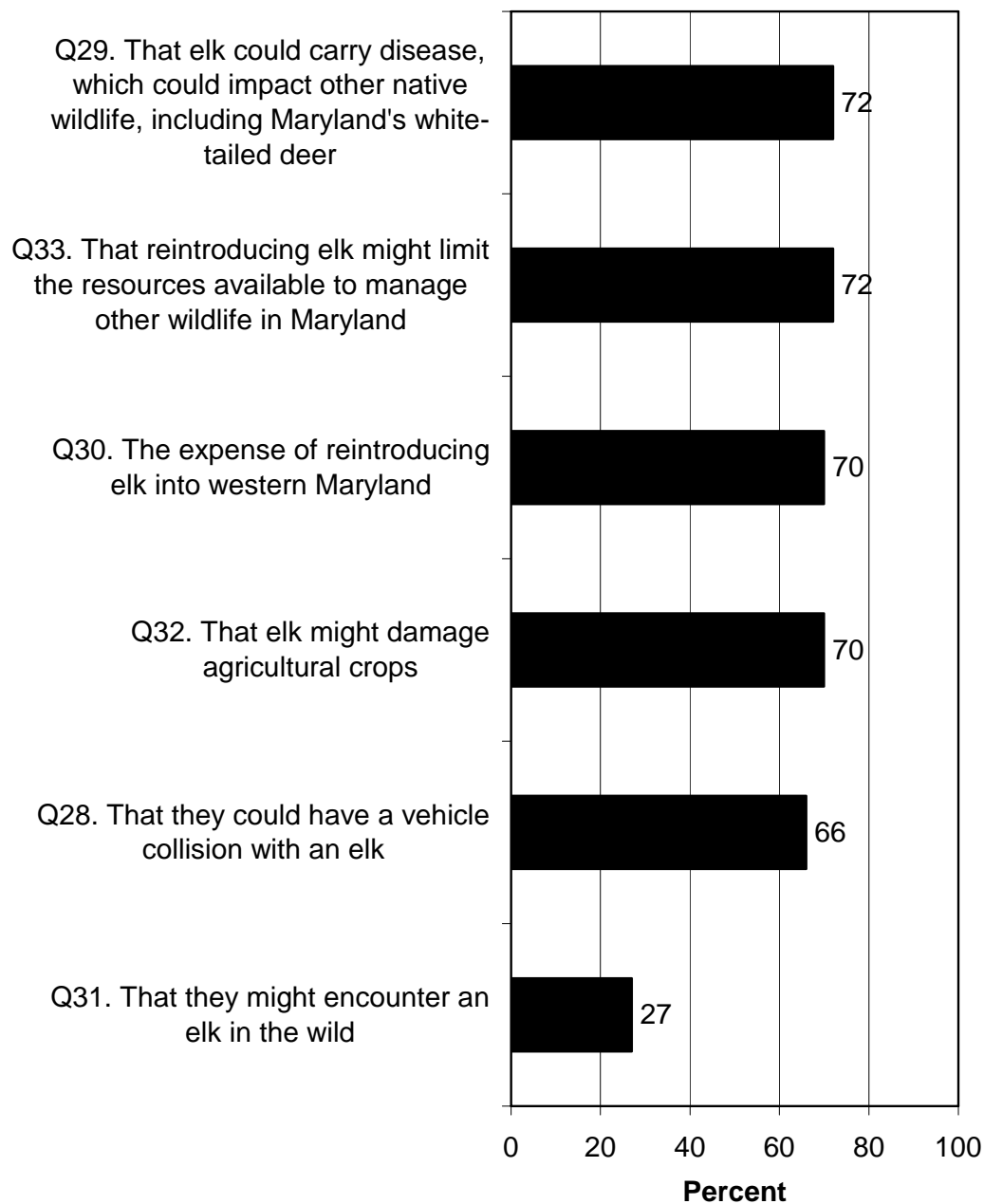
Q21-Q25. Percent of respondents who indicated that each of the following values related to having wild elk in western Maryland is not at all important to them.



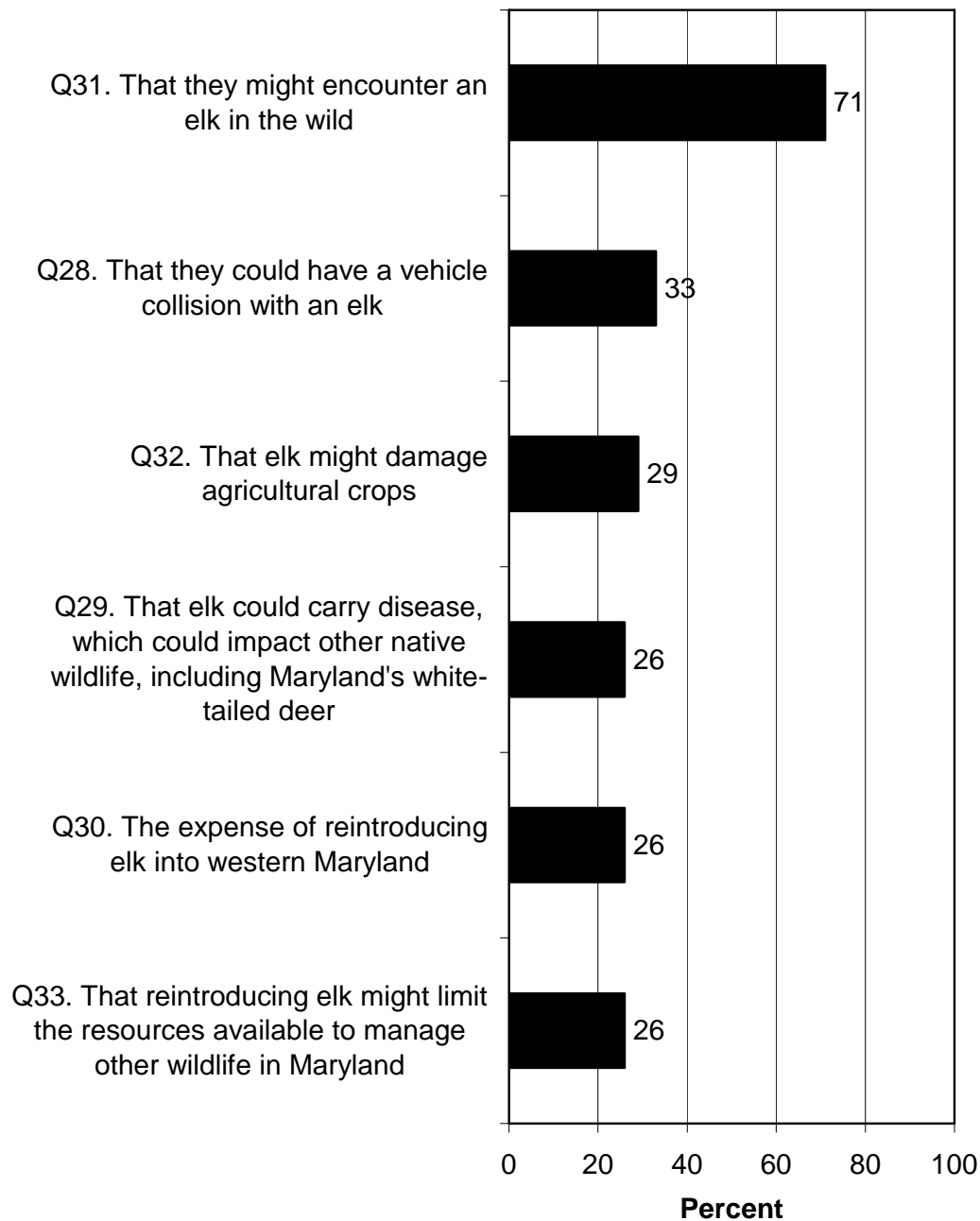
Q28-Q33. Percent of respondents who indicated being very concerned about each of the following potential problems related to having elk in western Maryland.



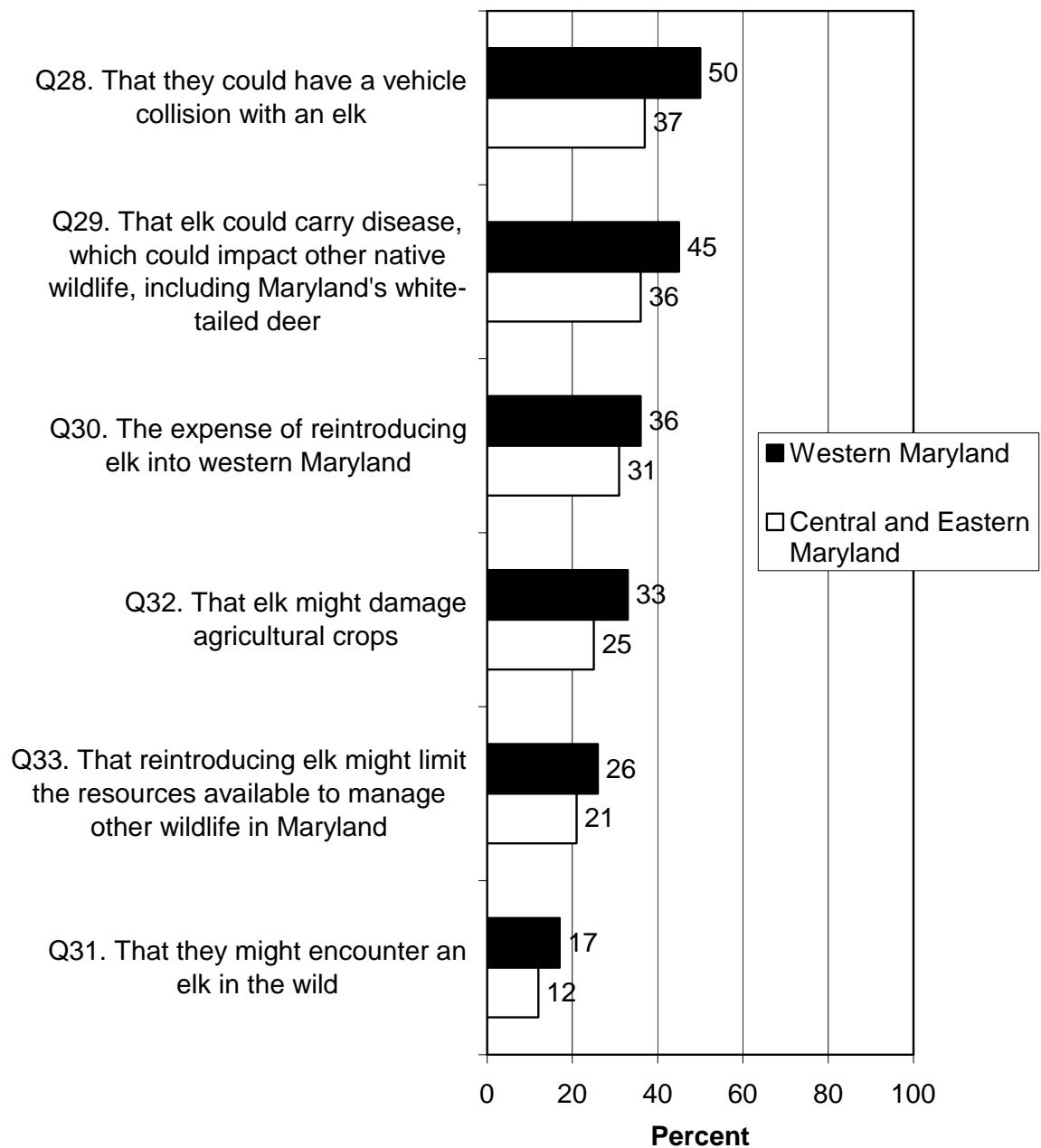
Q28-Q33. Percent of respondents who indicated being very or somewhat concerned about each of the following potential problems related to having elk in western Maryland.



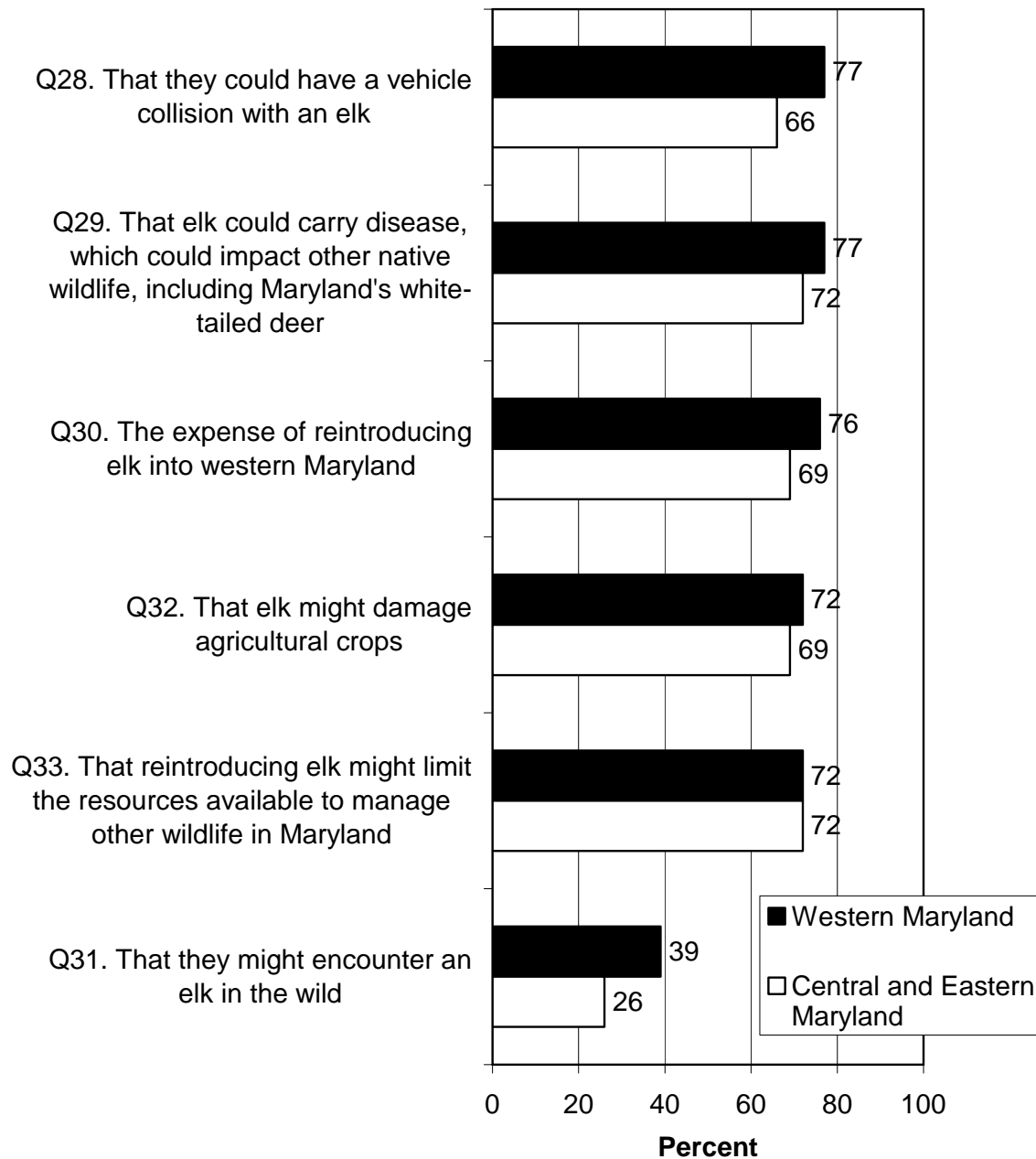
Q28-Q33. Percent of respondents who indicated being not concerned at all about each of the following potential problems related to having elk in western Maryland.



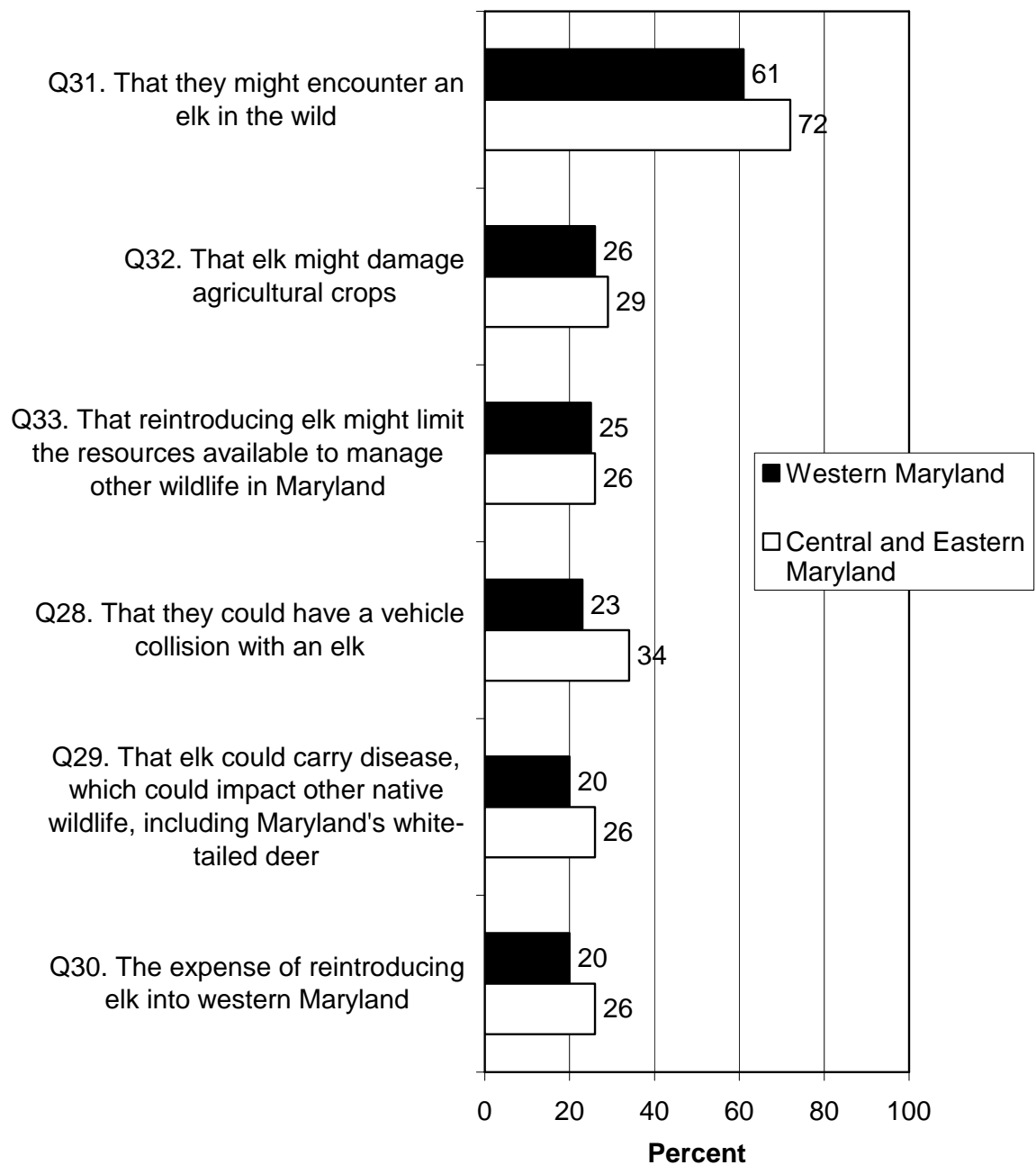
Q28-Q33. Percent of respondents who indicated being very concerned about each of the following potential problems related to having elk in western Maryland.



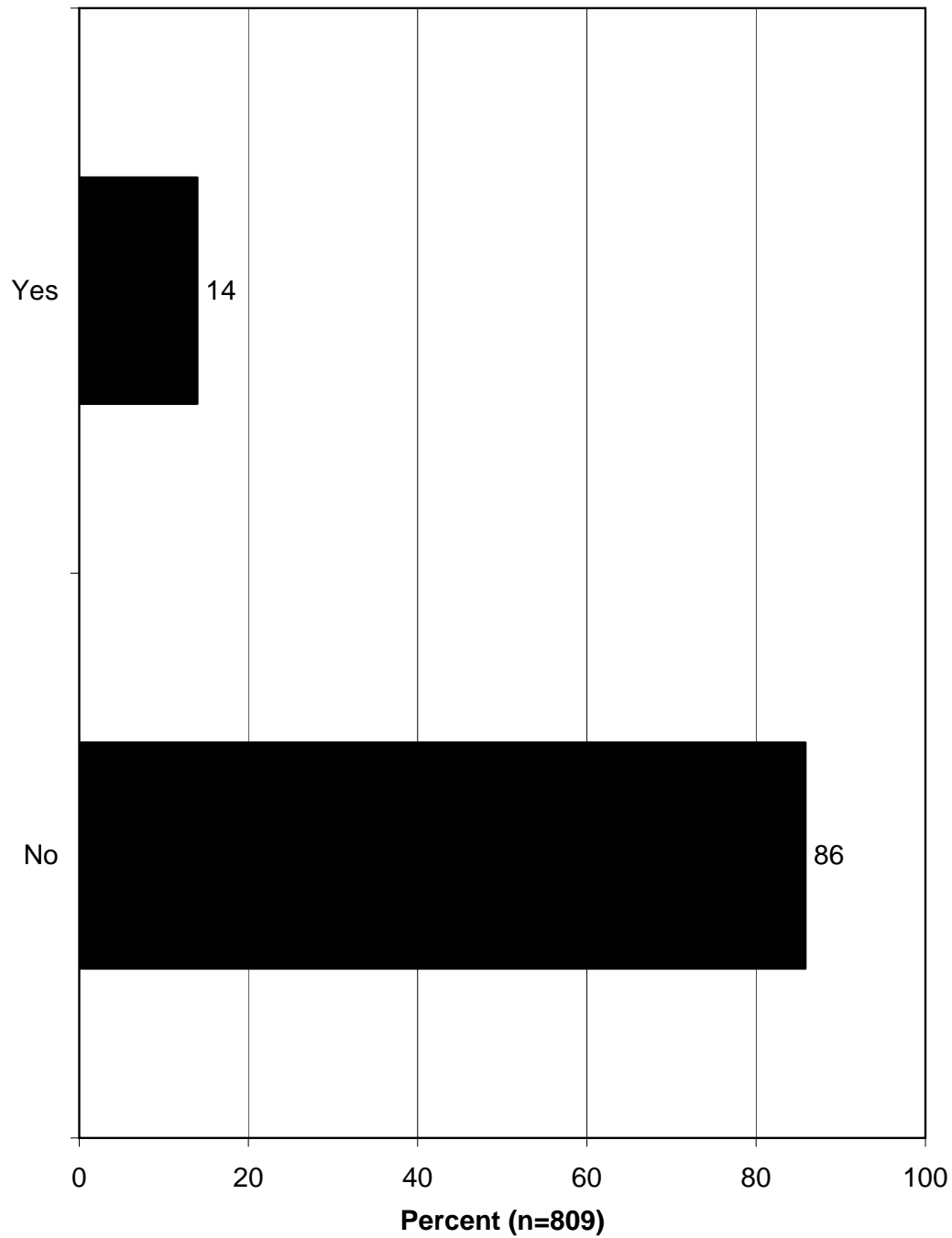
Q28-Q33. Percent of respondents who indicated being very or somewhat concerned about each of the following potential problems related to having elk in western Maryland.



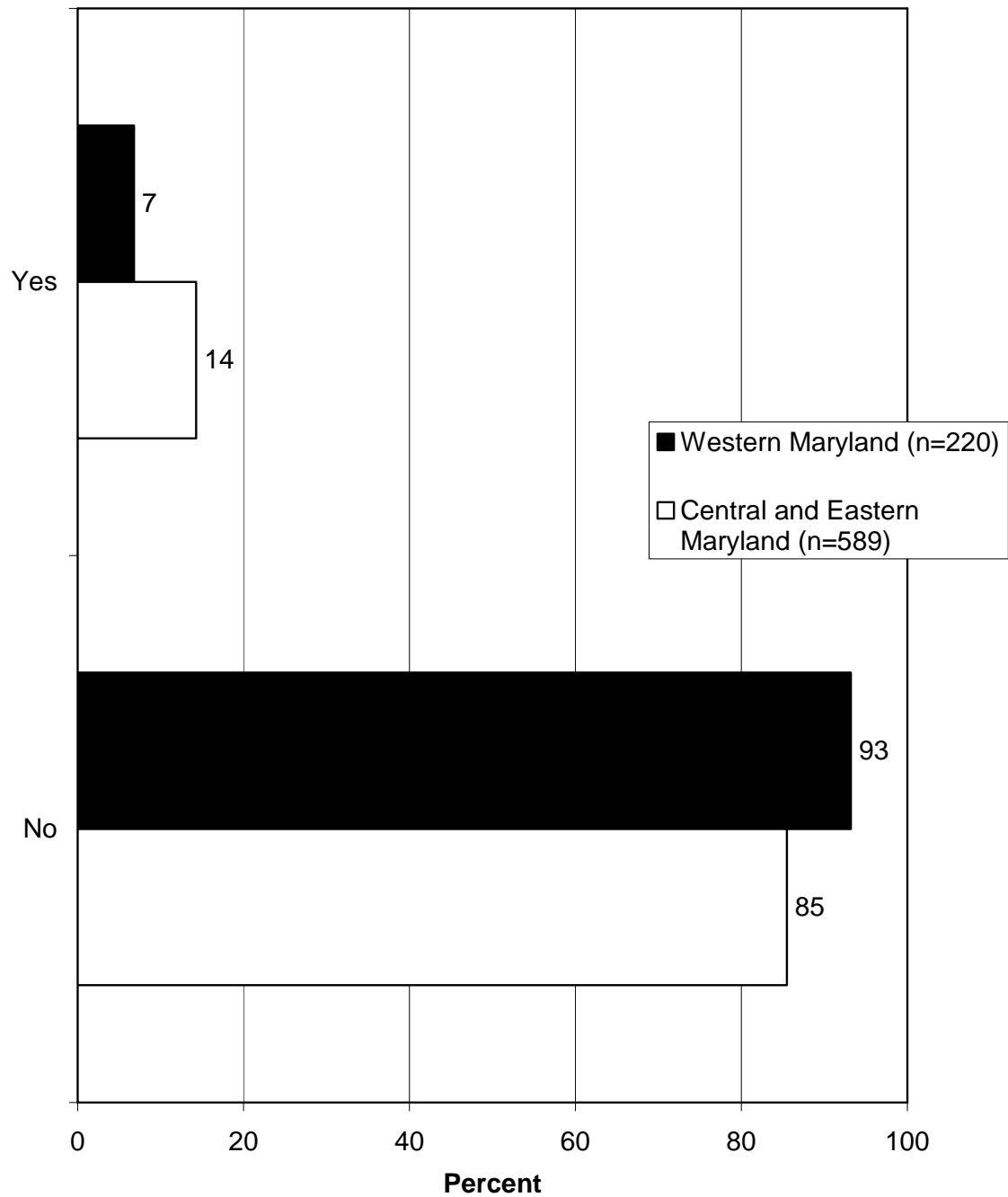
Q28-Q33. Percent of respondents who indicated being not concerned at all about each of the following potential problems related to having elk in western Maryland.



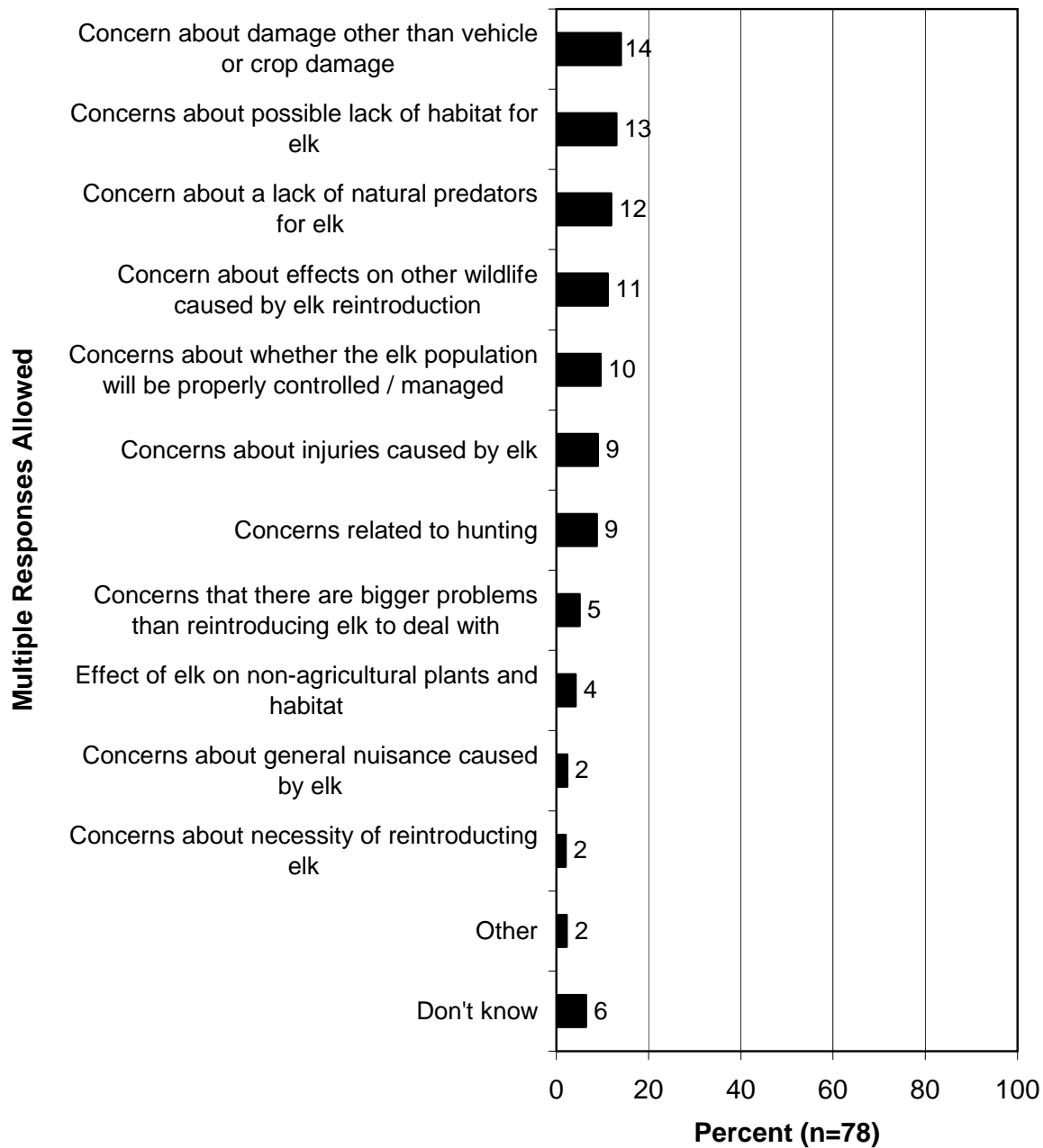
Q34. Are there any other concerns about reintroducing elk to western Maryland you might have that I have not mentioned?



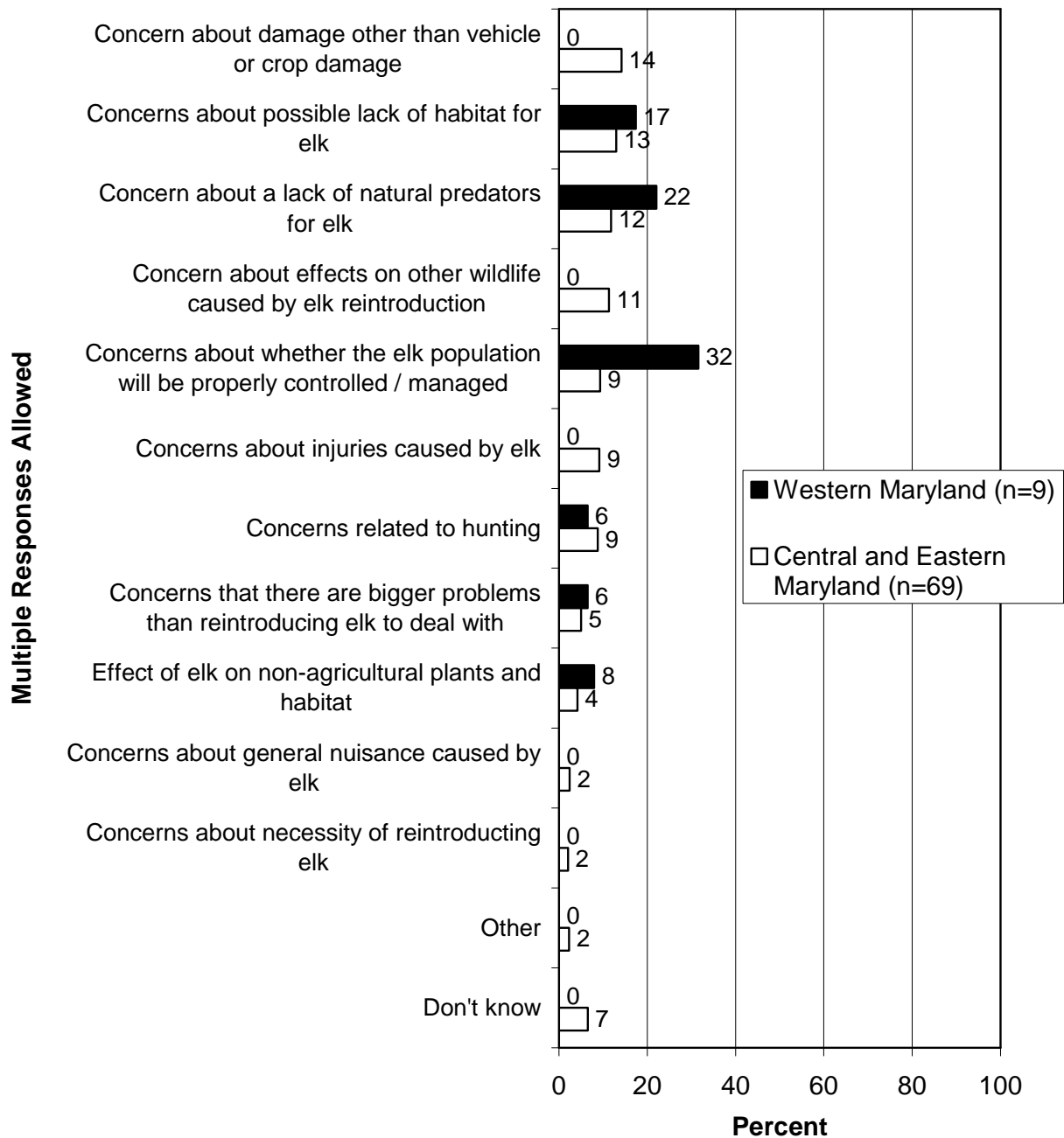
Q34. Are there any other concerns about reintroducing elk to western Maryland you might have that I have not mentioned?



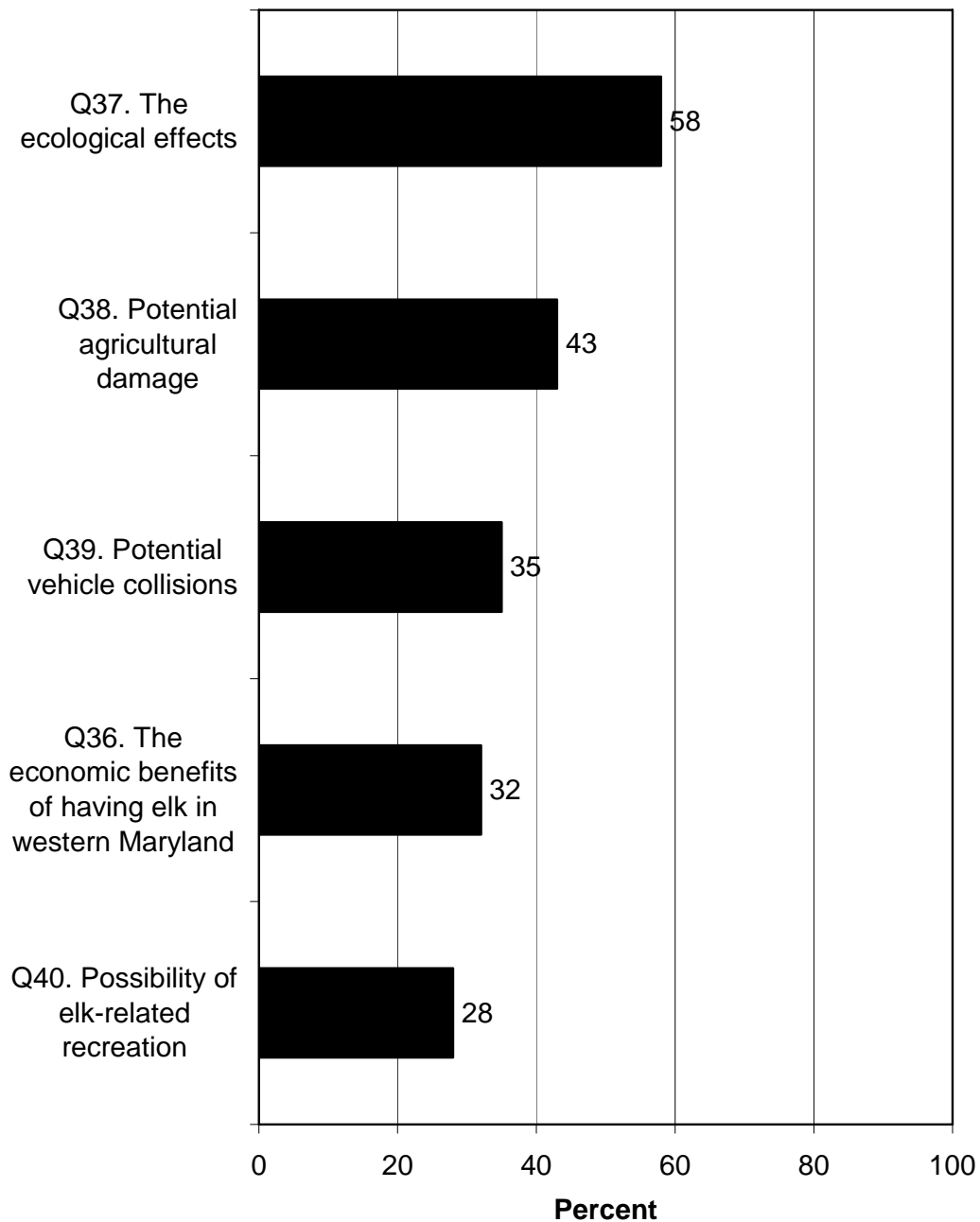
Q35. What are your other concerns about reintroducing elk to Western Maryland? (Asked of those who indicated that they had other concerns about potential problems related to elk.)



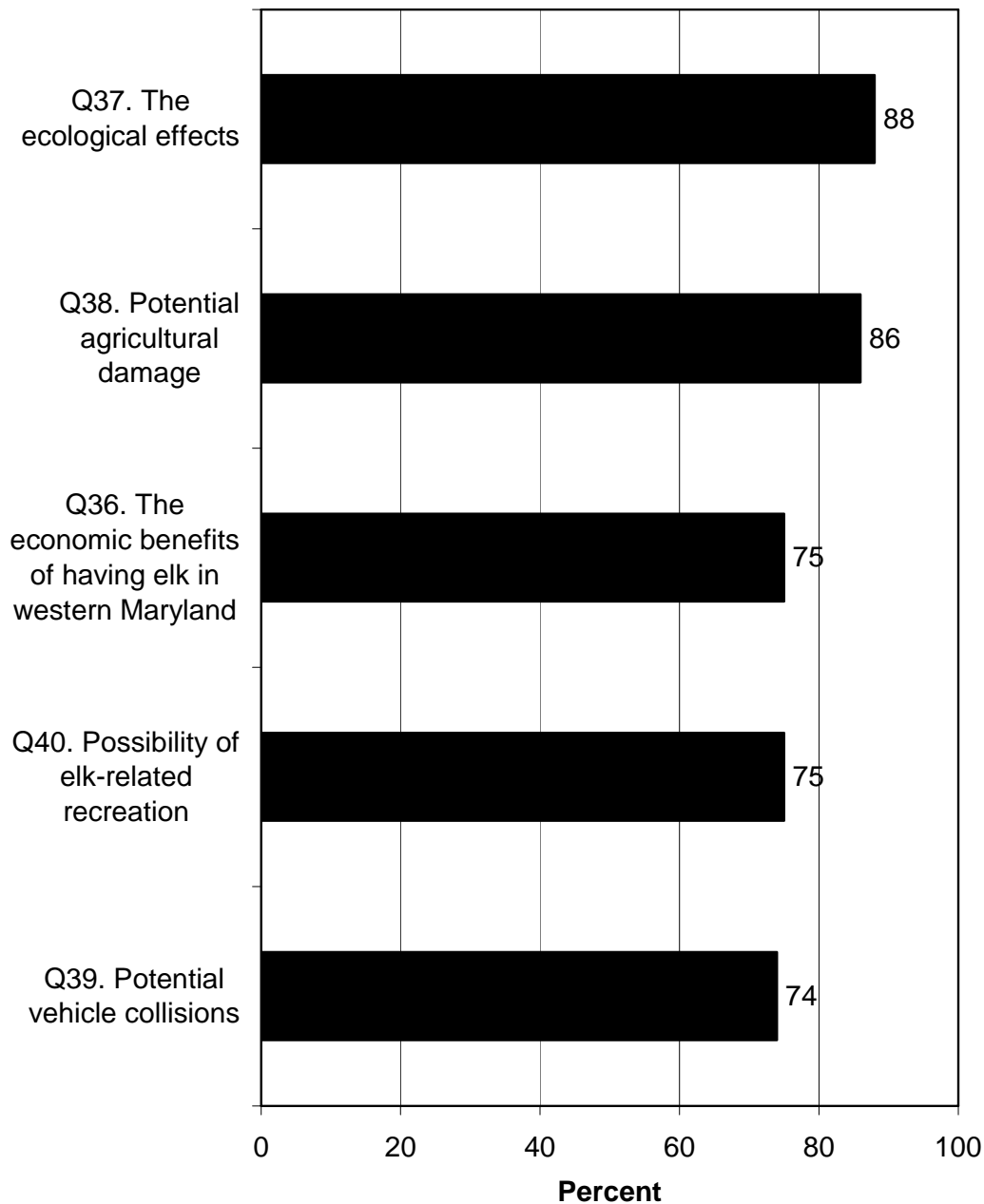
Q35. What are your other concerns about reintroducing elk to Western Maryland? (Asked of those who indicated that they had other concerns about potential problems related to elk.)



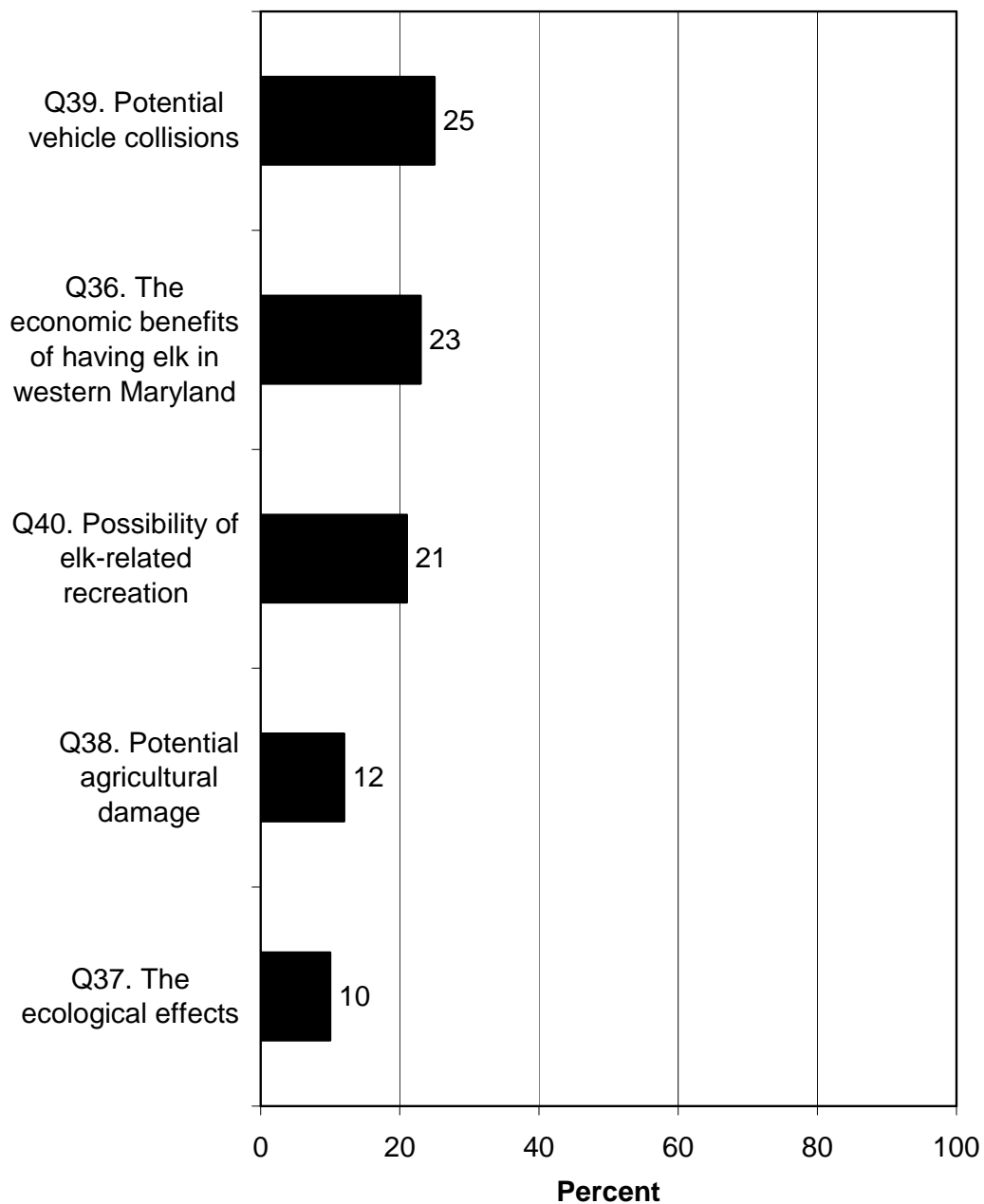
Q36-Q40. Percent of respondents who indicated that each of the following should be very important in decisions about whether to reintroduce elk into western Maryland.



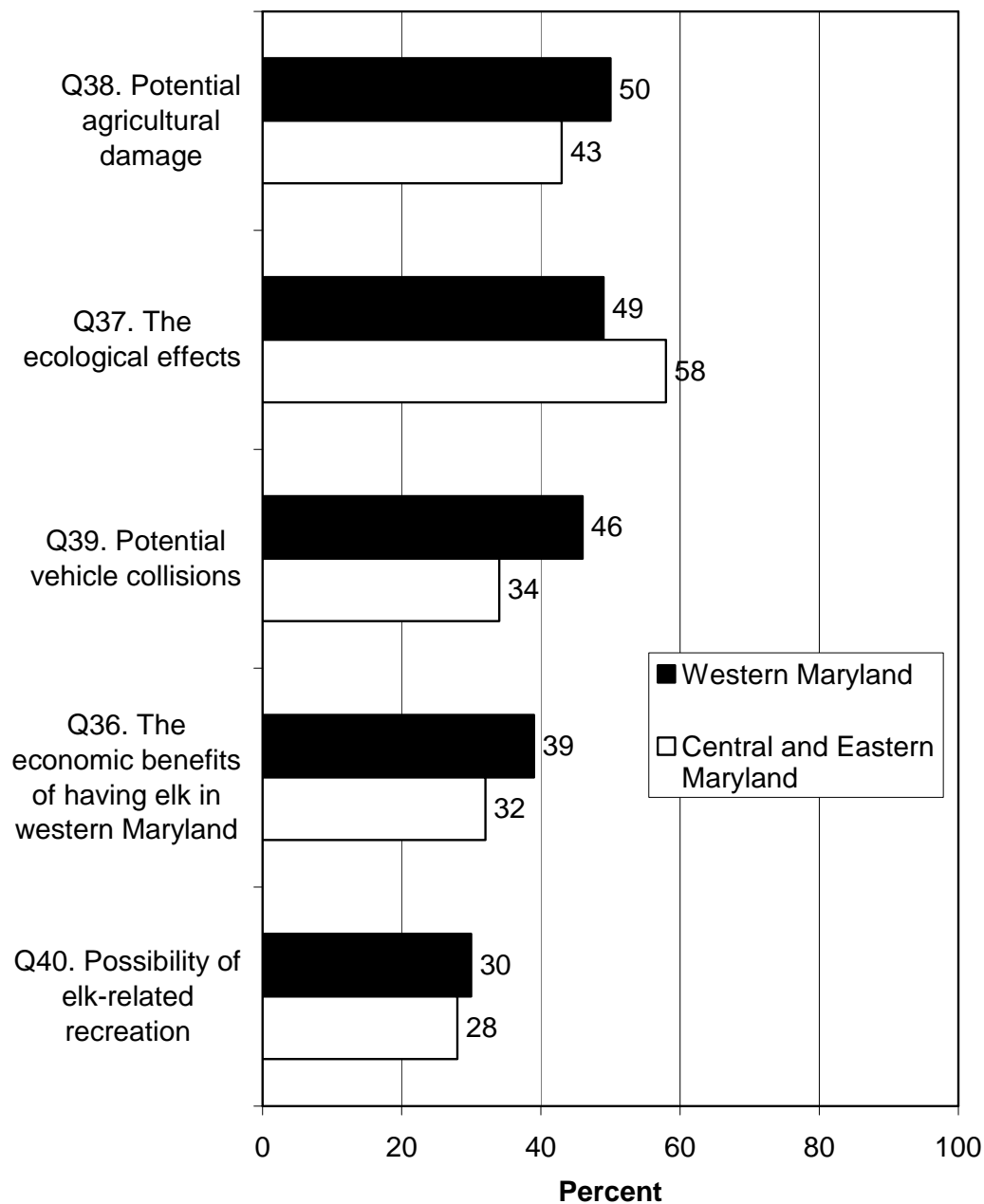
Q36-Q40. Percent of respondents who indicated that each of the following should be very or somewhat important in decisions about whether to reintroduce elk into western Maryland.



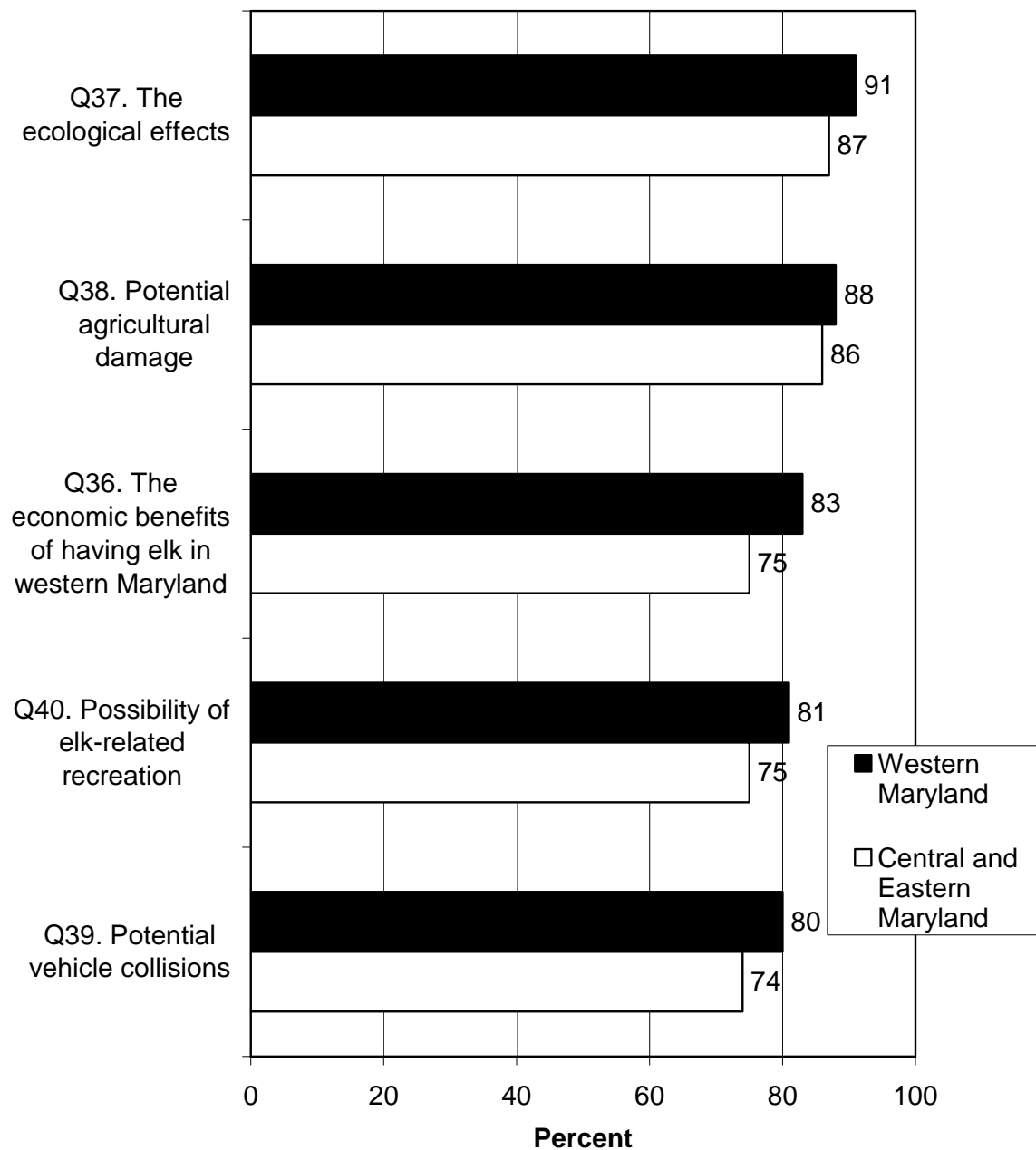
Q36-Q40. Percent of respondents who indicated that each of the following should be not at all important in decisions about whether to reintroduce elk into western Maryland.



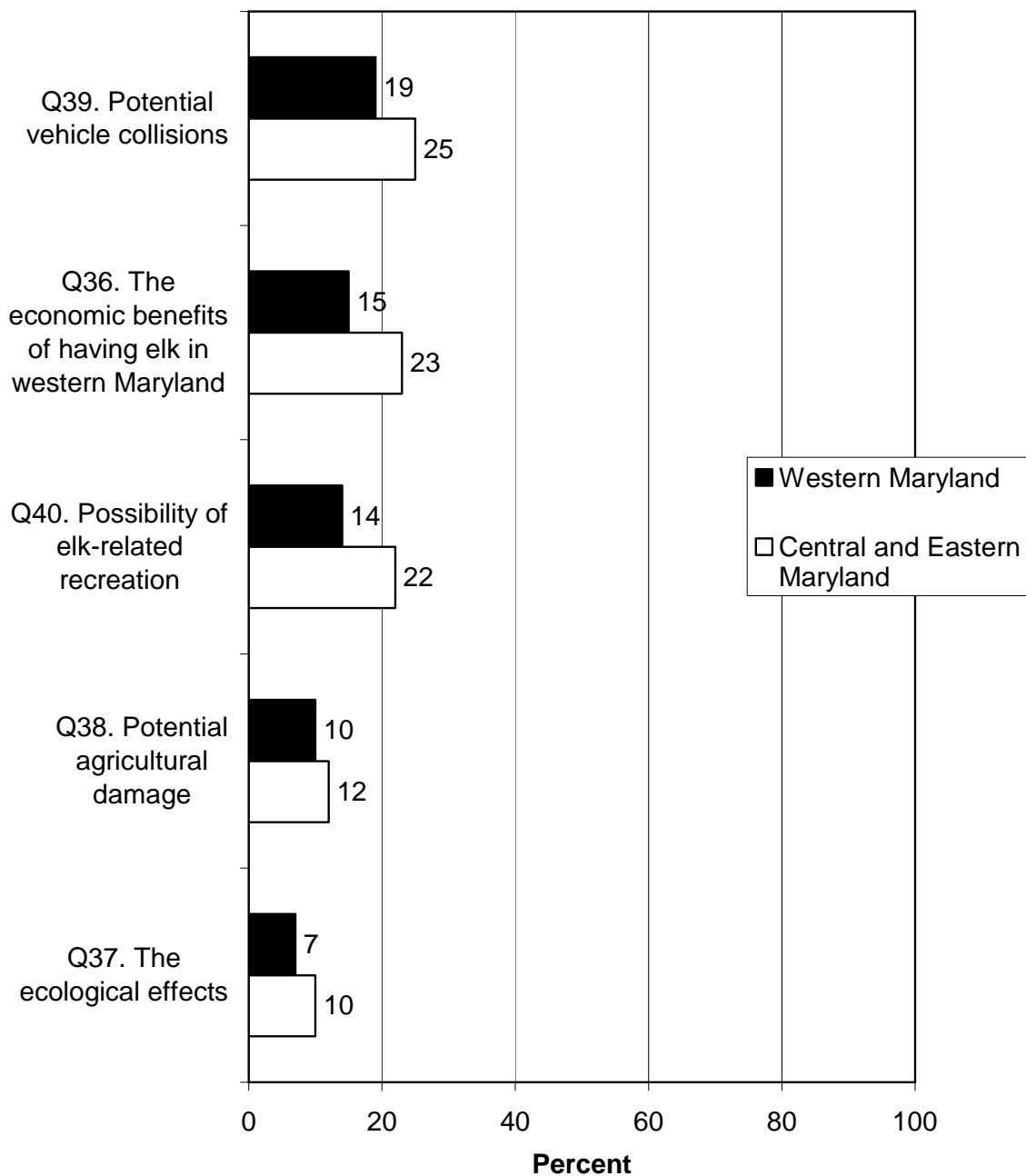
Q36-Q40. Percent of respondents who indicated that each of the following should be very important in decisions about whether to reintroduce elk into western Maryland.



Q36-Q40. Percent of respondents who indicated that each of the following should be very or somewhat important in decisions about whether to reintroduce elk into western Maryland.



Q36-Q40. Percent of respondents who indicated that each of the following should be not at all important in decisions about whether to reintroduce elk into western Maryland.



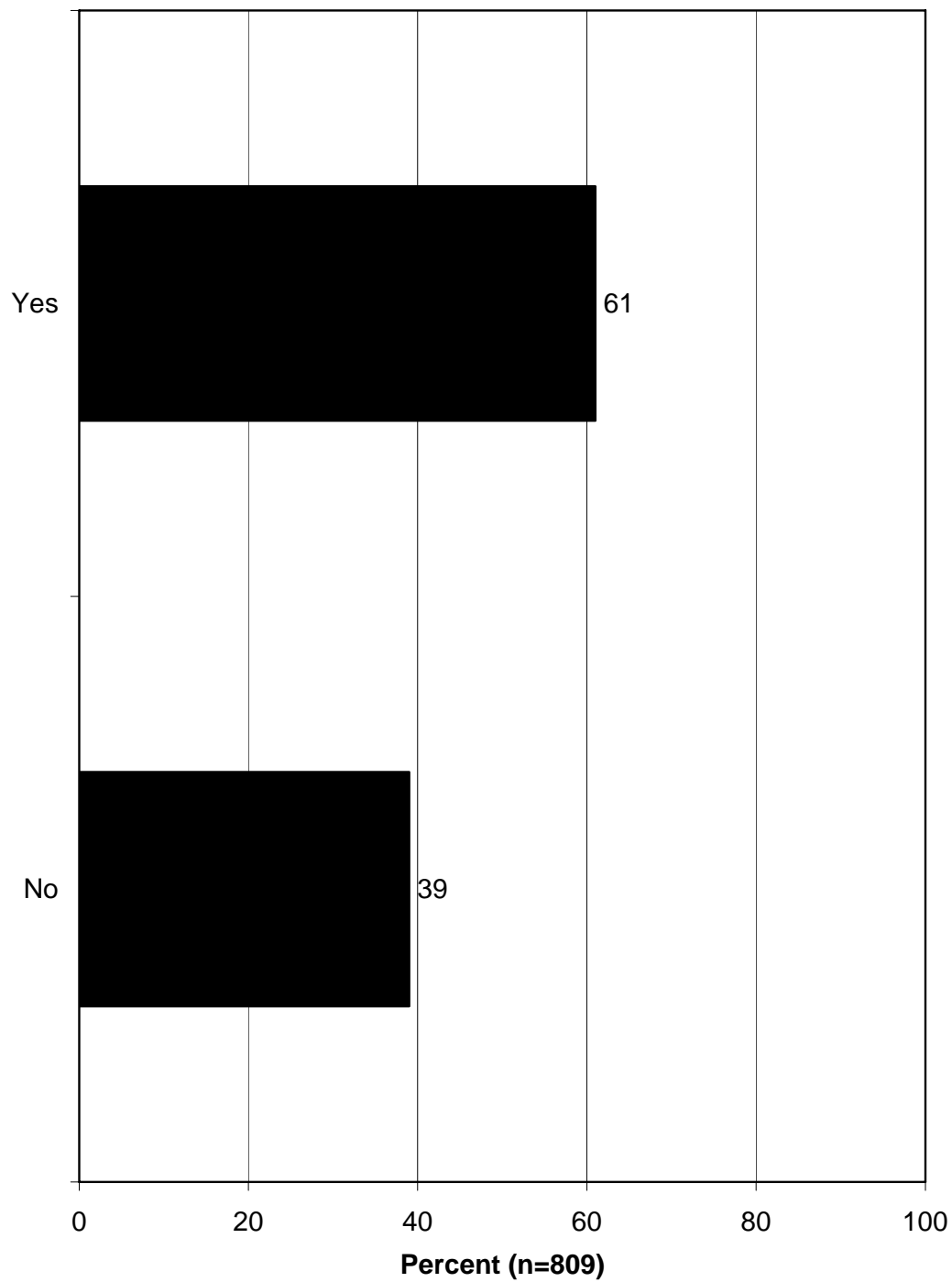
LAND OWNERSHIP, PROBLEMS WITH WILDLIFE, AND ELK-RELATED CONCERNS AND BENEFITS

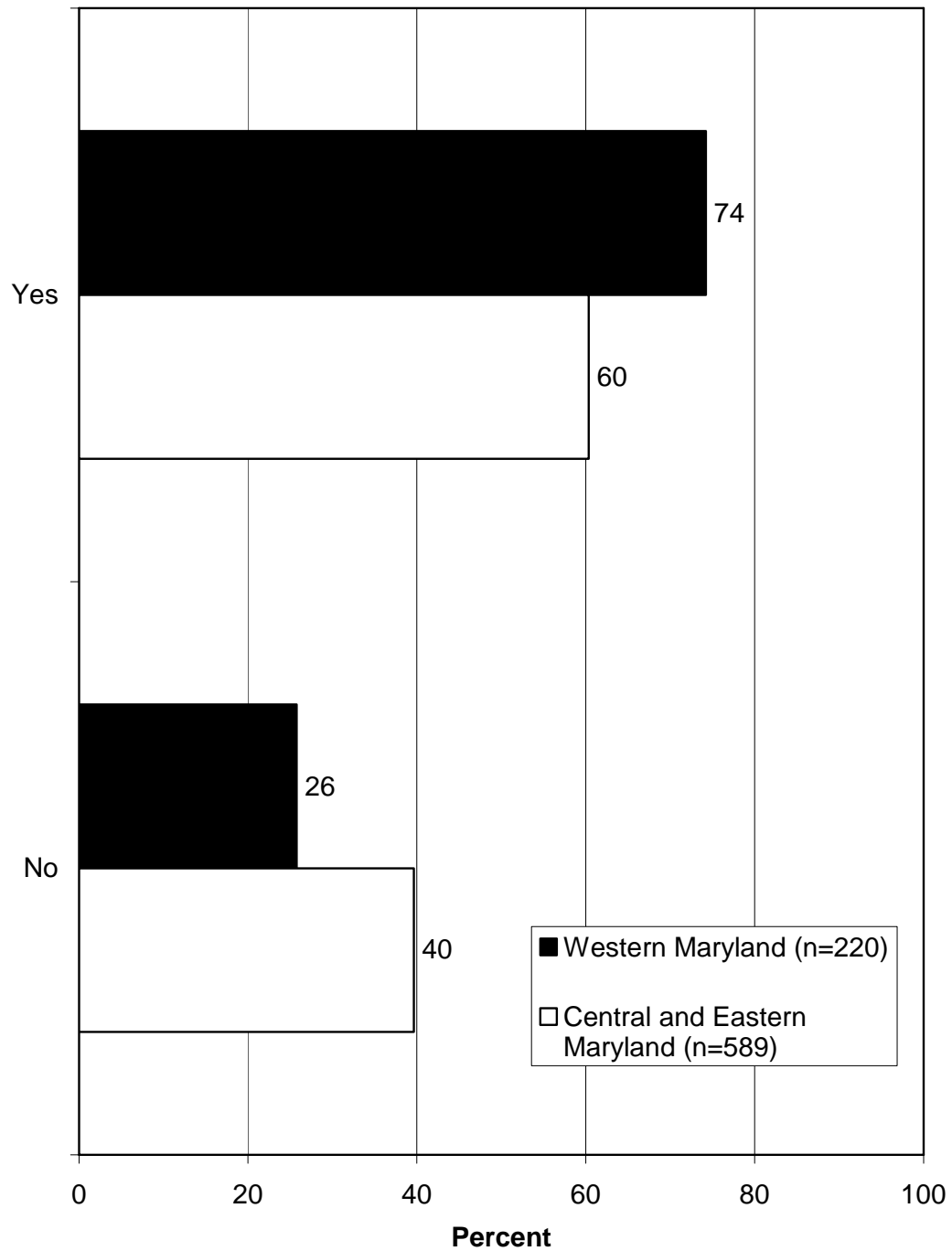
- A majority of the sample (61%) owned land in Maryland, with land ownership being more common among Western Maryland residents than Central and Eastern Maryland residents.
 - Most landowners surveyed (62%) owned no more than one acre of land; the median number of acres owned was 1, and the mean was 11.94.
 - In general, Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to own larger tracts of several acres or more.
 - The most common counties in which landowners owned tracts of land were Baltimore County (15%), Montgomery (15%), and Anne Arundel (10%). Overall, 7% of the landowners in the sample owned land in Garrett, Allegany, or Washington counties.
 - More than a quarter of landowners in the sample (29%) said they had experienced problems with wildlife on their property in the past five years.
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to report problems with wildlife on their property in the past five years.
 - Deer were by far the most commonly named species associated with problems from wildlife (68% of landowners who experienced problems cited deer); meanwhile, smaller percentages indicated problems with fox (10%), raccoon (9%), and squirrel (9%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were *less* likely to report problems with deer, and *more* likely to report problems with bear.
 - Among landowners who reported problems with wildlife, damage to landscaping and non-agricultural plants was the most commonly named type of damage (57%), followed by damage to personal property in general (15%).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were *less* likely to name damage to landscaping and non-agricultural plants, and *more* likely to name damage to crops and damage to domestic or farm animals.

- A series of questions was asked only of those who owned land in Garrett, Allegany, or Washington counties (i.e., the state's potential elk restoration areas):
 - The majority of those who owned land in Garrett, Allegany, or Washington counties (58%) said that the presence of elk would have no effect on the monetary value of their property in those areas; at the same time, about a third (32%) said the presence of elk would increase the value of their property (27% said the presence of elk would increase their property's value *a little*, compared to just 5% who said their property's value would increase *a lot*).
 - A follow-up question asked Garrett, Allegany, and Washington landowners whether they thought the presence of elk would increase or decrease their land's value in ways other than monetarily: again, the large majority (64%) answered that the presence of elk would have no effect. Otherwise, about a quarter (24%) said the presence of elk would increase the value of their property in ways other than monetarily (here, 10% said the presence of elk would increase their property's non-monetary value *a little*, compared to 14% who said their property's non-monetary value would increase *a lot*).
 - Most Garrett, Allegany, and Washington landowners (69%) said they were *not concerned at all* about elk being a nuisance or causing problems on their property in western Maryland; otherwise, 27% said they were concerned, with 11% being *very* concerned. Among those who indicated being concerned, the most commonly named concern was general property damage (62%), distantly followed by damage to crops (18%).
 - About a third of Garrett, Allegany, and Washington landowners (34%) believed that, as property owners, there would be benefits to having elk in western Maryland; the most commonly named benefits included the ability to hunt and/or eat elk (69%), the potential to view elk (23%), and a general positive influence on property values (9%).
- Non-landowners in the sample were asked if they had experienced any damage caused by wildlife to their personal property or the property where they lived in the past five years, and just 17% indicated that they had experienced such damage:
 - As before, deer were the most commonly named species associated with problems (64%), followed by raccoon (15%) and groundhog (14%).

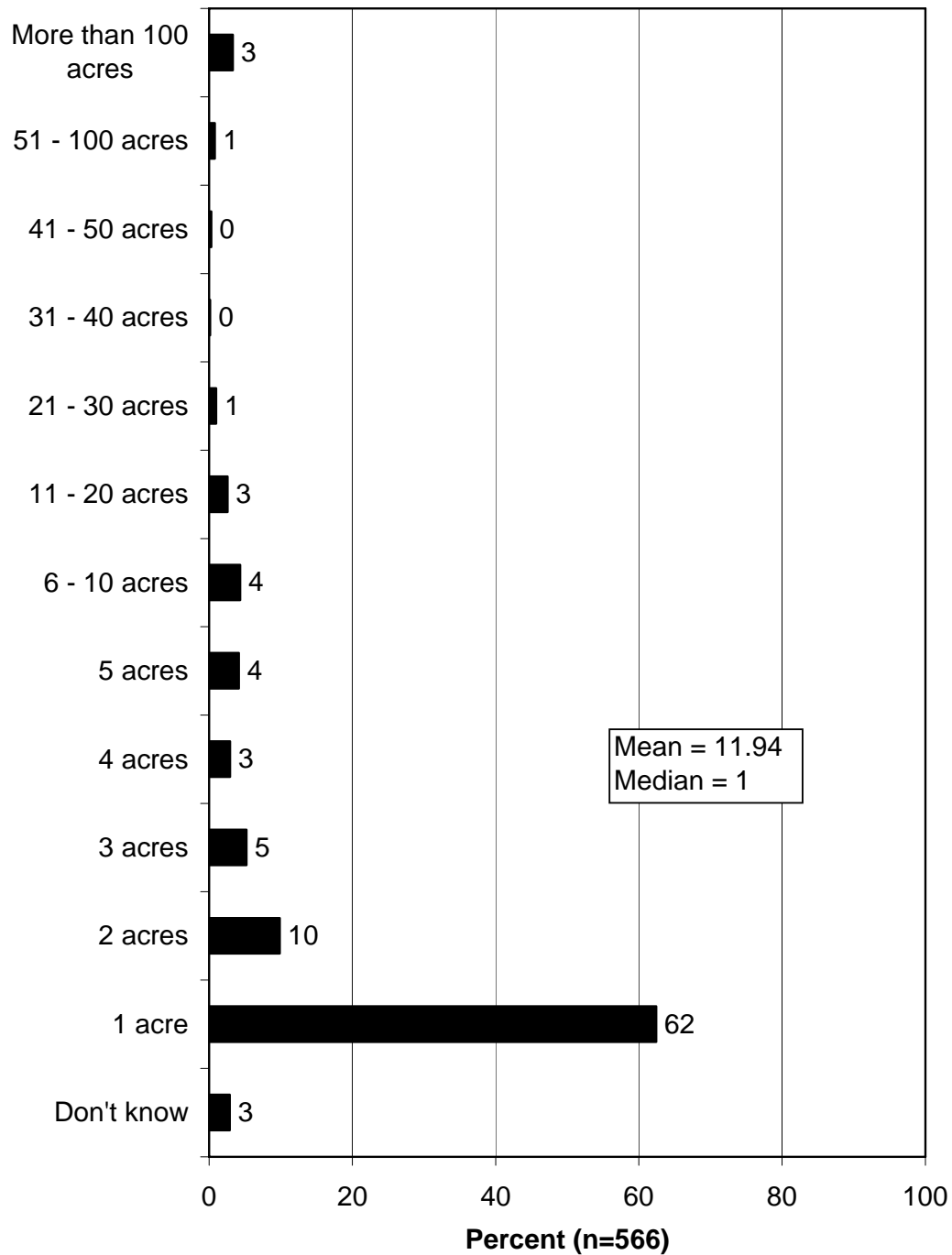
- Damage to plants (64%) was by far the most common type of damage, followed by general nuisance issues (23%), damage to other property (12%), and general threats of injury from wildlife (12%).
 - Non-landowners who had experienced damage from wildlife were asked about the county in which the damage occurred, the most commonly named of which included Baltimore County (38%), Montgomery (16%), Anne Arundel (14%), and Prince George's (13%).
- A final question asked of the entire sample measured whether respondents thought the presence of elk would make land more desirable or less desirable in terms of deciding whether to purchase the land: while 41% said that the presence of elk would have no effect (i.e., would make the land neither more nor less desirable), a further 40% indicated that the presence of elk would make the land more desirable (17% said it would make the land *much more* desirable).

Q46. Do you own land in Maryland?

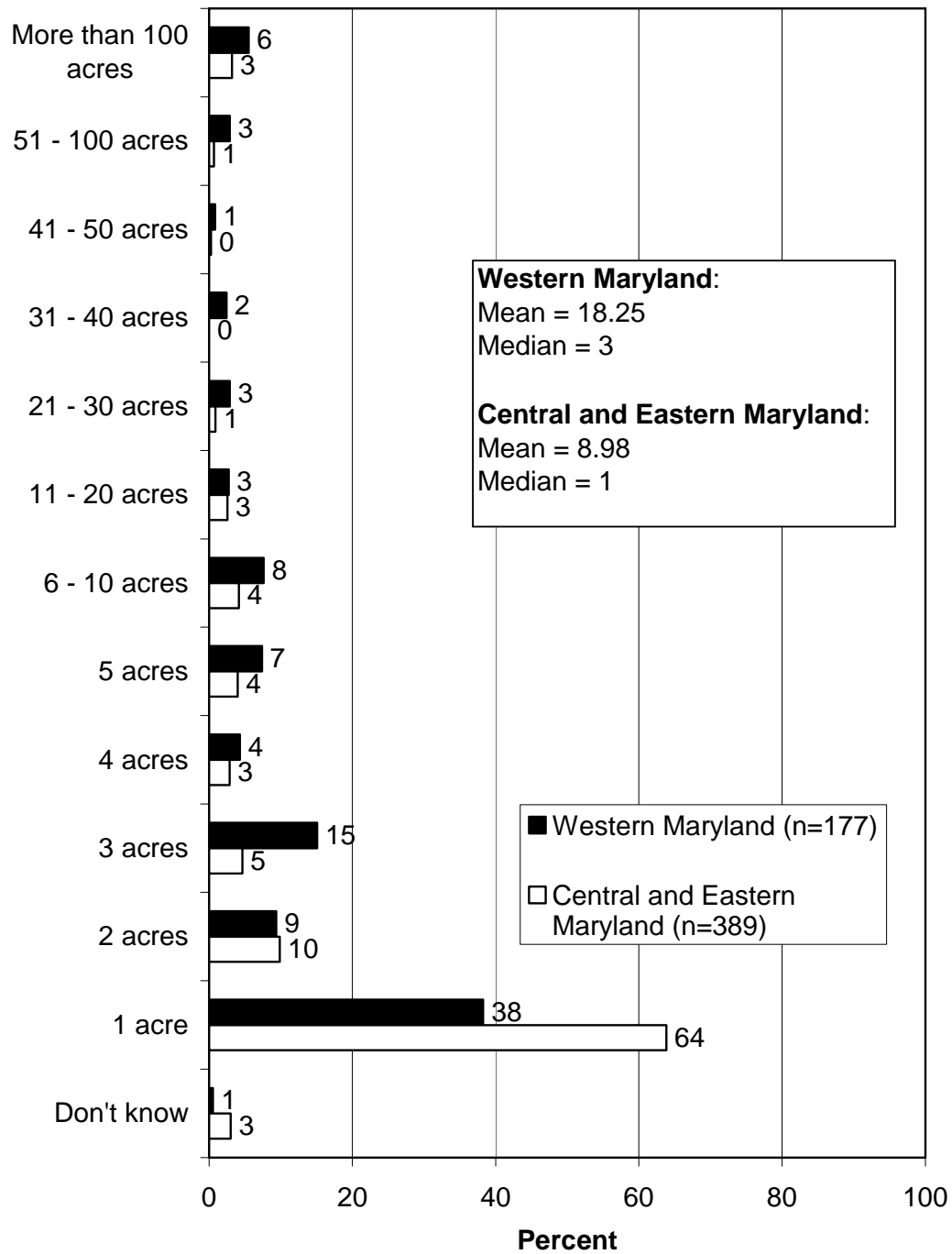


Q46. Do you own land in Maryland?

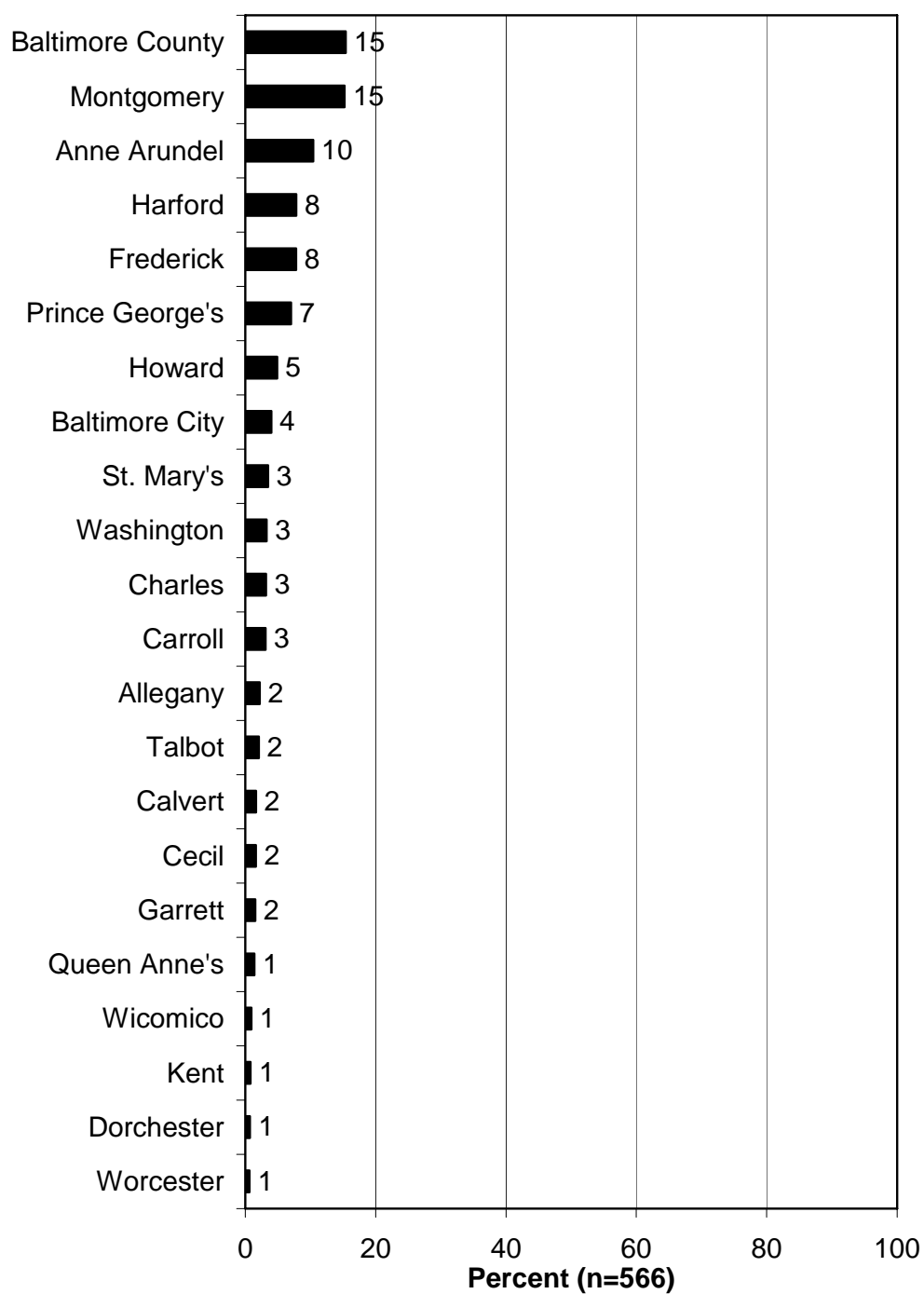
Q47. How many acres do you own that are in one tract? (Asked of those who own land in Maryland.)



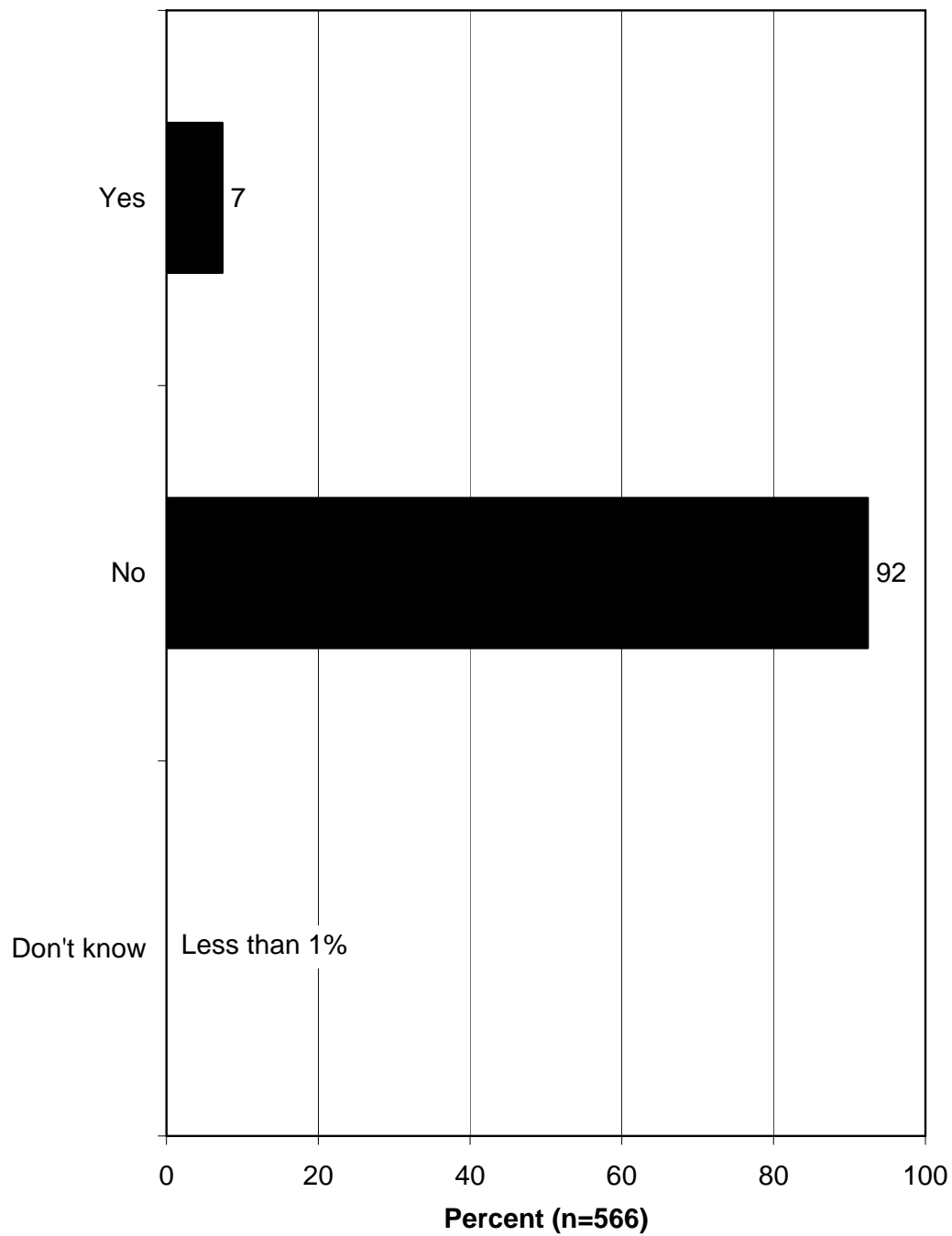
Q47. How many acres do you own that are in one tract? (Asked of those who own land in Maryland.)



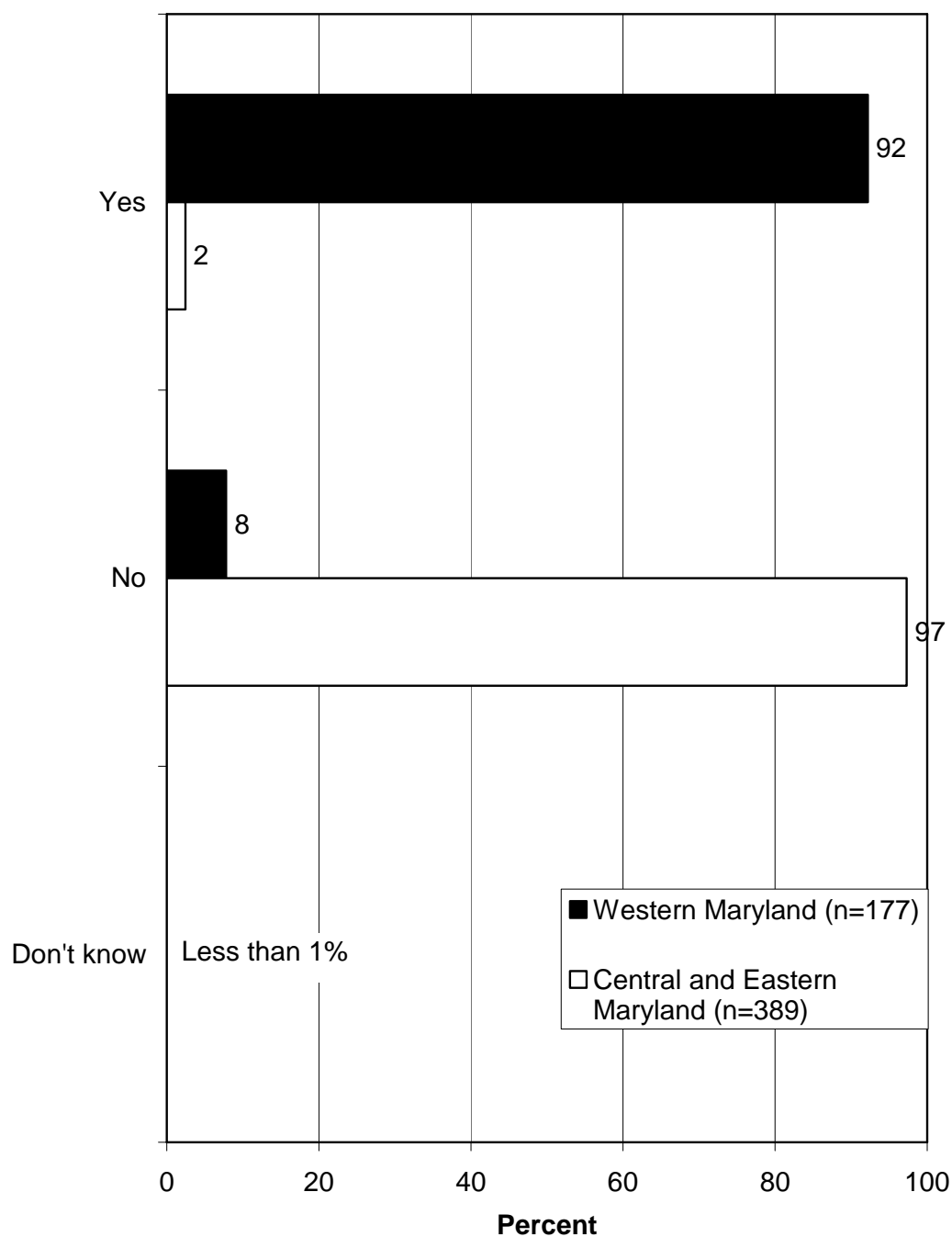
**Q51. In what county is that tract of land located?
(Asked of those who own land in Maryland.)**



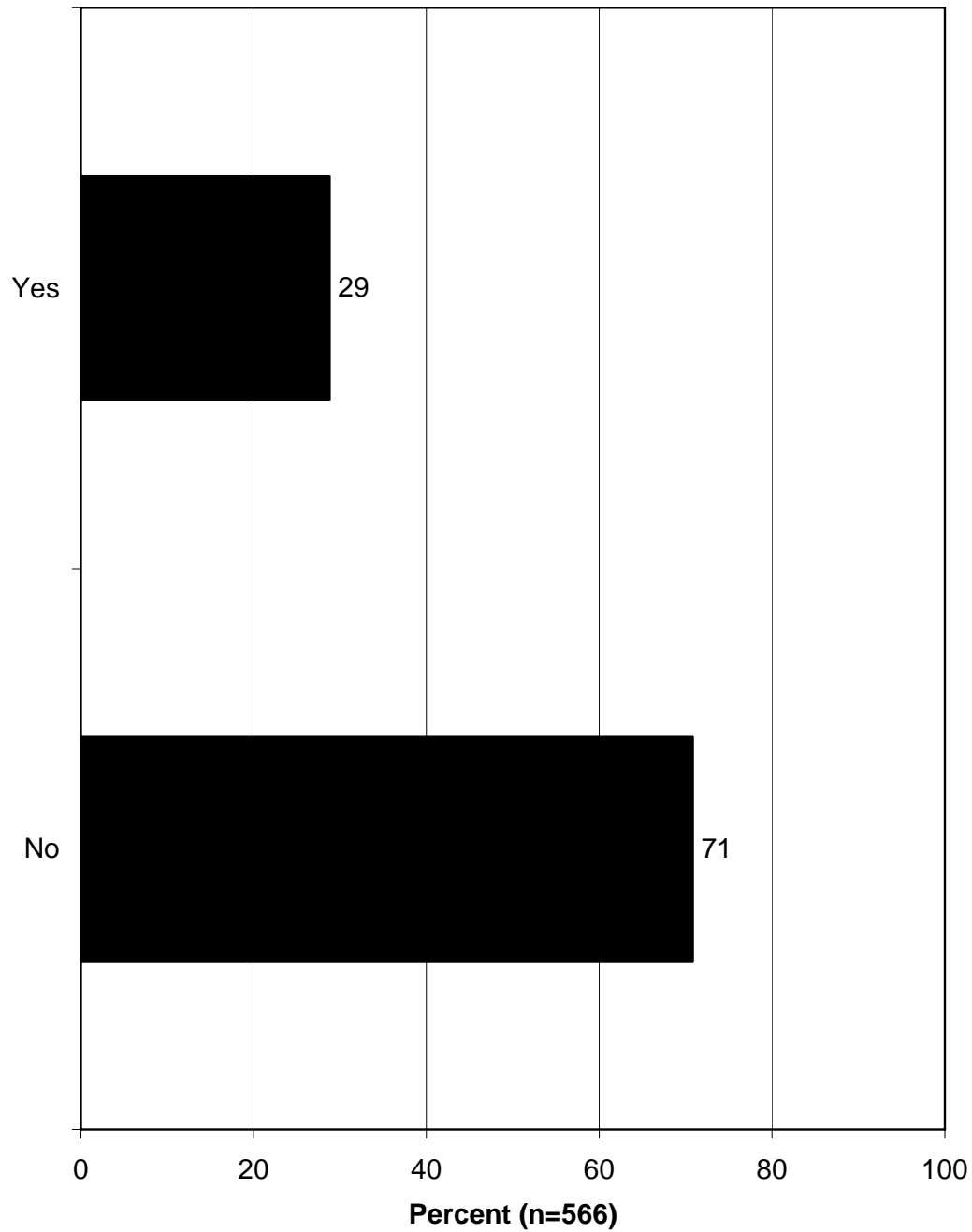
Q55. Do you own any property in Garrett, Allegany, or Washington counties? (Asked of those who own land in Maryland.)



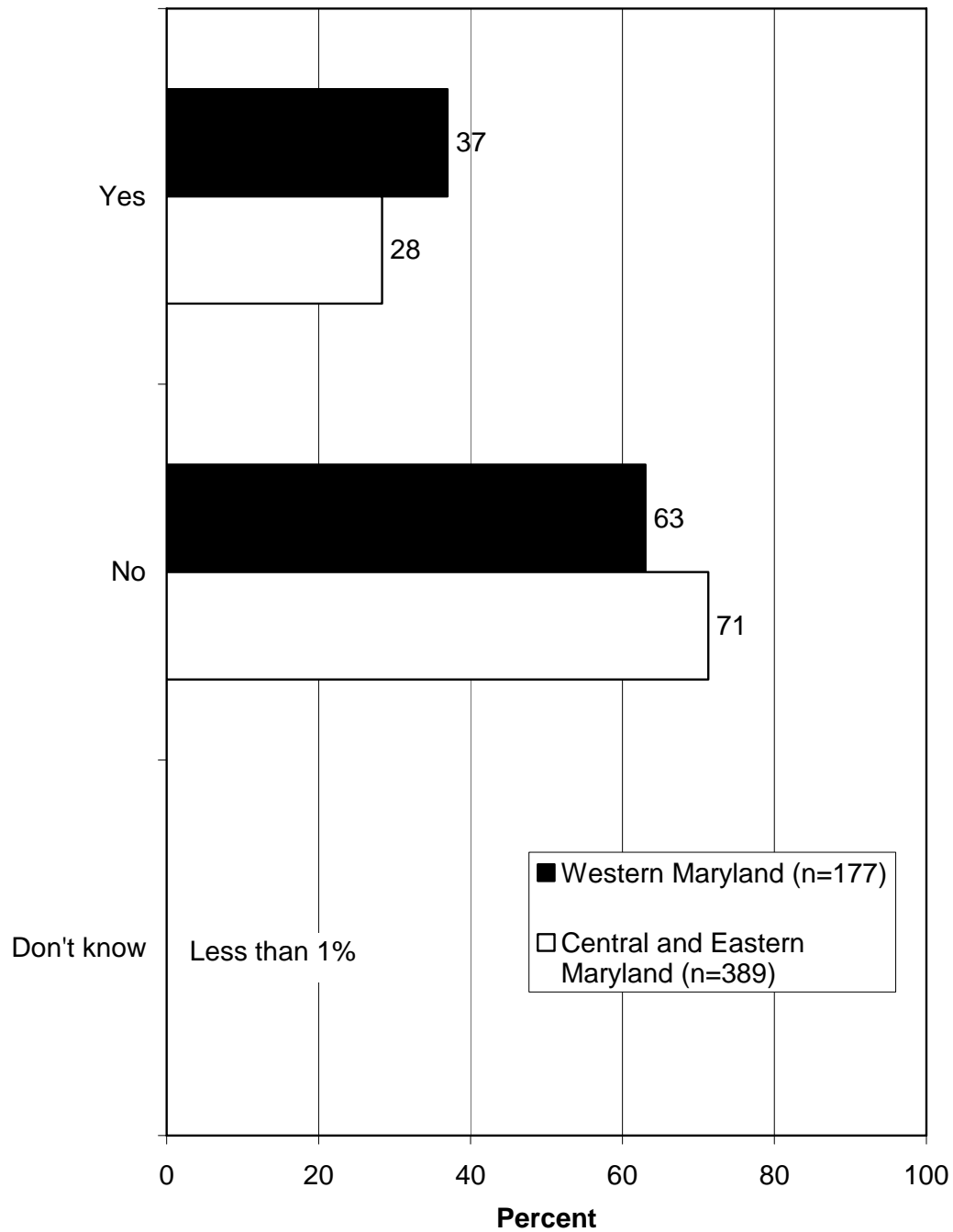
Q55. Do you own any property in Garrett, Allegany, or Washington counties? (Asked of those who own land in Maryland.)



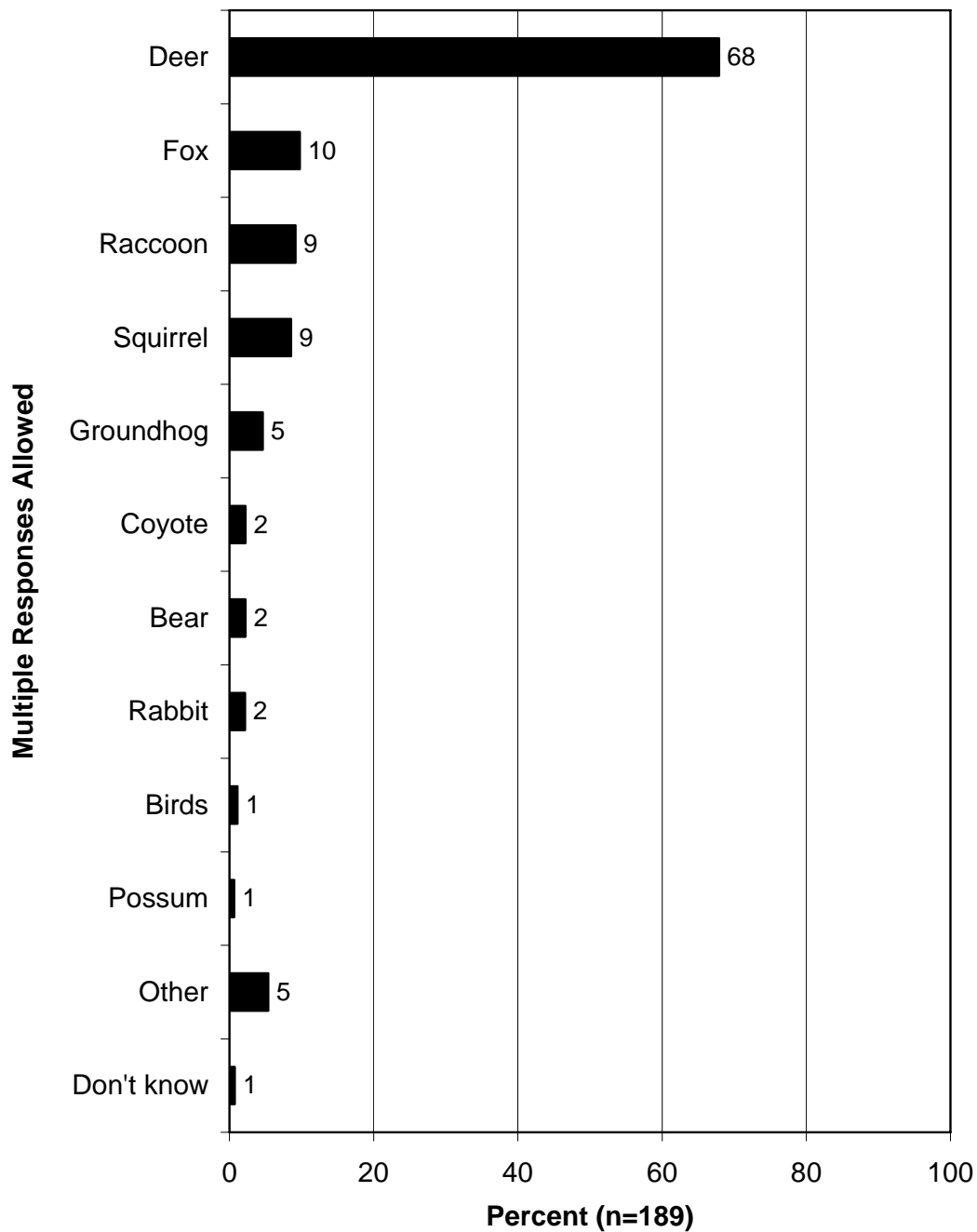
**Q56. Have you experienced any problems with any wildlife in the past 5 years on your property?
(Asked of those who own land in Maryland.)**



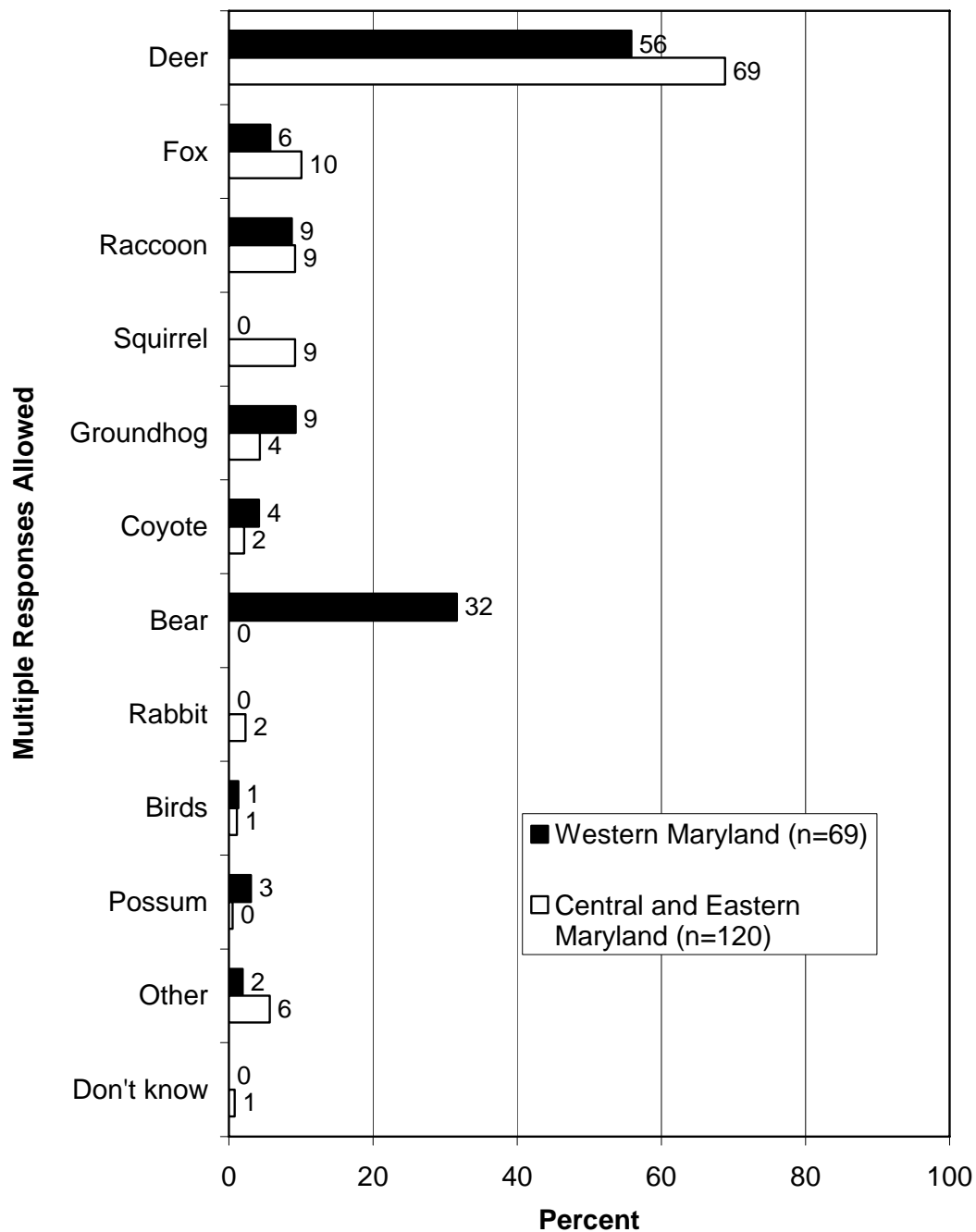
**Q56. Have you experienced any problems with any wildlife in the past 5 years on your property?
(Asked of those who own land in Maryland.)**



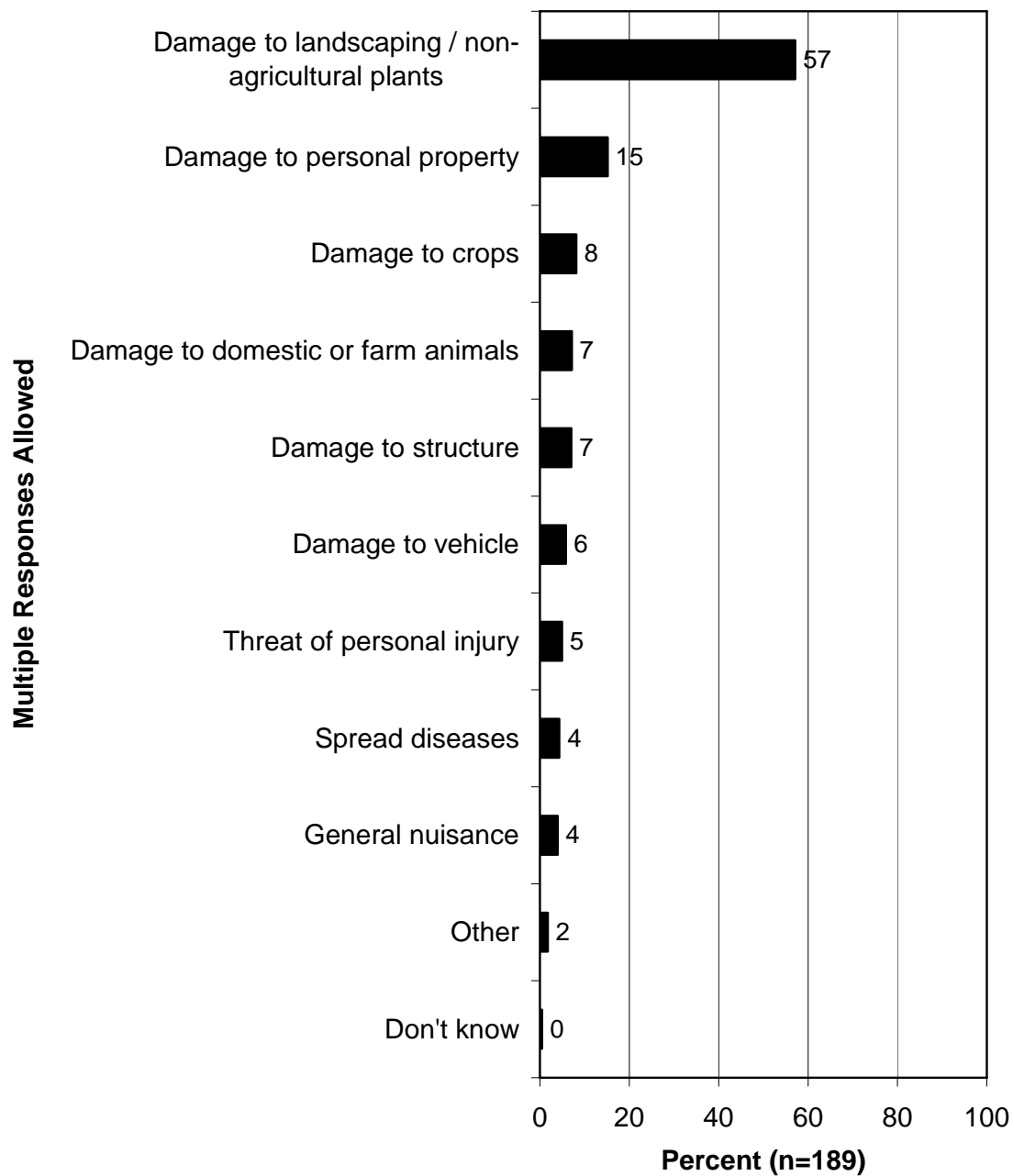
**Q57. What wild species caused the problem?
(Asked of those who have experienced problems
with wildlife on their property in Maryland in the
past 5 years.)**



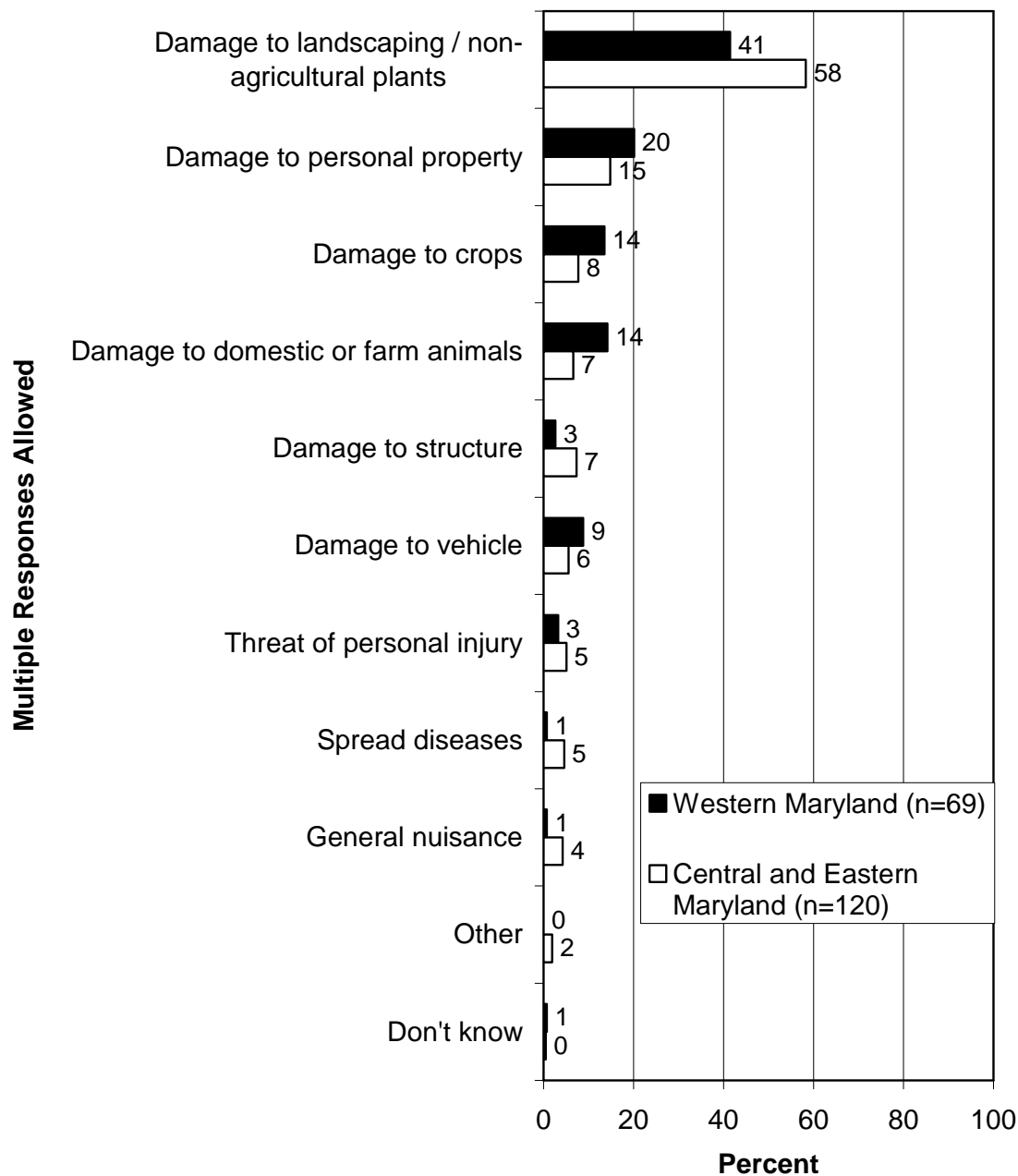
**Q57. What wild species caused the problem?
(Asked of those who have experienced problems
with wildlife on their property in Maryland in the
past 5 years.)**



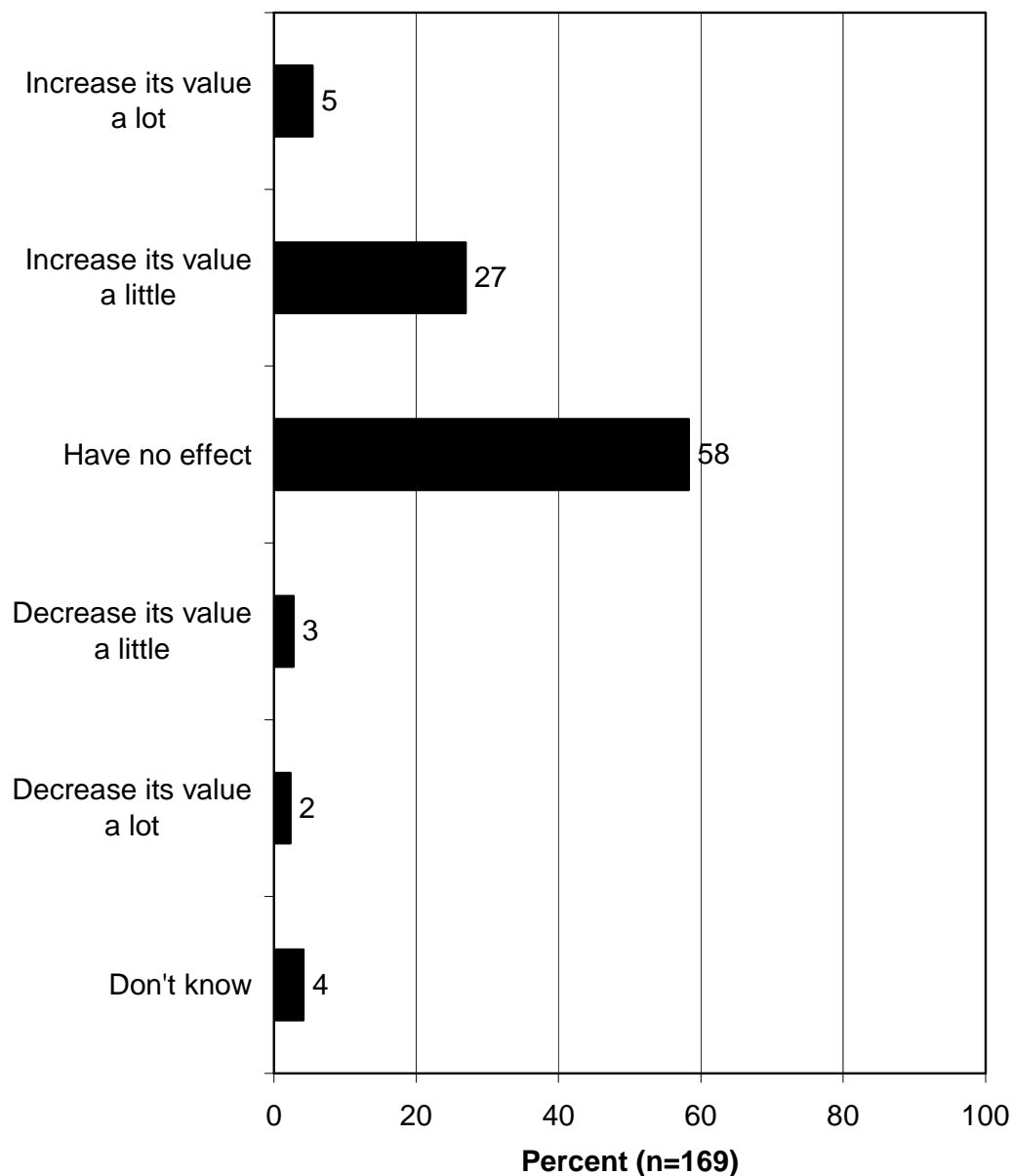
**Q58. What were the problems the wildlife caused?
(Asked of those who have experienced problems
with wildlife on their property in Maryland in the
past 5 years.)**



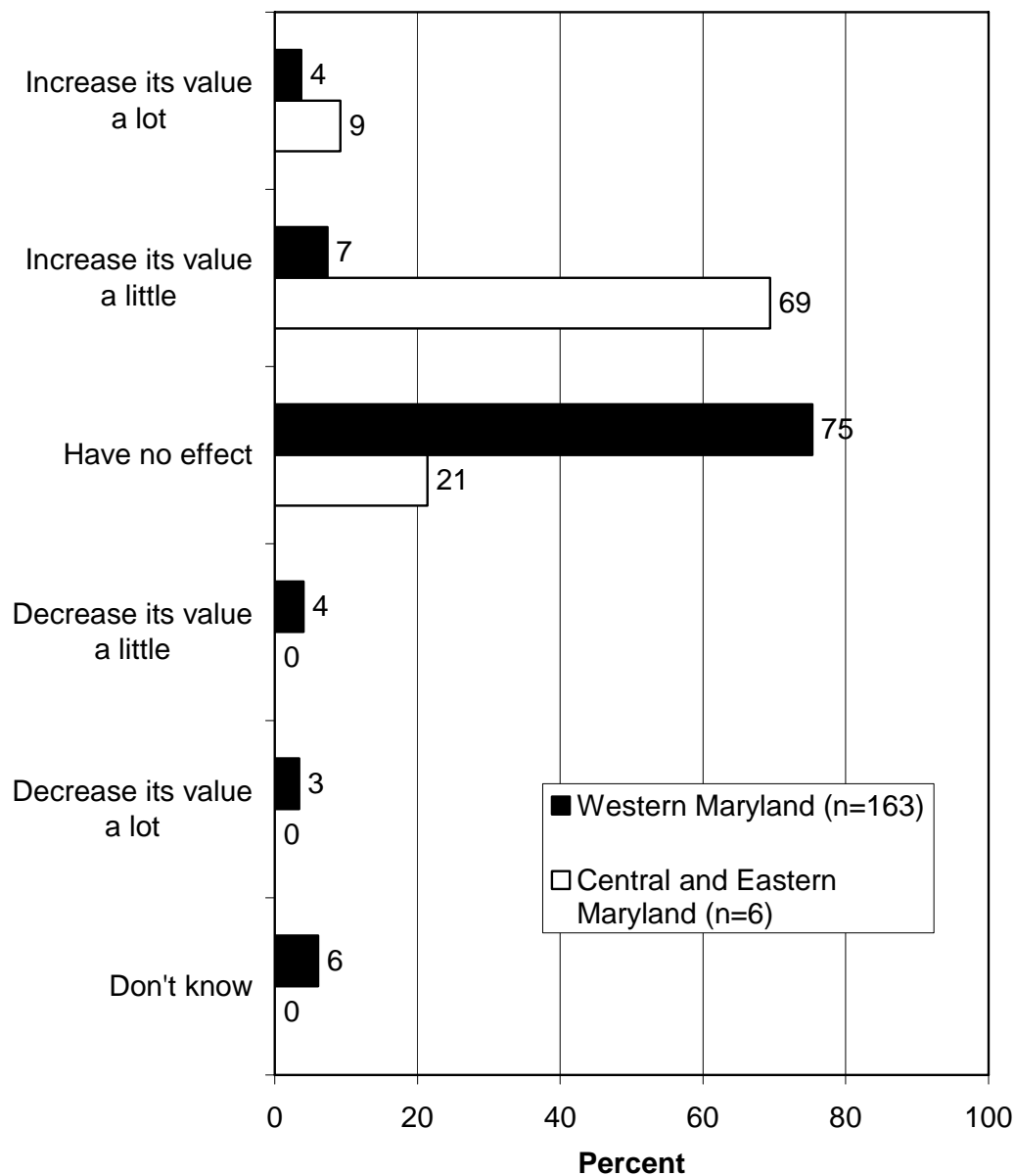
**Q58. What were the problems the wildlife caused?
(Asked of those who have experienced problems
with wildlife on their property in Maryland in the
past 5 years.)**



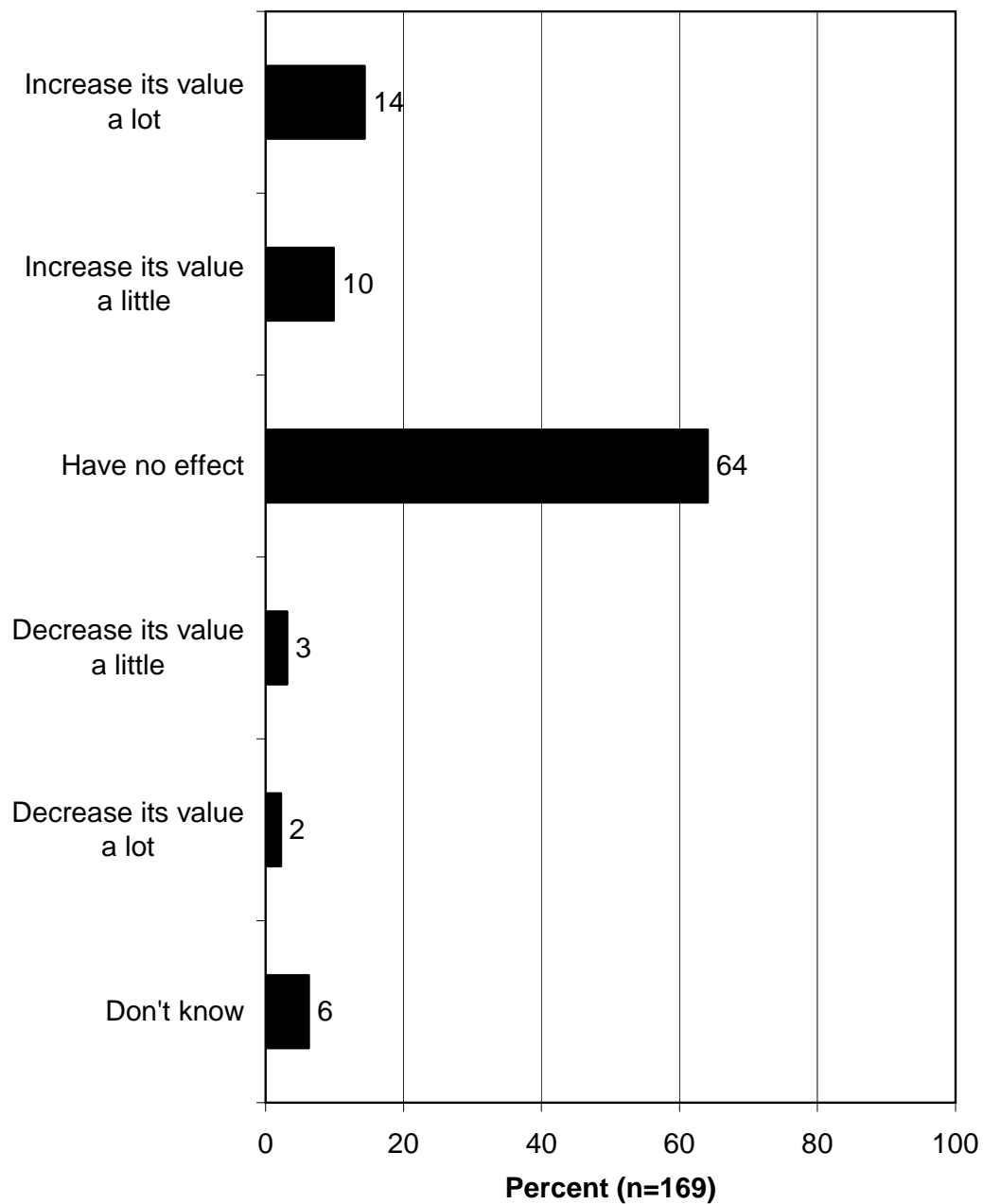
Q60. You indicated that you owned a tract in one of the state's potential elk restoration areas. In your opinion, would the presence of elk increase that tract's monetary value, decrease the value, or have no effect on its value? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



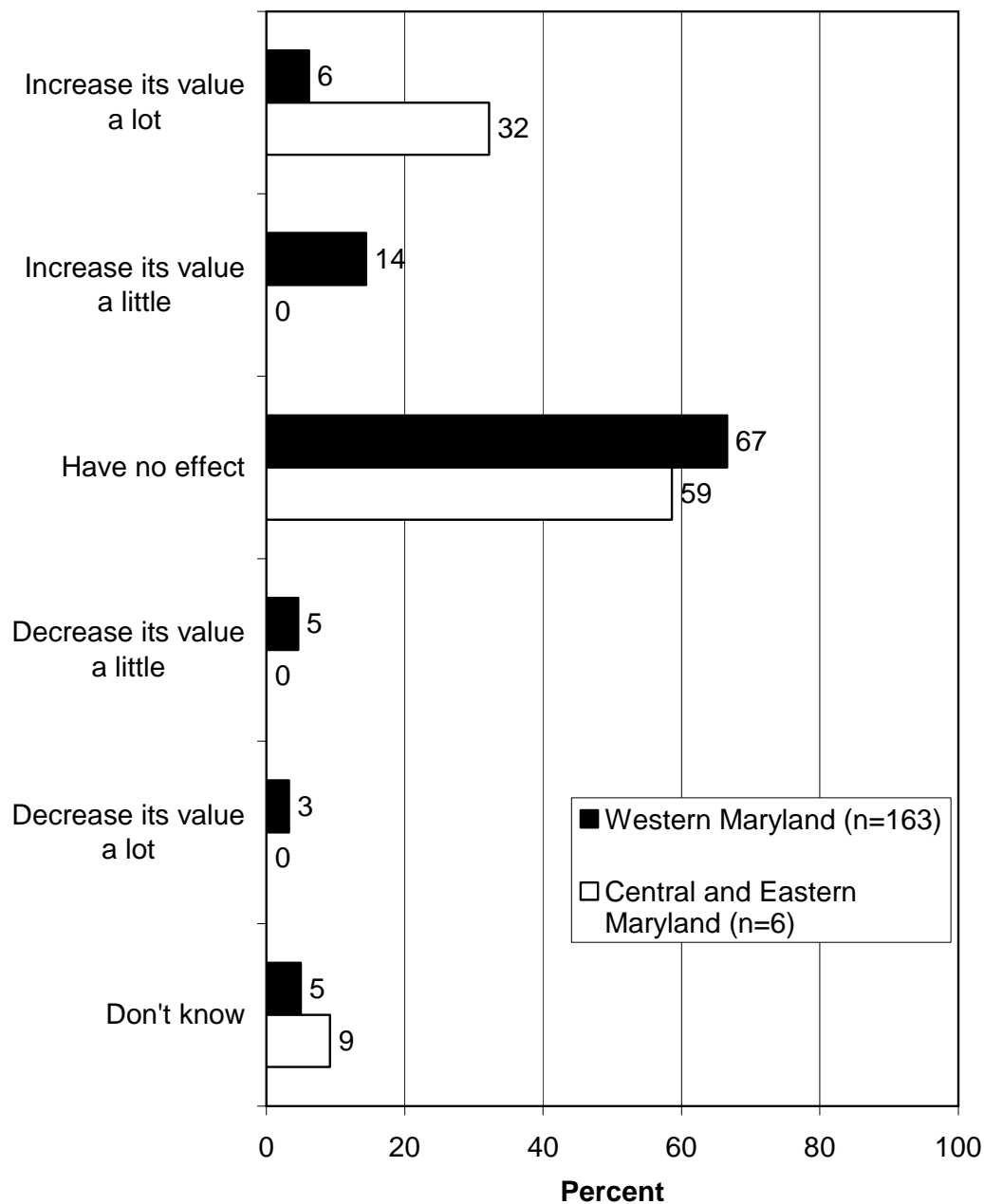
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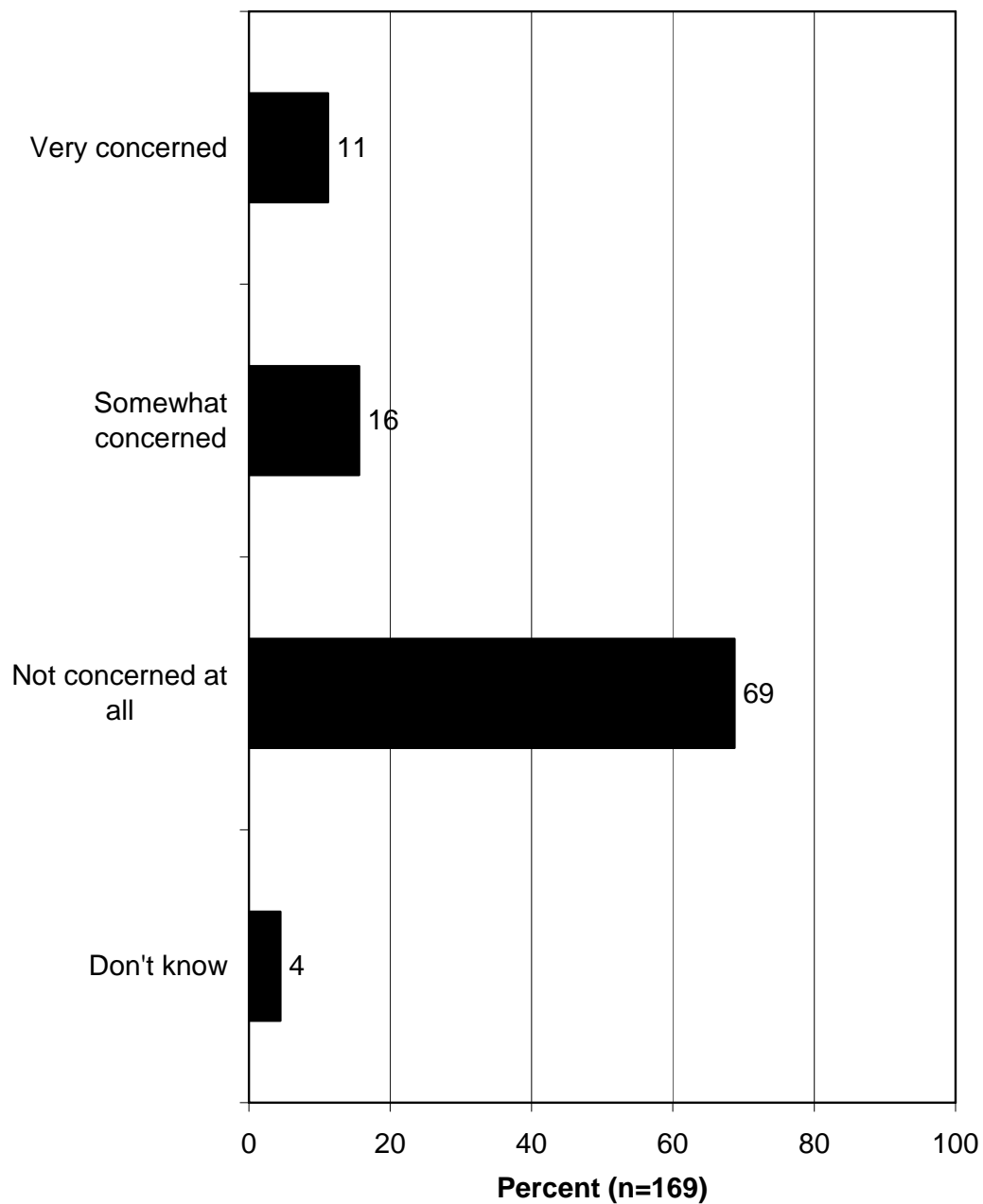
Q61. In your opinion, would elk increase or decrease your land's value to you in ways other than monetarily? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



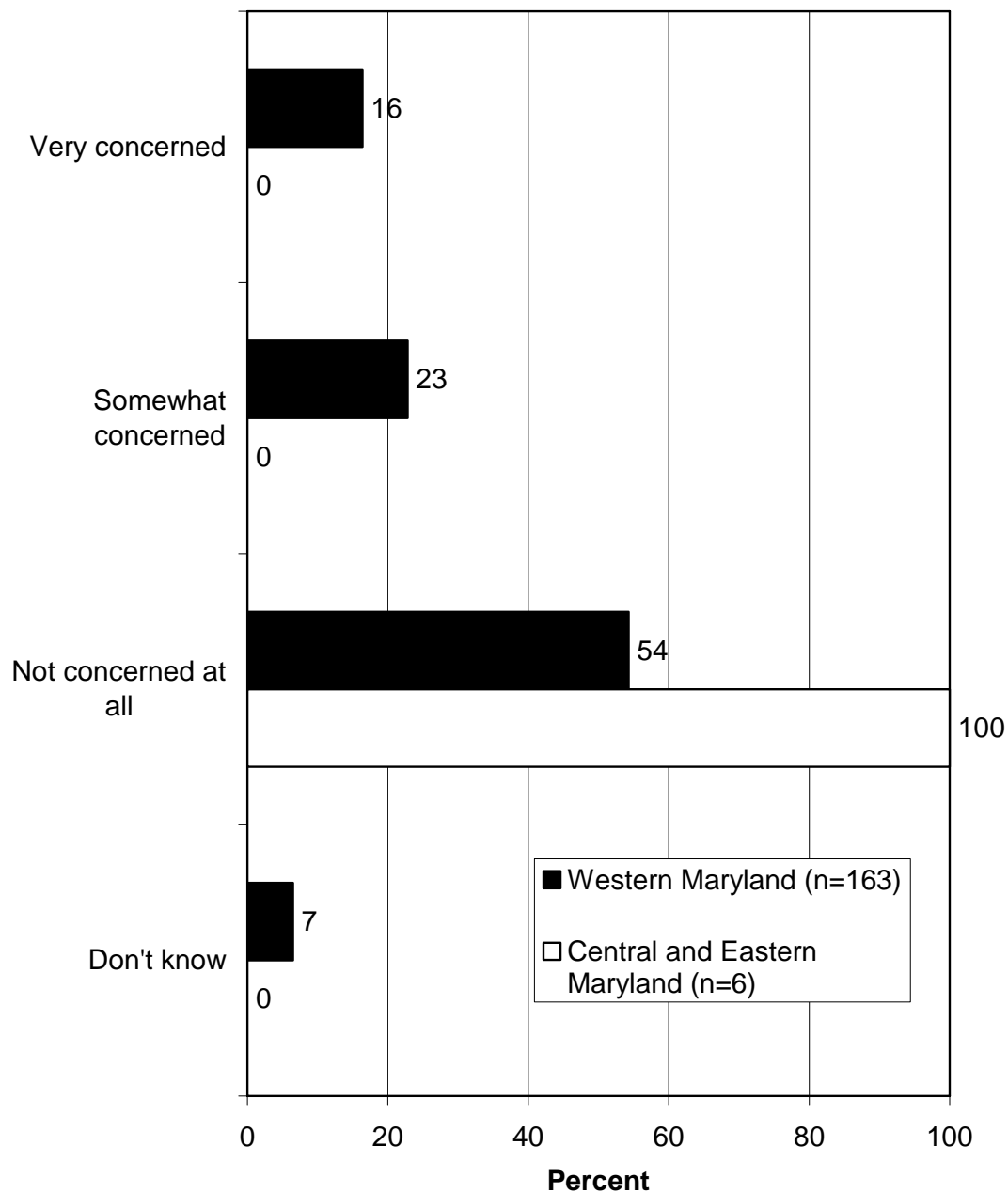
Q61. In your opinion, would elk increase or decrease your land's value to you in ways other than monetarily? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



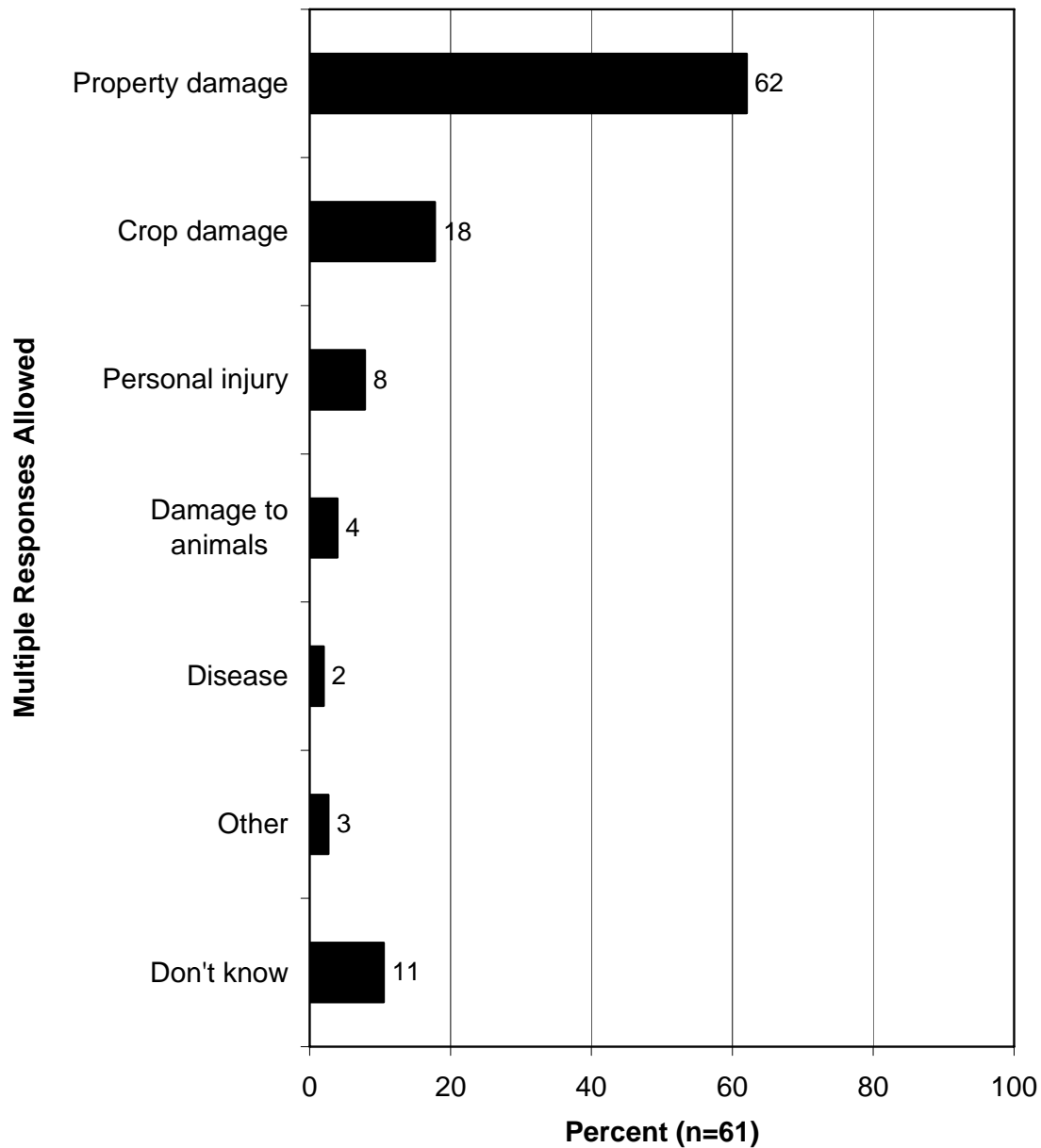
Q62. How concerned would you be about elk being a nuisance or causing problems to your property in western Maryland? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



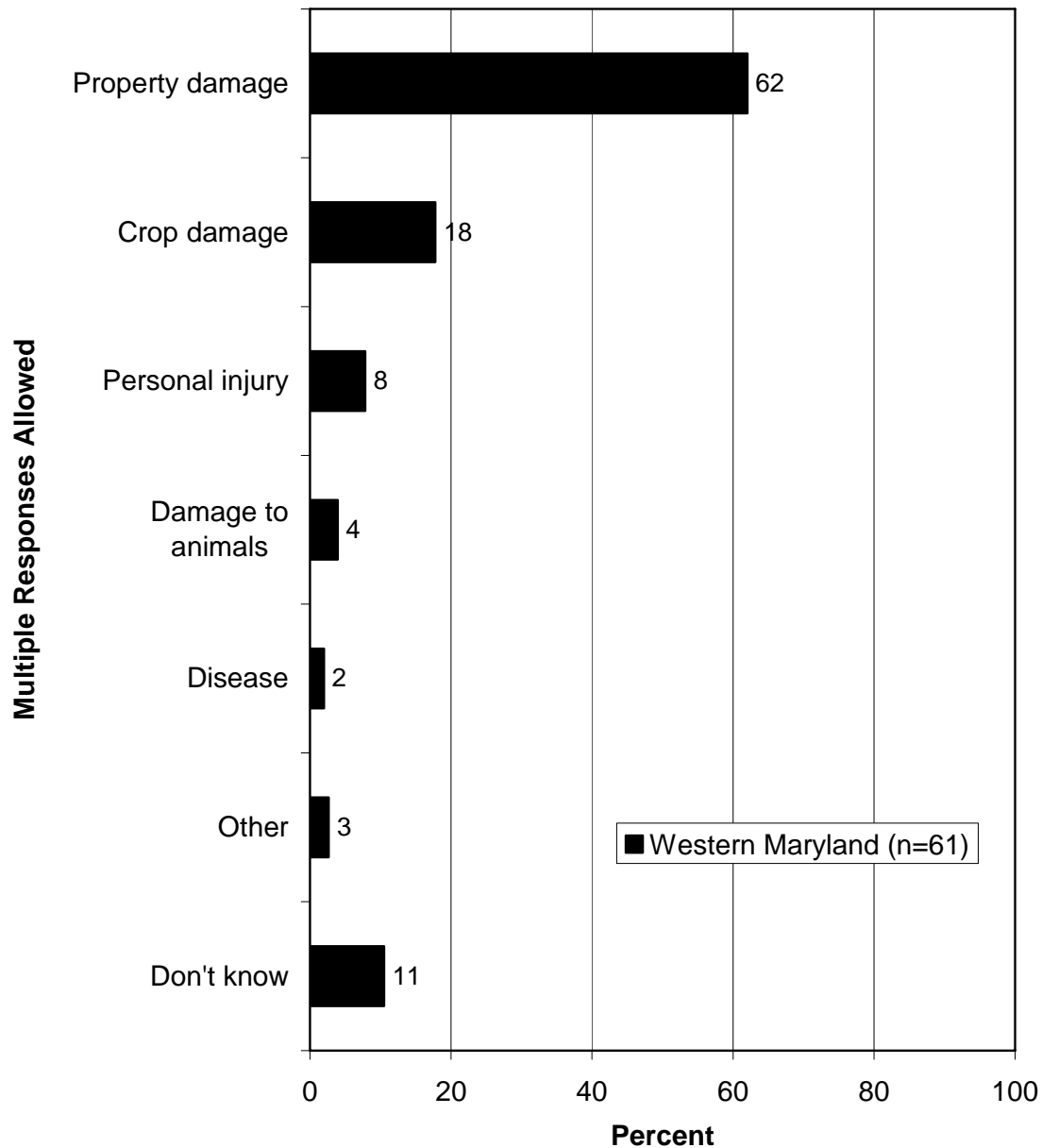
Q62. How concerned would you be about elk being a nuisance or causing problems to your property in western Maryland? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



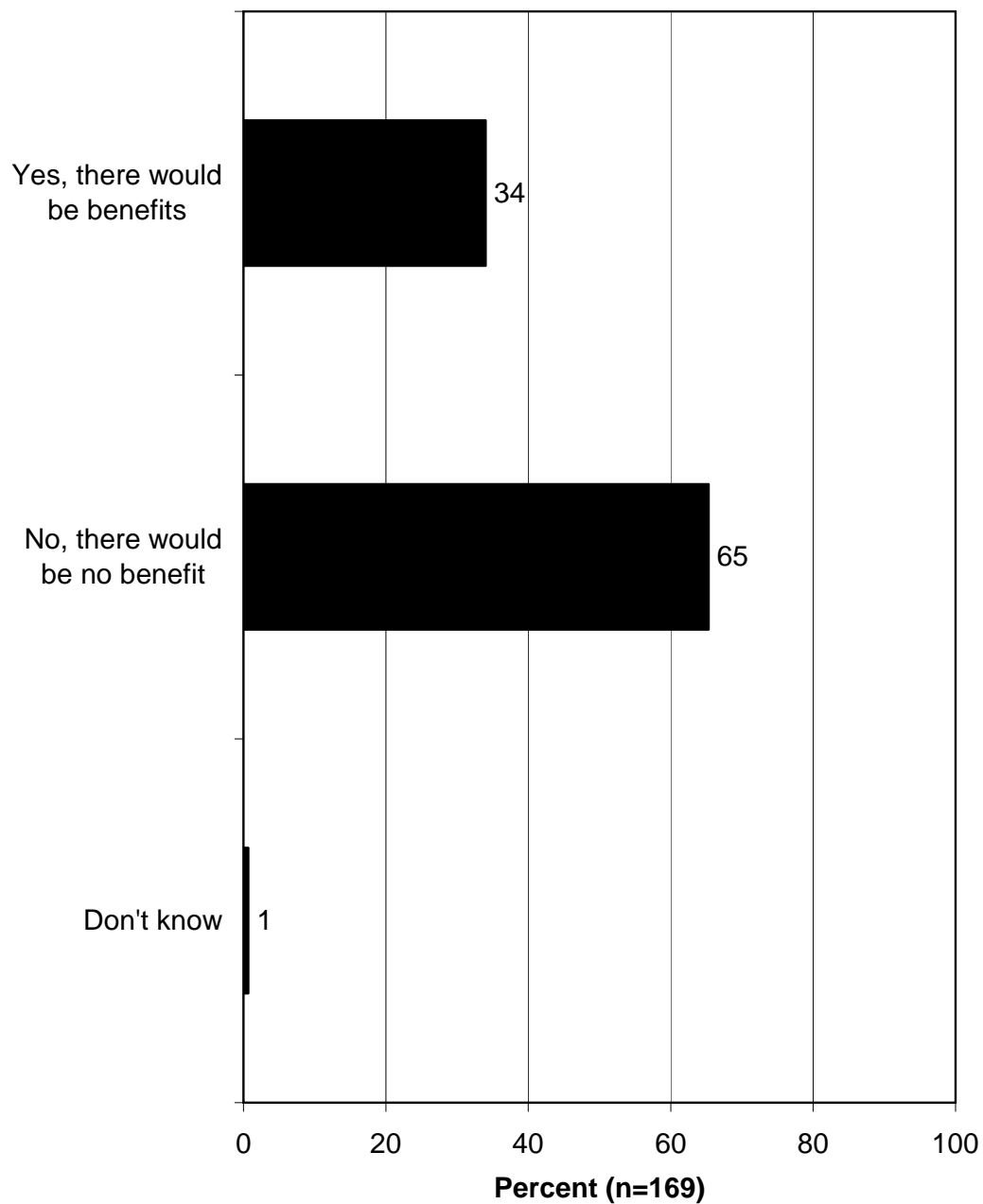
Q63. What would be your concerns as a property owner? (Asked of those who own land in Garrett, Allegany, or Washington counties, and who indicated that they were concerned about elk being a nuisance or causing problems on their property.)



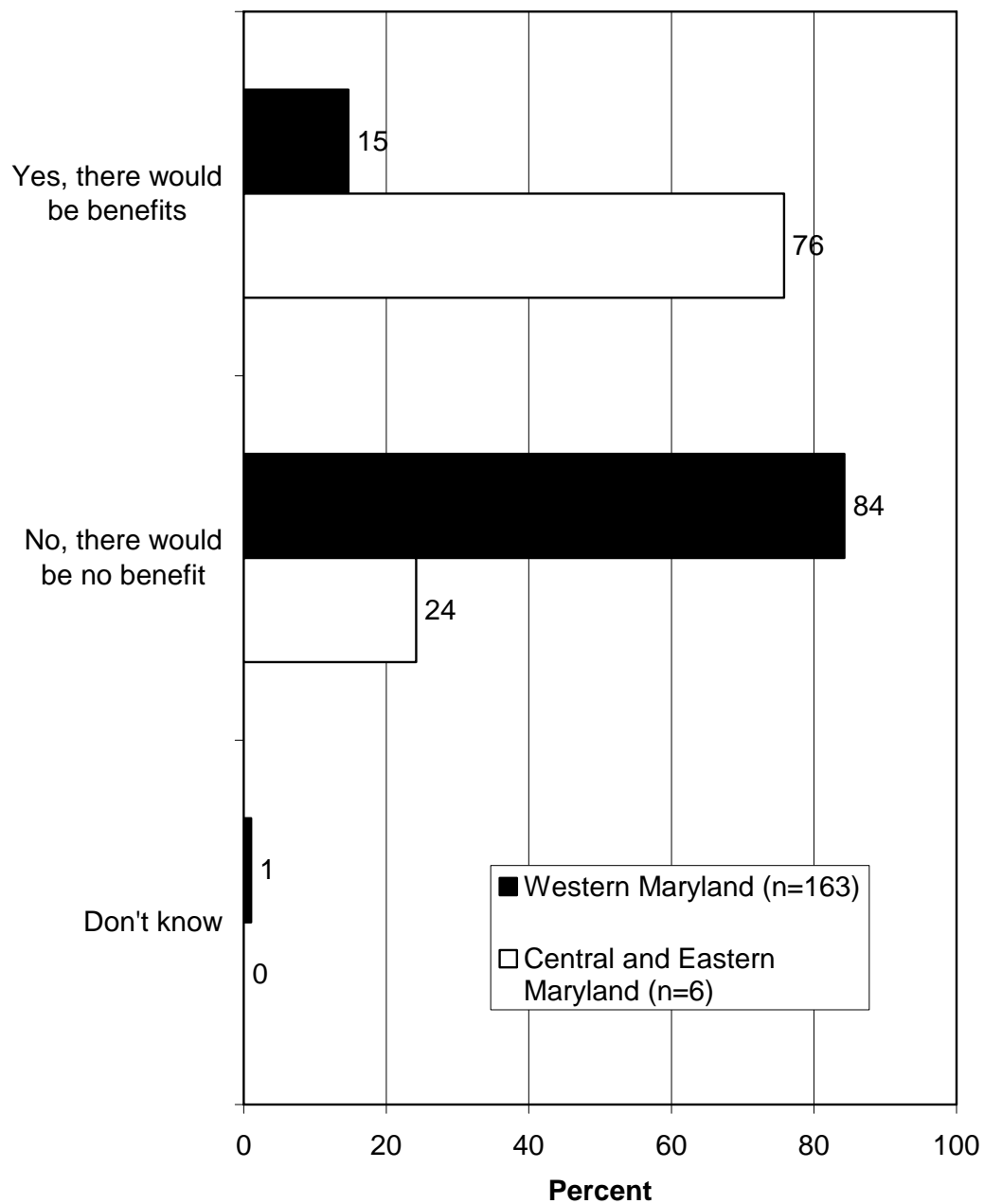
Q63. What would be your concerns as a property owner? (Asked of those who own land in Garrett, Allegany, or Washington counties, and who indicated that they were concerned about elk being a nuisance or causing problems on their property.)



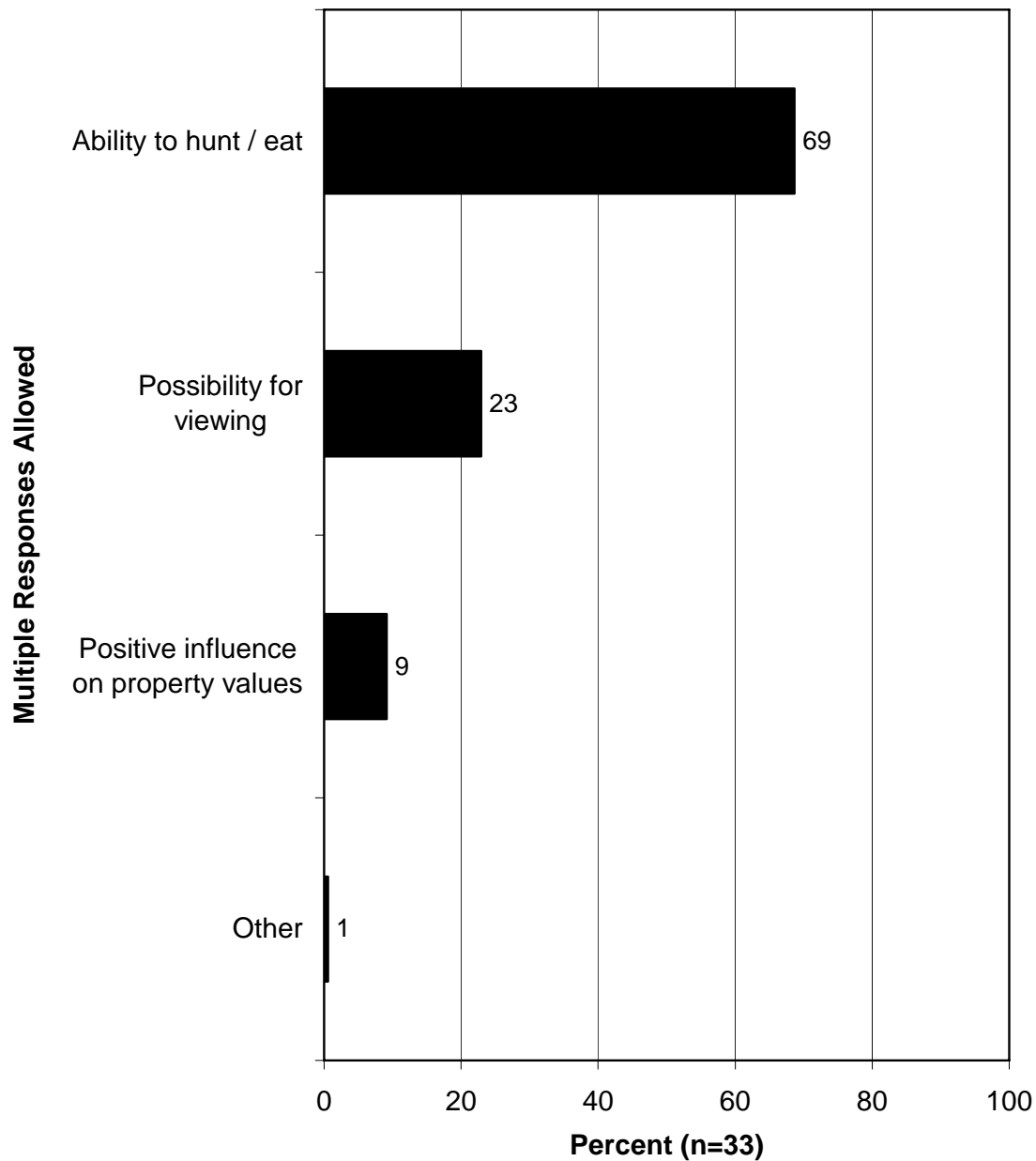
Q64. Would there be any benefits to you as a property owner with having elk in western Maryland? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



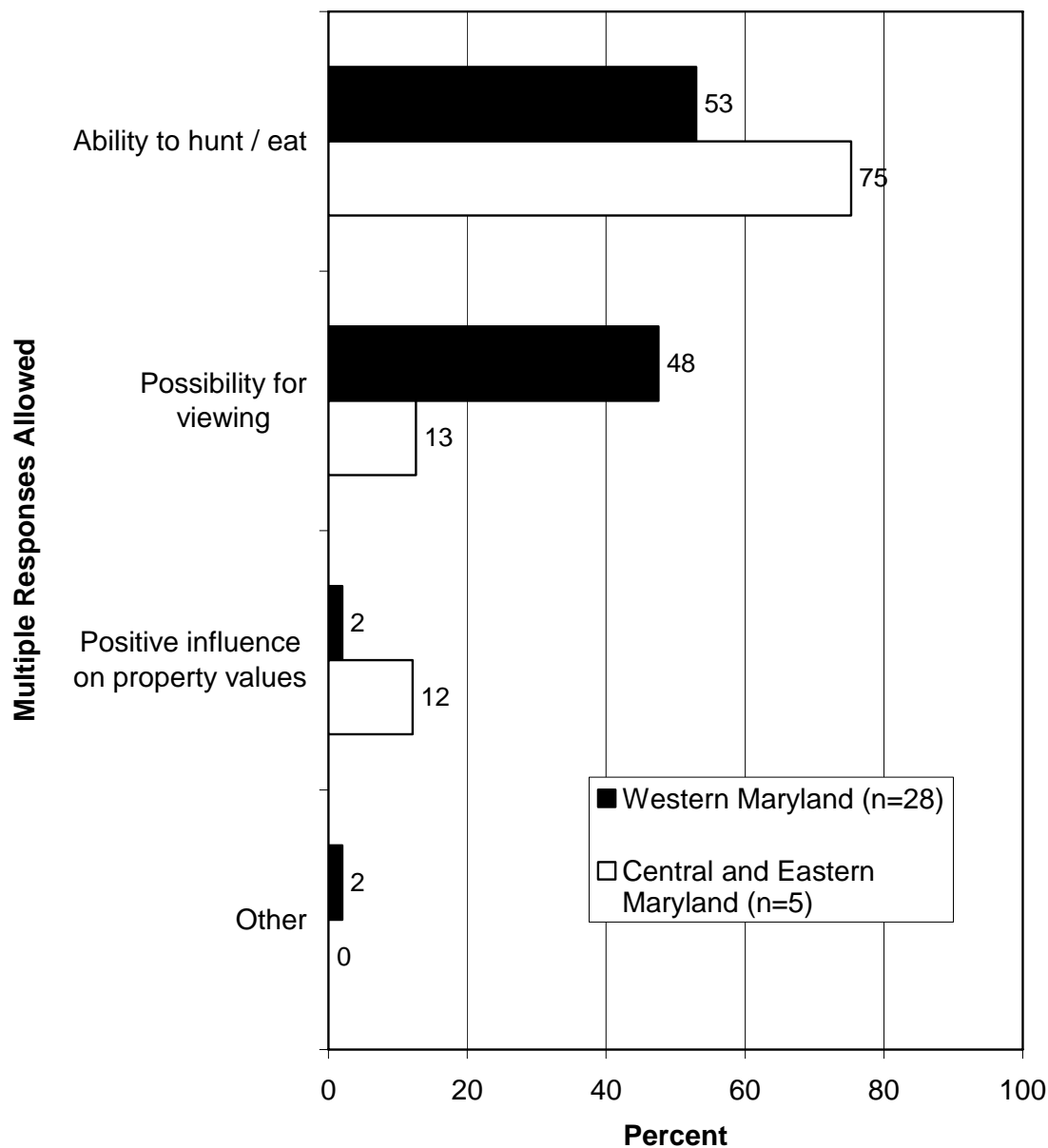
Q64. Would there be any benefits to you as a property owner with having elk in western Maryland? (Asked of those who own land in Garrett, Allegany, or Washington counties.)



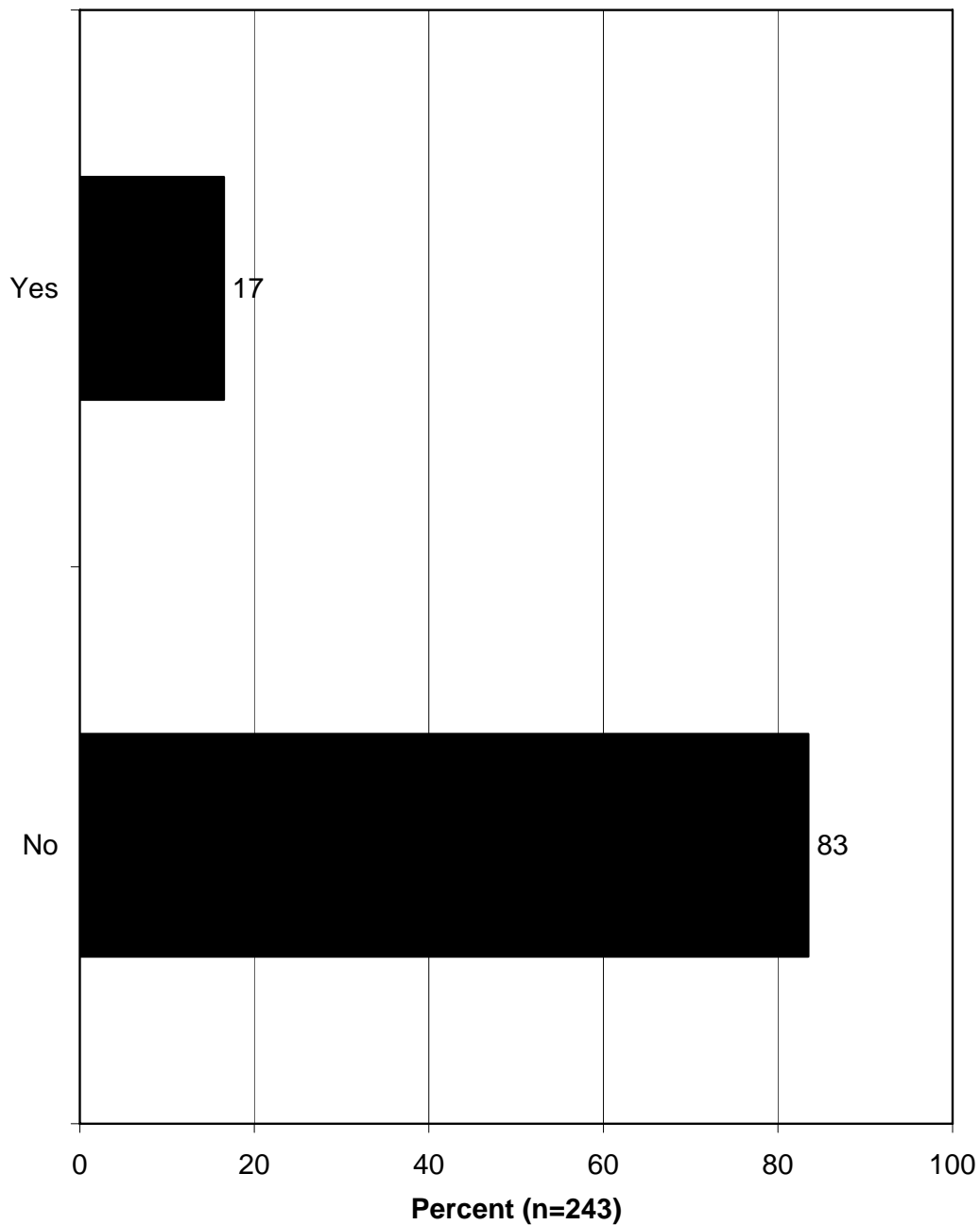
Q65. What would those benefits be to your property? (Asked of those who own land in Garrett, Allegany, or Washington counties, and who indicated that they thought there would be benefits to having elk in western Maryland.)



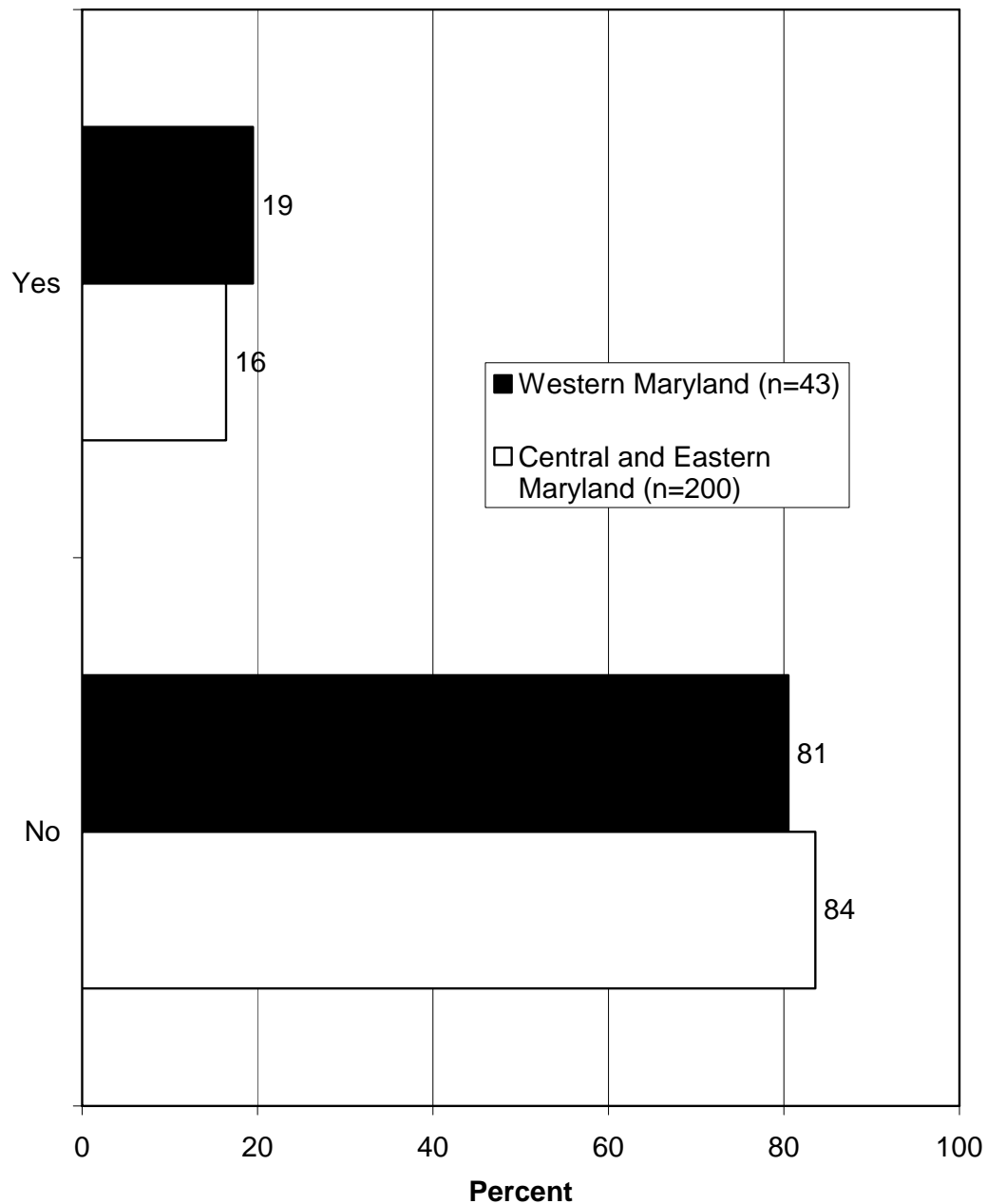
Q65. What would those benefits be to your property? (Asked of those who own land in Garrett, Allegany, or Washington counties, and who indicated that they thought there would be benefits to having elk in western Maryland.)



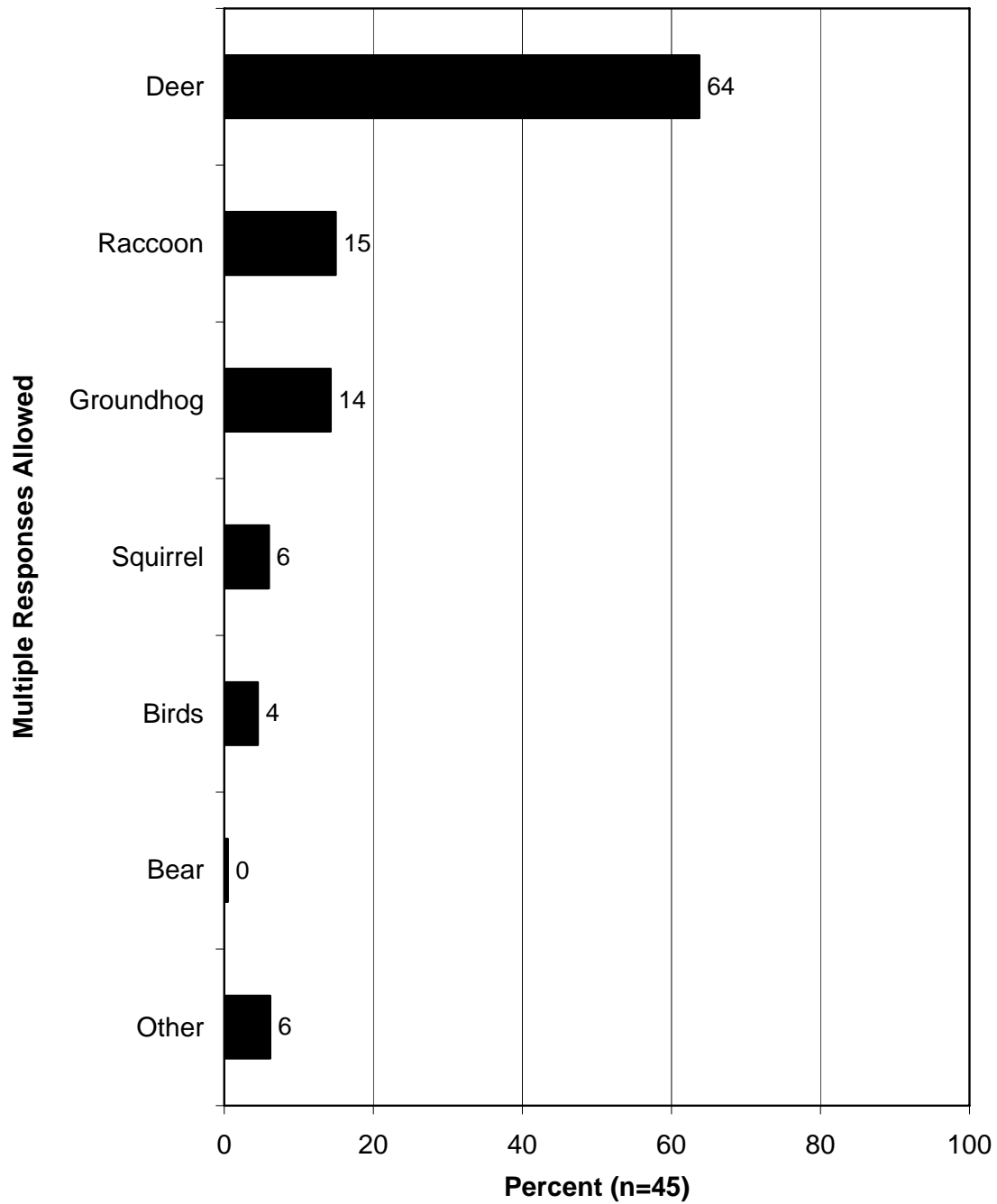
Q68. Has any of your personal property or the property where you live had any damage caused by wildlife in the past 5 years? (Asked of those who do not own land in Maryland.)



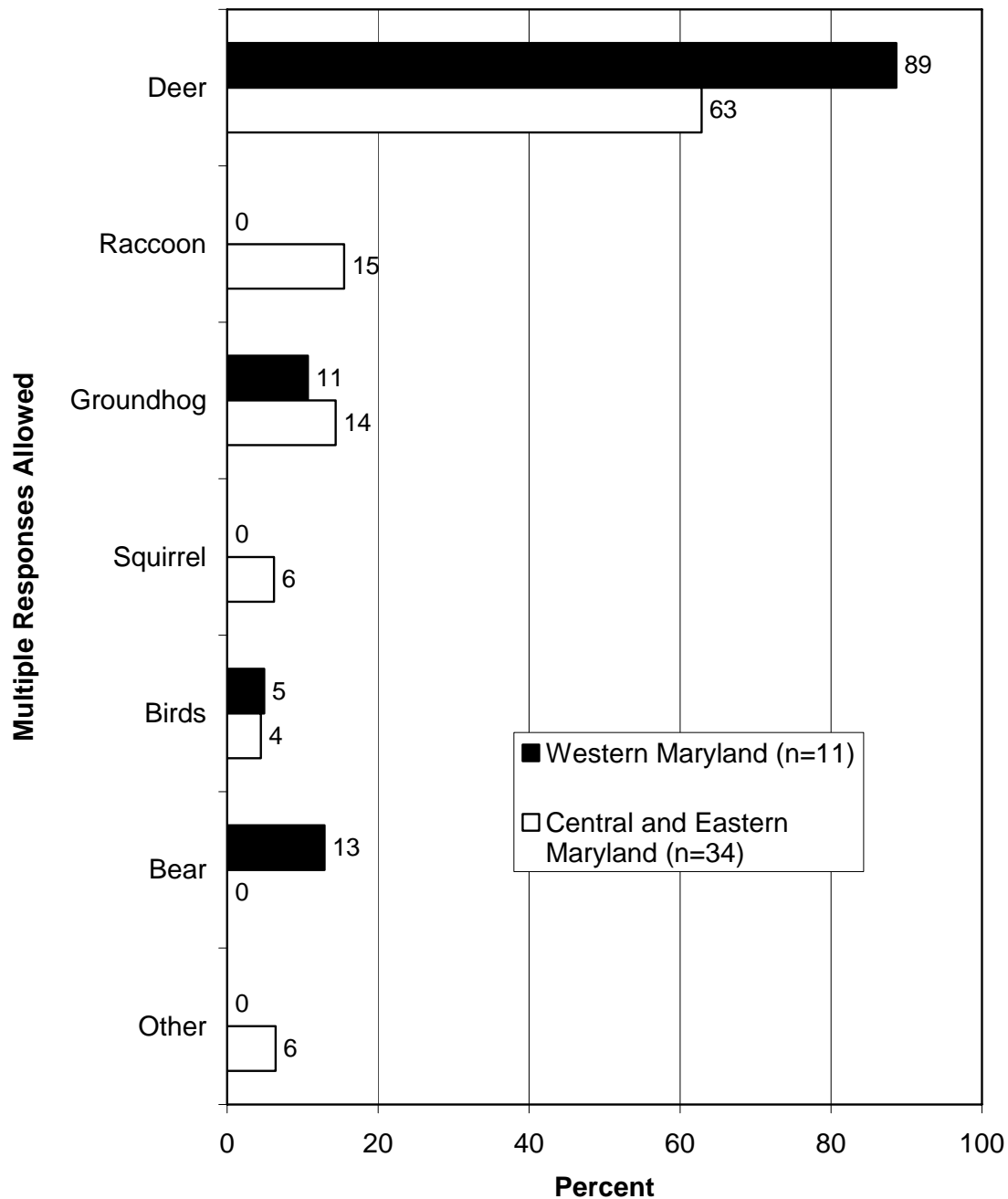
Q68. Has any of your personal property or the property where you live had any damage caused by wildlife in the past 5 years? (Asked of those who do not own land in Maryland.)



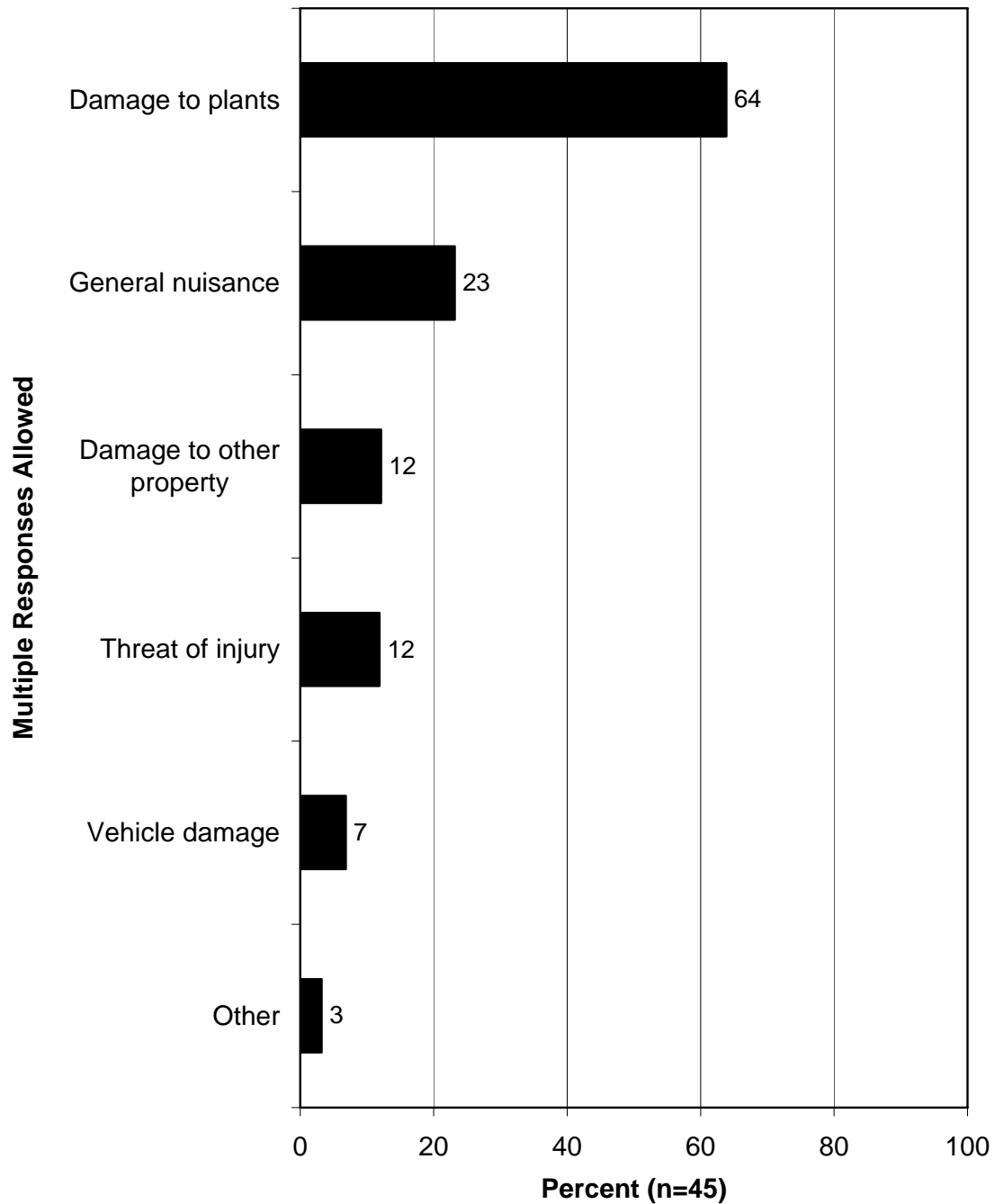
**Q69. What wild species caused the problem?
(Asked of non-landowners who have experienced
damage from wildlife in the past 5 years.)**



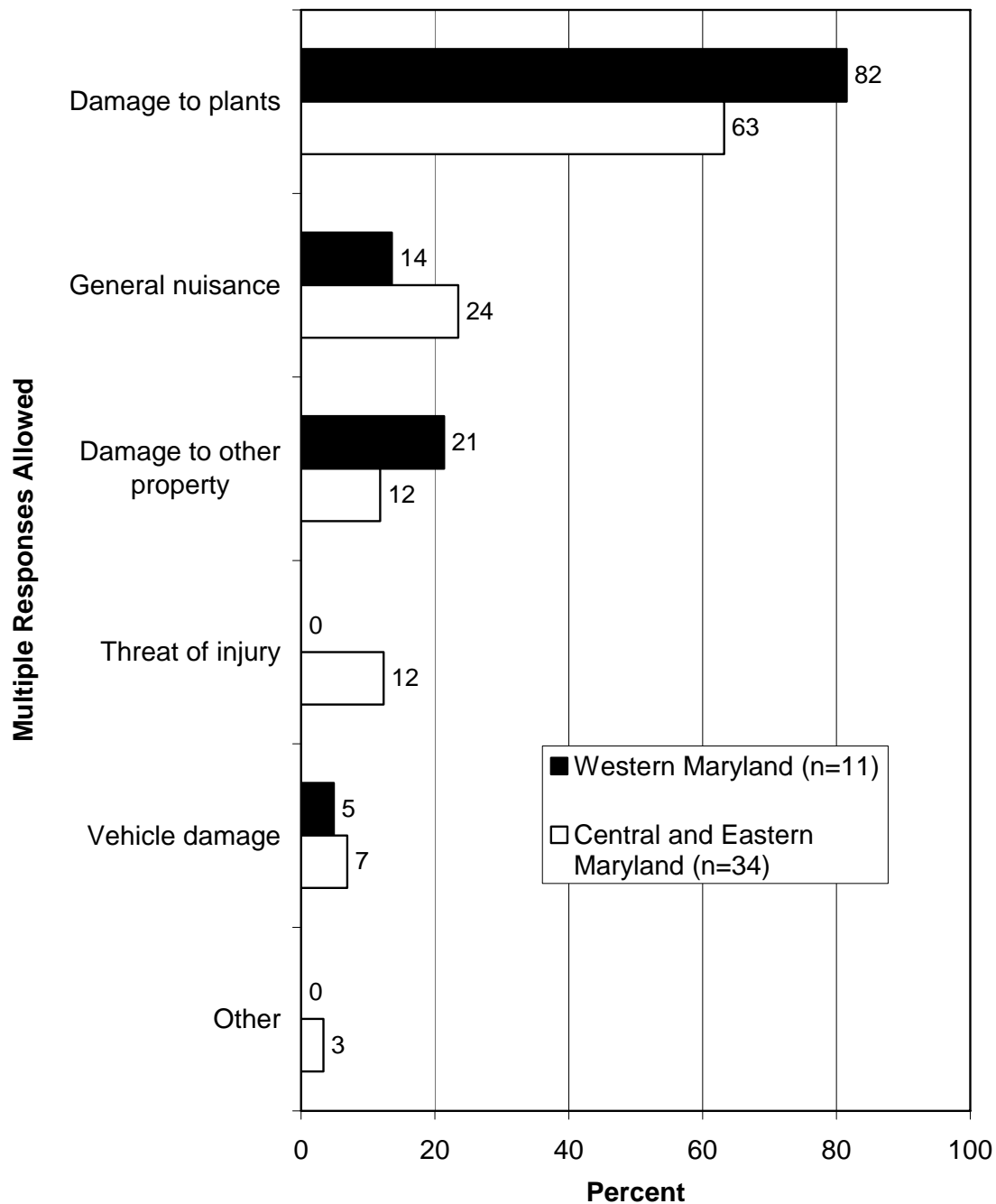
**Q69. What wild species caused the problem?
(Asked of non-landowners who have experienced
damage from wildlife in the past 5 years.)**



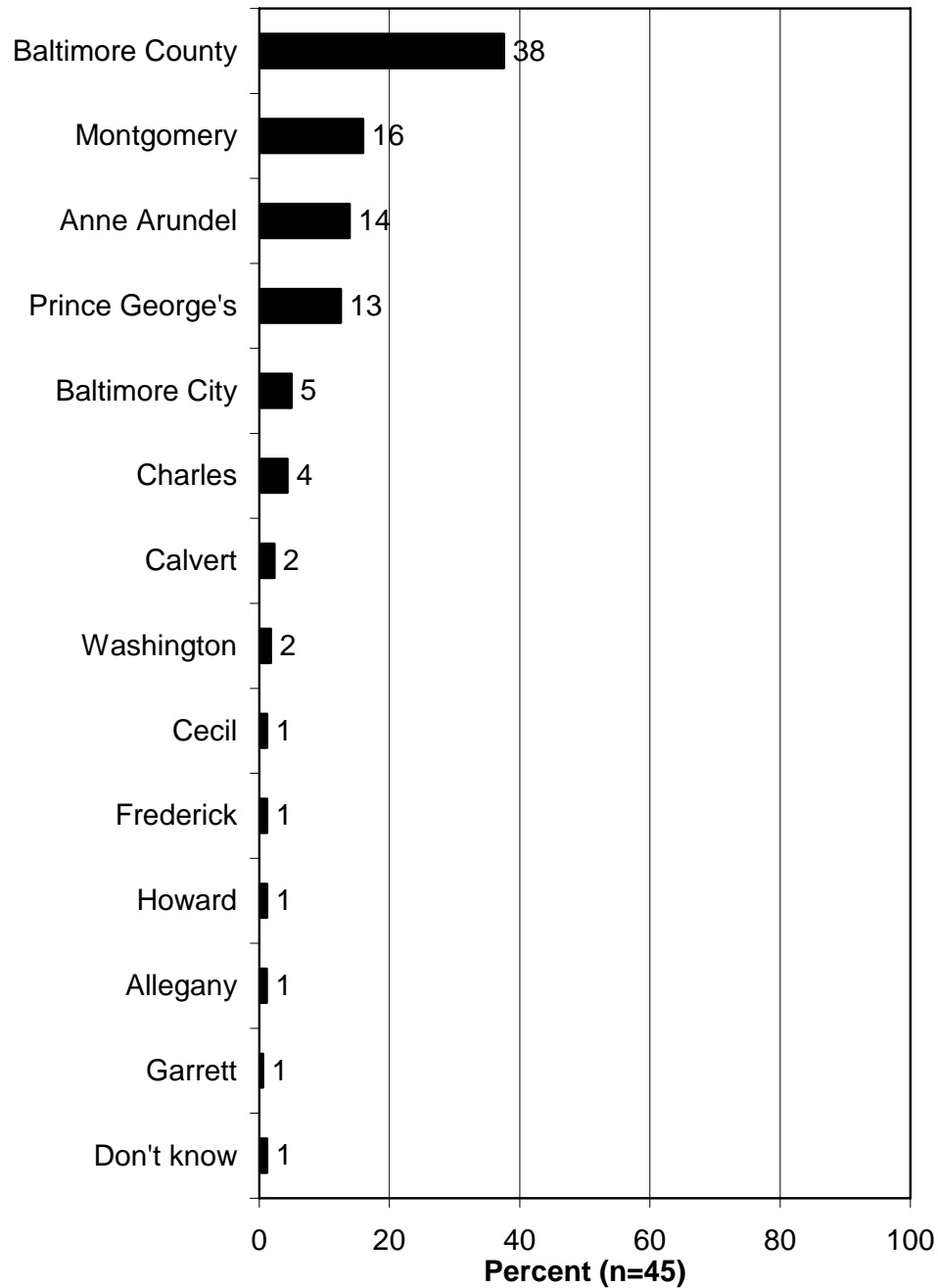
**Q70. What were the problems the wildlife caused?
(Asked of non-landowners who have experienced
damage from wildlife in the past 5 years.)**



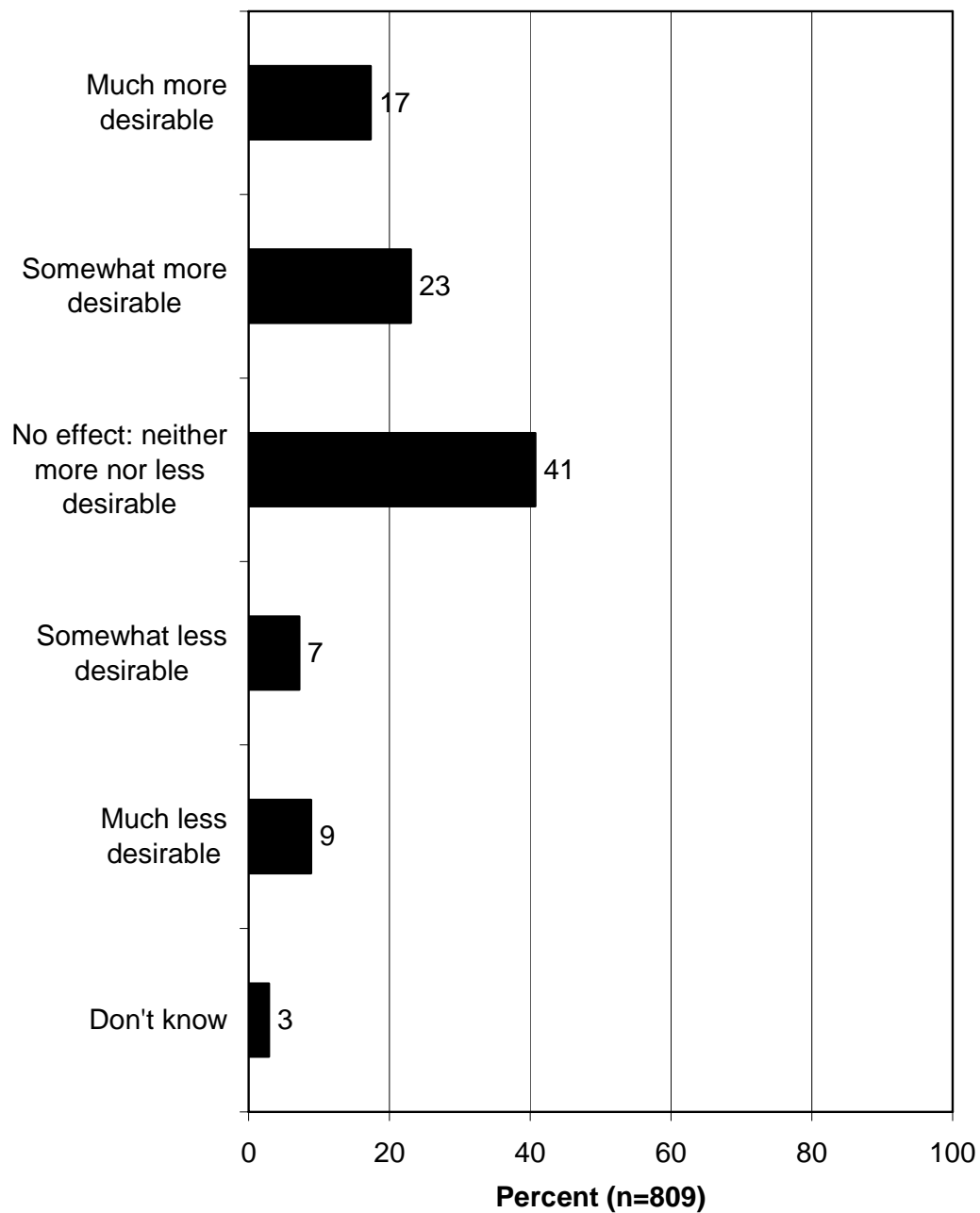
**Q70. What were the problems the wildlife caused?
(Asked of non-landowners who have experienced
damage from wildlife in the past 5 years.)**



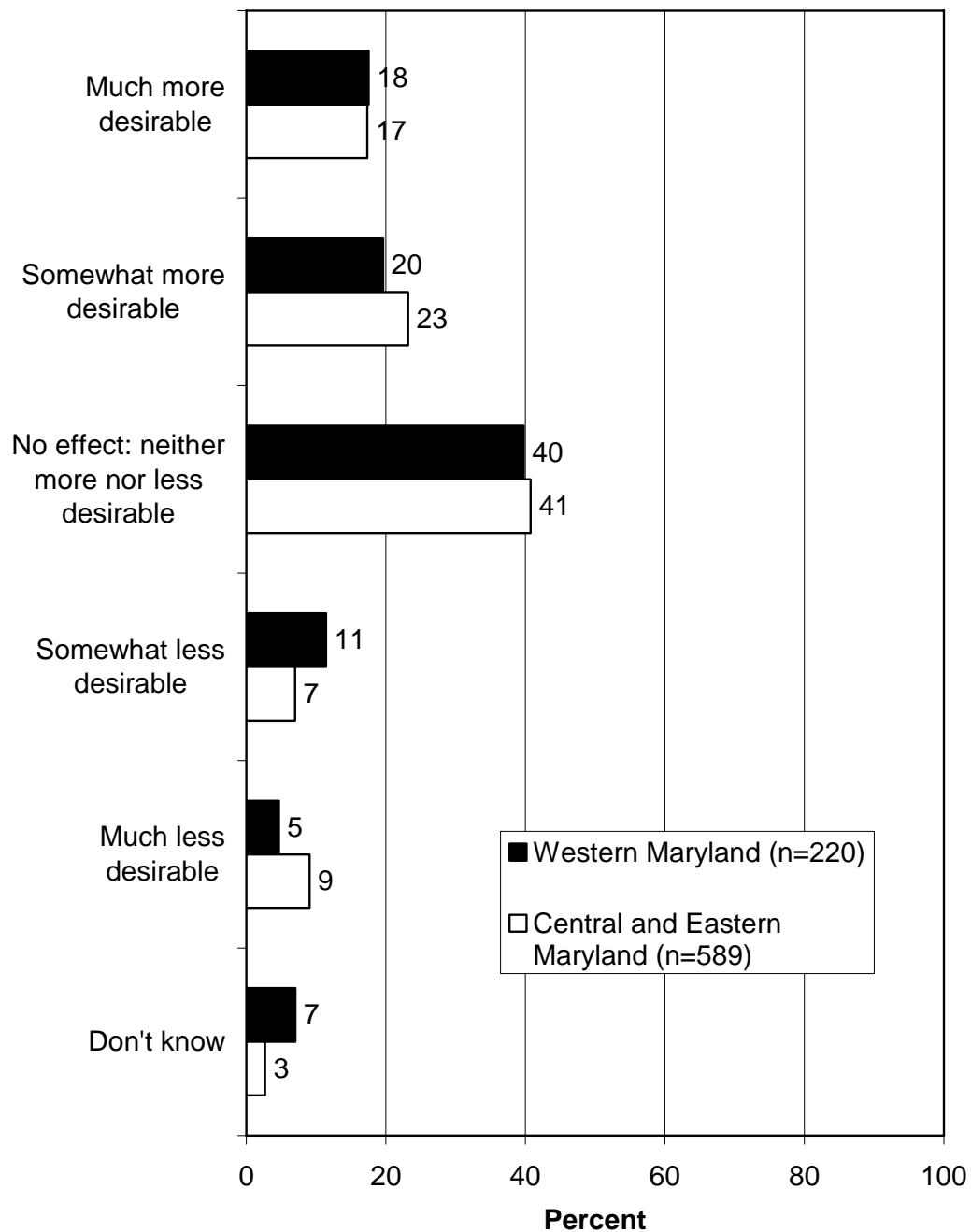
Q72. In what county did you experience that damage? (Asked of non-landowners who have experienced damage from wildlife in the past 5 years.)



Q73. If you were to purchase land, would the presence of elk in the area make the land more desirable to you as a purchaser or less desirable?



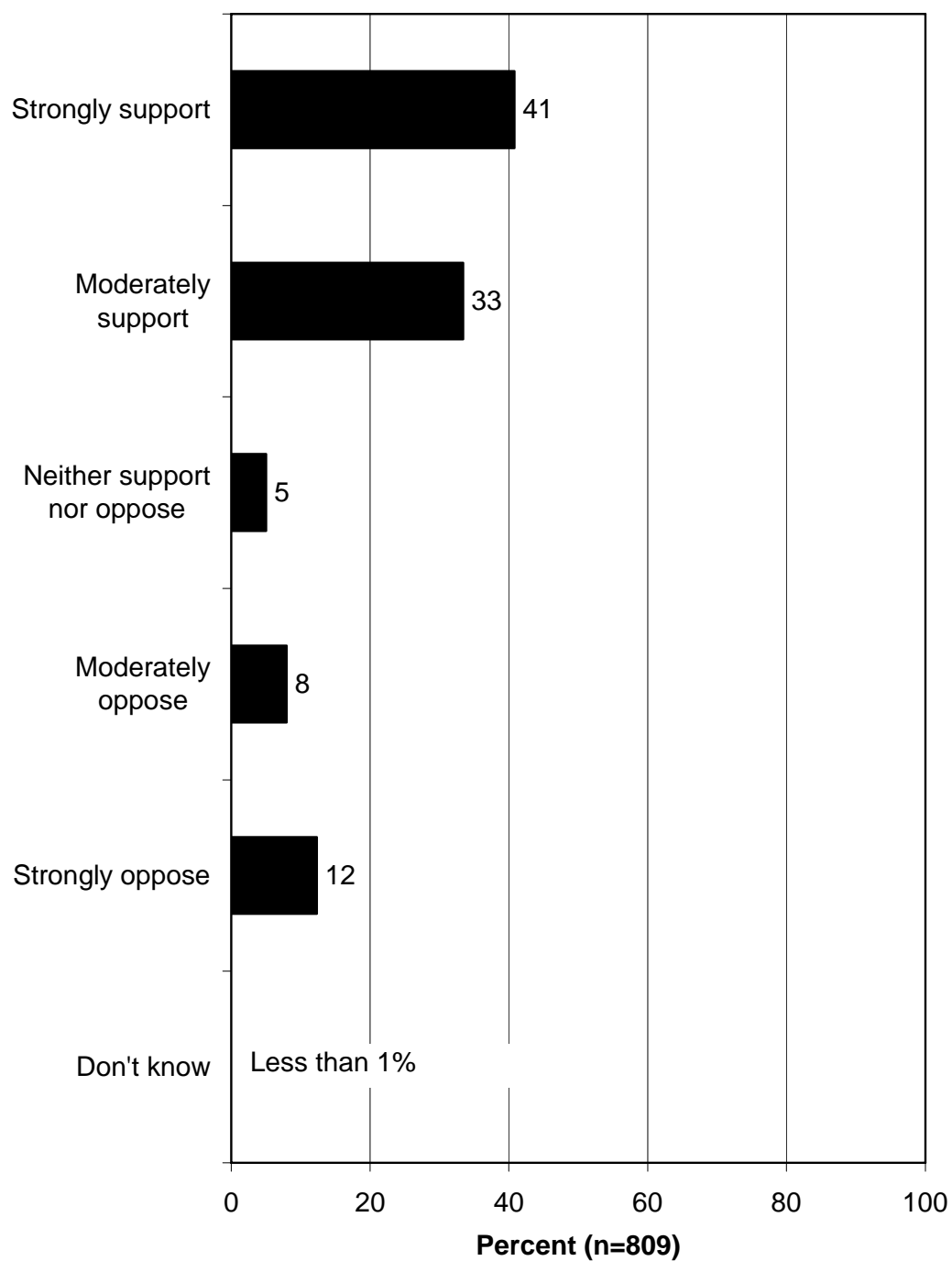
Q73. If you were to purchase land, would the presence of elk in the area make the land more desirable to you as a purchaser or less desirable?



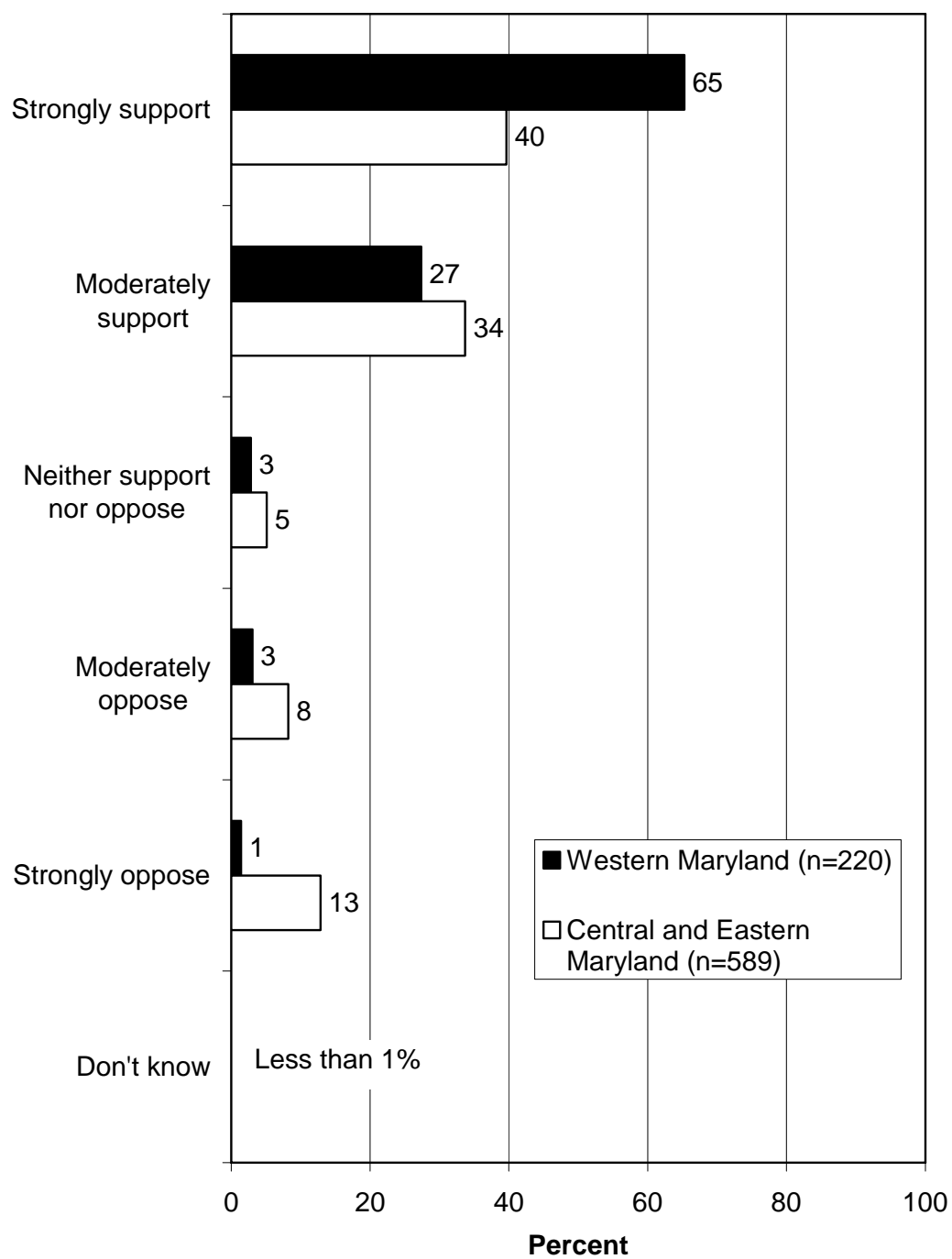
SUPPORT FOR HUNTING, LIKELIHOOD OF HUNTING ELK IN MARYLAND, AND OTHER FACTORS AFFECTING SUPPORT FOR THE REINTRODUCTION OF ELK

- About three-quarters of the Maryland residents surveyed (74%) said they supported legal, regulated hunting, with 41% saying they *strongly* supported it. Otherwise, 20% opposed it (with 12% *strongly* opposing).
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to *strongly* support legal, regulated hunting; Central and Eastern Maryland residents, on the other hand, were more likely to *strongly* oppose it.
- Asked whether they would support or oppose the legal, regulated hunting of elk in Maryland (once an elk herd was established), three-quarters of Maryland residents (74%) said they would support it, with 39% *strongly* supporting it. (In total, 21% said they would oppose it, with 14% being in *strong* opposition.)
 - The regional crosstabulation found that, similar to the above question regarding hunting in general, Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to *strongly* support the legal, regulated hunting of elk; Central and Eastern Maryland residents, on the other hand, were more likely to *strongly* oppose it.
- Slightly more than a tenth of respondents (13%) said that knowing that elk might be hunted once the herd reached a certain threshold would change their opinion about the elk reintroduction in the state. Meanwhile, 6% of respondents indicated that some other information in the survey affected their opinion about the reintroduction of elk in Maryland: such information typically included general information about the elk reintroduction proposal (35%), information related to the potential for accidents or property damage (24%), information related to costs of the reintroduction (19%), or information related to hunting in general or elk-hunting opportunities (16%).
 - A graph showing overall levels of support and opposition to the elk reintroduction as measured both at the beginning and end of the survey is shown on page 34.

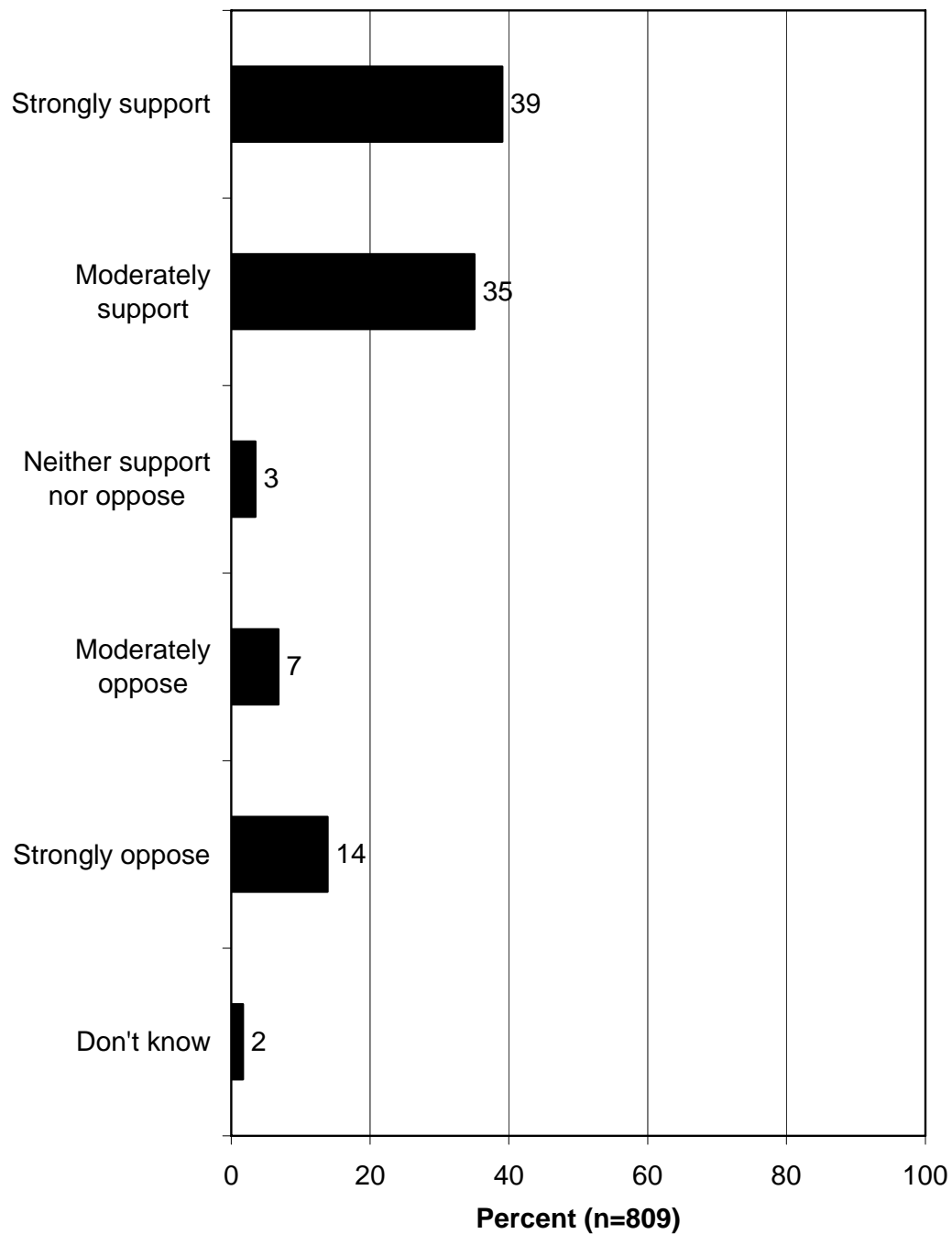
Q74. In general, do you support or oppose legal, regulated hunting in Maryland?



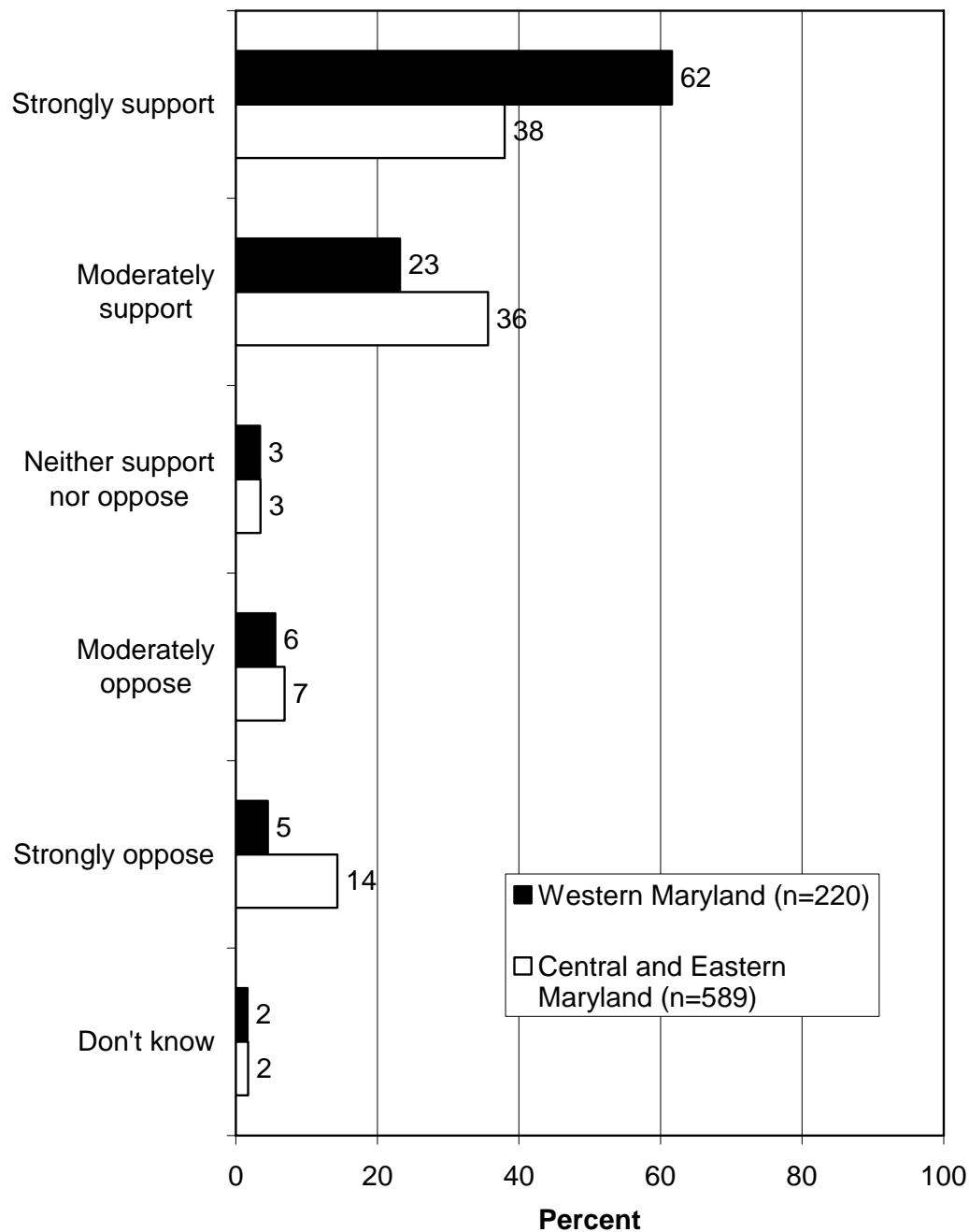
Q74. In general, do you support or oppose legal, regulated hunting in Maryland?



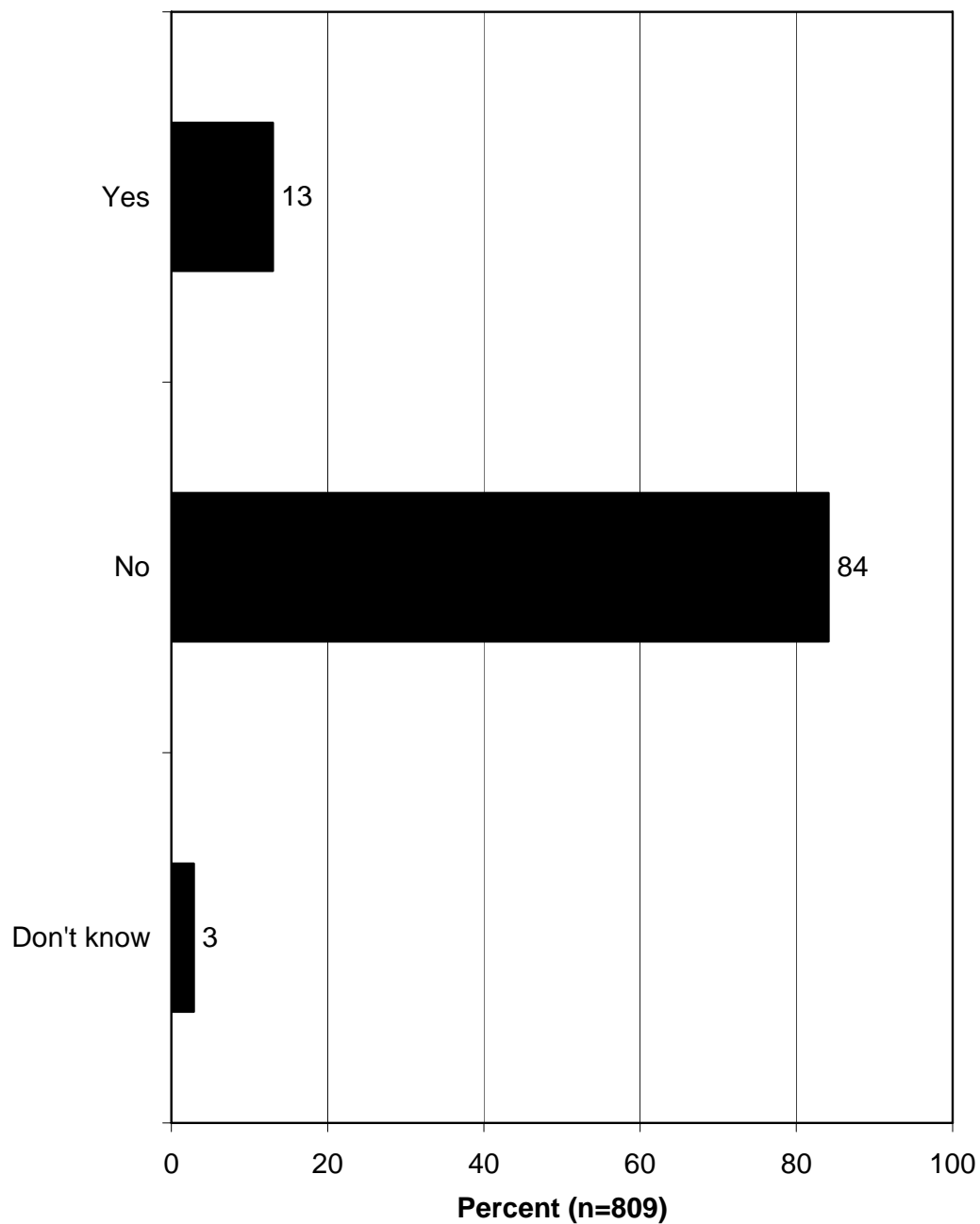
Q75. If an elk herd were established, which would take many years, would you support or oppose the legal, regulated hunting of elk in Maryland?



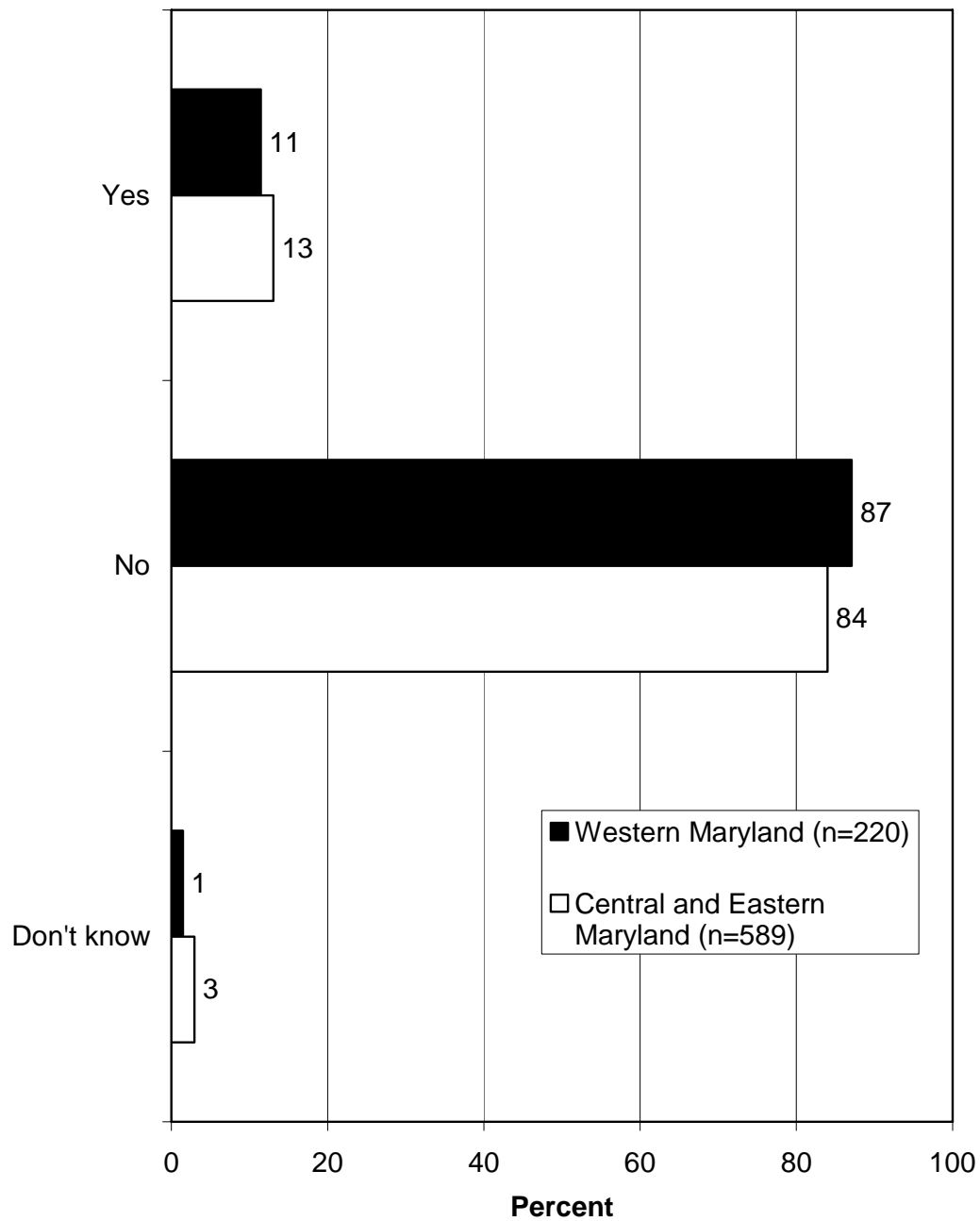
Q75. If an elk herd were established, which would take many years, would you support or oppose the legal, regulated hunting of elk in Maryland?



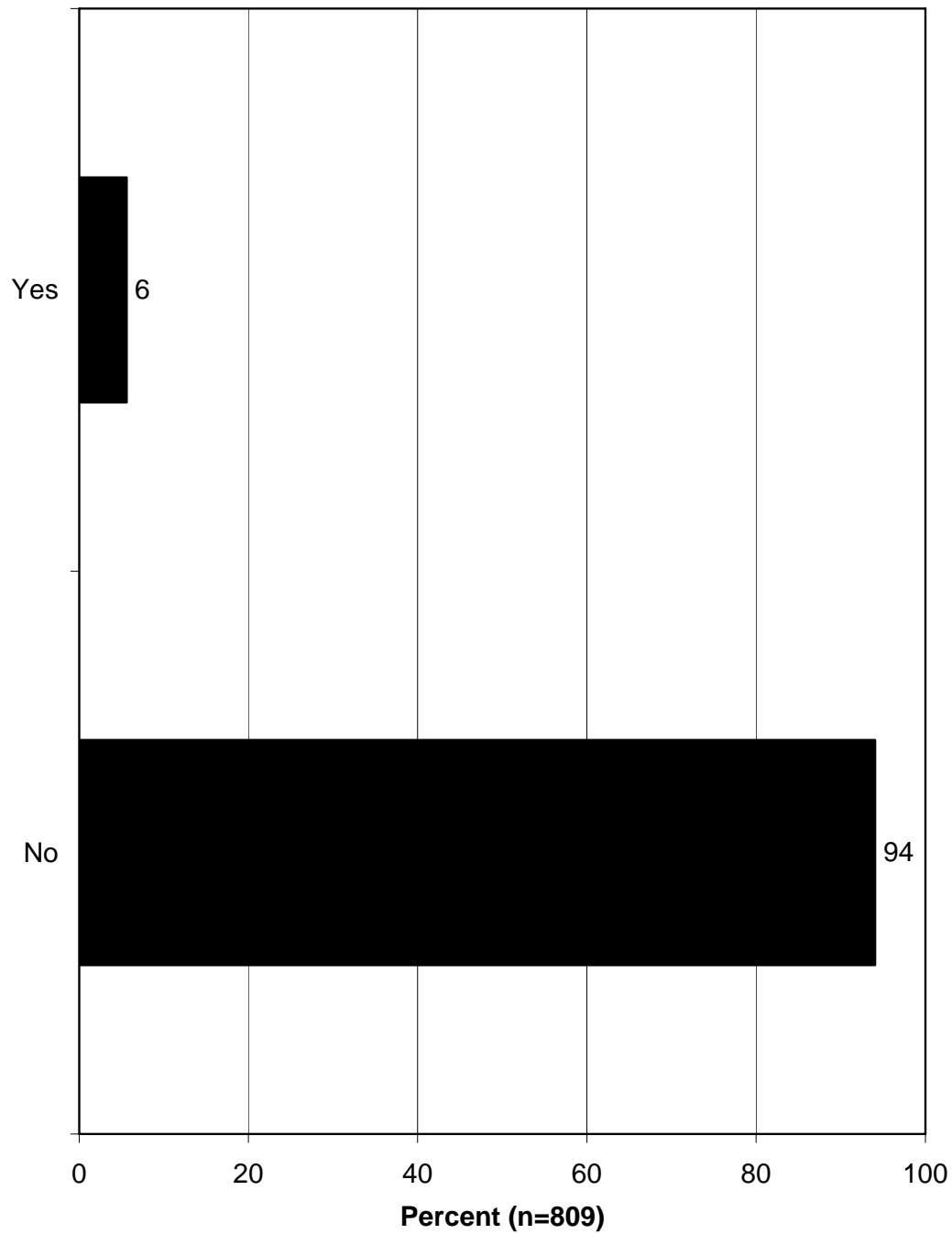
Q77. If you knew that elk might be hunted in Maryland once the herd reaches a certain threshold, would that change your opinion about the reintroduction of elk in western Maryland?



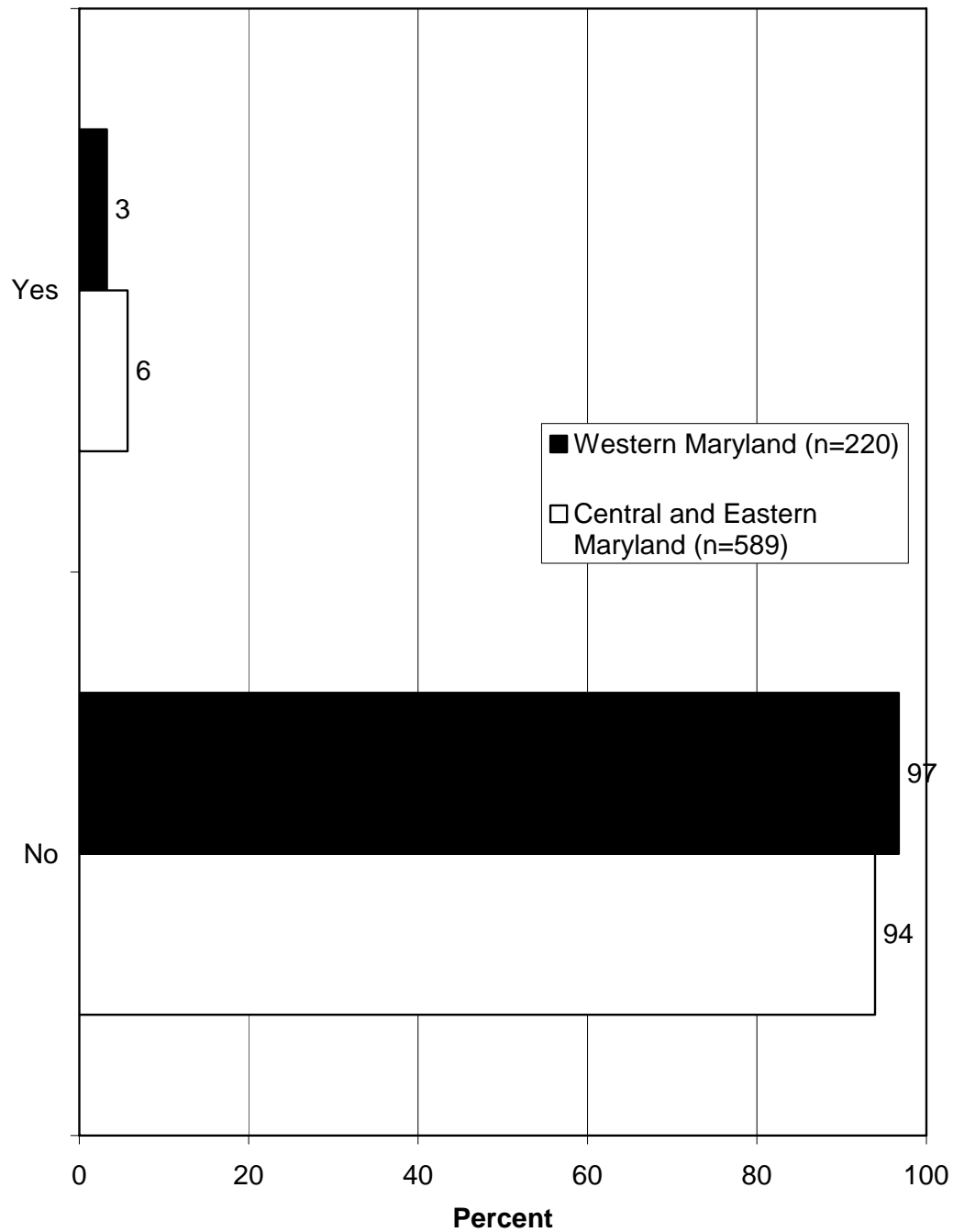
Q77. If you knew that elk might be hunted in Maryland once the herd reaches a certain threshold, would that change your opinion about the reintroduction of elk in western Maryland?



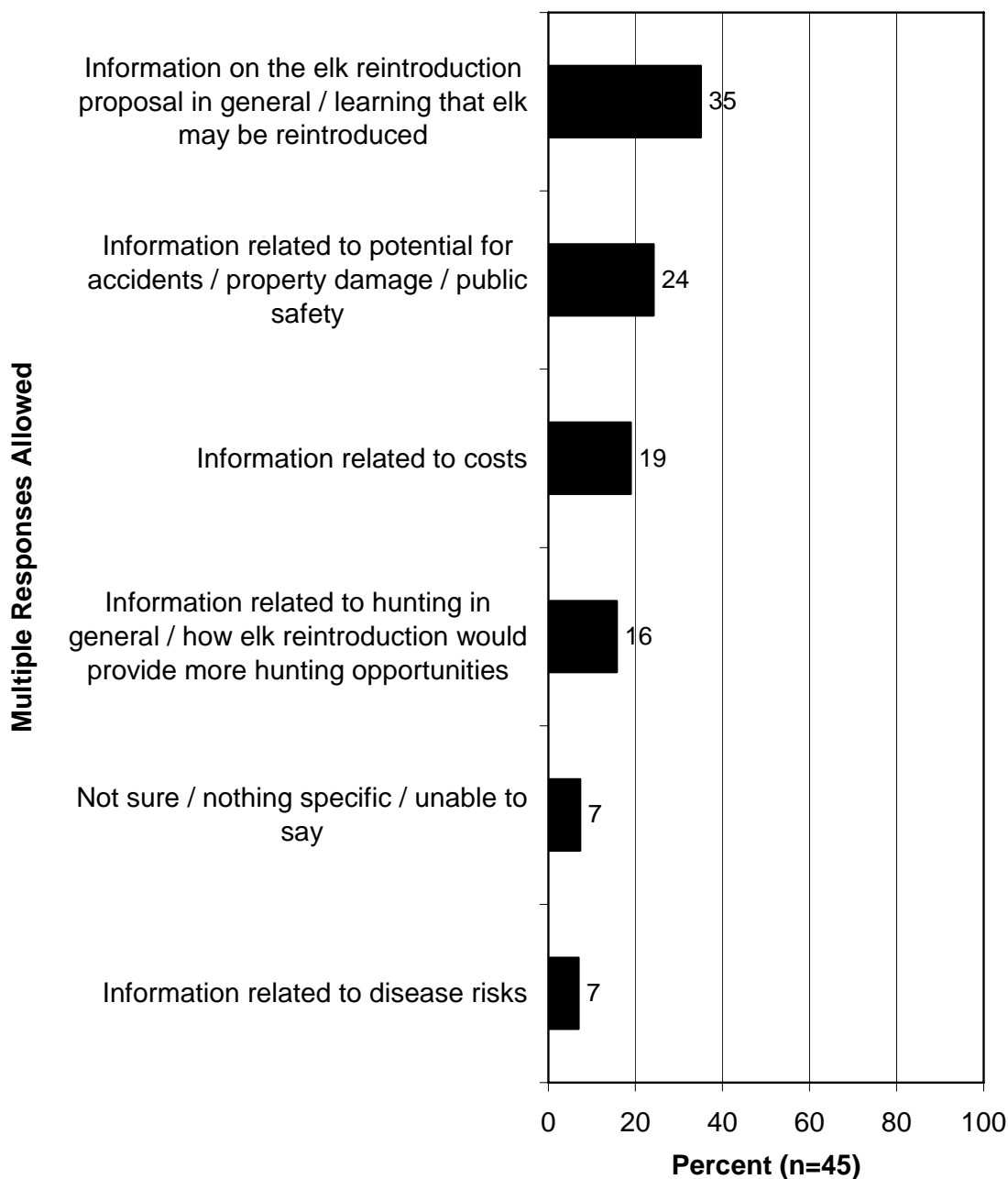
Q78. Did anything else we talked about in this survey affect your opinion about the reintroduction of elk into western Maryland?



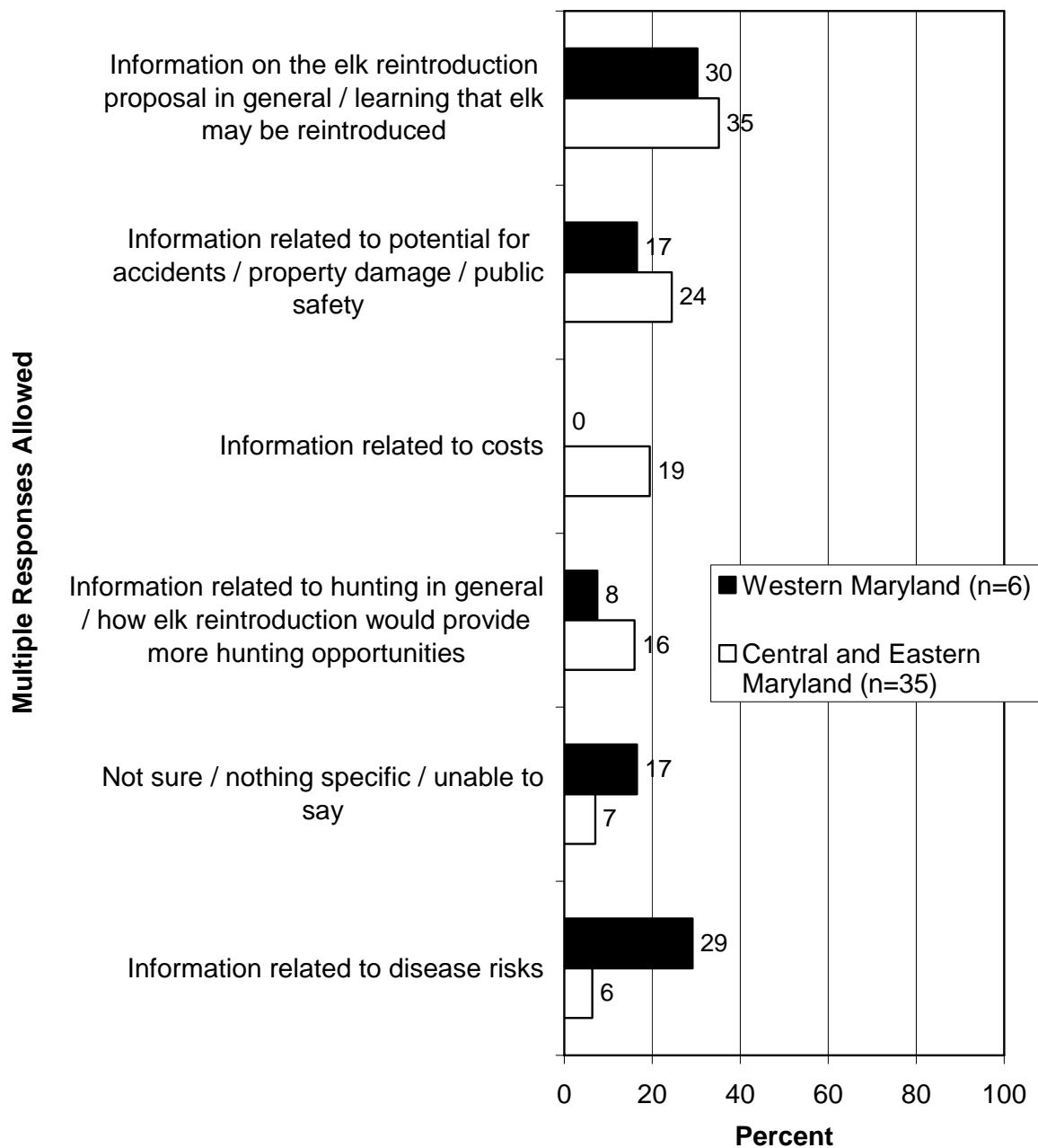
Q78. Did anything else we talked about in this survey affect your opinion about the reintroduction of elk into western Maryland?



Q79. What else affected your opinion? (Asked of those who indicated that something other than the knowledge of the limits on elk hunting affected their opinion on elk reintroduction in western Maryland.)



Q79. What else affected your opinion? (Asked of those who indicated that something other than the knowledge of the limits on elk hunting affected their opinion on elk reintroduction in western Maryland.)



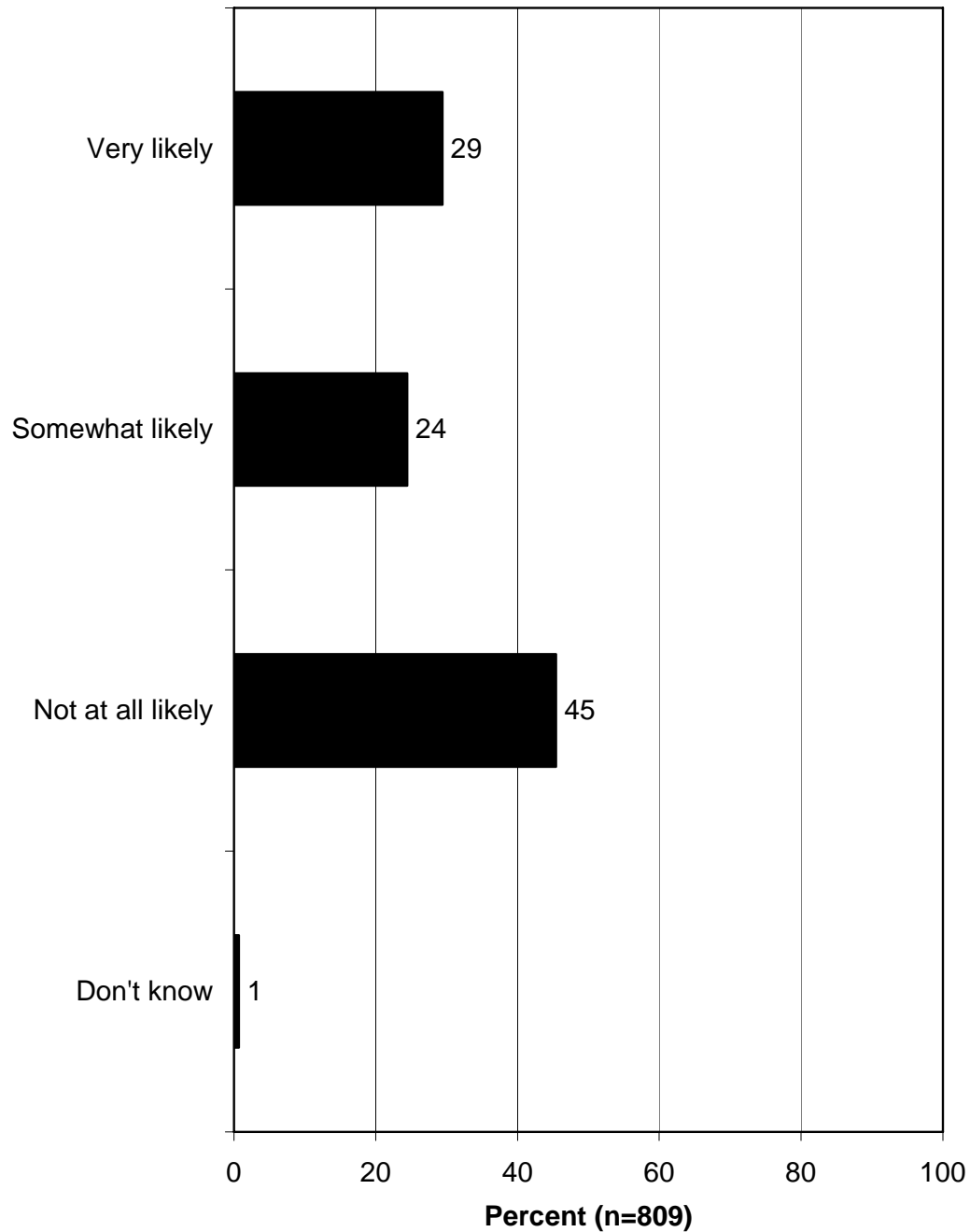
WILDLIFE VIEWING- AND HUNTING-RELATED ECONOMIC IMPACTS OF HAVING ELK IN MARYLAND

- A slight majority of Maryland residents (53%) would be likely to take a trip for the purpose of viewing elk in the state in the next two years, with 29% being *very* likely to do so. On the other hand, 45% say they would be *not at all* likely.
 - The majority of those who would be likely to take a trip to view elk (64%) said they would expect to spend no more than \$300 on items such as gas, food, and lodging; the median dollar amount named was \$200, while the mean was \$301.52.
 - The regional crosstabulation found that Central and Eastern Maryland residents were, on average, likely to spend more money on elk-viewing trips than were Western Maryland residents.
- One question in this section asked respondents whether they thought the reintroduction of elk into western Maryland would have a positive or negative effect on the business or industry in which they worked, and the vast majority of residents (83%) said that the reintroduction would have no effect. (Just 8% believed the reintroduction would have a positive effect, while 3% said it would have a negative effect on their business or industry.)
 - The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to say that the reintroduction would have a positive effect; by contrast, Central and Eastern Maryland residents were more likely to say the reintroduction would have no effect on their business or industry.
- Less than a fifth of respondents to the survey (16%) said they considered themselves to be hunters, with Western Maryland residents being more likely to indicate this. It is important to note that this percentage represents only those individuals who self-identified as hunters (which may be a subjective judgment on the part of the respondent); this figure is *not* necessarily indicative of actual hunting participation or hunting license sales in Maryland.
 - In total, more than half of those who described themselves as hunters (52%) said they would be *very* likely to try to go elk hunting in Maryland (pending a huntable population

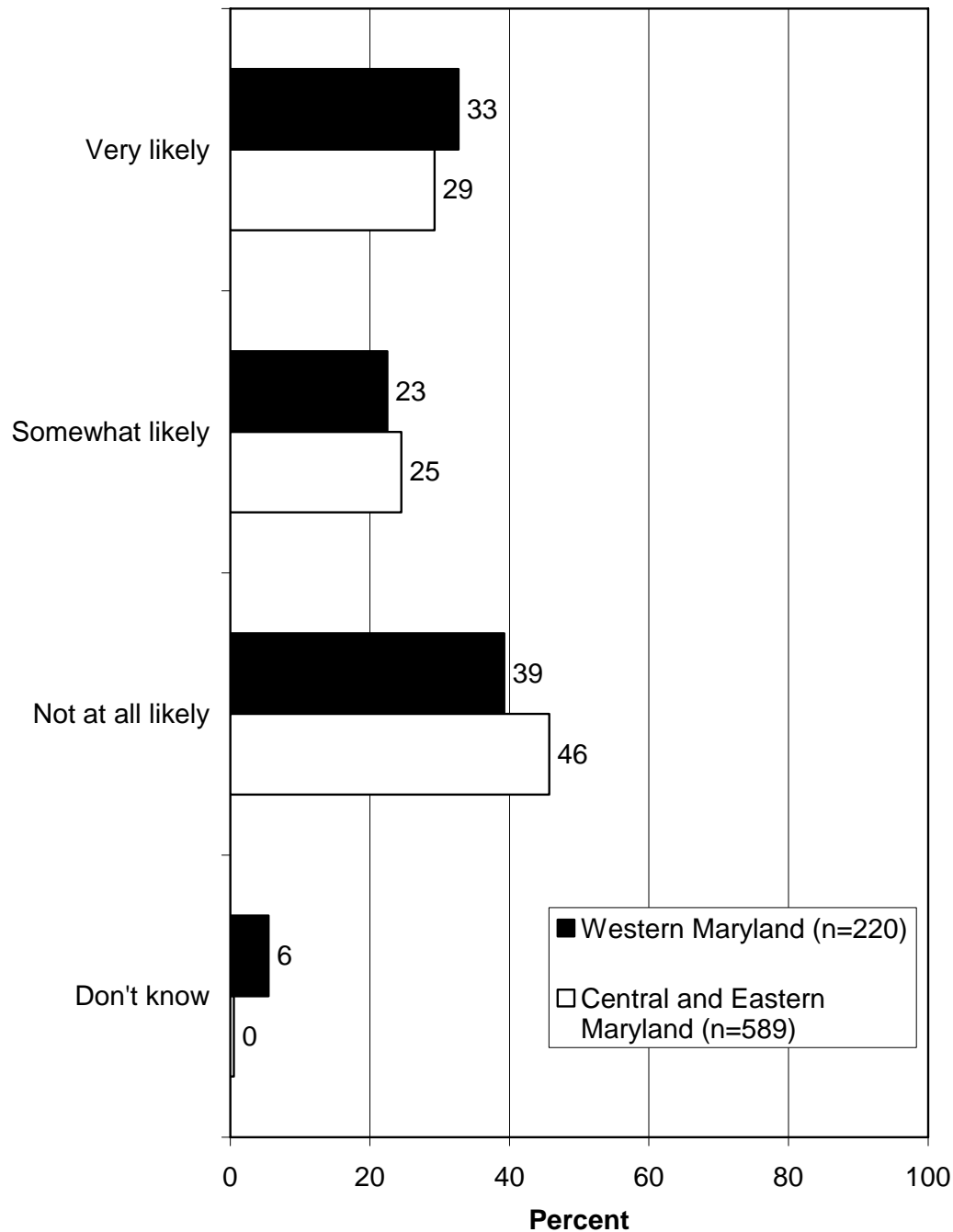
of elk); a further 31% said they would be *somewhat* likely to go elk hunting, for a total of 83% of hunters who would be likely to go elk hunting.

- The regional crosstabulation found that Western Maryland residents, compared to Central and Eastern Maryland residents, were more likely to say they were *very* likely to go elk hunting, with Central and Eastern Maryland residents being more likely to say they were *somewhat* or *not at all* likely to go elk hunting.
- Hunters in the sample were asked how much they were likely to spend on trips to go elk hunting, and the median dollar amount was \$200, while the mean was \$565.36.
 - The regional crosstabulation found that, similar to elk-viewing trips, Central and Eastern Maryland residents were, on average, likely to spend more money on elk-hunting trips than were Western Maryland residents.

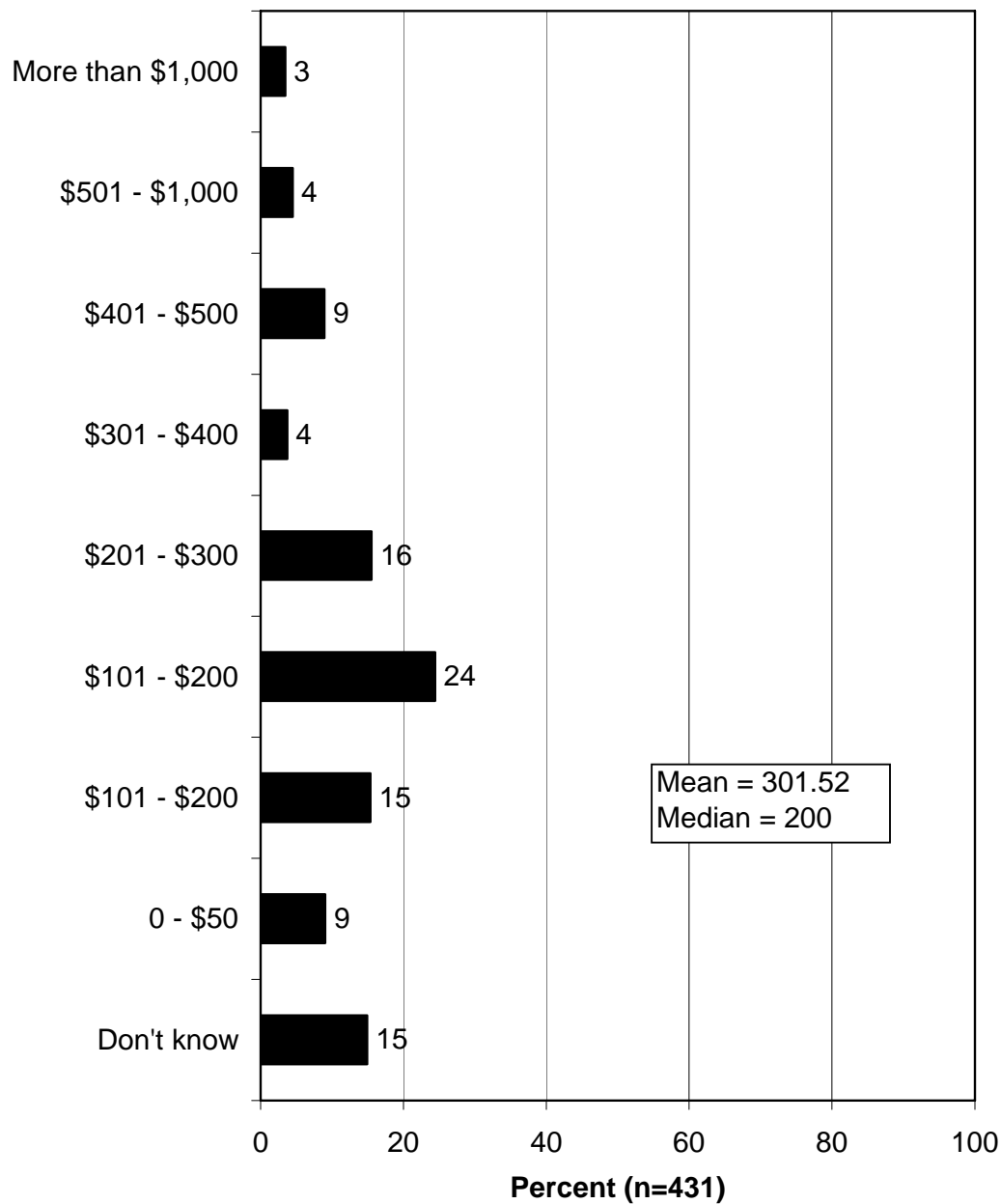
Q41. If elk were reintroduced into western Maryland, how likely would you be to take a trip in Maryland for the purpose of viewing elk in the next 2 years?



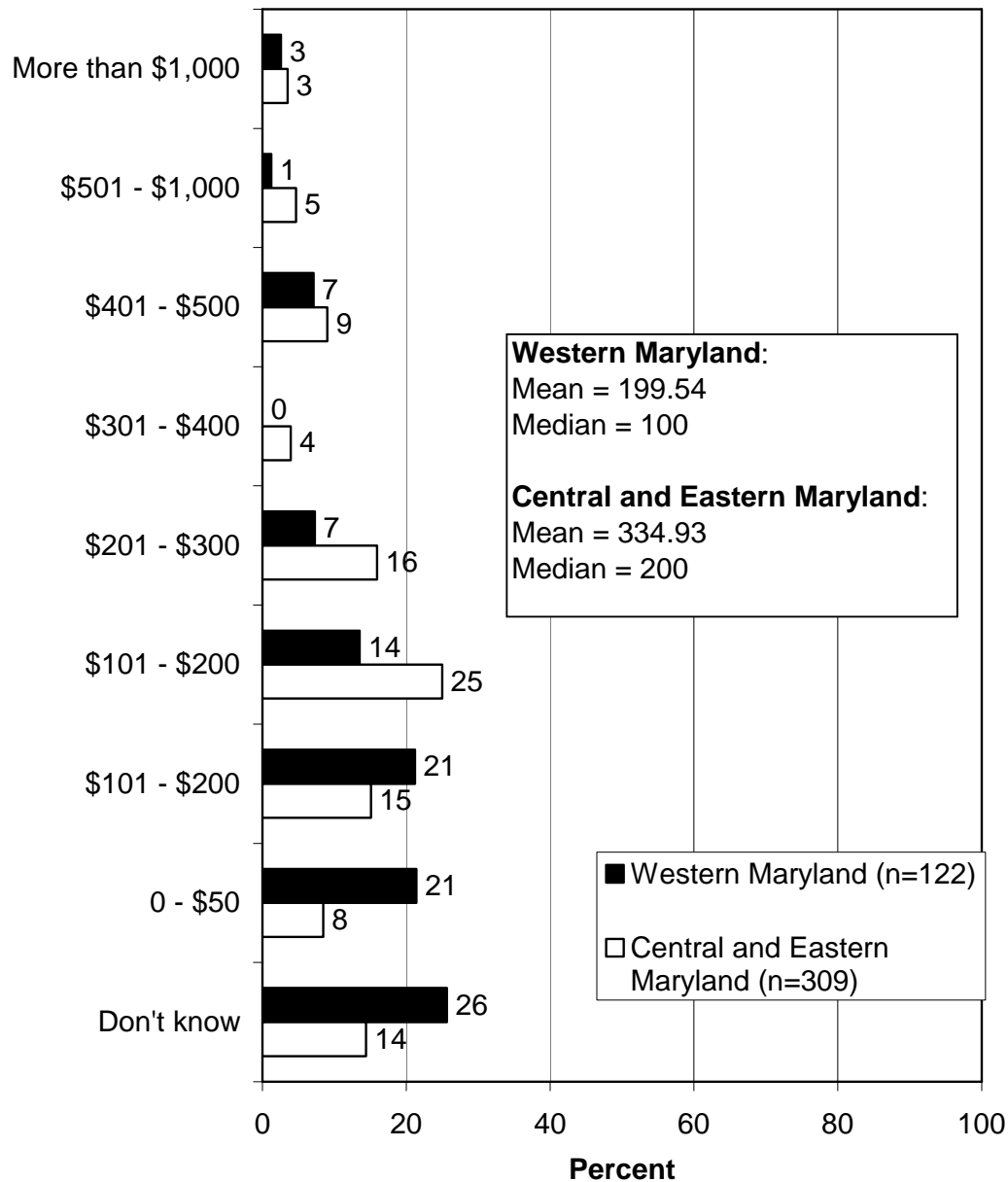
Q41. If elk were reintroduced into western Maryland, how likely would you be to take a trip in Maryland for the purpose of viewing elk in the next 2 years?



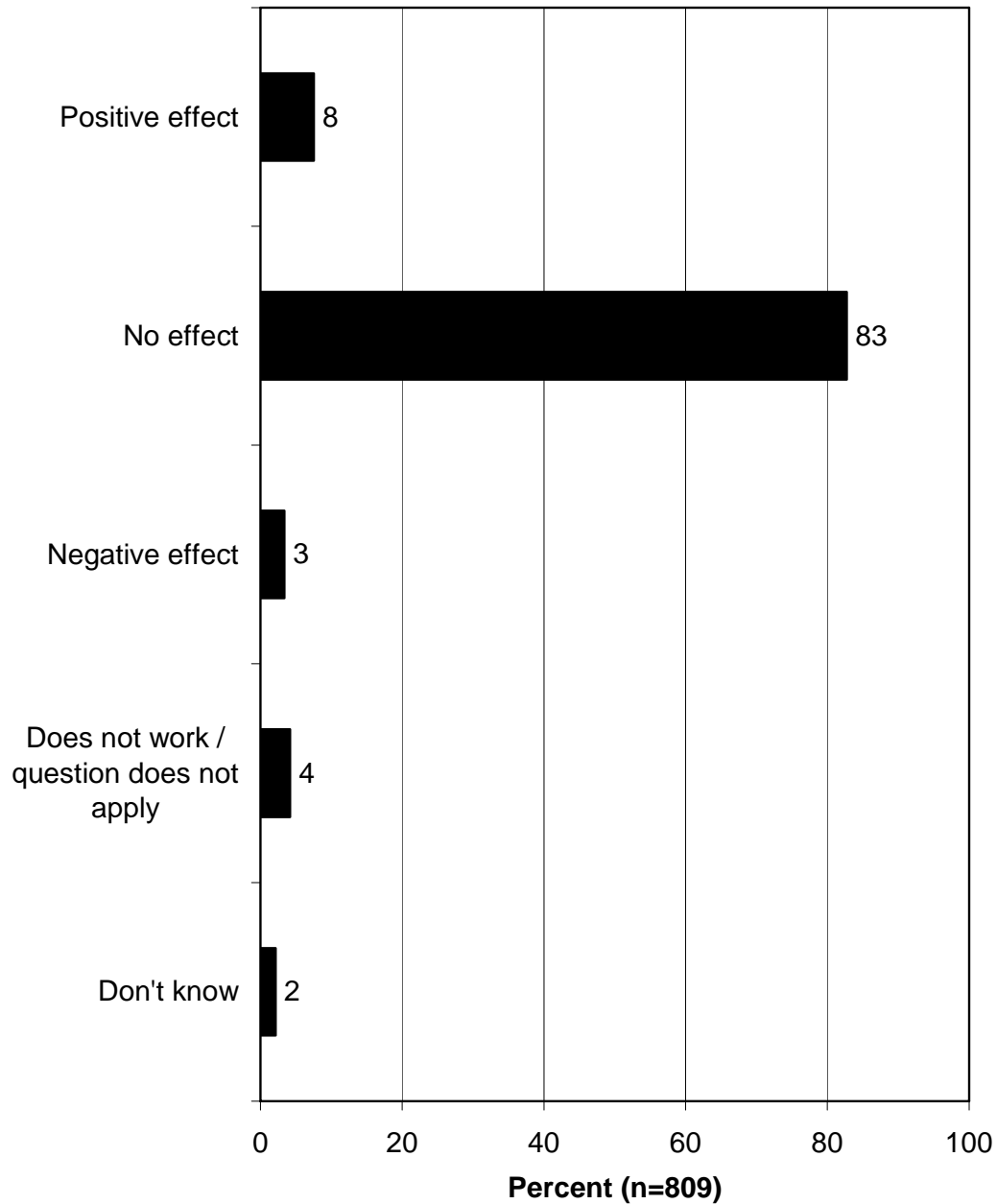
Q42. About how much would you expect that you would spend on such a trip on such things as gas, food, lodging, and so forth? (Asked of those who indicated being very or somewhat likely to take a trip to view elk in the next 2 years.)



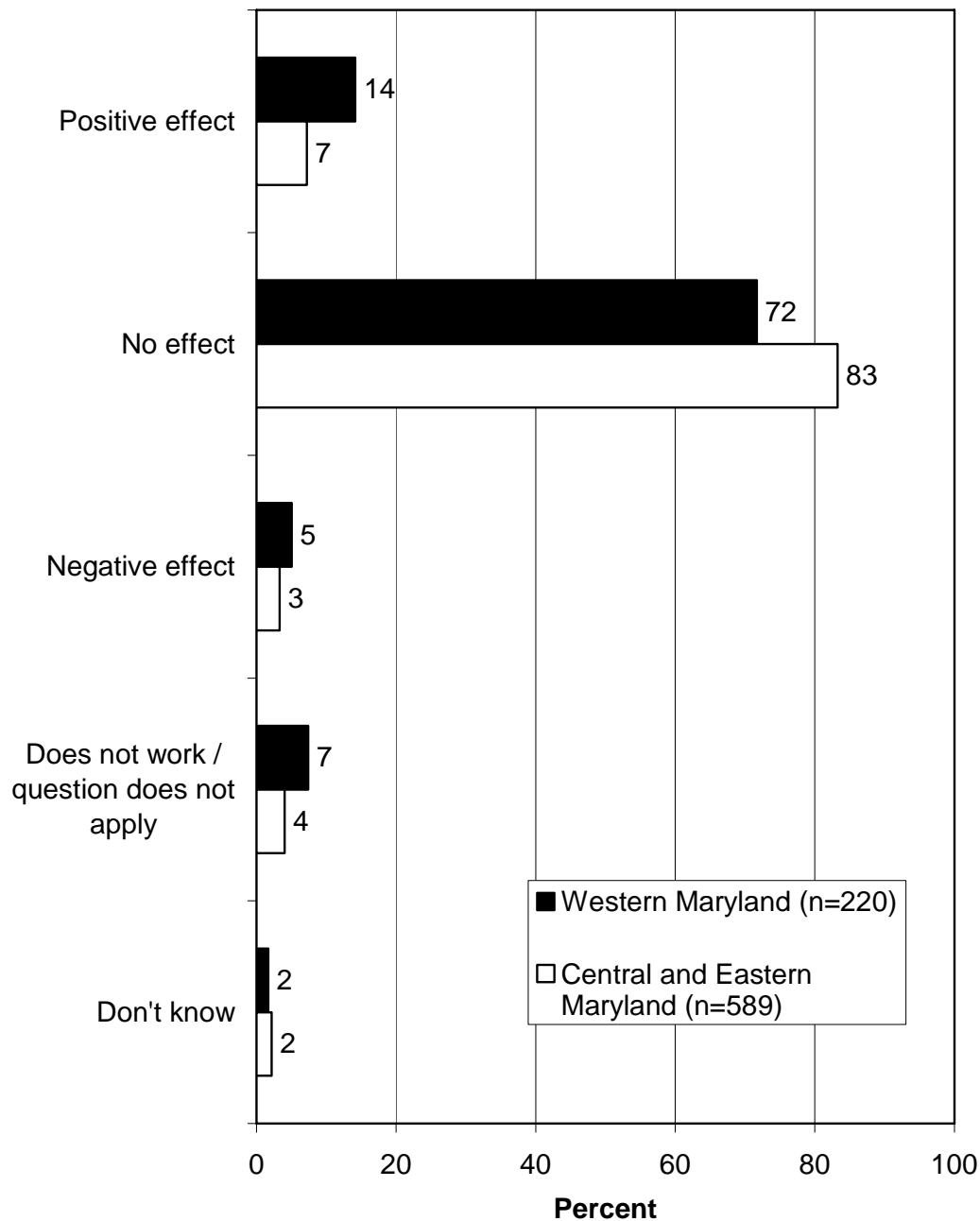
Q42. About how much would you expect that you would spend on such a trip on such things as gas, food, lodging, and so forth? (Asked of those who indicated being very or somewhat likely to take a trip to view elk in the next 2 years.)

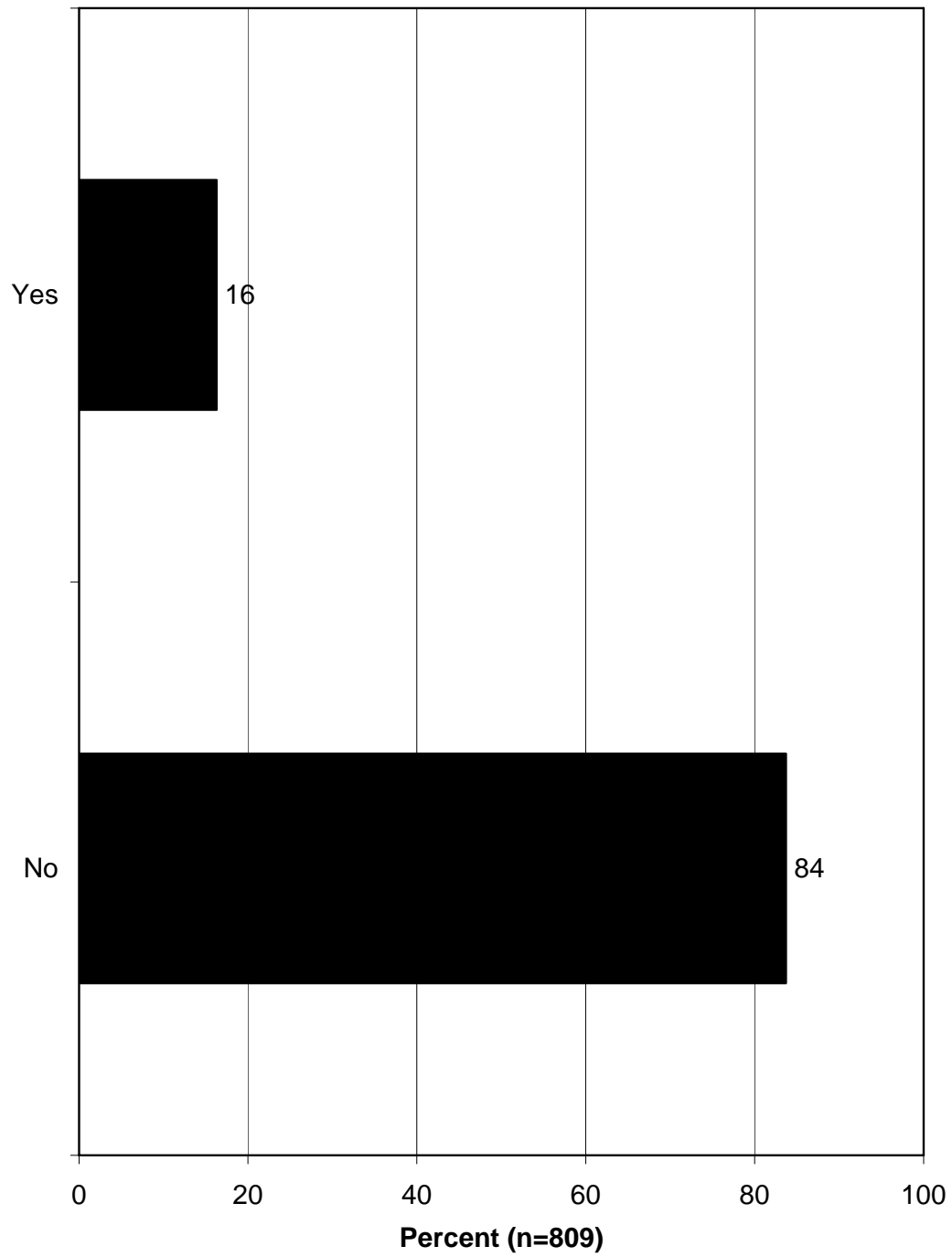


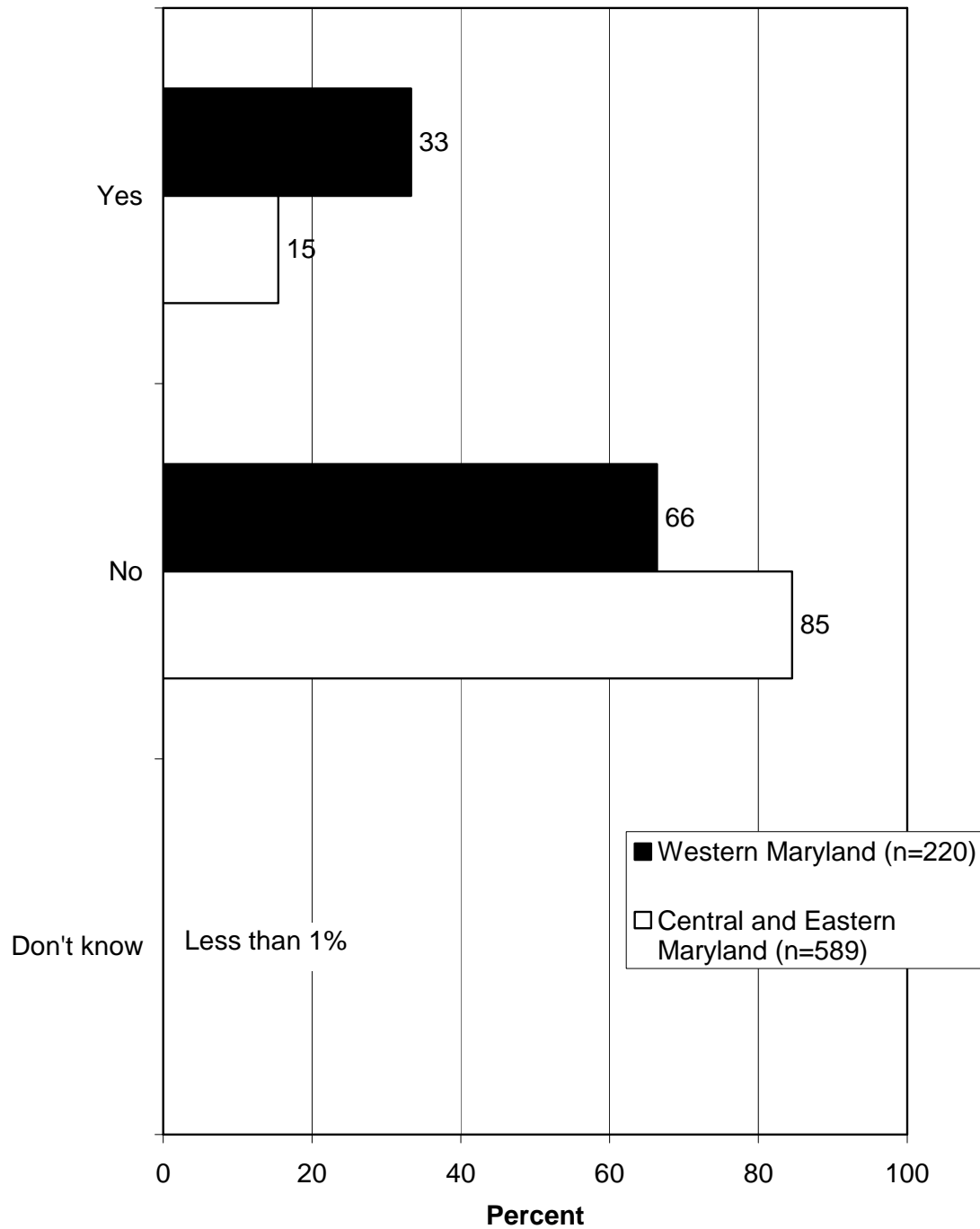
Q45. Do you think that the reintroduction of elk into western Maryland would have any effect on the business or industry in which you work or on your job in any way? If so, would it be positive or negative?



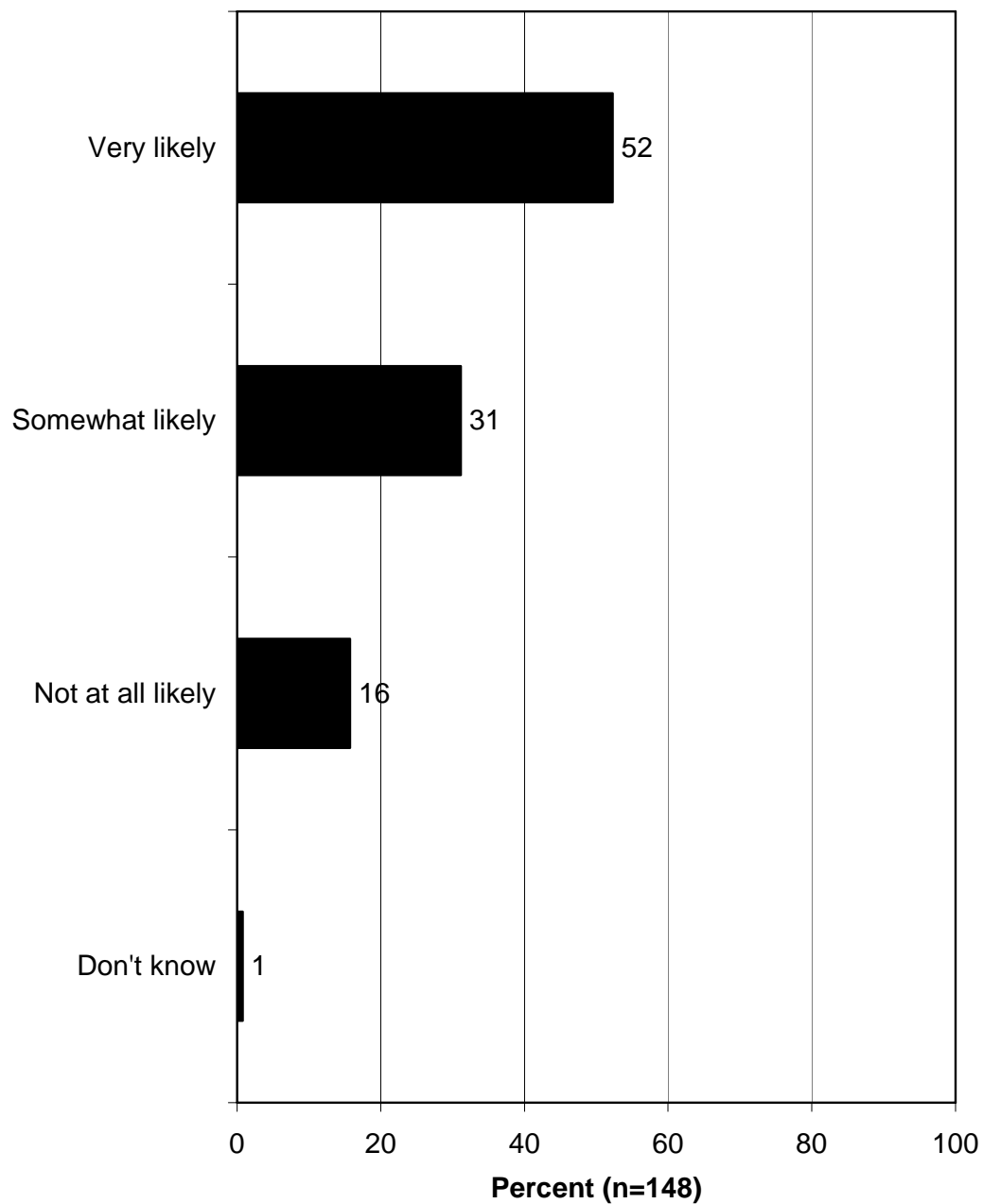
Q45. Do you think that the reintroduction of elk into western Maryland would have any effect on the business or industry in which you work or on your job in any way? If so, would it be positive or negative?



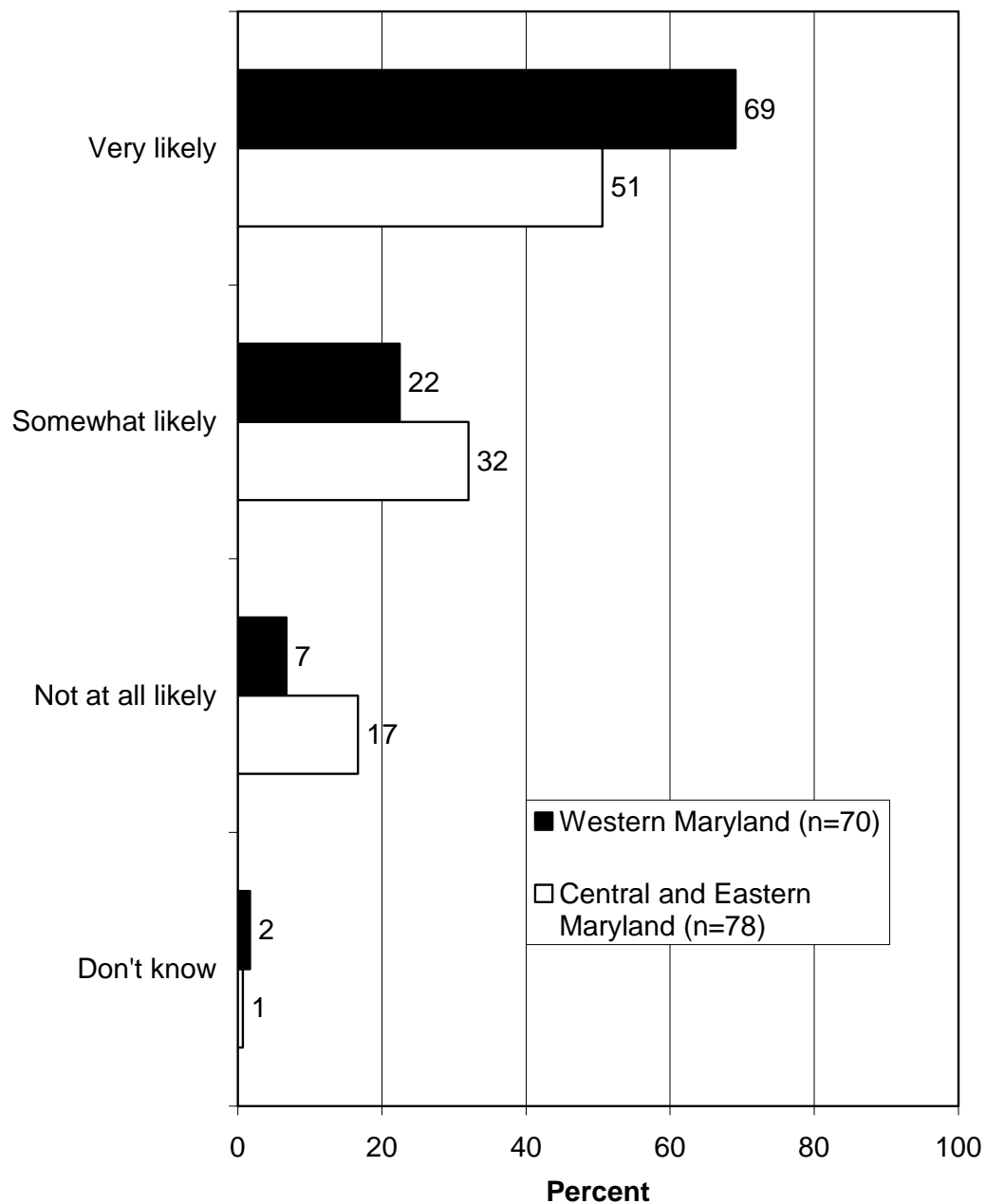
Q82. Do you consider yourself a hunter?

Q82. Do you consider yourself a hunter?

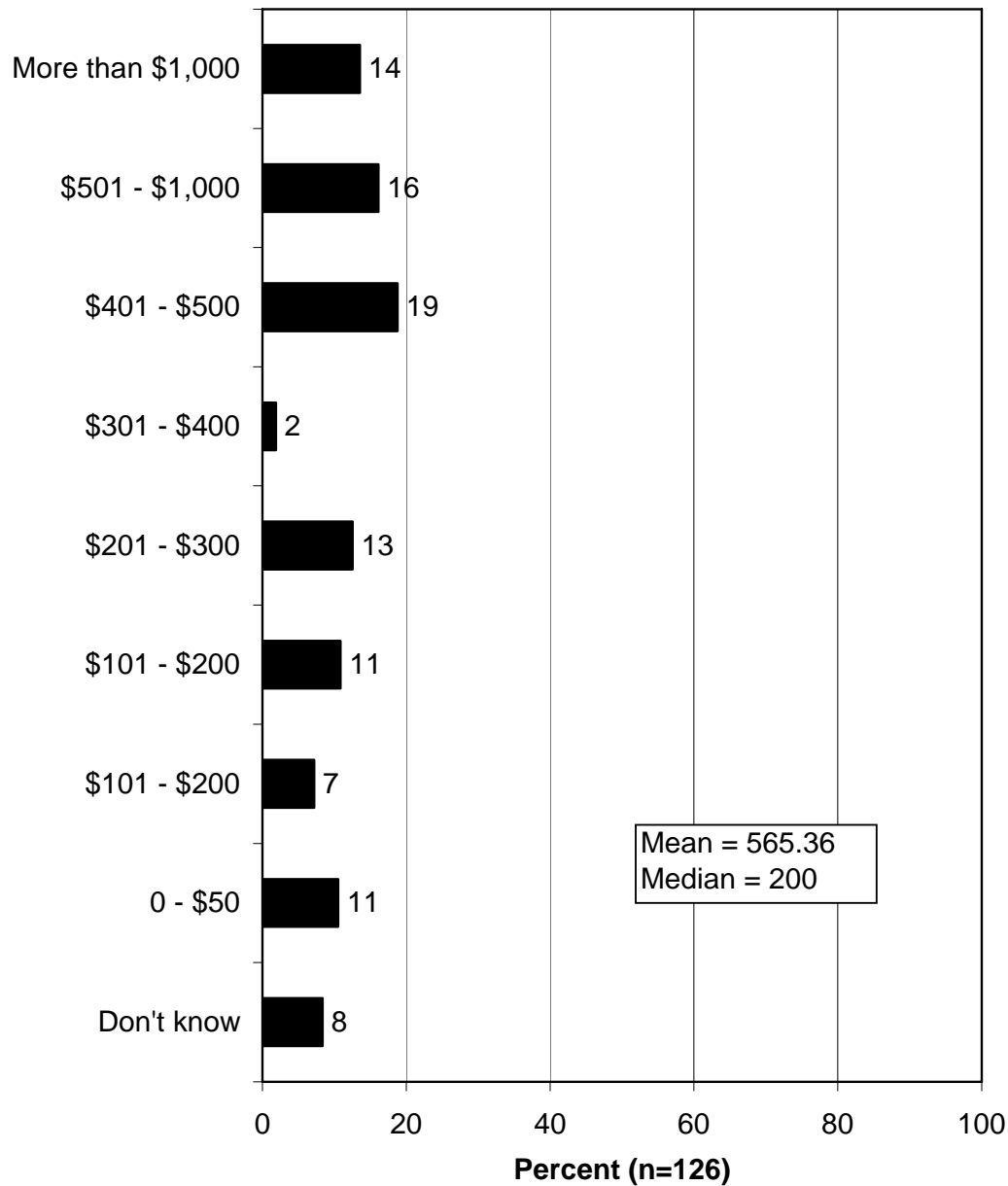
Q83. If there was ever a huntable population of elk in western Maryland, how likely is it that you would try to go hunting elk in Maryland? (Asked of those who consider themselves hunters.)



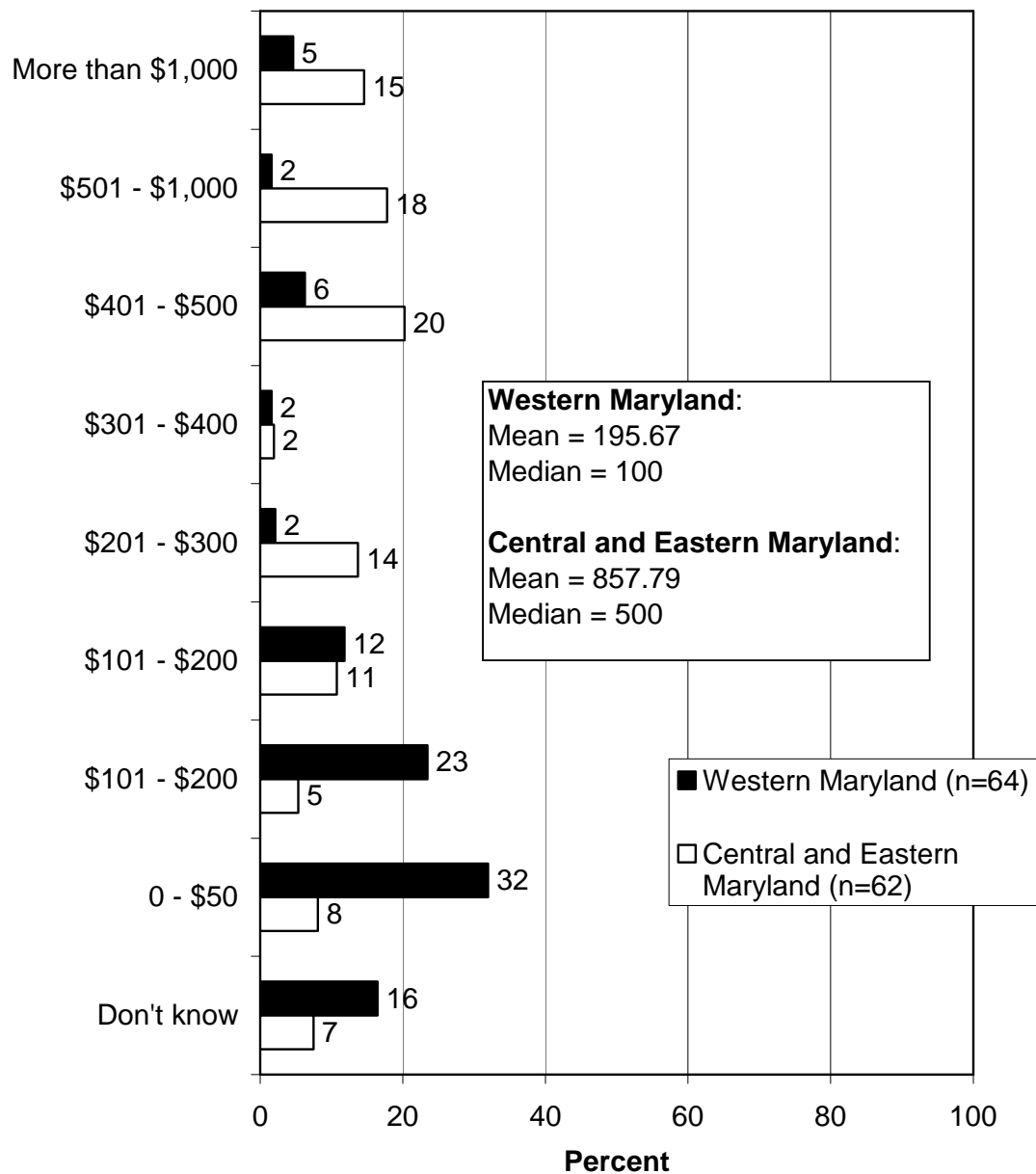
Q83. If there was ever a huntable population of elk in western Maryland, how likely is it that you would try to go hunting elk in Maryland? (Asked of those who consider themselves hunters.)



Q84. About how much would you expect that you would spend going to hunt elk, if you did so, excluding license costs? (Asked of those who indicated being likely to hunt elk in Maryland if there was ever a huntable population.)



Q84. About how much would you expect that you would spend going to hunt elk, if you did so, excluding license costs? (Asked of those who indicated being likely to hunt elk in Maryland if there was ever a huntable population.)

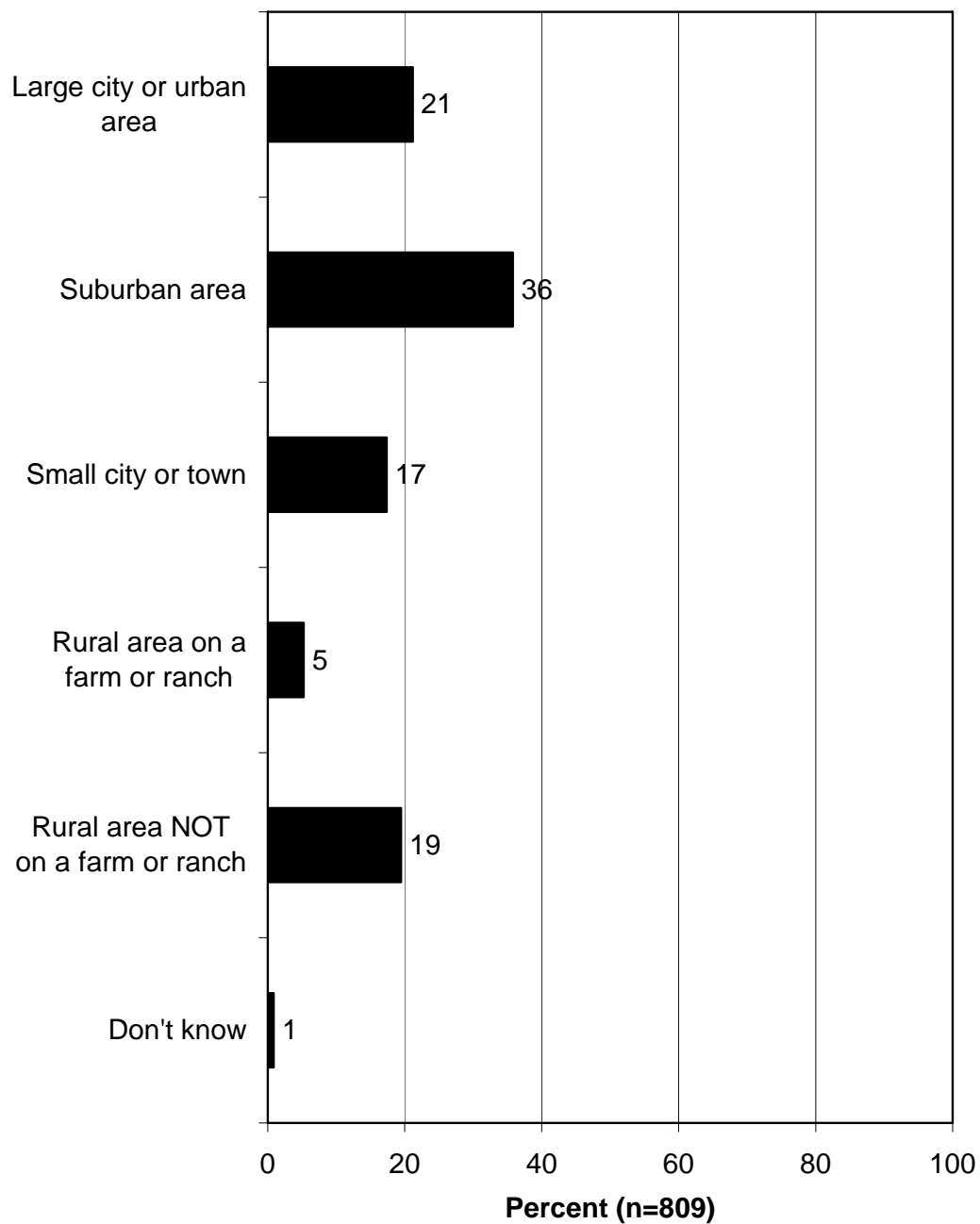


DEMOGRAPHIC DATA

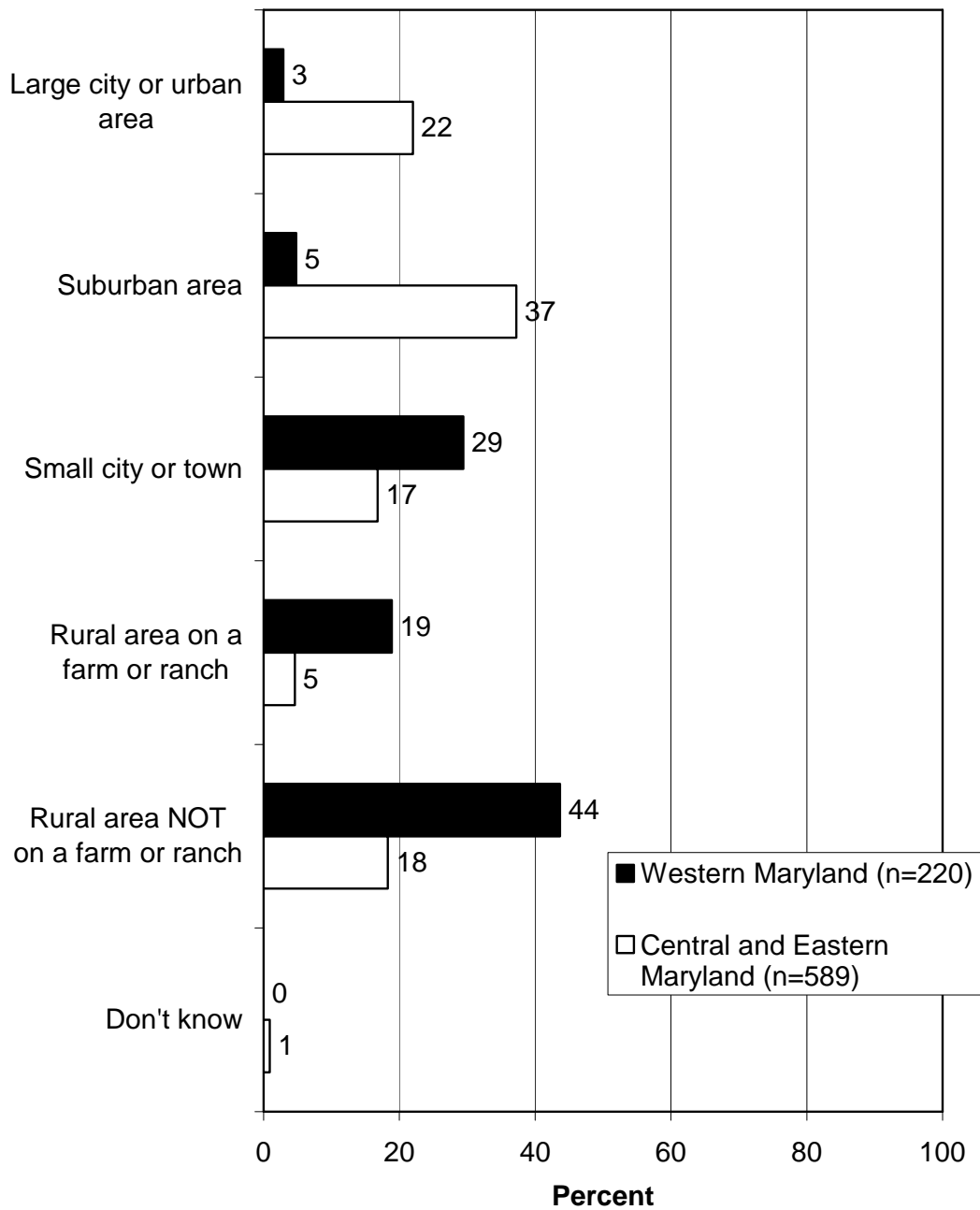
- The majority of respondents to the survey (57%) described their place of residence as a large city, urban area, or suburban area; a further 17% came from a small city or town, and 24% came from a rural area.

- Household income, levels of education completed, age, and gender are also shown; note that the age and gender proportions of Western Maryland and Central/Eastern Maryland residents are generally quite similar.

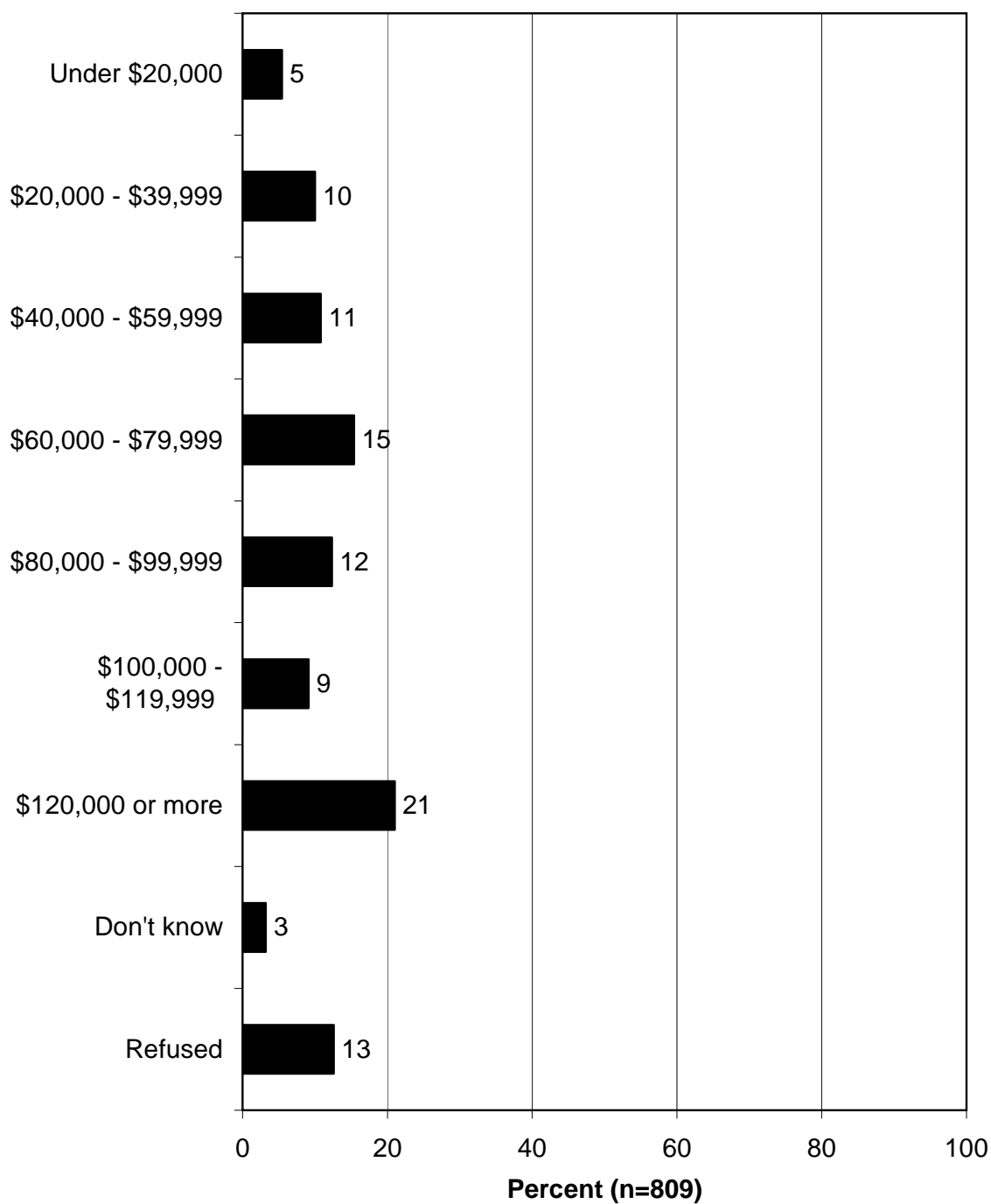
Q88. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area NOT on a farm or ranch?



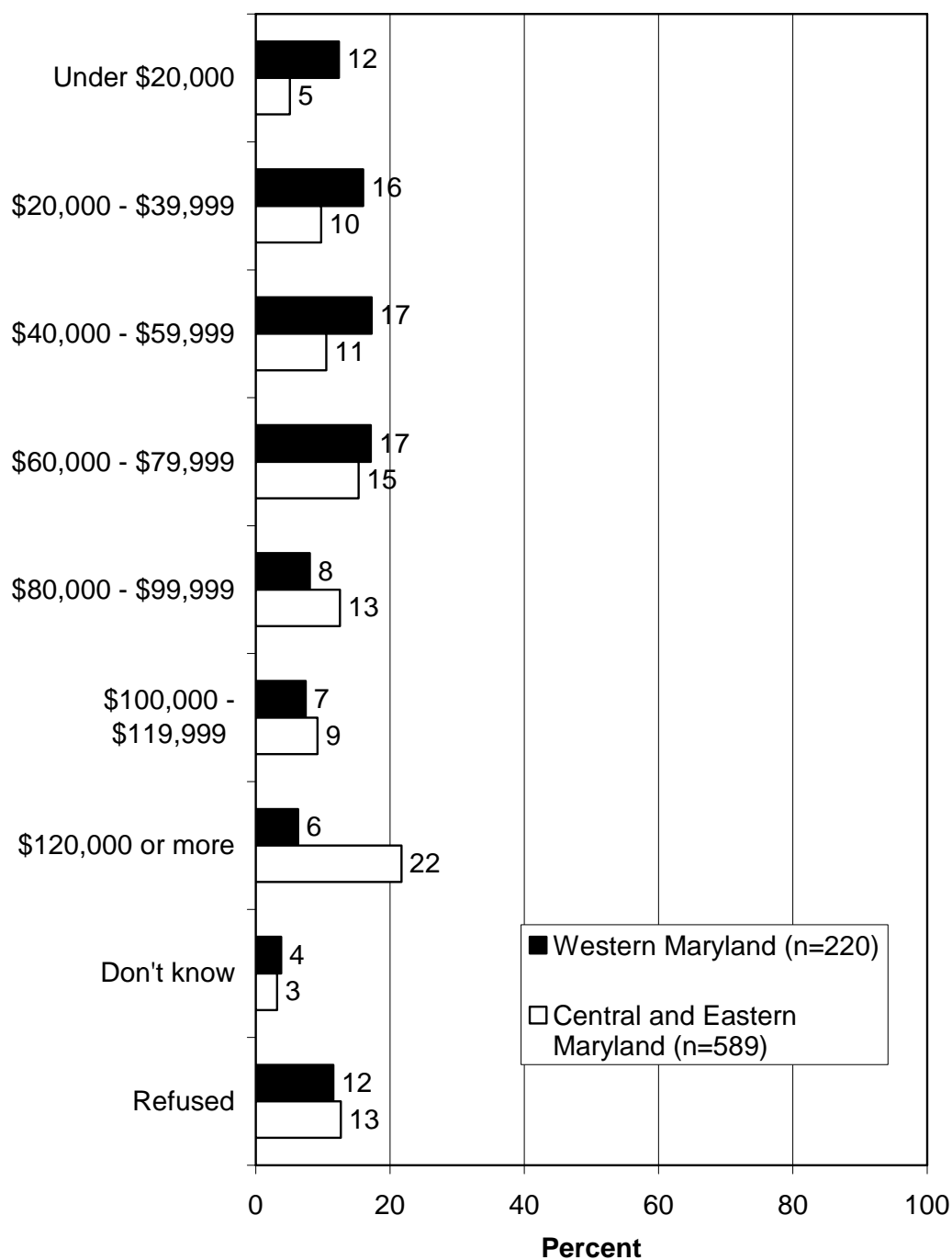
Q88. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area NOT on a farm or ranch?



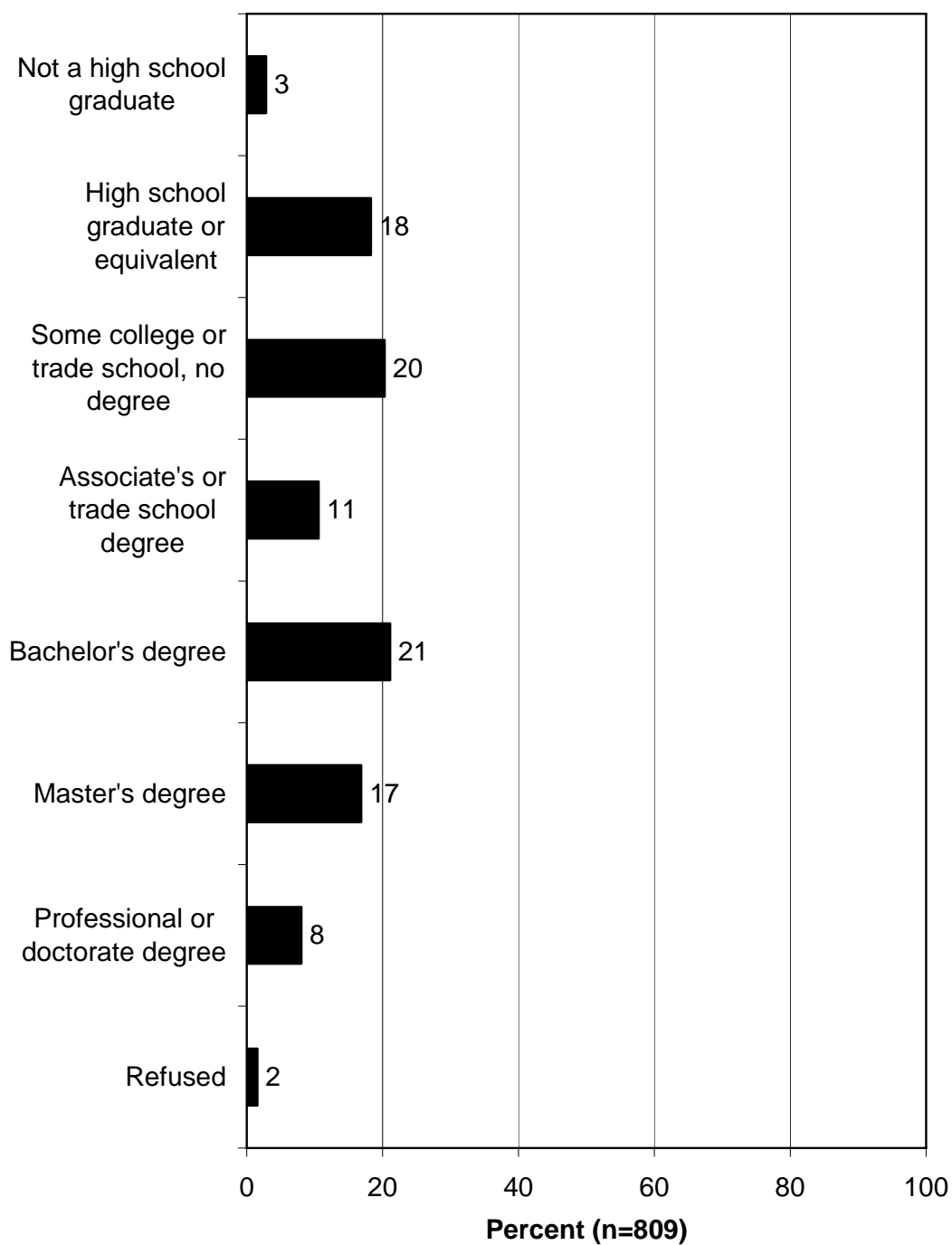
**Q89. Which of these categories best describes
your total household income before taxes last
year?**



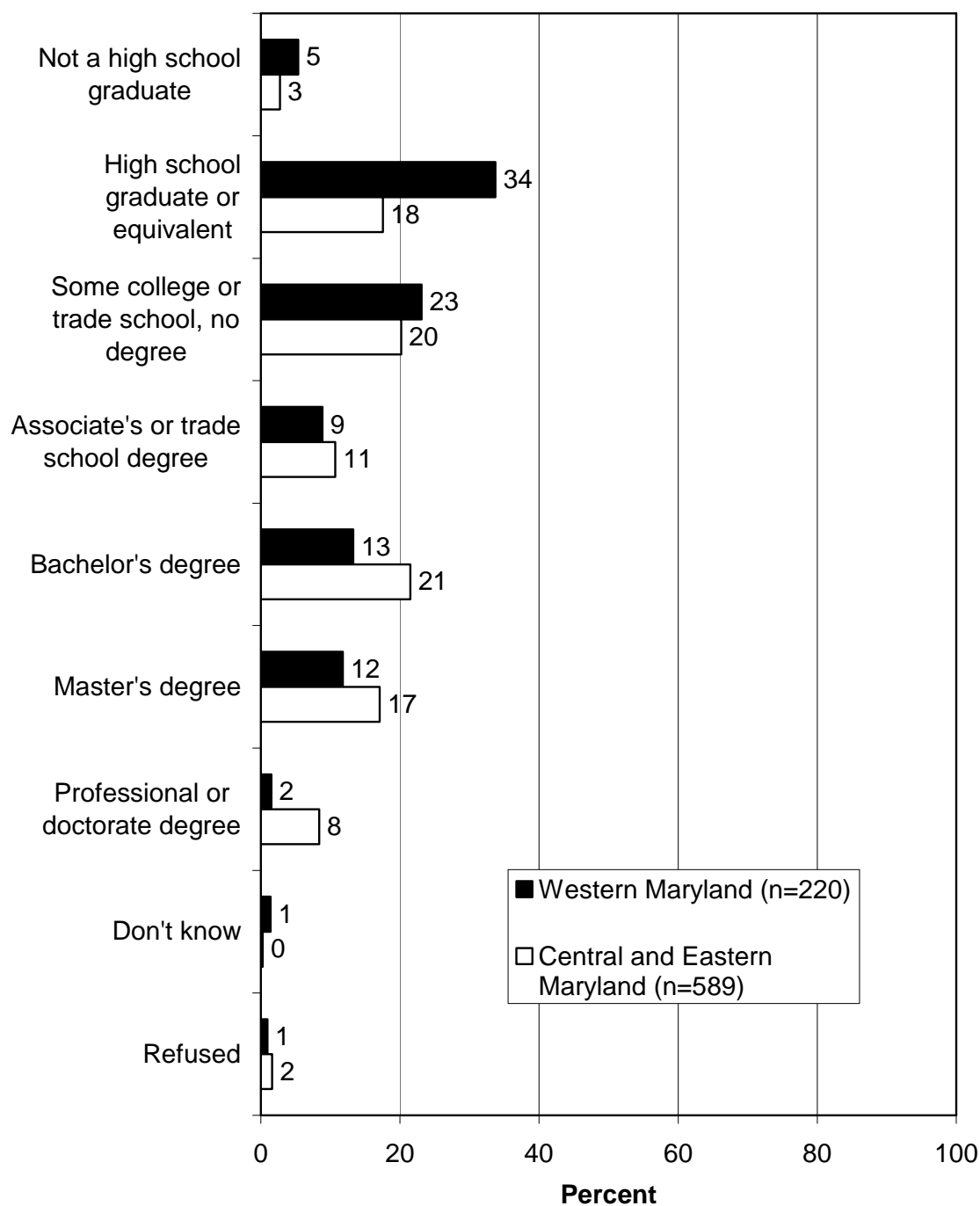
Q89. Which of these categories best describes your total household income before taxes last year?

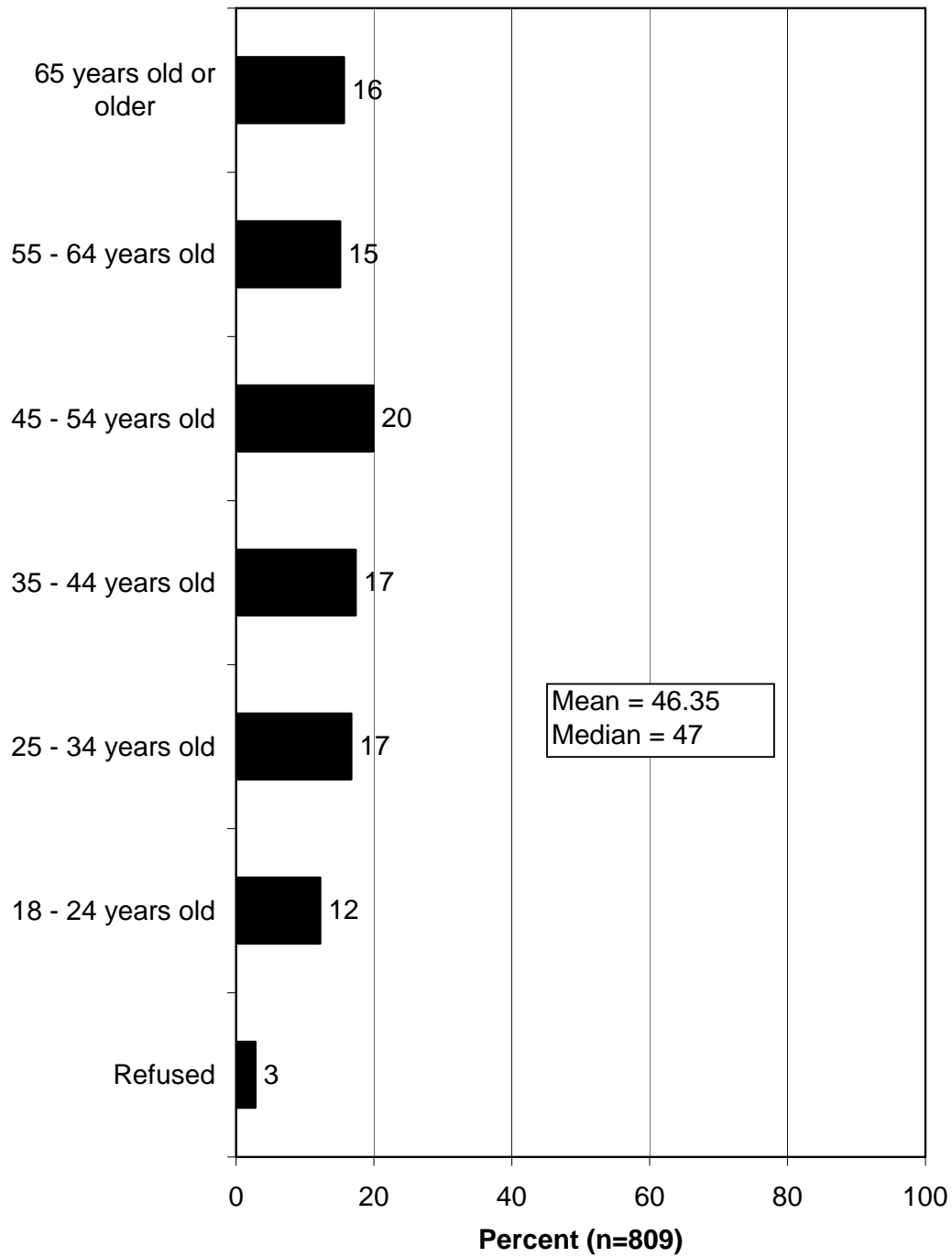


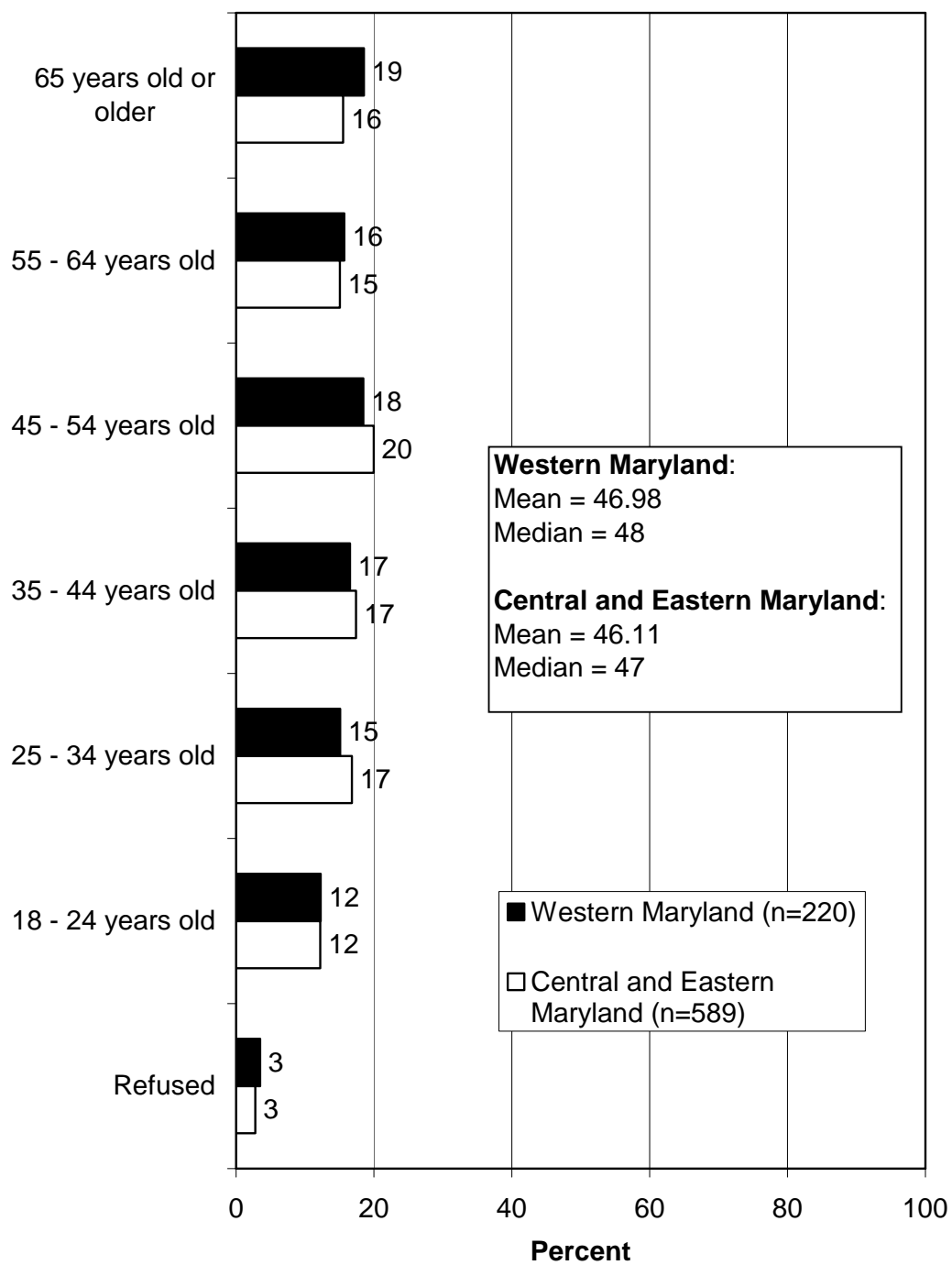
Q90. What is the highest level of education you have completed?



Q90. What is the highest level of education you have completed?

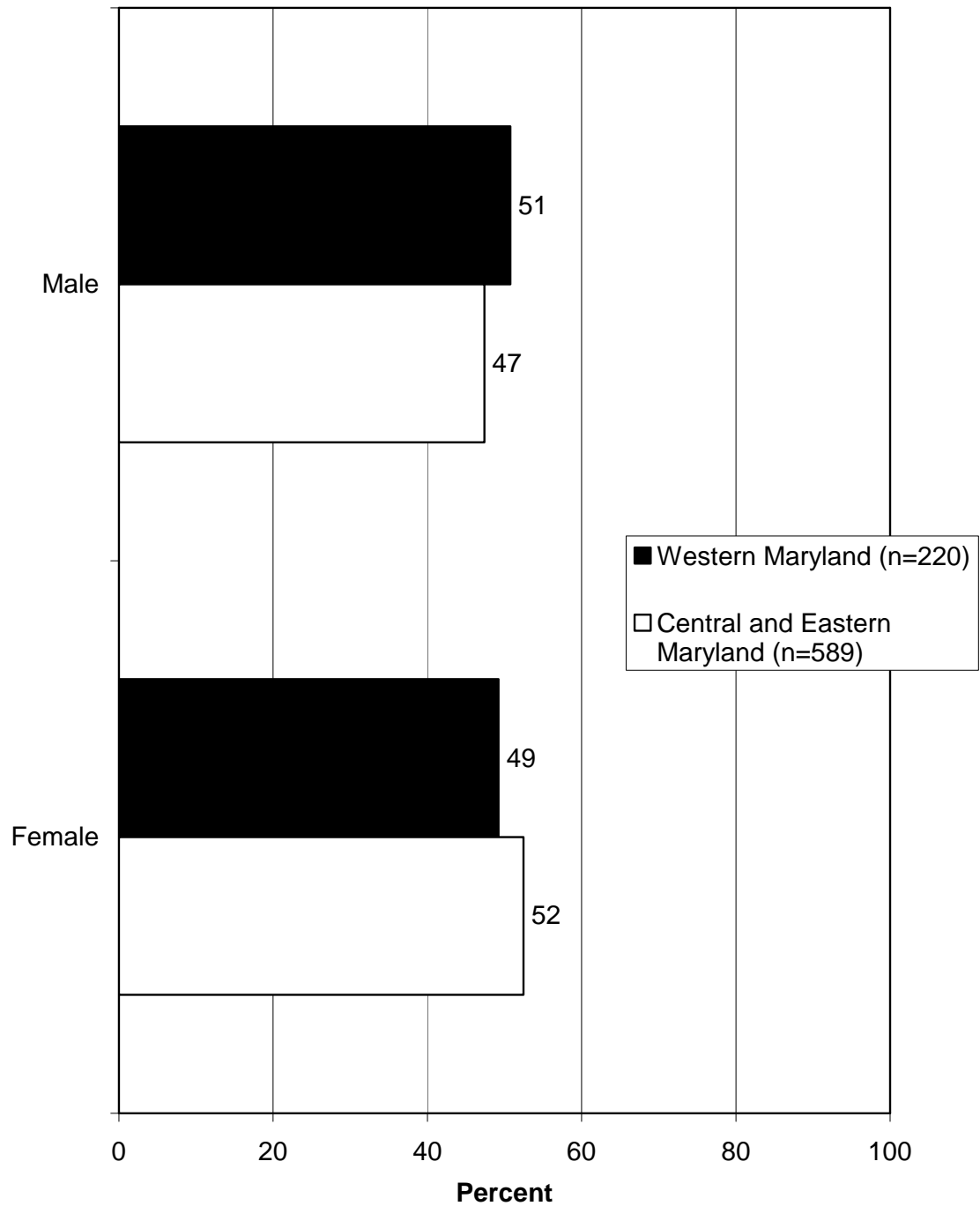


Q91. Respondent's age.

Q91. Respondent's age.

Q97. Respondent's gender. (Observed, not asked.)



Q97. Respondent's gender. (Observed, not asked.)

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 20 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.

Visit the Responsive Management website at:

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