

Increasing Awareness of and Support for the Pennsylvania Game Commission: Communications Recommendations



Responsive Management

2019

**INCREASING AWARENESS OF AND SUPPORT FOR
THE PENNSYLVANIA GAME COMMISSION:
COMMUNICATIONS RECOMMENDATIONS**

Responsive Management

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1. INTRODUCTION AND BACKGROUND OF THE REPORT

This report serves as guidance for the Pennsylvania Game Commission (hereinafter referred to as the Commission) in its communications with the public about the work that it does. The report is the culmination of extensive research about how the public perceives the Commission and the public's opinions on a variety of wildlife and outdoor recreation issues, specifically including the public's opinions on hunting.

The entire project is meant to enhance the Commission's relationship with the public by developing a better understanding of its stakeholders and their opinions and attitudes toward the Commission, its programs, and its methods of outreach and communication.

The research on which this guidance is based comprised a review of previous research, a major survey of Pennsylvania residents, and focus groups of residents. The research review pulled in reports from within Pennsylvania but included studies outside of Pennsylvania when the research had applicability to the Commonwealth. The focus groups were composed of Pennsylvania residents and were held in different geographic areas of Pennsylvania (Philadelphia and Huntingdon). Finally, the survey was of residents statewide, and the data analysis of the survey results included a regional breakdown.

This report describes in detail the strategies for conducting successful communications with the public and the Commission's constituents, including hunters and other outdoor recreationists who use Commission-managed lands. These strategies are based on scientifically rigorous research that has been conducted about wildlife and outdoor recreation.

The research components are summarized below. Note that the full methodology and results for the components were previously discussed in detail in separate reports that were issued to the Commission, shown below.

- Literature review: *Analysis of the Pennsylvania Game Commission's Stakeholders and Functions: Literature Review*
- Survey of residents: *Pennsylvania Residents' Attitudes Toward Wildlife Management and the Pennsylvania Game Commission*
- Focus groups: *Pennsylvania Residents' Attitudes Toward Wildlife Management and the Pennsylvania Game Commission: Focus Group Results*

RESEARCH REVIEW

The first step in the project was a thorough research review conducted by Responsive Management. The review considered data and information from 41 reports or data sources, including 27 pertaining directly to Pennsylvania. The research looked at the most salient issues related to the Commission, its constituents, its programs, and its relationship with its stakeholders. The information contained in the research review spanned a time period from 1991 through 2018. Including information over this time span allowed a glimpse into how opinions have changed or remained the same throughout the past few decades.

SCIENTIFIC TELEPHONE SURVEY OF PENNSYLVANIA RESIDENTS

Responsive Management conducted a scientific telephone survey to obtain current quantitative data regarding Pennsylvania residents' perceptions of the Commission, their interactions with the Commission, their opinions and interactions with wildlife in the Commonwealth, and their opinions on outdoor recreation, particularly wildlife-associated recreation. The survey questionnaire was developed cooperatively by Responsive Management and the Commission. To ensure that the sample was fully representational of Pennsylvania residents, both landlines and cell phones were called in their proper proportions.

The sample was stratified by the six Commission regions in the state (Figure 1.1). The sample within each region was representative of all residents within that region. For statewide results, the regions were then weighted so that they were in their proper proportions.

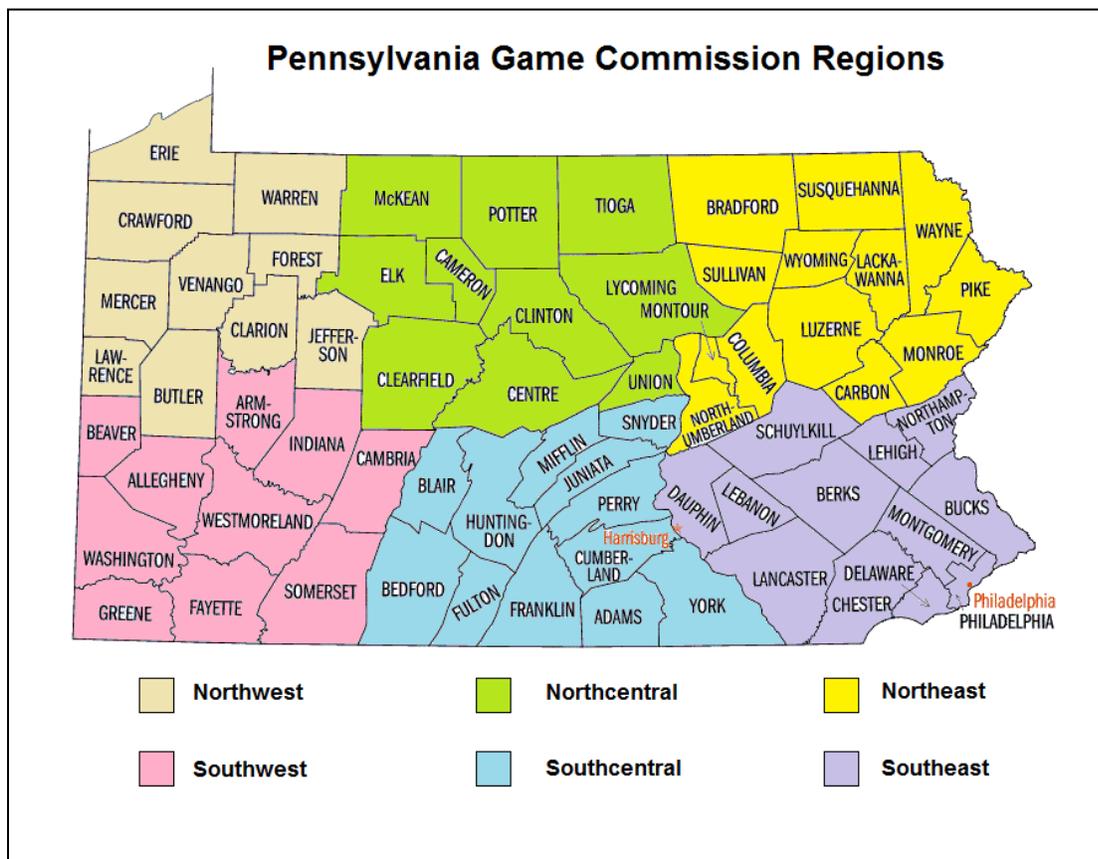


Figure 1.1. Commission Regions Used in the Sampling Plan

Some of the analyses used regions that separated the two major metropolitan areas (Philadelphia and Pittsburgh) from the rest of the state (Figure 1.2). This, in part, allows for an analysis of urban versus more rural respondents (“more” rural because there are still major cities outside of Philadelphia and Pittsburgh, so that the “remainder of the state” region, while largely rural, is not completely rural). These are the same regions as were used in the study, *America’s Wildlife Values: Pennsylvania State Report*, which was consulted extensively in the development of the findings and recommendations in this report.

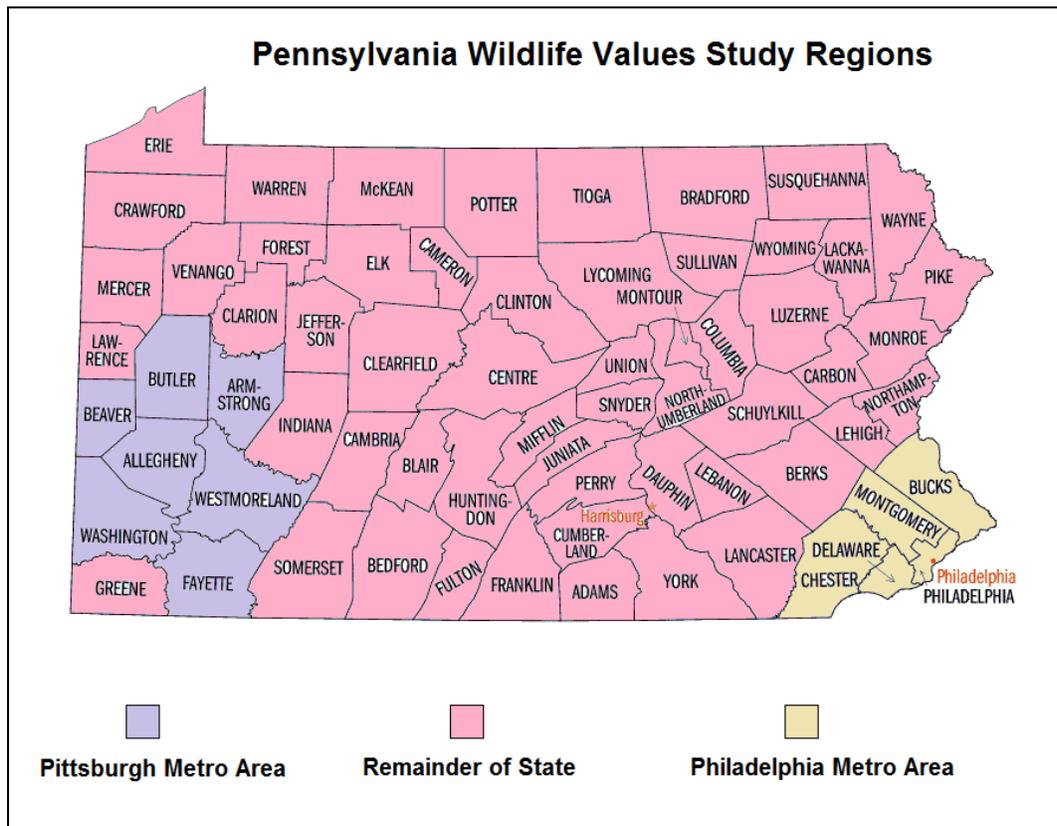


Figure 1.2. Major Metropolitan Area Regions Used in the Analyses

The survey was conducted in October and November 2018. The survey obtained 2,401 completed interviews with residents.

EXTENSIVE CROSSTABLATIONS OF TELEPHONE SURVEY DATA

In addition to the overall survey results, Responsive Management conducted extensive crosstabulations to compare various subgroups within the data. These crosstabulations provided insights into regional differences in perceptions and opinions, as well as differences among various constituent and demographic groups.

FOCUS GROUPS WITH RESIDENTS

To obtain qualitative data complementing and expanding on the survey results, Responsive Management conducted two focus groups with Pennsylvania residents in March 2019. Each focus group consisted of a moderated discussion with approximately ten individuals. The groups were conducted using a discussion guide developed by Responsive Management in cooperation with the Commission. Participants were recruited by telephone, and each participant received a monetary incentive for attending.

The focus group sites were chosen to obtain geographical diversity in the participants. Like many other states, Pennsylvania has very defined rural and urban populations with distinct needs and

opinions, and as such, researchers and the Commission were very careful to conduct one focus group in a rural region of the state (Huntingdon) and one focus group in the largest metropolitan center in the state (Philadelphia) to obtain information that was representative of the state's diverse populations.

The moderator of each group used a discussion guide to keep the focus group on topic while still allowing a free flow of ideas and opinions. The discussion guide included top-of-mind questions pertaining to residents' perceptions of the Commission and the agency's work, among other topics. The discussion guide was developed cooperatively by Responsive Management and the Commission.

Qualitative analyses of the focus groups were conducted through direct observation of the discussions by the moderators as well as through later observation and analysis of the recordings by other researchers. The organization and development of findings entailed a third review of the focus groups as part of the overall qualitative analysis. Note that focus group quotations are included throughout this report to illustrate points that are made.

STRUCTURE AND LAYOUT OF THE REPORT FINDINGS

The findings are grouped thematically. The subsequent thematic chapters in this report are as follows:

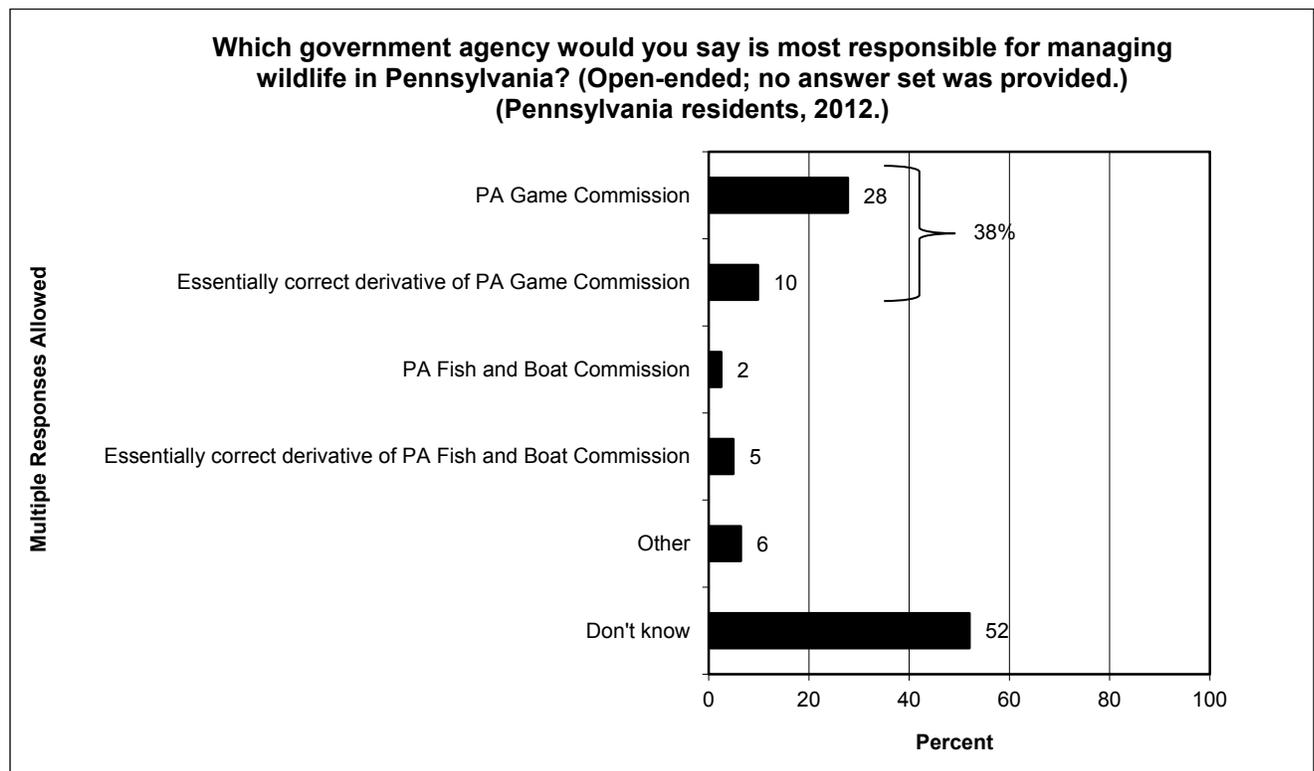
2. Awareness of the Commission
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15. General Recommendations
16. Demographic and Opinion Summaries of Target Groups

2. AWARENESS OF THE COMMISSION

A substantial percentage of residents are not aware of or familiar with the Commission.

The most basic outreach is needed to simply make residents aware that the Game Commission exists in the Commonwealth. Previous studies have found relatively low awareness of/familiarity with the Commission; a more recent example is detailed below.

A 2012 survey asked residents to name the government agency that is most responsible for managing wildlife in Pennsylvania, in an open-ended question (i.e., with no answer set from which to choose). The survey tracked those who gave the full, correct name and those who gave a close derivative (but not the absolute full, correct name), and Figure 2.1 shows that a bit more than a third of residents (38%) gave the correct or essentially correct name, but 52% did not know (Responsive Management, 2012a). Note that the question allowed multiple responses in that a resident could name both the Game Commission and the Fish and Boat Commission, although only a small percentage named both.



Source: Responsive Management, 2012a.

Figure 2.1. Knowledge of the Agency Responsible for Managing Wildlife, 2012

The survey of residents conducted for this project asked about familiarity with the Commission, but using the name in the question wording. **It found that 26% say that they are not at all familiar with the Commission, and another 6% confuse it with the agency that oversees gambling and casinos in Pennsylvania (the Gaming Control Board), for a sum of 32% who have no real familiarity with the Commission (Figure 2.2).** These findings show that a substantial percentage of Pennsylvania residents are simply not aware of the Commission and have no meaningful connection with it.

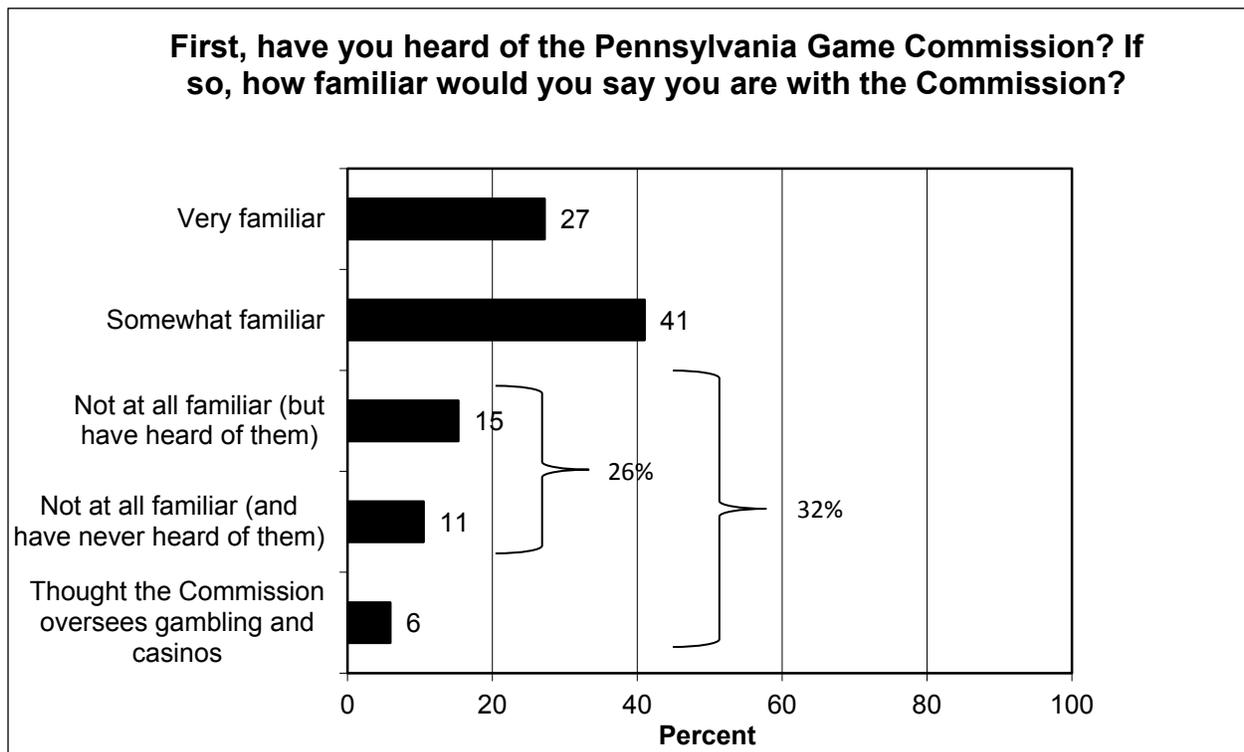


Figure 2.2. Familiarity With the Game Commission

Based on the groups identified above, demographic crosstabulations were run. There are three target markets of interest, with slightly different approaches to communicating with them: those who are very familiar with the Commission, those who are somewhat familiar, and those who have no real familiarity with the Commission (i.e., the three lowest bars in Figure 2.2 that sum to 32%).

Those who are very familiar with the Commission tend to be rural, politically conservative, male, white, less educated, and older. Most of them hunt (the strongest association of all to familiarity with the Commission), and they tend to use social media rarely or never.

Figure 2.3 shows multiple demographic and behavioral characteristics of those who are very familiar with the Game Commission. The striped line shows the percentage overall (i.e., among all residents) who meet the given condition, in this case being very familiar with the Commission. The characteristics above the striped line are *more* likely to be very familiar, and the characteristics below the striped line are *less* likely to be very familiar with the Commission.

More nuanced communications can go to this group regarding the work that the Commission does, as this group's members are already familiar with some of the work to some degree. An explanation of how to read these types of graphs is included on this first one.

Those who are only somewhat familiar with the Commission tend to be rural, to not hunt, to be white, be more educated, and be older (Figure 2.4). The mixed demographics of this group is partly a result that the response being analyzed is in the middle between the two extremes. It is, therefore, perhaps of more utility to continue on and look at those who are not at all familiar, and this discussion follows Figures 2.3 and 2.4.

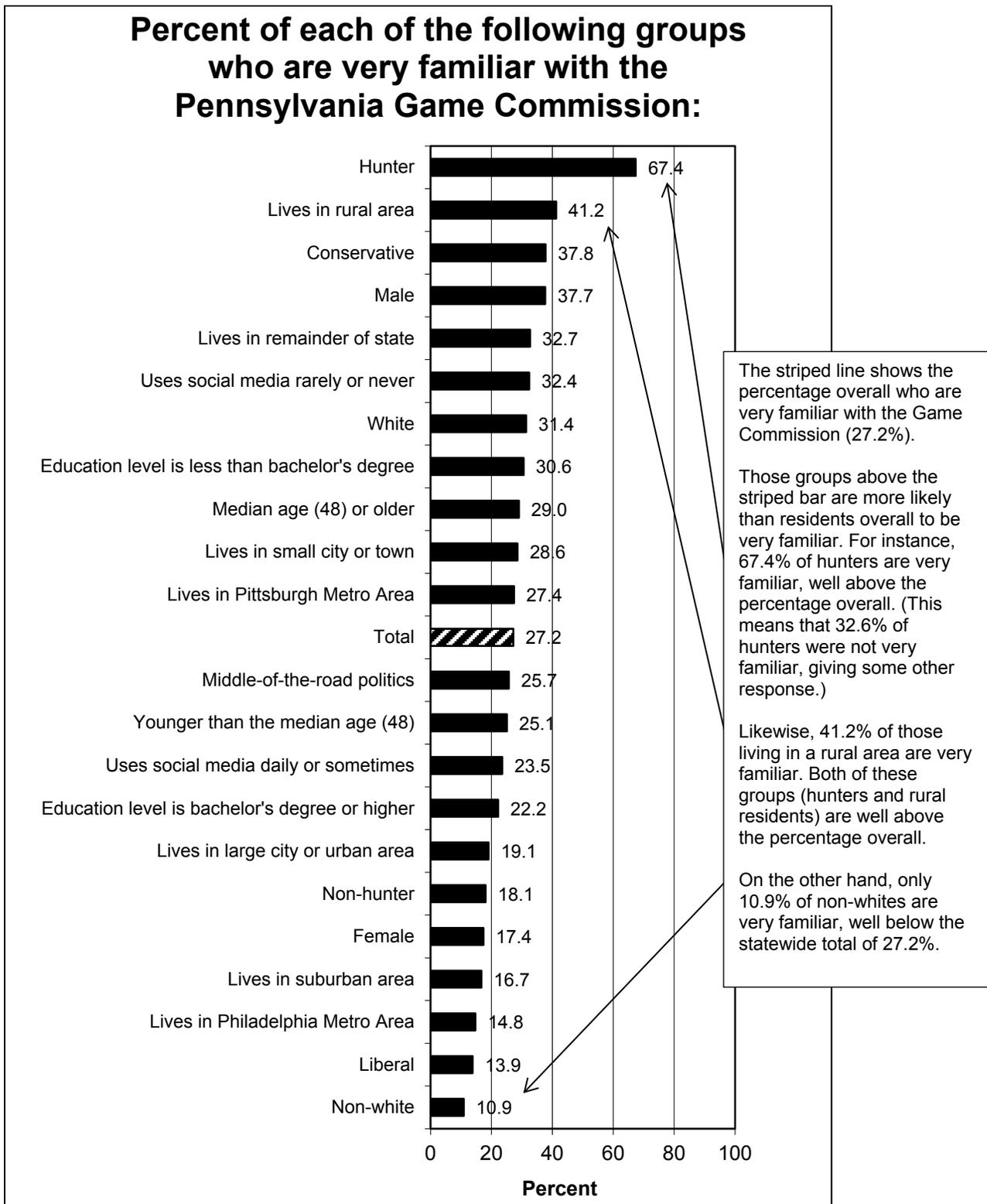


Figure 2.3. Characteristics of Those Very Familiar With the Commission

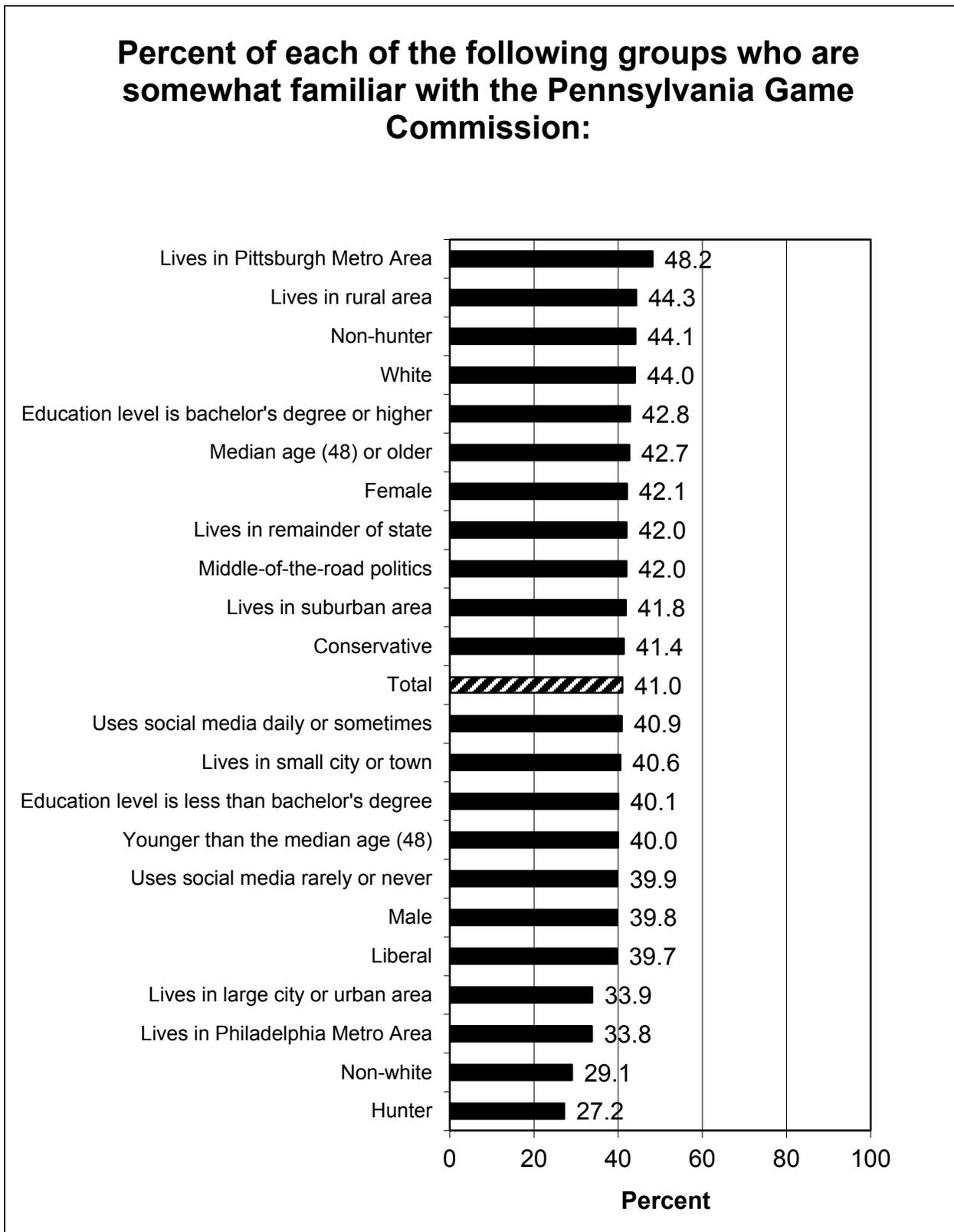


Figure 2.4. Characteristics of Those Somewhat Familiar With the Commission

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

Those who are not familiar with the Commission (and this includes those who had confused it with the Pennsylvania Gaming Control Board) tend to be non-white, a resident of the Philadelphia Metro Area, liberal, a resident of a large city/urban area or suburban area, female, not engaged in hunting, a user of social media daily or sometimes, in the higher education bracket, and younger. Figure 2.5 shows these characteristics that are associated with being not familiar with the Commission. Communications to this group would need to be the most basic regarding the Commission’s very existence and the work that it does.

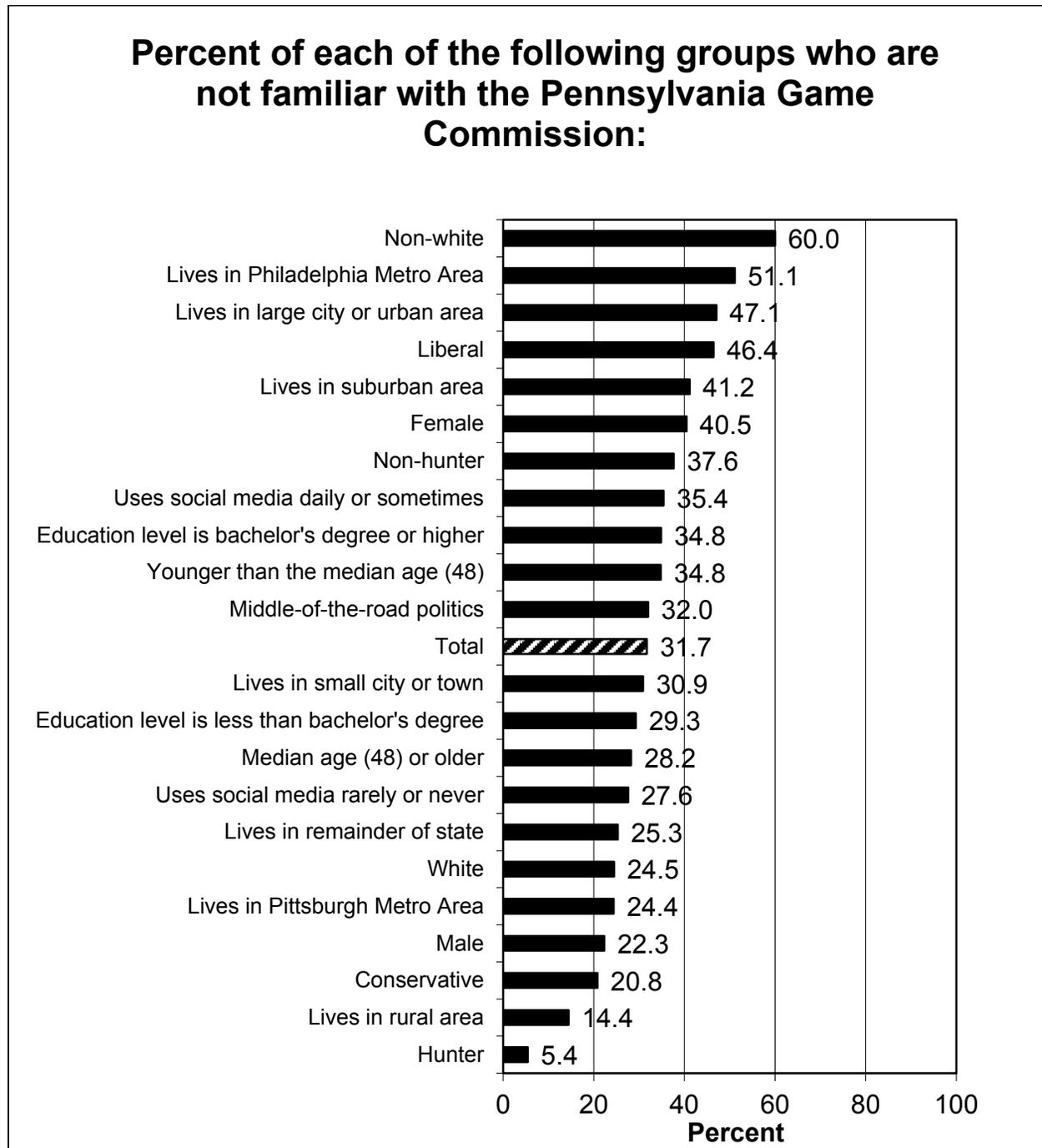


Figure 2.5. Characteristics of Those Not Familiar With the Commission
 (For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

3. PERCEPTIONS OF THE NAME OF THE COMMISSION

The word “game” in the name connotes to some that the Commission does not concern itself with all wildlife. In the focus groups held as part of this project, many participants wondered if having “game” in the name meant that the Commission’s purview is limited to only those animals that are hunted. In reality, of course, the Commission concerns itself with all wildlife, and the current name does not project that image to some residents.

Game seems like an outdated word to me. —Philadelphia participant
Kids don’t know what game means. —Huntingdon participant

The lack of “wildlife” in the name may make it harder for people to find the Commission or find information about or from the Commission. Most of the participants in the focus groups that were held as part of this project expected the word, “wildlife,” to be in the name, when they were asked if they knew the name of the agency that manages wildlife in Pennsylvania.

It’s Wildlife something, something. I forgot the name of [the agency that manages wildlife].
 —Philadelphia participant
[The agency that manages wildlife is called] wildlife preservation...or something like that.
 —Philadelphia participant

Some residents confuse the Pennsylvania Game Commission with the Pennsylvania Gaming Control Board, which oversees gambling and casinos in the Commonwealth. As shown in the previous chapter, 6% of residents were confused about the Game Commission, associating it with gambling and casinos. The Commission will need to address this confusion. **Those who are most likely to confuse the Game Commission with the Gaming Control Board are suburban or urban** (52% of these “confused” people are suburban, and 20% are large urban area residents, as shown in Figure 3.1) **and well-educated** (55% have a bachelor’s degree or higher, as shown in Figure 3.2). **A little more than half of them (58%) are non-white.** Figure 3.3 shows that **they tend to be more liberal (34%) or middle-of-the-road (38%)** than those who are not confused about this (24% of the non-confused are liberal; 29% are middle-of-the-road). Finally, **half of them (50%) live in the Philadelphia Metro Area.**

There is one more aspect of the name of the Commission that should be addressed in this chapter: Pennsylvania is one of a handful of states whose fish and wildlife are primarily managed under different agencies rather than divisions within the same agency. **Because there are two agencies that manage fish and game, outreach should make this distinction clear.** Indeed, the survey for this project found that 58% of residents said that they were unaware that fish and wildlife are managed by separate agencies in Pennsylvania (79% of Philadelphia area residents). Even some hunters were unaware: 15% of them were unaware of this.

The above is not necessarily a call for a name change (although it could be considered); rather, the above simply shows the perceptions that need to be addressed with the word, “game,” in the name of the Pennsylvania Game Commission. The idea that the Game Commission’s purview is all wildlife, not just hunted species, also needs to be disseminated. The confusion with the Gaming Control Board needs to be addressed. And the separation between the Game Commission and the Fish and Boat Commission needs to be made known.

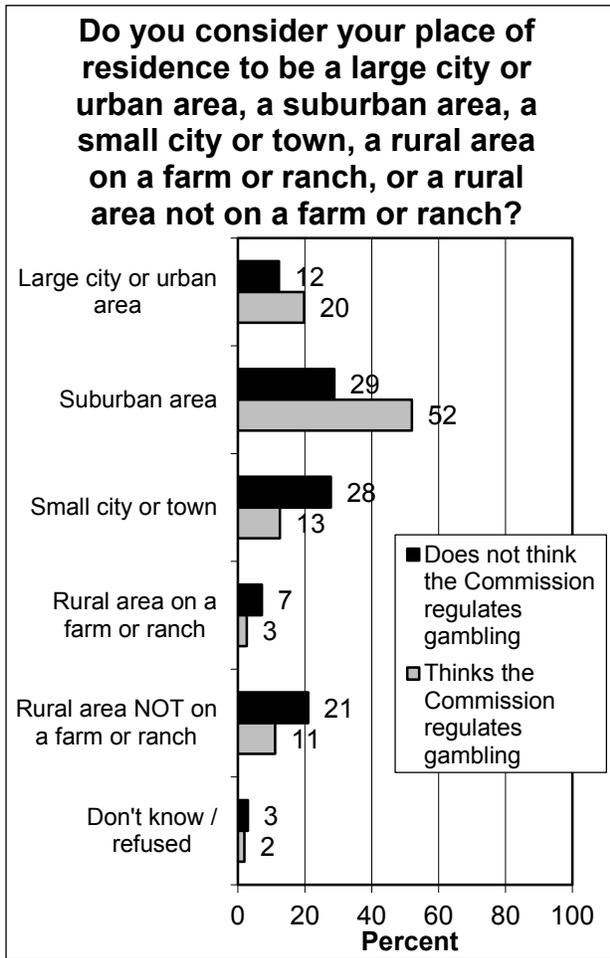


Figure 3.1. Residence of Those Who Think the Game Commission Regulates Gambling and Casinos

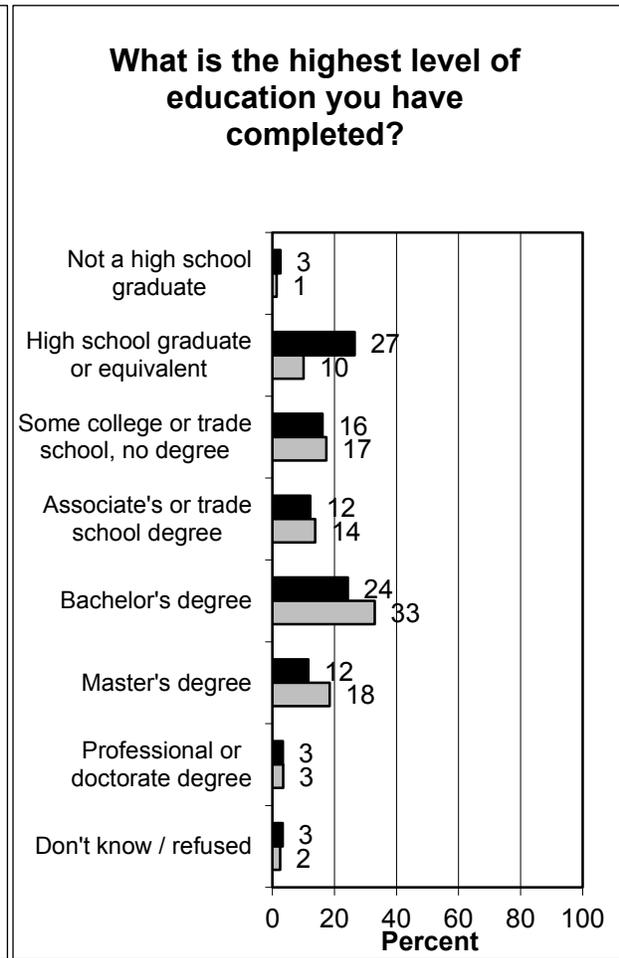


Figure 3.2. Education Level of Those Who Think the Game Commission Regulates Gambling and Casinos

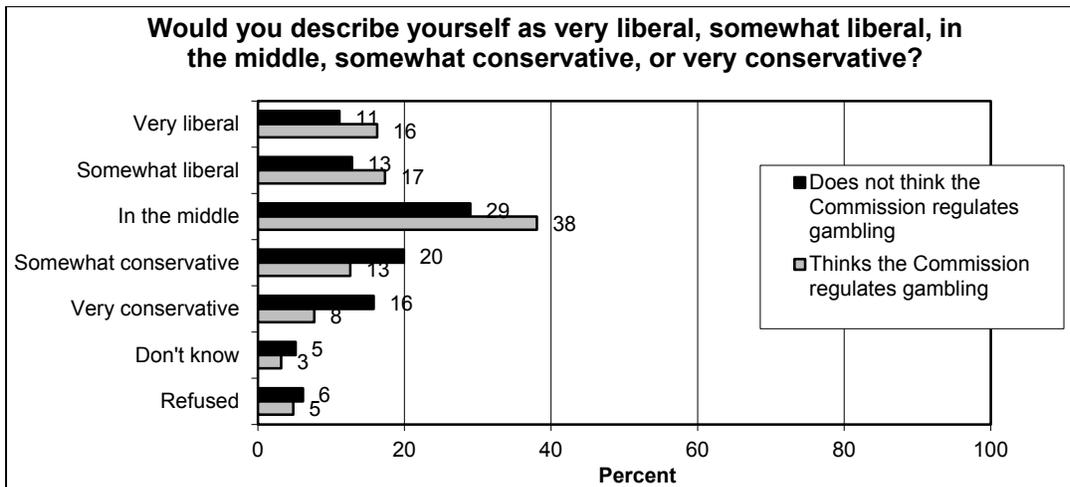


Figure 3.3. Political Leaning of Those Who Think the Game Commission Regulates Gambling and Casinos

4. AWARENESS OF AND PERCEPTIONS OF FUNDING FOR THE COMMISSION

Many people think that general taxes are going to the Commission for its work. This belief would undoubtedly influence people's opinions on the Commission itself (while this was not directly tested in the survey, one could posit that it might influence opinions, particularly making criticism a bit greater). **That the Commission is NOT currently funded by general tax dollars should be made widely known, particularly in an environment where funding is tight and general taxes are a bone of contention among many people.** As shown in Figure 4.1, a majority of residents (58%) gave an answer of general taxes in response to the question about how the Commission is funded. Note that 38% gave one of the three indicated responses *and gave no other response* (in other words, were completely incorrect instead of only partially incorrect).

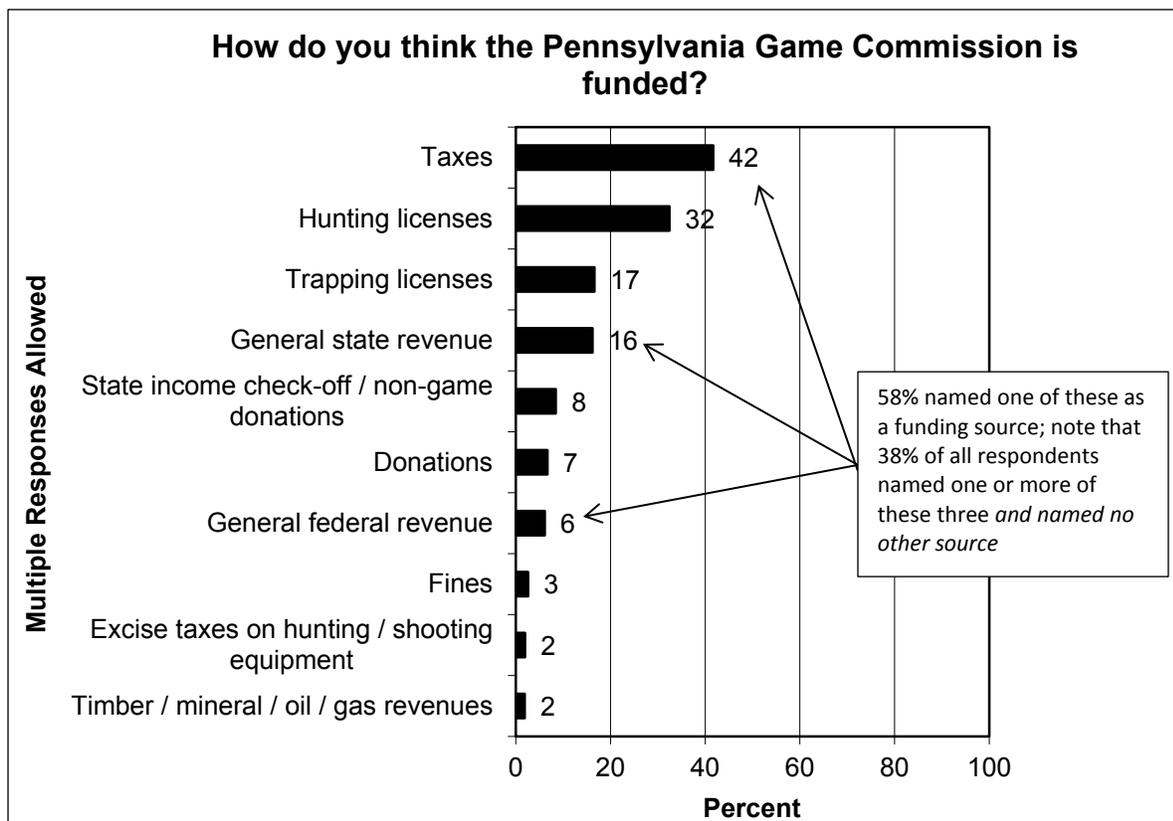


Figure 4.1. Perceived Funding Sources of the Pennsylvania Game Commission

Actual sources include hunting and trapping license sales; state game lands timber, mineral, oil, and gas revenues; and the federal excise tax on sporting arms and ammunition.

Even hunters are misinformed: 29% of them named taxes in general, 13% named general state revenue, and 4% named general federal revenue (Figure 4.2). Hunters are less likely to name any form of general tax. They are much more likely to name licenses; in general, they are simply a little better informed about funding. (Although, one wonders why 100% of hunters would not name licenses as a source of funding, a question that is not explained in this report.)

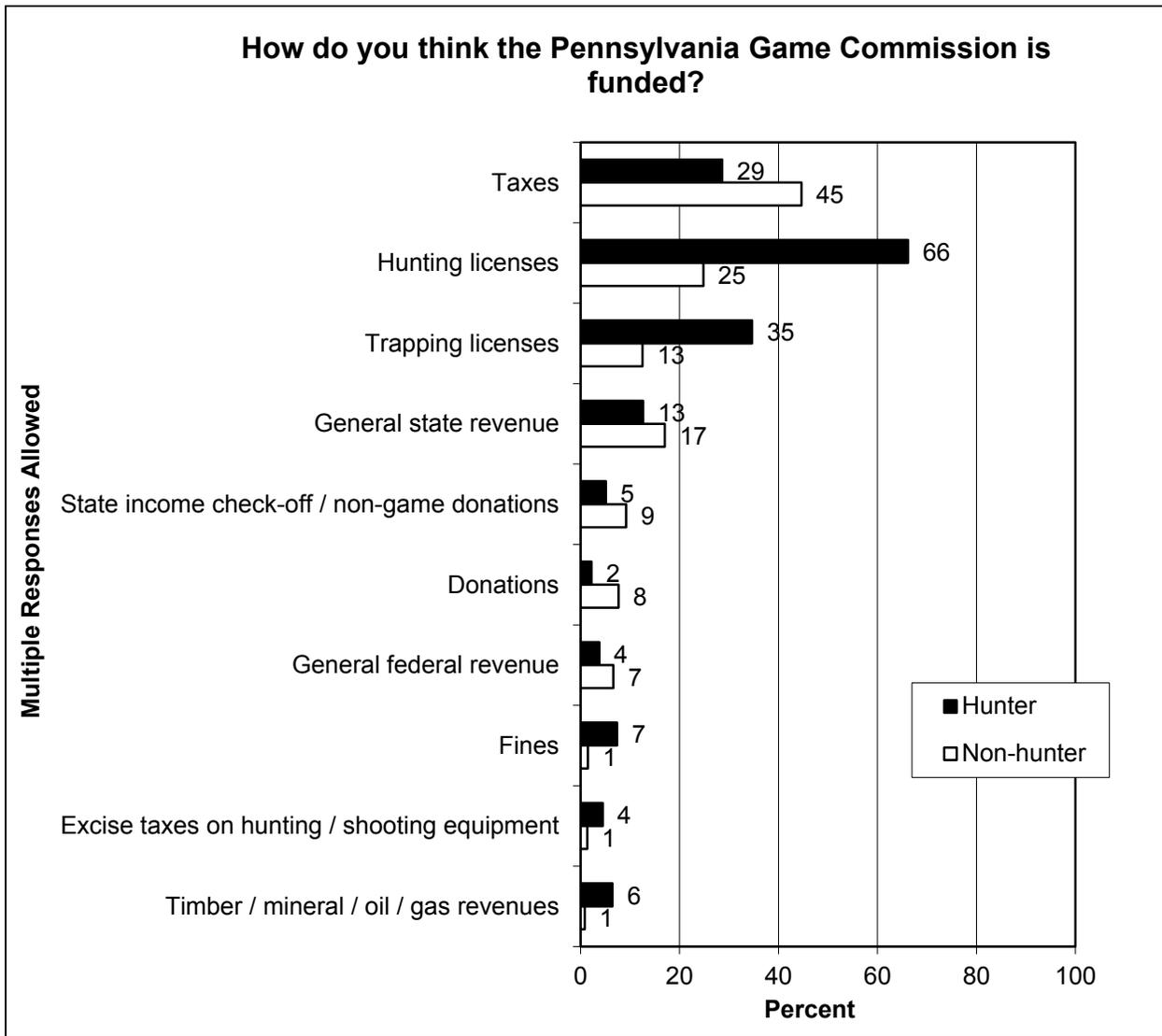


Figure 4.2. Perceived Funding Sources of the Pennsylvania Game Commission, Hunters and Non-Hunters

Actual sources include hunting and trapping license sales; state game lands timber, mineral, oil, and gas revenues; and the federal excise tax on sporting arms and ammunition.

That hunters’ and shooters’ taxes on equipment are important funding sources for the Commission and, therefore, for wildlife management and conservation in general should be publicized. Again, this reinforces the concept that the Commission is not being funded by general tax dollars but, instead, has funding sources that include very specific taxes that hunters and shooters pay. Giving credit where it is due in this case would presumably help enhance the image of hunters and shooters. The excise tax on equipment provides substantial funding but was named by only 2% of residents (see Figure 4.1). Amazingly, when looking at how hunters themselves responded, only 4% of them named excise taxes on hunting and shooting equipment as a funding source (see Figure 4.2).

If attempts to secure new funding options are pursued, note that **the large majority of residents agree that “elected officials in Pennsylvania should explore options for new funding sources.”** In the survey as part of this project, 72% of residents agreed with the statement. Nonetheless, 17% disagreed, and those latter are included in the 28% who did not strongly or moderately agree (Figure 4.3).

I am not sure that's a good idea [to depend on hunters so much]. I think it will be difficult to operate as the hunting population decreases, especially because of all the things they are involved with other than hunting. They should be getting more than just money from hunting.
—Huntingdon participant

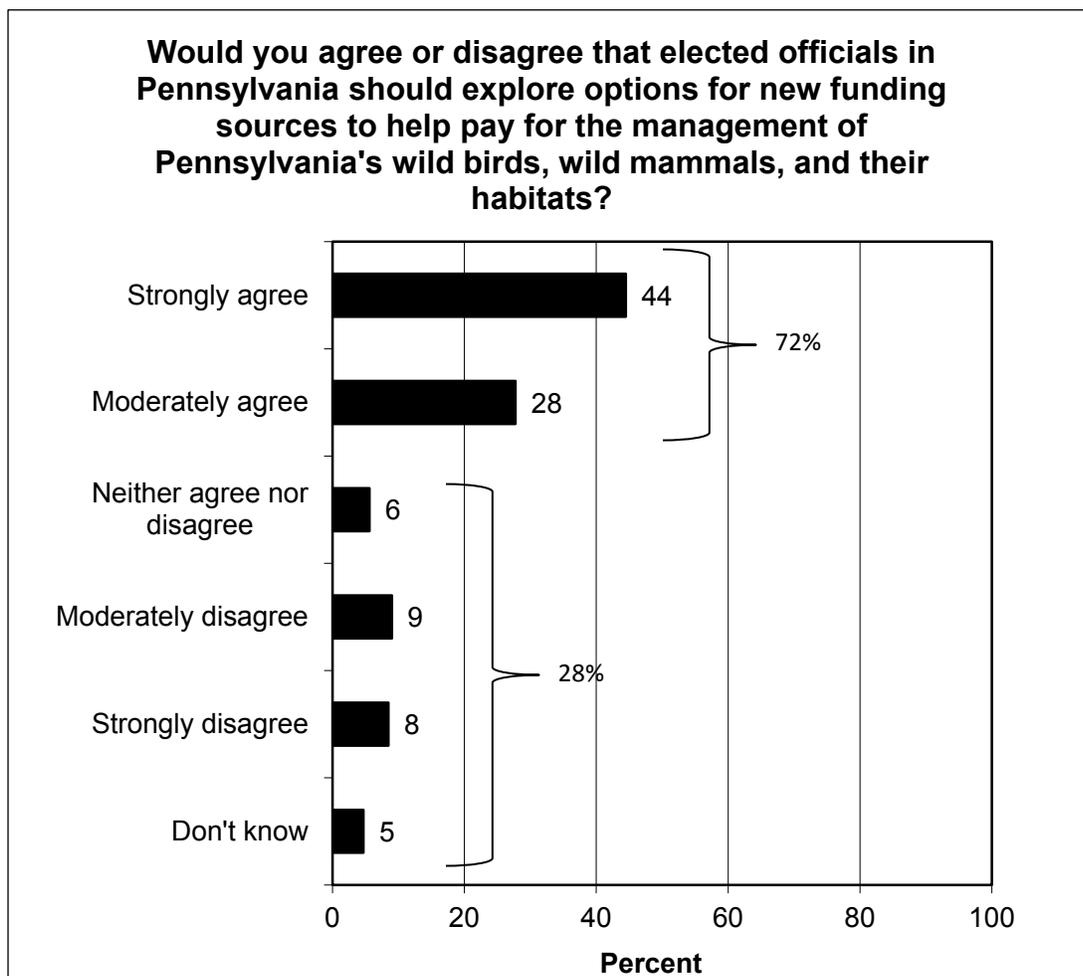


Figure 4.3. Support for New Funding Options

Hunters are a little less likely to agree/more likely to disagree about having the agency seek new funding. As Figure 4.4 shows, although nearly the same, hunters have just a little more disagreement than do non-hunters. **Although keep in mind that a majority of hunters agree that new funding sources should be sought.**

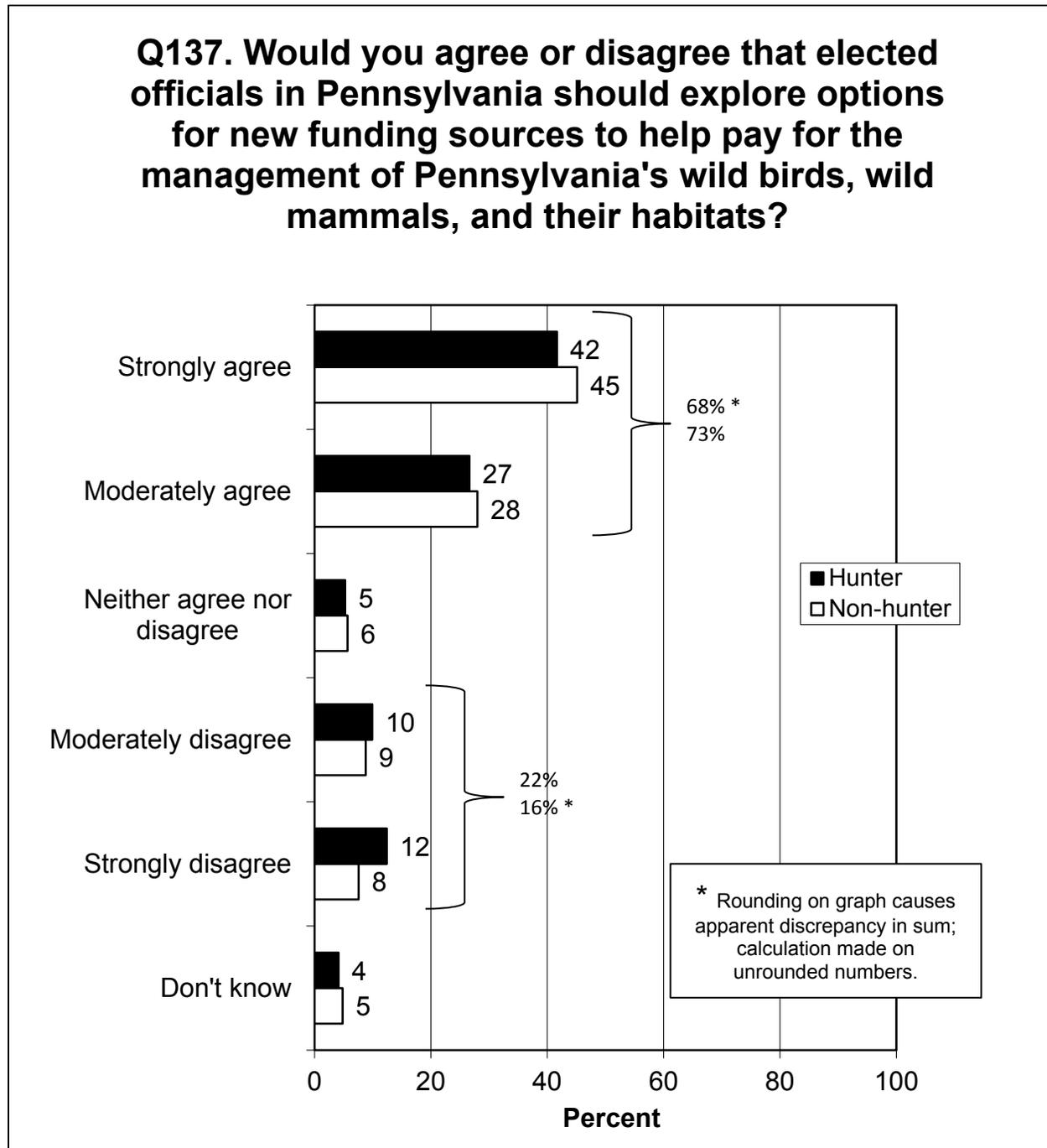


Figure 4.4. Support for New Funding Options, Hunters and Non-Hunters

Demographic analyses were run on those who agreed (the 72% in Figure 4.3) and those who gave any answer other than strongly or moderately agree (the 28% in Figure 4.3).

Those who agree are more likely to be liberal or middle-of-the-road politically, reside in the Philadelphia Metro Area, be female, be younger than the median age, and use social media daily or sometimes. These associations are shown in Figure 4.5.

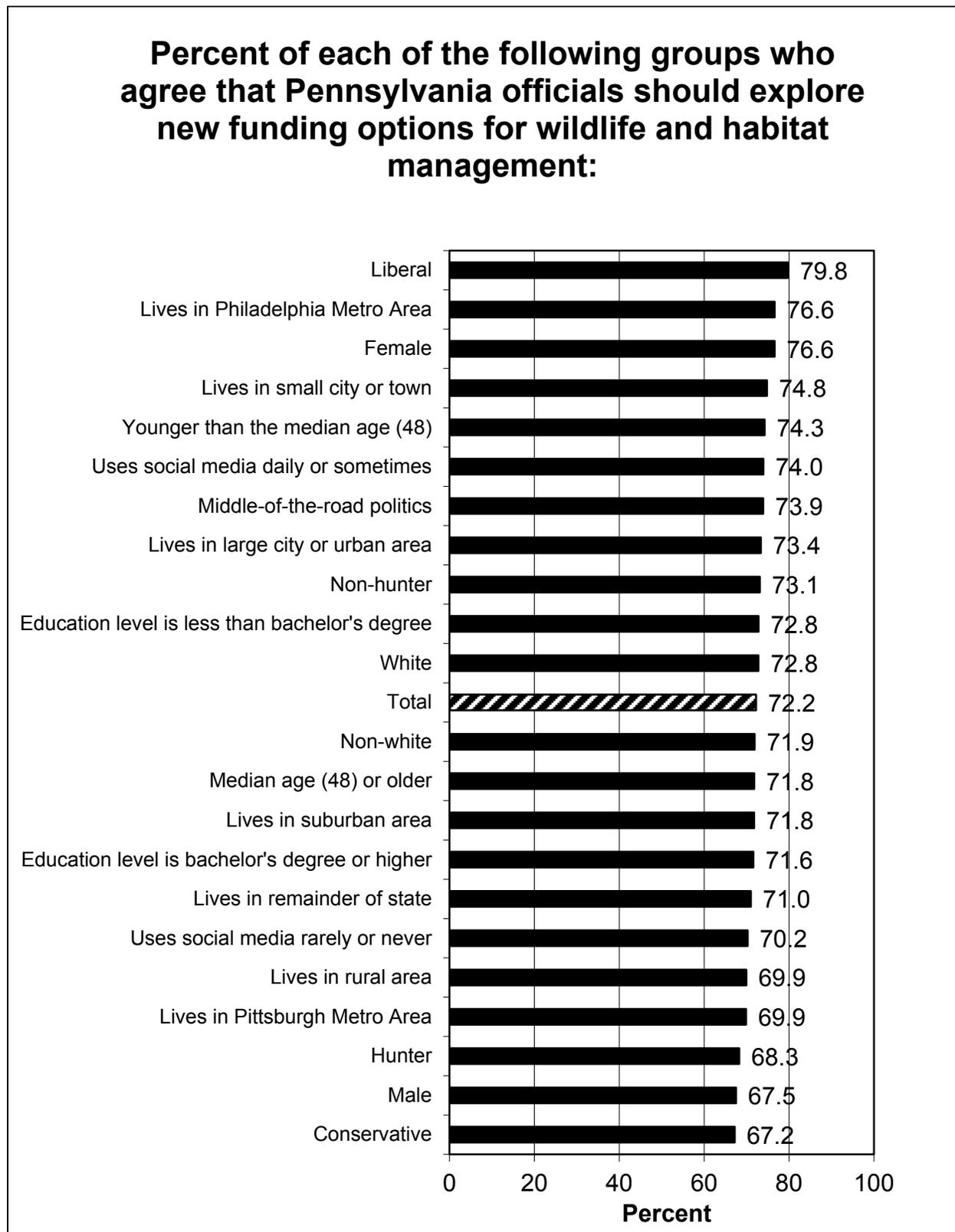


Figure 4.5. Characteristics of Those Who Agree That New Funding Sources Should Be Sought

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

On the other hand, 28% of residents did not agree with the above (this includes not only those who actively disagreed but those who responded with neither or “don’t know”). **Those who do not agree that new funding sources should be sought are more likely to be conservative, male, a participant in hunting, live in the Pittsburgh Metro Area or live in a rural area in the remainder of the state, and a user of social media rarely or never.** These associations are shown in Figure 4.6.

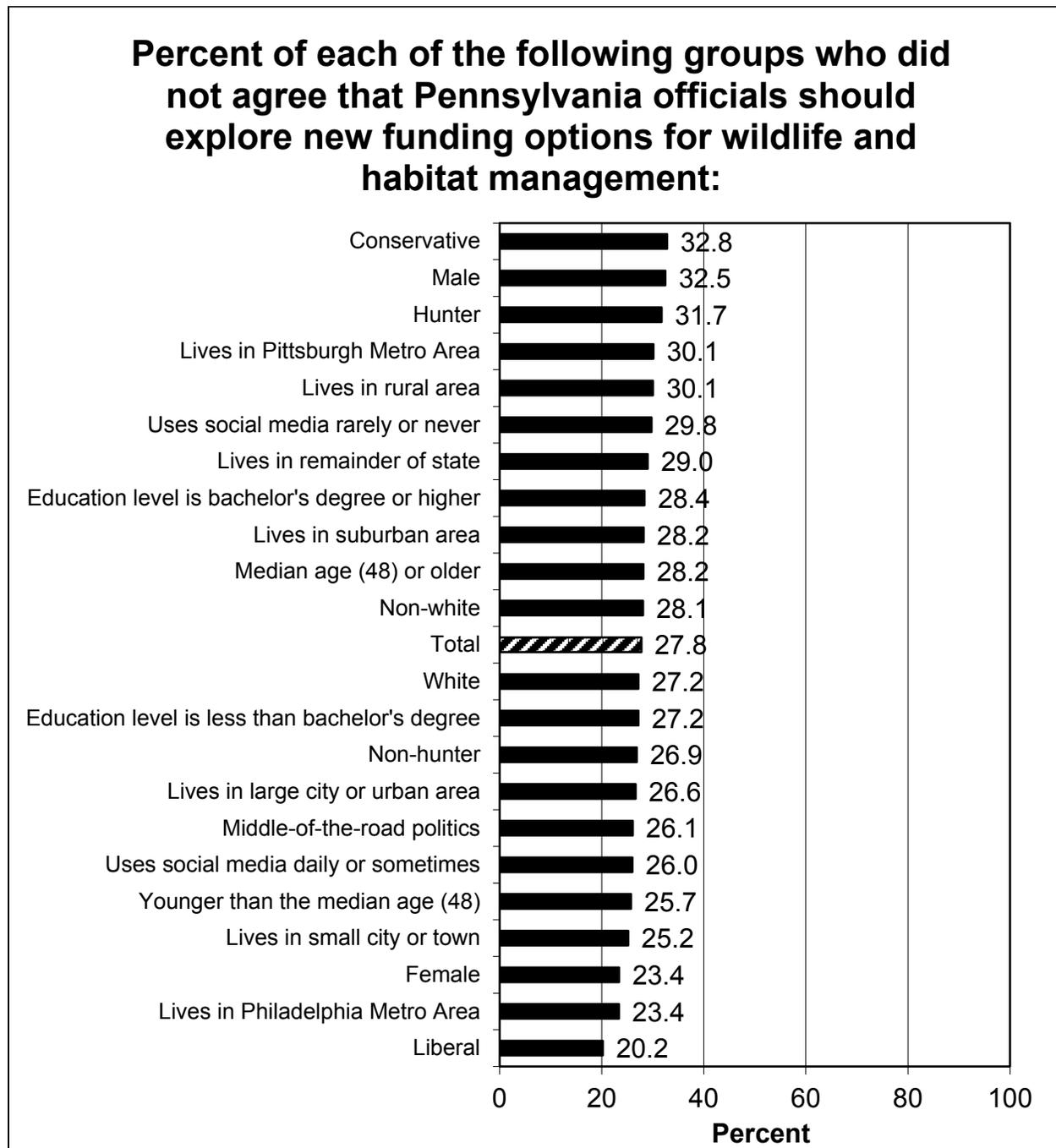


Figure 4.6. Characteristics of Those Who Do Not Agree That New Funding Sources Should Be Sought

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

One of the demographic characteristics cited above was further explored. **As indicated previously, those most likely to agree regarding seeking new funding sources are those who describe themselves as liberal.** The survey found that 27% of those who agreed with the question are liberal, compared to 18% of those who did not agree (Figure 4.7). **However, note that the group that agree have slightly more who are conservative than liberal—27% of those who agree are liberal, but 32% are conservative,** with the rest being in the middle or saying that they did not know, as shown in Figure 4.7.

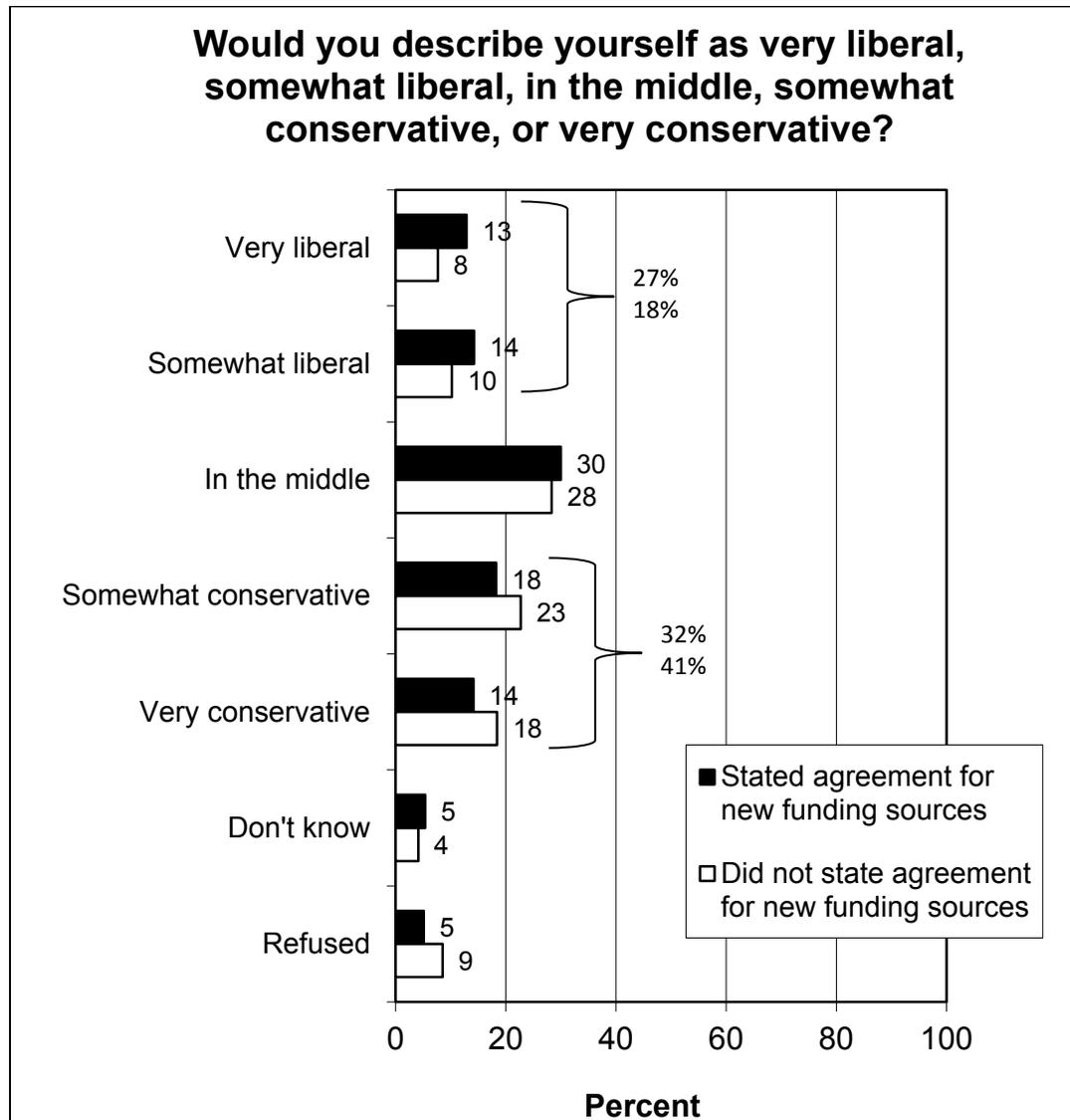


Figure 4.7. Agreement of New Funding Sources by Political Leaning

5. AWARENESS OF AND PERCEPTIONS OF THE WORK OF THE COMMISSION, INCLUDING PERCEPTIONS OF THE PERFORMANCE OF ITS WORK

The survey explored the top-of-mind perceptions that residents have regarding what the Game Commission actually does, as shown in Figure 5.1. **Other than conserving/protecting wildlife and habitat and enforcing hunting laws, the work of the Game Commission is not on residents’ radar. Only 10% of residents noted that the Commission provides hunting opportunities, and only 8% noted that the Commission makes hunting safer. Less than 5% noted the Commission’s efforts at protecting threatened and endangered wildlife, providing opportunities to view wildlife, or any of its other efforts.** (Note that this shows the small percentage of residents who thought the Game Commission regulates gambling and casinos; they were recoded in the awareness question previously shown as not being aware of the Game Commission.)

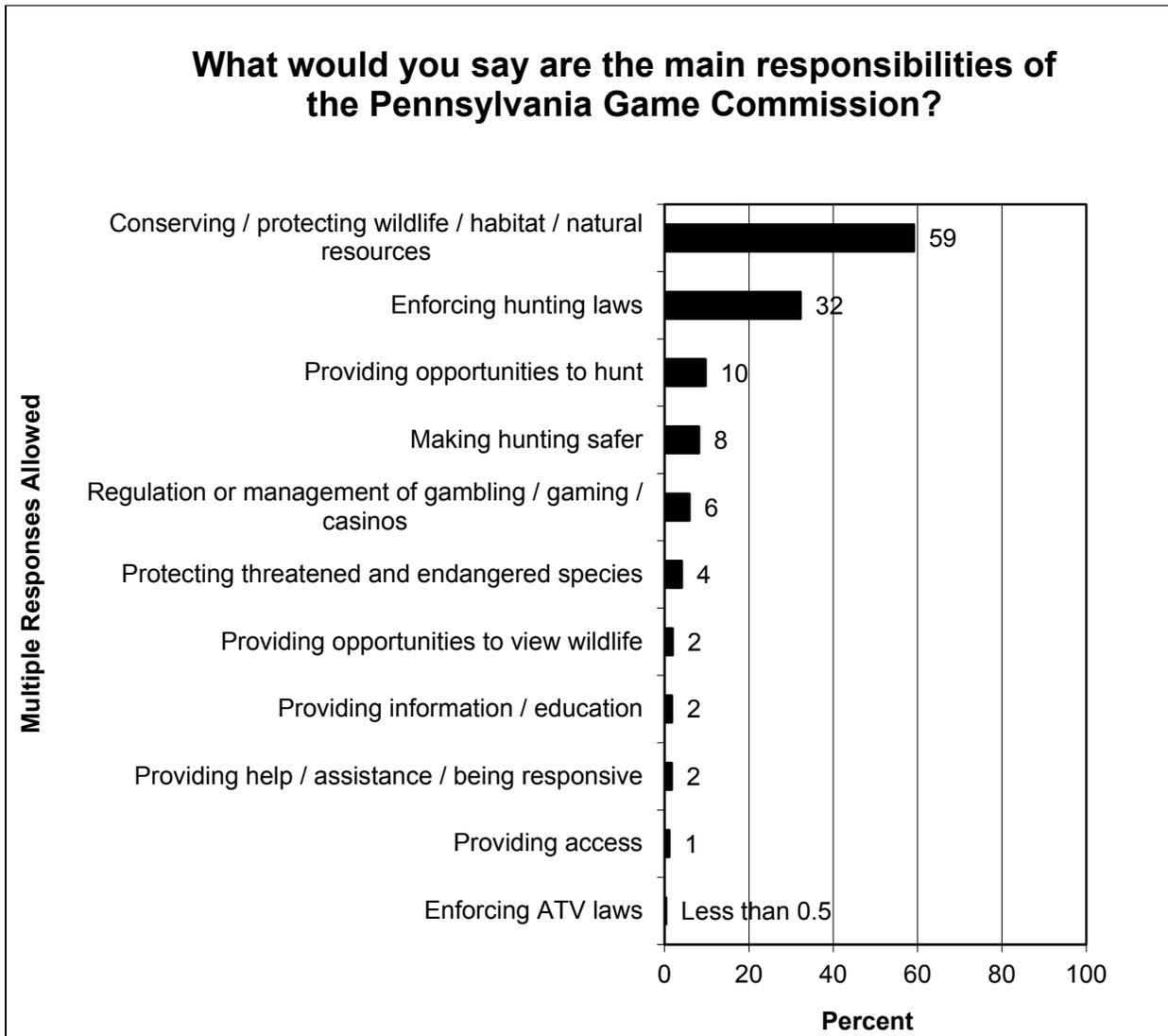


Figure 5.1. Perceived Responsibilities of the Game Commission

The performance of the Game Commission was also looked at in the survey, as shown in Figure 5.2. After being informed of the work that the Game Commission does, residents were asked to rate their level of satisfaction with the Commission. **Residents, in general, are satisfied with the Pennsylvania Game Commission (the full name of the Commission was used in the question), with those being satisfied (68%) far exceeding those being dissatisfied (only 6%).** Note that 26% gave the neutral response or did not know. **This forms a good basis for communications, as the Commission is not first having to address a large contingent of dissatisfied residents.**

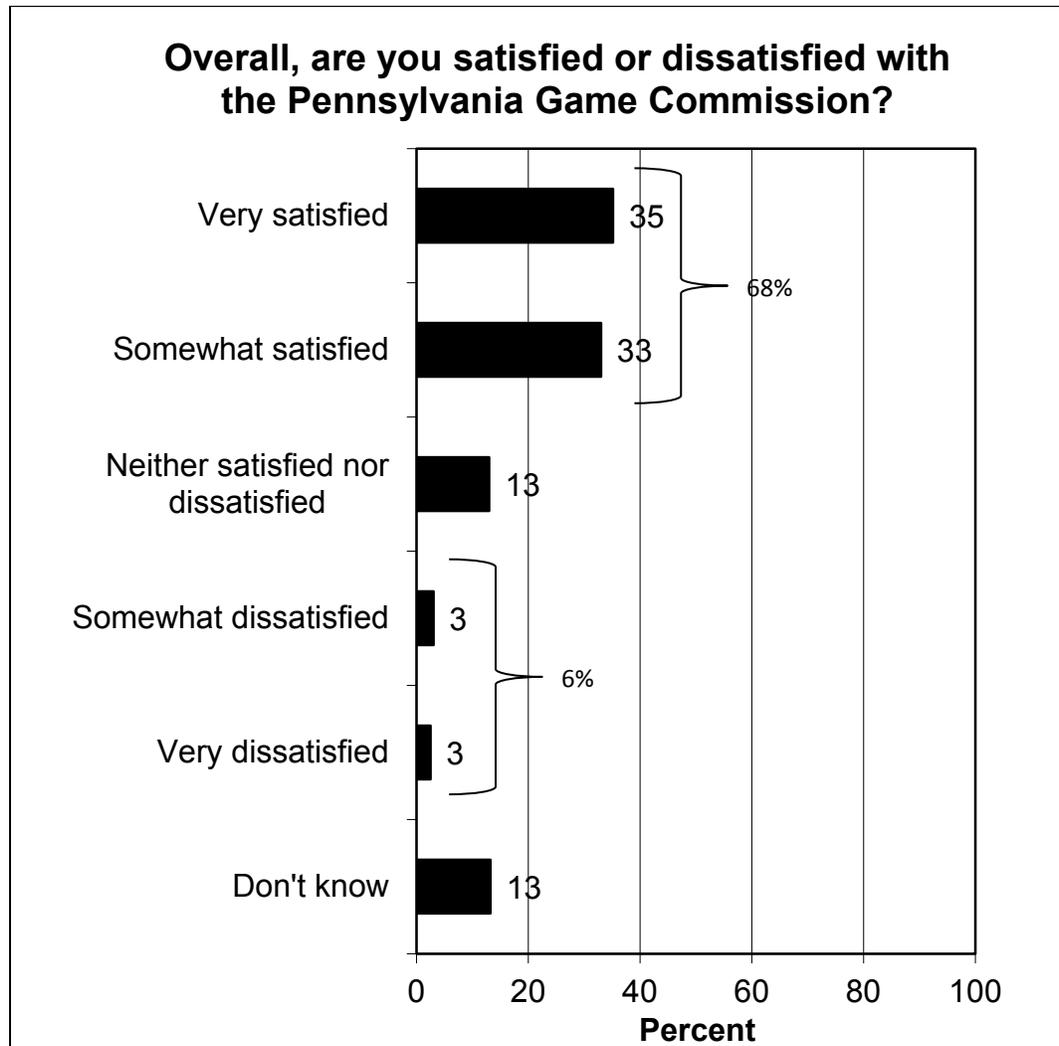


Figure 5.2. Satisfaction or Dissatisfaction With the Game Commission

The lower rate of satisfaction among residents of the Philadelphia Metro Area is because of a higher rate in the “neither” and “don’t know” responses, not because of greater dissatisfaction, so even in the Philadelphia Metro Area, basic communications do not have to overcome a high level of dissatisfaction. The crosstabulation in Figure 5.3 clearly shows this, as only 4% of residents of the Philadelphia Metro Area are dissatisfied. Note that the relatively large percentage who gave a neutral or don’t know response reiterates the need to be more widely known, as previously discussed.

I think it is hard to say they are doing a good job when you don't quite know what they are doing. We all have this kind of perception of what are they doing? Are we going to give them the benefit of the doubt because they are at least present and we at least know that? It is hard to grade their job when we don't know what they're doing. It's like a mystical organization: we know they're there, some of us see them in passing, but on a day-to-day basis, how do you grade that? —Huntingdon participant

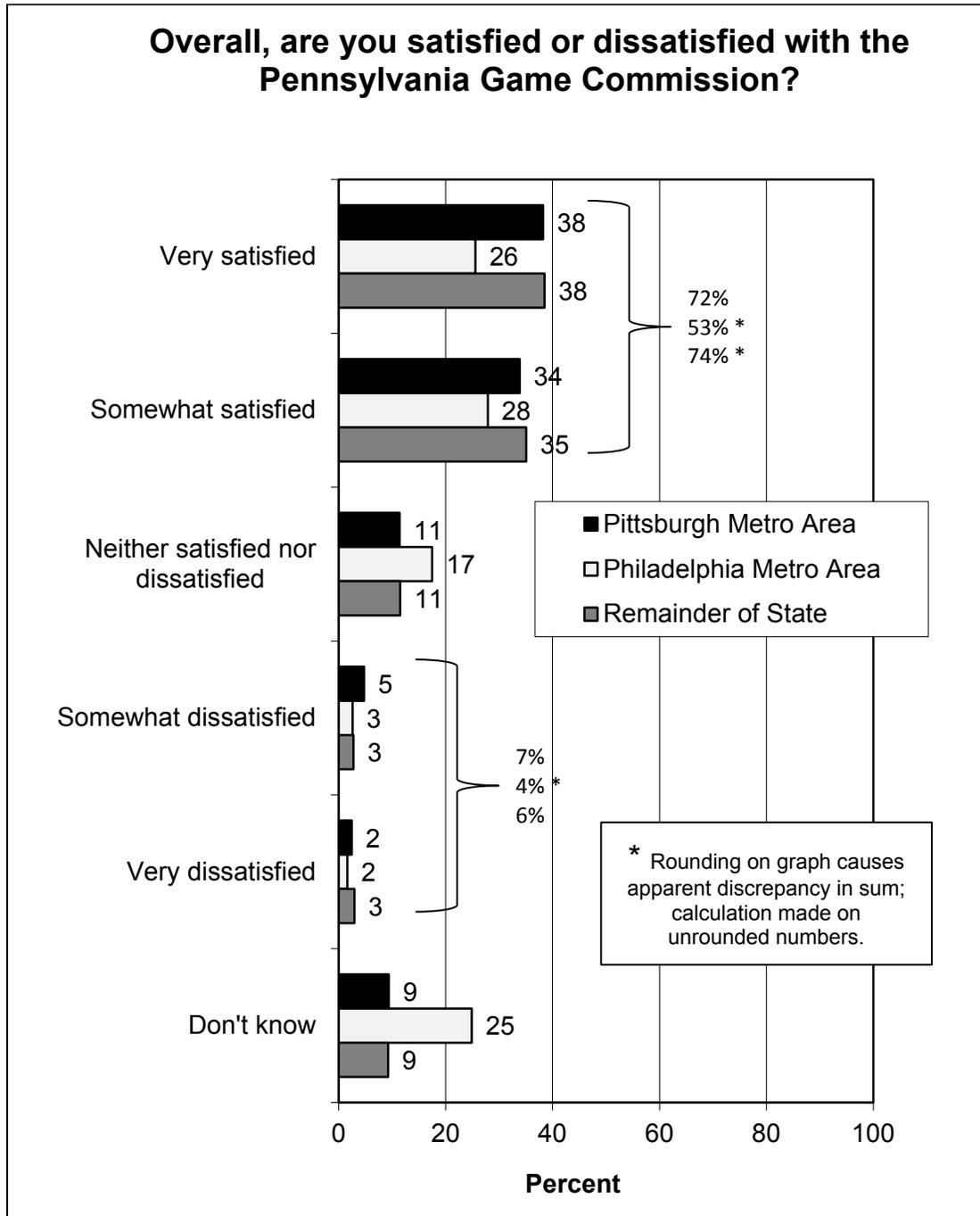
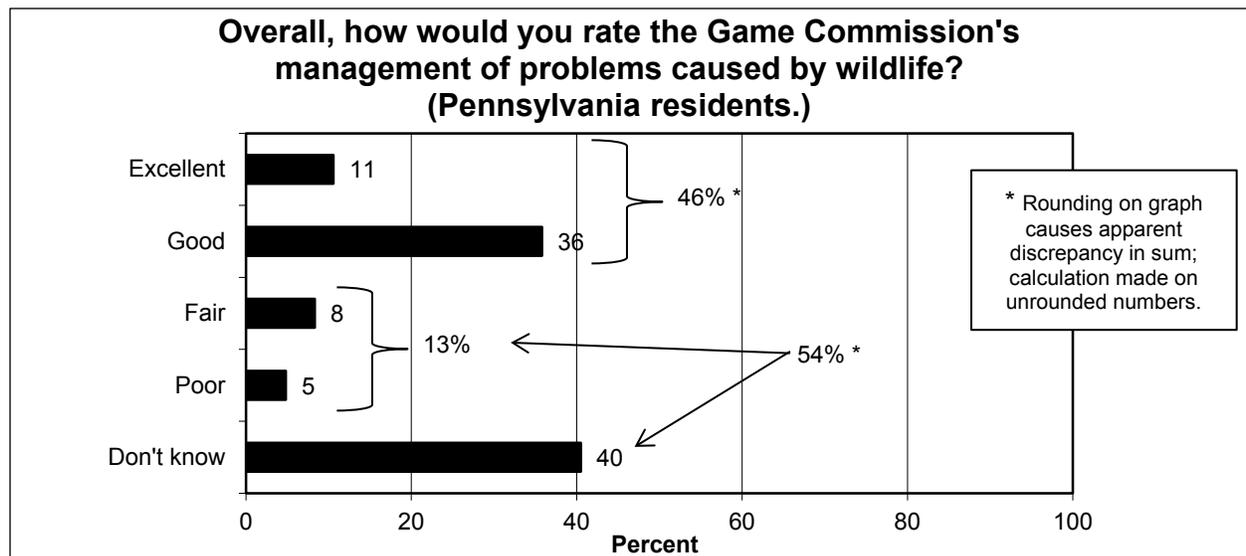


Figure 5.3. Satisfaction or Dissatisfaction With the Game Commission, Regionally

One aspect of wildlife management should be made absolutely clear: the responsibilities of the Commission regarding problems with wildlife. A study by Responsive Management (2012a) found that only 46% of residents rated the Game Commission's management of problems caused by wildlife in the top half of the scale (*excellent* and *good* combined) (Figure 5.4). This is not as bad as it first appears when one learns that the low end of the scale (*fair* and *poor* combined) is only at 13%, which is because 40% did not know what rating to give. In fact, "don't know" was the most common response. **This suggests that most people (54%, the low end of the scale and "don't know" summed on unrounded numbers) do not have a clear understanding of what the Commission is supposed to do (and can do) regarding problems with wildlife.**



Source: Responsive Management, 2012a.

Figure 5.4. Ratings of the Game Commission's Management of Problems Caused by Wildlife, 2012

Fortunately, the basis for communications about problems with wildlife is solid, as the Commission is seen as credible on issues related to wildlife. (There is more about credibility later in this report.)

A final note regarding the work of the Commission: much of its work is based on the North American Model of Wildlife Conservation, which is based on the socialistic idea that all of society owns the wildlife and that wildlife should be managed to benefit all society (not just, for instance, landowners on whose land the wildlife may be). **However, the North American Model of Wildlife Conservation is virtually unknown among residents.** Only 8% of residents indicated being familiar with the model, and then nearly half of those respondents could not name a single feature of the model, indicating no real familiarity with the very basis for much of the Commission's work.

6. RELEVANCE OF THE COMMISSION TO RESIDENTS

There is a disconnect that residents have wherein they think the work of the Game Commission (once they learn of its mission) is important but they do not feel as strongly that the work of the Game Commission affects them (Figure 6.1). **Communications that link the relevance of the work to residents (currently not high) with the importance of the work (currently high) would be effective in raising the perceived relevance of the Commission to residents. They already think the work is important; now it has to be shown to be relevant to them.** Not surprisingly, **urban residents tend to feel that the Commission is less relevant to them,** compared to rural residents; however, they are the same as rural residents regarding how important they think the work of the Commission is (Figure 6.2).

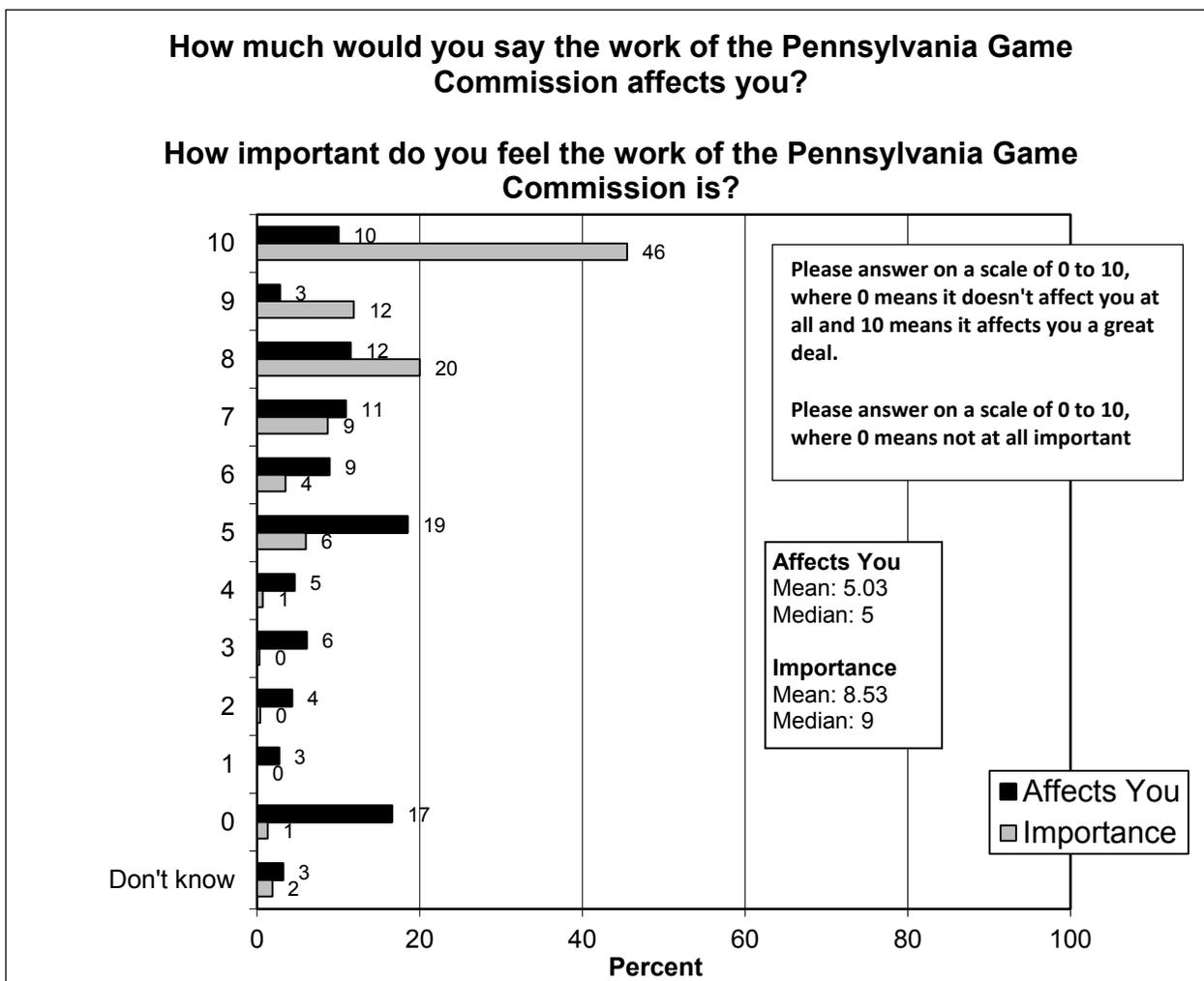


Figure 6.1. Perceived Relevance and Importance of the Commission’s Work

I would say that they don’t necessarily apply to my day-to-day life, but I think there would be some value in them educating the public on what they do so that we can support them. If I better understood what they did and how they did it, I might be a better advocate for them or be more willing to stand up for them or support them in some way. —Huntingdon participant

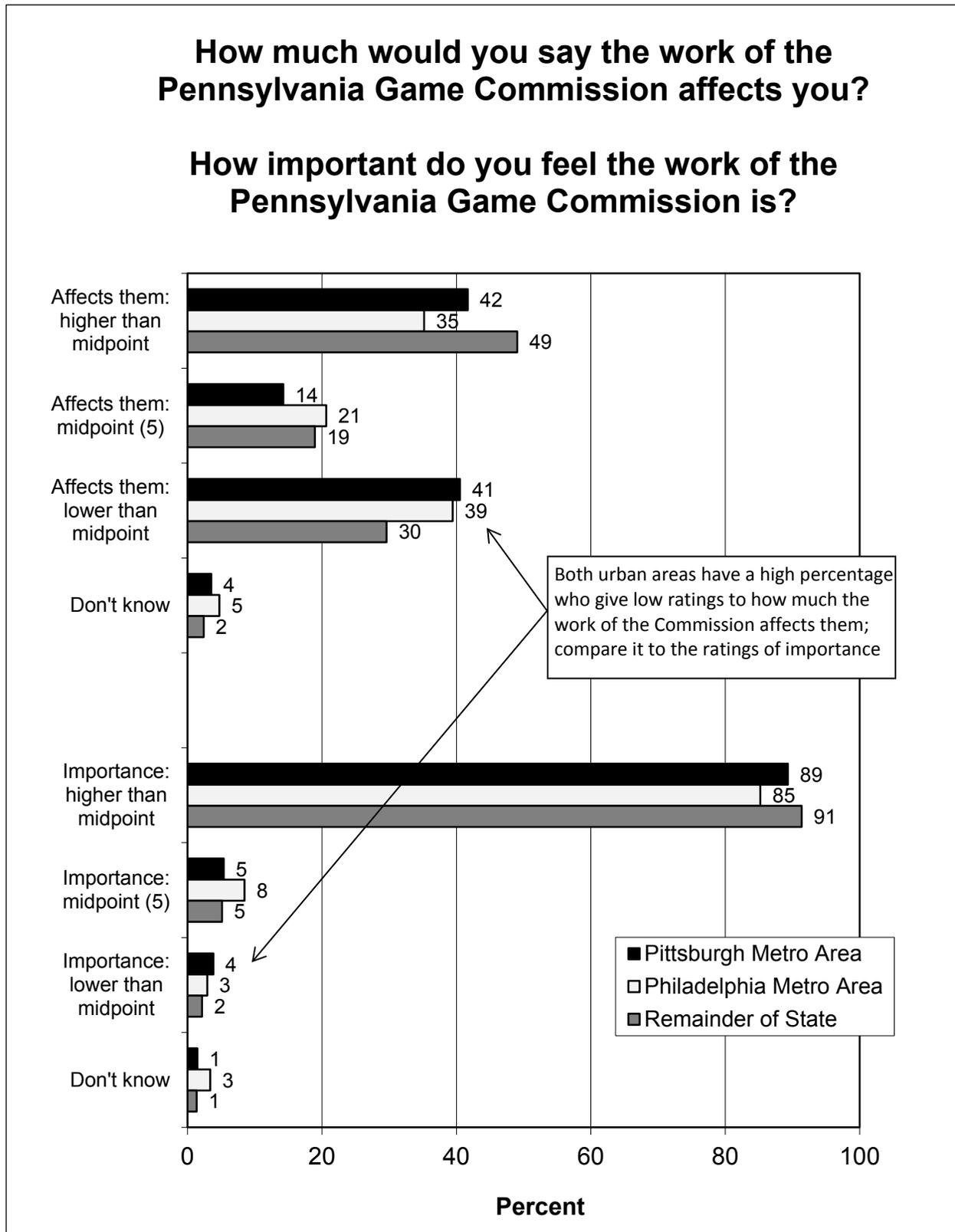


Figure 6.2. Perceived Relevance and Importance of the Commission’s Work, Urban-Rural

Demographic analyses were run of those who think the Commission’s work is relevant to them, as well as those who do not think the work is relevant. For the former, more nuanced communications regarding the work of the Commission would appear to be appropriate—they do not need to be convinced of the importance of the Commission. For the latter, communications need to link the relevance of the Commission to them.

Those who feel that the work affects them tend to be engaged in hunting (obviously), rural, residing outside of the Philadelphia or Pittsburgh Metro Areas, white, and younger (Figure 6.3). Interestingly, both liberals and conservatives feel that the work affects them, leaving the middle-of-the-road people to not feel that way.

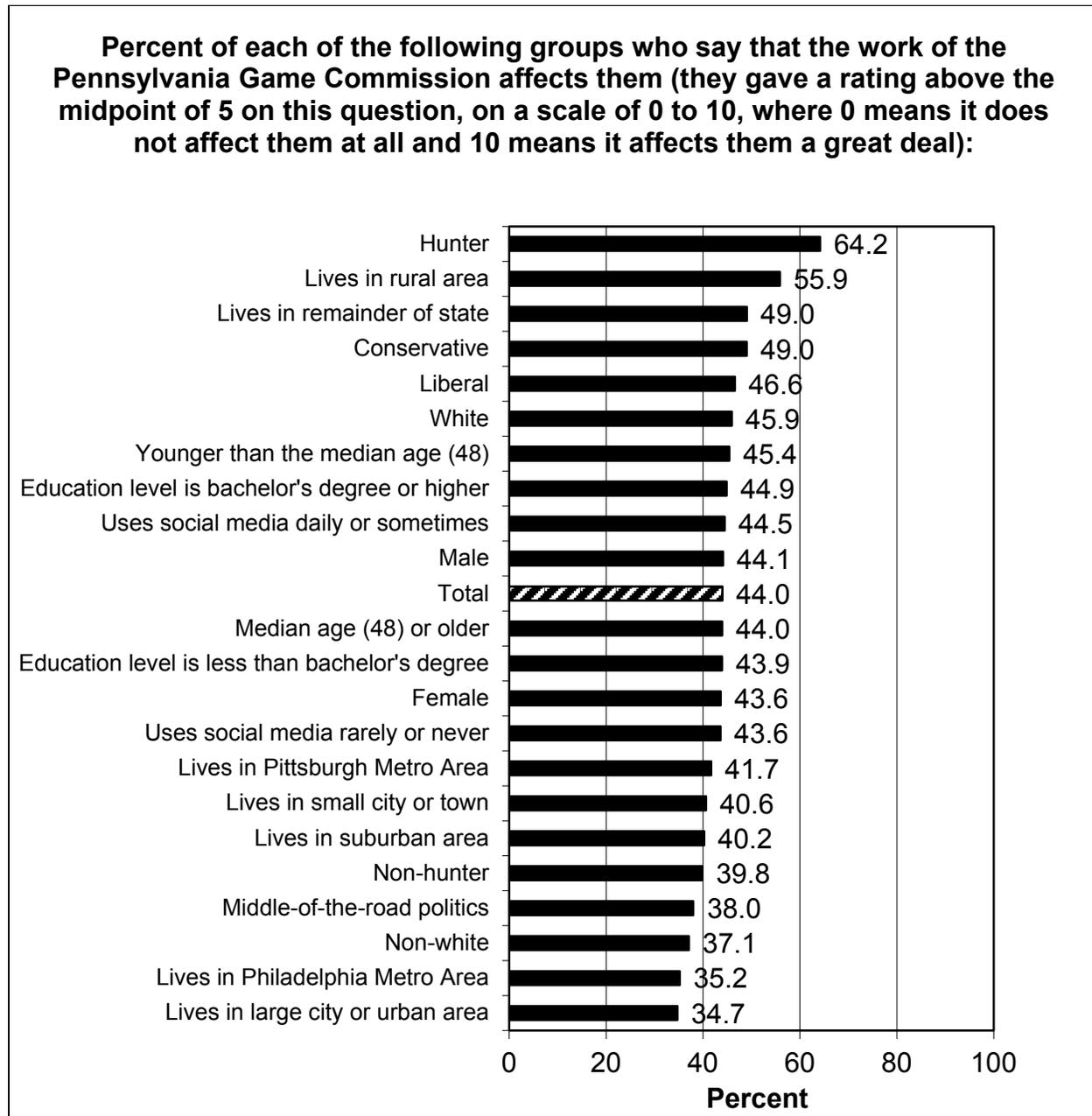


Figure 6.3. Characteristics of Those Who Feel That the Work of the Commission Affects Them

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

Those who feel that the work does not affect them tend to be urban (particularly from Philadelphia), non-white, politically in the middle, not a hunting participant, and suburban or from a small city or town (Figure 6.4).

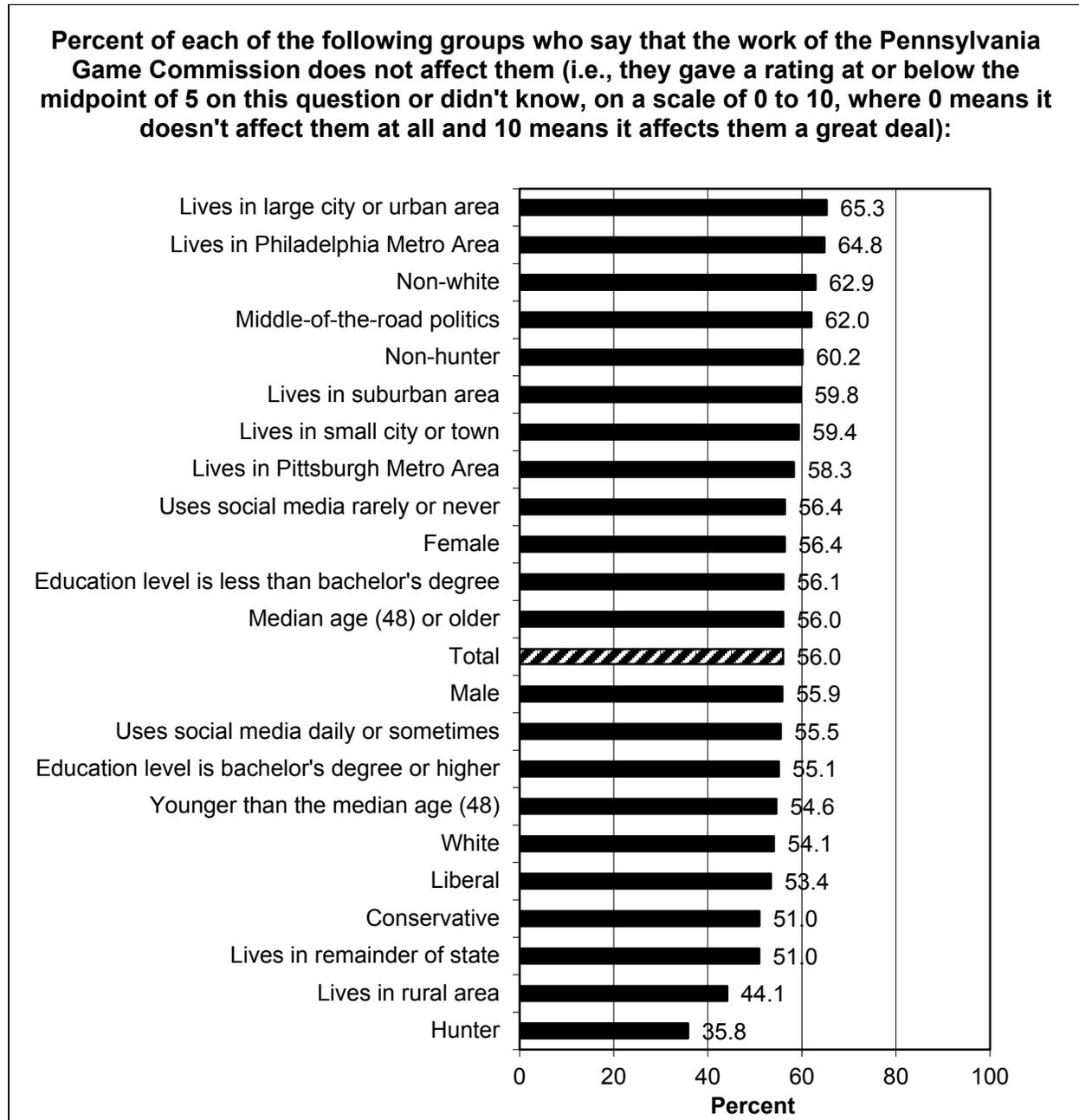


Figure 6.4. Characteristics of Those Who Feel That the Work of the Commission Does Not Affect Them

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

The flip side of whether the work affects residents is whether they think the work is important. **Outreach is needed among those who do not think the work is important to explain why the work is important to all Pennsylvanians. Those who do not feel that the work is important—those who gave a rating of 7 or less—tend to be non-white, from the**

Philadelphia Metro Area, suburban, male, at a higher education level, urban, and not a participant in hunting (Figure 6.5).

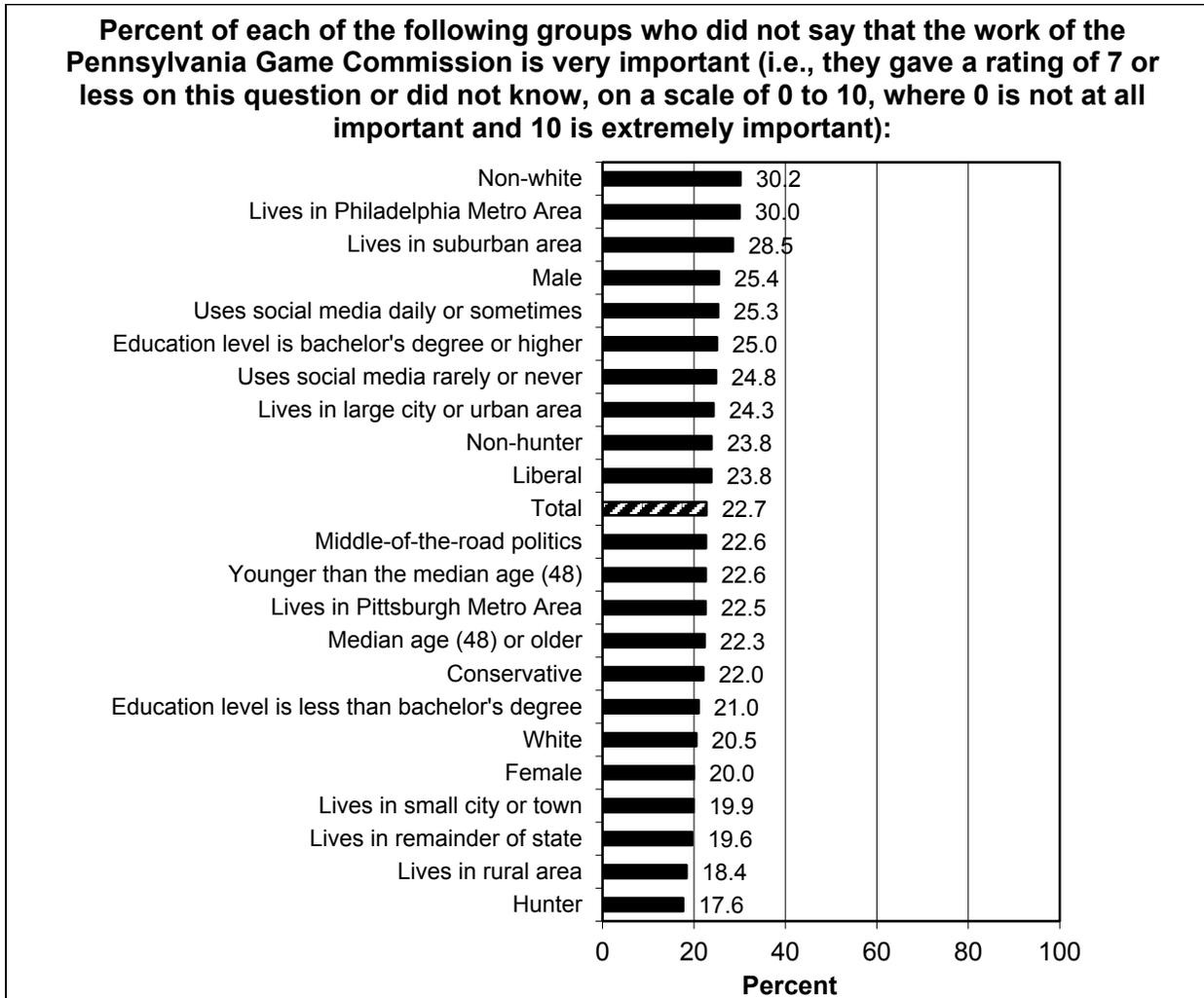


Figure 6.5. Characteristics of Those Who Feel the Commission’s Work Is Not Very Important

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

Wildlife-associated recreation other than hunting is quite popular among residents; this provides an opportunity for the Commission to engage those recreationists, if not for funding, for support of the Commission’s work. Considered in its most broad terms, a majority of residents engage in some wildlife-associated recreation (in broad terms, this considers hiking as wildlife-associated recreation; while strictly speaking it is not, most hikers would enjoy seeing non-threatening wildlife). In the survey as part of this project, 51% of residents had gone hiking, 39% had gone wildlife viewing, 34% had gone foliage viewing, and 24% had gone birdwatching. (Additionally, 18% had gone hunting.) Note that, even in Philadelphia, where the connection to the Game Commission is weakest, the rate of hiking is 52%. Note that a more detailed discussion of outdoor recreation as a way to connect with residents is included in Chapter 9 of this report, *Interactions With the Commission, Including Participation in Outdoor Recreation Related to the Commission*.

7. SUPPORT FOR AND RATINGS OF THE PERFORMANCE OF THE COMMISSION'S EFFORTS

Overall ratings of the Commission are positive; however, they could be higher if residents knew more about them. After being informed of the mission of the Game Commission, residents were more than 10 times more likely to be satisfied than dissatisfied (68% were satisfied, 6% were dissatisfied). However, on its own, 68% could seem middling—and it is not higher because of the relatively high percentage of residents who responded with “don’t know” or “neither satisfied nor dissatisfied” (26%). With more than a quarter essentially not knowing what rating to give, there is a smaller portion of residents left over to be satisfied. (This is illustrated by hunters’ ratings: they have only 9% in the “don’t know” or “neither” responses, leaving more to give an actual rating, with 81% being satisfied. Conversely, Philadelphia area residents have 42% in the “don’t know” or “neither” responses, and 54% are satisfied, with only 5% dissatisfied—so although Philadelphians are 10 times more likely to be satisfied than dissatisfied, their overall satisfaction seems middling at 54%.)

There is very high support among residents statewide for the Commission’s ecological efforts, particularly protecting and preserving wildlife habitat and protecting endangered species. Because such importance is placed (by residents) on the Commission’s ecological efforts, publicizing those types of efforts will help garner support for the Commission. In a list of 16 program areas/efforts in which the Commission engages, as shown in Figure 7.1, the two top-ranked efforts in perceived importance by residents were protecting and preserving wildlife (a mean of 9.4 on a 0 to 10 scale) and protecting endangered species of wildlife (mean of 9.2). (Note that, in these analyses, only those who gave a rating are included in the mean; “don’t know” respondents were eliminated from the calculation of means.)

The Commission’s effort at enforcing game laws also has strong support among residents (mean of 9.2 in Figure 7.1), **as well as hunters** (Figure 7.2). Among residents overall, enforcing game laws is in the top tier. Also note that, in ratings of importance of enforcing game laws, hunters (mean rating of importance of 9.3) are quite similar to non-hunters (9.1), so this effort resonates with hunters, as well. **But there is one caution: the Commission does not want to be known solely as an enforcement agency.** Several hunters in the focus groups expressed their negative perception that the Commission was (almost) *solely* an enforcement agency, just out to get hunters. The flip side of what the Commission does is that it helps provide hunting opportunities and otherwise works for hunters, not against them, and these other non-enforcement efforts would seemingly resonate with such hunters.

Diseases, such as Lyme disease, are on residents’ minds, as protecting citizens against diseases was in the top tier of efforts that were rated as important. The link between this effort and support for hunting and wildlife management overall provides a route for the Commission to connect with residents, including non-hunters, as well as to garner support for wildlife management.

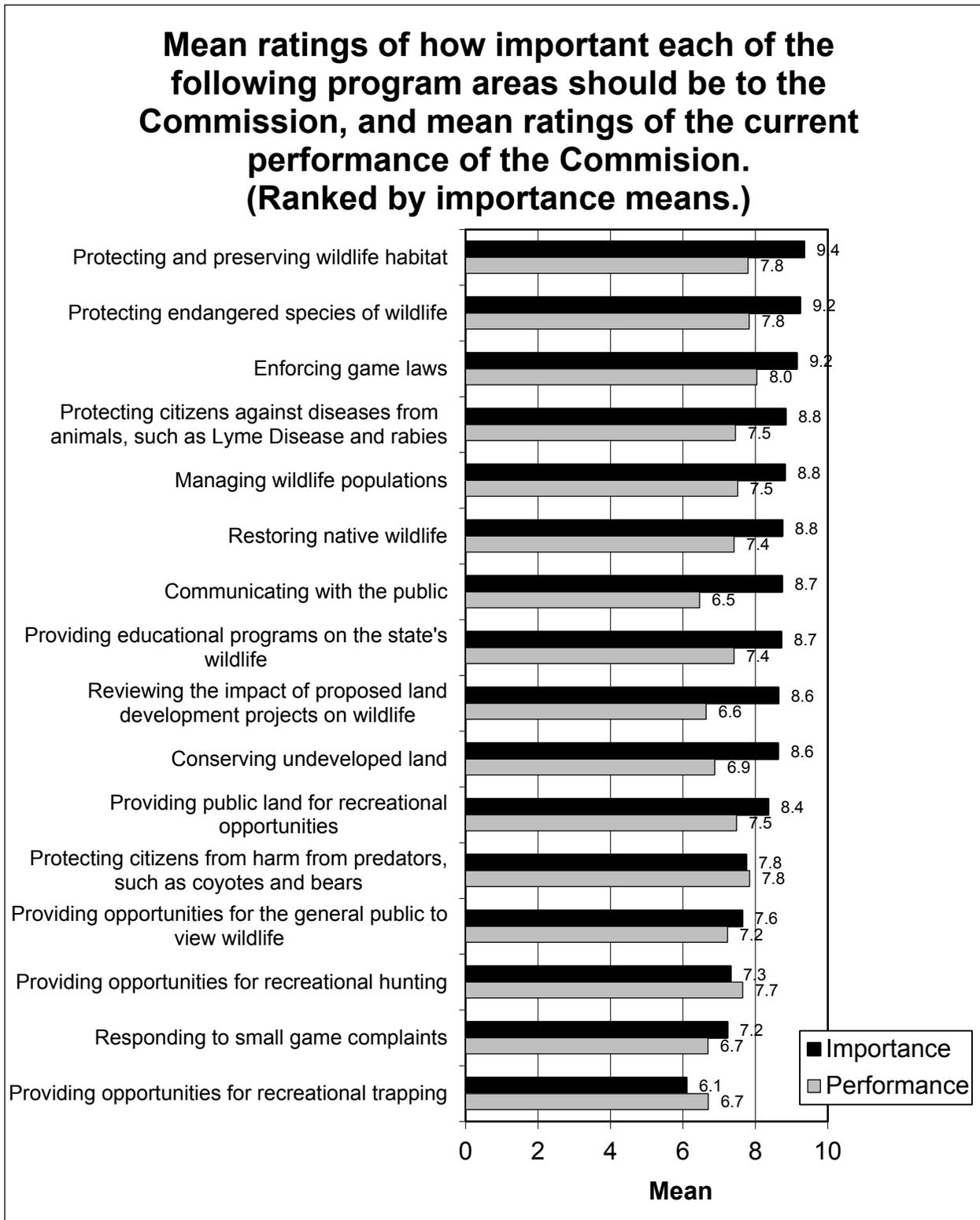


Figure 7.1. Ratings of Importance and Performance of Commission Program Areas/Efforts

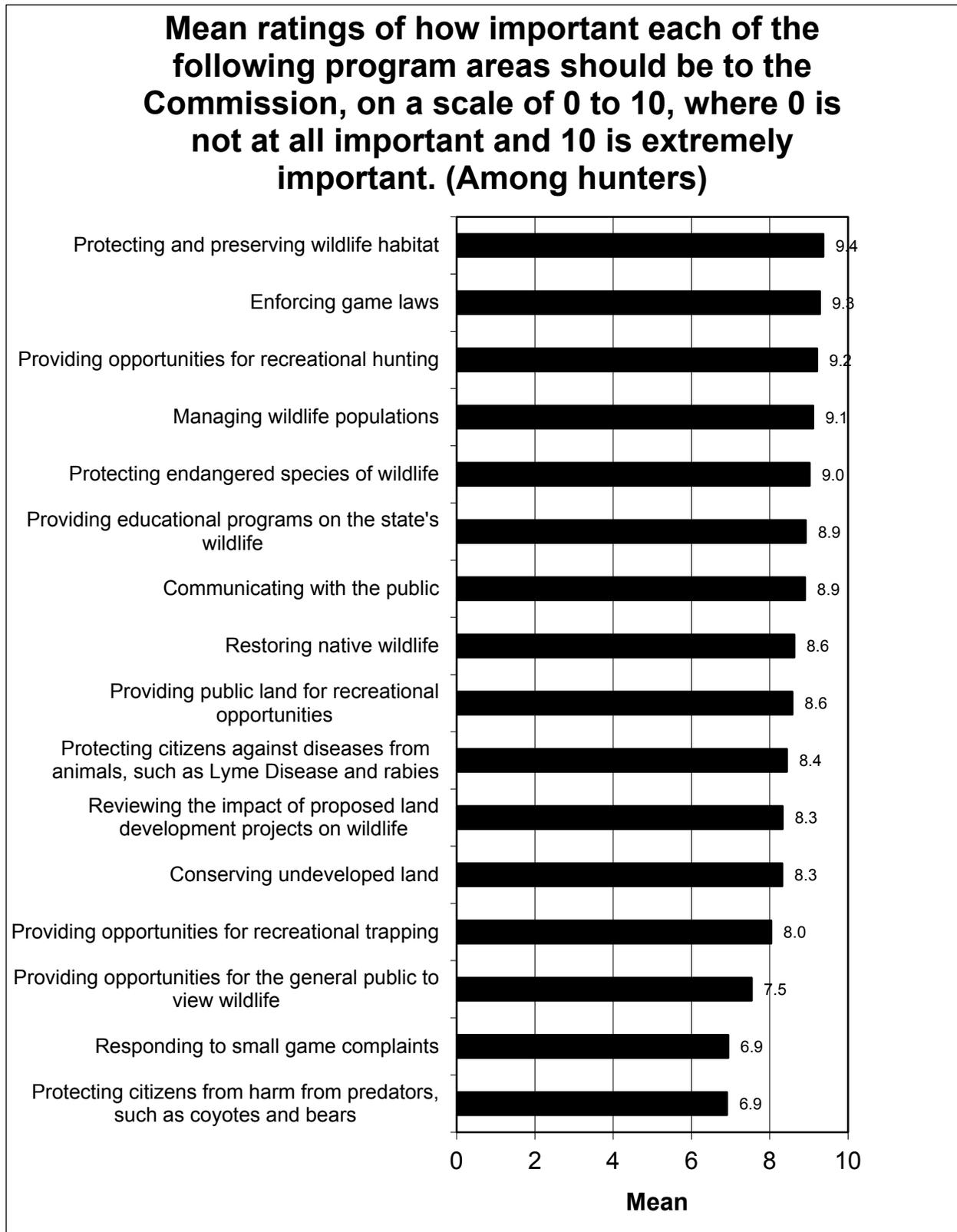


Figure 7.2. Ratings of Importance of Commission Program Areas/Efforts Among Hunters

Table 7.1 shows that there are regional differences, with the two large urban areas somewhat different in their rankings of the efforts from the remainder of the state. While all three regions are in agreement in their ranking of the top effort (protecting and preserving wildlife habitat), meaning this effort will resonate all across Pennsylvania, the rankings diverge on some other efforts. **Of note is that protecting citizens against diseases from animals is of more importance in the two urban areas than in the remainder of the state, suggesting that this effort will resonate among urban people.**

Table 7.1. Ratings of Importance of Efforts, Regionally (Ranked by the Remainder of the State)

	Pittsburgh Metro Area	Pittsburgh Metro Area rank	Philadelphia Metro Area	Philadelphia Metro Area rank	Remainder of the State	Remainder of the State rank
Protecting and preserving wildlife habitat	9.31	1	9.47	1	9.29	1
Protecting endangered species of wildlife	8.97	4	9.40	2	9.25	2
Enforcing game laws	9.26	2	9.04	3	9.18	3
Managing wildlife populations	8.60	8	8.82	8	8.89	4
Communicating with the public	8.84	5	8.68	10	8.74	5
Restoring native wildlife	8.51	10	8.95	5	8.72	6
Protecting citizens against diseases from animals, such as Lyme Disease and rabies	9.02	3	9.03	4	8.71	7
Providing educational programs on the state's wildlife	8.74	6	8.74	9	8.69	8
Reviewing the impact of proposed land development projects on wildlife	8.58	9	8.86	6	8.56	9
Conserving undeveloped land	8.72	7	8.85	7	8.49	10
Providing public land for recreational opportunities	8.32	11	8.51	11	8.30	11
Providing opportunities for the general public to view wildlife	7.30	15	7.68	13	7.74	12
Providing opportunities for recreational hunting	7.45	13	6.33	15	7.68	13
Protecting citizens from harm from predators, such as coyotes and bears	7.71	12	8.06	12	7.64	14
Responding to small game complaints	7.43	14	7.15	14	7.20	15
Providing opportunities for recreational trapping	6.06	16	5.23	16	6.48	16

There are some regional differences in ratings of the *performance* of efforts as well, as shown in Table 7.2. **Providing educational programs on the state's wildlife is an effort whose performance is rated substantially higher in the remainder of the state than in the urban areas.** It may be that this effort is not as widely known in the urban areas, or perhaps the educational programs do not resonate as well in the urban areas. Nonetheless, this difference in the urban areas from the rest of the state should be noted and addressed, if possible.

Table 7.2. Ratings of Performance of Efforts, Regionally (Ranked by the Remainder of the State)

	Pittsburgh Metro Area	Pittsburgh Metro Area rank	Philadelphia Metro Area	Philadelphia Metro Area rank	Remainder of the State	Remainder of the State rank
Enforcing game laws	7.86	3	7.74	2	8.20	1
Providing opportunities for recreational hunting	7.26	9	6.83	10	8.07	2
Protecting and preserving wildlife habitat	7.75	5	7.57	4	7.91	3
Protecting endangered species of wildlife	7.88	2	7.59	3	7.90	4
Providing educational programs on the state's wildlife	6.97	12	6.77	11	7.77	5
Protecting citizens from harm from predators, such as coyotes and bears	7.82	4	8.24	1	7.70	6
Managing wildlife populations	7.05	11	7.47	5	7.64	7
Protecting citizens against diseases from animals, such as Lyme Disease and rabies	7.18	10	7.36	6	7.57	8
Providing opportunities for the general public to view wildlife	6.55	16	7.19	9	7.48	9
Restoring native wildlife	7.49	6	7.22	8	7.45	10
Providing public land for recreational opportunities	7.92	1	7.35	7	7.40	11
Providing opportunities for recreational trapping	6.83	14	5.64	16	6.97	12
Conserving undeveloped land	7.37	7	6.57	13	6.84	13
Responding to small game complaints	6.76	15	6.71	12	6.66	14
Reviewing the impact of proposed land development projects on wildlife	7.28	8	6.21	14	6.62	15
Communicating with the public	6.85	13	5.92	15	6.55	16

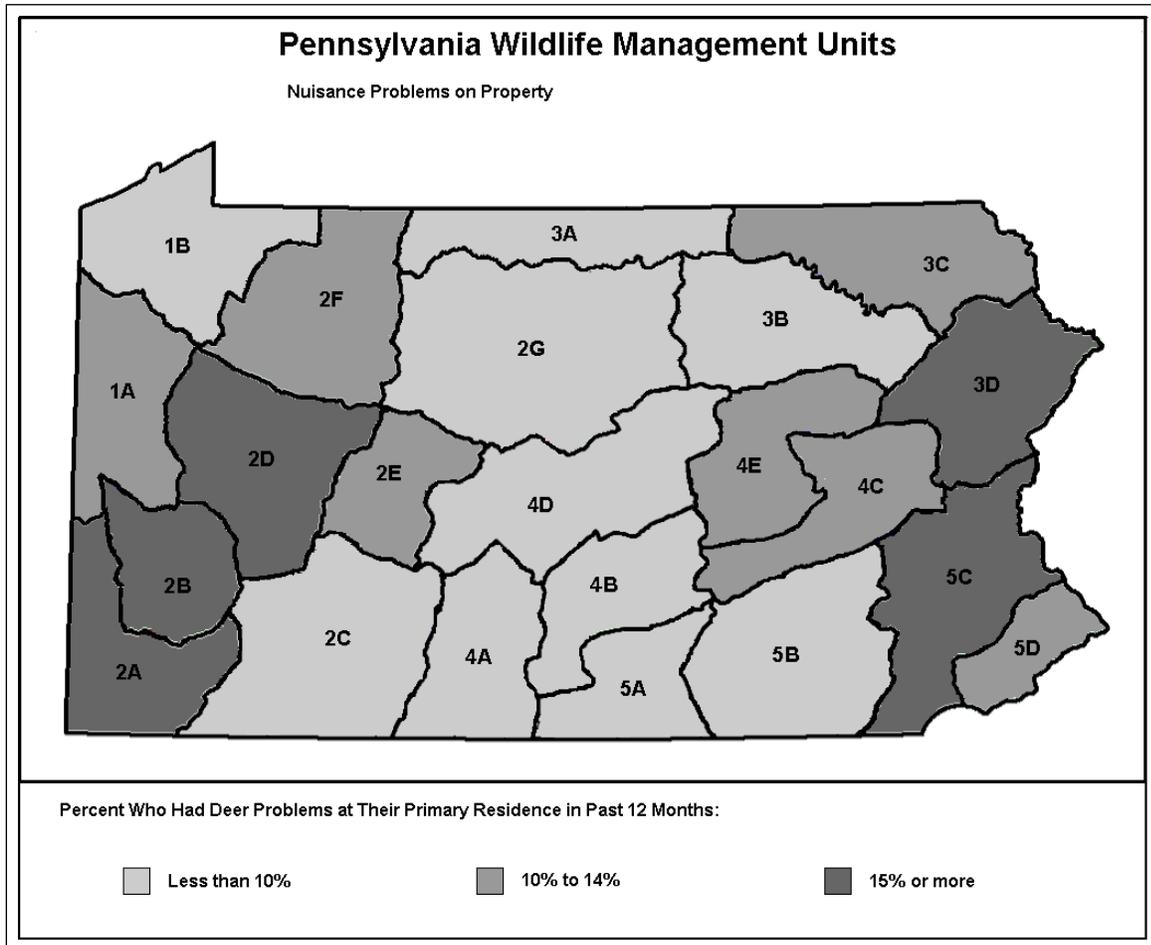
Another effort shows some regional differences: managing wildlife populations is rated lower in performance by Pittsburgh area residents than by residents of either of the other two regions. Some outreach to the Pittsburgh area may help address this perception in that area. This lower performance rating in Pittsburgh may be related to a relatively high incidence of deer damage in that area, as shown in Figure 7.3, from a previous Responsive Management study (2012a).

Conserving undeveloped land is rated much lower by Philadelphia area residents than by residents of the Pittsburgh area (with residents in the remainder of the state in the middle of those two urban areas vis-à-vis their ratings). It may be that those conservation efforts are not as well-known in the Philadelphia area.

Providing opportunities for recreational hunting is rated much lower in the urban areas than in the rest of the state. There was conjecture on the part of the researchers that the lower ratings in the urban areas might simply be caused by non-hunters' giving low ratings to this because they knew so little about it. So a data run of only hunters by region on this particular question found that **hunters in Philadelphia give similarly low ratings to the performance of this as do the residents overall** (Table 7.3).

Table 7.3. Ratings of Performance of Providing Hunting Opportunities, Regionally, Among Hunters

	Pittsburgh Metro Area	Pittsburgh Metro Area hunters	Philadelphia Metro Area	Philadelphia Metro Area hunters	Remainder of the State	Remainder of the State hunters
Providing opportunities for recreational hunting	7.26	8.20	6.83	6.66	8.07	8.10



Source: Responsive Management, 2012a.

Figure 7.3. Map of Percent Experiencing Problems With Deer on Property

Of further interest in Figure 7.1 is the difference in performance and importance for each effort, which is presented for each effort in Table 7.4. **Where differences are great, communications may be able to help, either by communicating that the effort is done well or by communicating the challenges that are faced by those engaged in the effort.** Communicating with the public is the effort with the greatest difference between importance and performance. Not far behind that is reviewing the impact of proposed land development projects on wildlife, conserving undeveloped land, and protecting and preserving wildlife habitat. All of the above-named have a difference of more than 1.50 percentage points in Table 7.4.

Table 7.4. Differences in Ratings of Importance and Performance

Program area	Mean importance rating (0-10 scale)	Mean performance rating (0-10 scale)	Mean performance - mean importance
Communicating with the public	8.74	6.46	-2.28
Reviewing the impact of proposed land development projects on wildlife	8.64	6.64	-2.00
Conserving undeveloped land	8.63	6.88	-1.75
Protecting and preserving wildlife habitat	9.35	7.80	-1.55
Protecting endangered species of wildlife	9.24	7.83	-1.41
Protecting citizens against diseases from animals, such as Lyme Disease and rabies	8.84	7.45	-1.39
Restoring native wildlife	8.75	7.41	-1.34
Managing wildlife populations	8.82	7.51	-1.31
Providing educational programs on the state's wildlife	8.72	7.41	-1.31
Enforcing game laws	9.15	8.04	-1.11
Providing public land for recreational opportunities	8.36	7.48	-0.88
Responding to small game complaints	7.23	6.69	-0.54
Providing opportunities for the general public to view wildlife	7.64	7.23	-0.41
Protecting citizens from harm from predators, such as coyotes and bears	7.75	7.84	0.09
Providing opportunities for recreational hunting	7.32	7.65	0.33
Providing opportunities for recreational trapping	6.10	6.70	0.60

8. INFORMATION FROM THE COMMISSION AND OPINIONS ON THE COMMISSION’S CURRENT COMMUNICATIONS AND ITS CREDIBILITY

A not insubstantial 13% of residents look to the Commission’s website when looking for information on wildlife and outdoor recreation in Pennsylvania. Internet use is nearly ubiquitous now—a majority of residents named the Internet in general or named a specific website when they were asked in an open-ended question where they look for information on wildlife and outdoor recreation issues. A smattering get information from Game Wardens and/or Game Commission offices. The full list of sources is shown in Figure 8.1.

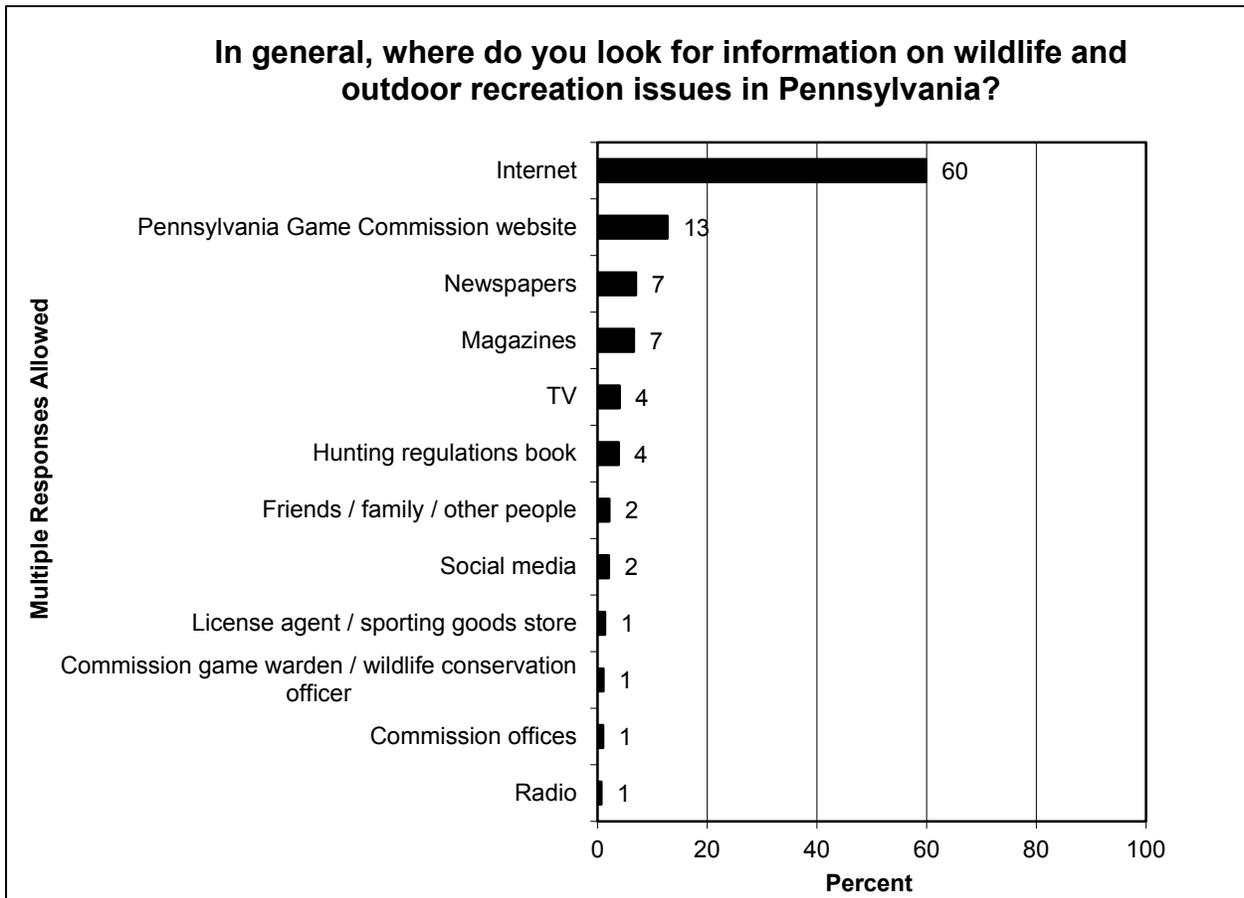


Figure 8.1. Residents’ Information Sources

When asked directly if they had ever visited the Game Commission website, 42% of residents indicated that they have done so (Figure 8.2).

Characteristics of website visitors are shown in Figure 8.3. Website visitors, compared to residents overall, are more likely to be engaged in hunting, male, conservative, rural, younger than the median age, white, and living outside of the Philadelphia Metro Area.

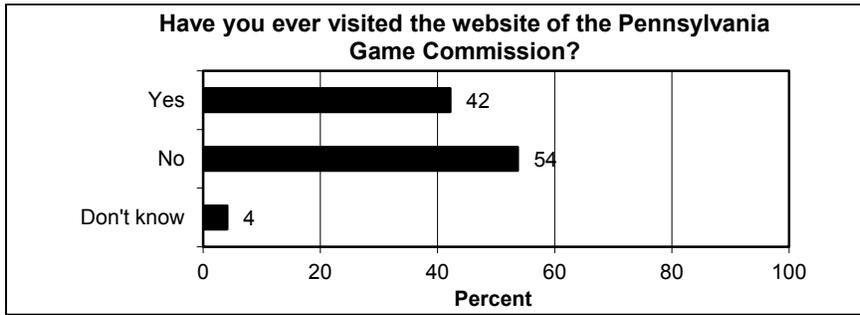


Figure 8.2. Visitation to the Commission Website

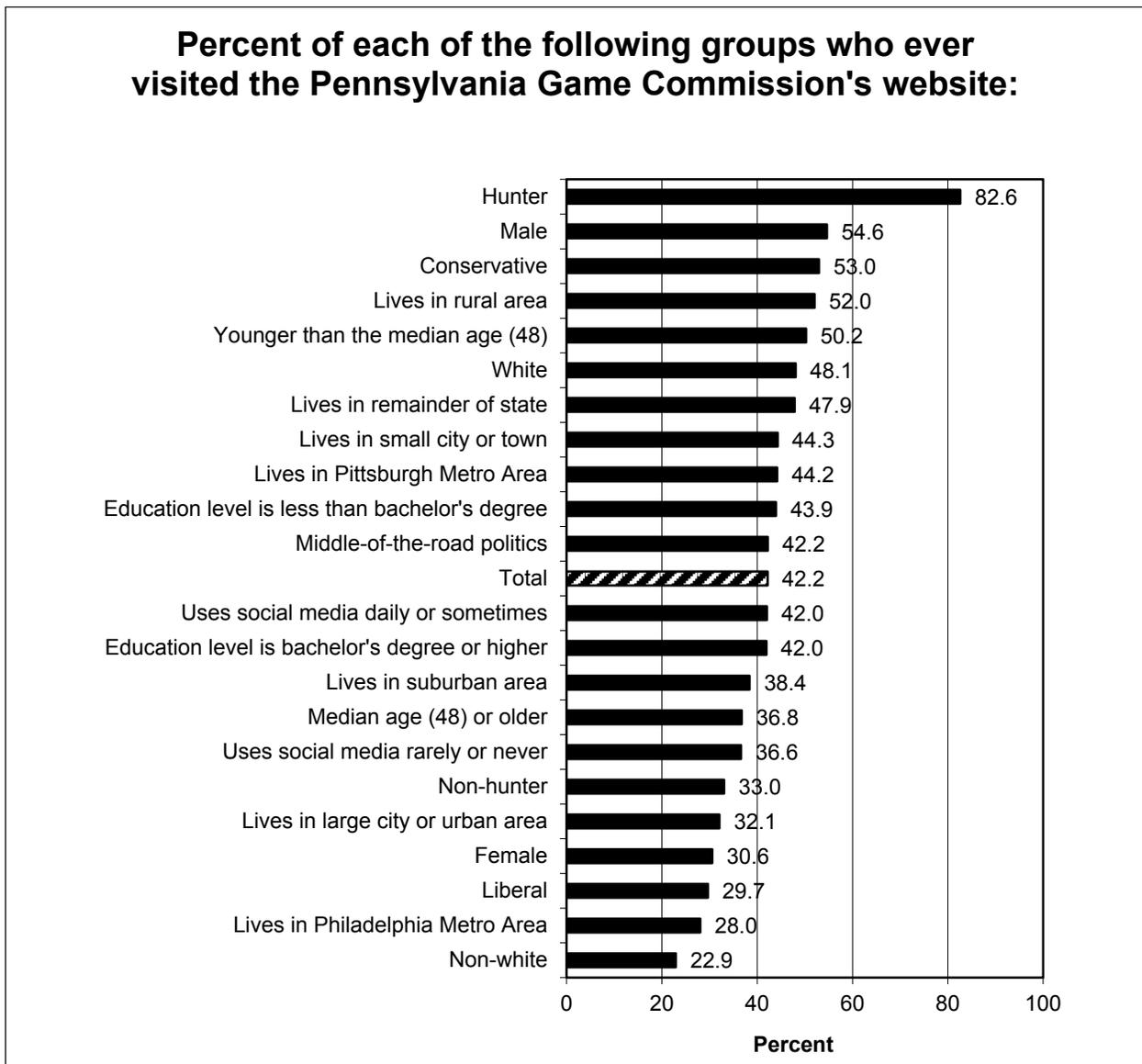


Figure 8.3. Characteristics of Website Visitors

About a quarter of residents (26%) indicate that they have seen or heard a great deal or a moderate amount of information from the Game Commission in the past 5 years. At the other end, a third (33%) have heard nothing (Figure 8.4). The former is a target market seemingly already connected with the Commission, and the demographic characteristics are discussed below. Likewise, for those who say that they have heard nothing, the Commission needs to connect with them.

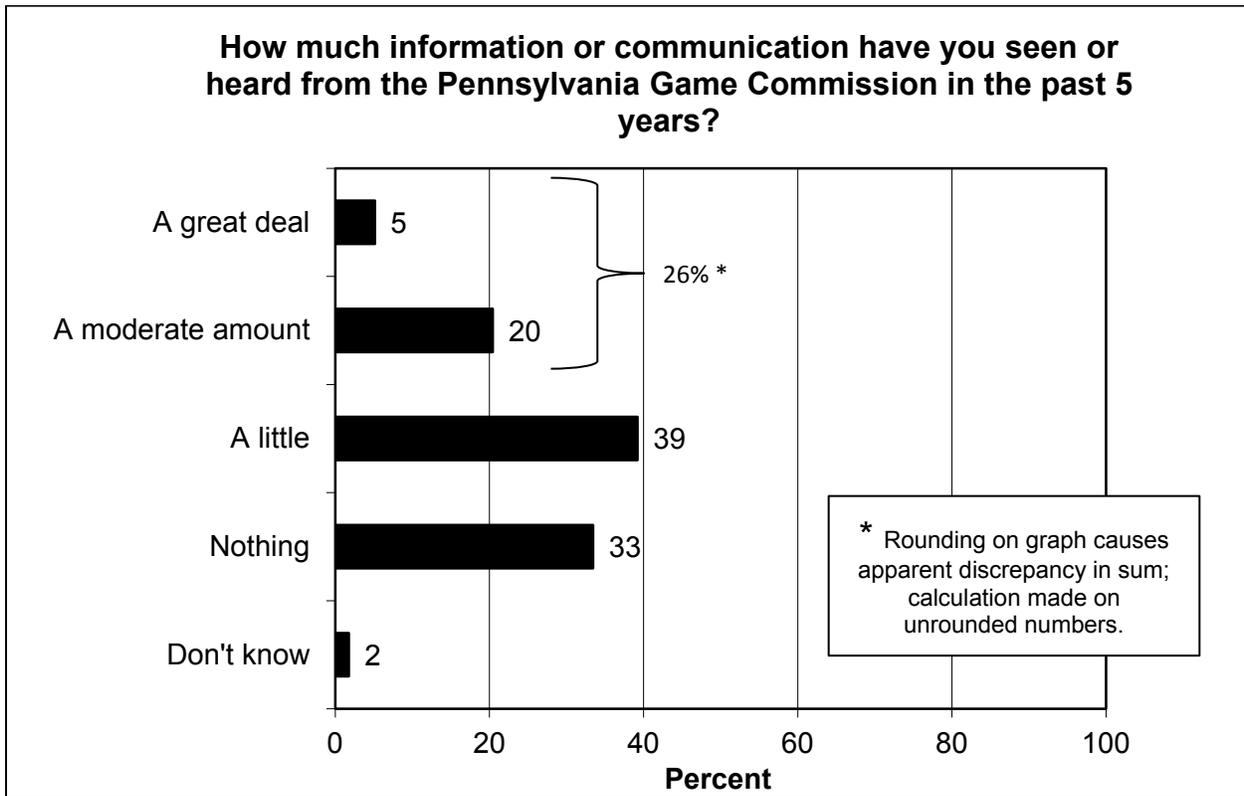


Figure 8.4. Amount of Information From the Commission

The characteristic most associated with having seen or heard a great deal or moderate amount is being a hunter. Other characteristics include living in a rural area, particularly outside of the Philadelphia Metro Area, being conservative, being male, being white, and being less educated. These characteristics are shown in Figure 8.5.

Those who have not seen or heard any information from the Game Commission are more likely, relative to residents overall, to be non-white; to live in a large city or urban area, particularly Philadelphia, but not Pittsburgh; to be liberal; to be female; and to be a non-hunter. This analysis is shown in Figure 8.6.

Percent of each of the following groups who saw a great deal or moderate amount of information from the Pennsylvania Game Commission over the past 5 years:

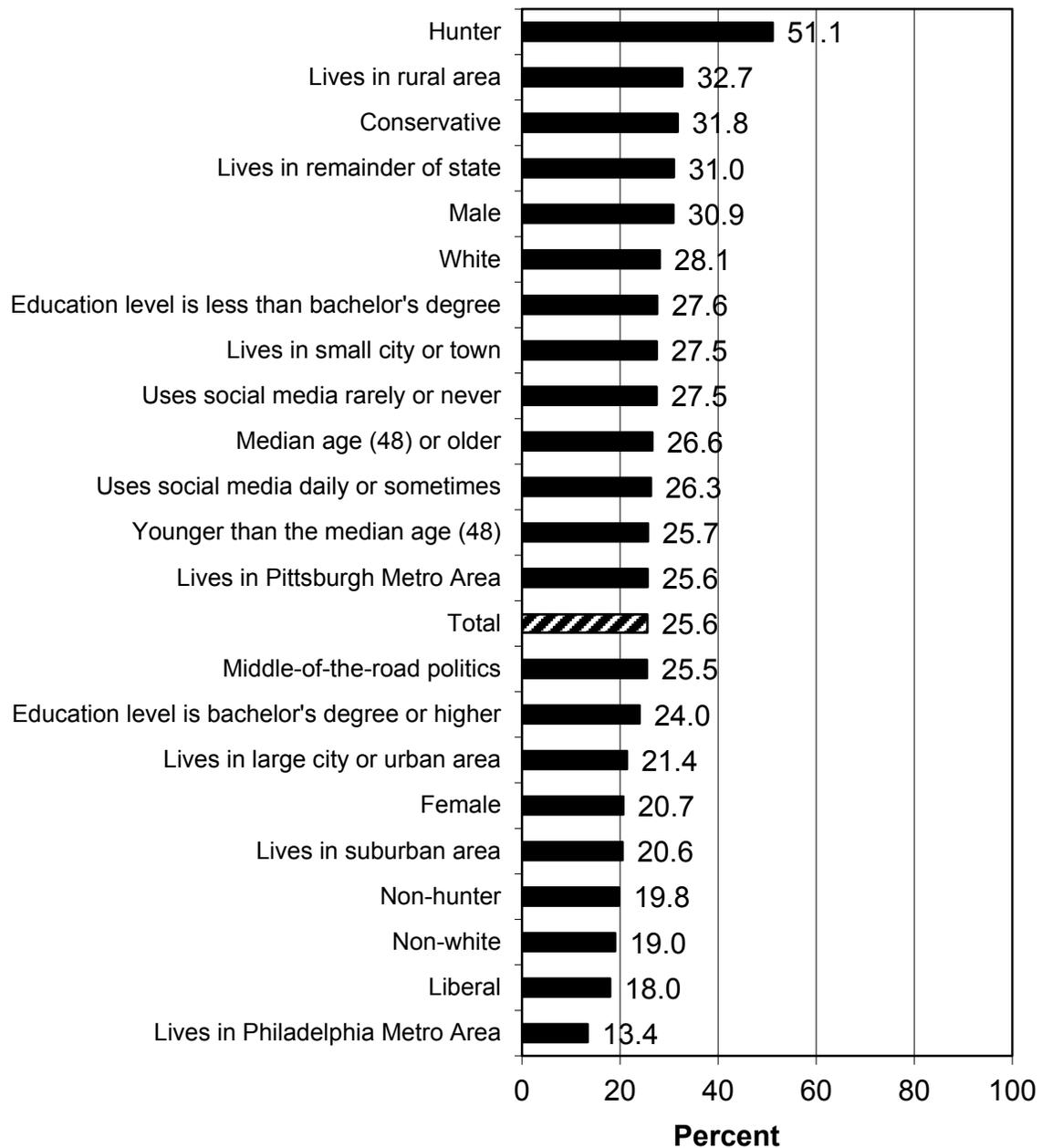


Figure 8.5. Characteristics of Those Who Saw or Heard a Great Deal or Moderate Amount of Information From the Commission

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

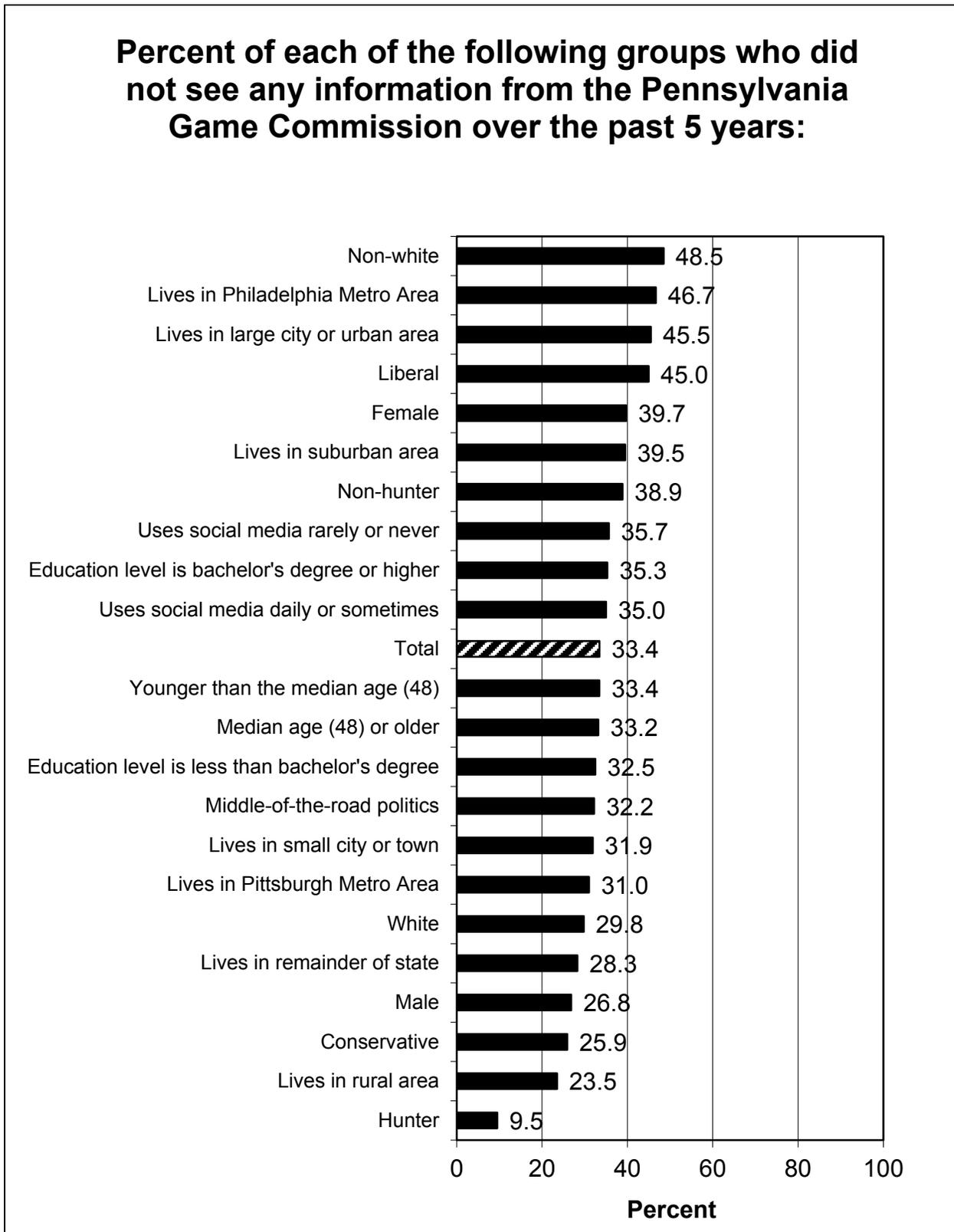


Figure 8.6. Characteristics of Those Who Saw or Heard No Information From the Commission

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

Also in this chapter, an analysis was conducted on those who disagree that the Commission provides enough information or communication to meet the public's needs for information on wildlife and outdoor recreation issues. The survey conducted as part of this project found that **a third of residents say that they disagree that the Commission provides enough information and communication** (Figure 8.7).

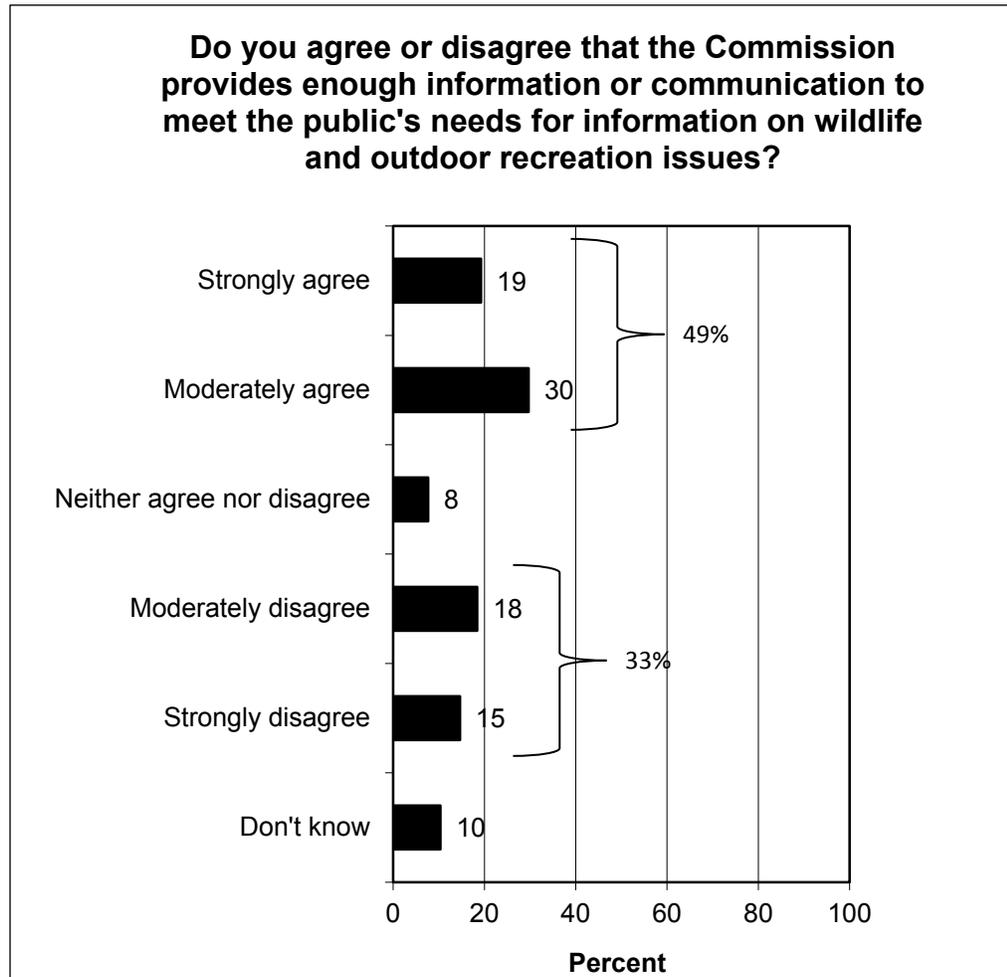


Figure 8.7. Perceptions of the Provision of Information and Communications

Demographic analyses were run of those 33% above who disagree. **Those who disagree that the Commission provides enough information and communication on wildlife and outdoor recreation issues are more likely to be, relative to residents overall, residing in the Philadelphia Metro Area, liberal, female, non-white, suburban, older, and in the higher education level** (Figure 8.8). The opinion is also associated with non-hunters.

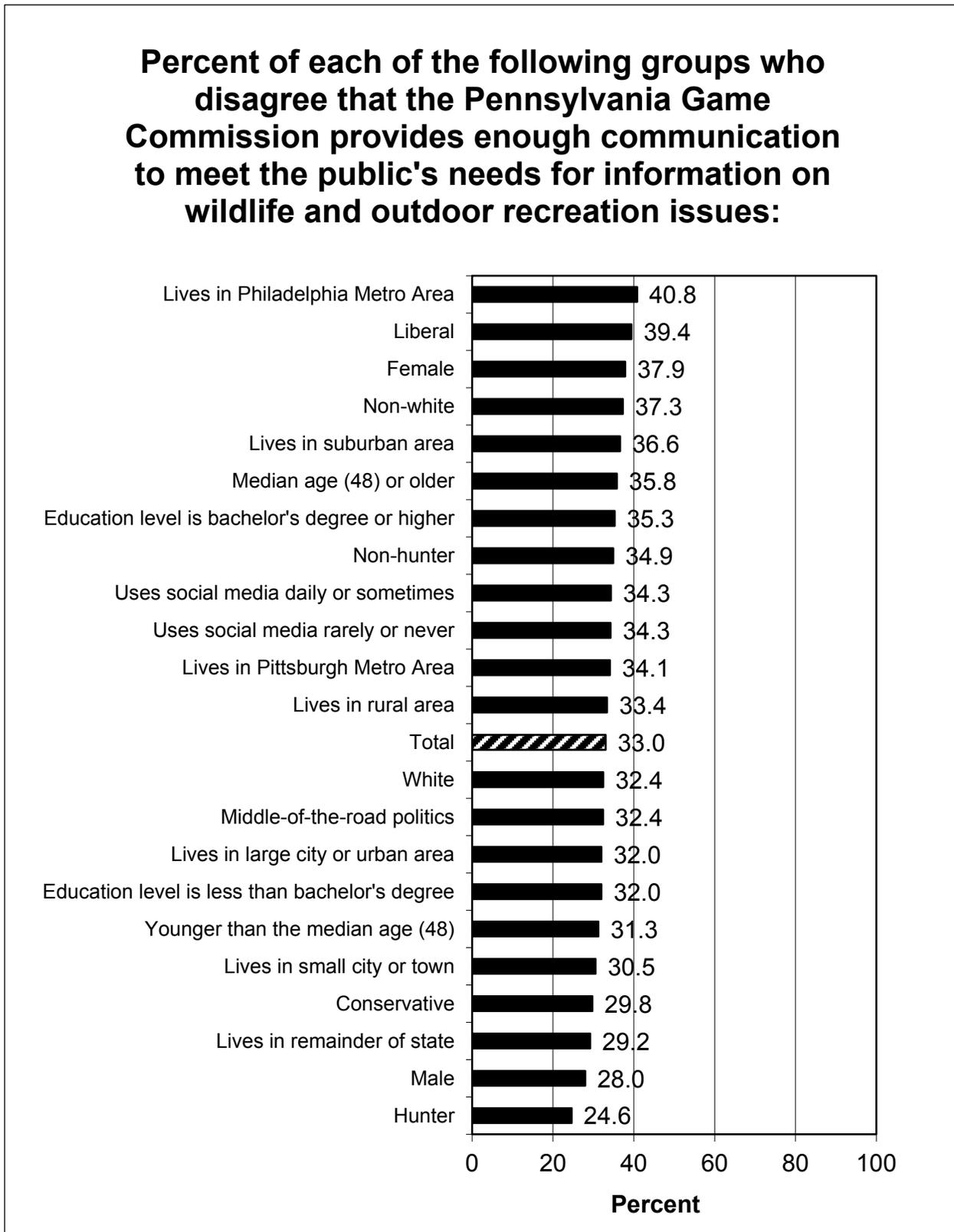


Figure 8.8. Characteristics of Those Disagreeing That the Commission Provides Enough Information

Fortunately, the Commission is perceived as credible as a source of information about wildlife and outdoor recreation issues in Pennsylvania; this credibility provides an inroad in the Commission's outreach. The overwhelming majority of residents (86%) say that the Commission is very or somewhat credible, and only 2% say it is not at all credible (Figure 8.9). In seeking to connect with residents, overall credibility is not a major issue (but see below).

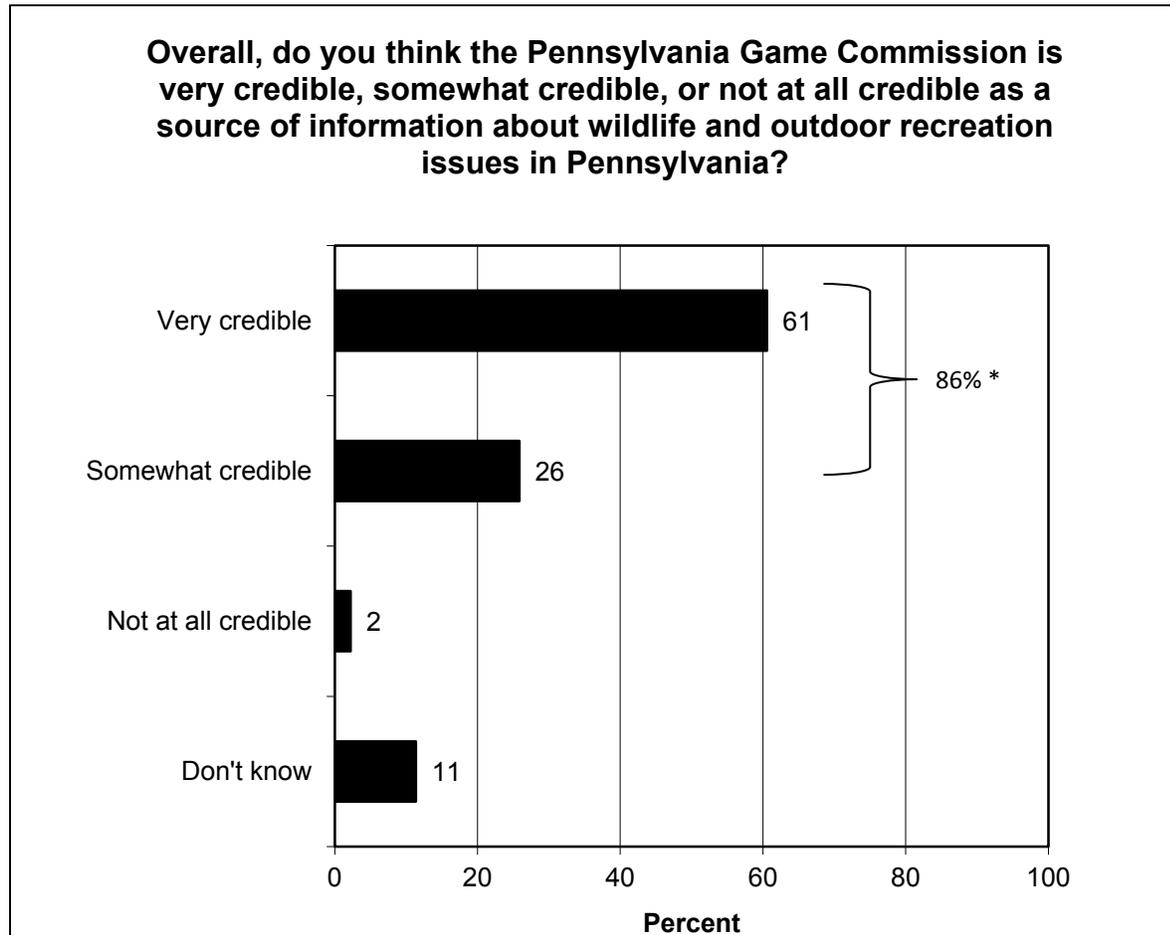


Figure 8.9. Perceived Credibility of the Commission

Although ratings of credibility are positive overall, there is room to improve credibility. The survey as part of this project found that 26% of residents said the Commission was “somewhat credible,” and to this can be added the 2% who said the Commission was not at all credible, making **more than a quarter** who could have their perceptions improved regarding credibility of the Commission.

Demographic analyses were run on those who think the Commission is very credible, as well as those who did not say very credible (somewhat credible, not at all credible, and don't know). **Those who think the Commission is very credible, relative to residents overall, are more likely to be rural, white, a participant in hunting, living outside of the Philadelphia Metro Area, younger than the median age, conservative or in the middle politically, and male** (Figure 8.10).

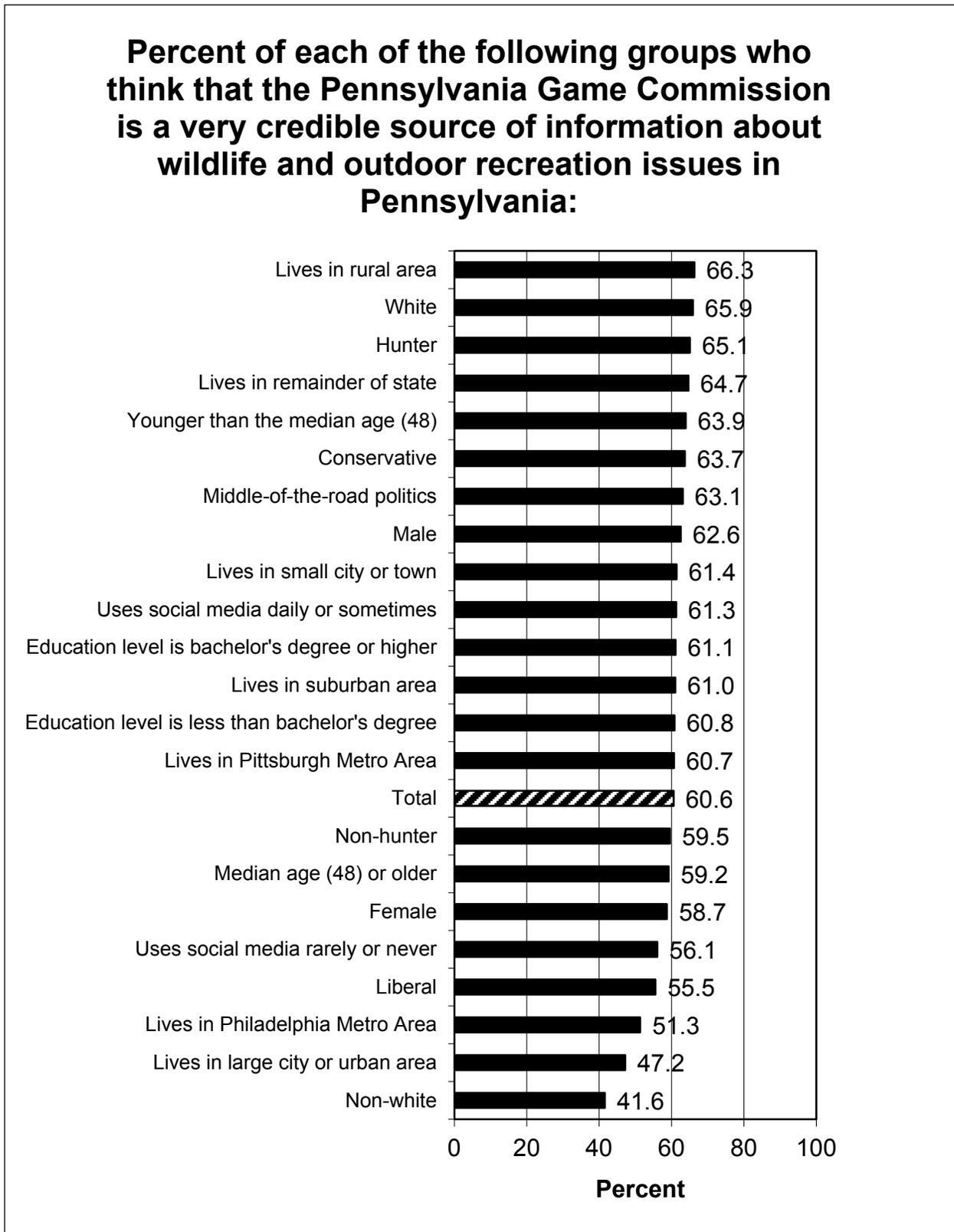


Figure 8.10. Characteristics of Those Who Think the Commission Is Very Credible

Those who did not indicate that the Commission is very credible (i.e., they said somewhat credible, not at all credible, or don't know) are more likely, relative to residents overall, to be non-white, urban dwellers, residents of the Philadelphia Metro Area, liberal, and female (Figure 8.11).

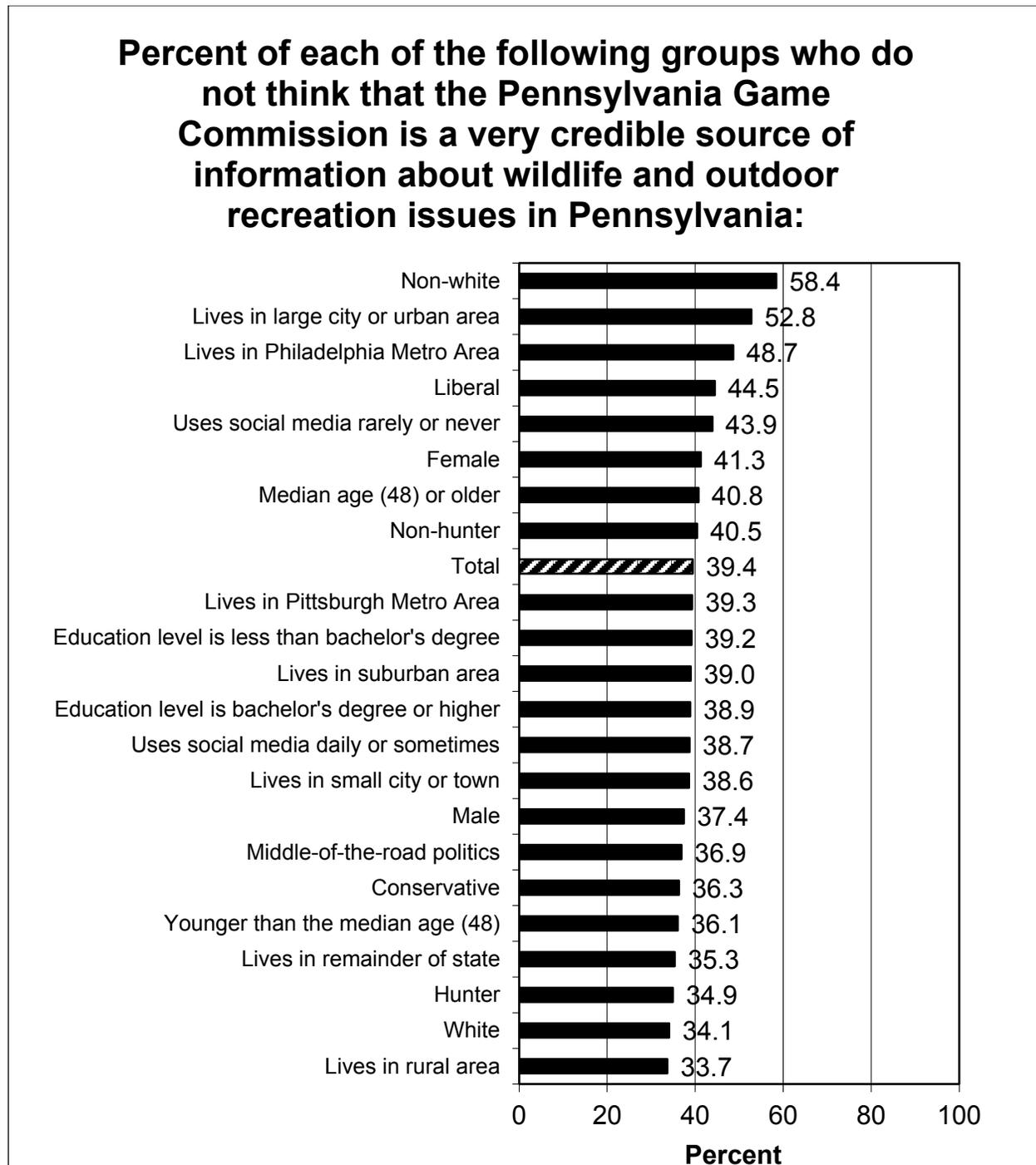


Figure 8.11. Characteristics of Those Who Do Not Think the Commission Is Very Credible

The survey conducted as part of this project directly asked residents about their likelihood to follow the Commission on Facebook, Twitter, or Instagram, as well as their likelihood to watch

podcasts created by the Commission or watch videos on YouTube created by the Commission. Figure 8.12 shows the percentages likely to do so; the sum of “already do this” and “very likely” is indicated below the bars. **Watching YouTube videos and following the Commission on Facebook are the top ways that people would be likely to engage with the Commission.**

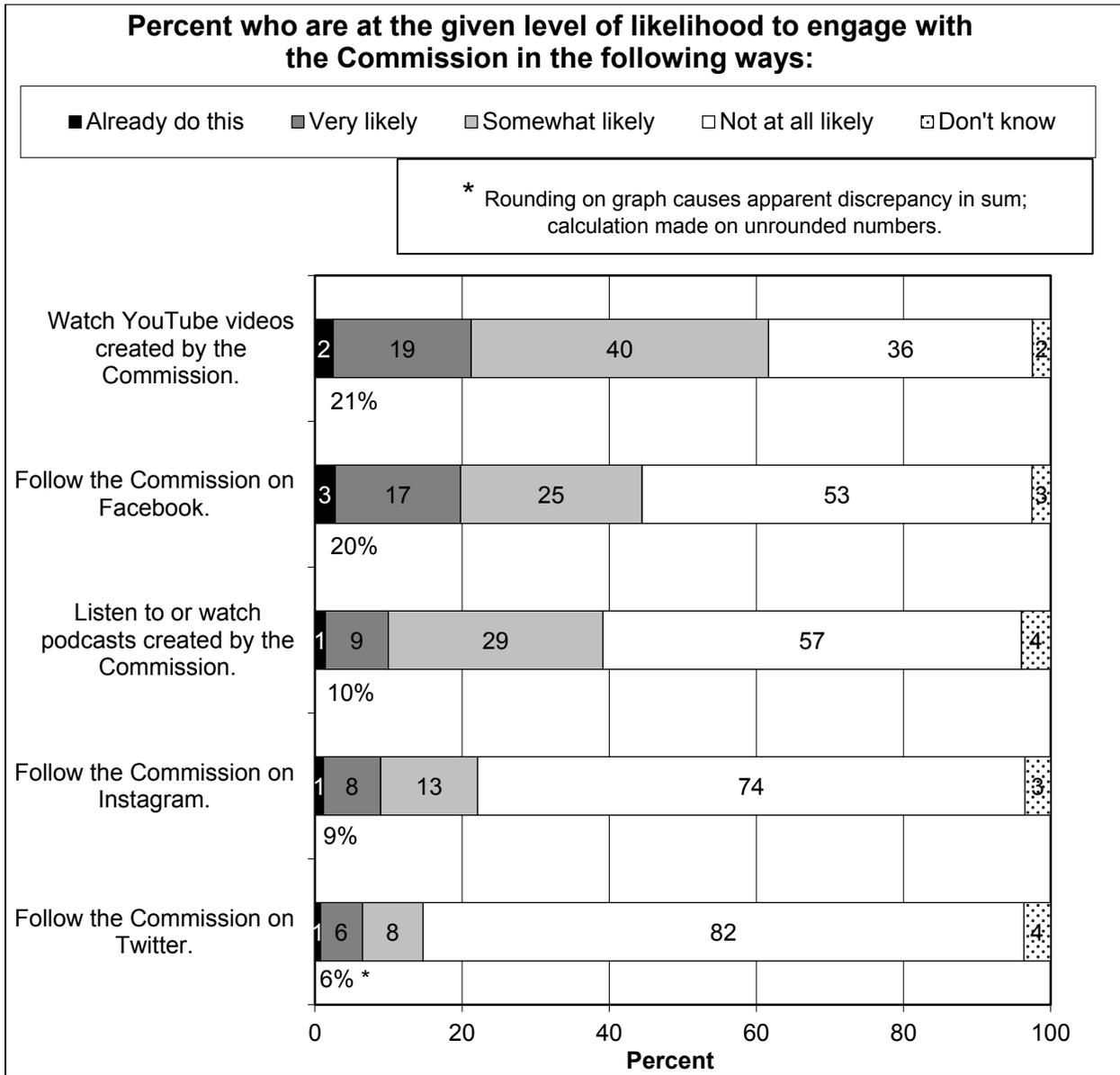


Figure 8.12. Likelihood to Engage With the Commission

Demographic analyses were run of those who are very likely to do the activity or who already do so. **Those characteristics associated with being very likely to watch (or already watching) YouTube videos are as follows: being liberal, non-white, a user of social media daily or sometimes, residing in a suburban area, being in the higher education bracket, being male, and living in the Philadelphia Metro Area (Figure 8.13).**

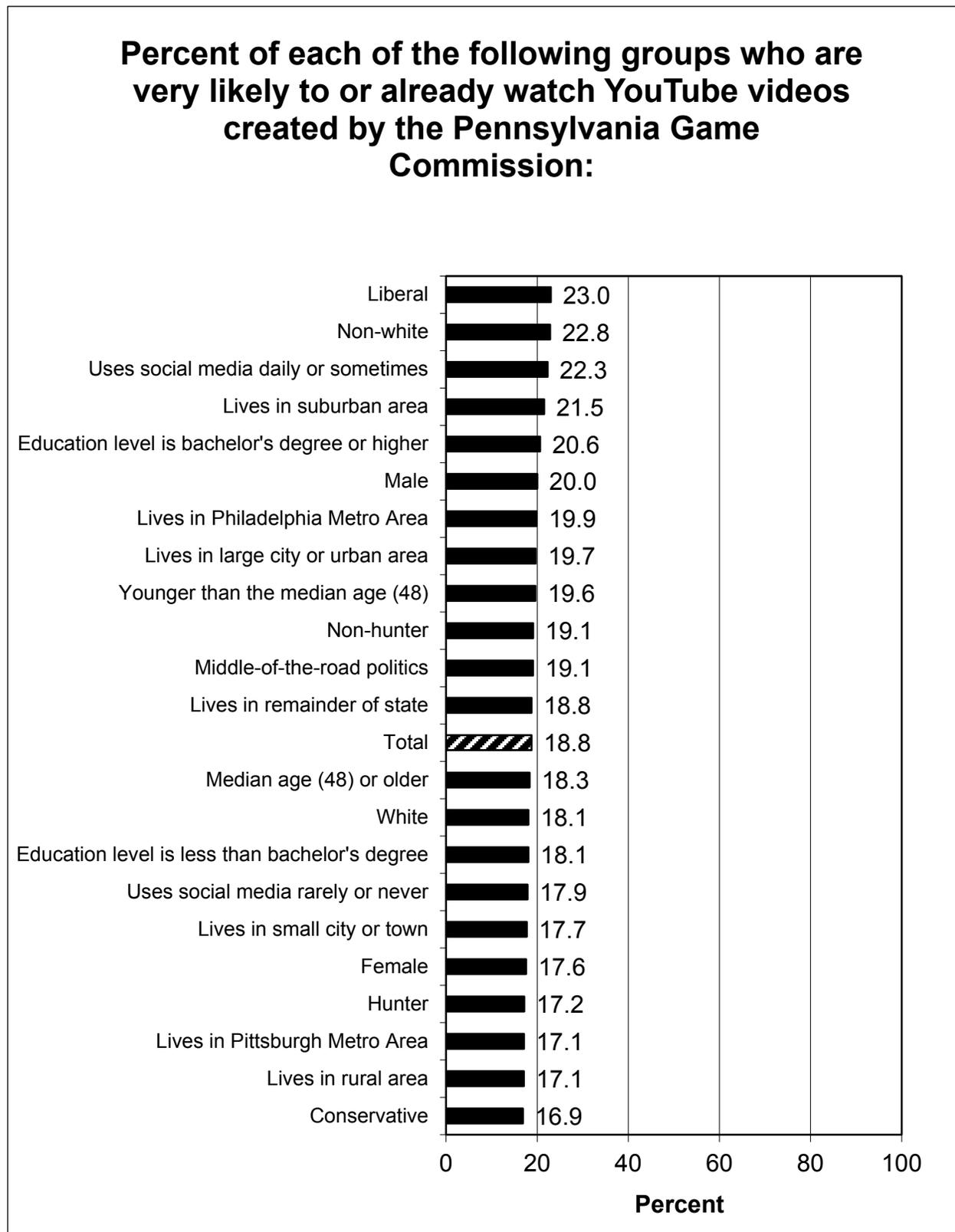


Figure 8.13. Characteristics of Those Very Likely to Watch YouTube Videos Created by the Commission

Those characteristics associated with being very likely to follow (or already following) the Commission on Facebook are as follows: a user of social media daily or sometimes, living in the Pittsburgh Metro Area, being younger than the median age, being a participant in hunting, living in a small city or town, being female, and being in the middle politically (Figure 8.14).

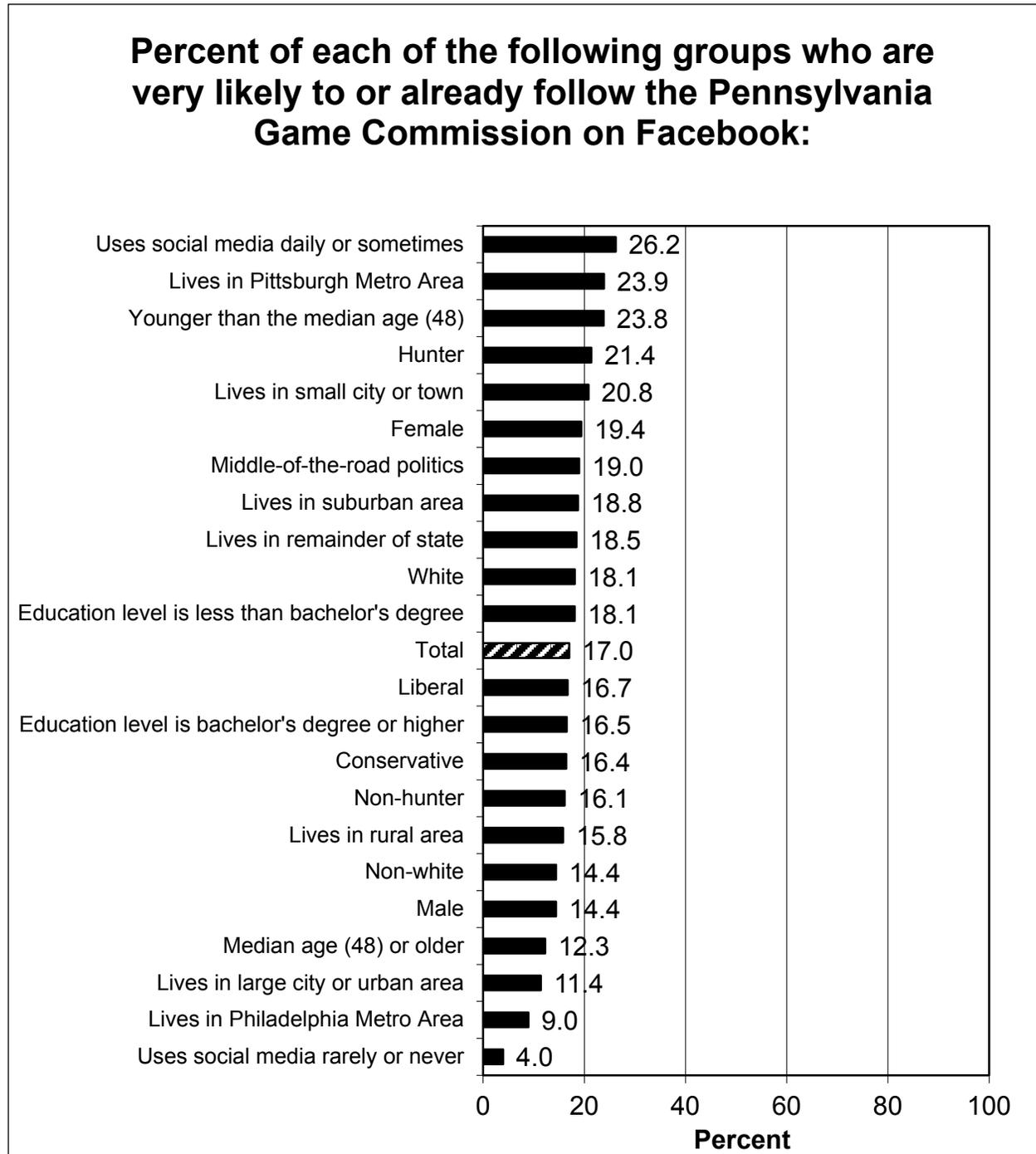


Figure 8.14. Characteristics of Those Very Likely to Follow the Commission on Facebook

Those characteristics associated with being very likely to watch (or already watching) podcasts created by the Commission are as follows: being a participant in hunting, being a user of social media rarely or never, being in the older age group, living in a rural area, and being liberal (Figure 8.15).

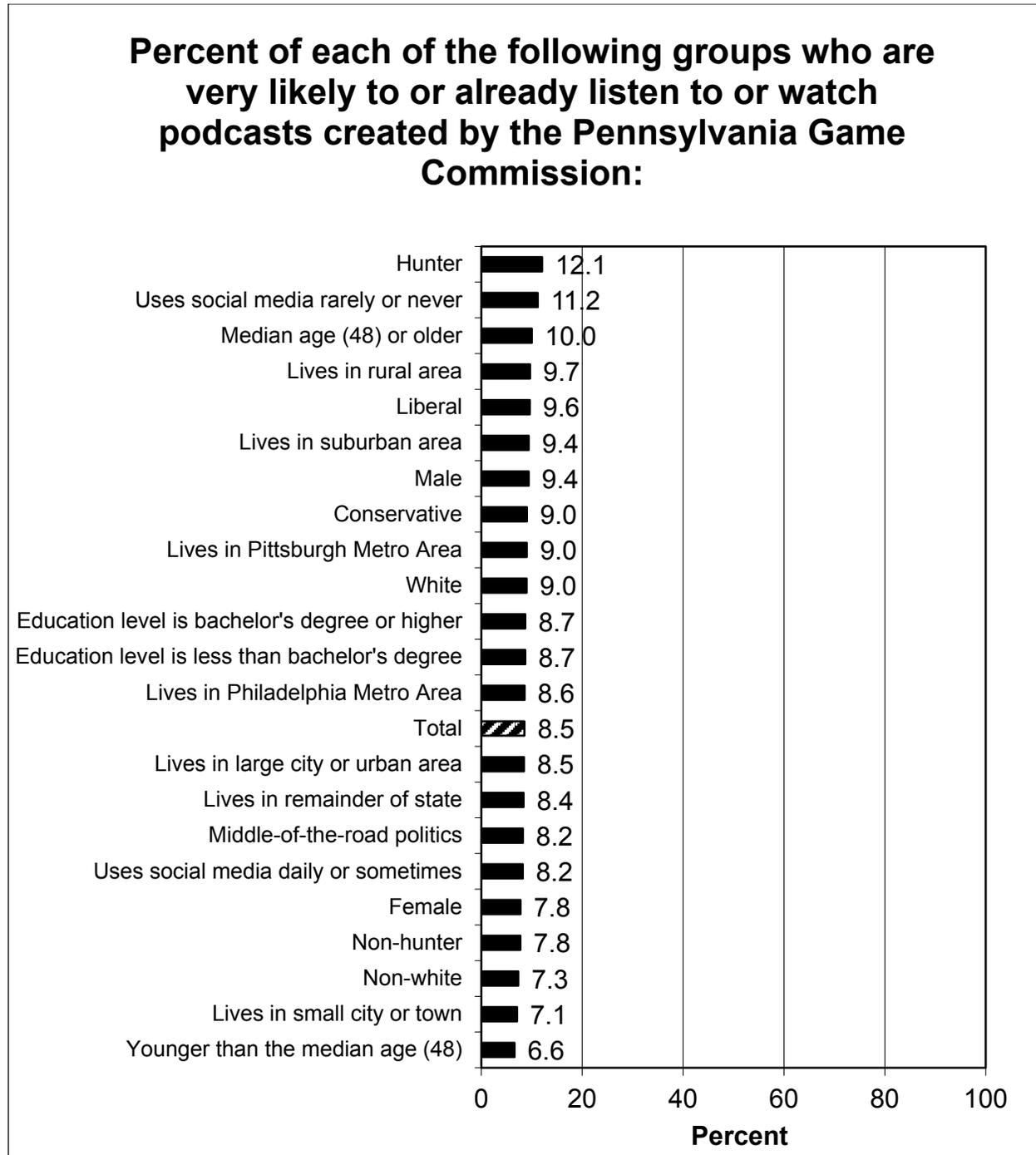


Figure 8.15. Characteristics of Those Very Likely to Watch Podcasts Created by the Commission

Those characteristics associated with being very likely to follow (or already following) the Commission on Instagram are as follows: being younger than the median age, being a user of social media daily or sometimes, being non-white, living in a suburban area, being liberal, and living in the Philadelphia Metro Area (Figure 8.16).

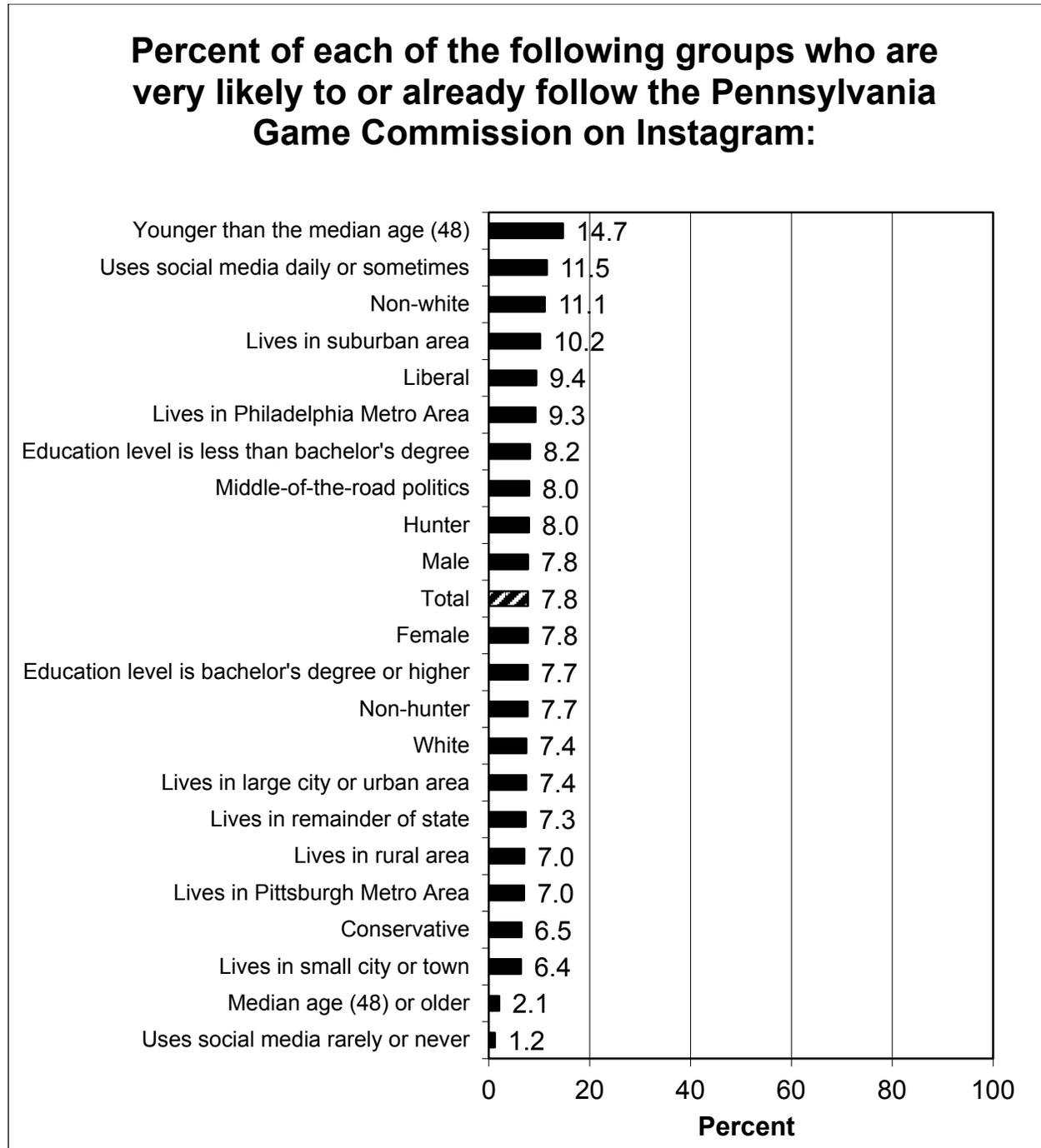


Figure 8.16. Characteristics of Those Very Likely to Follow the Commission on Instagram

Those characteristics associated with being very likely to follow (or already following) the Commission on Twitter are as follows: being liberal, living in a suburban area, being younger than the median age, being a user of social media daily or sometimes, being non-white, living in the Pittsburgh Metro Area, and being female (Figure 8.17).

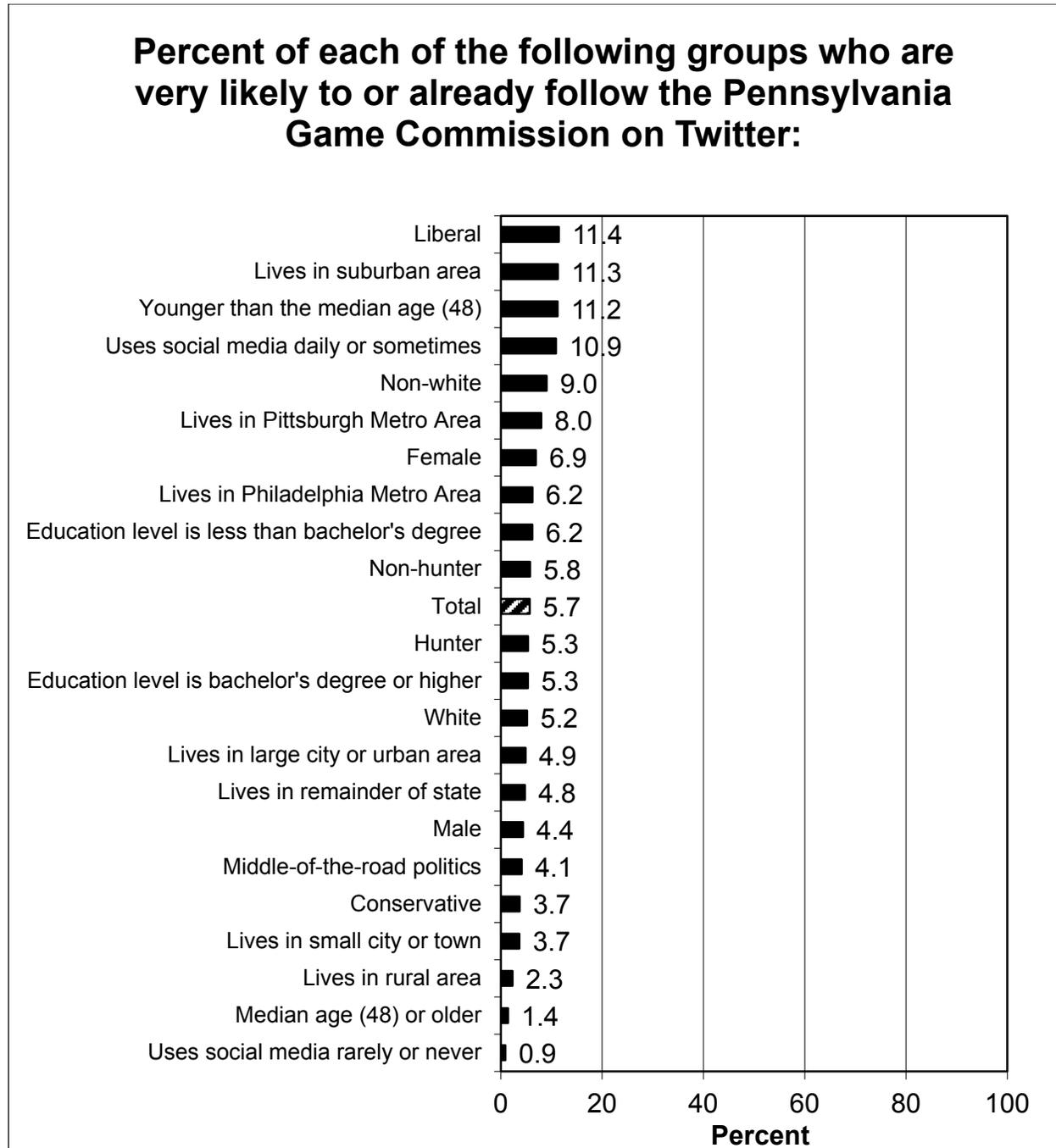
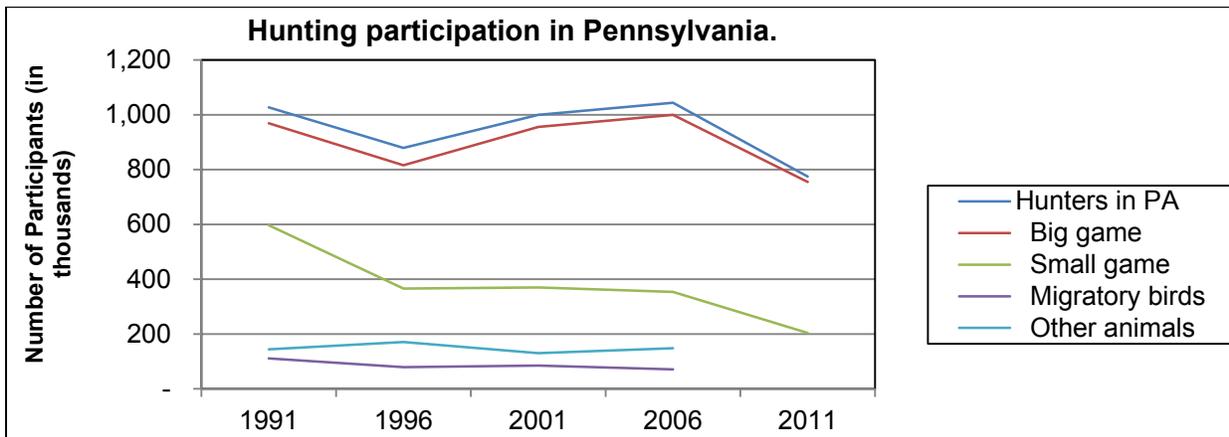


Figure 8.17. Characteristics of Those Very Likely to Follow the Commission on Twitter

9. INTERACTIONS WITH THE COMMISSION, INCLUDING PARTICIPATION IN OUTDOOR RECREATION RELATED TO THE COMMISSION

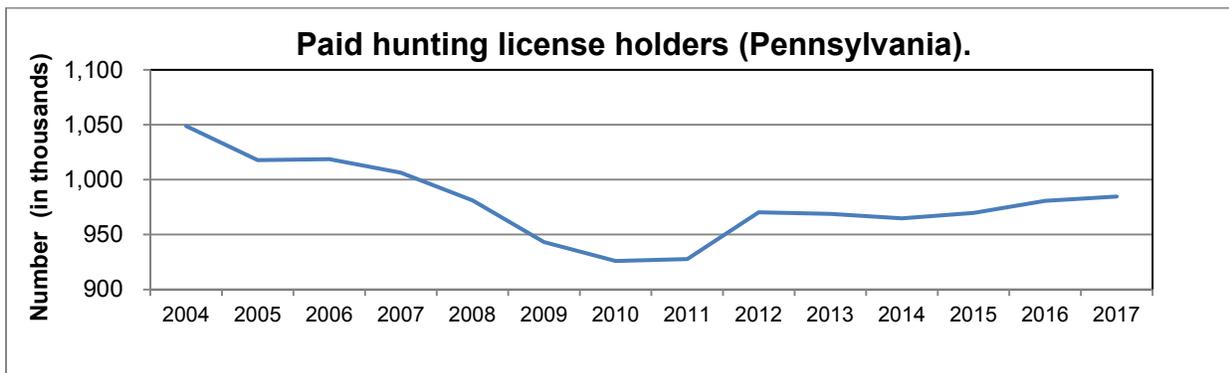
The primary way that residents (as well as out-of-state visitors) interact with the Commission is through hunting. According to the U.S. Fish and Wildlife Service/U.S. Census Bureau in the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (published every 5 years), Pennsylvania had a little under 800,000 people hunting in the Commonwealth (including residents and nonresidents) in the last survey year in which state data are available (2011). This number is a little less than in previous survey years of comparable data (since 1991), the first time in the five surveys in which the number is below 800,000 (Figure 9.1). **The evidence shows, then, that the number of the Commission’s hunting constituents has dropped since the high numbers in both 1991 and 2006.**



Source: U.S. Fish and Wildlife Service/U.S. Census Bureau (ages 16 years old and older).

Figure 9.1. Numbers of Hunters in PA, 1991 to 2011, *National Survey Data*

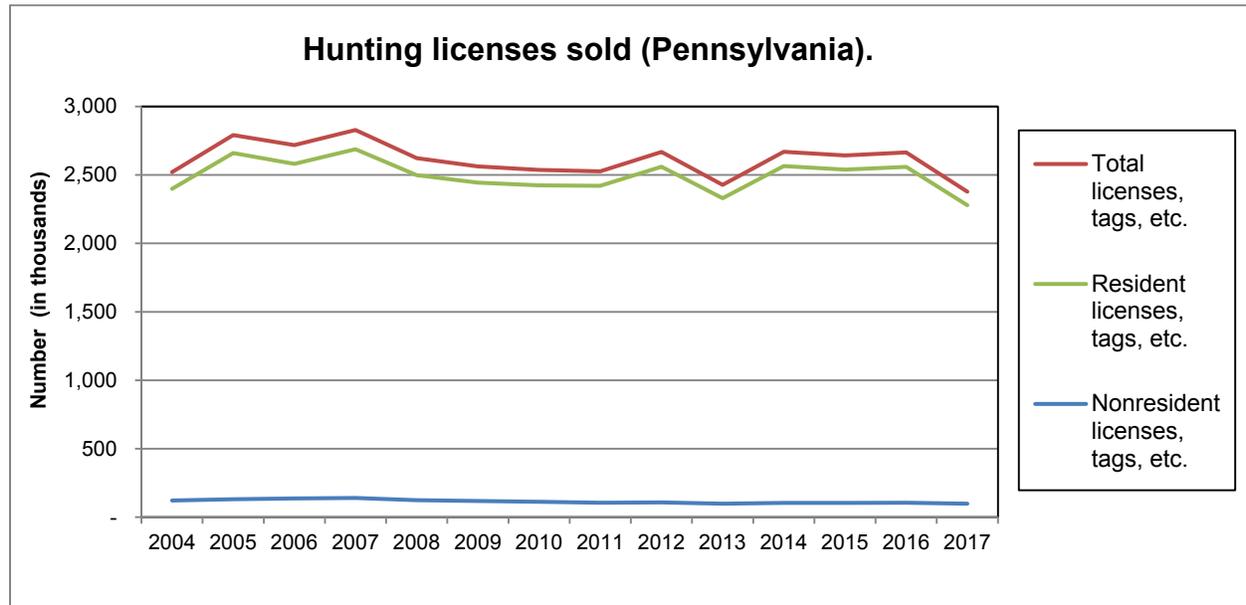
Some positive news is that the number of paid license holders in Pennsylvania, after dropping from 2004 through 2010, has risen back up a bit and now may be leveling off at around 980,000 (Figure 9.2).



Source: U.S. Fish and Wildlife Service.

Figure 9.2. Number of License Holders in Pennsylvania, 2004 to 2017

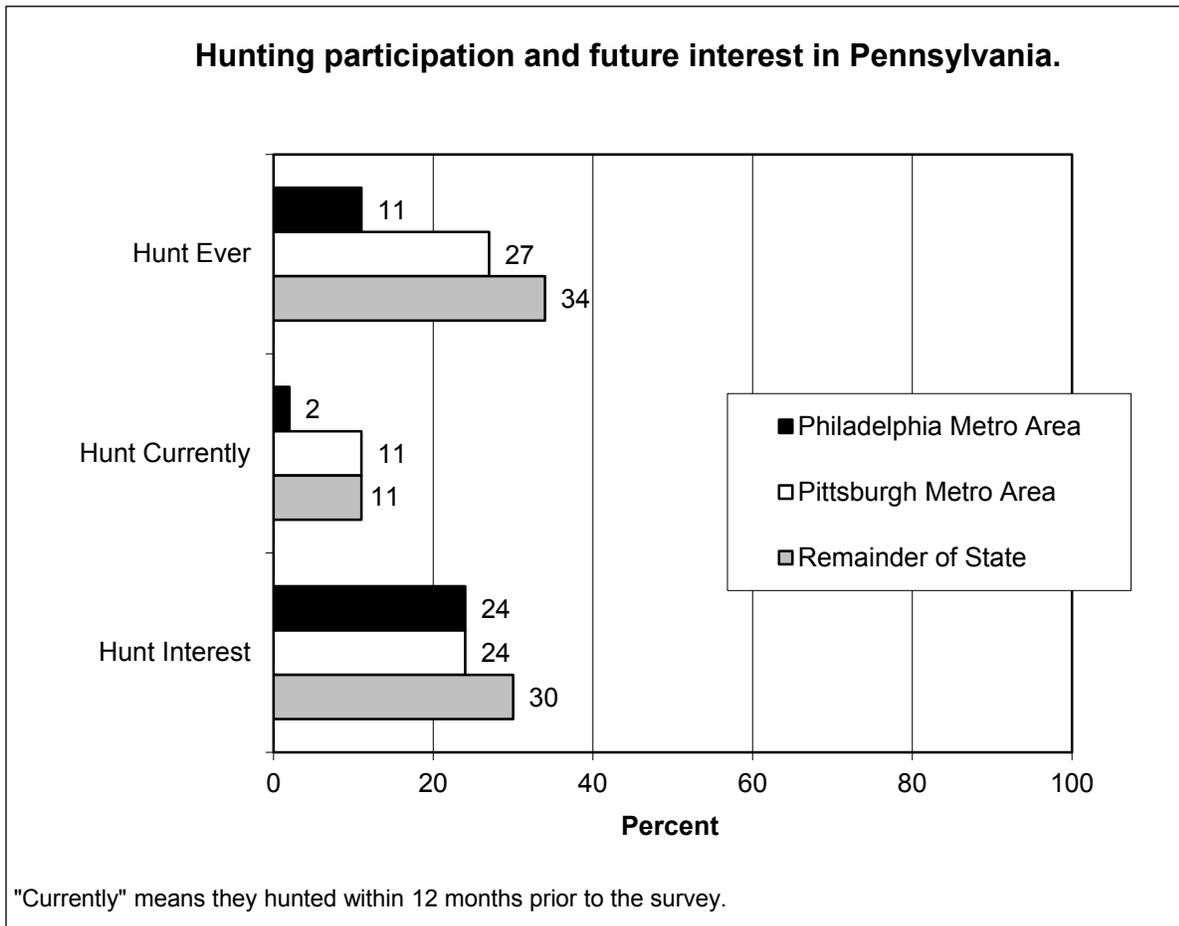
Interestingly, the number of licenses sold in Pennsylvania has not fluctuated as widely as the previously shown participation graphs. Figure 9.3 shows licenses sold, and the number has hovered around 2.5 million from 2004 through 2017. Note that the number of licenses sold far exceeds the number of license holders because some people buy multiple licenses for a variety of reasons.



Source: U.S. Fish and Wildlife Service.

Figure 9.3. Number of Licenses Sold in Pennsylvania, 2004 to 2017

America's Wildlife Values, published in 2018, examined current participation in the Philadelphia and Pittsburgh regions and then in the rest of the state (Figure 9.4). **One might conjecture that the cities would have a lower rate than the rest of the state, which was true regarding the Philadelphia Metro Area; however, the Pittsburgh Metro Area had a rate that was about the same as the rest of the state. Note, though, that residents of the remainder of the state show more interest than do residents of the urban areas.**



Source: Dietsch et al., 2018.

Figure 9.4. Rate of Hunting and Interest in Hunting, by Urban Region

The next aspect of hunting is to look at the demographic and behavioral characteristics of hunters, since they make up a very important target market for Commission communications. **Hunters tend to be male, rural, conservative, living outside of Philadelphia, less educated, white, younger, and users of social media rarely or never.** Figure 9.5 shows the characteristics of hunters.

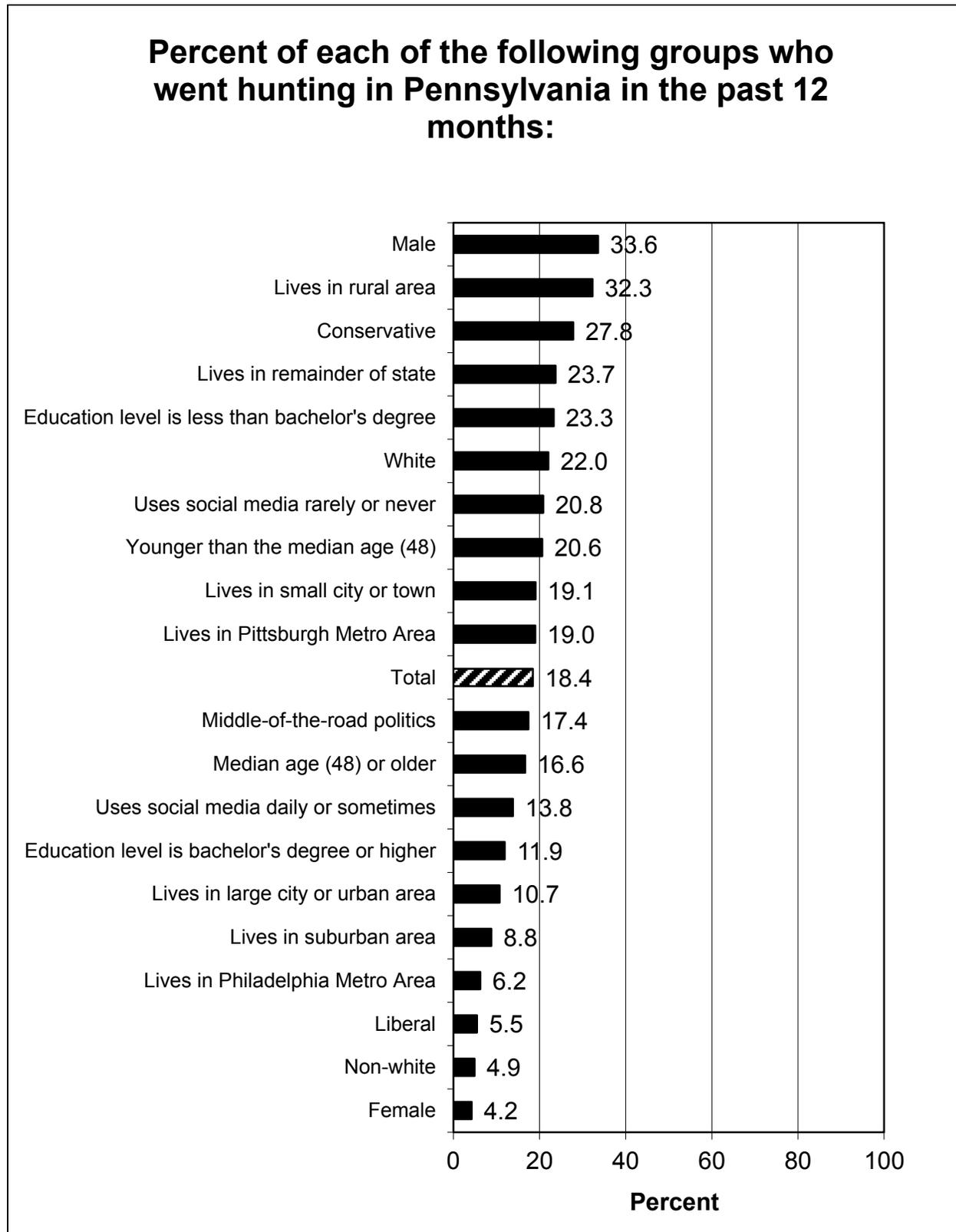
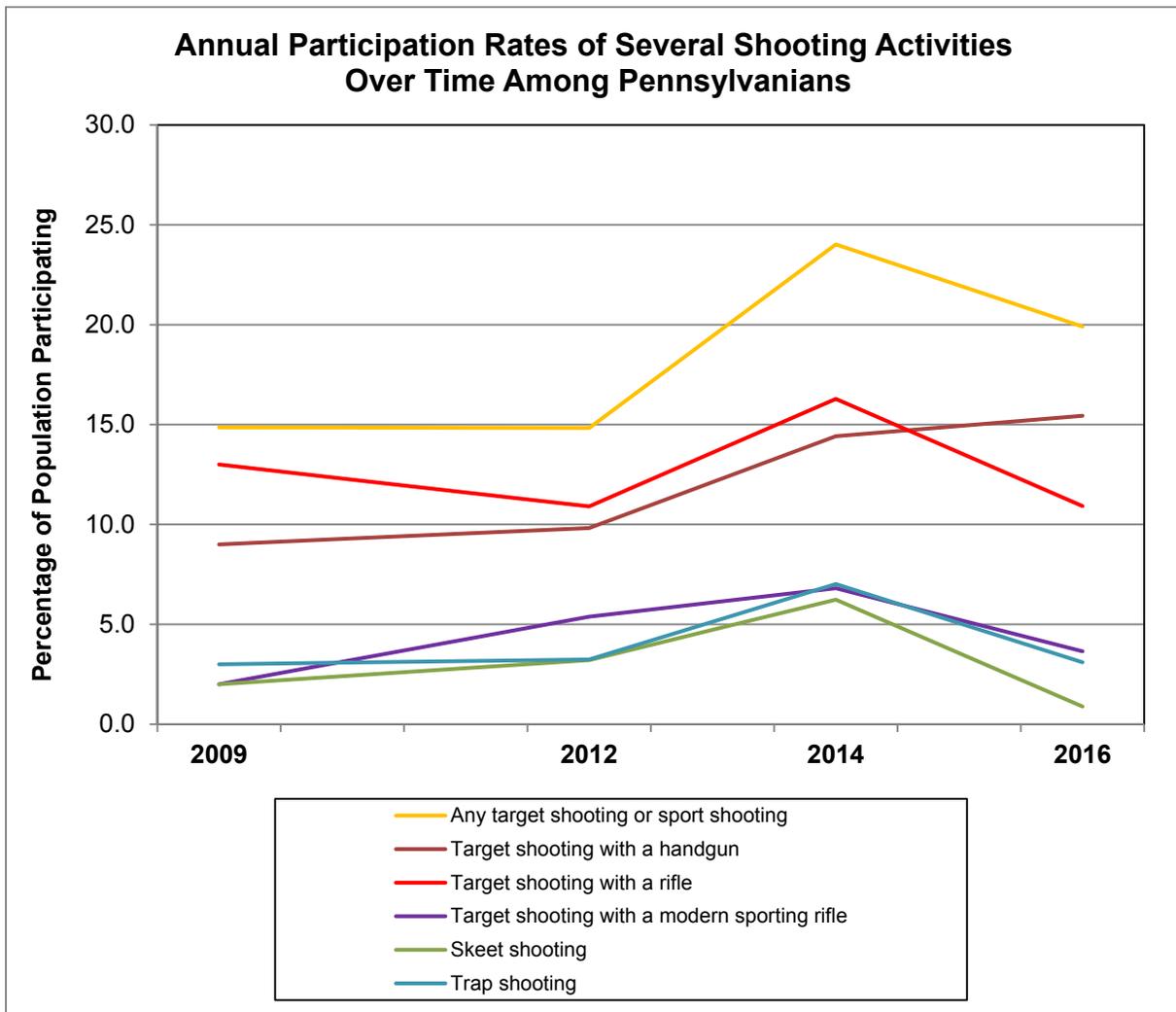


Figure 9.5. Characteristics of Hunters

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

The state game lands that the Commission offers for recreation include shooting ranges, and in this way, the Commission can interact with residents. For this reason, a quick look at sport shooting participation is useful, using data from several studies that have data specific to Pennsylvania. **Since 2009, the rate of participation in sport shooting in Pennsylvania has fluctuated but risen overall, when comparing the first data point in 2009 to the final data point in 2016 (Figure 9.6). The most recent data suggest that about 20% of Pennsylvania residents go target or sport shooting, a good target market for the Commission.** Rifle shooting has fallen, perhaps at the expense of handgun shooting, which has risen. Skeet, trap, and shooting a modern sporting rifle all rose and then fell again, ending not far from where they were in 2009.



Data for 18 years old and older; participation = did activity one or more times in 1-year timeframe. These four studies were conducted by Responsive Management for the National Shooting Sports Foundation, from which a data run specifically of Pennsylvania residents was run:
Sport Shooting Participation in the United States in 2009 (survey conducted in 2010),
Sport Shooting Participation in the United States in 2012 (survey conducted in 2013),
Sport Shooting Participation in the United States in 2014 (survey conducted in 2015),
Sport Shooting Participation in the United States in 2016 (survey conducted in 2017).

Figure 9.6. Participation Rate in Shooting-Related Activities, in Pennsylvania, Responsive Management Data

The market group made up of target and sport shooters is analyzed in Figure 9.7. **It shows that shooters tend to be male, rural, conservative, younger, living in either the Pittsburgh Metro Area or in the remainder of the state (i.e., they do not live in the Philadelphia Metro Area), white, and less educated.**

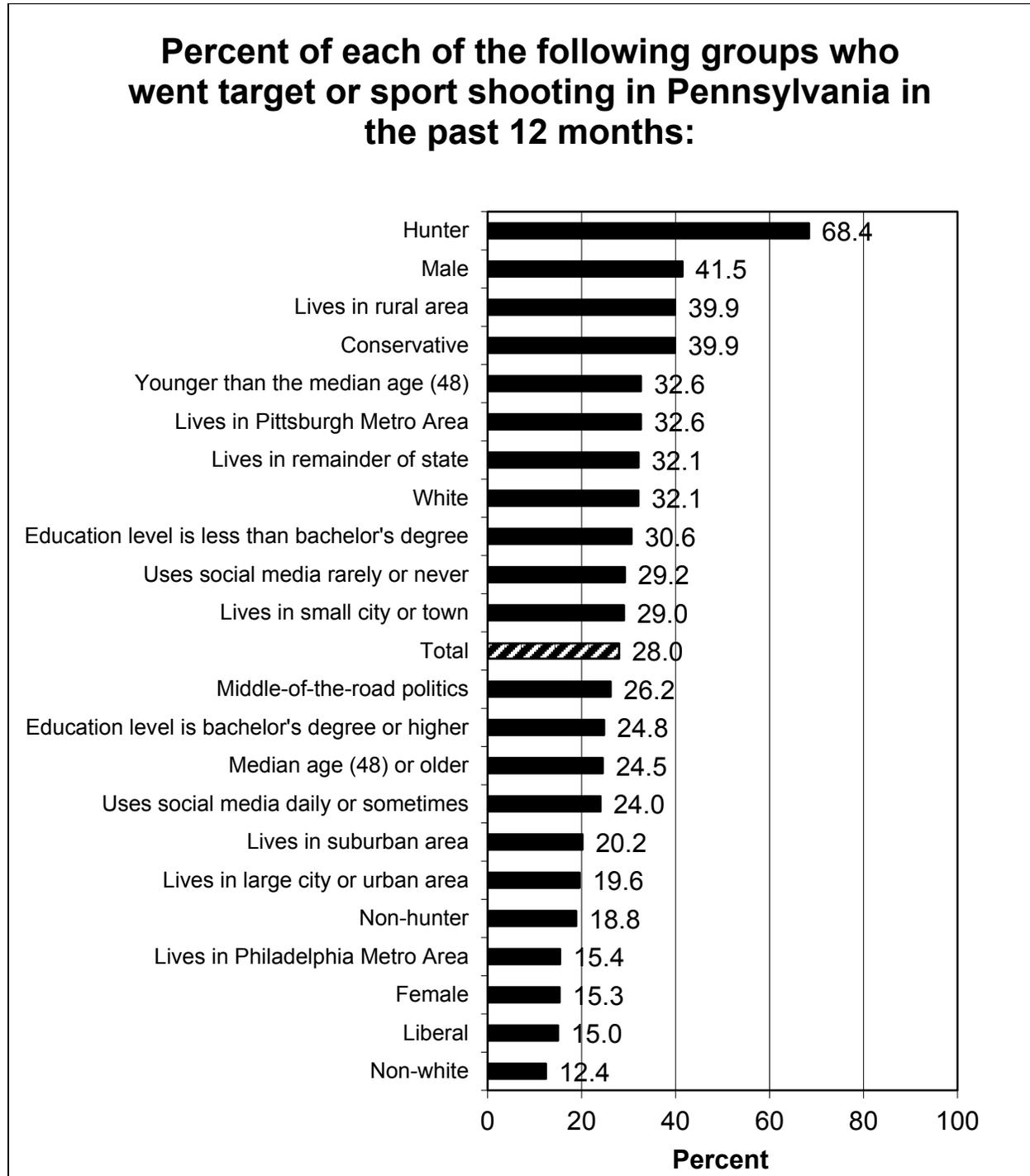
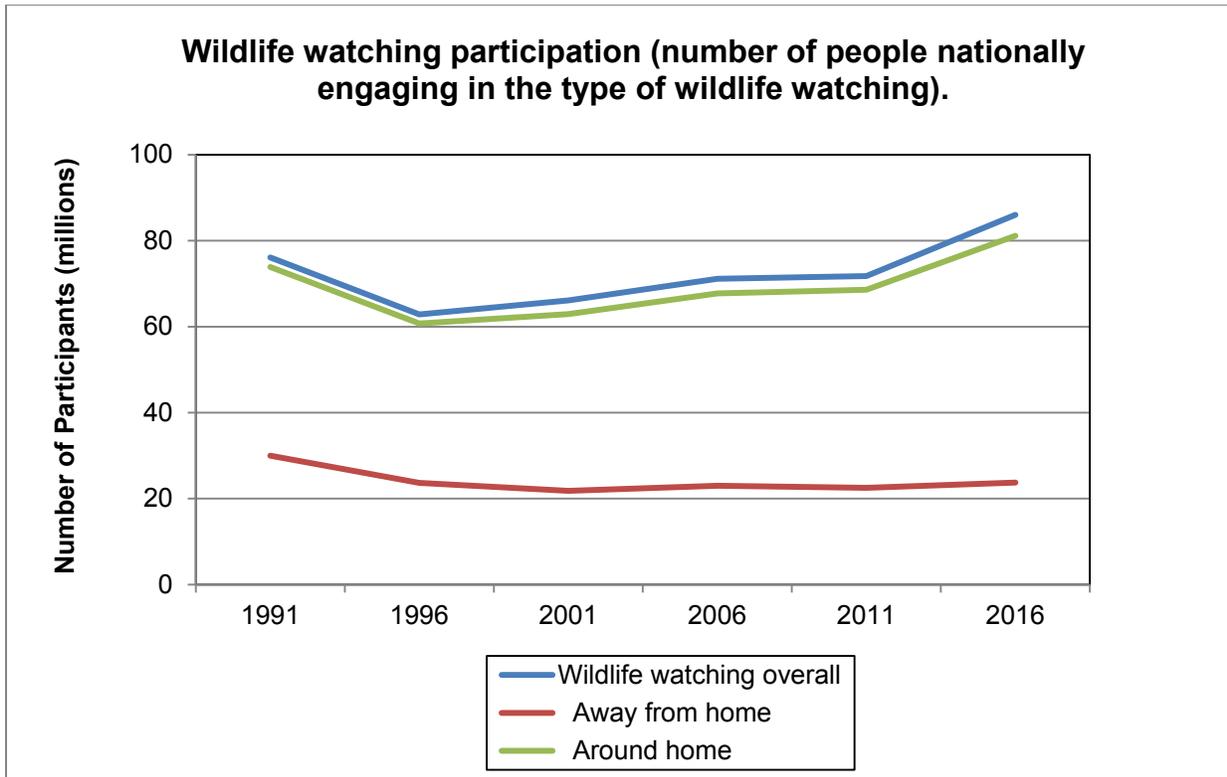


Figure 9.7. Characteristics of Target/Sport Shooters

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

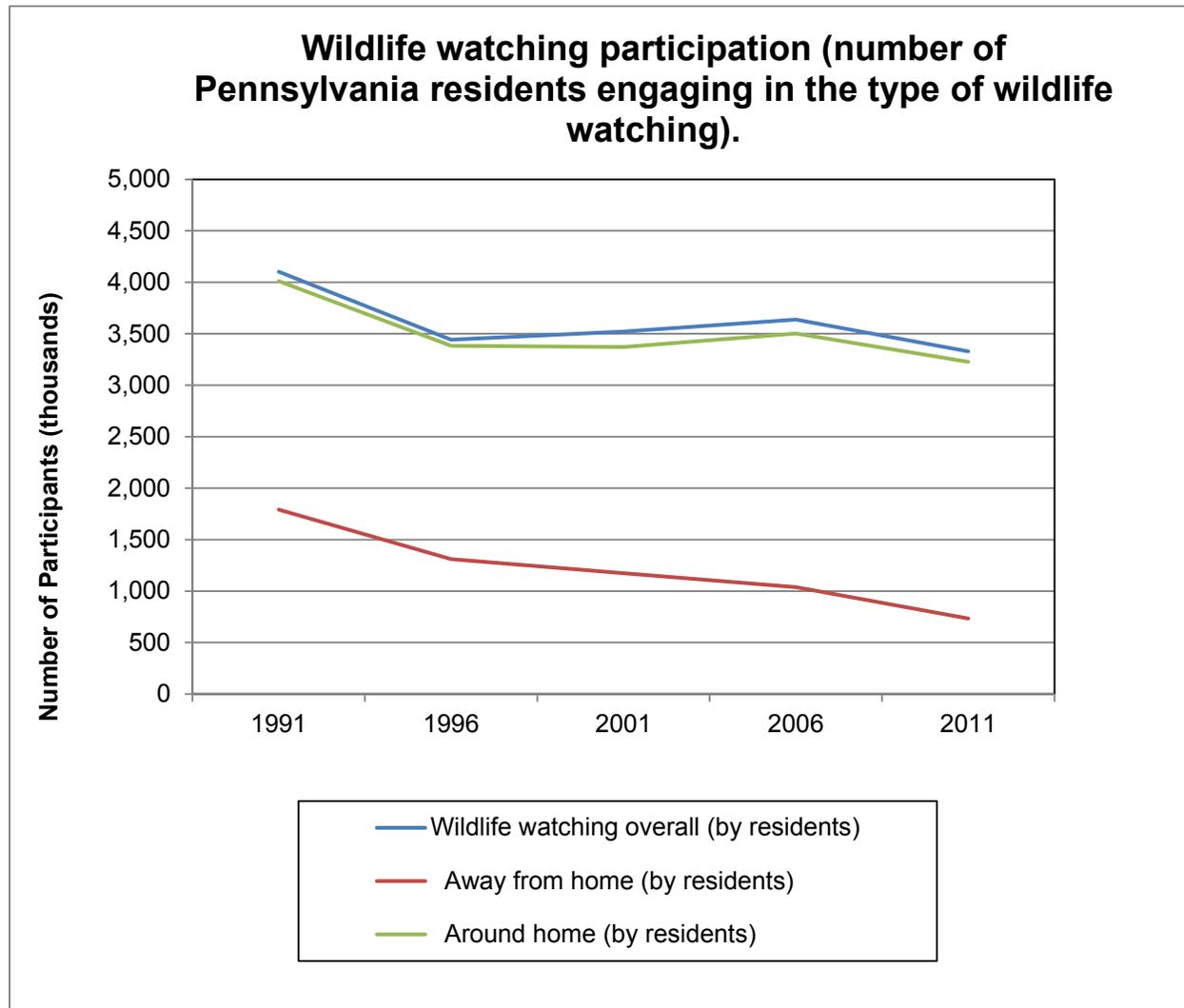
Another outdoor activity in which residents (as well as out-of-state visitors) may interact with the Commission is wildlife viewing—an activity that evidence suggests may be growing in participation nationally, particularly since 1996, according to *National Survey* data up through 2016 (Figure 9.8).



Source: U.S. Fish and Wildlife Service/U.S. Census Bureau (ages 16 years old and older).

Figure 9.8. Numbers of Wildlife Watchers Nationally, *National Survey* Data

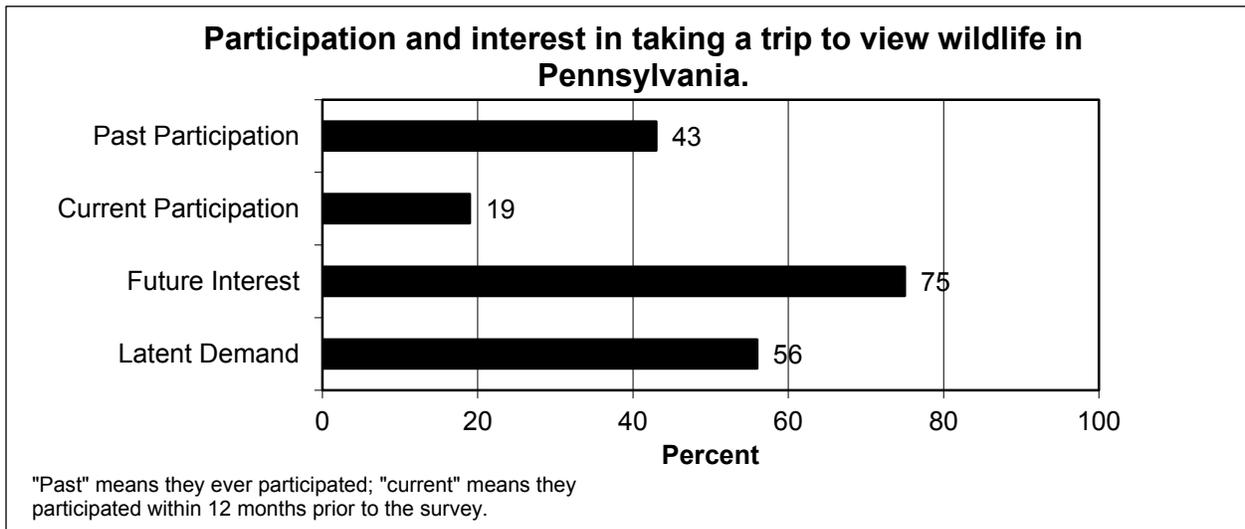
Unfortunately, state-level data from the 2016 *National Survey* is not available at the time of this writing, so the upward tick in 2016 that brought numbers up nationally does not show up in the Pennsylvania data (Figure 9.9). Without the state-level data from 2016, it is unknown from these data if the downward trend in Figure 9.9 continues to this day or if the number of wildlife watchers in Pennsylvania has increased since 2011.



Source: U.S. Fish and Wildlife Service/U.S. Census Bureau (ages 16 years old and older).

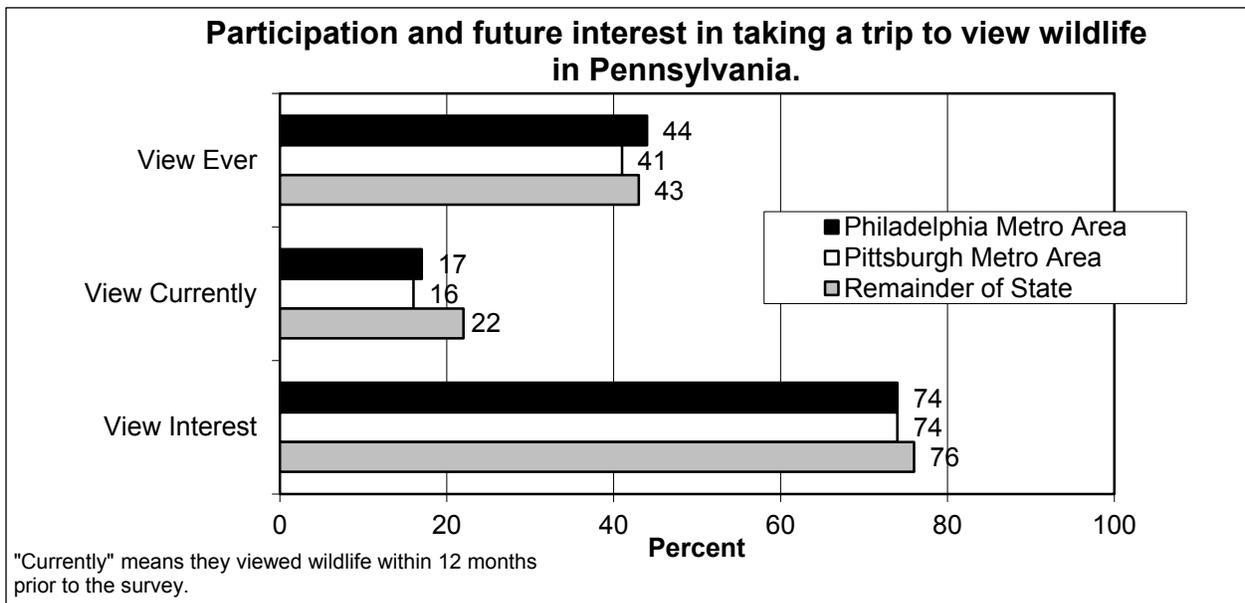
Figure 9.9. Numbers of Pennsylvania Resident Wildlife Watchers, *National Survey Data*

Regardless of recent trends, there is still a large pool of wildlife watchers that the Commission could potentially connect with—just under 3.5 million people in Pennsylvania. Additionally, the aforementioned *Wildlife Values* study in Pennsylvania found that a large percentage of residents have interest in wildlife viewing (Figure 9.10). In that study, three quarters of residents had future interest in wildlife viewing, with a suggested latent demand (the difference in current participation and future interest) of 56%. The Commission may be able to connect with these wildlife viewers. Note, as well, that **this interest crosses geographic bounds, being high in all three regions** under study (Figure 9.11).



Source: Dietsch et al., 2018.

Figure 9.10. Rate of Wildlife Viewing and Interest in Wildlife Viewing in Pennsylvania



Source: Dietsch et al., 2018.

Figure 9.11. Rate of Wildlife Viewing and Interest in Wildlife Viewing, by Urban Region

For the analysis of the demographic and behavioral characteristics, wildlife viewing (done by 39% of residents) and birdwatching (done by 24% of residents) were combined. In total, 47% of Pennsylvania residents engaged in one of these activities, some doing both (Figure 9.12). **These residents make up a target market that the Commission can connect with, and they tend to be those who hunt, are rural, are living outside of Philadelphia or Pittsburgh, are conservative, are older, and are white.**

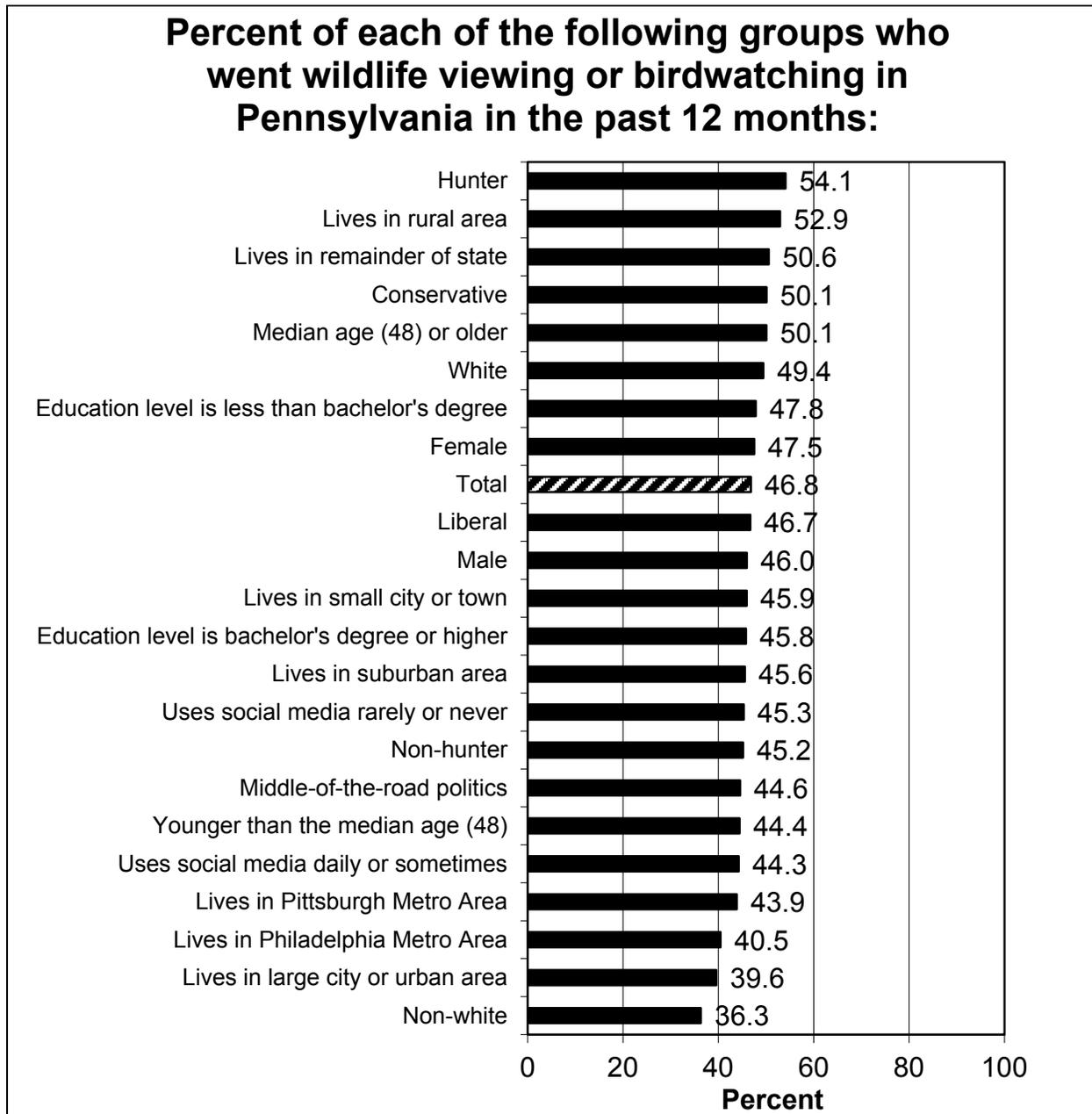


Figure 9.12. Characteristics of Wildlife Viewers/Birdwatchers

(For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

Another recreational activity examined here that provides a way for the Commission to interact with residents is hiking. **The survey conducted as part of this project found that just over half of Pennsylvania residents (51%) went hiking in the previous 12 months. This, again, is a large pool of people that the Commission could connect with.**

Hikers are more likely to be higher educated, young, liberal (as opposed to middle-of-the-road, as conservatives are about like residents overall in their rate of hiking), suburban, white, and a user of social media daily or sometimes. In addition to the group defined by these characteristics, it would appear that hunters, as well, are more likely to participate in hiking,

relative to residents overall, although hunters generally do not have the other characteristics associated with hiking in Figure 9.13.

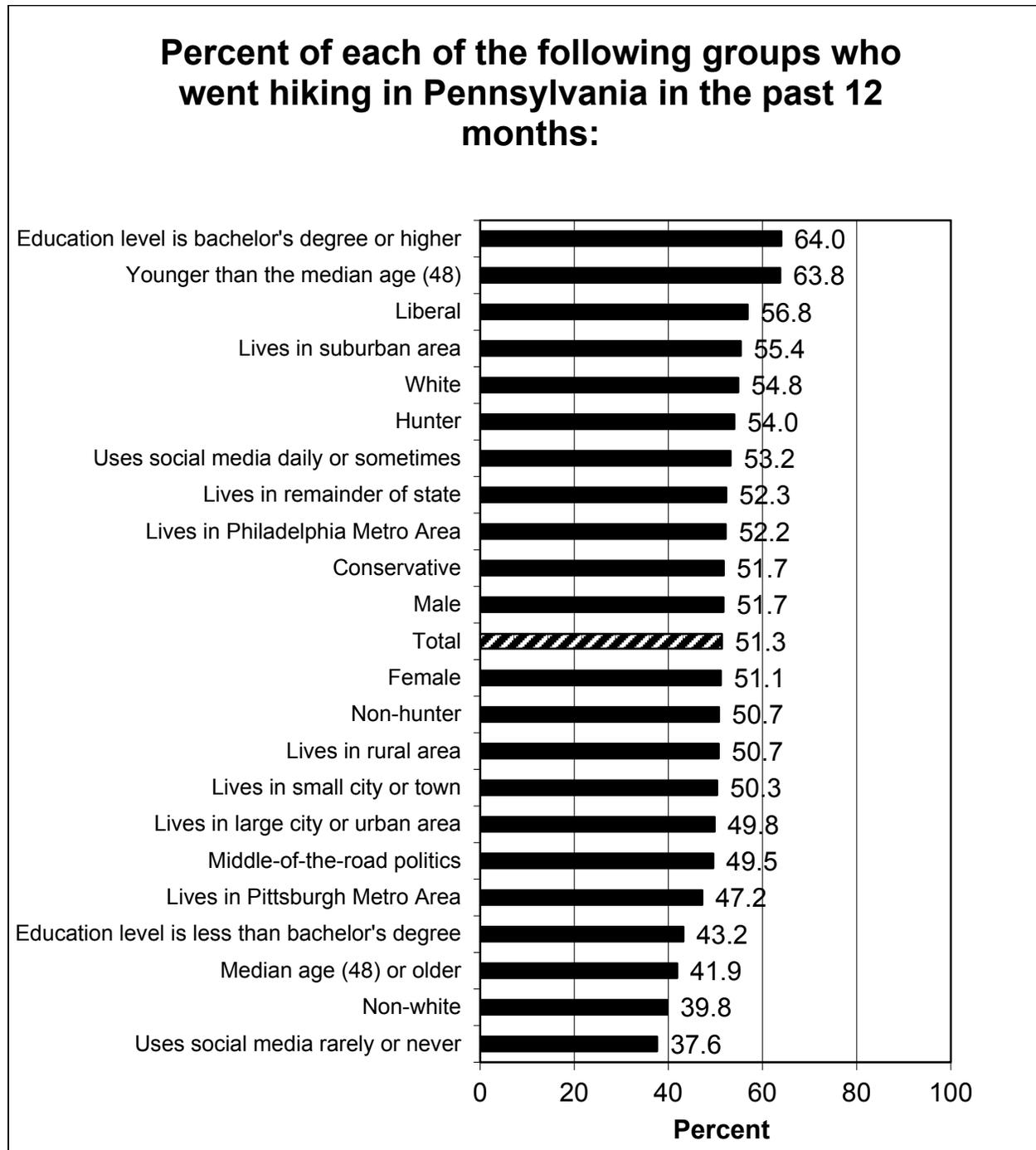


Figure 9.13. Characteristics of Hikers
 (For an explanation of how to read this graph, see page 7, which is where this type of graph first appears.)

Another time that residents interact with the Commission is when they have conflicts with wildlife. However, these are discussed in the section titled *Opinions on and Connections with Wildlife, and Opinions on Wildlife Issues* rather than discussed here.

10. STATE GAME LANDS

The results of the survey administered as part of this project suggest that most people who thought that they were on state game lands were not, in fact, on state game lands. Although 45% of residents indicated that they had participated in outdoor recreation on state game lands, when asked to name the lands, three quarters of those on game lands (and who got the follow-up question) gave a name that appeared to be something other than a state game land (Figure 10.1). In the final analysis, it appears that no more than 13% participated in recreation on state game lands, and perhaps as little as 3%.

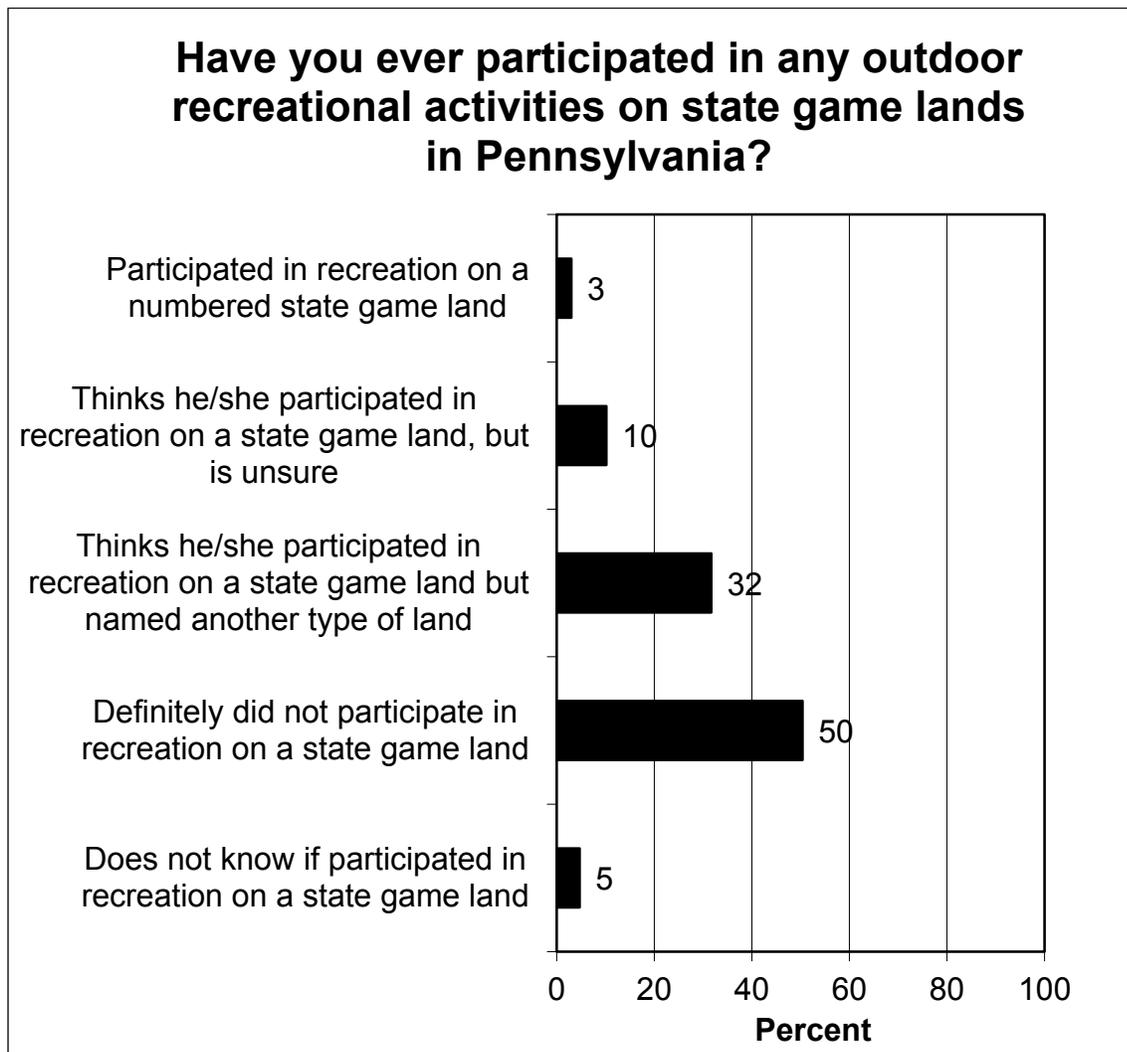


Figure 10.1. Participation in Recreation on State Game Lands

When only those whom the analyses suggest were actually on state game lands are examined regarding their activities (i.e., the 3% in Figure 10.1), the most common are **hunting, hiking, and fishing**. All have more than a fifth of state game lands visitors participating in them (Figure 10.2).

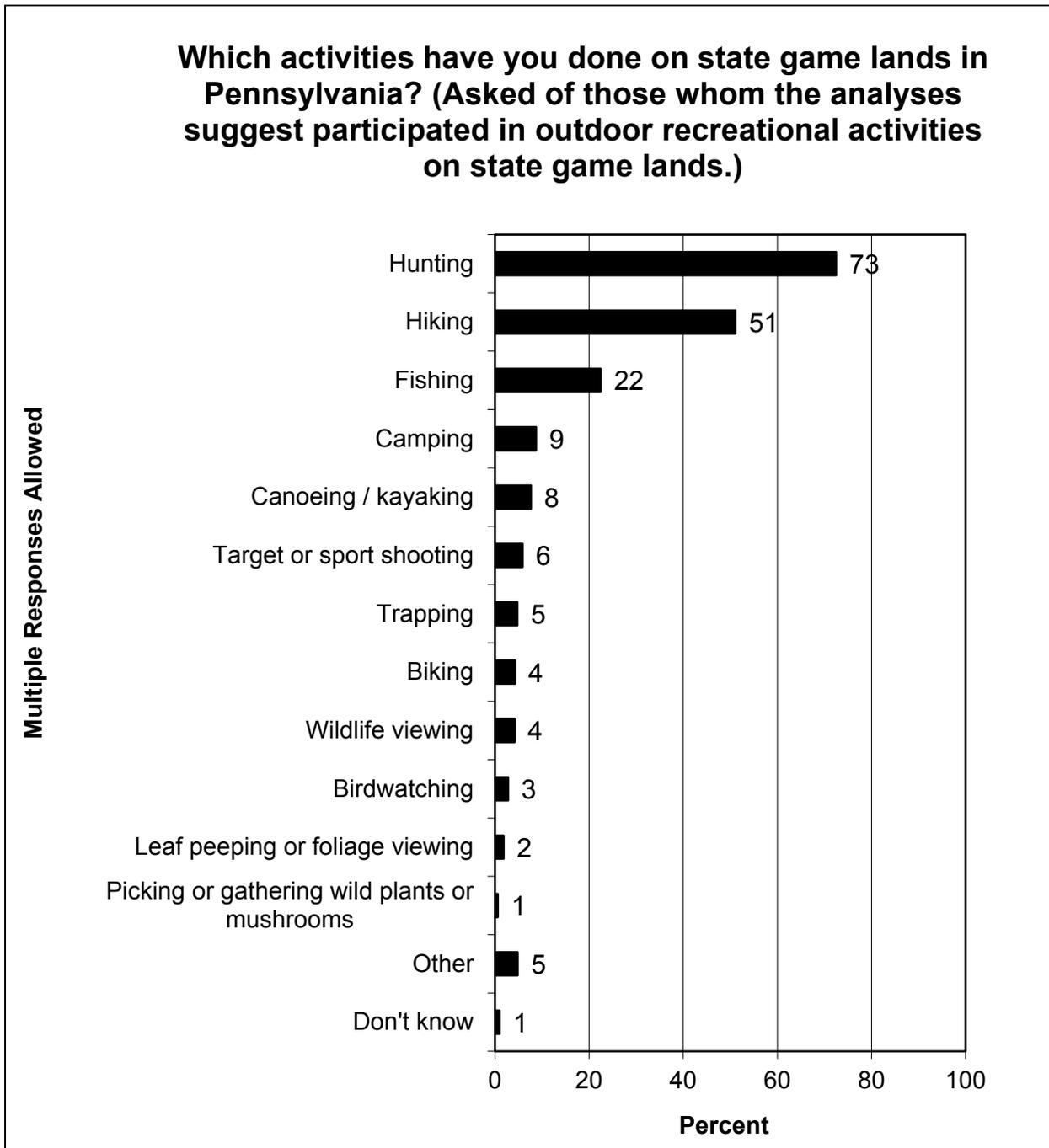


Figure 10.2. Types of Recreation on State Game Lands

11. OPINIONS ON AND CONNECTIONS WITH WILDLIFE, AND OPINIONS ON WILDLIFE ISSUES

This chapter starts with a look at how residents feel about and connect with wildlife. Because the topic is extensive, this chapter has subsections, the first of which concerns wildlife values in general. Subsequent subsections discuss opinions on lethal methods to manage wildlife; opinions on deer, bear, and nongame wildlife management; and then a subsection on problems with wildlife.

A study that went to the very heart of this matter is *America's Wildlife Values: The Social Context of Wildlife Management in the U.S.*, including its state companion report, *America's Wildlife Values: Pennsylvania State Report*. Understanding the implications of these reports requires some background information.

WILDLIFE VALUES

The *Wildlife Values* study assessed the social context of wildlife management in the United States in light of the clash of goals among stakeholders in American society. The project sought to provide “insight into the mix of values that publics have toward wildlife, how this mix of values contributes to conflict over policy issues, and how changing societal conditions are affecting wildlife management across the country” (Manfredo et al., 2018).

The study, by looking at past research, posited that **two key dimensions were “effective for describing people’s values toward wildlife” in the United States, which are named *domination* and *mutualism*. Domination is defined in the report as an orientation that “embraces the notion that wildlife is subordinate [to humans] and should be used in ways that benefit humans.” Meanwhile, mutualism is defined as an orientation that “embraces wildlife as part of a person’s extended social network. Those with strong mutualist tendencies see animals as family or companions, deserving of caring and rights like humans.”** These two dimensions make a continuum of sorts, except that instead of holding one value or the other, a person can hold both values simultaneously or hold neither. In other words, people are not simply one or the other; rather, there “are gradations of strength with which a value orientation is held by a person, reflected in a range of scoring from very low to very high on domination and mutualism measurement scales” (Manfredo et al., 2018).

Using these two dimensions, the report categorizes people into one of four typologies:

- **Traditionalists** (or Utilitarians): Score high (above the midpoint) on the domination scale and low (at or below the midpoint) on the mutualism scale; they are the most extreme in beliefs that **wildlife should be used and managed for the benefit of people**.
- **Mutualists**: Score low on the domination scale and high on the mutualism scale; they are the most extreme in beliefs that **wildlife is part of their extended social network**.
- **Pluralists**: Score high on both scales; they are **more dependent on context in that different situations result in emphasizing one orientation over another**.
- **Distanced**: Score low on both scales; they exhibit **low levels of thought about and interest in wildlife**.

The measurements for the dimensions are survey questions, such as those that ask respondents to agree or disagree with certain statements like, “I feel a strong emotional bond with animals,” or “The needs of humans should take priority over fish and wildlife protection.”

The study found correlations between certain demographic characteristics and certain typologies. The report found that “education, income, and urbanization were strongly associated with the

composition of wildlife value orientations in a state” and specifically that “higher income, urbanization, and education at the state level were associated with a higher prevalence of mutualism orientations among state residents” (Manfredo et al., 2018).

The report emphasizes that these factors pertain to a state’s population; they do not apply to individuals. In other words, an individual may change values during life, but getting more education, for instance, does not mean the individual automatically becomes more mutualist. Rather, the report explains that “values of individuals are formed early in life and are shaped heavily by the social context” in which they are raised. As stated in the report, “We are not proposing that people move to an urban area, attain a higher educational degree, or gain a higher income and then change their values. But the lives of their offspring will be affected by being brought up in a cultural context that reinforces mutualist values. Hence, the primary forces affecting change in values at the state level are population migration and generational replacement.”

Longitudinal data (this overall project included a survey conducted in 2004 in the western United States) suggest that in the United States as a whole, there has been a slight increase in the percentage of residents who are Mutualists and a decrease in the percentage who are Traditionalists (Manfredo et al., 2018). There are no trends for Pennsylvania, but perhaps one can assume that Pennsylvania is similar to the United States as a whole on this. In general, the U.S. population as a whole is moving to being more mutualistic and less dominionistic.

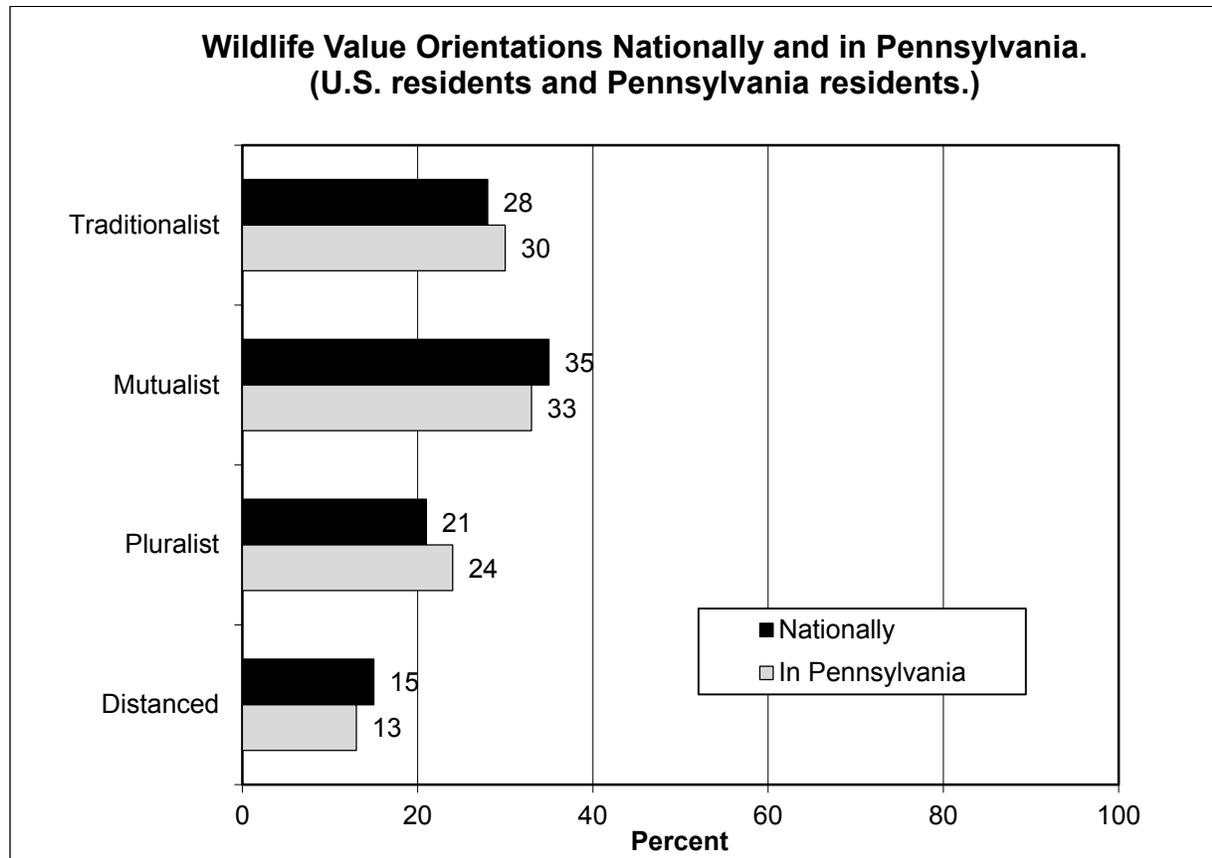
These orientations have an effect on the Commission’s actions, or at least an effect on how the public views those actions if not on the actions themselves. For instance, a large majority of Mutualists favor environmental protection over economic growth, while less than half of Traditionalists do (Manfredo et al., 2018). This would have implications for management actions undertaken by the Commission. A summary of some of the important statistical correlations from the national report is shown in Table 11.1, based on national data. This review will then look at the characteristics of Pennsylvania’s population in light of the correlations.

Table 11.1. How Mutualism and Traditionalism Relate to Opinions and Potential Commission Actions

Opinion, Recreational Activity, or Potential Agency Action	Typology More Associated With Holding the Opinion, Doing the Activity, or Supporting the Action
Environmental protection over economic growth	Mutualists
Private property rights are more important than protecting declining or endangered species	Traditionalists
Earth is getting warmer mostly because of human activities	Mutualists
Wolves that kill livestock should be lethally removed	Traditionalists
If a bear attacks a person, that bear should be lethally removed regardless of the circumstances	Traditionalists
Coyotes that kill pets should be lethally removed	Traditionalists
Recreational hunting	Traditionalists
Recreational fishing	Traditionalists
Taking trips to view wildlife	Traditionalists
Trust in their state fish and wildlife agency	Not Mutualist
State fish/wildlife agency shares similar values to them	Not Mutualist

Source: Manfredo et al., 2018. In some instances, one typology was negatively correlated with an opinion but the other typology was either not shown in the report or was not positively correlated with the opinion; thus, some entries in the right column are identified as “not” a typology.

The next question is how Pennsylvania, and the regions in Pennsylvania, stack up in regard to typologies. Figure 11.1 shows the most basic finding that most people are in one of the extreme typologies, with Mutualists slightly exceeding Traditionalists in both the United States as a whole (Manfredo et al., 2018) and Pennsylvania (Dietsch et al., 2018). The differences between national results and Pennsylvania are slight, but **the graph shows Pennsylvania having a slightly higher percentage of Traditionalists and a higher percentage of Pluralists than does the United States as a whole.**

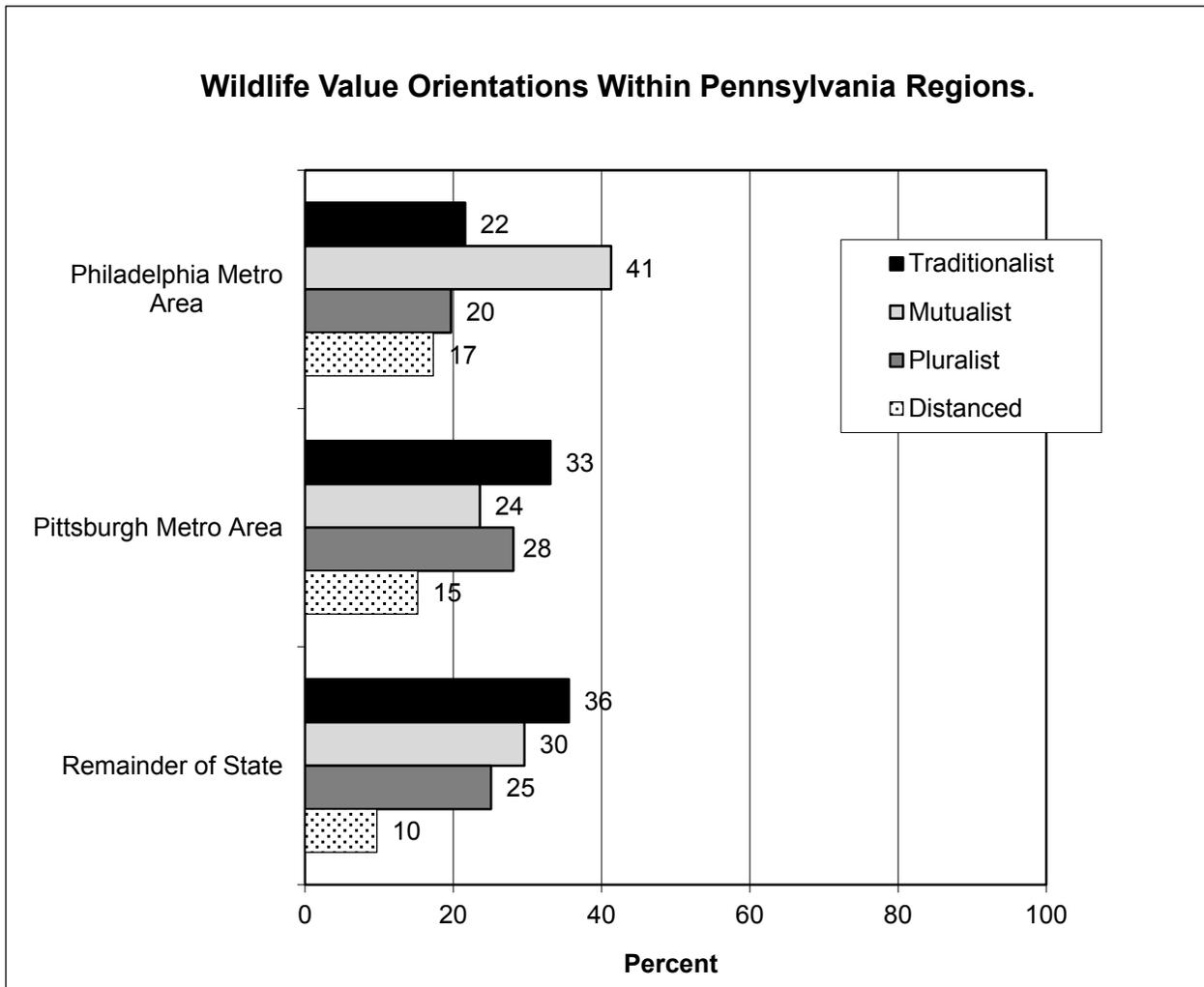


Source: Manfredo et al., 2018; Dietsch et al., 2018.

Figure 11.1. Wildlife Values Typologies Nationally and in Pennsylvania

The makeup of the population of each region in Pennsylvania as it pertains to typologies is shown in Figure 11.2. It shows that Philadelphia is unlike the remainder of the state, whereas Pittsburgh is a bit more like the remainder of the state in some ways (Dietsch et al., 2018). **The Philadelphia area has a higher percentage of Mutualists, compared to both the Pittsburgh area and the remainder of the state. Pittsburgh, for an urban area, has a relatively high percentage of Traditionalists.**

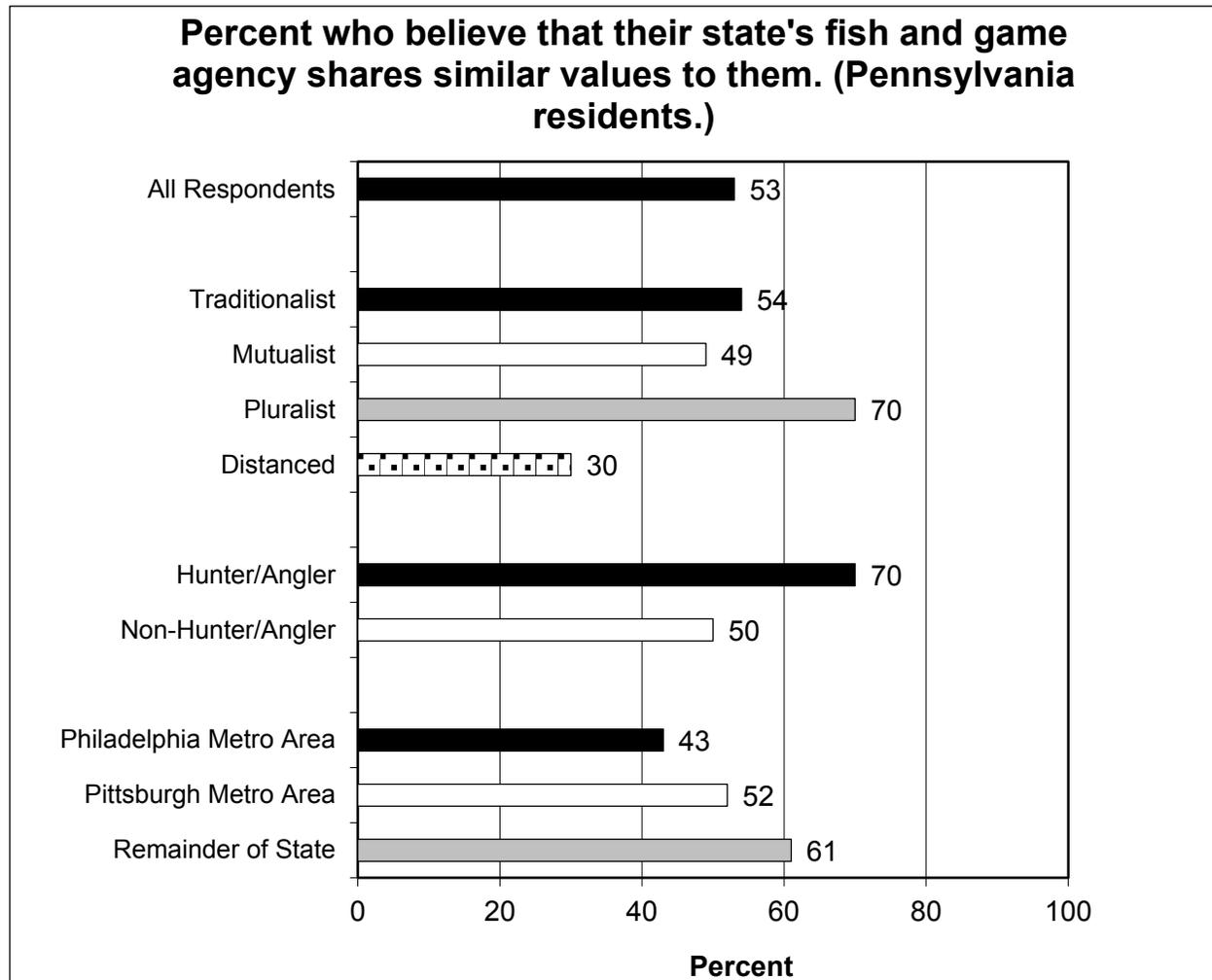
That sounds really nice up until the whole heritage part [of the mission statement]. The only thing I keep thinking about is the stereotypical man with one of those mesh stockings on his head shooting at something unnecessarily. The heritage thing sounds like a tradition of killing things. The beginning part was interesting, though. It didn't sound like what I was thinking, because some of it sounded like preserving things. —Philadelphia participant



Source: Dietsch et al., 2018.

Figure 11.2. Wildlife Values Typologies by Region

The implication is that people within these typologies have consistent differences of opinion on wildlife and wildlife issues. Figure 11.3 shows the percentage of Pennsylvania residents who believe **that their fish and game agency shares similar values to them, and Mutualists are less likely to feel that way than are Traditionalists** (Dietsch et al., 2018). Looking at regional results, **residents of the Philadelphia area are less likely to feel that way, too.** On the other hand, hunters and anglers are *more* likely to feel that way.

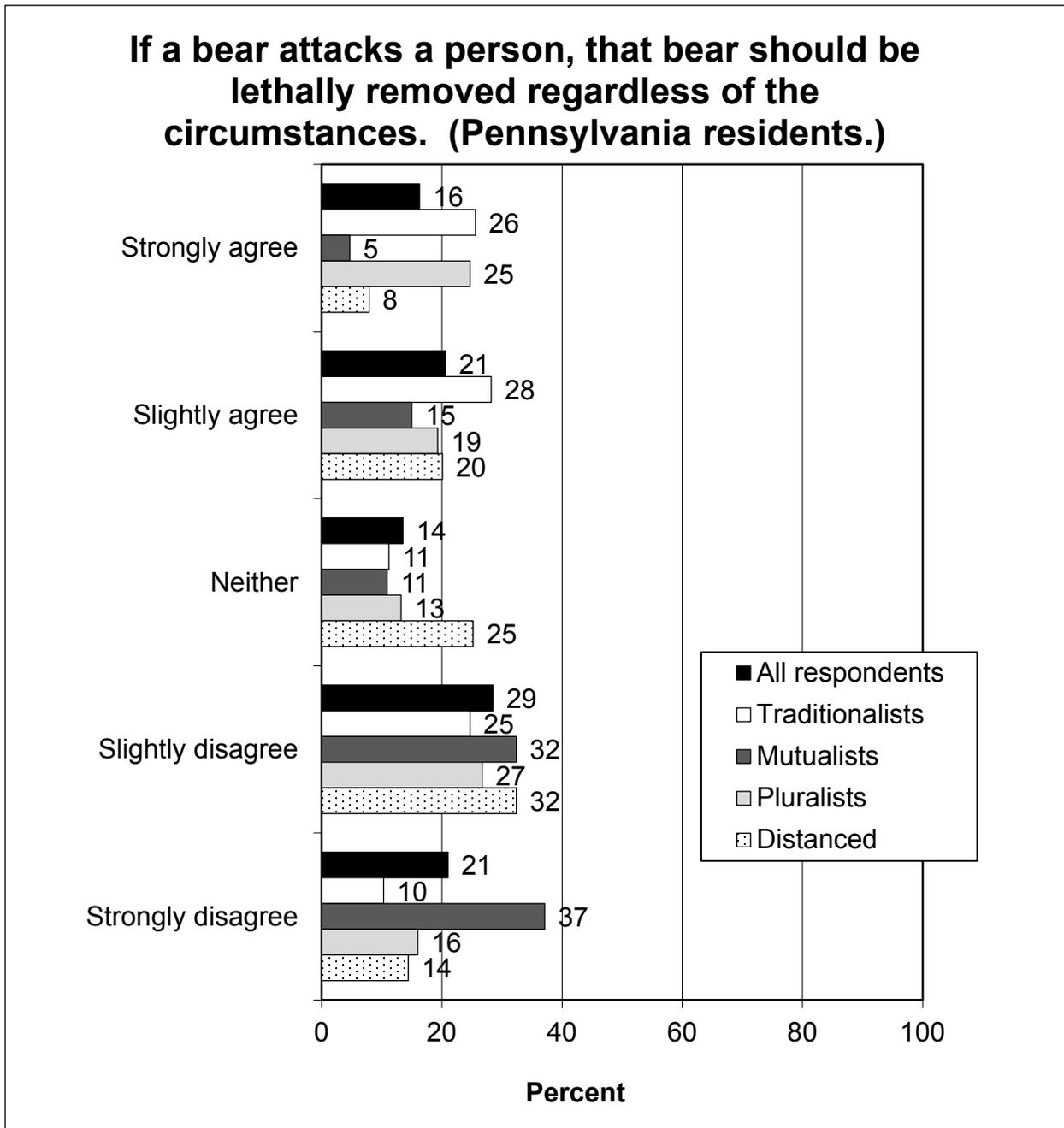


Source: Dietsch et al., 2018.

Figure 11.3. Percent Who Believe Their State's Fish and Game Agency Shares Similar Values to Them, by Hunting/Fishing Participation, Typology, and Region

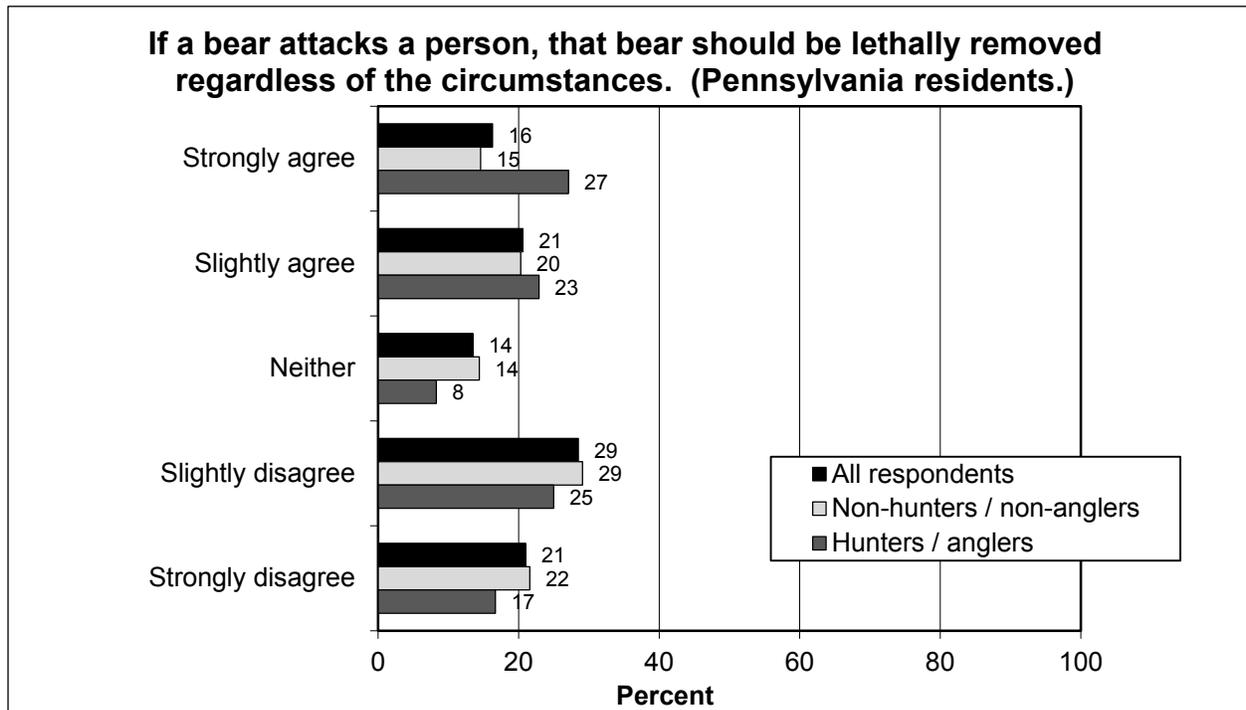
The analyses show more concrete actions regarding wildlife that cause problems. **Mutualists (and, therefore, non-hunters/anglers and Philadelphia area residents) are less likely to agree that wildlife that cause problems (including bears and coyotes) should be lethally removed**, when compared to residents overall and to Traditionalists in particular (Figures 11.4 through and 11.9). While these are shown as an example of how opinions among various groups differ, there are much more detailed analyses of the *Wildlife Values* study—including how Pennsylvania residents specifically stack up within these typologies—contained in the research review conducted as part of this project.

For specific information about how these typologies interact with specific wildlife management issues, as well as other survey research pertinent to any particular issue, see the research review conducted as part of this project: *Analysis of the Pennsylvania Game Commission's Stakeholders and Functions: Literature Review*.



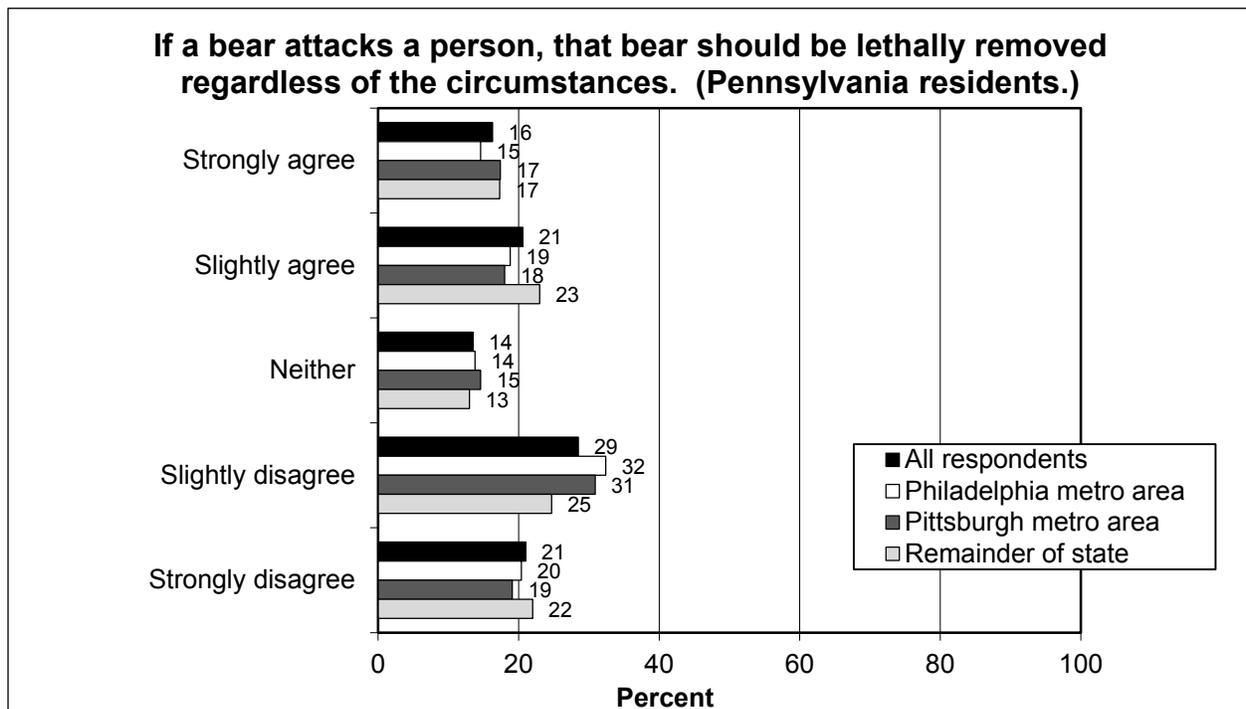
Source: Dietsch et al., 2018.

Figure 11.4. Opinion on Bears That Attack People, by Typology



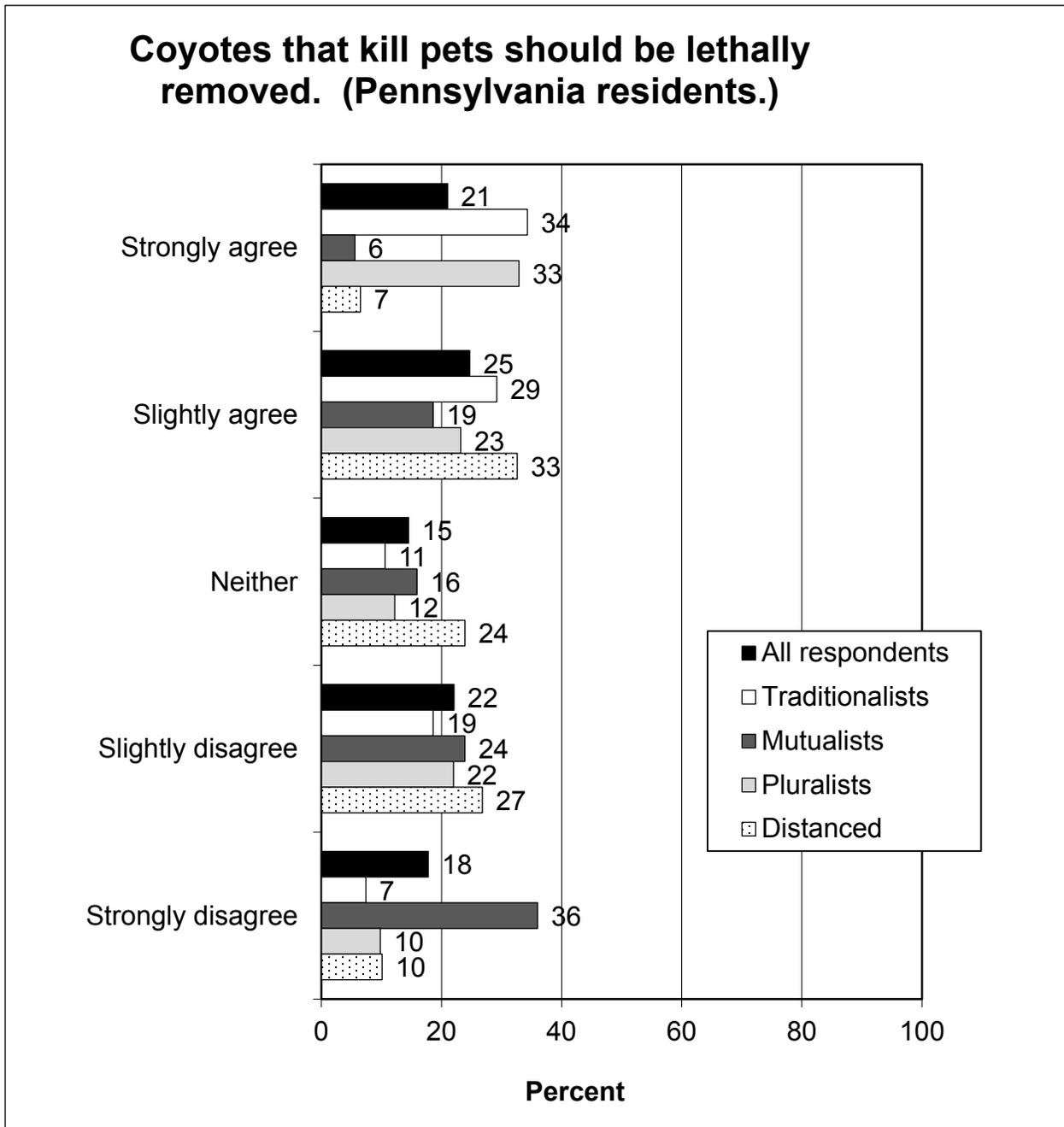
Source: Dietsch et al., 2018.

Figure 11.5. Opinion on Bears That Attack People, Hunters/Anglers Versus Non-Hunters/Anglers



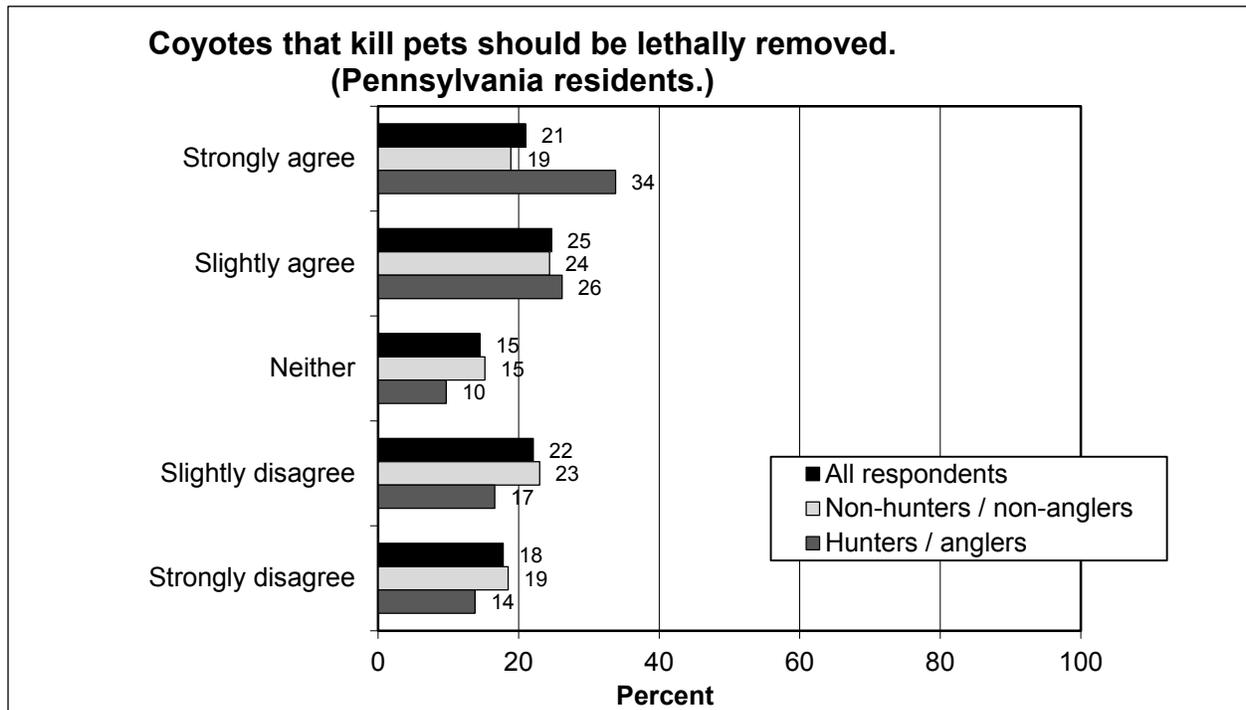
Source: Dietsch et al., 2018.

Figure 11.6. Opinion on Bears That Attack People, by Region



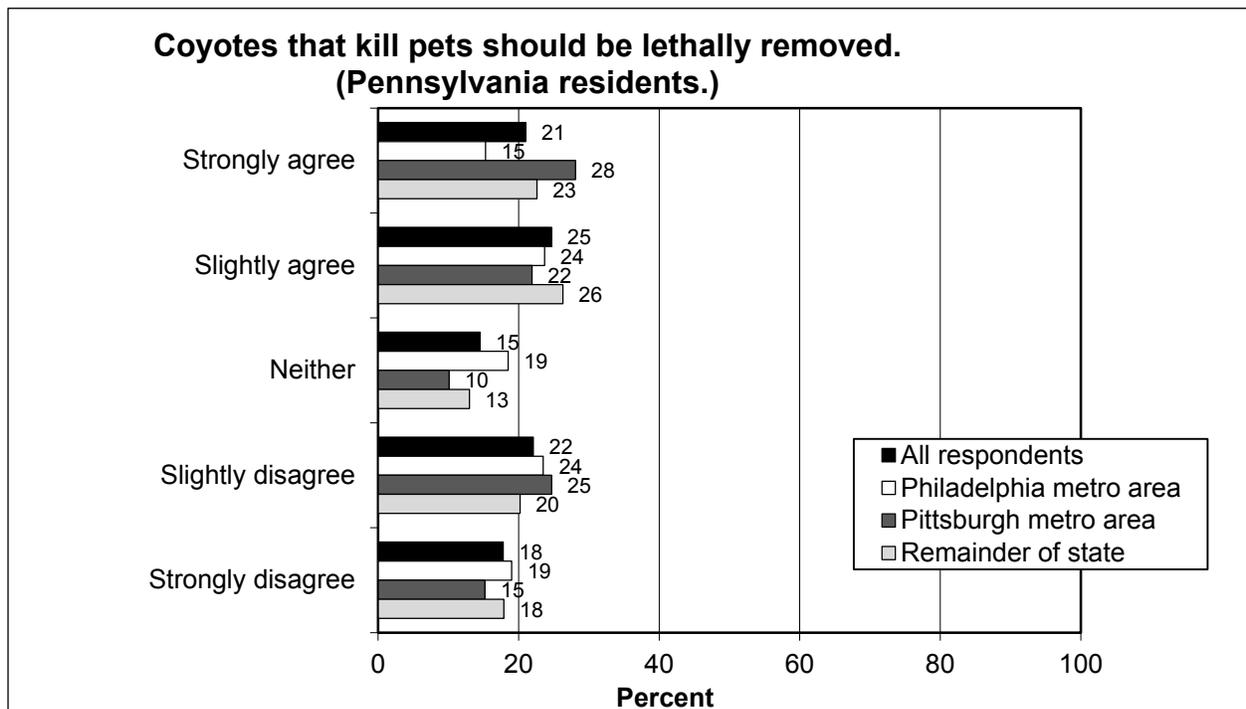
Source: Dietsch et al., 2018.

Figure 11.7. Opinion on Coyotes That Kill Pets, by Typology



Source: Dietsch et al., 2018.

Figure 11.8. Opinion on Coyotes That Kill Pets, Hunters/Anglers Versus Non-Hunters/Anglers

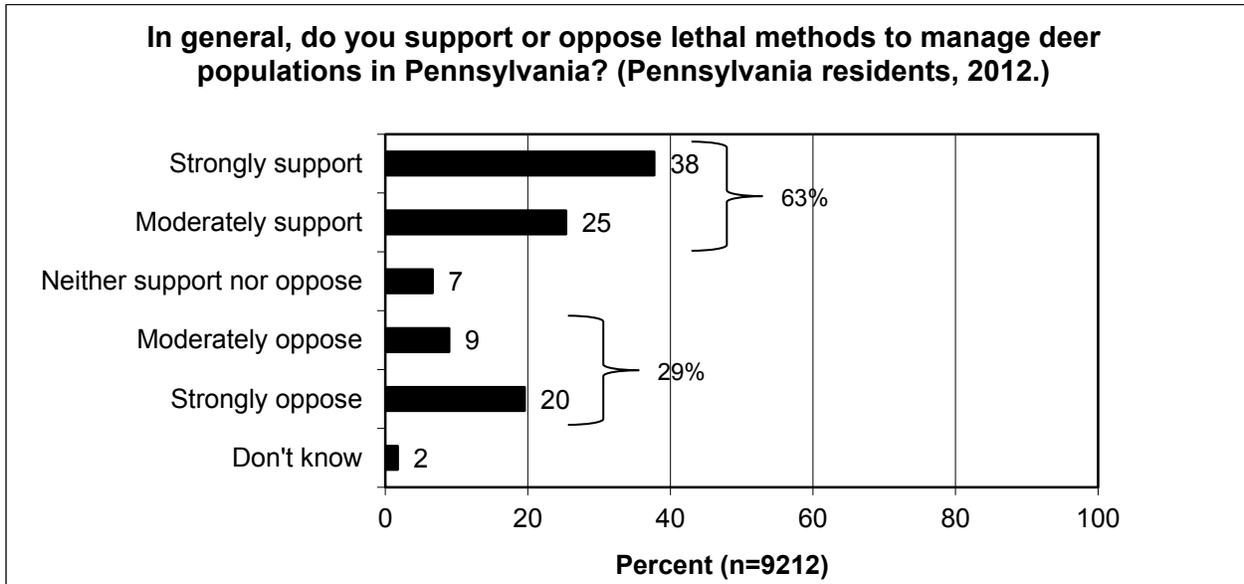


Source: Dietsch et al., 2018.

Figure 11.9. Opinion on Coyotes That Kill Pets, by Region

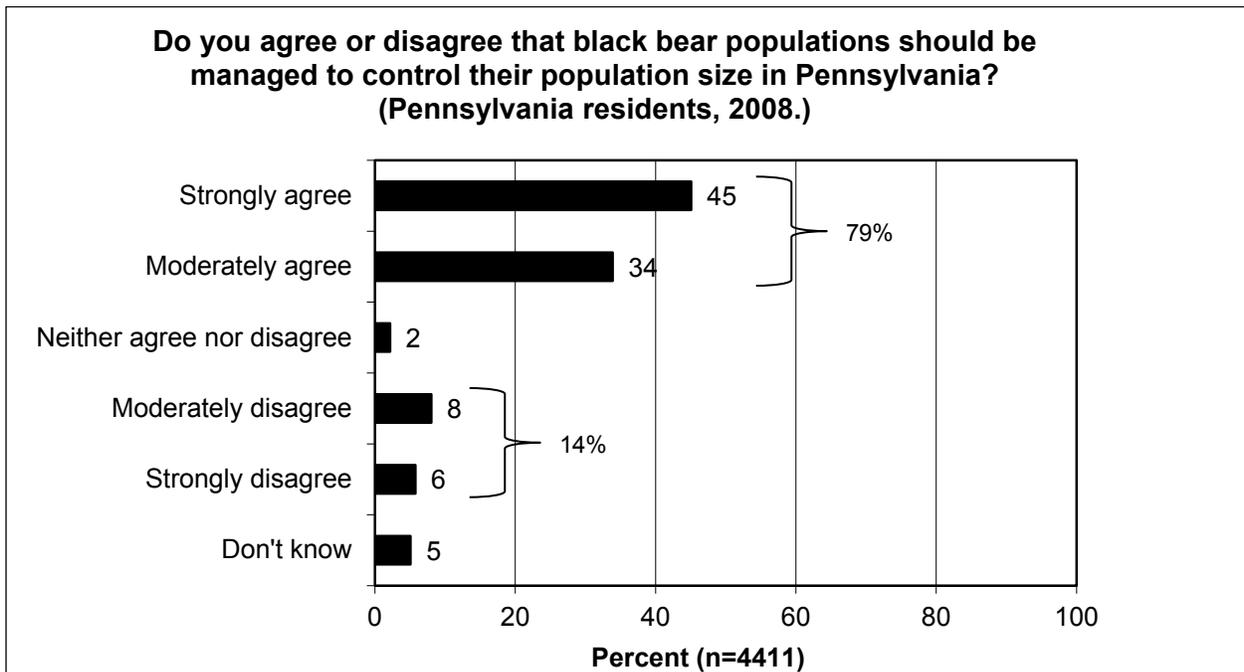
SUPPORT FOR OR OPPOSITION TO WILDLIFE MANAGEMENT

Figure 11.10 shows that support for lethal methods to manage deer populations in Pennsylvania is double opposition to them (Responsive Management, 2012b). Black bears were also a focus of the cited study. The survey did not mention lethal methods, but it asked about the need to manage black bears *to control their population size* in Pennsylvania (which implies lethal methods). **Regarding black bears, agreement far exceeded disagreeing that there is a need to manage black bears** (Responsive Management, 2008) (Figure 11.11).



Source: Responsive Management, 2012b.

Figure 11.10. Support for Lethal Methods to Manage Deer (Pennsylvania Residents, 2012)

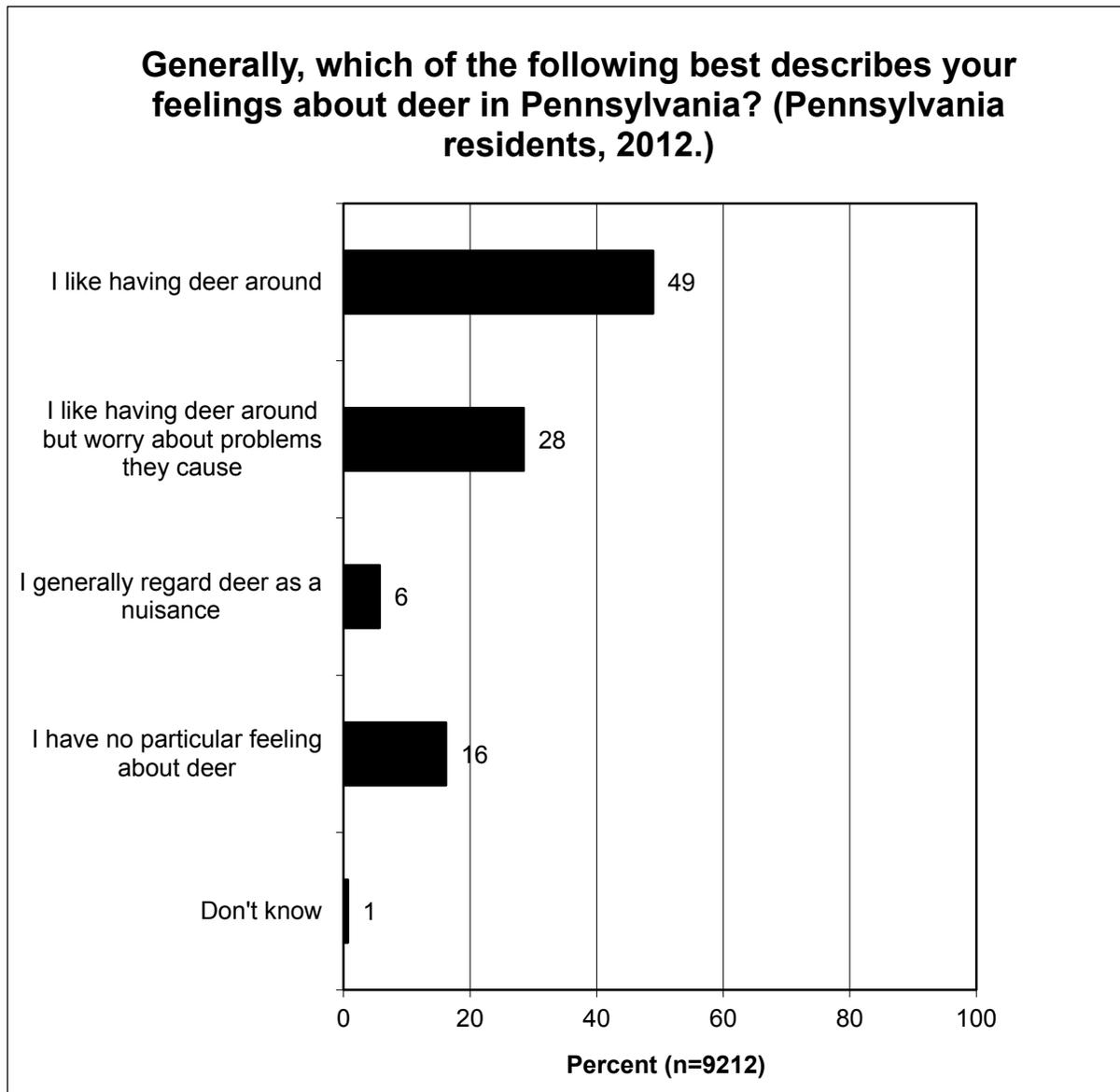


Source: Responsive Management, 2008.

Figure 11.11. Support for Need to Manage Black Bears (Pennsylvania Residents, 2008)

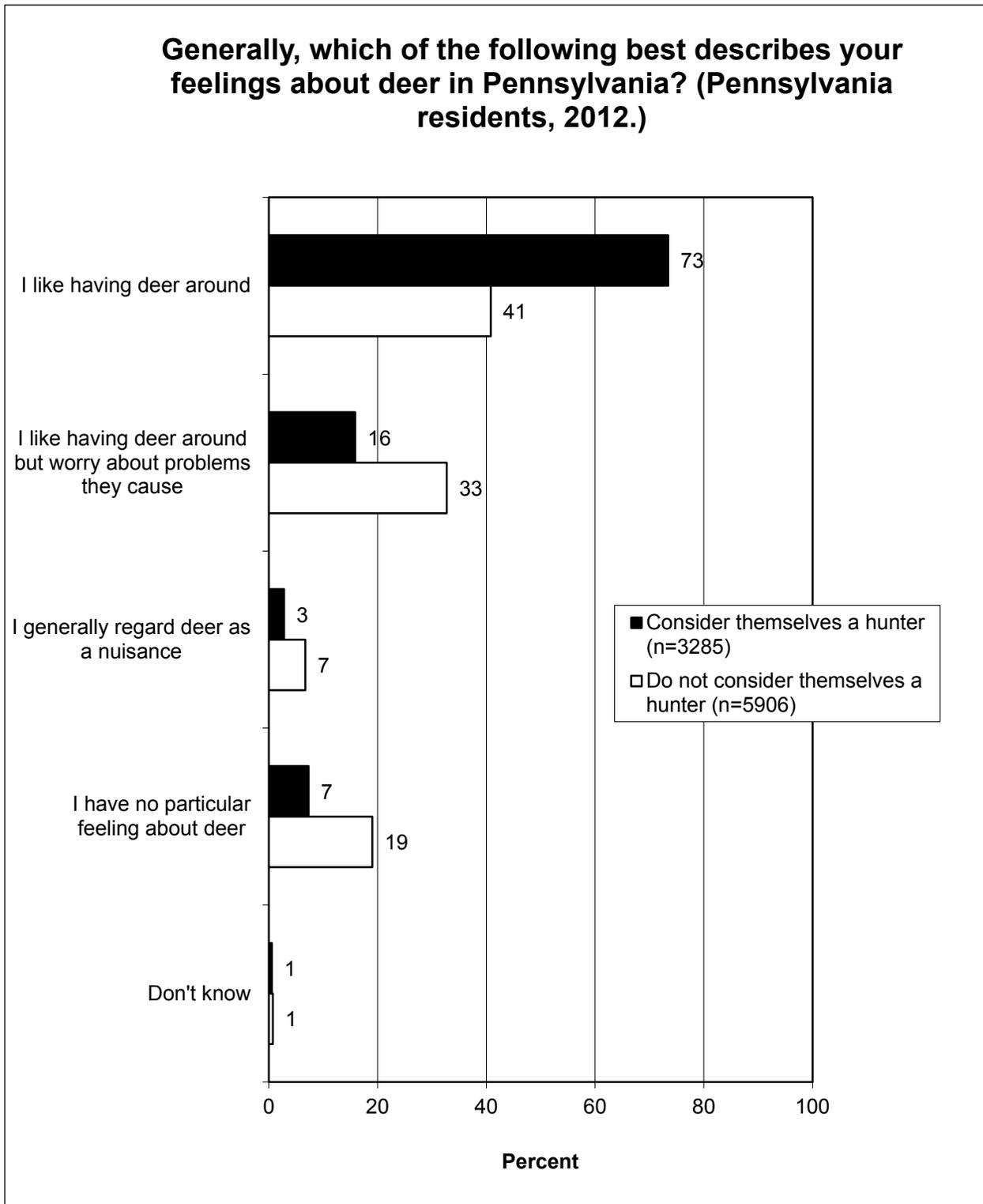
OPINIONS ON DEER MANAGEMENT

A basic place to start with opinions on deer management is to look at Pennsylvania residents' feelings about deer. **Figure 11.12 shows that residents more commonly choose the end of the continuum that is most accepting of deer: 49% say that they like having deer around, compared to 28% in the middle of the continuum (that they like deer around but worry about problems) and 6% at the other end of the continuum (that they generally regard deer as a nuisance)** (Responsive Management, 2012b). Figure 11.13 shows that **hunters are even more accepting of having deer around**; however, hunters are generally more rural than non-hunters, and it may be that they are more likely to feel that having deer around their residence is appropriate and sustainable.



Source: Responsive Management, 2012b.

Figure 11.12. General Feelings About Deer (Pennsylvania Residents, 2012)

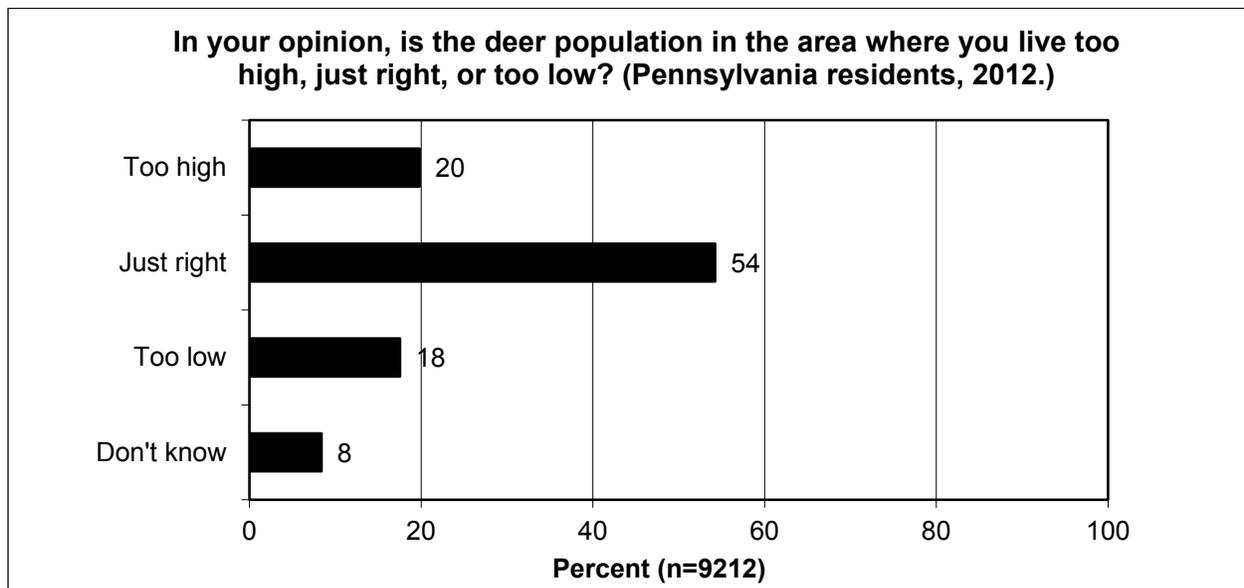


Source: Responsive Management, 2012b.

Figure 11.13. General Feelings About Deer, Hunters and Non-Hunters (Pennsylvania Residents, 2012)

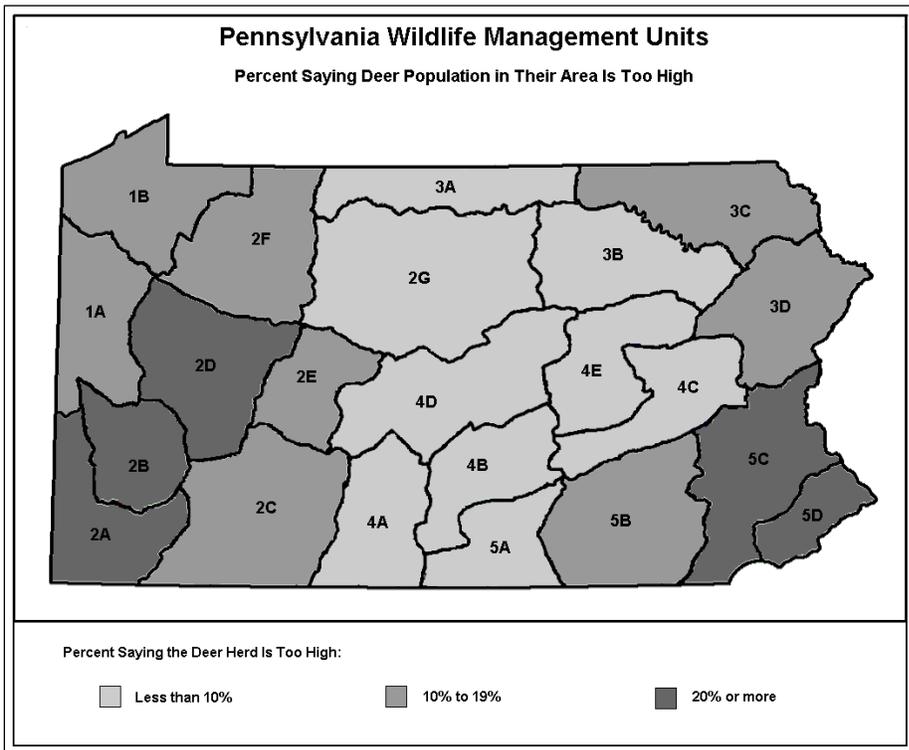
It is worth looking at the perceived size of the deer herd, as those in areas where the perception is that the herd is too numerous would seemingly more readily respond to communications that link the Commission's wildlife management efforts to keeping the deer herd in line with capacity, from a study of Pennsylvania residents in 2012 (Responsive Management, 2012b). Figure 11.14 shows the results for the Commonwealth as a whole: **the majority of residents thought that the deer population where they live was just right. Otherwise, residents' opinions were fairly evenly split between too high and too low.** Other analyses showed that homeowners are more likely than non-owners to think the population is too high.

The results by Wildlife Management Unit are shown in Figures 11.15 and 11.16, which show that **residents in the urban/suburban areas around Pittsburgh and Philadelphia think the population of deer is too high, while residents of the middle swath of the state are the most likely to think the deer population is too low.**



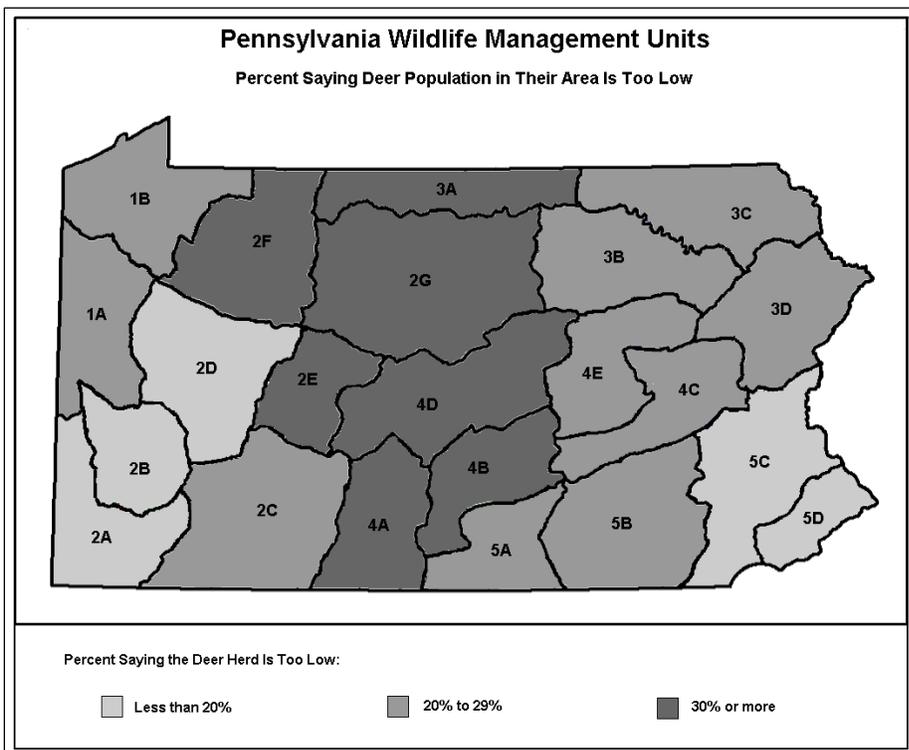
Source: Responsive Management, 2012b.

Figure 11.14. Opinion on Deer Population (Pennsylvania Residents, 2012)



Source: Responsive Management, 2012b.

Figure 11.15. Map of Percent Saying Deer Population Is Too High

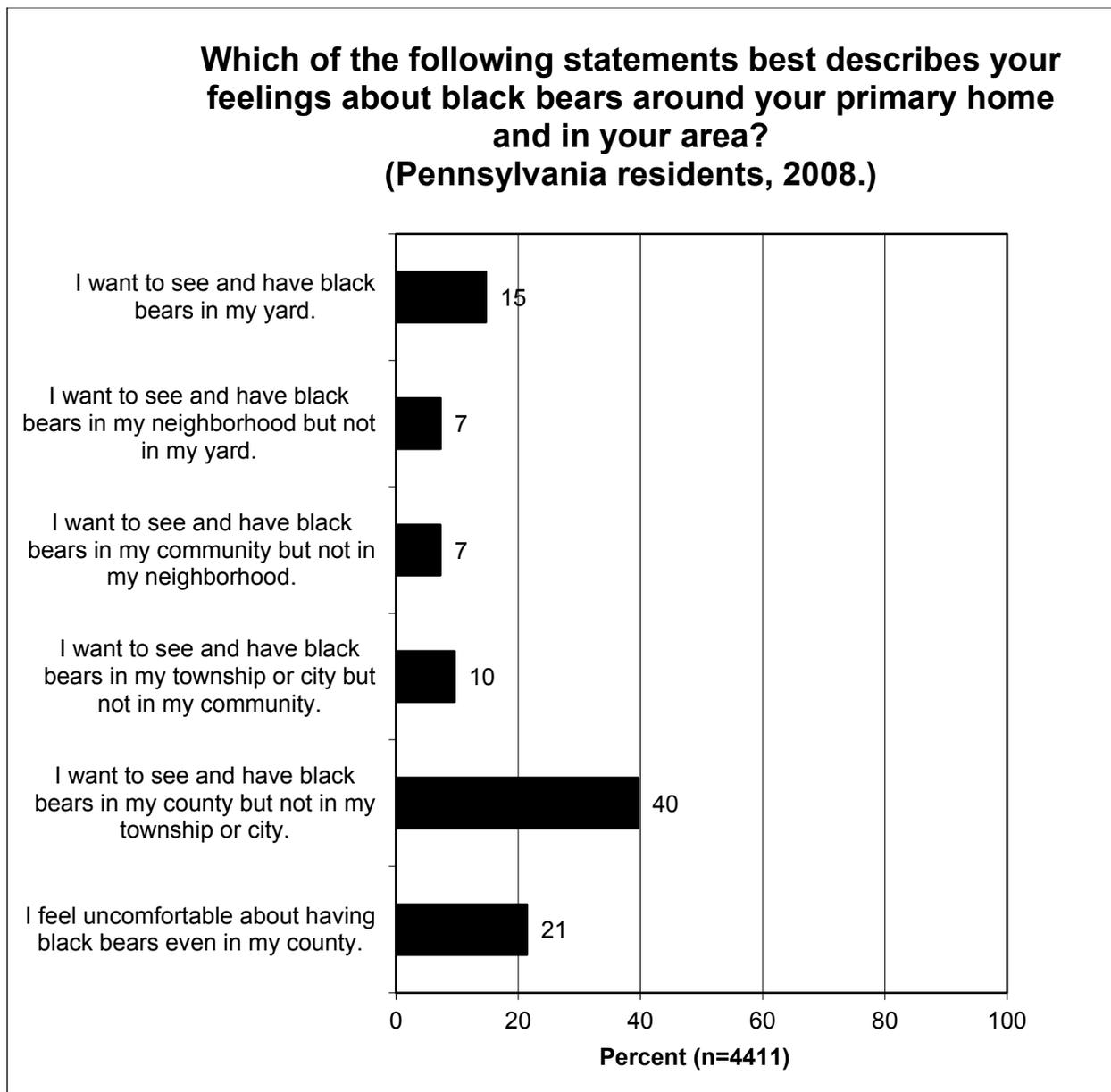


Source: Responsive Management, 2012b.

Figure 11.16. Map of Percent Saying Deer Population Is Too Low

OPINIONS ON BEAR MANAGEMENT

A survey on bear management asked residents to identify their place on a continuum from wanting to see and have black bears in their yard at the most accepting end of the continuum to feeling uncomfortable having black bears in their county, as shown in Figure 11.17 (Responsive Management, 2008). **The most common response suggests that people want to know that black bears exist in their county but not nearby.** Partly, of course, this was a result of the proportion of people who lived in areas—such as highly urbanized areas—where black bears are probably not appropriate. Nonetheless, 15% of residents were comfortable with black bears in their yards. As shown previously, though, residents support the control of bear populations.

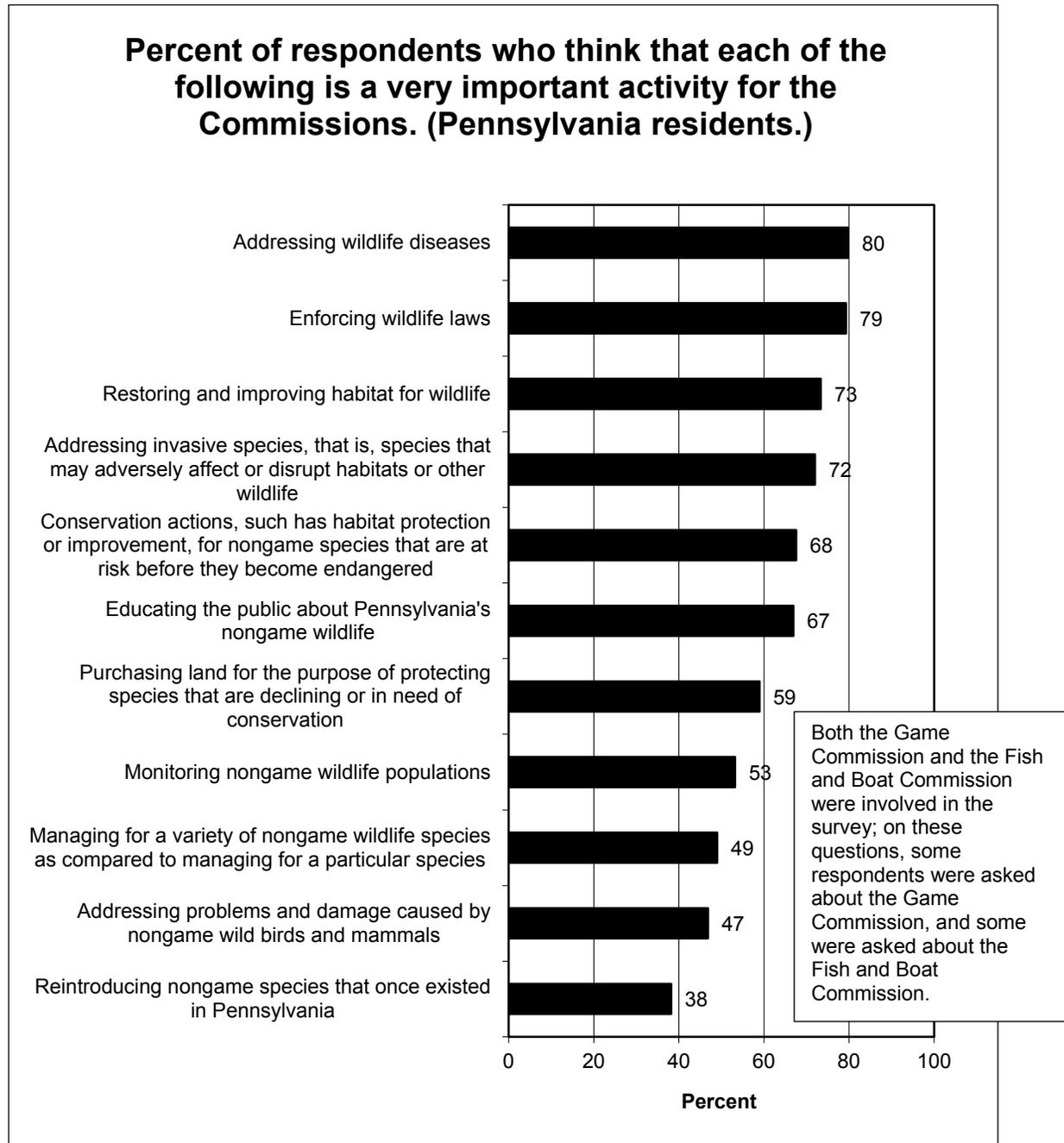


Source: Responsive Management, 2008.

Figure 11.17. General Feelings About Bear (Pennsylvania Residents, 2008)

OPINIONS ON NONGAME WILDLIFE MANAGEMENT

A 2014 study looked at nongame wildlife. Included within that survey was a series of questions that explored which efforts of the Game Commission and the Fish and Boat Commission (the Commissions were both asked about in the survey) were important, as shown in Figure 11.18. **Of those things asked about, addressing wildlife disease and enforcing wildlife laws were the most important and would resonate well in outreach** (Responsive Management, 2014).

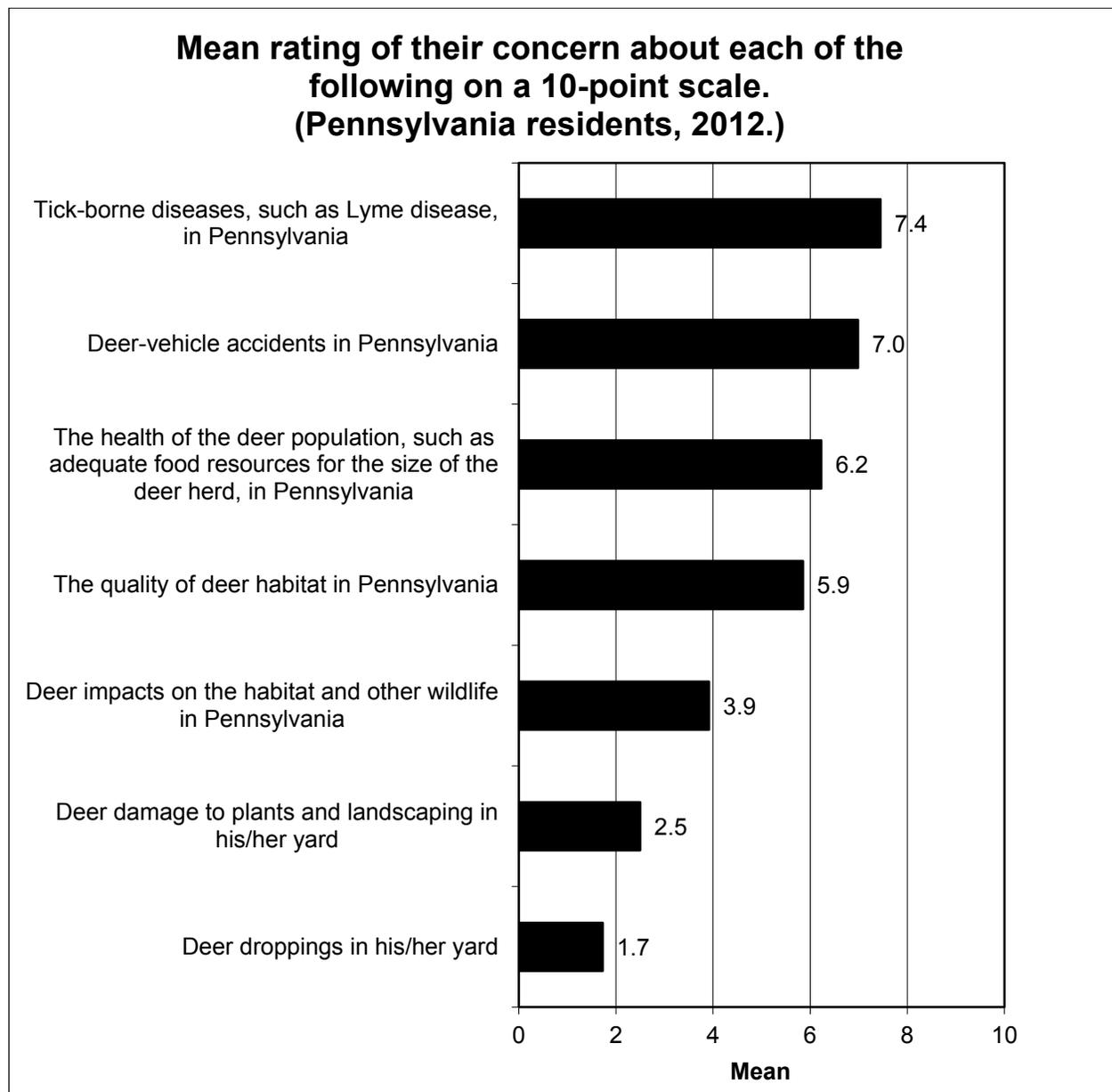


Source: Responsive Management, 2014.

Figure 11.18. Important Commission Efforts, in the Context of Nongame Management (Pennsylvania Residents, 2014)

PROBLEMS WITH WILDLIFE

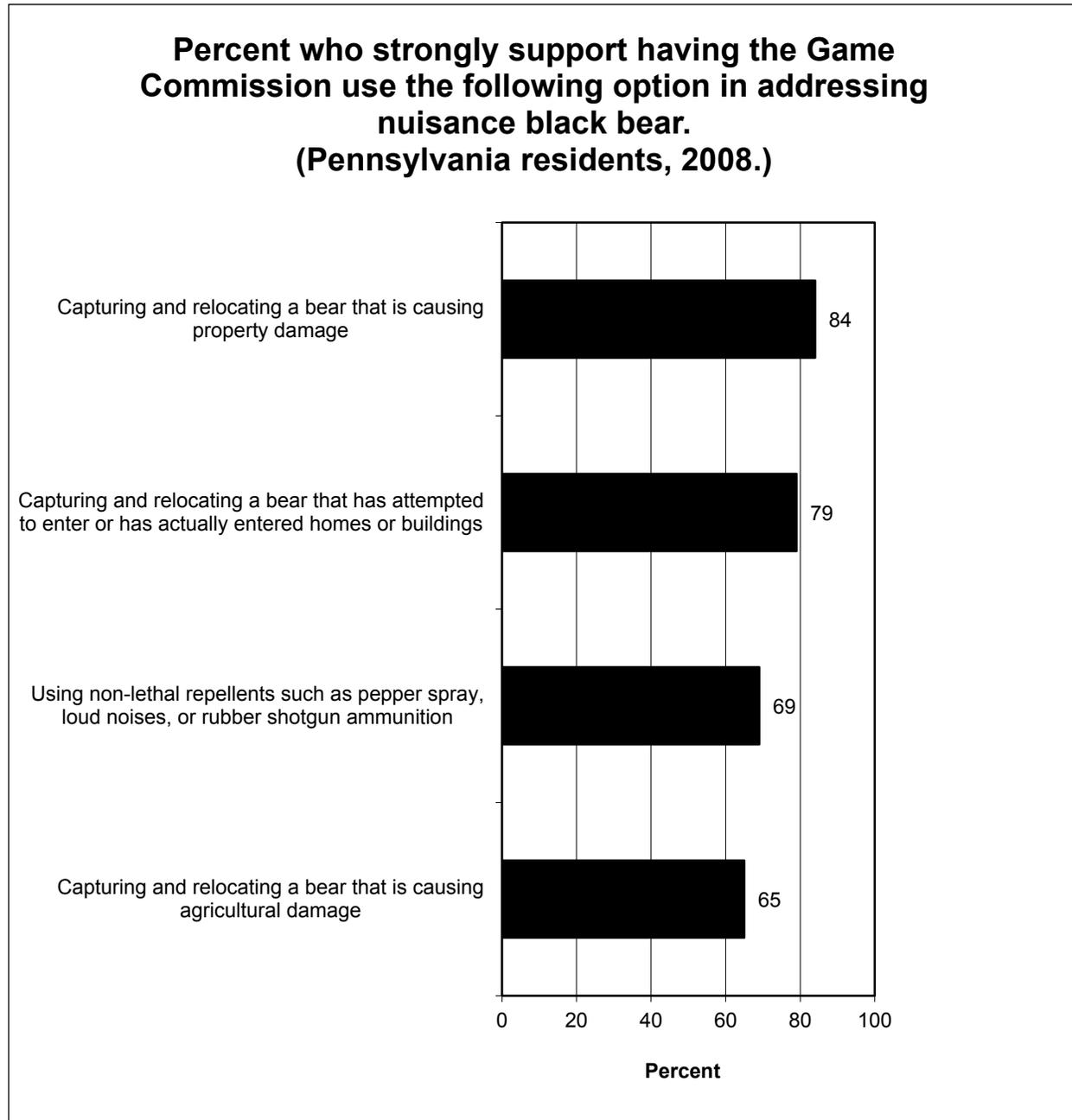
Figure 11.19 shows residents' ratings regarding their *concern* about potential problems with deer. **Residents showed the greatest concern for their personal safety (human diseases passed from deer and deer-vehicle collisions) rather than for ecological reasons (the health of the deer population, the quality of habitat, and deer impacts on other wildlife)** (Responsive Management, 2012b). **Interestingly, previous results have suggested that residents respond well to ecological reasons; this suggests that a hint of their own personal safety would also pique their interest in information disseminated from the Commission.**



Source: Responsive Management, 2012b.

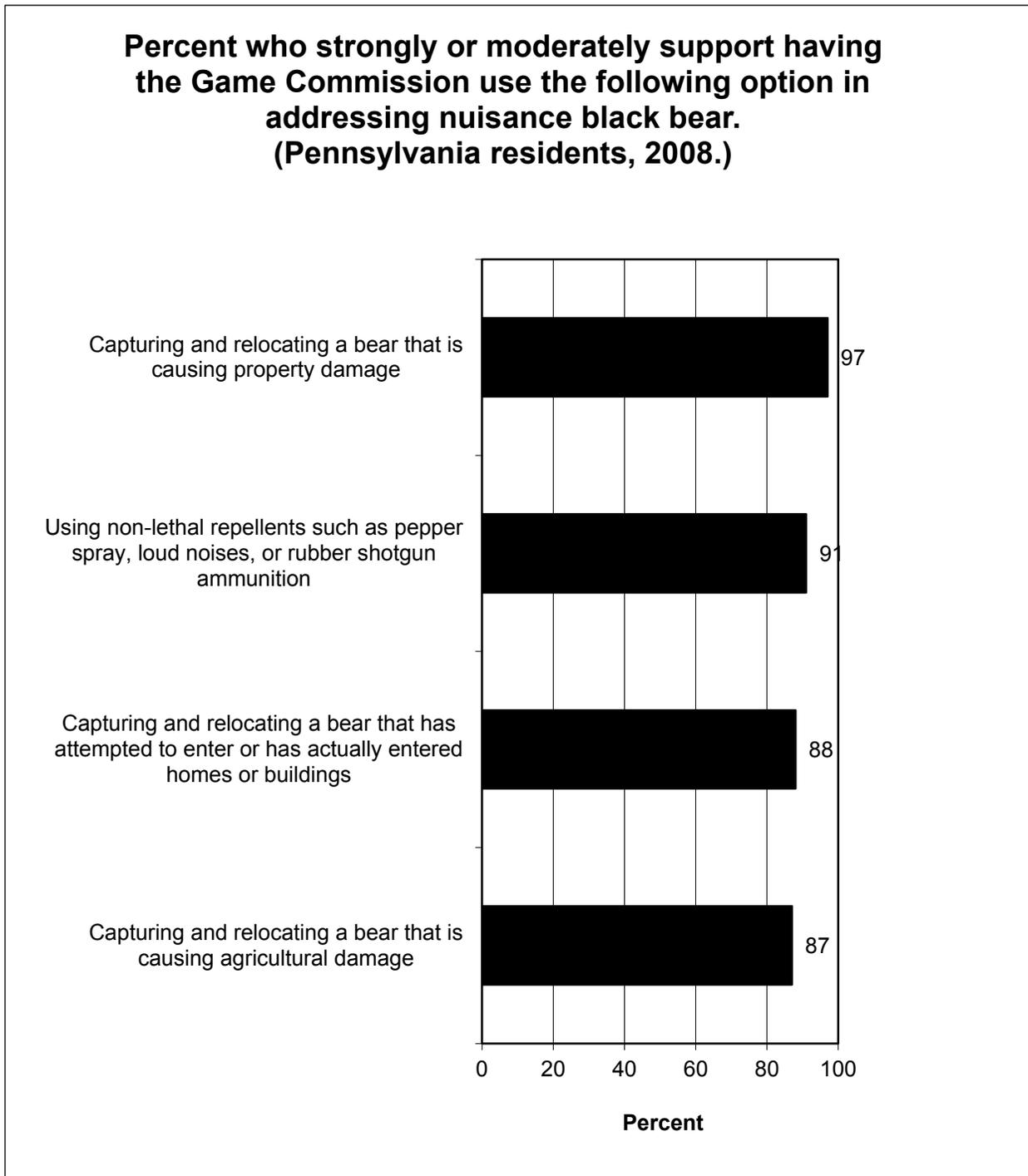
Figure 11.19. Ratings of Various Possible Problems With Deer (Pennsylvania Residents, 2012)

Residents were asked about their support for or opposition to various non-lethal ways to address black bears that are causing problems. **The most strong support was for capturing and relocating bears that are causing property damage or that have attempted to enter buildings** (Figure 11.20) (Responsive Management, 2008). In looking at total support, all methods had a large majority in support (Figure 11.21).



Source: Responsive Management, 2008.

Figure 11.20. Strong Support of Various Methods to Address Problems With Bear (Pennsylvania Residents, 2008)

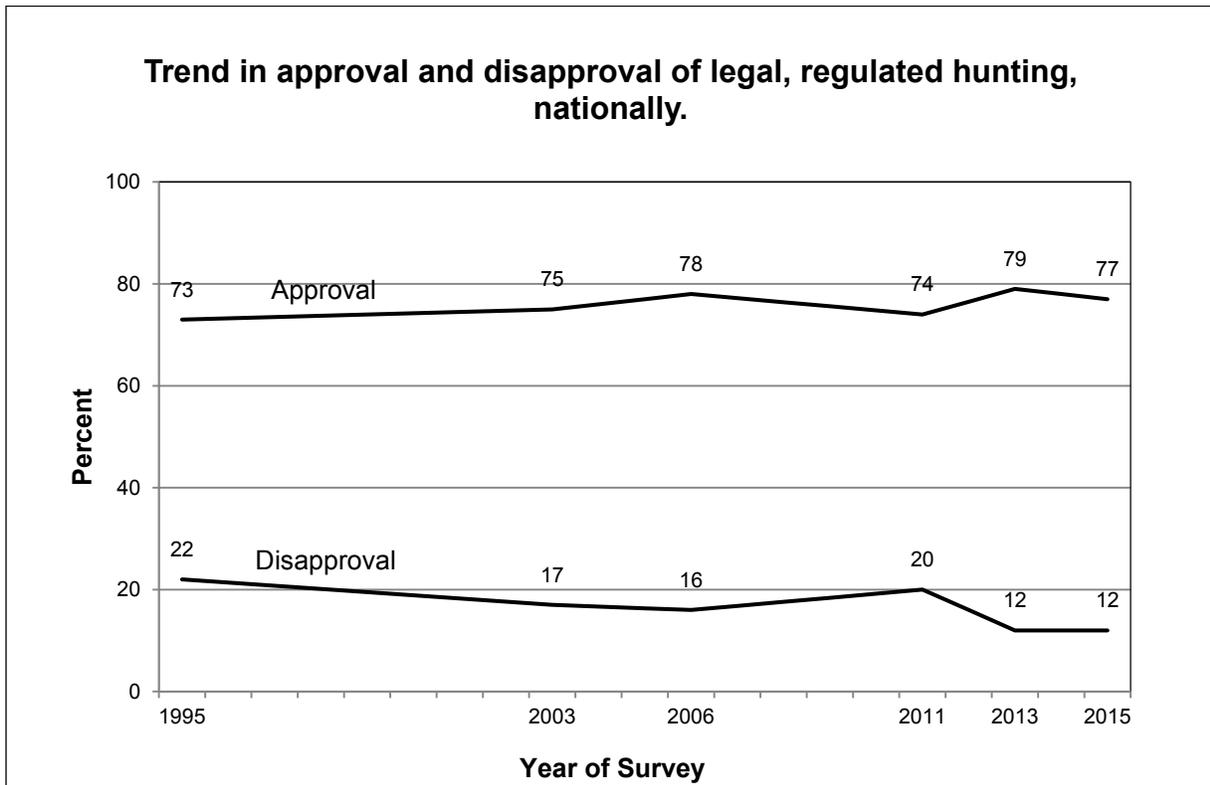


Source: Responsive Management, 2008.

Figure 11.21. Strong or Moderate Support of Various Methods to Address Problems With Bear (Pennsylvania Residents, 2008)

12. RESIDENTS’ OPINIONS ON HUNTING

The survey conducted as part of this project did not ask about support for or opposition to hunting. Nonetheless, other research has explored this issue extensively. Nationally, surveys going back as far as 1995 have looked at the American public’s approval or disapproval of legal, regulated hunting. **Approval of hunting has been fairly steady, between 73% and 79% approving** in the six surveys reviewed here, as shown in Figure 12.1. The disapproval rate has dropped over the time period, from 22% in 1995 to 12% in the 2015. (Approval and disapproval do not sum to 100% because some people gave a neutral response or said, “don’t know.”)



Sources:

The 1995, 2003, and 2006 survey results are taken from the following:

Responsive Management/National Shooting Sports Foundation. 2008. *The Future of Hunting and the Shooting Sports: Research-Based Recruitment and Retention Strategies*. Produced for the U.S. Fish and Wildlife Service under Grant Agreement CT-M-6-0. Harrisonburg, VA.

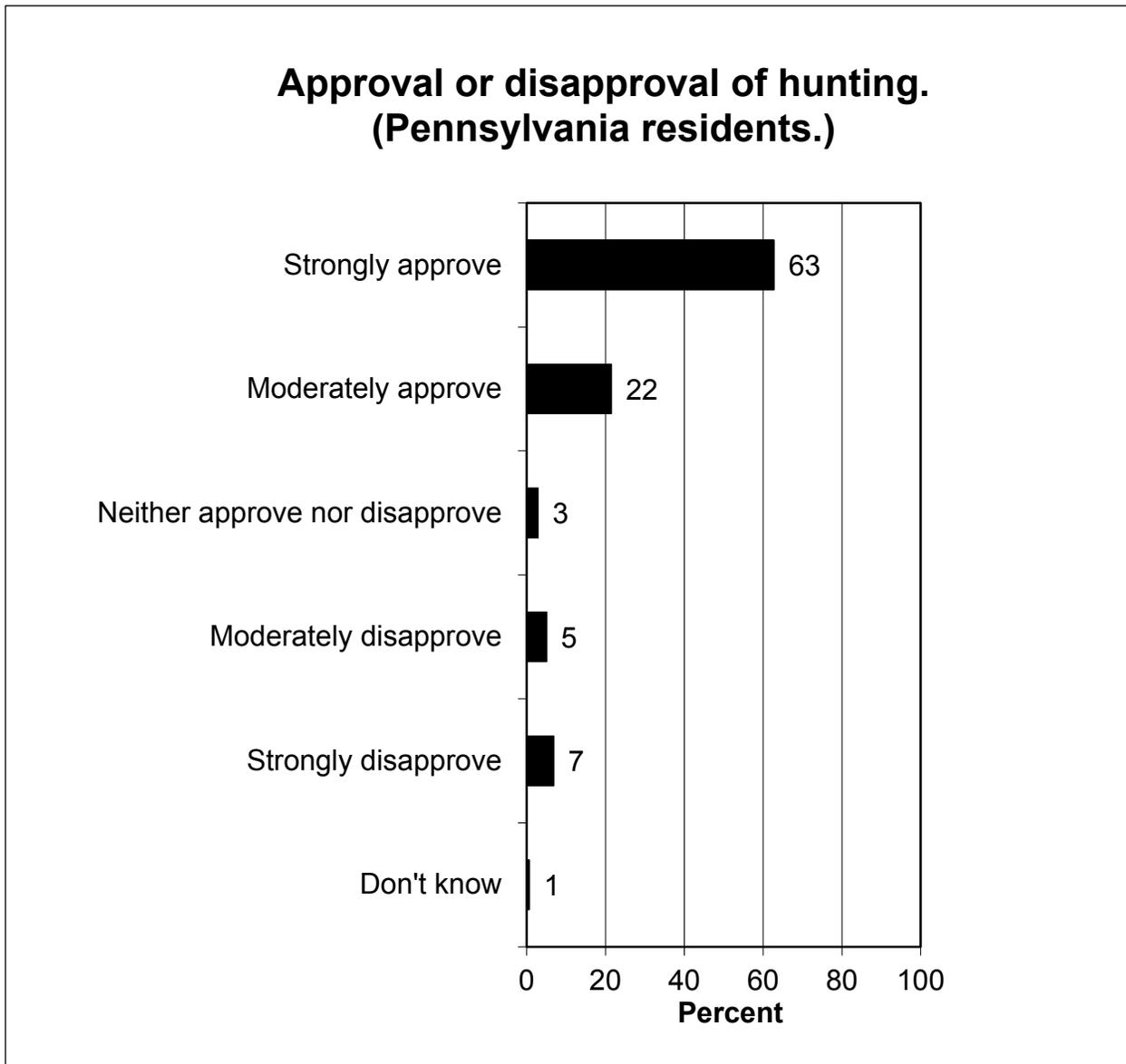
The 2011 results are from unpublished survey data obtained by Responsive Management for the National Shooting Sports Foundation.

The 2013 results are from unpublished survey data obtained by Responsive Management for the Professional Outdoor Media Association.

The 2015 results are from unpublished survey data obtained by Responsive Management for the National Shooting Sports Foundation and the Archery Trade Association.

Figure 12.1. Trend in Approval/Disapproval of Hunting, Nationally

One of the above studies had enough sample in Pennsylvania by itself for statewide results to be examined. Figure 12.2 shows the results among **Pennsylvania residents, who tend to be a little more supportive of hunting than U.S. residents as a whole.**

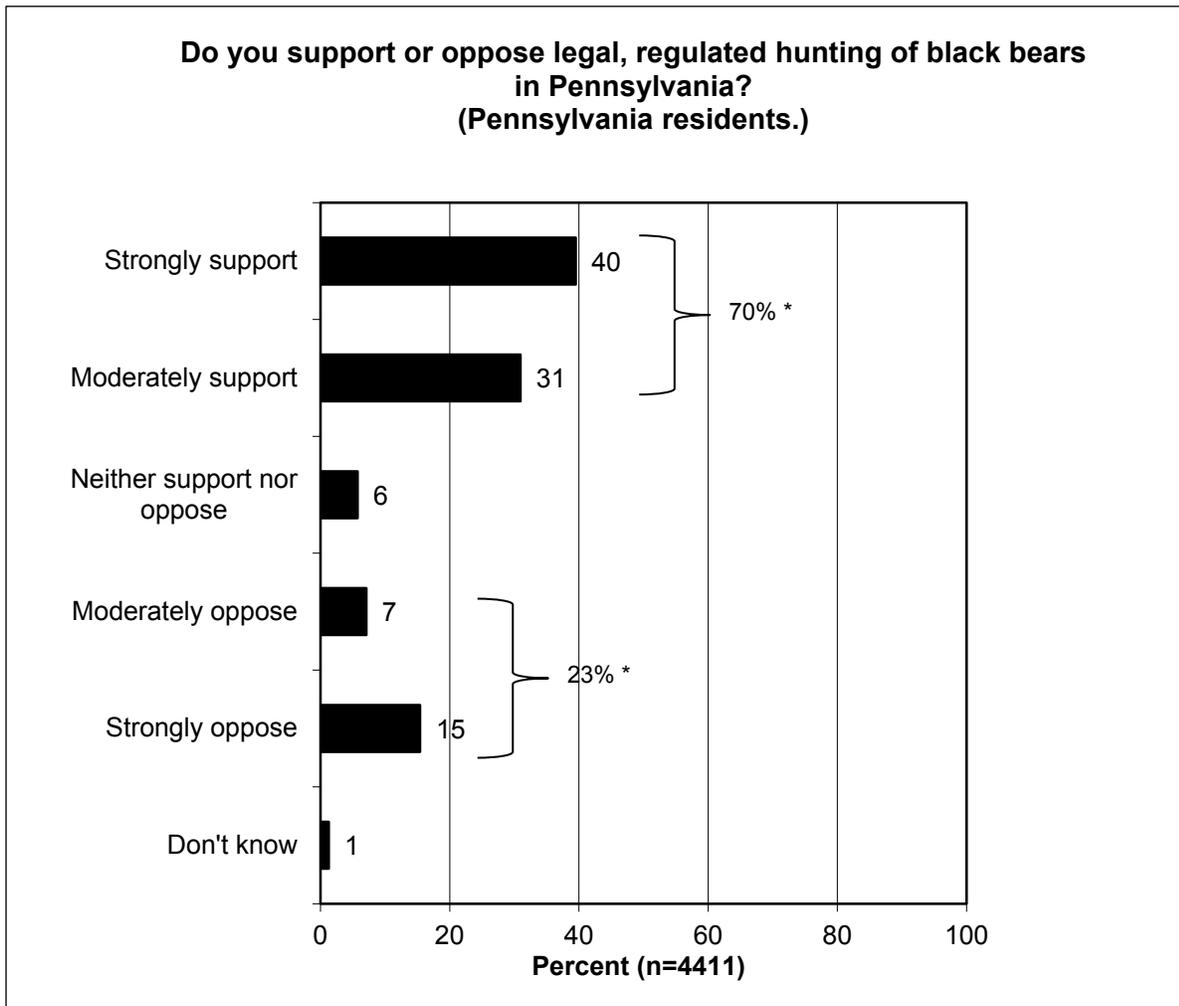


Sources:

The results are from unpublished survey data from 2015 obtained by Responsive Management for the National Shooting Sports Foundation and the Archery Trade Association.

Figure 12.2. Approval/Disapproval of Hunting, Pennsylvania Residents

Other studies have been more specific regarding opinions on hunting, asking specifically about hunting bear in one study and about hunting deer in another. Responsive Management's study of Pennsylvania residents' attitudes toward black bears asked specifically about approval of hunting them, as shown in Figure 12.3. **The large majority of Pennsylvania residents (70%) supported the legal, regulated hunting of black bears, while 23% opposed** (Responsive Management, 2008).



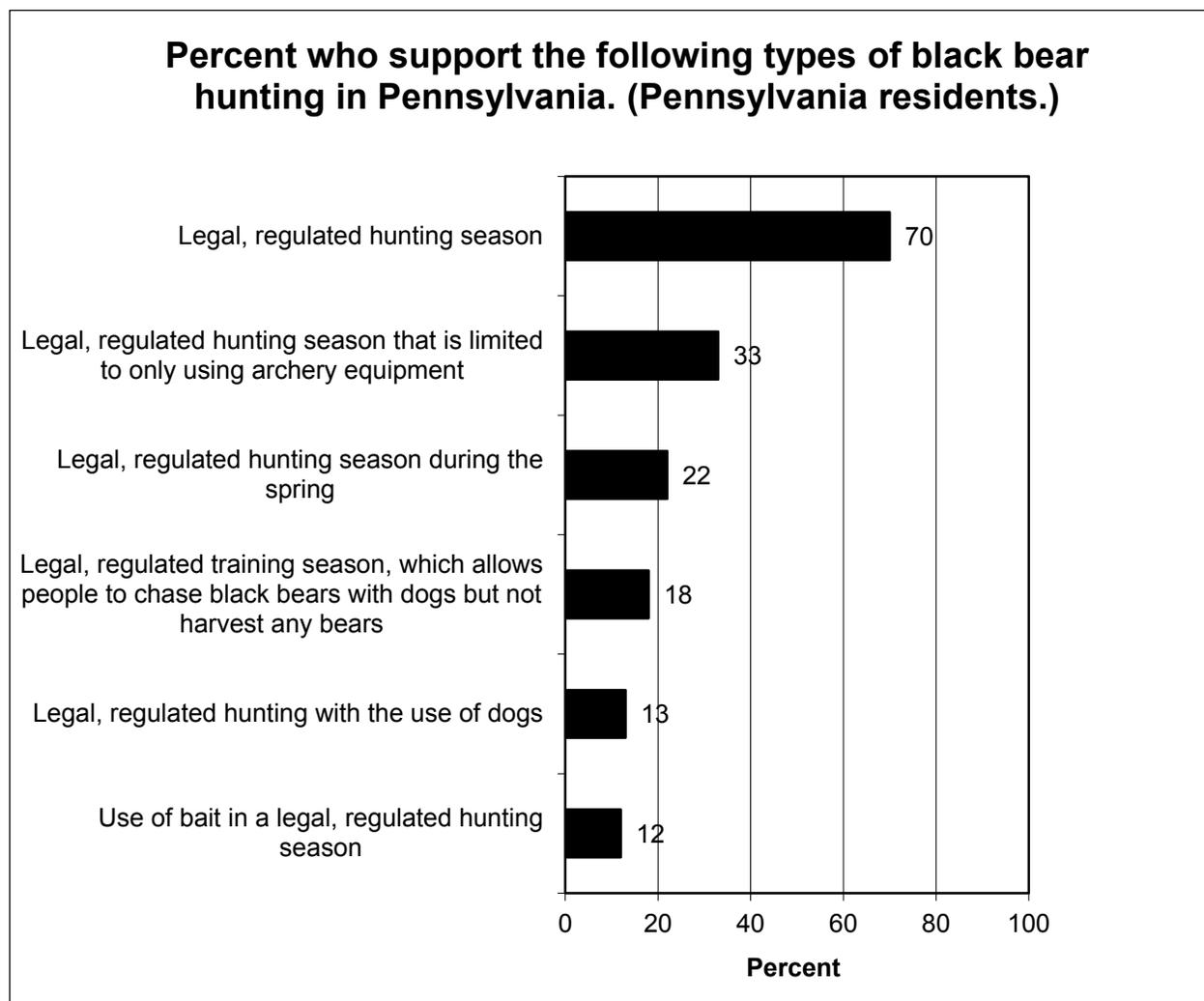
Source: Responsive Management, 2008.

Figure 12.3. Support for or Opposition to Black Bear Hunting (Pennsylvania Residents, 2008)

Common reasons for supporting the hunting of black bears included that hunting was felt to be the best way to control black bear populations, that population control was needed, that the respondent simply was not opposed to hunting in general, and that hunting black bears in Pennsylvania was felt to be a tradition (Responsive Management, 2008).

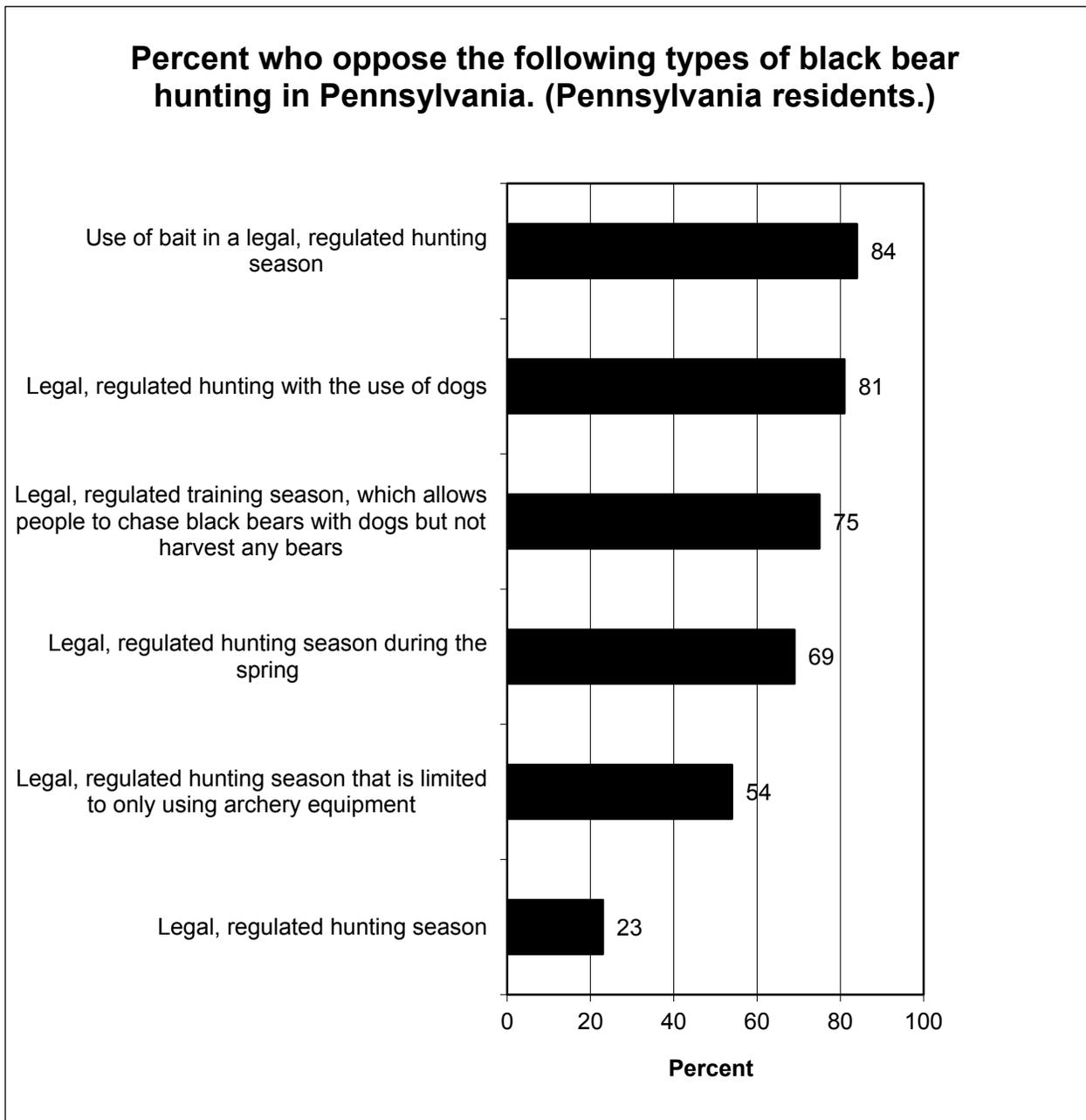
The most common reason for opposing the hunting of black bears was a general opposition to hunting—the top reason by far. Other common reasons (but well below the general opposition to hunting) included the respondent’s feeling that other methods of population control were better, an opposition to *trophy* hunting, and that the black bear population was felt to be too low (Responsive Management, 2008).

In follow-up to the question about support or opposition to black bear hunting were five questions about support or opposition to various types of black bear hunting activities, such as hunting over bait or hunting with dogs (Figures 12.4 and 12.5). **These questions found much lower support for various black bear hunting activities than for black bear hunting in general. While 70% supported black bear hunting in general, all other permutations of black bear hunting had no more than a third in support:** hunting limited to archery equipment (33%), hunting black bear in spring (22%), allowing a training season in which to chase bears with dogs but not hunt (18%), hunting black bear with dogs (13%), and hunting using bait (12%). Conversely, all *except* black bear hunting in general and black bear hunting limited to archery equipment had 69% or more in *opposition*, with **the most opposition to hunting using bait (84% opposed)** (Responsive Management, 2008).



Source: Responsive Management, 2008.

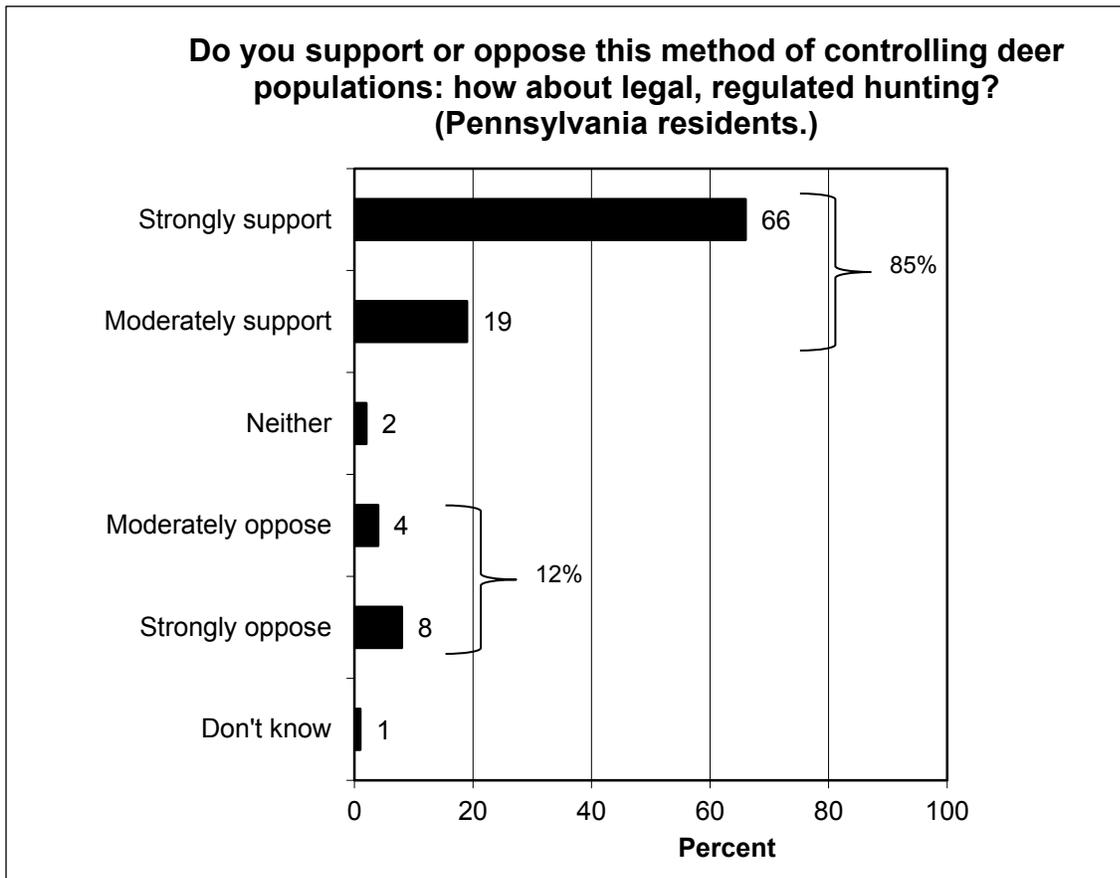
Figure 12.4. Support for Various Types of Black Bear Hunting (Pennsylvania Residents, 2008)



Source: Responsive Management, 2008.

Figure 12.5. Opposition to Various Types of Black Bear Hunting (Pennsylvania Residents, 2008)

A 2012 Responsive Management study of deer management issues asked about controlling deer through legal, regulated hunting: 85% of residents supported, while 12% of residents opposed (Figure 12.6) (Responsive Management, 2012b). Although not a purely support-oppose question, because it asked in the context of controlling deer populations, it appears to mirror results regarding hunting as a whole.



Source: Responsive Management, 2012b.

Figure 12.6. Support for or Opposition to Deer Hunting (Pennsylvania Residents, 2012)

13. THEMES THAT RESONATE WITH RESIDENTS

Wildlife health resonates with Pennsylvania residents. If the work of the Commission is linked to maintaining and improving wildlife health, the work will be perceived as important to residents. Wildlife health was the most commonly given top-of-mind response when residents were asked to say in an open-ended question to name the most important wildlife issues.

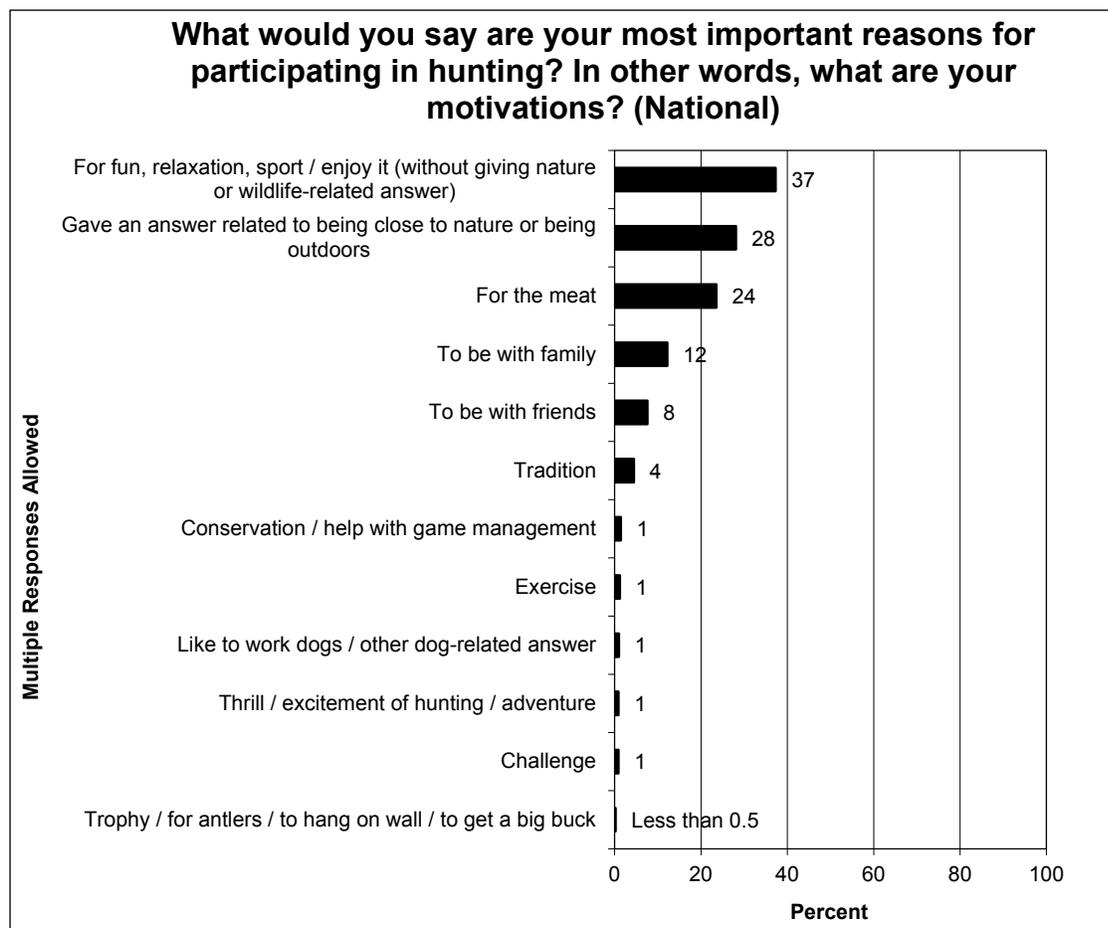
As with wildlife health, another ecological issue that resonates is habitat loss. The Commission work to conserve lands and habitats will also be perceived as important to residents, including non-hunters. Responses related to habitat loss were just under wildlife health in the ranking of important wildlife issues named by residents in the survey that was conducted as part of this project.

Another top-of-mind issue regarding wildlife is poaching. In the aforementioned open-ended question, this was also a commonly given response. **Enforcement of wildlife laws to stop poaching is an effort that would resonate well with Pennsylvania residents. It even resonates with hunters, as long as they do not perceive the agency as being solely focused on enforcement.**

The previous items were gleaned from a question that asked about important wildlife issues. Another survey asked about several items and had respondents rate their level of *concern*. **Human health was a top concern as it relates to wildlife diseases; in particular, Lyme disease was a top concern** (the survey mentioned Lyme disease as an example in the question wording). **Audiences' interest would likely be piqued if human-wildlife health issues are raised and linked to wildlife management, providing a way to engage residents.**

14. THEMES THAT RESONATE WITH HUNTERS

One approach to looking at words and phrases that may resonate with hunters is to look at their motivations for hunting. The motivations for hunting have been explored in other studies. One national survey asked the question in an open-ended manner, in which no answer set was presented, obtaining the top-of-mind responses of hunters who were asked to say the most important reasons for hunting. **The top reasons for hunting related to having fun/relaxation/for the sport (37% of hunters gave an answer pertaining to this) or to be out in nature/outdoors (28%)** (Figure 14.1). Nonetheless, **a more utilitarian reason—for the meat—was given by 24% of hunters** (Responsive Management/NSSF/Southwick Associates, 2011).

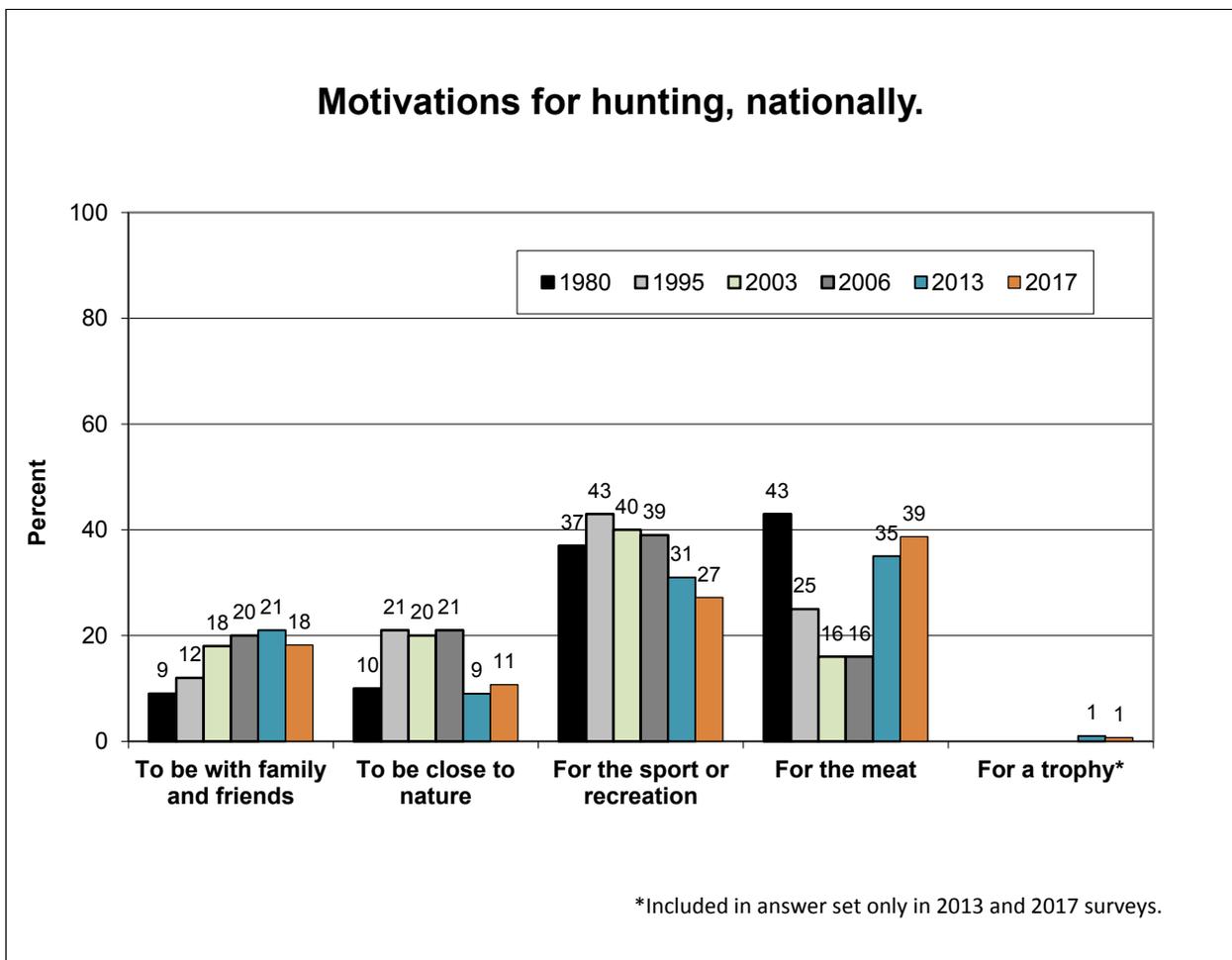


Source: Responsive Management/NSSF/Southwick Associates, 2011.

Figure 14.1. Reasons for Hunting, Open-Ended Question

Messages that are tuned into the top three responses in the graph should resonate with at least a quarter of hunters (i.e., the lowest of the top three responses was given by 24%, or nearly a quarter, of hunters). **The top motivations are to hunt for the enjoyment, to be out in nature, and for the meat, in that order, and hunters should respond to these motivations in communications.** Note that this study separated family and friends (if a respondent said “family and friends,” he or she was put in *both* responses: to be with family, and to be with friends).

A look at a series of national studies, which certainly have some applicability to Pennsylvania, show some interesting trends on reasons for hunting (Figure 14.2). In these surveys, a list of reasons for hunting were presented, and hunters chose the single ones that were prime motivators. **These findings suggest that “for the sport or recreation” has been an important reason in the six studies** (either the top or the second-ranked item in each study), far exceeding “to be with family and friends,” “to be close to nature,” or “for a trophy” (the latter consistently being chosen by few hunters). **However, the final reason examined in this series of surveys has fluctuated widely. “For the meat” was the top reason in 1980, when 43% of hunters hunted for this primary reason. The meat then became less important in 1995, 2003, and 2006 but again rose in importance in the last two studies (in 2013 and 2017), rising from a low of 16% in the middle years back to 39% in 2017.** (These sources are listed under the figure.)



Sources: Five studies are used to compile these six data sets shown in the graph:
 Kellert, S. 1980. *Public Attitudes Toward Critical Wildlife and Natural Habitat Issues: Phase I of the U.S. Fish and Wildlife Service Study*. Washington, D.C.: Government Printing Office.
 Responsive Management. 1995. *Factors Related To Hunting and Fishing Participation in the United States: Final Report*. Harrisonburg, VA.
 Responsive Management/National Shooting Sports Foundation. 2008. *The Future of Hunting and the Shooting Sports: Research-Based Recruitment and Retention Strategies*. Produced for the U.S. Fish and Wildlife Service under Grant Agreement CT-M-6-0. Harrisonburg, VA.
 Responsive Management. 2013. *Nationwide Survey of Hunters Regarding Participation in and Motivations for Hunting*. Harrisonburg, VA.
 Responsive Management. 2017. Unpublished data from a nationwide survey.

Figure 14.2. Reasons for Hunting, Nationally, Close-Ended Question

15. GENERAL RECOMMENDATIONS

Recognize that all Commission staff are potential agency spokespersons. **Perceptions of the Game Commission can be highly influenced by interactions with agency staff, from biologists and support staff to game wardens and information and education specialists. All Commission employees have an obligation to further the good reputation of the Game Commission by representing the agency well during public interactions. Therefore, each agency employee should consider himself or herself a potentially important communicator on behalf of the Commission. The Game Commission should consider further training all staff in communications and in the specific recommendations of this study.**

Maintain continuous communication with the public. While the survey found generally high ratings for each of the various Commission efforts, one major takeaway from the data is the discrepancy between the *importance* of communicating with the public and the Commission's current *performance* in this area.

Educate the public on agency funding mechanisms through wider messages. Given relatively low awareness of the funding mechanisms for Commission efforts, as well as the incorrect impression that the Commission is receiving general state taxes, **the Commission should strive to build into all messages and communications key information on its true revenue sources.** Credit should be given to hunters' contributions through their hunting licenses and excise taxes on hunting equipment. However, it is recommended that the Commission avoid crafting messages devoted *solely* to agency funding. Rather, it is important to broadly increase communication with the public about wildlife health and conservation, communicating the importance of these efforts along with the fact that they are only possible through dedicated agency funding.

Develop communications specific to key constituent groups, and ensure that constituent groups are aware of Commission programs relevant to them. Throughout this report, graphs were included that showed the demographic and behavioral characteristics of various constituent groups. Furthermore, the next section contains data summaries of various groups. These characteristics should be considered in crafting any messages and outreach strategies. The differences between the various constituent groups imply that communications directed at them must be customized to each group; rather than a one-size-fits-all approach, materials and messages must be attuned to each group's characteristics.

Use wildlife viewing as an entry point for more detailed communications about agency efforts among non-hunters. Wildlife viewers represent for the Commission an immediate and receptive audience for additional communications on key initiatives and wider topics related to conservation, habitat, and wildlife management. In this sense, **Commission materials targeting wildlife viewers should initially educate residents about the species they are viewing and then move into conservation and wildlife management issues.** This progression is likely to succeed because it begins with what viewers are interested in most before moving into the topics that the Commission would like for them to know.

16. DEMOGRAPHIC AND OPINION SUMMARIES OF TARGET GROUPS

On the following pages are one-page summaries of the makeup of various groups of interest for targeted marketing. The demographic and opinion data will help in developing communications aimed at the groups.

The groups examined are (and the general communications content for some of them):

- Philadelphia Metro Area residents (basic information on who you are and what you do)
- Pittsburgh Metro Area residents (more nuanced information)
- Large city / urban area residents (basic information on who you are and what you do)
- Suburban residents (deer problems offer a route to become relevant to them)
- Small city / town residents (deer problems offer a route to become relevant to them)
- Rural residents (more nuanced information; emphasize that you provide hunting opportunities)
- Hunters (not solely an enforcement agency; emphasize other work, including the provision of hunting opportunities)
- Non-hunters (become relevant to them through work that helps conserve and protect all wildlife)
- Target or sport shooters (remind them that some state game lands offer shooting opportunities)
- Wildlife viewers (become relevant to them through work that helps conserve and protect all wildlife)
- Birdwatchers (become relevant to them through work that helps conserve and protect all wildlife)
- Hikers (become relevant to them through work that helps conserve and protect all wildlife; provision of areas to hike)
- Males
- Females
- Residents 18 to 34 years old
- Residents 35 to 54 years old
- Residents 55 years old and older

These summaries, each one page, start on the following page.

PHILADELPHIA METRO AREA RESIDENTS

Gender	
Male	46%
Female	54%

Age	
Mean age	47.72
Percent 18-34	29%
Percent 35-54	33%
Percent 55 or older	38%

Ethnicity	
White	62%
Non-white	31%

Political Leaning	
Liberal	38%
In the middle	30%
Conservative	21%
Don't know	6%

Work Affecting Them	
Gave a rating of 8, 9, or 10	19%
Gave a rating of 5, 6, or 7	40%
Gave a rating below 5	41%

Satisfaction With the Commission	
Satisfied	54%
Dissatisfied	4%
Neither / Don't know	42%

Most Important Wildlife Issues	
1. Habitat loss	13%
2. Overpopulation of deer	11%
3. Polluted water / water quality	11%

Activities	
Went hiking	52%
Went hunting	6%
Went target or sport shooting	15%
Went wildlife viewing	33%
Went birdwatching	23%

Where They Look for Information	
Internet in general	67%
Commission website	8%
Newspapers	3%
Magazines	4%
TV	4%
Hunting regulations booklet	1%

Residence	
Large city or urban area	26%
Suburban area	48%
Small city or town	14%
Rural area	9%

Education Level	
Not a high school graduate	1%
High school graduate or equivalent	16%
Some college or trade school, no degree	18%
Associate's or trade school degree	11%
Bachelor's degree	30%
Master's degree	16%
Professional or doctorate degree (e.g., M.D., Ph.D.)	5%

Familiarity With Commission	
Very familiar	15%
Somewhat familiar	34%
Not at all familiar/don't know	52%

Work Important	
Gave a rating of 8, 9, or 10	73%
Gave a rating of 5, 6, or 7	25%
Gave a rating below 5	3%

Credibility of the Commission	
Very credible	51%
Somewhat credible	26%
Not at all credible	2%
Don't know	21%

New Funding Options	
Agrees they should be sought	77%
Disagrees they should be sought	13%
Neither / Don't know	10%

Information Seen or Heard From Commission	
A great deal	2%
A moderate amount	11%
A little	38%
Nothing	47%
Don't know	2%

Use of social media	
Facebook	62%
Instagram	32%
Twitter	23%
YouTube	11%

PITTSBURGH METRO AREA RESIDENTS

Gender	
Male	48%
Female	52%

Age	
Mean age	48.56
Percent 18-34	27%
Percent 35-54	34%
Percent 55 or older	40%

Ethnicity	
White	79%
Non-white	15%

Political Leaning	
Liberal	22%
In the middle	33%
Conservative	34%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	25%
Gave a rating of 5, 6, or 7	33%
Gave a rating below 5	42%

Satisfaction With the Commission	
Satisfied	72%
Dissatisfied	7%
Neither / Don't know	21%

Most Important Wildlife Issues	
1. Overpopulation of deer	16%
2. Wildlife health	10%
3. Habitat loss	9%

Activities	
Went hiking	47%
Went hunting	19%
Went target or sport shooting	33%
Went wildlife viewing	35%
Went birdwatching	21%

Where They Look for Information	
Internet in general	59%
Commission website	17%
Newspapers	7%
Magazines	7%
TV	5%
Hunting regulations booklet	4%

Residence	
Large city or urban area	13%
Suburban area	38%
Small city or town	22%
Rural area	24%

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	23%
Some college or trade school, no degree	12%
Associate's or trade school degree	13%
Bachelor's degree	30%
Master's degree	11%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	27%
Somewhat familiar	48%
Not at all familiar/don't know	24%

Work Important	
Gave a rating of 8, 9, or 10	79%
Gave a rating of 5, 6, or 7	18%
Gave a rating below 5	4%

Credibility of the Commission	
Very credible	61%
Somewhat credible	26%
Not at all credible	4%
Don't know	10%

New Funding Options	
Agrees they should be sought	70%
Disagrees they should be sought	21%
Neither / Don't know	9%

Information Seen or Heard From Commission	
A great deal	4%
A moderate amount	22%
A little	42%
Nothing	31%
Don't know	2%

Use of social media	
Facebook	60%
Instagram	24%
Twitter	15%
YouTube	11%

LARGE CITY / URBAN AREA RESIDENTS

Gender	
Male	52%
Female	48%

Age	
Mean age	45.44
Percent 18-34	38%
Percent 35-54	26%
Percent 55 or older	35%

Ethnicity	
White	56%
Non-white	41%

Political Leaning	
Liberal	37%
In the middle	30%
Conservative	24%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	22%
Gave a rating of 5, 6, or 7	32%
Gave a rating below 5	46%

Satisfaction With the Commission	
Satisfied	56%
Dissatisfied	9%
Neither / Don't know	36%

Most Important Wildlife Issues	
1. Habitat loss	12%
2. Polluted water / water quality	10%
3. Overpopulation of deer	8%

Activities	
Went hiking	50%
Went hunting	11%
Went target or sport shooting	20%
Went wildlife viewing	35%
Went birdwatching	16%

Where They Look for Information	
Internet in general	63%
Commission website	10%
Newspapers	10%
Magazines	6%
TV	5%
Hunting regulations booklet	1%

Residence	
Large city or urban area	NA
Suburban area	NA
Small city or town	NA
Rural area	NA

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	24%
Some college or trade school, no degree	17%
Associate's or trade school degree	14%
Bachelor's degree	25%
Master's degree	11%
Professional or doctorate degree (e.g., M.D., Ph.D.)	6%

Familiarity With Commission	
Very familiar	19%
Somewhat familiar	34%
Not at all familiar/don't know	47%

Work Important	
Gave a rating of 8, 9, or 10	77%
Gave a rating of 5, 6, or 7	19%
Gave a rating below 5	4%

Credibility of the Commission	
Very credible	47%
Somewhat credible	30%
Not at all credible	4%
Don't know	19%

New Funding Options	
Agrees they should be sought	73%
Disagrees they should be sought	17%
Neither / Don't know	10%

Information Seen or Heard From Commission	
A great deal	3%
A moderate amount	19%
A little	32%
Nothing	46%
Don't know	1%

Use of social media	
Facebook	64%
Instagram	40%
Twitter	24%
YouTube	15%

SUBURBAN RESIDENTS

Gender	
Male	45%
Female	54%

Age	
Mean age	47.24
Percent 18-34	31%
Percent 35-54	33%
Percent 55 or older	37%

Ethnicity	
White	75%
Non-white	22%

Political Leaning	
Liberal	35%
In the middle	31%
Conservative	27%
Don't know	4%

Work Affecting Them	
Gave a rating of 8, 9, or 10	22%
Gave a rating of 5, 6, or 7	38%
Gave a rating below 5	40%

Satisfaction With the Commission	
Satisfied	65%
Dissatisfied	3%
Neither / Don't know	32%

Most Important Wildlife Issues	
1. Overpopulation of deer	12%
2. Habitat loss	12%
3. Wildlife health	11%

Activities	
Went hiking	55%
Went hunting	9%
Went target or sport shooting	20%
Went wildlife viewing	37%
Went birdwatching	26%

Where They Look for Information	
Internet in general	65%
Commission website	11%
Newspapers	5%
Magazines	6%
TV	3%
Hunting regulations booklet	2%

Residence	
Large city or urban area	NA
Suburban area	NA
Small city or town	NA
Rural area	NA

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	18%
Some college or trade school, no degree	17%
Associate's or trade school degree	11%
Bachelor's degree	31%
Master's degree	17%
Professional or doctorate degree (e.g., M.D., Ph.D.)	5%

Familiarity With Commission	
Very familiar	17%
Somewhat familiar	42%
Not at all familiar/don't know	42%

Work Important	
Gave a rating of 8, 9, or 10	73%
Gave a rating of 5, 6, or 7	23%
Gave a rating below 5	3%

Credibility of the Commission	
Very credible	61%
Somewhat credible	22%
Not at all credible	2%
Don't know	14%

New Funding Options	
Agrees they should be sought	72%
Disagrees they should be sought	17%
Neither / Don't know	11%

Information Seen or Heard From Commission	
A great deal	4%
A moderate amount	17%
A little	39%
Nothing	40%
Don't know	1%

Use of social media	
Facebook	64%
Instagram	29%
Twitter	21%
YouTube	10%

SMALL CITY / TOWN RESIDENTS

Gender	
Male	46%
Female	54%

Age	
Mean age	47.75
Percent 18-34	31%
Percent 35-54	32%
Percent 55 or older	38%

Ethnicity	
White	79%
Non-white	19%

Political Leaning	
Liberal	20%
In the middle	32%
Conservative	38%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	25%
Gave a rating of 5, 6, or 7	40%
Gave a rating below 5	35%

Satisfaction With the Commission	
Satisfied	70%
Dissatisfied	5%
Neither / Don't know	25%

Most Important Wildlife Issues	
1. Overpopulation of deer	11%
2. Wildlife health	10%
3. Poaching / wildlife violations	10%

Activities	
Went hiking	50%
Went hunting	19%
Went target or sport shooting	29%
Went wildlife viewing	39%
Went birdwatching	22%

Where They Look for Information	
Internet in general	59%
Commission website	11%
Newspapers	7%
Magazines	5%
TV	5%
Hunting regulations booklet	4%

Residence	
Large city or urban area	NA
Suburban area	NA
Small city or town	NA
Rural area	NA

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	32%
Some college or trade school, no degree	16%
Associate's or trade school degree	13%
Bachelor's degree	25%
Master's degree	9%
Professional or doctorate degree (e.g., M.D., Ph.D.)	2%

Familiarity With Commission	
Very familiar	29%
Somewhat familiar	41%
Not at all familiar/don't know	31%

Work Important	
Gave a rating of 8, 9, or 10	82%
Gave a rating of 5, 6, or 7	16%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	61%
Somewhat credible	26%
Not at all credible	2%
Don't know	11%

New Funding Options	
Agrees they should be sought	75%
Disagrees they should be sought	15%
Neither / Don't know	10%

Information Seen or Heard From Commission	
A great deal	6%
A moderate amount	22%
A little	40%
Nothing	32%
Don't know	0%

Use of social media	
Facebook	68%
Instagram	27%
Twitter	16%
YouTube	9%

RURAL RESIDENTS

Gender	
Male	51%
Female	49%

Age	
Mean age	50.03
Percent 18-34	20%
Percent 35-54	39%
Percent 55 or older	42%

Ethnicity	
White	90%
Non-white	7%

Political Leaning	
Liberal	14%
In the middle	28%
Conservative	49%
Don't know	4%

Work Affecting Them	
Gave a rating of 8, 9, or 10	31%
Gave a rating of 5, 6, or 7	44%
Gave a rating below 5	26%

Satisfaction With the Commission	
Satisfied	77%
Dissatisfied	7%
Neither / Don't know	16%

Most Important Wildlife Issues	
1. Wildlife health	19%
2. Overpopulation of deer	13%
3. Habitat loss	9%

Activities	
Went hiking	51%
Went hunting	32%
Went target or sport shooting	40%
Went wildlife viewing	44%
Went birdwatching	28%

Where They Look for Information	
Internet in general	57%
Commission website	18%
Newspapers	9%
Magazines	10%
TV	4%
Hunting regulations booklet	7%

Residence	
Large city or urban area	NA
Suburban area	NA
Small city or town	NA
Rural area	NA

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	31%
Some college or trade school, no degree	17%
Associate's or trade school degree	14%
Bachelor's degree	20%
Master's degree	11%
Professional or doctorate degree (e.g., M.D., Ph.D.)	3%

Familiarity With Commission	
Very familiar	41%
Somewhat familiar	44%
Not at all familiar/don't know	15%

Work Important	
Gave a rating of 8, 9, or 10	82%
Gave a rating of 5, 6, or 7	15%
Gave a rating below 5	3%

Credibility of the Commission	
Very credible	66%
Somewhat credible	27%
Not at all credible	2%
Don't know	5%

New Funding Options	
Agrees they should be sought	70%
Disagrees they should be sought	19%
Neither / Don't know	11%

Information Seen or Heard From Commission	
A great deal	8%
A moderate amount	25%
A little	43%
Nothing	24%
Don't know	1%

Use of social media	
Facebook	54%
Instagram	18%
Twitter	9%
YouTube	5%

HUNTERS

Gender	
Male	88%
Female	12%

Age	
Mean age	45.82
Percent 18-34	29%
Percent 35-54	40%
Percent 55 or older	32%

Ethnicity	
White	91%
Non-white	5%

Political Leaning	
Liberal	7%
In the middle	28%
Conservative	53%
Don't know	4%

Work Affecting Them	
Gave a rating of 8, 9, or 10	43%
Gave a rating of 5, 6, or 7	38%
Gave a rating below 5	19%

Satisfaction With the Commission	
Satisfied	81%
Dissatisfied	10%
Neither / Don't know	9%

Most Important Wildlife Issues	
1. Wildlife health	23%
2. Overpopulation of deer	10%
3. Habitat loss	9%

Activities	
Went hiking	54%
Went hunting	100%
Went target or sport shooting	68%
Went wildlife viewing	48%
Went birdwatching	20%

Where They Look for Information	
Internet in general	52%
Commission website	34%
Newspapers	7%
Magazines	12%
TV	2%
Hunting regulations booklet	11%

Residence	
Large city or urban area	7%
Suburban area	14%
Small city or town	28%
Rural area	48%

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	37%
Some college or trade school, no degree	18%
Associate's or trade school degree	14%
Bachelor's degree	18%
Master's degree	6%
Professional or doctorate degree (e.g., M.D., Ph.D.)	2%

Familiarity With Commission	
Very familiar	67%
Somewhat familiar	27%
Not at all familiar/don't know	5%

Work Important	
Gave a rating of 8, 9, or 10	83%
Gave a rating of 5, 6, or 7	15%
Gave a rating below 5	3%

Credibility of the Commission	
Very credible	65%
Somewhat credible	31%
Not at all credible	2%
Don't know	2%

New Funding Options	
Agrees they should be sought	68%
Disagrees they should be sought	22%
Neither / Don't know	9%

Information Seen or Heard From Commission	
A great deal	12%
A moderate amount	40%
A little	38%
Nothing	10%
Don't know	1%

Use of social media	
Facebook	56%
Instagram	17%
Twitter	10%
YouTube	7%

NON-HUNTERS

Gender	
Male	39%
Female	60%

Age	
Mean age	48.46
Percent 18-34	29%
Percent 35-54	32%
Percent 55 or older	40%

Ethnicity	
White	73%
Non-white	22%

Political Leaning	
Liberal	29%
In the middle	30%
Conservative	31%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	21%
Gave a rating of 5, 6, or 7	40%
Gave a rating below 5	39%

Satisfaction With the Commission	
Satisfied	65%
Dissatisfied	5%
Neither / Don't know	30%

Most Important Wildlife Issues	
1. Overpopulation of deer	12%
2. Habitat loss	10%
3. Wildlife health	10%

Activities	
Went hiking	51%
Went hunting	0%
Went target or sport shooting	19%
Went wildlife viewing	37%
Went birdwatching	25%

Where They Look for Information	
Internet in general	62%
Commission website	8%
Newspapers	7%
Magazines	5%
TV	5%
Hunting regulations booklet	2%

Residence	
Large city or urban area	14%
Suburban area	34%
Small city or town	27%
Rural area	23%

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	23%
Some college or trade school, no degree	16%
Associate's or trade school degree	12%
Bachelor's degree	26%
Master's degree	13%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	18%
Somewhat familiar	44%
Not at all familiar/don't know	38%

Work Important	
Gave a rating of 8, 9, or 10	78%
Gave a rating of 5, 6, or 7	19%
Gave a rating below 5	3%

Credibility of the Commission	
Very credible	60%
Somewhat credible	25%
Not at all credible	2%
Don't know	14%

New Funding Options	
Agrees they should be sought	73%
Disagrees they should be sought	16%
Neither / Don't know	11%

Information Seen or Heard From Commission	
A great deal	4%
A moderate amount	16%
A little	40%
Nothing	39%
Don't know	2%

Use of social media	
Facebook	62%
Instagram	28%
Twitter	17%
YouTube	9%

TARGET OR SPORT SHOOTERS

Gender	
Male	72%
Female	28%

Age	
Mean age	44.86
Percent 18-34	32%
Percent 35-54	39%
Percent 55 or older	29%

Ethnicity	
White	87%
Non-white	8%

Political Leaning	
Liberal	13%
In the middle	28%
Conservative	50%
Don't know	4%

Work Affecting Them	
Gave a rating of 8, 9, or 10	32%
Gave a rating of 5, 6, or 7	40%
Gave a rating below 5	28%

Satisfaction With the Commission	
Satisfied	81%
Dissatisfied	8%
Neither / Don't know	11%

Most Important Wildlife Issues	
1. Wildlife health	22%
2. Overpopulation of deer	12%
3. Poaching / wildlife violations	11%

Activities	
Went hiking	57%
Went hunting	45%
Went target or sport shooting	100%
Went wildlife viewing	45%
Went birdwatching	24%

Where They Look for Information	
Internet in general	61%
Commission website	25%
Newspapers	5%
Magazines	9%
TV	2%
Hunting regulations booklet	8%

Residence	
Large city or urban area	9%
Suburban area	22%
Small city or town	28%
Rural area	39%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	28%
Some college or trade school, no degree	18%
Associate's or trade school degree	14%
Bachelor's degree	25%
Master's degree	8%
Professional or doctorate degree (e.g., M.D., Ph.D.)	3%

Familiarity With Commission	
Very familiar	46%
Somewhat familiar	41%
Not at all familiar/don't know	13%

Work Important	
Gave a rating of 8, 9, or 10	81%
Gave a rating of 5, 6, or 7	26%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	68%
Somewhat credible	26%
Not at all credible	2%
Don't know	4%

New Funding Options	
Agrees they should be sought	70%
Disagrees they should be sought	22%
Neither / Don't know	8%

Information Seen or Heard From Commission	
A great deal	8%
A moderate amount	31%
A little	42%
Nothing	18%
Don't know	2%

Use of social media	
Facebook	59%
Instagram	23%
Twitter	16%
YouTube	8%

WILDLIFE VIEWERS

Gender	
Male	49%
Female	51%

Age	
Mean age	48.20
Percent 18-34	27%
Percent 35-54	33%
Percent 55 or older	41%

Ethnicity	
White	81%
Non-white	14%

Political Leaning	
Liberal	25%
In the middle	28%
Conservative	36%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	30%
Gave a rating of 5, 6, or 7	42%
Gave a rating below 5	28%

Satisfaction With the Commission	
Satisfied	74%
Dissatisfied	6%
Neither / Don't know	19%

Most Important Wildlife Issues	
1. Wildlife health	17%
2. Habitat loss	10%
3. Overpopulation of deer	9%

Activities	
Went hiking	67%
Went hunting	22%
Went target or sport shooting	32%
Went wildlife viewing	100%
Went birdwatching	42%

Where They Look for Information	
Internet in general	62%
Commission website	15%
Newspapers	8%
Magazines	8%
TV	4%
Hunting regulations booklet	5%

Residence	
Large city or urban area	11%
Suburban area	29%
Small city or town	27%
Rural area	31%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	27%
Some college or trade school, no degree	18%
Associate's or trade school degree	12%
Bachelor's degree	23%
Master's degree	11%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	33%
Somewhat familiar	44%
Not at all familiar/don't know	23%

Work Important	
Gave a rating of 8, 9, or 10	84%
Gave a rating of 5, 6, or 7	14%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	65%
Somewhat credible	27%
Not at all credible	2%
Don't know	7%

New Funding Options	
Agrees they should be sought	76%
Disagrees they should be sought	15%
Neither / Don't know	9%

Information Seen or Heard From Commission	
A great deal	8%
A moderate amount	25%
A little	42%
Nothing	23%
Don't know	2%

Use of social media	
Facebook	63%
Instagram	29%
Twitter	18%
YouTube	9%

BIRDWATCHERS

Gender	
Male	43%
Female	57%

Age	
Mean age	52.20
Percent 18-34	21%
Percent 35-54	31%
Percent 55 or older	48%

Ethnicity	
White	80%
Non-white	15%

Political Leaning	
Liberal	25%
In the middle	28%
Conservative	38%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	28%
Gave a rating of 5, 6, or 7	46%
Gave a rating below 5	26%

Satisfaction With the Commission	
Satisfied	75%
Dissatisfied	5%
Neither / Don't know	20%

Most Important Wildlife Issues	
1. Wildlife health	17%
2. Overpopulation of deer	14%
3. Habitat loss	9%

Activities	
Went hiking	64%
Went hunting	16%
Went target or sport shooting	28%
Went wildlife viewing	68%
Went birdwatching	100%

Where They Look for Information	
Internet in general	61%
Commission website	13%
Newspapers	11%
Magazines	10%
TV	5%
Hunting regulations booklet	5%

Residence	
Large city or urban area	8%
Suburban area	33%
Small city or town	24%
Rural area	36%

Education Level	
Not a high school graduate	4%
High school graduate or equivalent	22%
Some college or trade school, no degree	18%
Associate's or trade school degree	14%
Bachelor's degree	25%
Master's degree	11%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	28%
Somewhat familiar	43%
Not at all familiar/don't know	29%

Work Important	
Gave a rating of 8, 9, or 10	86%
Gave a rating of 5, 6, or 7	13%
Gave a rating below 5	1%

Credibility of the Commission	
Very credible	67%
Somewhat credible	24%
Not at all credible	1%
Don't know	8%

New Funding Options	
Agrees they should be sought	76%
Disagrees they should be sought	15%
Neither / Don't know	9%

Information Seen or Heard From Commission	
A great deal	7%
A moderate amount	24%
A little	41%
Nothing	26%
Don't know	2%

Use of social media	
Facebook	56%
Instagram	20%
Twitter	11%
YouTube	7%

HIKERS

Gender	
Male	49%
Female	51%

Age	
Mean age	44.01
Percent 18-34	34%
Percent 35-54	37%
Percent 55 or older	29%

Ethnicity	
White	81%
Non-white	15%

Political Leaning	
Liberal	27%
In the middle	29%
Conservative	35%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	28%
Gave a rating of 5, 6, or 7	44%
Gave a rating below 5	28%

Satisfaction With the Commission	
Satisfied	72%
Dissatisfied	6%
Neither / Don't know	23%

Most Important Wildlife Issues	
1. Wildlife health	13%
2. Overpopulation of deer	12%
3. Habitat loss	10%

Activities	
Went hiking	100%
Went hunting	19%
Went target or sport shooting	31%
Went wildlife viewing	51%
Went birdwatching	30%

Where They Look for Information	
Internet in general	69%
Commission website	16%
Newspapers	6%
Magazines	6%
TV	2%
Hunting regulations booklet	5%

Residence	
Large city or urban area	12%
Suburban area	33%
Small city or town	26%
Rural area	27%

Education Level	
Not a high school graduate	1%
High school graduate or equivalent	19%
Some college or trade school, no degree	16%
Associate's or trade school degree	12%
Bachelor's degree	32%
Master's degree	14%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	27%
Somewhat familiar	45%
Not at all familiar/don't know	29%

Work Important	
Gave a rating of 8, 9, or 10	82%
Gave a rating of 5, 6, or 7	16%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	67%
Somewhat credible	23%
Not at all credible	1%
Don't know	9%

New Funding Options	
Agrees they should be sought	74%
Disagrees they should be sought	17%
Neither / Don't know	10%

Information Seen or Heard From Commission	
A great deal	6%
A moderate amount	23%
A little	44%
Nothing	27%
Don't know	1%

Use of social media	
Facebook	66%
Instagram	35%
Twitter	21%
YouTube	9%

MALES

Gender	
Male	NA
Female	NA

Age	
Mean age	46.88
Percent 18-34	30%
Percent 35-54	34%
Percent 55 or older	36%

Ethnicity	
White	79%
Non-white	16%

Political Leaning	
Liberal	18%
In the middle	28%
Conservative	42%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	26%
Gave a rating of 5, 6, or 7	38%
Gave a rating below 5	36%

Satisfaction With the Commission	
Satisfied	73%
Dissatisfied	7%
Neither / Don't know	20%

Most Important Wildlife Issues	
1. Wildlife health	14%
2. Overpopulation of deer	11%
3. Habitat loss	9%

Activities	
Went hiking	52%
Went hunting	34%
Went target or sport shooting	42%
Went wildlife viewing	39%
Went birdwatching	21%

Where They Look for Information	
Internet in general	57%
Commission website	18%
Newspapers	8%
Magazines	8%
TV	3%
Hunting regulations booklet	6%

Residence	
Large city or urban area	14%
Suburban area	28%
Small city or town	26%
Rural area	29%

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	28%
Some college or trade school, no degree	15%
Associate's or trade school degree	12%
Bachelor's degree	24%
Master's degree	10%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	38%
Somewhat familiar	40%
Not at all familiar/don't know	23%

Work Important	
Gave a rating of 8, 9, or 10	76%
Gave a rating of 5, 6, or 7	22%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	63%
Somewhat credible	27%
Not at all credible	2%
Don't know	8%

New Funding Options	
Agrees they should be sought	68%
Disagrees they should be sought	23%
Neither / Don't know	10%

Information Seen or Heard From Commission	
A great deal	6%
A moderate amount	25%
A little	41%
Nothing	27%
Don't know	2%

Use of social media	
Facebook	53%
Instagram	22%
Twitter	16%
YouTube	10%

FEMALES

Gender	
Male	NA
Female	NA

Age	
Mean age	48.99
Percent 18-34	27%
Percent 35-54	32%
Percent 55 or older	41%

Ethnicity	
White	74%
Non-white	22%

Political Leaning	
Liberal	30%
In the middle	31%
Conservative	28%
Don't know	6%

Work Affecting Them	
Gave a rating of 8, 9, or 10	24%
Gave a rating of 5, 6, or 7	41%
Gave a rating below 5	35%

Satisfaction With the Commission	
Satisfied	64%
Dissatisfied	4%
Neither / Don't know	32%

Most Important Wildlife Issues	
1. Overpopulation of deer	11%
2. Habitat loss	11%
3. Wildlife health	10%

Activities	
Went hiking	51%
Went hunting	4%
Went target or sport shooting	15%
Went wildlife viewing	39%
Went birdwatching	26%

Where They Look for Information	
Internet in general	63%
Commission website	8%
Newspapers	6%
Magazines	5%
TV	5%
Hunting regulations booklet	2%

Residence	
Large city or urban area	12%
Suburban area	32%
Small city or town	28%
Rural area	26%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	23%
Some college or trade school, no degree	17%
Associate's or trade school degree	13%
Bachelor's degree	26%
Master's degree	14%
Professional or doctorate degree (e.g., M.D., Ph.D.)	3%

Familiarity With Commission	
Very familiar	17%
Somewhat familiar	42%
Not at all familiar/don't know	41%

Work Important	
Gave a rating of 8, 9, or 10	82%
Gave a rating of 5, 6, or 7	15%
Gave a rating below 5	3%

Credibility of the Commission	
Very credible	59%
Somewhat credible	24%
Not at all credible	3%
Don't know	14%

New Funding Options	
Agrees they should be sought	77%
Disagrees they should be sought	13%
Neither / Don't know	11%

Information Seen or Heard From Commission	
A great deal	4%
A moderate amount	17%
A little	38%
Nothing	40%
Don't know	2%

Use of social media	
Facebook	69%
Instagram	31%
Twitter	17%
YouTube	8%

RESIDENTS 18 TO 34 YEARS OLD

Gender	
Male	51%
Female	49%

Age	
Mean age	NA
Percent 18-34	NA
Percent 35-54	NA
Percent 55 or older	NA

Ethnicity	
White	68%
Non-white	30%

Political Leaning	
Liberal	34%
In the middle	28%
Conservative	29%
Don't know	6%

Work Affecting Them	
Gave a rating of 8, 9, or 10	17%
Gave a rating of 5, 6, or 7	44%
Gave a rating below 5	39%

Satisfaction With the Commission	
Satisfied	69%
Dissatisfied	4%
Neither / Don't know	28%

Most Important Wildlife Issues	
1. Polluted water / water quality	11%
2. Habitat loss	10%
3. Poaching / wildlife violations	10%

Activities	
Went hiking	63%
Went hunting	19%
Went target or sport shooting	32%
Went wildlife viewing	37%
Went birdwatching	17%

Where They Look for Information	
Internet in general	73%
Commission website	13%
Newspapers	3%
Magazines	2%
TV	1%
Hunting regulations booklet	3%

Residence	
Large city or urban area	18%
Suburban area	33%
Small city or town	29%
Rural area	19%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	27%
Some college or trade school, no degree	20%
Associate's or trade school degree	13%
Bachelor's degree	27%
Master's degree	8%
Professional or doctorate degree (e.g., M.D., Ph.D.)	1%

Familiarity With Commission	
Very familiar	20%
Somewhat familiar	37%
Not at all familiar/don't know	43%

Work Important	
Gave a rating of 8, 9, or 10	75%
Gave a rating of 5, 6, or 7	21%
Gave a rating below 5	4%

Credibility of the Commission	
Very credible	63%
Somewhat credible	23%
Not at all credible	2%
Don't know	13%

New Funding Options	
Agrees they should be sought	76%
Disagrees they should be sought	15%
Neither / Don't know	9%

Information Seen or Heard From Commission	
A great deal	5%
A moderate amount	22%
A little	37%
Nothing	35%
Don't know	1%

Use of social media	
Facebook	78%
Instagram	61%
Twitter	33%
YouTube	18%

RESIDENTS 35 TO 54 YEARS OLD

Gender	
Male	49%
Female	50%

Age	
Mean age	NA
Percent 18-34	NA
Percent 35-54	NA
Percent 55 or older	NA

Ethnicity	
White	80%
Non-white	18%

Political Leaning	
Liberal	20%
In the middle	35%
Conservative	38%
Don't know	5%

Work Affecting Them	
Gave a rating of 8, 9, or 10	28%
Gave a rating of 5, 6, or 7	38%
Gave a rating below 5	34%

Satisfaction With the Commission	
Satisfied	75%
Dissatisfied	4%
Neither / Don't know	21%

Most Important Wildlife Issues	
1. Wildlife health	14%
2. Overpopulation of deer	10%
3. Habitat loss	9%

Activities	
Went hiking	59%
Went hunting	22%
Went target or sport shooting	34%
Went wildlife viewing	39%
Went birdwatching	23%

Where They Look for Information	
Internet in general	68%
Commission website	17%
Newspapers	5%
Magazines	5%
TV	3%
Hunting regulations booklet	5%

Residence	
Large city or urban area	10%
Suburban area	31%
Small city or town	26%
Rural area	33%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	18%
Some college or trade school, no degree	15%
Associate's or trade school degree	15%
Bachelor's degree	30%
Master's degree	15%
Professional or doctorate degree (e.g., M.D., Ph.D.)	4%

Familiarity With Commission	
Very familiar	31%
Somewhat familiar	44%
Not at all familiar/don't know	25%

Work Important	
Gave a rating of 8, 9, or 10	80%
Gave a rating of 5, 6, or 7	18%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	63%
Somewhat credible	24%
Not at all credible	2%
Don't know	11%

New Funding Options	
Agrees they should be sought	72%
Disagrees they should be sought	19%
Neither / Don't know	9%

Information Seen or Heard From Commission	
A great deal	5%
A moderate amount	19%
A little	42%
Nothing	33%
Don't know	1%

Use of social media	
Facebook	70%
Instagram	24%
Twitter	16%
YouTube	9%

RESIDENTS 55 YEARS OLD AND OLDER

Gender	
Male	45%
Female	55%

Age	
Mean age	NA
Percent 18-34	NA
Percent 35-54	NA
Percent 55 or older	NA

Ethnicity	
White	84%
Non-white	12%

Political Leaning	
Liberal	24%
In the middle	30%
Conservative	40%
Don't know	3%

Work Affecting Them	
Gave a rating of 8, 9, or 10	29%
Gave a rating of 5, 6, or 7	36%
Gave a rating below 5	35%

Satisfaction With the Commission	
Satisfied	65%
Dissatisfied	8%
Neither / Don't know	27%

Most Important Wildlife Issues	
1. Wildlife health	15%
2. Overpopulation of deer	14%
3. Habitat loss	11%

Activities	
Went hiking	39%
Went hunting	15%
Went target or sport shooting	22%
Went wildlife viewing	42%
Went birdwatching	30%

Where They Look for Information	
Internet in general	47%
Commission website	10%
Newspapers	12%
Magazines	11%
TV	8%
Hunting regulations booklet	3%

Residence	
Large city or urban area	12%
Suburban area	30%
Small city or town	27%
Rural area	31%

Education Level	
Not a high school graduate	4%
High school graduate or equivalent	32%
Some college or trade school, no degree	16%
Associate's or trade school degree	10%
Bachelor's degree	20%
Master's degree	13%
Professional or doctorate degree (e.g., M.D., Ph.D.)	5%

Familiarity With Commission	
Very familiar	29%
Somewhat familiar	43%
Not at all familiar/don't know	28%

Work Important	
Gave a rating of 8, 9, or 10	80%
Gave a rating of 5, 6, or 7	18%
Gave a rating below 5	2%

Credibility of the Commission	
Very credible	59%
Somewhat credible	29%
Not at all credible	3%
Don't know	9%

New Funding Options	
Agrees they should be sought	72%
Disagrees they should be sought	17%
Neither / Don't know	11%

Information Seen or Heard From Commission	
A great deal	6%
A moderate amount	22%
A little	40%
Nothing	33%
Don't know	1%

Use of social media	
Facebook	48%
Instagram	9%
Twitter	7%
YouTube	4%

17. SOURCES

- Dietsch, A.M.; A.D. Bright; A.W. Don Carlos; M.J. Manfredo; T.L. Teel; J. Bruskotter; and L. Sullivan. 2018. *America's Wildlife Values: Pennsylvania State Report*. Fort Collins, CO: Colorado State University, Department of Human Dimensions of Natural Resources.
- Kellert, S. 1980. *Public Attitudes Toward Critical Wildlife and Natural Habitat Issues: Phase I of the U.S. Fish and Wildlife Service Study*. Washington, D.C.: Government Printing Office
- Manfredo, M.J.; L. Sullivan; A.W. Don Carlos; A.M. Dietsch; T.L. Teel; A.D. Bright; and J. Bruskotter. 2018. *America's Wildlife Values: The Social Context of Wildlife Management in the U.S.* Fort Collins, CO: Colorado State University, Department of Human Dimensions of Natural Resources.
- Responsive Management. 1995. *Factors Related To Hunting and Fishing Participation in the United States: Final Report*. Harrisonburg, VA.
- 2008. *Pennsylvania Residents' Opinions on and Attitudes Toward Black Bears*. Harrisonburg, VA.
- 2011. Unpublished survey data obtained by Responsive Management for the National Shooting Sports Foundation.
- 2012a. *Public Attitudes Toward and Expectations Regarding Management of Wildlife Problems in the Northeast United States*. Harrisonburg, VA.
- 2012b. *Pennsylvania Residents' Opinions on and Attitudes Toward Deer and Deer Management*. Harrisonburg, VA.
- 2013. Unpublished survey data obtained by Responsive Management for the Professional Outdoor Media Association.
- 2014. *Pennsylvania Residents' Opinions on and Attitudes Toward Nongame Wildlife*. Harrisonburg, VA.
- 2015. Unpublished survey data obtained by Responsive Management for the National Shooting Sports Foundation and the Archery Trade Association.
- 2017. Unpublished survey data obtained by Responsive Management in a nationwide survey.
- Responsive Management/National Shooting Sports Foundation. 2008. *The Future of Hunting and the Shooting Sports: Research-Based Recruitment and Retention Strategies*. Produced for the United States Fish and Wildlife Service under Grant Agreement CT-M-6-0. Harrisonburg, VA.
- 2010. *Sport Shooting Participation in the United States in 2009*. Harrisonburg, VA. (From which a data run specifically of Pennsylvania residents was run.)
- 2013. *Sport Shooting Participation in the United States in 2012*. Harrisonburg, VA. (From which a data run specifically of Pennsylvania residents was run.)
- 2015. *Sport Shooting Participation in the United States in 2014*. Harrisonburg, VA. (From which a data run specifically of Pennsylvania residents was run.)
- 2017. *Sport Shooting Participation in the United States in 2016*. Harrisonburg, VA. (From which a data run specifically of Pennsylvania residents was run.)
- Responsive Management/National Shooting Sports Foundation/Southwick Associates. 2011. *Understanding Activities That Compete With Hunting and Target Shooting*. Harrisonburg, VA.
- U.S. Fish and Wildlife Service/U.S. Census Bureau. 1991 through 2011. *National Surveys of Fishing, Hunting, and Wildlife-Associated Recreation*. Washington, D.C.
- U.S. Fish and Wildlife Service. *National Hunting License Data*.
<https://wsfrprograms.fws.gov/subpages/licenseinfo/HuntingLicCertHistory20042015.pdf>

ABOUT RESPONSIVE MANAGEMENT

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

Since 1985, Responsive Management has conducted telephone, mail, and online surveys, as well as multi-modal surveys, on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of research measuring public opinions and attitudes. Utilizing our in-house, full-service survey facilities with 75 professional interviewers, we have conducted studies in all 50 states and 15 countries worldwide totaling more than 1,000 projects.

Responsive Management has conducted research for every state fish and wildlife agency and most of the federal resource agencies, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, the Bureau of Land Management, the U.S. Coast Guard, and the National Marine Fisheries Service.

We have also provided research for many nonprofit and nongovernmental organizations, including the National Wildlife Federation, the National Shooting Sports Foundation, the National Rifle Association, the Archery Trade Association, the Izaak Walton League, the Rocky Mountain Elk Foundation, Ducks Unlimited, SCI, and Dallas Safari Club. Other nonprofit and NGO clients include Trout Unlimited, the Sierra Club, the American Museum of Natural History, the Ocean Conservancy, the National Association of State Boating Law Administrators, and the BoatUS Foundation.

Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Trijicon, Yamaha, and others.

Responsive Management also provides data collection for the nation's top universities, including Auburn University, Clemson University, Colorado State University, Duke University, George Mason University, Michigan State University, Mississippi State University, North Carolina State University, Oregon State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of California-Davis, University of Florida, University of Montana, University of New Hampshire, University of Southern California, Virginia Tech, West Virginia University, and many more.

Our research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. Responsive Management's research has also been featured in many of the nation's top media, including *Newsweek*, *The Wall Street Journal*, *The New York Times*, CNN, and on the front pages of *The Washington Post* and *USA Today*.

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