South Dakota Residents' and Participants' Perceptions of the South Dakota Nest Predator Bounty Program

Photo credit: South Dakota Department of Game, Fish and Parks

Conducted for the South Dakota Department of Game, Fish and Parks

by Responsive Management

2019

RESPONSIVE MANAGEMENT

SOUTH DAKOTA RESIDENTS' AND PARTICIPANTS' PERCEPTIONS OF THE SOUTH DAKOTA NEST PREDATOR BOUNTY PROGRAM

2019

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Acknowledgments

Responsive Management would like to thank Keith Fisk and Nikholai O'Hara of the South Dakota Department of Game, Fish and Parks for their input, support, and guidance on this project.

EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the South Dakota Department of Game, Fish and Parks (GFP) to determine the opinions and attitudes of South Dakota residents toward the Nest Predator Bounty Program (hereinafter, referred to as "the Program"), as well as participants' opinions and attitudes toward the Program. The study entailed scientific multi-modal surveys: a probability-based survey of residents of South Dakota, and a second survey of participants of the Program wherein an attempt was made in the survey effort to contact *every* participant.

One effort of the GFP is to increase participation in trapping among residents of all ages while at the same time reducing localized populations of nest predators as a way to enhance pheasant and duck nest success. The Nest Predator Bounty Program is central to that effort.

The Program paid a $10 bounty for the tail of the following species that prey on pheasant and waterfowl nests: raccoon, striped skunk, badger, opossum, and red fox. The Program, open only to residents of South Dakota, started on April 1, 2019, and had a $500,000 cap after which no more bounties would be paid. The Program reached its cap and ended on August 12, 2019.

The Program's goals are to:

- Enhance duck and pheasant nest success.
- Increase trapping participation, awareness and education.
- Ensure South Dakota's hunting and trapping heritage remains strong for the next 100 years.
- Get the next generation involved and interested in outdoor recreation, conservation, and wildlife management while increasing support for habitat.

This project entailed two separate scientific surveys: a probability-based survey of the adult general population of the state, and a second survey of participants in the Program. This second survey was actually a census (wherein all people are contacted) rather than a sample survey (wherein a sample of the total population is contacted), as the multi-modal approach allowed for an attempt to be made to contact every participant.

For the general population survey (also referred to as the survey of residents), telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among South Dakota residents. The survey of participants in the Program used a multi-modal approach that included three mediums of contact (mail, telephone, and email) and two mediums of survey (telephone and online surveys) to ensure that the broadest possible reach to participants was made. The three modes of contact covered *every person in the database*. Note that the online survey was closed, meaning it was available only to respondents specifically chosen for the survey; people surfing the Internet could not happen upon the survey and take it.

The survey questionnaires were developed cooperatively by the GFP and Responsive Management. Responsive Management conducted pre-tests of the questionnaires to ensure proper wording, flow, and logic in the surveys.

The general population survey was coded using Responsive Management's proprietary computer aided telephone interviewing (CATI) system, which is software used for telephone data collection. Note that the computer only controls which questions are asked; the survey is administered by a live interviewer. The participant survey was coded for online surveying.

The general population survey used a Dual-Frame Random Digit Dial (DFRDD) sample, which consists of both cell phones and landlines. The DFRDD sample was provided by Marketing Systems Group, a leader in providing research-based statistical samples. Note that the overall sample used a probability-based selection process that ensured that each South Dakota resident had an approximately equal chance of being selected for the survey.

The database of participants was obtained from the GFP. The database included participant names, postal mail addresses, and email addresses. All those who were 17 years old or younger were first removed from the database, as the survey was to be of adults only. Telephone numbers were not included in the sample; however, using reverse-lookup software, Responsive Management identified telephone numbers for some of the participants in the database. This allowed three modes of contact—by mail, telephone, and/or email. This produced a final database that included some participants with email addresses, some participants with only telephone numbers (no email addresses), and a small number of participants with only postal mail addresses. Because an attempt was to be made to contact every adult participant in the database, strictly speaking the effort was a *census* of all participants rather than a survey of a sampling of participants.

For the resident survey, telephone interviews were conducted from October 24 to November 15, 2019. Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 8:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. Each telephone number received both daytime and evening calls, if necessary.

In the participant survey, participants without either an email address or a telephone number were mailed a post card that explained the survey and provided them with the web address of the survey (with a unique identifier so that only they could take the survey online) as well as a toll-free telephone number that they could call to take the survey by telephone. Those who chose the telephone method had to give their unique identifier so that the researchers could ensure that only those invited to take the survey could take it and that they could take it only once.

Participants with an email address were contacted by email. The email indicated the purpose of the survey and explained why the respondent was contacted, and the email provided a link to the survey that included a unique identifying code so that only that person to whom the email was sent could take the survey. The initial email was sent on October 25, 2019, and reminder emails were sent on October 31 and November 7, 2019, to those who had not yet taken the survey. If the participant could not be reached by email (e.g., the email bounced or the address was invalid), the participant was put back into the postal mail sample and contacted by post card, as described previously.

For those respondents without an email address but with a telephone number (after the reverse-lookup was conducted to attach numbers to the names given), contact was made by telephone, at

which time the participant was asked to do the survey or was asked to set a call back time that was more convenient to complete the survey. The same telephone calling times as used in the general population survey were used for the telephone portion of the participant survey. Again, multiple contacts were attempted on different times of the day and different days of the week. If the participant could not be reached by telephone (e.g., the number was non-working), the participant was put back into the postal mail sample and contacted by post card, as described previously.

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

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. The results of the general population survey were weighted by demographic characteristics so that the sample was representative of South Dakota residents as a whole. Throughout this report, findings of the telephone survey of the general population are reported at a 95% confidence interval. For the entire sample of South Dakota residents, the sampling error is at most plus or minus 4.79 percentage points.

RESIDENTS' PERCEPTIONS OF THE DEPARTMENT OF GAME, FISH AND PARKS

The initial question in the survey of residents asked about approval or disapproval of the management efforts of the GFP, and the overwhelming majority of South Dakota residents (82%) approve of the GFP's management efforts, while only 5% disapprove.

The survey also explored the effect that the Program had on residents' perceptions of the GFP, once they became aware of the Program. The majority of residents (86%) had no change in their perception of the GFP based on the Program. Otherwise, the percentage whose approval increased (10%) far exceeded the percentage whose approval decreased (4%) because of the Program.

PARTICIPANTS' PERCEPTIONS OF THE DEPARTMENT OF GAME, FISH AND PARKS

The overwhelming majority of participants (87%) approve of the management efforts of the GFP, compared to only 6% who disapprove. Additionally, a majority (60%) say that participation in the Program increased their approval of the Department's management efforts, compared to 32% who say it had no effect on approval and only 4% who say it decreased their approval.

APPROVAL OR DISAPPROVAL OF TRAPPING AMONG RESIDENTS

The large majority of South Dakota residents (78%) approve of legal, regulated trapping, while disapproval stands at 9%.

RESIDENTS' AWARENESS AND KNOWLEDGE OF THE NEST PREDATOR BOUNTY PROGRAM

Despite being prominent in the last gubernatorial election in South Dakota, only 38% of state residents were aware of the Program, prior to the survey. Furthermore, only about a quarter of residents (23%) indicate knowing a great deal or a moderate amount about the Program.

PARTICIPANTS' KNOWLEDGE OF THE NEST PREDATOR BOUNTY PROGRAM

Most participants are knowledgeable about the Nest Predator Bounty Program, with 86% saying they know a great deal or a moderate amount about it (35% say a great deal; 51% say a moderate amount). At the lower end of the scale, 13% say they know a little and 1% say they know nothing at all about the Program.

RESIDENTS' PERCEPTIONS OF AND ATTITUDES TOWARD THE NEST PREDATOR BOUNTY PROGRAM

Among residents who were aware of the Program prior to the survey, the percentage saying that they heard mostly positive things about the Program (43%) far exceeds the percentage saying that they heard mostly negative things about it (12%), and it exceeds the percentage saying that they heard both positive and negative things about equally (37%).

The general population survey explained the Program to respondents, including those who were unaware of the Program prior to the survey, before asking about approval or disapproval of it. The full explanation that was provided in the survey of residents is as follows:

> The South Dakota Nest Predator Bounty Program provides trapping opportunities for state residents while reducing predators that prey on the nests of pheasants and ducks during the nesting season. Program participants receive $10 per eligible predator that is harvested through trapping. Eligible species to trap for this program are raccoon, striped skunk, badger, opossum, and red fox.

With the explanation above being given, the overwhelming majority of South Dakota residents (83%) approve of the Program, while 11% disapprove. Also, strong approval (44%) is higher than moderate approval (39%).

A follow-up question in the general population survey probed reasons for approving of the Program. The two most common reasons for approving of the Program are because the resident supports controlling predator populations (53% of those who approve) and they support protecting pheasant, duck, and other bird nests from predators (51%). Additionally, 8% support the Program mainly because they support increasing trapping participation or mainly because they approve of increasing outdoor recreation in general. In other words, the biological reasons far exceed human recreation reasons.

Reasons for disapproving of the Program include a disapproval of trapping in general (39%), concern about animal welfare (30%), and that they think that bounty programs do not work in general (26%). There is also some who oppose controlling predator populations (12%). Minor reasons, given by only small percentages of 6% or less, include a disapproval of incentivizing wildlife harvest, problems with the way the Program was implemented (lack of public input and

a perceived lack of transparency in the development of the Program), and concern about harvesting predators when they have young offspring.

A series of questions asked about approval or disapproval of the Program among residents after learning certain things about the Program. The results are meant to be looked at together, and they suggest that the two best statements about the Program that encourage approval are that one of the goals of the Program is to enhance pheasant and duck nest success and that another goal is to increase interest and participation in outdoor recreation and conservation among youth. Explaining that trapping has been used as a management technique is less effective at garnering approval, as is that the Program is intended to increase trapping participation.

PARTICIPANTS' PERCEPTIONS OF AND ATTITUDES TOWARD THE NEST PREDATOR BOUNTY PROGRAM

Participants were asked about whether they heard positive or negative things about the Program. A majority (60%) have heard mostly positive things, while most of the remainder (30%) have heard both positive and negative things about equally; just 6% have heard mostly negative things.

Although it was anticipated that most participants would approve of the Program, the question was posed in the participant survey nonetheless. The overwhelming majority of participants (91%) approve of the Program; however, a small percentage (5%) disapprove.

In follow-up, the large majority of participants who approve of the Program were asked to state the main reasons for this, in an open-ended question. The dominant responses are to control predator populations (63% stated this) and to protect birds and/or their nests (52%).

Conversely, those who disapprove of the Program were asked to state their reasons. The top responses are that the Program is not effective (43%), it is a waste of money and resources (41%), the GFP should address habitat instead (30%), and people cheat the Program by using roadkill (20%).

Prior to the next question, participants were read the following statement:

> A primary goal of the Nest Predator Bounty Program is to increase interest and participation in outdoor recreation and conservation in South Dakota among all ages, including youth. Program participants received $10 per eligible predator that was harvested through trapping during the nesting season up to a total of $500,000 paid. When that total was met, the program was closed for the season.

The participant survey then asked what participants thought about the acceptability of the use of funds for the Program. The overwhelming majority of participants (83%) agree that "the Nest Predator Bounty Program is an acceptable use of the budgeted $500,000 funds"; meanwhile, 9% disagree.

The overwhelming majority of participants (90%) are satisfied with the Program, including 69% who are *very* satisfied. Only 5% are dissatisfied (the remainder giving a neutral or "don't know" response).

The top responses for not being *very* satisfied with the Program are that the Program is a waste of money and resources, that respondents want the Program but with changes, that the Program is ineffective, that they had a bad experience with the Program, that they did not get the free traps with the Program, and that people cheat with roadkill.

One question asked for participants' perceptions regarding the effect the Program had on pheasant and duck populations: 70% agree that the Program enhanced those populations. (Obviously, this is just a perception among participants; only a biological study could determine the Program's effect on pheasant and duck populations. Nonetheless, this anecdotal evidence may be an indication of the effect of the Program.)

PROGRAM'S EFFECTIVENESS AT RECRUITING NEW TRAPPERS AND INCREASING TRAPPING PARTICIPATION

Most survey respondents in the participant survey had trapped prior to their participation in the Program; nonetheless, 17% of adult participants are new to trapping, having been prompted by the Program. The survey, however, could not completely evaluate the effect of the Program on trapping recruitment because children were not surveyed (for logistical reasons). Therefore, the database was analyzed with this in mind. Of the 3,042 unique people in the database, 291 were under the age of 18, and it is likely that a higher proportion of those excluded participants were new to trapping than among the adults who were surveyed. Therefore, *at minimum* (i.e., using the same proportion as the adults in the survey), 50 of these young trappers were new to trapping and were prompted by the Program to participate, but the actual percentage is likely higher than that.

The next question looks at whether the trapper, prompted by the Program, increased participation in trapping in 2019. The data suggest that 71% of them showed an increase in trapping participation. Otherwise, for nearly all of the remainder, their participation was about the same (25%); only 3% indicated a decrease in trapping participation in 2019.

Another way to help assess the effectiveness of the Program is to examine whom the trapper took with him or her to go trapping. Just under half of Program participants (47%) took somebody with them to go trapping. About half of these respondents (49%) took a son, and 21% took a daughter. While the survey did not ascertain if these were adult sons and daughters or whether they were children, it is likely that some of these were children. In fact, if sons, daughters, grandchildren, nieces, nephews, and children of friends and neighbors are considered, 71% of those who took someone trapping took one of these people from a younger generation. Assuredly, some of those were children—in other words were being recruited into trapping. A crosstabulation shows that 14% of Program participants are younger than 40 years old *and* took a son, daughter, nephew, niece, or friend's child trapping—so those of the younger generation being taken were likely to be children if the participant himself/herself was younger than 40 years old.

The next question looked at how much of a motivation the Program is for trapping participation. The majority of Program participants (81%) agreed that the Program is an important reason that they participated in trapping in 2019. This far exceeds the percentage who disagree (9%).

Half of participants (50%) joined the Program to control predator populations, while a third (34%) did so for the bounty and a third (33%) did so to protect pheasant and duck populations.

The last analysis looks at three questions about the perceived effects of the Program. Three statements were read to Program participants, and they were asked if they agreed or disagreed with each statement. The majority of Program participants (64%) agree that the Program increased their participation in outdoor activities in general, a large majority (69%) agree that the Program increased youth interest in outdoor recreation in South Dakota, and a large majority (82%) agree that the Program increased trapping participation in the state.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the South Dakota Department of Game, Fish and Parks (GFP) to determine the opinions and attitudes of South Dakota residents toward the Nest Predator Bounty Program (hereinafter, referred to as "the Program"), as well as participants' opinions and attitudes toward the Program. The study entailed scientific multi-modal surveys: a probability-based survey of residents of South Dakota, and a second survey of participants of the Program wherein an attempt was made in the survey effort to contact *every* participant. Specific aspects of the research methodology are discussed below.

BACKGROUND OF THE NEST PREDATOR BOUNTY PROGRAM

One effort of the GFP is to increase participation in trapping among residents of all ages while at the same time reducing localized populations of nest predators as a way to enhance pheasant and duck nest success. The Nest Predator Bounty Program is central to that effort.

The Program paid a $10 bounty for the tail of the following species that prey on pheasant and waterfowl nests: raccoon, striped skunk, badger, opossum, and red fox. The Program, open only to residents of South Dakota, started on April 1, 2019, and had a $500,000 cap after which no more bounties would be paid. The Program reached its cap and ended on August 12, 2019.

The Program was initiated by Governor Kristi Noem as a way to encourage people and families to enjoy the outdoors, to sustain South Dakota's outdoor trapping heritage, and to get the next generation involved in consumptive use of wildlife resources. Specifically, the Program's goals are to:

- Enhance duck and pheasant nest success.
- Increase trapping participation, awareness, and education.
- Ensure South Dakota's hunting and trapping heritage remains strong for the next 100 years.
- Get the next generation involved and interested in outdoor recreation, conservation, and wildlife management while increasing support for habitat.

Although no license was required, participants were required to comply with South Dakota's trapping and hunting rules and regulations. In addition, the following rules were specific to the Program:

- All animals submitted for the Program had to have been trapped in South Dakota.
- Roadkill animals were not eligible.
- Animals had to have been trapped by the Program participant within the Program timeframe, which was April 1 to August 12, 2019.
- Upon tail submission, participants were required to sign a legal affidavit indicating that the tails were obtained during the time period outlined above and that they came from an animal that they had trapped. Participants under the age of 18 needed their parent/legal guardian to sign a legal affidavit on their behalf.

USE OF MULTI-MODAL SURVEYING METHODS

This project entailed two separate scientific surveys: a probability-based survey of the adult general population of the state, and a second survey of participants in the Program. This second survey was actually a census (wherein all people are contacted) rather than a sample survey (wherein a sample of the total population is contacted), as the multi-modal approach allowed for an attempt to be made to contact every participant.

For the general population survey (also referred to as the survey of residents), telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among South Dakota residents. Note that telephone surveys have better representation of general population samples than do surveys that are read by the respondent (i.e., mail and Internet surveys) because the latter systematically exclude those who are not literate enough to complete the surveys or who may be intimidated by having to complete a written survey—by an estimate of the U.S. Department of Education's National Institute of Literacy (2016), up to 43% of the general population read no higher than a "basic level," suggesting that some may be reticent to complete a survey that they have to read to themselves.

The survey of participants in the Program used a multi-modal approach that included three mediums of contact (mail, telephone, and email) and two mediums of survey (telephone and online surveys) to ensure that the broadest possible reach to participants was made. The three modes of contact covered *every person in the database*, as every person had either an email or a postal mail address (and a reverse-lookup was conducted to find telephone numbers, as well; a reverse-lookup is a process that takes names and emails and attaches telephone numbers to them—although it does not have a 100% match rate). Note that the online survey was closed, meaning it was available only to respondents specifically chosen for the survey; people surfing the Internet could not happen upon the survey and take it. More details about the sample and contact procedures are detailed further on in this section of the report.

QUESTIONNAIRE DESIGN

The survey questionnaires were developed cooperatively by the GFP and Responsive Management, based on the research team's familiarity with trapping as well as wildlife-associated recreation and natural resources in general. Responsive Management conducted pre-tests of the questionnaires to ensure proper wording, flow, and logic in the surveys.

The general population survey was coded using Responsive Management's proprietary computer aided telephone interviewing (CATI) system, which is software used for telephone data collection. Note that the computer only controls which questions are asked; the survey is administered by a live interviewer. The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that the CATI system branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

The participant survey was coded for online surveying. Those participants taking the survey online would simply complete the survey online. For participants who were surveyed by

telephone, the interviewer used a modified version of the online survey with wording specific to telephone surveying and entered the responses as the survey was being conducted.

GENERAL POPULATION SURVEY SAMPLE

The general population survey used a Dual-Frame Random Digit Dial (DFRDD) sample (considered the gold standard in telephone survey research), which consists of both cell phones and landlines. In this DFRDD sample, 60% were cell phones, and 40% were landlines, which closely matches the distribution in South Dakota. The overall sample was representative of the adult general population of South Dakota who have access to either a cellular telephone or a landline (a screener question ensured that only residents 18 years old or older were surveyed). The DFRDD sample was provided by Marketing Systems Group, a leader in providing research-based statistical samples. Note that the overall sample used a probability-based selection process that ensured that each South Dakota resident had an approximately equal chance of being selected for the survey.

DATABASE OF PARTICIPANTS

The database of participants was obtained from the GFP. The database included participant names, postal mail addresses, and email addresses. All those who were 17 years old or younger were first removed from the database, as the survey was to be of adults only. Telephone numbers were not included in the sample; however, using reverse-lookup software, Responsive Management identified telephone numbers for some of the participants in the database. This allowed three modes of contact—by mail, telephone, and/or email. This produced a final database that included some participants with email addresses, some participants with only telephone numbers (no email addresses), and a small number of participants with only postal mail addresses. Because an attempt was to be made to contact every adult participant in the database, strictly speaking the effort was a *census* of all participants rather than a survey of a sampling of participants.

CONTACT PROCEDURES

For the resident survey, telephone interviews were conducted from October 24 to November 15, 2019. Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 8:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. As many as seven attempts were made to contact each landline telephone number, and as many as five attempts were made to contact each cell phone number. Calls were made at different times of the day and on different days of the week to maximize the chance of contacting potential respondents. Each telephone number received both daytime and evening calls, if necessary. If the resident could not do the survey at the time he or she was contacted, the interviewer attempted to set a date and time for a call back that was more convenient to the resident.

In the participant survey, participants without either an email address or a telephone number were mailed a post card that explained the survey and provided them with the web address of the survey (with a unique identifier so that only they could take the survey online) as well as a toll-free telephone number that they could call to take the survey by telephone. Those who chose the telephone method had to give their unique identifier so that the researchers could ensure that only those invited to take the survey could take it and that they could take it only once. A copy of the post card is shown in Figures 1 and 2.

Figure 1. Sample Post Card Sent to Participants—Front

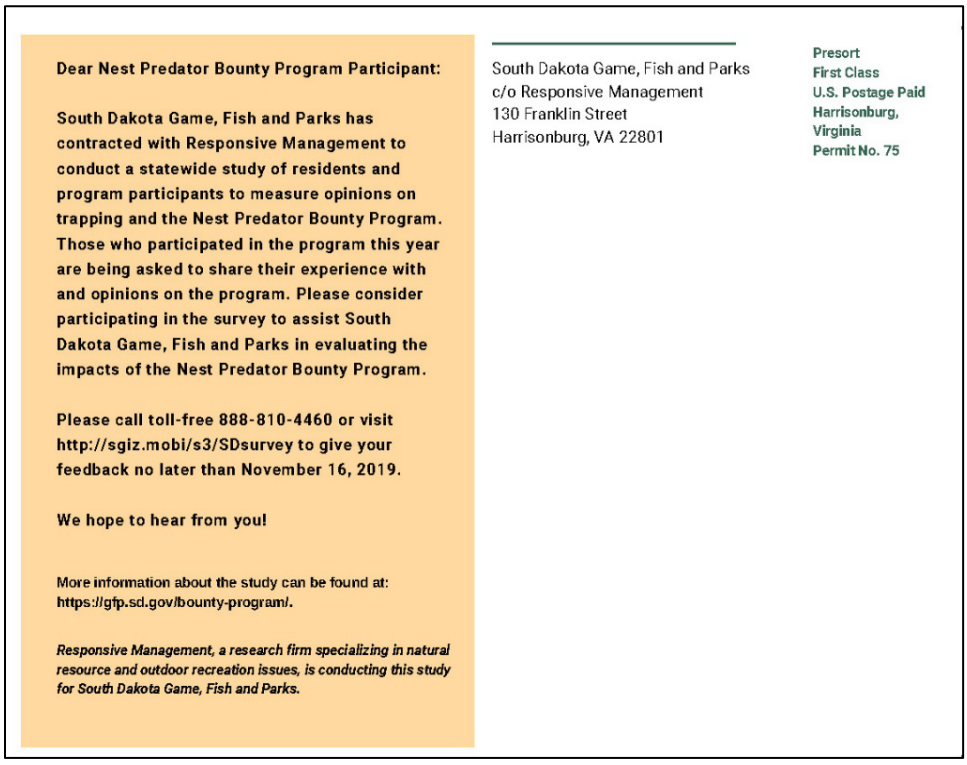
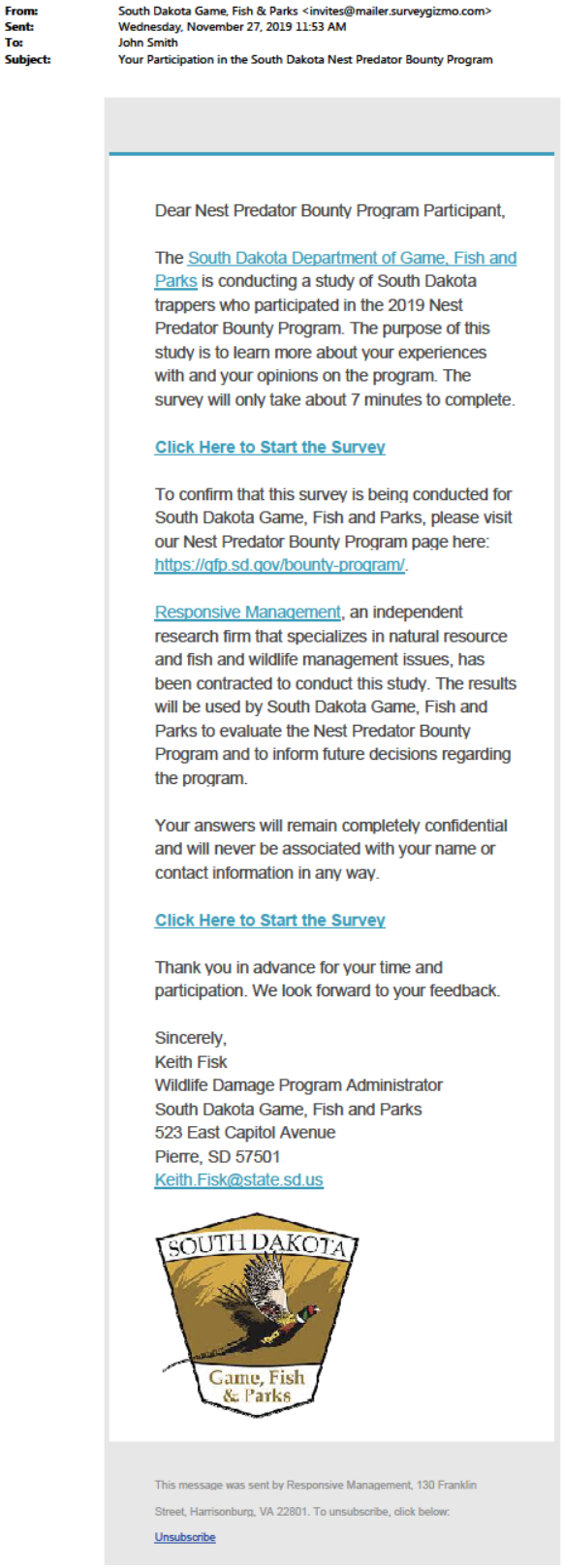


Figure 2. Sample Post Card Sent to Participants—Back



From: South Dakota Game, Fish & Parks <invites@mailer.surveygizmo.com>
Sent: Wednesday, November 27, 2019 11:53 AM
To: John Smith
Subject: Your Participation in the South Dakota Nest Predator Bounty Program

Dear Nest Predator Bounty Program Participant,

The South Dakota Department of Game, Fish and Parks is conducting a study of South Dakota trappers who participated in the 2019 Nest Predator Bounty Program. The purpose of this study is to learn more about your experiences with and your opinions on the program. The survey will only take about 7 minutes to complete.

Click Here to Start the Survey

To confirm that this survey is being conducted for South Dakota Game, Fish and Parks, please visit our Nest Predator Bounty Program page here: https://gfp.sd.gov/bounty-program/.

Responsive Management, an independent research firm that specializes in natural resource and fish and wildlife management issues, has been contracted to conduct this study. The results will be used by South Dakota Game, Fish and Parks to evaluate the Nest Predator Bounty Program and to inform future decisions regarding the program.

Your answers will remain completely confidential and will never be associated with your name or contact information in any way.

Click Here to Start the Survey

Thank you in advance for your time and participation. We look forward to your feedback.

Sincerely,
Keith Fisk
Wildlife Damage Program Administrator
South Dakota Game, Fish and Parks
523 East Capitol Avenue
Pierre, SD 57501
Keith.Fisk@state.sd.us

This message was sent by Responsive Management, 130 Franklin Street, Harrisonburg, VA 22801. To unsubscribe, click below:
Unsubscribe

Figure 3. Sample Email Sent to Participants

Participants with an email address were contacted by email. The email indicated the purpose of the survey and explained why the respondent was contacted, and the email provided a link to the survey that included a unique identifying code so that only that person to whom the email was sent could take the survey. The initial email was sent on October 25, 2019, and reminder emails were sent on October 31 and November 7, 2019, to those who had not yet taken the survey. A copy of the email is shown in Figure 3. After sending the initial email, the researchers examined all rejected or bounced emails and attempted to correct obvious errors. If the participant could not be reached by email, the participant was put back into the postal mail sample and contacted by post card, as described previously.

For those respondents without an email address but with a telephone number (after the reverse-lookup was conducted to attach numbers to the names given), contact was made by telephone, at which time the participant was asked to do the survey or was asked to set a call back time that was more convenient to complete the survey. The same telephone calling times as used in the general population survey were used for the telephone portion of the participant survey. Again, multiple contacts were attempted at different times of the day and on different days of the week.

Program participants who were found to have working telephone numbers but did not respond to calls were attempted to be contacted at least five times. Researchers reviewed a list of telephone numbers that were initially recorded as disconnected, fax numbers, or wrong numbers, and

conducted an Internet search of each name and number to try to find an alternative method of contact. Several program participants were finally reached and participated in the survey as a result of this additional step. If the participant could not be reached by telephone (e.g., the number was non-working), the participant was put back into the postal mail sample and contacted by post card, as described previously.

After an attempt to contact every participant was made by at least one of the three modes of contact, all remaining participants who had not taken the survey were again mailed a post card that explained the survey and provided them with the web address of the survey (with a unique identifier so that only they could take the survey online) as well as a toll-free telephone number that they could call to take the survey by telephone. Those who chose the telephone method had to give their unique identifier so that the researchers could ensure that only those invited to take the survey could take it and that they could take it only once.

The final disposition of the participants in the database is detailed in Table 1.

Table 1. Survey Effort for Participant Database

Total participants in the database	3,042
Participants 17 years old or younger who were not surveyed/removed from sample	291
Final sample for all methods (i.e., population for survey)	2,751
EMAIL	
Total number in database with email addresses	1,892
Number of invalid email contacts put back into mail contact sample	91
Final sample contacted by email	1,801
TELEPHONE	
Total number in database without an email but with a telephone number (after the reverse-lookup)	728
Invalid telephone numbers (disconnected numbers or incorrect contact information)	211
Number of participants who refused to respond to telephone survey	158
Number of completed surveys among the telephone sample	**338**
MAIL	
First mailing to all participants with only a mailing address	131
Second mailing to all participants who had not responded to prior email, telephone, or mail contact attempts	1,933
Number of completed surveys by mail or email	**939**
Total completed surveys	**1,277**

TELEPHONE INTERVIEWING AND DATA MANAGEMENT FACILITIES

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

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a project briefing with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

SURVEY DATA COLLECTION AND QUALITY CONTROL

As indicated above, a CATI system was used for the telephone data collection. The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that the CATI system branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

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

For the online survey, professional staff checked each survey to ensure completeness and consistency in data collection. Only surveys that were substantially complete were kept in the data. Online questionnaires that were not substantially complete were discarded from the data.

DATA ANALYSIS

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. The telephone survey data were imported directly into SPSS; the online data used the vendor's data export tool to transfer the data from the online survey software to SPSS for analysis.

The results of the general population survey were weighted by demographic characteristics so that the sample was representative of South Dakota residents as a whole. This weighting balanced sample demographics to population parameters, an adjustment that is called calibration. The demographic characteristics considered were gender and age. The demographic weighting parameters came from the U.S. Census Bureau's 2017 American Community Survey (ACS) data. The weighting was performed using the IBM SPSS RAKE extension module.

In analyzing the open-ended responses, Responsive Management analysts read through all the open-ended comments and assigned them into response categories so that the results could be quantified and displayed in "Multiple Responses Allowed" graphs. In the participant survey,

over 3,500 comments were categorized. (In contrast, the general population survey had only 48 open-ended comments.)

SAMPLING ERROR

Throughout this report, findings of the telephone survey of the general population are reported at a 95% confidence interval. For the entire sample of South Dakota residents, the sampling error is at most plus or minus 4.79 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 4.79 percentage points of each other. Sampling error for the general population sample was calculated using the formula described in Figure 4, with the sample size and population size as shown in Table 2. (Because a census was attempted of the participant database, sampling error does not apply.)

$$B = \left(\sqrt{\frac{\frac{N_p(.25)}{N_s} - .25}{N_p - 1}} \right) (1.96)$$

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

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

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

Figure 4. Sampling Error Equation

Table 2. Sampling Error

Survey	Sample size	Population size	Sampling error
General population	418	644,483	4.79

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

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

- Open-ended questions are those in which no answer set is read to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Single or multiple response questions: Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as a great deal, a moderate amount, a little, or nothing at all.
- Series questions: Some questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of

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

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

Also, it is important to note that, although the participant survey consisted of 1,277 respondents, the sample size on questions is typically less than 1,277 because some respondents did not answer every question online.

Special graphs are included in this report that show the demographic characteristics that are associated with certain responses, referred to as "demographic analysis graphs." They show the percentages of various groups who hold a certain opinion compared to residents overall who hold the given opinion. A detailed explanation of how to interpret them is included where the first of these graphs is located in the report (page 11).

RESIDENTS' PERCEPTIONS OF THE DEPARTMENT OF GAME, FISH AND PARKS

The initial question in the survey of residents asked about approval or disapproval of the management efforts of the GFP, and the overwhelming majority of South Dakota residents (82%) approve of the GFP's management efforts, while only 5% disapprove (Figure 5).

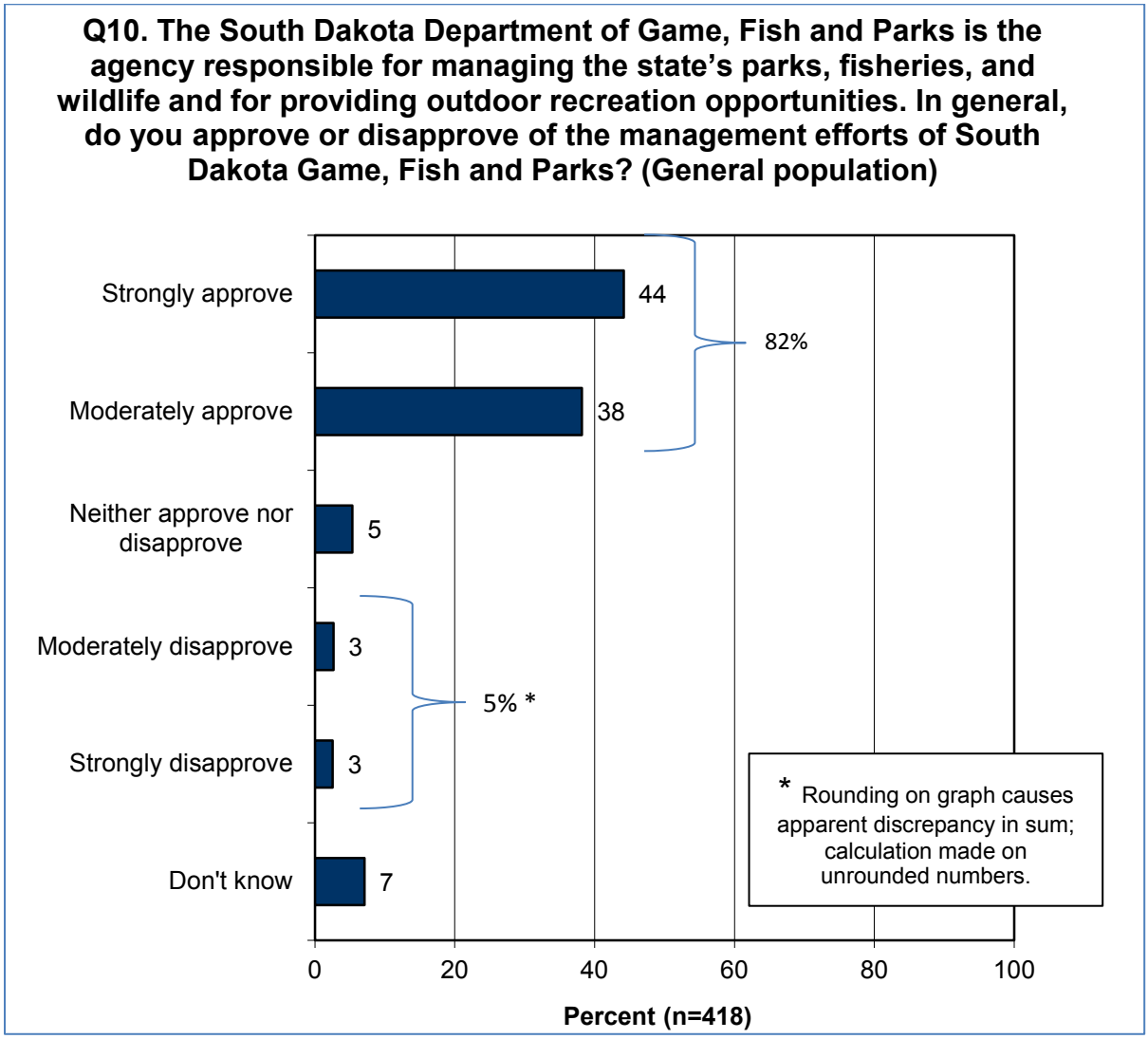


Figure 5. Residents' Approval/Disapproval of the GFP's Management Efforts

A demographic analysis graph is included showing the characteristics of residents who approve (Figure 6). In this graph, the rate of approval overall is shown by the patterned bar (in all of these demographic analysis graphs, the overall rate is shown by the patterned bar). All groups above the overall bar have a greater rate of approval of the management efforts, while all groups below the overall bar have a lower rate of approval of the management efforts.

Specifically, on this question, 82% of residents overall approve of the GFP's management efforts. Males have a much higher percentage who approve (89%) compared to residents overall, while females have a lower percentage (76%) compared to residents overall. Typically, when one group is above the overall bar, its counterpart (in this case, females) is below the overall bar. More detail is included in the text box that is overlaid on the graph.

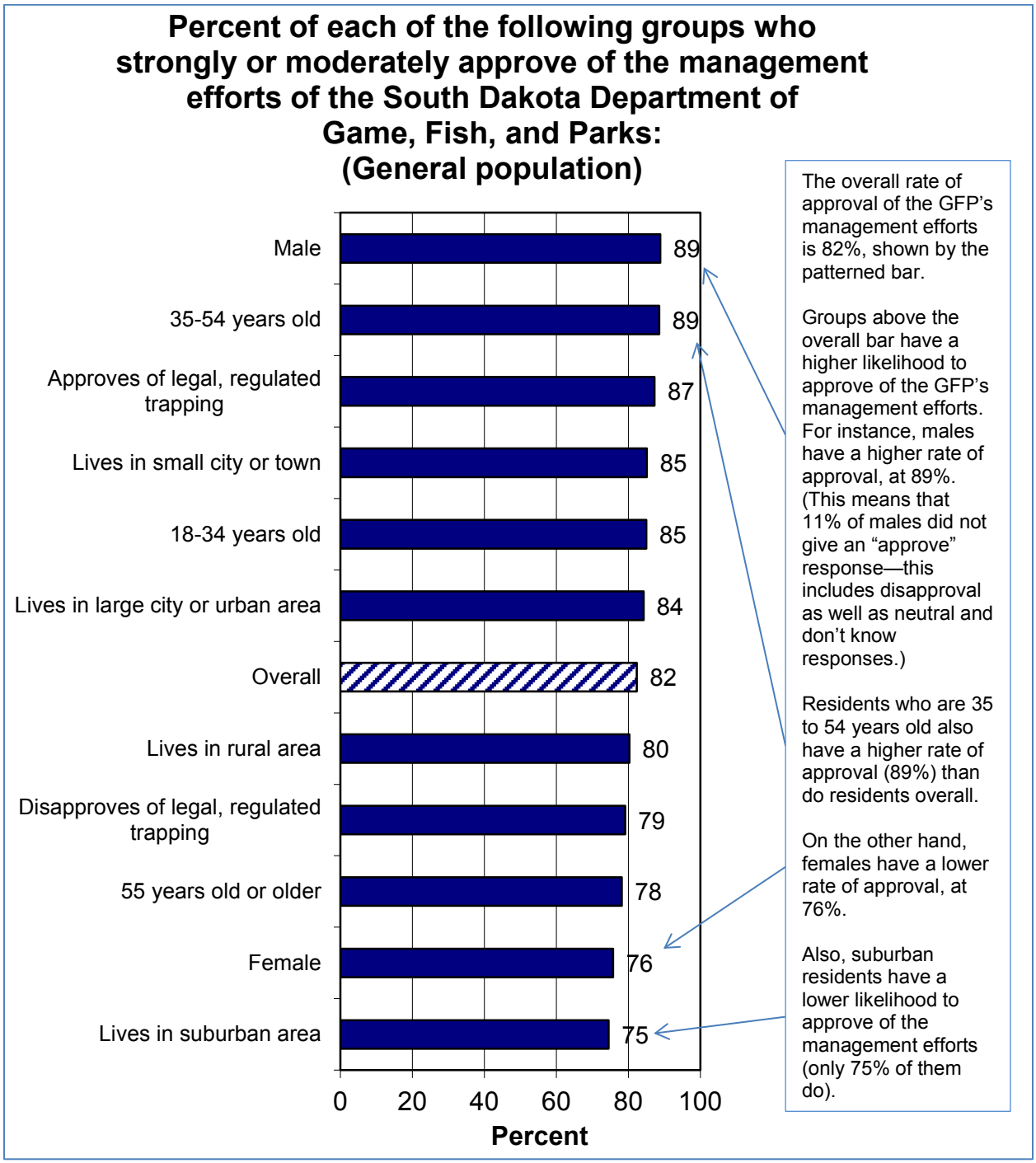


Figure 6. Characteristics of Residents Who Approve of the GFP's Management Efforts

Figure 6 (on the previous page) showed that males, middle-aged people, and those who live in a small city or town are associated with high approval ratings of the GFP's management efforts. Approval is also higher among those who approve of trapping in general. These are results from the survey of the general population. (It is important to note that the converse of "approval" in this graph does not consist solely of disapproval but also includes neutral and "don't know" responses. In other words, saying that 76% of females approve does *not* mean that 24% of them disapprove; rather, 24% of them either disapprove, gave a neutral response, or responded with "don't know." In fact, as the next graph shows, only 5% of females disapprove.)

The other side among the general population is presented in Figure 7, showing the characteristics of those who disapprove of the GFP's management efforts. At the top are those who disapprove of legal, regulated trapping in general (14% of these people disapprove of the GFP's management efforts—a much higher rate than any other group). Also with high disapproval of the GFP's management efforts are older residents.

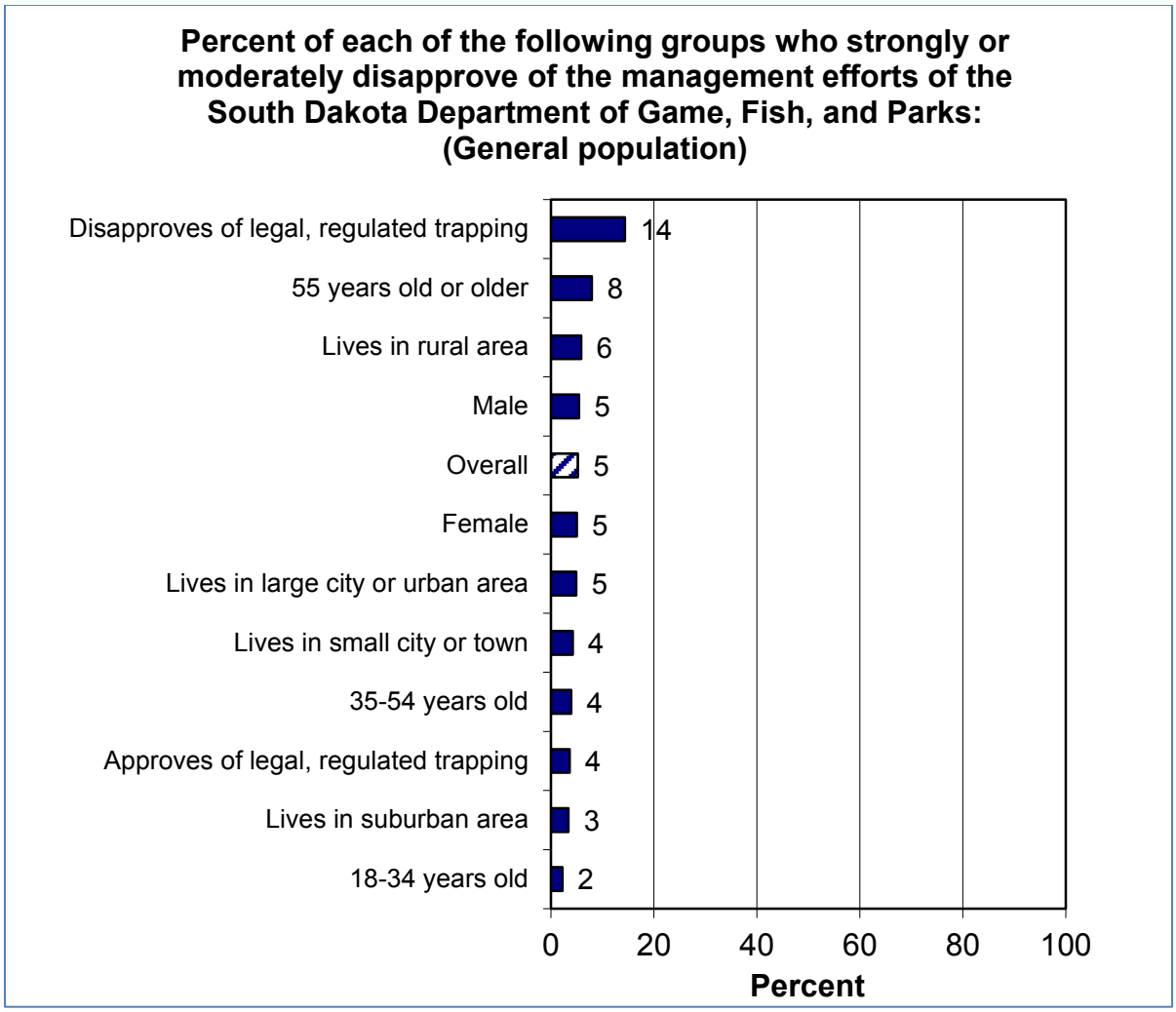


Figure 7. Characteristics of Residents Who Disapprove of the GFP's Management Efforts
A full explanation of how to interpret these types of graphs is presented on page 11.

The survey also explored the effect that the Program had on residents' perceptions of the GFP, once they became aware of the Program. The question was asked of those who were aware, prior to the survey, of the Program, but the results are shown among all residents. Figure 8 shows that the majority of residents (86%) had no change in their perception of the GFP based on the Program (consisting of 24% who were aware of the Program but had no change in opinion and 62% who indicated that they were not aware of the Program—or who did not know if they were aware—and, therefore, had no change of opinion based on the Program). Otherwise, the percentage whose approval increased (10%) far exceeded the percentage whose approval decreased (4%) because of the Program.

Q15. You initially said that you [APPROVAL LEVEL] of the management efforts of South Dakota Game, Fish and Parks. Thinking about your opinion of the Department prior to your awareness of the Nest Predator Bounty Program, how has your opinion of the Department's efforts changed, if at all, since becoming aware of the program? Would you say that the program has increased or decreased your overall approval of South Dakota Game, Fish and Parks' management efforts, or has it had no effect at all on your opinion? (Asked of those who were aware of the program prior to the survey; results shown among all respondents.) (General population)

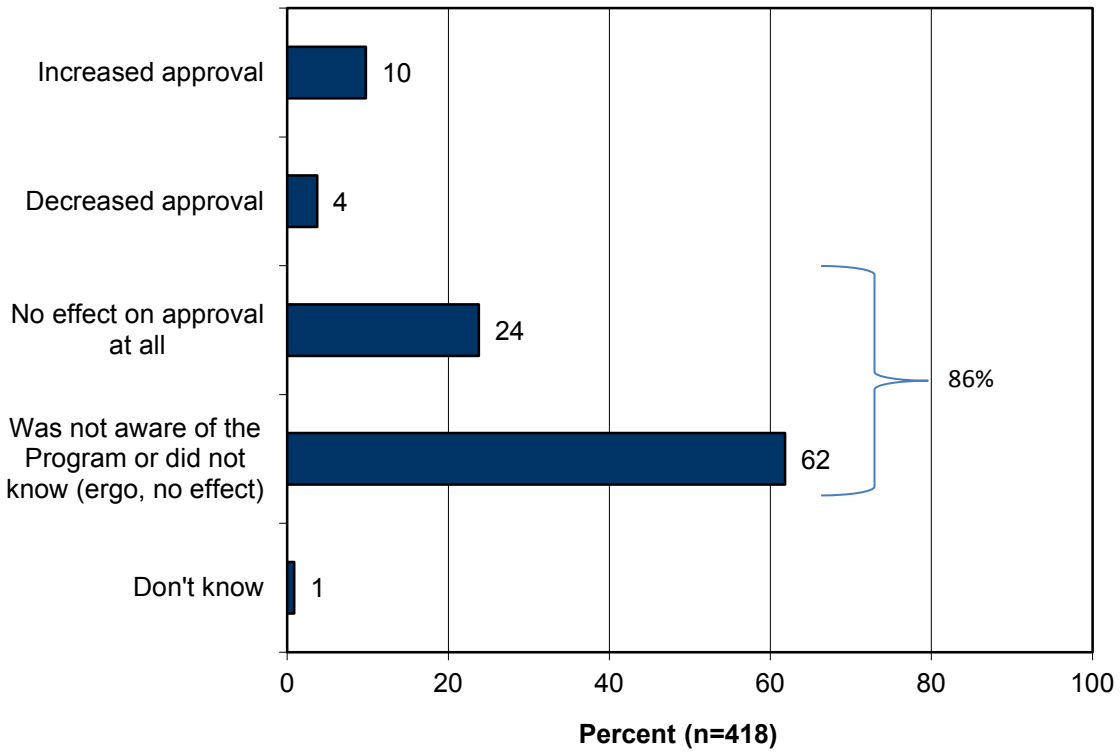


Figure 8. Effect That the Program Had on Residents' Approval/Disapproval of the GFP's Management Efforts

PARTICIPANTS' PERCEPTIONS OF THE DEPARTMENT OF GAME, FISH AND PARKS

The overwhelming majority of participants (87%) approve of the management efforts of the GFP, compared to only 6% who disapprove (Figure 9). Additionally, a majority (60%) say that participation in the Program increased their approval of the Department's management efforts, compared to 32% who say it had no effect on approval and only 4% who say it decreased their approval (Figure 10).

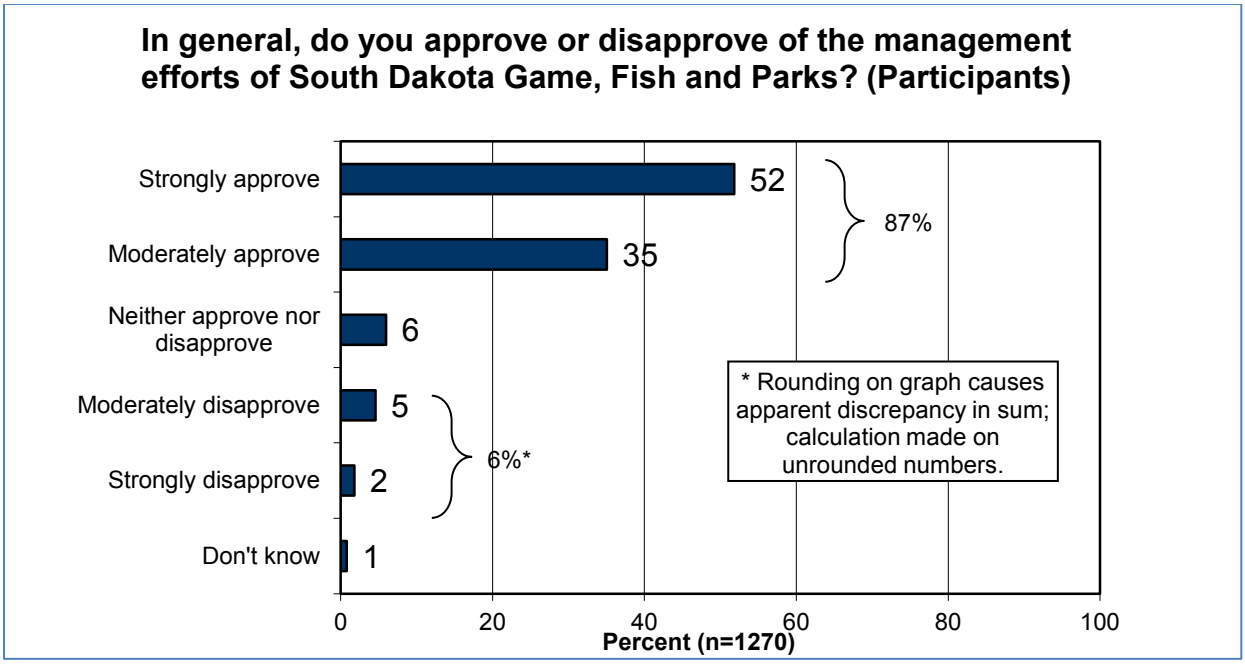


Figure 9. Participants' Approval/Disapproval of the GFP's Management Efforts

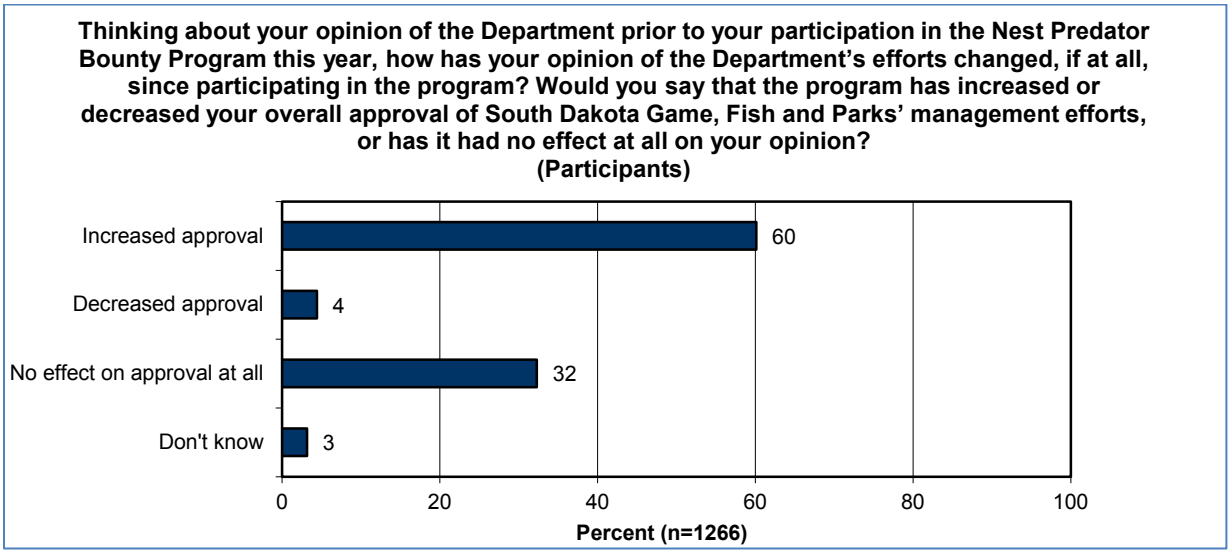


Figure 10. Effect That the Program Had on Participants' Approval/Disapproval of the GFP's Management Efforts

APPROVAL OR DISAPPROVAL OF TRAPPING AMONG RESIDENTS

The large majority of South Dakota residents (78%) approve of legal, regulated trapping, while disapproval stands at 9% (Figure 11). Note that overall disapproval is about evenly divided between strong and moderate disapproval, but overall approval is much higher in the strong side (46% strongly approve) than in the moderate side (33% moderately approve).

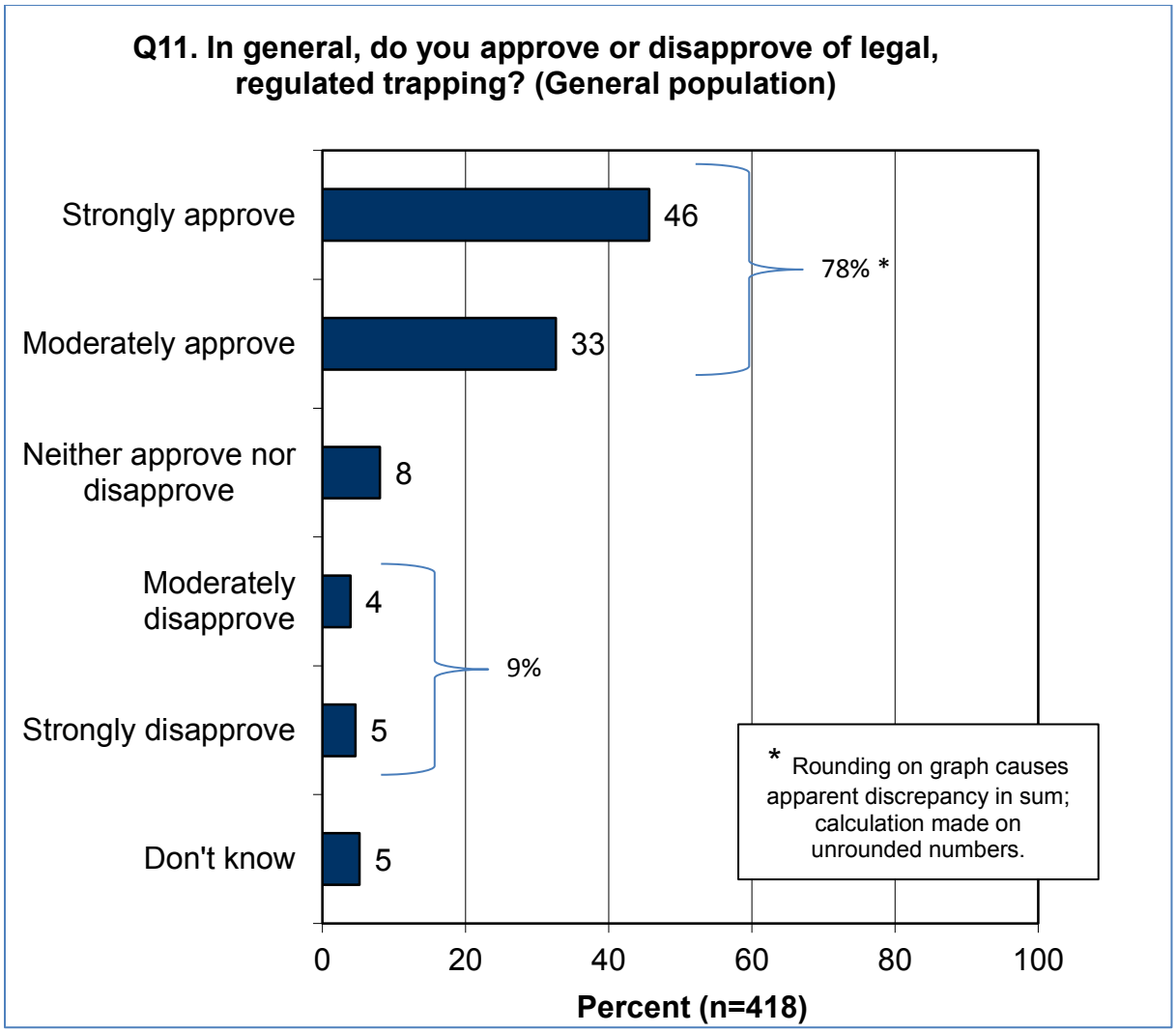


Figure 11. Residents' Approval/Disapproval of Trapping in General

A demographic analysis graph shows that the characteristics associated with approval of trapping in general include living in a rural area, being male, and living in a suburban area (Figure 12).

Figure 13 shows the other side of the coin—the percentages of those who disapprove of trapping in general. The top association is with disapproving of the management efforts of the GFP, as well as the demographic characteristics of living in a small city or town, being female, and being 55 years old or older.

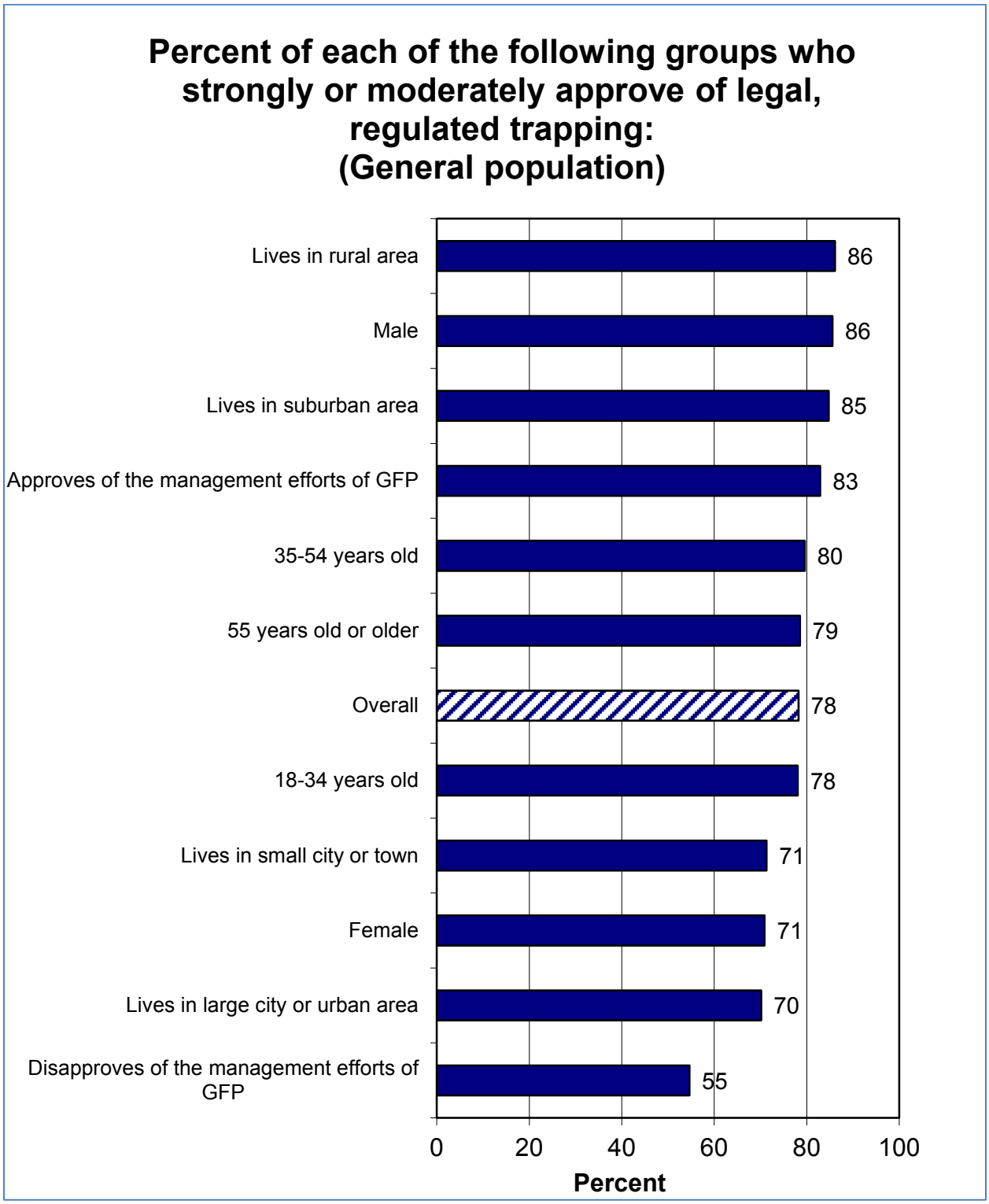


Figure 12. Characteristics of Residents Who Approve of Trapping
A full explanation of how to interpret these types of graphs is presented on page 11.

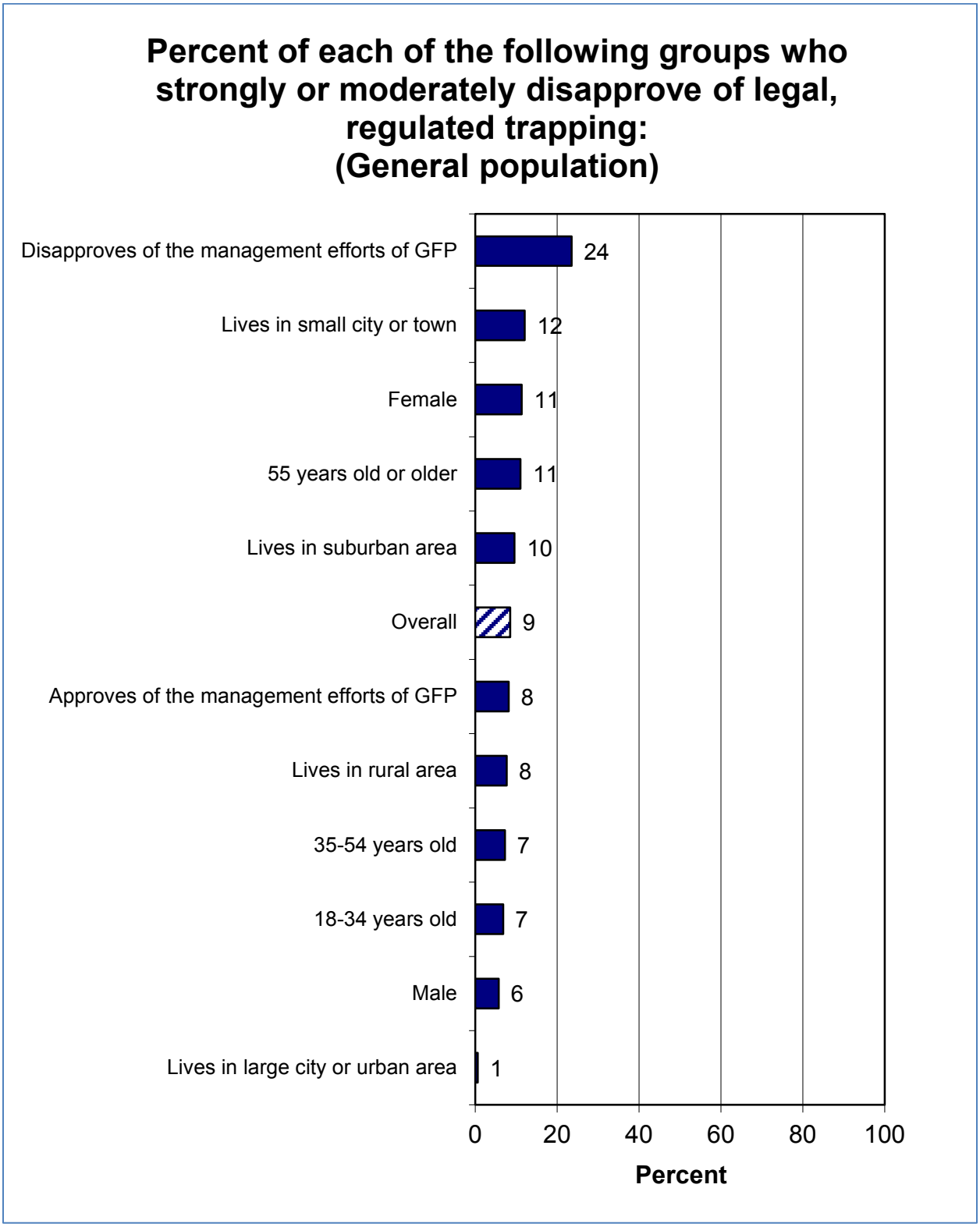


Figure 13. Characteristics of Residents Who Disapprove of Trapping
A full explanation of how to interpret these types of graphs is presented on page 11.

RESIDENTS' AWARENESS AND KNOWLEDGE OF THE NEST PREDATOR BOUNTY PROGRAM

Despite being prominent in the last gubernatorial election in South Dakota, only 38% of state residents were aware of the Program, prior to the survey (Figure 14). Furthermore, only about a quarter of residents (23%) indicate knowing a great deal or a moderate amount about the Program (Figure 15).

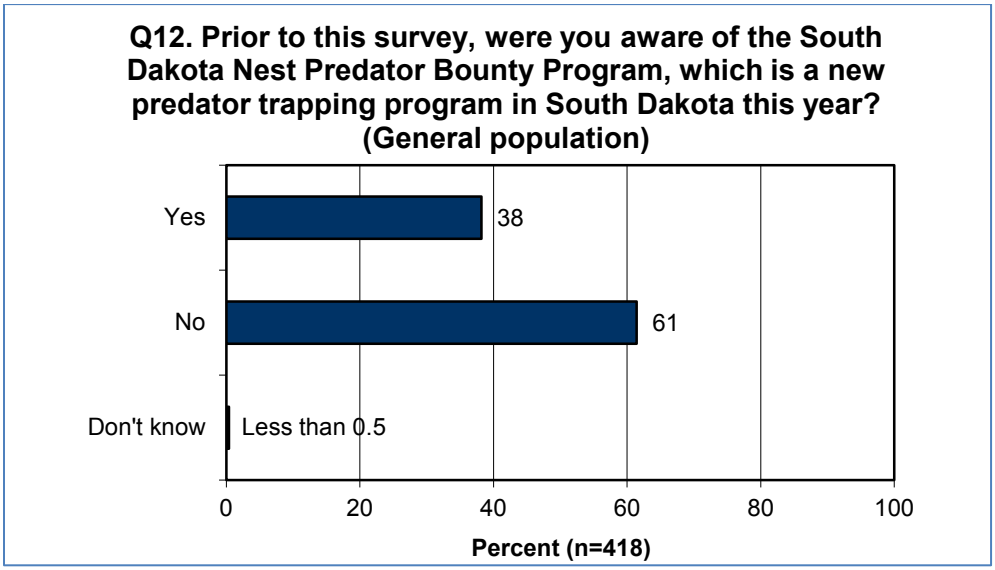


Figure 14. Residents' Awareness of the Program

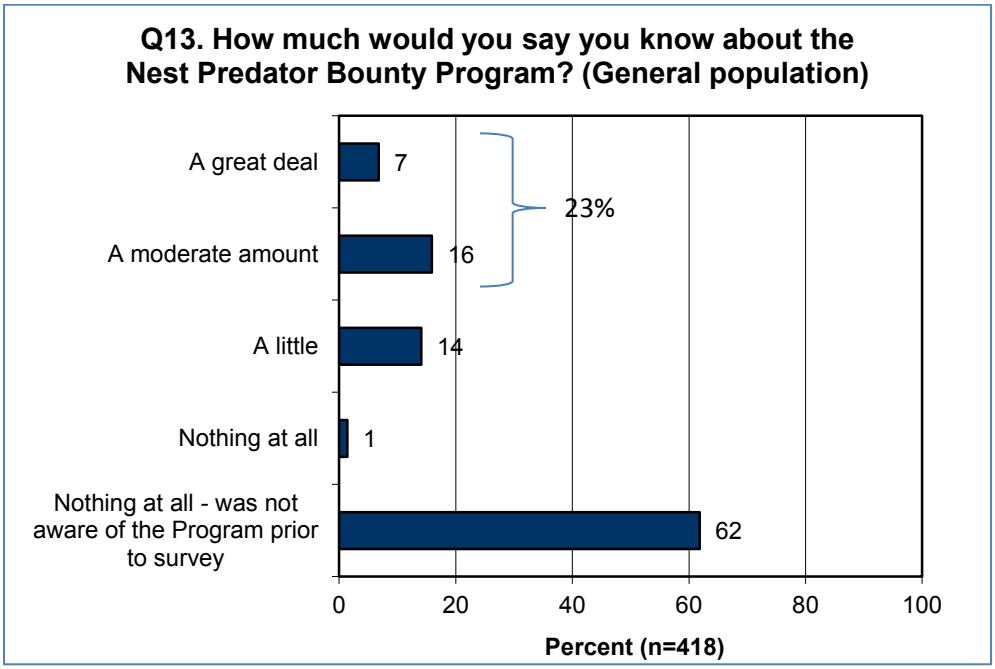


Figure 15. Residents' Knowledge of the Program

Among residents, the characteristics associated with being aware of the Program include disapproving of the GFP's management efforts—62% of these people were aware of the Program prior to the survey (Figure 16). Other characteristics include being male, living in a rural area, being in the young age group (18 to 34 years old), and approving of legal, regulated trapping. Note that the characteristics are not meant to represent a single person; rather, each characteristic is examined on its own. This is why both disapproving of the management efforts of the GFP and approving of trapping are associated with being aware of the Program. In that case, these are two different groups with little overlap.

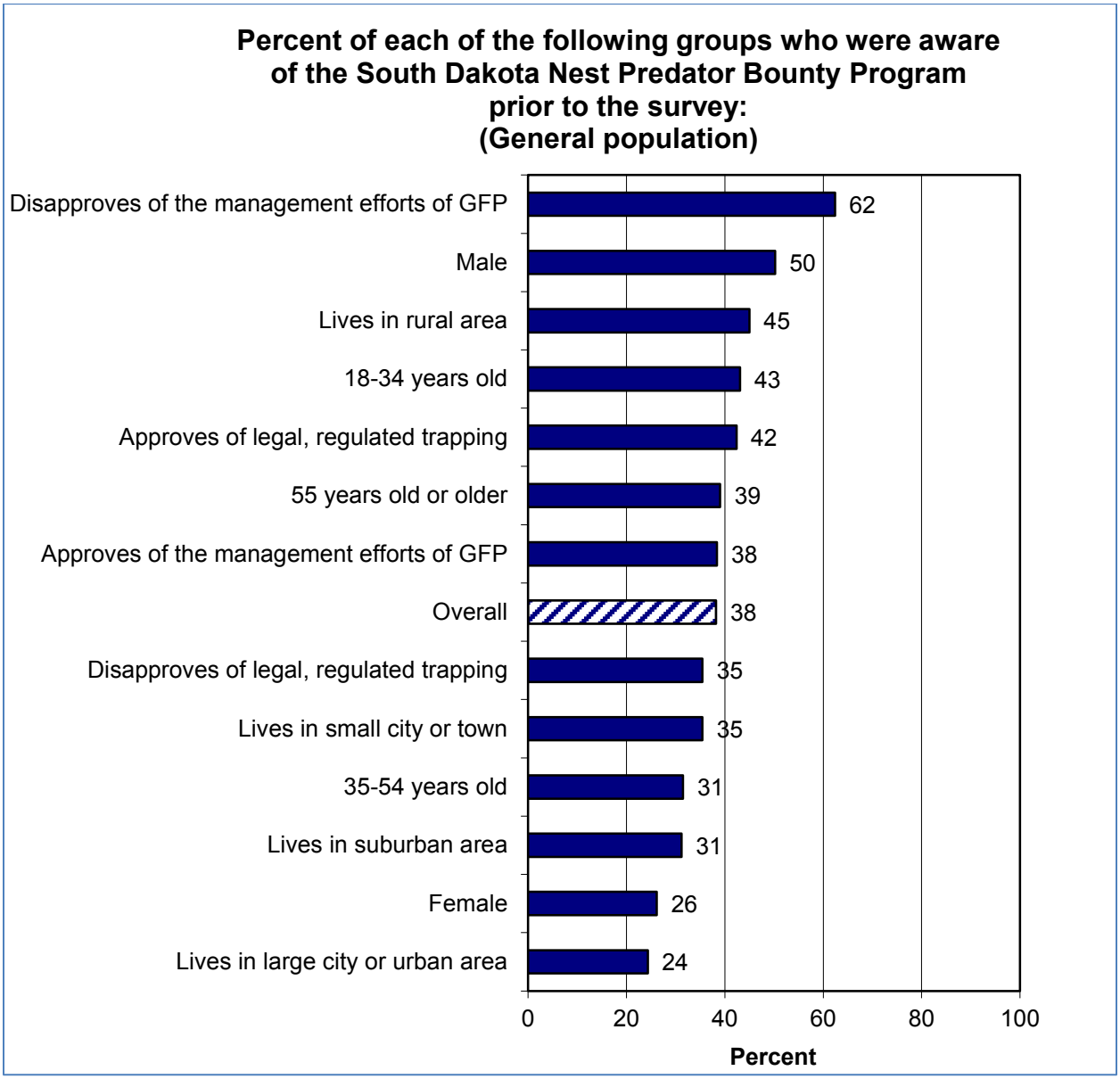


Figure 16. Characteristics of Residents Who Were Aware of the Program Prior to the Survey

A full explanation of how to interpret these types of graphs is presented on page 11.

PARTICIPANTS' KNOWLEDGE OF THE NEST PREDATOR BOUNTY PROGRAM

Figure 17 shows that most participants are knowledgeable about the Nest Predator Bounty Program, with 86% saying they know *a great deal* or *a moderate amount* about it (35% say *a great deal*; 51% say *a moderate amount*). At the lower end of the scale, 13% say they know *a little* and 1% say they know *nothing at all* about the Program.

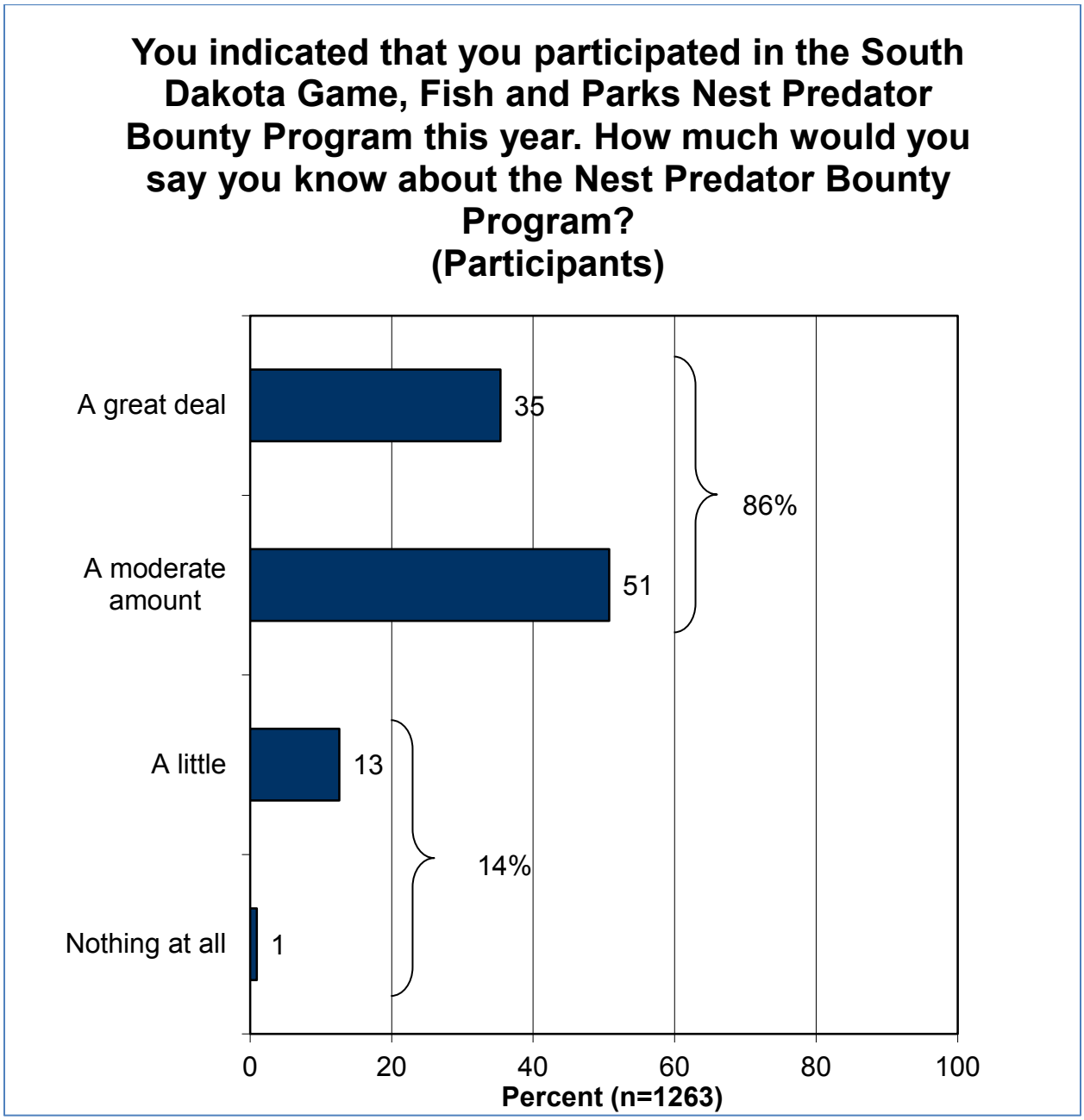


Figure 17. Participants' Knowledge of the Program

RESIDENTS' PERCEPTIONS OF AND ATTITUDES TOWARD THE NEST PREDATOR BOUNTY PROGRAM

As shown in Figure 18, among residents who were aware of the Program prior to the survey, the percentage saying that they heard mostly positive things about the Program (43%) far exceeds the percentage saying that they heard mostly negative things about it (12%), and it exceeds the percentage saying that they heard both positive and negative things about equally (37%).

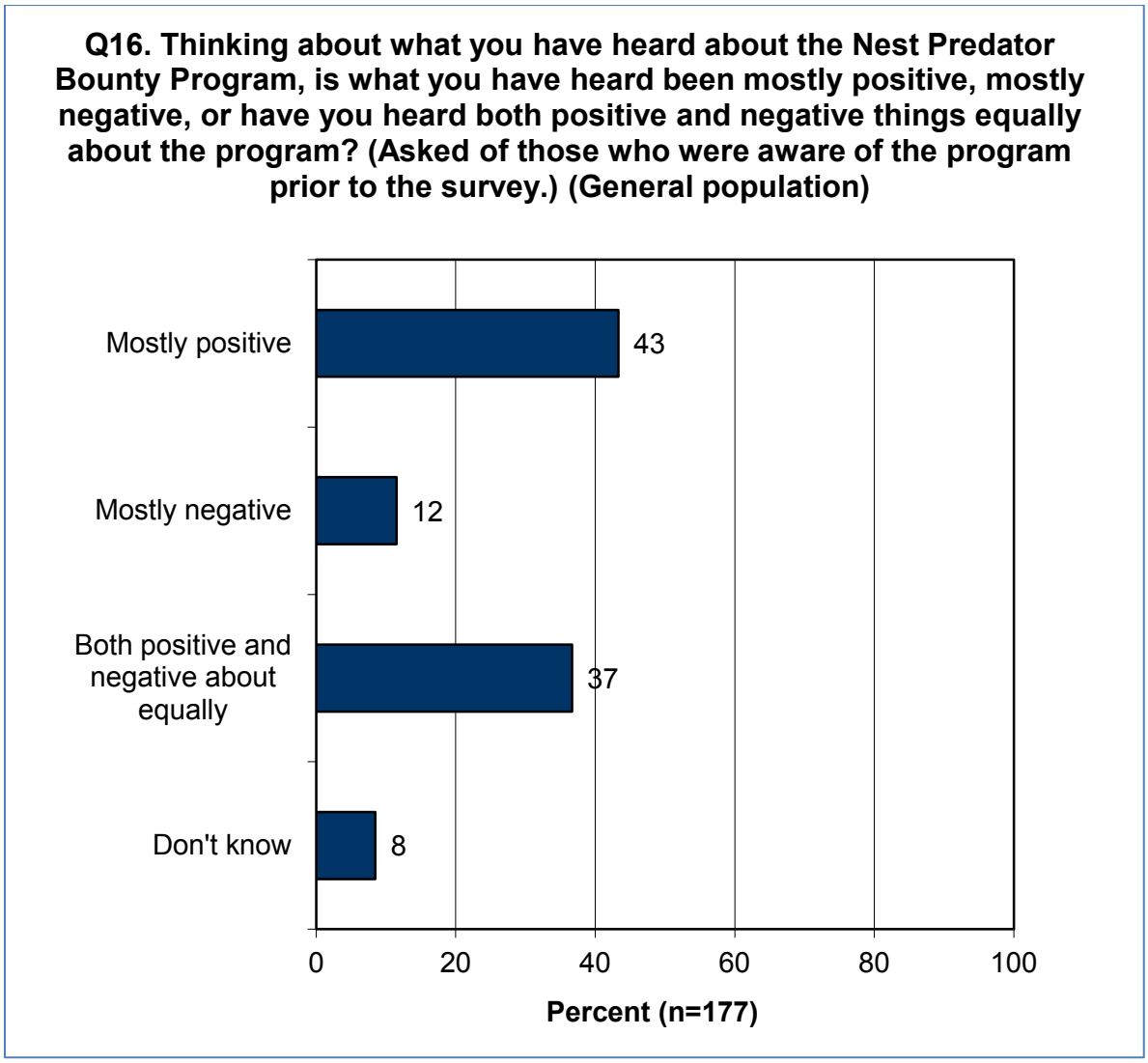


Figure 18. Hearing Positive or Negative Things About the Program, Among Residents

The general population survey explained the Program to respondents, including those who were unaware of the Program prior to the survey, before asking about approval or disapproval of it. The full explanation that was provided in the survey of residents is as follows:

> The South Dakota Nest Predator Bounty Program provides trapping opportunities for state residents while reducing predators that prey on the nests of pheasants and ducks during the nesting season. Program participants receive $10 per eligible predator that is

harvested through trapping. Eligible species to trap for this program are raccoon, striped skunk, badger, opossum, and red fox.

With the explanation above being given, the overwhelming majority of South Dakota residents (83%) approve of the Program, while 11% disapprove (Figure 19). Also, strong approval (44%) is higher than moderate approval (39%).

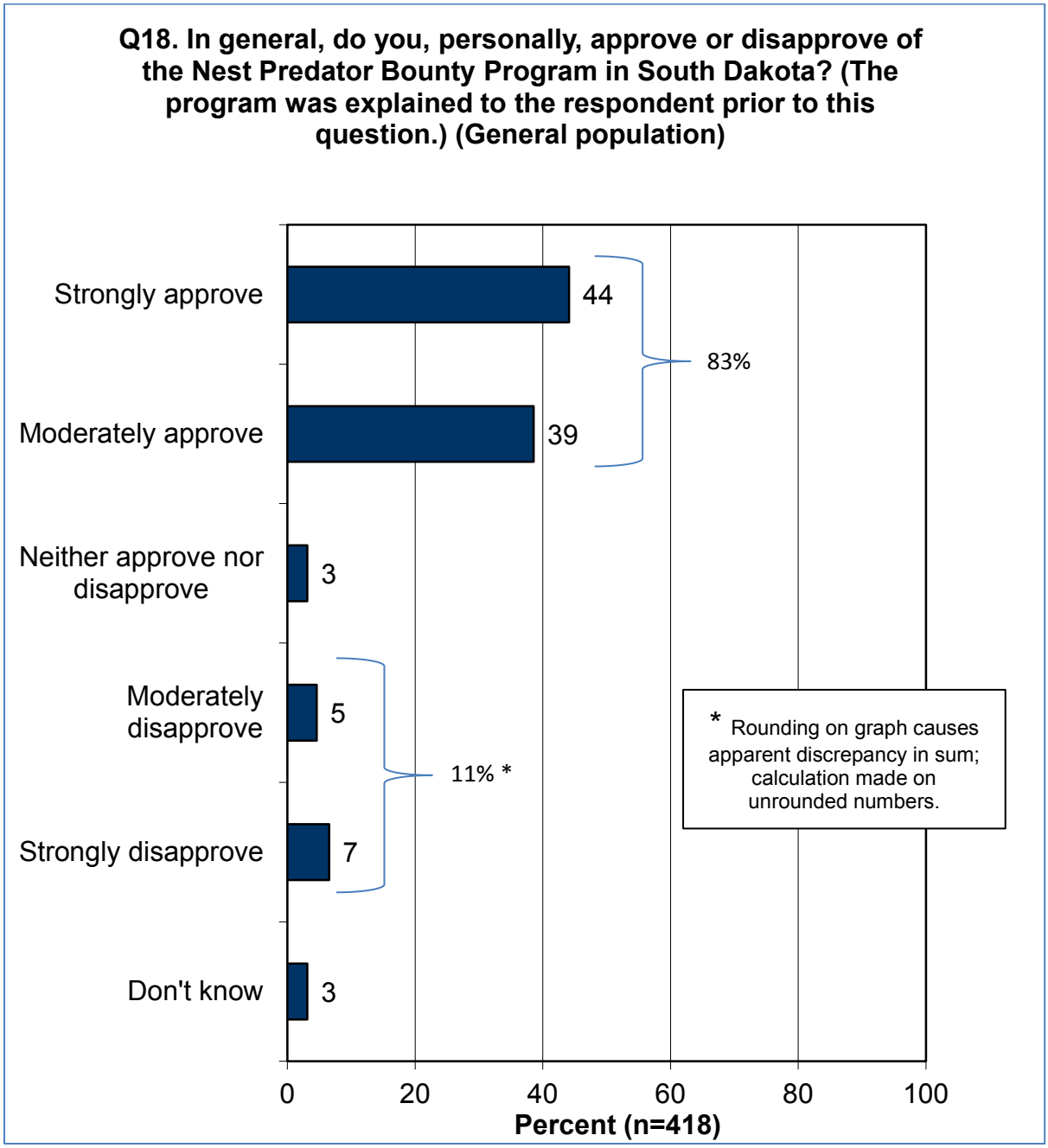


Figure 19. Residents' Approval or Disapproval of the Program

Figure 20 is a demographic analysis graph showing the characteristics associated with approving of the Program. The groups with high rates of post-explanation approval are suburban residents, younger residents (18 to 34 years old), and large city/urban area residents. The opinions associated with approval of the Program are approving of legal, regulated trapping and approval of the management efforts of the GFP.

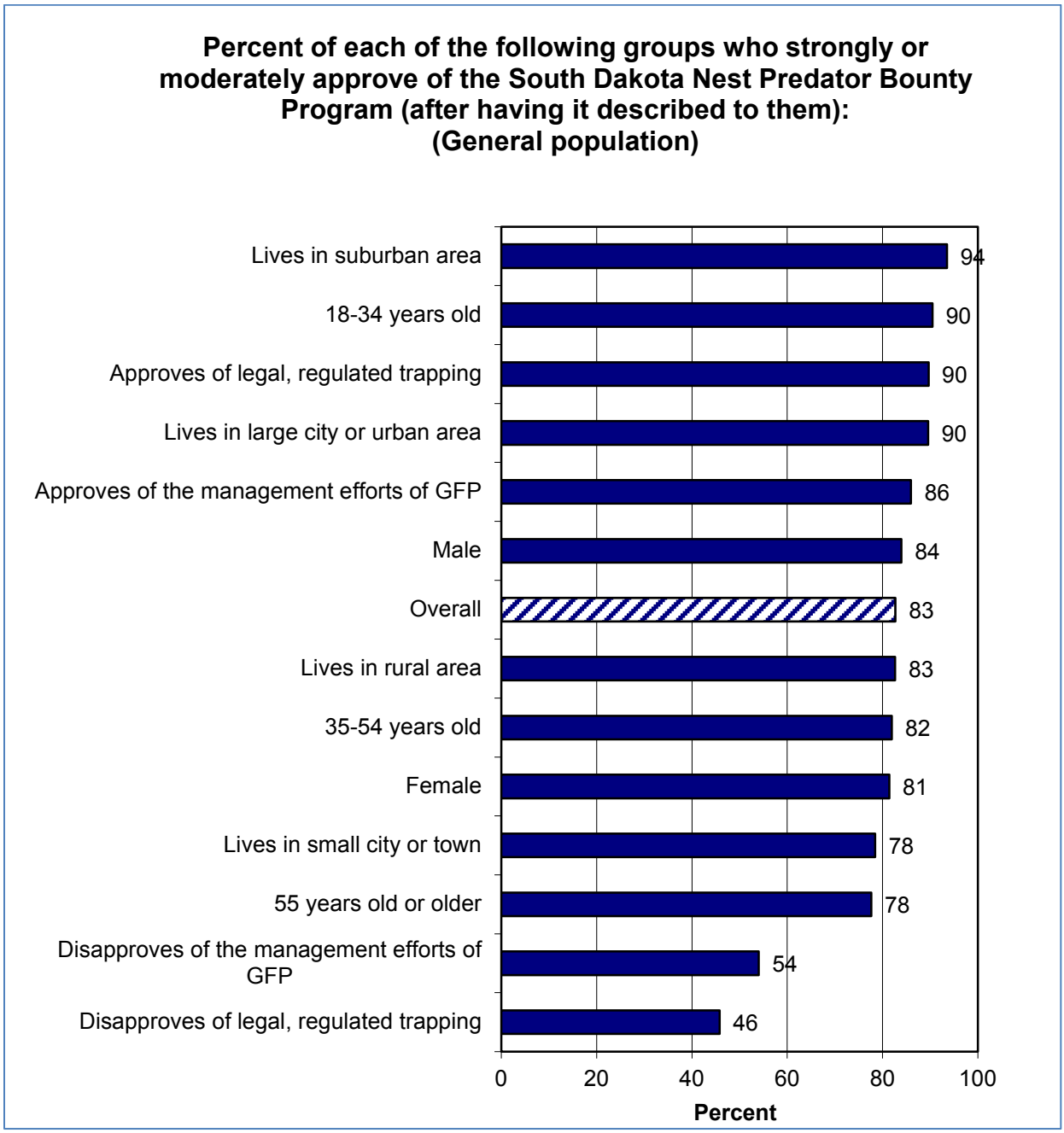


Figure 20. Characteristics of Residents Who Approve of the Program
A full explanation of how to interpret these types of graphs is presented on page 11.

Conversely, disapproval of the Program is associated, not surprisingly, with disapproval of trapping in general and disapproval of the management efforts of the GFP (Figure 21). The

demographic characteristics include living in a small city or town, being 55 years old or older, and being female.

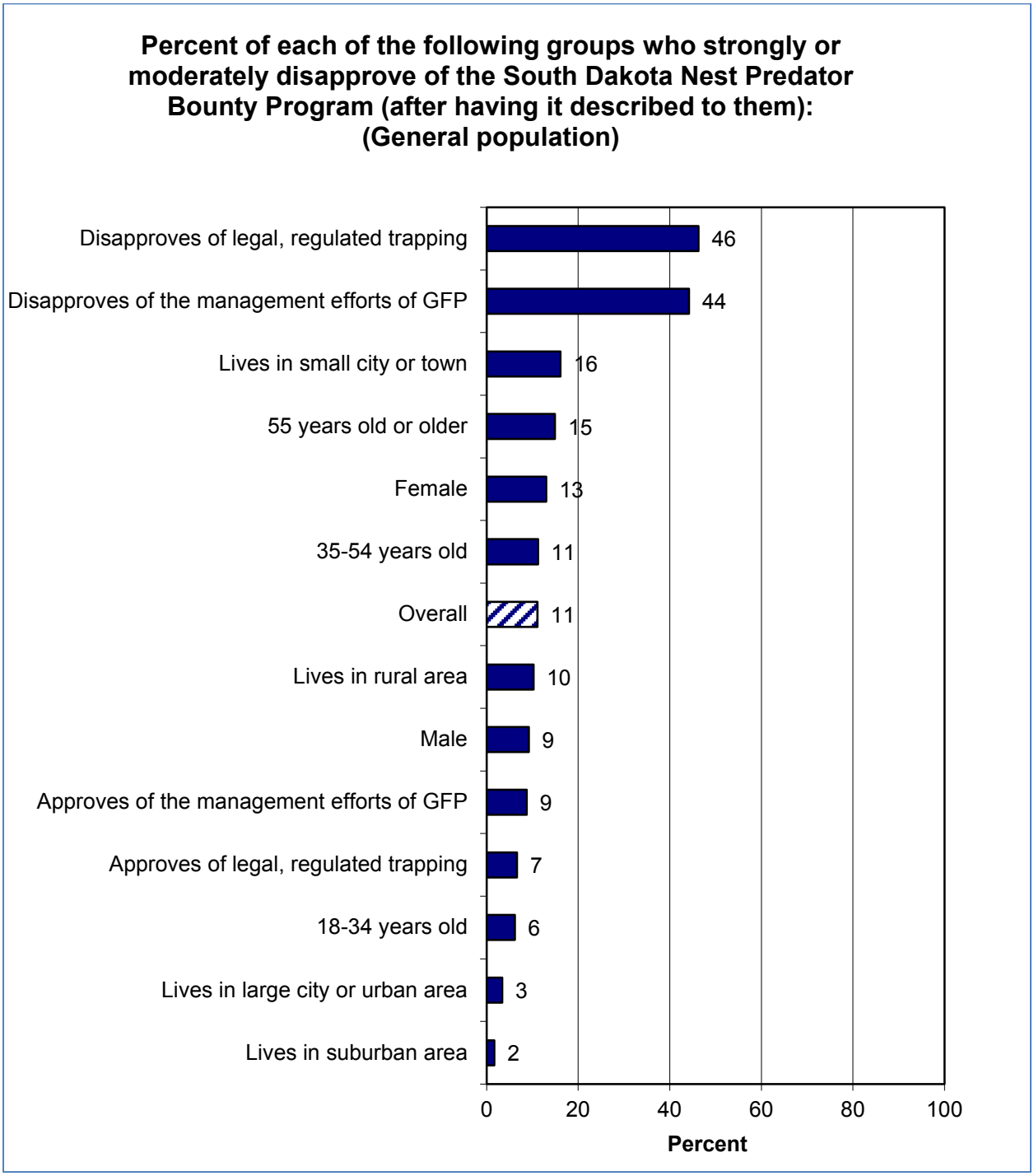


Figure 21. Characteristics of Residents Who Disapprove of the Program
A full explanation of how to interpret these types of graphs is presented on page 11.

A follow-up question in the general population survey probed reasons for approving of the Program (Figure 22). The two most common reasons for approving of the Program are because the resident supports controlling predator populations (53% of those who approve) and they support protecting pheasant, duck, and other bird nests from predators (51%). Additionally, 8% support the Program mainly because they support increasing trapping participation or mainly because they approve of increasing outdoor recreation in general. In other words, the biological reasons far exceed human recreation reasons.

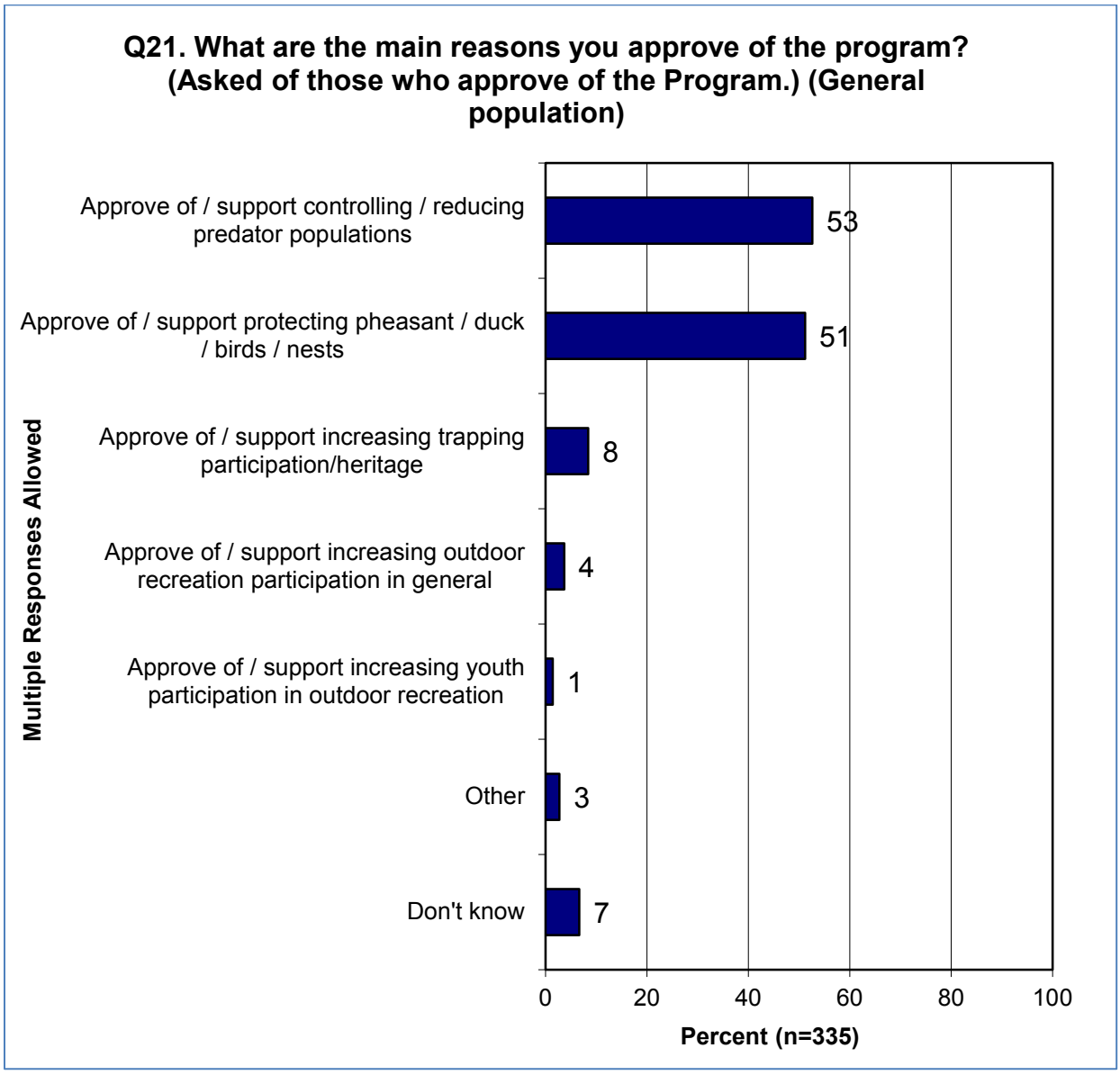


Figure 22. Residents' Reasons for Approving of the Program

Reasons for disapproving of the Program, shown in Figure 23, include a disapproval of trapping in general (39%), concern about animal welfare (30%), and that they think that bounty programs do not work in general (26%). There are also some who oppose controlling predator populations (12%). Minor reasons, given by only small percentages of 6% or less, include a

disapproval of incentivizing wildlife harvest, problems with the way the Program was implemented (lack of public input and a perceived lack of transparency in the development of the Program), and concern about harvesting predators when they have young offspring.

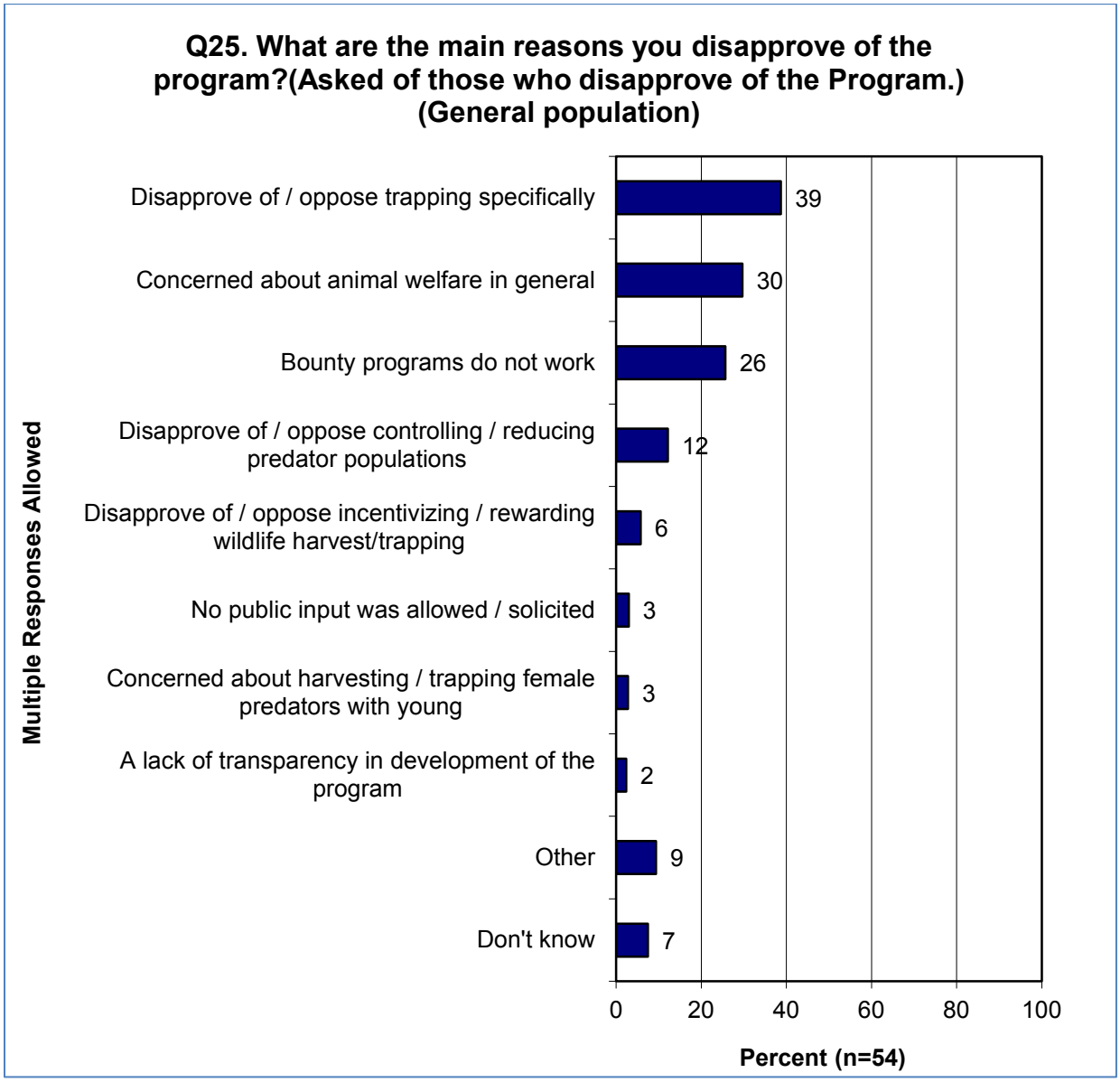


Figure 23. Residents' Reasons for Disapproving of the Program

A series of questions asked about approval or disapproval of the Program among residents after learning certain things about the Program. (Note that the order of the questions was randomized to eliminate order bias, which is the effect one question has on subsequent questions. In this series of questions, the respondent will hear more facts as he or she goes through the series, and the cumulative gathering of facts could affect approval or disapproval. For this reason, the question order was randomized.) The results are meant to be looked at together, and they suggest that the two best statements about the Program that encourage approval are that one of the goals of the Program is to enhance pheasant and duck nest success and that another goal is to increase

interest and participation in outdoor recreation and conservation among youth (Figure 24). Explaining that trapping has been used as a management technique is less effective at garnering approval, as is that the Program is intended to increase trapping participation.

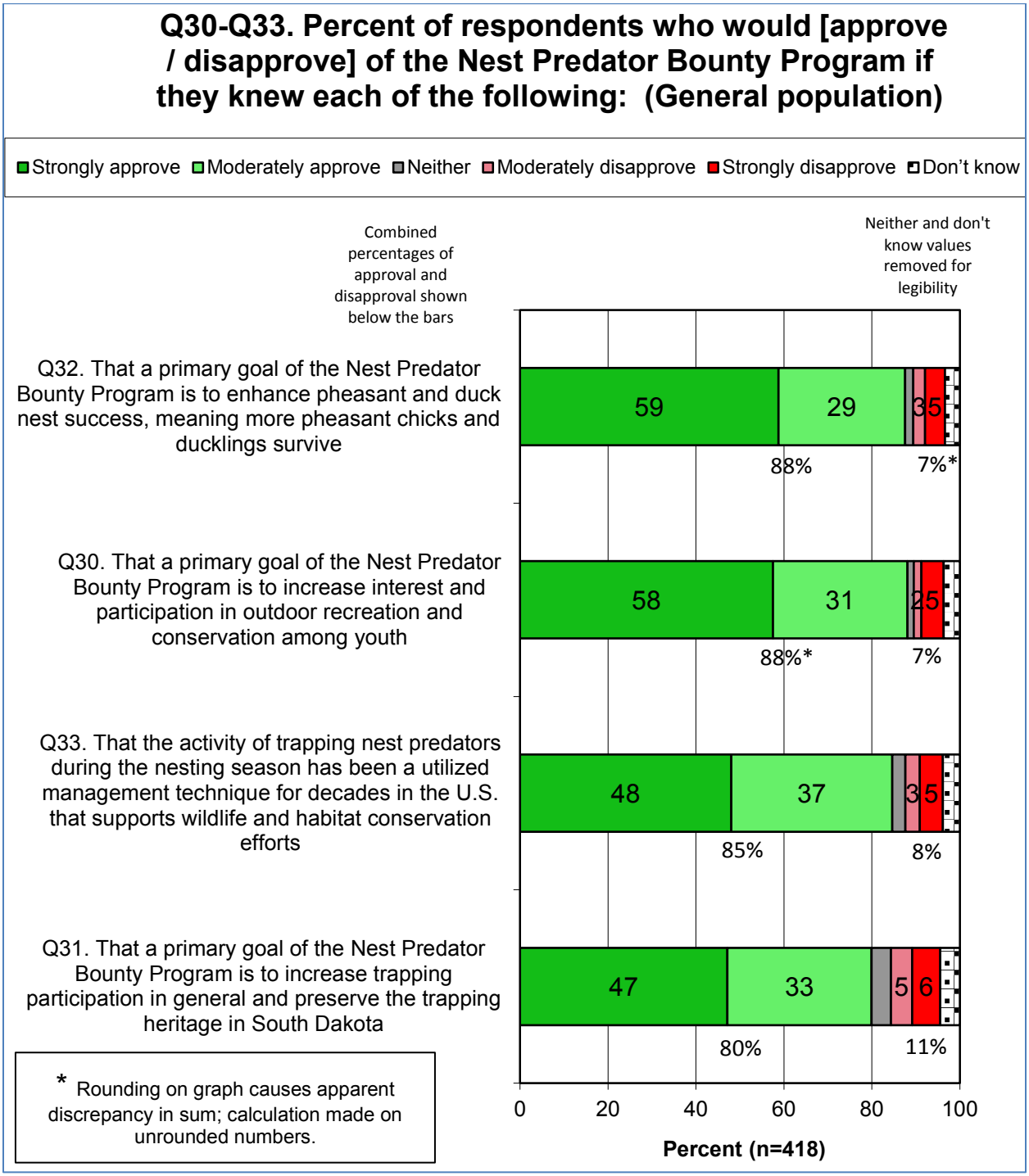


Figure 24. Residents' Approval/Disapproval of the Program Knowing Certain Facts About It

For all of the questions in the series shown in Figure 24, demographic analysis graphs were produced, showing characteristics associated with approval or disapproval of the Program with the given statements that were included in the questions. These are shown in Figures 25 through 32, followed by a summary of the findings. Figure 25 shows characteristics associated with approval with the statement that one of the goals of the Program is to increase pheasant and duck nest success, and Figure 26 shows disapproval.

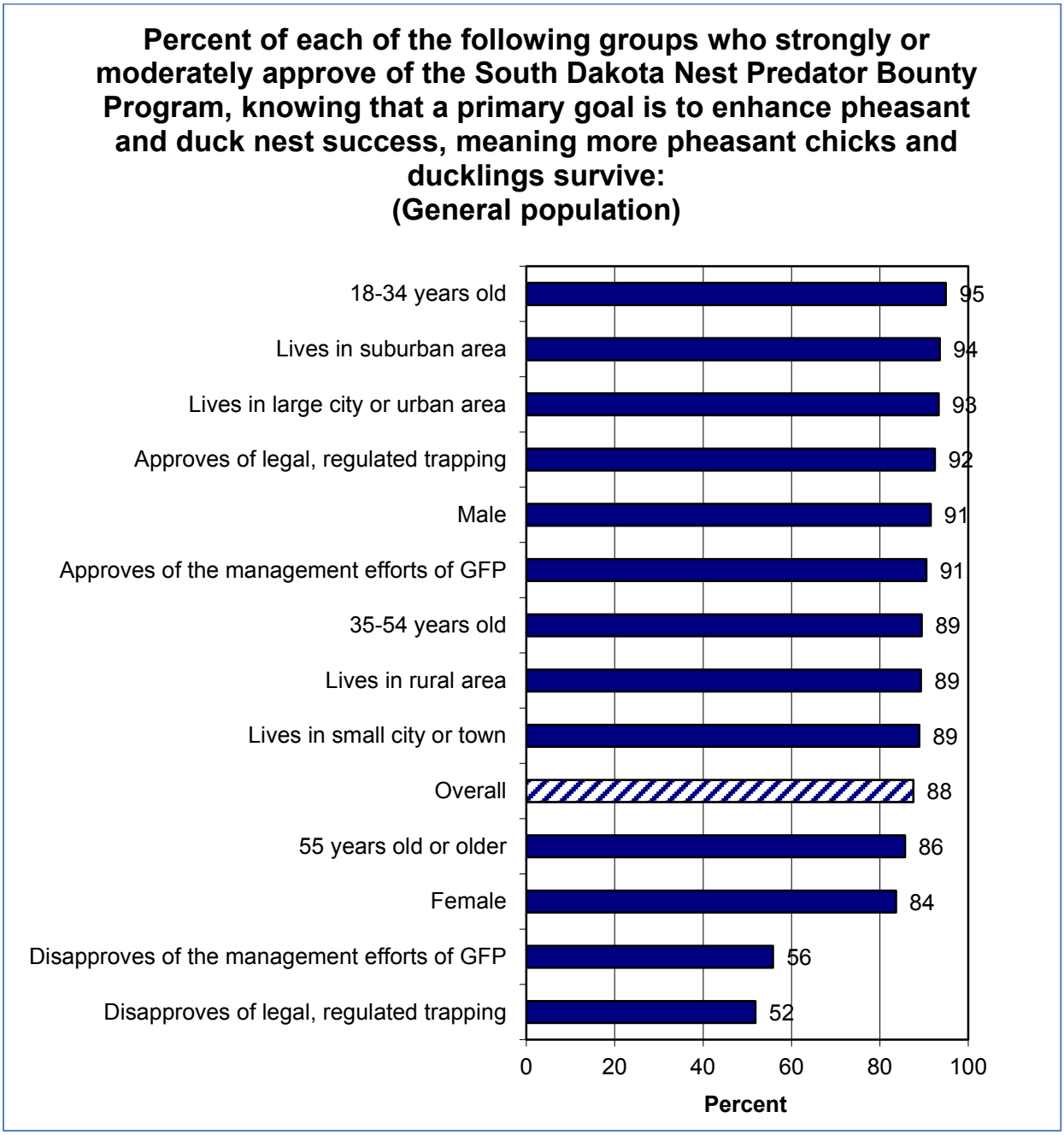


Figure 25. Characteristics of Residents Who Approve of the Program, Knowing Its Goal Is to Increase Pheasant and Duck Nest Success

A full explanation of how to interpret these types of graphs is presented on page 11.

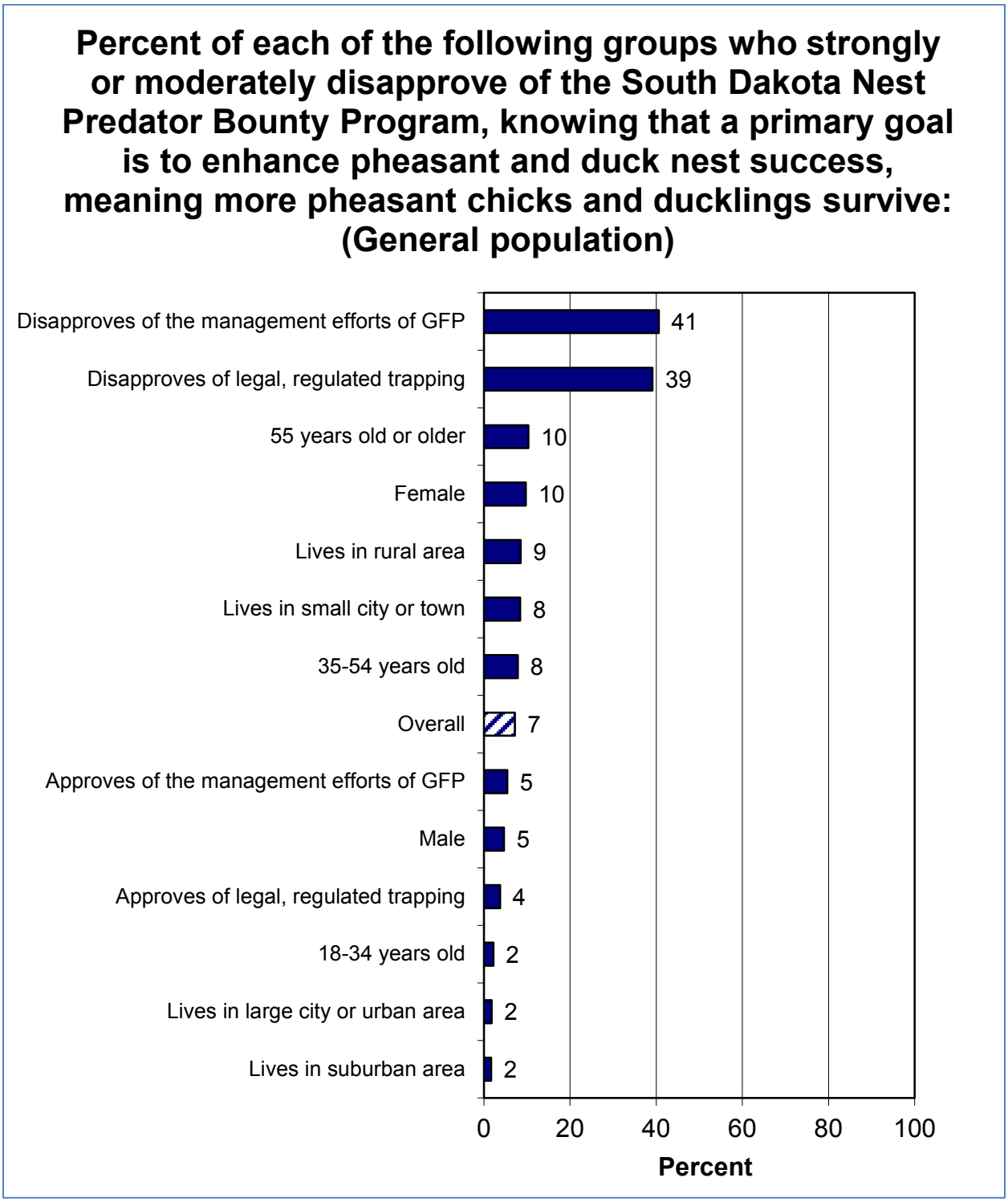


Figure 26. Characteristics of Residents Who Disapprove of the Program, Knowing Its Goal Is to Increase Pheasant and Duck Nest Success

A full explanation of how to interpret these types of graphs is presented on page 11.

Figure 27 shows characteristics associated with approval with the statement that one of the goals of the Program is to increase youth's interest and participation in outdoor recreation and conservation, and Figure 28 shows disapproval.

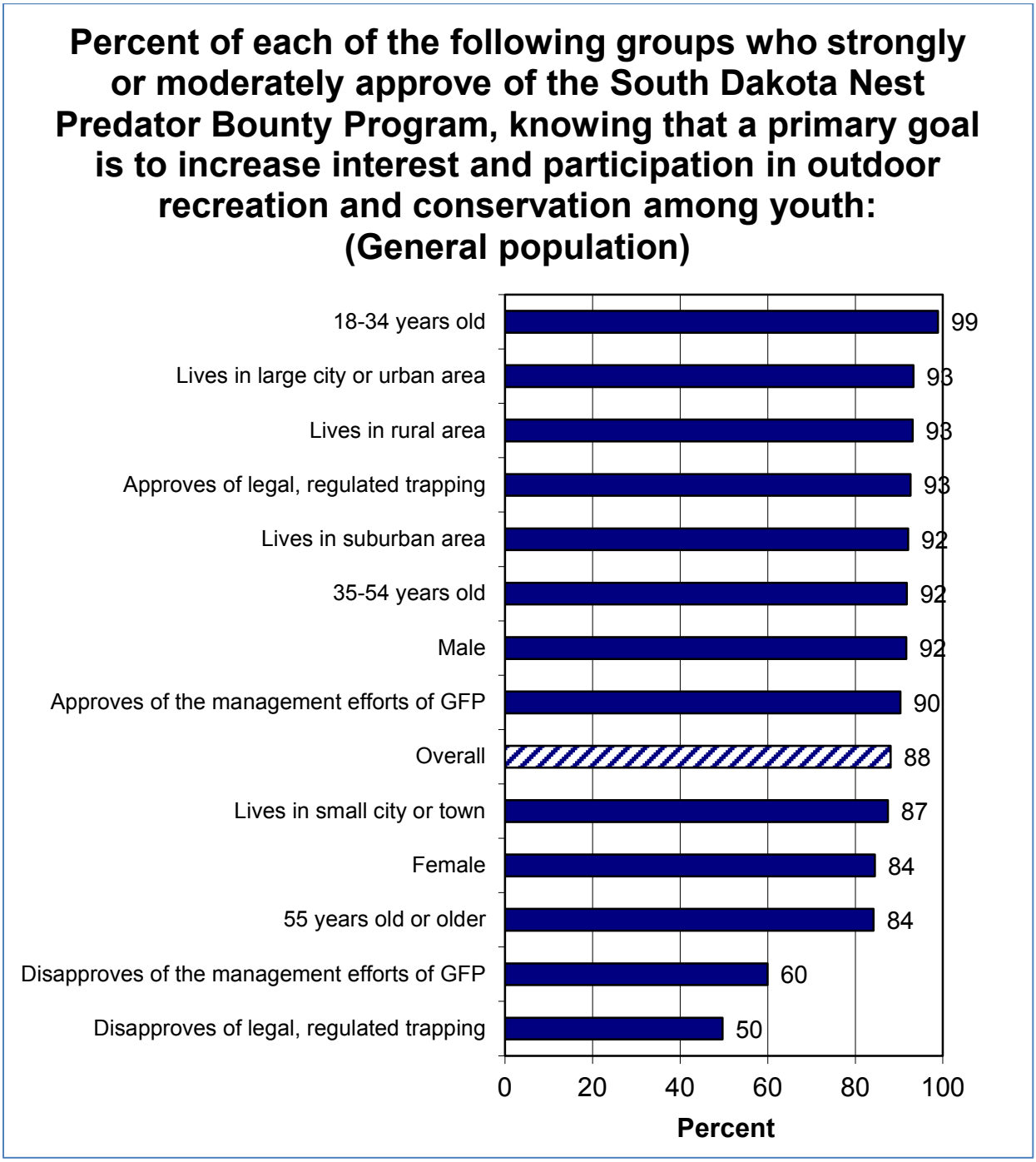


Figure 27. Characteristics of Residents Who Approve of the Program, Knowing Its Goal Is to Increase Outdoor Recreation

A full explanation of how to interpret these types of graphs is presented on page 11.

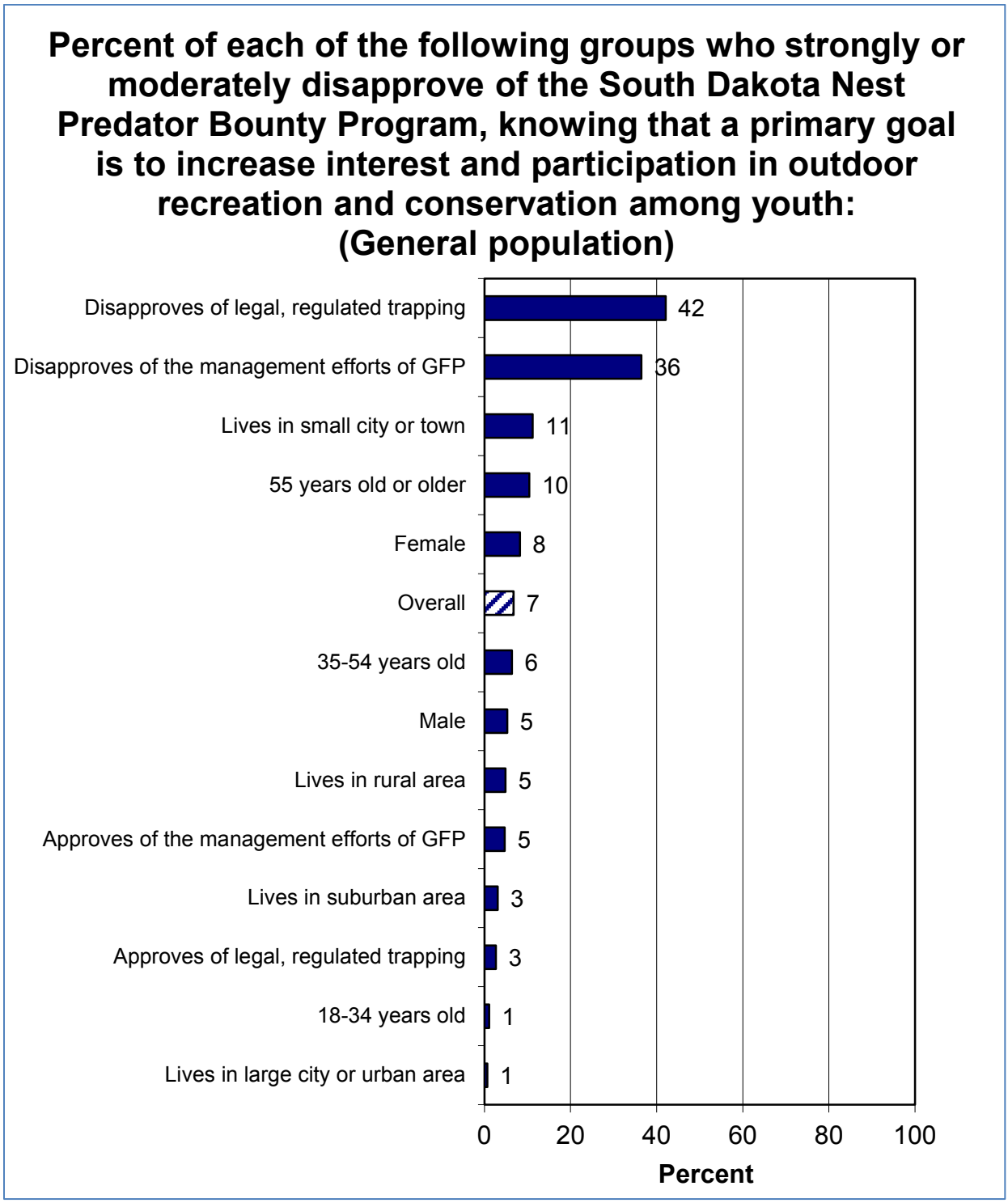


Figure 28. Characteristics of Residents Who Disapprove of the Program, Knowing Its Goal Is to Increase Outdoor Recreation

A full explanation of how to interpret these types of graphs is presented on page 11.

Next in this series, Figure 29 shows characteristics associated with approval of the Program with the statement that trapping has been used for decades as a management technique, and Figure 30 shows disapproval.

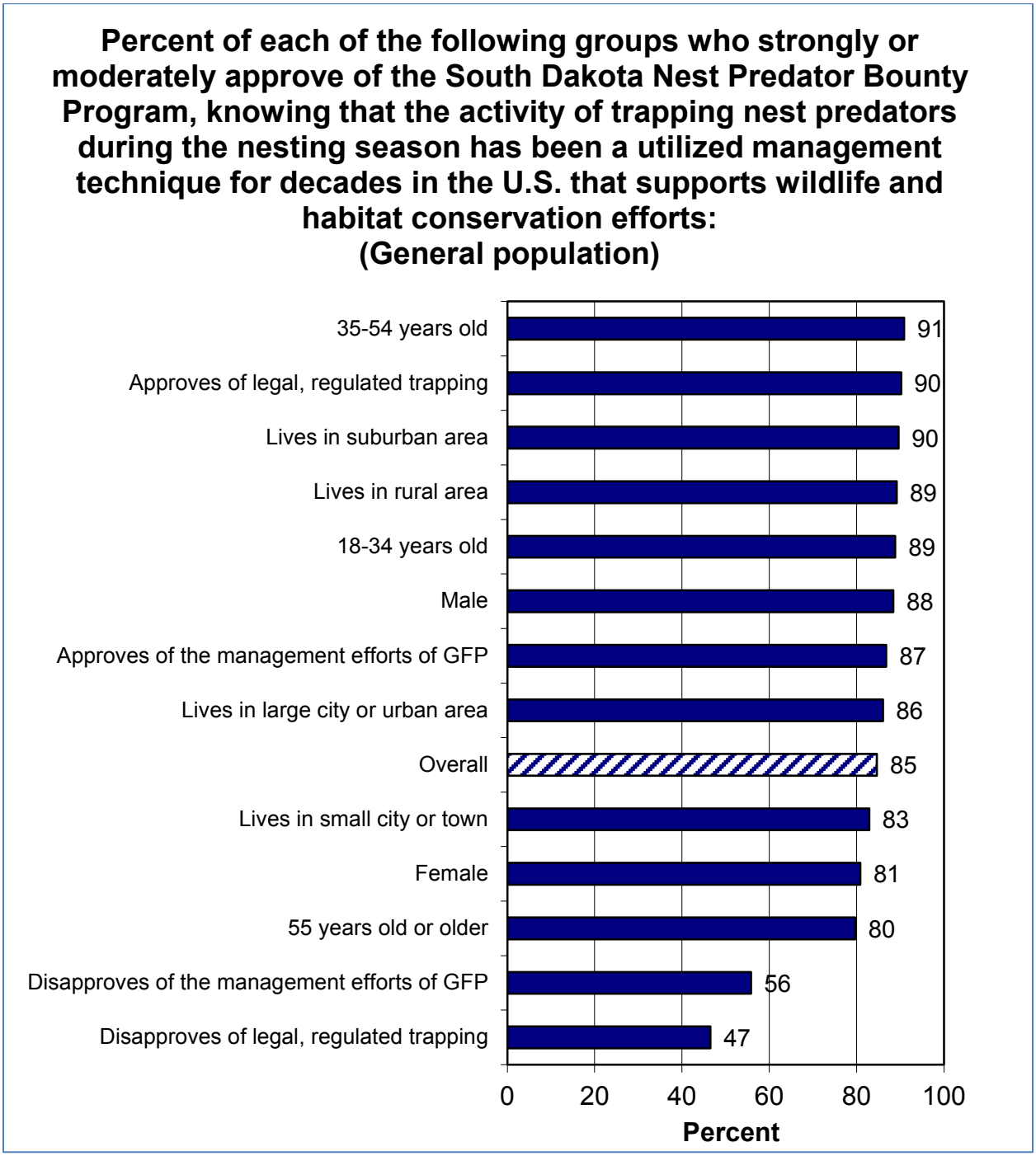


Figure 29. Characteristics of Residents Who Approve of the Program, Knowing That Predator Trapping Has Been Used as a Wildlife Management Tool in the Past
A full explanation of how to interpret these types of graphs is presented on page 11.

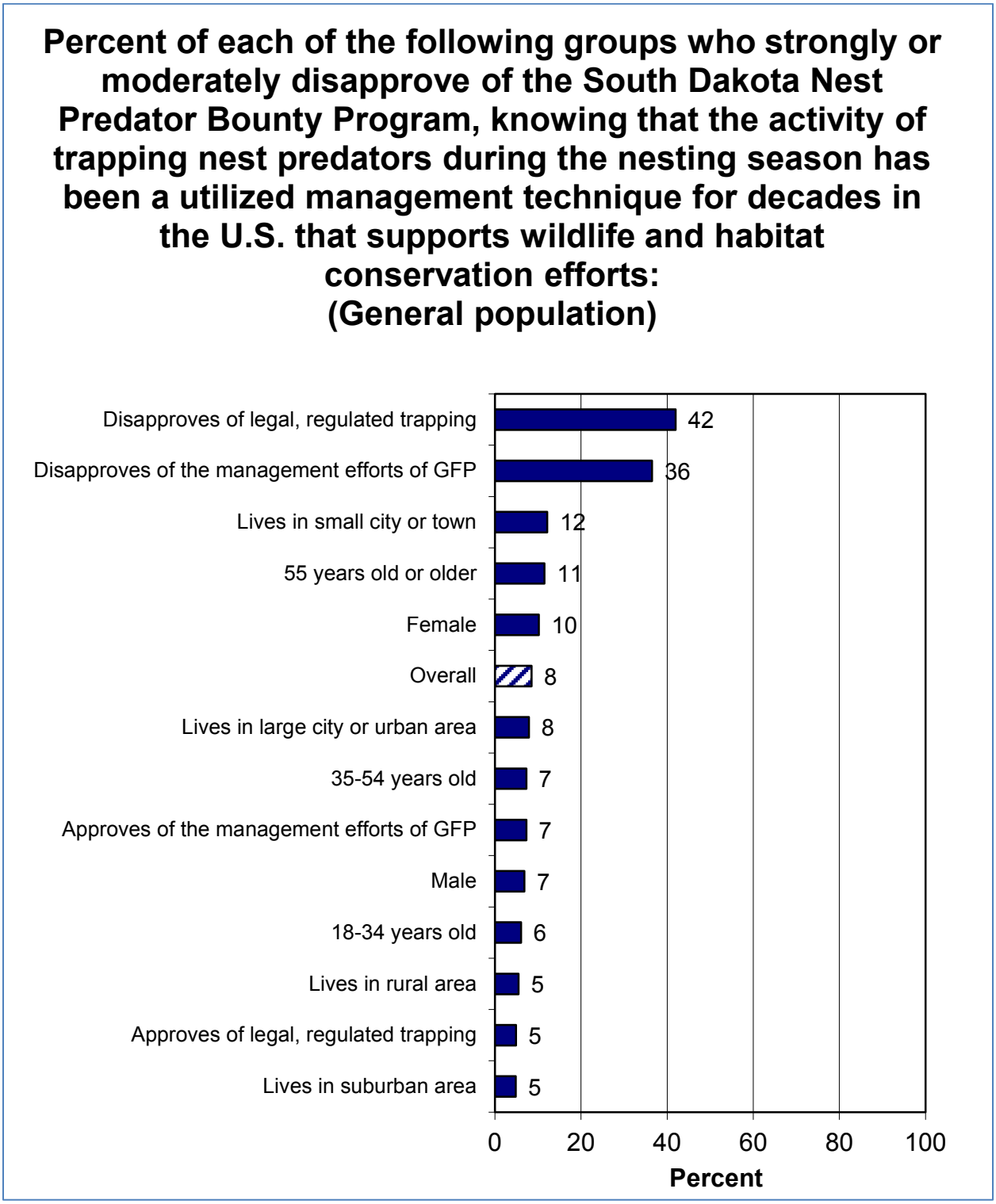


Figure 30. Characteristics of Residents Who Disapprove of the Program, Knowing That Predator Trapping Has Been Used as a Wildlife Management Tool in the Past

A full explanation of how to interpret these types of graphs is presented on page 11.

Finally in this series, Figure 31 shows characteristics associated with approval of the Program with the statement that one of the goals of the Program is to increase participation in trapping, and Figure 32 shows disapproval given this statement.

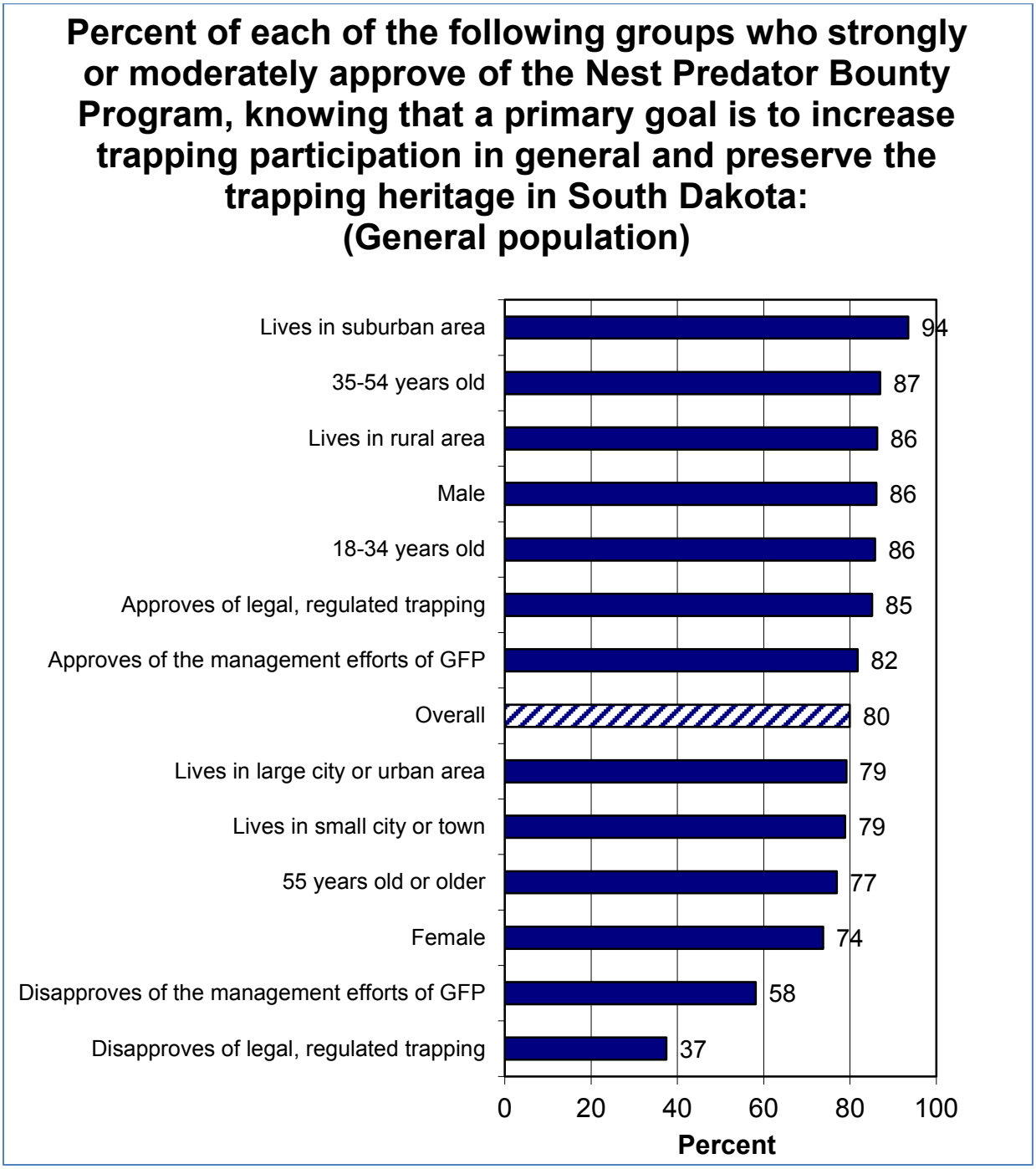


Figure 31. Characteristics of Residents Who Approve of the Program, Knowing Its Goal Is to Increase Trapping Participation

A full explanation of how to interpret these types of graphs is presented on page 11.

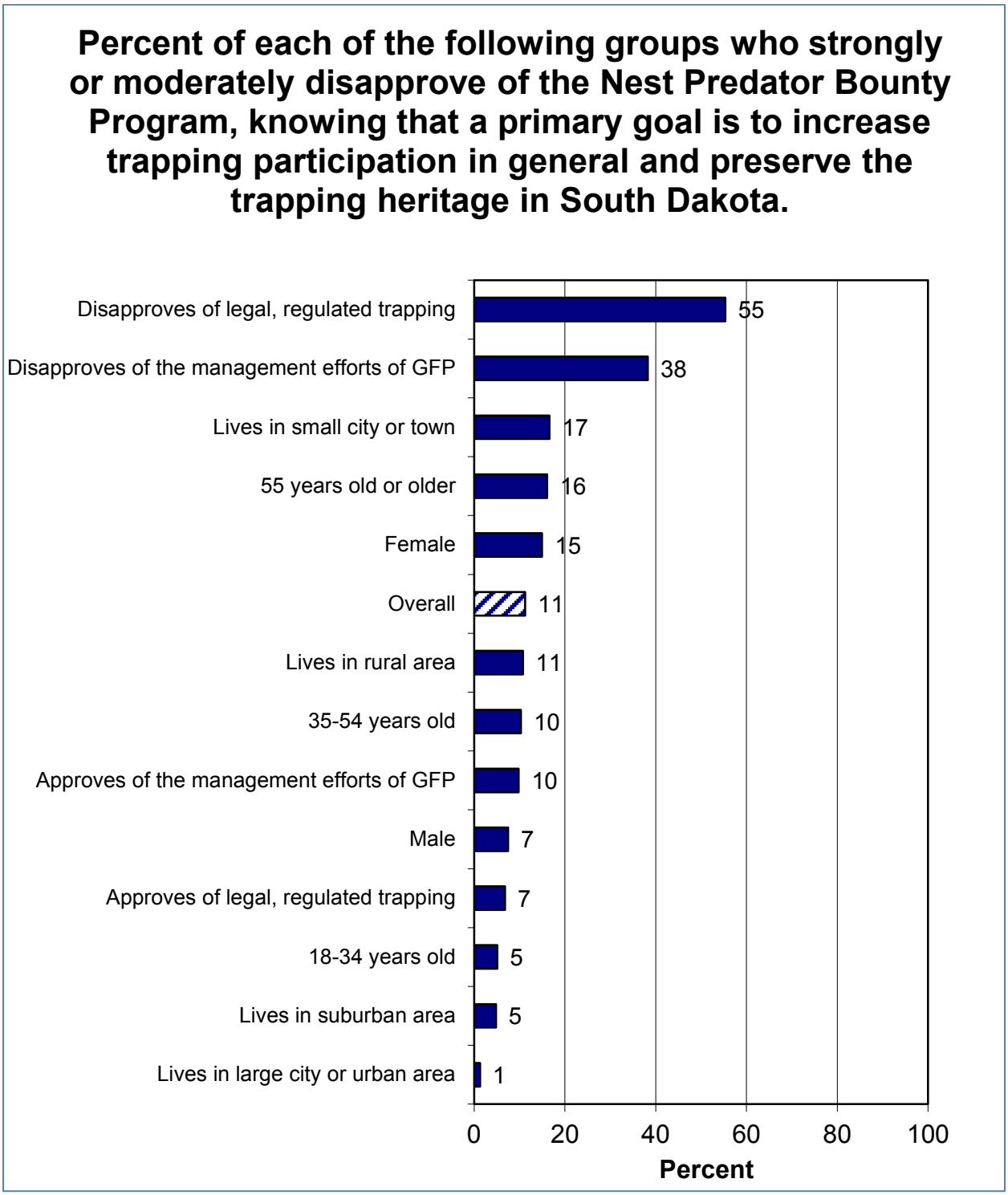


Figure 32. Characteristics of Residents Who Disapprove of the Program, Knowing Its Goal Is to Increase Trapping Participation

A full explanation of how to interpret these types of graphs is presented on page 11.

A summary of the results of the demographic analysis graphs for the four questions in the series is shown in Table 3. Each of the variables in the demographic analyses are examined across the four questions. A "yes" means that the group has a markedly higher rate of approval than residents overall. For instance, when the question about approval or disapproval of the Program included the statement that the goal is to enhance nest success, those who are 18 to 34 years old are associated with approval, as are those who live in a suburban area or a large city/urban area, males, and those who approve of trapping and approve of the management efforts of the GFP (as shown in the first column of data). In general, younger residents, those living in rural or suburban areas, males, and those who approve of trapping are associated with approval of the Program across the series of questions.

Table 3. Demographic Analyses—Characteristics of Residents Who Approve of the Program

Variable	Variable Is Positively Associated With Approval of the Program With the Given Statement			
	Goal is to enhance nest success	**Goal is to increase participation in outdoor recreation and conservation**	**Trapping has been used as a management tool for decades**	**Goal is to increase trapping participation**
18 to 34 years old	Yes	Yes	Yes	Yes
35 to 54 years old		Yes	Yes	Yes
55 years old or older				
Lives in a rural area		Yes	Yes	Yes
Lives in a small town or city				
Lives in a suburban area	Yes	Yes	Yes	Yes
Lives in a large city or urban area	Yes	Yes		
Male	Yes	Yes	Yes	Yes
Female				
Approves of trapping	Yes	Yes	Yes	Yes
Disapproves of trapping				
Approves of the management efforts of the GFP	Yes			
Disapproves of the management efforts of the GFP				

Conversely, Table 4 shows the characteristics across the series of questions that are associated with disapproval of the Program. Those who disapprove of trapping and of the management efforts of the GFP consistently have higher rates of disapproval of the Program across the questions. Additionally, residents 55 years old and older and those who live in small cities/towns are associated with disapproval in this series of questions.

Table 4. Demographic Analyses—Characteristics of Residents Who Disapprove of the Program

Variable	Variable Is Positively Associated With Disapproval of the Program With the Given Statement			
	Goal is to enhance nest success	**Goal is to increase participation in outdoor recreation and conservation**	**Trapping has been used as a management tool for decades**	**Goal is to increase trapping participation**
18 to 34 years old				
35 to 54 years old				
55 years old or older	Yes	Yes	Yes	Yes
Lives in a rural area				
Lives in a small town or city		Yes	Yes	Yes
Lives in a suburban area				
Lives in a large city or urban area				
Male				
Female	Yes			Yes
Approves of trapping				
Disapproves of trapping	Yes	Yes	Yes	Yes
Approves of the management efforts of the GFP				
Disapproves of the management efforts of the GFP	Yes	Yes	Yes	Yes

PARTICIPANTS' PERCEPTIONS OF AND ATTITUDES TOWARD THE NEST PREDATOR BOUNTY PROGRAM

Participants were asked about whether they heard positive or negative things about the Program. Figure 33 shows that a majority (60%) have heard mostly positive things, while most of the remainder (30%) have heard both positive and negative things about equally; just 6% have heard mostly negative things.

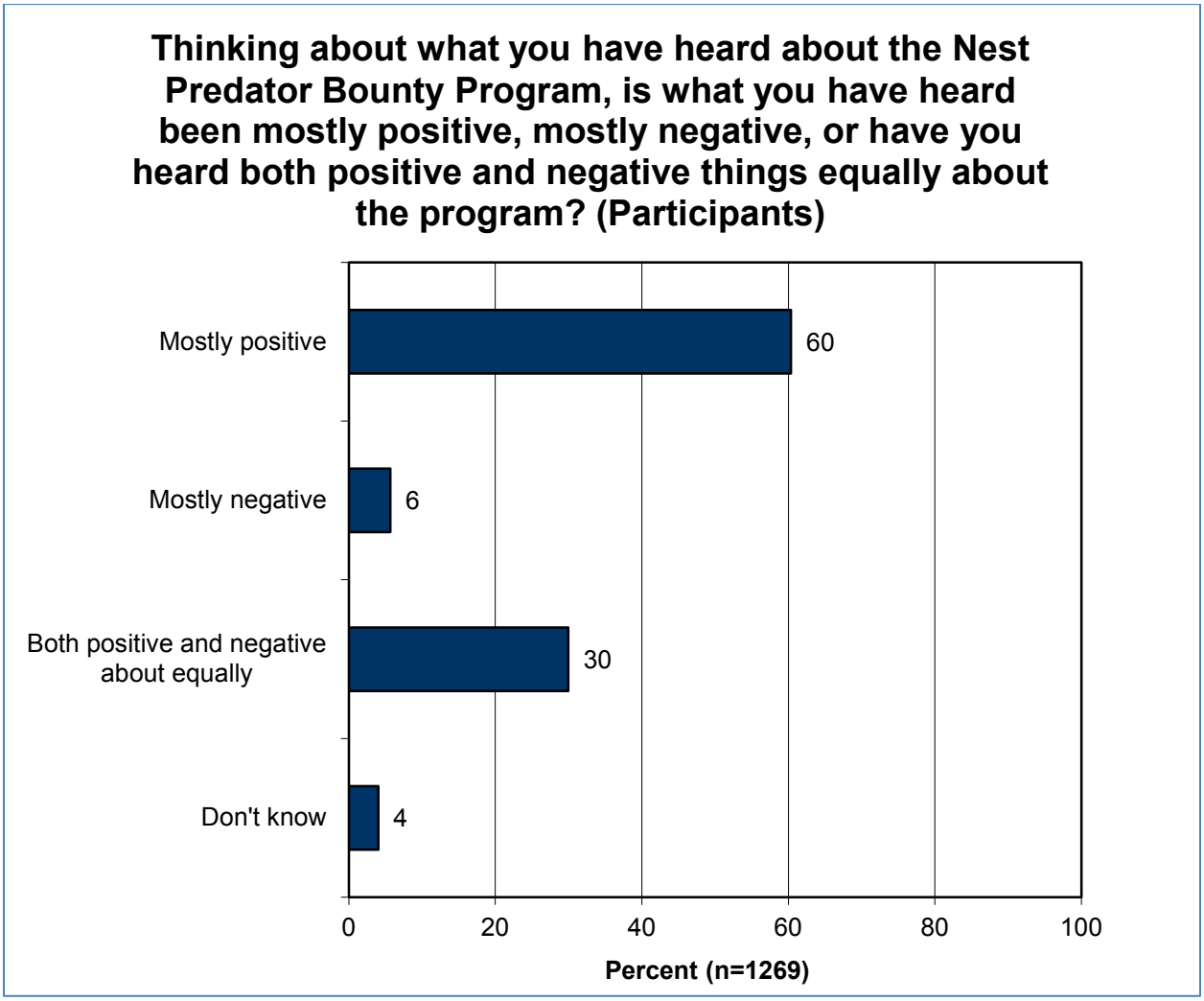


Figure 33. Hearing Positive or Negative Things About the Program, Among Participants

Although it was anticipated that most participants would approve of the Program, the question was posed in the participant survey nonetheless. Figure 34 shows that the overwhelming majority of participants (91%) approve of the Program; however, a small percentage (5%) disapprove.

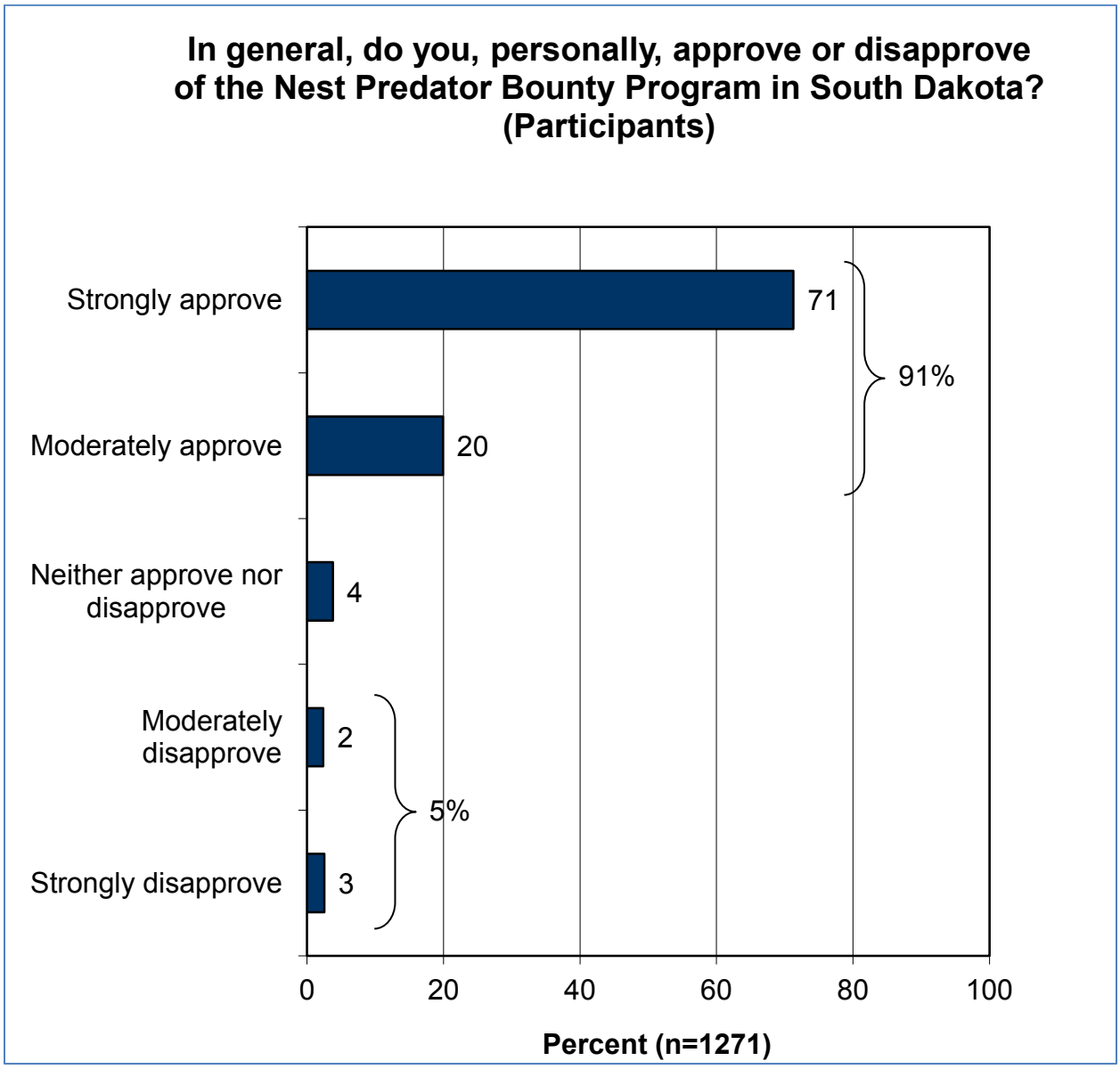


Figure 34. Participants' Approval or Disapproval of the Program

In follow-up, the large majority of participants who approve of the Program were asked to state the main reasons for this, in an open-ended question. Figure 35 shows that the dominant responses are to control predator populations (63% stated this) and to protect birds and/or their nests (52%). Responses that are far less frequent, but stated by over 10% of this group, are general support for trapping participation, support for getting youth involved in outdoor recreation, and the bounty.

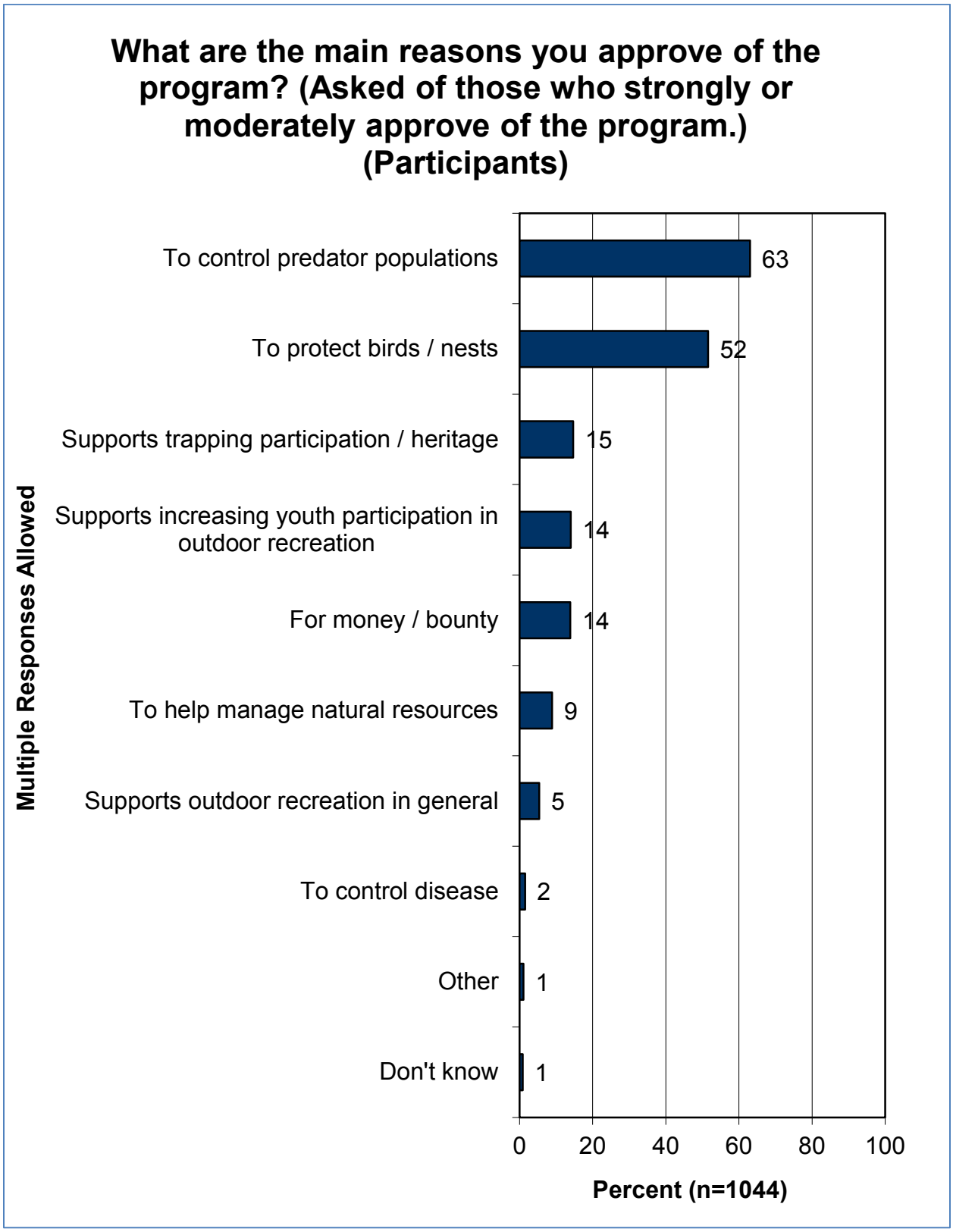


Figure 35. Participants' Reasons for Approving of the Program

Conversely, those who disapprove of the Program were asked to state their reasons. The top responses are that the Program is not effective (43%), it is a waste of money and resources (41%), the GFP should address habitat instead (30%), and people cheat the Program by using roadkill (20%) (Figure 36).

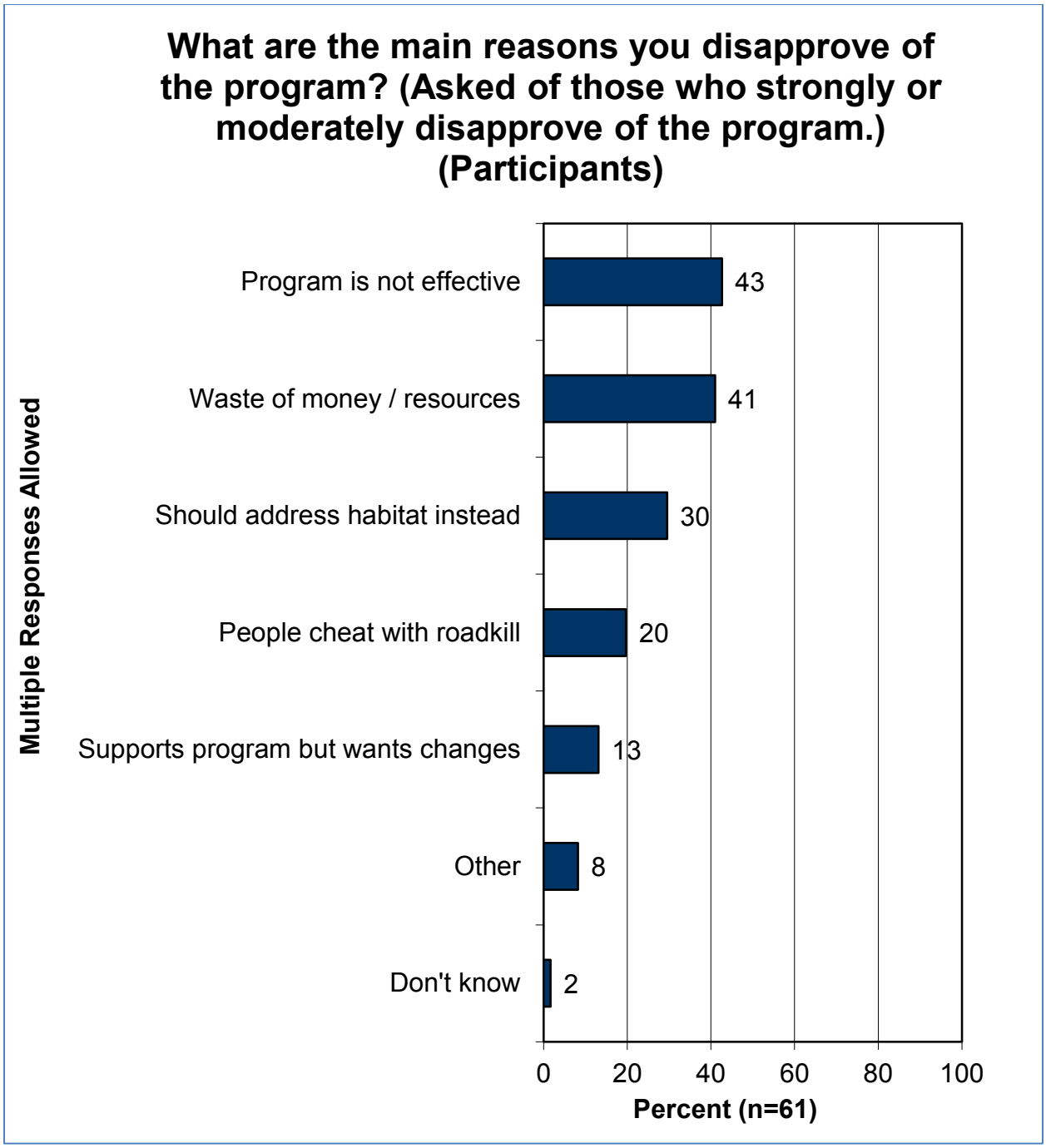


Figure 36. Participants' Reasons for Disapproving of the Program

Prior to the next question, participants were read the following statement:

> A primary goal of the Nest Predator Bounty Program is to increase interest and participation in outdoor recreation and conservation in South Dakota among all ages, including youth. Program participants received $10 per eligible predator that was harvested through trapping during the nesting season up to a total of $500,000 paid. When that total was met, the program was closed for the season.

The participant survey then asked what participants thought about the acceptability of the use of funds for the Program. Figure 37 shows that the overwhelming majority of participants (83%) agree that "the Nest Predator Bounty Program is an acceptable use of the budgeted $500,000 funds"; meanwhile, 9% disagree.

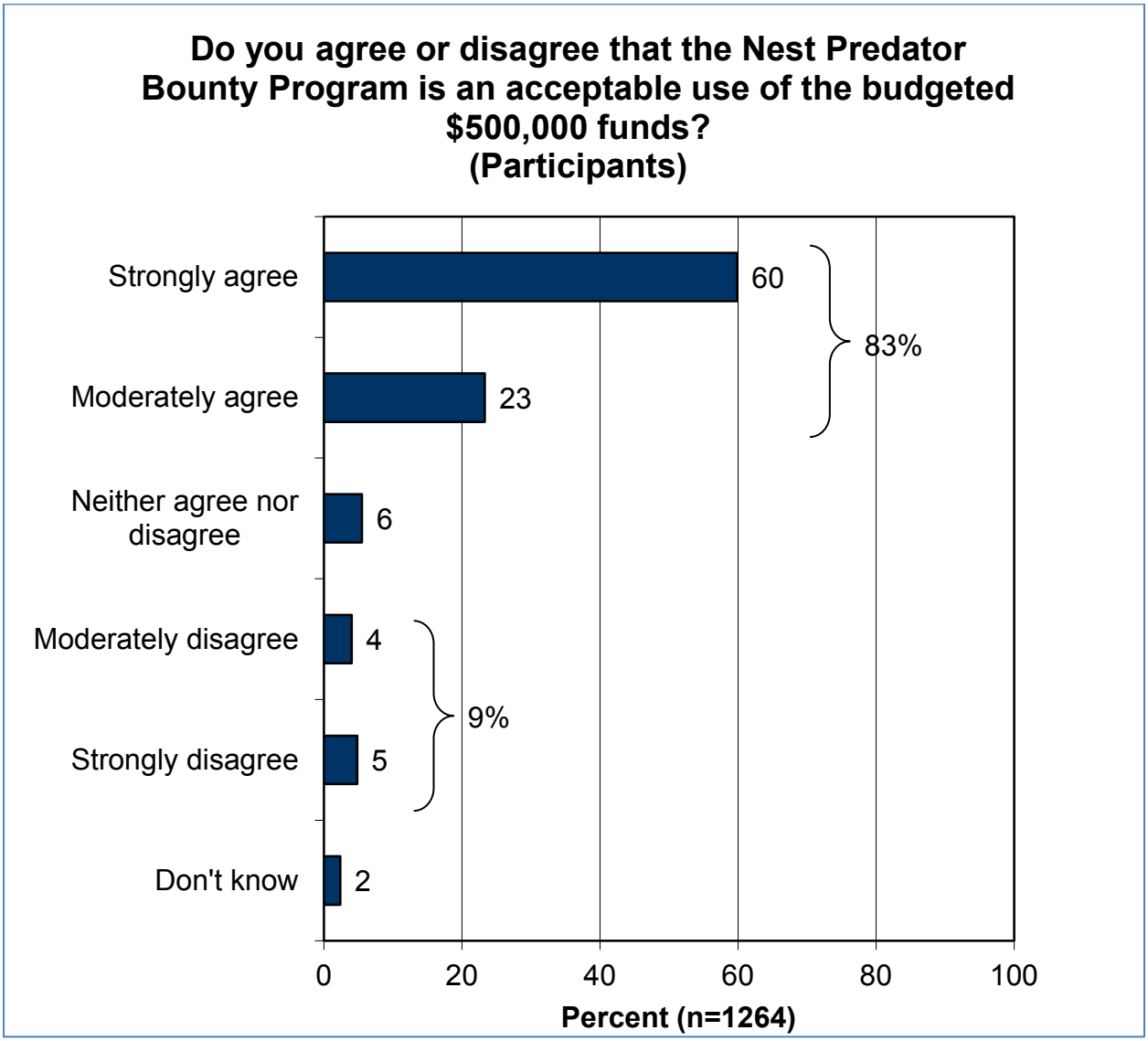


Figure 37. Participants' Opinion on the Acceptability of the Use of the Funds for the Program

In an open-ended question, participants were asked, if the Program is discontinued, what those funds could be used for in an effort to increase participation in outdoor recreation and conservation in South Dakota. The top response is simply to *not* discontinue the Program (40% stated this), and the next most common is "don't know" at 23% (Figure 38). Otherwise, the top suggestions are to add or preserve habitat, to sponsor youth programs, and to have a bounty on coyotes or other specific species.

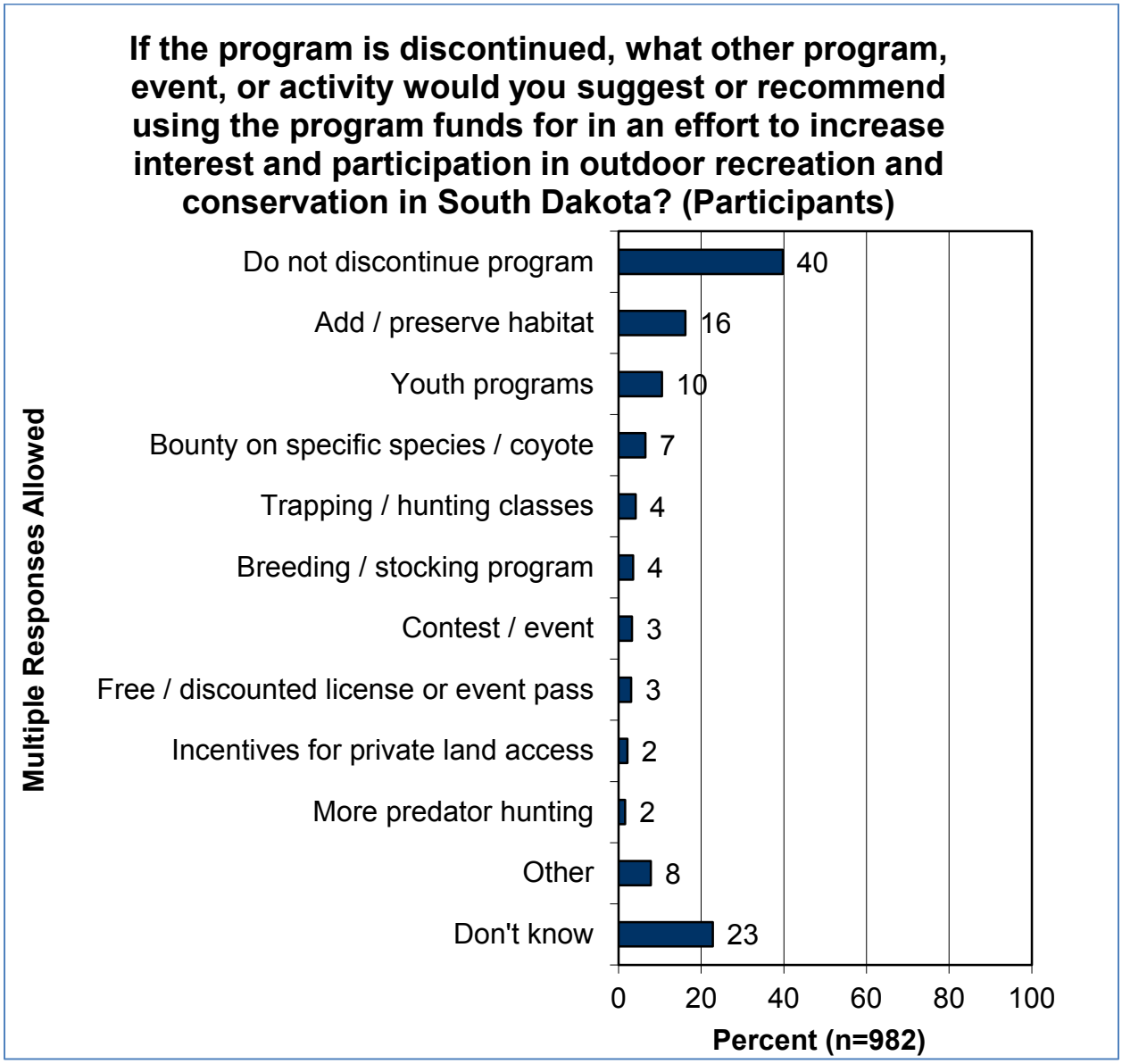


Figure 38. Other Suggestions for Funds if the Program Is Discontinued

The overwhelming majority of participants (90%) are satisfied with the Program, including 69% who are *very* satisfied (Figure 39). Only 5% are dissatisfied (the remainder giving a neutral or "don't know" response).

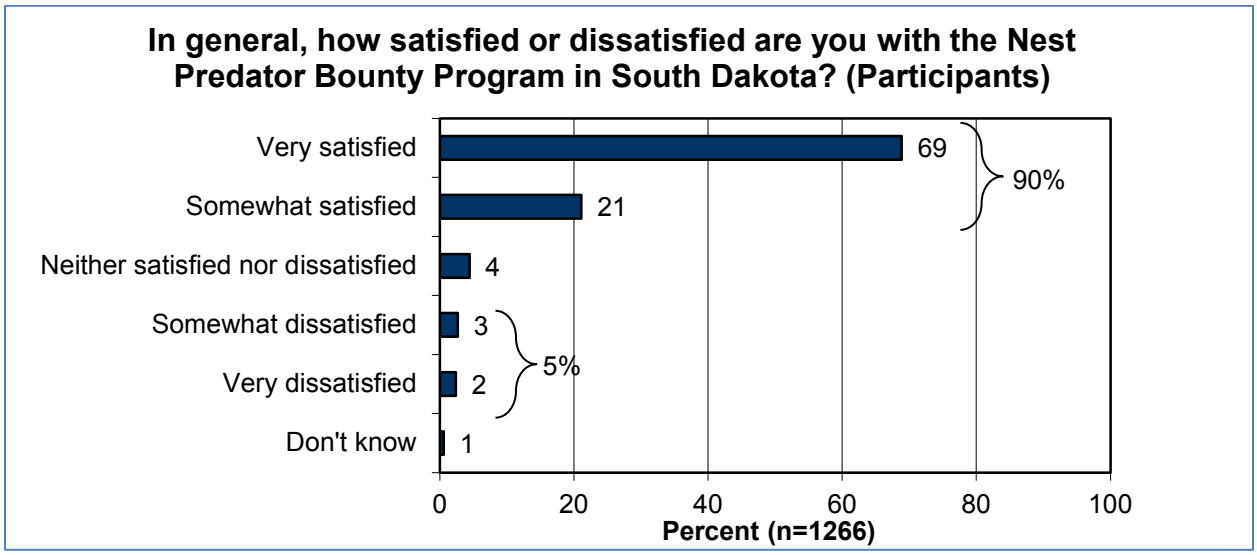


Figure 39. Participants' Satisfaction With the Program

Those who are not *very* satisfied with the Program (that is, 31% of respondents in the previous question) were asked why not, in an open-ended question. The top responses are that the Program is a waste of money and resources, that respondents want the Program but with changes, that the Program is ineffective, that they had a bad experience with the Program, that they did not get the free traps with the Program, and that people cheat with roadkill (Figure 40).

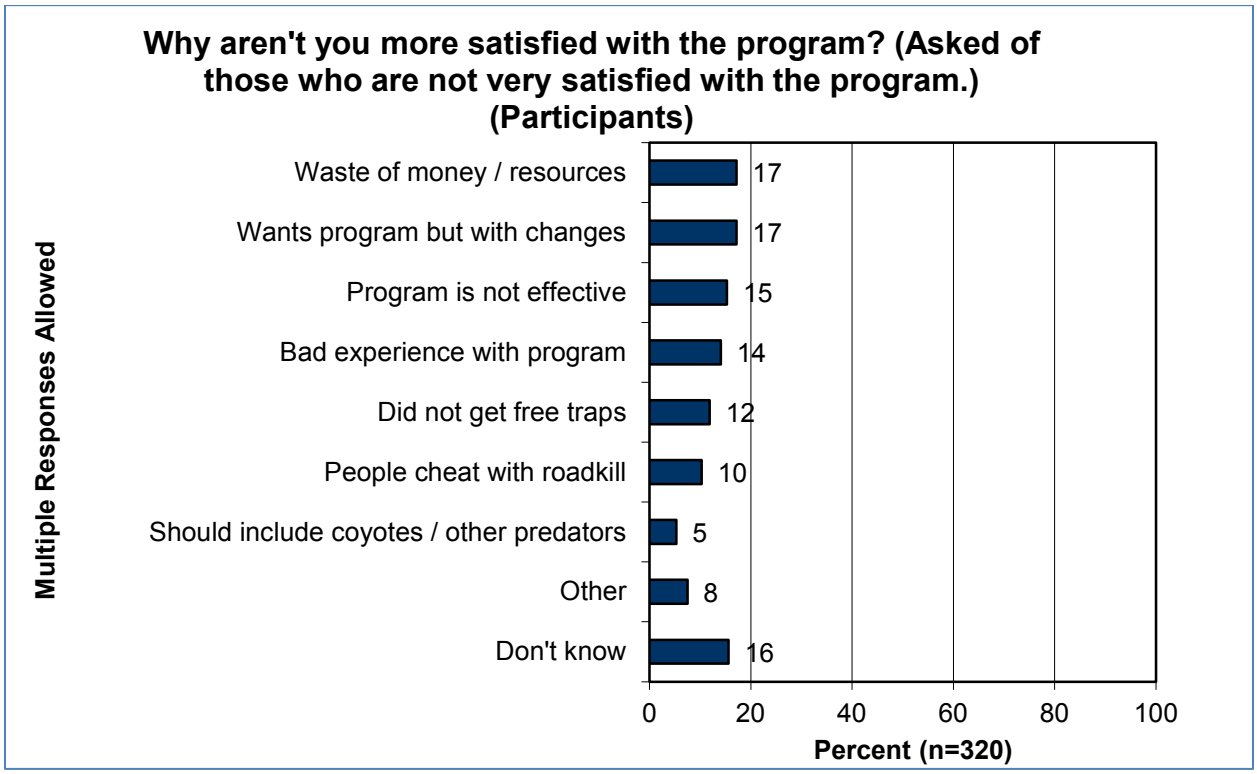


Figure 40. Reason for Not Being Very Satisfied With the Program

One question asked for participants' perceptions regarding the effect the Program had on pheasant and duck populations: 70% agree that the Program enhanced those populations (Figure 41). (Obviously, this is just a perception among participants; only a biological study could determine the Program's effect on pheasant and duck populations. Nonetheless, this anecdotal evidence may be an indication of the effect of the Program.)

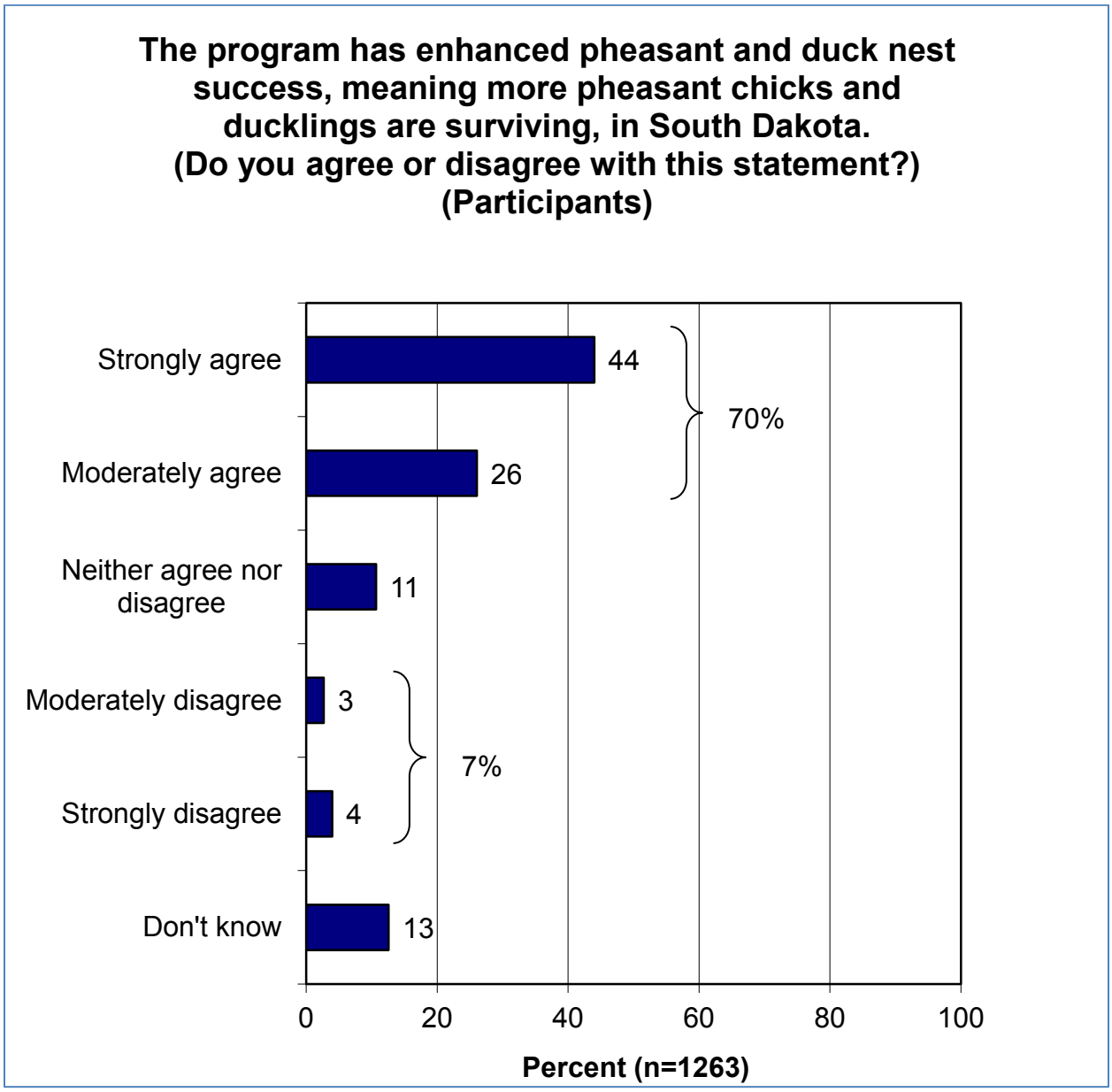


Figure 41. Participants' Perceptions on the Program's Effect on Pheasant and Duck Populations

PROGRAM'S EFFECTIVENESS AT RECRUITING NEW TRAPPERS AND INCREASING TRAPPING PARTICIPATION

Most survey respondents in the participant survey had trapped prior to their participation in the Program; nonetheless, 17% of adult participants are new to trapping, having been prompted by the Program (Figure 42). The survey, however, could not completely evaluate the effect of the Program on trapping recruitment because children were not surveyed (for logistical reasons). Therefore, the database was analyzed with this in mind. Of the 3,042 unique people in the database, 291 were under the age of 18, and it is likely that a higher proportion of those excluded participants were new to trapping than among the adults who were surveyed. Therefore, *at minimum* (i.e., using the same proportion as the adults in the survey), 50 of these young trappers were new to trapping and were prompted by the Program to participate, but the actual percentage is likely higher than that.

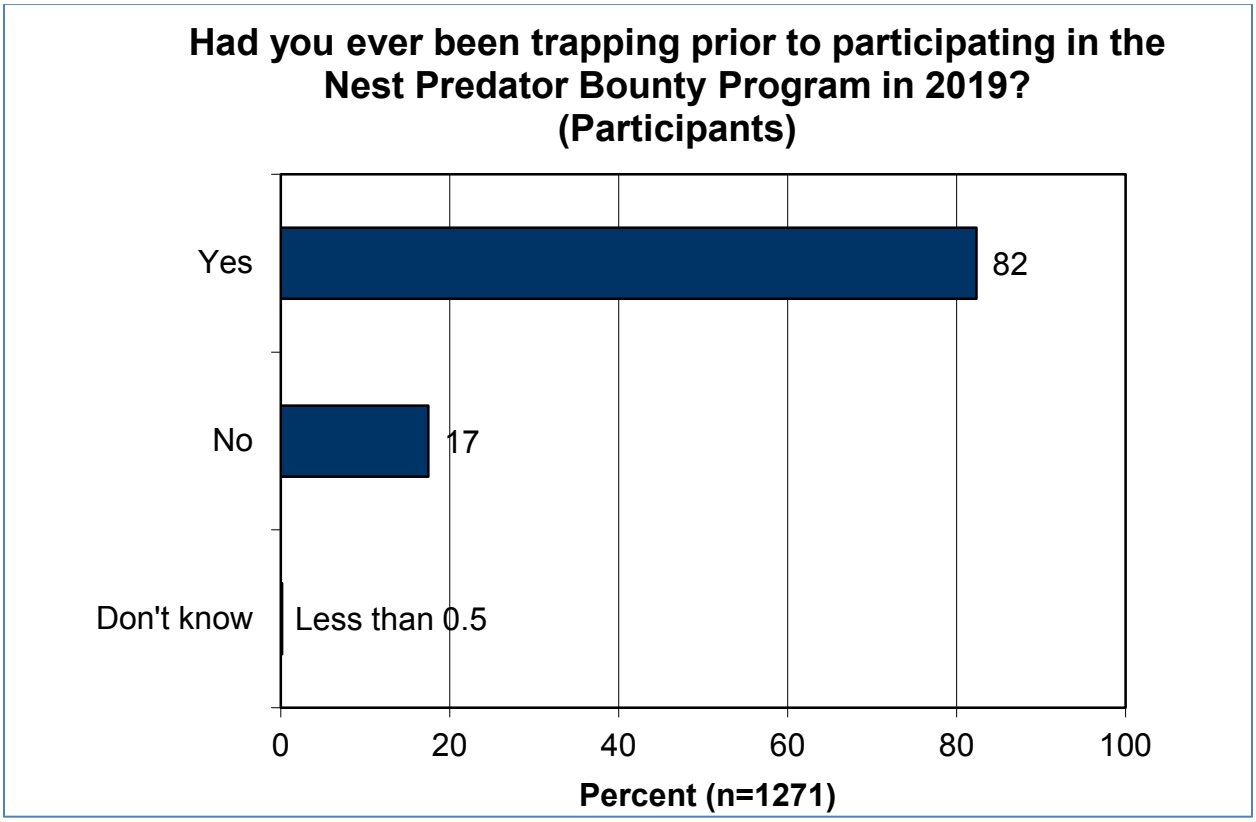


Figure 42. Program Participants' Prior Participation in Trapping

The next question looks at whether the trapper, prompted by the Program, increased participation in trapping in 2019. The question asked the respondents to compare 2019 against the previous 3 years, so those who had not been trapping in the previous 3 years (but who had been trapping prior to that) were not asked the question. The analysis coded them into the question, and they can be considered as having an increase in participation in 2019 because their participation in 2019 (any participation), by definition, increased over the previous 3 years (no participation). Additionally, those who had not participated in trapping prior to their participation in the Program were also put back into the question results, as they, too, can be considered as having an

increase in participation in 2019. With these Program participants coded back into the question, 71% of them showed an increase in trapping participation (Figure 43). Otherwise, for nearly all of the remainder, their participation was about the same (25%); only 3% indicated a decrease in trapping participation in 2019.

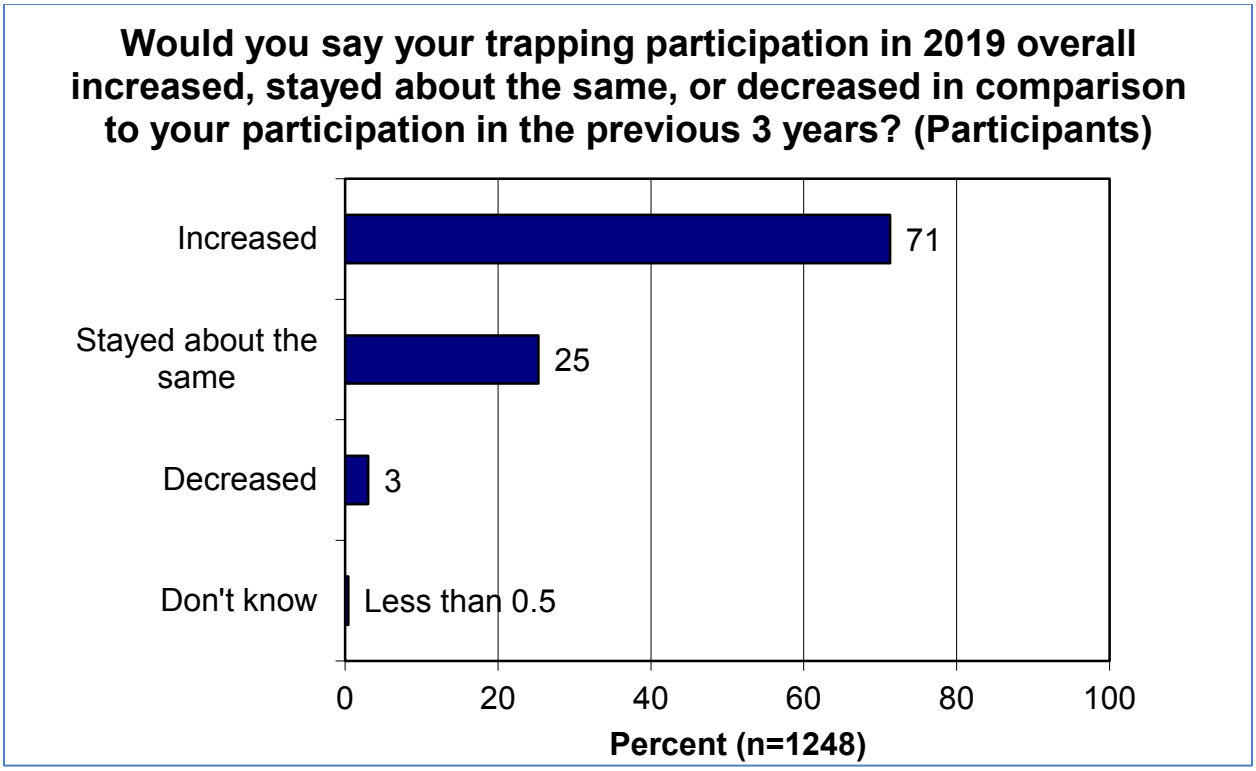


Figure 43. Effect of the Program on Program Participants' Trapping Participation

Another way to help assess the effectiveness of the Program is to examine whom the trapper took with him or her to go trapping. Figure 44 shows that 47% of Program participants took somebody with them to go trapping. About half of these respondents (49%) took a son, and 21% took a daughter (Figure 45). While the survey did not ascertain if these were adult sons and daughters or whether they were children, it is likely that some of these were children. In fact, if sons, daughters, grandchildren, nieces, nephews, and children of friends and neighbors are considered, 71% of those who took someone trapping took one of these people from a younger generation. Assuredly, some of those were children—in other words were being recruited into trapping. (Note that the analysis cannot simply take a sum of the percentages who took sons, daughters, grandchildren, nieces, nephews, and friends' children because some of them took more than one type of person with them.) A crosstabulation shows that 14% of Program participants are younger than 40 years old *and* took a son, daughter, nephew, niece, or friend's child trapping—so those of the younger generation being taken were likely to be children if the participant himself/herself was younger than 40 years old.

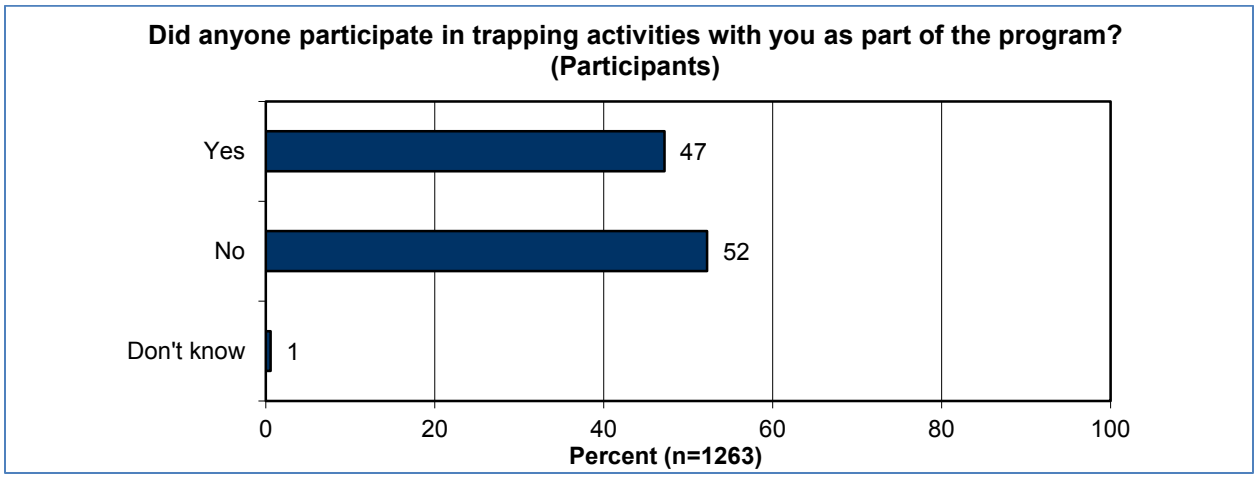


Figure 44. Program Participants' Trapping Participation With Others

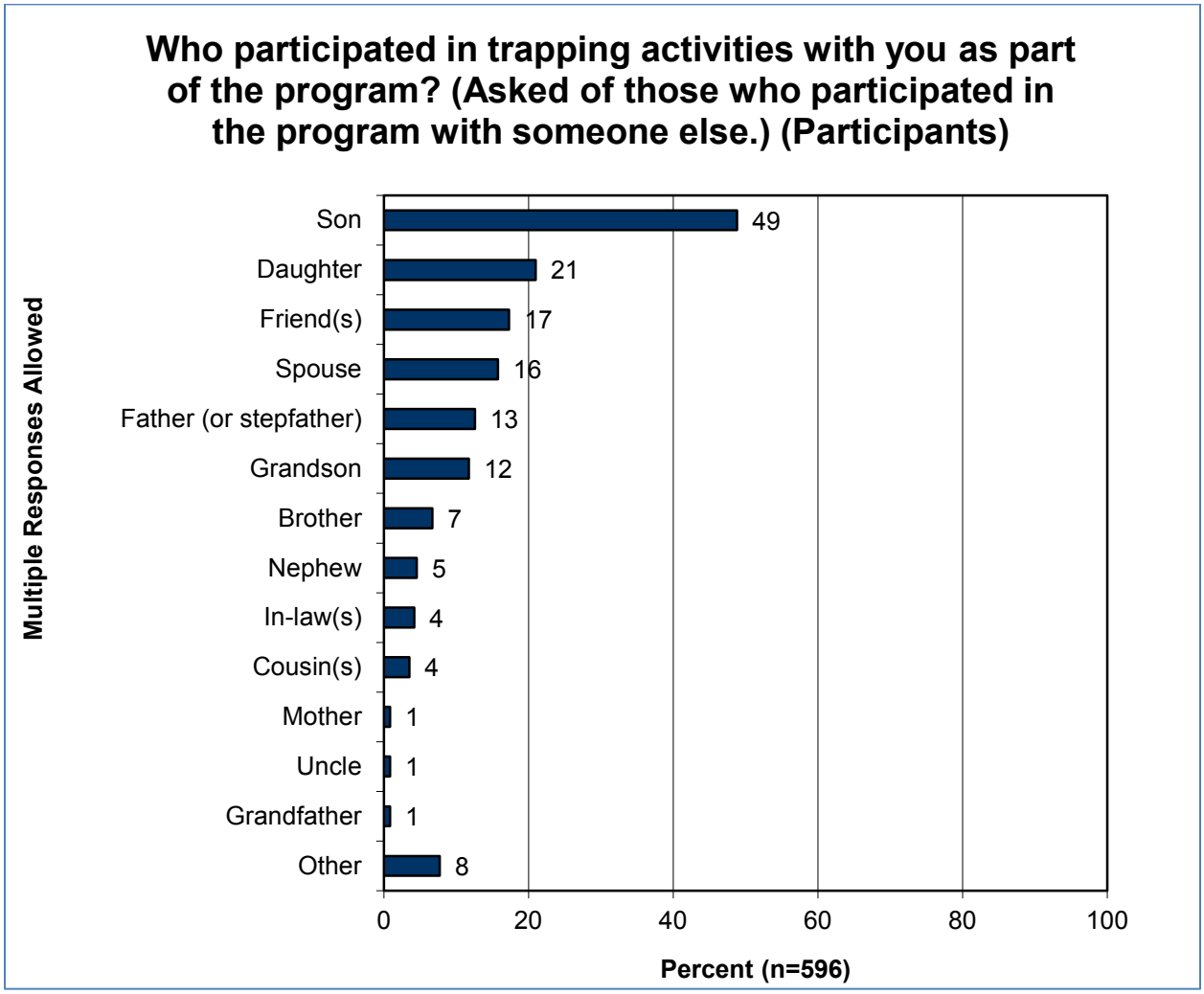


Figure 45. Program Participants' Trapping Companions

The next question looked at how much of a motivation the Program is for trapping participation. The majority of Program participants (81%) agreed that the Program is an important reason that they participated in trapping in 2019 (Figure 46). This far exceeds the percentage who disagree (9%).

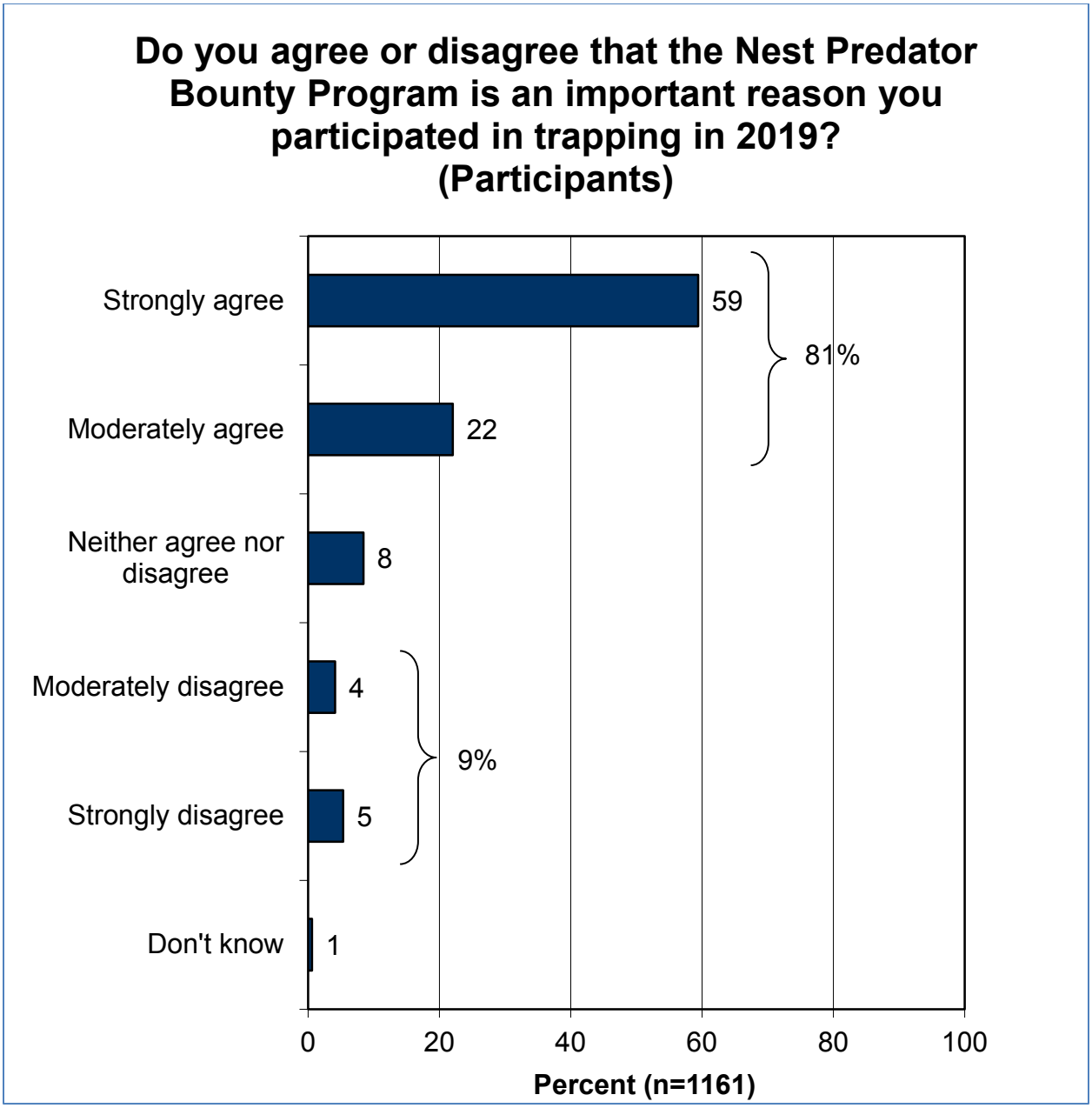


Figure 46. The Program as a Reason for Participants' Involvement in Trapping

Half of participants (50%) joined the Program to control predator populations, while a third (34%) did so for the bounty and a third (33%) did so to protect pheasant and duck populations (Figure 47).

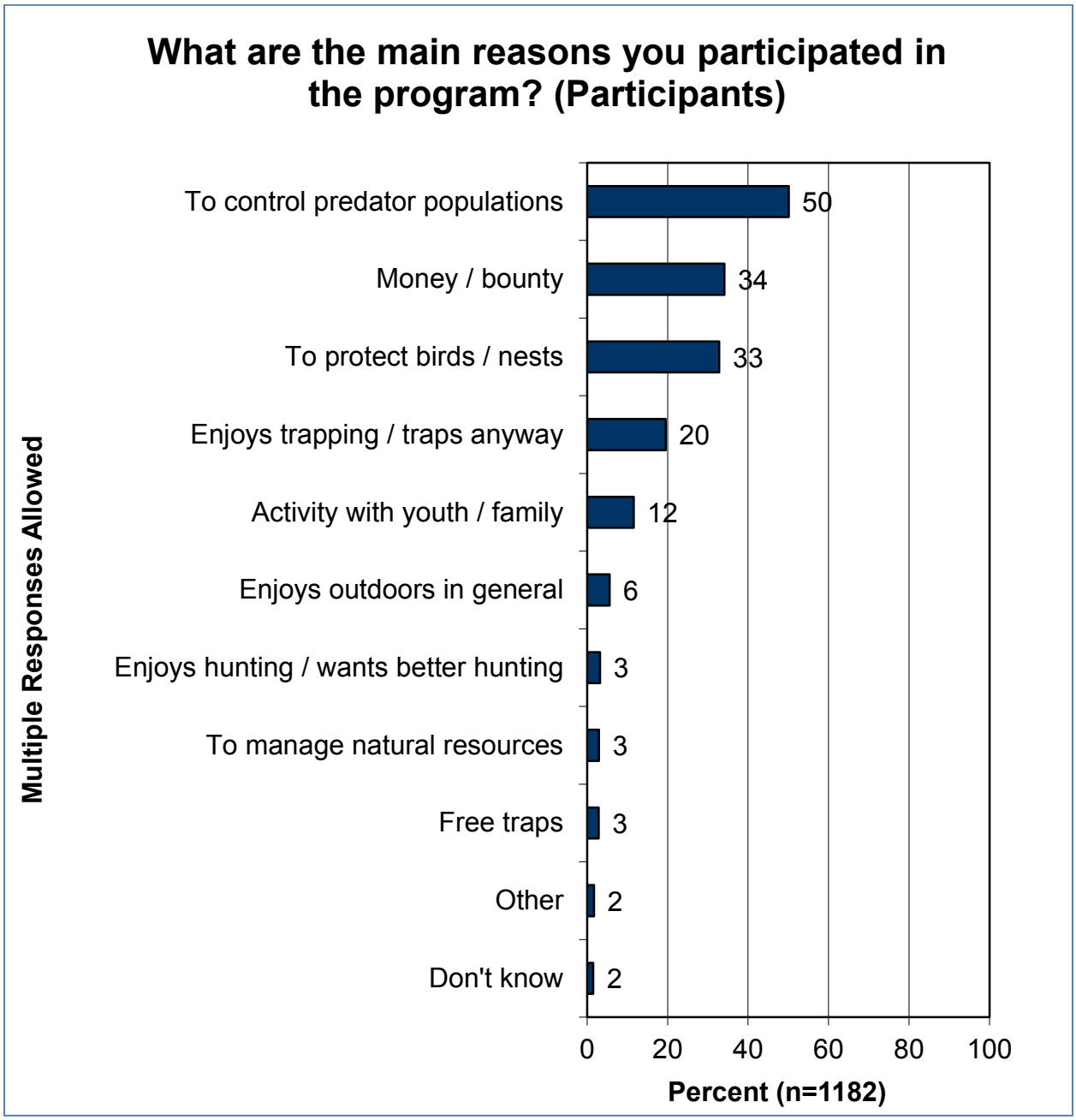


Figure 47. Reasons for Participating in the Program

The last analysis in this section looks at three questions about the perceived effects of the Program. Three statements were read to Program participants, and they were asked if they agreed or disagreed with each statement. The majority of Program participants (64%) agree that the Program increased their participation in outdoor activities in general, a large majority (69%) agree that the Program increased youth interest in outdoor recreation in South Dakota, and a large majority (82%) agree that the Program increased trapping participation in the state (Figure 48).

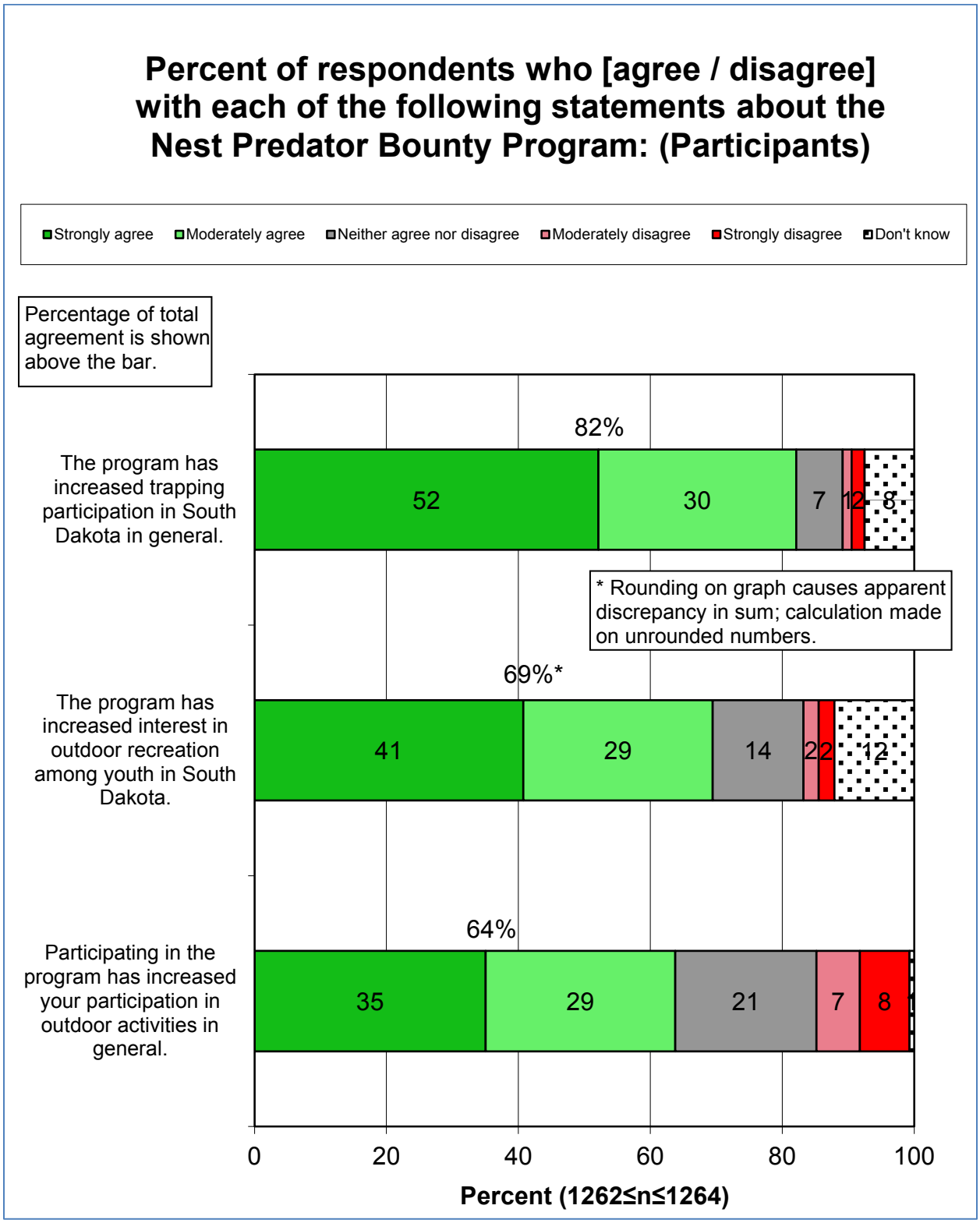


Figure 48. The Program's Effect on Participation in Outdoor Recreation and Trapping

PARTICIPANTS' DAYS AND COUNTIES TRAPPED

Program participants trapped a mean of 49.7 days and a median of 35 days in South Dakota in 2019 (Figure 49). The mean is markedly higher than the median, which indicates that the average was pulled up by the more avid trappers: 35% of participants trapped over 50 days in 2019. Figure 50 shows the breakdown of counties in which participants trapped.

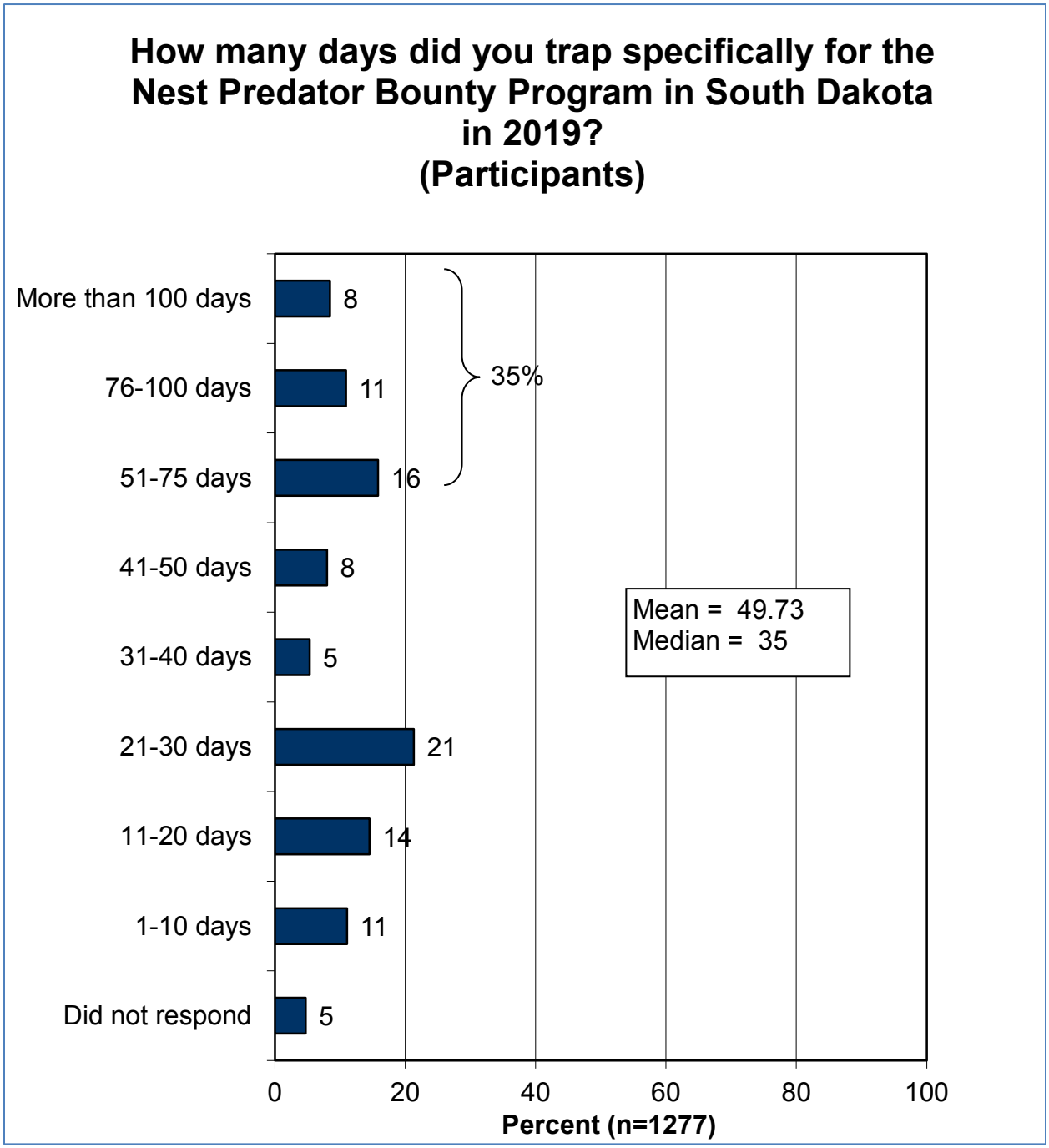


Figure 49. Days Trapped by Participants

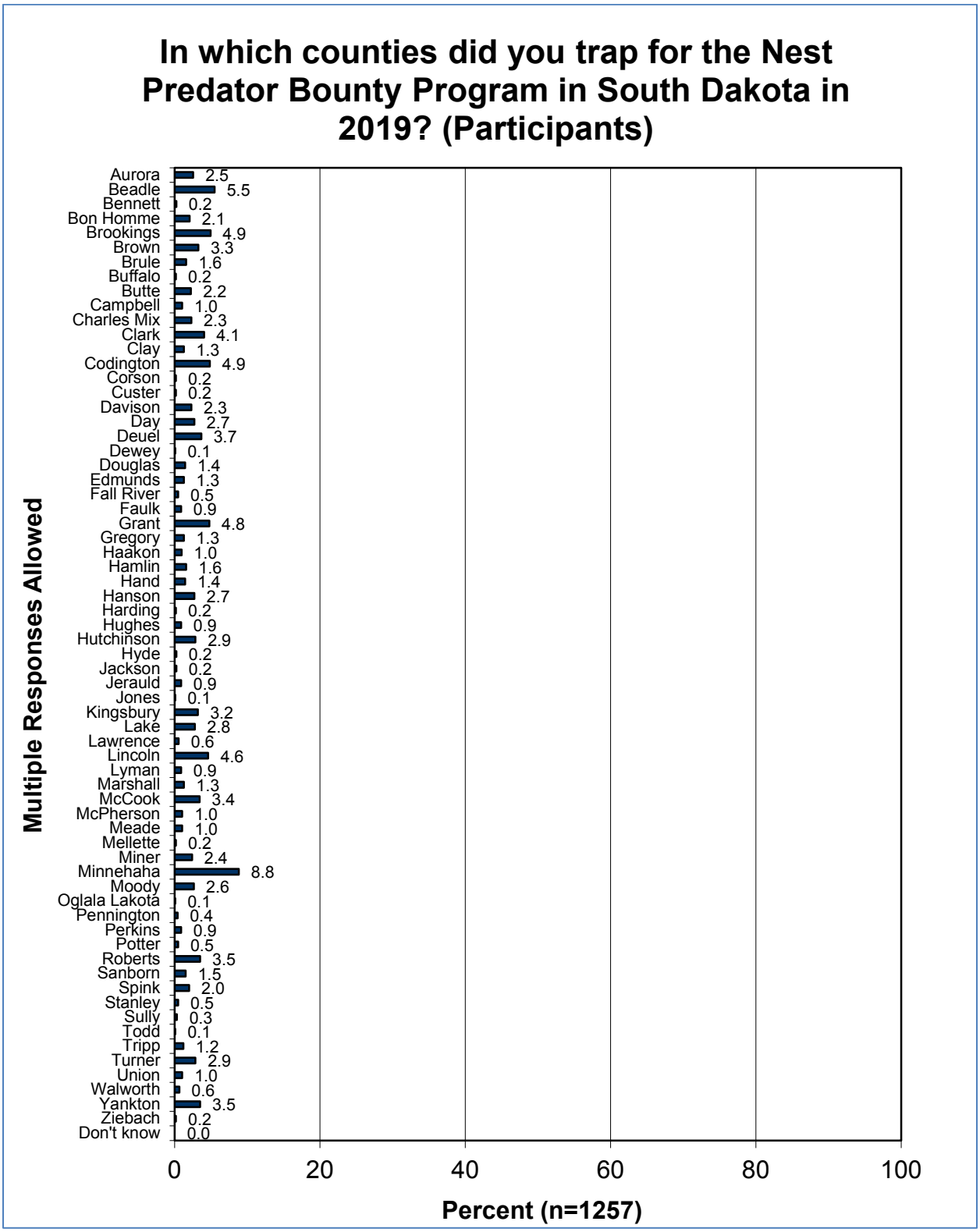


Figure 50. Counties in Which Participants Trapped

DEMOGRAPHIC INFORMATION AMONG RESIDENTS

The survey of residents obtained demographic information, primarily for crosstabulations and further analyses. The survey of the general population has data for the characteristics of respondents' places of residence (i.e., large city down to rural area) (Figure 51), age (Figure 52), and gender (Figure 53).

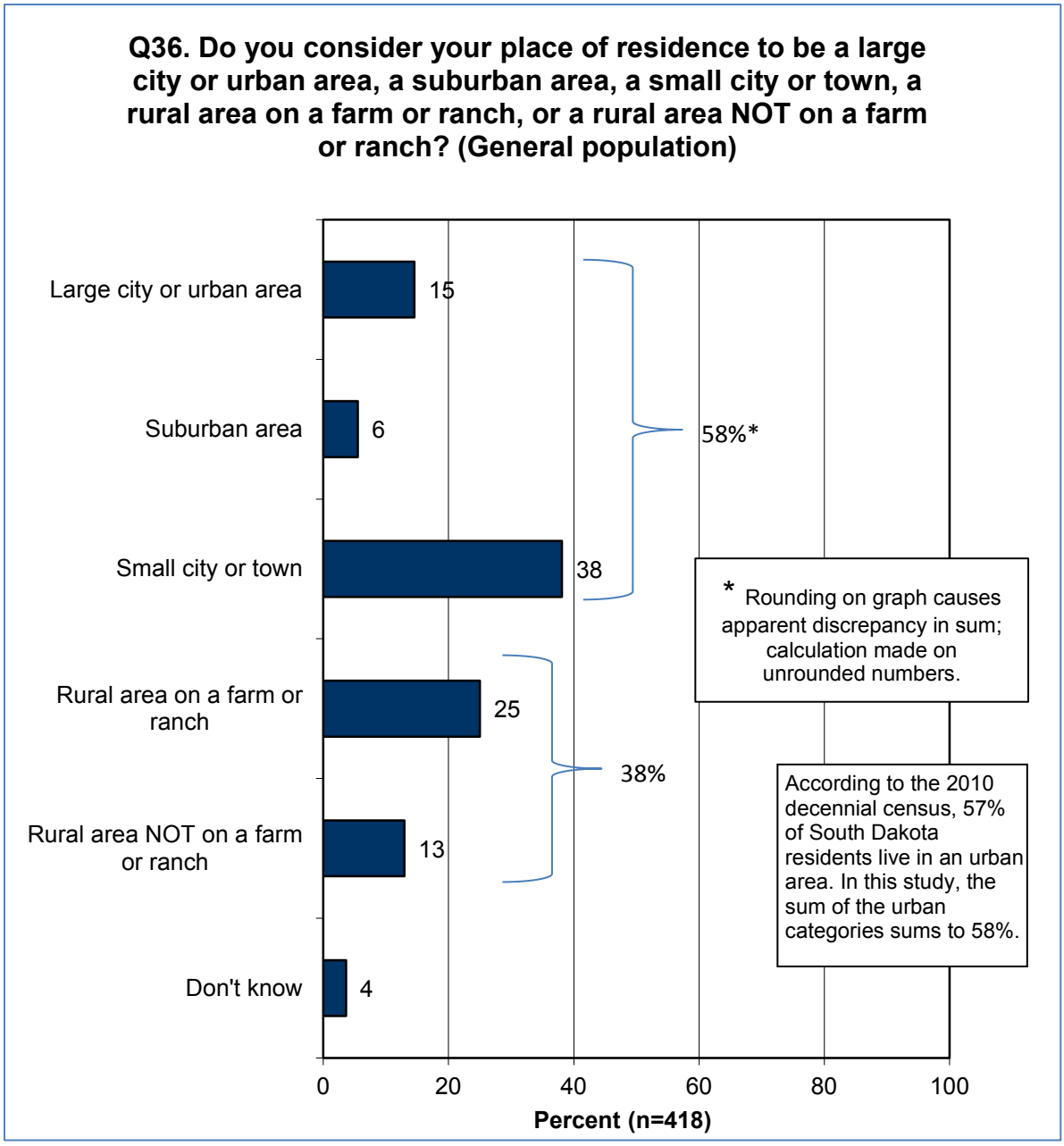


Figure 51. Residency Type, General Population Survey

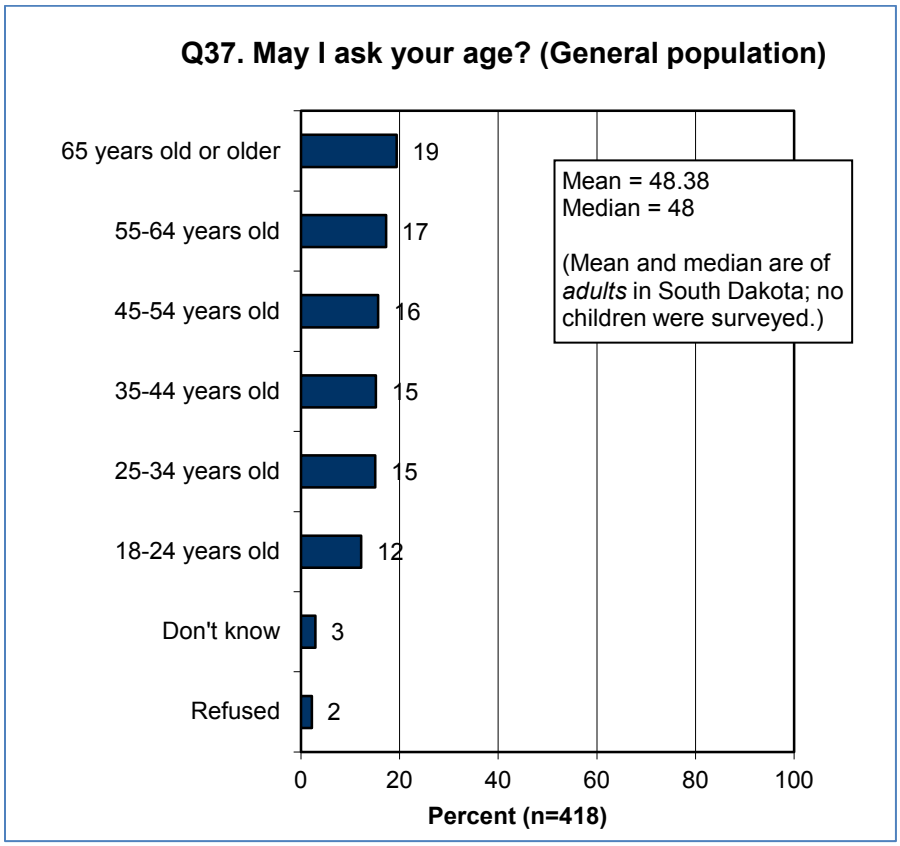


Figure 52. Residents' Age

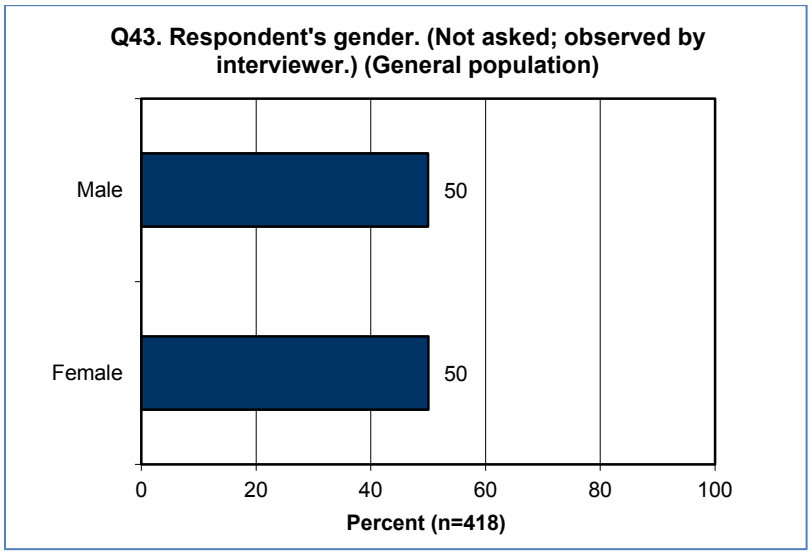


Figure 53. Residents' Gender

DEMOGRAPHIC INFORMATION AMONG PARTICIPANTS

The participant survey also obtained demographic information; these include the county of residence (Figure 54), places of residence (i.e., large city down to rural area) (Figure 55), age (Figure 56), and gender (Figure 57). Note that the age shows adult participants; for logistical reasons, minor participants were not surveyed.

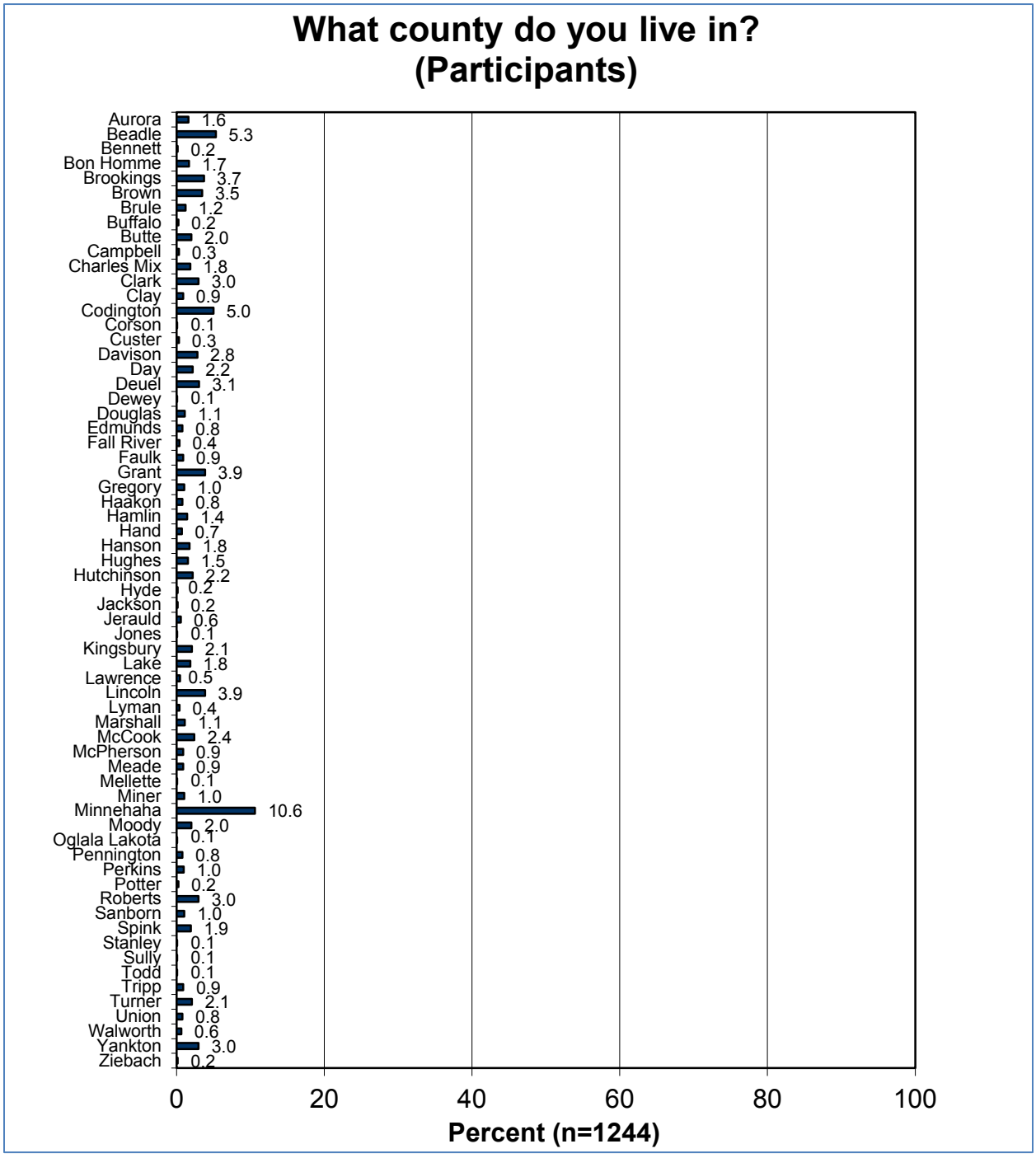


Figure 54. County of Residence, Participant Survey

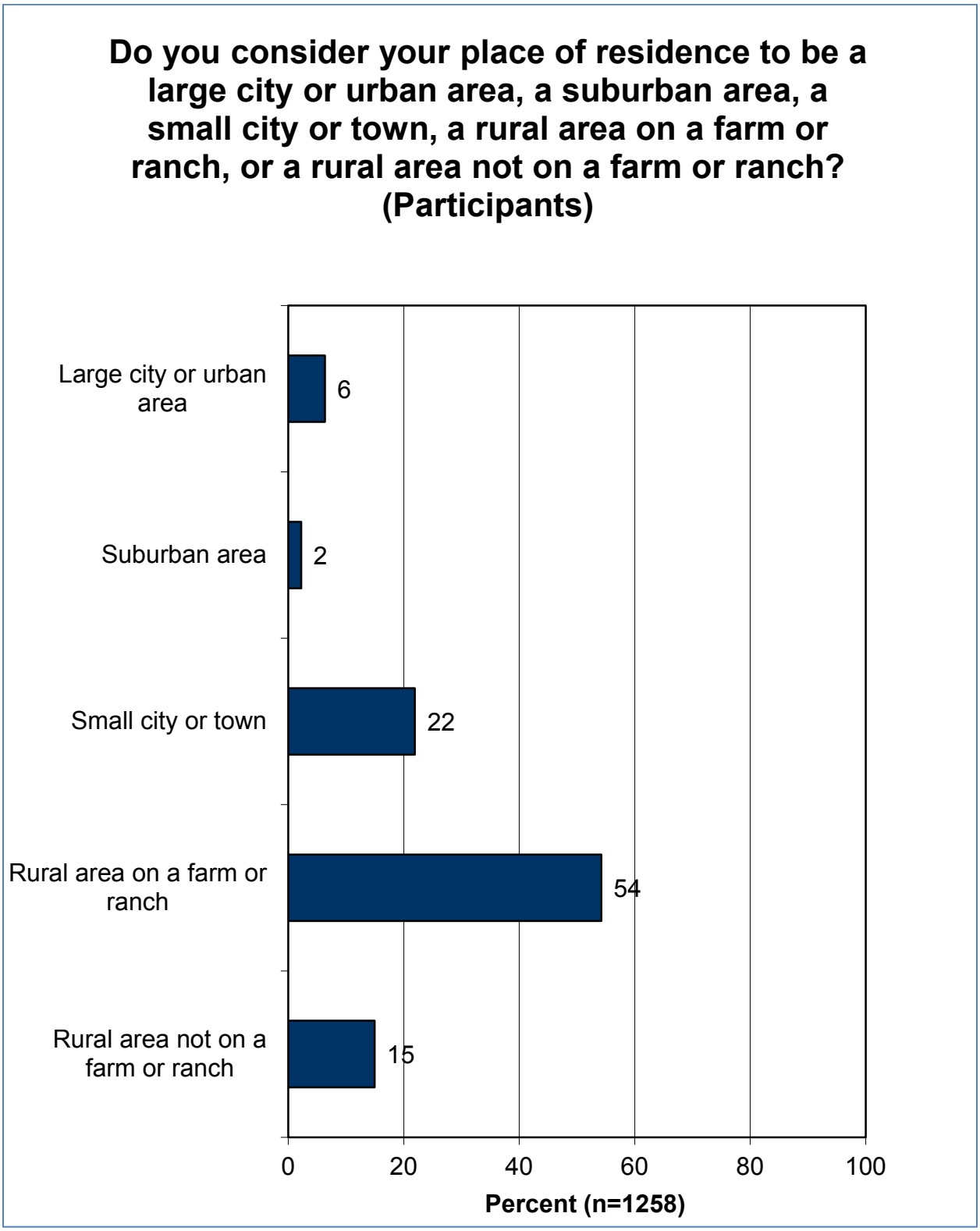


Figure 55. Residency Type, Participant Survey

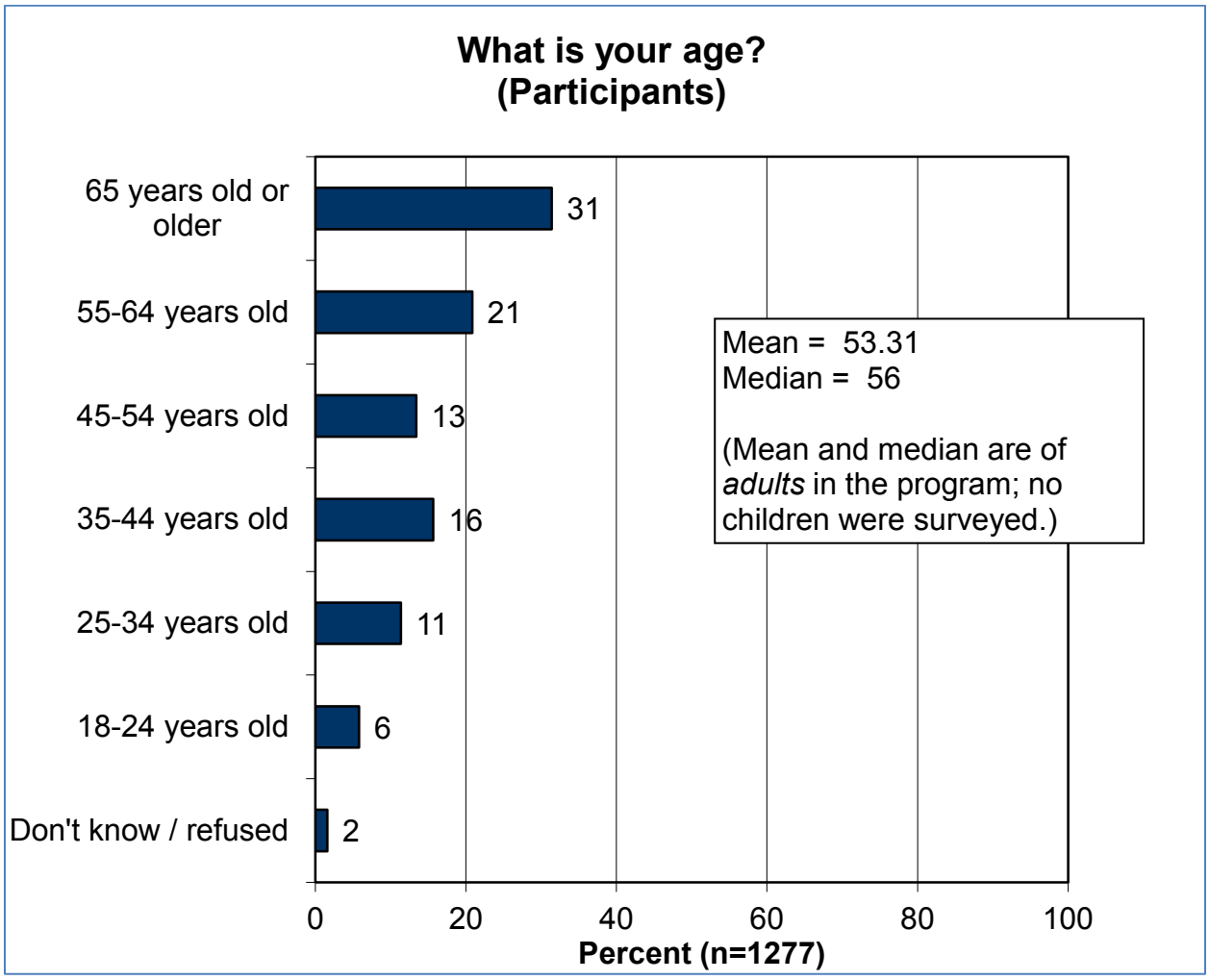


Figure 56. Participants' Age

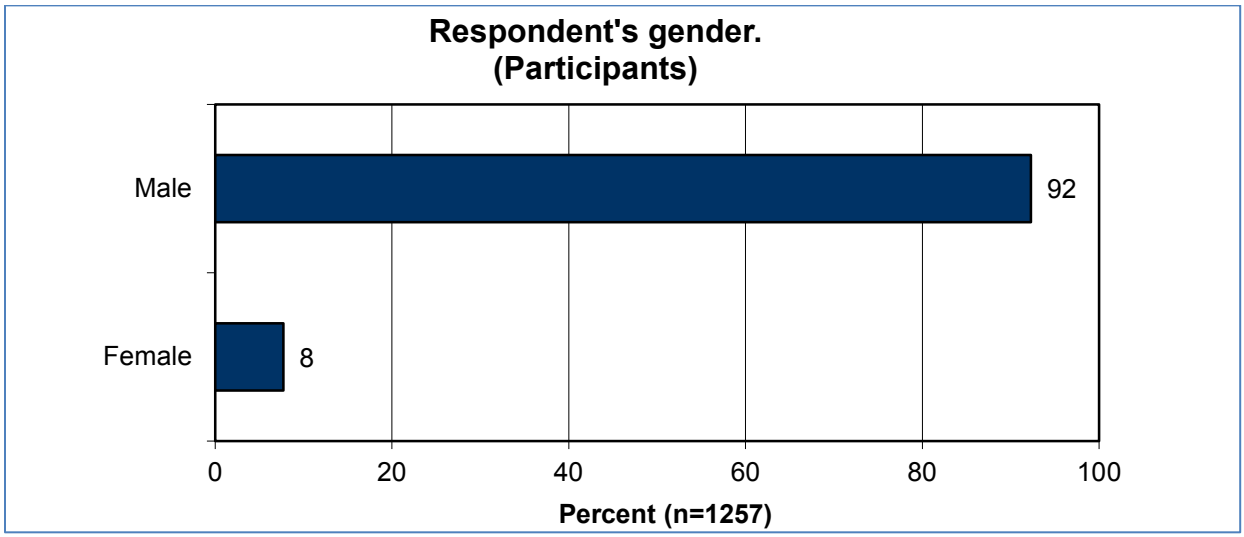


Figure 57. Participants' Gender

ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in 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.

Focusing only on natural resource and outdoor recreation issues, 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 human dimensions research measuring how people relate to the natural world for more than 30 years. 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 human dimensions projects and almost $70 million in research *only* on natural resource and outdoor recreation issues.

Responsive Management has conducted research for every state fish and wildlife agency and every federal natural resource agency, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, Bureau of Land Management, U.S. Coast Guard, and the National Marine Fisheries Service. Additionally, we have also provided research for all the major conservation NGOs including the Archery Trade Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, Dallas Safari Club, Ducks Unlimited, Environmental Defense Fund, the Izaak Walton League of America, the National Rifle Association, the National Shooting Sports Foundation, the National Wildlife Federation, the Recreational Boating and Fishing Foundation, the Rocky Mountain Elk Foundation, Safari Club International, the Sierra Club, Trout Unlimited, and the Wildlife Management Institute. Other nonprofit and NGO clients include the American Museum of Natural History, the BoatUS Foundation, the National Association of Conservation Law Enforcement Chiefs, the National Association of State Boating Law Administrators, and the Ocean Conservancy. As well, Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Vista Outdoor (whose brands include Federal Premium, CamelBak, Bushnell, Primos, and more), 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, Yale 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, National Public Radio, and on the front pages of *The Washington Post* and *USA Today*.

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