

THE OPINIONS OF MAINE RESIDENTS, LANDOWNERS, AND HUNTERS REGARDING DEER, MOOSE, BEAR, AND TURKEY

Conducted for the Maine Department of Inland Fisheries and Wildlife

by Responsive Management

2016

THE OPINIONS OF MAINE RESIDENTS, LANDOWNERS, AND HUNTERS REGARDING DEER, MOOSE, BEAR, AND TURKEY

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Don Kleiner	Maine Professional Guide's Association
Jen Brophy	Maine Sporting Camp Association
Alicyn Smart	Maine Farm Bureau
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EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Maine Department of Inland Fisheries and Wildlife (hereinafter referred to as the Department) to determine the opinions of the general population, landowners of large tracts of land, and hunters regarding the management and hunting of deer, moose, bear, and wild turkey. The study entailed scientific probability-based random sample surveys of the three groups, with some questions that pertained to all three groups and some questions that were just for one (or two) of the groups. (Note that the general population sample/survey is interchangeably referred to as the sample/survey of residents.) Contact with respondents was made by telephone, mail, and email.

For the survey, a multi-modal approach was selected to ensure complete coverage of the populations. Initial contacts were made by postal mail (address-based sampling), by telephone (random digit dialing), and through email (for hunters in the sample that contained an email address). The survey was then administered by telephone and online.

The survey questionnaires were developed cooperatively by Responsive Management and the Department.

The detailed sampling plans for residents, landowners, and hunters is discussed in the body of the report, along with the extensive contact procedures. Each of the samples was probabilitybased and was as representative of their populations as feasible.

Online surveys could be taken at the convenience of the respondent. Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in January and February 2016.

The software used for telephone data collection was Questionnaire Programming Language (QPL). The online data were downloaded into Responsive Management's databased by the

standard export software provided by the online surveying vendor. Responsive Management obtained completed questionnaires from 933 residents, 304 landowners, and 956 hunters.

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

INTEREST IN AND KNOWLEDGE OF WILDLIFE

- Interest in wildlife in Maine is fairly high, with mean ratings of interest (on a 0 to 10 scale where 0 is not at all interested and 10 is extremely interested) at 8.0 or above among the three groups in the survey. Also, a majority of landowners (60%) and hunters (57%) gave their interest in wildlife a rating of "10" (a third of the general population—36%—did so).
- Another question gauged respondents' comfort level regarding wildlife around their homes. Using a continuum from the most comfortable ("I enjoy seeing and having wildlife around my home or on my property") to the least comfortable ("I generally regard wildlife around my home or on my property as dangerous"), a large majority of each group (70% of the general population and 80% each of landowners and hunters) chose the highest comfort level, and nearly all the rest chose the second most comfortable level.
- Finally in this section, the survey asked about respondents' knowledge levels regarding the four primary species of interest in the survey (deer, moose, bear, and turkey). The results of all four questions are shown together. Two observations can be made:
 - Hunters tend to claim to be more knowledgeable than the general population or landowners.
 - Self-rated knowledge levels are highest for deer, followed by moose, wild turkey, and then bear, in that order. (Two graphs are shown of all groups together: one shows the percentages who say that they know a great deal or a moderate amount; the second graph shows the percentages who say that they know nothing at all.)

PARTICIPATION IN HUNTING

- ▶ The survey asked about hunting the four primary species of interest.
 - The overwhelming majority of hunters (91%) had hunted for deer in the past 5 years.
 - About a third of hunters (35%) had hunted moose in the past 15 years (note the timeframe for moose is 15 years on this question, in part to get a larger group in follow-up questions about moose hunting). Also, half of hunters (51%) say that they typically apply for a moose permit in Maine.
 - A third of hunters (33%) had hunted bear in Maine in the past 15 years (note that this also uses a 15-year timeframe).
 - Just under a third of hunters (30%) had hunted turkey in Maine in the past 5 years.
- When asked in which county they most often hunt, hunters most commonly said Aroostook County, followed by Penobscot, Oxford, York, and Somerset (all with at least 8% of hunters hunting in it most often).
- Motivations for hunting the various species were explored. For each species, hunters who had hunted that species were given a list of possible reasons for hunting for that species, and they were asked to choose the reason that was their most important. For each species, the list contained the same six items: for the meat, for a trophy, to be with family and friends, for the sport/recreation/challenge, to be close to nature, or to see a deer/moose/bear/turkey. For the deer question, another item was added: to reduce damage to crops.
 - The most important reasons given for hunting deer were for the meat (50% of deer hunters chose this reason) or for the sport, recreation, and challenge (26%).
 - As was the case with deer, the most important reasons given for hunting moose were for the meat (58%) or for the sport, recreation, and challenge (26%).
 - The most important reasons for hunting bear were for the sport, recreation, or challenge (40%) or for the meat (36%).
 - Hunters most commonly hunt turkey for the sport/recreation/challenge (42%) or for the meat (33%).

SATISFACTION AND DISSATISFACTION WITH HUNTING

- The survey asked about hunters' satisfaction levels for hunting for the four primary species of interest in the survey over the past 5 years (for deer and turkey) or over the past 15 years (for moose and bear). All those who did not answer that they were very satisfied (and those who answered "don't know") were then asked why they had not been more satisfied.
 - The large majority of deer hunters were satisfied with their deer hunting: 82% were satisfied; 15% were dissatisfied.
 - Lack of harvest success is, by far, the most common reason for not being more satisfied with deer hunting.
 - The large majority of moose hunters were satisfied with their moose hunting: 91% were satisfied; 7% were dissatisfied.
 - Lack of harvest success is the most common reason for not being more satisfied with moose hunting.
 - The large majority of bear hunters were satisfied with their bear hunting: 90% were satisfied; 7% were dissatisfied.
 - As with other species, lack of harvest success is the most common reason for not being more satisfied with bear hunting.
 - The large majority of turkey hunters were satisfied with their turkey hunting: 92% were satisfied; only 5% were dissatisfied.
 - Again, lack of harvest success is the most common reason for not being more satisfied with turkey hunting.

CONSTRAINTS TO HUNTING

Hunters who had hunted deer in the past 5 years were asked about any things that might have prevented them from hunting deer as much as they would have liked in the past 5 years. For 41% of these deer hunters, nothing had prevented them. Otherwise, lack of time/other obligations was the most common reason—a reason over which agencies have little sway.

- > Hunters who had not hunted a species were asked why they had not done so.
 - Regarding not hunting deer, distance, time, and not enough deer are common reasons given.
 - Common reasons for not hunting moose include lack of interest, time, expense, and difficulty getting permits.
 - Common reasons to not hunt bear include lack of interest, a dislike of the meat, and lack of time.
 - Regarding turkey, common reasons for not hunting them include lack of interest, lack of time, and restrictive permits/regulations.

OPINIONS ON HUNTING

- Landowners were asked about their approval/disapproval of hunting in general: the overwhelming majority (93%) approve.
- The landowner survey asked about support for or opposition to legal hunting as a method to help manage wildlife populations in Maine. An overwhelming majority of landowners (91%) support.
- The survey asked about approval of hunting of the four primary species of interest in the survey: deer, moose, bear, and turkey.
 - Approval of deer hunting was high across the board: from 93% to 100% approve. At the other end, no more than 6% disapproved.
 - Approval of moose hunting is also high (from 90% to 98%). Compared to approval of deer hunting, the results for approval of moose hunting show a slight shift into *moderate* approval at the expense of *strong* approval (although a majority of each group still *strongly* approve).
 - Approval of bear hunting is high as well, but a little less robust than for moose hunting: from 84% to 97% approve, and again *moderate* approval is not insubstantial. Bear has the highest disapproval of the four species, but only as high as 12%.
 - Finally, approval of turkey is likewise high: from 92% to 99% approve.

- The survey explored opinions on bear hunting for various reasons, with five possible reasons to hunt bear presented to respondents. The most support is for bear hunting as a way to manage bear populations or bear hunting for the meat. Bear hunting to economically benefit rural areas has middling support. At the low end, there is little support for human-centered reasons (for a trophy—the least supported—or for recreation).
 - Hunters express markedly more support than the other groups, with landowners narrowly edging out the general population in support.
 - A majority of all three groups strongly support bear hunting as a method to help manage bear populations in Maine (59% to 83% strongly support) and for the meat (61% to 79% strongly support). These are the only two reasons with a majority of the general population or landowners in strong support.

HUNTING ACCESS

- Although a majority of hunters rate access to hunting lands in Maine as excellent or good (64%), there is a substantial percentage giving a fair or poor rating (34%).
- Paralleling the results above, 34% of hunters agree that lack of access to hunting lands in Maine has caused them to not hunt as much as they would have liked in the past 5 years. On the other end, 61% disagree.
- Landowners were asked about allowing access for hunting on their land. Most of them do so: 81% allow people other than household members to access their largest tract of land for hunting. In breaking down type of access, 42% allow access by permission, and 28% allow open access.
 - A follow-up question asked for the main reasons landowners did not allow access to the land for hunting other than family or friends. Common reasons are a disapproval of hunting, firearm safety concerns, disrespectful behavior of hunters, property damage, and privacy concerns.

HUNTING LICENSING AND FEES

- The majority of hunters think the current hunting license fees are about right (74%); otherwise, 22% say that they are too much, compared to only 3% who say that they are not high enough.
- Hunters' disagreement exceeds their agreement that the current requirement to purchase separate permits for some species prevents them from hunting those species as much as they would like. While a majority (59%) disagree, a substantial percentage (35%) agree.

OPINIONS ON REGULATIONS AND SPECIFIC ASPECTS OF HUNTING

- Opinion is closely split regarding a law requiring that harvested bucks have at least 3 points on one side: 46% of hunters would support, but 50% would oppose.
- Moose hunters and those who typically apply for a permit (even if they did not hunt moose) were asked which month they most preferred for the moose hunting season. The majority of these moose hunters/potential moose hunters chose October (60%), distantly followed by September (22%) and November (12%).
 - Follow-up questions asked respondents why they would most prefer having the season in the month they chose. Those who prefer September most commonly cite the timing of the rut/that there is greater moose activity then. Those who prefer October most commonly say that they prefer the weather then, with the timing of the rut/greater moose activity being the second ranked reason. Those who prefer November most commonly say that they prefer then, with the timing of the rut/more mose activity a distant second.
- A 6-day season with fewer hunters is preferred over a 12-day season with more hunters: among moose hunters/potential moose hunters, 58% choose the 6-day season, while 34% choose the 12-day season.
- Moose hunters and those who typically apply for a permit were asked to choose among two alternatives: having the Department offer more moose permits with a lower harvest rate or offering fewer moose permits with a higher harvest rate. Although a slight majority of

moose hunters/potential moose hunters (52%) choose fewer permits/higher harvest rate over the alternative, there is still a substantial percentage (38%) who choose more permits/lower harvest rate.

LAND MANAGEMENT IN GENERAL

- ▶ Just under half of landowners (48%) actively manage for wildlife on their land.
- The survey asked respondents to rate the management of each of the four primary species of interest in the survey, the results of which are shown individually in the following sections about deer management, moose management, bear management, and turkey management. However, the results are first discussed here with all four species compared.
 - Among the findings: hunters have a markedly better opinion regarding bear management than do the general population or landowners. Otherwise, those three groups are similar to each other.
- The last question in this section concerned coyote management. There is much more support for (from 71% to 91%) than opposition to (from 6% to 20%) a coyote management program, which may cause an increase in deer and/or wild turkey populations in local areas.

DEER MANAGEMENT

Ratings of deer management in Maine are more positive than negative, although there are substantial percentages giving ratings in the lower half of the scale. While from 61% to 70% give a rating of *excellent* or *good* (the top half of the scale), from 25% to 36% give a rating of *fair* or *poor*.

- Another indication of opinion on deer management comes in the question regarding whether the deer population in the area where the respondent lives should be increased, remain the same, or be decreased. The majority of each group says it should remain the same (from 57% to 73%). Otherwise, each group would rather the population be increased (20% of the general population, 19% of landowners, and 34% of hunters—the latter perhaps motivated by their desire to have a good chance of harvest) than decreased (7% of all three groups).
 - Those who wanted to see a decrease in the deer population were asked why they wanted a decrease. The most common reasons are that respondents feel that there is currently an overabundance in general; other more concrete responses include the risk of vehicle collisions, damage to property, damage to habitat, and risk of disease.
- Those who supported an increase in the deer population were asked about a series of possible consequences of an increase in the deer population. For each, they were asked if they would support or oppose an increase in the deer population.
 - Negative ecological consequences cause the most former supporters to no longer support. Poor health overall for the deer herd has the least support (only 15% to 23% still support an increase with this consequence), and the consequence that more deer would die from starvation during winter also has low support (only 12% to 27%). Also with less than a majority of any group in support are less food and poorer quality habitat for other wildlife (support ranges from 29% to 41%) and an increased risk of disease such as Lyme disease (36% to 46%).
 - The human-centered reasons do *not* cause much defection from support, as a majority of each group still support an increase even if Department biologists would spend more time on deer management and less on other species, that private citizens would be required to resolve deer nuisance issues on their own, that there would be more damage to gardens and landscaping, and that there might be more damage to agriculture.

- The survey presented to respondents a series of eight possible factors that could be considered in the management of deer. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - The top-rated factor is the health of the typical deer in the herd (mean ratings of 8.1 or higher)—an ecological factor. Then comes providing deer hunting opportunities (mean of 7.6 or higher), the opportunity to see deer (6.9 or higher), and then another ecological one—impacts on habitat (6.5 or higher).
 - Damage to gardens/landscaping damage to agriculture are the lowest rated.
- Support for legal deer hunting as a method to help manage deer is high: from 92% to 98% support, most of it *strong* support. Only 4% or less oppose it.
- A series of possible deer management options in areas where deer become overabundant was presented in the survey. For each, respondents were asked whether they would support or oppose each one. There were seven possible options presented.
 - For all options except two, there are majorities in support. At the top are the creation of a special archery season, targeted doe permits, and a controlled hunt with a limited number of hunters (the lowest support among any group for any of these three was 72%).
 - The two items with less than a majority of all three groups in support are a longer firearms season (supported by a majority of the general population and hunters, but just less than half of landowners) and sharpshooters (no more than 48% of any group in support).
- A final question in this section concerned deer and moose together. First, respondents were informed of the following: "Because moose and deer have very different habitat requirements, it is difficult to have large numbers of moose and deer in the same area." Respondents were then asked to choose on a continuum from abundant moose/very few deer to relatively few moose/moderate numbers of deer in northern Maine. Respondents favor lower moose numbers, most commonly choosing either the lowest moose or the middle option in the continuum; relatively few chose to have abundant moose/few deer.

MOOSE MANAGEMENT

- Large majorities of the groups (from 63% to 67%) give positive ratings of moose management—*excellent* or *good*. On the other end, from 19% to 22% give ratings of *fair* or *poor*. The percentages who do not know range from 11% to 18%.
- The majority or a near-majority of each group says the moose population should remain the same (from 49% to 61%). Otherwise, each group has a higher percentage who would rather see the population be increased (15% of the general population, 15% of landowners, and 23% of hunters) than decreased (from 4% to 6% of the groups).
- Those who supported an increase in the moose population were asked about a series of possible consequences of an increase in the moose population (some consequences that have counterparts in the deer section of the survey, and some unique to moose). For each of four consequences, respondents were asked if they would support or oppose an increase in the moose population.
 - The possible negative ecological consequences cause the most defection from support. No more than 26% of any of the groups would still support an increase if it meant poor health overall for the moose herd, and just under half (from 45% to 46%) would still support if it meant that forest regeneration would be negatively impacted.
 - An increase in agricultural damage caused little defection: from 58% to 71% would support an increase if this was the consequence. An increased likelihood of vehicle collisions also does *not* cause mass defection, as a majority of each group would still support the increase with this consequence—from 50% (a majority because it is rounded from 50.4) to 62%.
- The survey presented to respondents a series of possible factors that could be considered in the management of moose. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - The top-rated factor is the health of the typical moose in the herd (mean ratings ranging from 8.0 to 8.4)—an ecological factor. Next in the ranking by mean is providing moose

hunting opportunities (mean of 7.2 to 7.7) and the opportunity to see moose (7.1 to 7.4). Risk of vehicle collisions is next at 6.9 to 7.2.

- After that, the importance markedly drops for impacts on habitat (6.1 to 6.6) and damage to agriculture (4.2 to 5.1).
- Support for legal moose hunting as a method to help manage moose is high: from 91% to 97% support, most of it *strong* support. Only 7% or less oppose it.
- One question asked about "adjusting the hunting harvest of female moose" to improve the health of the moose population, but included the caveat, "even if it meant fewer moose in Maine." A majority support this adjustment (68% of the general population, 66% of landowners, and 80% of hunters). Nonetheless, opposition ranges from 21% among the general population down to 10% among hunters.
- There is much more support for (ranging from 54% to 68%) than opposition to (9% to 13%) the current moose hunting season in southern Maine.

BEAR MANAGEMENT

- Ratings of bear management in Maine are more positive than negative, with substantial percentages, nonetheless, giving ratings in the lower half of the scale. Majorities of 57% to 72% give a rating of *excellent* or *good* (the top half of the scale), while 13% to 28% give a rating of *fair* or *poor*. The percentages who do not know range from 15% to 22%.
- The majority of each group says the bear population should remain the same (56% of the general population, but 67% and 71% among the other two groups). Otherwise, there is a fairly even split among the remainder (from 4% to 8% want an increase, and from 4% to 8% want a decrease).

- Those who supported an increase in the bear population were asked about a series of possible consequences of an increase in the bear population. For each consequence, respondents were asked if they would support or oppose an increase in the bear population.
 - The ecological consequence caused the most defection among those who had supported an increase: only from 15% to 28% of the groups would still support an increase if it meant poor health overall for the bear population.
 - Less than a majority of the general population and landowners would still support an increase if it meant an increased risk to public safety.
 - Human-centered reasons do *not* cause this defection from support, as a majority of all groups would still support an increase if it meant that additional/special bear hunting seasons would need to be opened to manage bear, if bear-proof trash containers were necessitated, if more bears would be killed because of conflicts with humans, and if government staff would spend more time on bears.
- The survey presented to respondents a series of possible factors that could be considered in the management of bear. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - The top-rated factor is the health of the typical bear (mean ratings ranging from 7.6 to 8.4)—an ecological factor. This was followed by providing moose hunting opportunities (mean of 7.0 to 8.1)—these top two being markedly above the others. Risks to public safety and risk to pets/livestock are in the middle, along with impacts on other wildlife.
 - After that, the importance markedly drops for damage to agriculture, risks of vehicle collisions, and damage to gardens.
- Support for legal bear hunting as a method to help manage bear is high: from 87% to 95% support, most of it *strong* support. Only 9% or less oppose it.

Each group is split on opinion regarding allowing the bear population to expand into central and southern Maine. While a majority of each group support doing so, there is substantial opposition. Among the general population, 54% support, but 30% oppose. Among landowners, 54% support, while 29% oppose. Finally, among hunters, 63% support, but 25% oppose.

TURKEY MANAGEMENT

- Ratings of turkey management in Maine are more positive than negative, with 49% to 58% giving a positive rating of *excellent* or *good*, but 28% to 34% giving a rating of turkey management as only *fair* or *poor*. The percentages who do not know range from 14% to 18%.
- The majority of each group says the turkey population should remain the same (from 52% to 62%). However, the remainder more often want a decrease than an increase: from 27% to 31% want to see a decrease, compared to just 6% to 13% who want an increase. This is the only species of the four in the survey for which *decrease* is markedly more than *increase*.
- A series of follow-up questions was asked of those who said that they wanted to see an increase in turkey populations, asking if they would support or oppose an increase based on seven possible consequences of an increase.
 - In the face of ecological consequences (more turkey dying from starvation in winter; poor health overall for the turkey population), most of those who formerly supported an increase no longer support it.
 - The human-centered consequences do *not* cause this defection from support (that private citizens would be required to resolve problems on their own; that there would be an increase in damage to gardens, landscaping, or agriculture), nor does the consequence of an increase in predators (being seen, perhaps, as a positive ecological consequence or at least a "natural" ecological consequence).

- The survey presented to respondents a series of possible factors that could be considered in the management of turkey. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - Turkey hunting is valued in Maine, as the top-rated factor is providing turkey hunting opportunities (mean of 7.4 to 8.3), closely followed by the health of the typical turkey in the population (mean of 7.4 to 7.9). There is a drop in importance placed on the next items: the opportunity to see turkey (6.1 to 6.9) and damage to agriculture (5.8 to 6.5).
 - Lowest in importance are damage to gardens (5.2 to 5.7) and the risk of vehicle collisions with turkey (4.6 to 5.0).
- Support for legal turkey hunting as a method to help manage turkey is high: from 92% to 98% support, most of it *strong* support. Only 5% or less oppose it.
- A series of possible turkey management options in the event that turkey became overabundant in an area was presented in the survey, and respondents were asked whether they would support or oppose each one. For each of all four options, an overwhelming majority would support it (no less than 77% among any group for any option), and in fact a majority of the general population would *strongly* support it, ranging from 54% to 61%. *Strong* support is a little higher among landowners, ranging from 55% up to 71%, and then markedly higher among hunters, ranging from 78% to 82%. For all groups, the *least* favored is extending the hunting season later into the fall or winter; the three other options are about even with one another and just slightly higher than that last-placed option. Opposition is no more than 17% among any group for any of the four options.
 - The three items with the most support are: implementing a controlled hunt in areas experiencing damage from turkeys, allowing landowners to apply for a permit to remove turkeys that are causing problems on their land, and increasing the bag limit for turkey in areas experiencing damage.

PROBLEMS WITH WILDLIFE

- While most landowners in the survey (61%) did not experience any problems with wildlife on their largest tract of land in the past 2 years, the obverse of this means that a fairly large percentage (39%) reported having problems.
 - The most common culprits were coyotes, deer, and turkeys.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Maine Department of Inland Fisheries and Wildlife (hereinafter referred to as the Department) to determine the opinions of the general population, landowners of large tracts of land, and hunters regarding the management and hunting of deer, moose, bear, and wild turkey. The study entailed scientific probability-based random sample surveys of the three groups, with some questions that pertained to all three groups and some questions that were just for one (or two) of the groups. (Note that the general population sample/survey is interchangeably referred to as the sample/survey of residents.) Contact with respondents was made by telephone, mail, and email. Specific aspects of the research methodology are discussed below.

USE OF MULTI-MODAL SURVEY

For the survey, a multi-modal approach was selected to ensure complete coverage of the populations. Initial contacts were made by postal mail (address-based sampling), by telephone (random digit dialing), and through email (for hunters in the sample that contained an email address). The survey was then administered by telephone and online. Note that the online portion was a closed survey, meaning that it could be completed only by those invited to participate from the original survey; people could not simply surf across the survey and take it.

QUESTIONNAIRE DESIGN

The survey questionnaires were developed cooperatively by Responsive Management and the Department, based on the research team's familiarity with hunting and wildlife management. The surveys were coded in Questionnaire Programming Language (QPL) for approval from the Department and for use in administering the surveys by telephone. Online versions of the surveys were coded in HyperText Markup Language (HTML) based on the QPL versions. Both the telephone and online versions produced data that could be exported directly into Responsive Management's data analyses programs.

The survey instruments were programmed to automatically skip questions that did not apply and to substitute phrases in the survey based upon previous responses, as necessary, for the logic and

flow of the interviews. Responsive Management conducted pre-tests of the questionnaires to ensure proper wording, flow, and logic in the surveys.

SURVEY SAMPLES AND CONTACT PROCEDURES

As stated previously, three samples were surveyed: residents, landowners, and hunters. The information below details each of the samples.

The Sample of Residents

The general population resident sample was obtained from Marketing Systems Group, a firm specializing in scientific survey samples representative of the general population. To ensure the widest possible coverage of the Maine general population, the overall sample included both telephone and mail components.

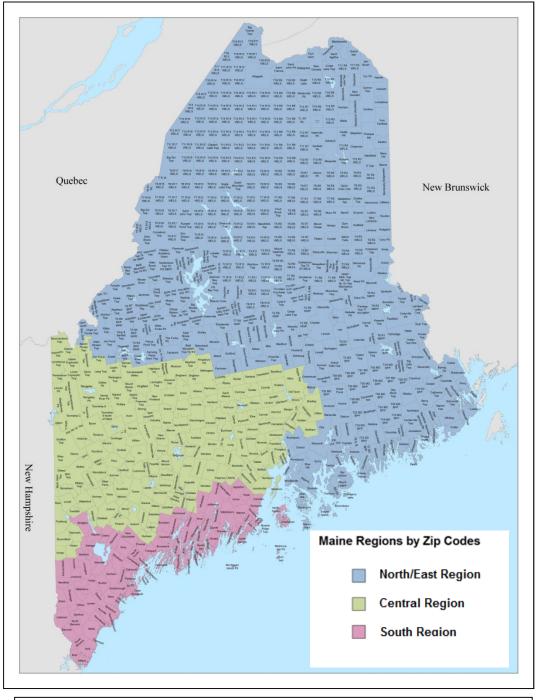
Although current estimates are that 98.7% of Maine households use a landline telephone, a wireless telephone, or both (see the December 2013 report from the National Centers for Disease Control and Prevention, *Wireless Substitution: State-Level Estimates From the National Health Interview Survey*), the survey also included an address-based system (ABS) component. ABS entails the sampling of physical addresses from a near-universal database. In theory, every parcel of land in the United States with a residence and every lot in urban areas has an address associated with it, providing complete coverage. The resulting sampling design ensured that every Maine resident had an equal chance of being contacted for the survey.

For the telephone component of the general population resident survey, a dual-frame sample was used that combined a sample of listed landline telephone numbers with a sample of wireless telephone numbers in their proper proportions (in other words, the proportions of landline and wireless numbers in the sample matched the actual proportions of the two telephone types as they exist in Maine households). The resulting coverage rate is estimated to be 97.7% of U.S. households—only 2.3% have no telephone at all. This dual-frame approach was first developed by researchers at the University of Virginia's Center for Survey Research.

For the mail component of the general population resident survey, letters were mailed to a random sample of residents using the ABS approach. The letters included a link to an online version of the questionnaire as well as a toll-free number for respondents to contact Responsive Management. Note that the survey was available only to those who were selected in the sample. Appropriately designed surveys with an Internet component require that a *closed* group of potential respondents be invited to participate in the survey. Internet surveys are an excellent survey method to use *when the sample consists of a closed population* of respondents, as was the case in this study (i.e., a person surfing the Internet could not stumble upon the survey and take it).

The overall sample of Maine general population residents was stratified based on three regions, with a predetermined number of surveys completed in each region (note that the geographic area of the respondent's residence was also verified in the survey itself). The regions are shown in the map on the following page.

Map of Regions



Note: Map produced in color; may not be legible in black and white prints.

Contact of Residents by Telephone

A five-callback design was used to maintain the representativeness of the telephone sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all residents in the telephone sample to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day.

Contact of Residents by Mail

Letters to residents in the mail sample were sent using Department letterhead and envelopes. Each letter included a unique identification code assigned to the respondent allowing him/her to be tracked so that he/she would not be contacted after already completing the survey, as well as to ensure that only residents who were supposed to be contacted were taking the survey. The tracking number was also used to help those who called or emailed for assistance.

The letters provided a link to the survey, a toll-free number, and an email address. The toll-free number and email address allowed respondents to contact Responsive Management to take the survey by telephone, schedule another time for the interview, or request a link for the online survey. The template for the letter is shown on the following page.

Letter for Mail Contact

STATE OF MAINE DEPARTMENT OF **INLAND FISHERIES & WILDLIFE** 284 STATE STREET **41 STATE HOUSE STATION** AUGUSTA ME 04333-0041 CHANDLER E. WOODCOCK PAUL R. LEPAGE January 12, 2016 Access Code First Name Last Name Street Address City, State Zip Dear Maine Resident, The Maine Department of Inland Fisheries and Wildlife has contracted with Responsive Management to conduct a study which asks residents their views on wildlife management issues. This study will gather residents', hunters', and landowners' opinions on big game management in the state, including opinions on white-tailed deer, moose, black bear, and wild turkey population levels, associated management techniques, and potential changes to the Department's management program. Your address was one of only a small number that has been randomly selected to help us with this study. To make sure we hear from all different types of people who live in the state, please have the adult (age 18 or over) in your household who has had the most recent birthday complete the survey no later than January 30, 2016. It is our hope that you will be able to complete the survey online to allow us to expeditiously summarize the results. Please enter this web address into your internet browser's address bar: http://sgiz.mobi/s3/BigGame. Where prompted, enter your survey access code: Your Access Code is: Access Code (The access code allows us to mark your household as having completed a survey.) Please be sure you put the survey address http://sgiz.mobi/s3/BigGame into your internet browser's address bar and not into a Google, Yahoo, or Bing search engine. Here's an example of where you should type the address in your internet browser's address bar: < 47 × P Edit 🔄 • 🔊 · 🖃 🖶 • Page • Safety • Tools • 🔞 Participation is voluntary and responses are completely confidential. Your answers will never be associated with your mailing address, and we do not keep any name or address in our data. If you have questions about this research or would like to do the survey by phone, please call 1-800-432-6135, or email alison@responsivemanagement.com. By completing a survey, you will be helping the Department understand residents' opinions on important big game management issues. Thank you for your time, and I look forward to receiving your response. Sincerely, Alion & Tomi Alison Lanier, Research Associate **Responsive Management** PHONE: (207) 287-5202 FISH AND WILDLIFE ON THE EMAIL ADDRESS: WEB: ifw.webmaster@maine.gov www.maine.gov/ifw

The Samples of Landowners and Hunters

The landowner sample was derived from tax records and included all types of landowners. A randomly selected probability-based sample was drawn from the database.

The sample of Maine hunters was obtained from license databases provided by the Department. The hunter database included license holders from the previous 3 years and included lifetime license holders and nonresident license holders as well as resident license holders. As was done for the landowner survey, a randomly selected probability-based sample of hunters was drawn from the database, with the mode of contact(s) determined by the information available for each hunter (i.e., a telephone number, a mailing address, and/or an email address).

Contacts were made by telephone, mail (via letters similar to those used for the resident mail sample), and email. Note that only after the probability-based random samples were selected from the database were attempts made at contacting those who had been selected. The overall landowner and hunter samples were designed to ensure a 95% confidence level and low sampling errors.

Initial Contact of Landowners and Hunters

For each of the samples, letters were sent to those in the selected random sample who only had a postal address and no telephone number or email address. All those in each sample with an email address were initially sent an email with the link to the online survey. Those with telephone numbers but not email addresses were initially contacted by telephone.

Letters and emails both provided a link to the survey. The letters also provided a unique identification number to access the survey (emails did not require the unique identification number as the number was embedded in the unique link that each email recipient received). All landowners and hunters could be accounted for so that no landowner or hunter could complete the survey more than once, nor could those who had not been selected in the sample take the survey. A toll-free number was made available to letter recipients and an email address was made available to email recipients for those who needed assistance. The toll-free number and the email address allowed landowners and hunters to contact Responsive Management to take the

survey by telephone, schedule another time for the interview, or request a link for the online survey.

As with the letters sent to general population residents, letters and emails to landowners and hunters explained the purpose of the study, included a link to the online survey, and provided a deadline for completion.

Follow-Up Contacts and Reminders to Landowners and Hunters

Responsive Management carefully tracked participation in the survey through the identification numbers. Approximately 1 to 3 weeks after sending the first contacts, Responsive Management began making follow-up contact with those who had not yet responded. Multiple follow-up contacts were made to encourage participation and obtain completed interviews using the most convenient method for respondents. Responsive Management continued with a total of two to five follow-up contacts. The reminders again provided a link to the online survey and a toll-free contact number.

SURVEY FACILITIES

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

To ensure the integrity of the telephone survey data portion of the study, 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 these surveys. 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 questionnaires, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaires.

INTERVIEWING DATES AND TIMES

Online surveys could be taken at the convenience of the respondent. Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. For the telephone portion, a five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in January and February 2016.

SURVEY DATA COLLECTION AND QUALITY CONTROL

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

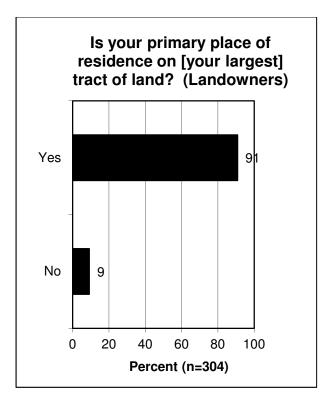
The online data were downloaded into Responsive Management's databased by the standard export software provided by the online surveying vendor.

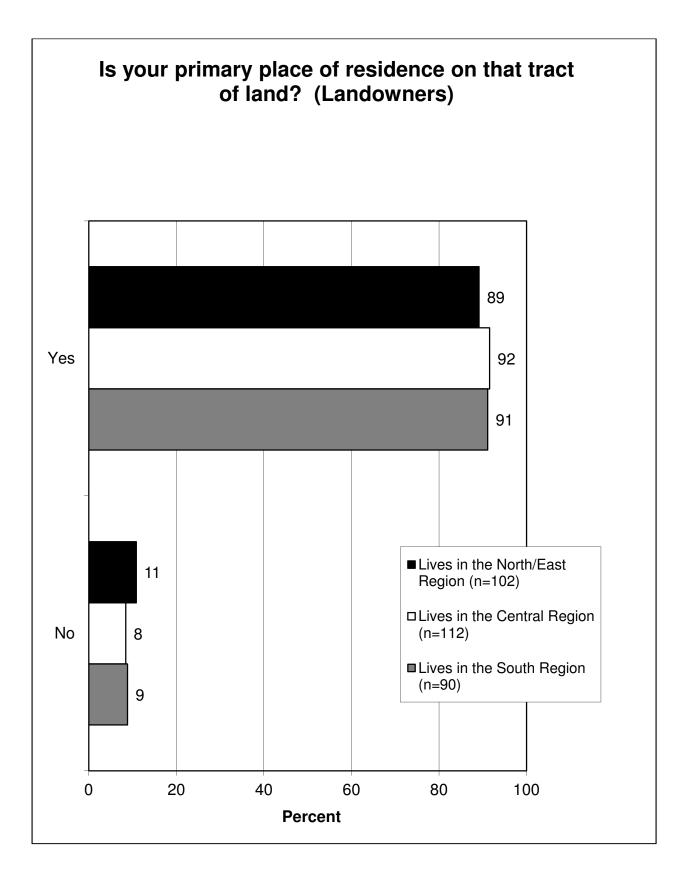
The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data. The survey questionnaire itself contains error checkers and computation statements to ensure quality and consistent data. After the surveys, both the telephone and the online versions, were obtained, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness. Responsive Management obtained completed questionnaires from 933 residents, 304 landowners, and 956 hunters.

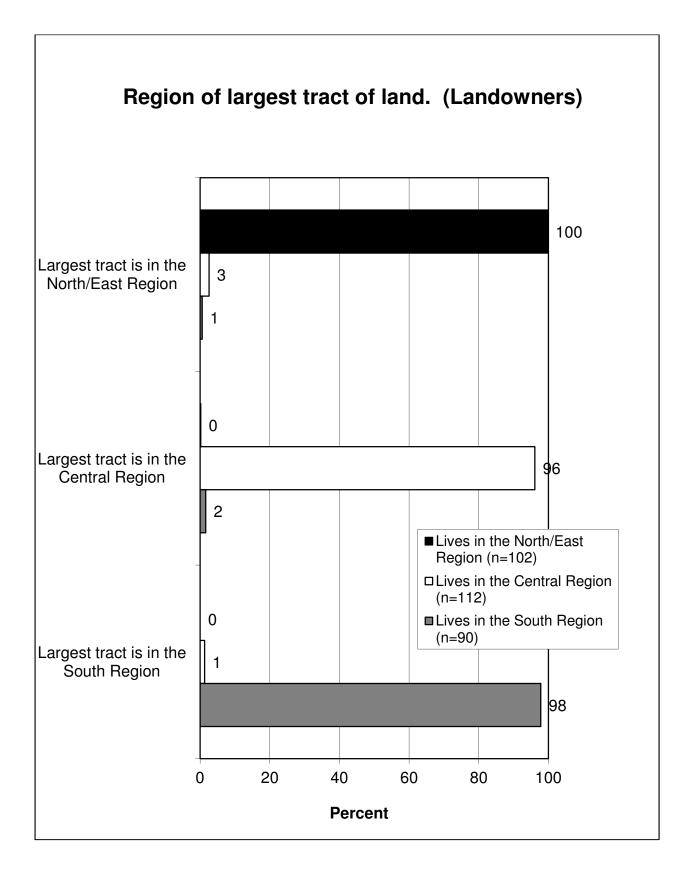
DATA ANALYSIS

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

Regional crosstabulations were run on nearly all questions. For the general population survey, the region was determined by where the respondent lived. For the landowner survey, some regional crosstabulations were run by where the largest tract of land was located, and others were run by where the landowner lived, depending on the question and which crosstabulation made more sense. While some questions were directly tied to their largest tract of land, the survey also asked about wildlife populations where the respondent lives. (Note that the landowner regional crosstabulations, whether by residence or location of the largest tract, will be close to each other because a high percentage of landowners—91% overall and from 89% to 92% in the three regions—live on their largest tract of land. Furthermore, among those who do not, many live in the same region as their biggest tract. See the graphs that follow.) Finally, for the hunter survey, some regional crosstabulations were based on where the hunter lives, and others were based on the region in which he/she most often hunted.







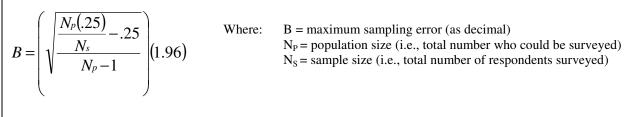
All of the regional results are included in the report in Appendix A. To not overwhelm the reader, however, only regional results that have marked differences among regions are shown and discussed in the body of the report.

SAMPLING ERROR

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. The sample sizes and the estimated sampling errors they would produce are shown in the tabulation below, as well as the formula used to calculate them.

Sample Type	Sample Size	Sampling Error
Residents	933	4.07
Landowners	304	6.81
Hunters	956	3.26

Sampling Error Equation



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 <u>maximum</u> sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

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

of questions:

- Open-ended questions are those in which no answer set is read to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Single or multiple response questions: Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."

- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as excellent-good-fair-poor.
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

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

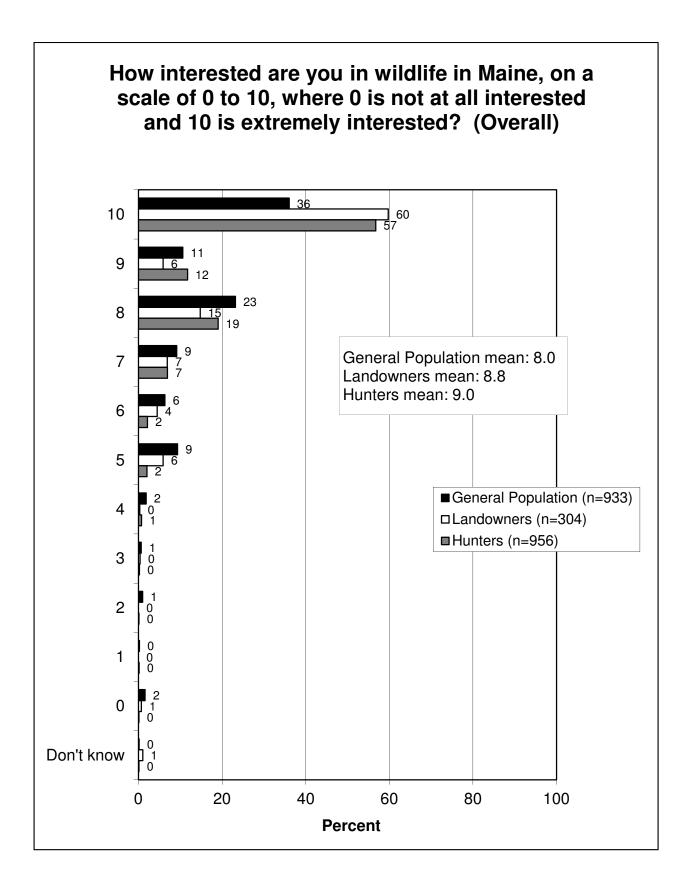
Note that some references in the crosstabulations are made to three groups. The term "groups" in this context refers to the three samples: residents, landowners, and hunters.

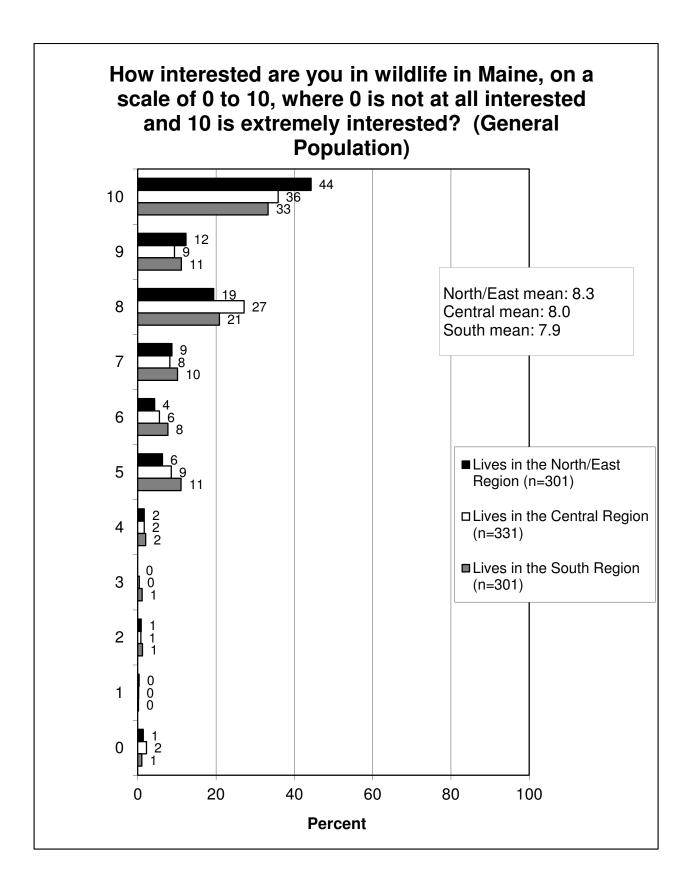
As explained previously, all regional results are included in Appendix A, but only regional results for which there are marked differences among the regions are shown and discussed in the body of the report.

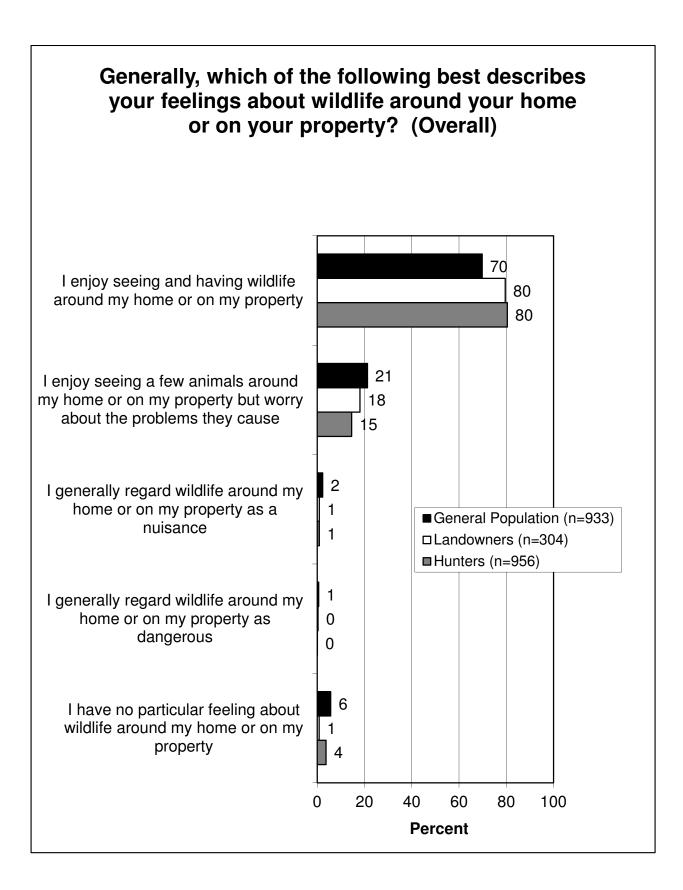
INTEREST IN AND KNOWLEDGE OF WILDLIFE

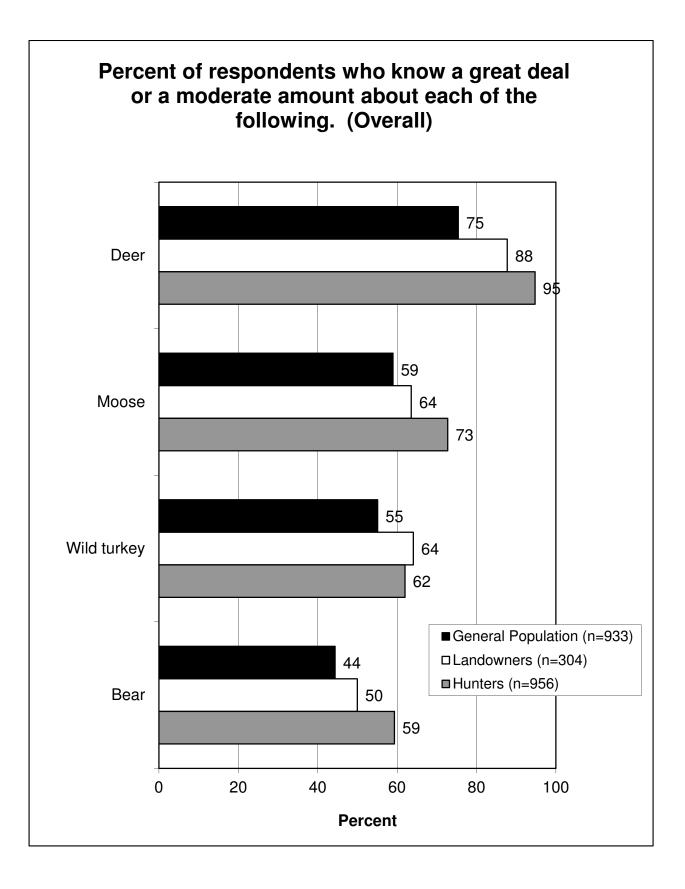
- Interest in wildlife in Maine is fairly high, with mean ratings of interest (on a 0 to 10 scale where 0 is not at all interested and 10 is extremely interested) at 8.0 or above among the three groups in the survey. Also, a majority of landowners (60%) and hunters (57%) gave their interest in wildlife a rating of "10" (a third of the general population—36%—did so).
 - The regional results of the general population survey suggest that North/East Region residents show slightly more interest than residents of the Central or South Regions.
- Another question gauged respondents' comfort level regarding wildlife around their homes. Using a continuum from the most comfortable ("I enjoy seeing and having wildlife around my home or on my property") to the least comfortable ("I generally regard wildlife around my home or on my property as dangerous"), a large majority of each group (70% of the general population and 80% each of landowners and hunters) chose the highest comfort level, and nearly all the rest chose the second most comfortable level.
- Finally in this section, the survey asked about respondents' knowledge levels regarding the four primary species of interest in the survey (deer, moose, bear, and turkey). The results of all four questions are shown together. Two observations can be made:
 - Hunters tend to claim to be more knowledgeable than the general population or landowners.
 - Self-rated knowledge levels are highest for deer, followed by moose, wild turkey, and then bear, in that order. (Two graphs are shown of all groups together: one shows the percentages who say that they know a great deal or a moderate amount; the second graph shows the percentages who say that they know nothing at all.)
 - Regional results of the general population survey show that North/East Region residents appear to be more knowledgeable than residents of the Central and South Regions (except regarding wild turkey, of which Central Region residents claim to have the most knowledge).
 - In the landowner survey, the regional results show that professed knowledge of moose and bear is greatest among landowners living in the North/East Region. (This was run by where the landowner lived rather than the location of the largest tract.)

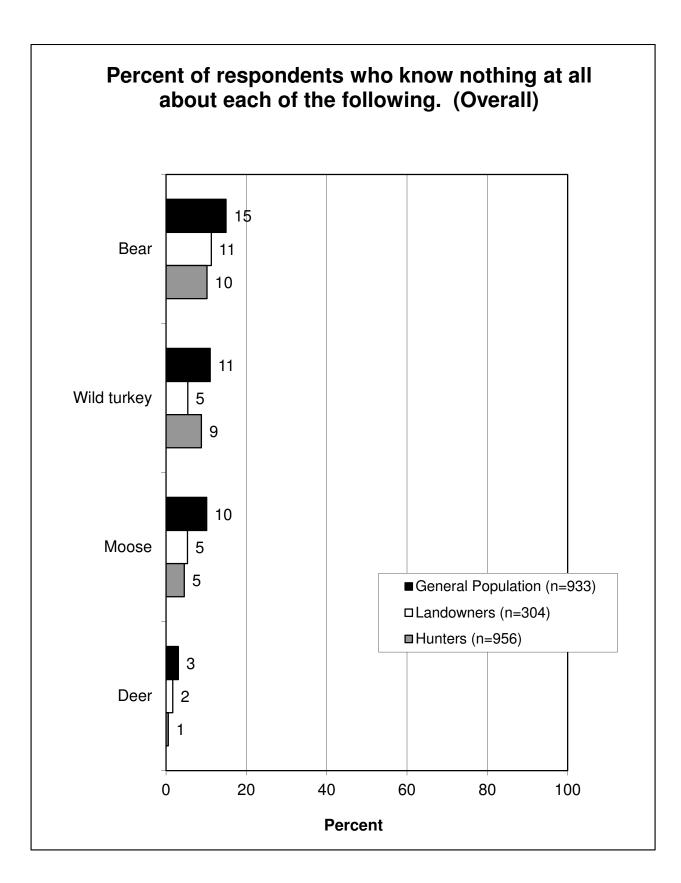
 Among hunters, regional results show that North/East Region hunters (based on where they live) claim more knowledge than hunters from other regions regarding moose and bear, but they claim the least amount of knowledge about wild turkey. (Regarding deer, the regions are about the same.)

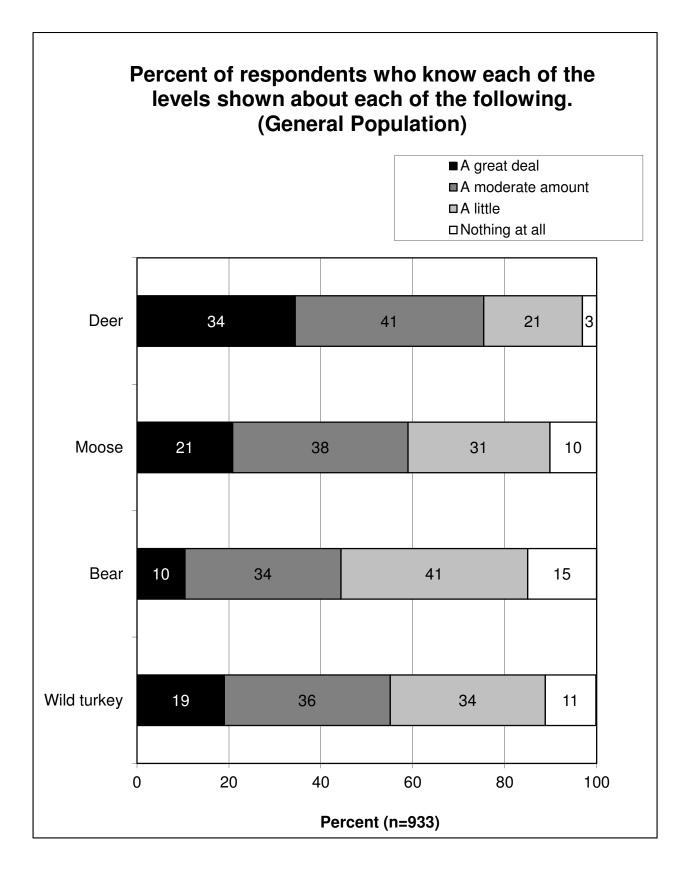


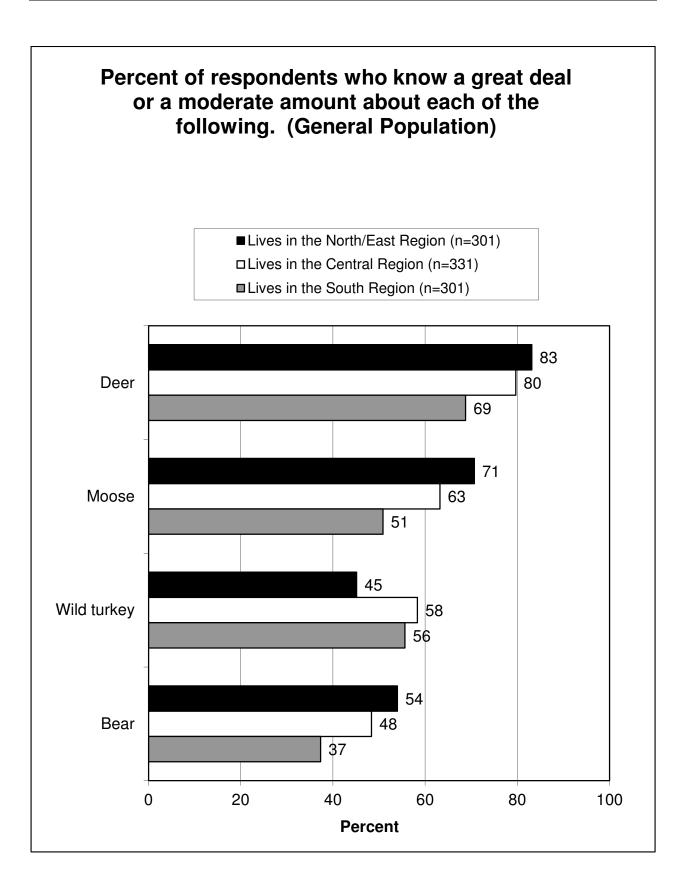


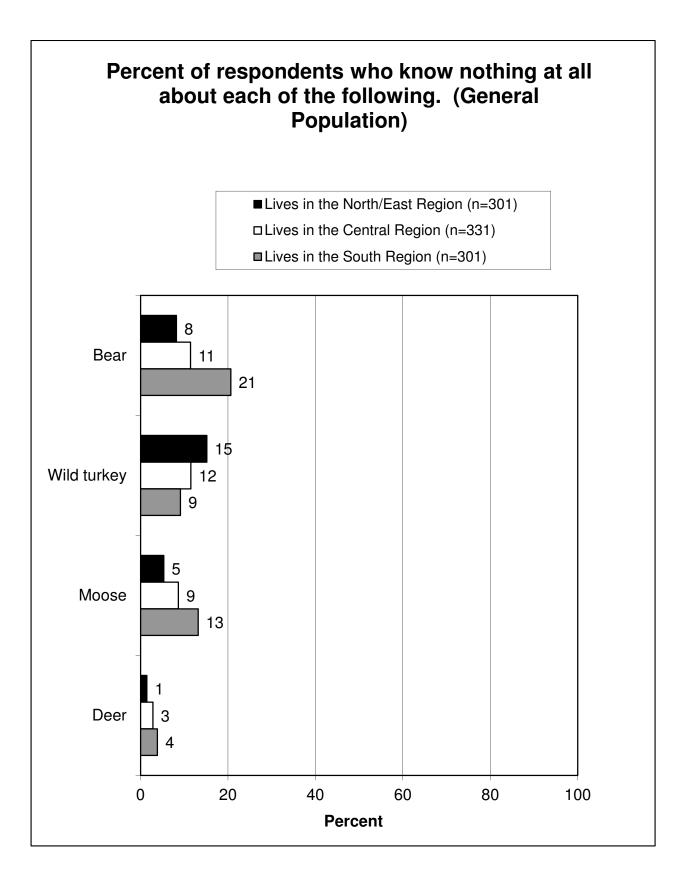


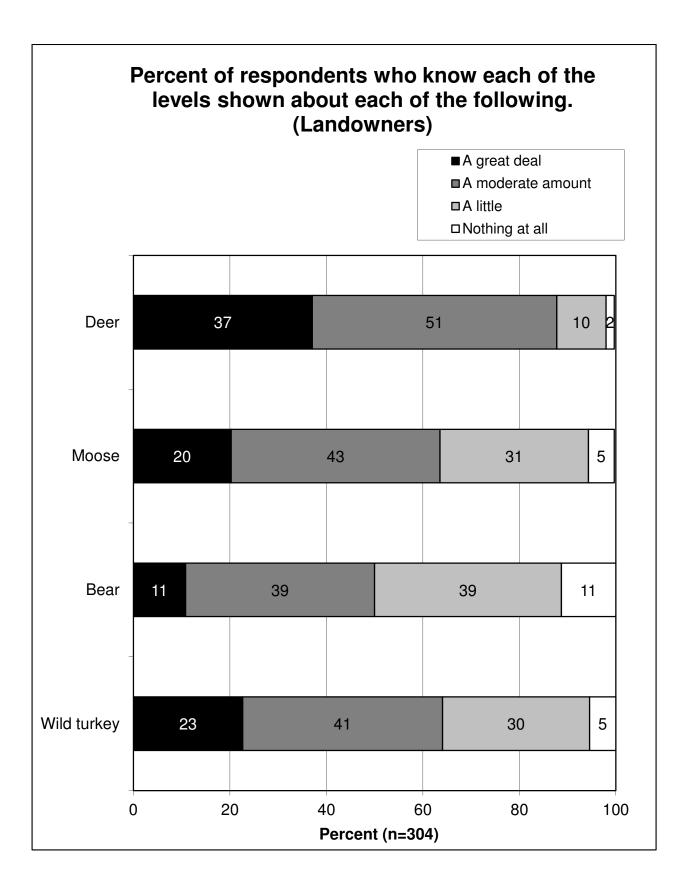


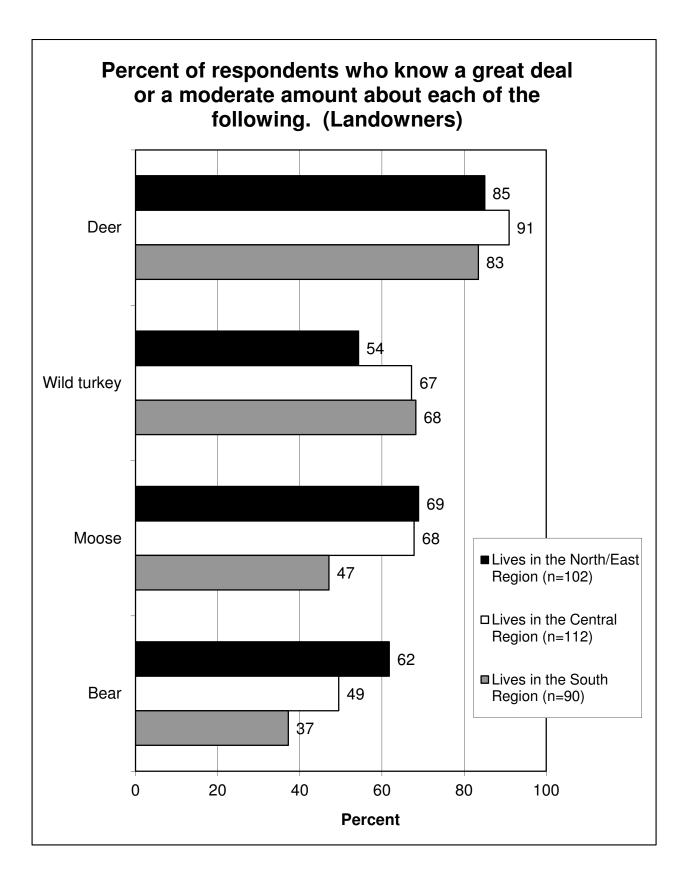


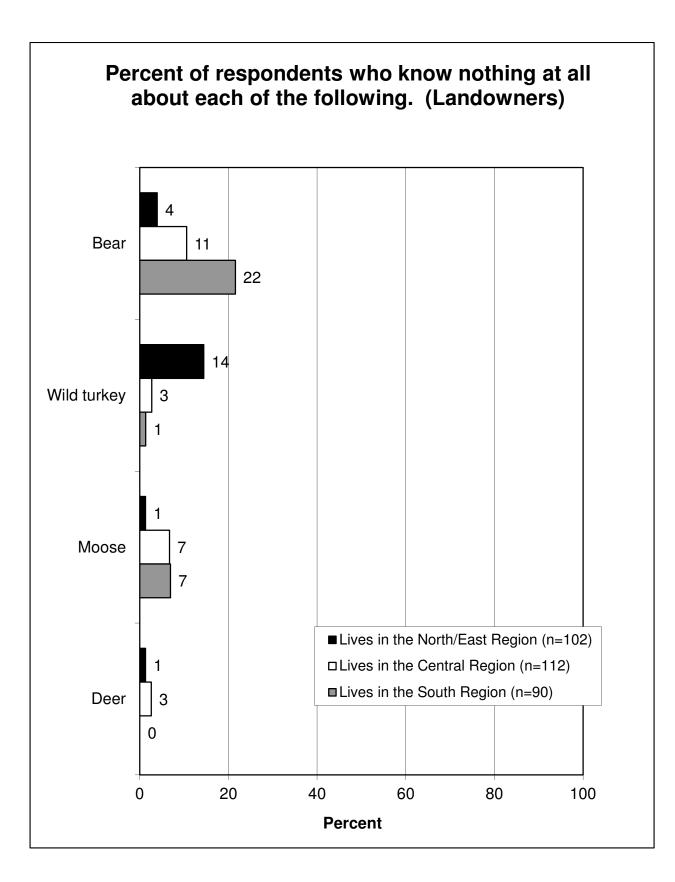


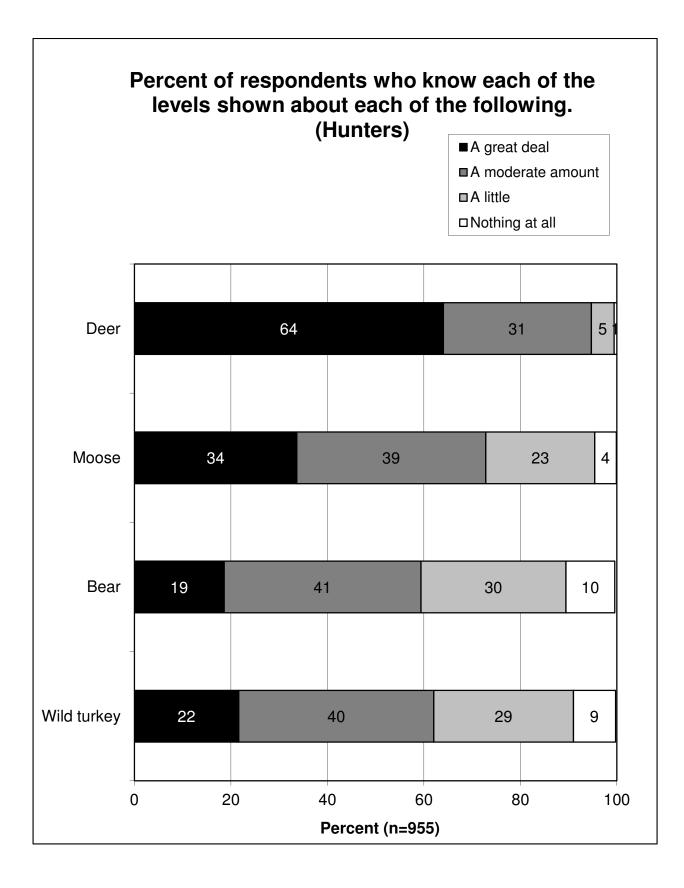


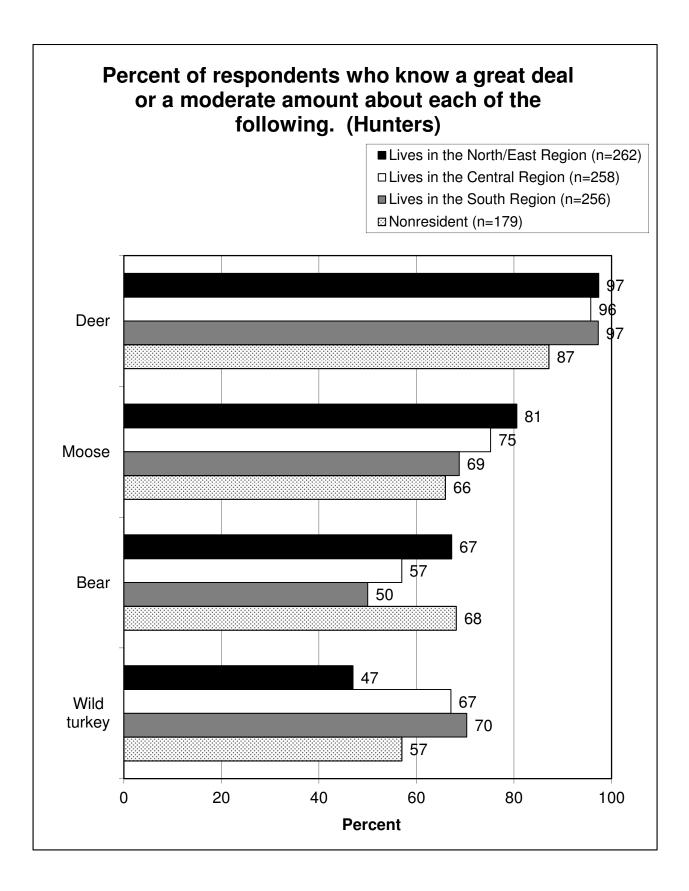


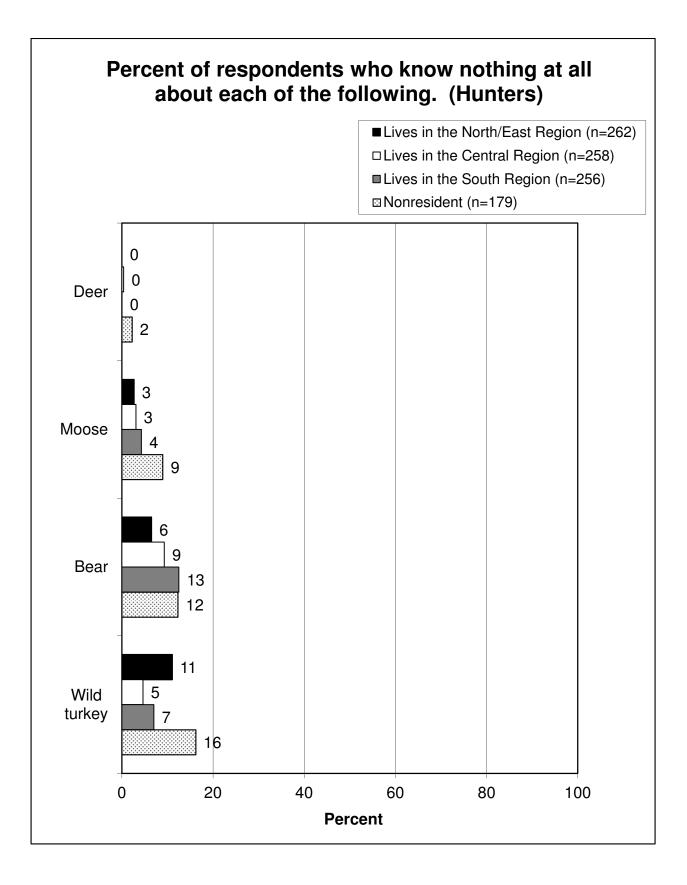








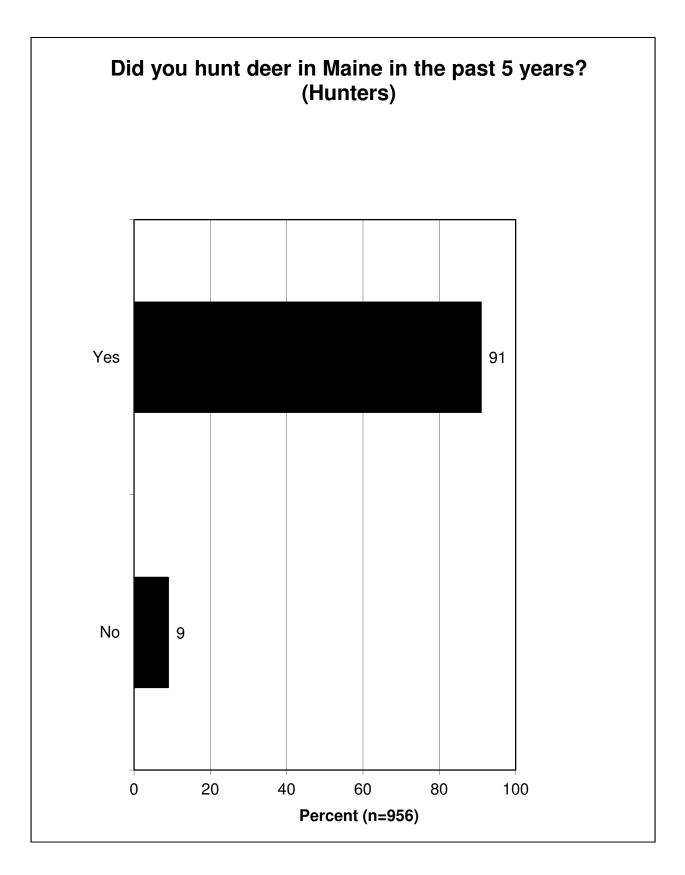


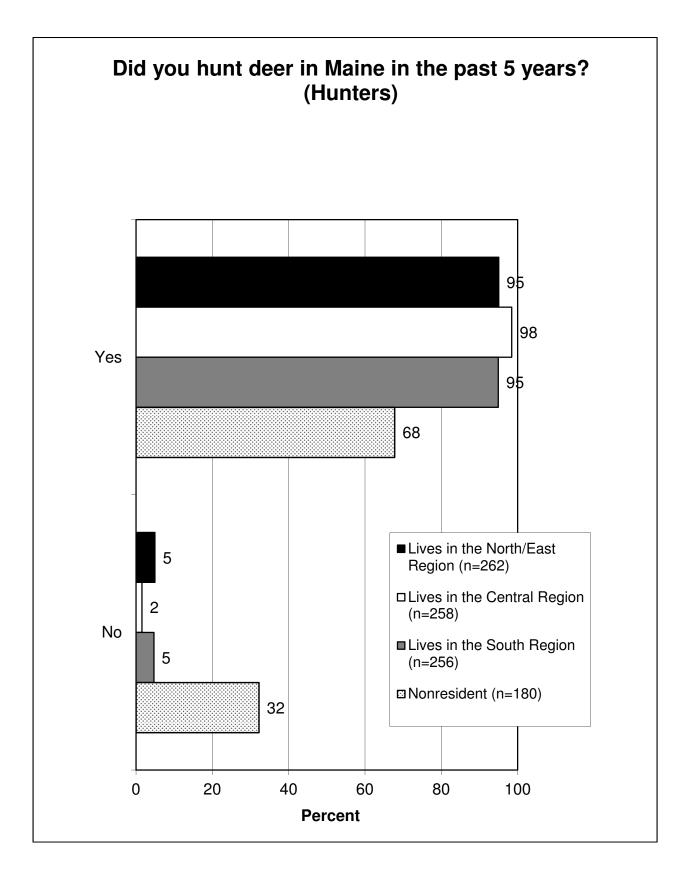


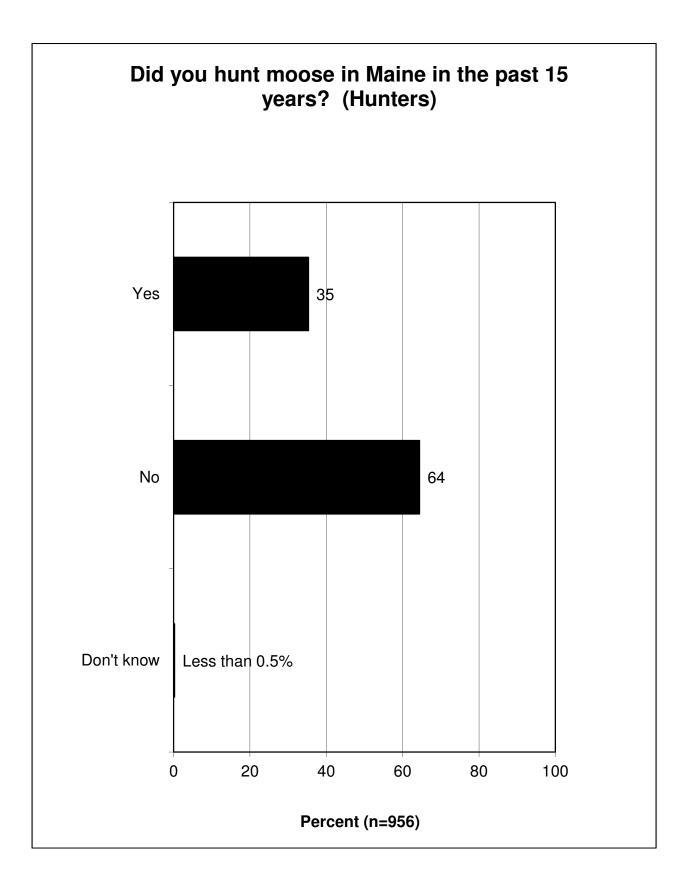
PARTICIPATION IN HUNTING

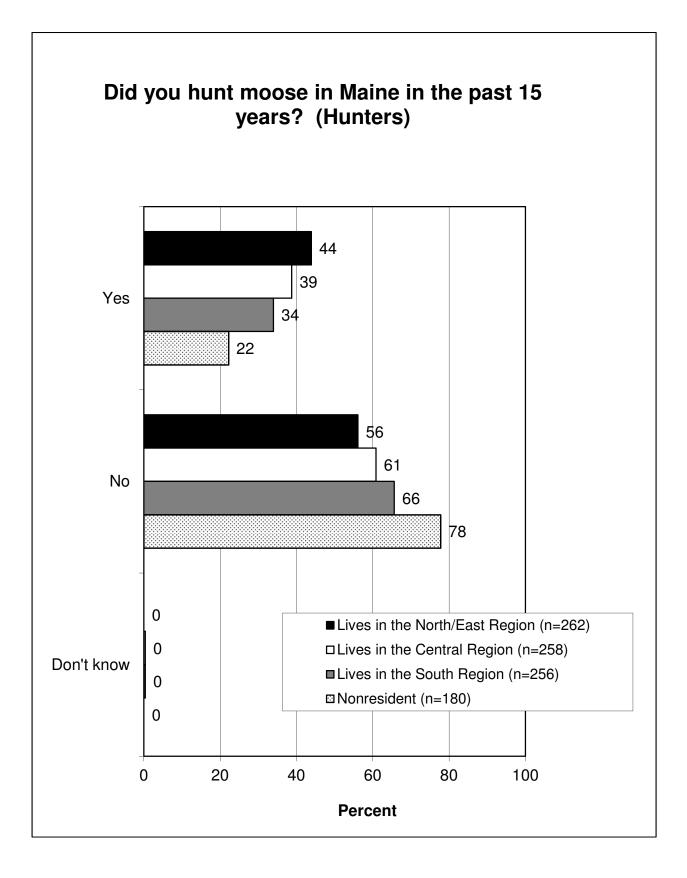
- > The survey asked about hunting the four primary species of interest.
 - The overwhelming majority of hunters (91%) had hunted for deer in the past 5 years.
 - Regional results show that nonresidents have the lowest rate of hunting deer, apparently reticent to go out of state for such a common species.
 - About a third of hunters (35%) had hunted moose in the past 15 years (note the timeframe for moose is 15 years on this question, in part to get a larger group in follow-up questions about moose hunting). Also, half of hunters (51%) say that they typically apply for a moose permit in Maine.
 - Regional results show that hunters living in the North/East Region are the most likely to have hunted moose, closely followed by Central Region hunters, and then more distantly followed by South Region hunters and nonresident hunters. The regional results regarding applying for a moose permit mirror the results regarding hunting moose.
 - A third of hunters (33%) had hunted bear in Maine in the past 15 years (note that this also uses a 15-year timeframe).
 - Nonresidents were the most likely to have hunted bear in Maine; South Region residents were the least likely.
 - Just under a third of hunters (30%) had hunted turkey in Maine in the past 5 years.
 - Hunters living in the Central and South Regions were the most likely to have hunted turkey in the past 5 years; hunters living in the North/East Region and nonresidents were the least likely to have hunted turkey.
- When asked in which county they most often hunt, hunters most commonly said Aroostook County, followed by Penobscot, Oxford, York, and Somerset (all with at least 8% of hunters hunting in it most often).
 - Regional results are shown. Interestingly, in the landowner regional results, those who live in the Central Region are the most likely to go hunting outside of their region of residence.

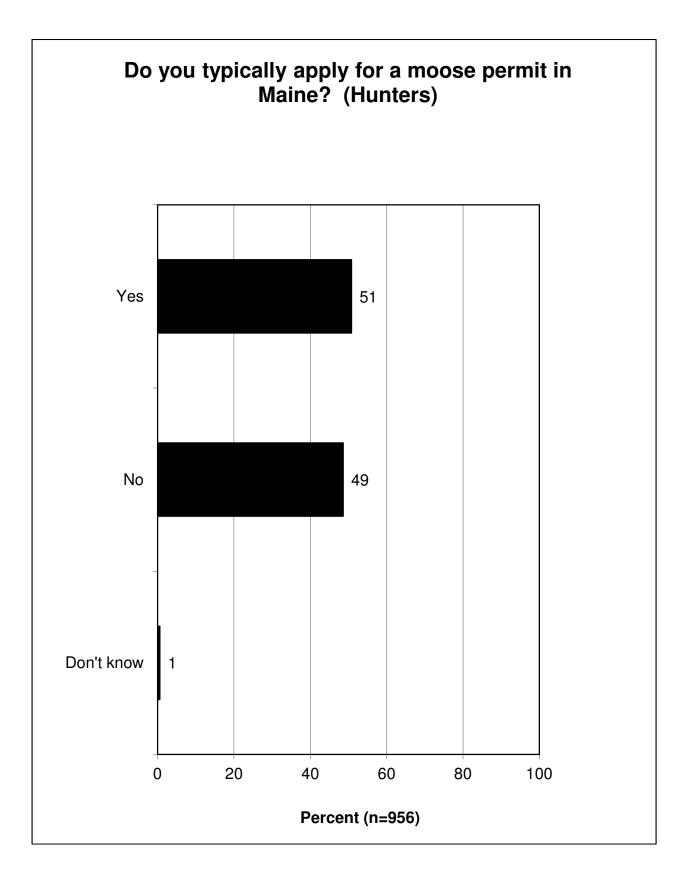
- Motivations for hunting the various species were explored. For each species, hunters who had hunted that species were given a list of possible reasons for hunting for that species, and they were asked to choose the reason that was their most important. For each species, the list contained the same six items: for the meat, for a trophy, to be with family and friends, for the sport/recreation/challenge, to be close to nature, or to see a deer/moose/bear/turkey. For the deer question, another item was added: to reduce damage to crops.
 - The most important reasons given for hunting deer were for the meat (50% of deer hunters chose this reason) or for the sport, recreation, and challenge (26%).
 - "For the meat" as the primary reason for hunting deer was strongest among hunters who hunted most often in the South Region.
 - As was the case with deer, the most important reasons given for hunting moose were for the meat (58%) or for the sport, recreation, and challenge (26%).
 - The differences among regions were slight.
 - The most important reasons for hunting bear were for the sport, recreation, or challenge (40%) or for the meat (36%).
 - Those who most often hunt in the North/East Region are the most likely to hunt bear for the sport/recreation/challenge.
 - Hunters most commonly hunt turkey for the sport/recreation/challenge (42%) or for the meat (33%).
 - For the sport/recreation/challenge is more commonly given as a reason by hunters who most often hunt in the Central Region, relative to those who most often hunt in the other regions.

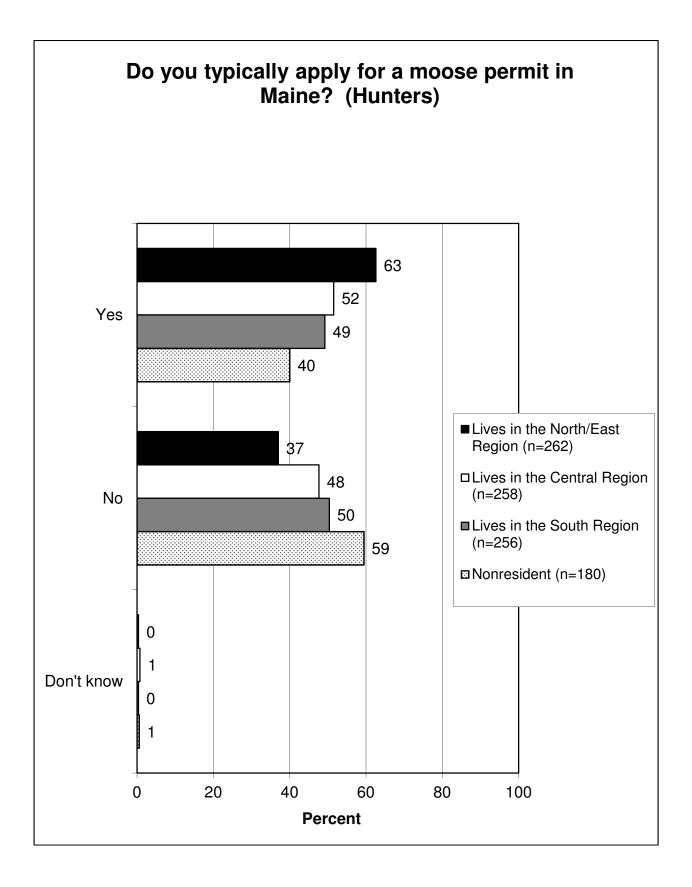


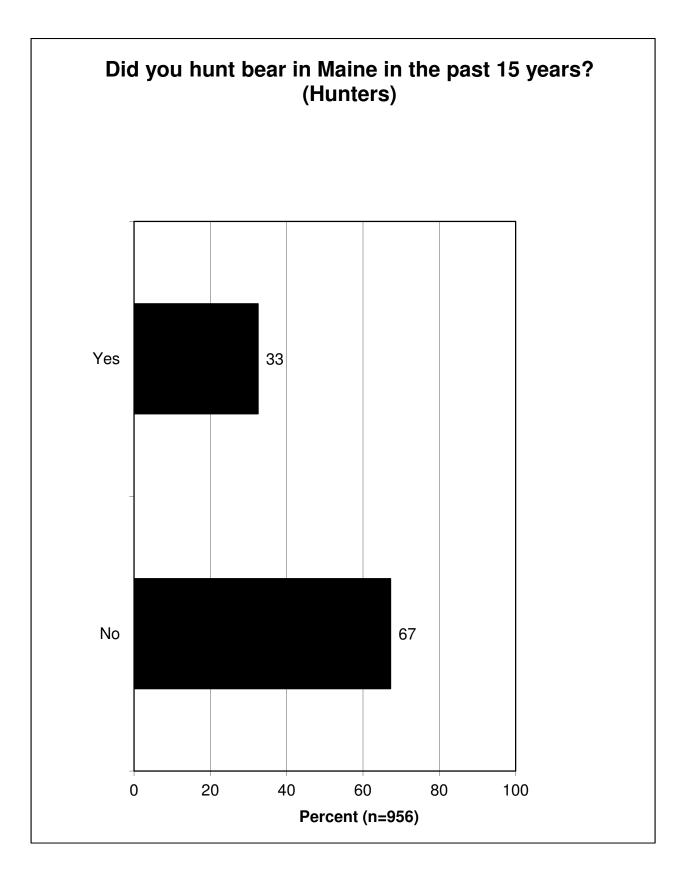


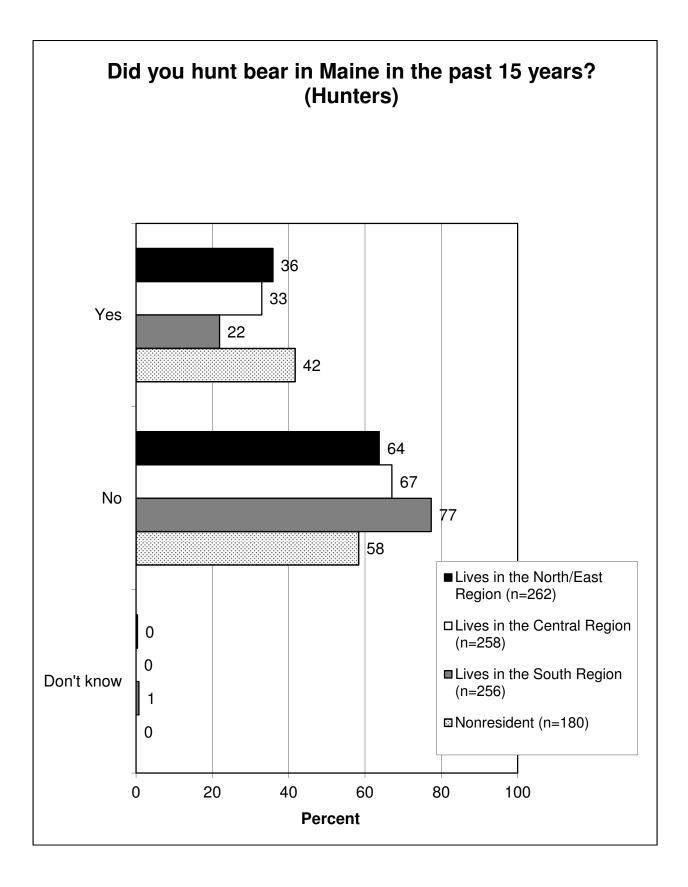


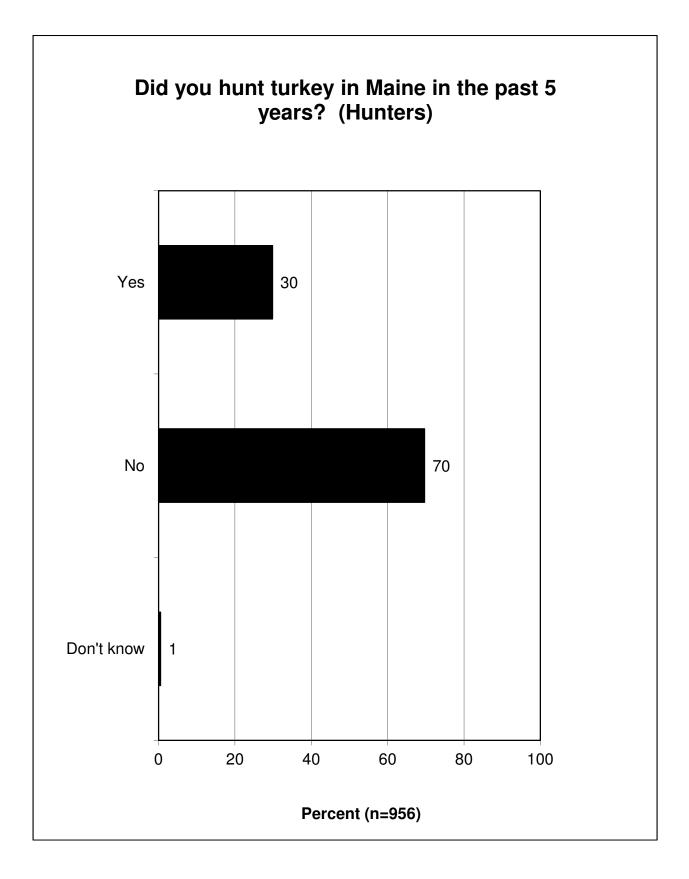


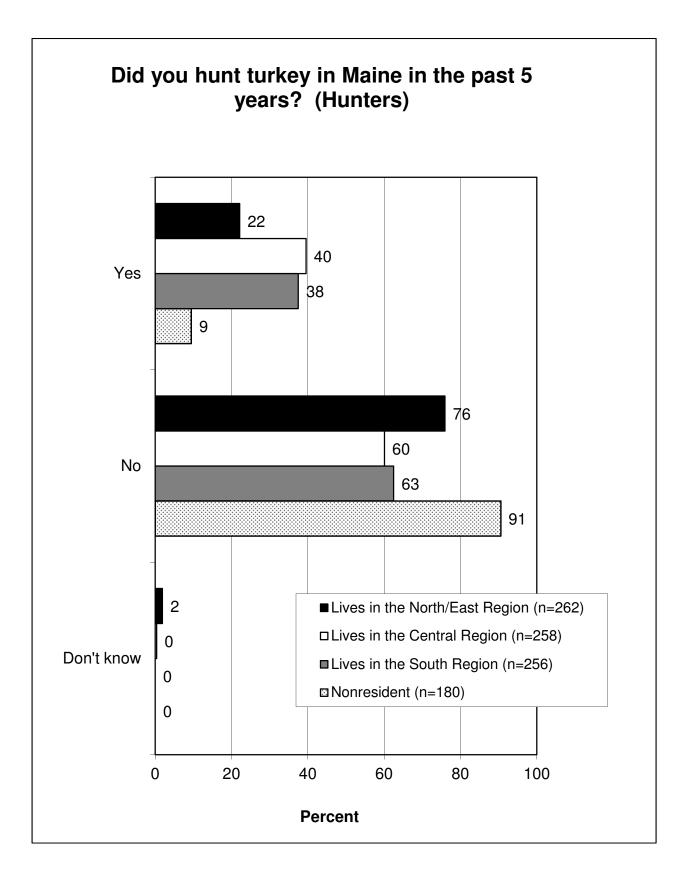


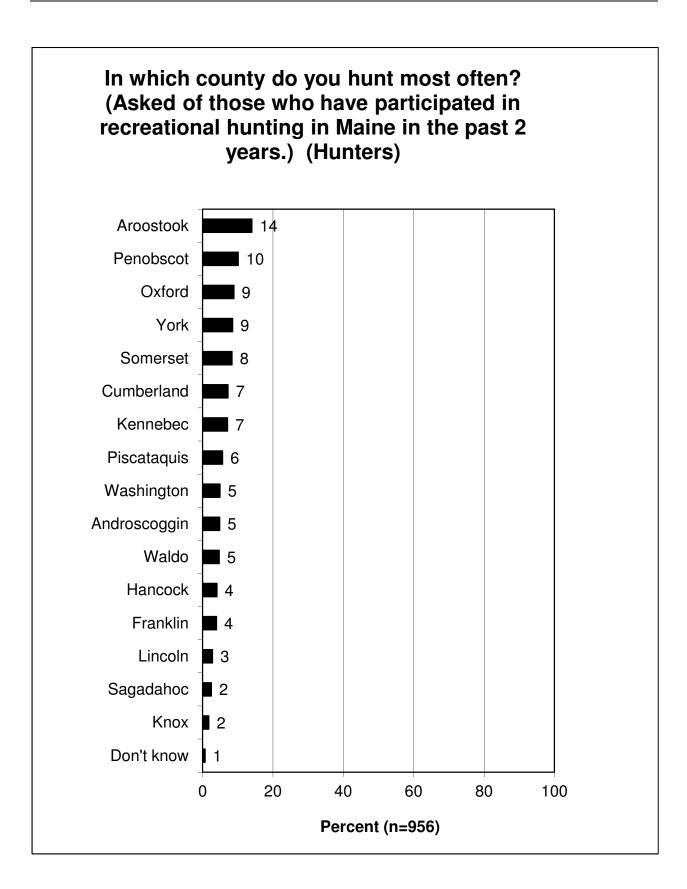


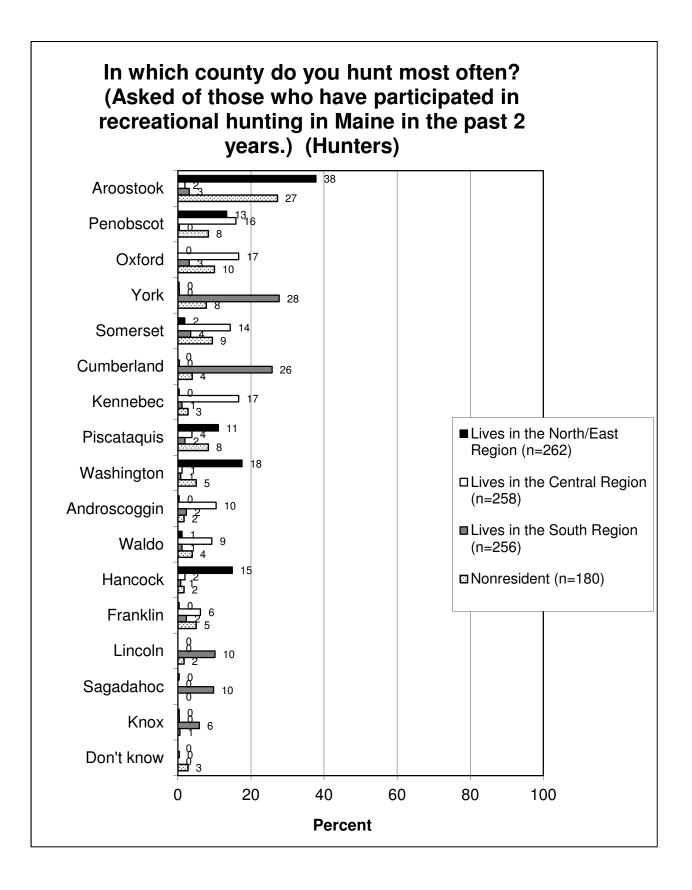


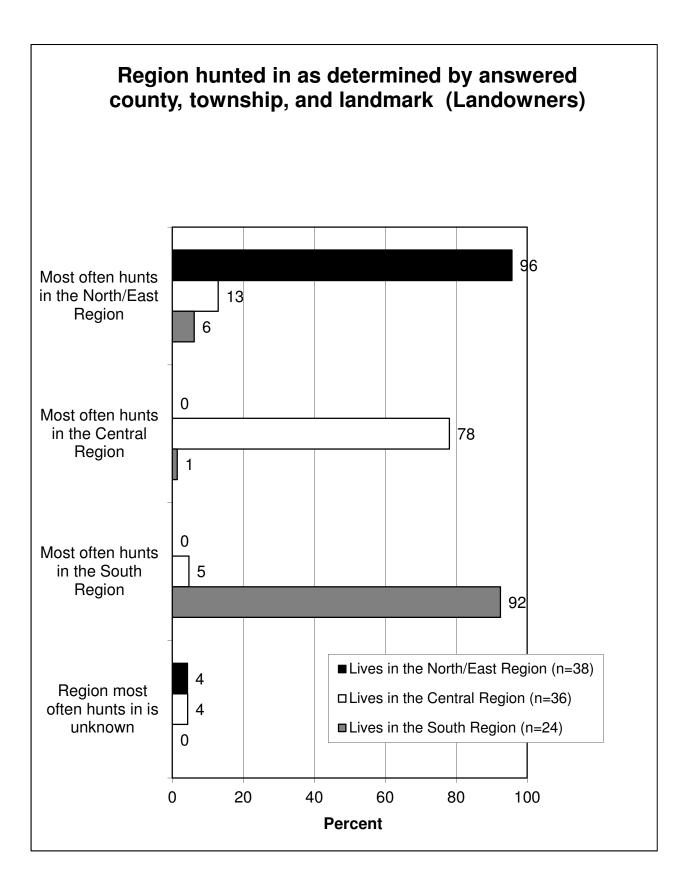


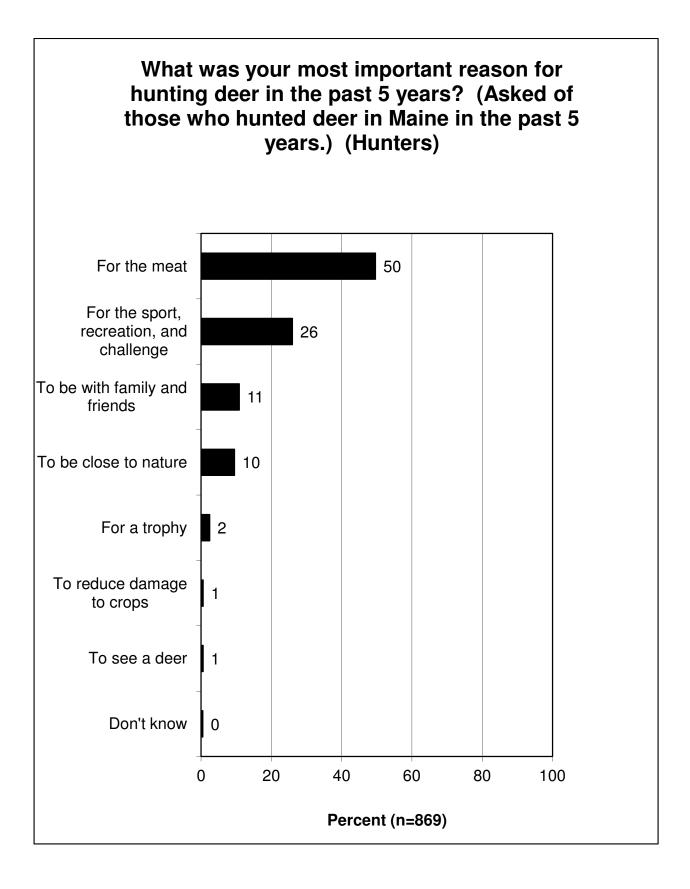


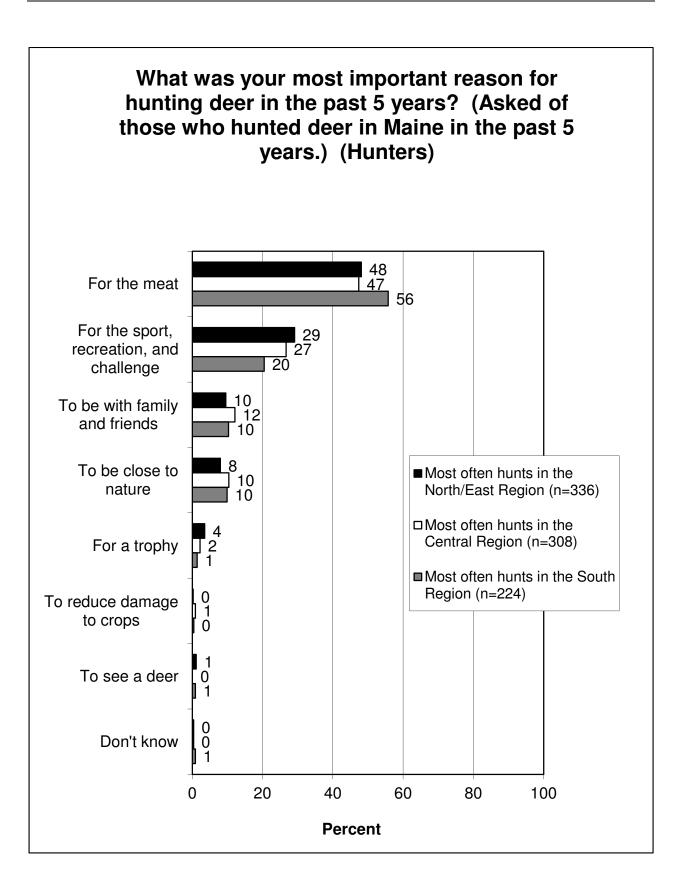


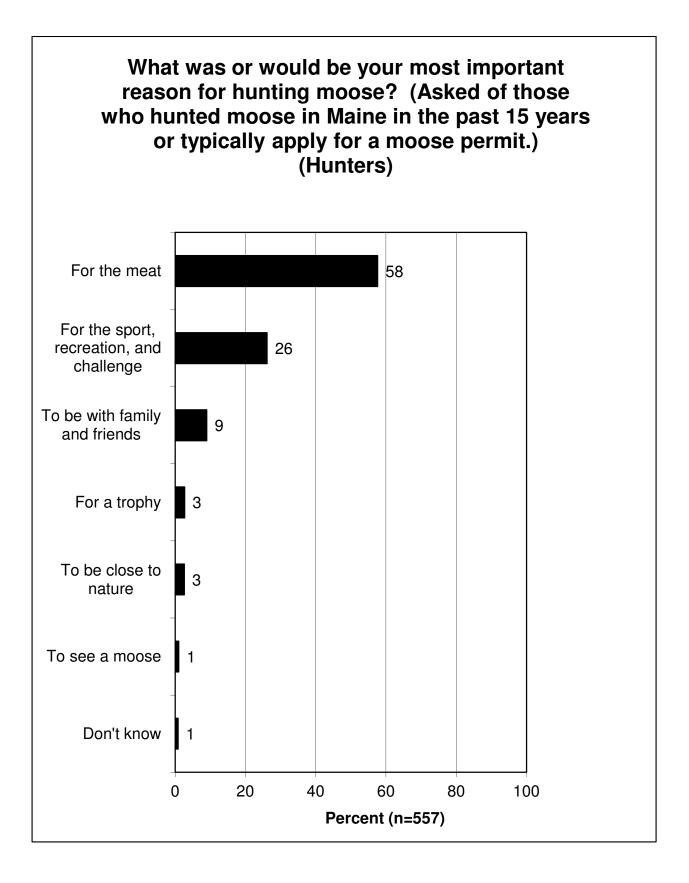


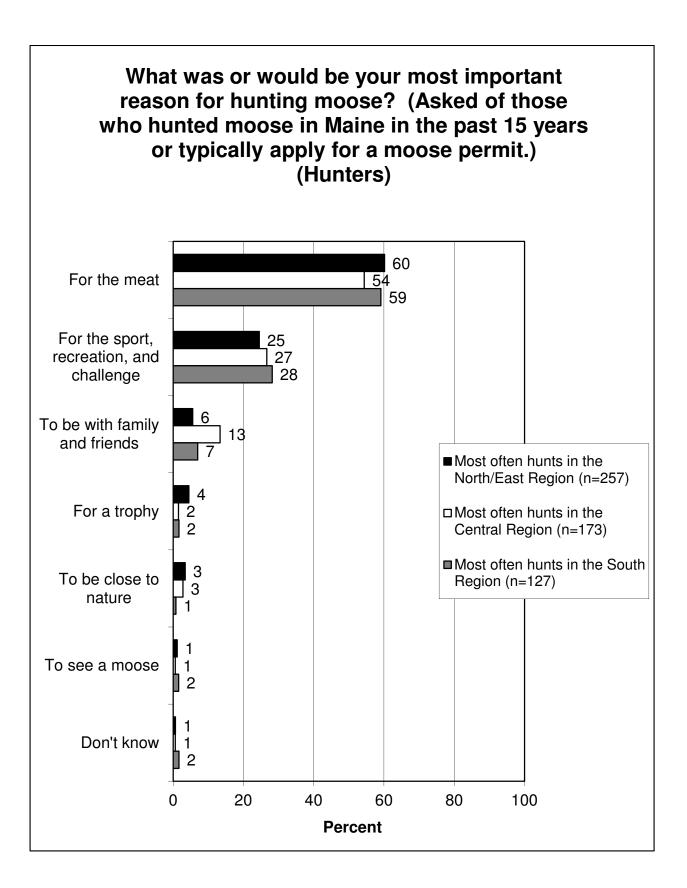


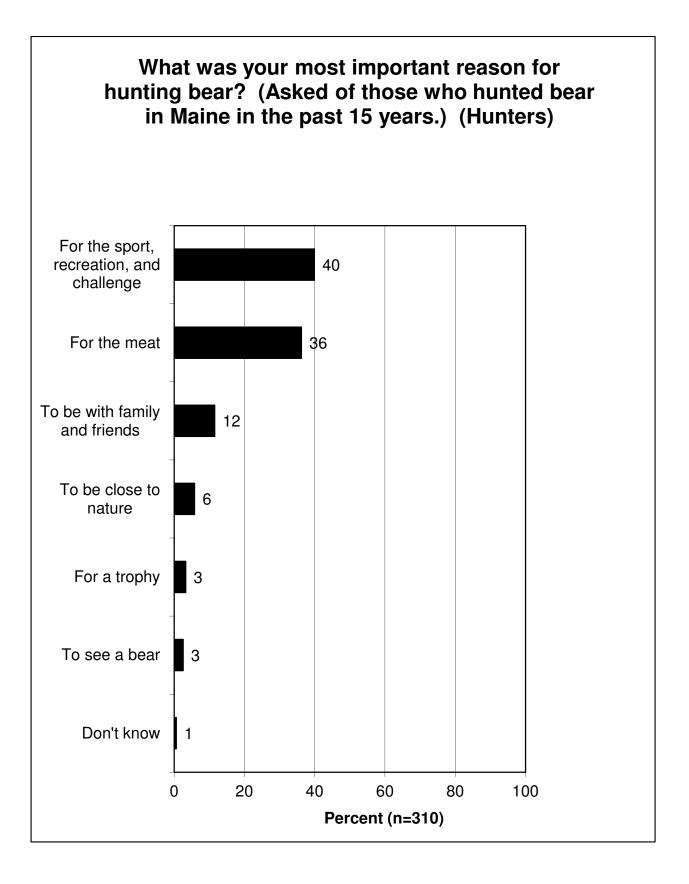


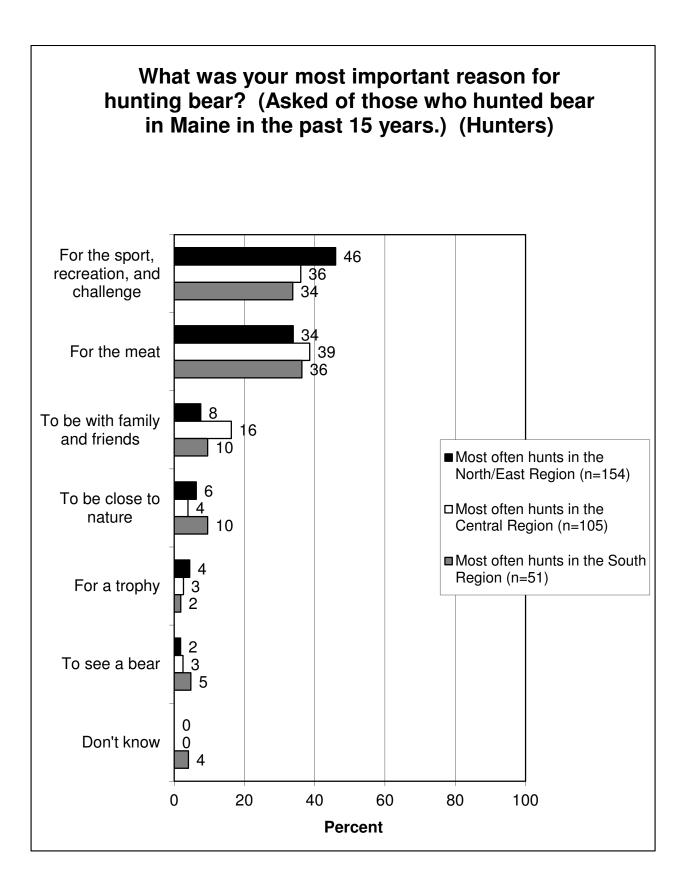


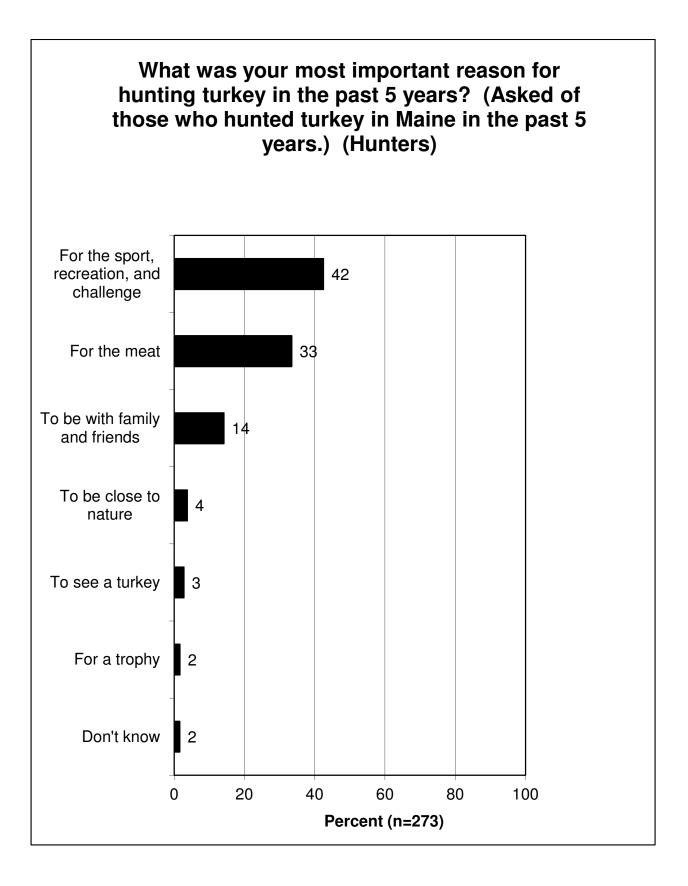


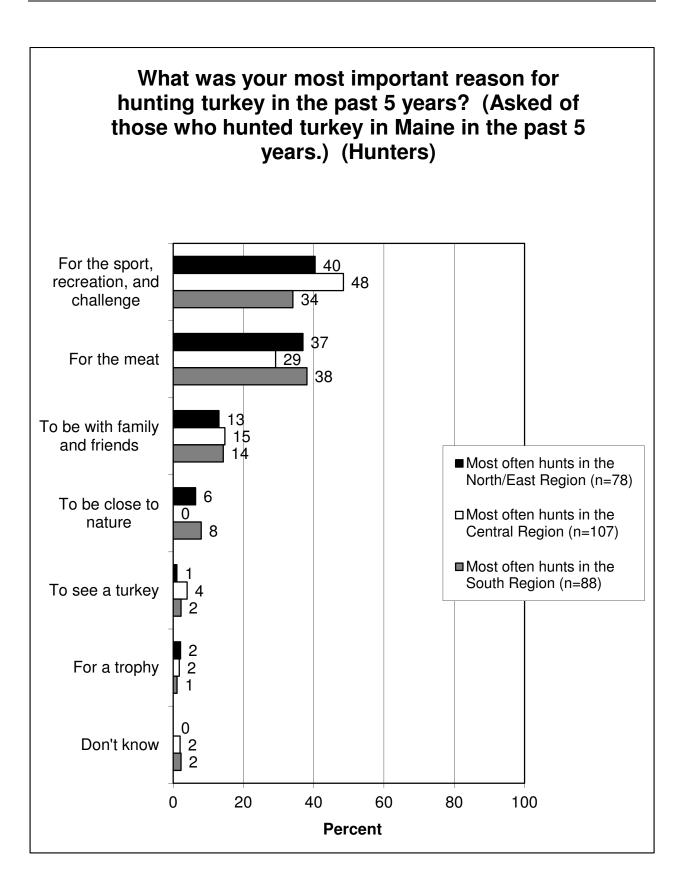






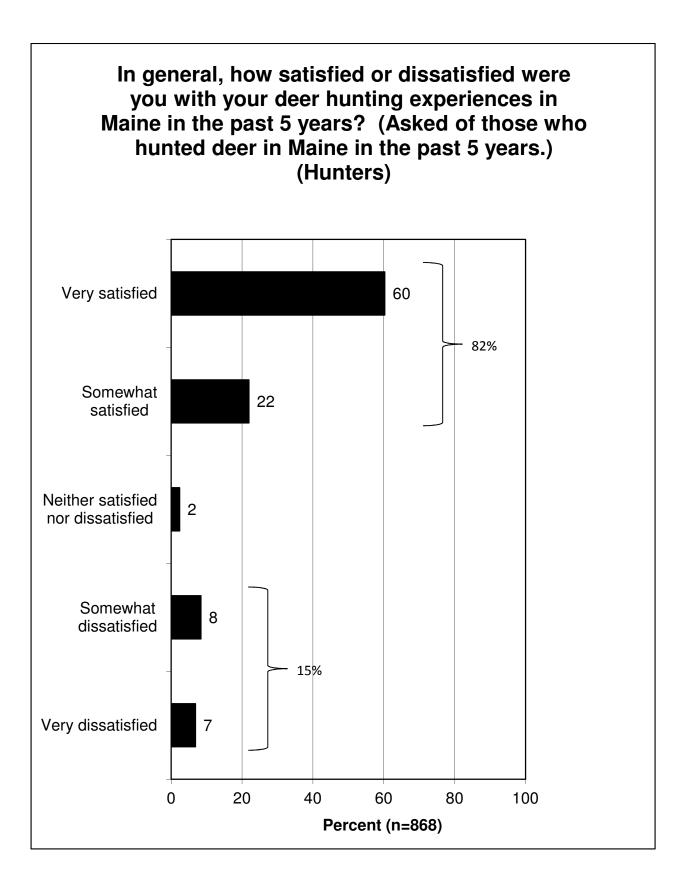


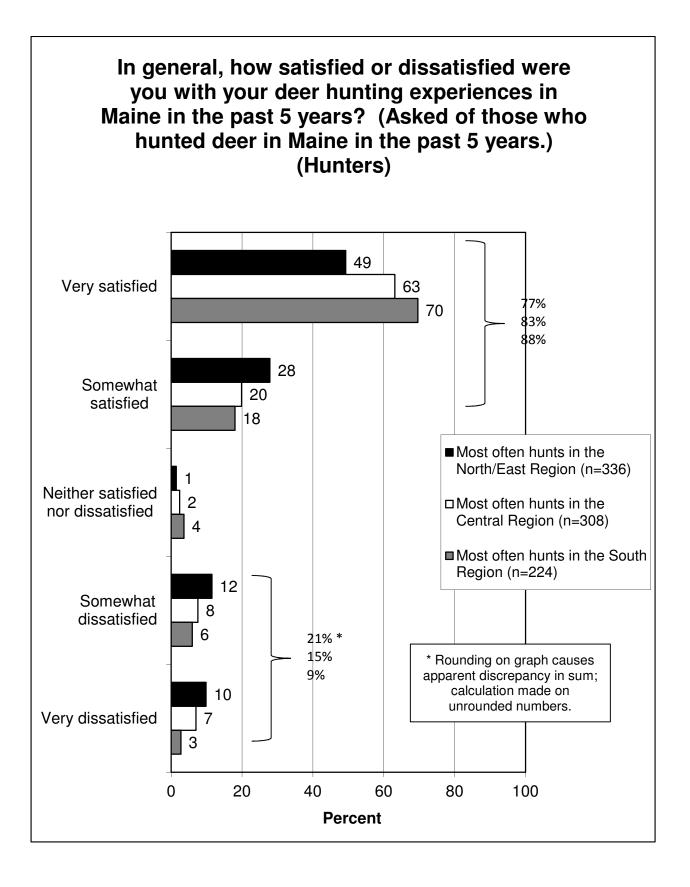


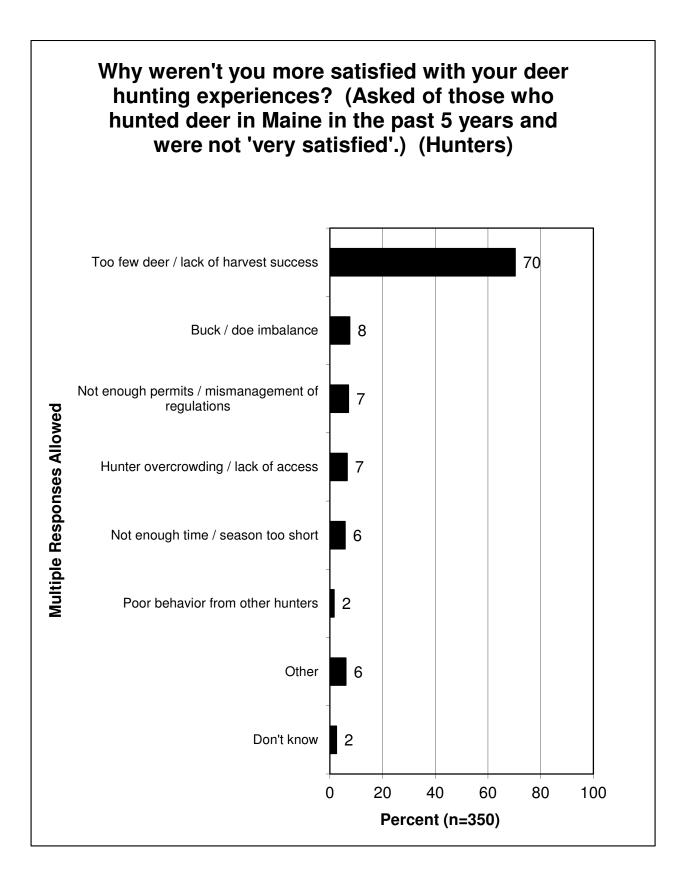


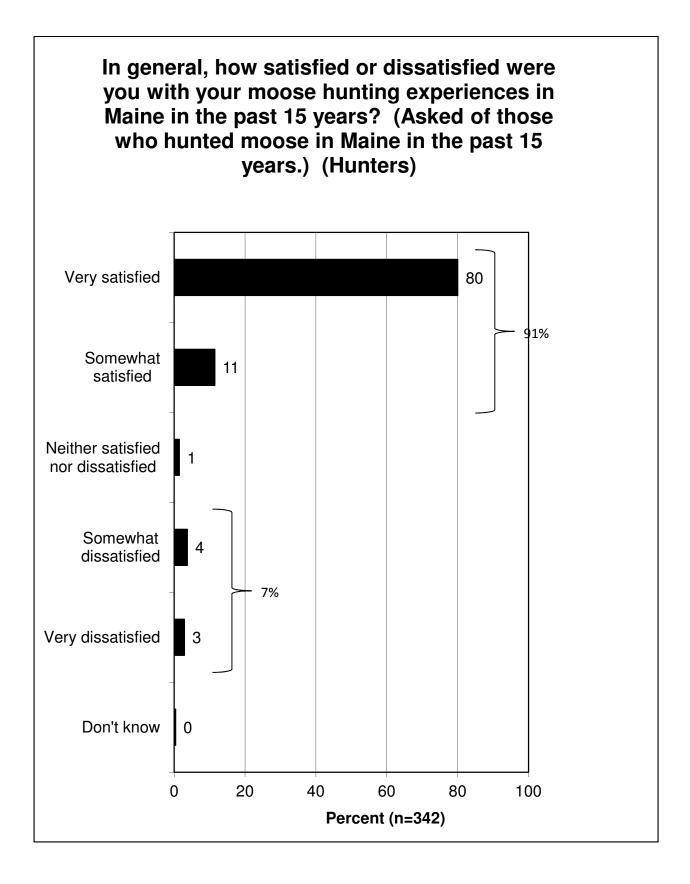
SATISFACTION AND DISSATISFACTION WITH HUNTING

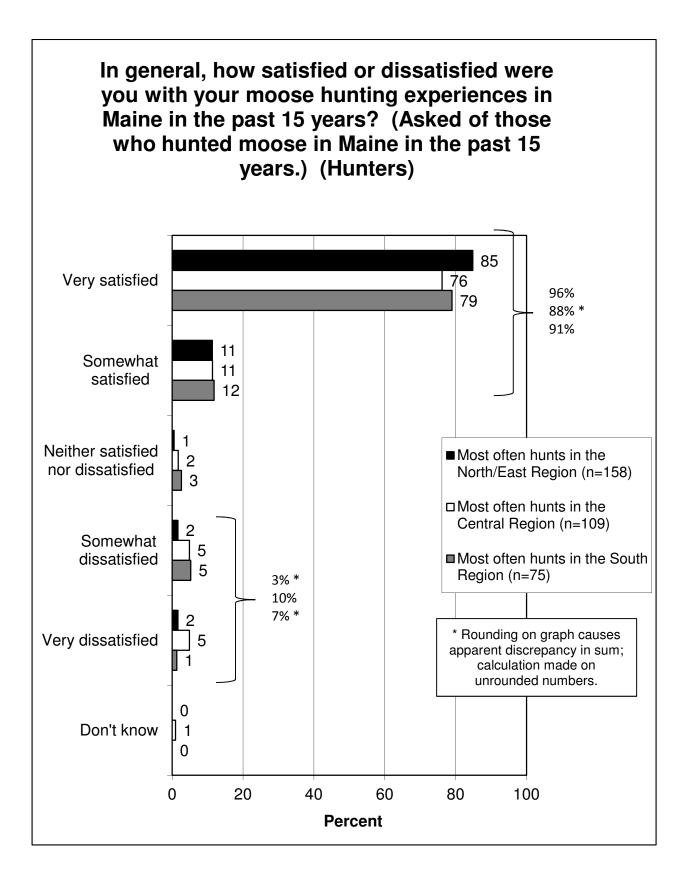
- The survey asked about hunters' satisfaction levels for hunting for the four primary species of interest in the survey over the past 5 years (for deer and turkey) or over the past 15 years (for moose and bear). All those who did not answer that they were very satisfied (and those who answered "don't know") were then asked why they had not been more satisfied.
 - The large majority of deer hunters were satisfied with their deer hunting: 82% were satisfied; 15% were dissatisfied.
 - The highest satisfaction levels are from hunters who most often hunt in the South Region.
 - Lack of harvest success is, by far, the most common reason for not being more satisfied with deer hunting.
 - The large majority of moose hunters were satisfied with their moose hunting: 91% were satisfied; 7% were dissatisfied.
 - Although the regions are not greatly different (because all are so high in satisfaction), hunters who most often hunted in the North/East Region are the most satisfied. (It is important to note that the crosstabulation is by where the hunter *hunted the most often*, which may or may not have been the same place he/she hunted moose).
 - Lack of harvest success is the most common reason for not being more satisfied with moose hunting.
 - The large majority of bear hunters were satisfied with their bear hunting: 90% were satisfied; 7% were dissatisfied.
 - The regional analysis is shown, based on the county in which the hunter most often hunted, with slightly less satisfaction/more dissatisfaction among hunters in the South Region. (Again, it is important to note that the crosstabulation is by where the hunter *hunted the most often*, which may or may not have been the same place he/she hunted bear).
 - As with other species, lack of harvest success is the most common reason for not being more satisfied with bear hunting.
 - The large majority of turkey hunters were satisfied with their turkey hunting: 92% were satisfied; only 5% were dissatisfied.
 - The regions are almost identical to one another on this question.
 - Again, lack of harvest success is the most common reason for not being more satisfied with turkey hunting.

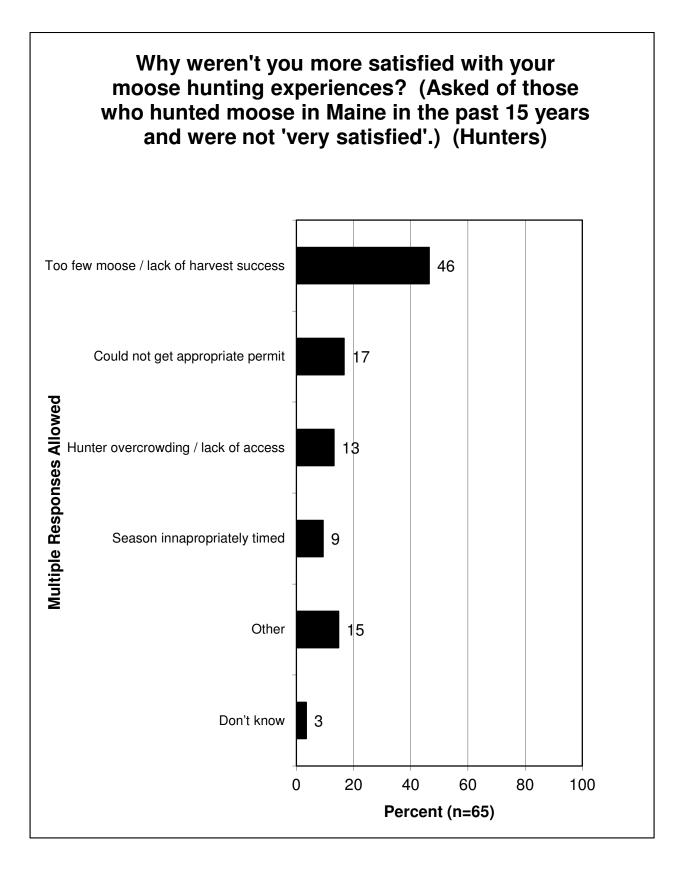


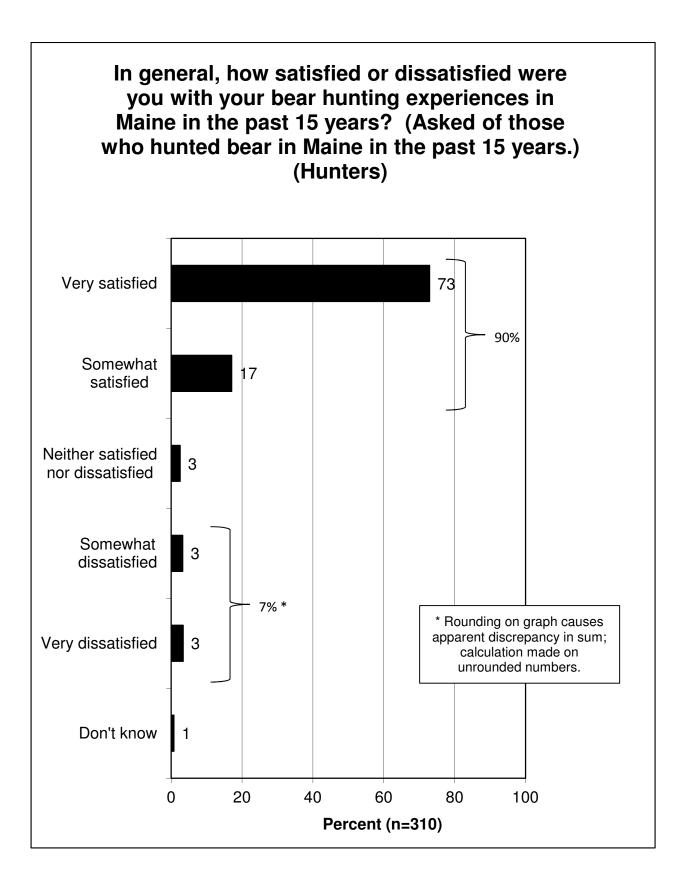


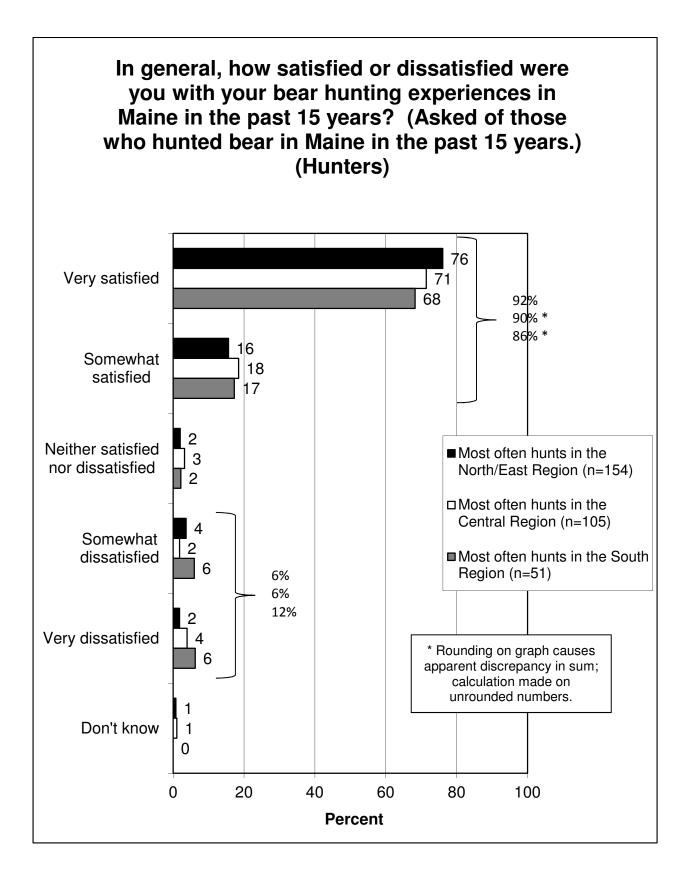


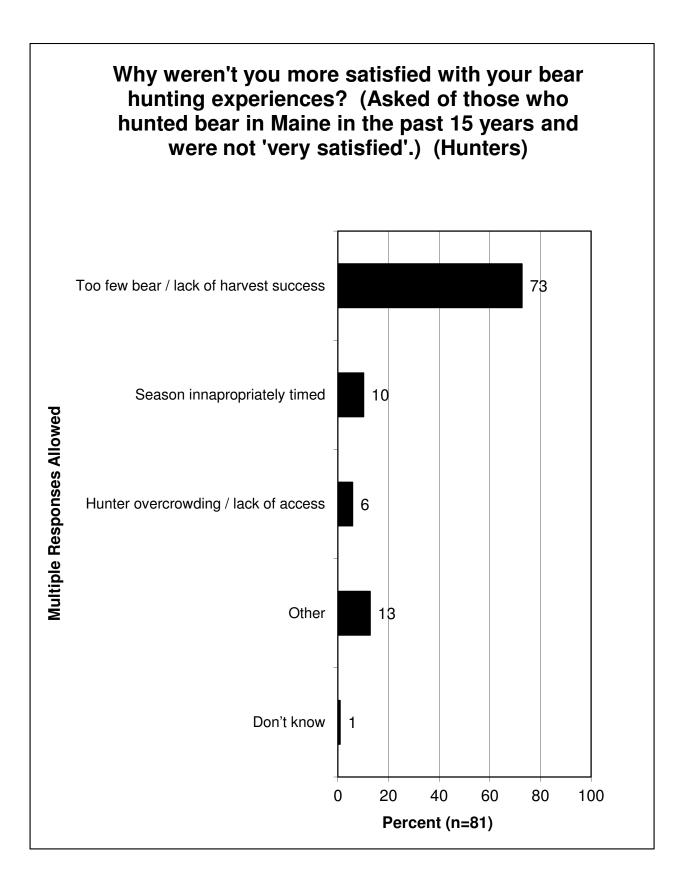


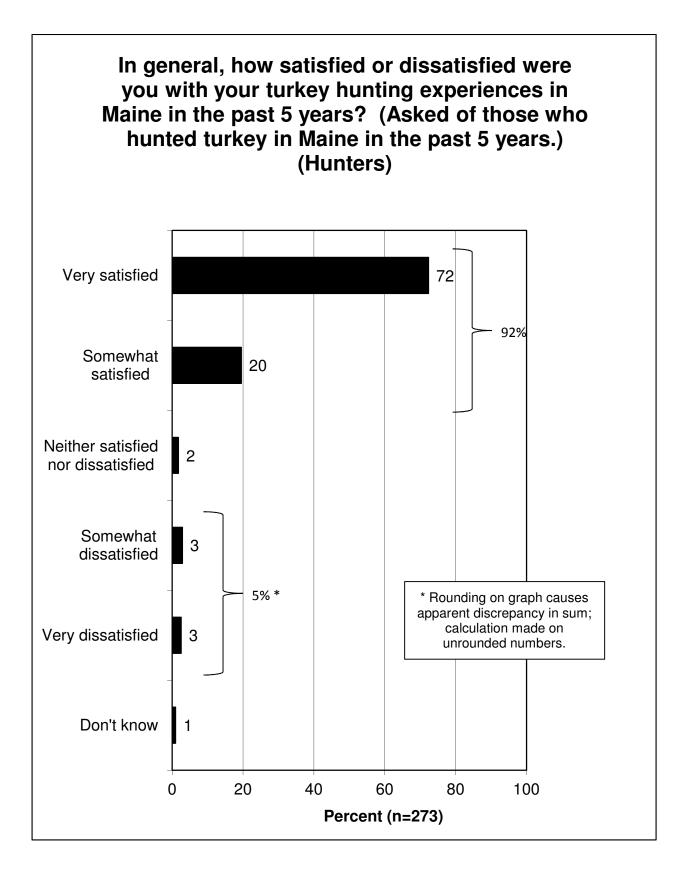


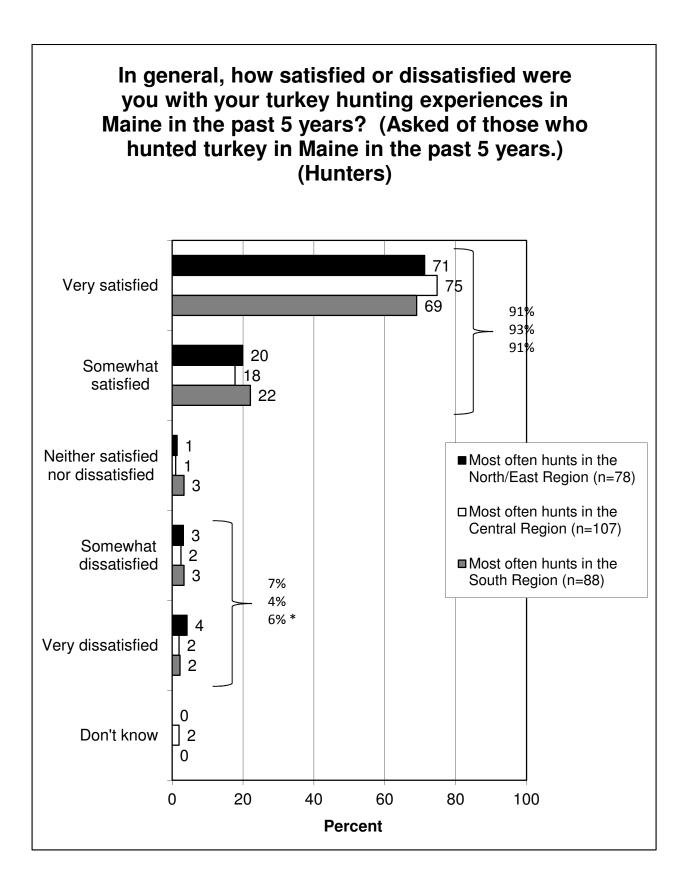


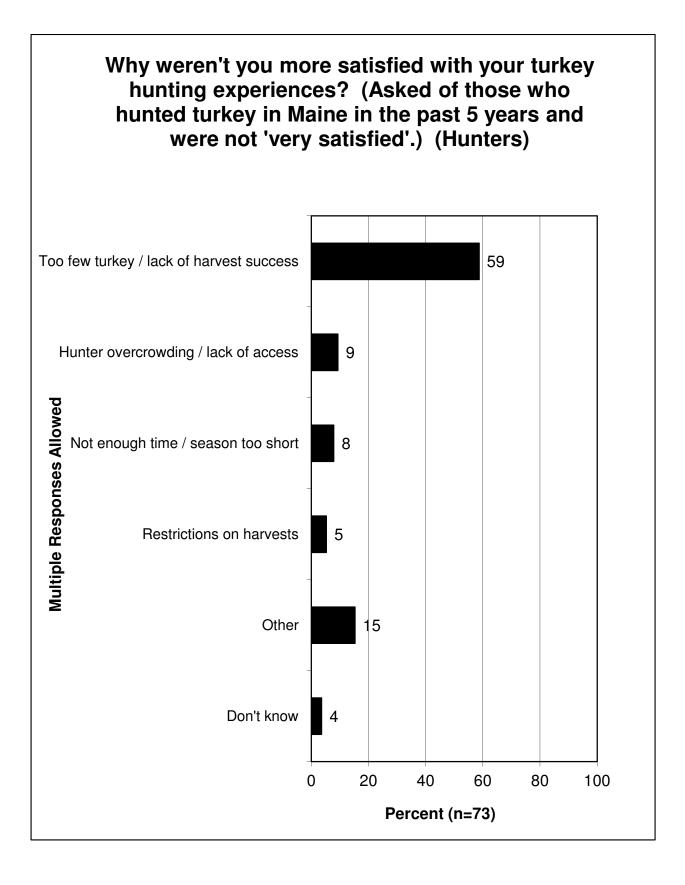






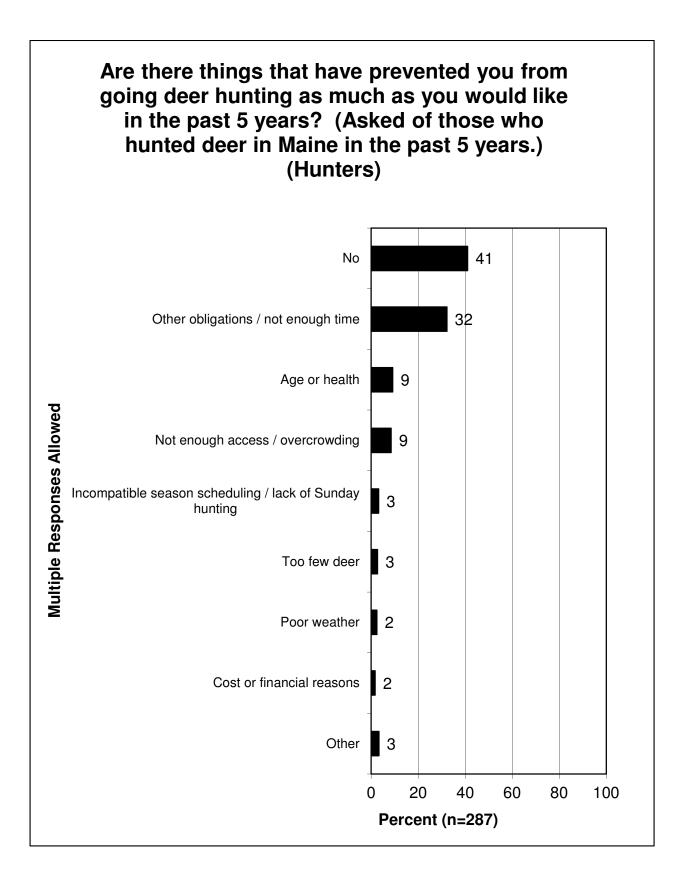


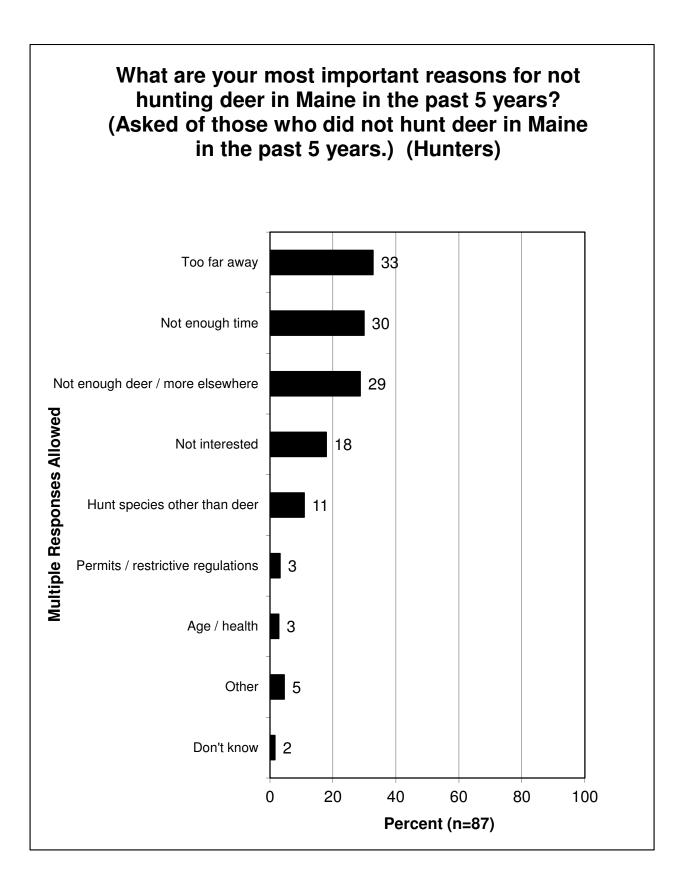


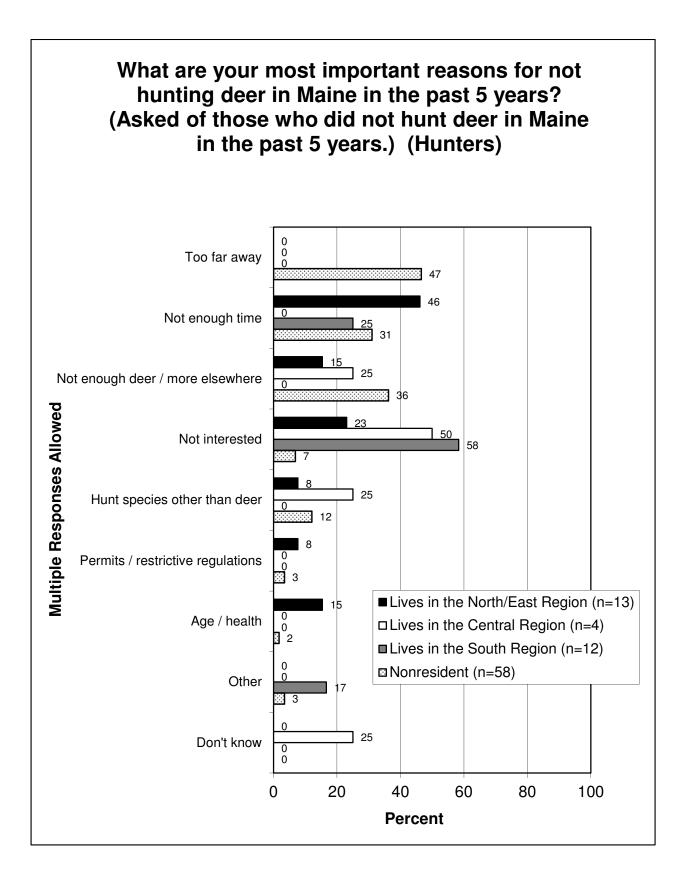


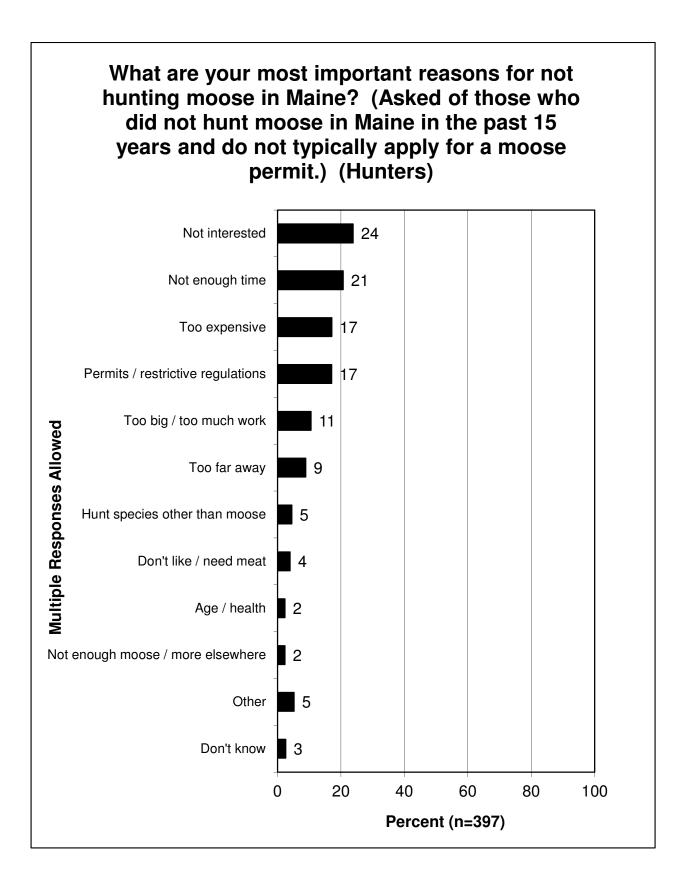
CONSTRAINTS TO HUNTING

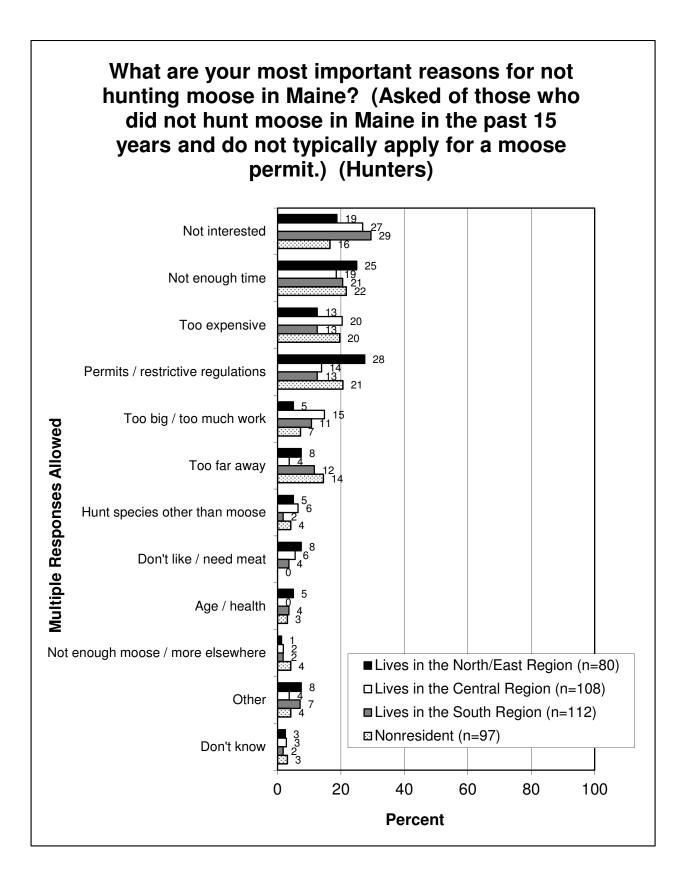
- Hunters who had hunted deer in the past 5 years were asked about any things that might have prevented them from hunting deer as much as they would have liked in the past 5 years. For 41% of these deer hunters, nothing had prevented them. Otherwise, lack of time/other obligations was the most common reason—a reason over which agencies have little sway.
- > Hunters who had not hunted a species were asked why they had not done so.
 - Regarding not hunting deer, distance, time, and not enough deer are common reasons given.
 - Note that there is a low sample size (because only those hunters who did not hunt deer got the question) among resident hunters; the regional graph is shown primarily to show how nonresidents affect the results. Not surprisingly, they are more likely than residents to claim that going to Maine to hunt deer is too far a distance.
 - Common reasons for not hunting moose include lack of interest, time, expense, and difficulty getting permits.
 - There are minor differences regionally.
 - Common reasons to not hunt bear include lack of interest, a dislike of the meat, and lack of time.
 - There are minor differences regionally.
 - Regarding turkey, common reasons for not hunting them include lack of interest, lack of time, and restrictive permits/regulations.
 - \circ There are minor differences regionally.

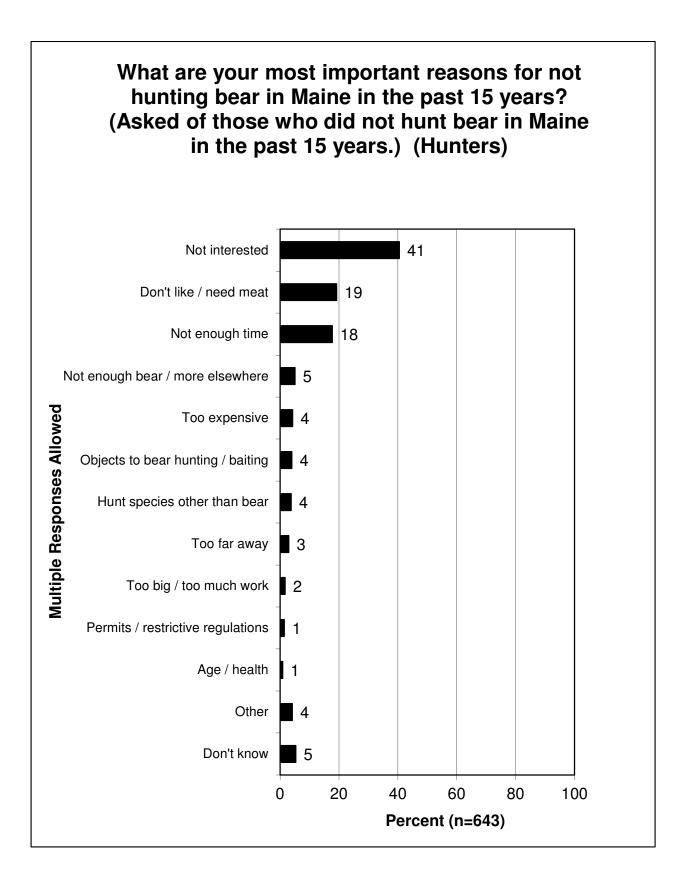


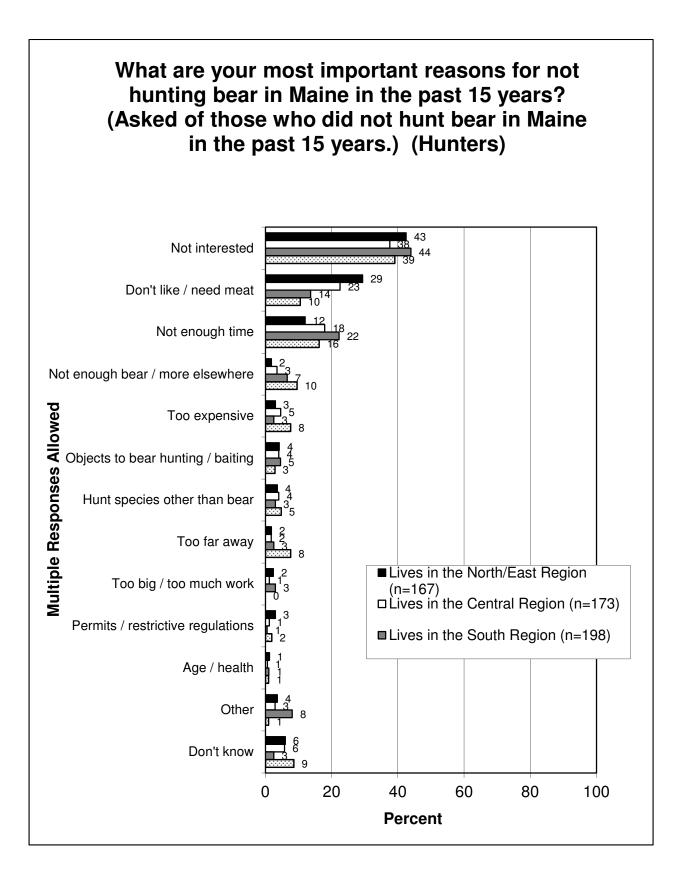


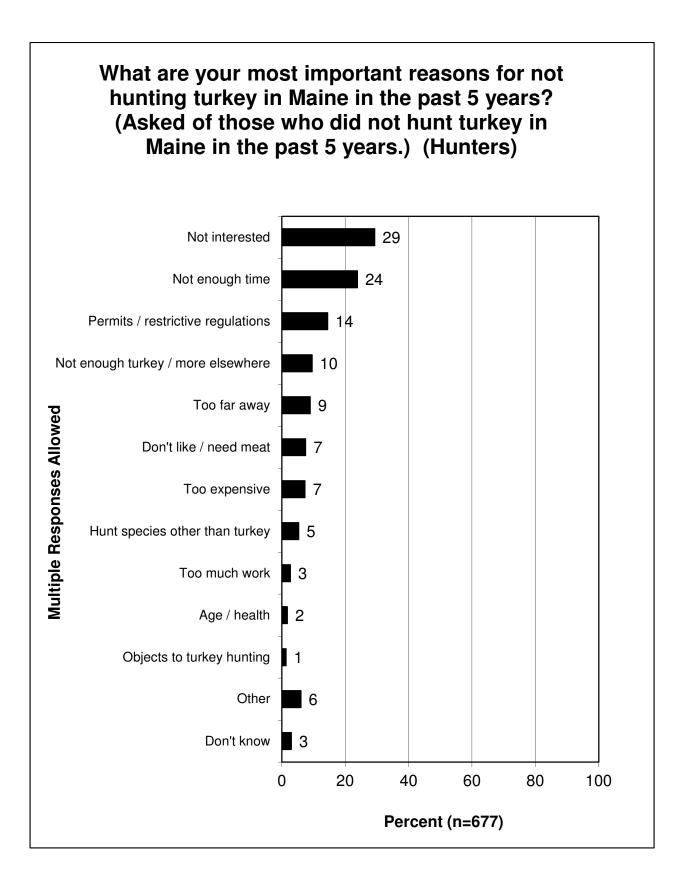


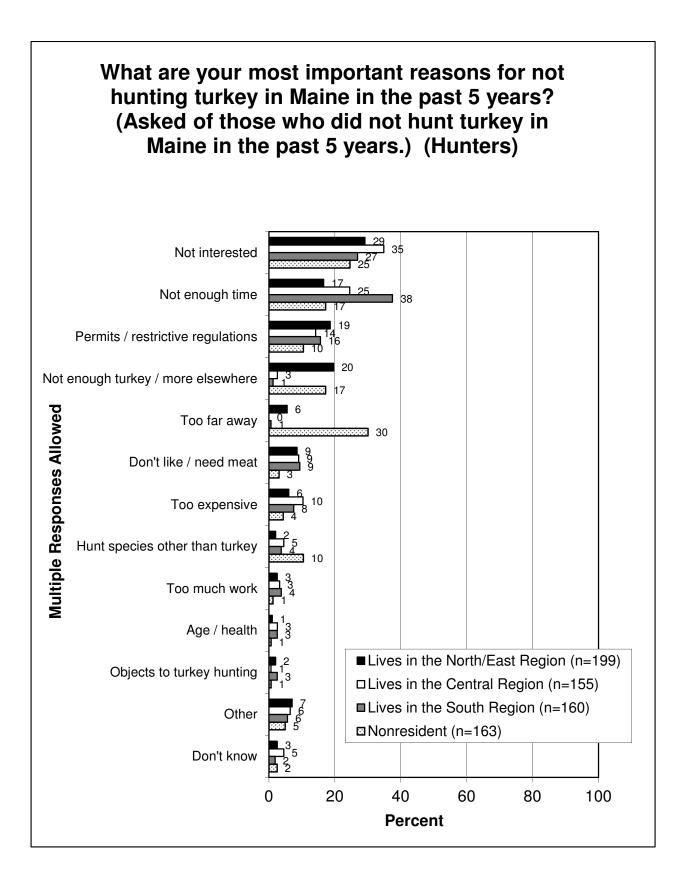








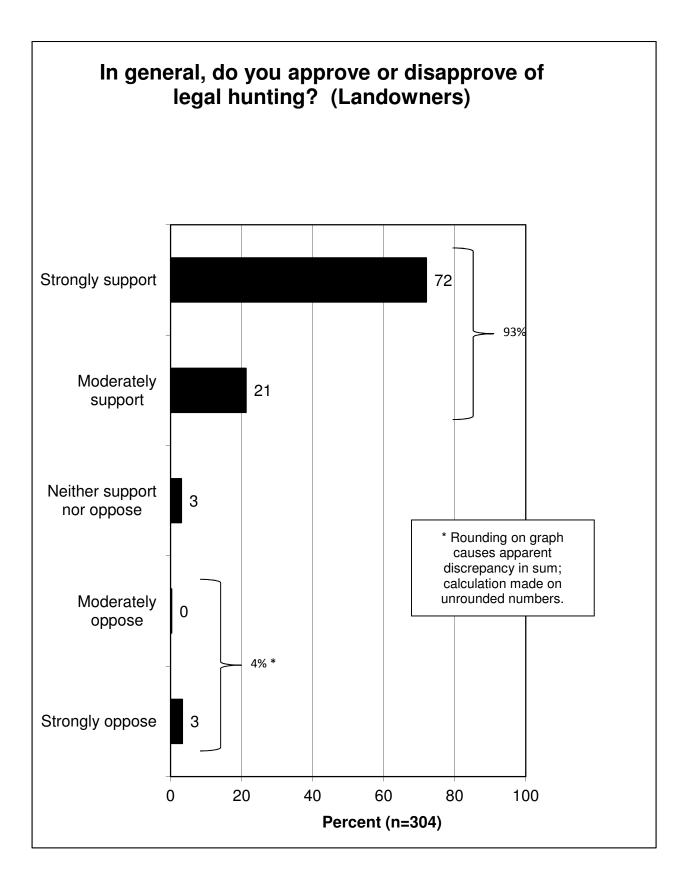


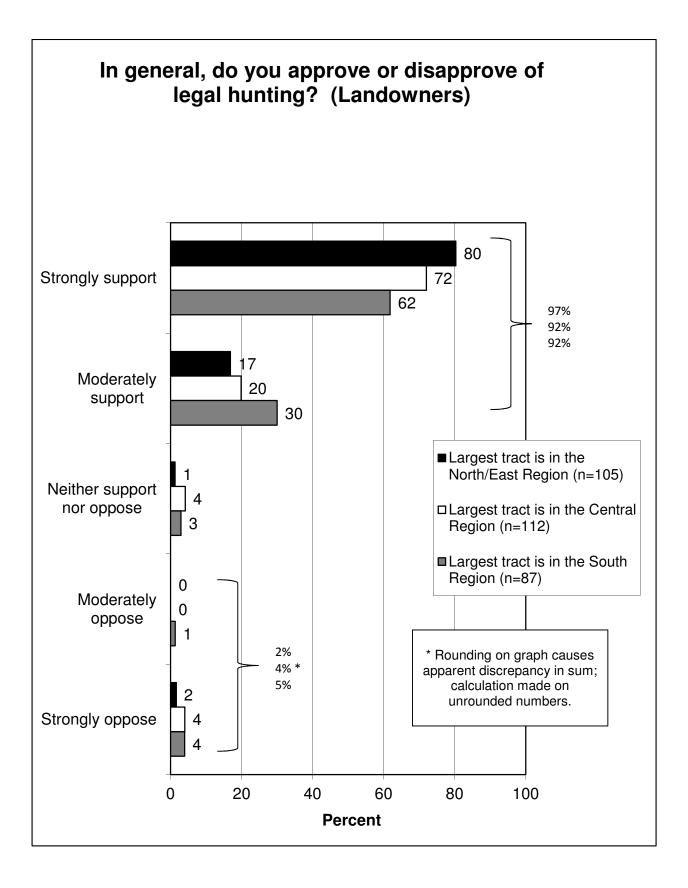


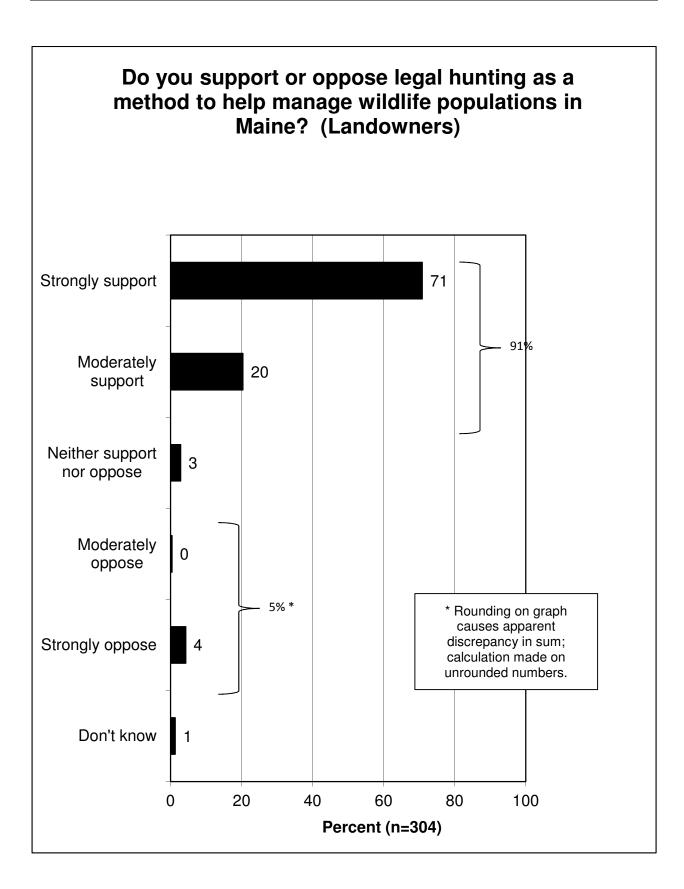
OPINIONS ON HUNTING

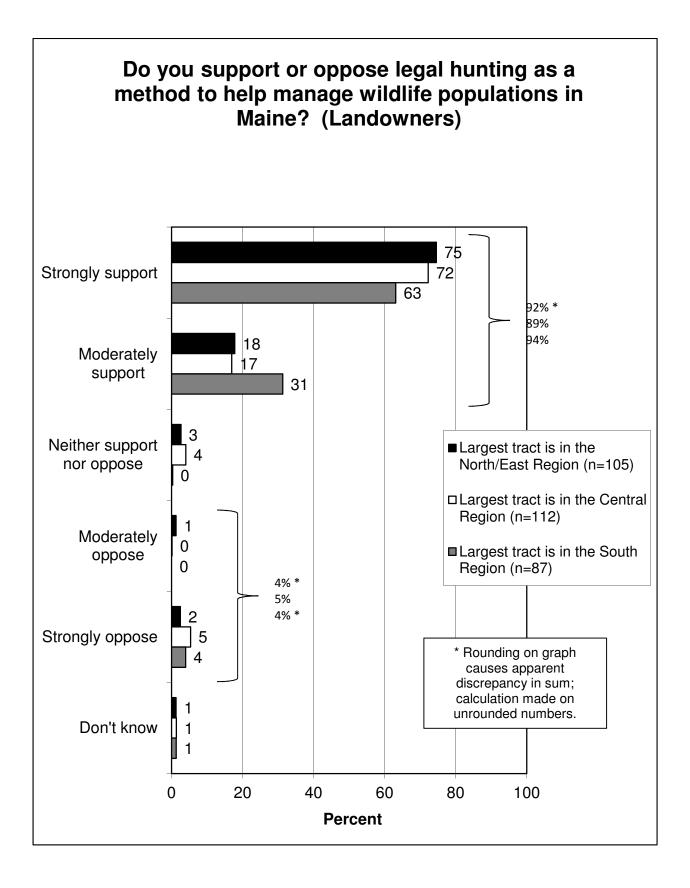
- Landowners were asked about their approval/disapproval of hunting in general: the overwhelming majority (93%) approve.
 - There are some regional differences, but mostly in the *strongly* support or *moderately* support rather than overall support. Landowners whose largest tract is in the North/East Region are the most likely to *strongly* support.
- The landowner survey asked about support for or opposition to legal hunting as a method to help manage wildlife populations in Maine. An overwhelming majority of landowners (91%) support.
 - Regional results mirror those in the question discussed immediately above.
- The survey asked about approval of hunting of the four primary species of interest in the survey: deer, moose, bear, and turkey.
 - Approval of deer hunting was high across the board: from 93% to 100% approve. At the other end, no more than 6% disapproved.
 - Approval of moose hunting is also high (from 90% to 98%). Compared to approval of deer hunting, the results for approval of moose hunting show a slight shift into *moderate* approval at the expense of *strong* approval (although a majority of each group still *strongly* approve).
 - Approval of bear hunting is high as well, but a little less robust than for moose hunting: from 84% to 97% approve, and again *moderate* approval is not insubstantial. Bear has the highest disapproval of the four species, but only as high as 12%.
 - Finally, approval of turkey is likewise high: from 92% to 99% approve.

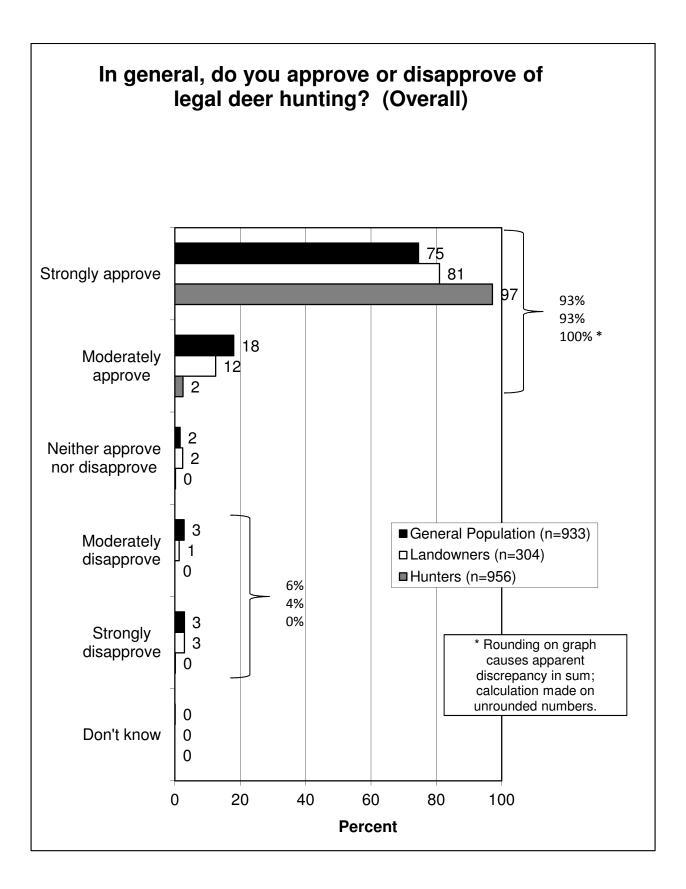
- The survey explored opinions on bear hunting for various reasons, with five possible reasons to hunt bear presented to respondents. The most support is for bear hunting as a way to manage bear populations or bear hunting for the meat. Bear hunting to economically benefit rural areas has middling support. At the low end, there is little support for human-centered reasons (for a trophy—the least supported—or for recreation).
 - Hunters express markedly more support than the other groups, with landowners narrowly edging out the general population in support.
 - A majority of all three groups strongly support bear hunting as a method to help manage bear populations in Maine (59% to 83% strongly support) and for the meat (61% to 79% strongly support). These are the only two reasons with a majority of the general population or landowners in strong support.
 - Four graphs are shown of the series: strongly support by itself, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose by itself.
 - A regional breakdown of landowners by where their largest tract is located shows some slight differences. In particular, landowners whose largest tract is in the South Region are more likely to oppose hunting bear for a trophy, for recreation, or for economic benefits to rural areas, compared to landowners whose largest tract is in another region.

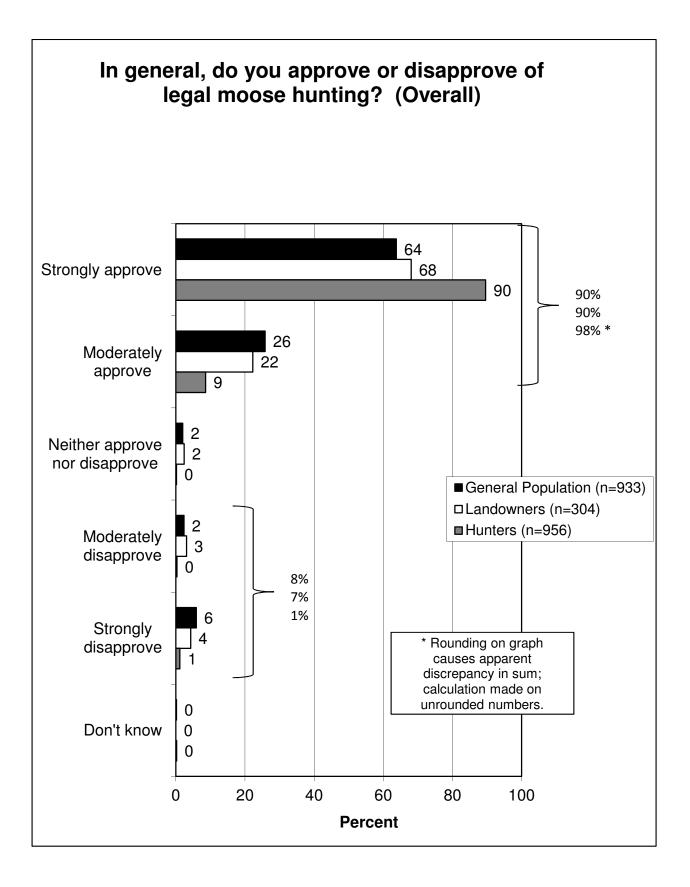


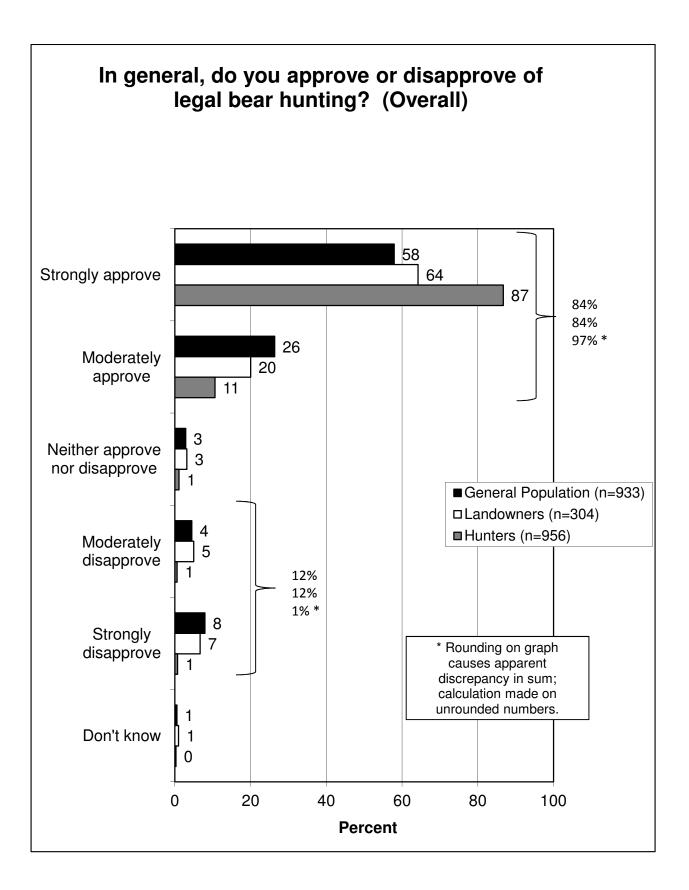


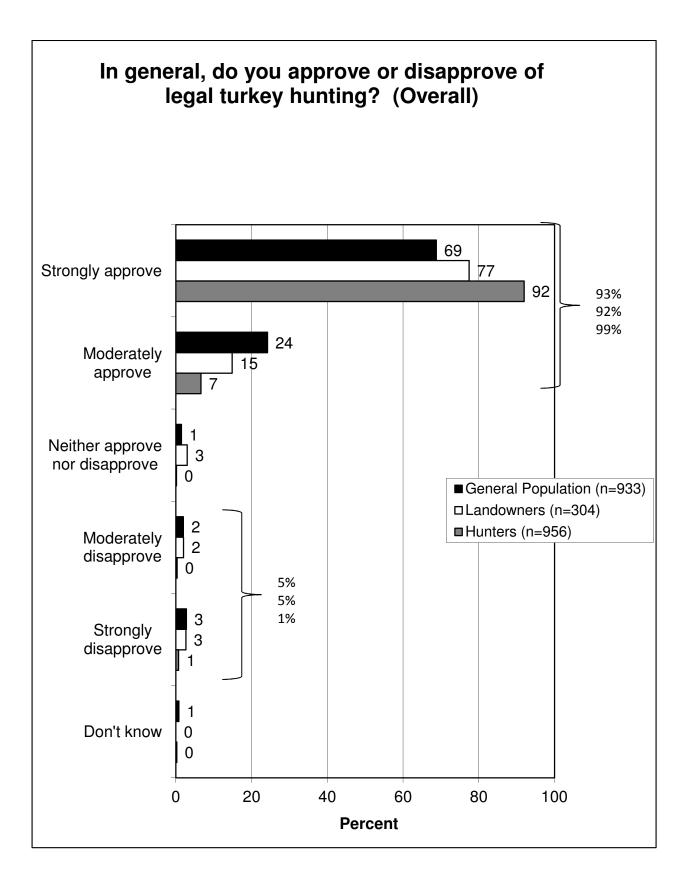


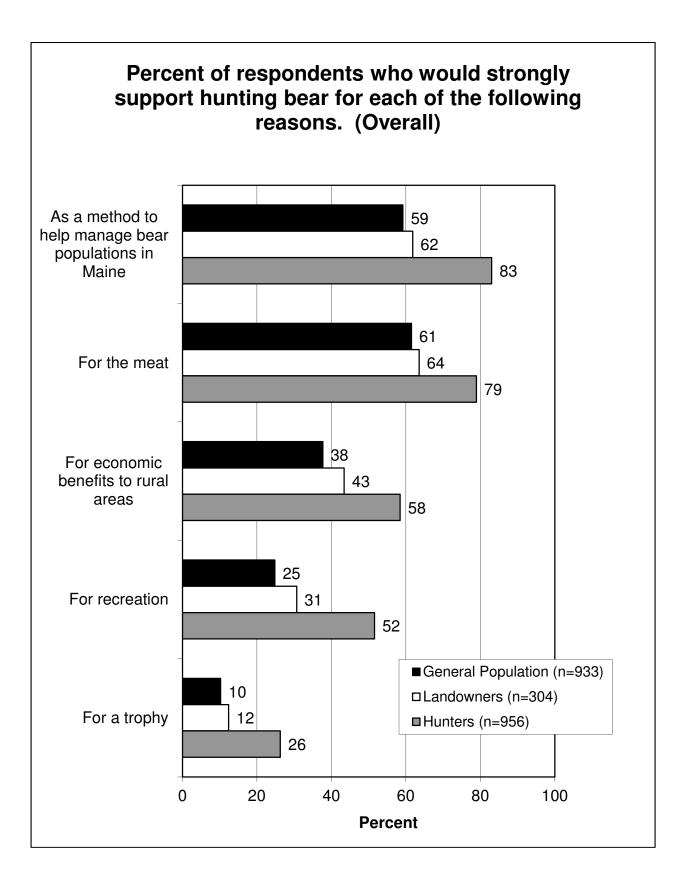


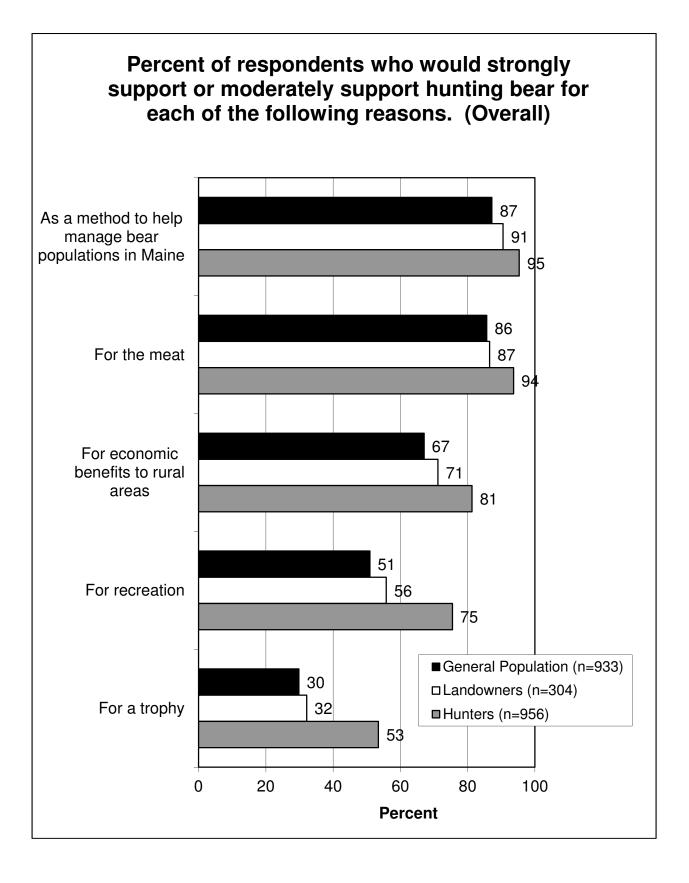


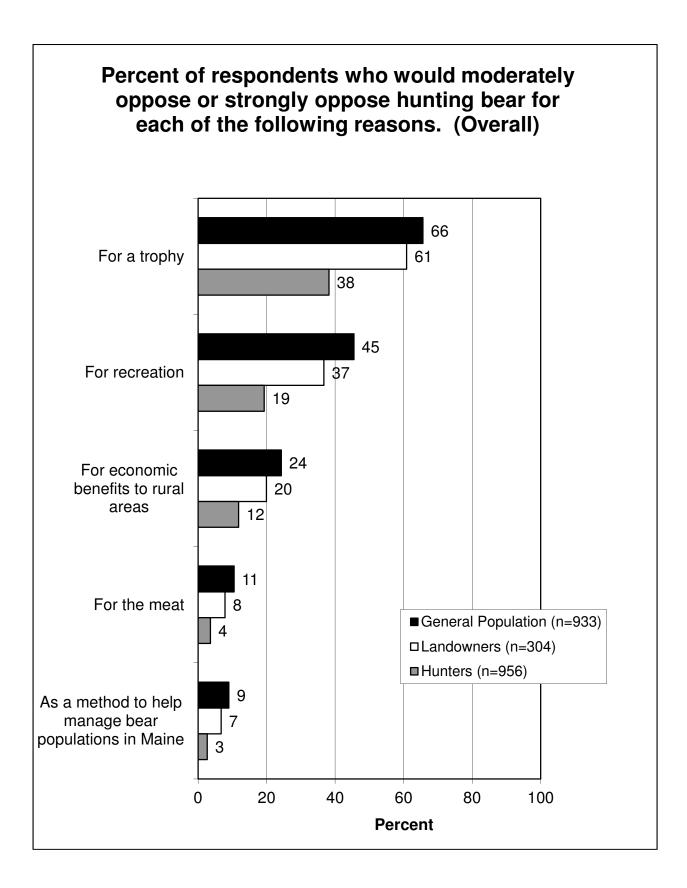


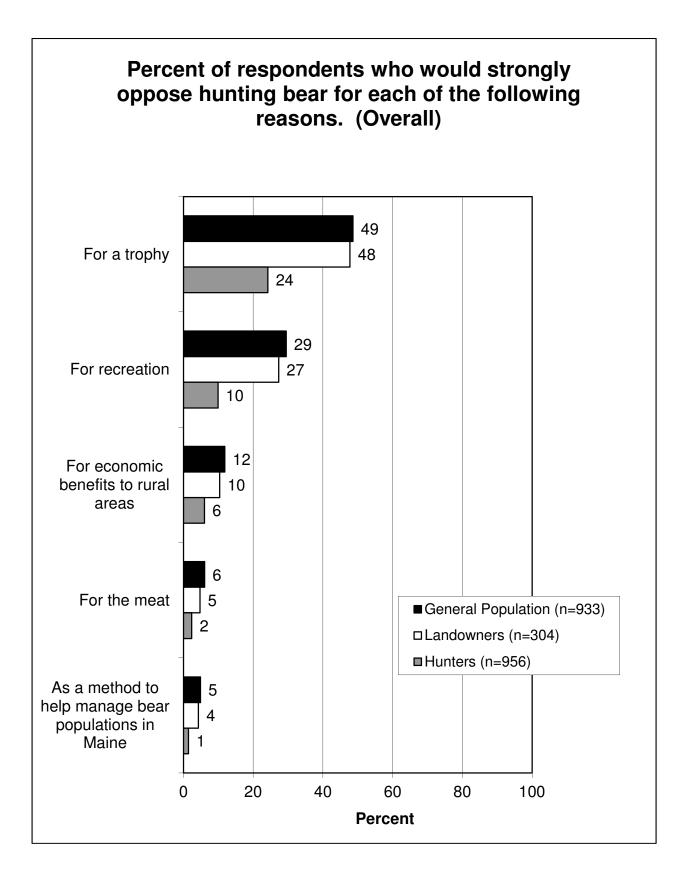


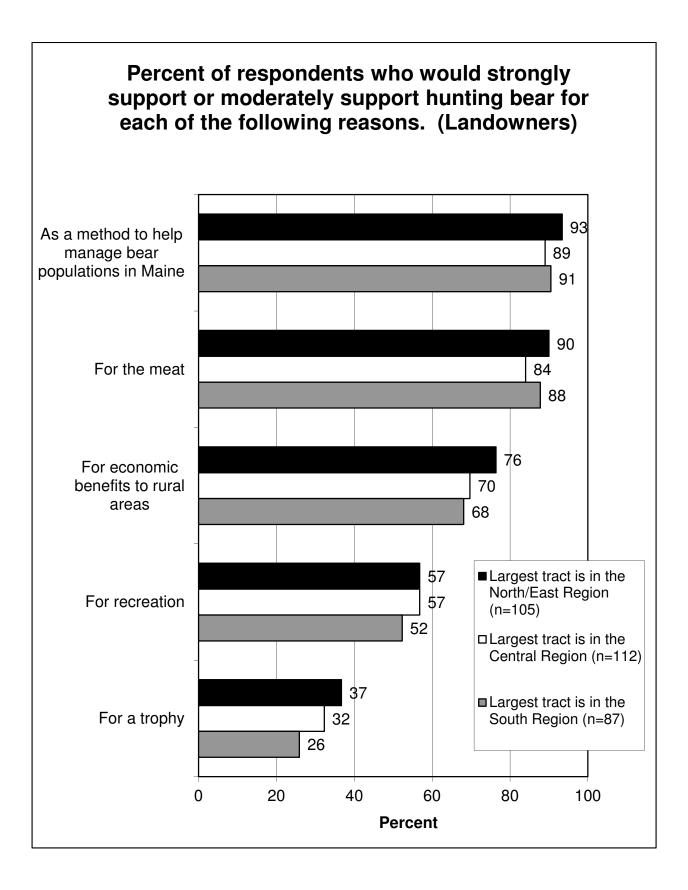


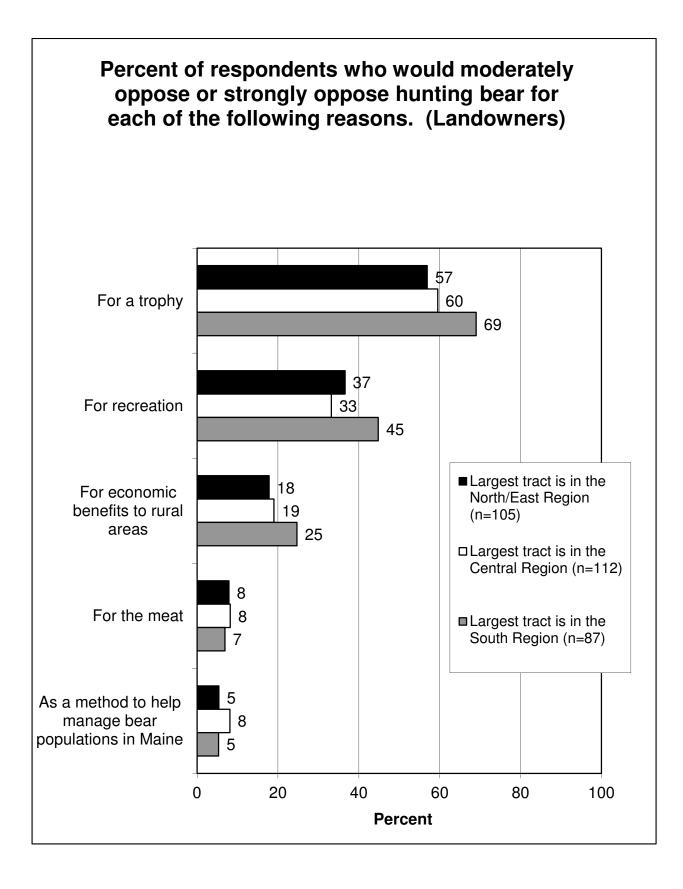






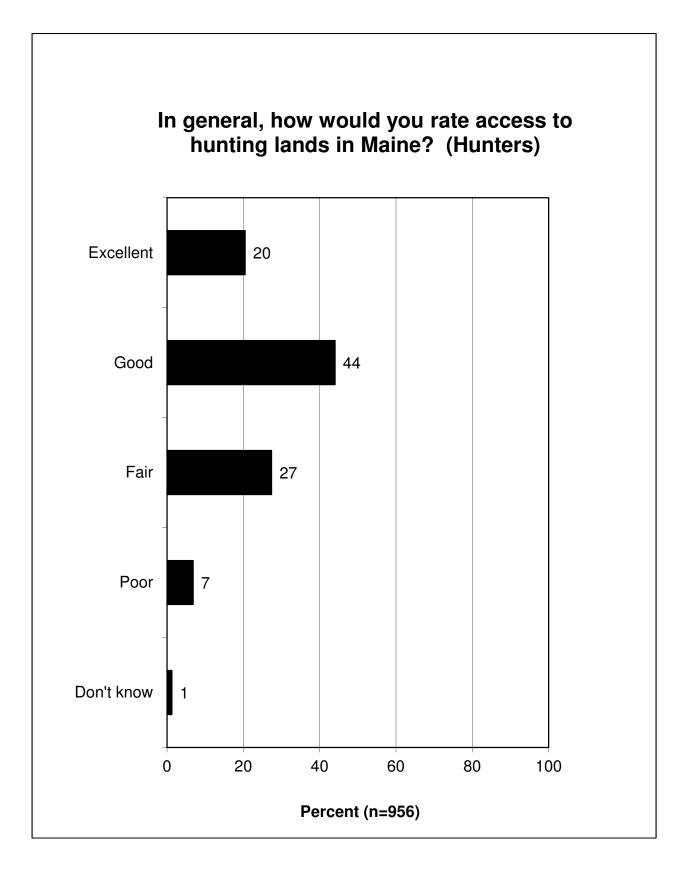


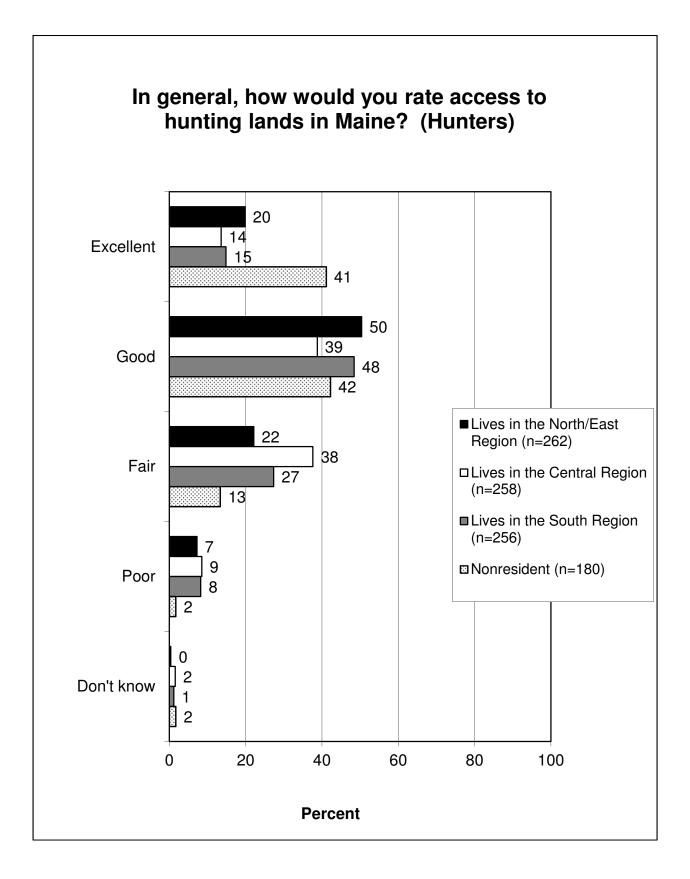


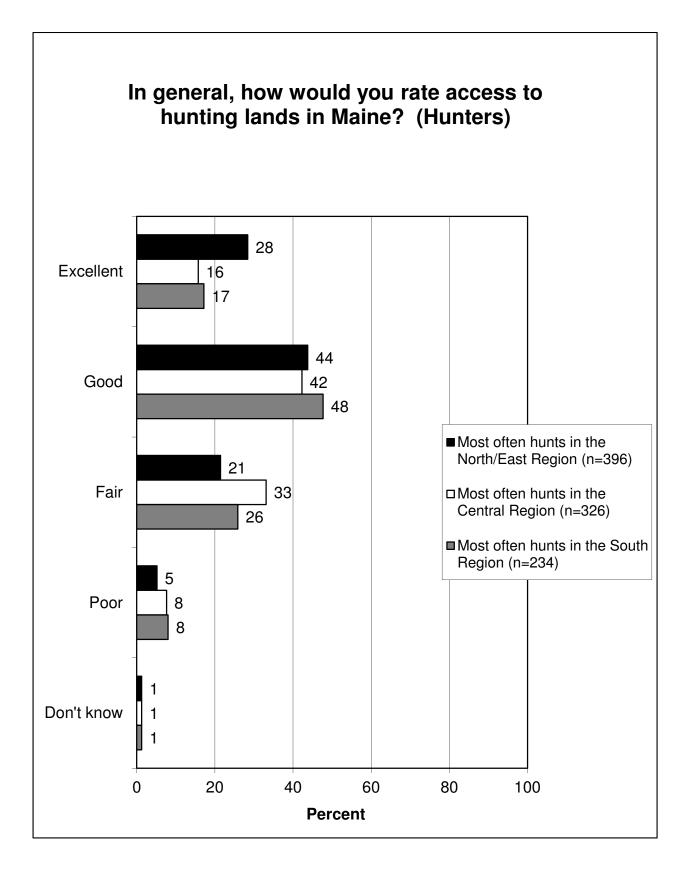


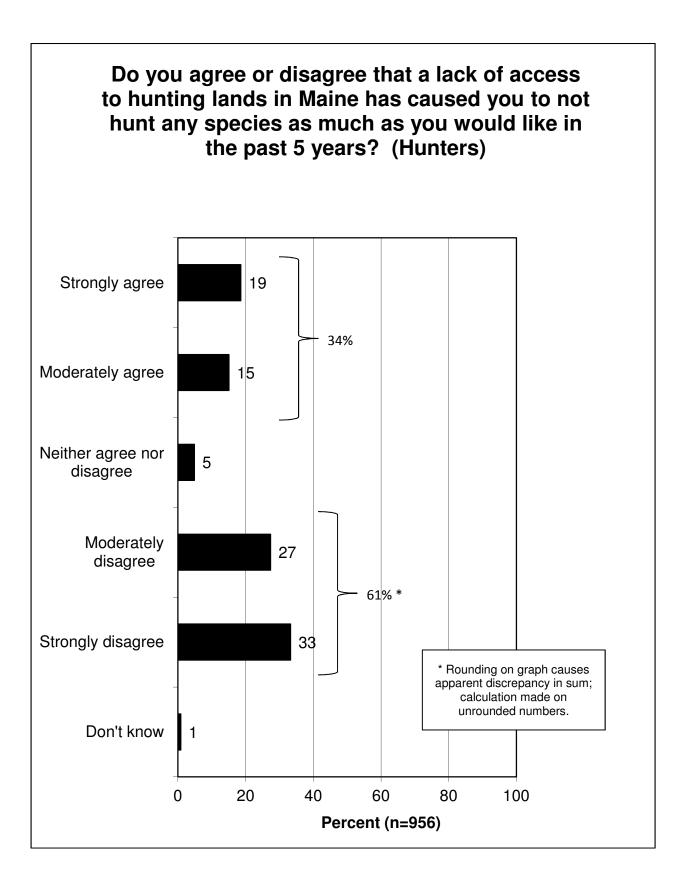
HUNTING ACCESS

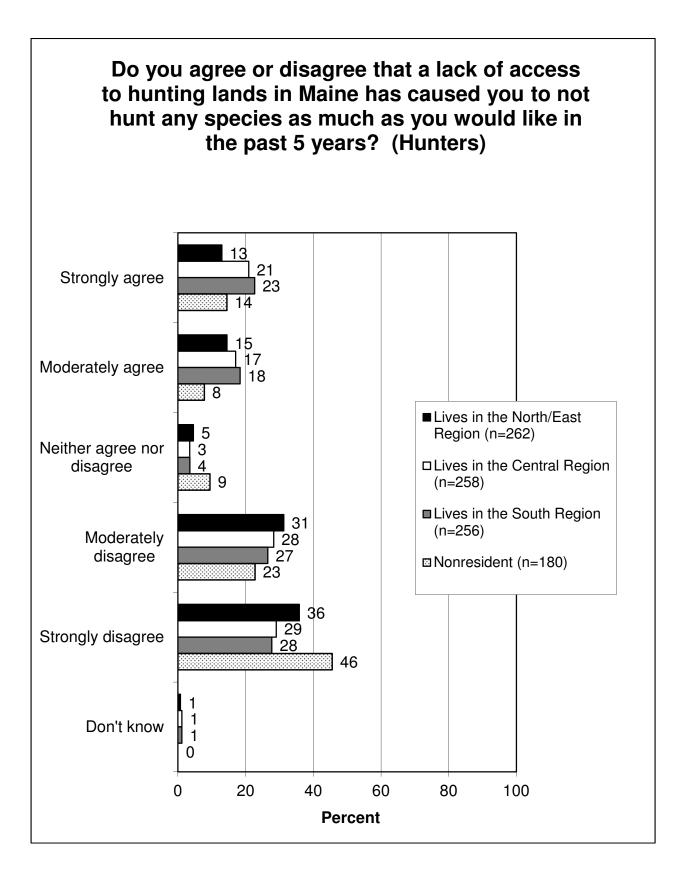
- Although a majority of hunters rate access to hunting lands in Maine as excellent or good (64%), there is a substantial percentage giving a fair or poor rating (34%).
 - A regional breakdown of hunters, based on where they live, shows that those who live in the Central Region tend to give the worse ratings of the three regions.
 - A second regional breakdown is shown based on the region in which hunters most often hunt (based on the question that asked them to name the county in which they most often hunted).
- Paralleling the results above, 34% of hunters agree that lack of access to hunting lands in Maine has caused them to not hunt as much as they would have liked in the past 5 years. On the other end, 61% disagree.
 - South and Central Region hunters are more likely to agree with this statement than are North/East Region hunters and nonresidents.
 - Another crosstabulation is shown based on the region in which the hunter most often hunts. The least agreement/most disagreement is from hunters hunting in the North/East Region.
- Landowners were asked about allowing access for hunting on their land. Most of them do so: 81% allow people other than household members to access their largest tract of land for hunting. In breaking down type of access, 42% allow access by permission, and 28% allow open access.
 - In the regional analysis, landowners whose largest tract is in the North/East Region are the most likely to allow open access.
 - A follow-up question asked for the main reasons landowners did not allow access to the land for hunting other than family or friends. Common reasons are a disapproval of hunting, firearm safety concerns, disrespectful behavior of hunters, property damage, and privacy concerns.

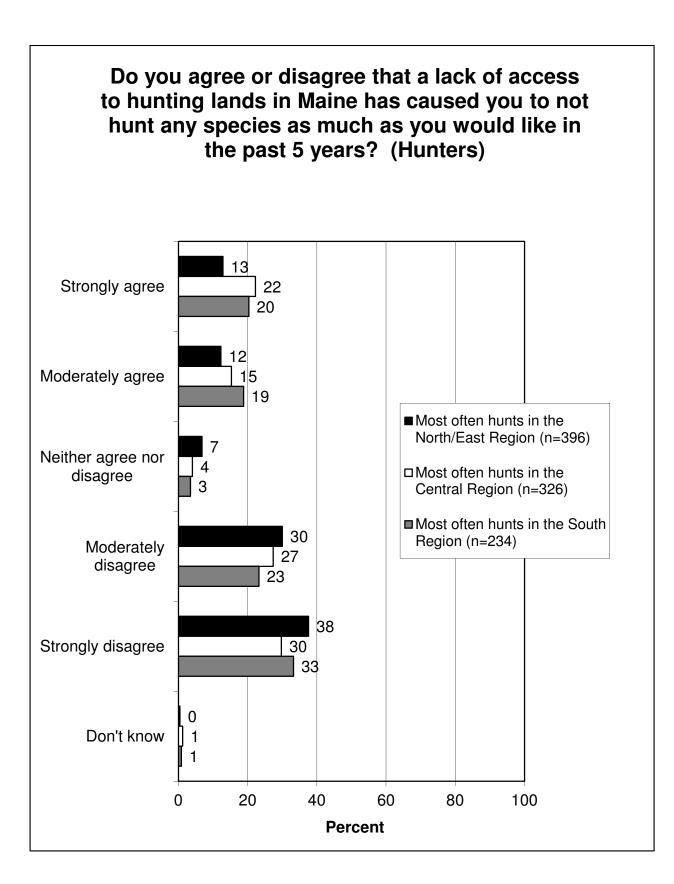


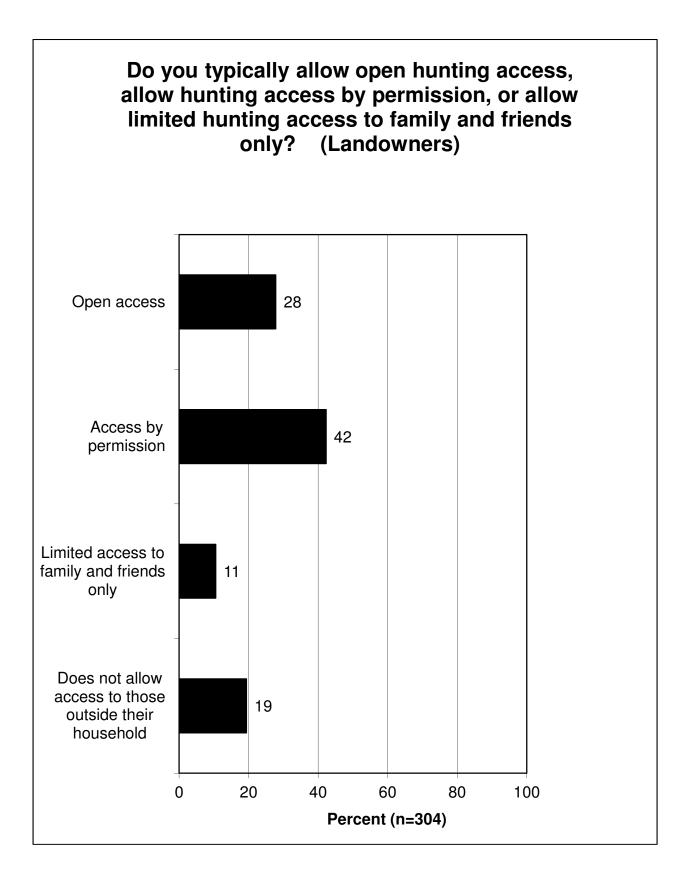


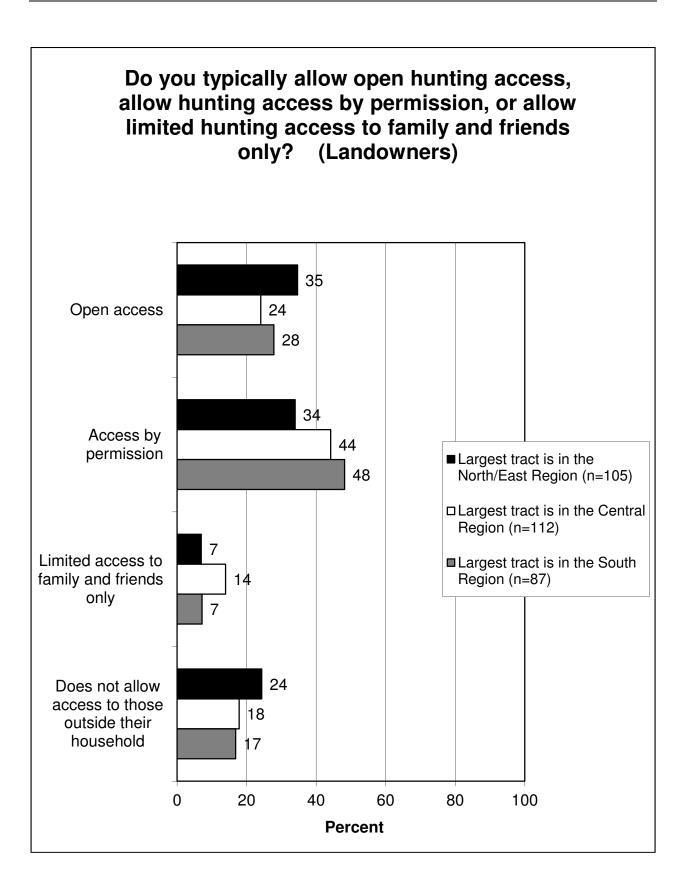


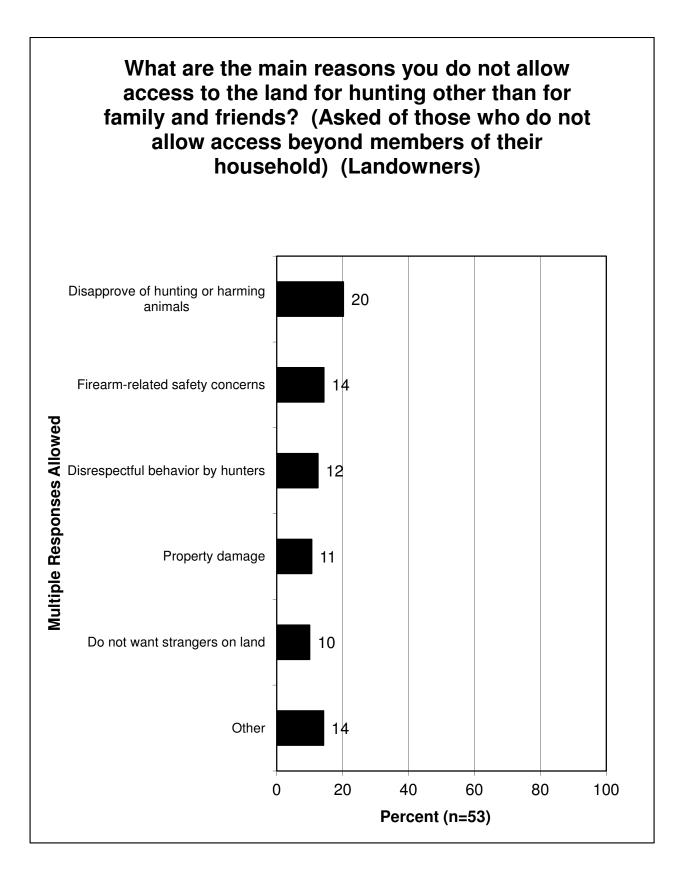






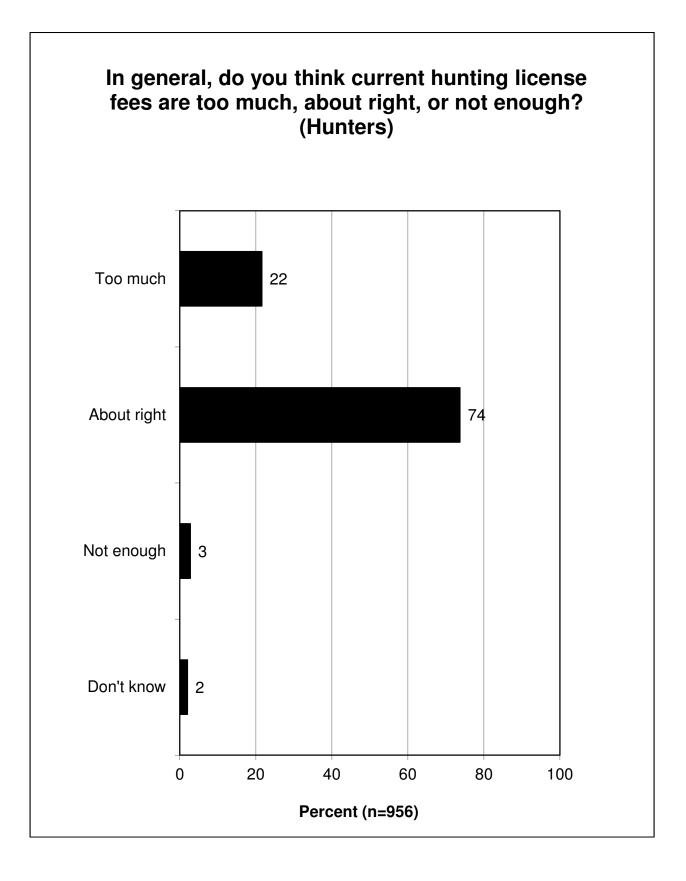


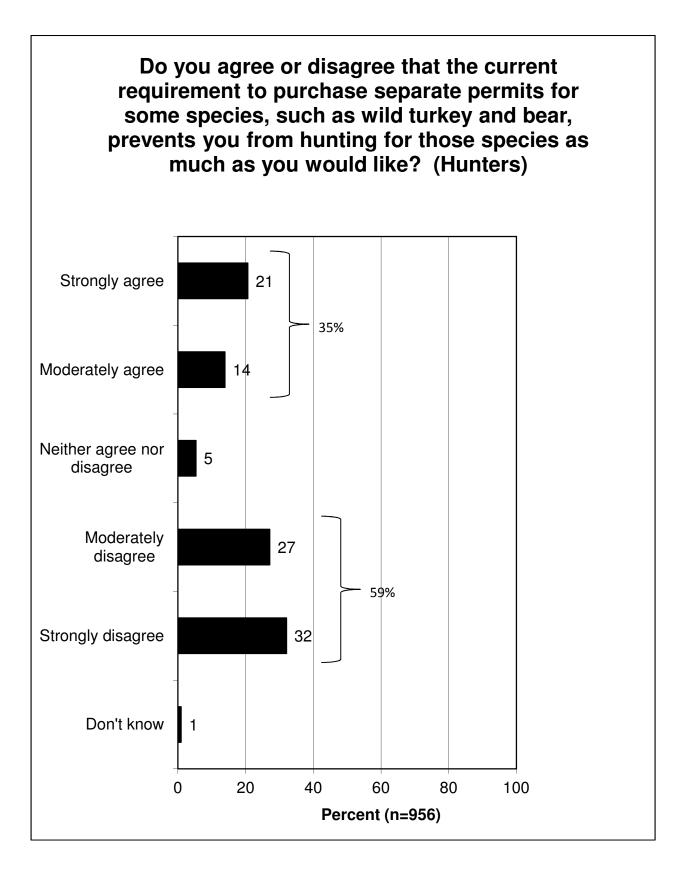




HUNTING LICENSING AND FEES

- The majority of hunters think the current hunting license fees are about right (74%); otherwise, 22% say that they are too much, compared to only 3% who say that they are not high enough.
- Hunters' disagreement exceeds their agreement that the current requirement to purchase separate permits for some species prevents them from hunting those species as much as they would like. While a majority (59%) disagree, a substantial percentage (35%) agree.

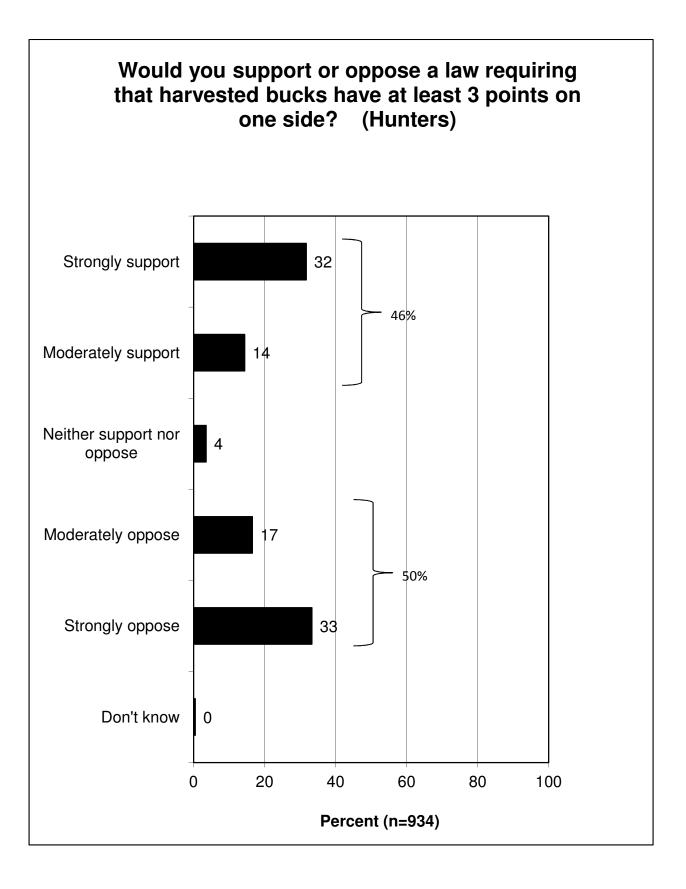


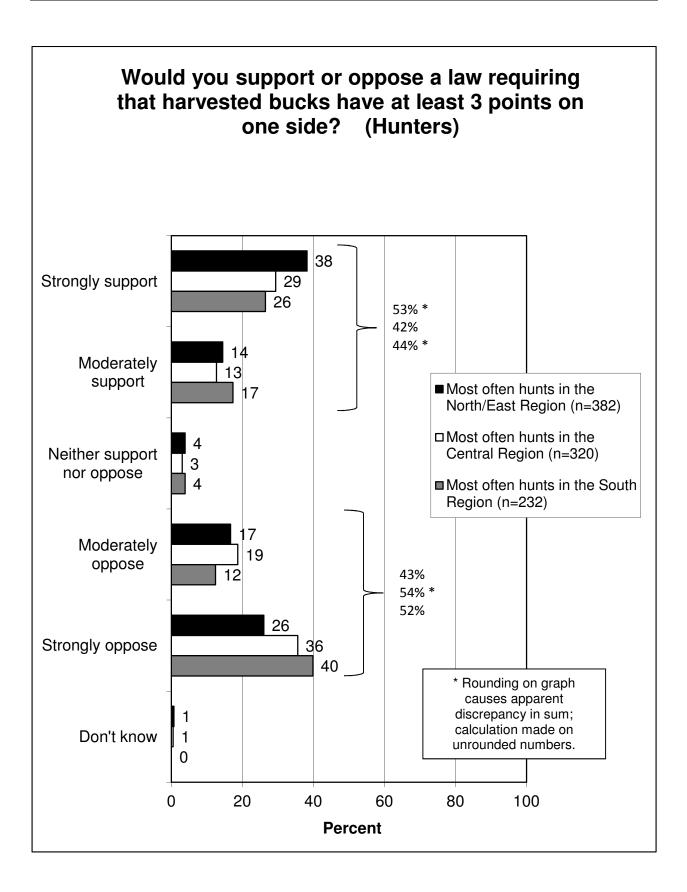


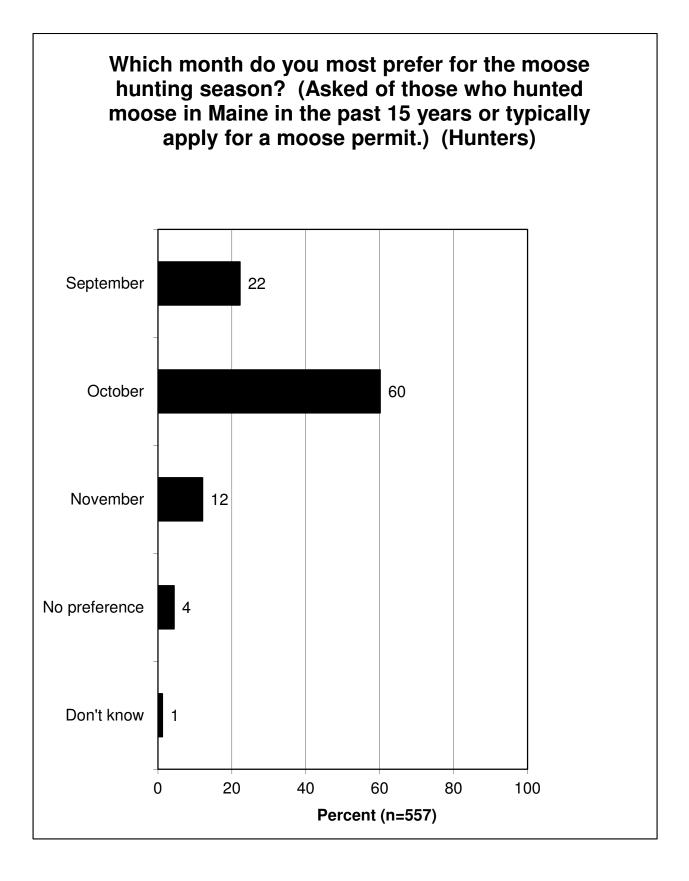
OPINIONS ON REGULATIONS AND SPECIFIC ASPECTS OF HUNTING

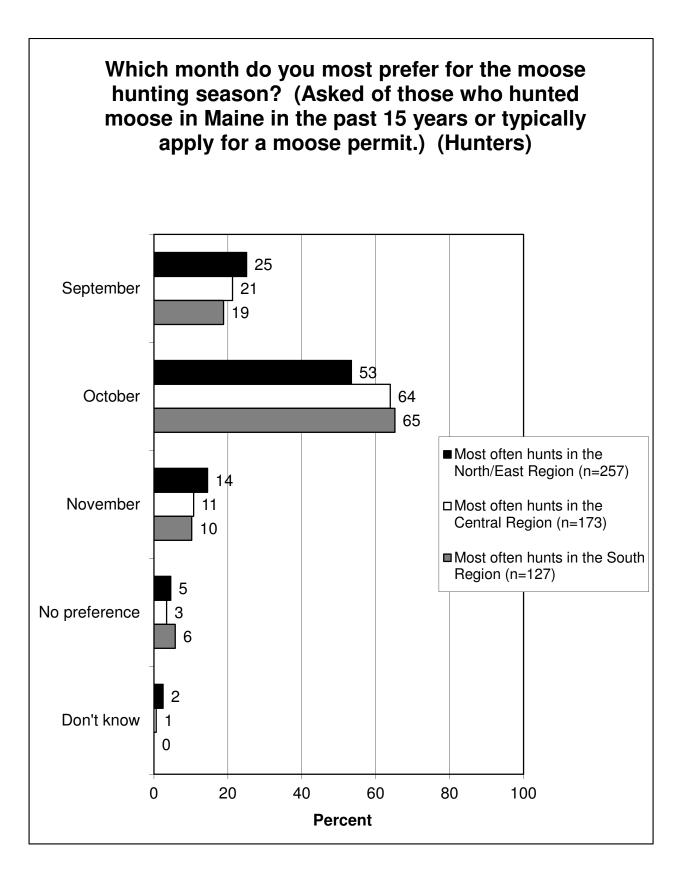
- Opinion is closely split regarding a law requiring that harvested bucks have at least 3 points on one side: 46% of hunters would support, but 50% would oppose.
 - Most of the differences among the regions (based on the region in which the hunter most often hunted) are in the *strong* responses rather than overall support (ranging from 42% to 53%) or overall opposition (ranging from 43% to 54%).
- Moose hunters and those who typically apply for a permit (even if they did not hunt moose) were asked which month they most preferred for the moose hunting season. The majority of these moose hunters/potential moose hunters chose October (60%), distantly followed by September (22%) and November (12%).
 - In the regional analysis, the North/East Region has a higher percentage than the other regions choosing September, but the difference is slight.
 - Follow-up questions asked respondents why they would most prefer having the season in the month they chose. Graphs are shown for those preferring September, October, and November.
 - Those who prefer September most commonly cite the timing of the rut/that there is greater moose activity then.
 - Those who prefer October most commonly say that they prefer the weather then, with the timing of the rut/greater moose activity being the second ranked reason.
 - Those who prefer November most commonly say that they prefer the weather then, with the timing of the rut/more moose activity a distant second.
- A 6-day season with fewer hunters is preferred over a 12-day season with more hunters: among moose hunters/potential moose hunters, 58% choose the 6-day season, while 34% choose the 12-day season.
 - The regional differences are slight, but hunters who most often hunt in the Central Region are the most likely of hunters of the three regions to say that they would prefer a 12-day season.

- Moose hunters and those who typically apply for a permit were asked to choose among two alternatives: having the Department offer more moose permits with a lower harvest rate or offering fewer moose permits with a higher harvest rate. Although a slight majority of moose hunters/potential moose hunters (52%) choose fewer permits/higher harvest rate over the alternative, there is still a substantial percentage (38%) who choose more permits/lower harvest rate.
 - In the regional analysis by where the hunter most often hunts, those who most often hunt in the South Region are the most likely to want fewer permits/higher harvest rate.

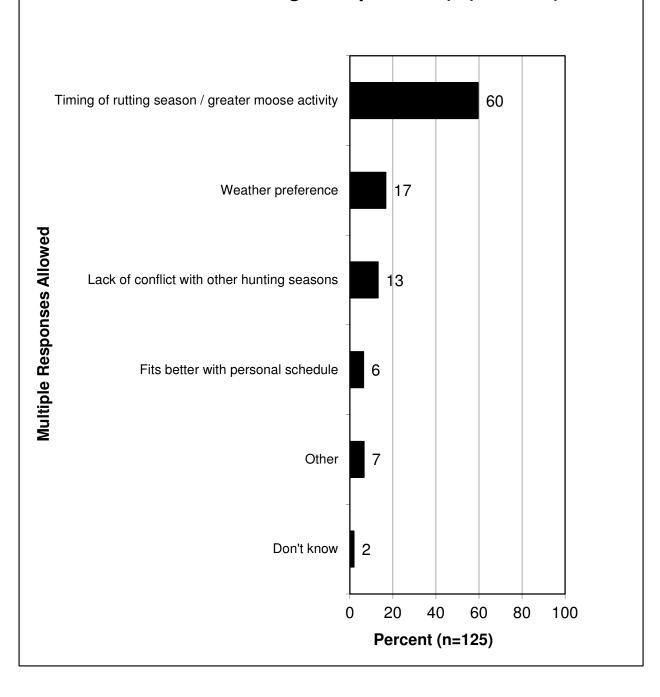


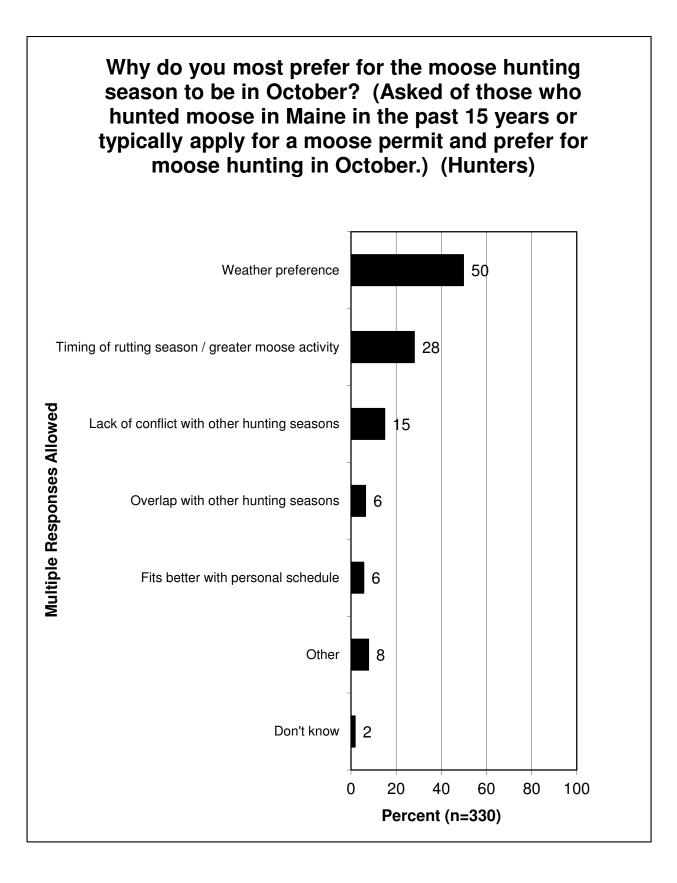


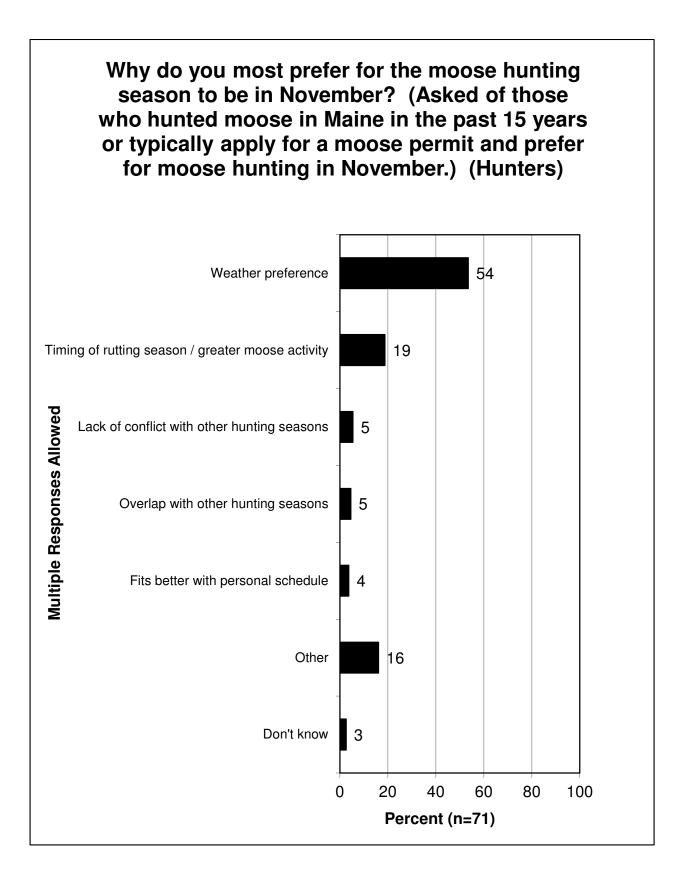


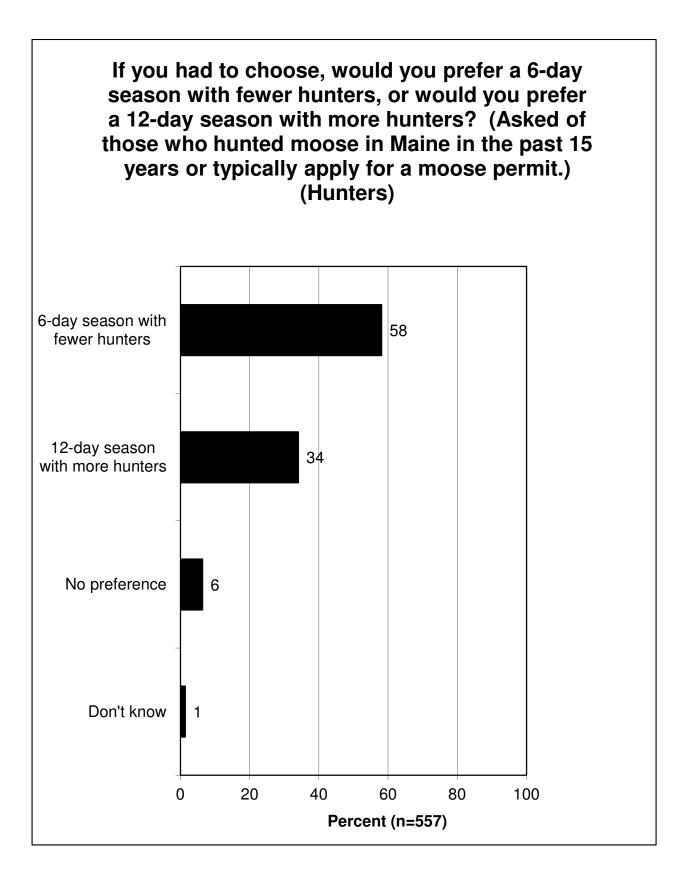


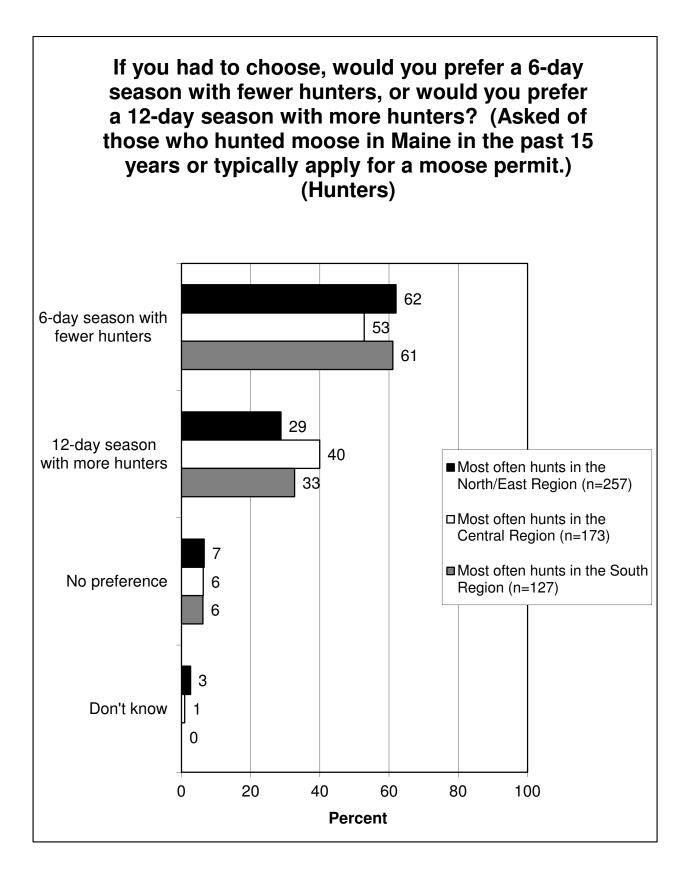
Why do you most prefer for the moose hunting season to be in September? (Asked of those who hunted moose in Maine in the past 15 years or typically apply for a moose permit and prefer for moose hunting in September.) (Hunters)

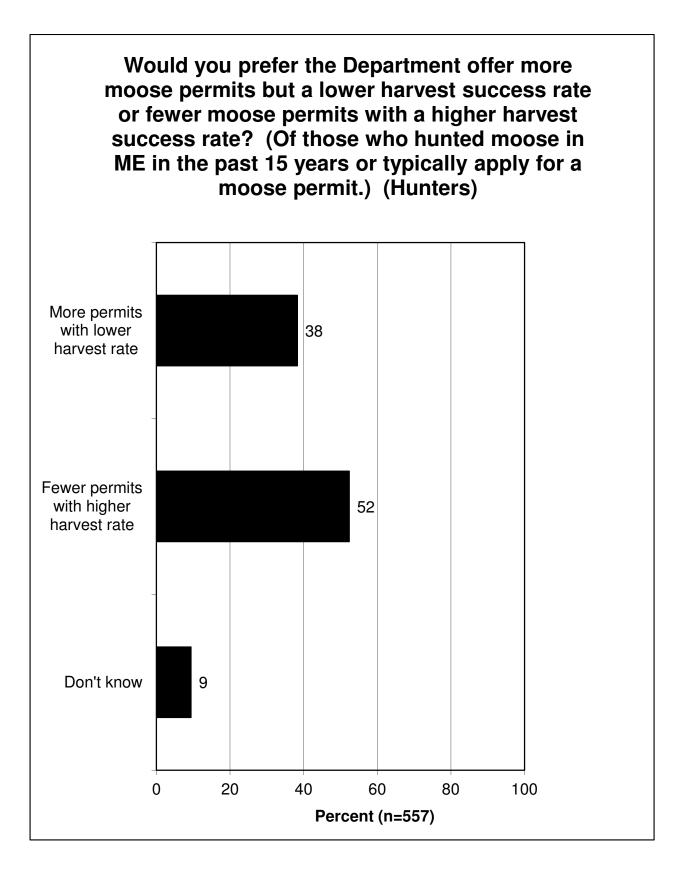


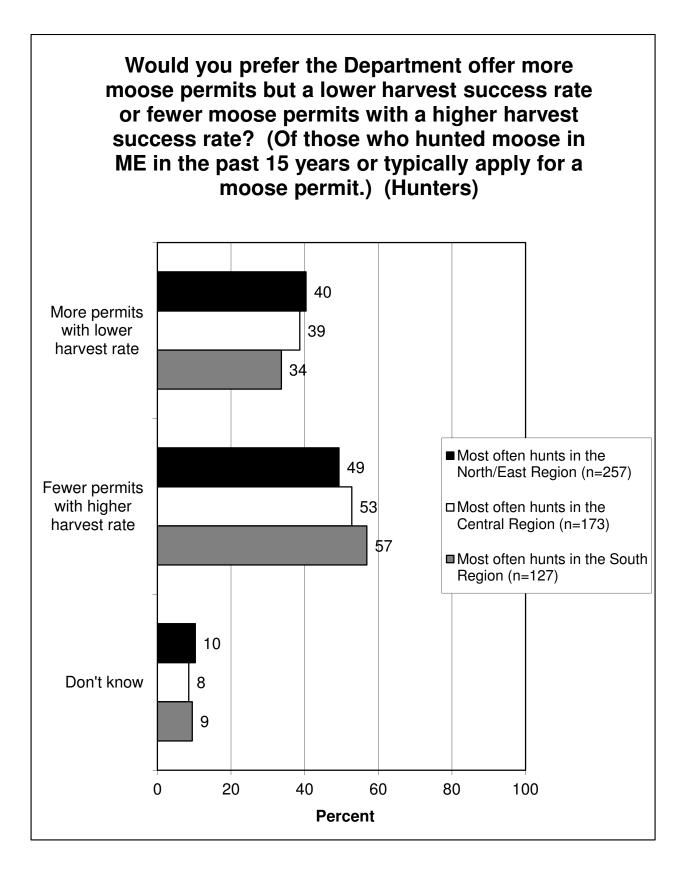








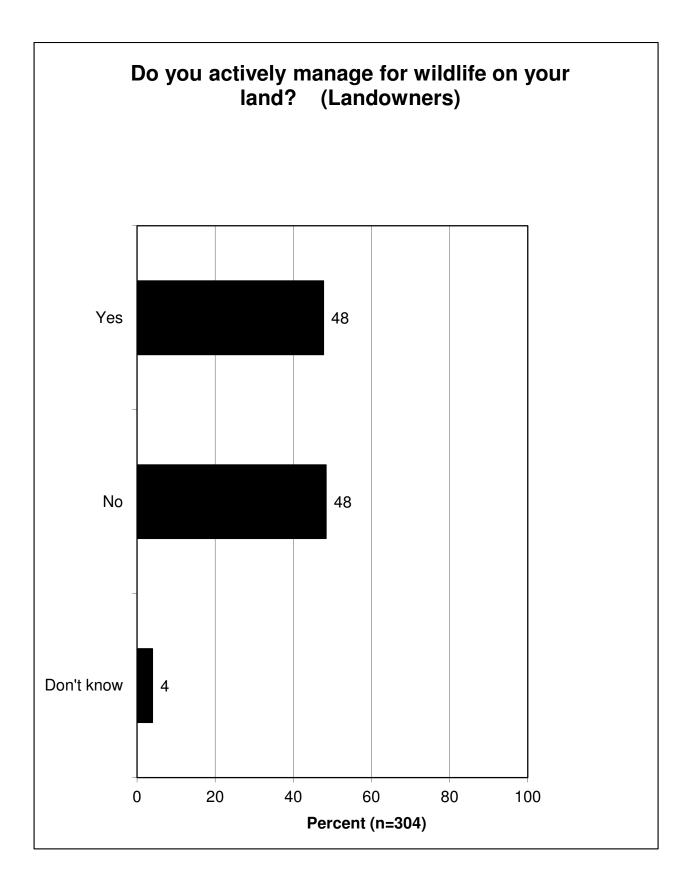


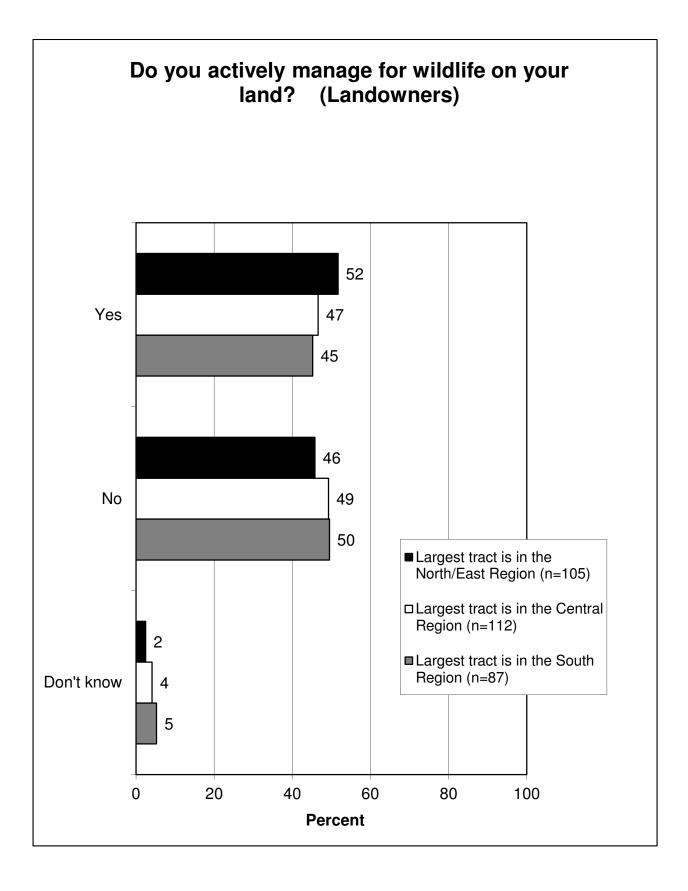


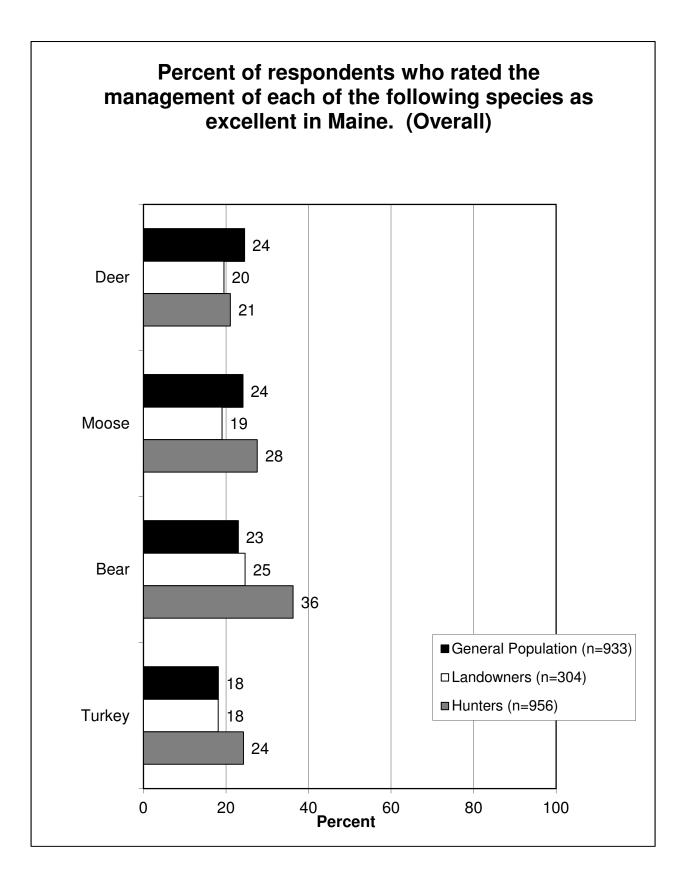
LAND MANAGEMENT IN GENERAL

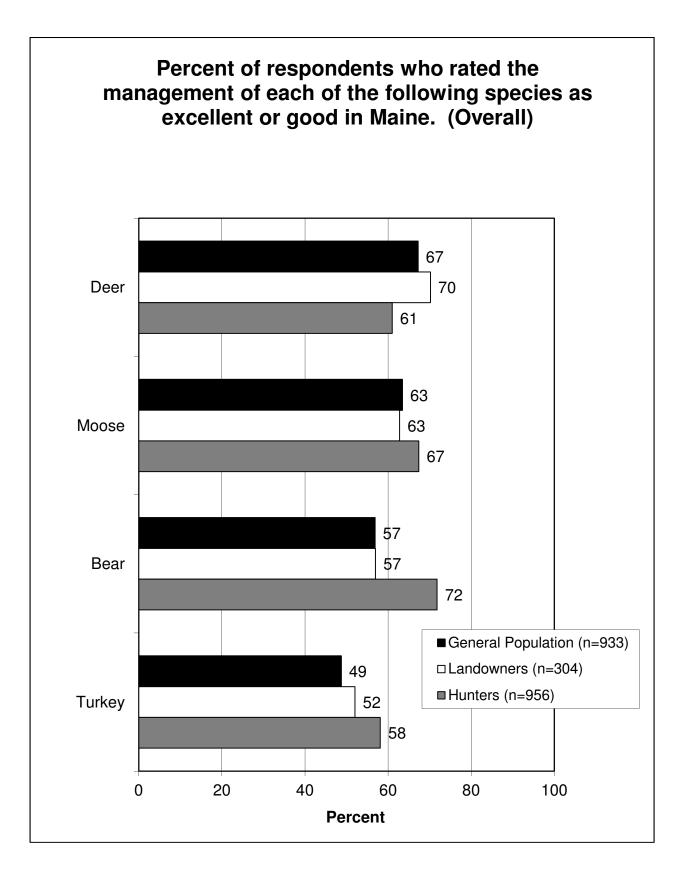
- ▶ Just under half of landowners (48%) actively manage for wildlife on their land.
 - There is little difference regionally, based on where landowners' largest tract of land is located.
- The survey asked respondents to rate the management of each of the four primary species of interest in the survey, the results of which are shown individually in the following sections about deer management, moose management, bear management, and turkey management. However, the results are first shown here with all four species compared.
 - Among the findings: hunters have a markedly better opinion regarding bear management than do the general population or landowners. Otherwise, those three groups are similar to each other.
 - Four graphs are shown: excellent by itself, excellent and good combined, fair and poor combined, and then poor by itself.
 - Another way to look at the same data is presented. For each group, their ratings for each species are shown in a stacked-bar graph: a graph of the general population's ratings of each species, a graph of landowners' ratings, and a graph of hunters' ratings.
 - Regional results are shown for the general population, which show that the Central Region tends to give the most positive ratings and the North/East Region tends to give the most negative ratings.
 - In the landowners survey, the results of this question were examined based on where the landowner's land was located. The best ratings of deer management and moose management are from landowners whose land is in the South and Central Regions; the best ratings of bear management are from landowners whose land is in the North/East Region. For turkey, the ratings are about the same among the regions.
 - Among hunters, regional results show that hunters who live in the South Region are the most positive about deer and turkey; hunters living in the North/East Region are the most negative about deer and moose management. (All regions are about the same regarding bear.)

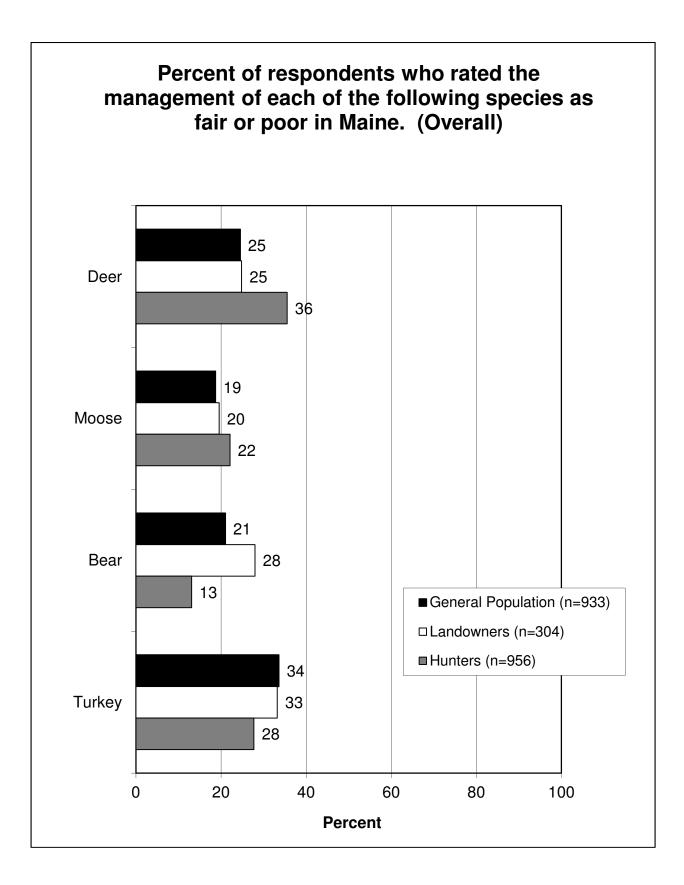
- The last question in this section concerned coyote management. There is much more support for (from 71% to 91%) than opposition to (from 6% to 20%) a coyote management program, which may cause an increase in deer and/or wild turkey populations in local areas.
 - The regional analysis of the general population results shows that the most support is in the North/East Region (79% support) and the least support is in the South Region (66% support).
 - Among landowners, the regional analysis finds the most opposition to landowners whose largest tract is in the Central Region.

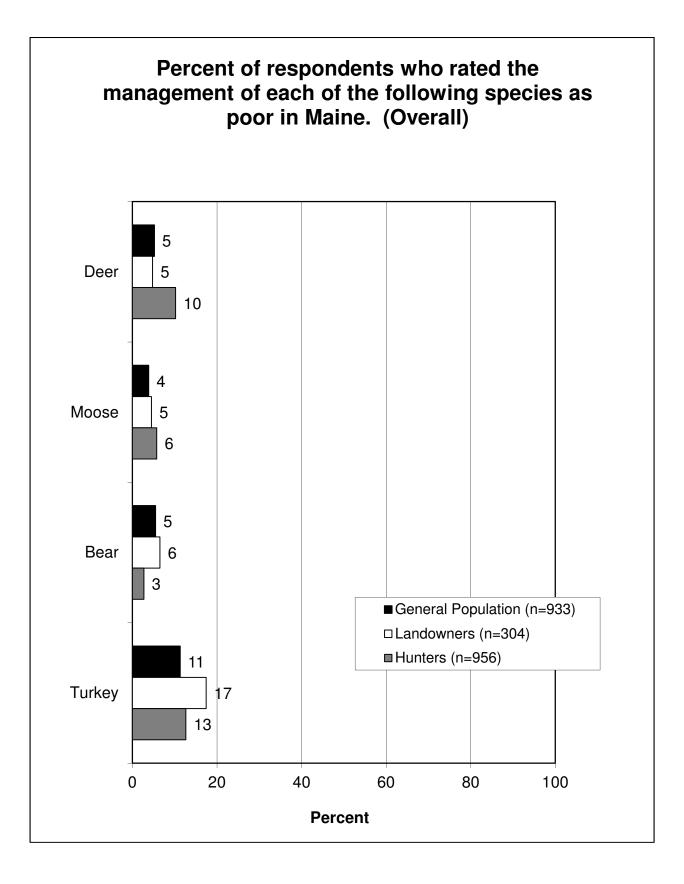


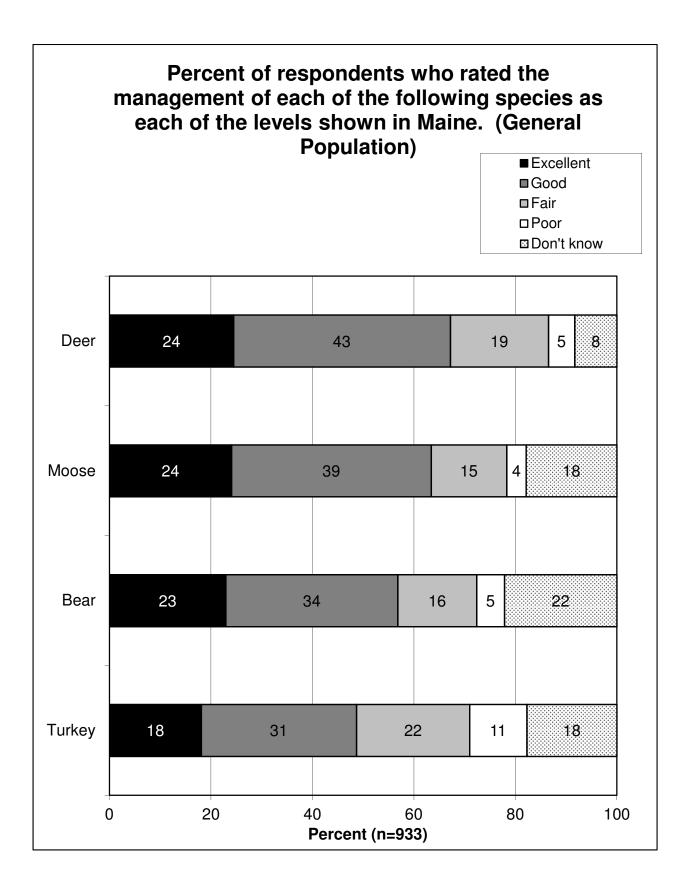


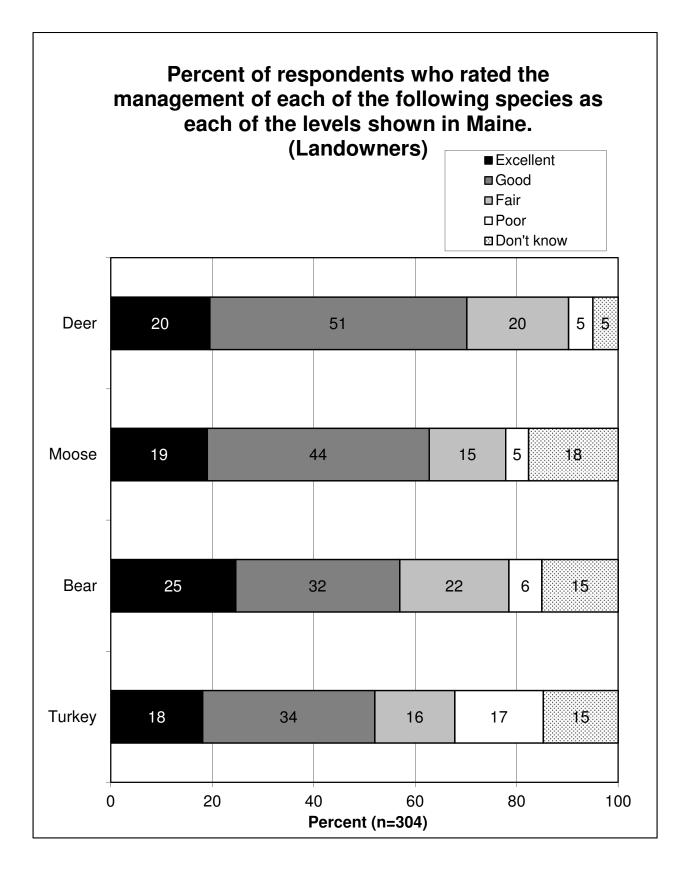


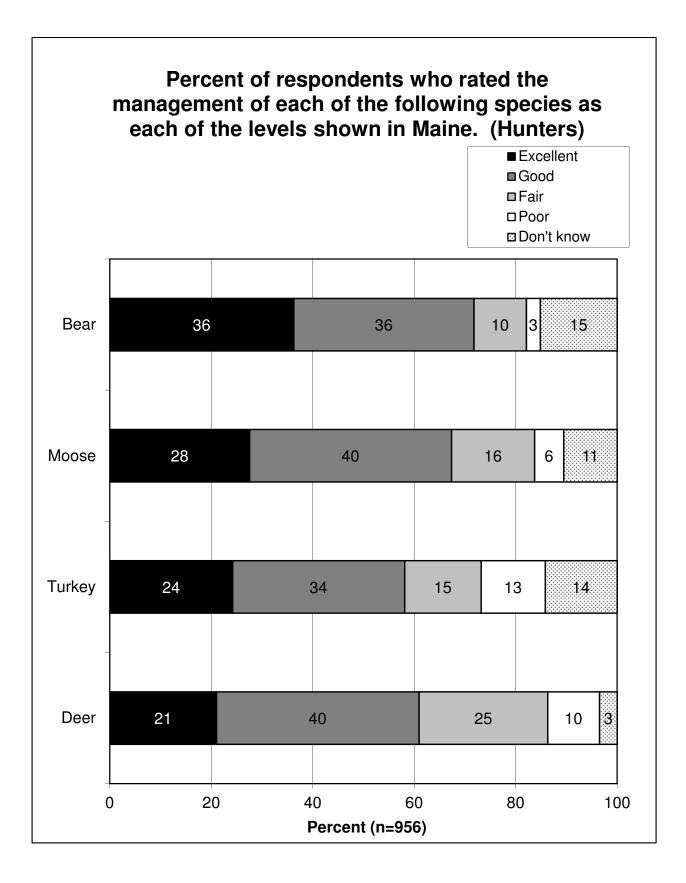


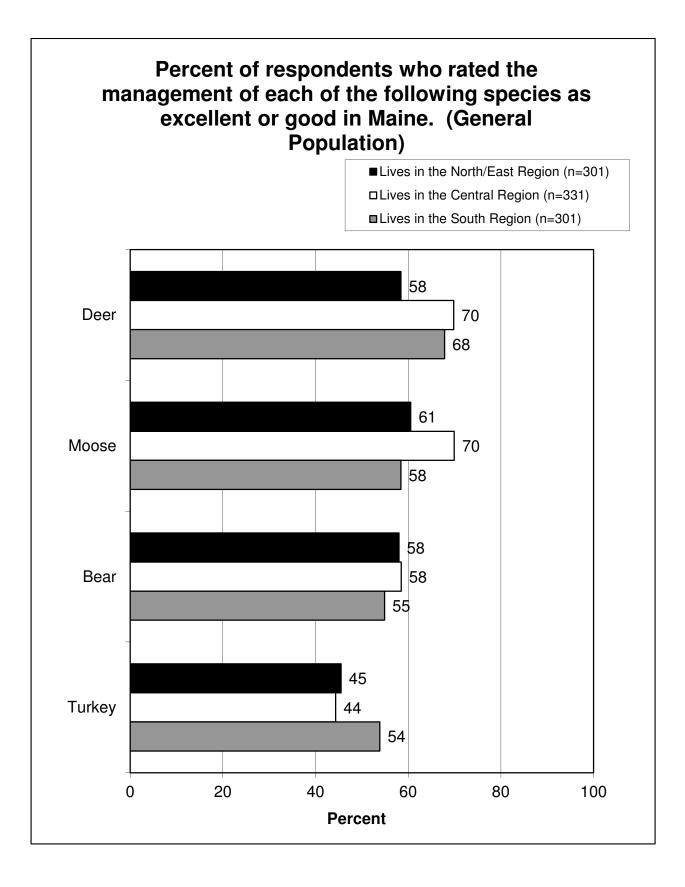


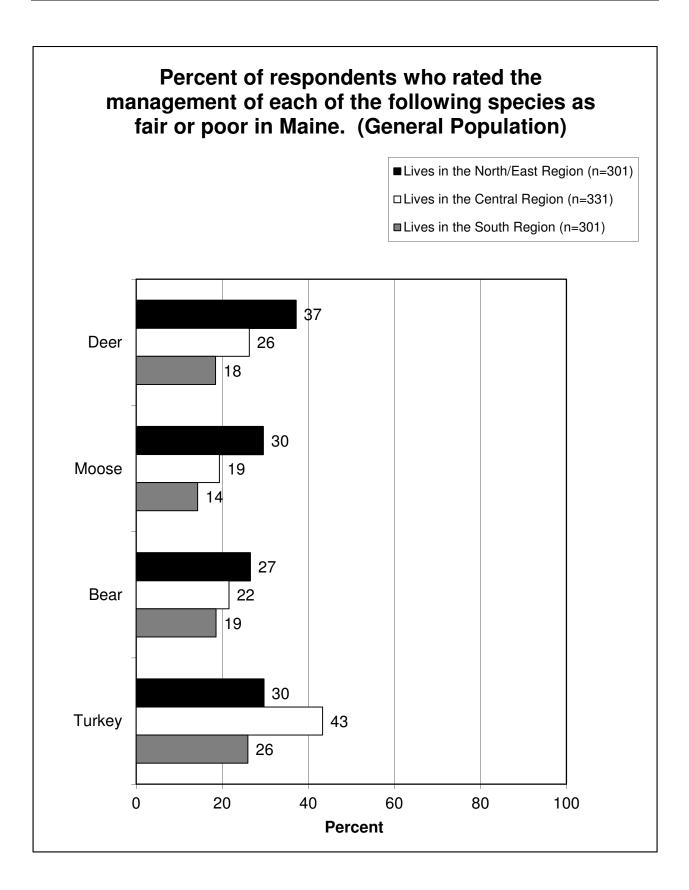


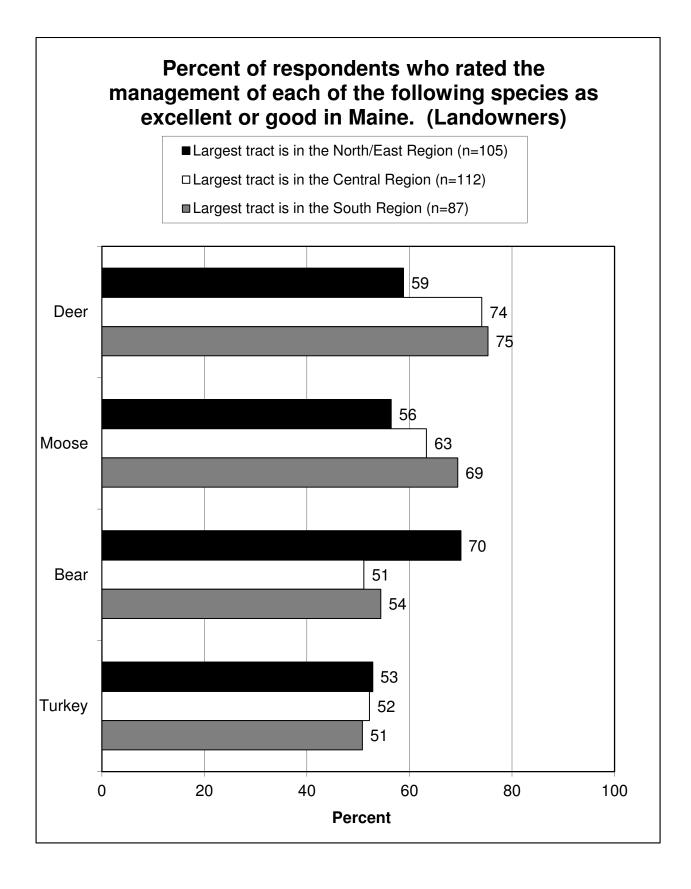


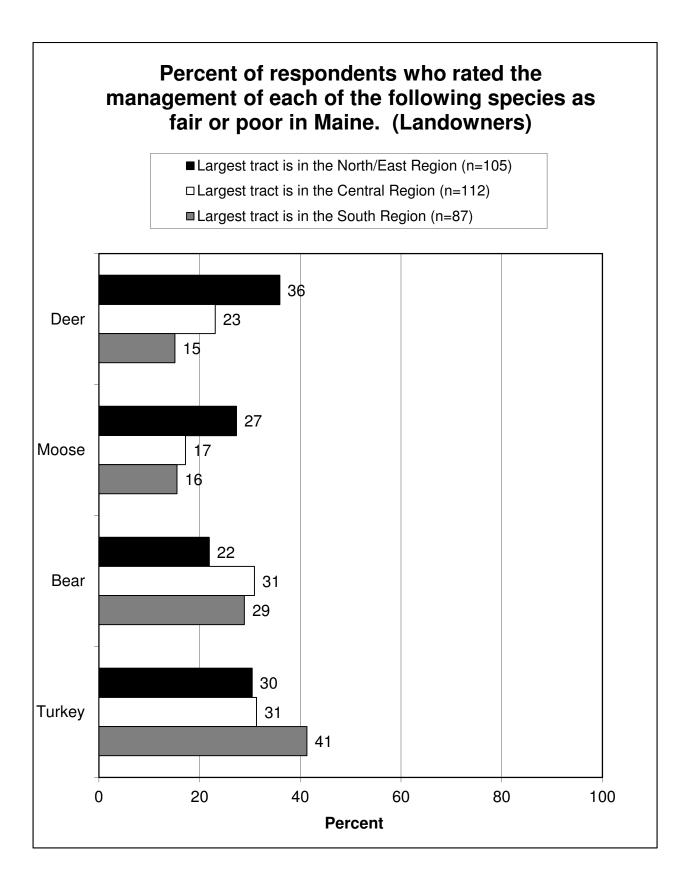


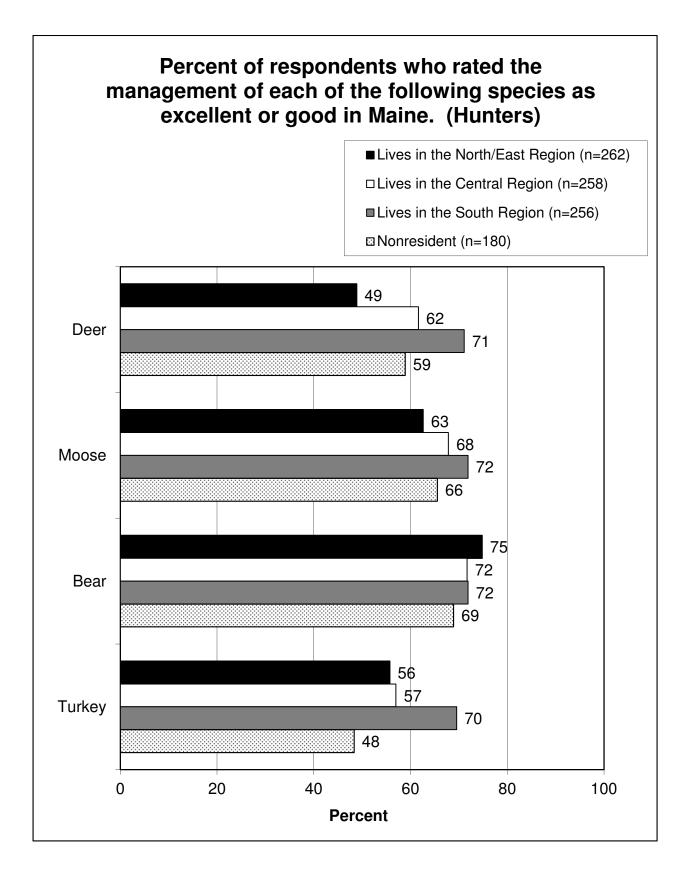


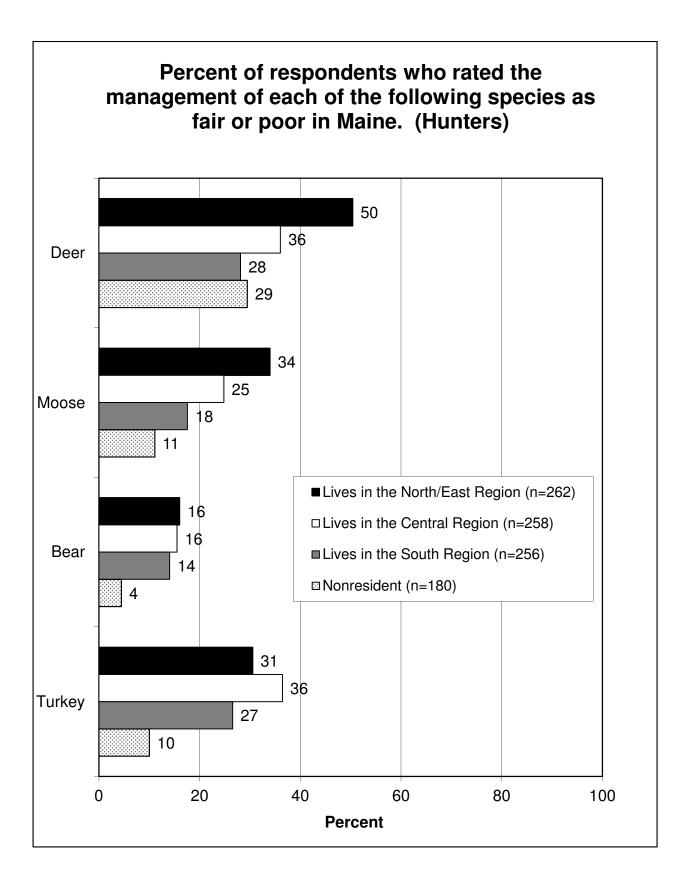


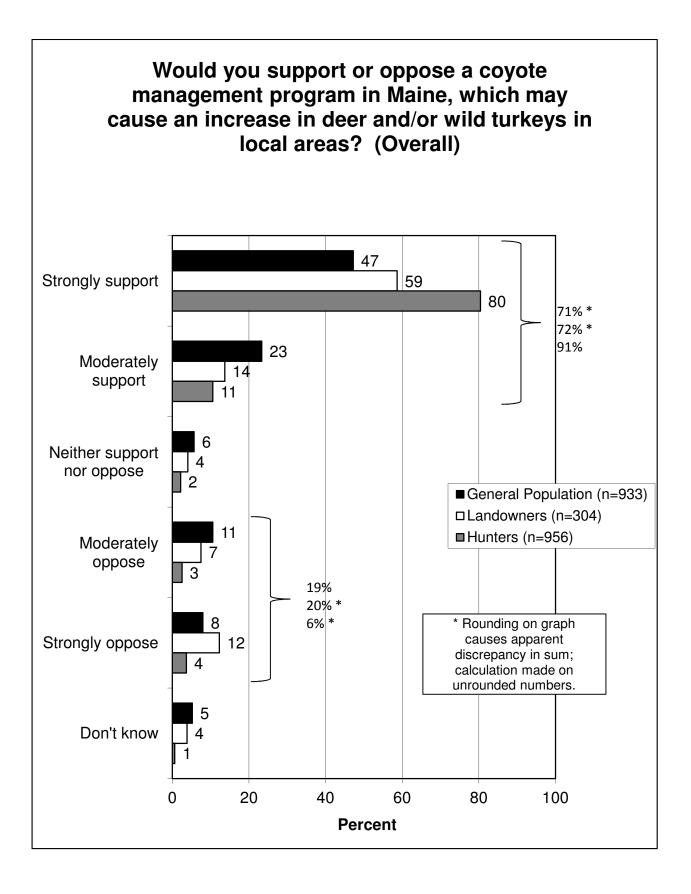


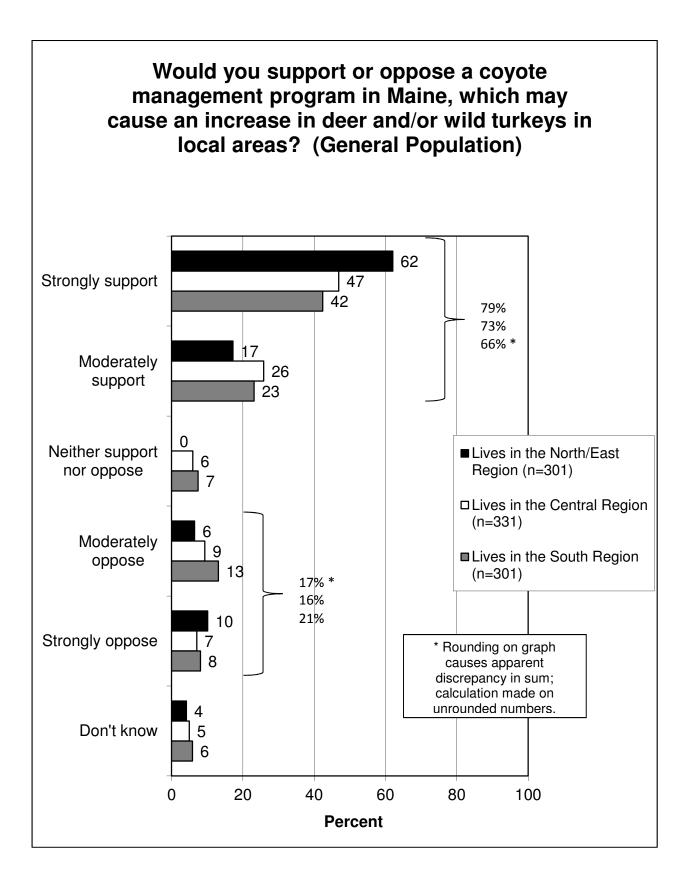


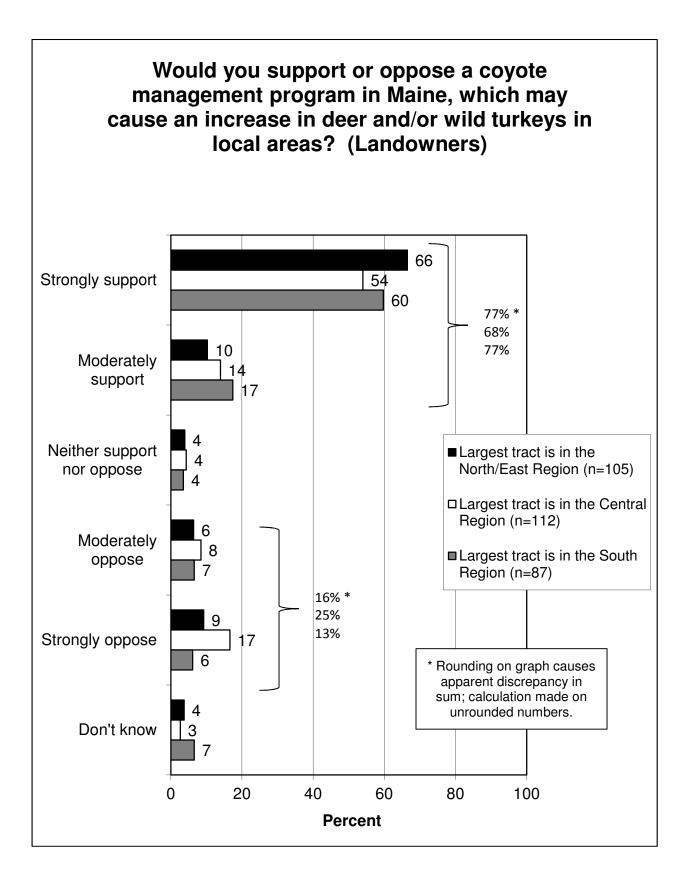












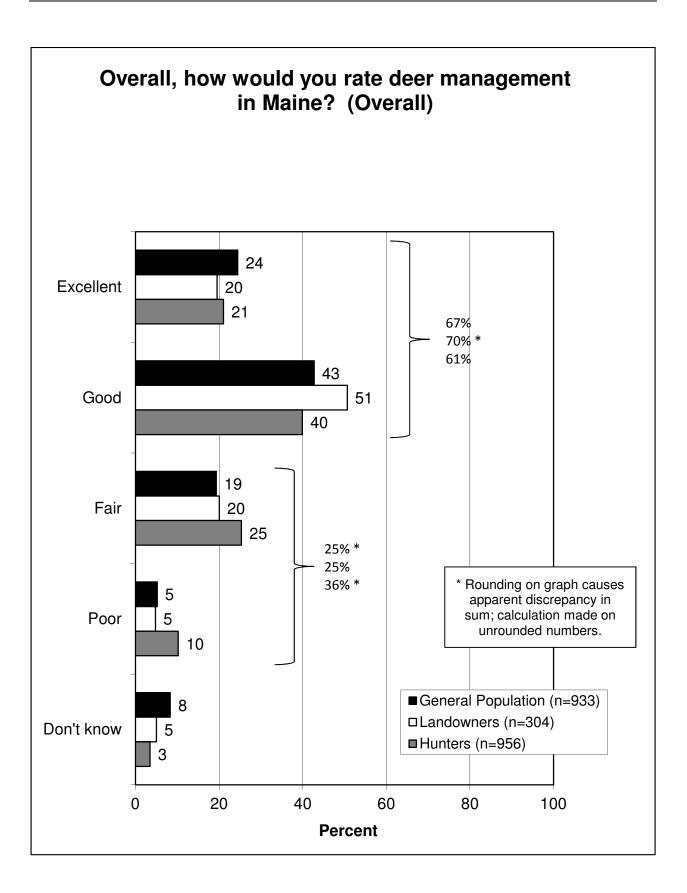
DEER MANAGEMENT

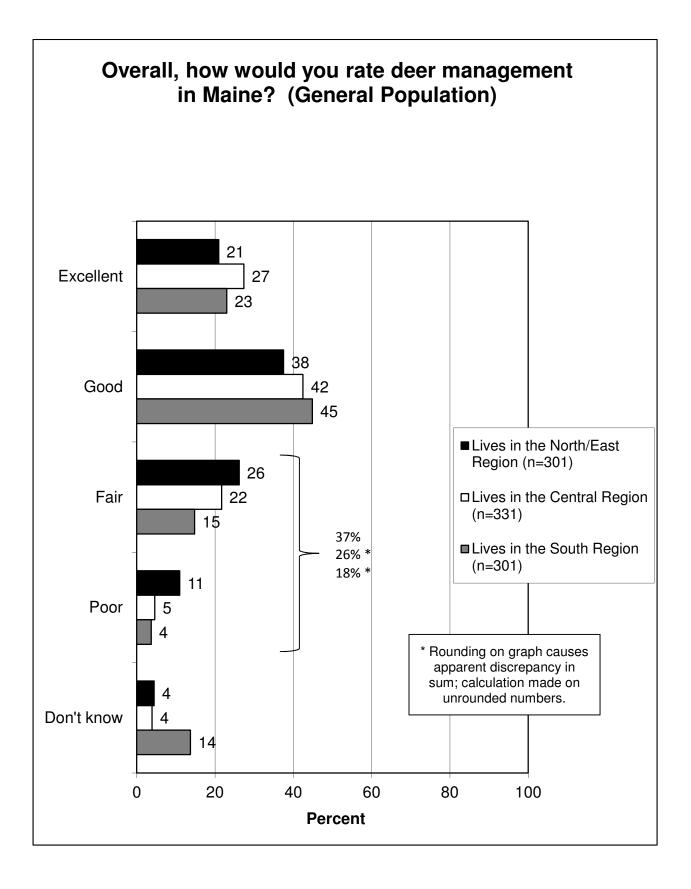
- Ratings of deer management in Maine are more positive than negative, although there are substantial percentages giving ratings in the lower half of the scale. While from 61% to 70% give a rating of *excellent* or *good* (the top half of the scale), from 25% to 36% give a rating of *fair* or *poor*.
 - In the general population survey, North/East Region residents are more likely than are
 residents of the other regions to give negative ratings (37% of them give a fair or poor
 rating, compared to 26% of Central Region residents and 18% of South Region
 residents).
 - Among landowners, the best ratings are in the South Region; the worst are in the North/East Region.
 - The regional analysis of the hunter survey found that hunters living in the North/East Region give the worst ratings, compared to the other regions and nonresidents. (Note that this regional analysis was done based on where the hunter lived.)
- Another indication of opinion on deer management comes in the question regarding whether the deer population in the area where the respondent lives should be increased, remain the same, or be decreased. The majority of each group says it should remain the same (from 57% to 73%). Otherwise, each group would rather the population be increased (20% of the general population, 19% of landowners, and 34% of hunters—the latter perhaps motivated by their desire to have a good chance of harvest) than decreased (7% of all three groups).
 - Regional results of the general population survey show that North/East Region residents are the most likely, compared to residents of the other regions, to want to see an increase (33% of North/East Region residents want an increase, compared to 23% of Central Region residents and 13% of South Region residents).
 - The regional results of the hunter survey also show those living in the North/East Region wanting an increase in the deer population where they live.
 - Those who wanted to see a decrease in the deer population were asked why they
 wanted a decrease. The most common reasons are that respondents feel that there is
 currently an overabundance in general; other more concrete responses include the risk
 of vehicle collisions, damage to property, damage to habitat, and risk of disease.

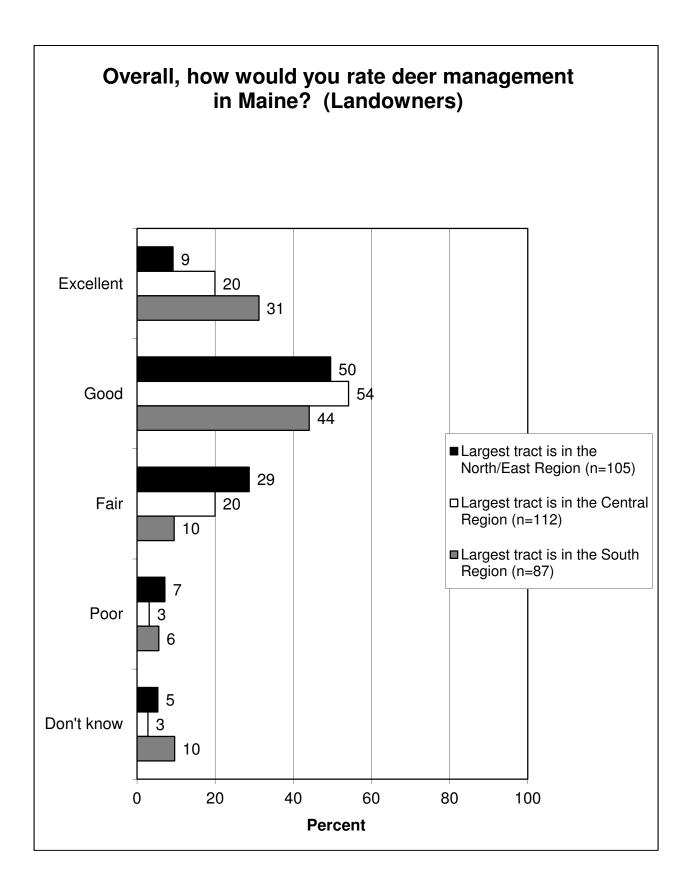
- Those who supported an increase in the deer population were asked about a series of possible consequences of an increase in the deer population. For each, they were asked if they would support or oppose an increase in the deer population.
 - Negative ecological consequences cause the most former supporters to no longer support. Poor health overall for the deer herd has the least support (only 15% to 23% still support an increase with this consequence), and the consequence that more deer would die from starvation during winter also has low support (only 12% to 27%). Also with less than a majority of any group in support are less food and poorer quality habitat for other wildlife (support ranges from 29% to 41%) and an increased risk of disease such as Lyme disease (36% to 46%).
 - The human-centered reasons do *not* cause much defection from support, as a majority of each group still support an increase even if Department biologists would spend more time on deer management and less on other species, that private citizens would be required to resolve deer nuisance issues on their own, that there would be more damage to gardens and landscaping, and that there might be more damage to agriculture.
 - The results of all nine possible consequences are shown together on four graphs: strongly support by itself, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose by itself.
 - The regional analysis shows that South Region residents in the general population survey have more opposition than residents of other regions for increasing the deer herd if it means any of the negative ecological consequences (poor health of deer, more starvation deaths, less food/poorer quality habitat). Also, Central Region residents appear to be the most concerned about damage to gardens and landscaping.
- The survey presented to respondents a series of eight possible factors that could be considered in the management of deer. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - The top-rated factor is the health of the typical deer in the herd (mean ratings of 8.1 or higher)—an ecological factor. Then comes providing deer hunting opportunities (mean of 7.6 or higher), the opportunity to see deer (6.9 or higher), and then another ecological one—impacts on habitat (6.5 or higher).

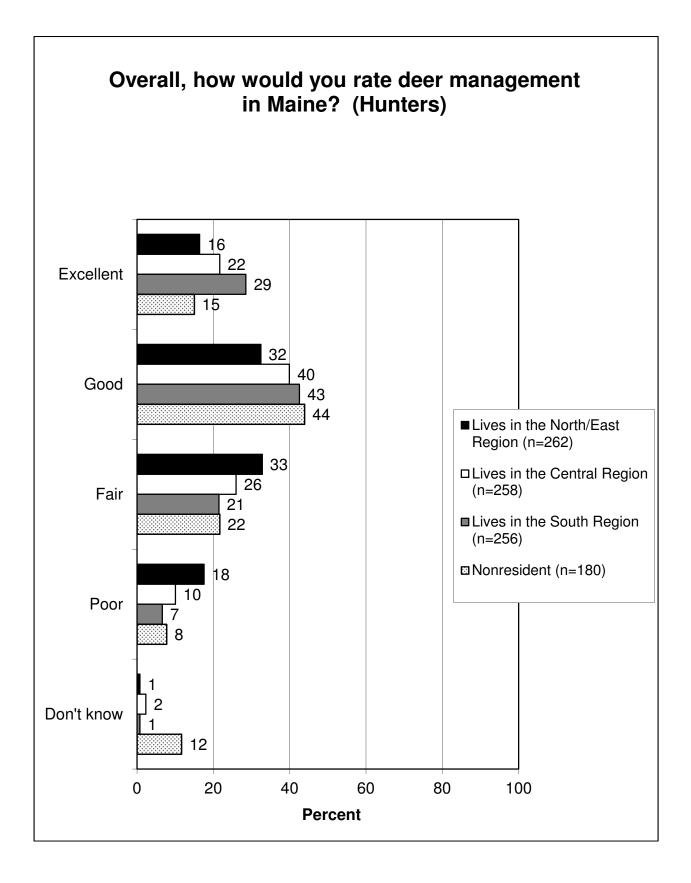
- Damage to gardens/landscaping damage to agriculture are the lowest rated.
 - The regional breakdown of the landowner survey shows that landowners whose largest tract is located in the South Region give the highest ratings of the three regions to damage to agricultural crops and damage to gardens and ornamental plants (although these are not the highest rated factors in any of the regions).
- Support for legal deer hunting as a method to help manage deer is high: from 92% to 98% support, most of it *strong* support. Only 4% or less oppose it.
- A series of possible deer management options in areas where deer become overabundant was presented in the survey. For each, respondents were asked whether they would support or oppose each one. There were seven possible options presented.
 - For all options except two, there are majorities in support. At the top are the creation of a special archery season, targeted doe permits, and a controlled hunt with a limited number of hunters (the lowest support among any group for any of these three was 72%).
 - The two items with less than a majority of all three groups in support are a longer firearms season (supported by a majority of the general population and hunters, but just less than half of landowners) and sharpshooters (no more than 48% of any group in support).
 - Four graphs are shown: strongly support by itself, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose by itself.
 - The regional analysis found that overall support among the general population was about the same in the three regions, but *strong* support had some differences, with North/East Region residents being more supportive than those from other regions for a longer firearms season and for a controlled hunt with a limited number of hunters.
 - The landowner survey's regional analysis (by the region in which the largest tract is located) suggests that those whose largest tract is in the South Region are markedly more supportive of a controlled hunt and for sharpshooters. On the other hand, landowners whose largest tract is in the North/East are more supportive of allowing hunters to harvest multiple deer and for having a longer firearms season.

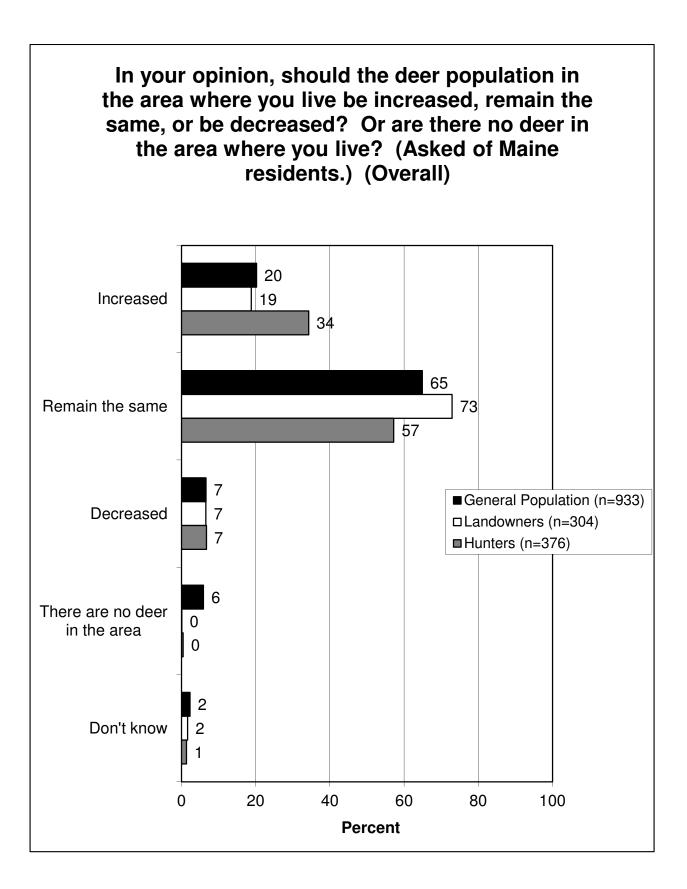
- In the regional analysis of the hunter survey, there were marked differences among the regions when looking at *strong* support. The South Region and nonresidents tend to be more supportive of the options, particularly an additional legal hunting season, targeted doe permits, allowing harvest of multiple deer, and a controlled hunt with a limited number of hunters.
- A final question in this section concerned deer and moose together. First, respondents were informed of the following: "Because moose and deer* have very different habitat requirements, it is difficult to have large numbers of moose and deer* in the same area." Respondents were then asked to choose on a continuum from abundant moose/very few deer to relatively few moose/moderate numbers of deer in northern Maine.* Respondents favor lower moose numbers, most commonly choosing either the lowest moose or the middle option in the continuum; relatively few chose to have abundant moose/few deer.
 - In the general population survey, the regions are slightly different on this, with North/East Region residents the most likely of the three regions to want relatively few moose with moderate numbers of deer.
 - In the hunter survey, the regional results mirror those of the general population: hunters who live in the North/East Region are the most likely to want few moose/moderate numbers of deer.
 - *The sample was halved on this question, with one half getting "moose and deer" (i.e. in that order) and the other half getting "deer and moose" in the wording. Also, northern Maine was defined as referring to the counties of Aroostook, Piscataquis, northern Franklin, northern Somerset, and northern Penobscot.

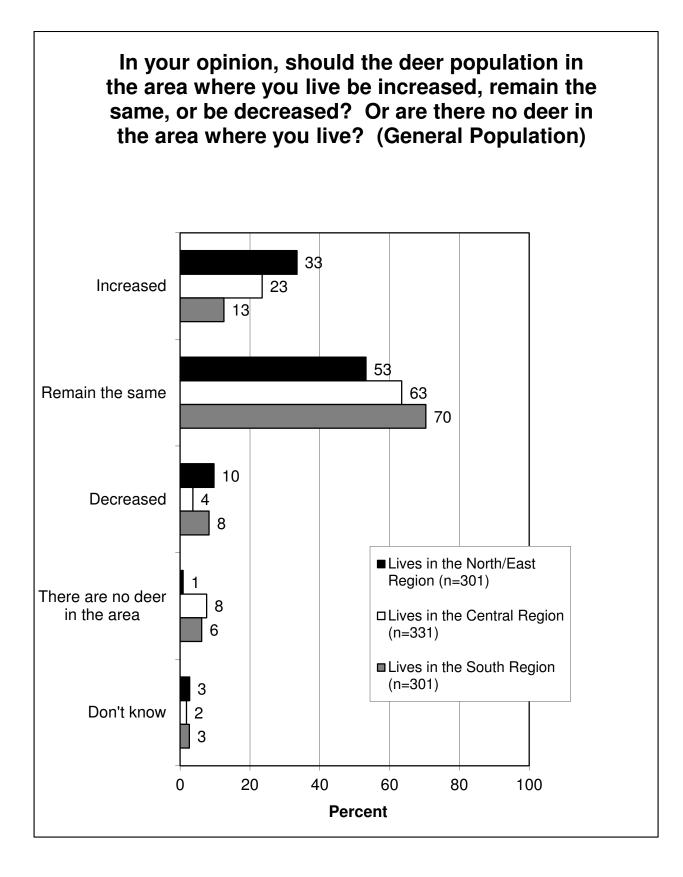


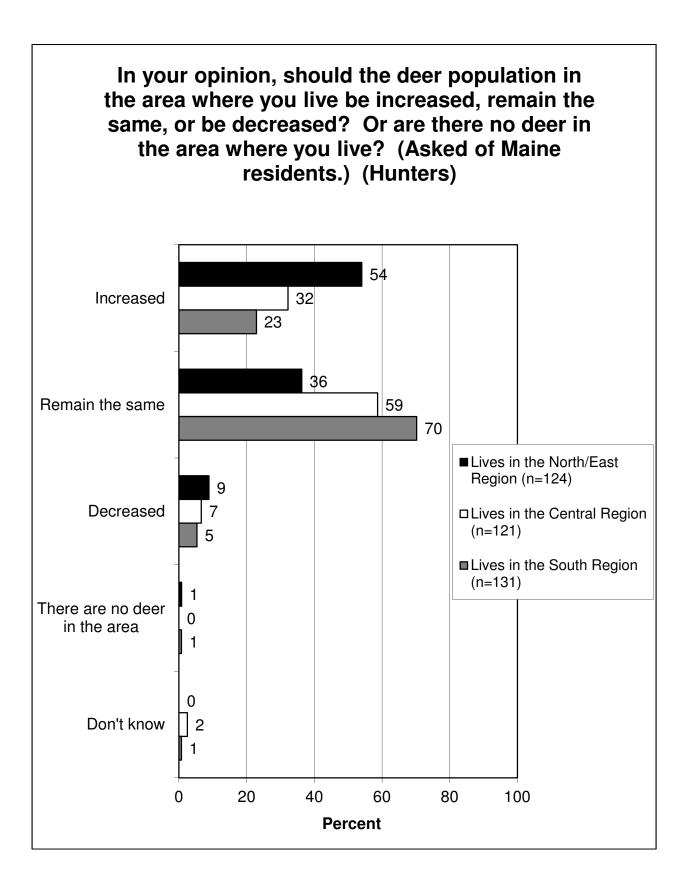


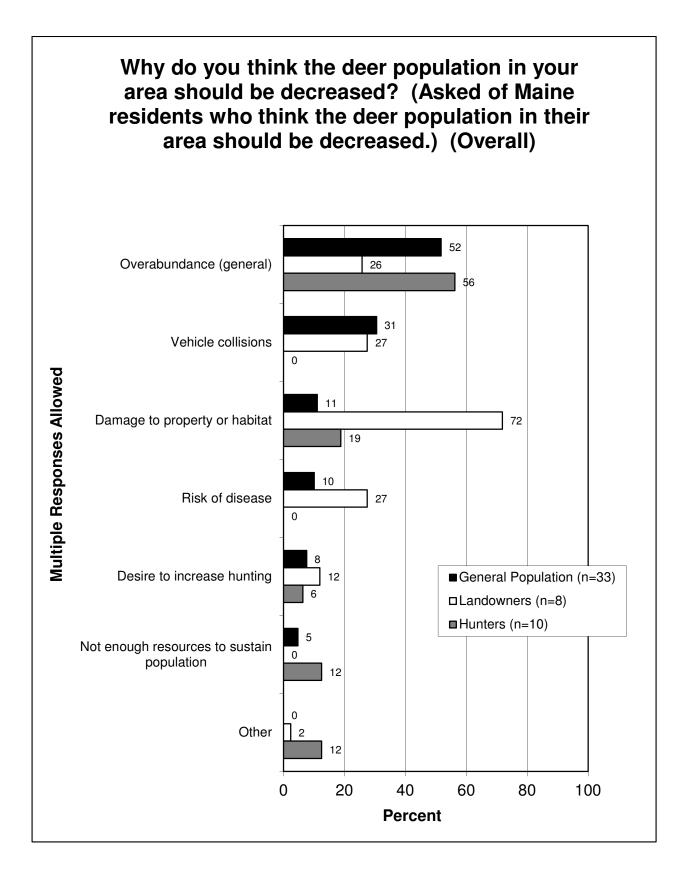


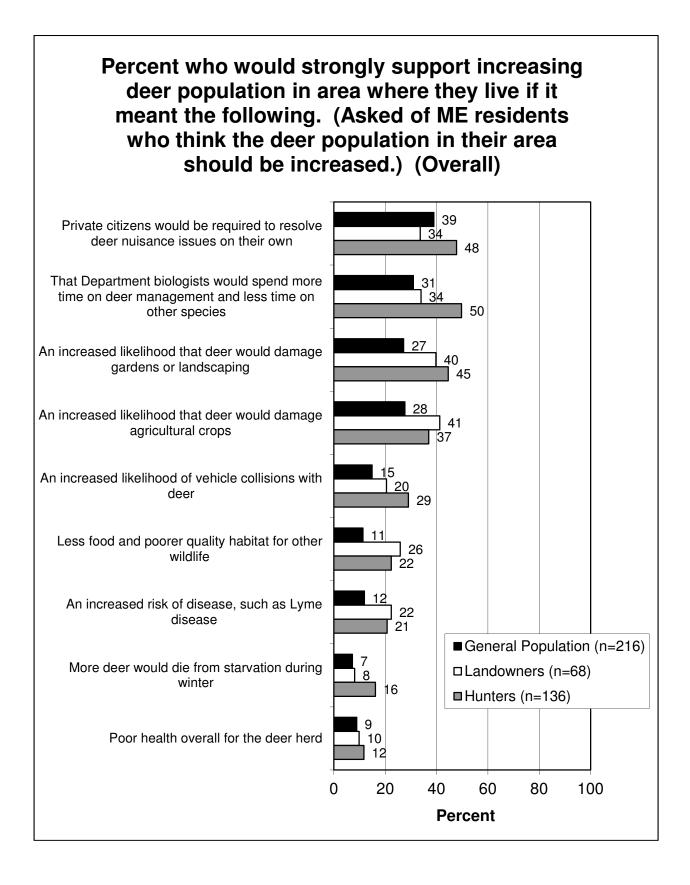


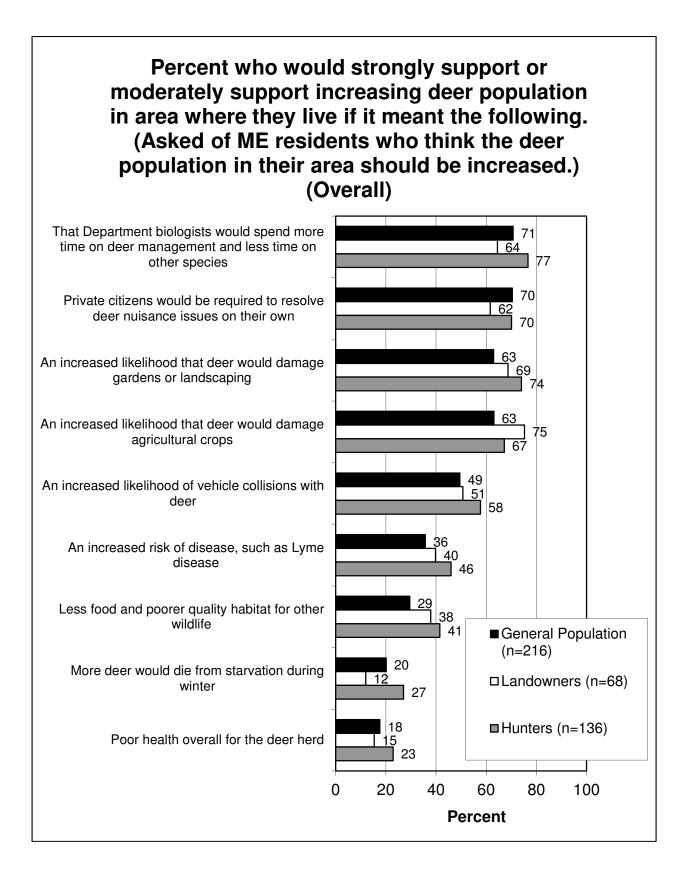


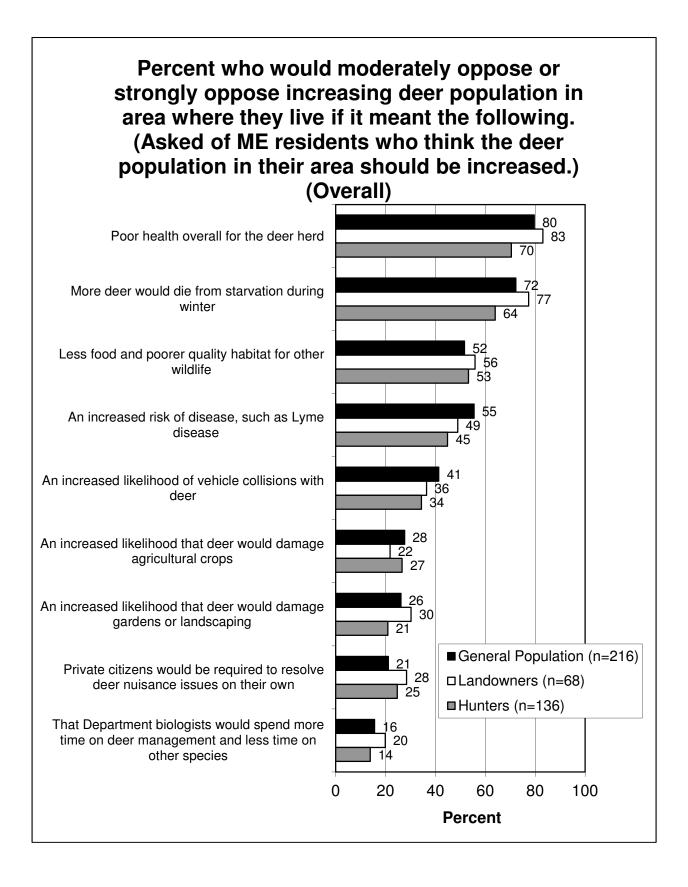


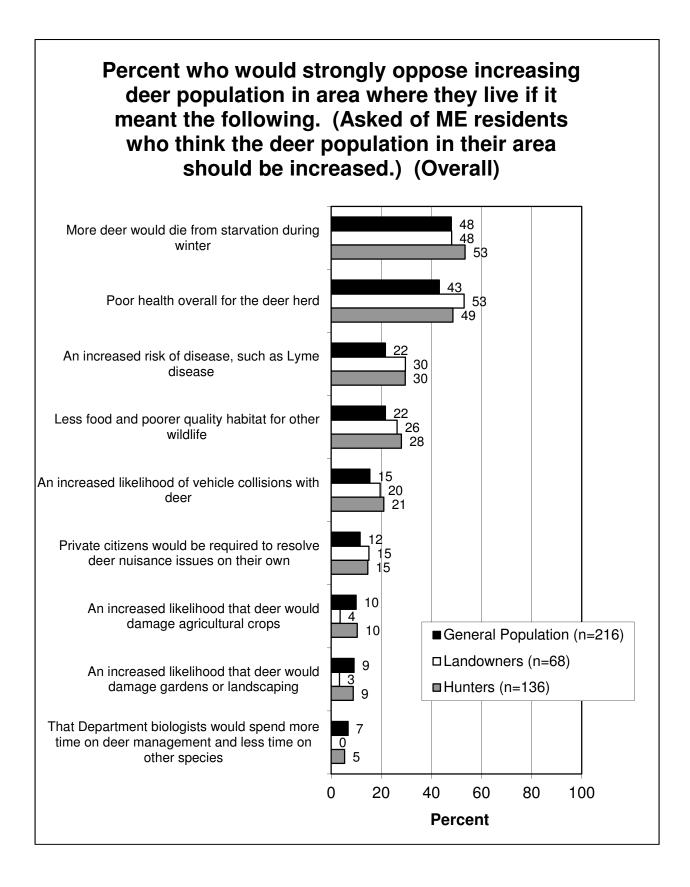


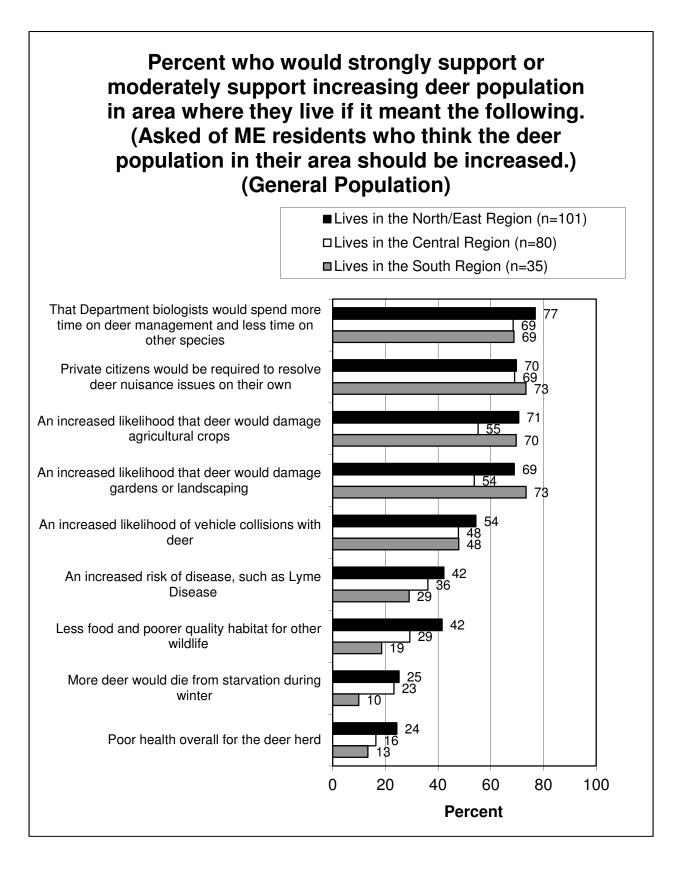


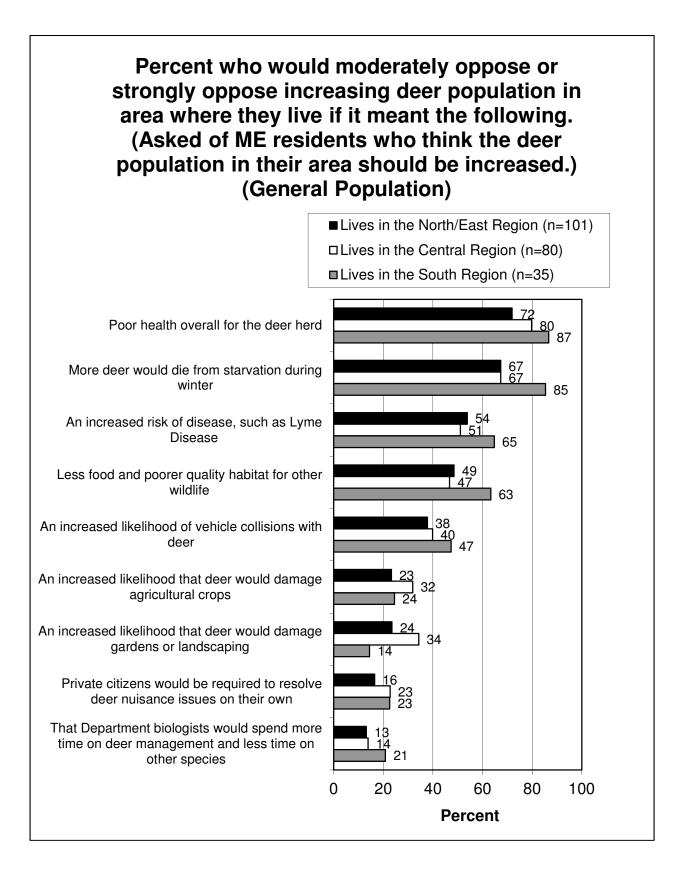


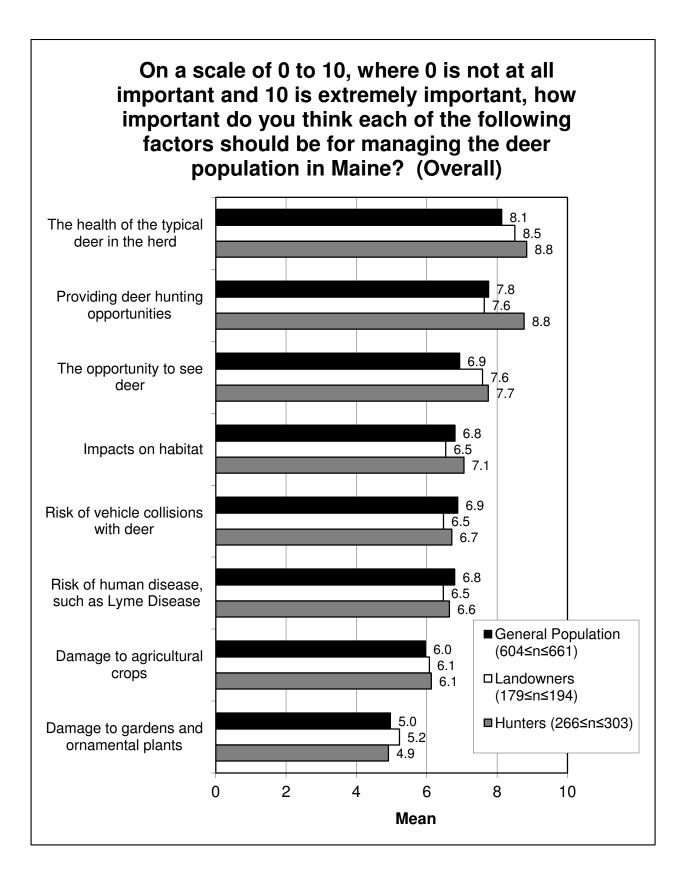


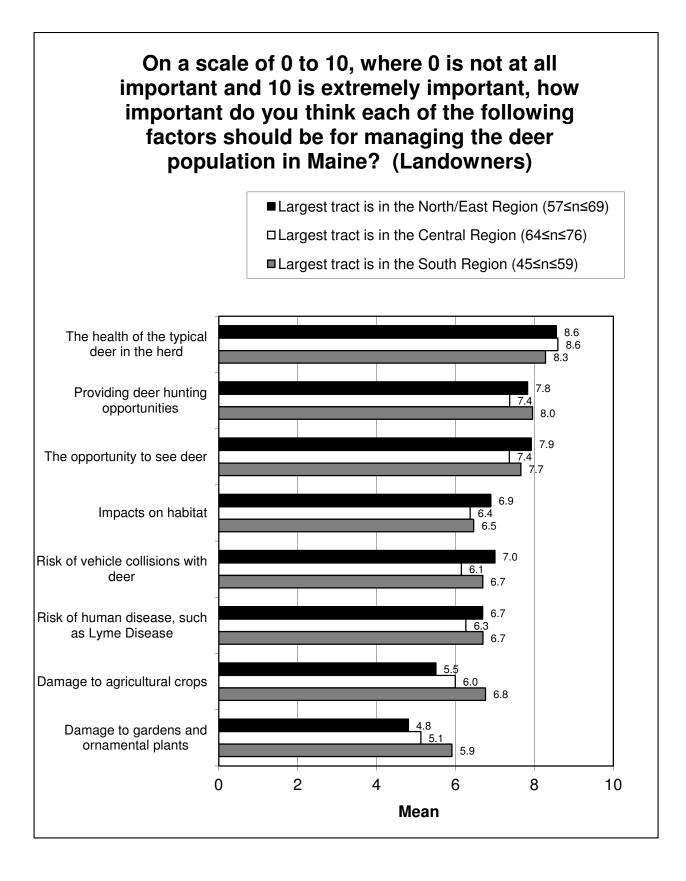


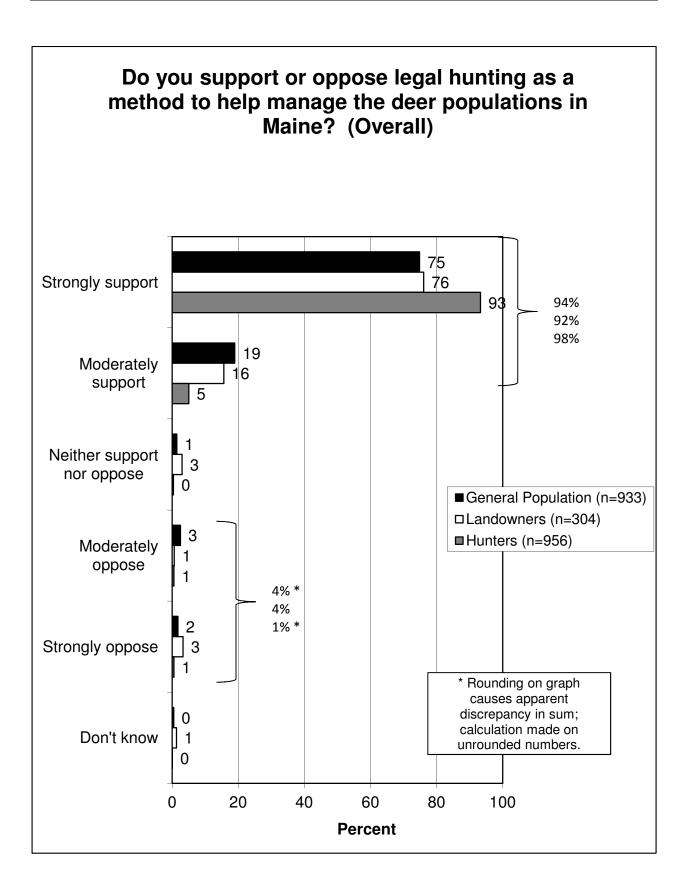


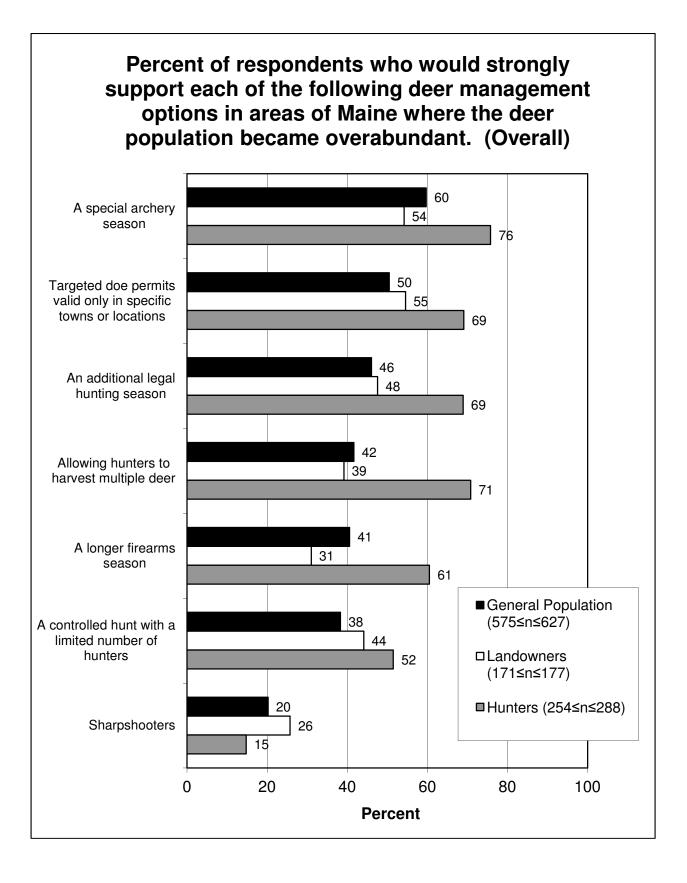


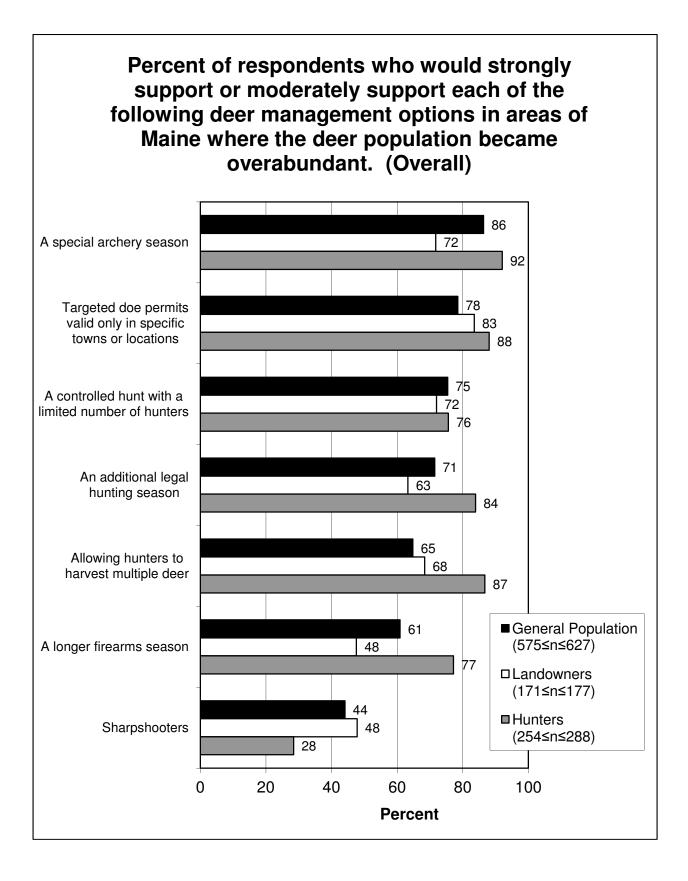


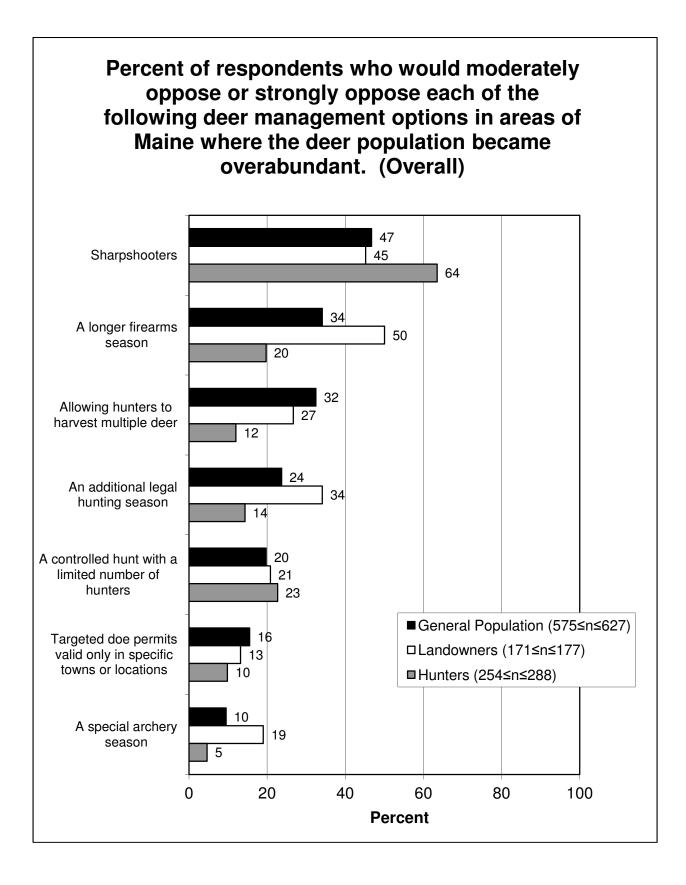


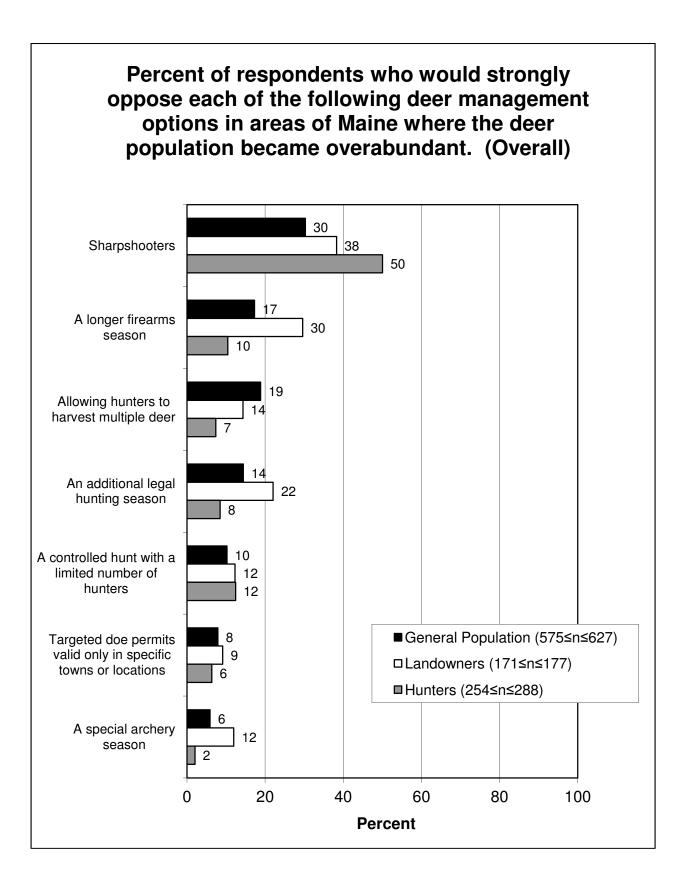


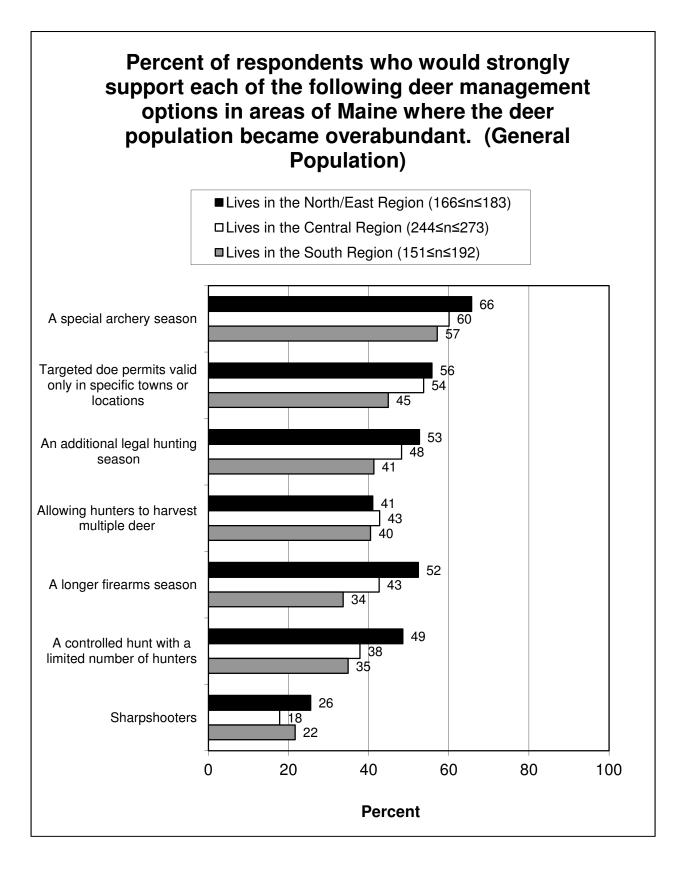


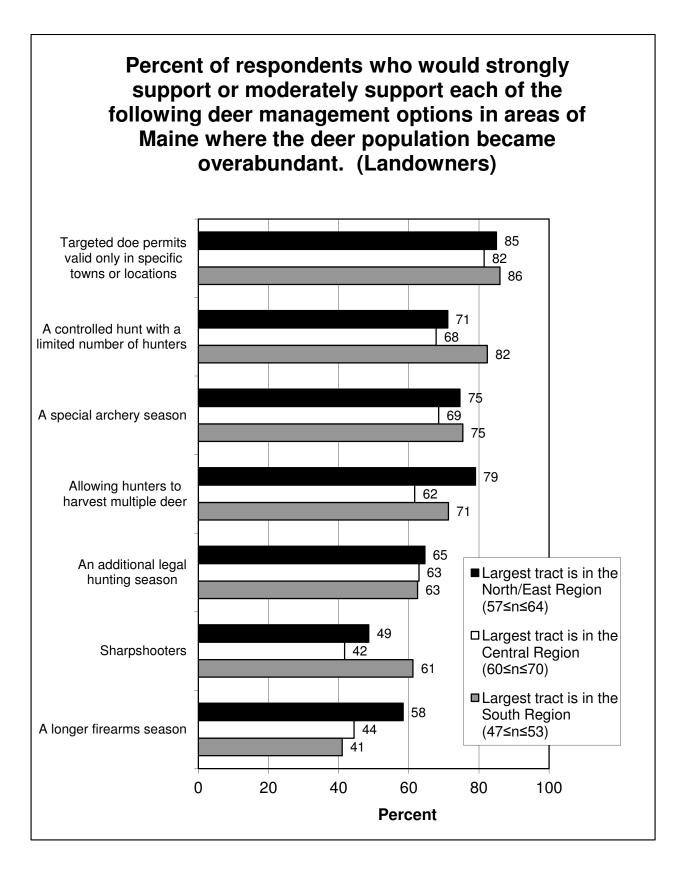


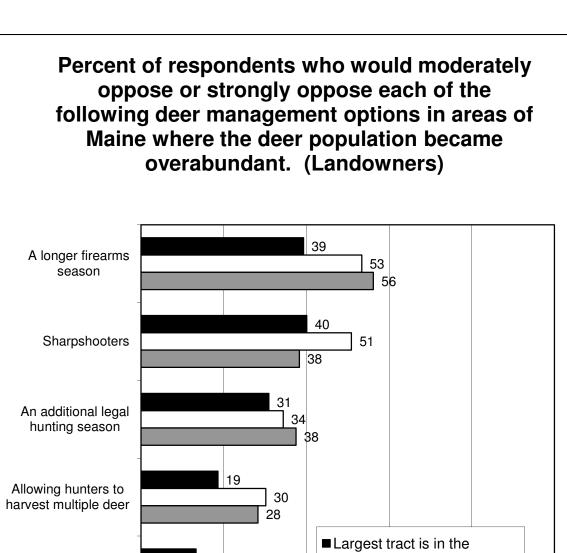


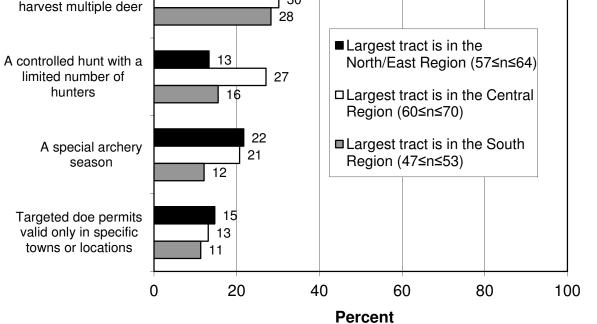


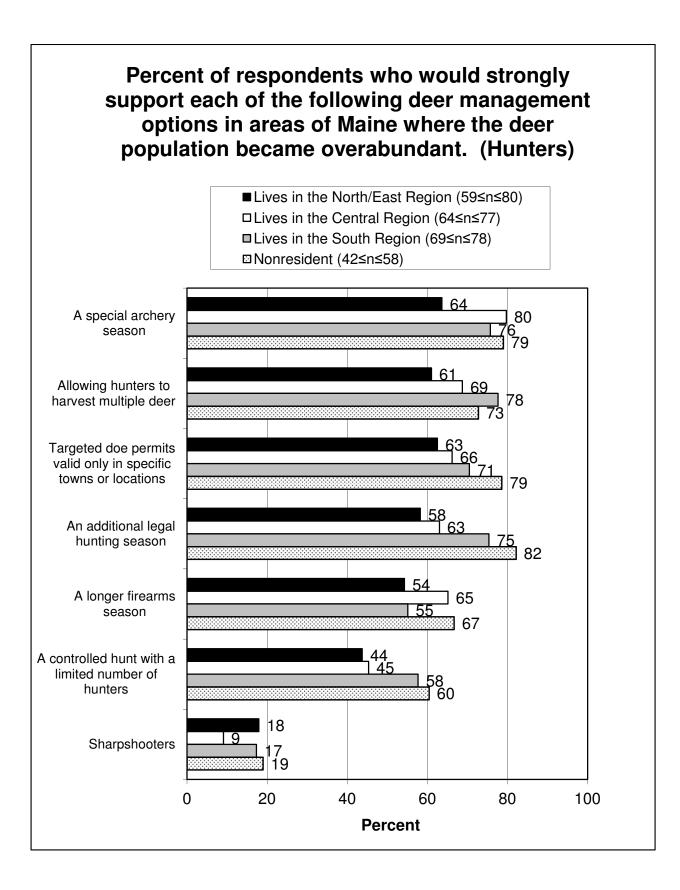


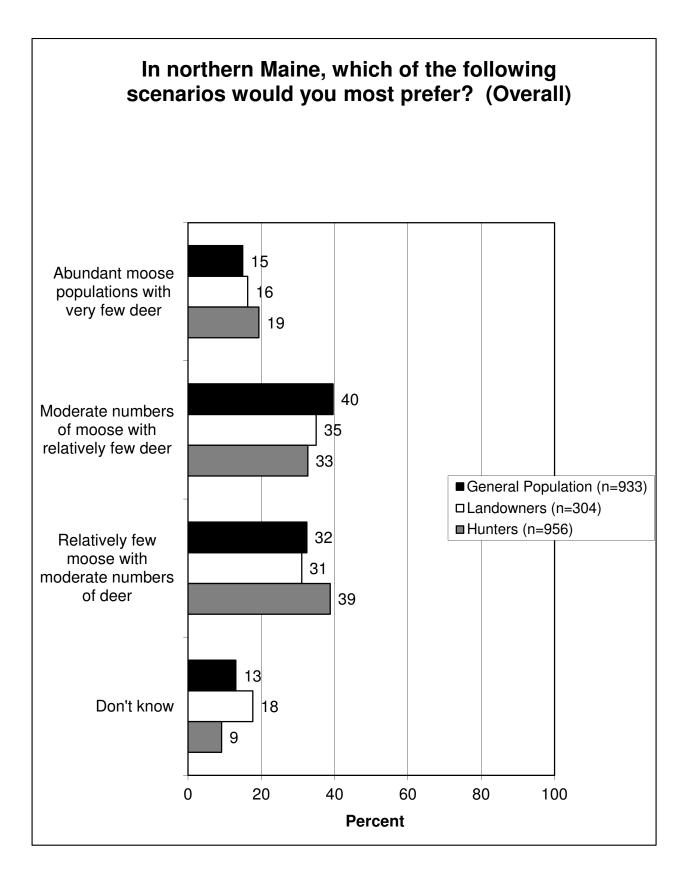


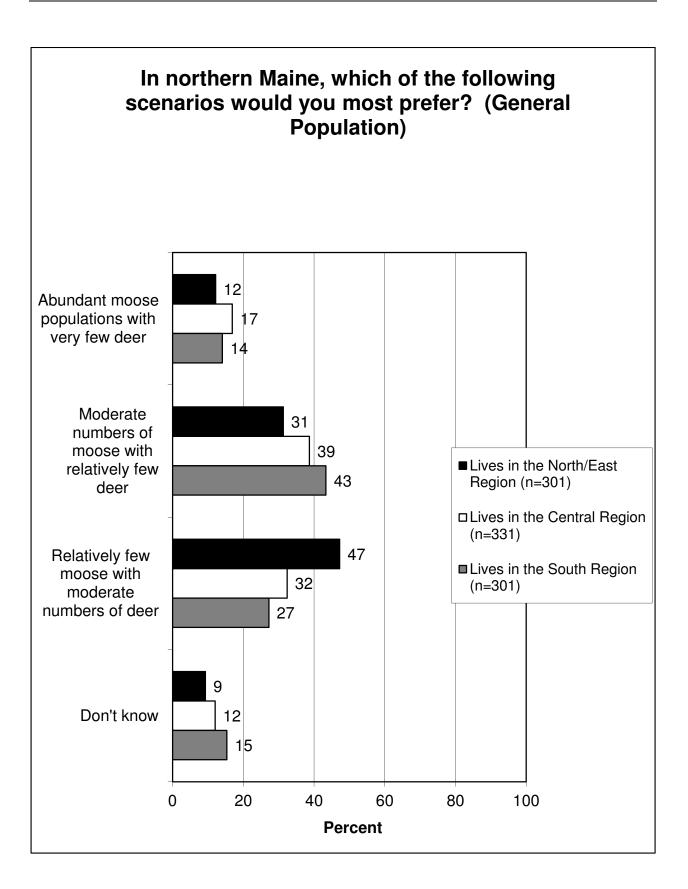


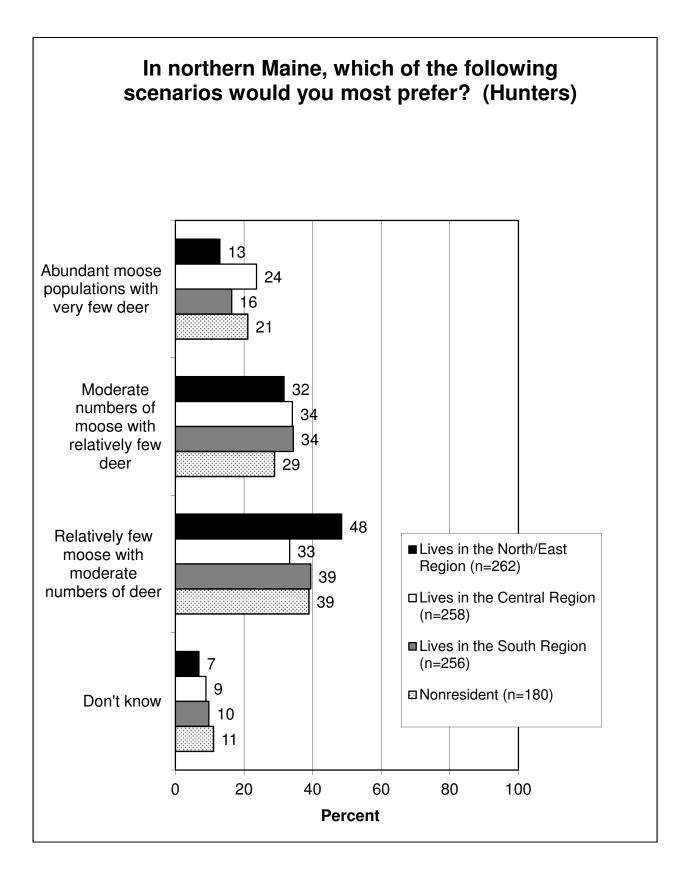












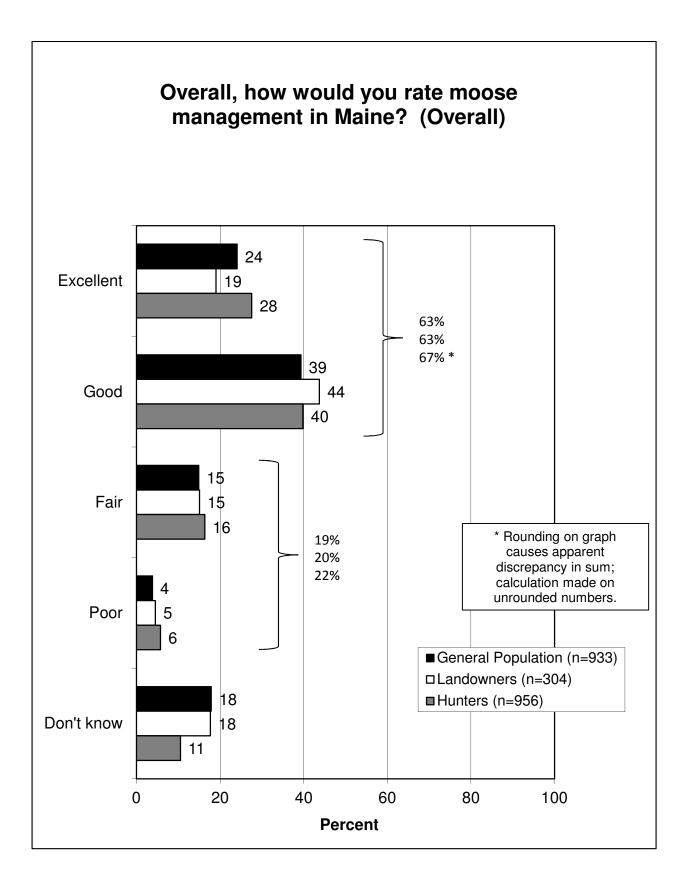
MOOSE MANAGEMENT

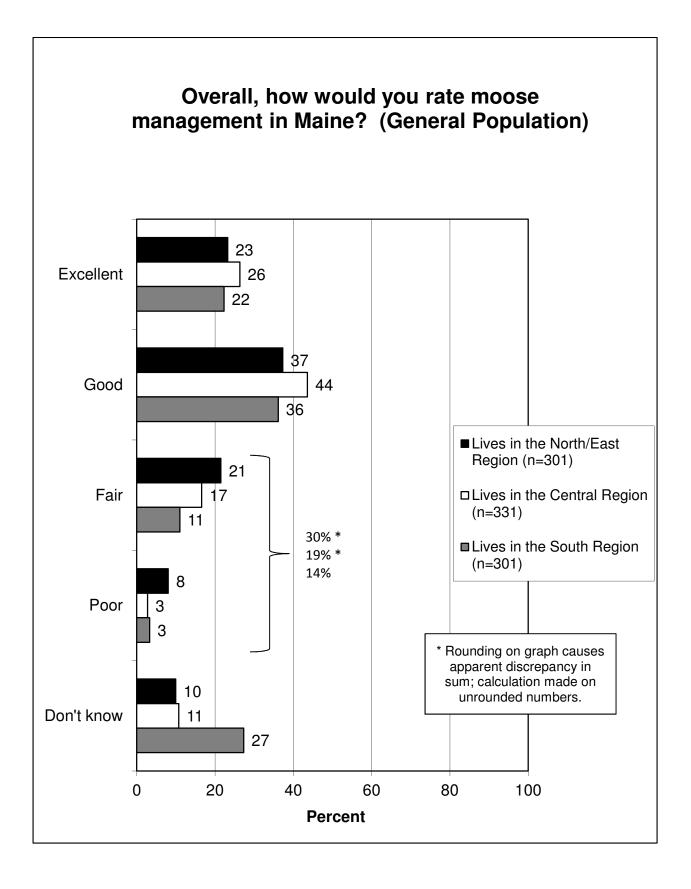
- Large majorities of the groups (from 63% to 67%) give positive ratings of moose management—*excellent* or *good*. On the other end, from 19% to 22% give ratings of *fair* or *poor*. The percentages who do not know range from 11% to 18%.
 - The most negative ratings in the regional analysis of the general population survey come from residents of the North/East Region.
 - Among landowners, the best ratings are from those whose largest tract is in the South Region; the worst ratings are from those whose largest tract is in the North/East Region.
 - Similar to the general population results, the results of the regional analysis of the hunter survey found that the most negative ratings come from hunters who live in the North/East Region.
- The majority or a near-majority of each group says the moose population should remain the same (from 49% to 61%). Otherwise, each group has a higher percentage who would rather see the population be increased (15% of the general population, 15% of landowners, and 23% of hunters) than decreased (from 4% to 6% of the groups).
 - In the regional analysis of the general population survey, North/East residents were the most likely of the three regions to want to see a change (they were the most likely to want an increase, but another contingent of them made them also the most to want to see a decrease—this is possible because the other regions had a lower percentage who even had moose in their area and, therefore, had a lower percentage able to give a response of increase, remain the same, or decrease).
 - In the hunter survey, hunters living in the North/East Region are the most likely of the three regions to want to see a decrease.

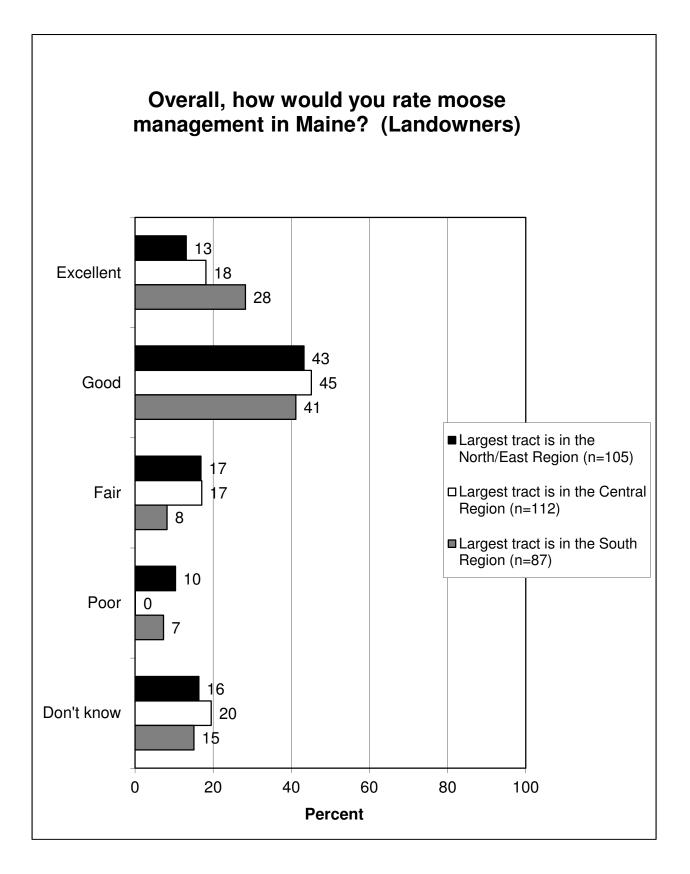
- Those who supported an increase in the moose population were asked about a series of possible consequences of an increase in the moose population (some consequences that have counterparts in the deer section of the survey, and some unique to moose). For each of four consequences, respondents were asked if they would support or oppose an increase in the moose population.
 - The possible negative ecological consequences cause the most defection from support. No more than 26% of any of the groups would still support an increase if it meant poor health overall for the moose herd, and just under half (from 45% to 46%) would still support if it meant that forest regeneration would be negatively impacted.
 - An increase in agricultural damage caused little defection: from 58% to 71% would support an increase if this was the consequence. An increased likelihood of vehicle collisions also does *not* cause mass defection, as a majority of each group would still support the increase with this consequence—from 50% (a majority because it is rounded from 50.4) to 62%.
 - The results of all the possible consequences are shown together on four graphs: strongly support by itself, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose by itself.
 - The regional results of the general population survey suggest that Central Region residents are the more opposed, relative to those from the other regions, to an increase in the moose population when the increase would mean poor health overall of the moose herd or that forest regeneration would be negatively impacted.
 - In the hunter survey's results, the regional analysis shows that South Region hunters are more likely to change to oppose when the consequence is poor health overall for the moose herd. Central Region hunters are the most likely in the regional analysis to oppose when the consequence is that forest regeneration would be negatively impacted.

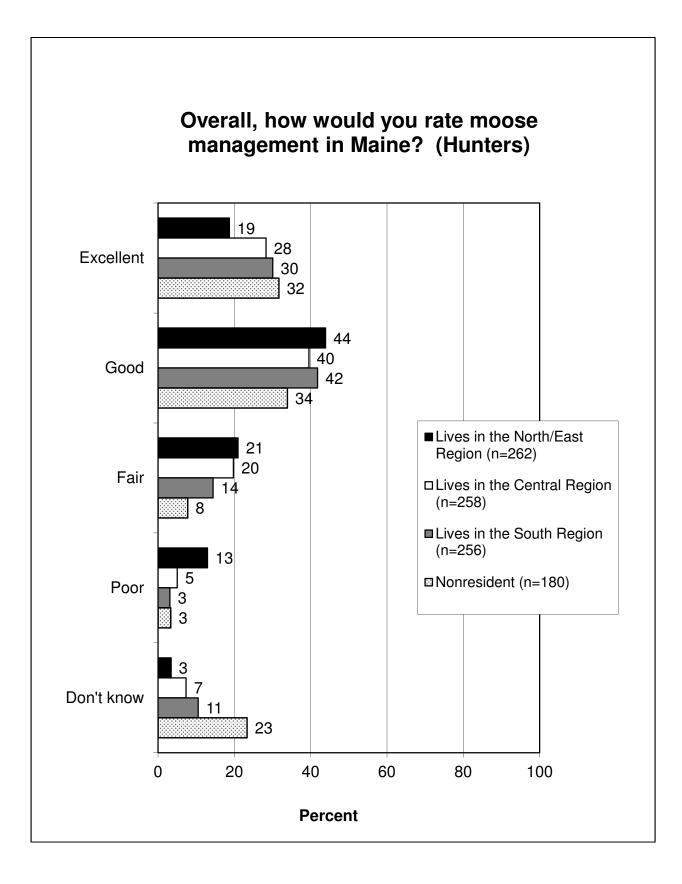
- The survey presented to respondents a series of possible factors that could be considered in the management of moose. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - The top-rated factor is the health of the typical moose in the herd (mean ratings ranging from 8.0 to 8.4)—an ecological factor. Next in the ranking by mean is providing moose hunting opportunities (mean of 7.2 to 7.7) and the opportunity to see moose (7.1 to 7.4). Risk of vehicle collisions is next at 6.9 to 7.2.
 - After that, the importance markedly drops for impacts on habitat (6.1 to 6.6) and damage to agriculture (4.2 to 5.1).
 - Regarding the landowner survey, the regional differences are slight, but damage to agricultural crops was markedly lower rated by those whose largest tract is in the Central Region (although this is the lowest rated of all the factors in all three groups).
- Support for legal moose hunting as a method to help manage moose is high: from 91% to 97% support, most of it *strong* support. Only 7% or less oppose it.
- One question asked about "adjusting the hunting harvest of female moose" to improve the health of the moose population, but included the caveat, "even if it meant fewer moose in Maine." A majority support this adjustment (68% of the general population, 66% of landowners, and 80% of hunters). Nonetheless, opposition ranges from 21% among the general population down to 10% among hunters.
- There is much more support for (ranging from 54% to 68%) than opposition to (9% to 13%) the current moose hunting season in southern Maine.
 - Among landowners, the most support is from those whose largest tract is in the South Region.
 - The regional analysis of the hunter survey found that support is strongest among hunters who live in the South Region.

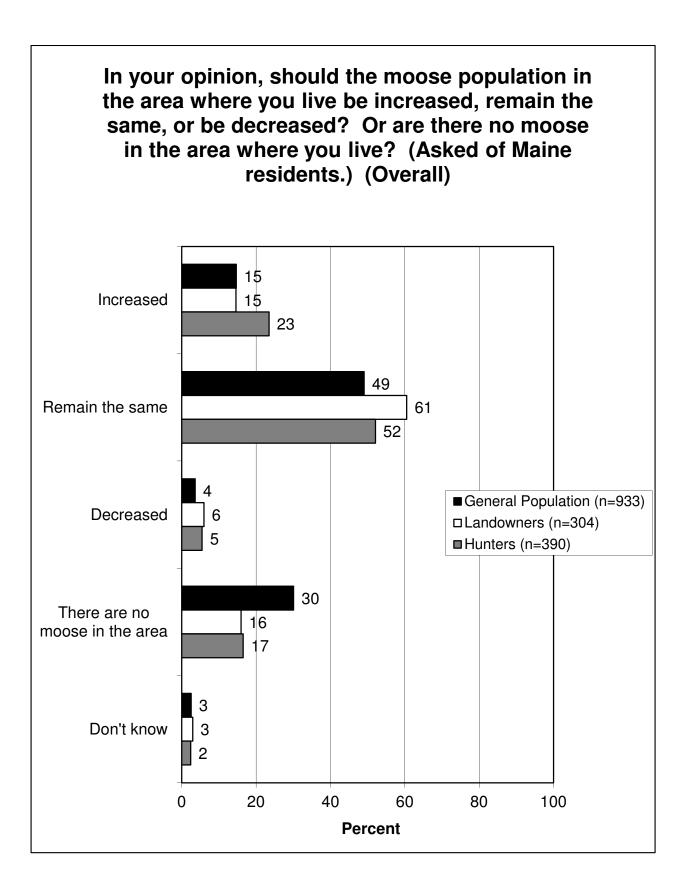
The final question in this section concerned deer and moose together and was shown in the Deer Management section of this report. Recall that respondents were presented with a continuum from abundant moose to few moose, and they were asked to choose whether moose should be abundant (at the expense of deer) or whether there should be relatively few moose (with more deer) in northern Maine. Respondents favor lower moose numbers, most commonly choosing either the lowest moose population or the middle option; relatively few chose to have abundant moose with few deer. (This graph is presented in the section titled, "Deer Management.")

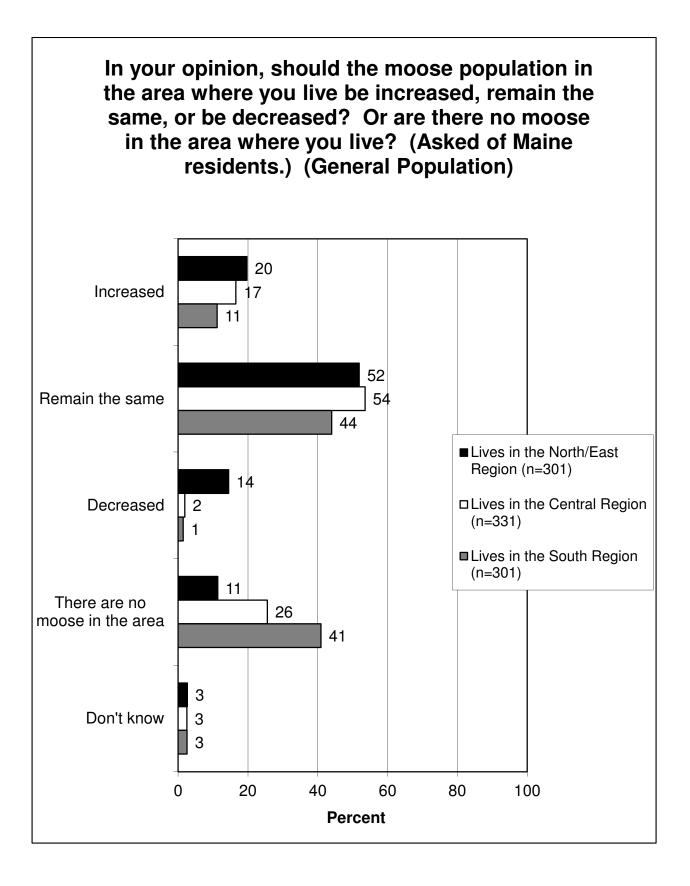


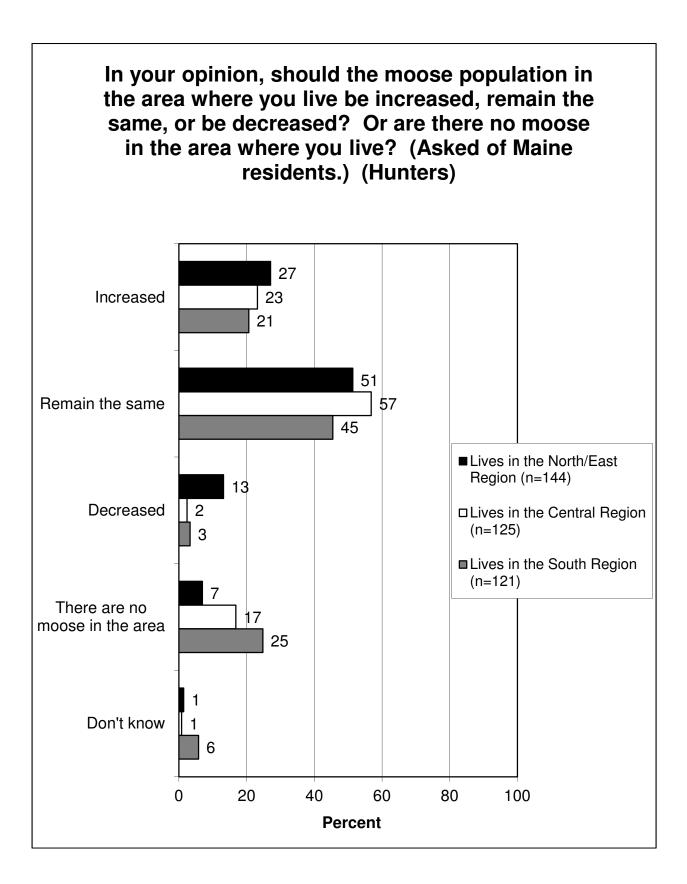


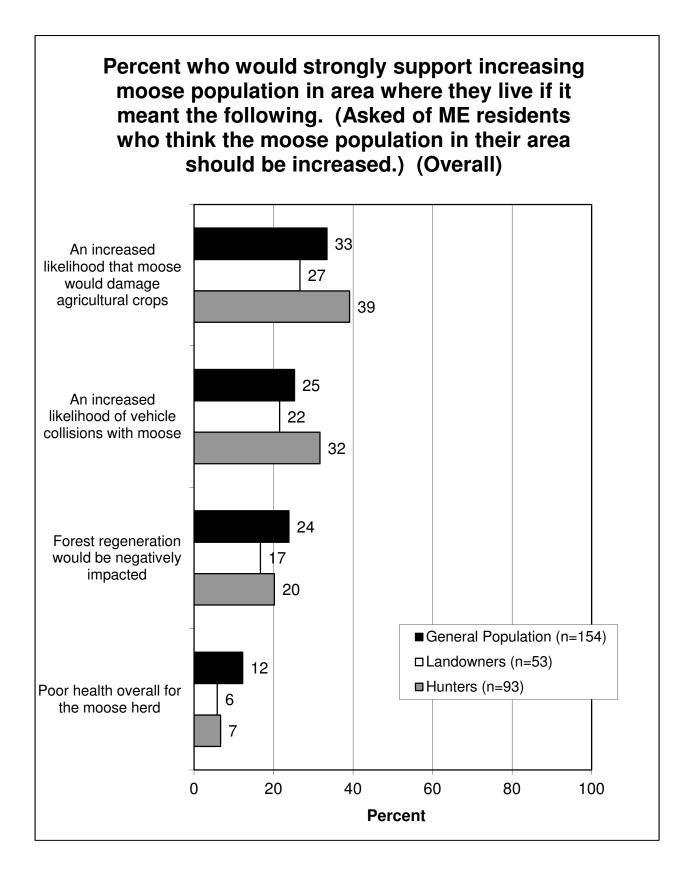


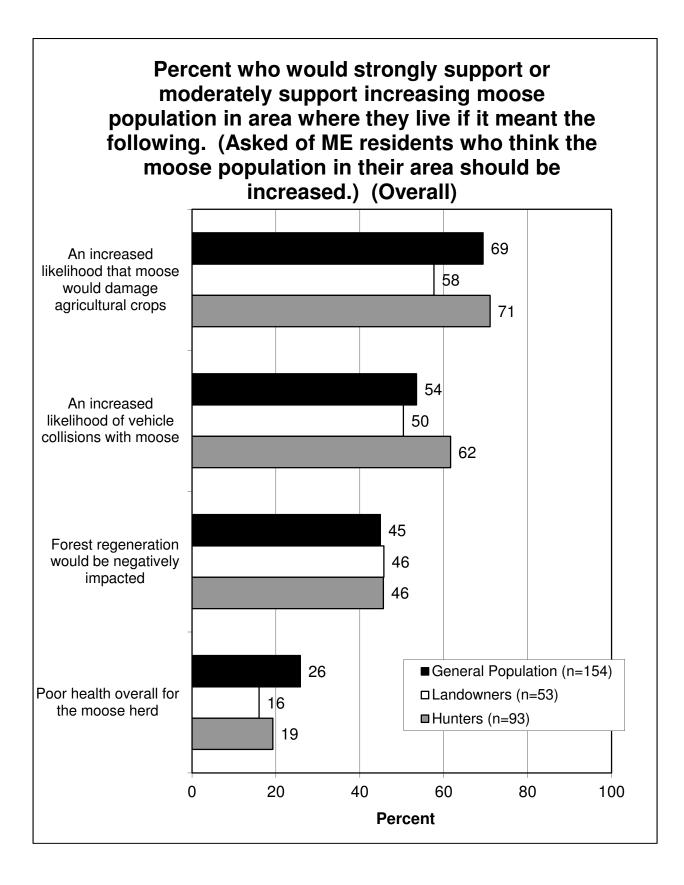


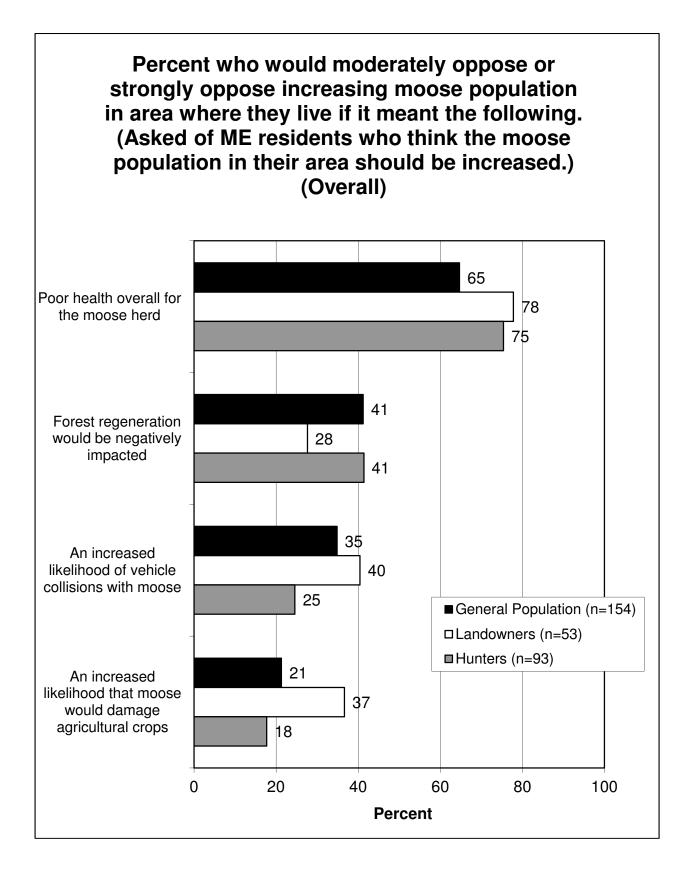


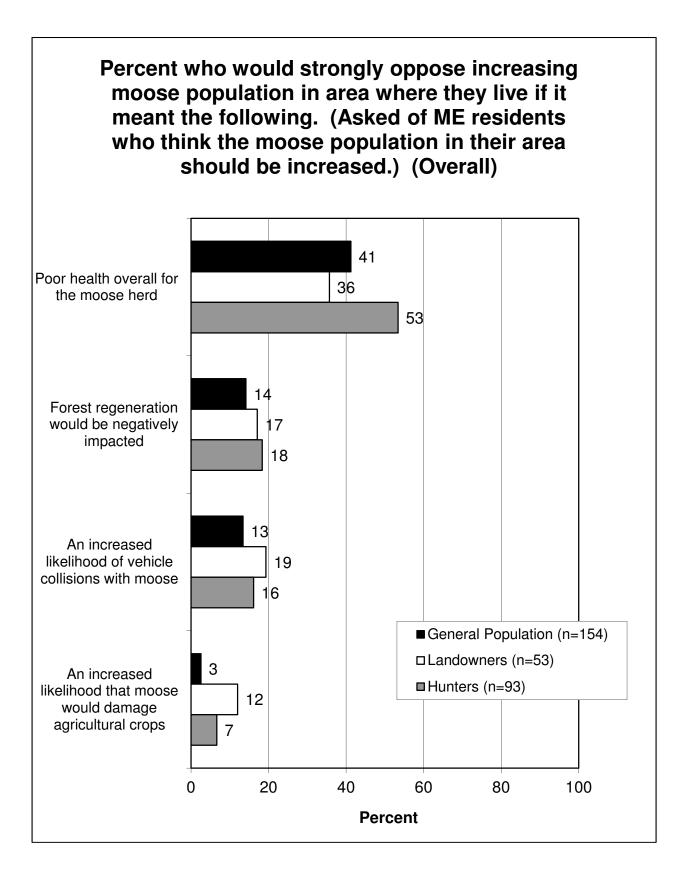


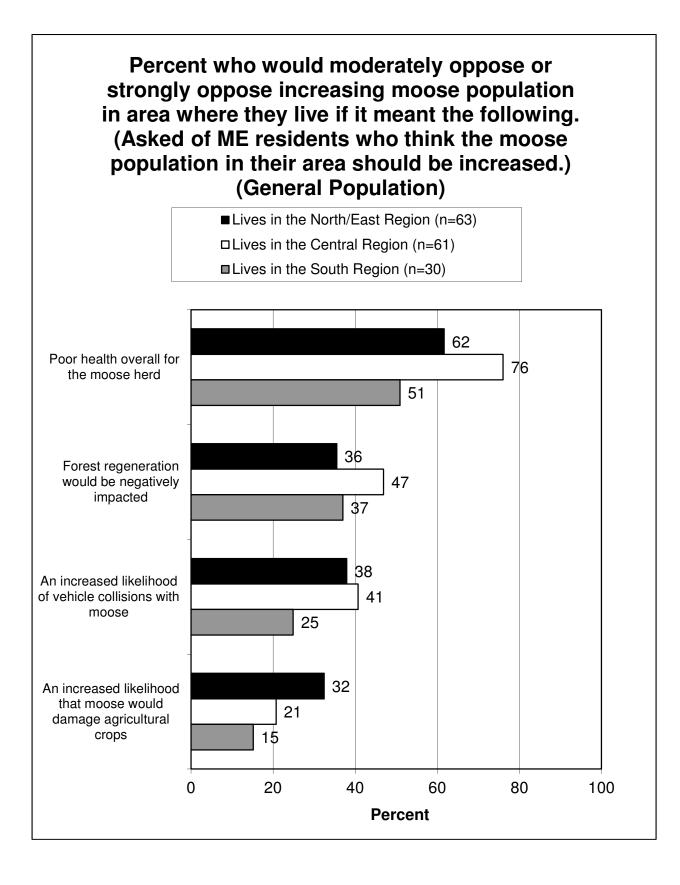


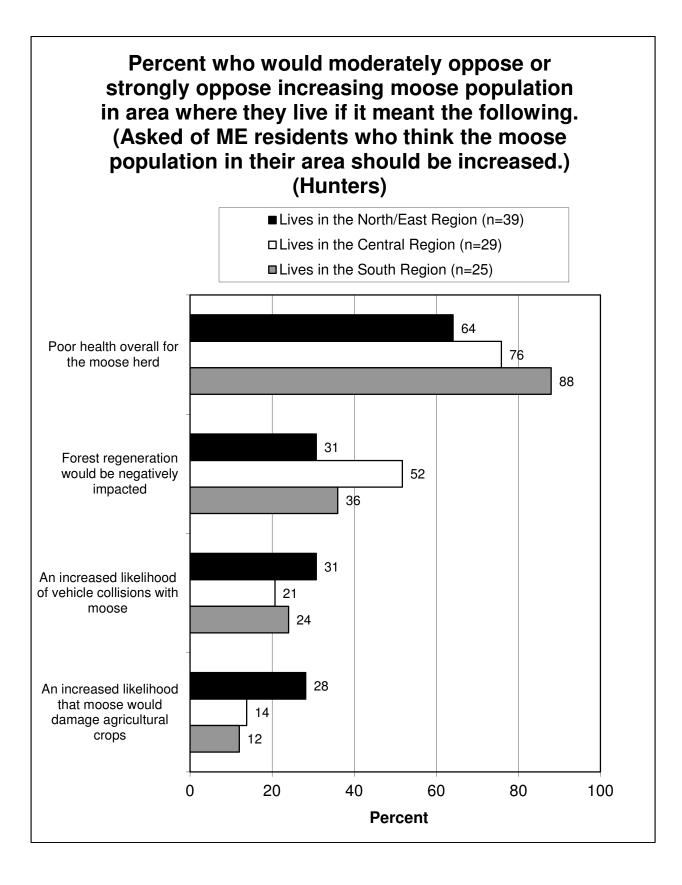


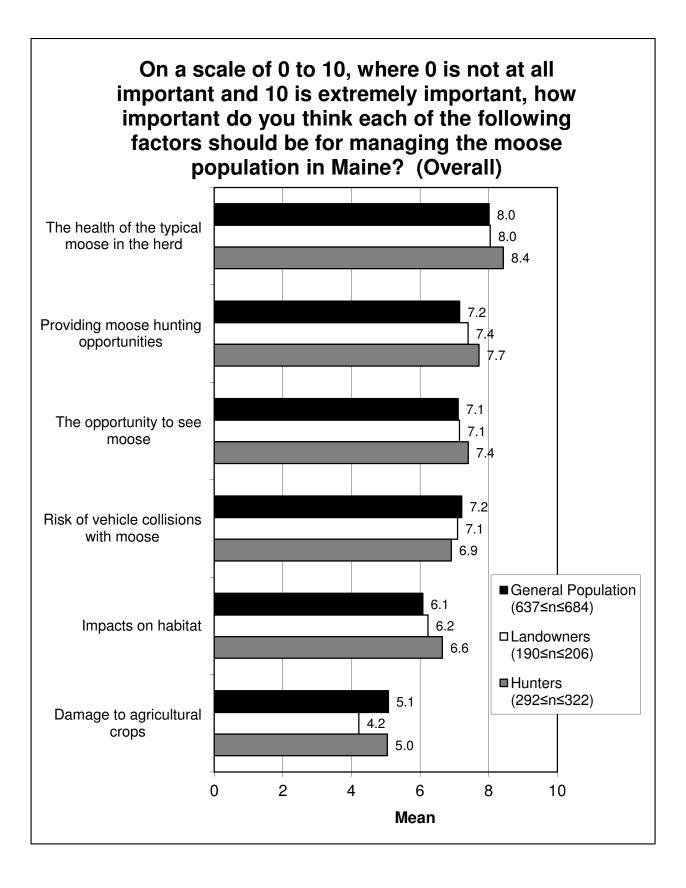


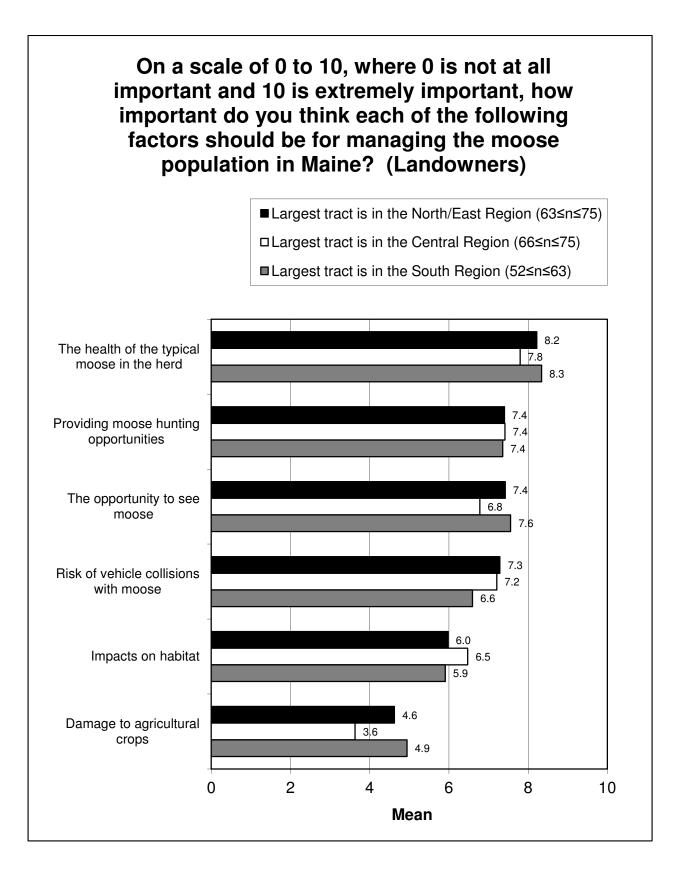


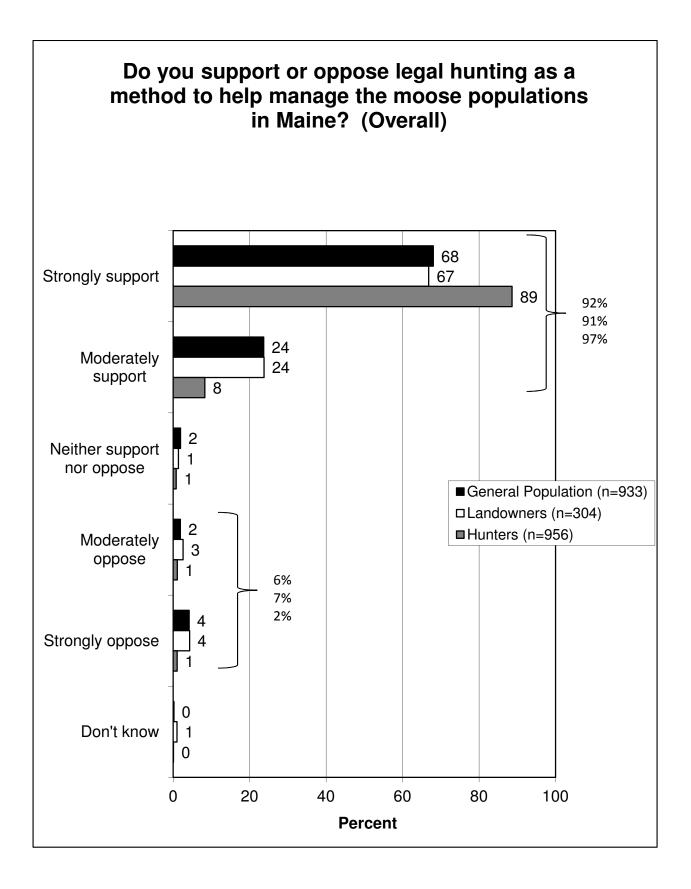


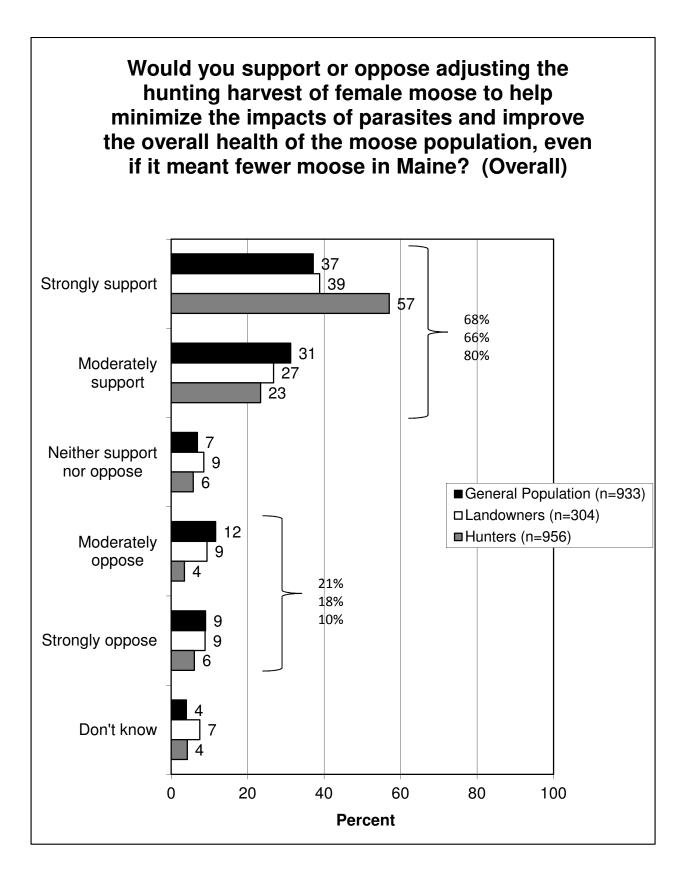


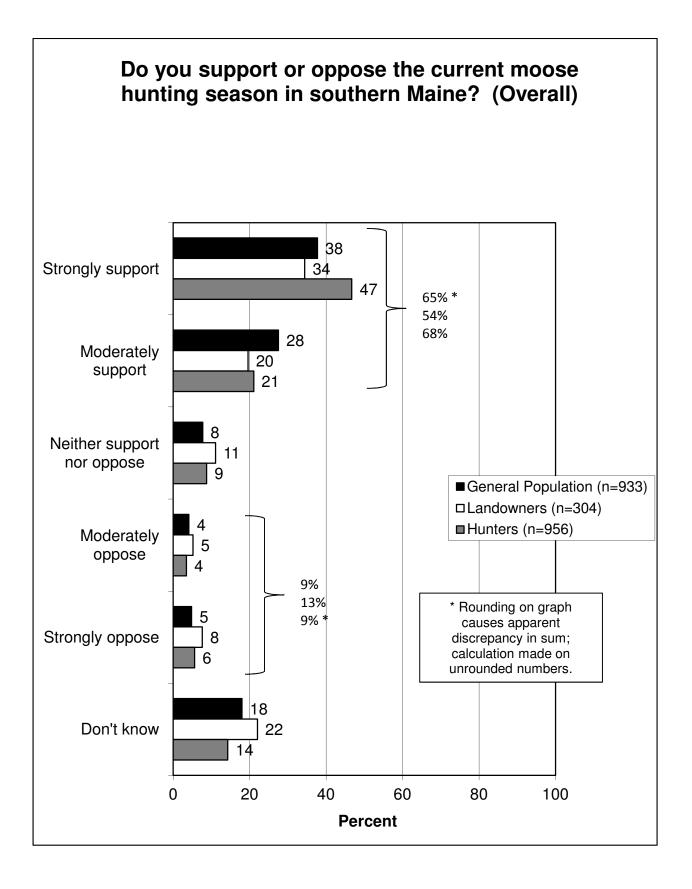


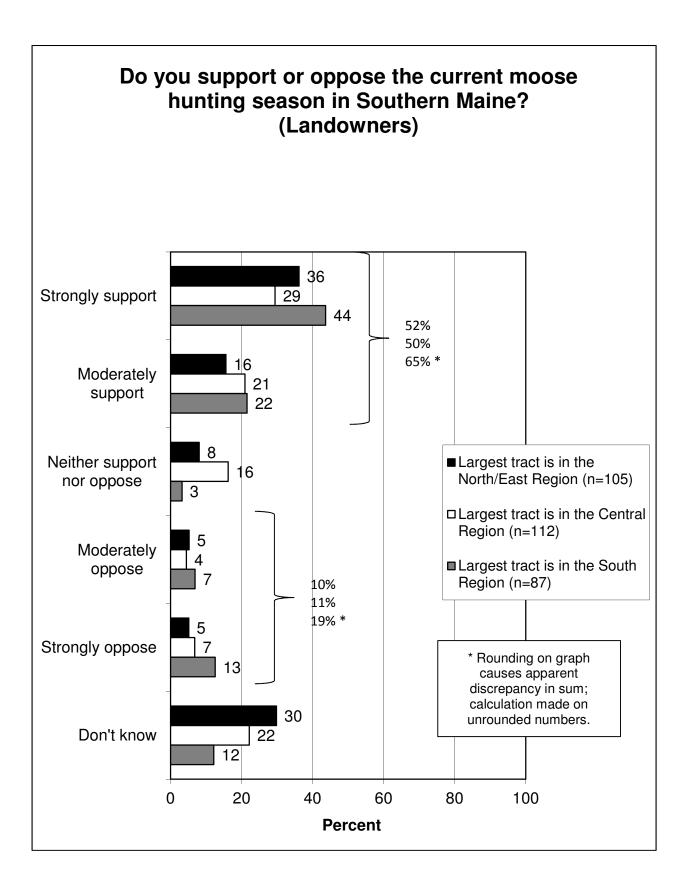


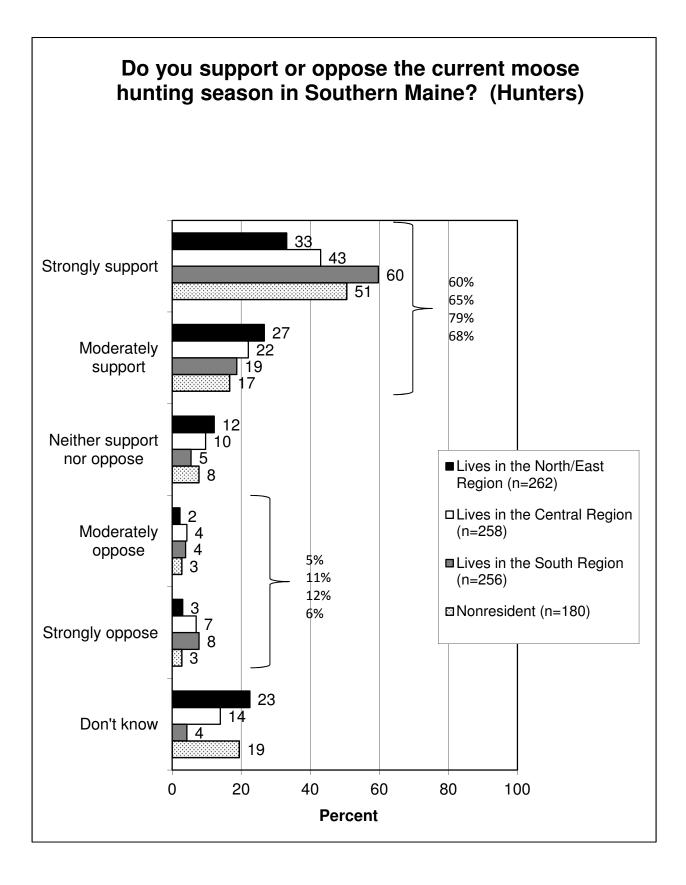












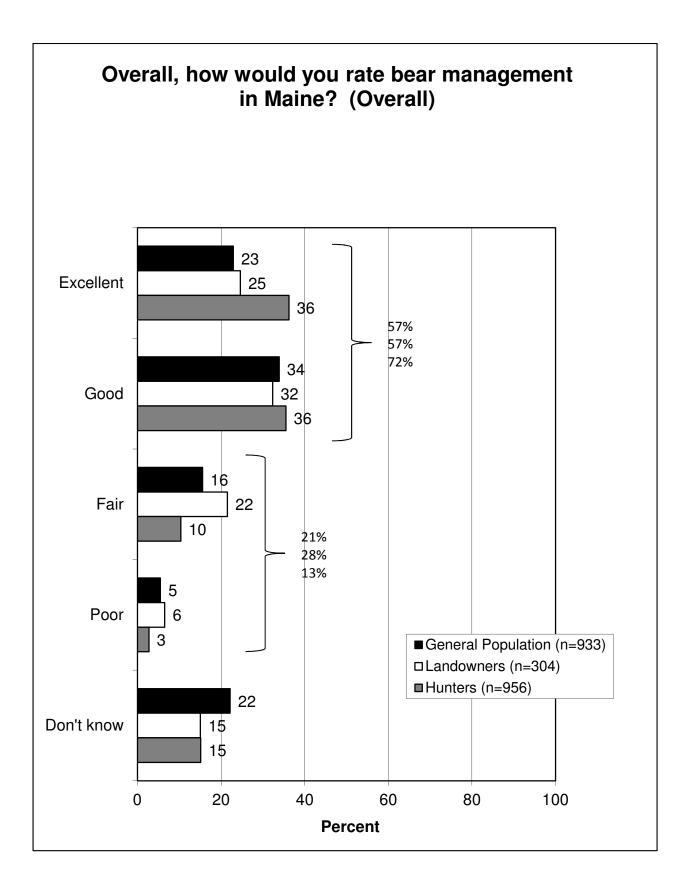
BEAR MANAGEMENT

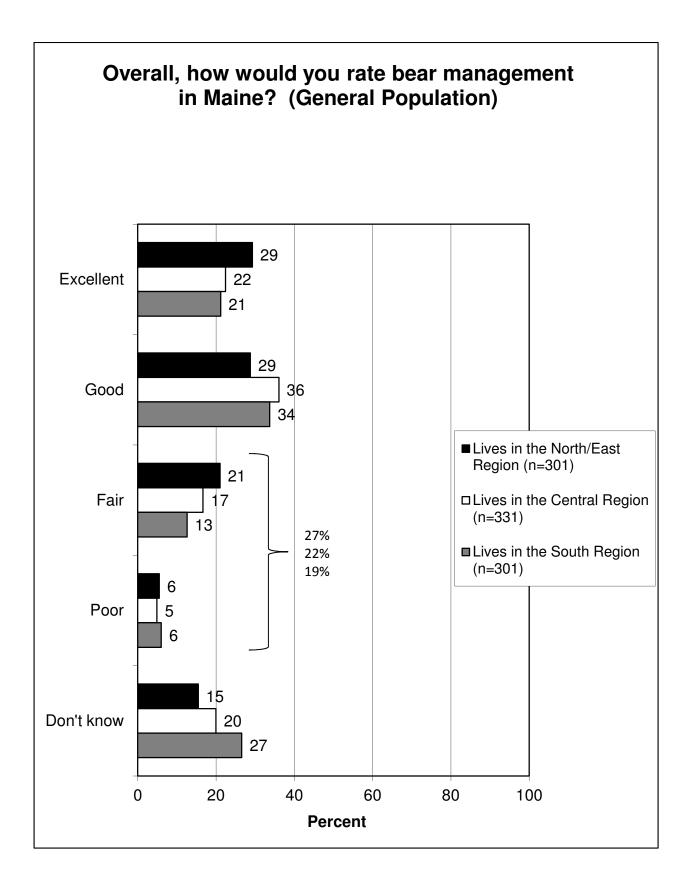
- Ratings of bear management in Maine are more positive than negative, with substantial percentages, nonetheless, giving ratings in the lower half of the scale. Majorities of 57% to 72% give a rating of *excellent* or *good* (the top half of the scale), while 13% to 28% give a rating of *fair* or *poor*. The percentages who do not know range from 15% to 22%.
 - The regional analysis of the general population survey shows that, of the three regions, North/East Region residents are the most negative.
 - Among landowners, the best ratings are among those whose largest tract is in the North/East Region.
- The majority of each group says the bear population should remain the same (56% of the general population, but 67% and 71% among the other two groups). Otherwise, there is a fairly even split among the remainder (from 4% to 8% want an increase, and from 4% to 8% want a decrease).
 - The largest regional differences in the general population survey occur primarily because there are more bear in the North/East Region: that region has a higher percentage of residents choosing "remain the same" and a slightly higher percentage wanting a decrease than in the other regions primarily because those other regions have more respondents choosing the response, "there are no bear in the area."
 - Among hunters, the same general regional differences occur: hunters living in the North/East Region have a higher percentage responding with "remain the same" or "decreased" and have a much lower percentage saying that "there are no bear in the area."
- Those who supported an increase in the bear population were asked about a series of possible consequences of an increase in the bear population. For each consequence, respondents were asked if they would support or oppose an increase in the bear population.
 - The ecological consequence caused the most defection among those who had supported an increase: only from 15% to 28% of the groups would still support an increase if it meant poor health overall for the bear population.

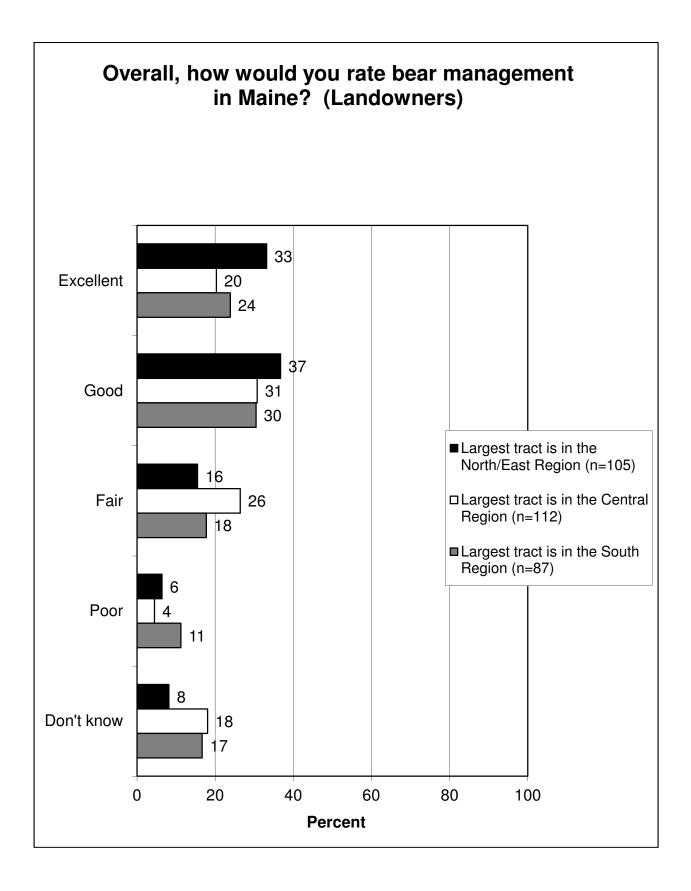
- Less than a majority of the general population and landowners would still support an increase if it meant an increased risk to public safety.
- Human-centered reasons do *not* cause this defection from support, as a majority of all groups would still support an increase if it meant that additional/special bear hunting seasons would need to be opened to manage bear, if bear-proof trash containers were necessitated, if more bears would be killed because of conflicts with humans, and if government staff would spend more time on bears.
 - The results of all the possible consequences (there were nine of them tested) are shown together on four graphs: strongly support by itself, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose by itself.
 - The regional results of the general population survey suggest that North/East Region residents (of those who support an increase in bear population) would still be more supportive of an increase with nearly all the consequences, compared to Central Region residents. (South Region residents could not be included in the regional analysis because not enough of them wanted to see an increase in the bear population to get the follow-up questions.)
- The survey presented to respondents a series of possible factors that could be considered in the management of bear. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - The top-rated factor is the health of the typical bear (mean ratings ranging from 7.6 to 8.4)—an ecological factor. This was followed by providing moose hunting opportunities (mean of 7.0 to 8.1)—these top two being markedly above the others. Risks to public safety and risk to pets/livestock are in the middle, along with impacts on other wildlife.
 - After that, the importance markedly drops for damage to agriculture, risks of vehicle collisions, and damage to gardens.
 - The regional analysis of the landowner survey finds some differences. Those landowners whose largest tract is in the North/East Region give a markedly higher rating to the importance of impacts on other wildlife as a factor. Meanwhile, those

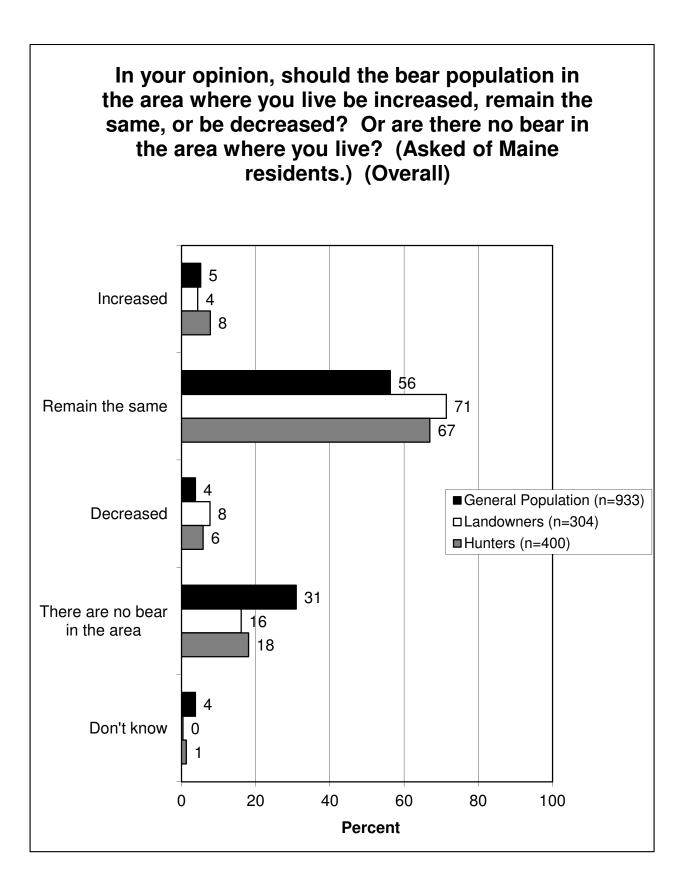
whose largest tract is in the Central Region give a markedly lower rating to risks to public safety or risks to pets/livestock.

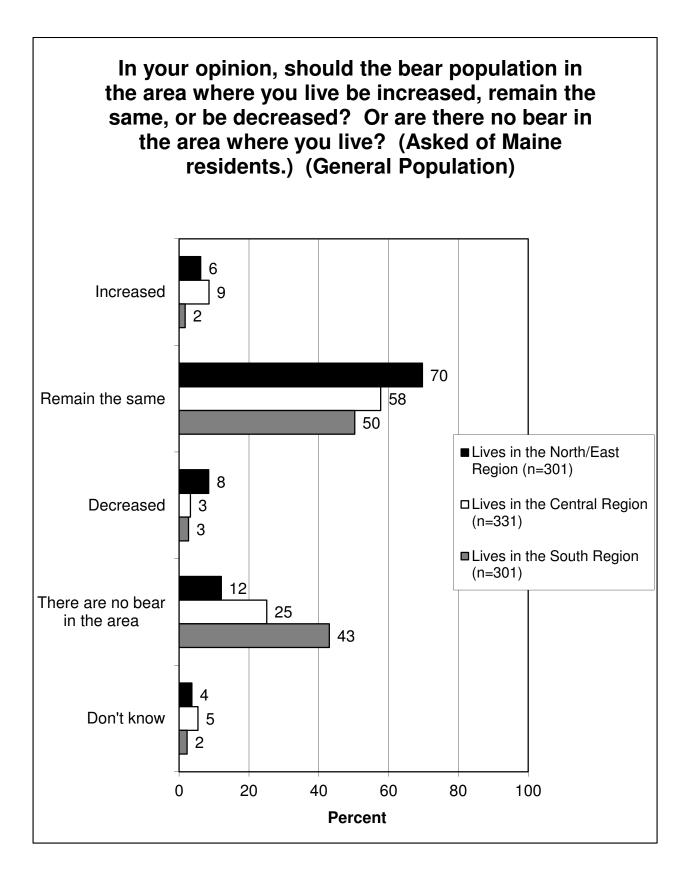
- Support for legal bear hunting as a method to help manage bear is high: from 87% to 95% support, most of it *strong* support. Only 9% or less oppose it.
- Each group is split on opinion regarding allowing the bear population to expand into central and southern Maine. While a majority of each group support doing so, there is substantial opposition. Among the general population, 54% support, but 30% oppose. Among landowners, 54% support, while 29% oppose. Finally, among hunters, 63% support, but 25% oppose.
 - In the general population survey, the regional analysis finds residents of the South Region with slightly higher opposition.
 - A regional breakdown of the landowners, based on where the largest tract is located, finds that the differences are primarily between *strong* and *moderate* answers rather than overall support or overall opposition.
 - Interestingly, while the regions are about the same in the regional analysis of the hunter survey, nonresidents are more supportive of allowing the bear population to expand further into central and southern Maine.

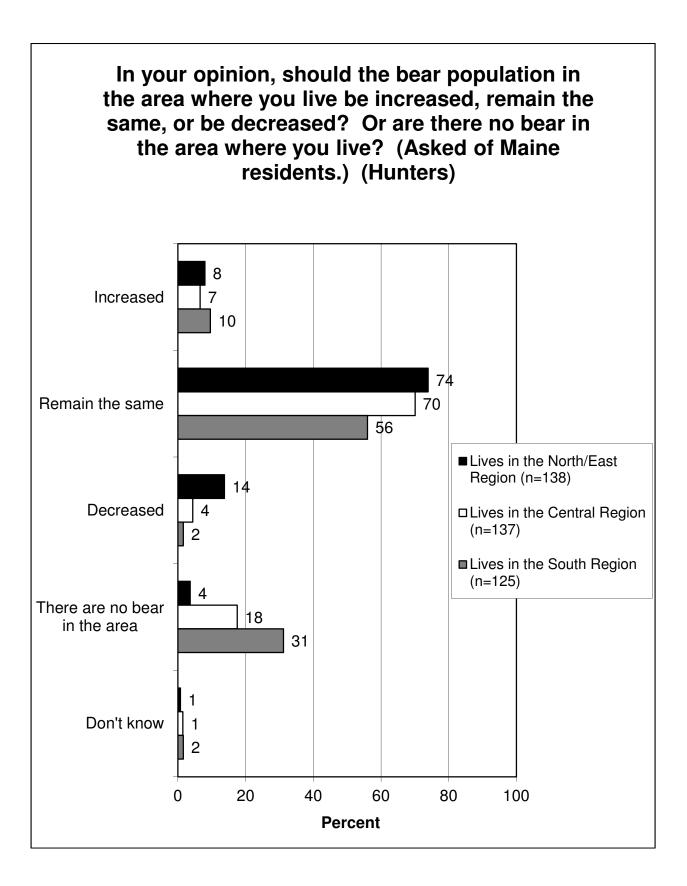


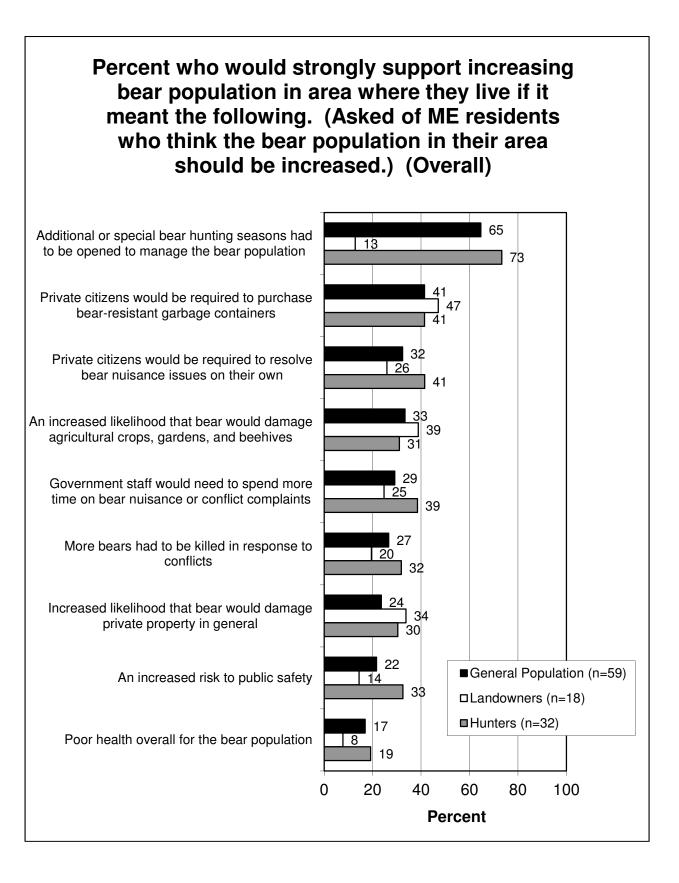


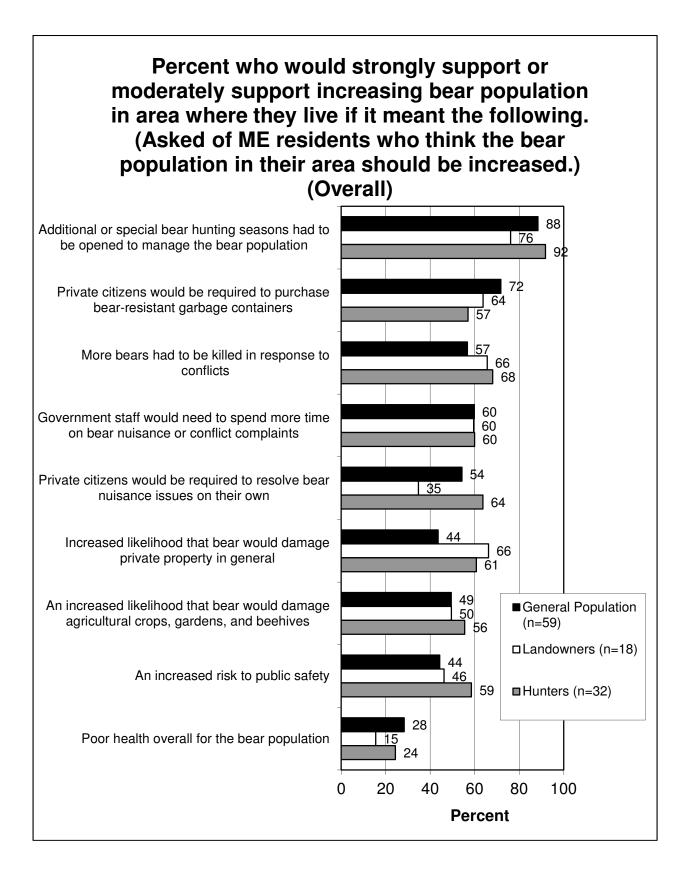


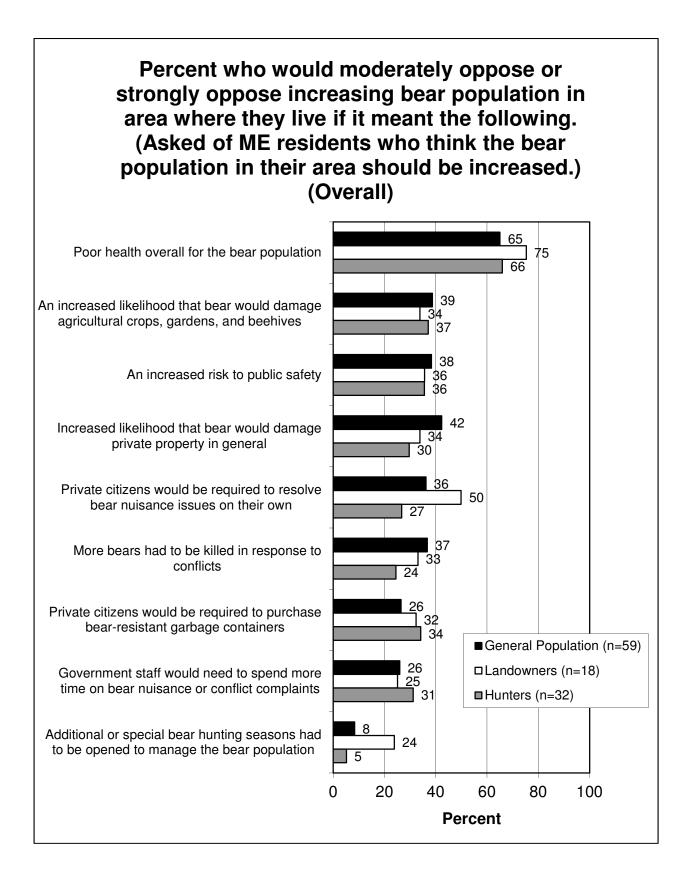


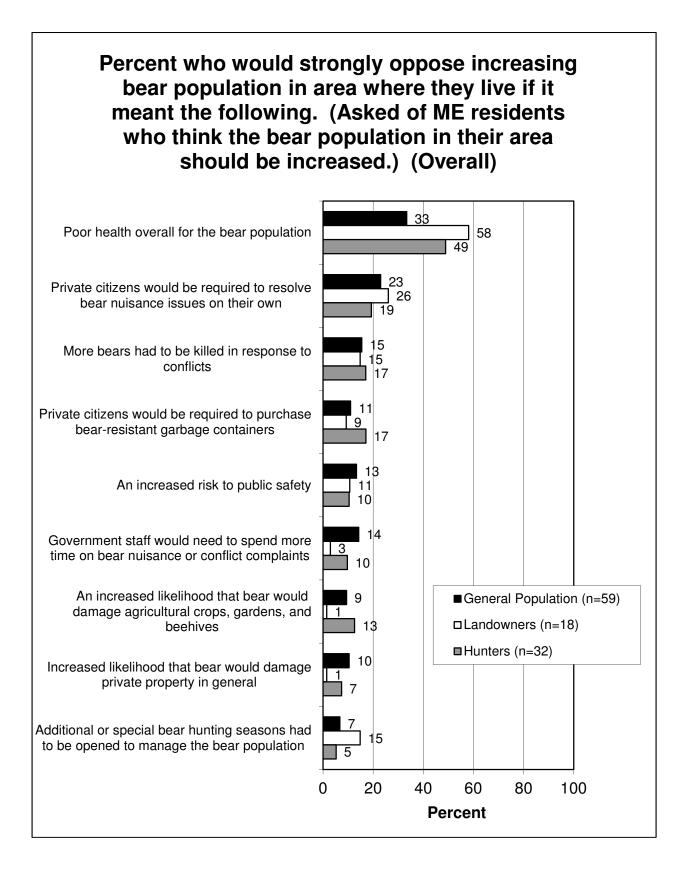


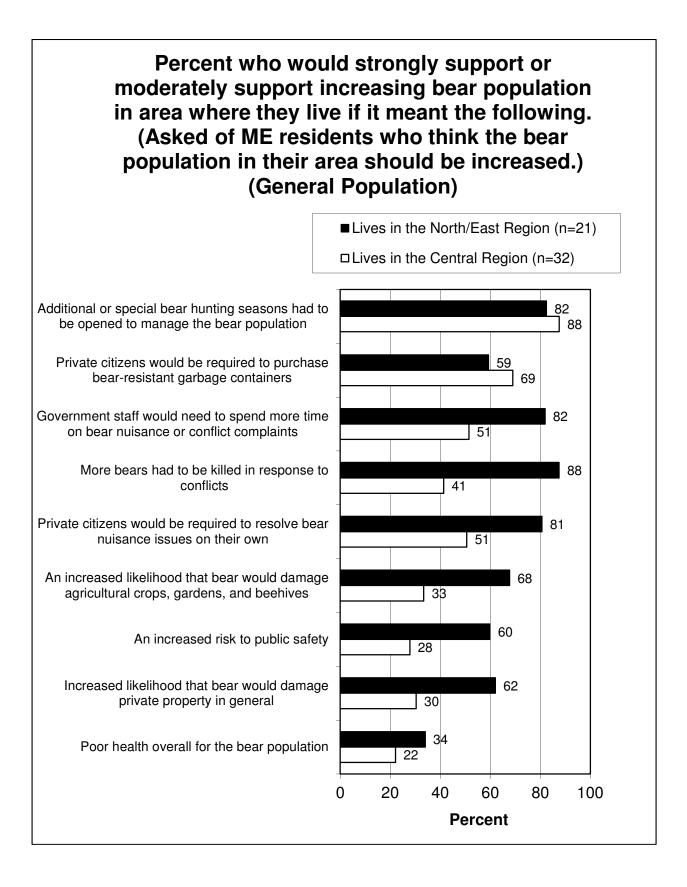


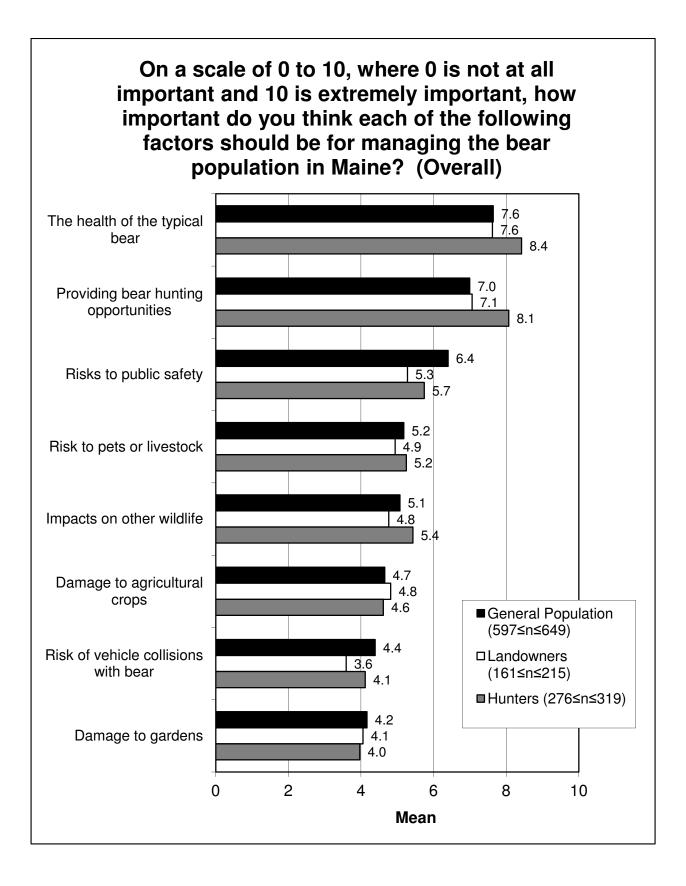


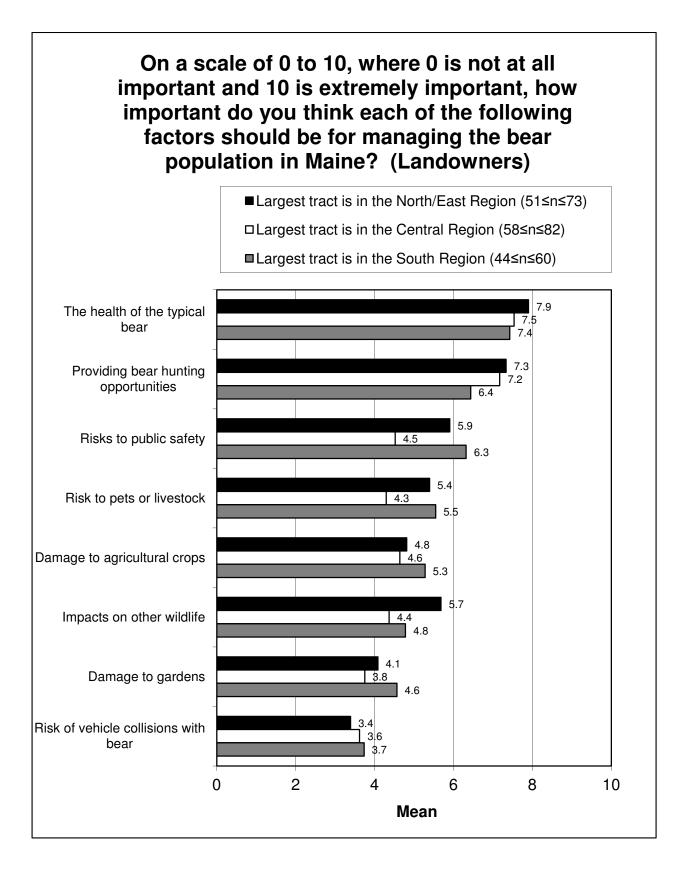


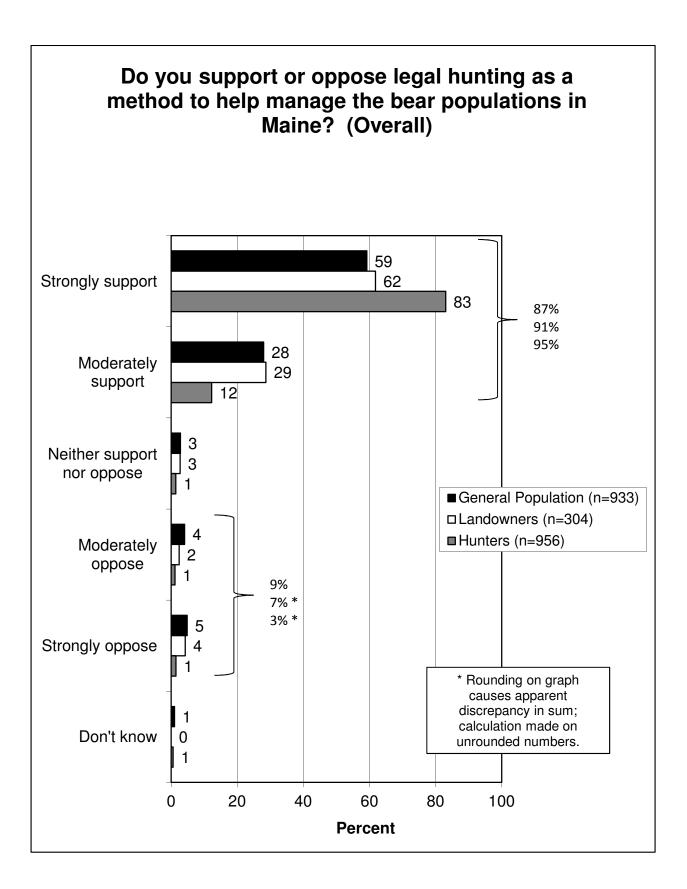


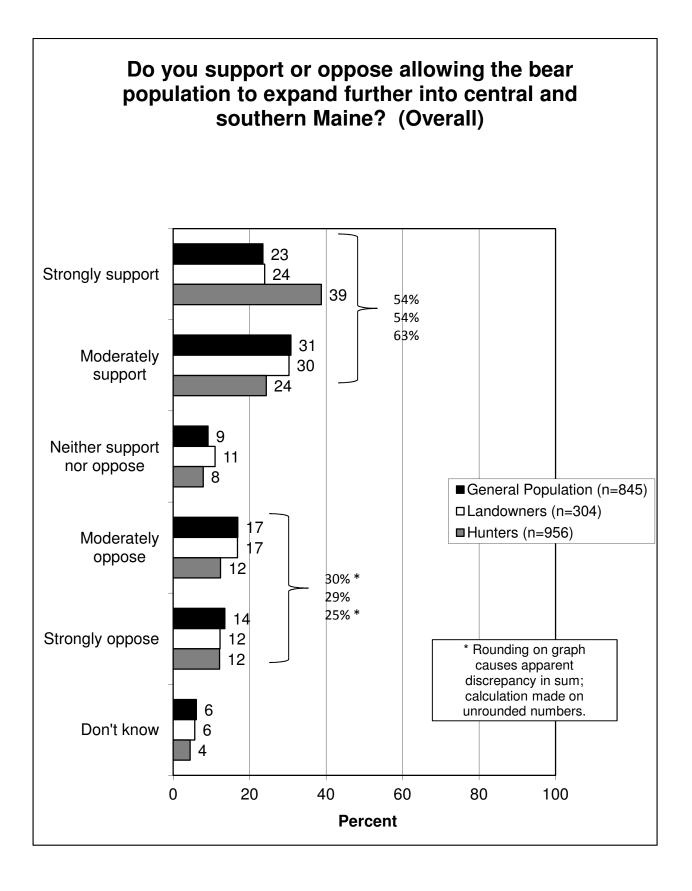


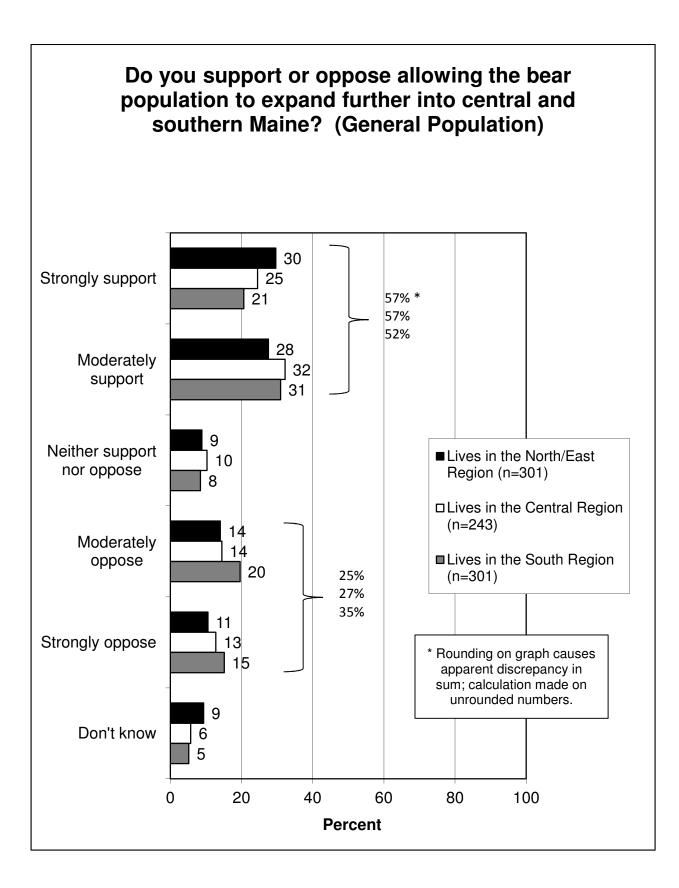


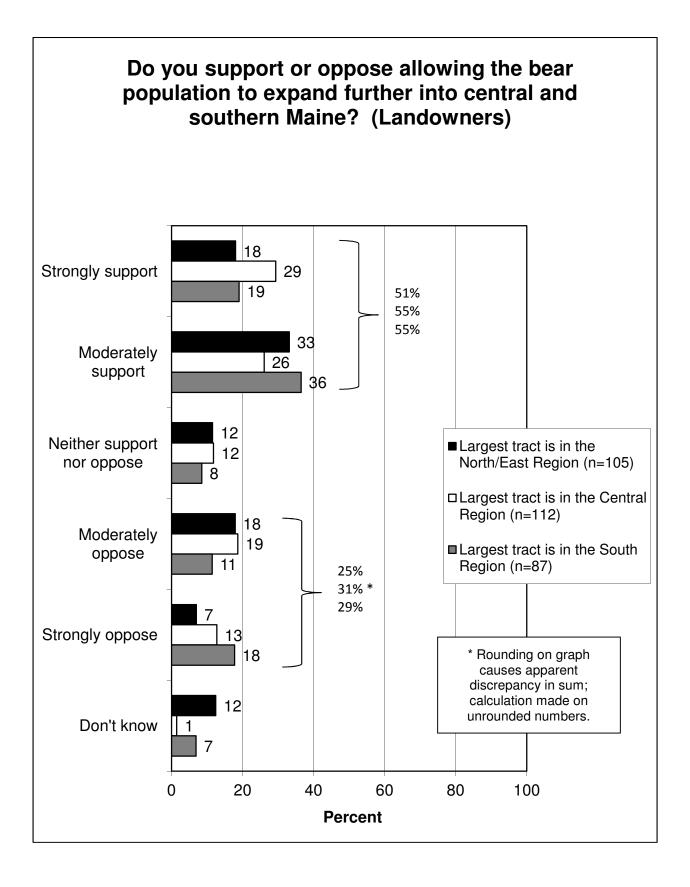


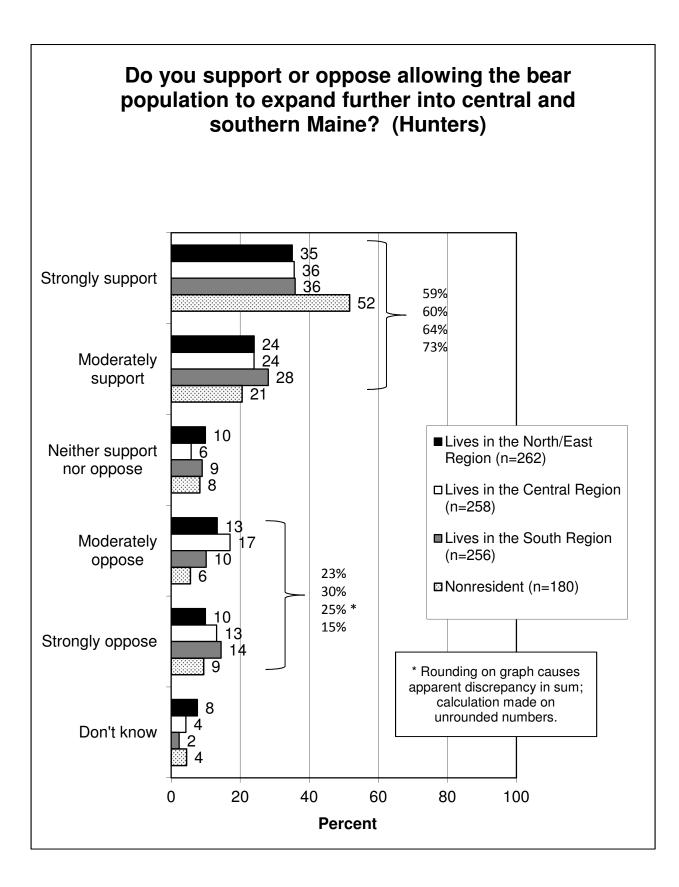










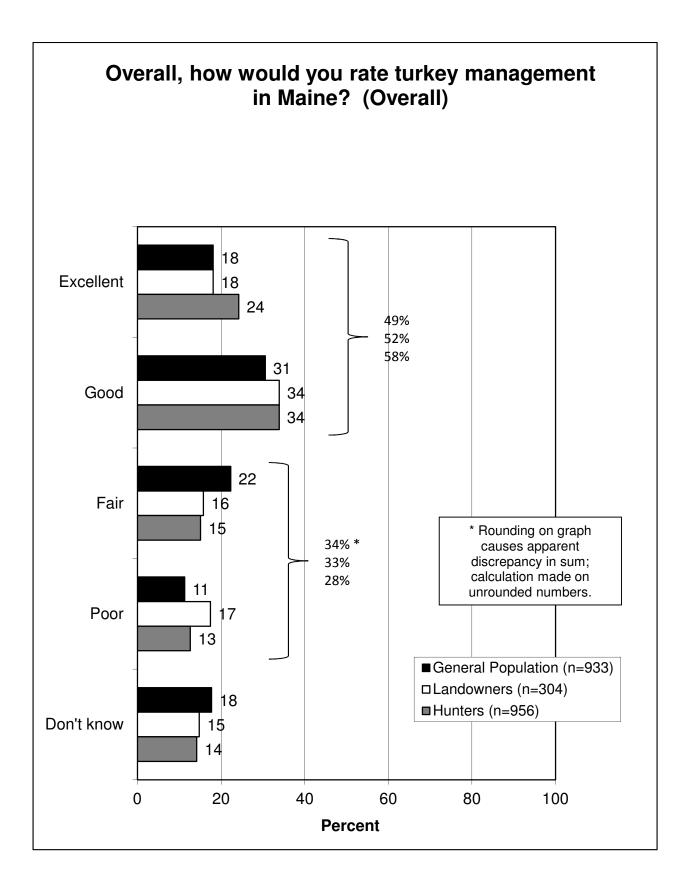


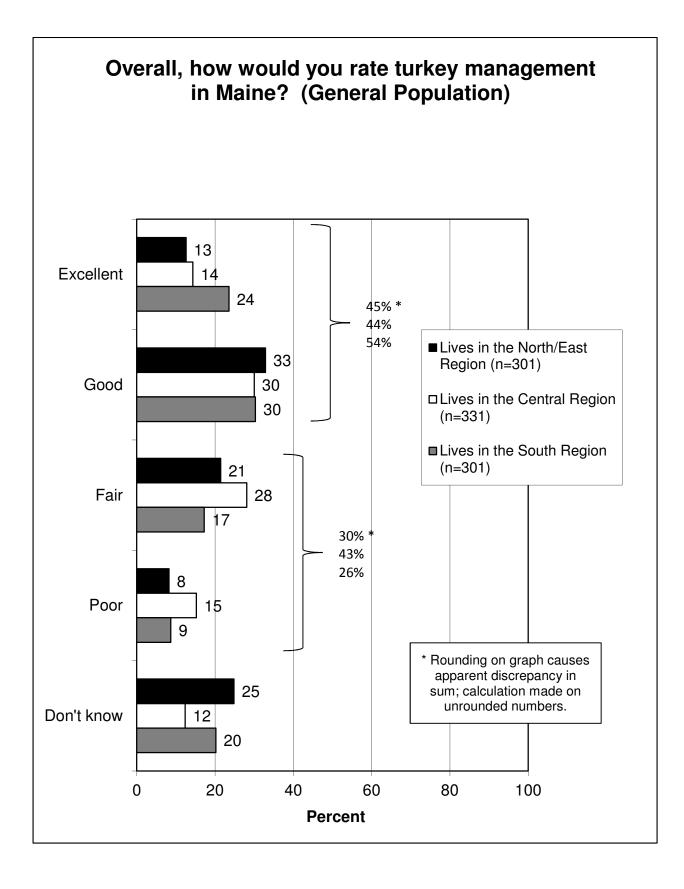
TURKEY MANAGEMENT

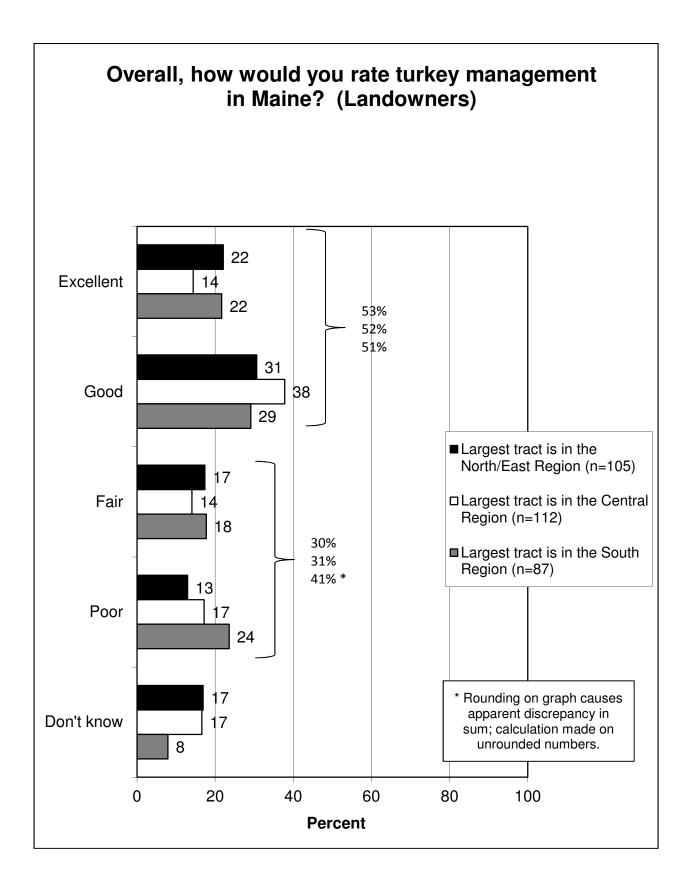
- Ratings of turkey management in Maine are more positive than negative, with 49% to 58% giving a positive rating of *excellent* or *good*, but 28% to 34% giving a rating of turkey management as only *fair* or *poor*. The percentages who do not know range from 14% to 18%.
 - The region with the most positive ratings is the South Region in the general population survey (54% of them give a rating of excellent or good, compared to no more than 45% in the other regions); the region with the most negative ratings is the Central Region (43% of them give a rating of fair or poor, compared to no more than 30% of any other region).
 - In the landowner survey, the regional breakdown by where the largest tract is located finds *poor* ratings higher among South Region landowners than in the other regions.
 - The regional analysis of hunters based on where they live finds some differences: the best ratings come from hunters living in the South Region, while hunters living in the Central Region have a slightly higher percentage giving a poor rating than the other Regions.
- The majority of each group says the turkey population should remain the same (from 52% to 62%). However, the remainder more often want a decrease than an increase: from 27% to 31% want to see a decrease, compared to just 6% to 13% who want an increase. This is the only species of the four in the survey for which *decrease* is markedly more than *increase*.
 - Of the three regions, residents in the general population survey of the North/East Region are the most likely to want to see an increase; residents of the Central Region are the most likely to want to see a decrease.
 - The regional analysis of the landowner survey found that landowners living in the Central Region are the region most often wanting to see the population remain the same; landowners living in the North/East Region are the most likely of the three regions to want an increase.
 - In the hunter survey, the regional analysis shows that hunters who live in the North/East Region are the most likely to want an increase.

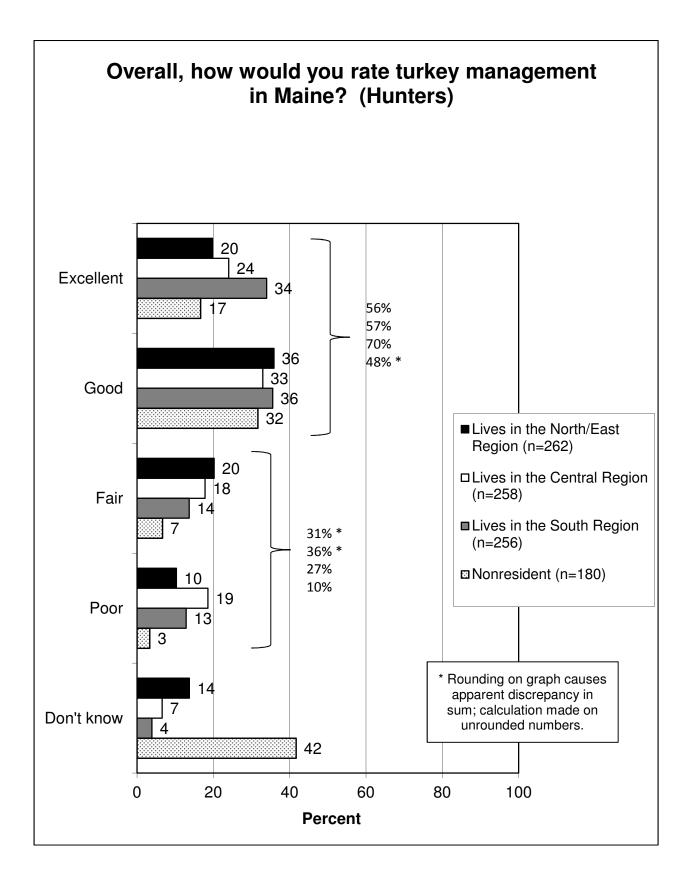
- A series of follow-up questions was asked of those who said that they wanted to see an increase in turkey populations, asking if they would support or oppose an increase based on seven possible consequences of an increase.
 - In the face of ecological consequences (more turkey dying from starvation in winter; poor health overall for the turkey population), most of those who formerly supported an increase no longer support it.
 - The human-centered consequences do *not* cause this defection from support (that private citizens would be required to resolve problems on their own; that there would be an increase in damage to gardens, landscaping, or agriculture), nor does the consequence of an increase in predators (being seen, perhaps, as a positive ecological consequence or at least a "natural" ecological consequence).
 - The results of all seven questions are shown together. There are four graphs: strongly support on its own, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose on its own.
 - The regional results of the general population survey suggest that Central Region residents are more likely to change to opposition when presented with negative ecological consequences or with negative impacts to agriculture than are residents of other regions.
- The survey presented to respondents a series of possible factors that could be considered in the management of turkey. For each factor, respondents rated it from 0 (not at all important) to 10 (extremely important).
 - Turkey hunting is valued in Maine, as the top-rated factor is providing turkey hunting opportunities (mean of 7.4 to 8.3), closely followed by the health of the typical turkey in the population (mean of 7.4 to 7.9). There is a drop in importance placed on the next items: the opportunity to see turkey (6.1 to 6.9) and damage to agriculture (5.8 to 6.5).
 - Lowest in importance are damage to gardens (5.2 to 5.7) and the risk of vehicle collisions with turkey (4.6 to 5.0).
 - In the landowner survey, the regional analysis finds that those landowners whose largest tract is in the South Region are more concerned about damage to gardens and risk of vehicle collisions.

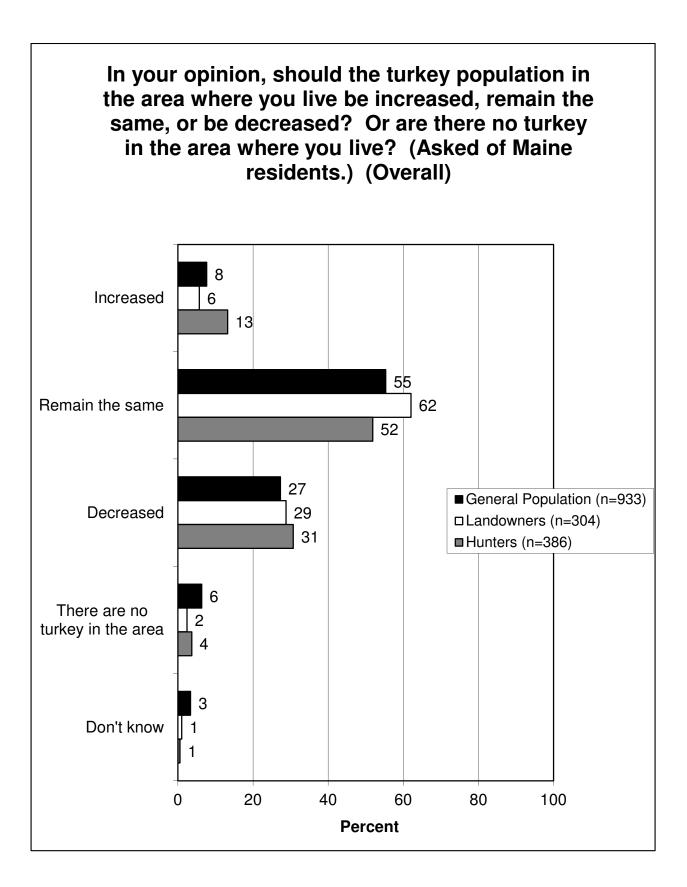
- Support for legal turkey hunting as a method to help manage turkey is high: from 92% to 98% support, most of it *strong* support. Only 5% or less oppose it.
- A series of possible turkey management options in the event that turkey became overabundant in an area was presented in the survey, and respondents were asked whether they would support or oppose each one. For each of all four options, an overwhelming majority would support it (no less than 77% among any group for any option), and in fact a majority of the general population would *strongly* support it, ranging from 54% to 61%. *Strong* support is a little higher among landowners, ranging from 55% up to 71%, and then markedly higher among hunters, ranging from 78% to 82%. For all groups, the *least* favored is extending the hunting season later into the fall or winter; the three other options are about even with one another and just slightly higher than that last-placed option. Opposition is no more than 17% among any group for any of the four options.
 - The three items with the most support are: implementing a controlled hunt in areas experiencing damage from turkeys, allowing landowners to apply for a permit to remove turkeys that are causing problems on their land, and increasing the bag limit for turkey in areas experiencing damage.
 - Four graphs are shown: strongly support by itself, strongly and moderately support combined, strongly and moderately oppose combined, and then strongly oppose by itself.
 - Two graphs are included that suggest that South Region residents in the general population survey are different than residents of the other regions regarding their opinion on extending the hunting season later into the fall or winter, being more opposed to it than their counterparts in other regions.

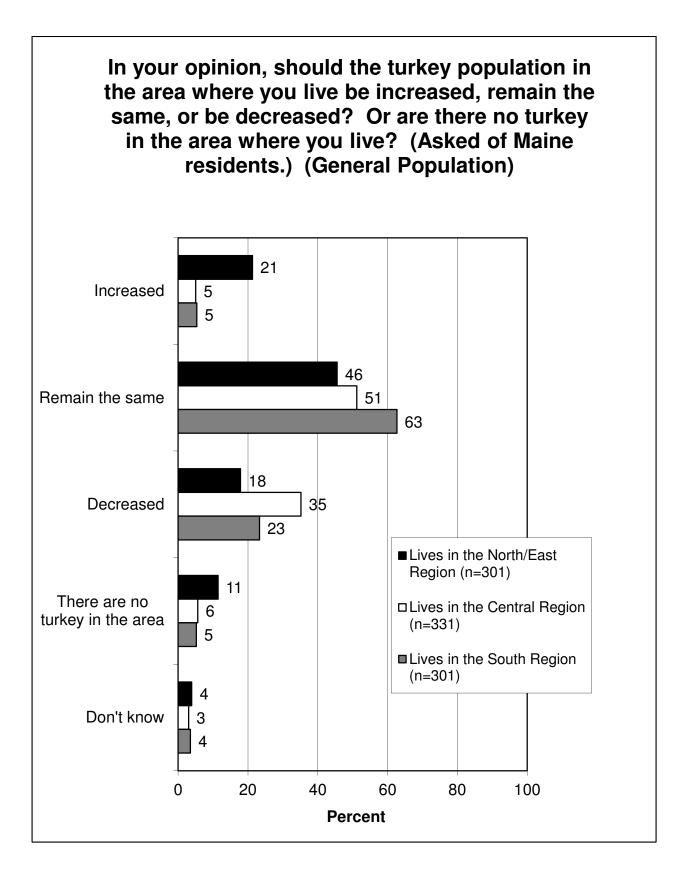


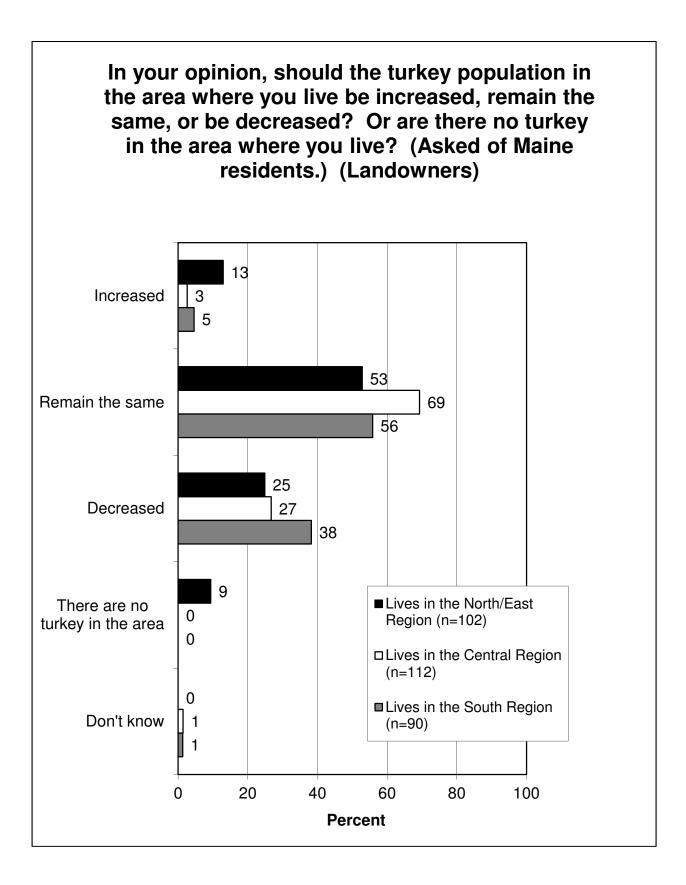


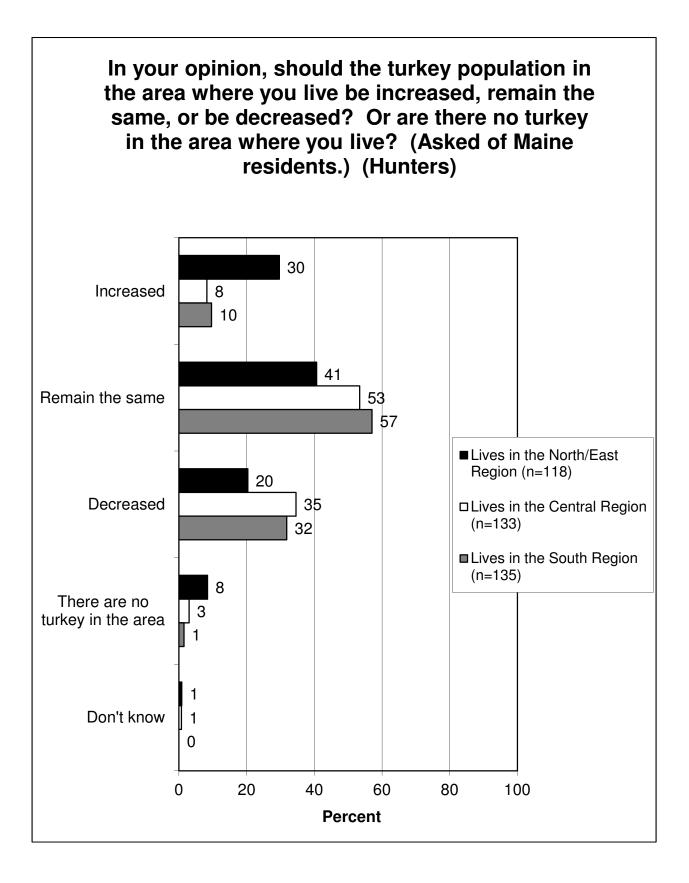


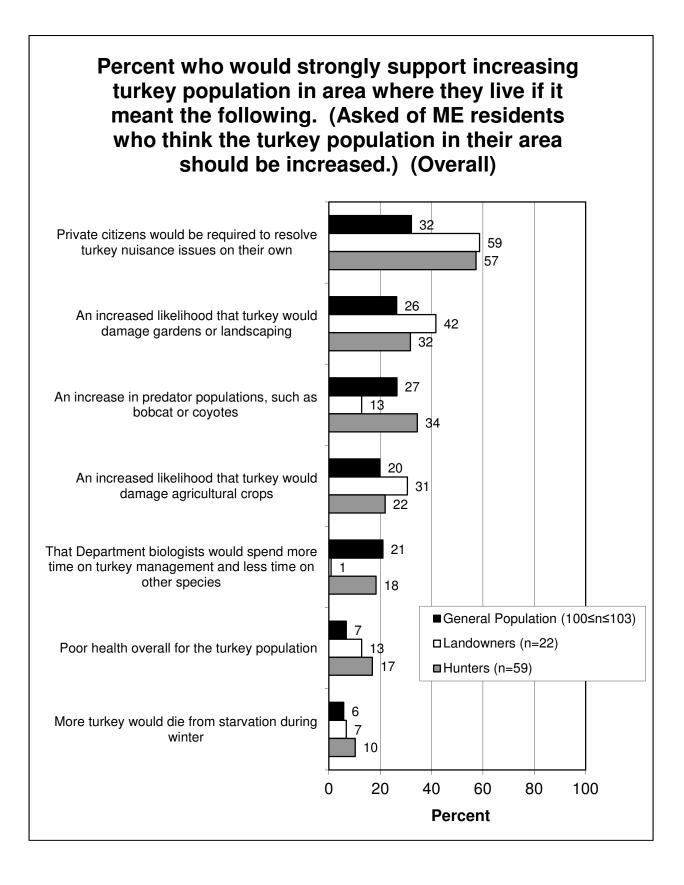


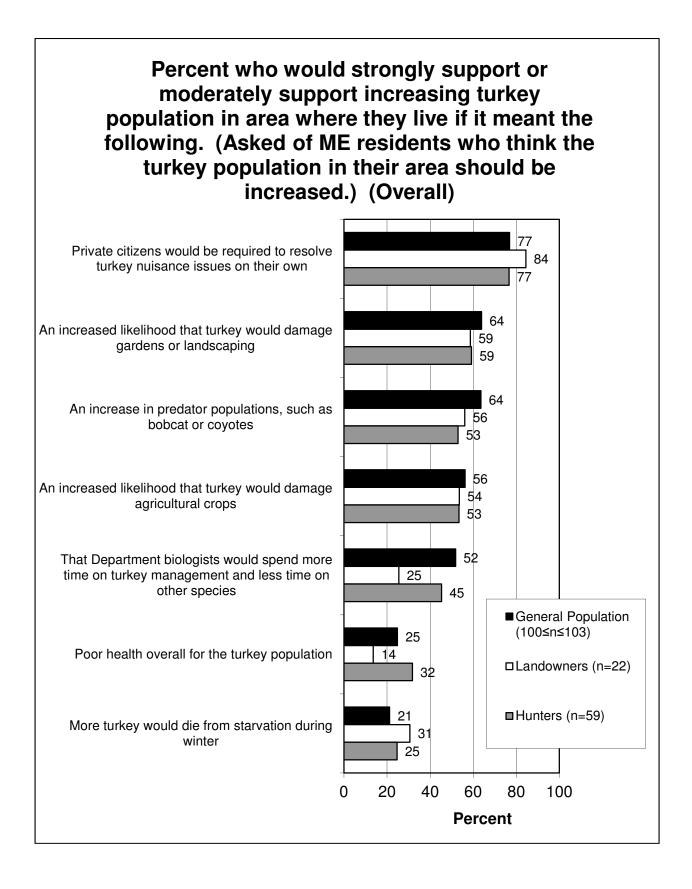


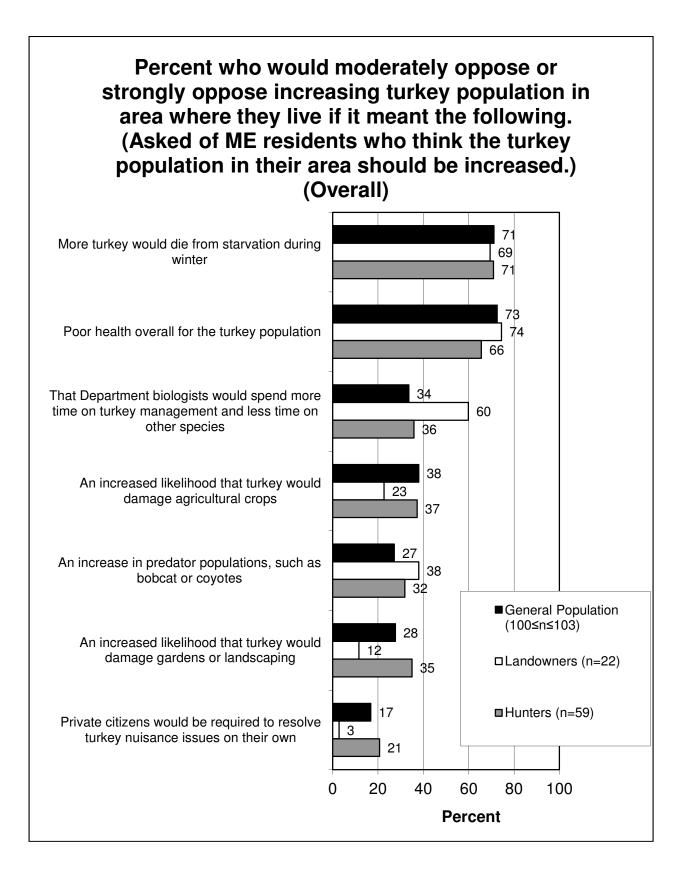


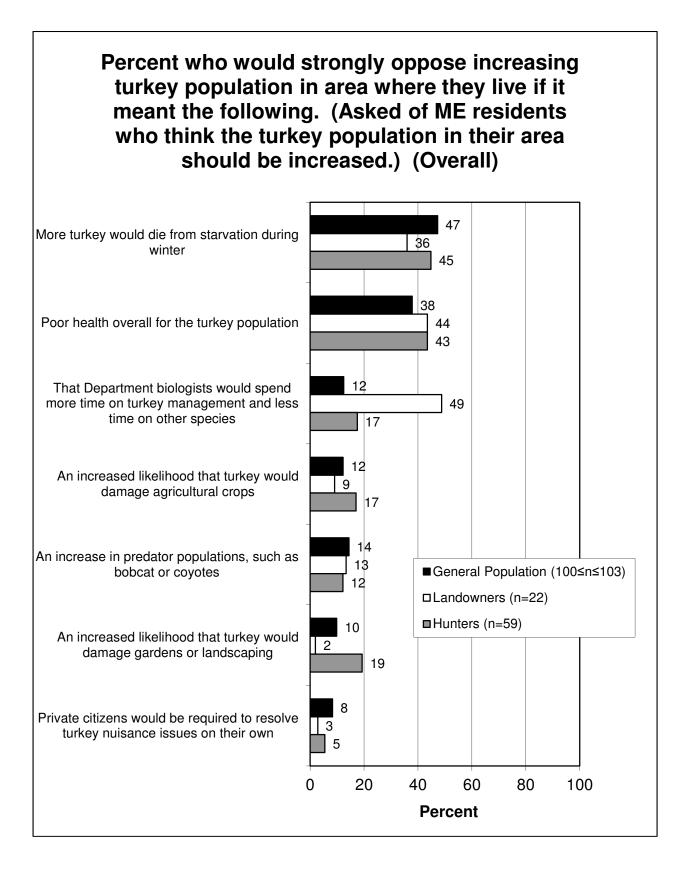




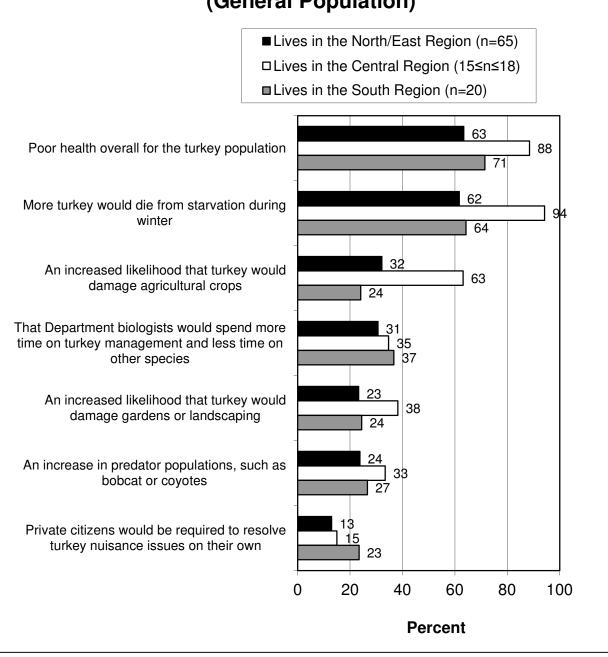


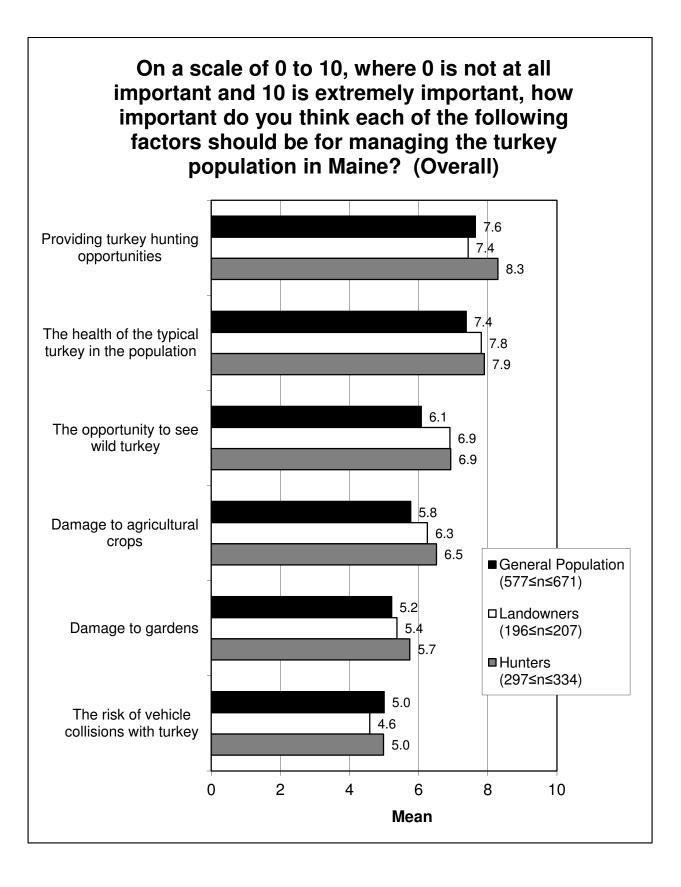


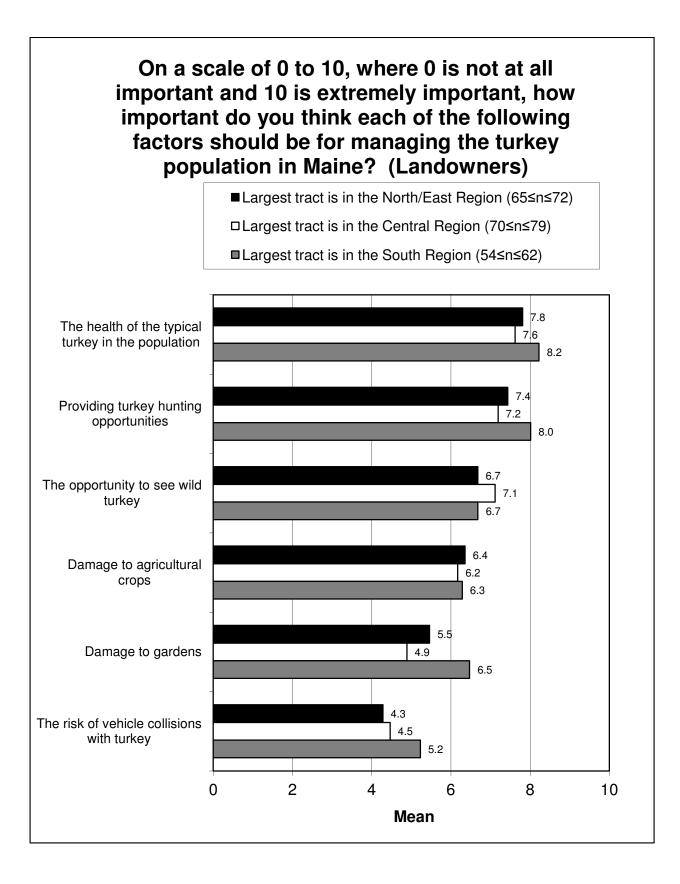


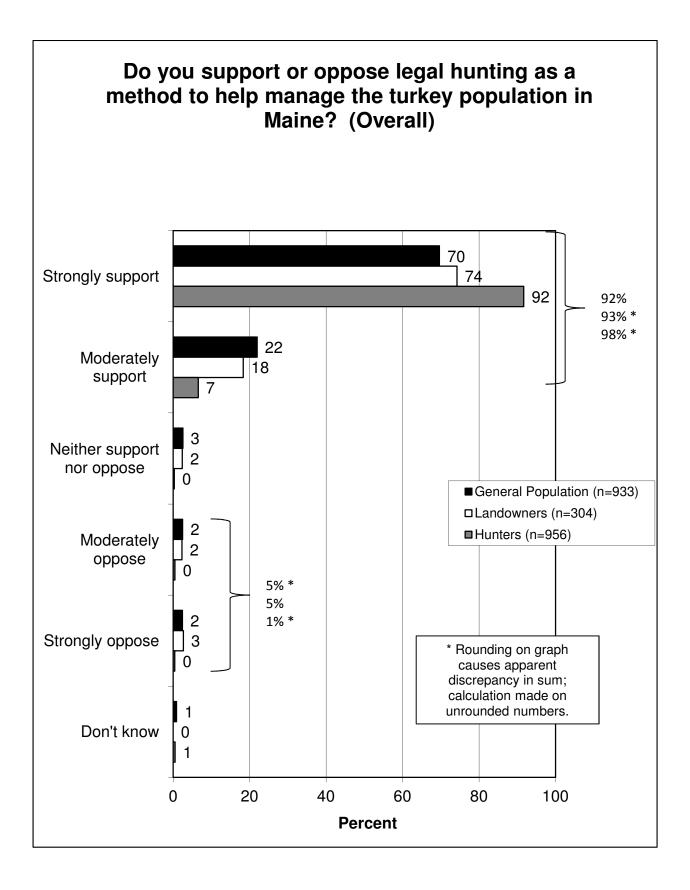


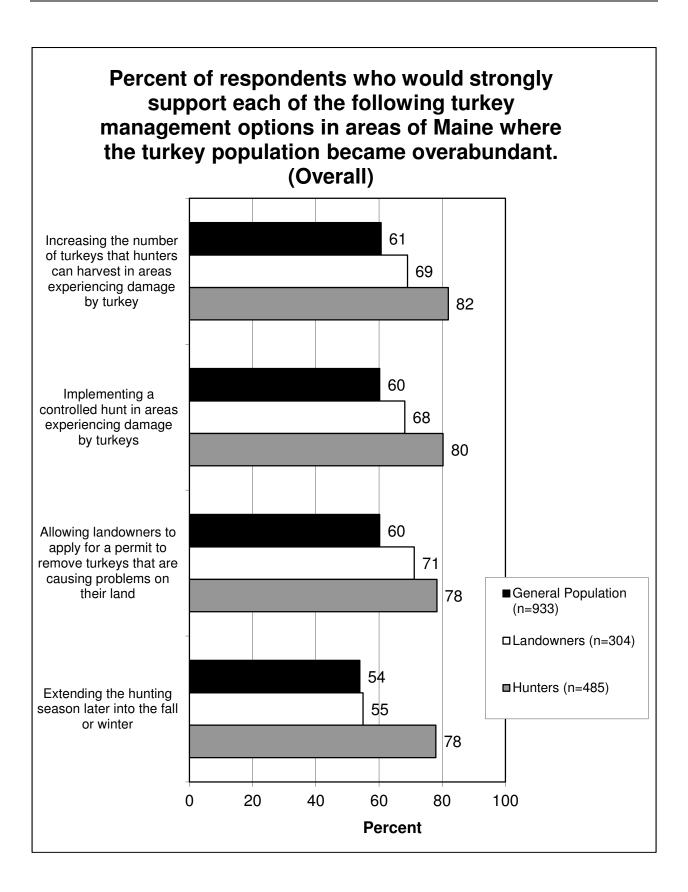
Percent who would moderately oppose or strongly oppose increasing turkey population in area where they live if it meant the following. (Asked of ME residents who think the turkey population in their area should be increased.) (General Population)

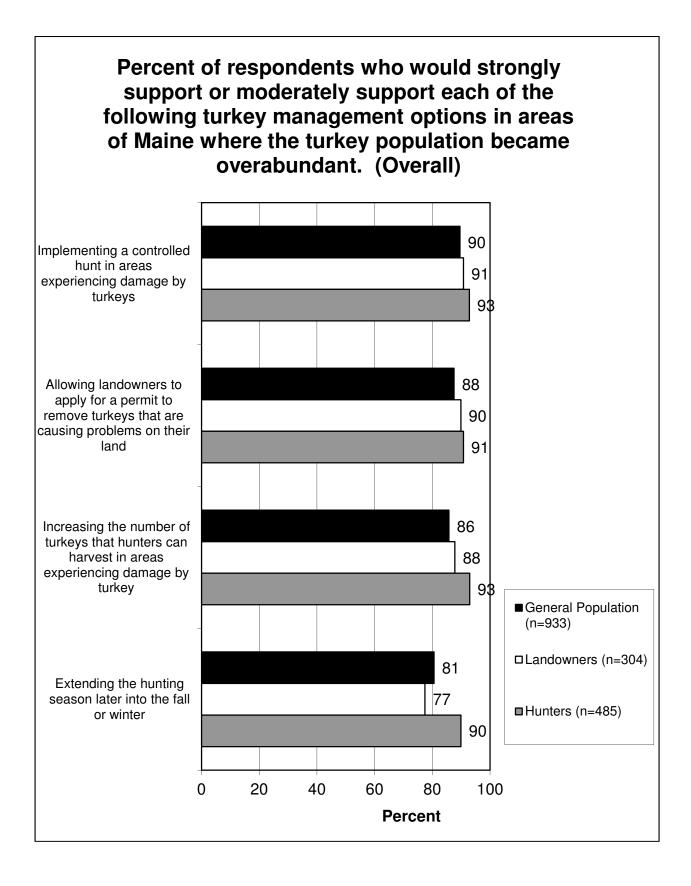


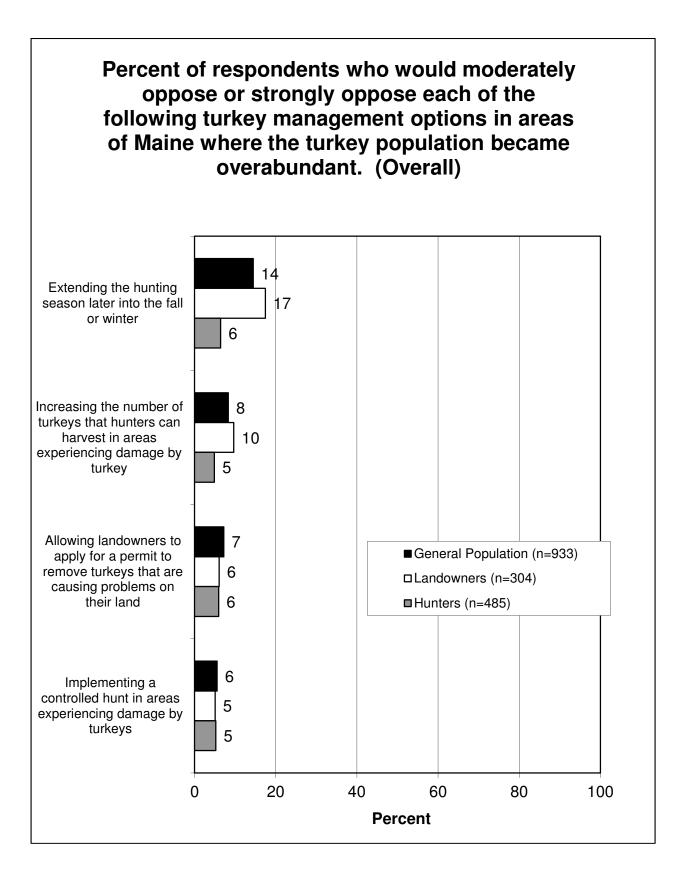


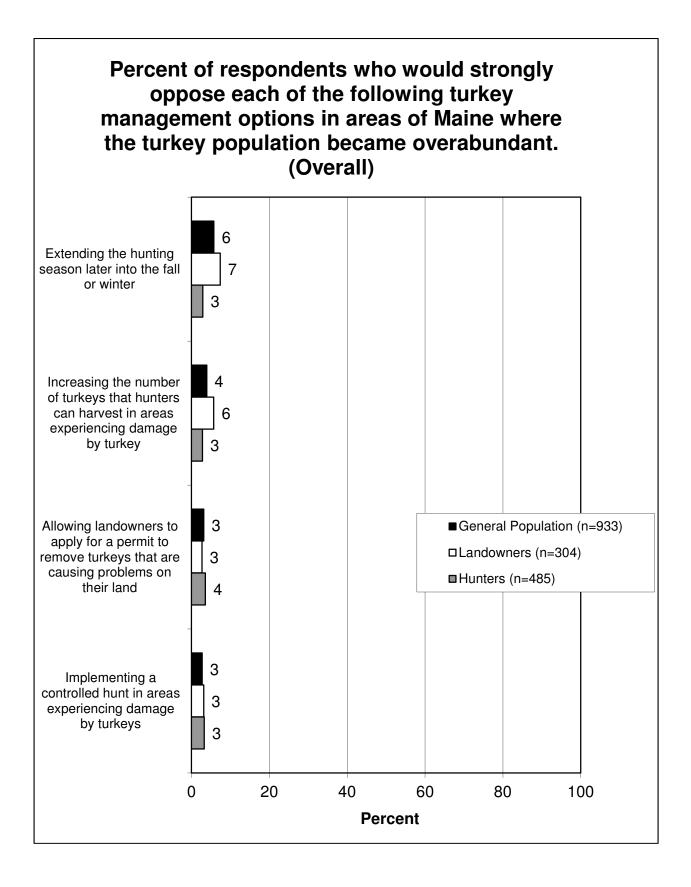


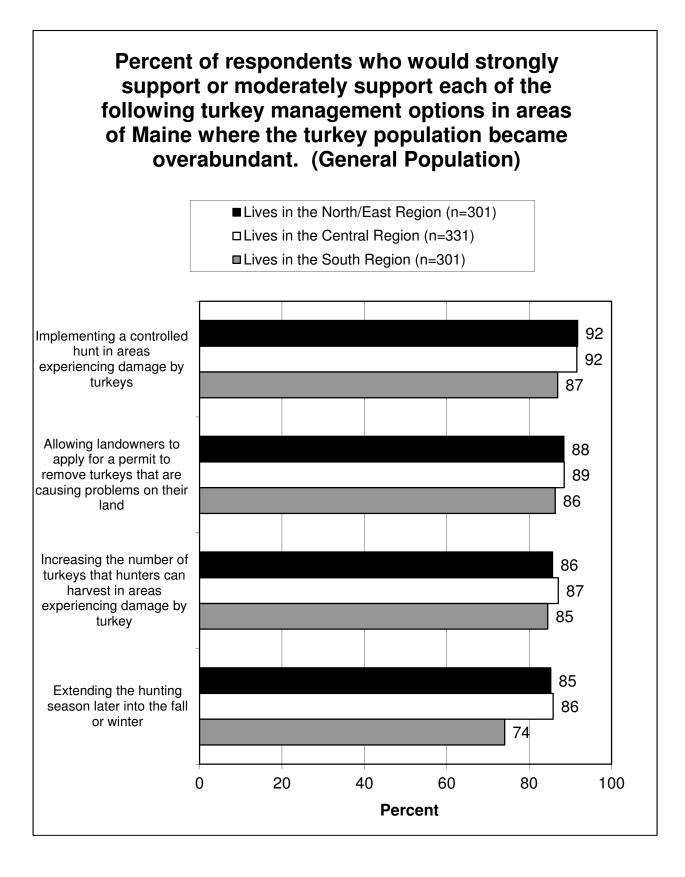


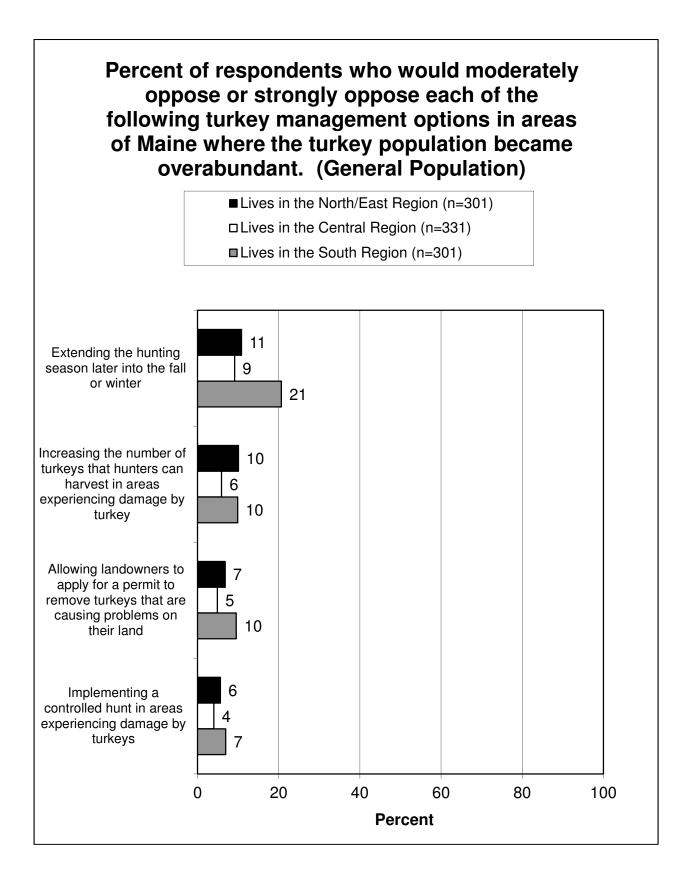


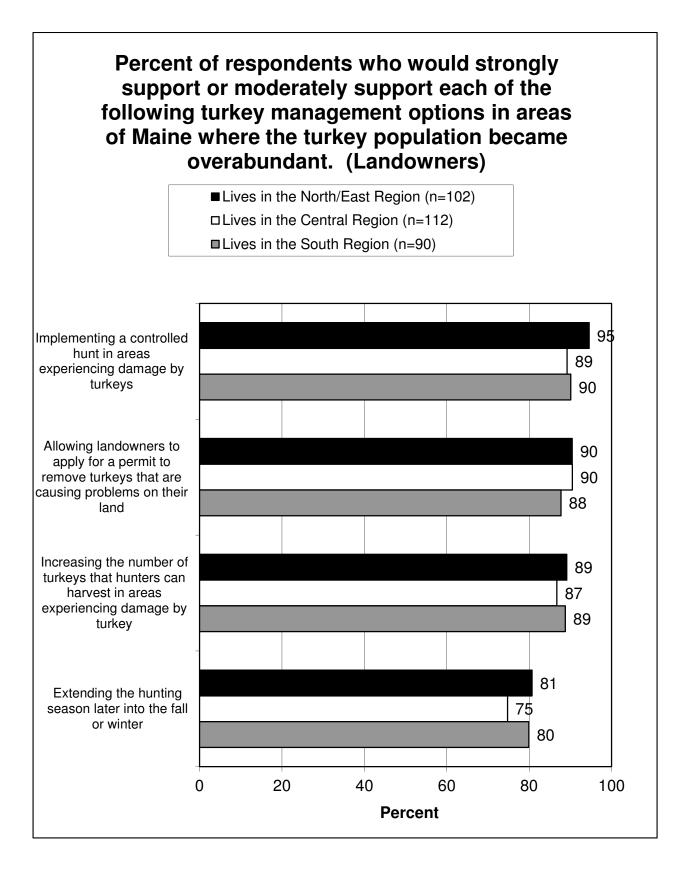


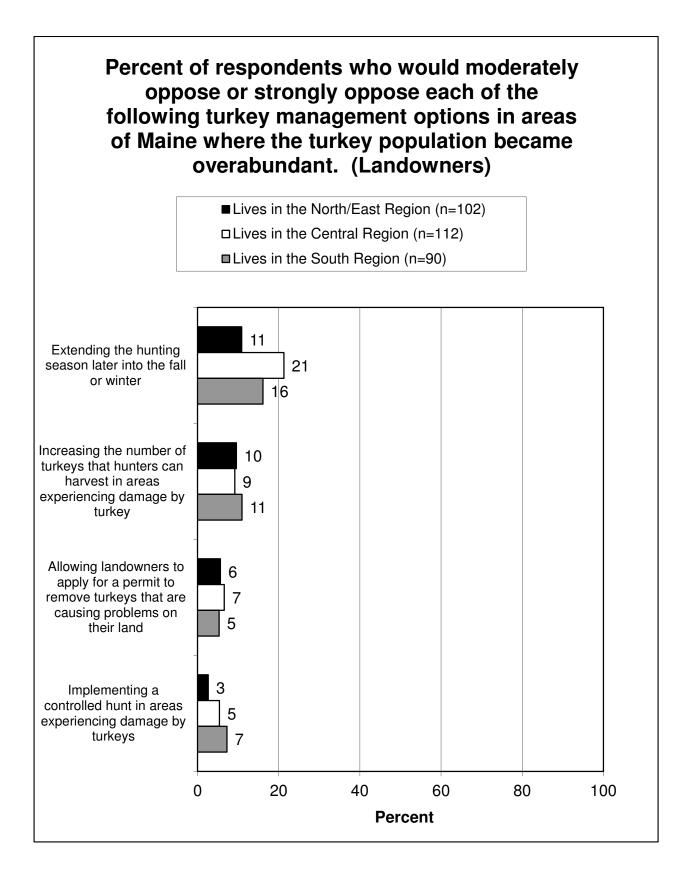






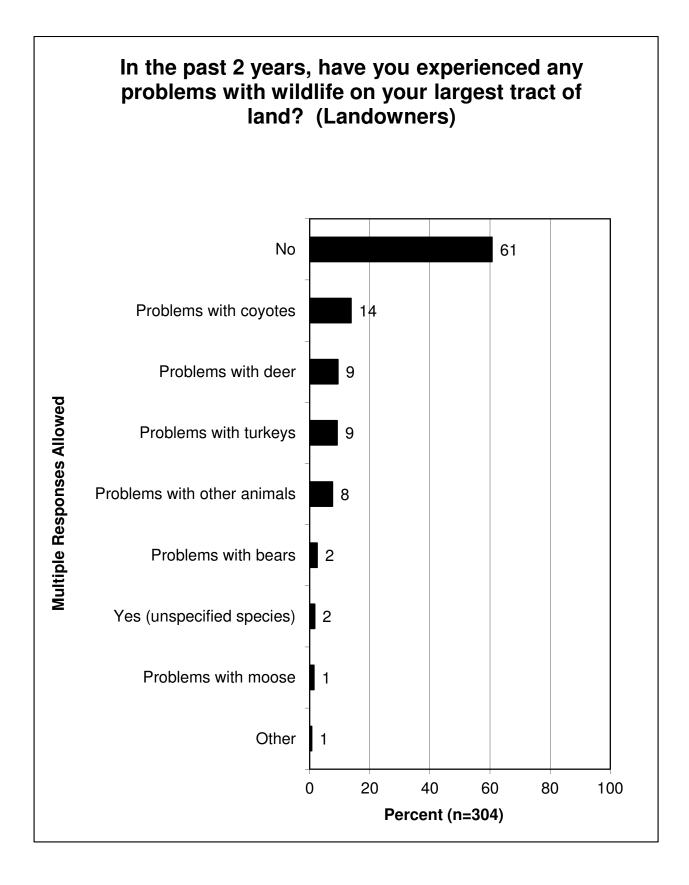


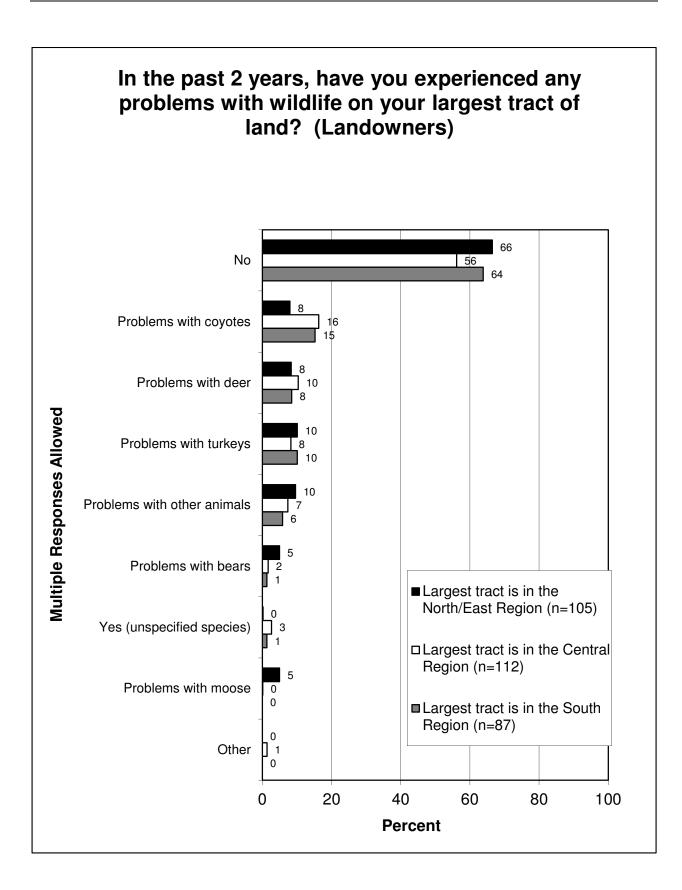




PROBLEMS WITH WILDLIFE

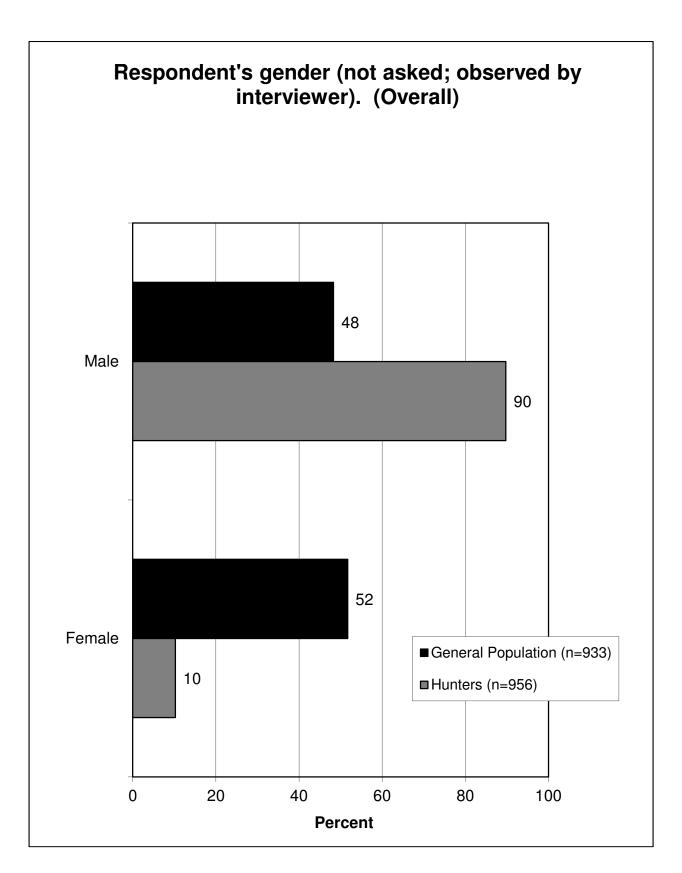
- While most landowners in the survey (61%) did not experience any problems with wildlife on their largest tract of land in the past 2 years, the obverse of this means that a fairly large percentage (39%) reported having problems.
 - The most common culprits were coyotes, deer, and turkeys.
 - Landowners whose largest tract is in the Central Region are the *most* likely to have experienced problems.

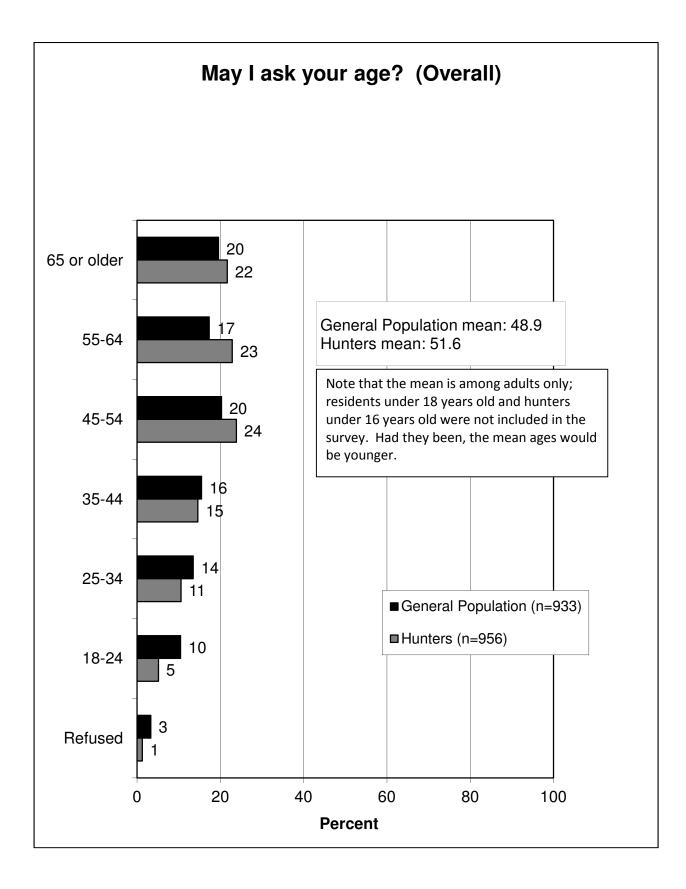


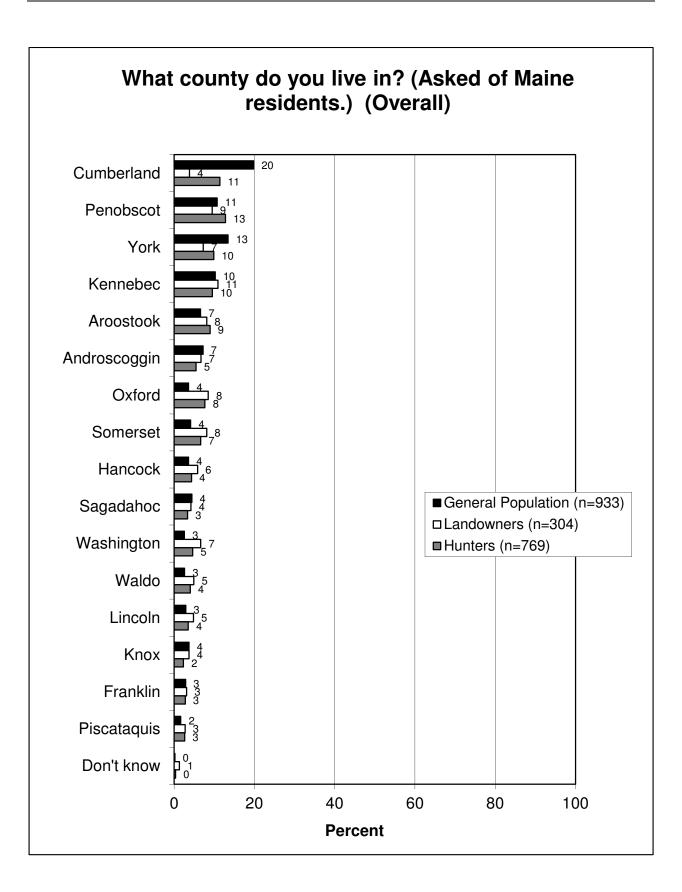


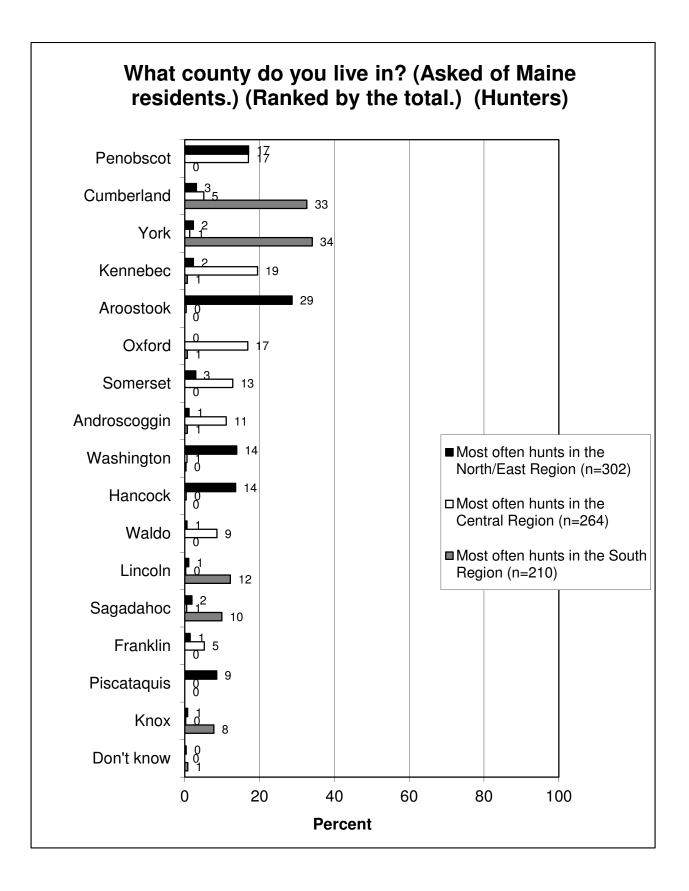
DEMOGRAPHIC DATA

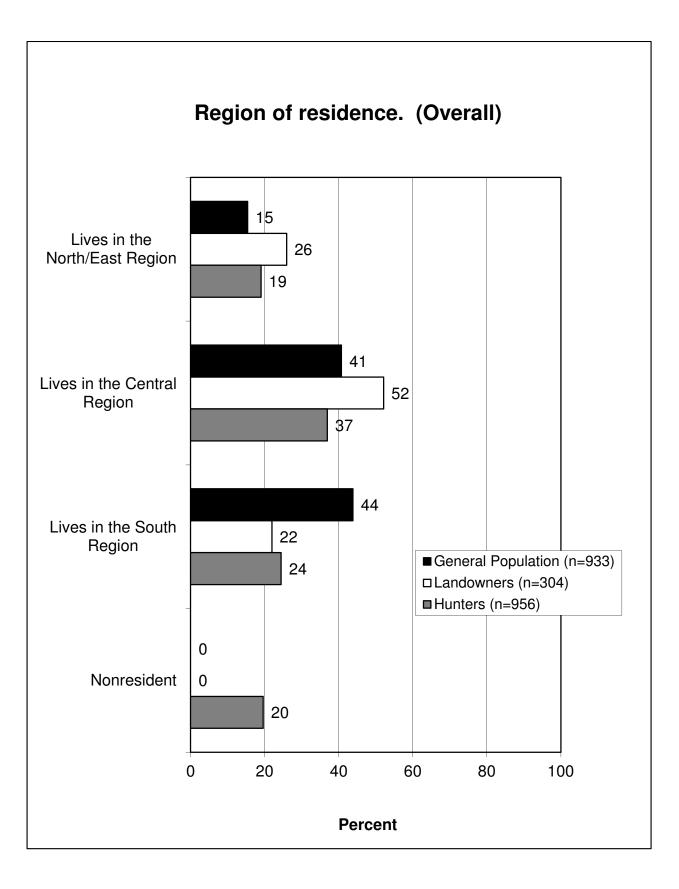
- > The following demographic data were gathered:
 - Gender: This is shown for the general population (the general population sample was weighted by gender and age to match the actual population) and for hunters—the latter being 90% male. Gender is not shown for landowners because many land parcels were owned by more than one person (e.g., a husband and wife), so in many cases there is not a gender associated with the land, and the survey data would only show the gender of the person who took the survey.
 - Age: The general population sample was weighted by this characteristic. Adult hunters' mean age is 51.6 years old (the means shown are *among adults*, as nobody under 18 years old was interviewed; had children been interviewed, the mean ages would be lower).
 Again, age is not shown for landowners for the same reason as discussed above regarding gender.
 - County of residence: This is shown for all three groups. (Note that some questions were based on the county in which the hunter most often hunted or the county in which the landowner's largest tract was located.) Region of residence is also shown.
 - A regional breakdown is shown of county of residence by where the hunter most often hunts.
 - For hunters, state of residence is shown (because just under 20% of hunters were from out of state).
 - Education: This is shown for the general population sample and for hunters; the latter group is slightly less educated than the general population. Education is not shown for landowners for the same reason as discussed above regarding gender and age.
 - Residential character of where the respondent lives: Rural areas and small cities/towns predominate among the general population of Maine as well as among hunters. Because a criteria for the survey among landowners was ownership of a tract at least 25 acres, rural areas predominate. (Note that some landowners did not live on their property that was the subject of the survey; ergo, the small percentage that live in an urban area/suburban area or a small city/town. Most, however, lived on the tract about which the survey asked.)

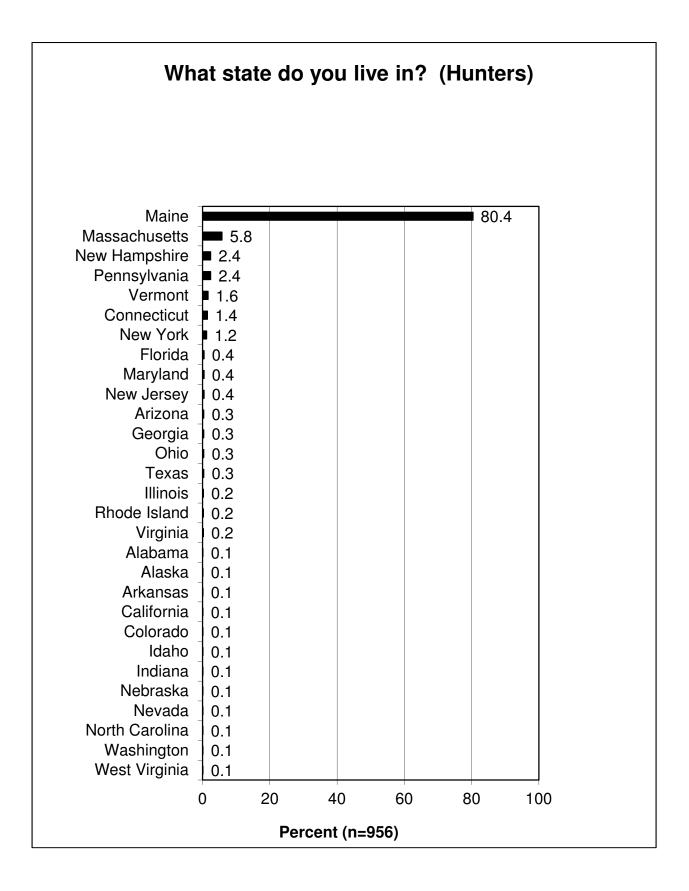


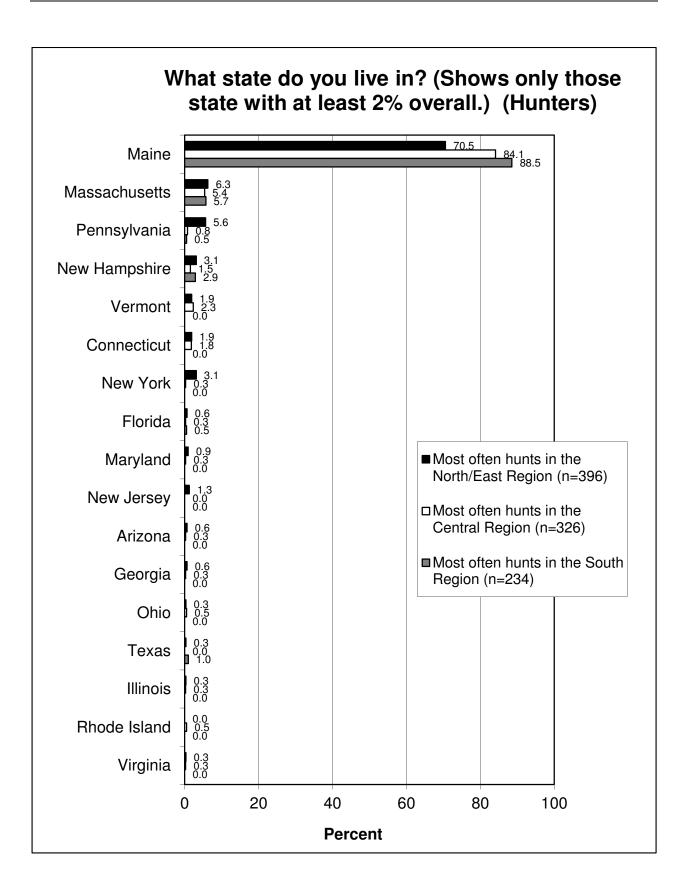


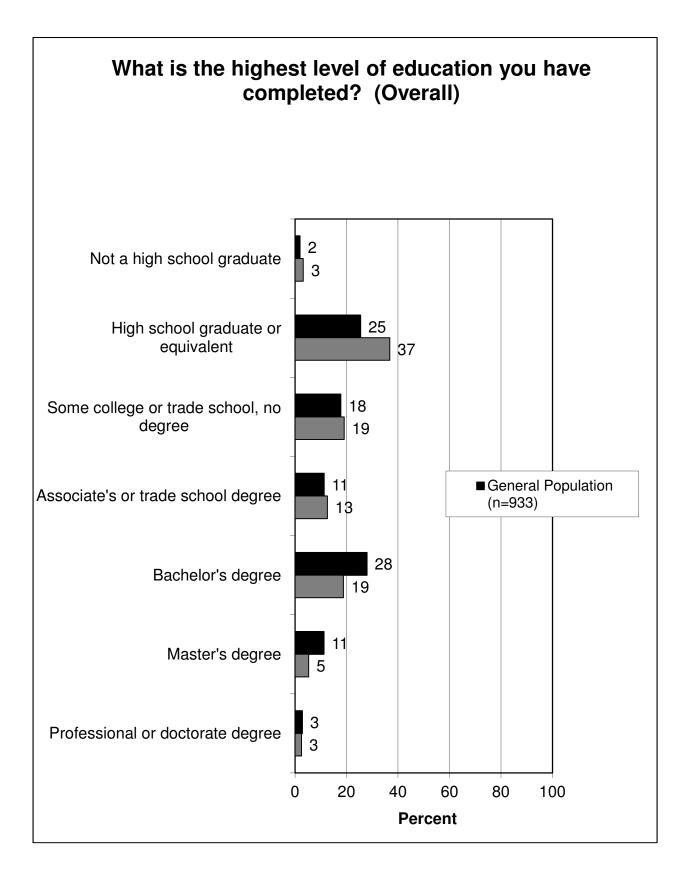


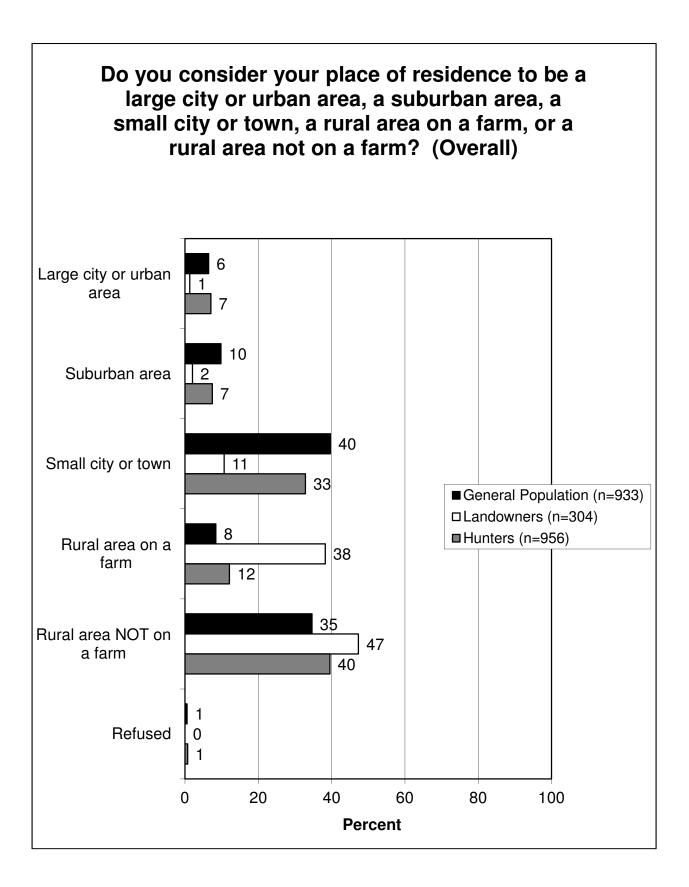












APPENDIX A: ALL REGIONAL RESULTS

This appendix has three main sections: the first presents the regional results of the general population survey, the second of the landowner survey, and the third of the hunter survey. Each of these three sections is organized in the same way as the body of the report, with the graphs presented in sub-sections based on theme, as shown below, with the questions in each section as indicated. Note, however, that some sub-sections are not included under a particular survey when the questions in that sub-section were not asked of a particular group. For instance, the general population was not asked about satisfaction/dissatisfaction with hunting, so this sub-section is not within the general population section.

Interest in and Knowledge of Wildlife

Overall interest in wildlife. Feelings about wildlife around home. Level of knowledge about each species.

Participation in Hunting

Where hunted. Participation in deer, moose, bear, and turkey hunting. Reasons for hunting deer, moose, bear, and turkey. Applying for moose permits.

Satisfaction and Dissatisfaction With Hunting

Satisfaction with deer, moose, bear, and turkey hunting. Reasons for not being more satisfied.

Constraints to Hunting

Constraints to deer hunting. Reasons for not hunting deer, moose, bear, and turkey.

Opinions on Hunting

Approval/disapproval of hunting. Support for/opposition to hunting to help manage species/land. Support for/opposition to hunting bear for various reasons.

Hunting Access

Hunters: ratings of access. Whether lack of access has been constraint to hunting participation. Landowners: allowing access on land. Types of access allowed. Reasons for not allowing access.

Hunting Licensing and Fees

Whether cost of hunting fees is too much. Whether separate purchase requirements inhibit hunting.

Opinions on Regulations and Specific Aspects of Hunting

Opinions on the 3-point rule. Which month preferred for moose hunting. Why that month is preferred. Opinion on a split moose season. Opinions regarding tradeoff on number of permits versus chance of harvest. Support for/opposition to coyote management.

Land Management in General

Whether landowners actively manages land for wildlife.

Deer Management

Ratings of deer management. Opinions on the size of the deer population. Why the deer population should be decreased. Support for increasing deer population with various caveats. Factors to be considered in managing deer. Support for/opposition to hunting as a way to manage deer. Support for/opposition to various methods to control deer. Opinions on deer and moose tradeoffs.

Moose Management

Ratings of moose management. Opinions on the size of the moose population. Support for increasing moose population with various caveats. Factors to be considered in managing moose. Support for/opposition to hunting as a way to manage moose. Opinion on adjusting moose harvest for health of the moose population. Opinion on moose hunting in southern Maine.

Bear Management

Ratings of bear management. Opinions on the size of the bear population. Support for increasing bear population with various caveats. Factors to be considered in managing bear. Support for/opposition to hunting as a way to manage bear. Opinion on allowing bear populations to expand south.

Turkey Management

Ratings of turkey management. Opinions on the size of the turkey population. Support for increasing turkey population with various caveats. Factors to be considered in managing turkey. Support for/opposition to hunting as a way to manage turkey. Opinion on methods to control turkey if they become overabundant.

Problems With Wildlife

Experiencing problems with wildlife. Which wildlife caused problems.

Demographic Data

Gender. Age. Education. Residential character of where residence is located.

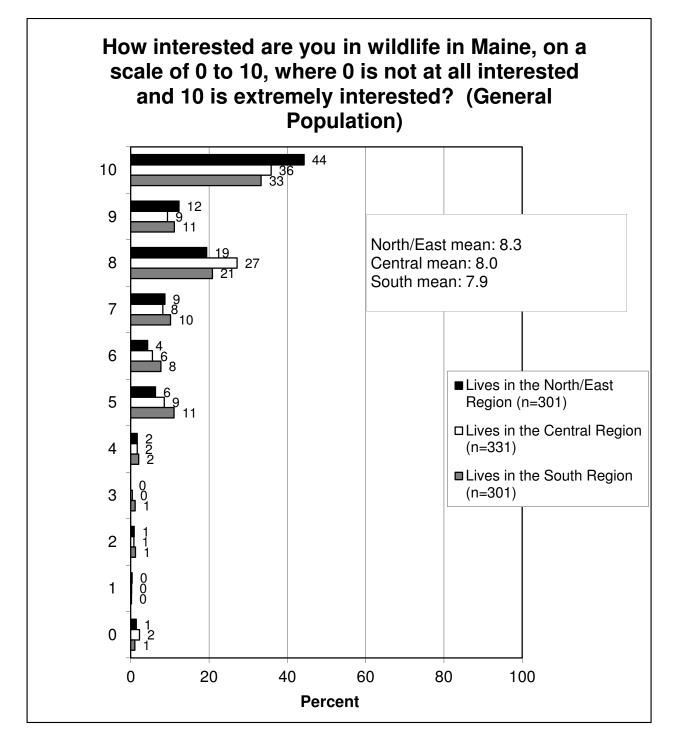
GENERAL POPULATION SURVEY

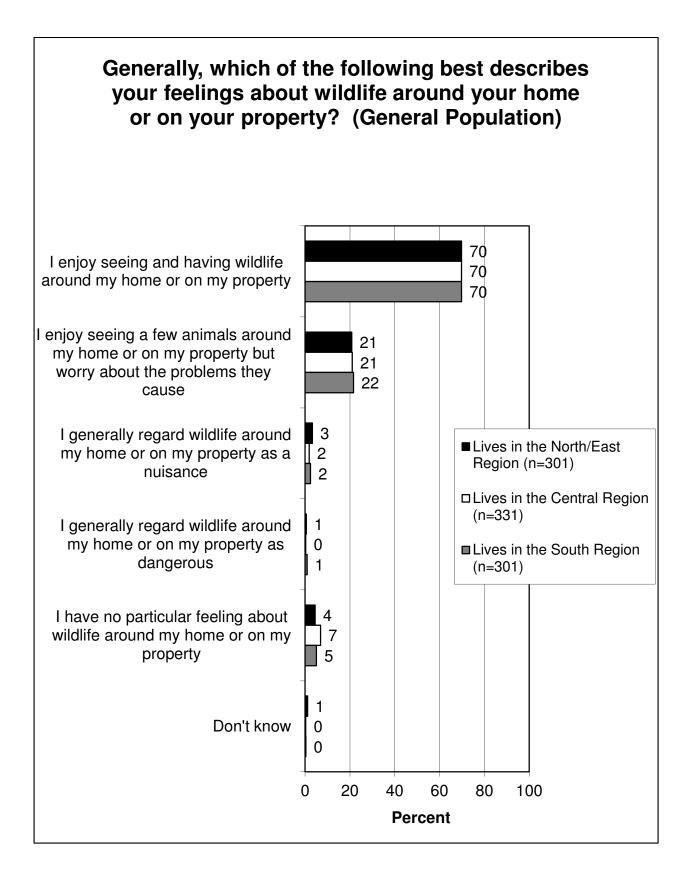
Interest in and Knowledge of Wildlife—General Population

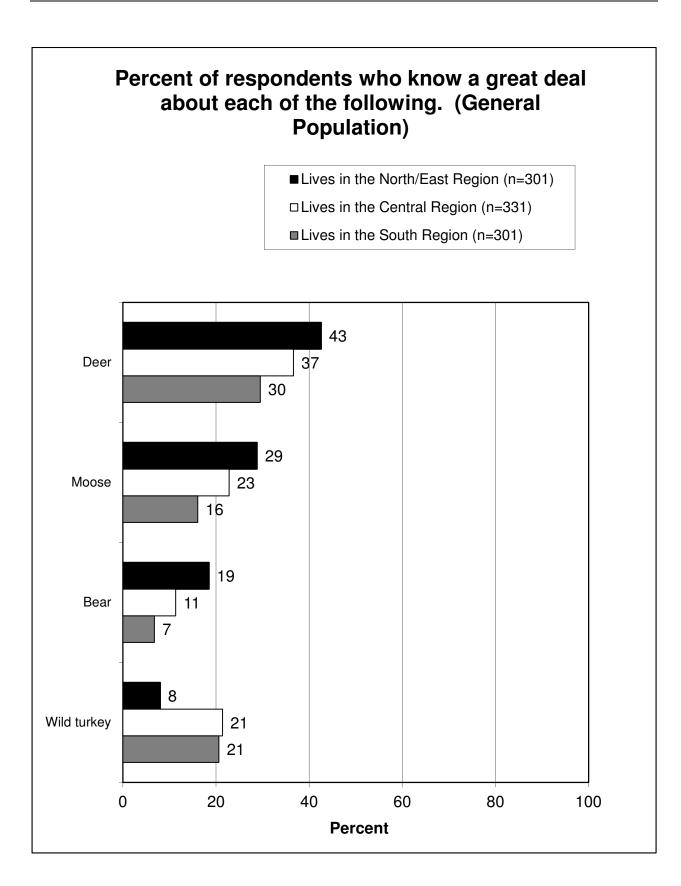
Overall interest in wildlife.

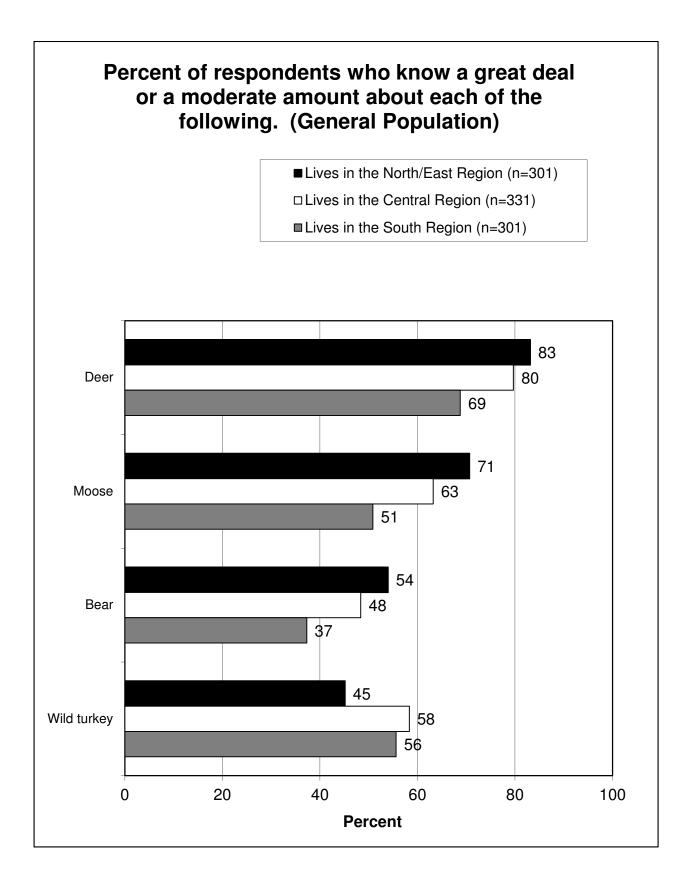
Feelings about wildlife around home.

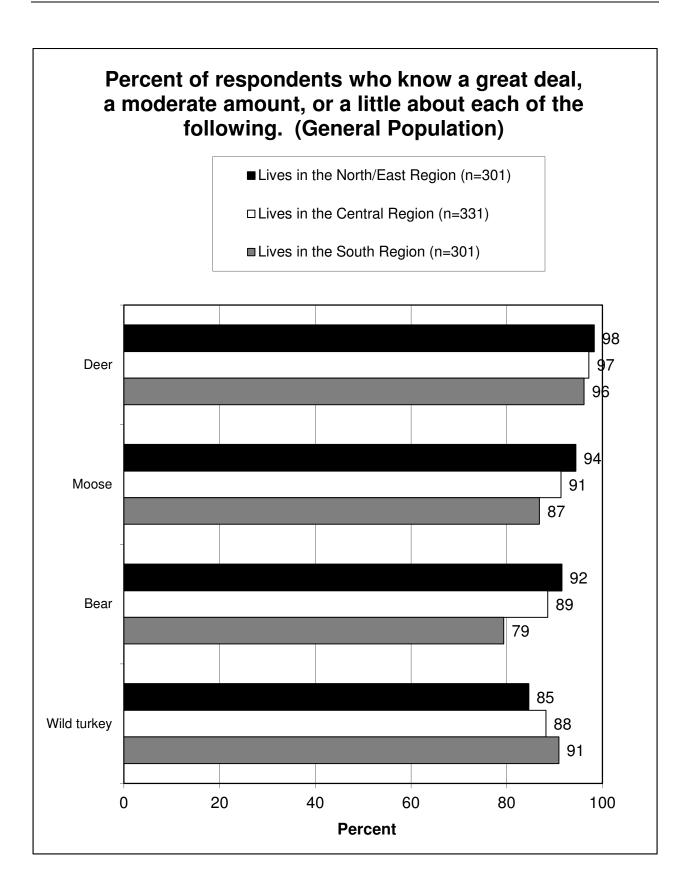
Level of knowledge about each species.

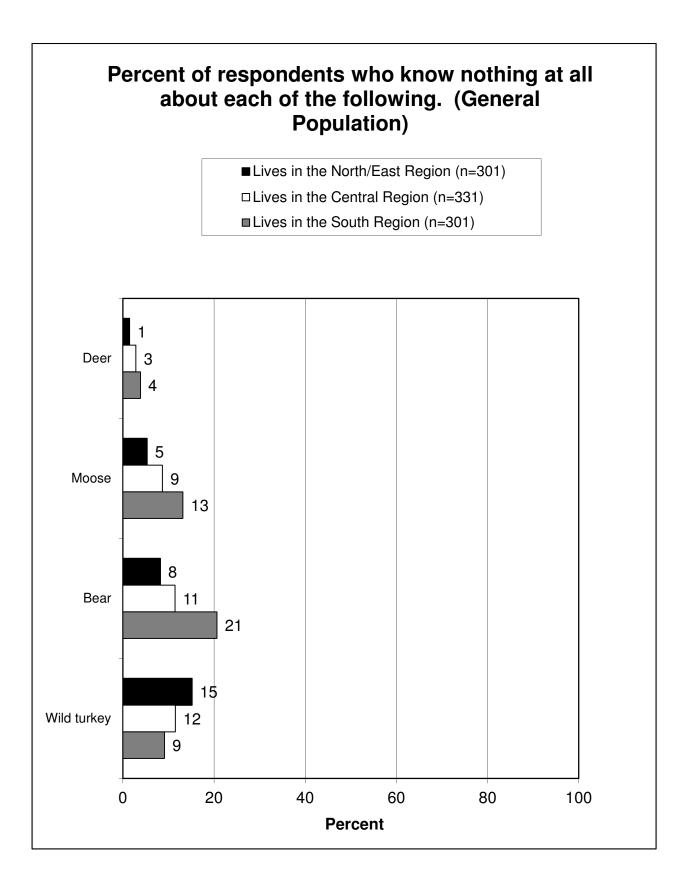






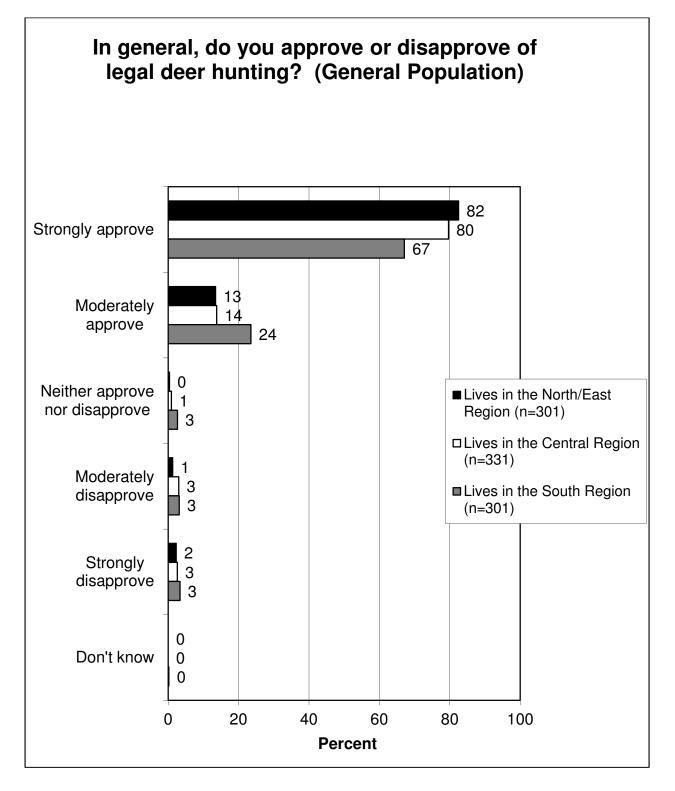


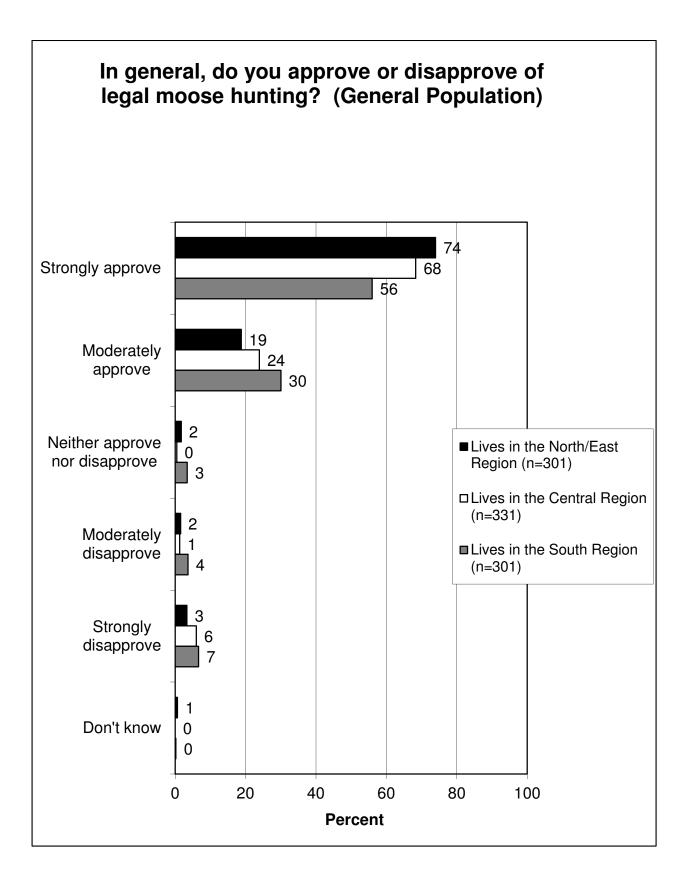


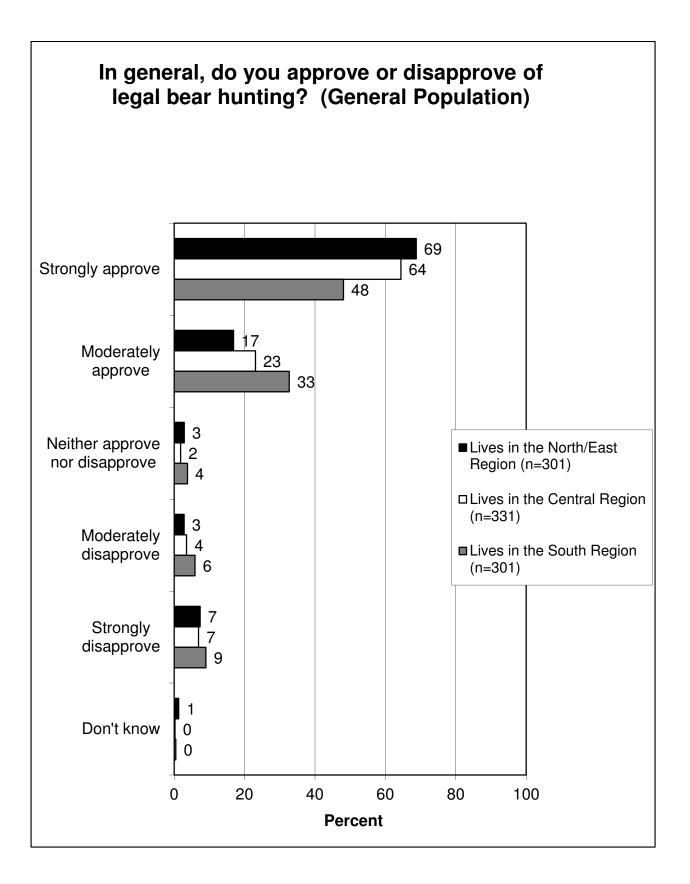


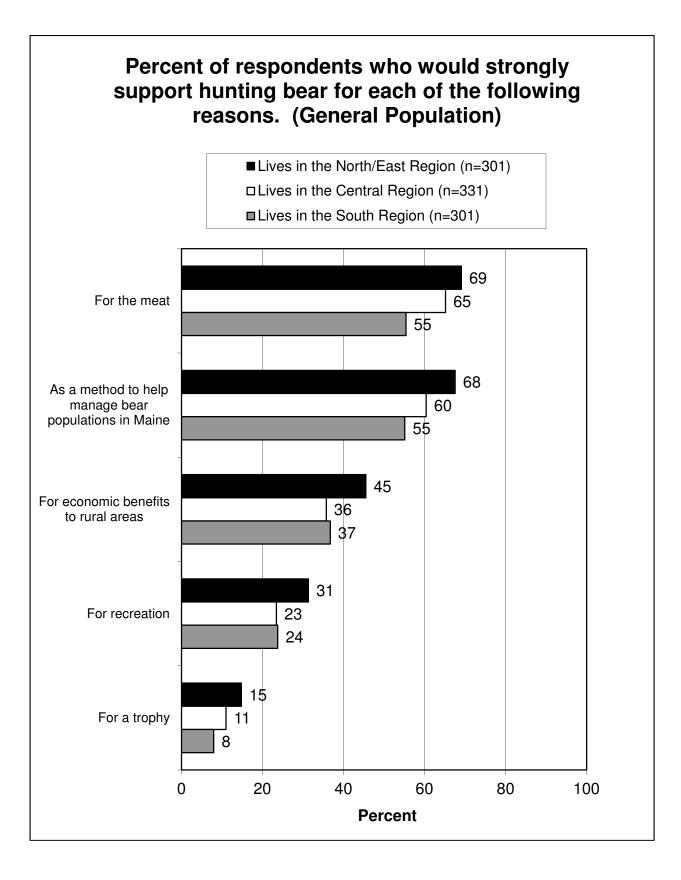
Opinions on Hunting—General Population

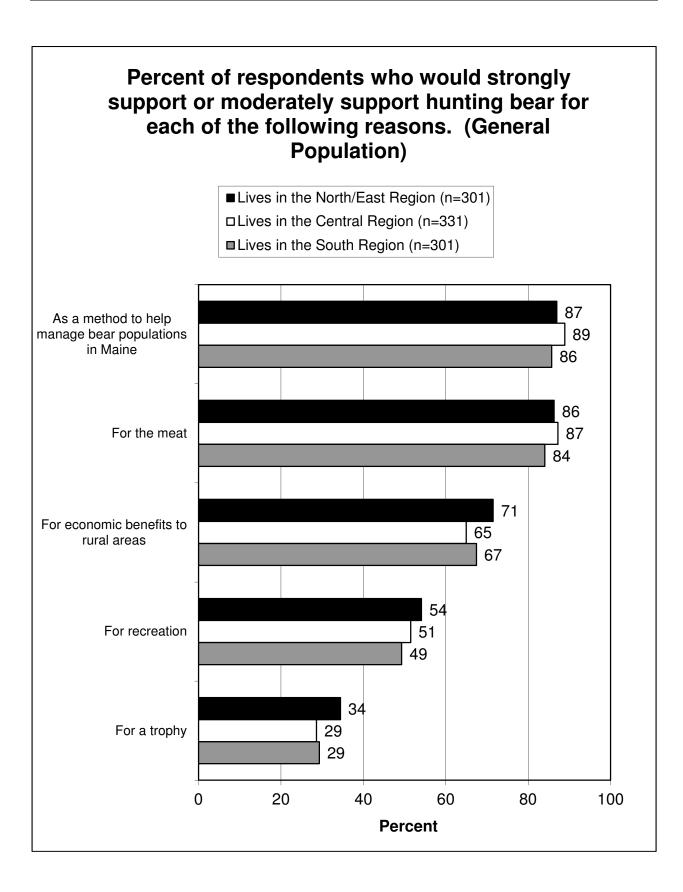
Approval/disapproval of hunting. Support for/opposition to hunting bear for various reasons.

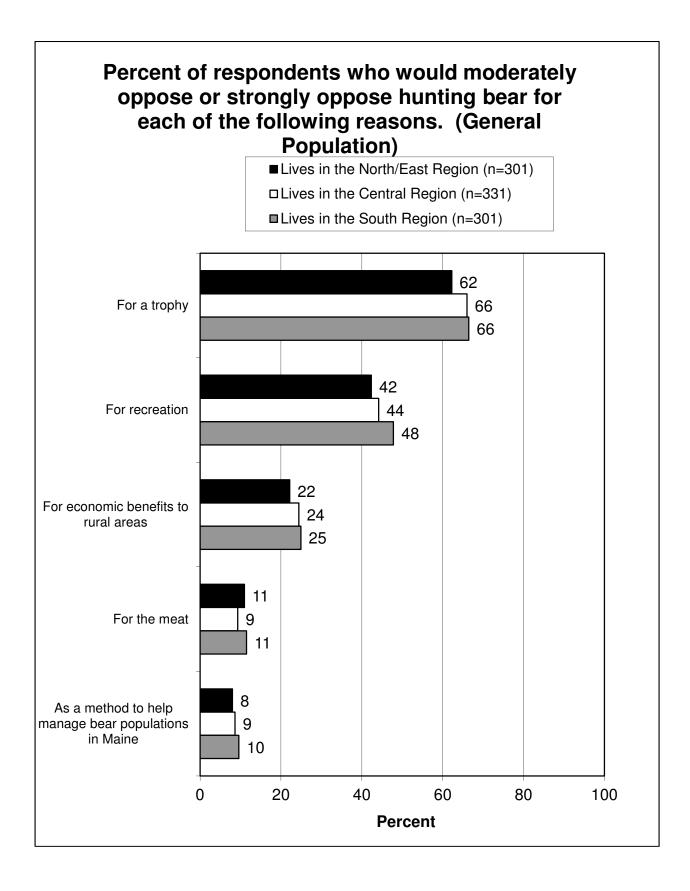


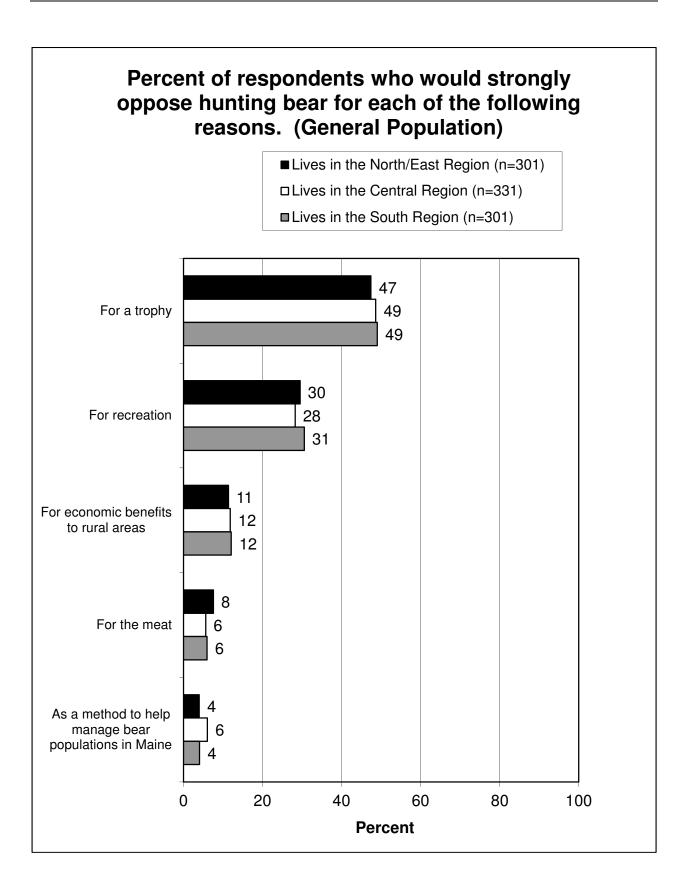


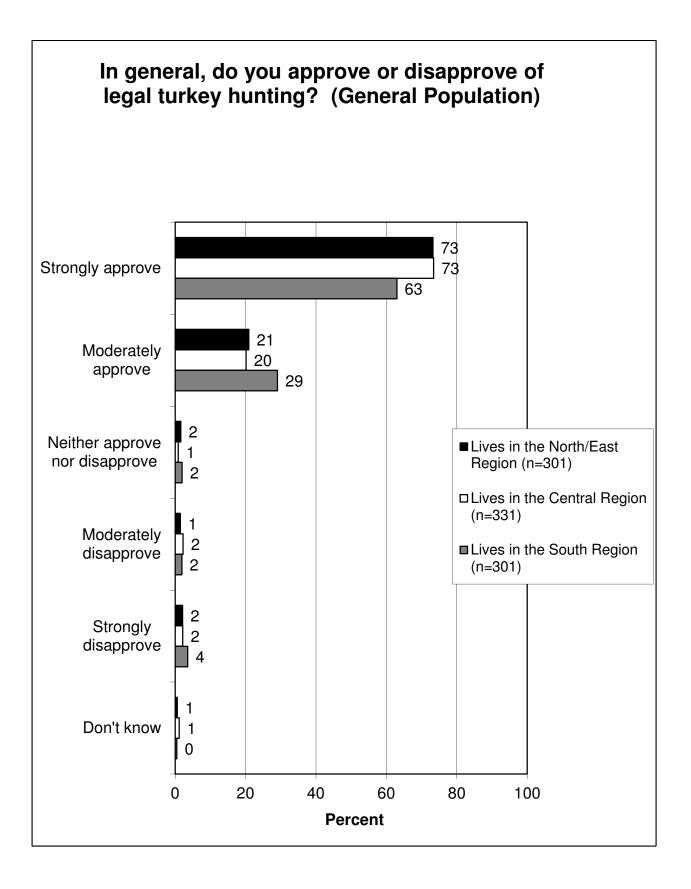






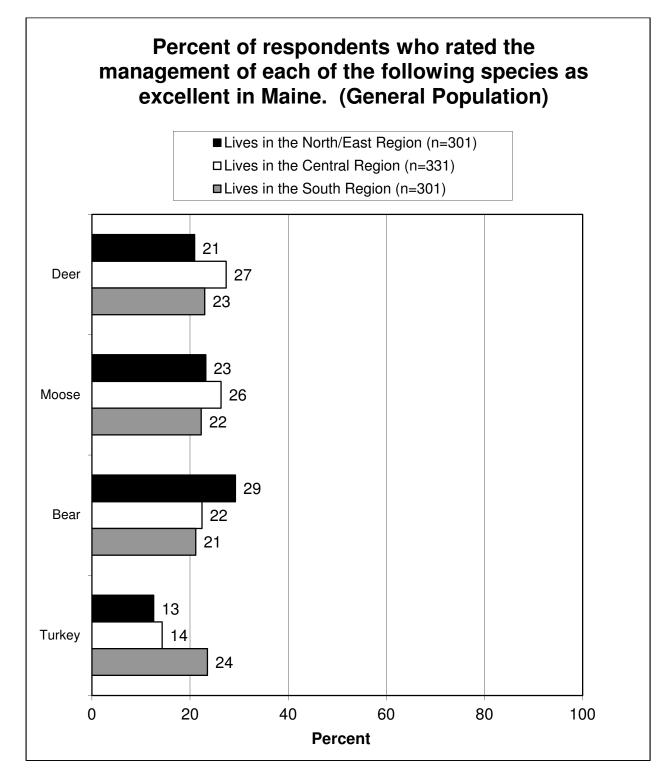


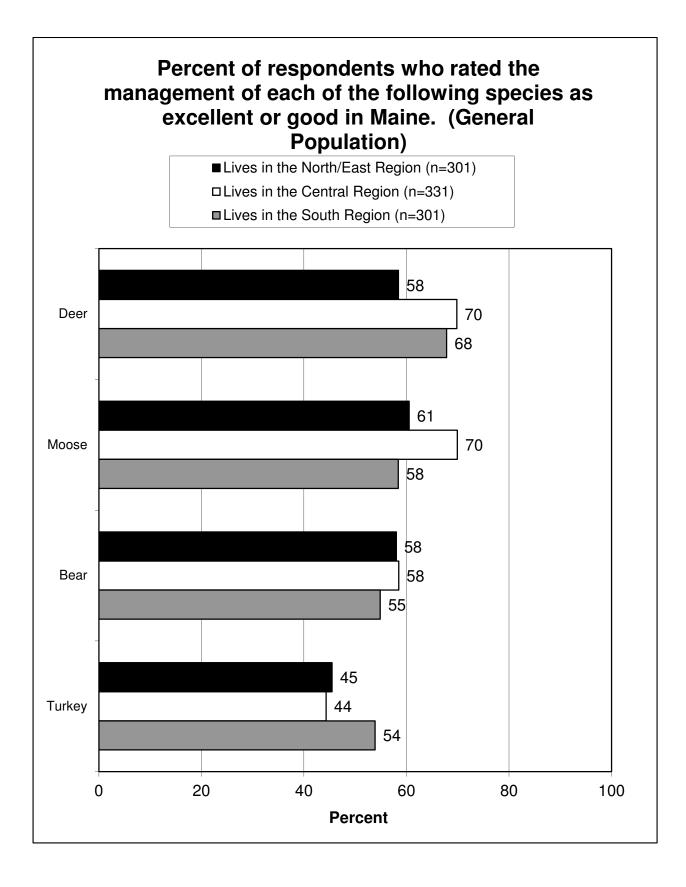


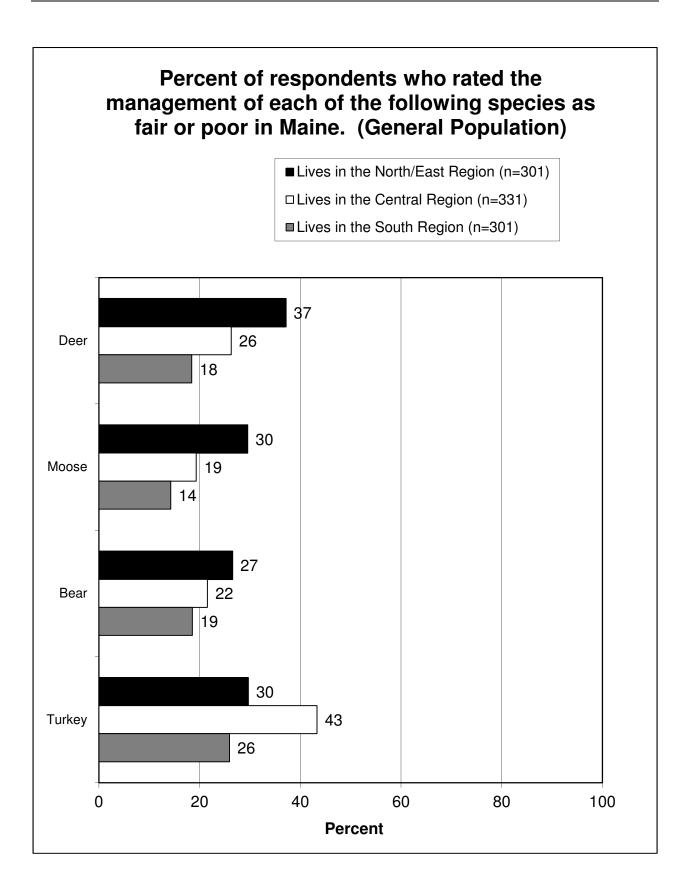


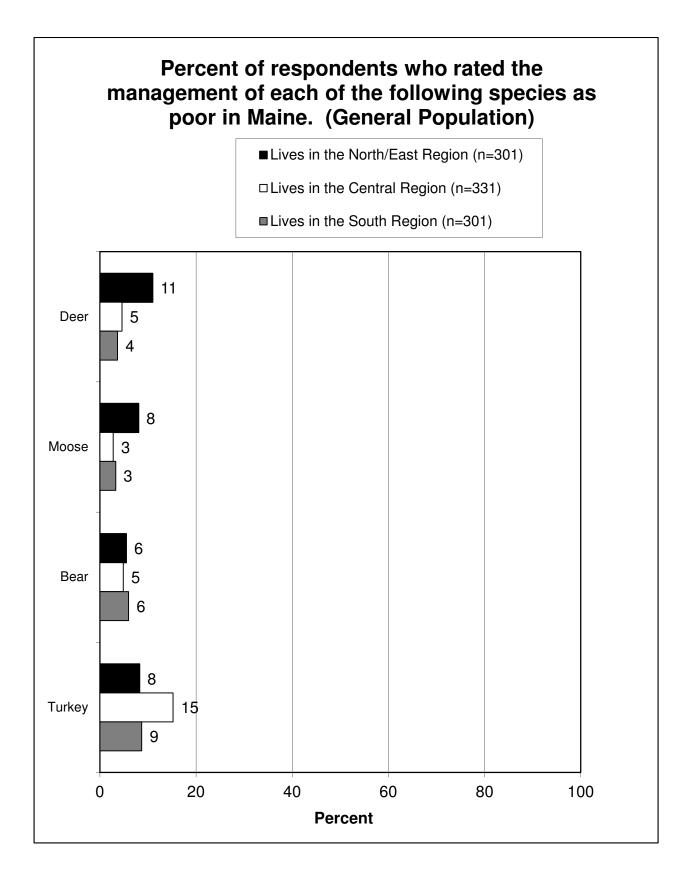
Land Management in General—General Population

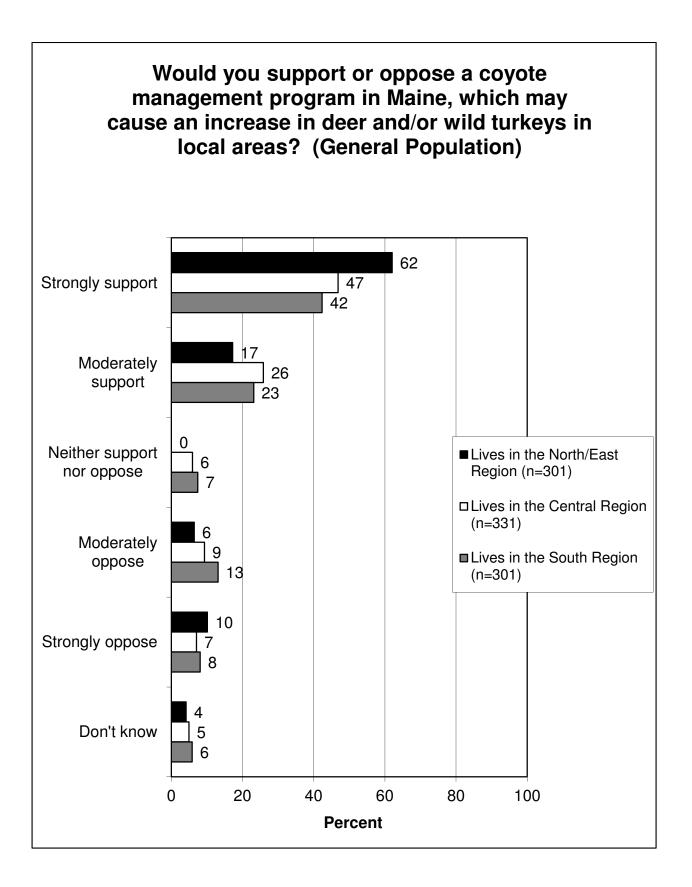
Opinions on management of all four species shown together. Support for/opposition to coyote management.





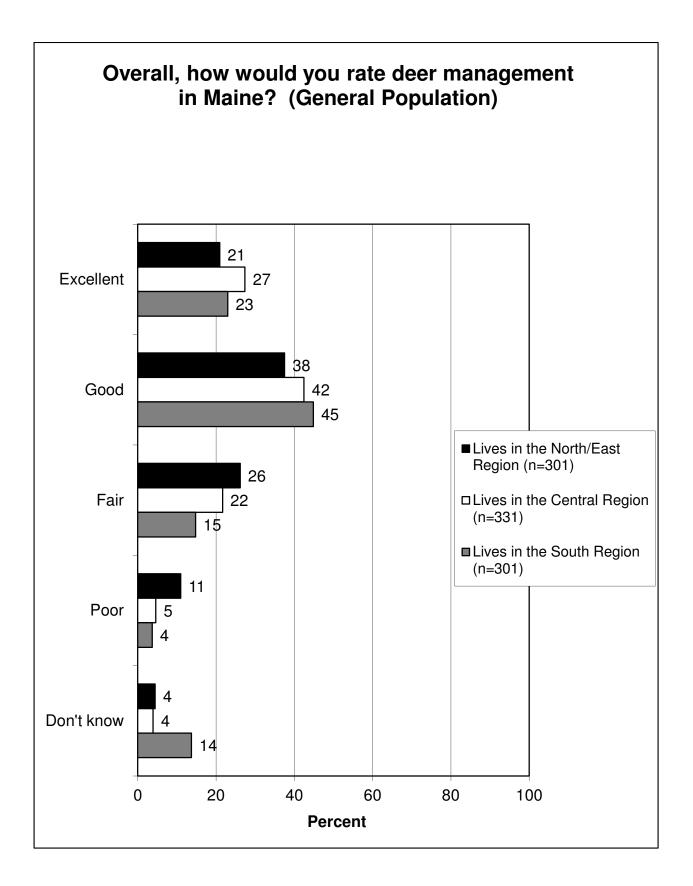


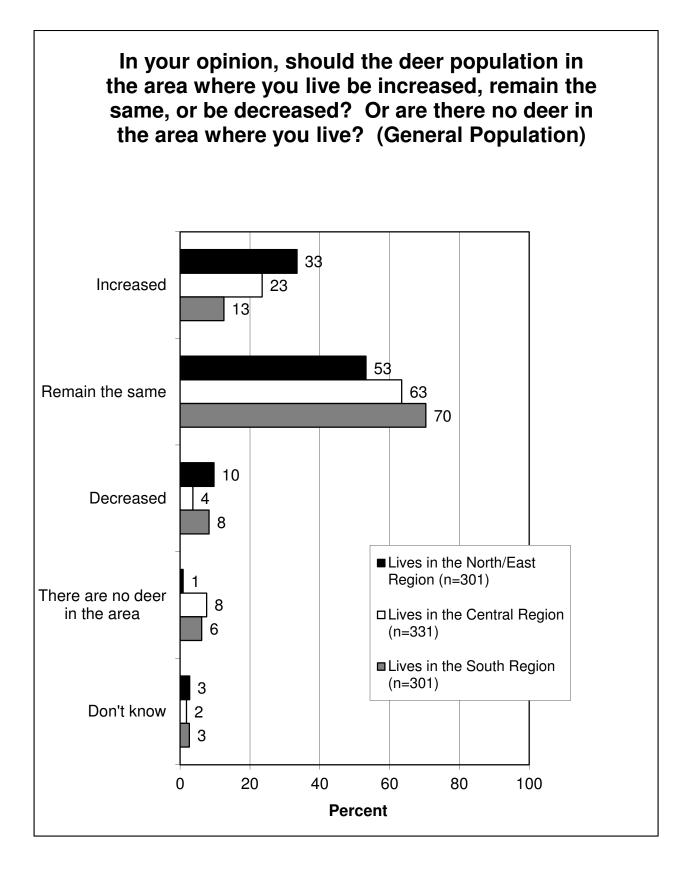


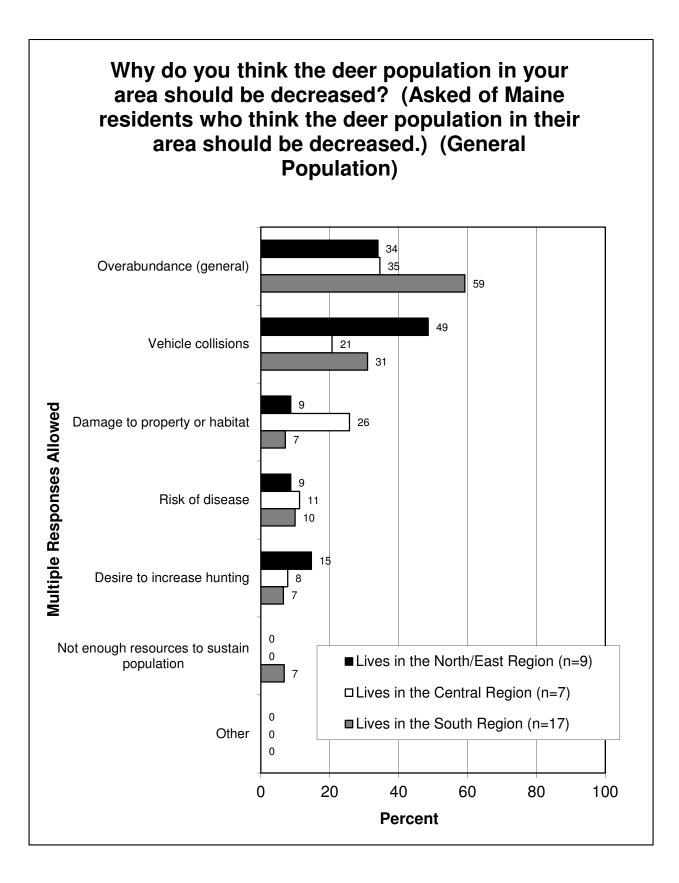


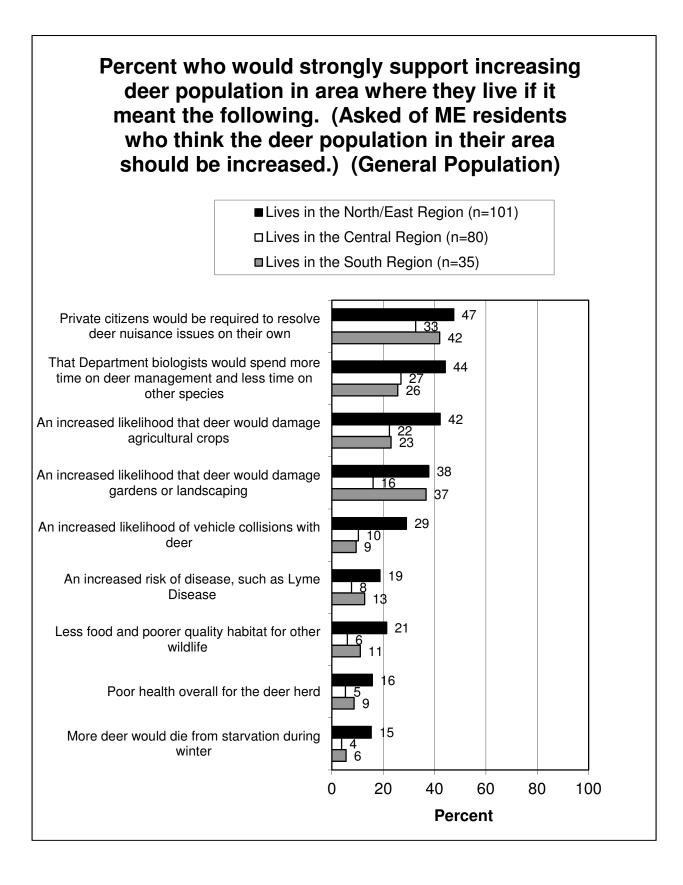
Deer Management—General Population

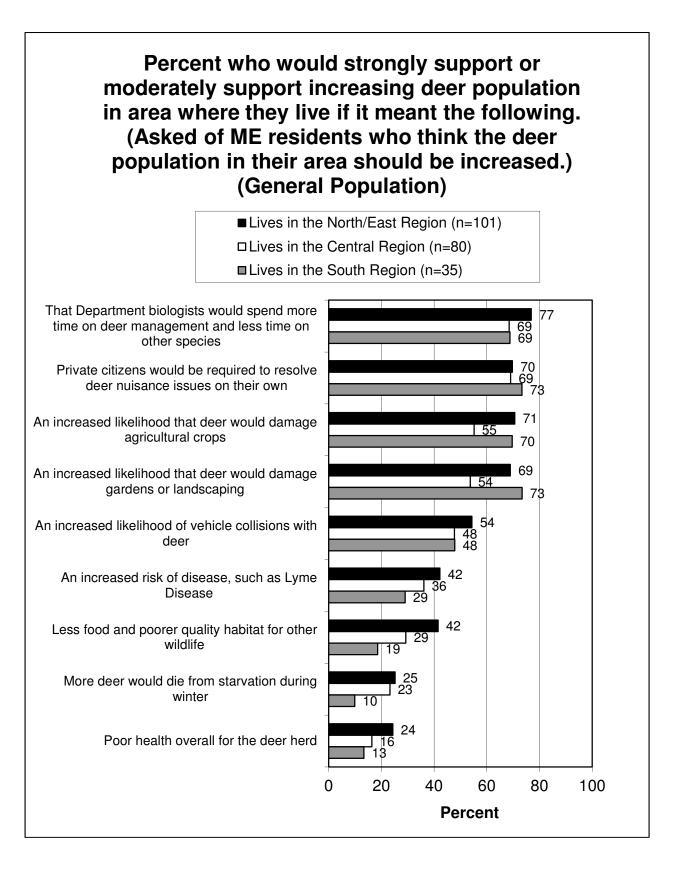
Ratings of deer management. Opinions on the size of the deer population. Why the deer population should be decreased. Support for increasing deer population with various caveats. Factors to be considered in managing deer. Support for/opposition to hunting as a way to manage deer. Support for/opposition to various methods to control deer. Opinions on deer and moose tradeoffs.

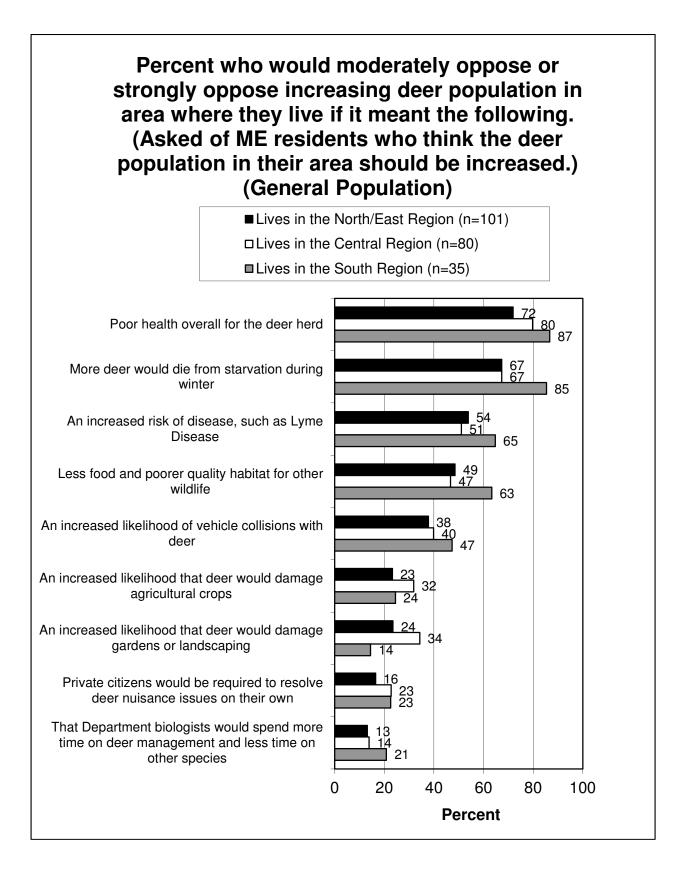


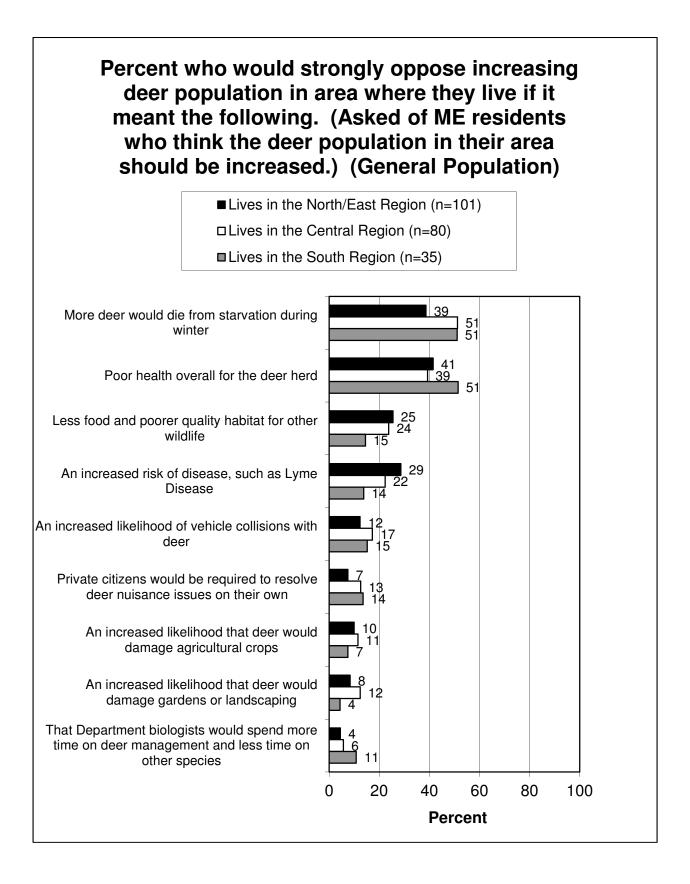


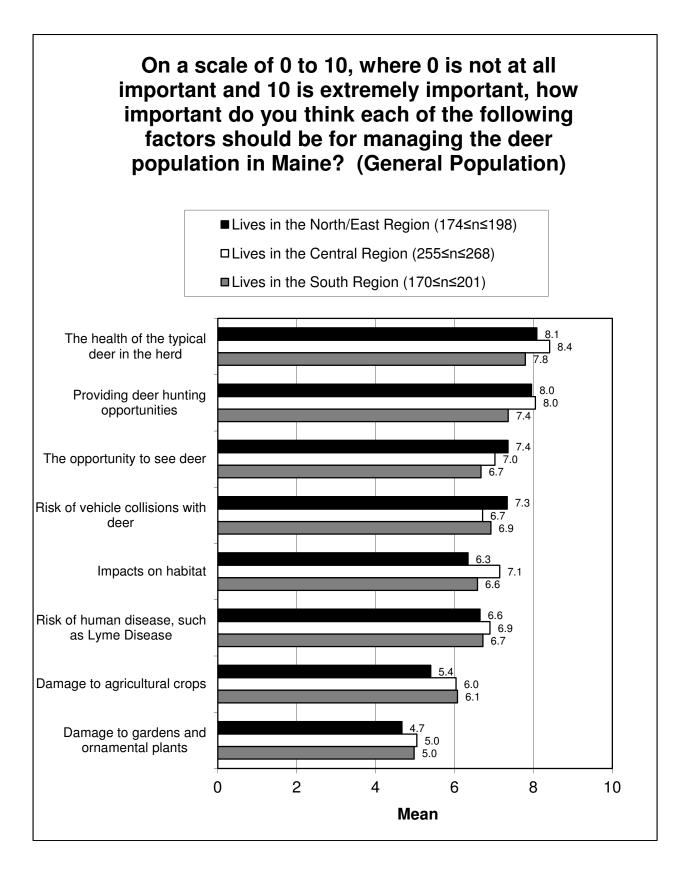


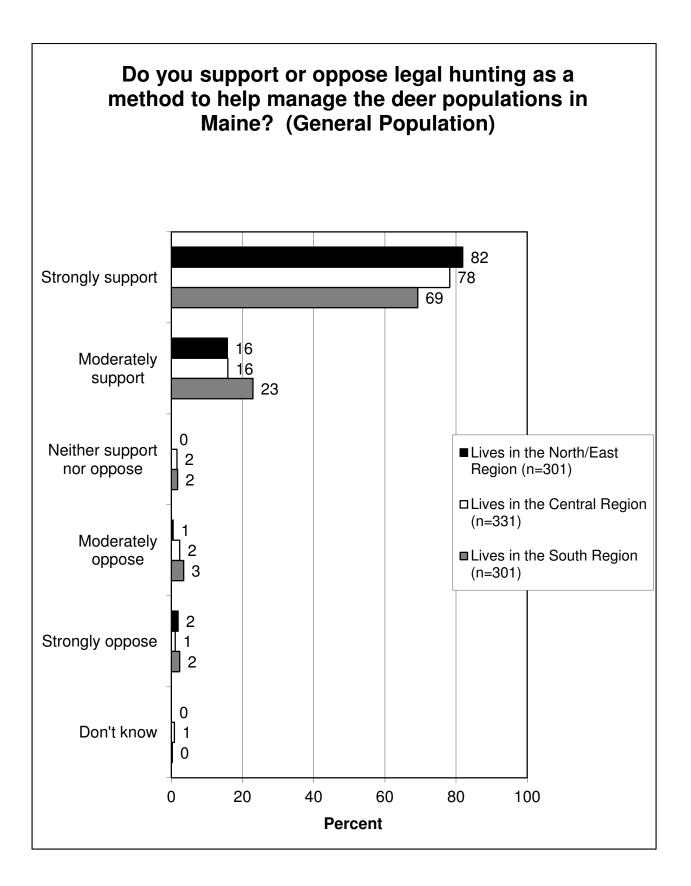


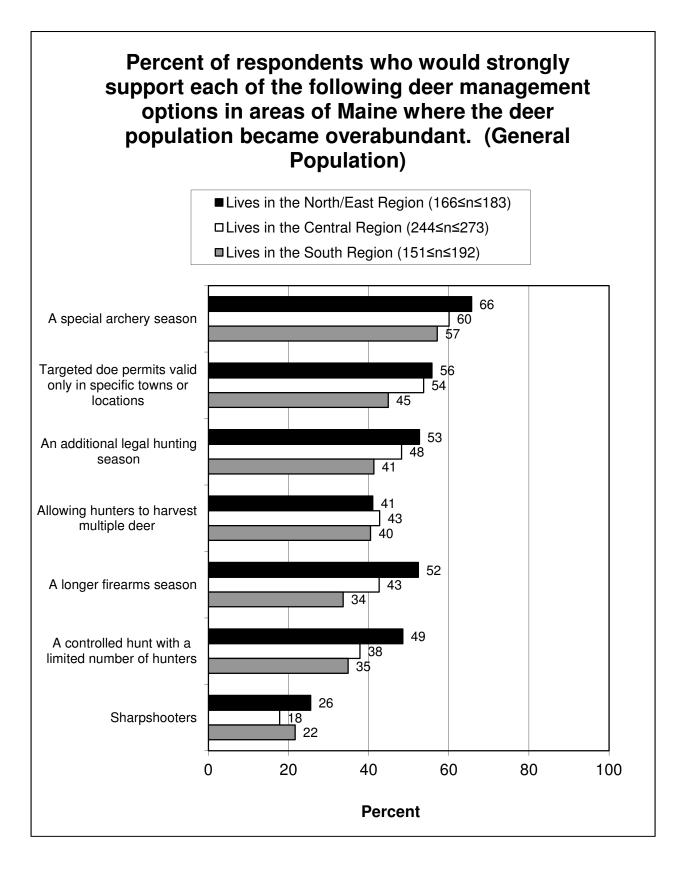


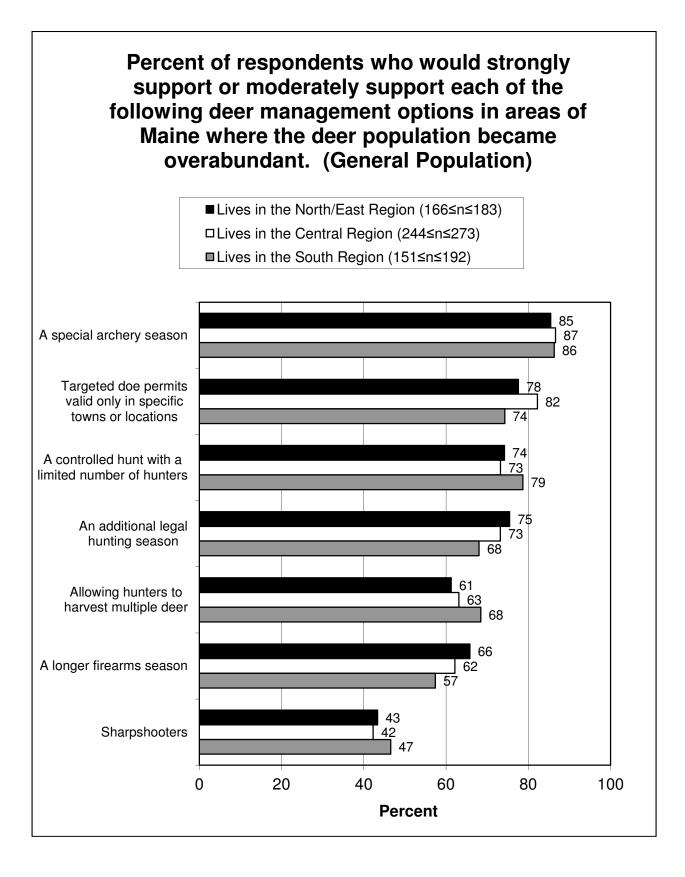


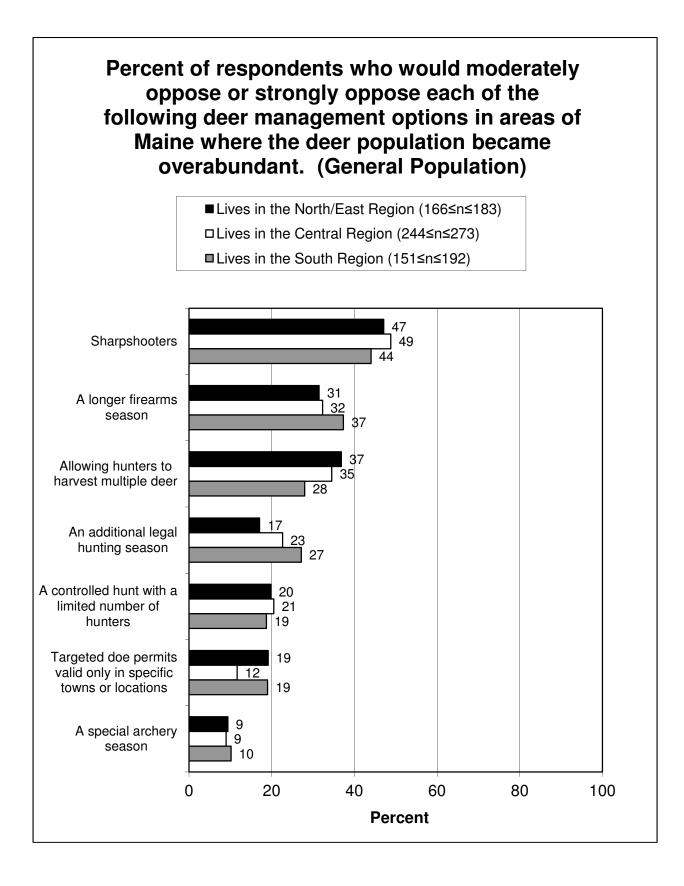


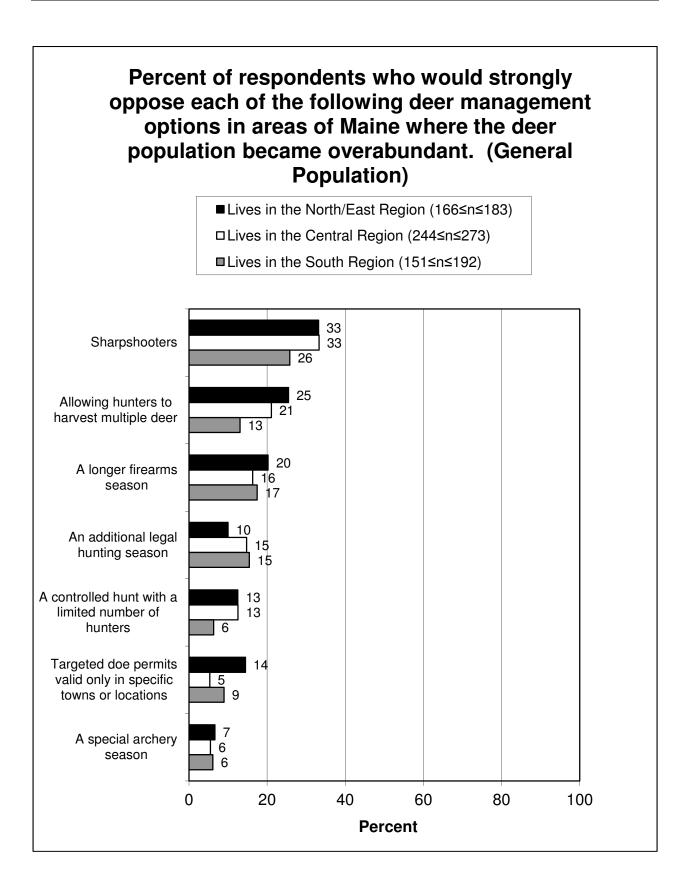


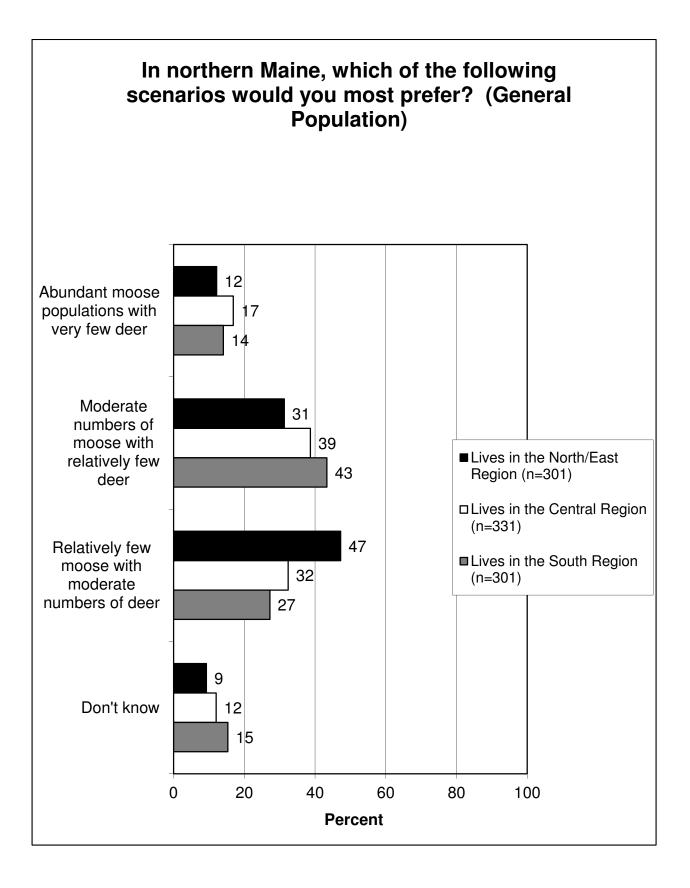












Moose Management—General Population

Ratings of moose management.

Opinions on the size of the moose population.

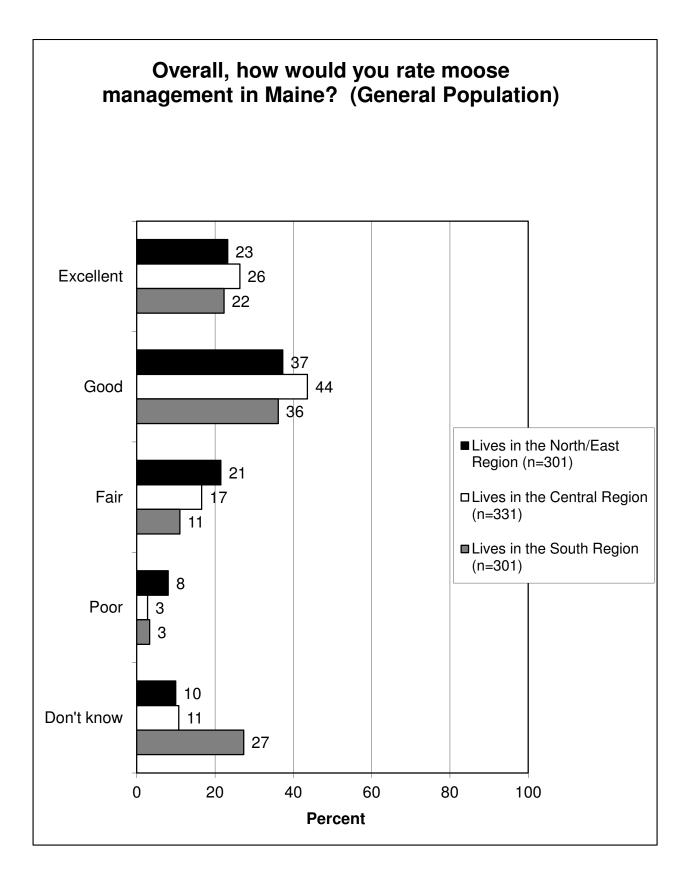
Support for increasing moose population with various caveats.

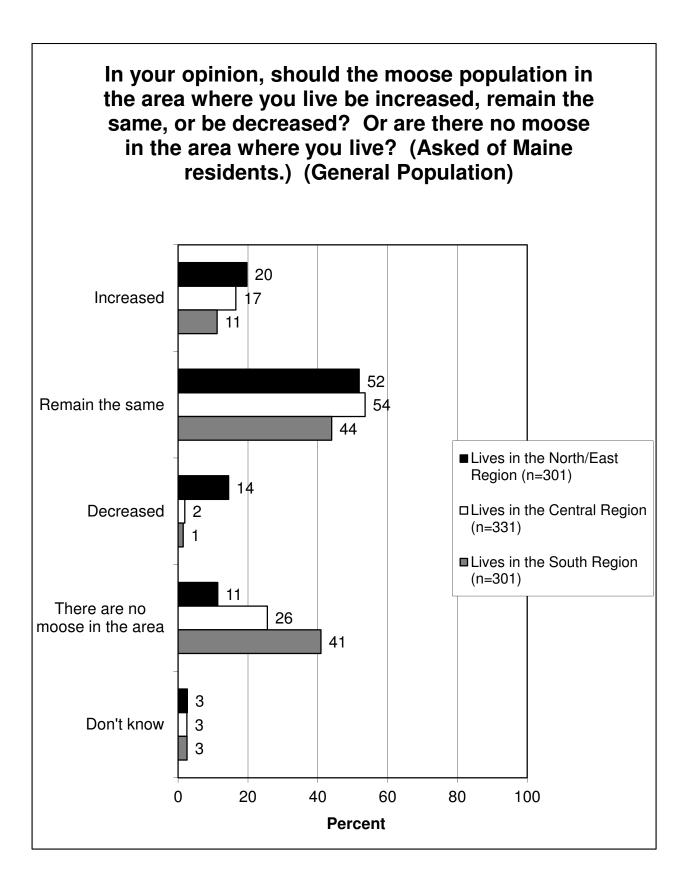
Factors to be considered in managing moose.

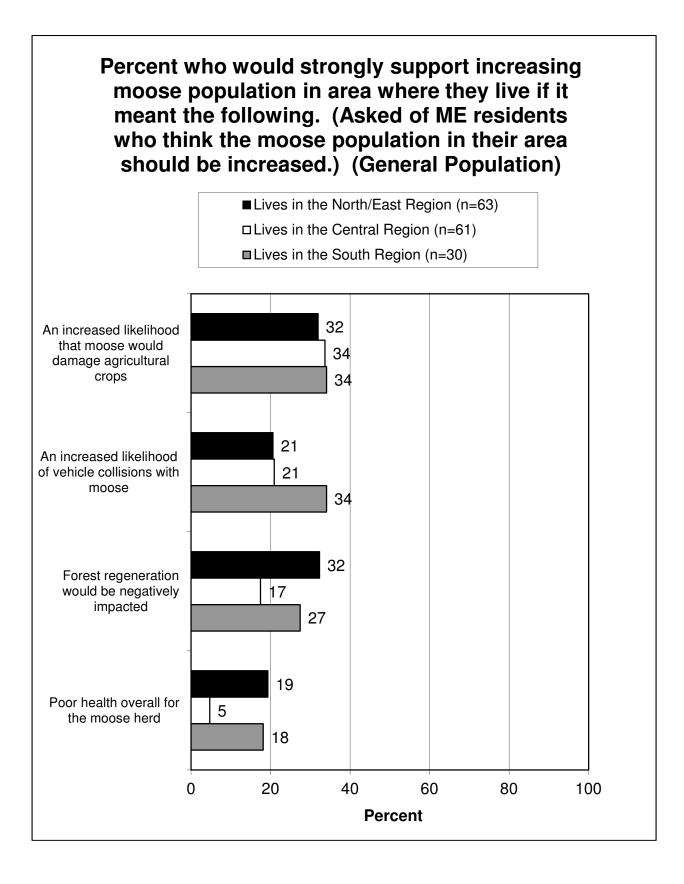
Support for/opposition to hunting as a way to manage moose.

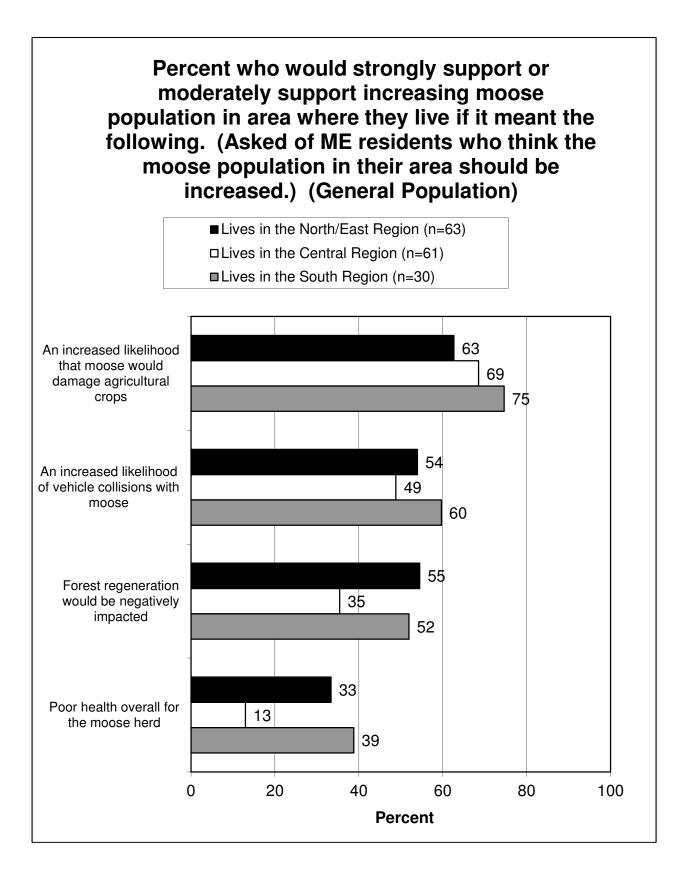
Opinion on adjusting moose harvest for health of the moose population.

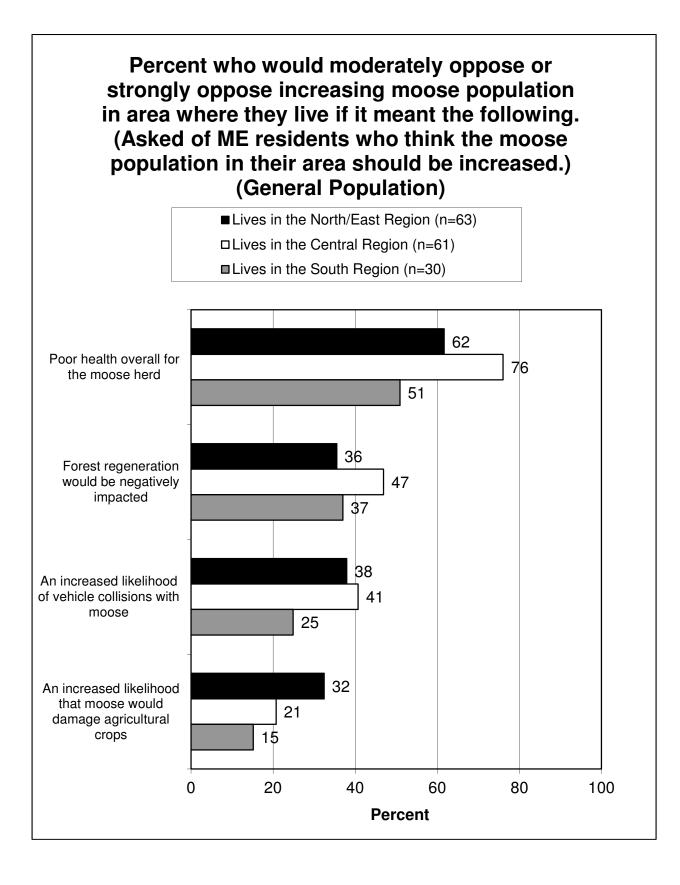
Opinion on moose hunting in southern Maine.

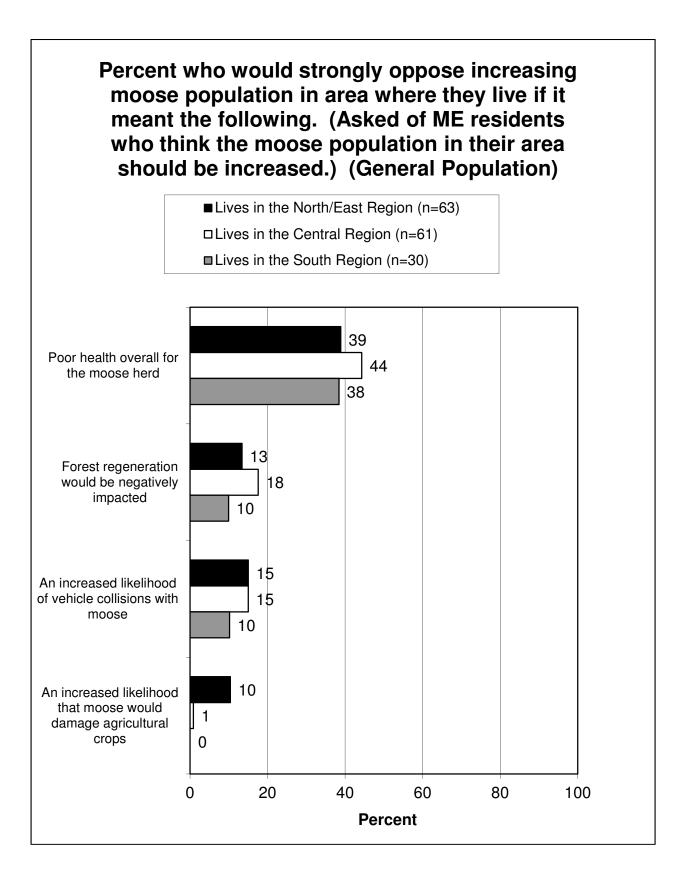


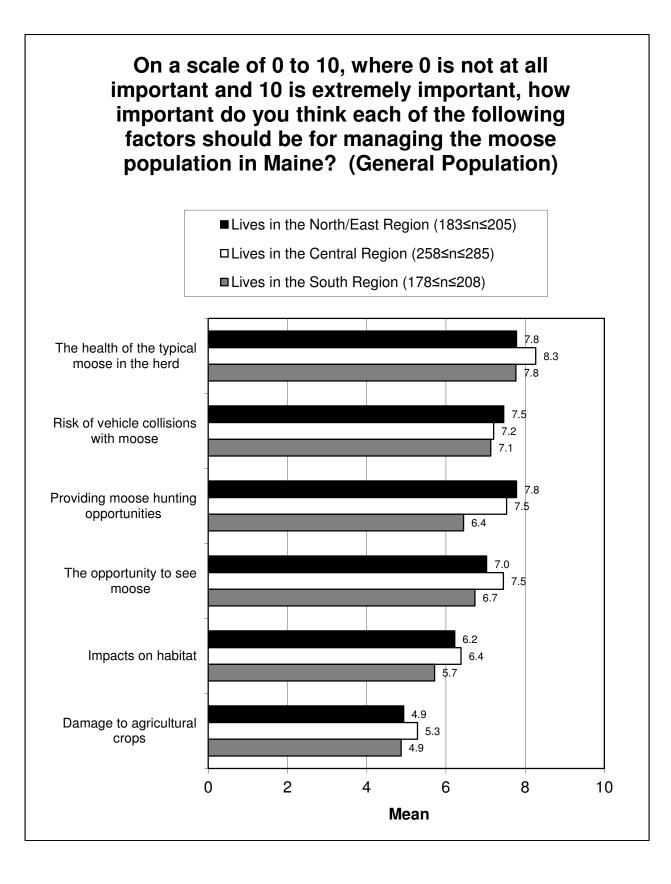


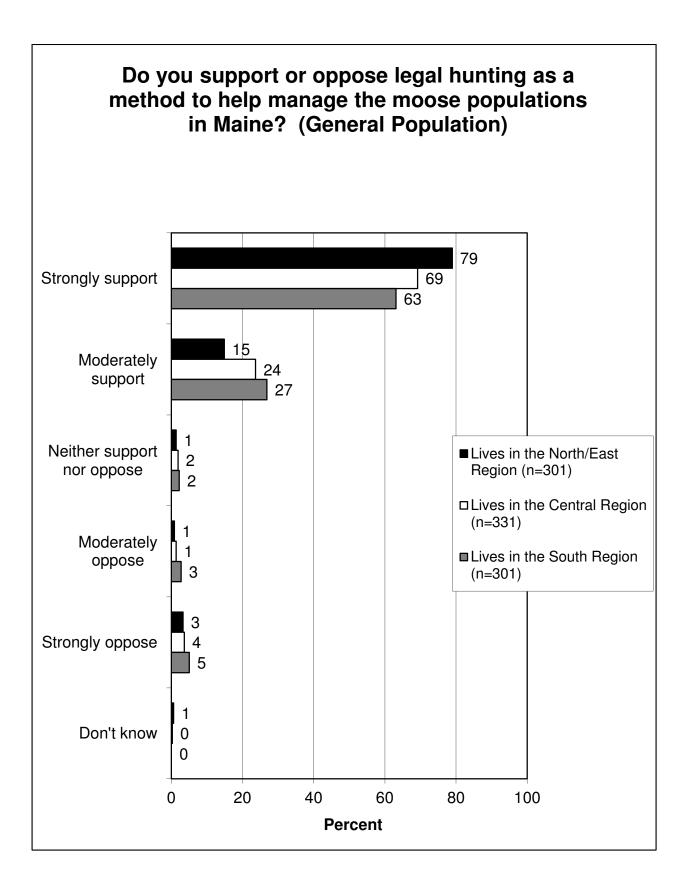


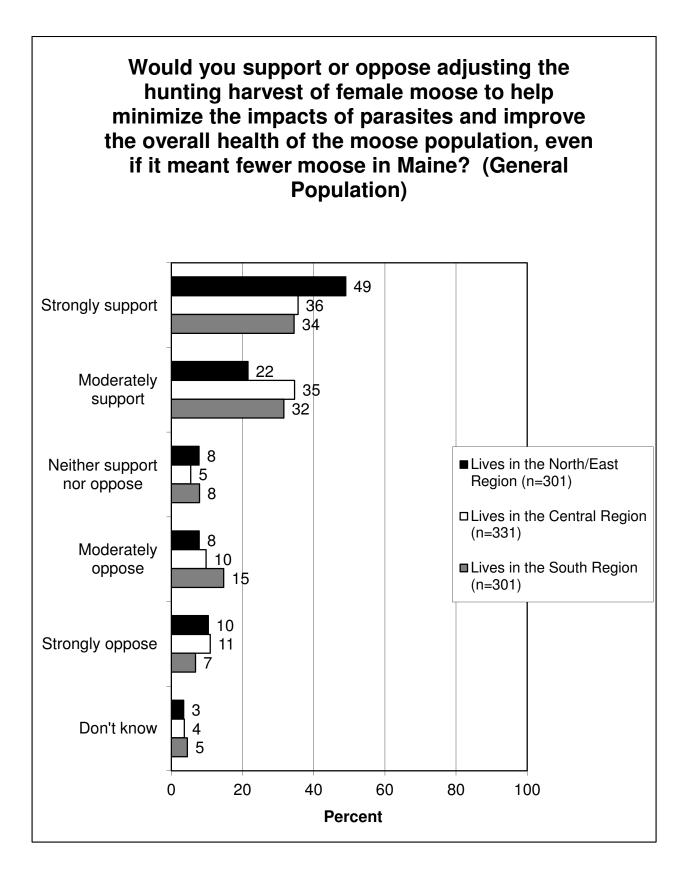


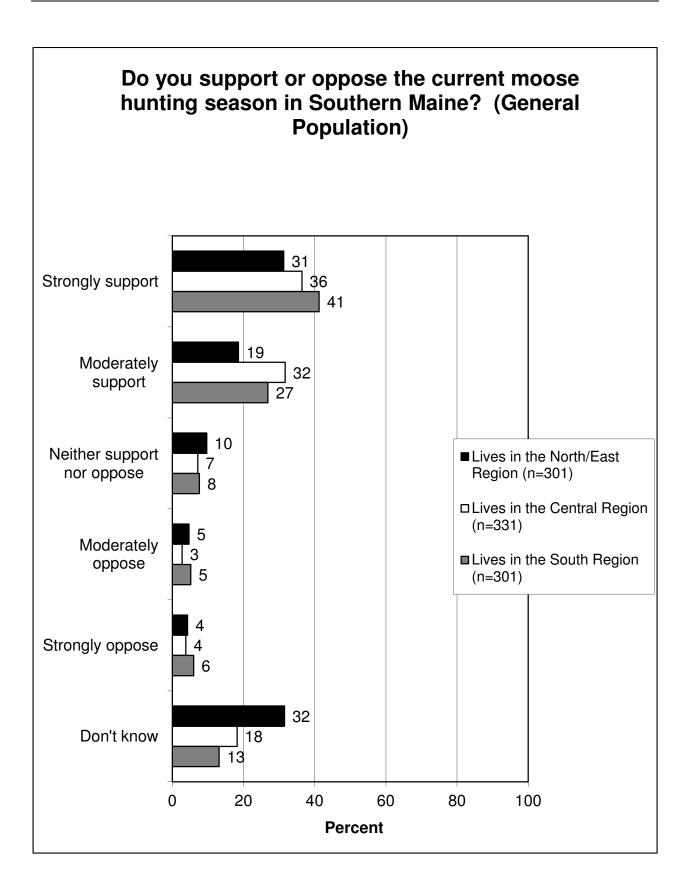












Bear Management—General Population

Ratings of bear management.

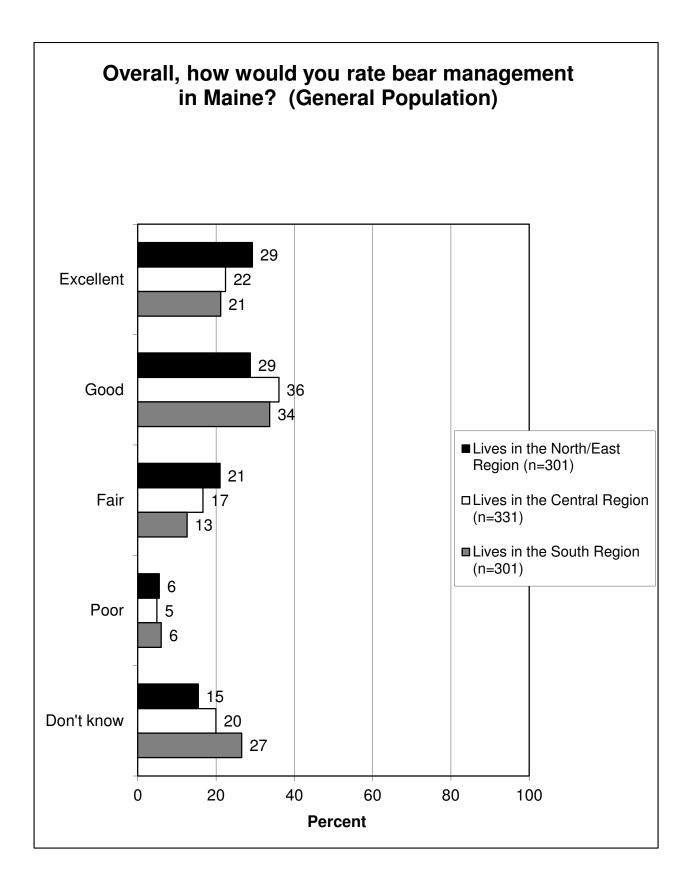
Opinions on the size of the bear population.

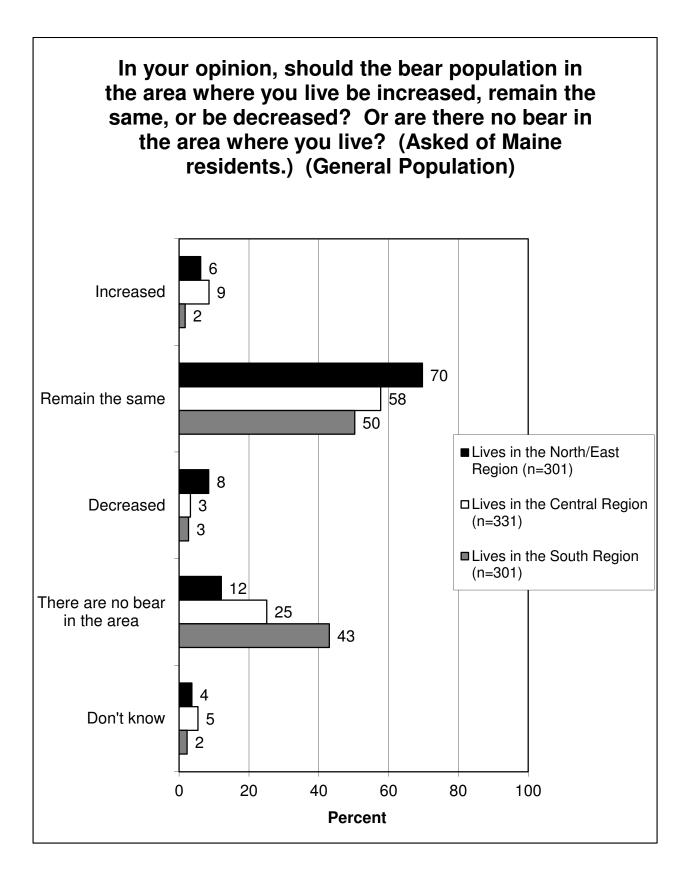
Support for increasing bear population with various caveats.

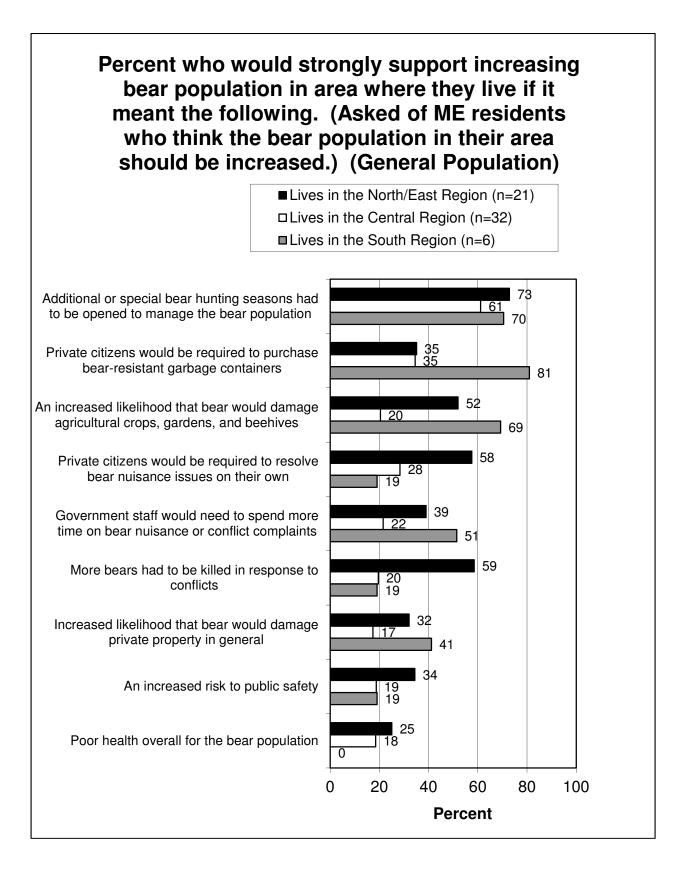
Factors to be considered in managing bear.

Support for/opposition to hunting as a way to manage bear.

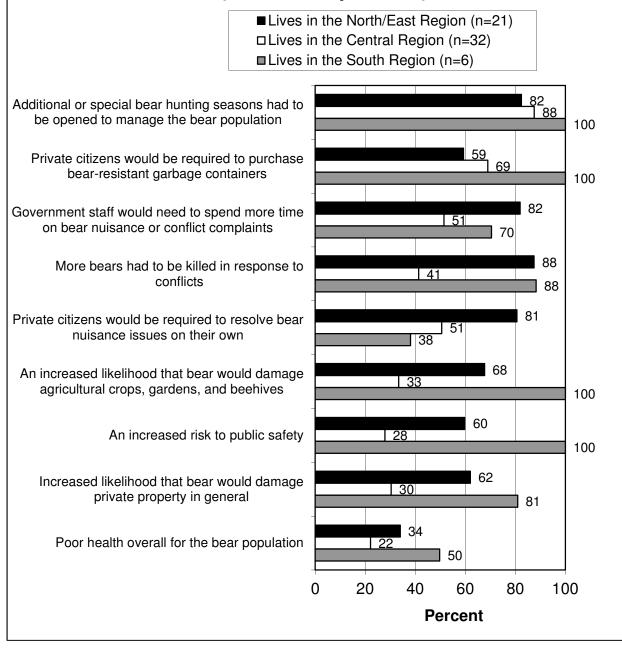
Opinion on allowing bear populations to expand south.

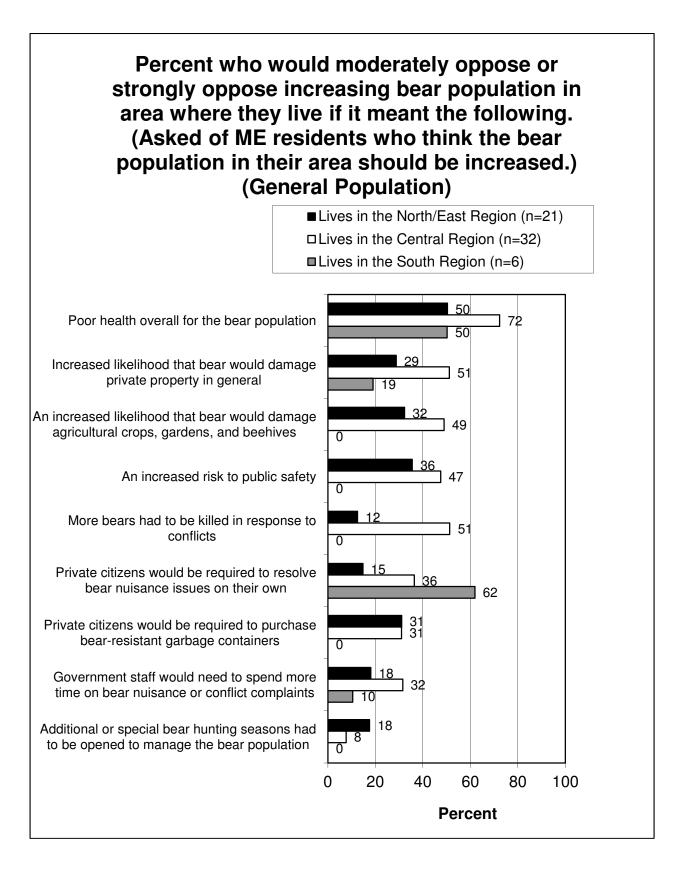


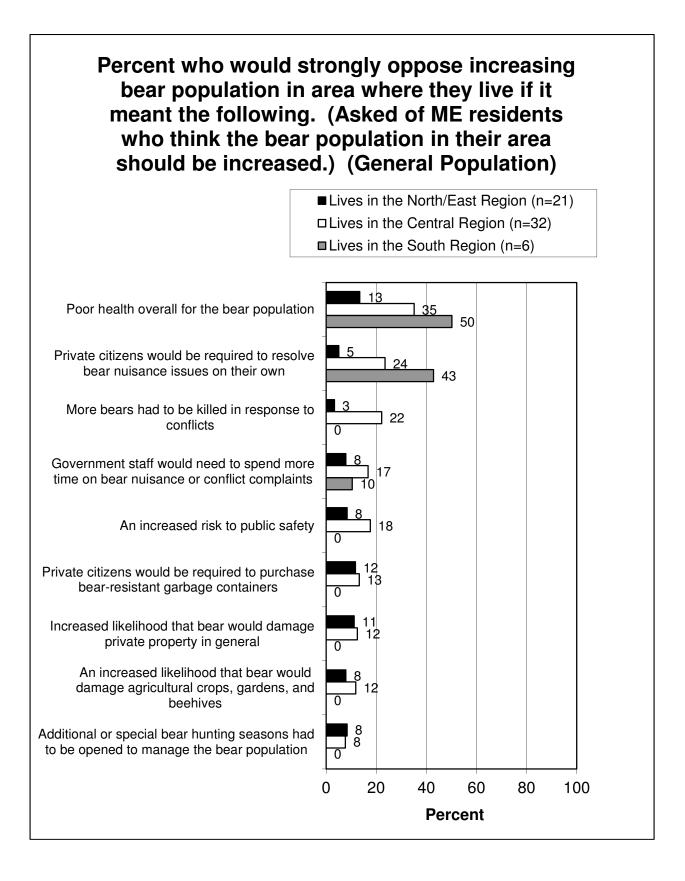


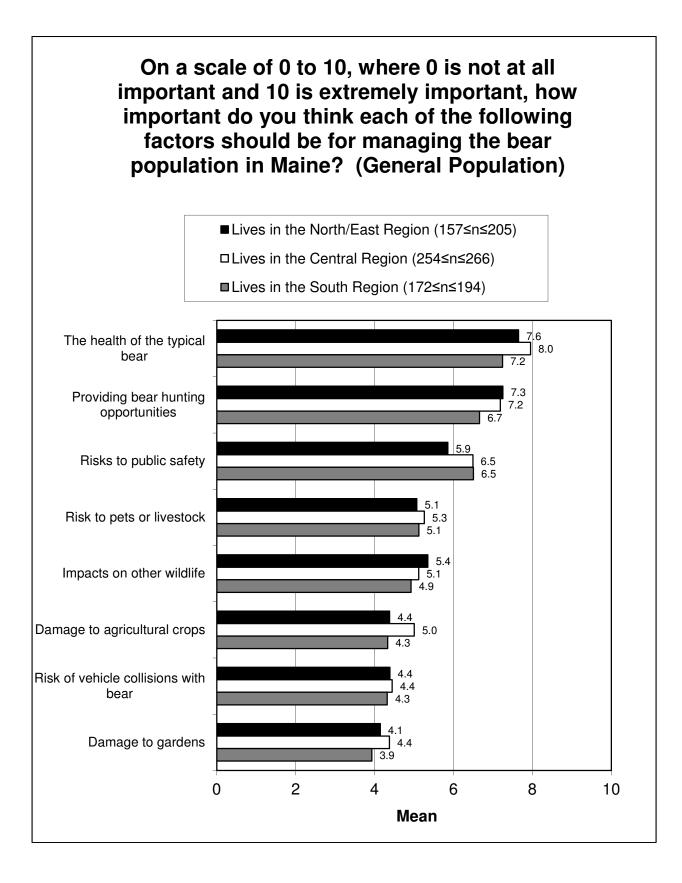


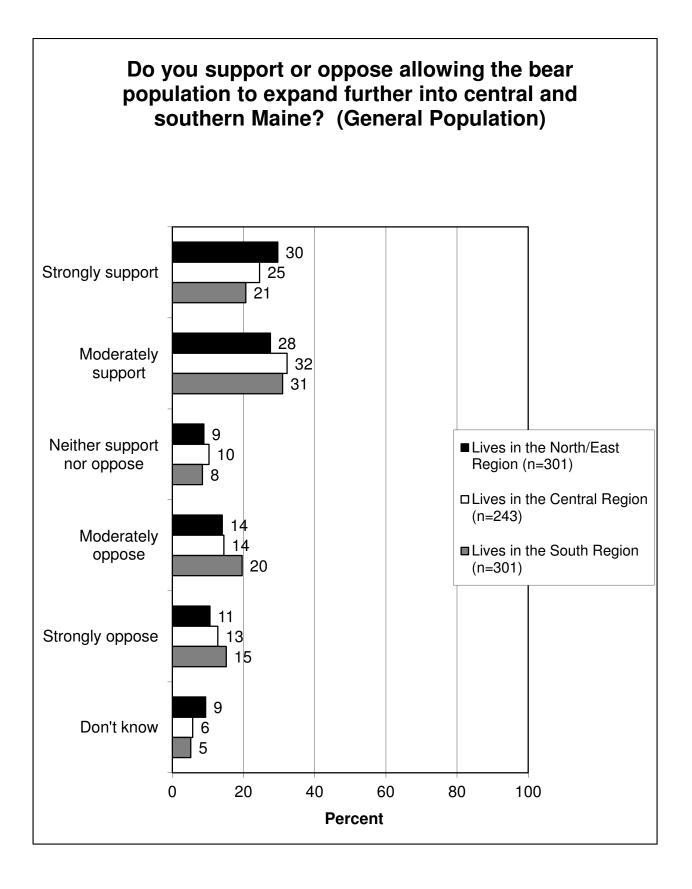
Percent who would strongly support or moderately support increasing bear population in area where they live if it meant the following. (Asked of ME residents who think the bear population in their area should be increased.) (General Population)





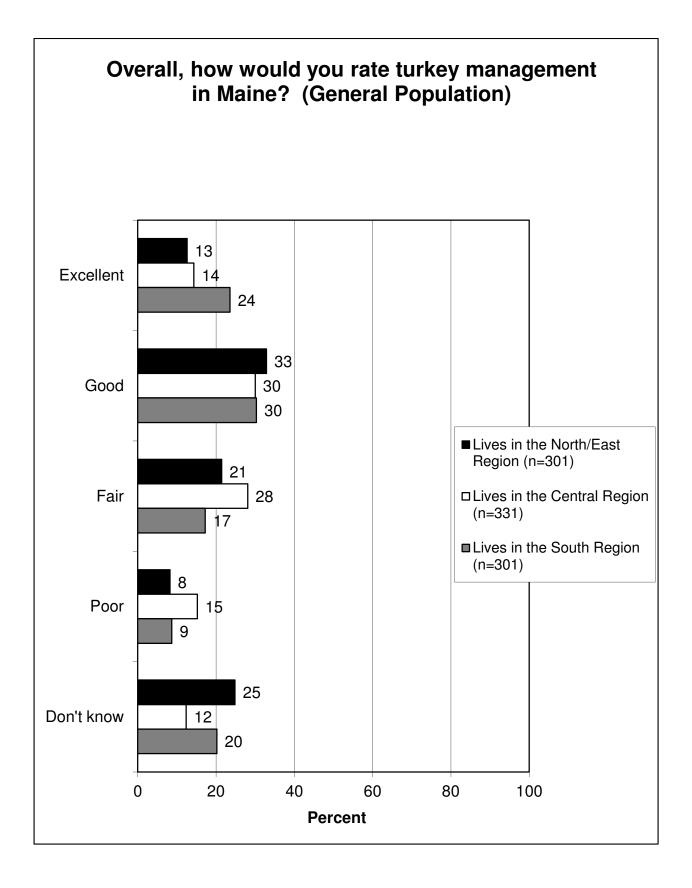


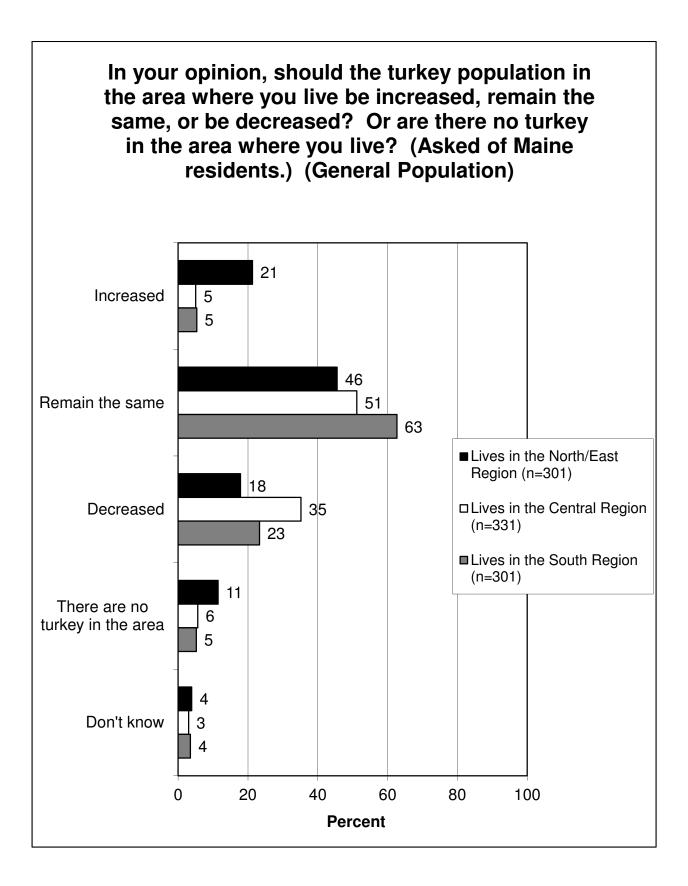


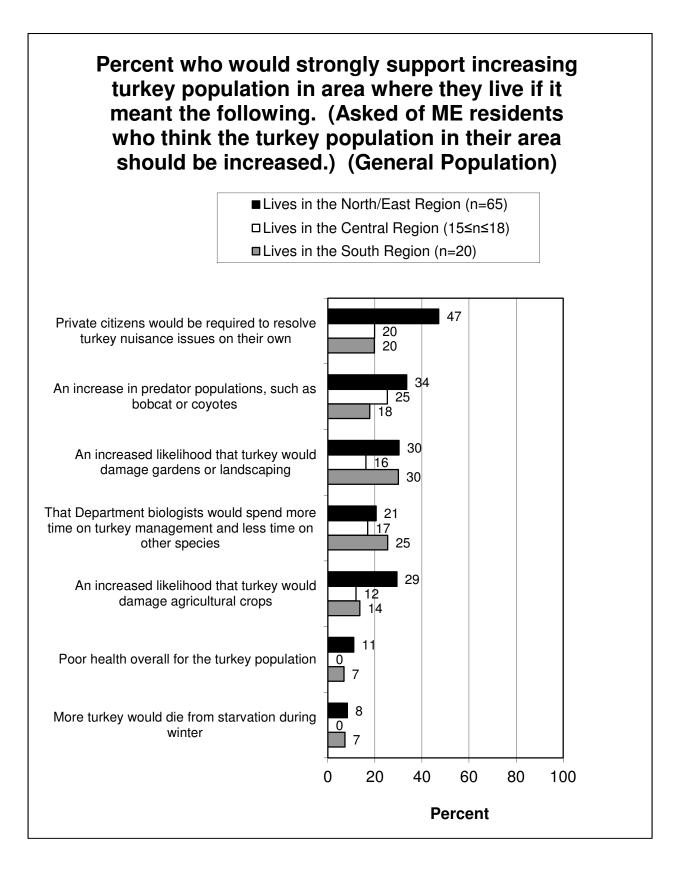


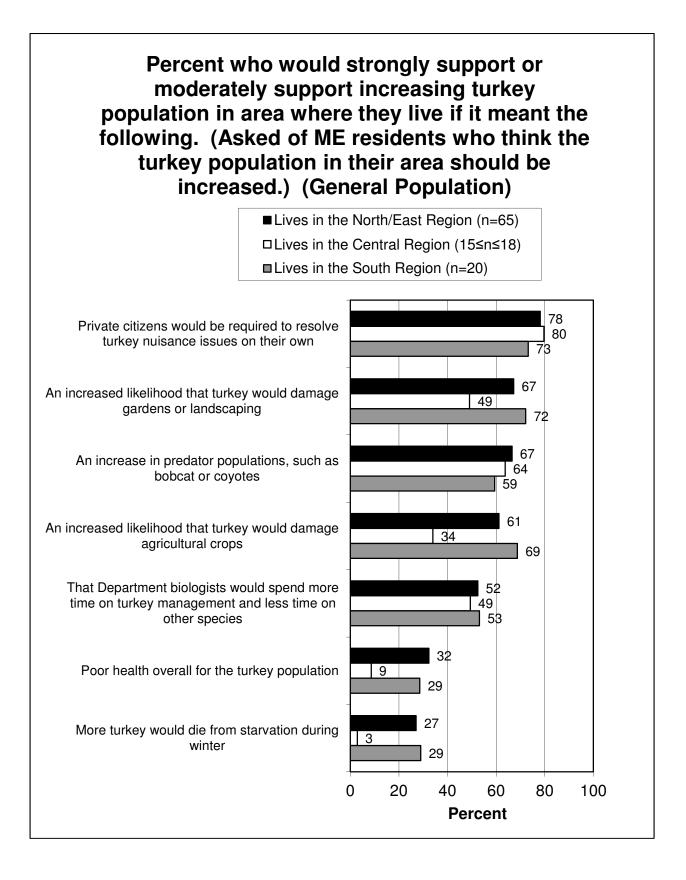
Turkey Management—General Population

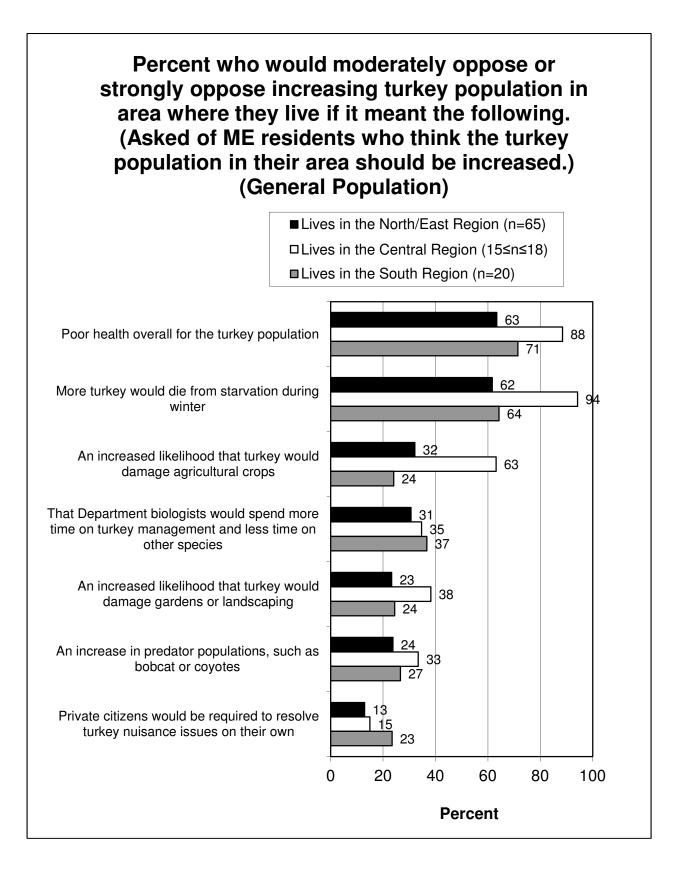
Ratings of turkey management. Opinions on the size of the turkey population. Support for increasing turkey population with various caveats. Factors to be considered in managing turkey. Support for/opposition to hunting as a way to manage turkey. Opinion on methods to control turkey if they become overabundant.

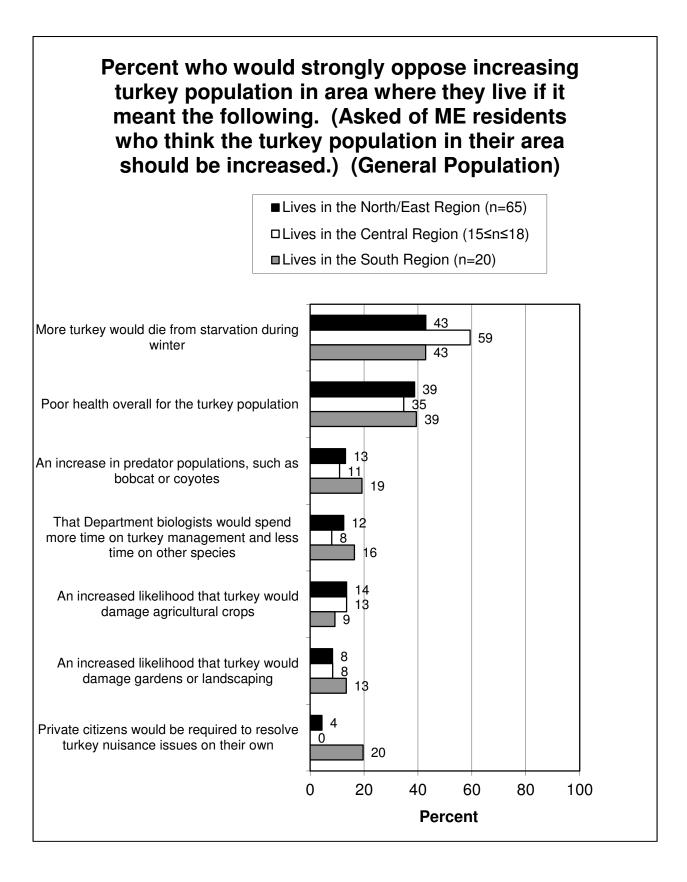


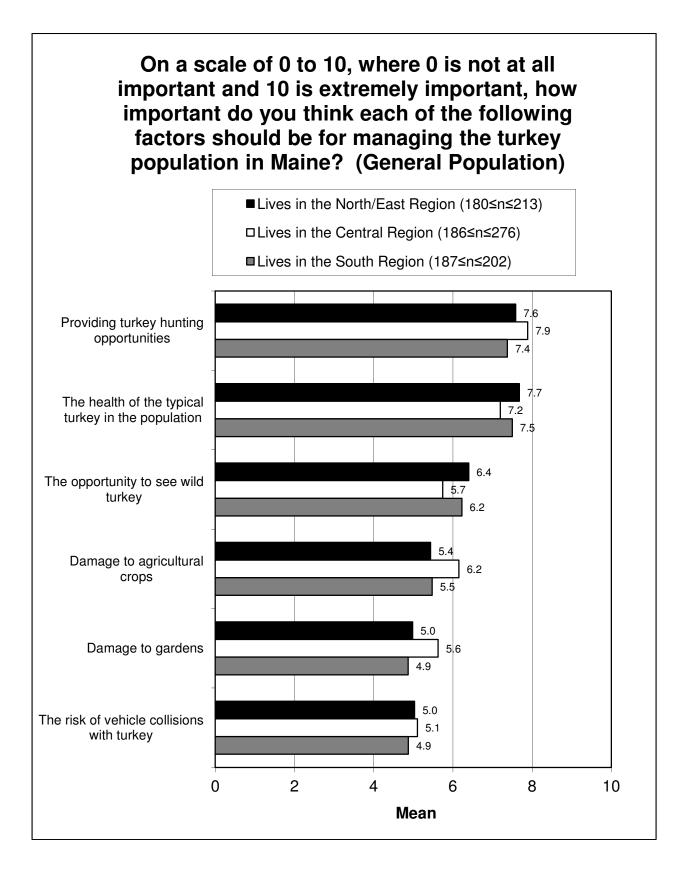


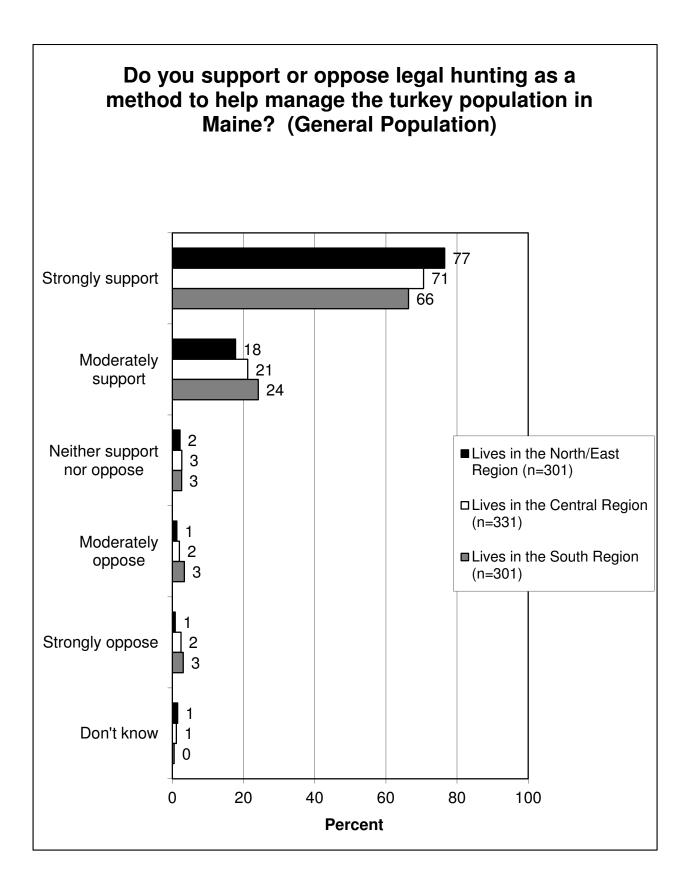


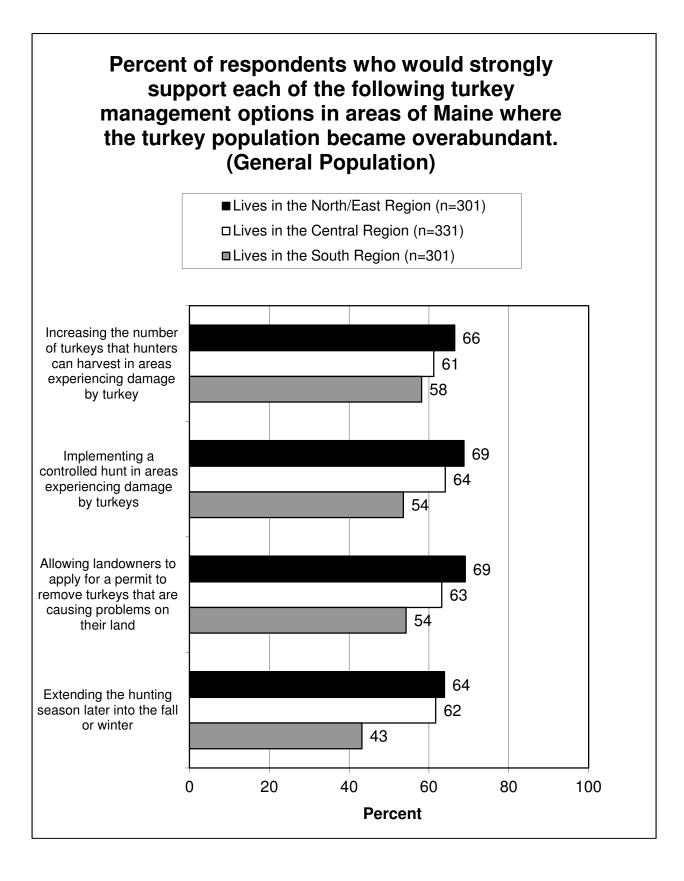


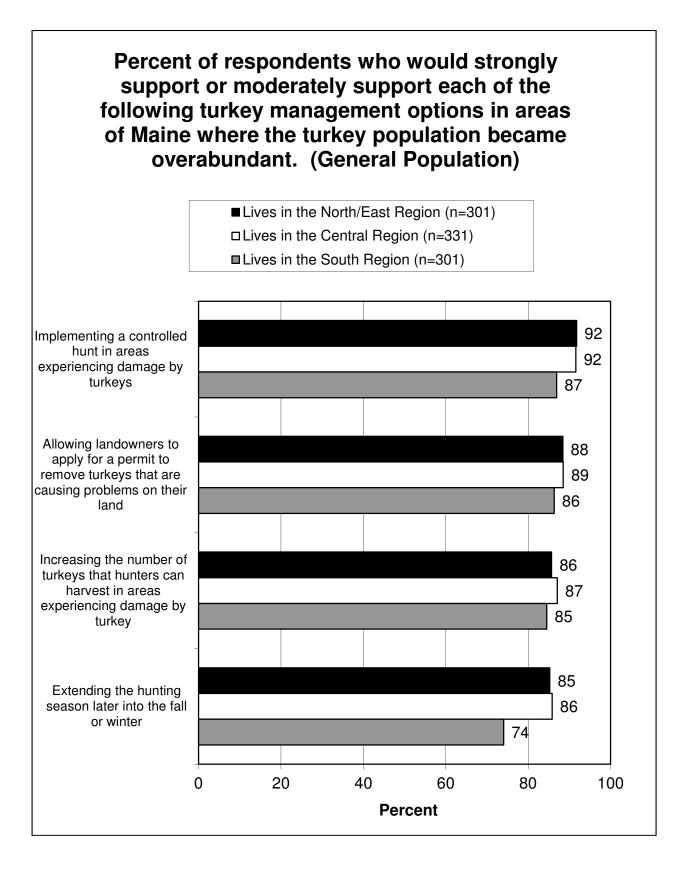


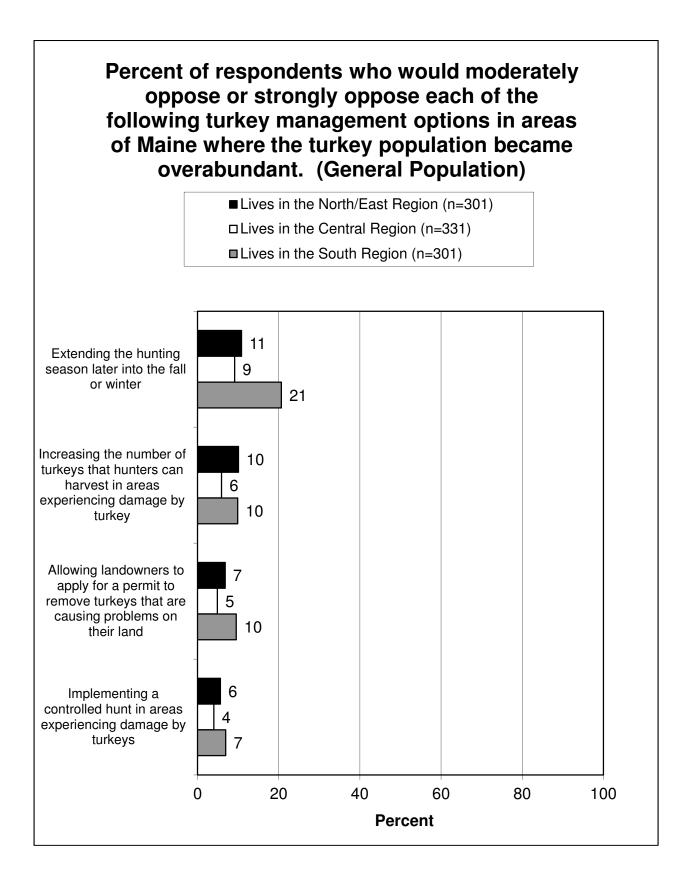


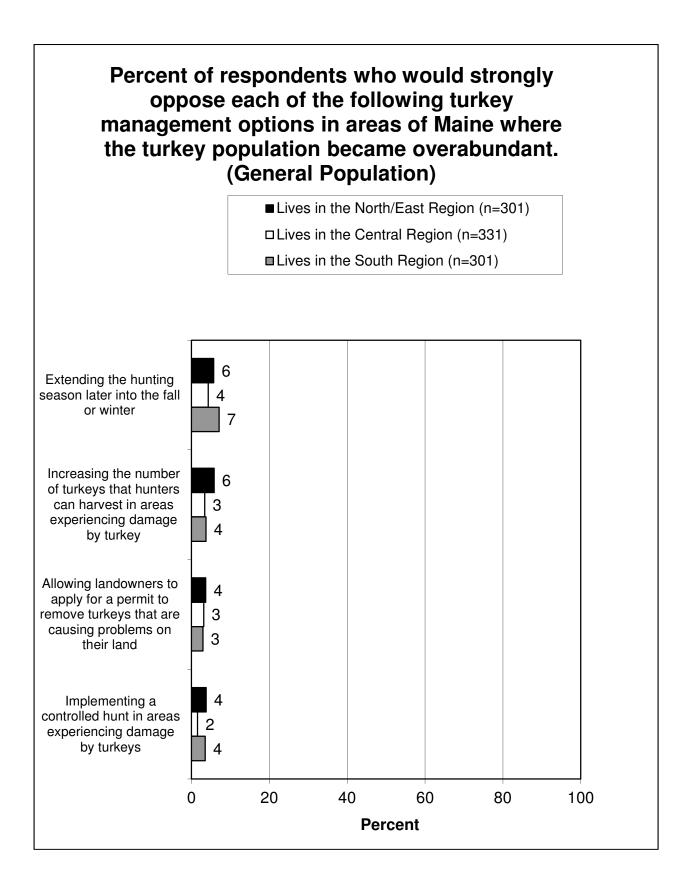






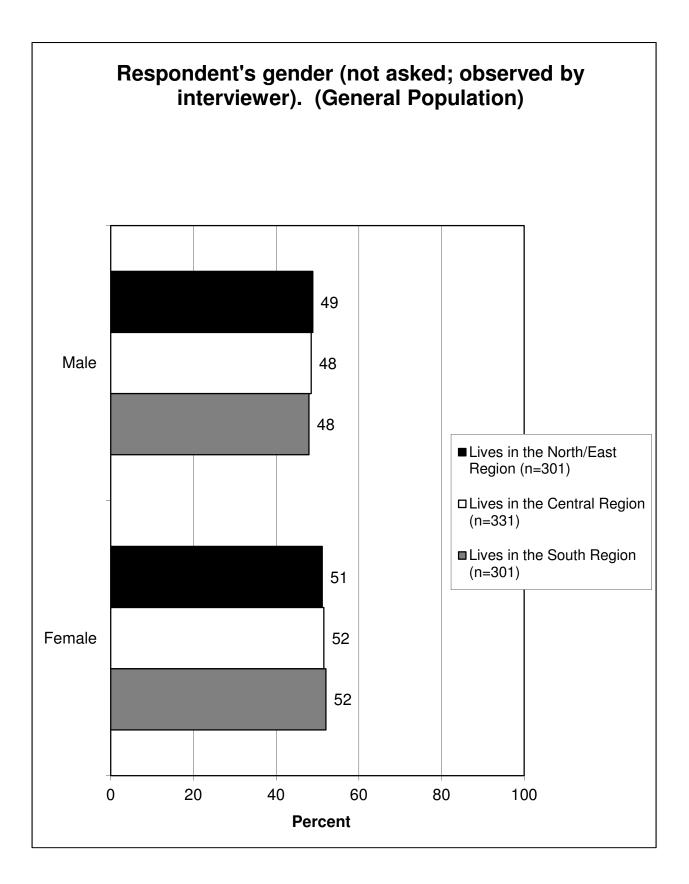


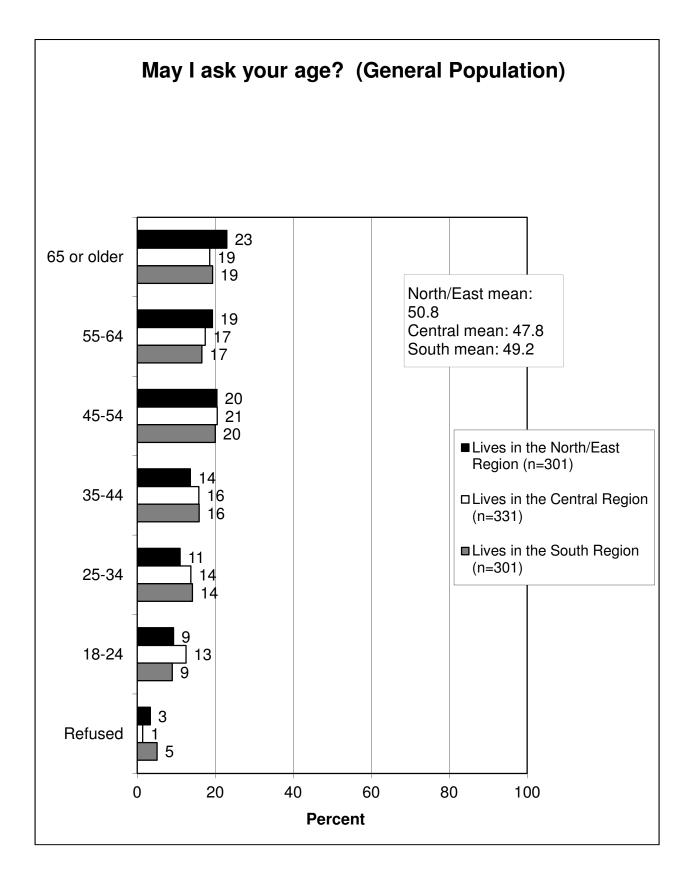


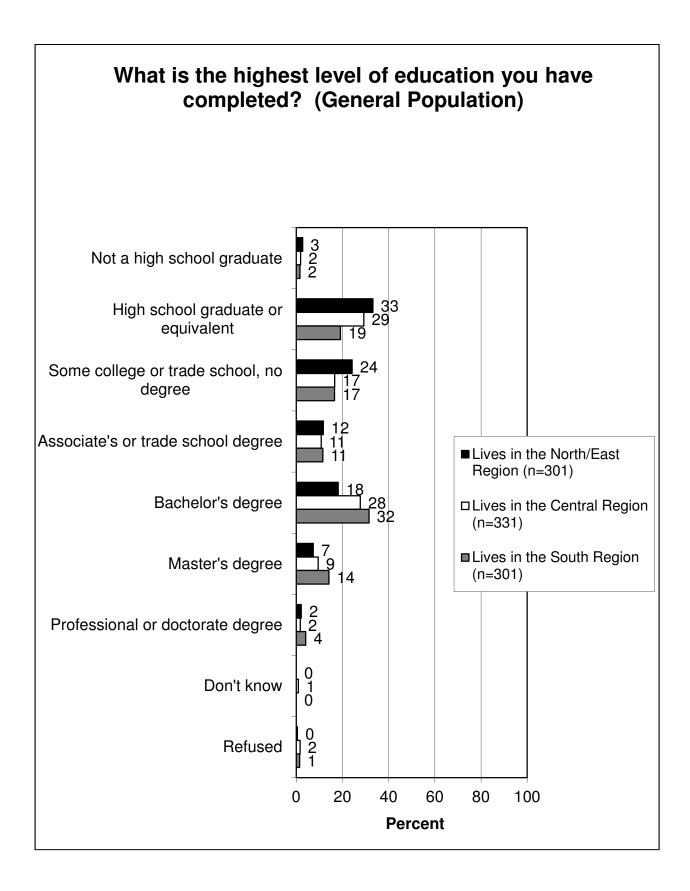


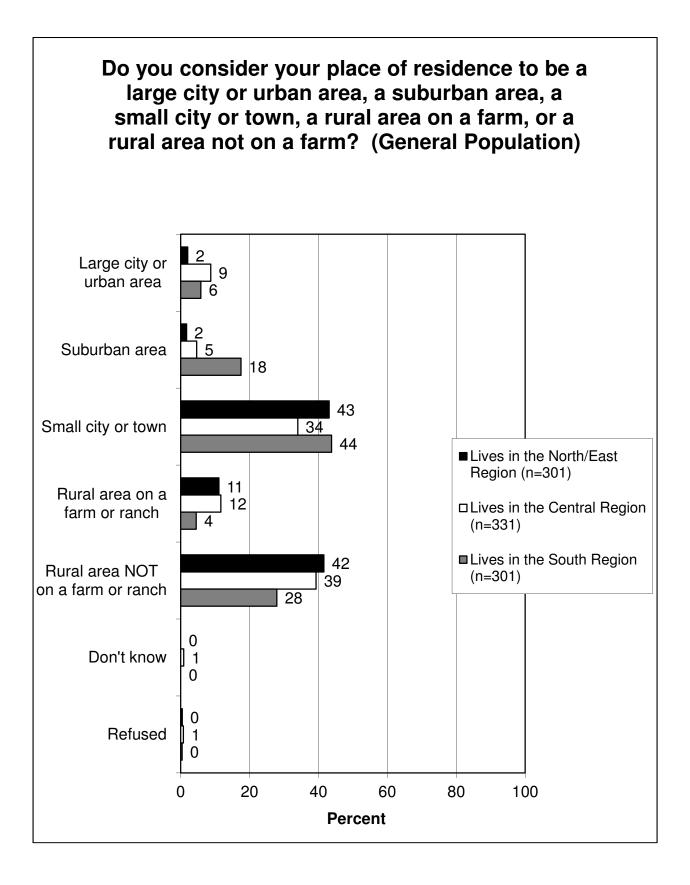
Demographic Data—General Population

Gender. Age. Education. Residential character of where residence is located.









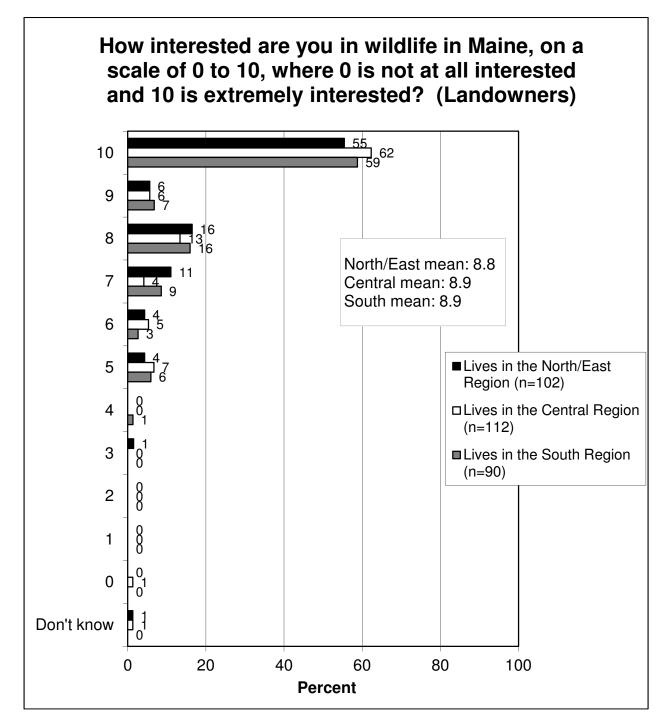
LANDOWNER SURVEY

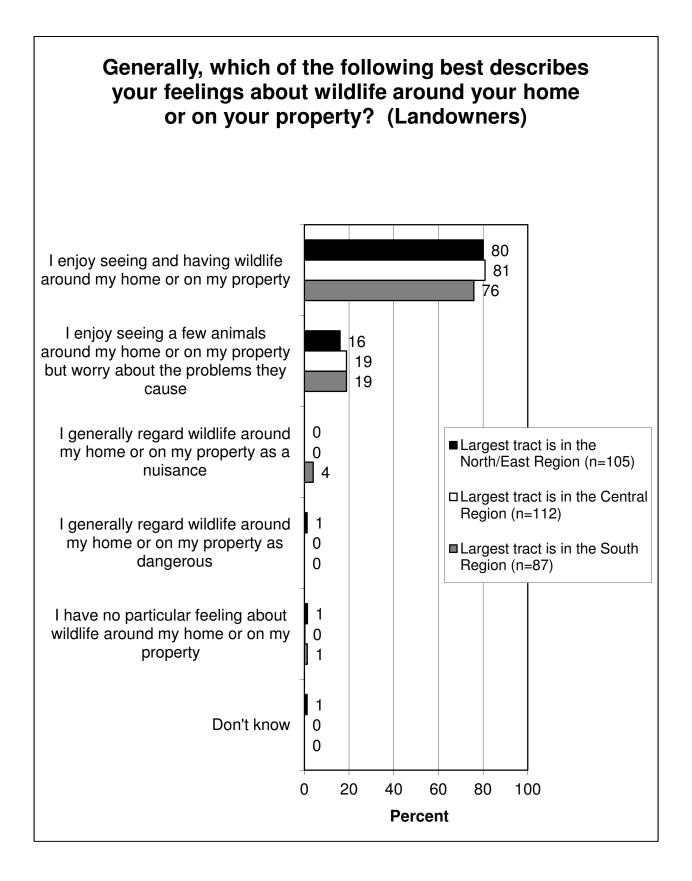
Interest in and Knowledge of Wildlife—Landowners

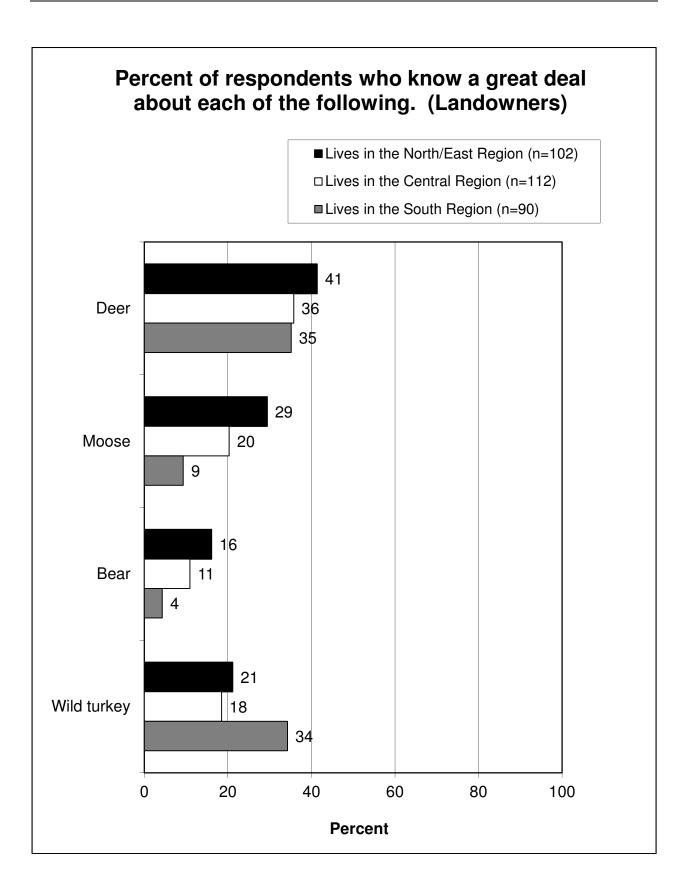
Overall interest in wildlife.

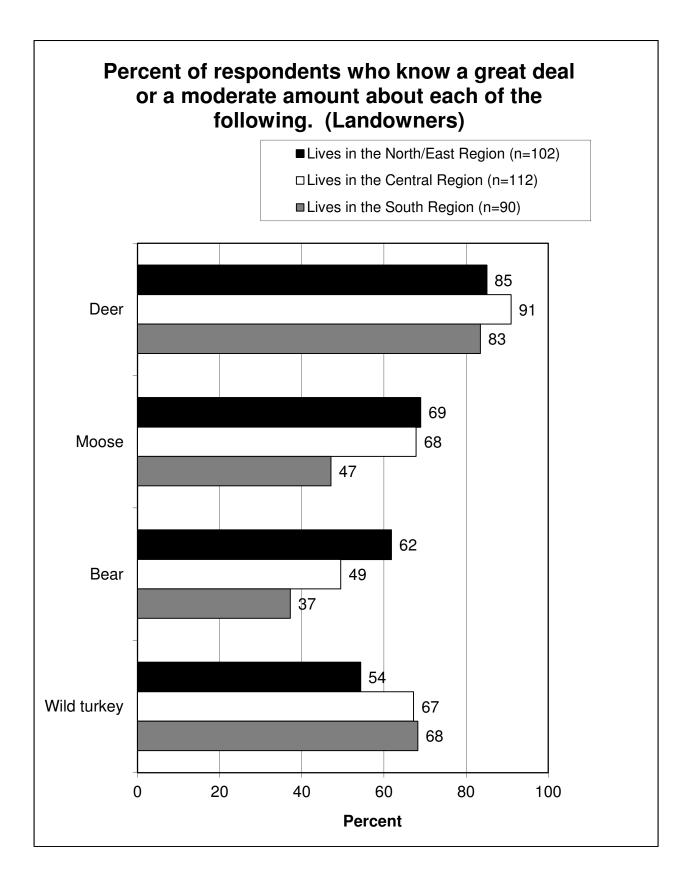
Feelings about wildlife around home.

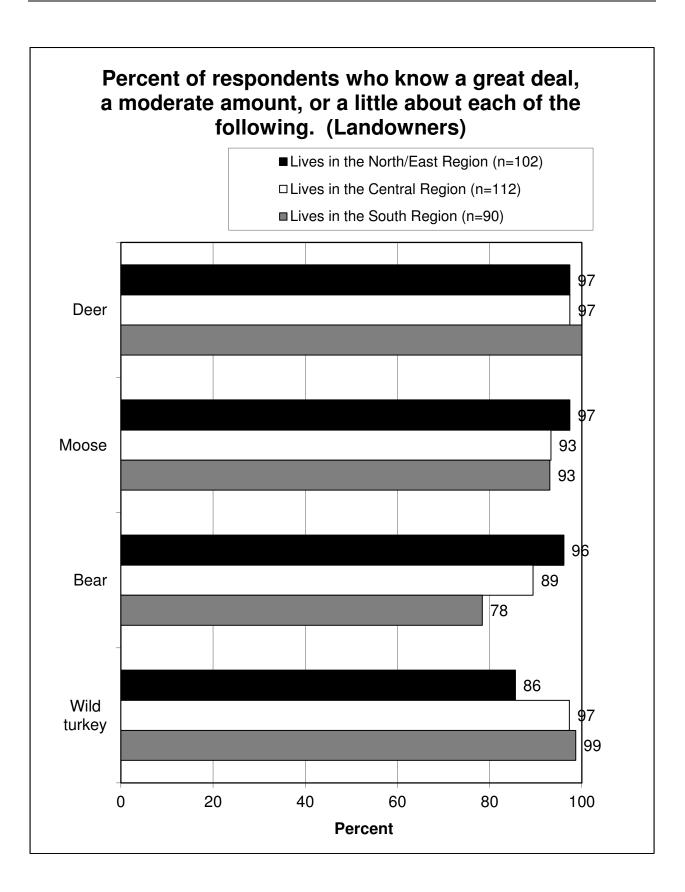
Level of knowledge about each species.

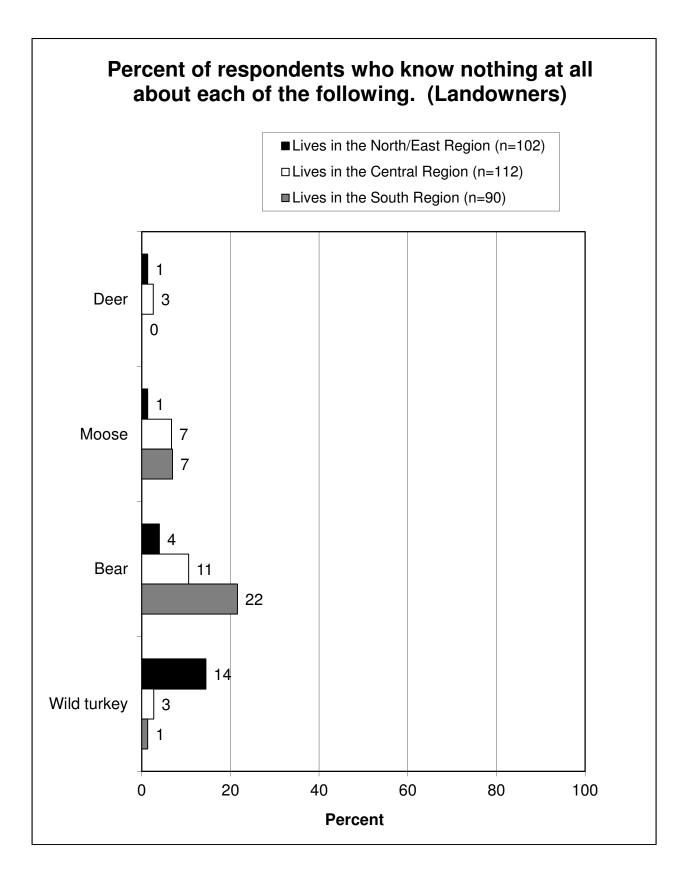






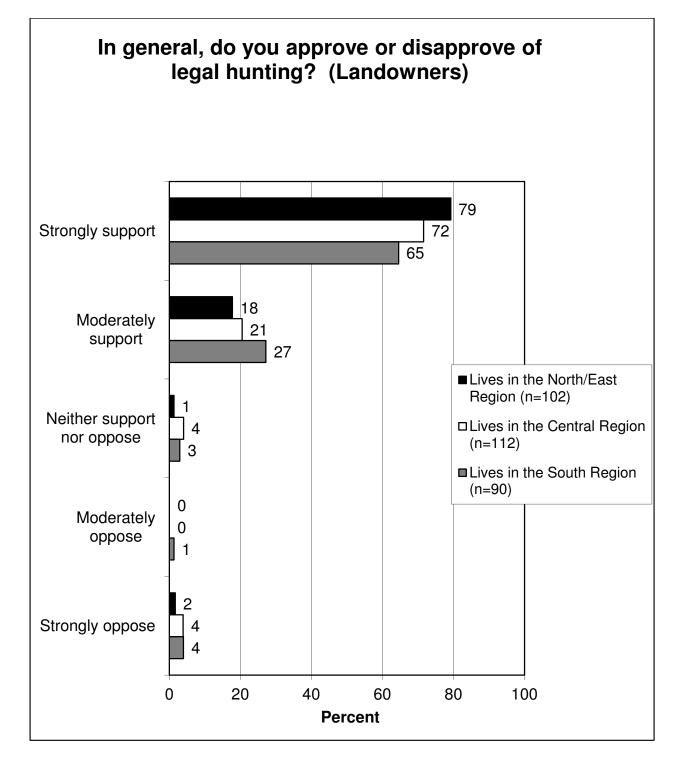


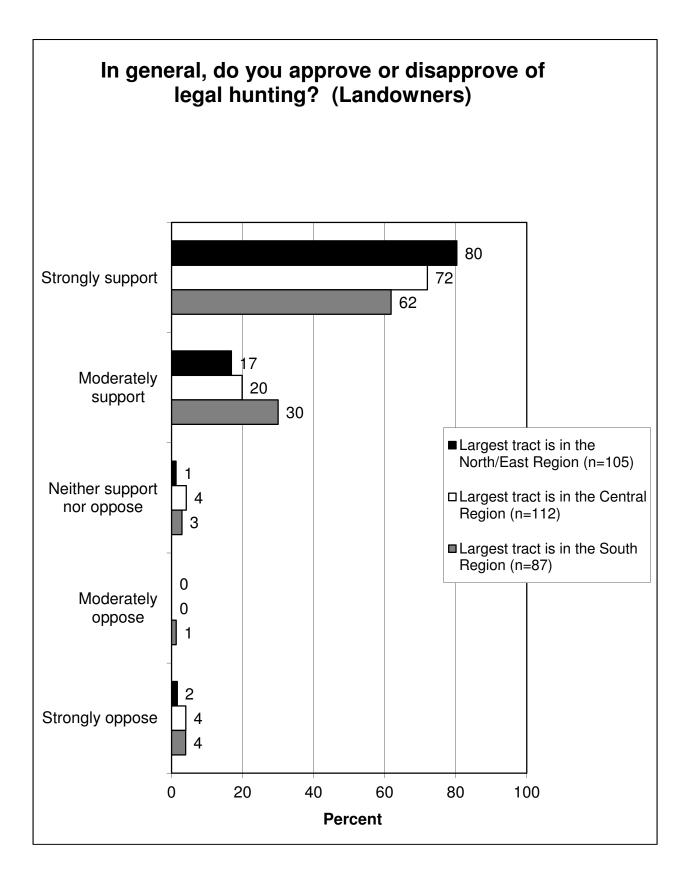


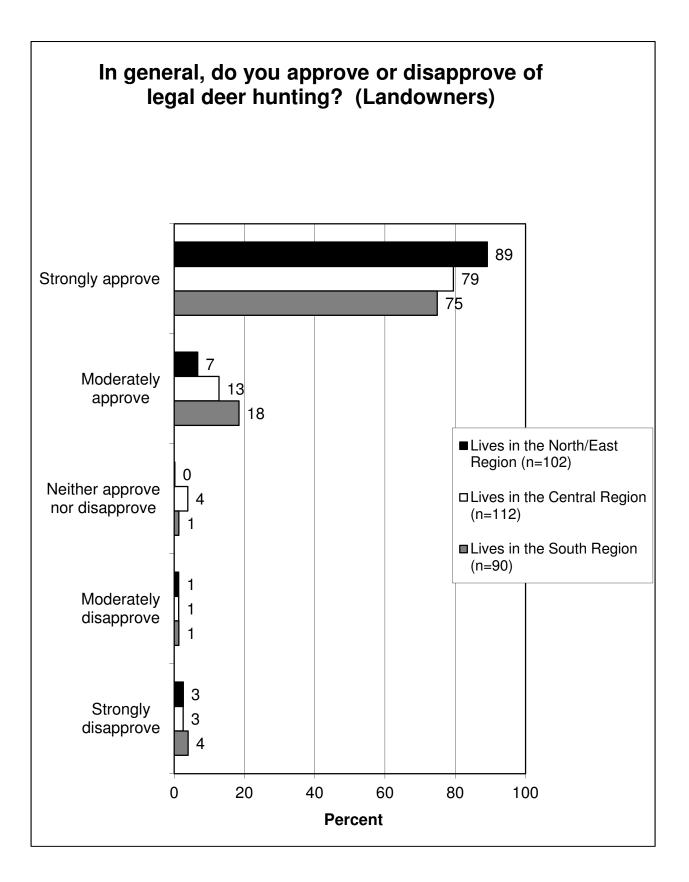


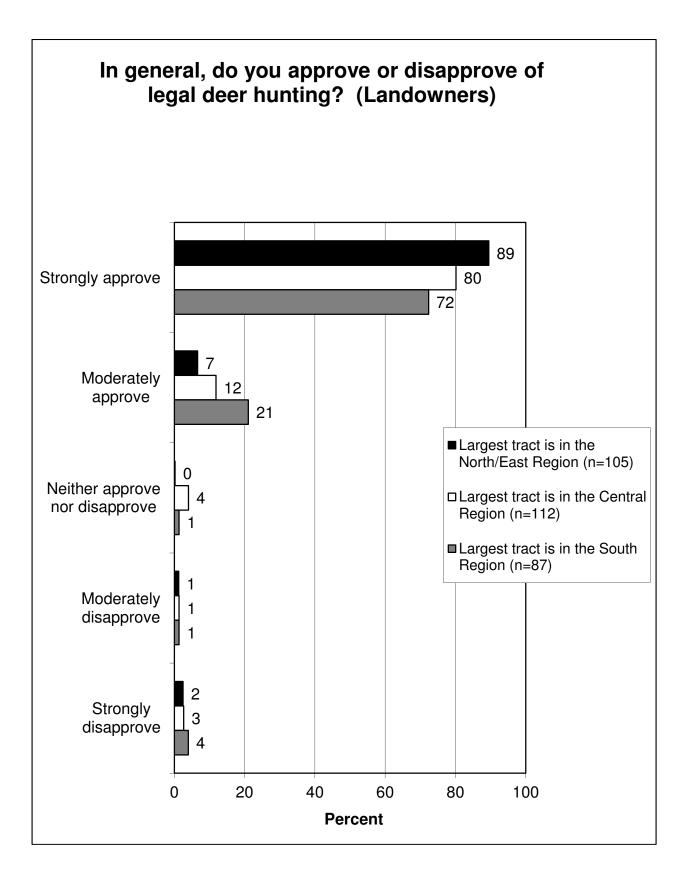
Opinions on Hunting—Landowners

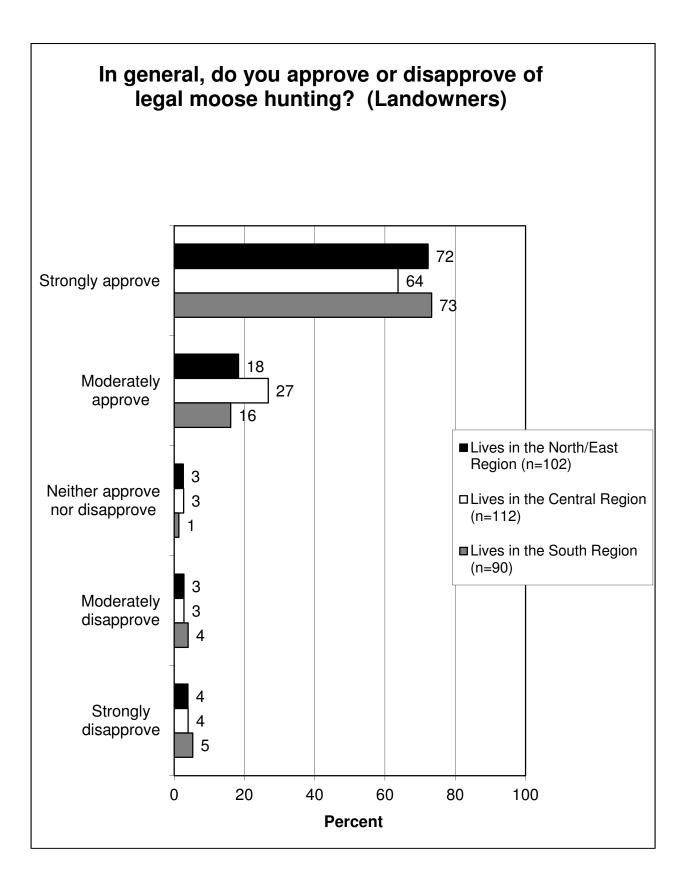
Approval/disapproval of hunting. Support for/opposition to hunting to help manage species/land. Support for/opposition to hunting bear for various reasons.

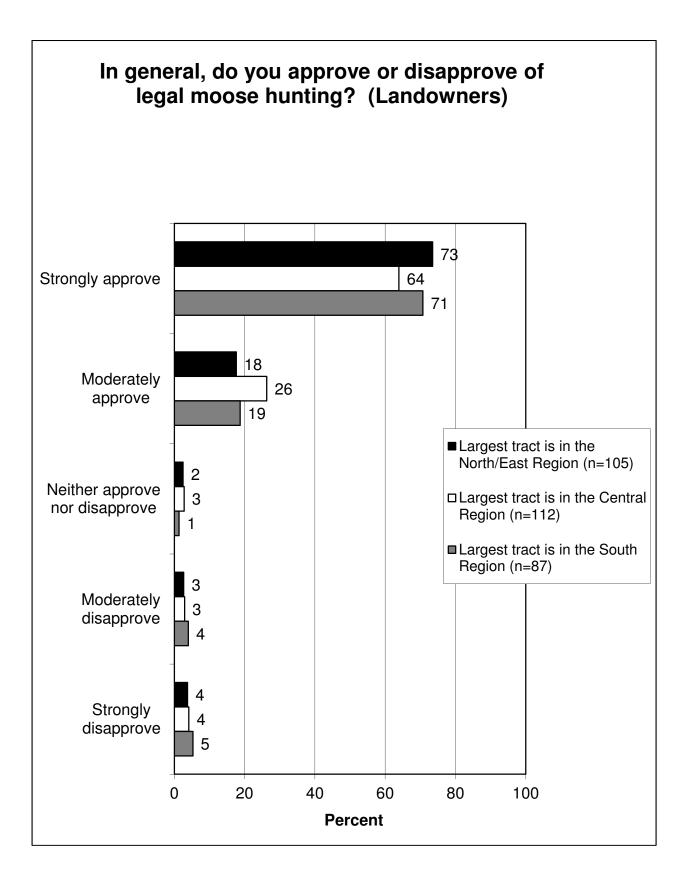


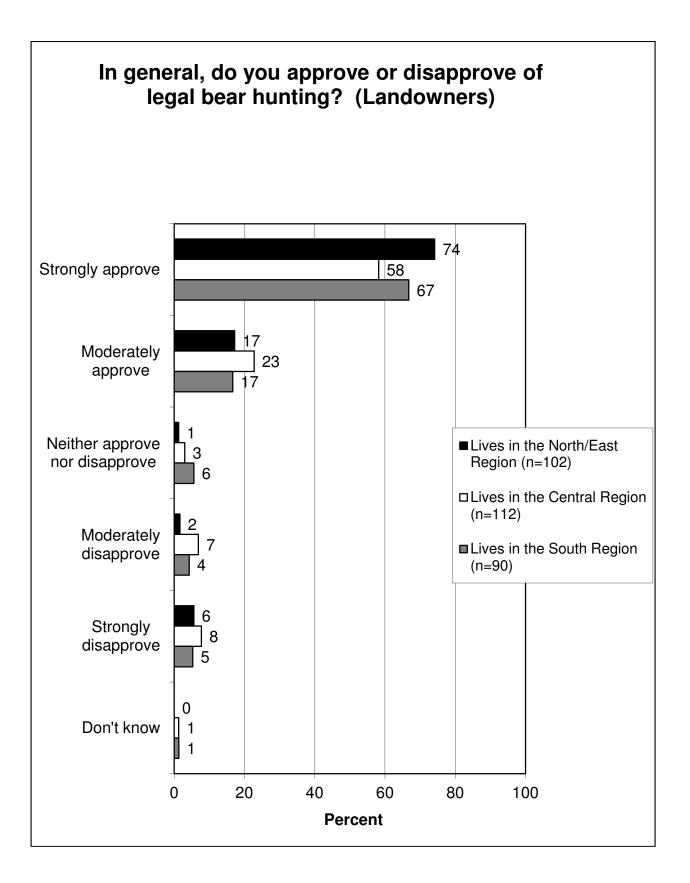


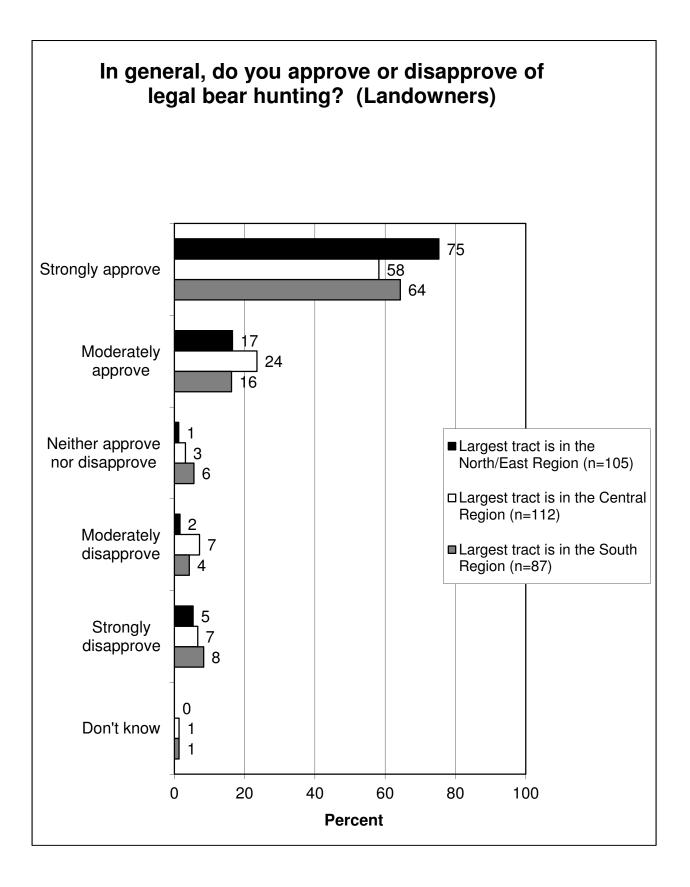


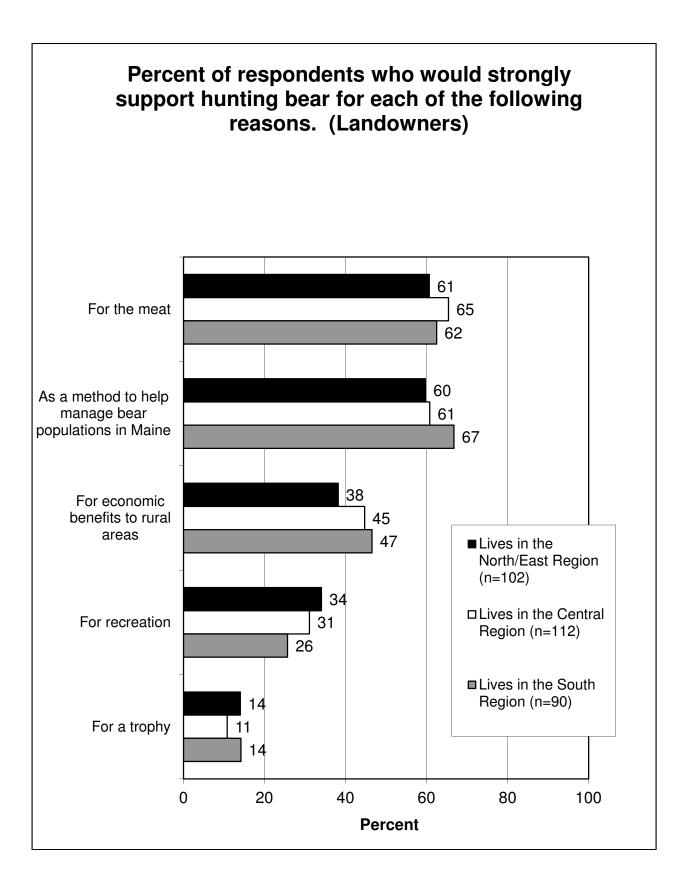


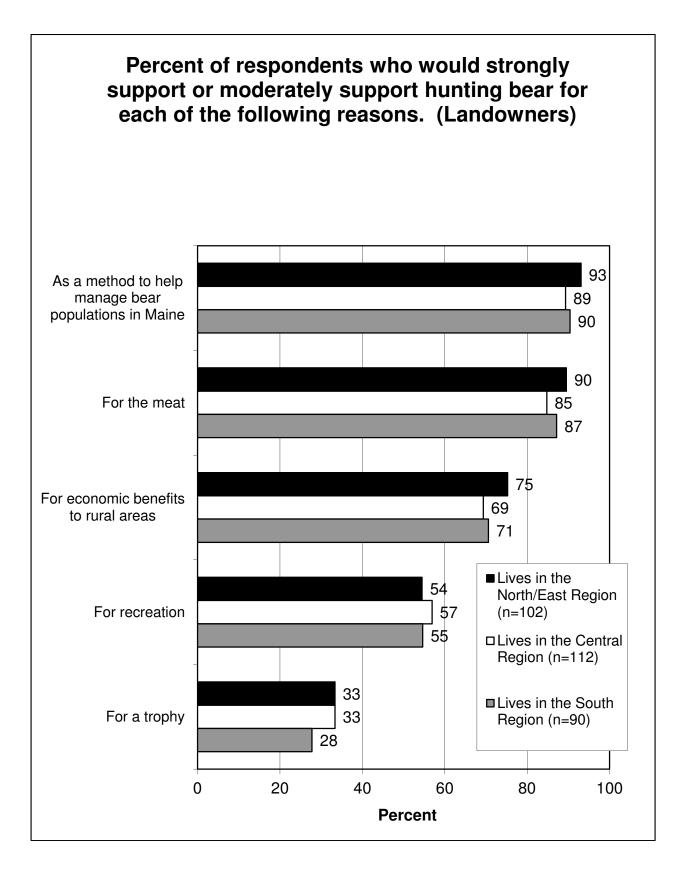


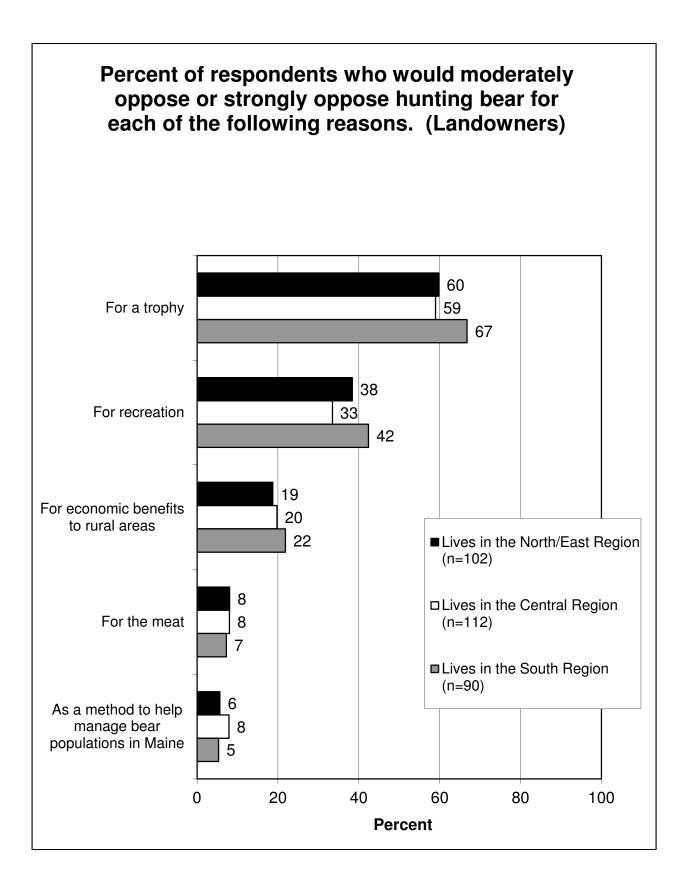


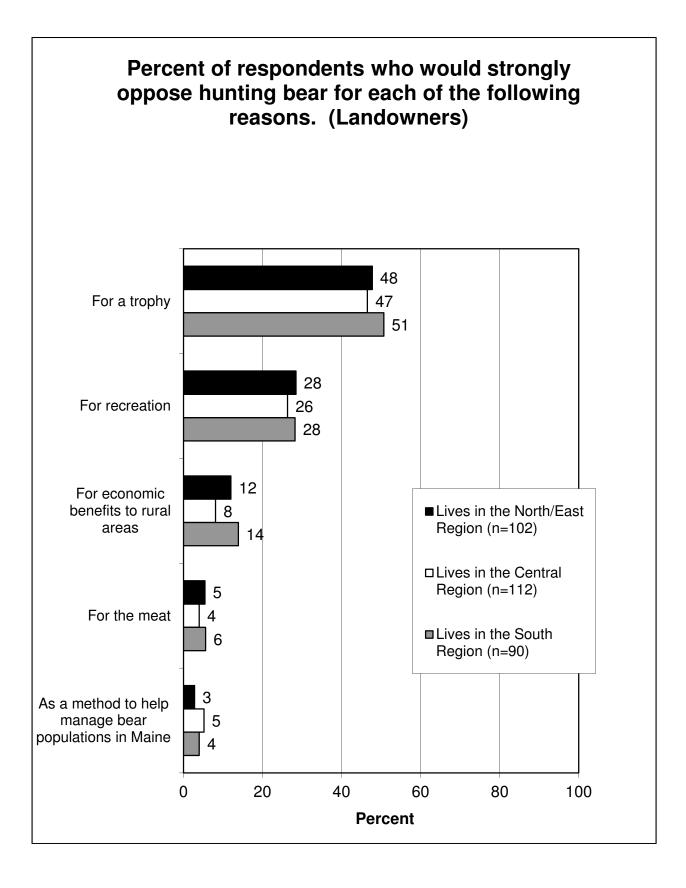


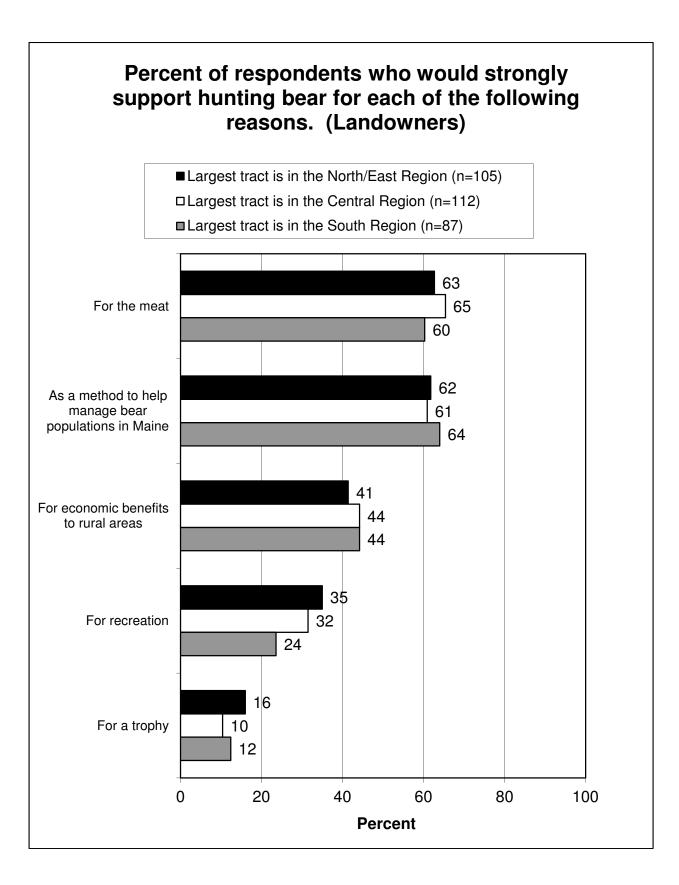


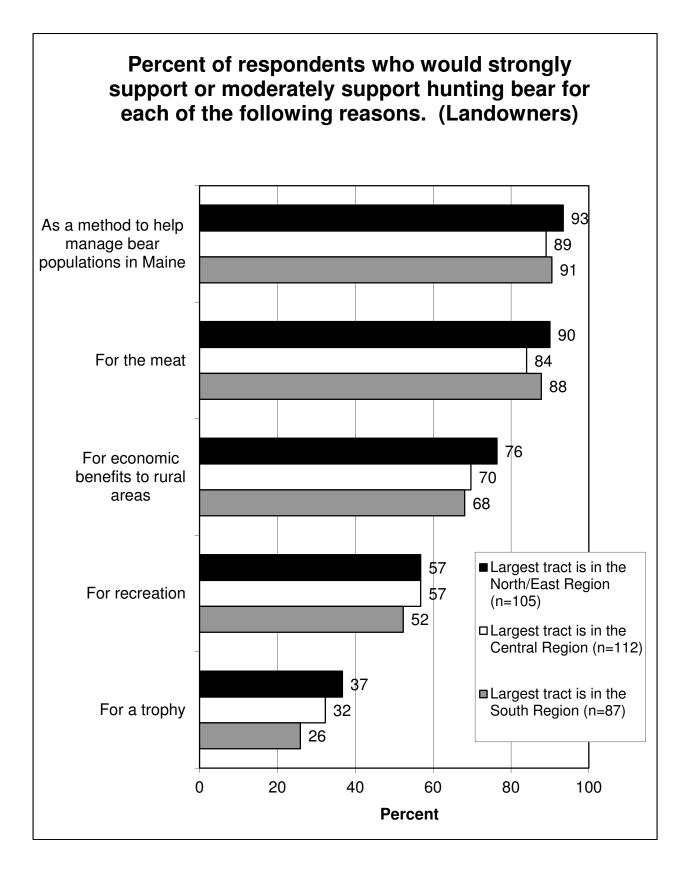


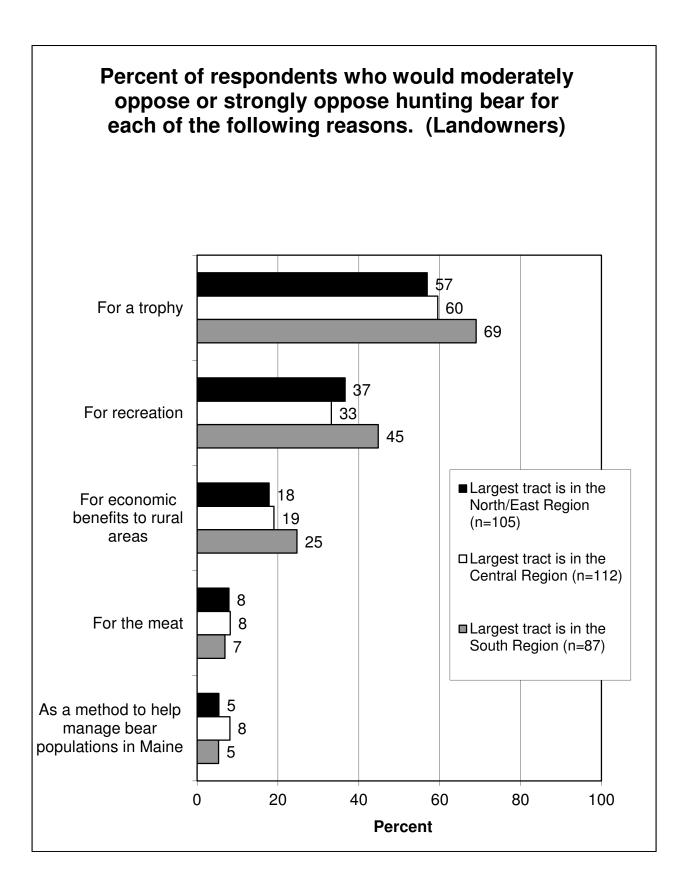


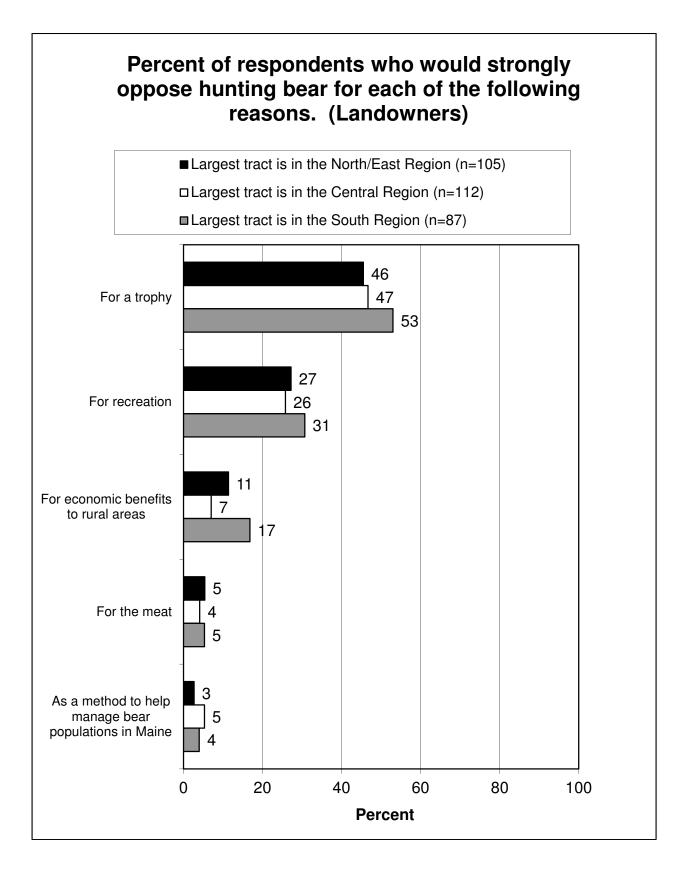


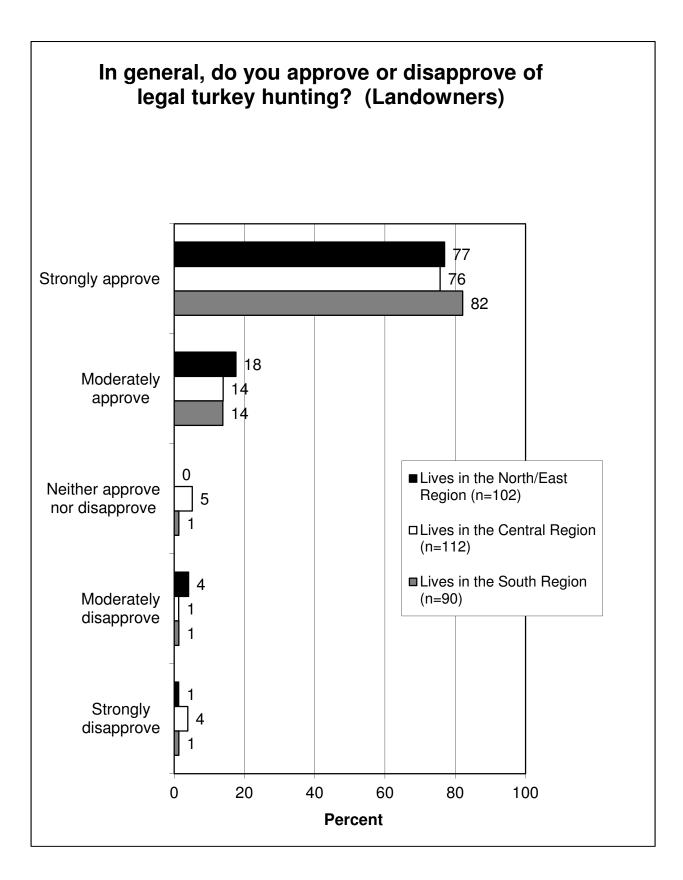


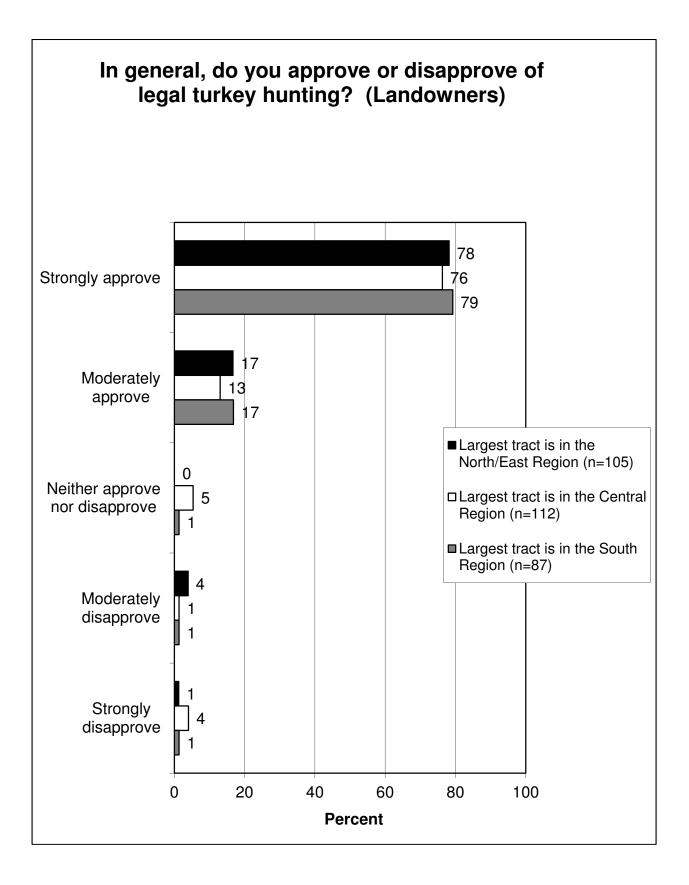






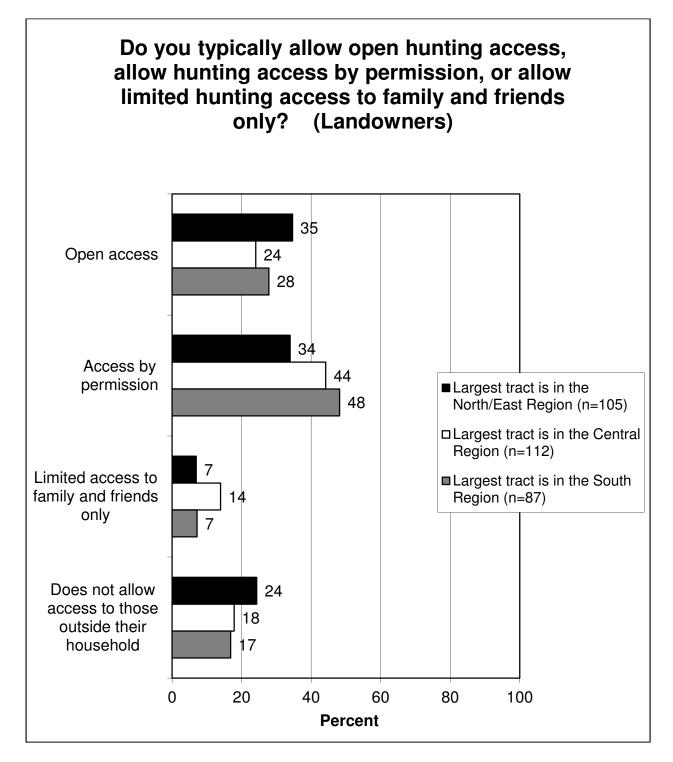


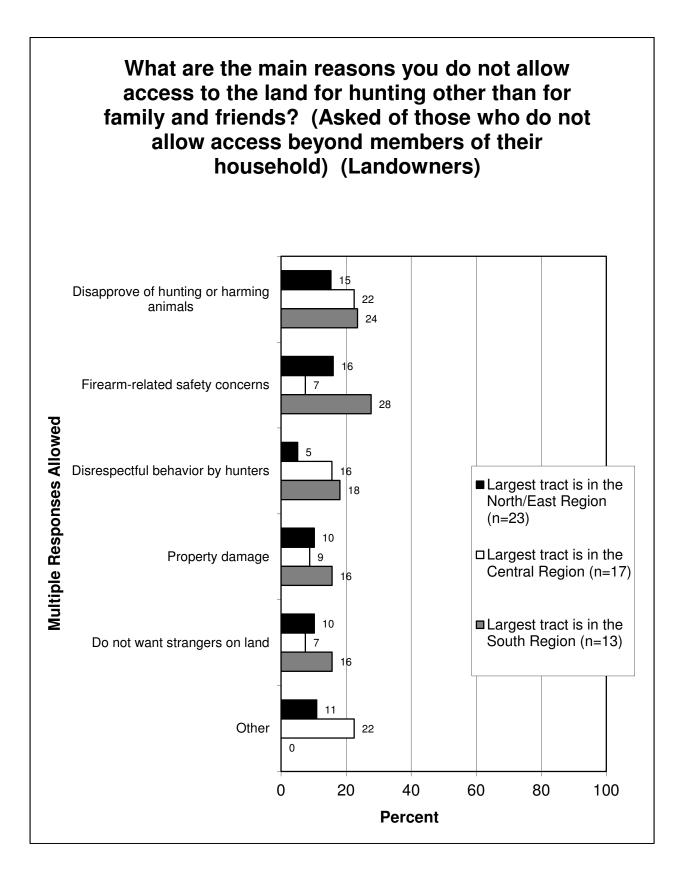




Hunting Access—Landowners

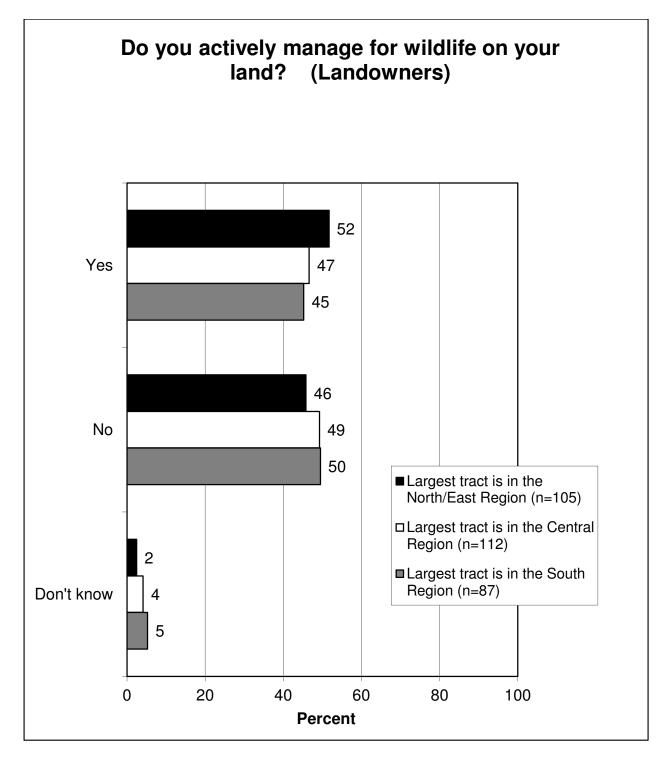
Landowners: allowing access on land and types of access allowed. Reasons for not allowing access.

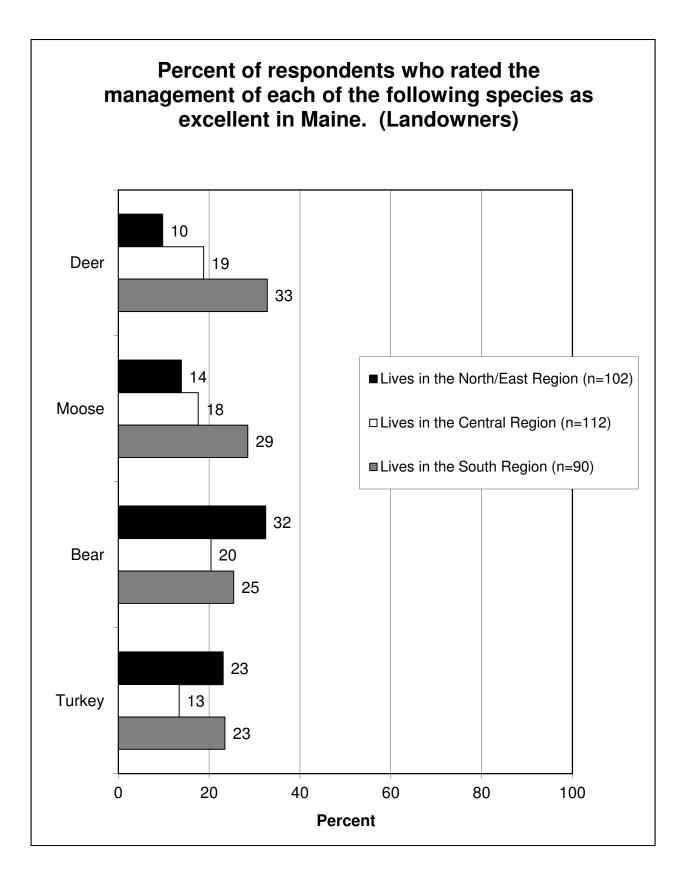


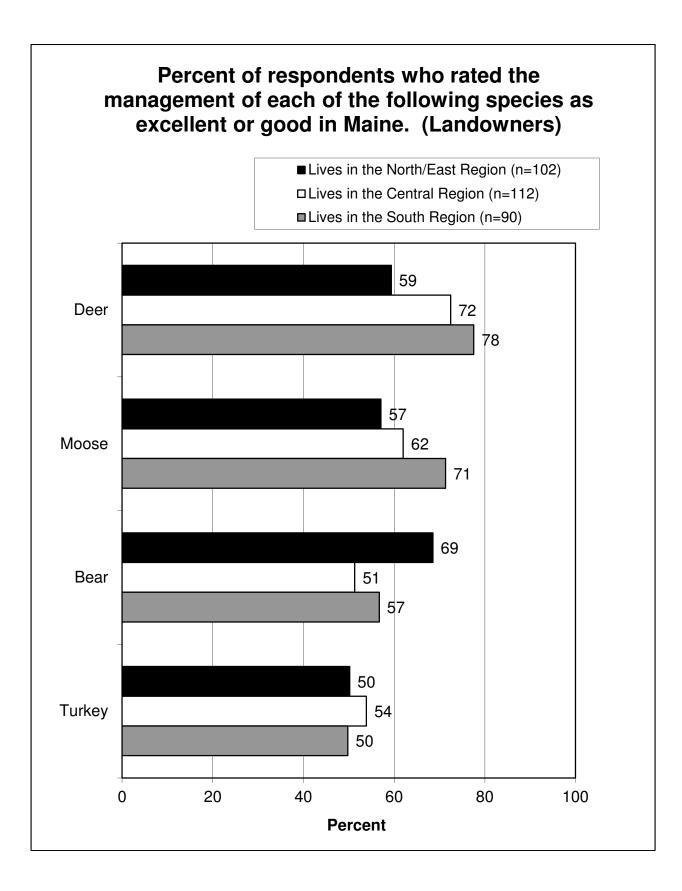


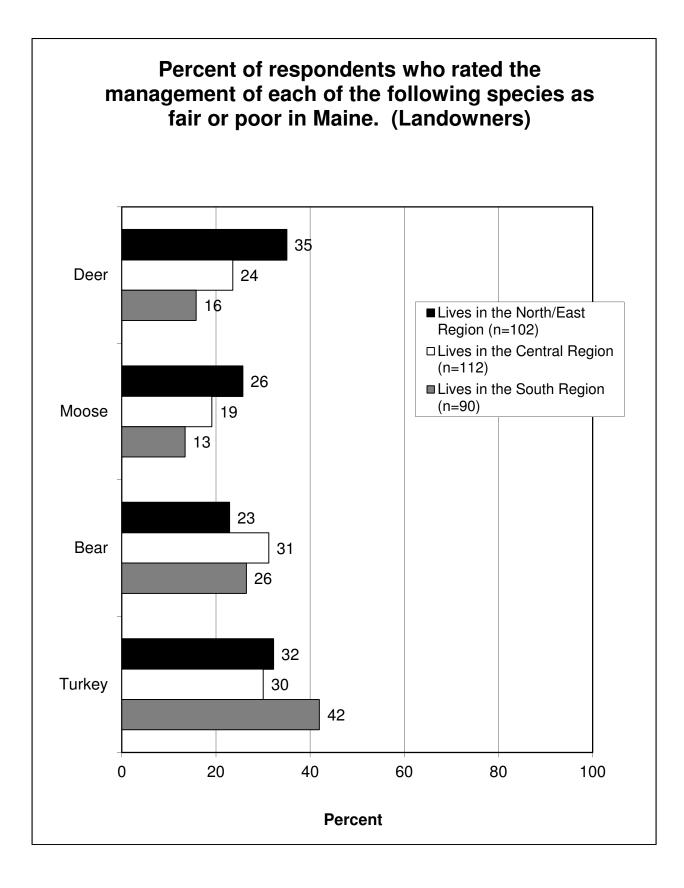
Land Management in General—Landowners

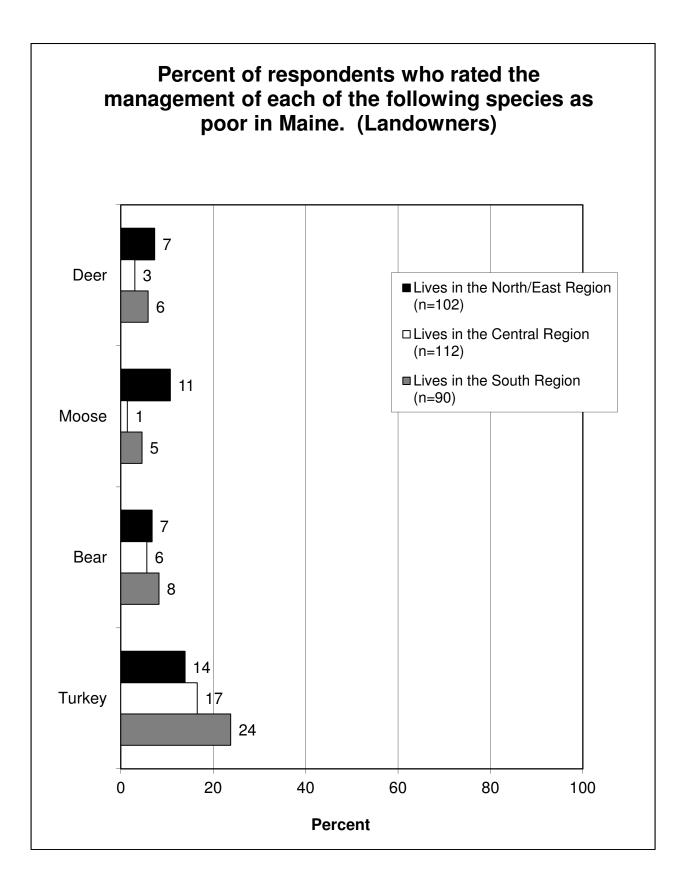
Whether landowners actively manages land for wildlife. Opinions on management of all four species shown together. Support for/opposition to coyote management.

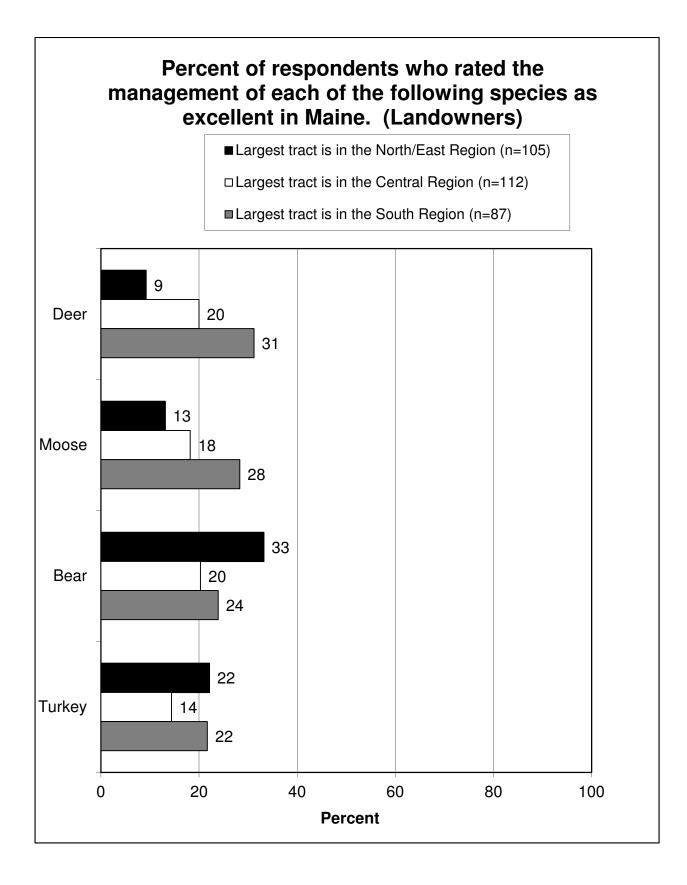


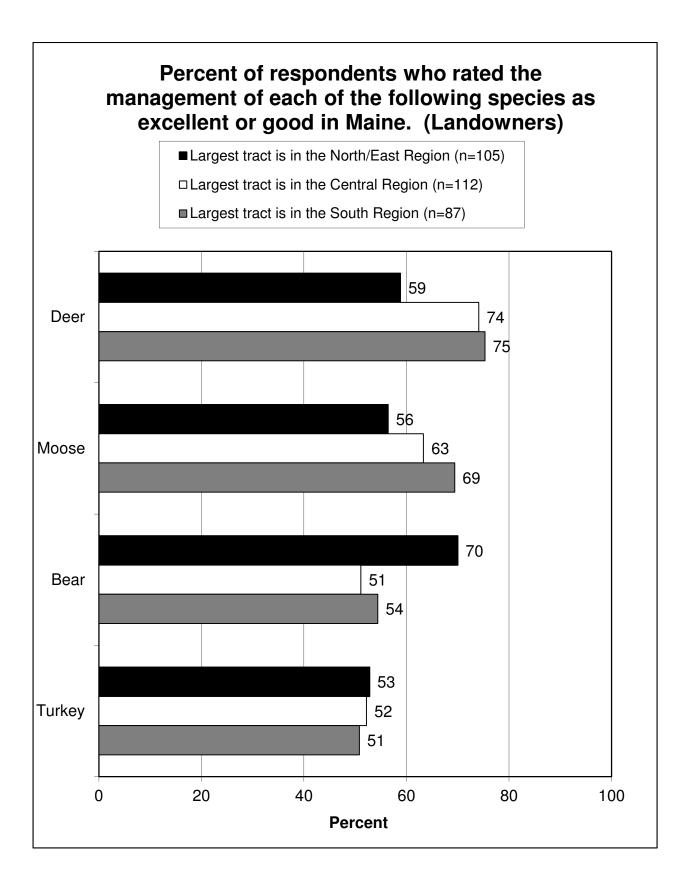


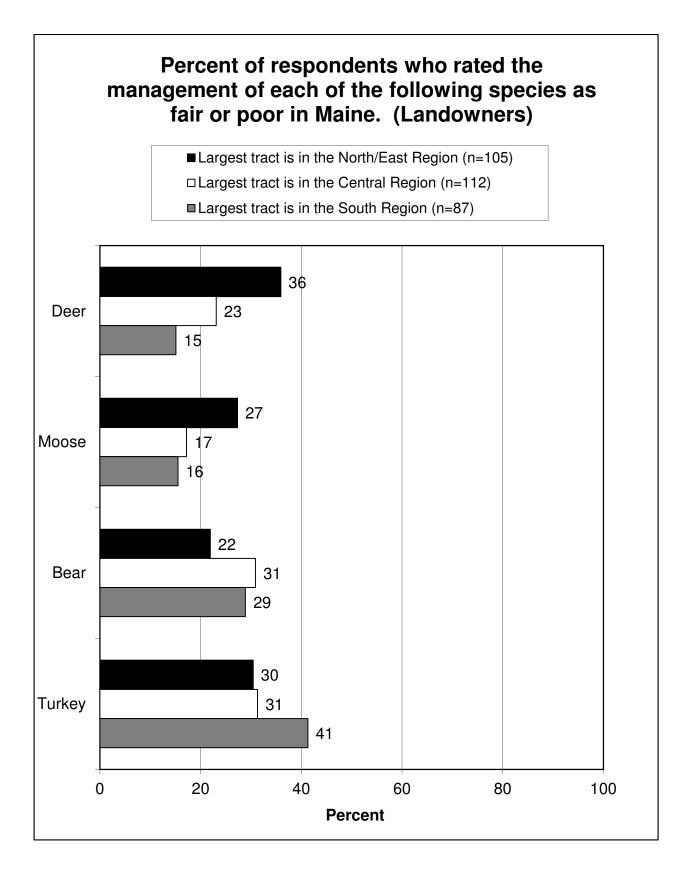


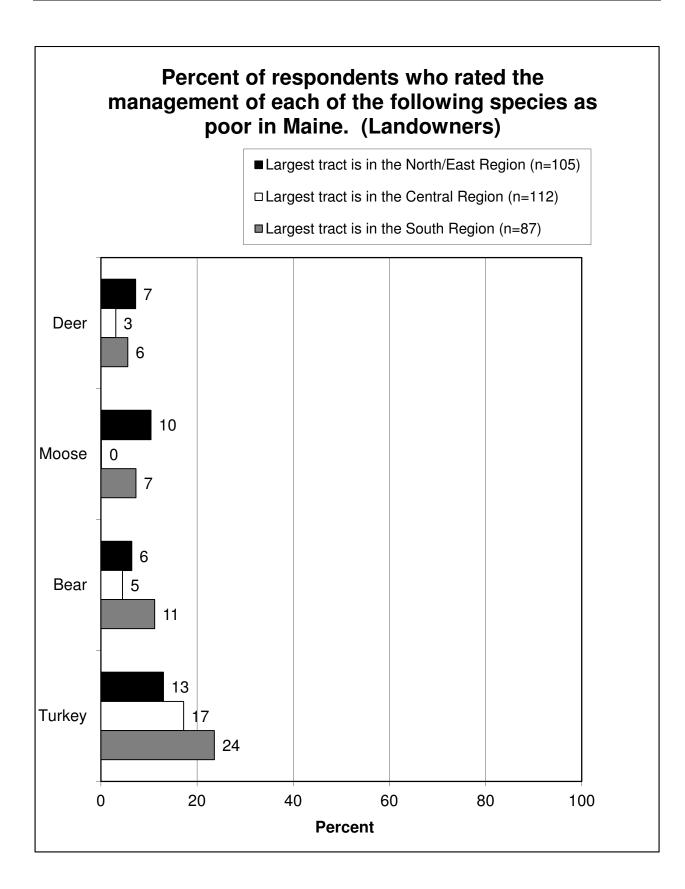


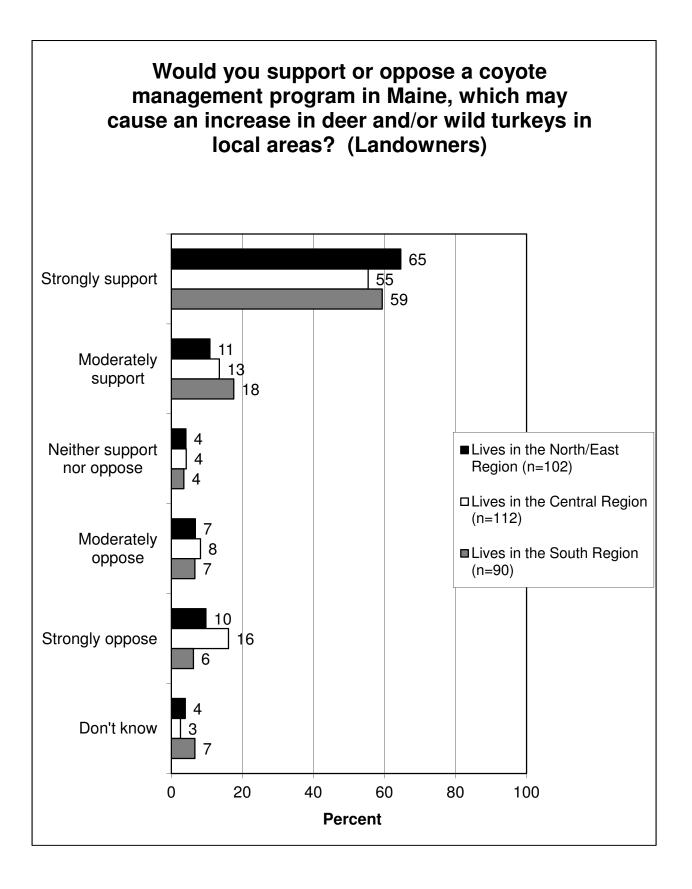


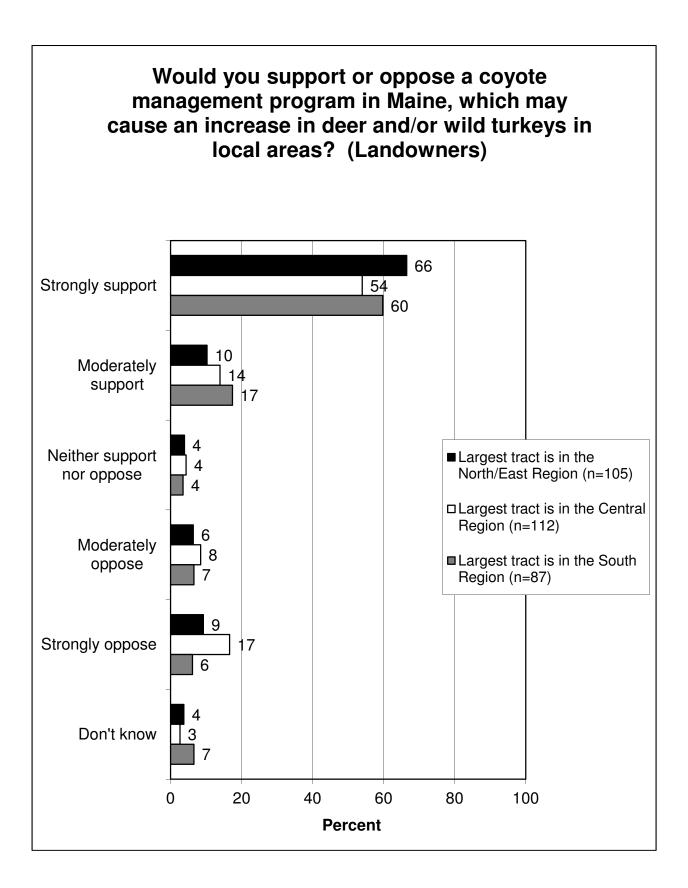






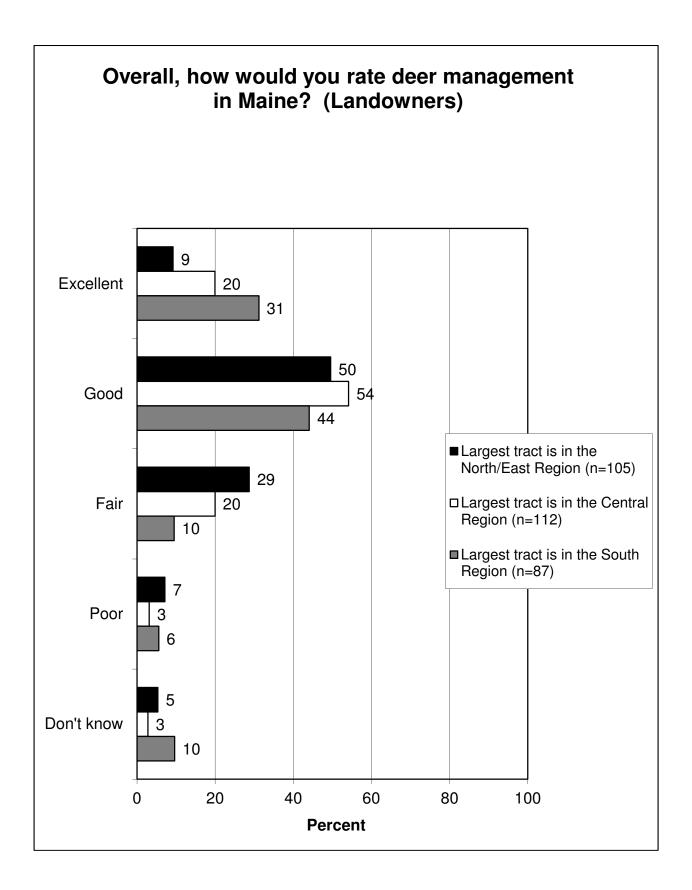


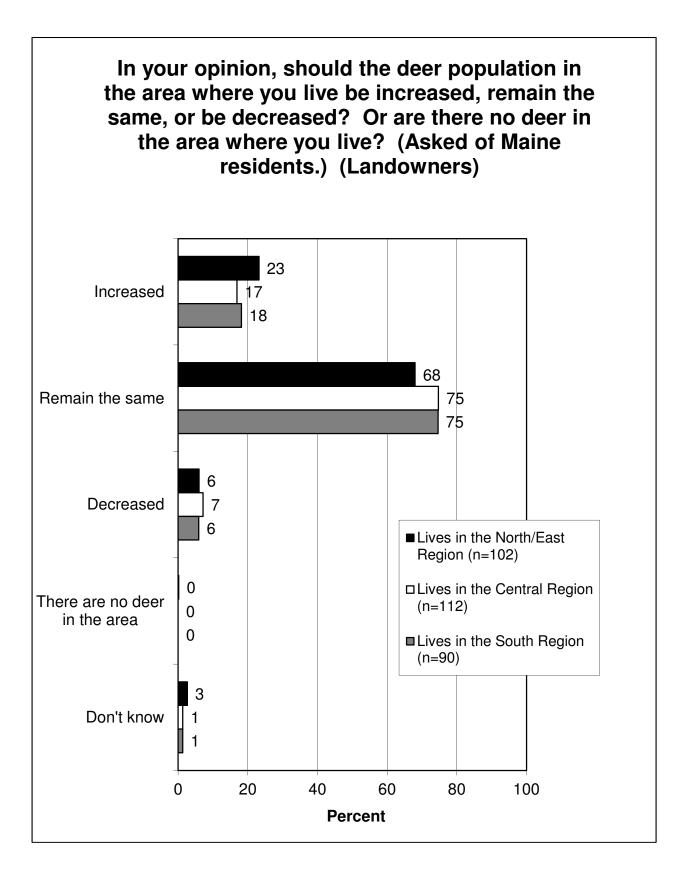


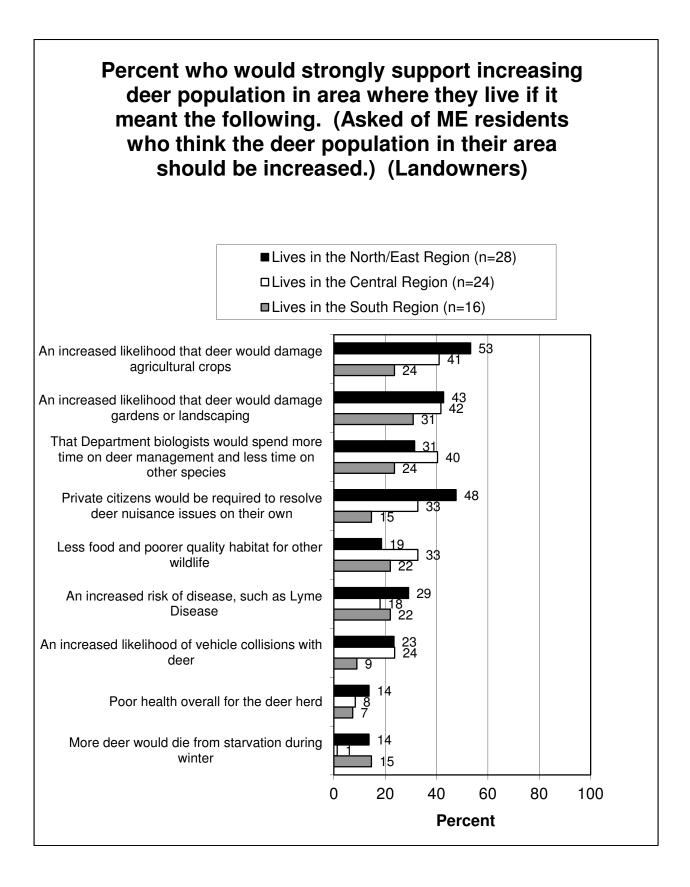


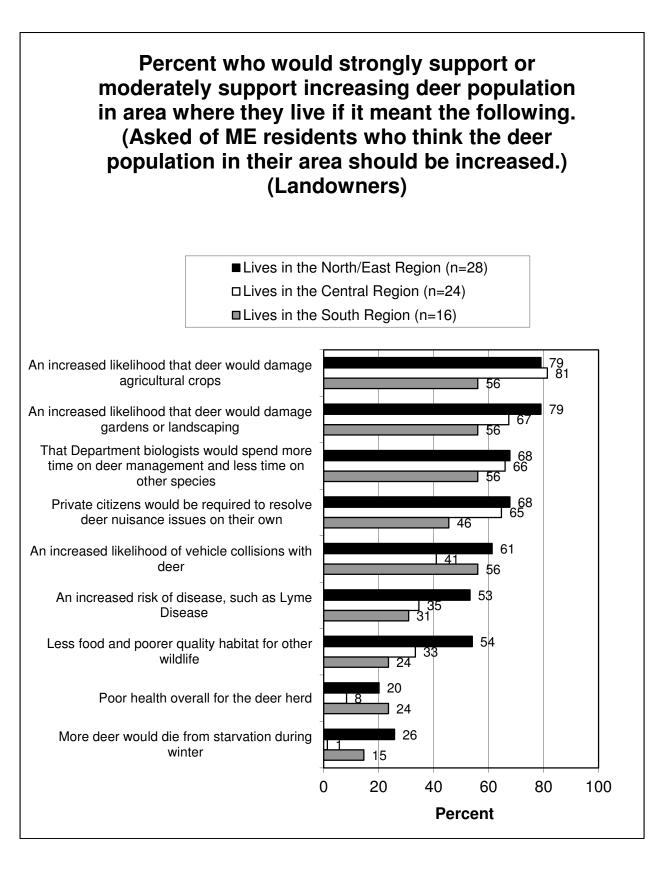
Deer Management—Landowners

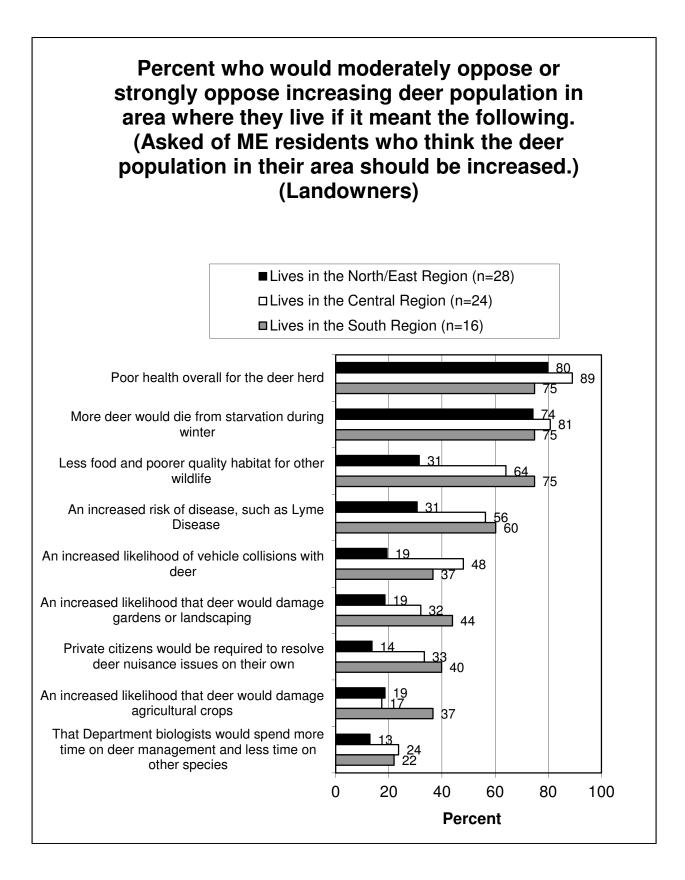
Ratings of deer management. Opinions on the size of the deer population. Why the deer population should be decreased. Support for increasing deer population with various caveats. Factors to be considered in managing deer. Support for/opposition to hunting as a way to manage deer. Support for/opposition to various methods to control deer. Opinions on deer and moose tradeoffs.

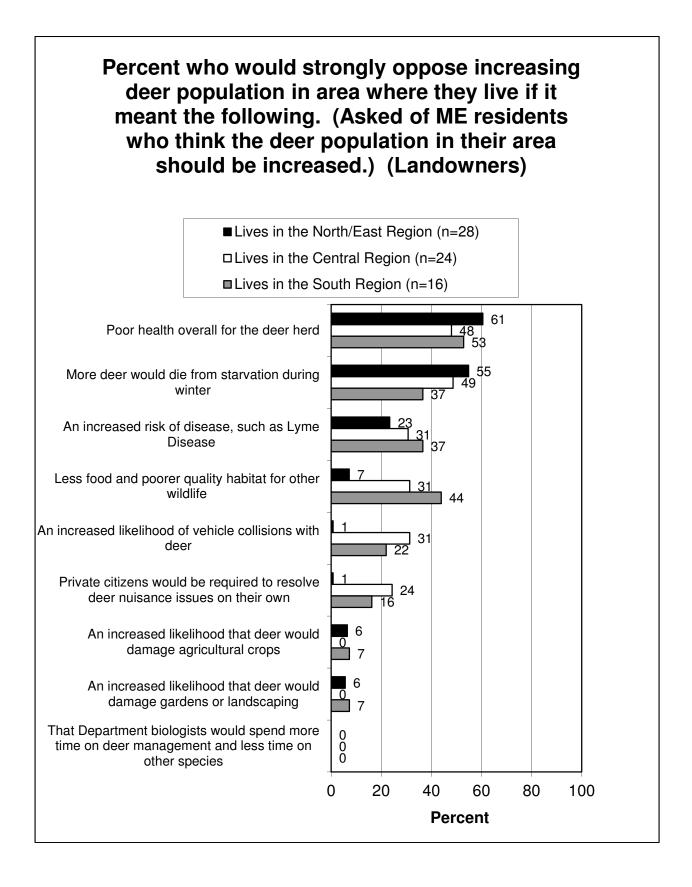


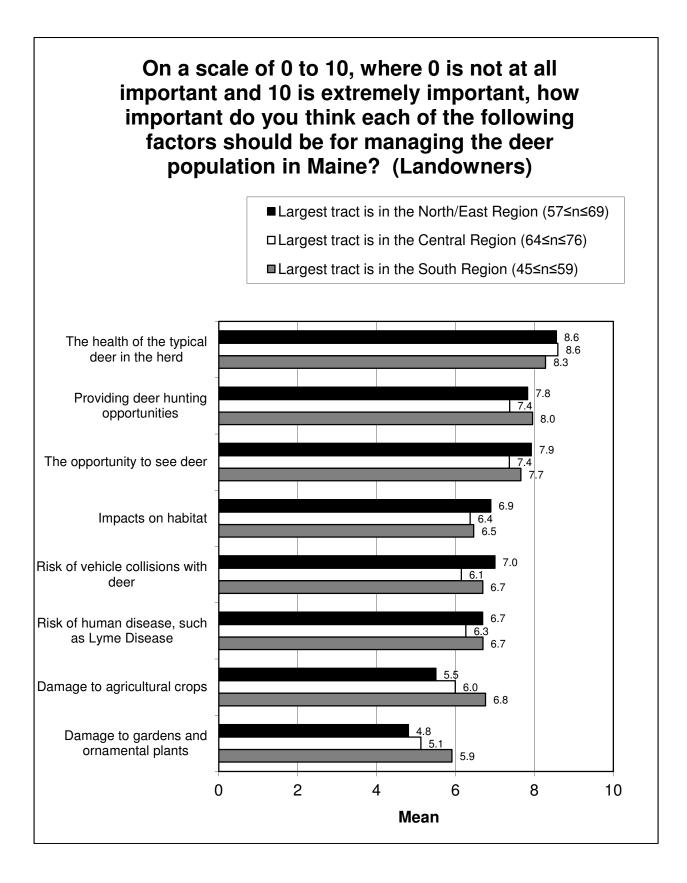


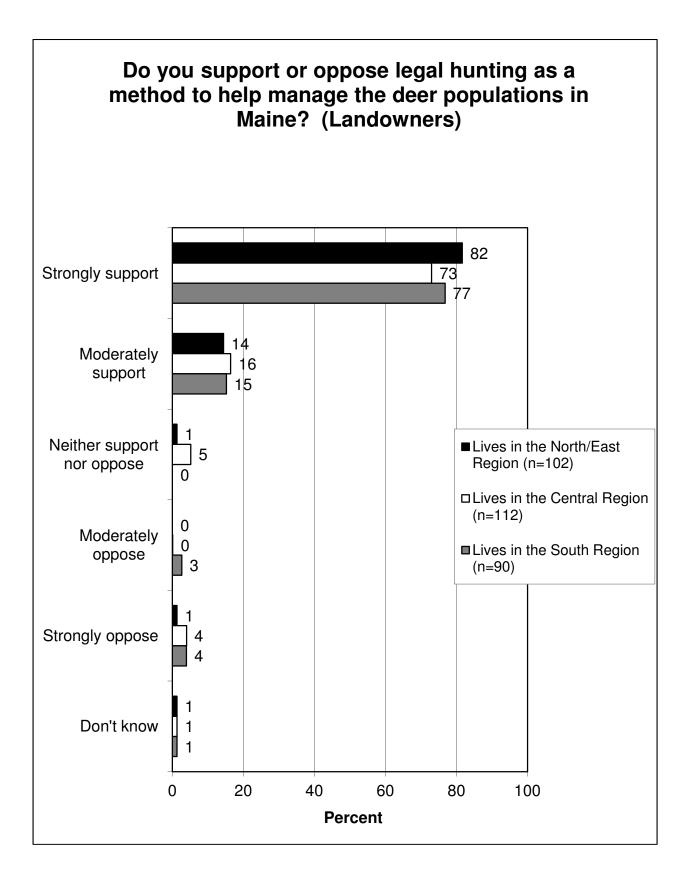


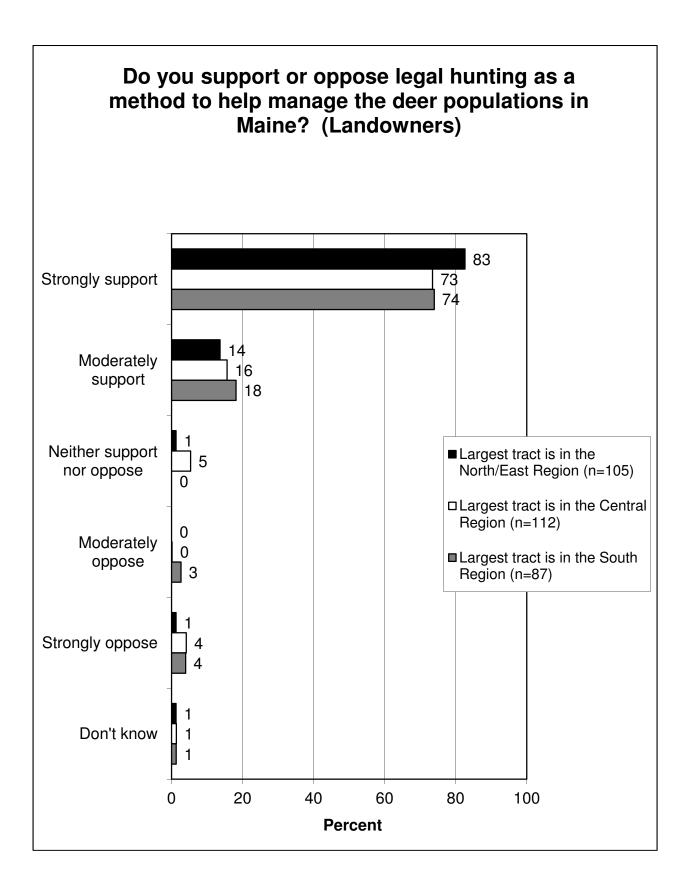


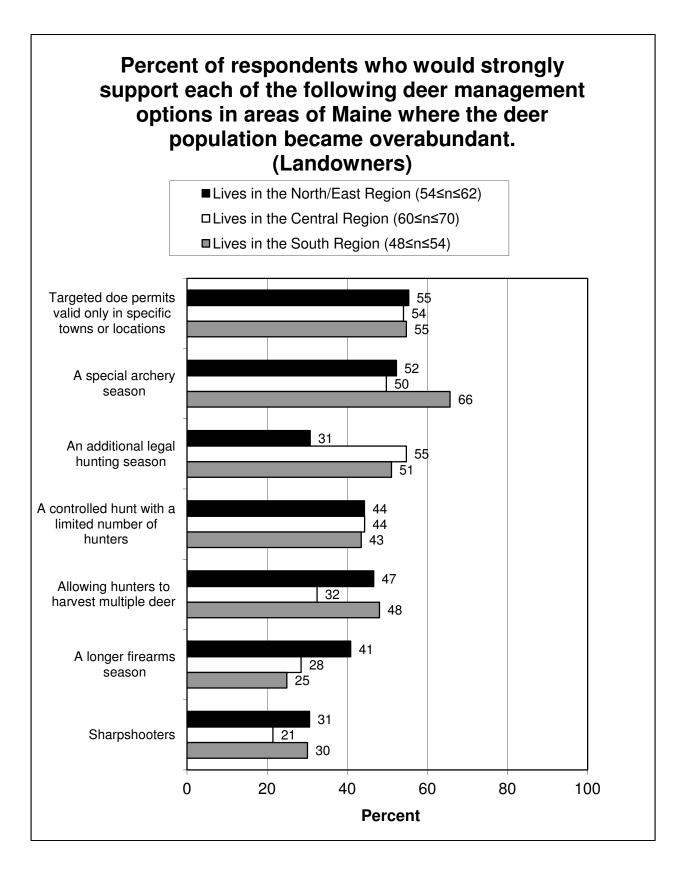


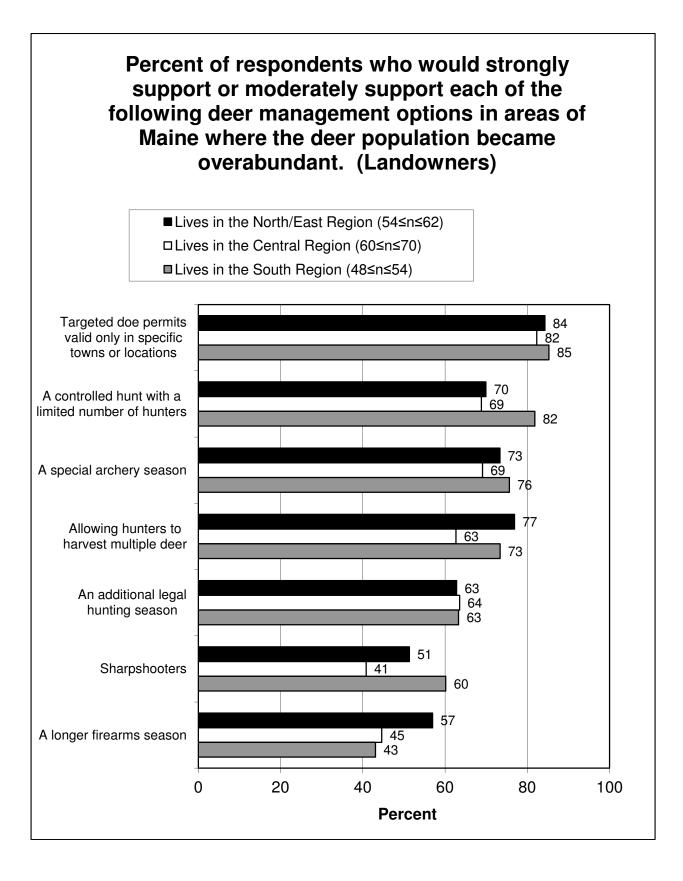


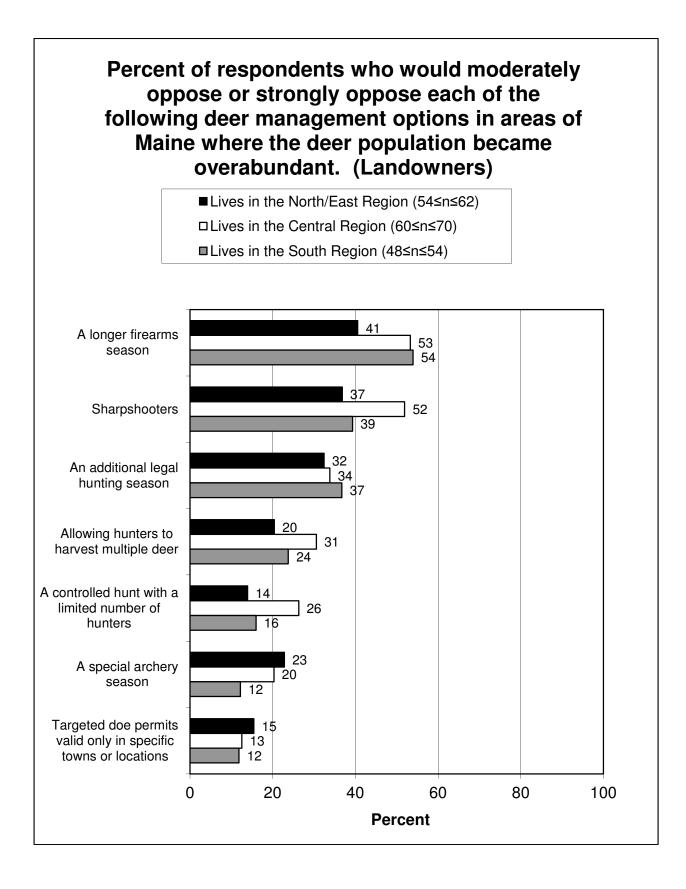


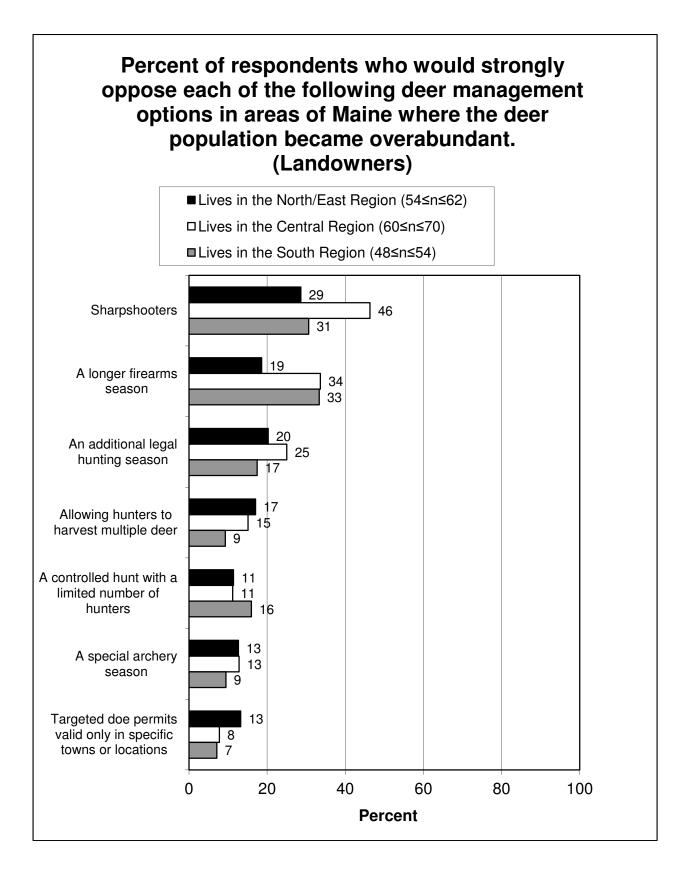




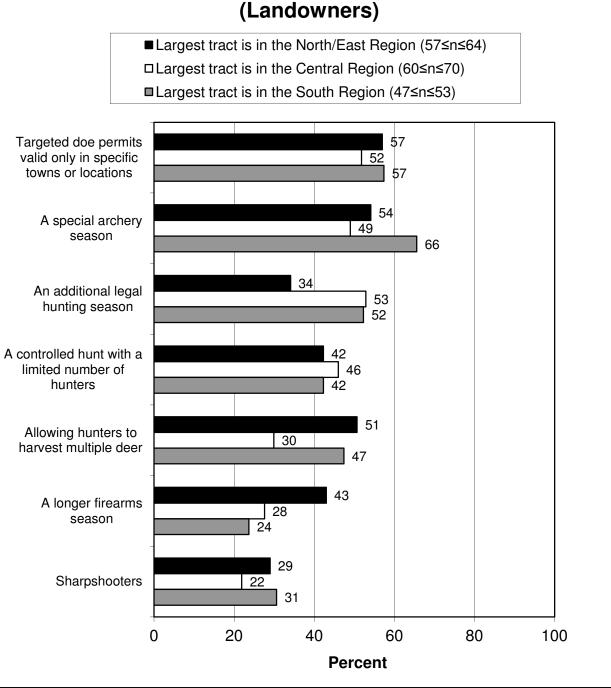


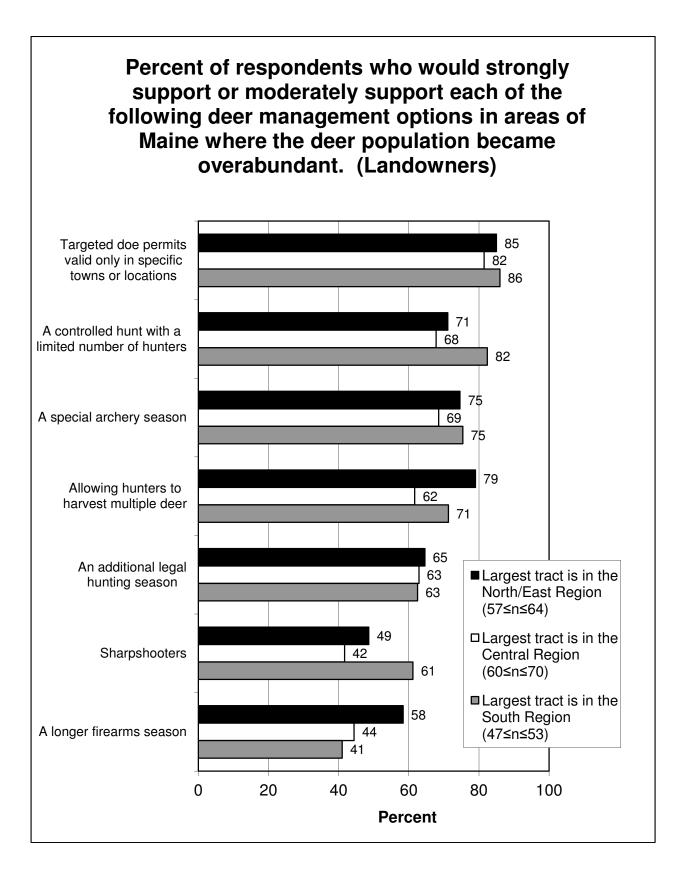


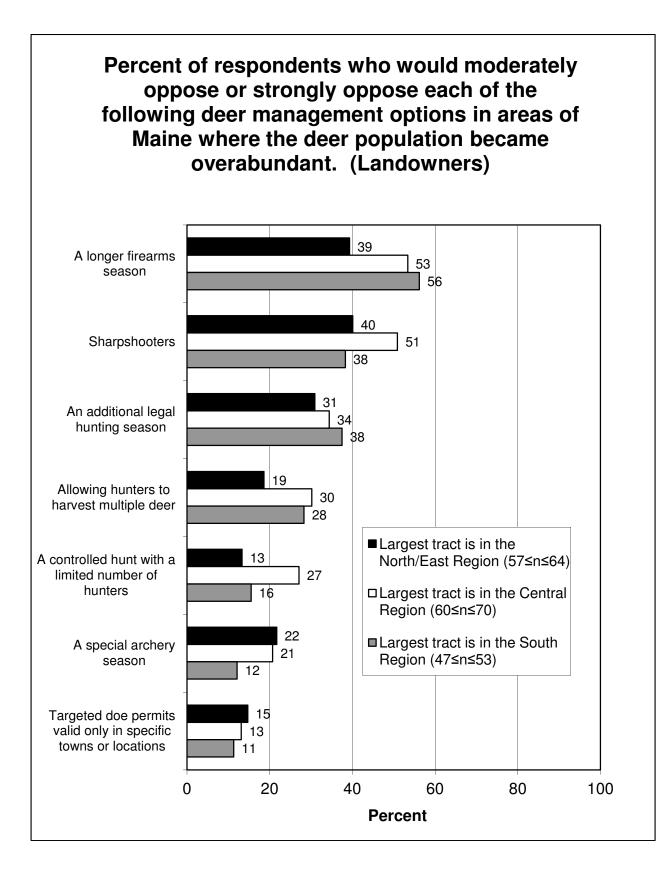


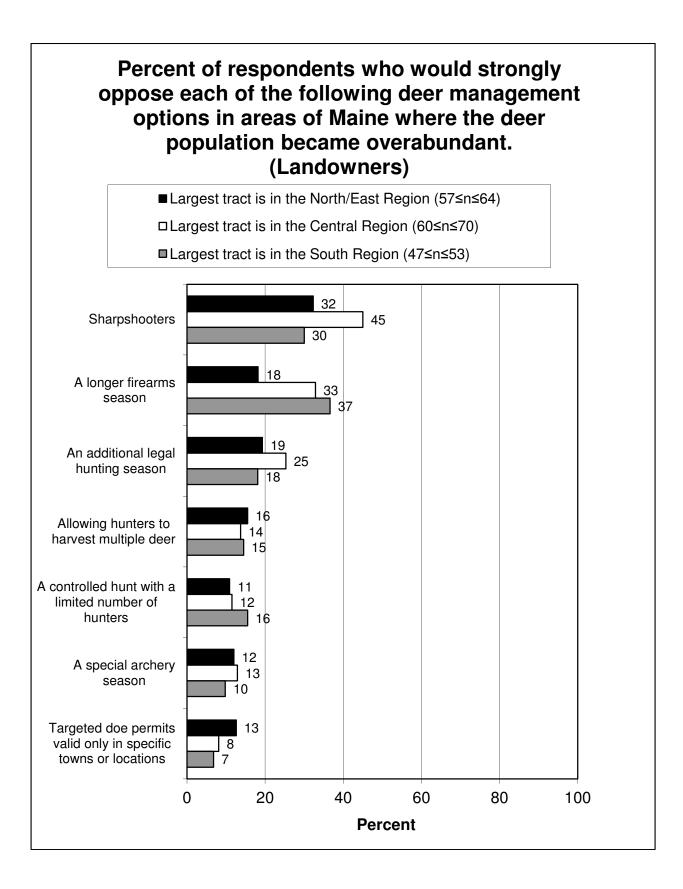


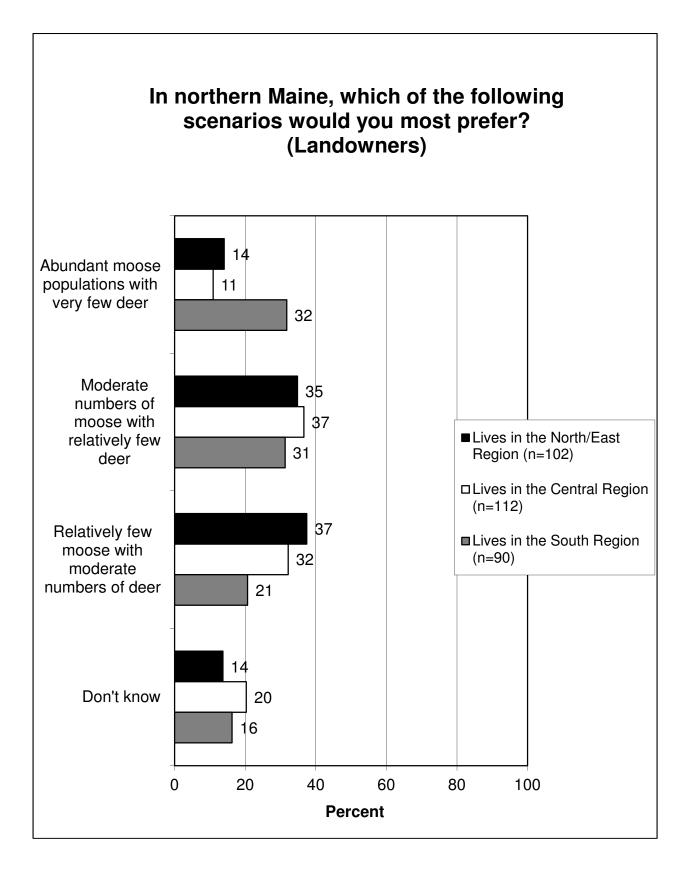
Percent of respondents who would strongly support each of the following deer management options in areas of Maine where the deer population became overabundant. (Landowners)











Moose Management—Landowners

Ratings of moose management.

Opinions on the size of the moose population.

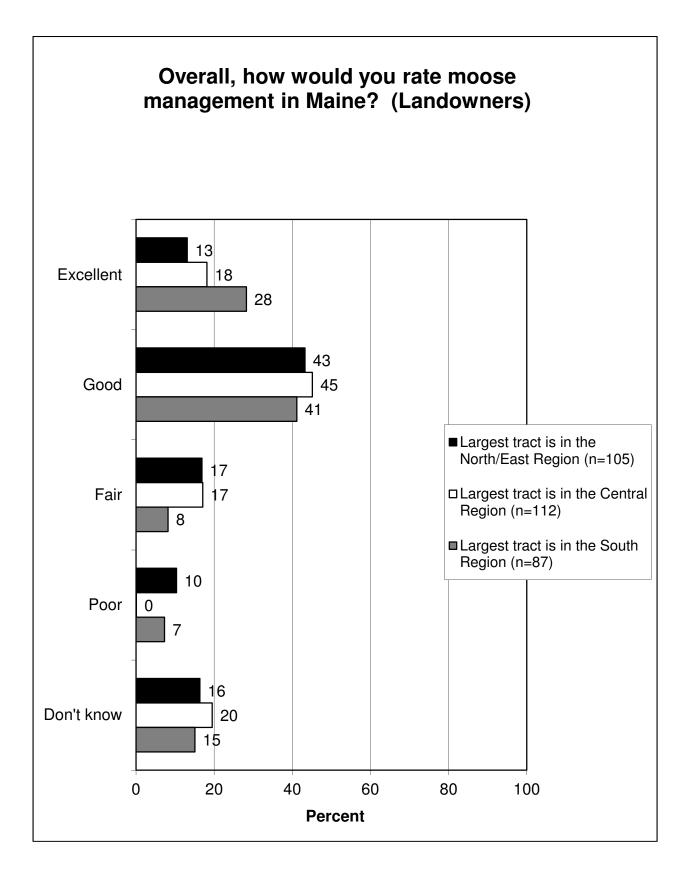
Support for increasing moose population with various caveats.

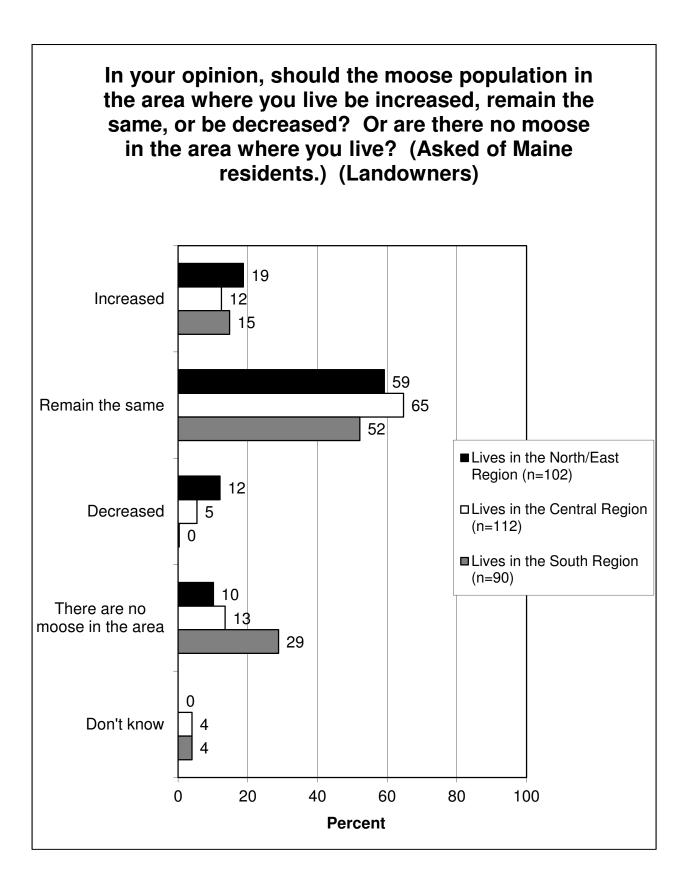
Factors to be considered in managing moose.

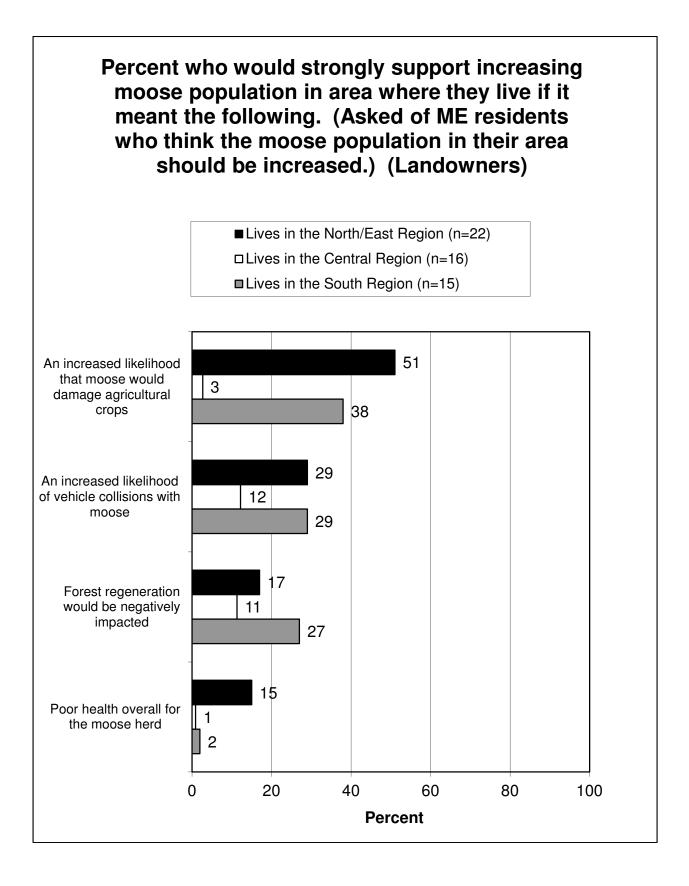
Support for/opposition to hunting as a way to manage moose.

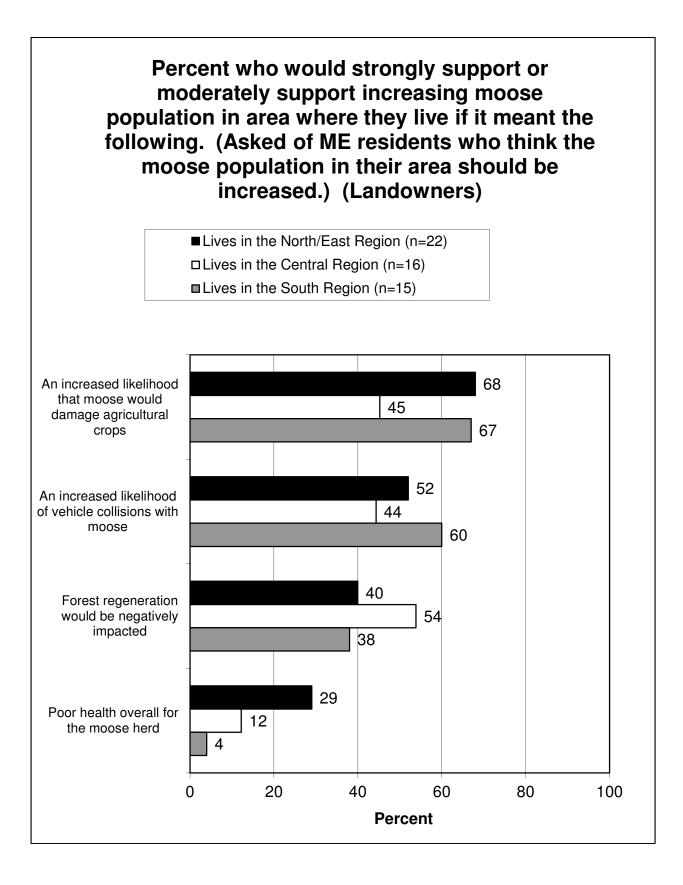
Opinion on adjusting moose harvest for health of the moose population.

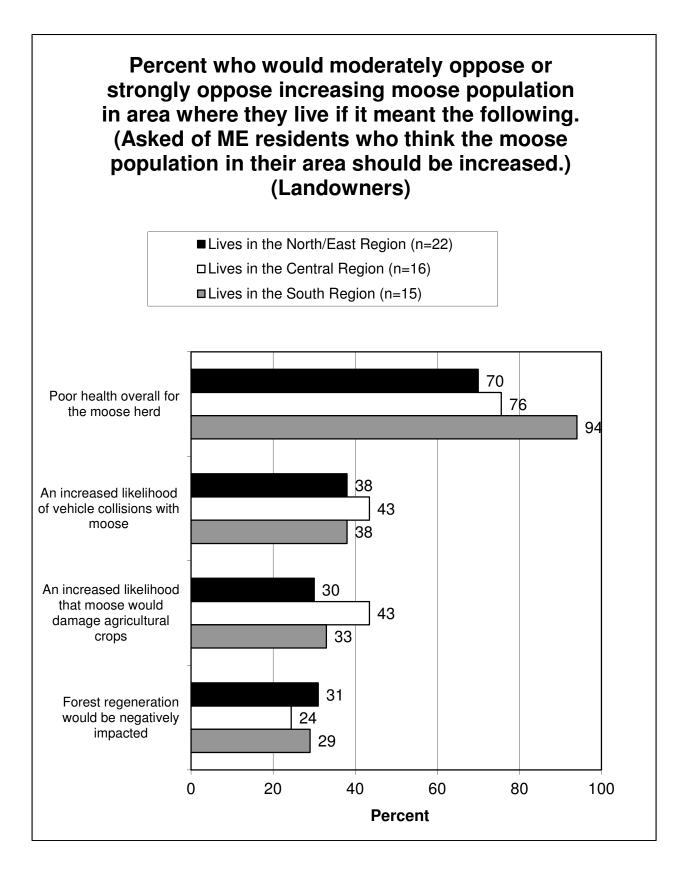
Opinion on moose hunting in southern Maine.

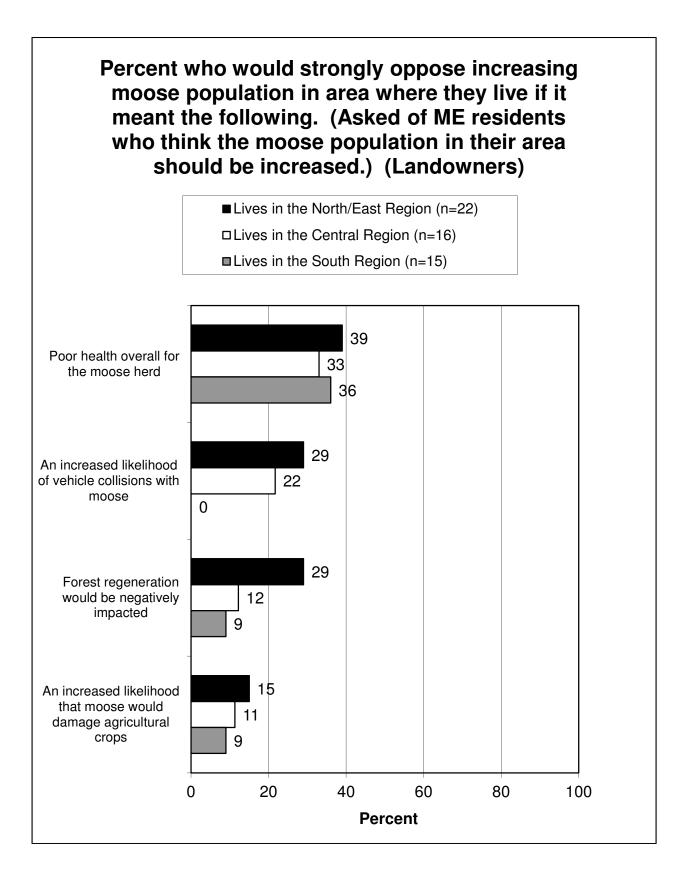


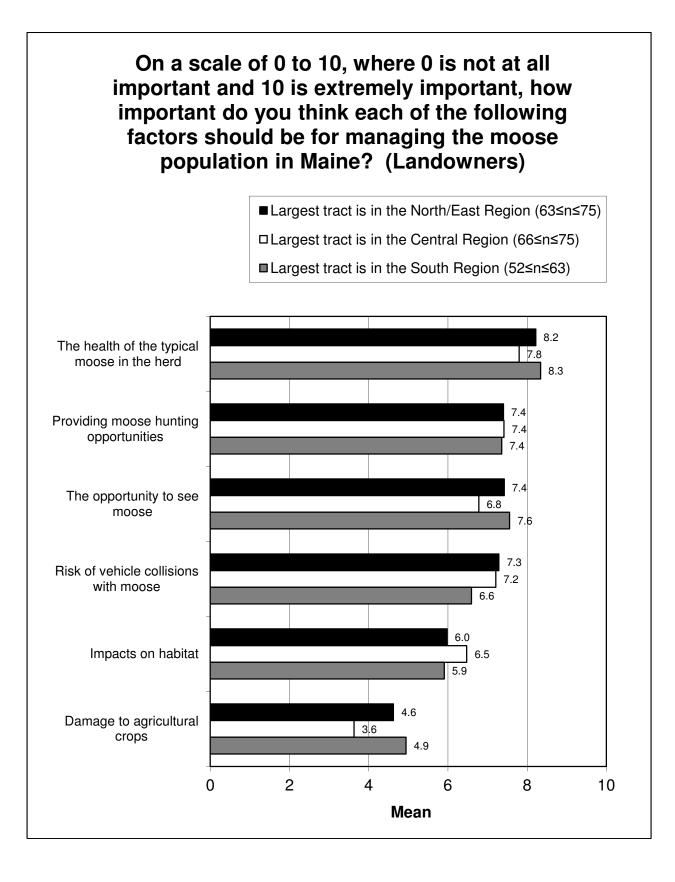


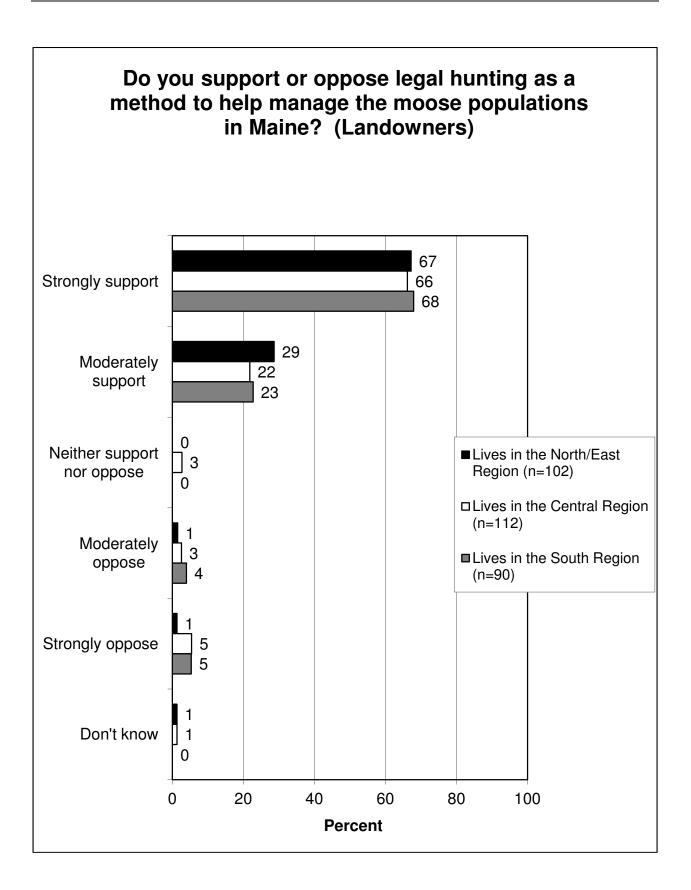


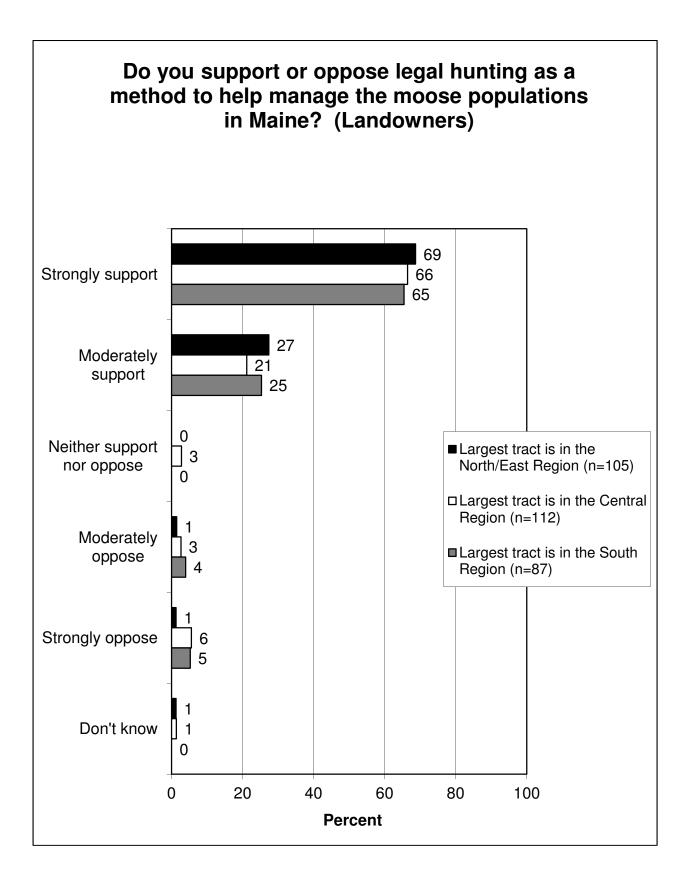


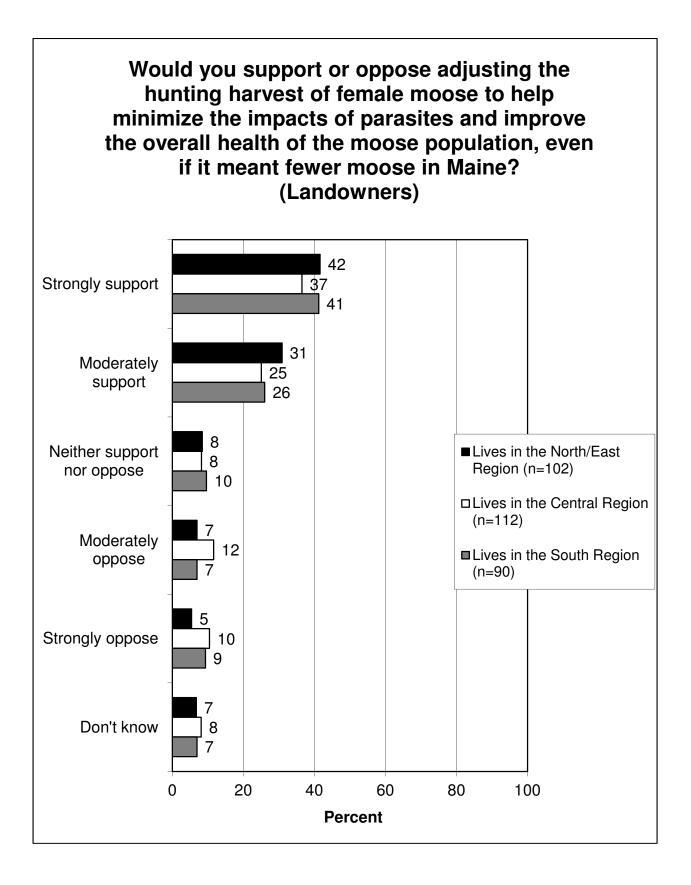


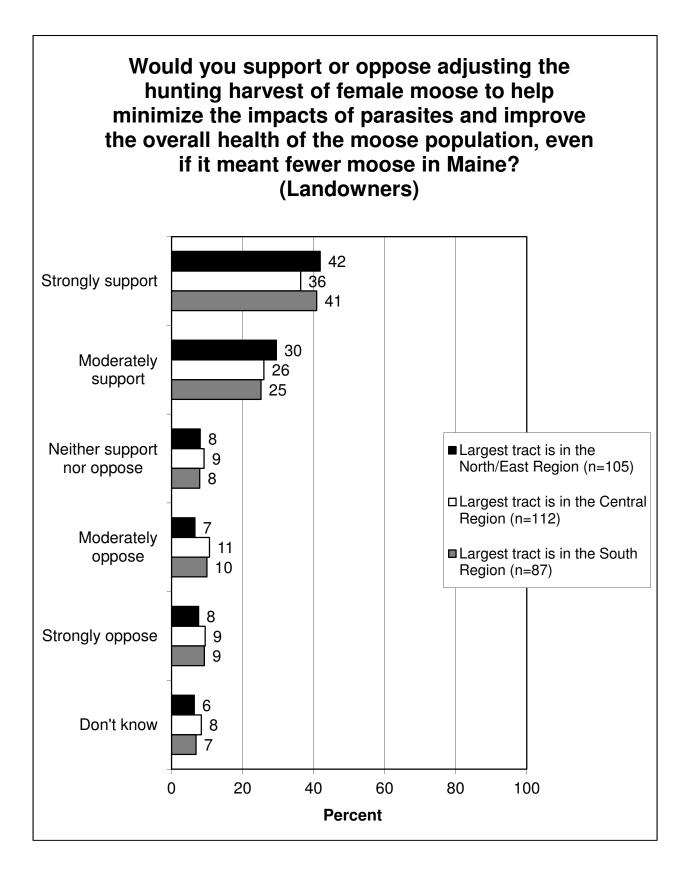


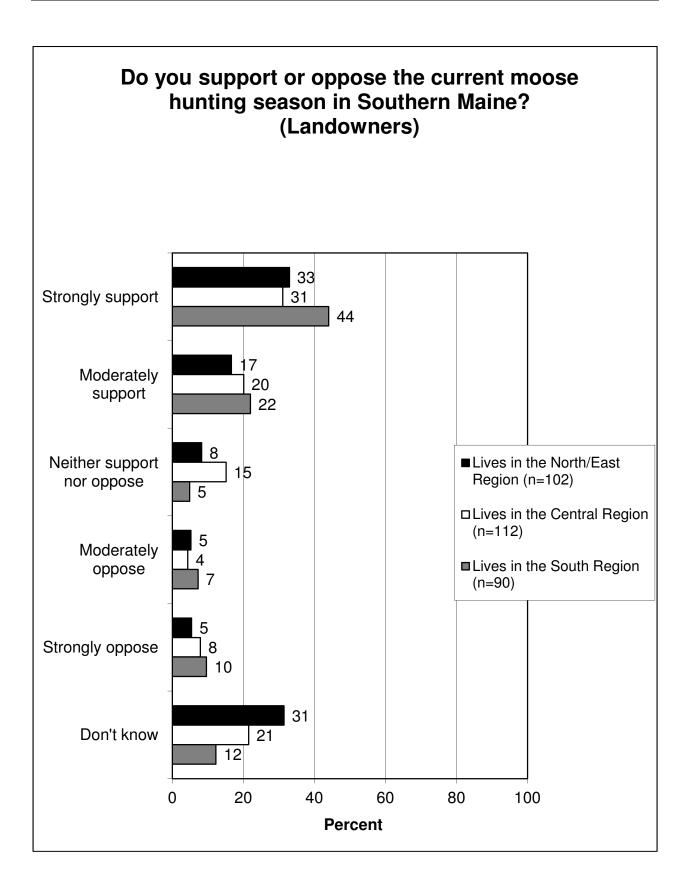


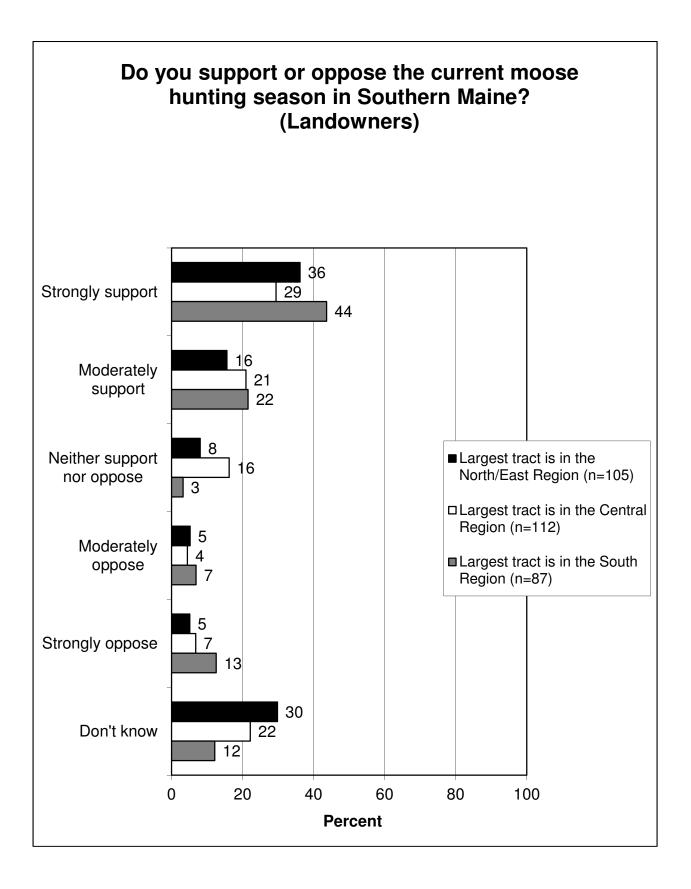






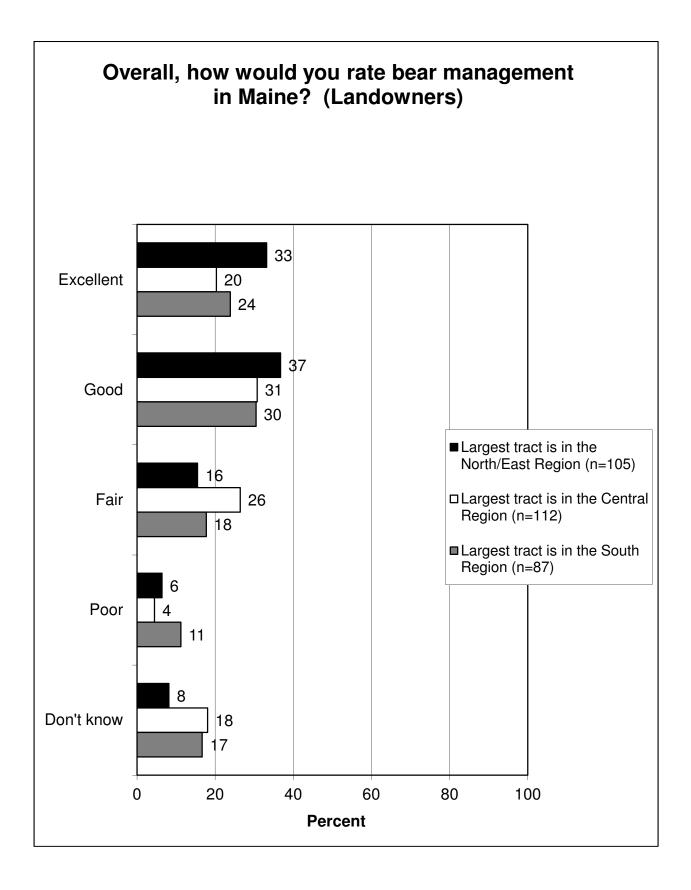


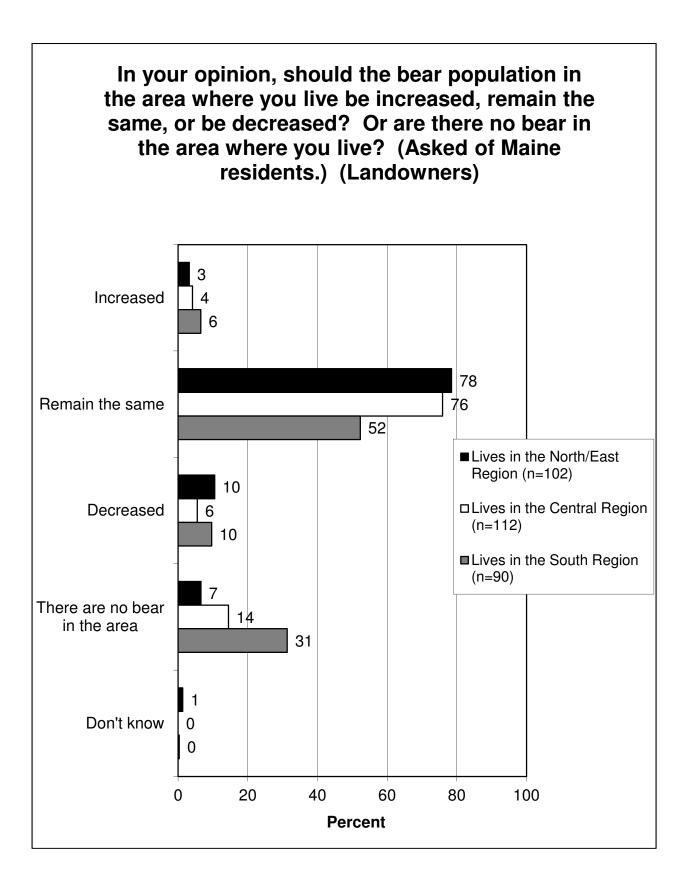


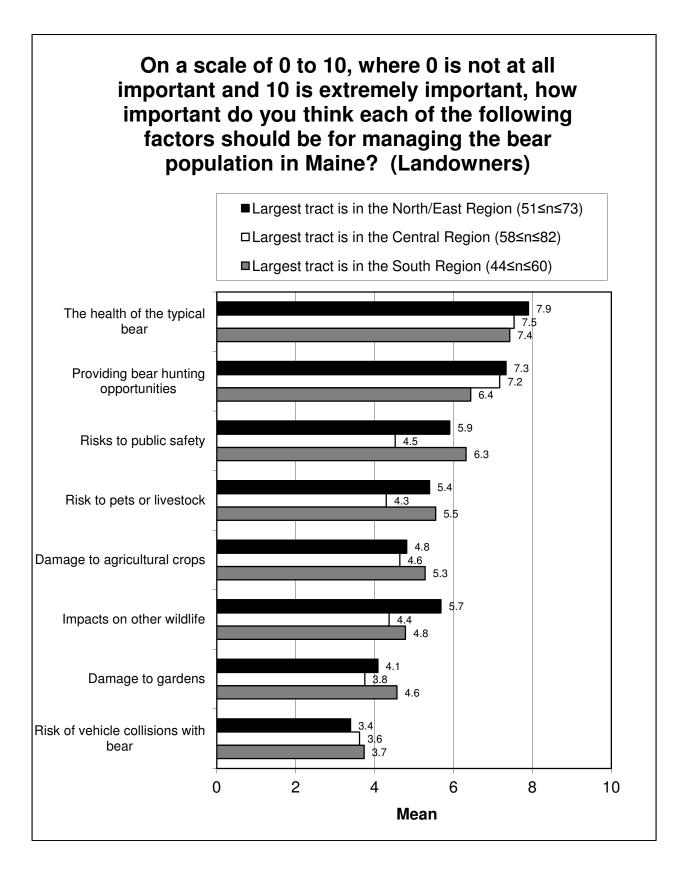


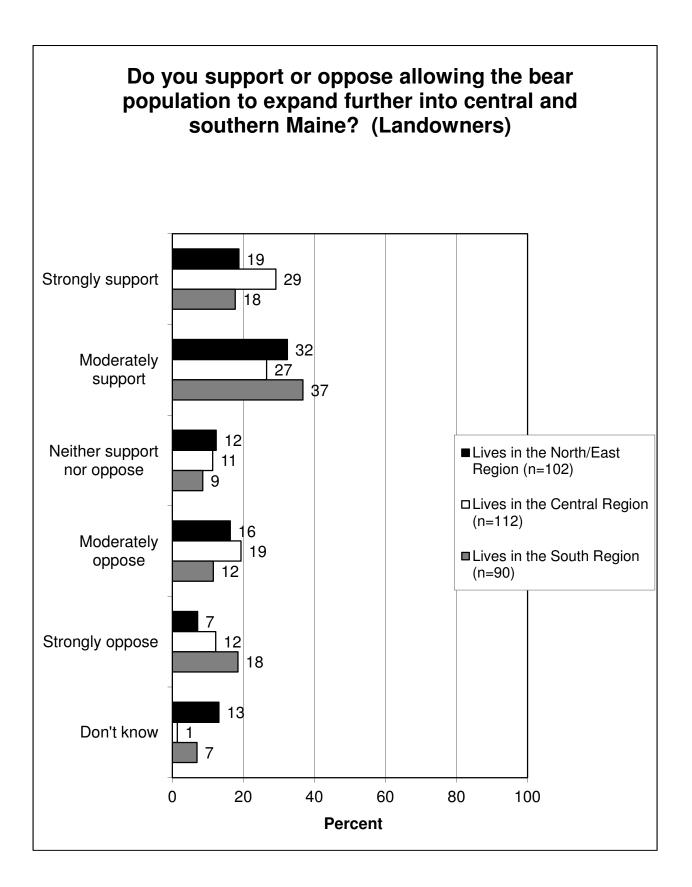
Bear Management—Landowners

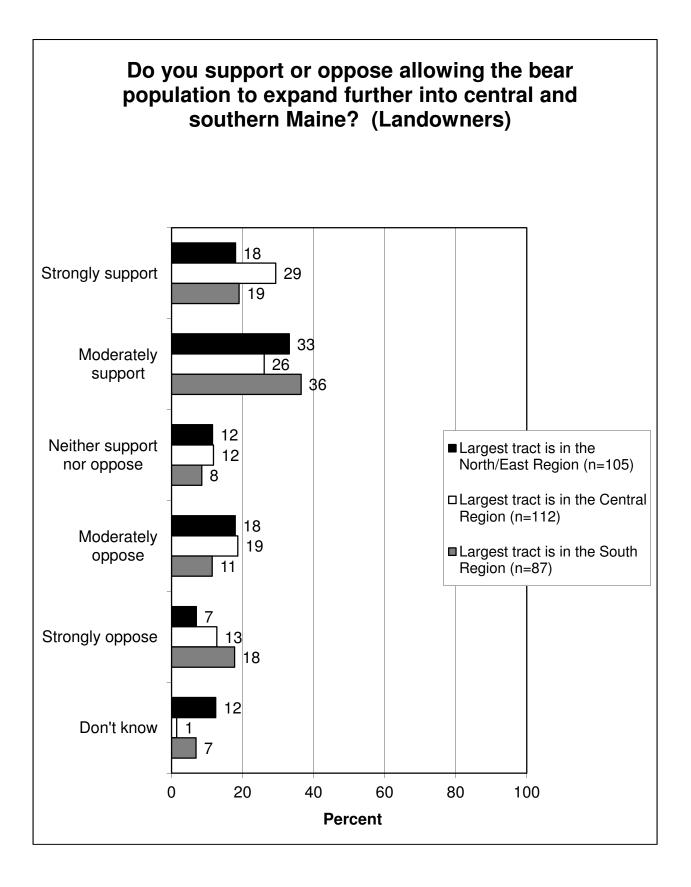
Ratings of bear management. Opinions on the size of the bear population. Support for increasing bear population with various caveats. Factors to be considered in managing bear. Support for/opposition to hunting as a way to manage bear. Opinion on allowing bear populations to expand south.











Turkey Management—Landowners

Ratings of turkey management.

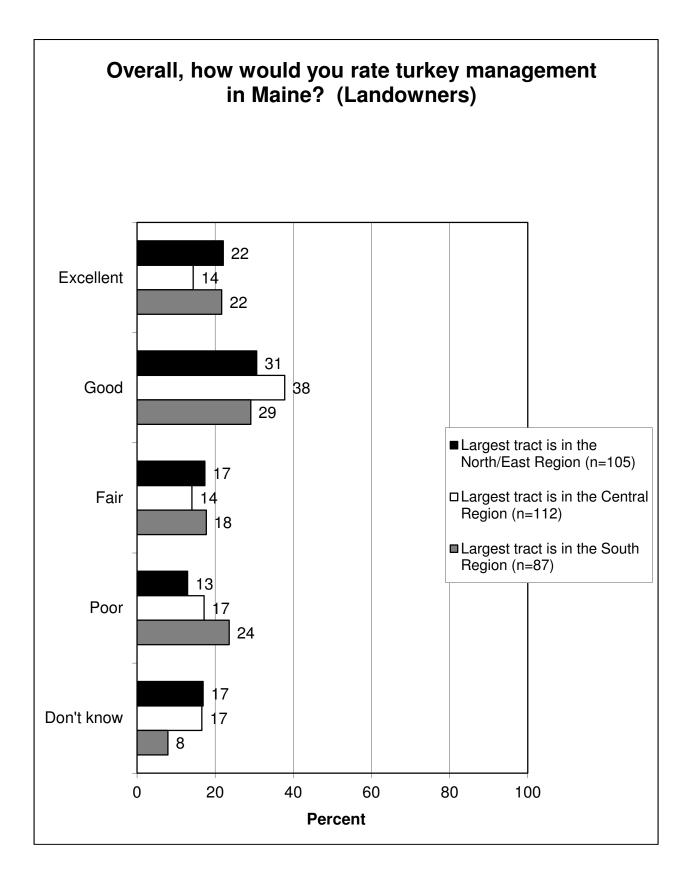
Opinions on the size of the turkey population.

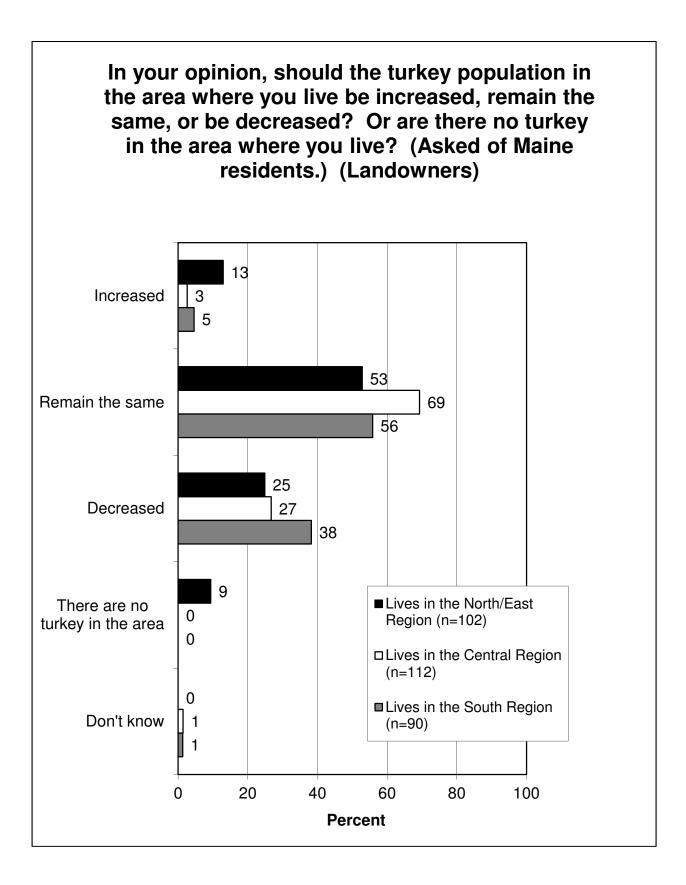
Support for increasing turkey population with various caveats.

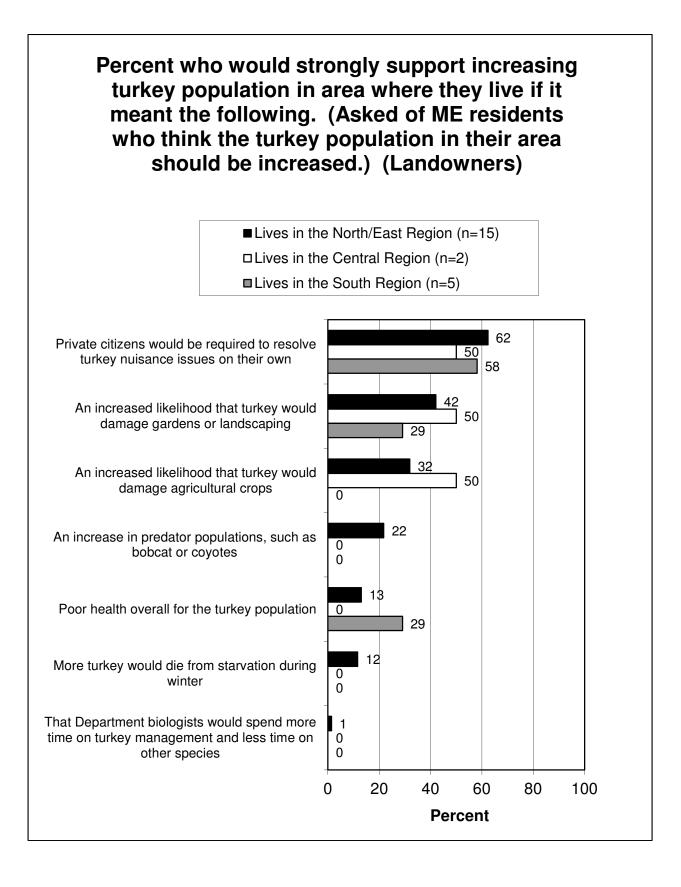
Factors to be considered in managing turkey.

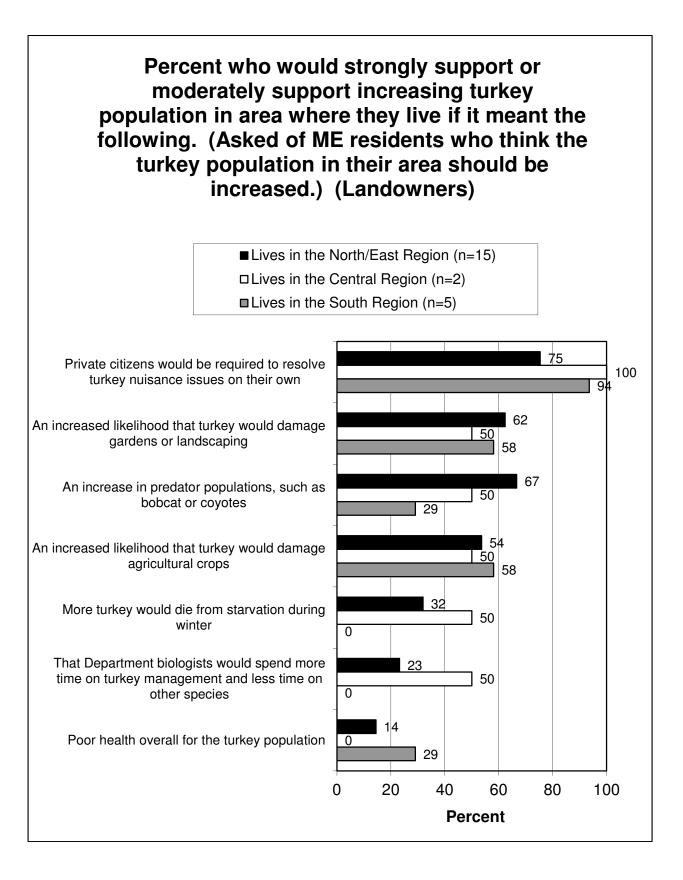
Support for/opposition to hunting as a way to manage turkey.

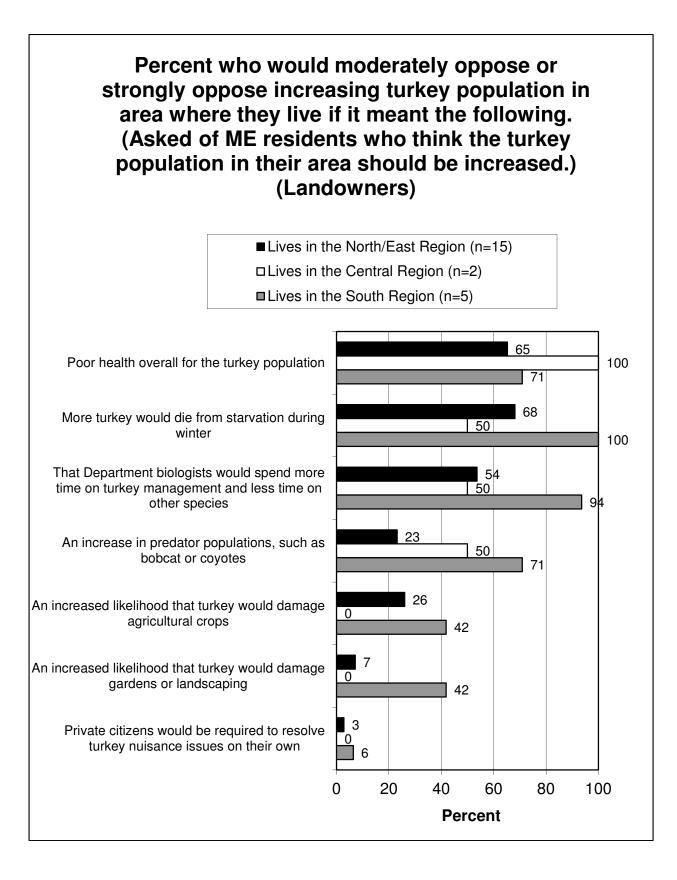
Opinion on methods to control turkey if they become overabundant.

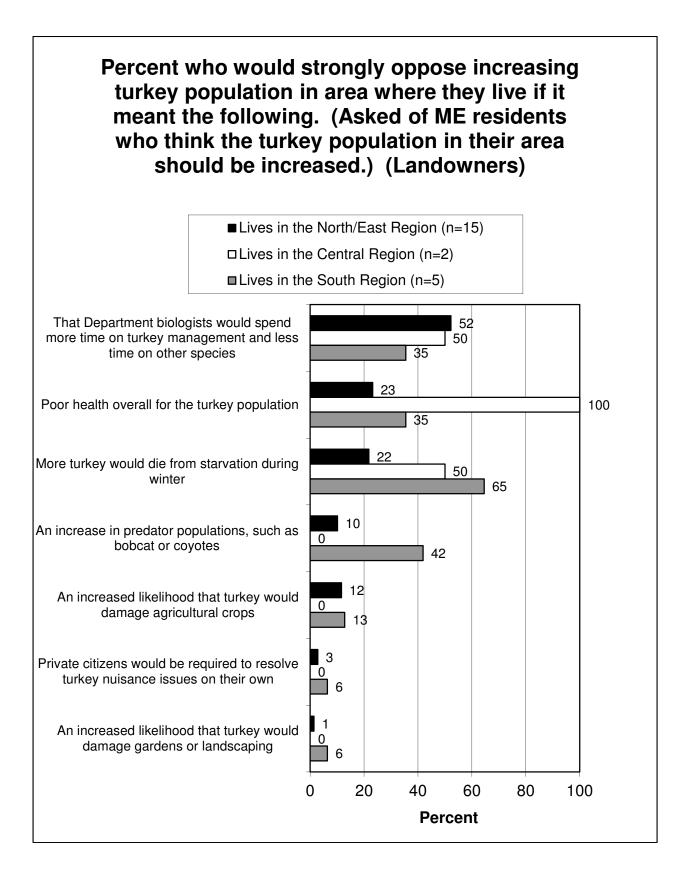


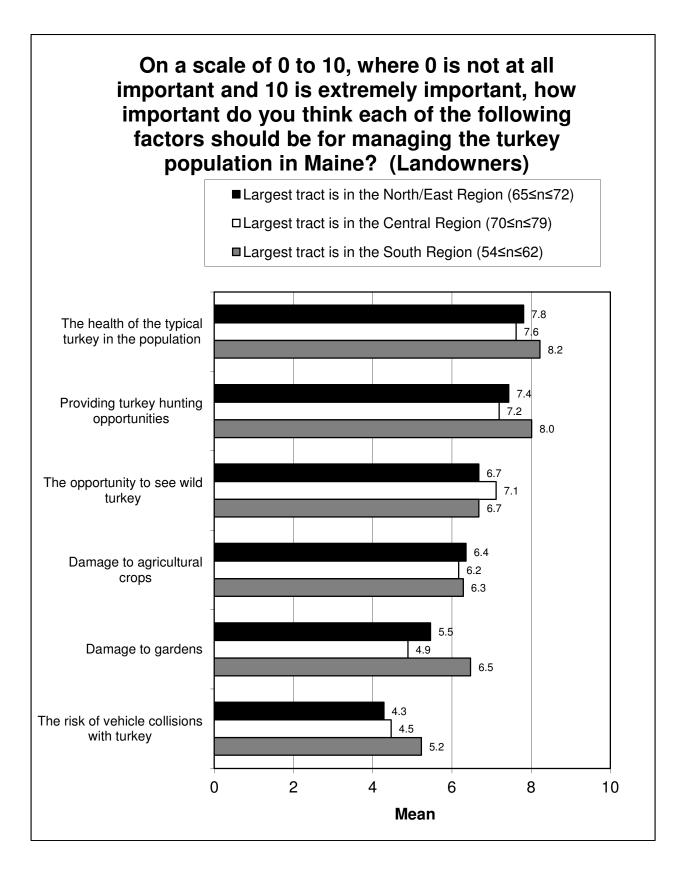


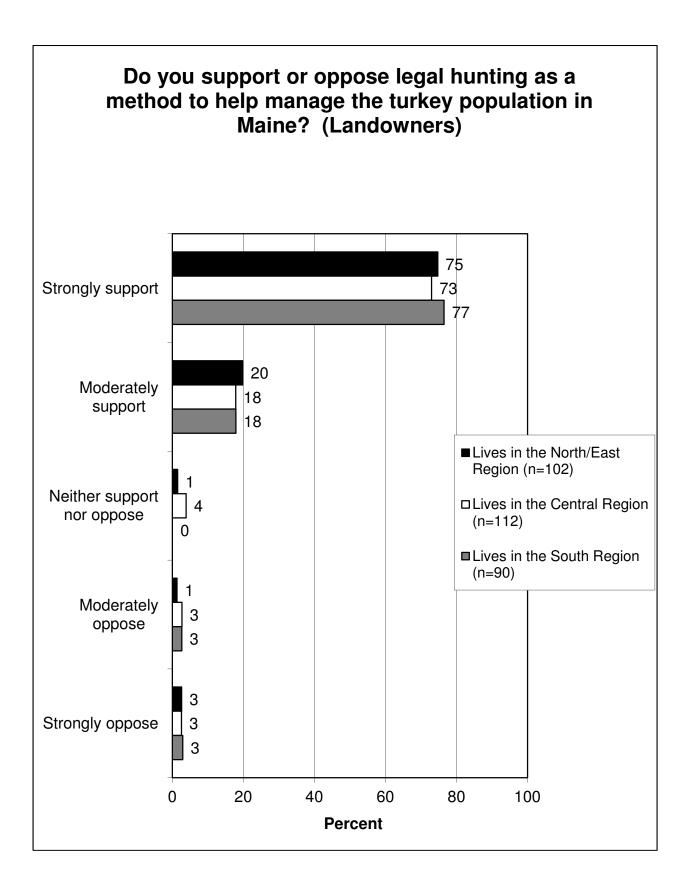


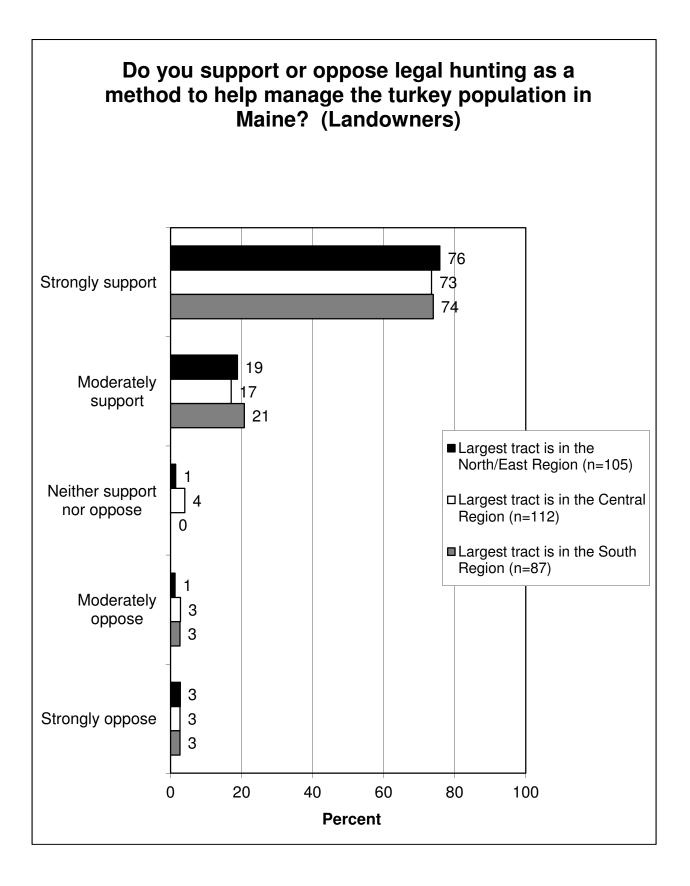


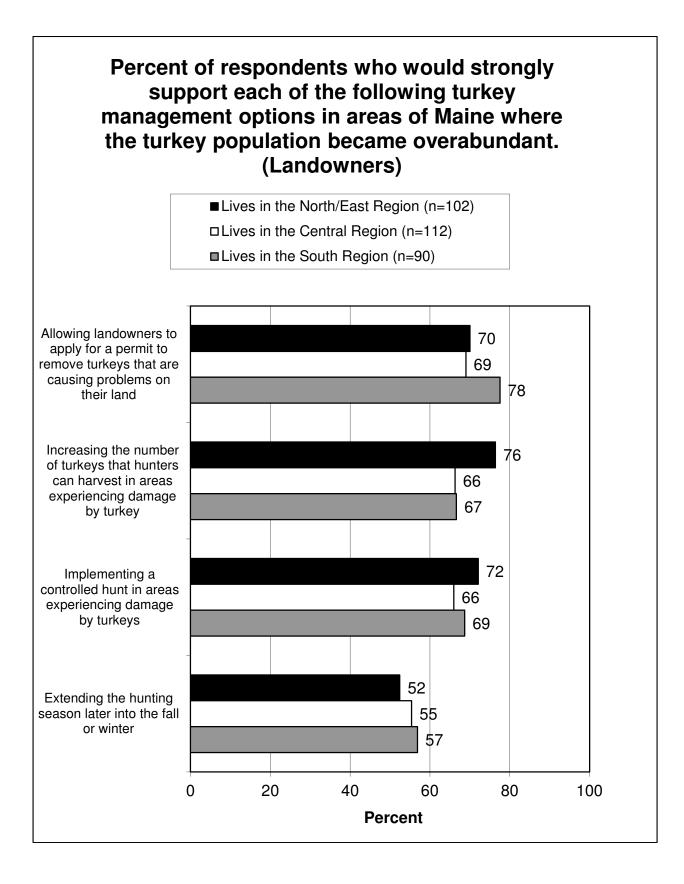


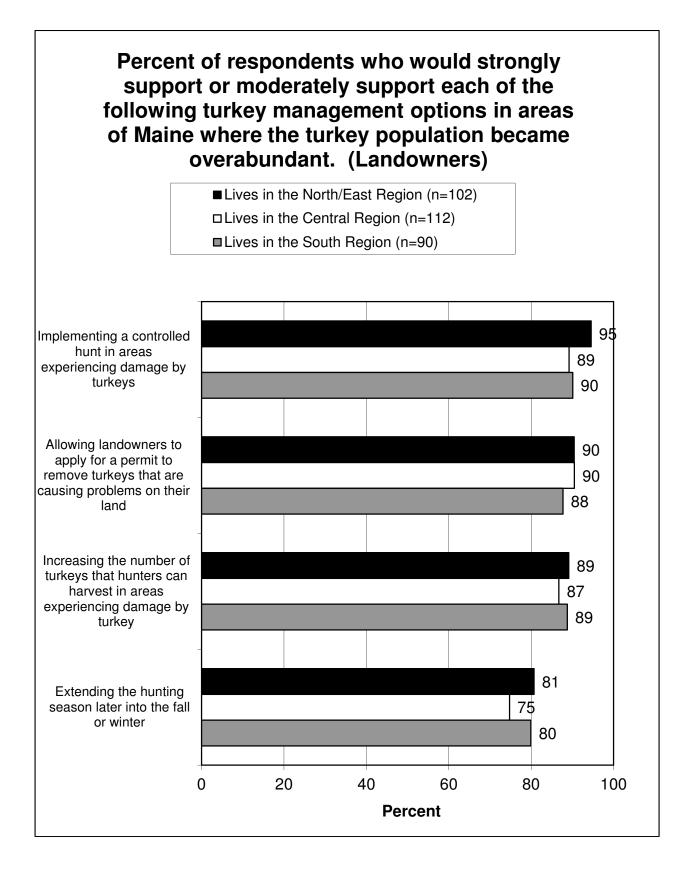


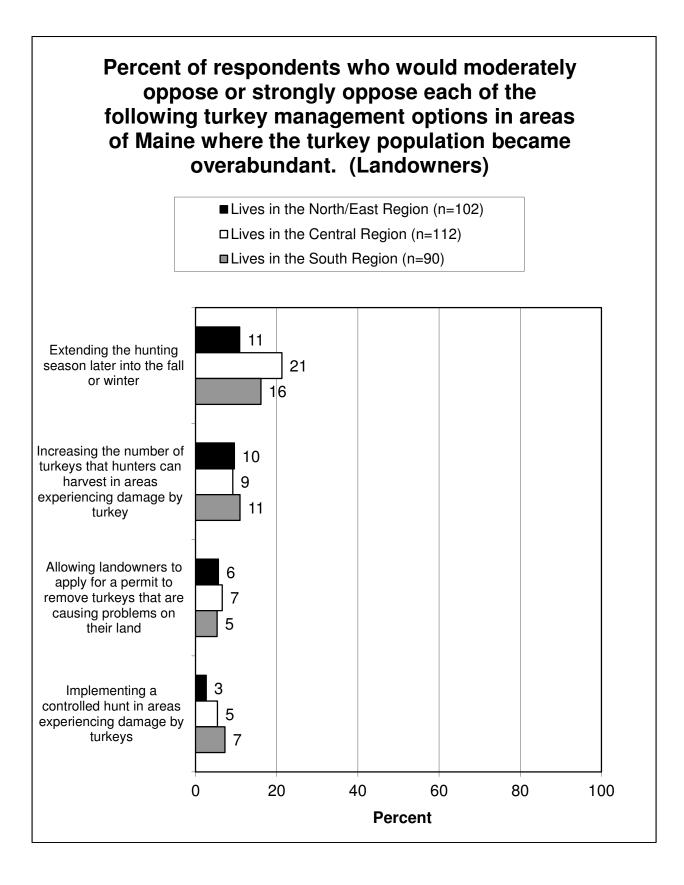


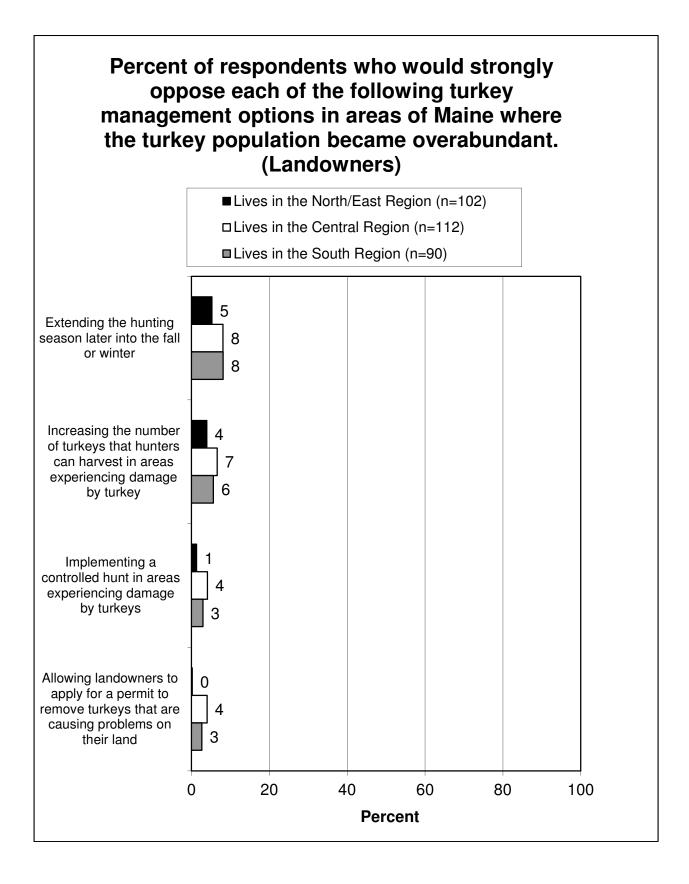


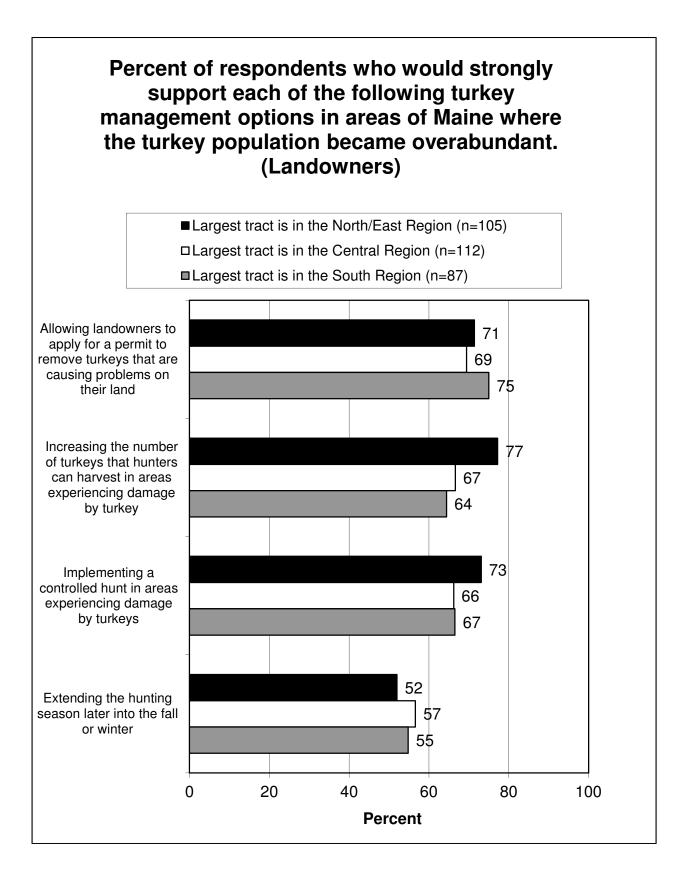


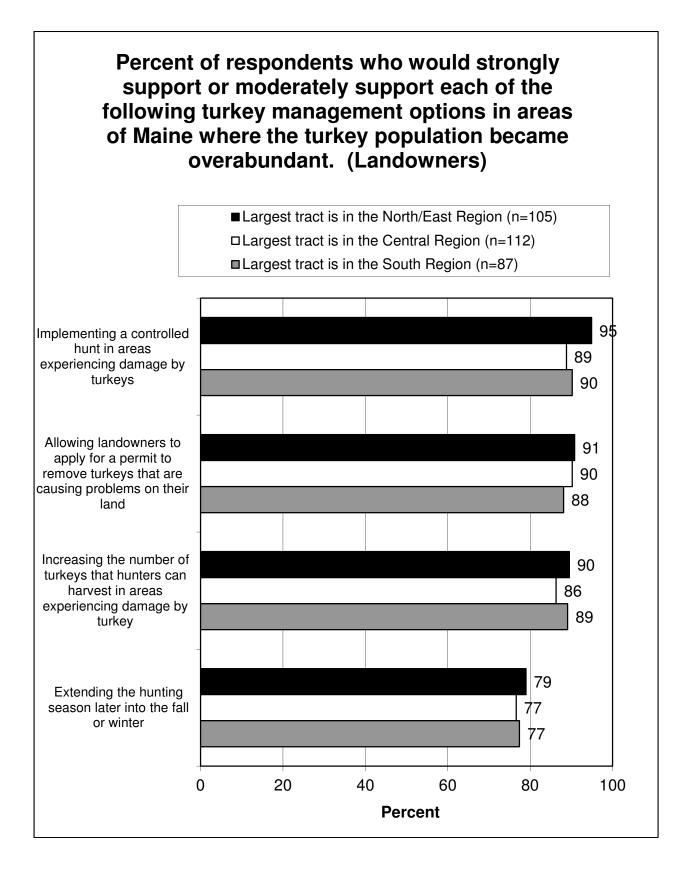


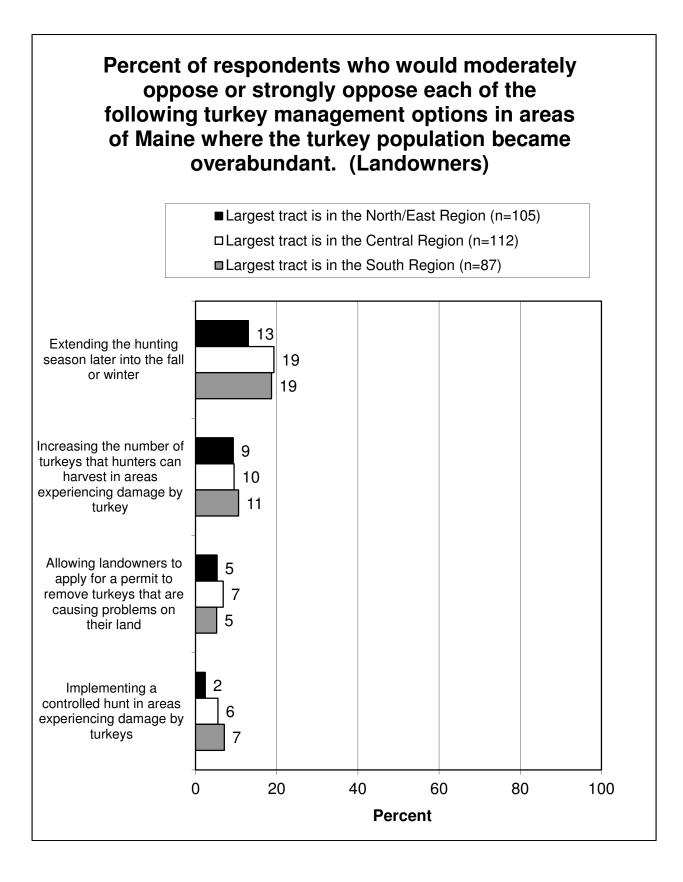


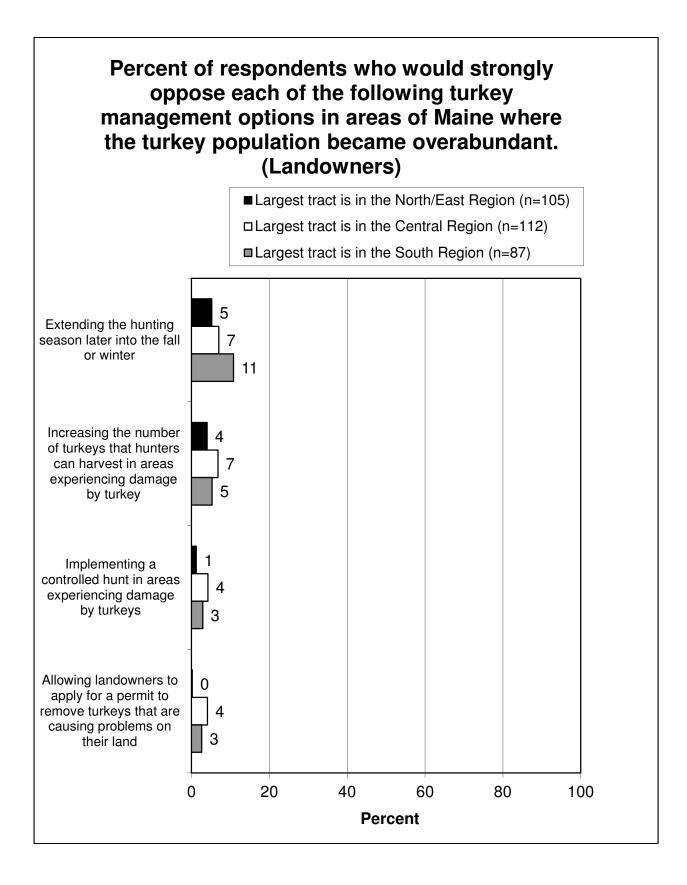






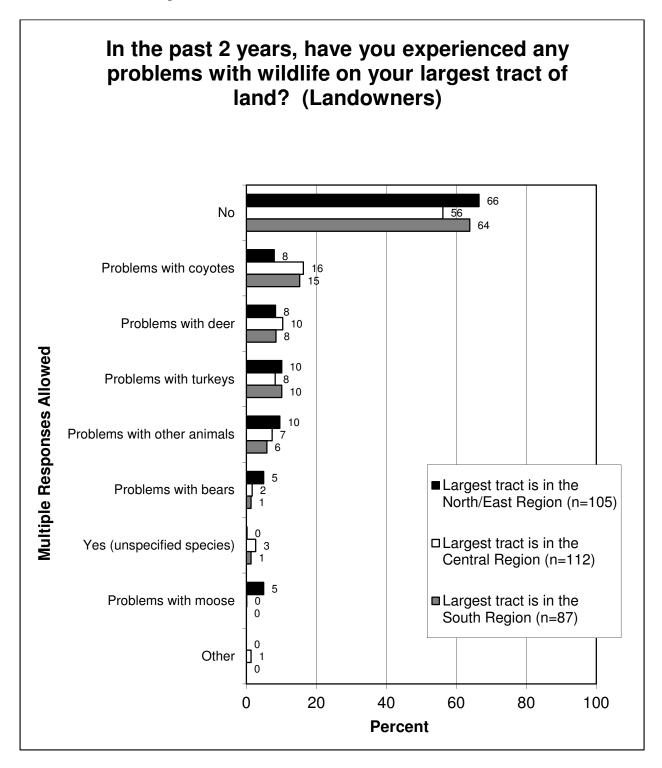






Problems With Wildlife—Landowners

Experiencing problems with wildlife. Which wildlife caused problems.



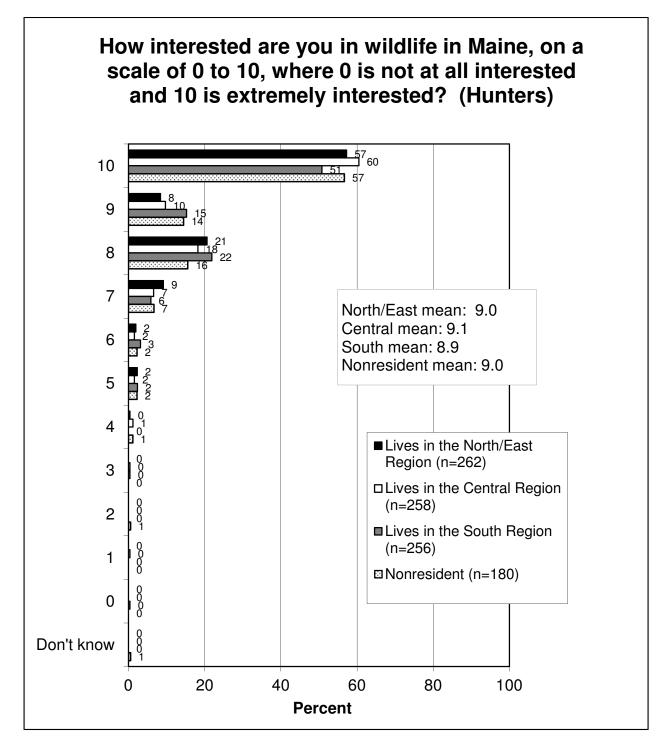
HUNTER SURVEY

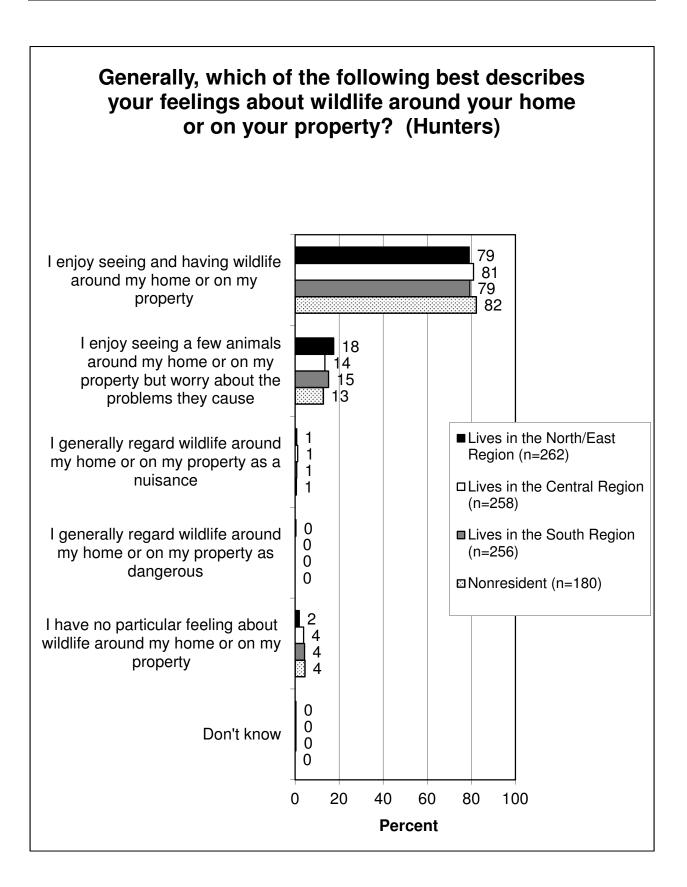
Interest in and Knowledge of Wildlife—Hunters

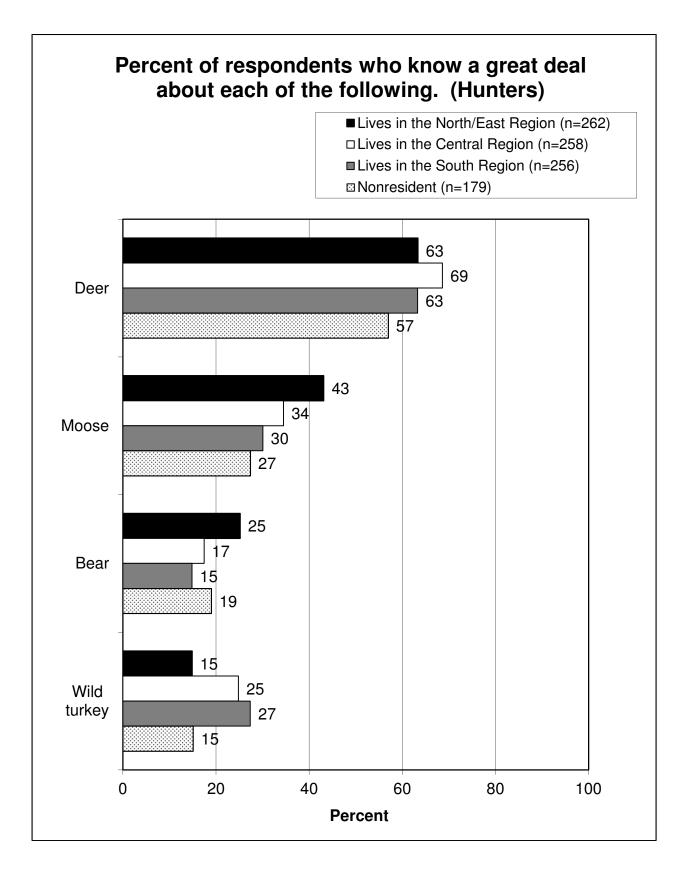
Overall interest in wildlife.

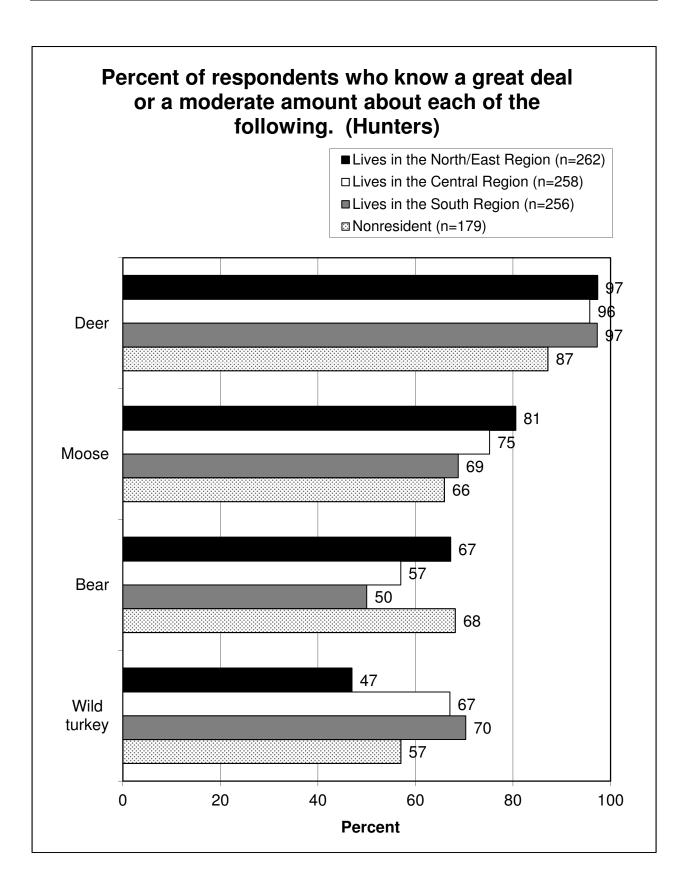
Feelings about wildlife around home.

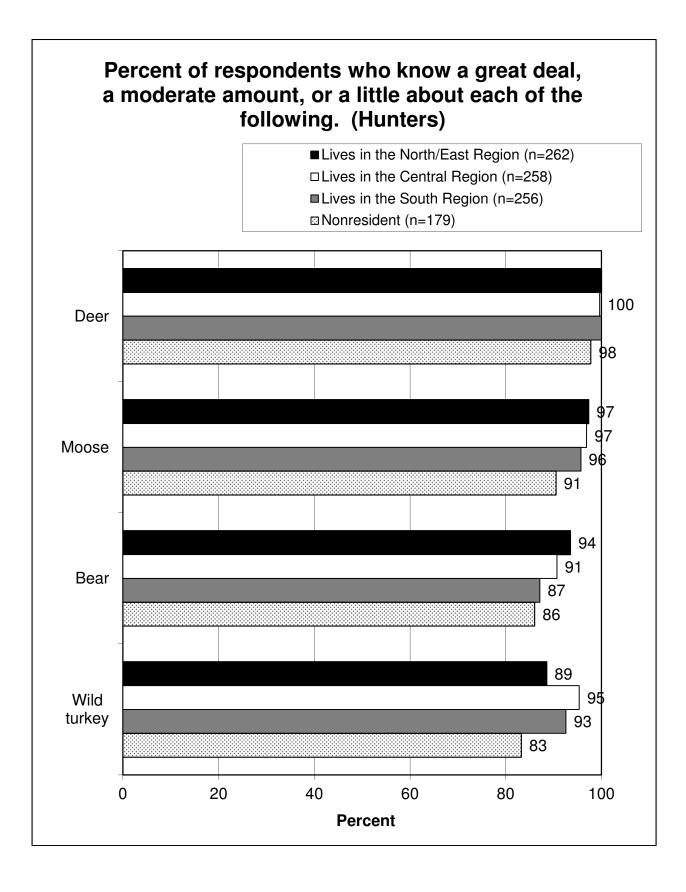
Level of knowledge about each species.

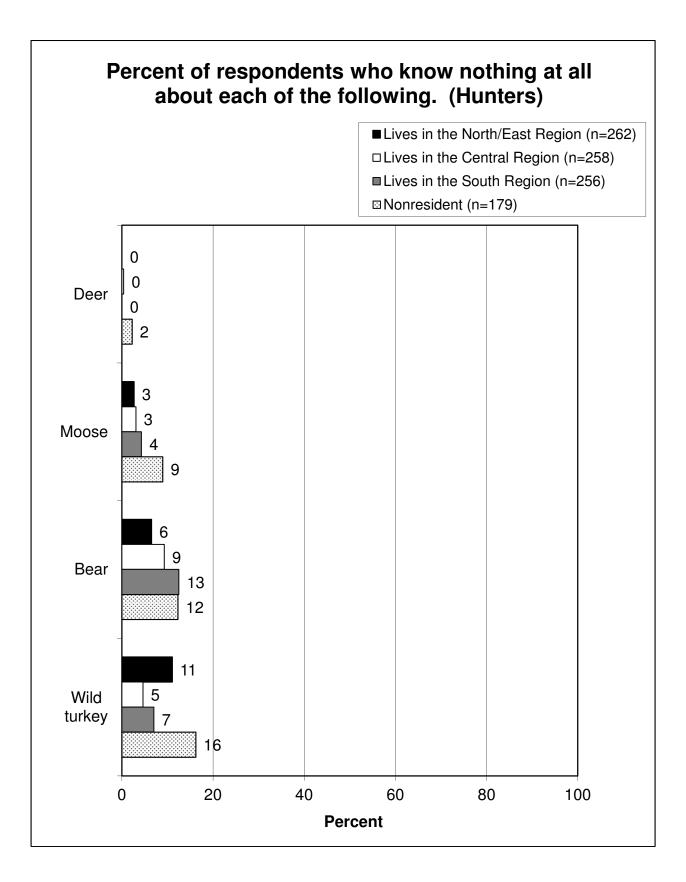






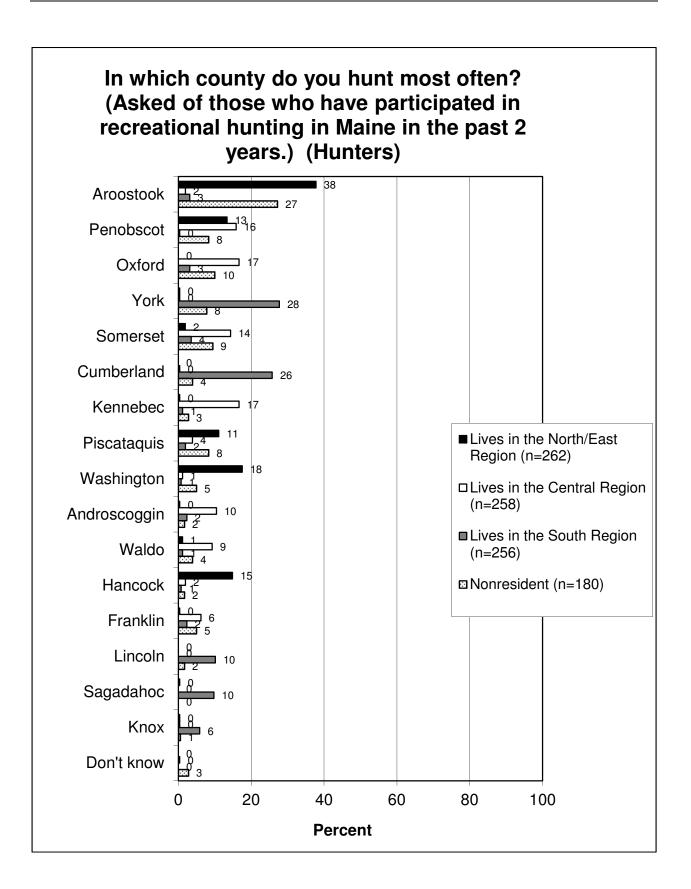


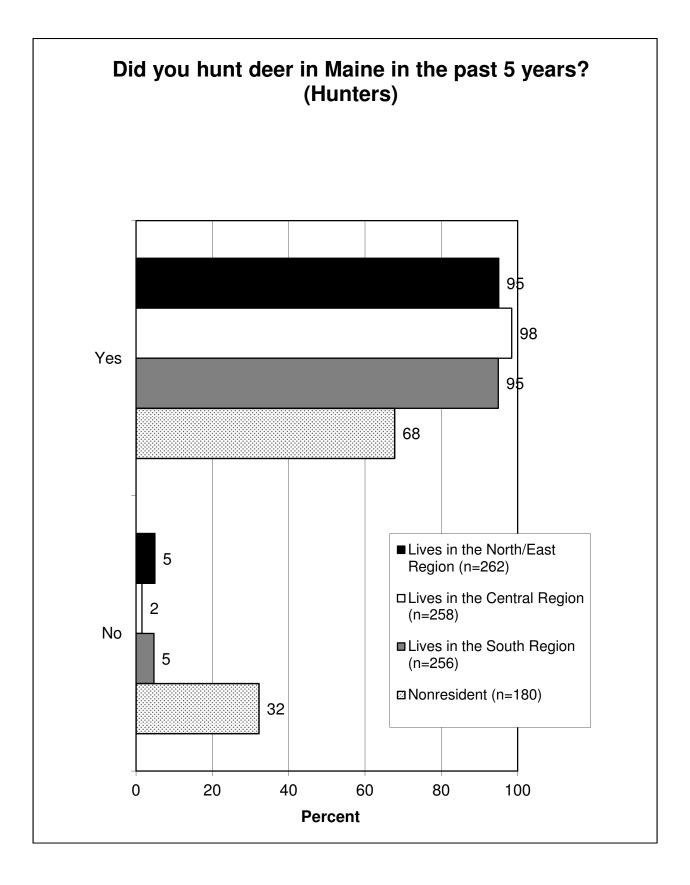


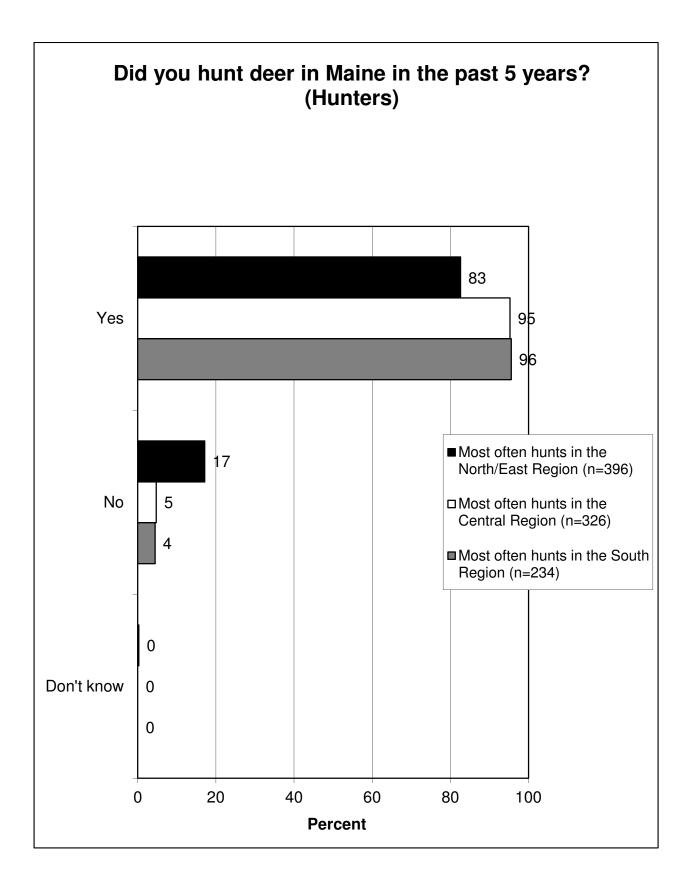


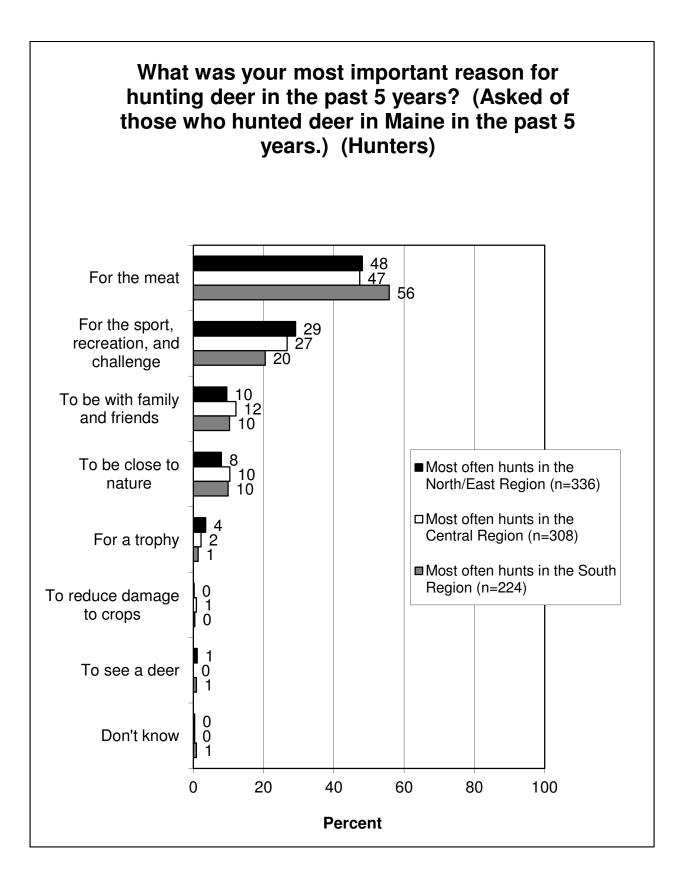
Participation in Hunting—Hunters

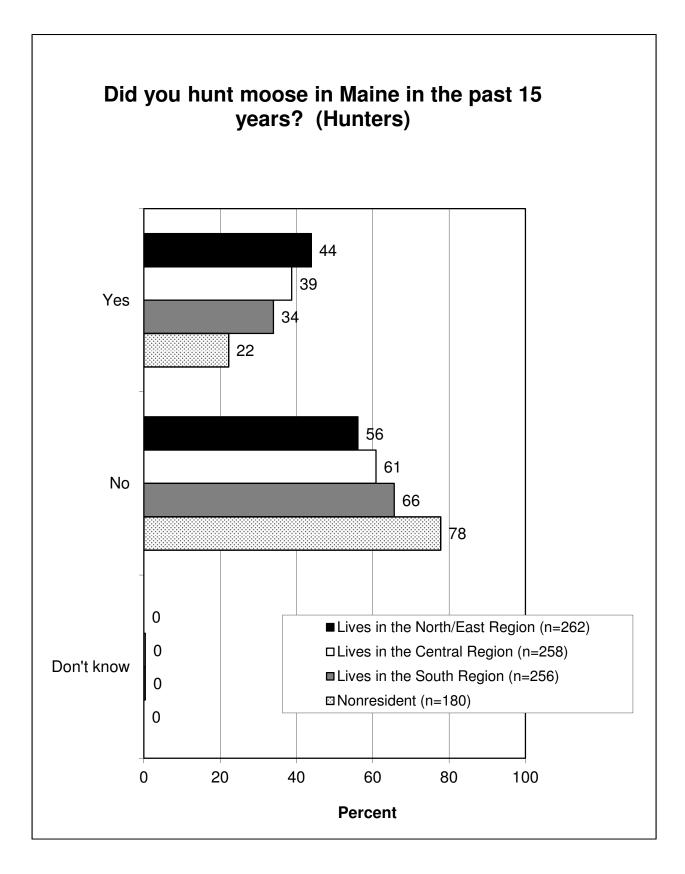
Where hunted. Participation in deer, moose, bear, and turkey hunting. Applying for moose permits. Reasons for hunting deer, moose, bear, and turkey.

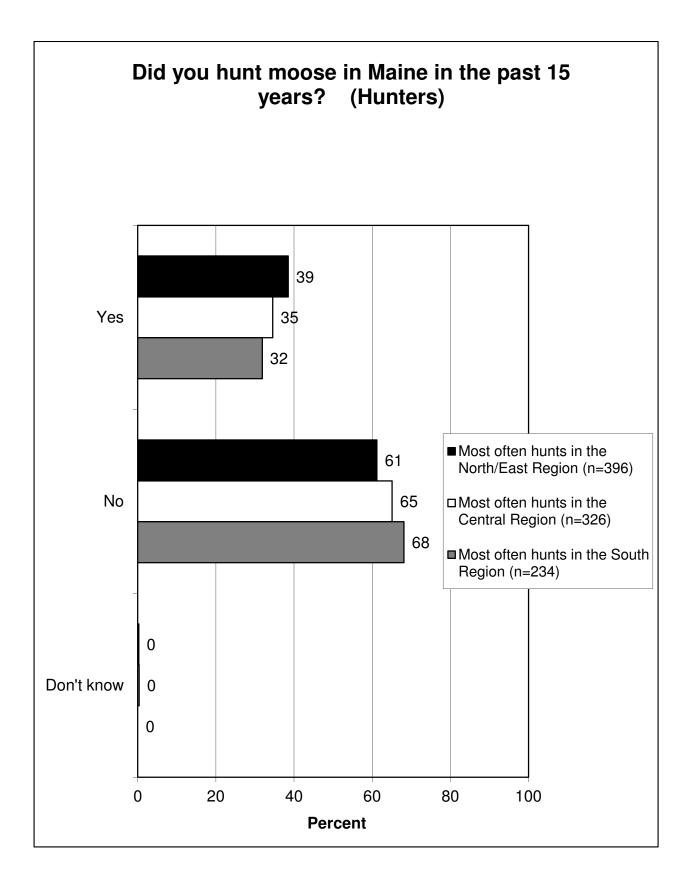


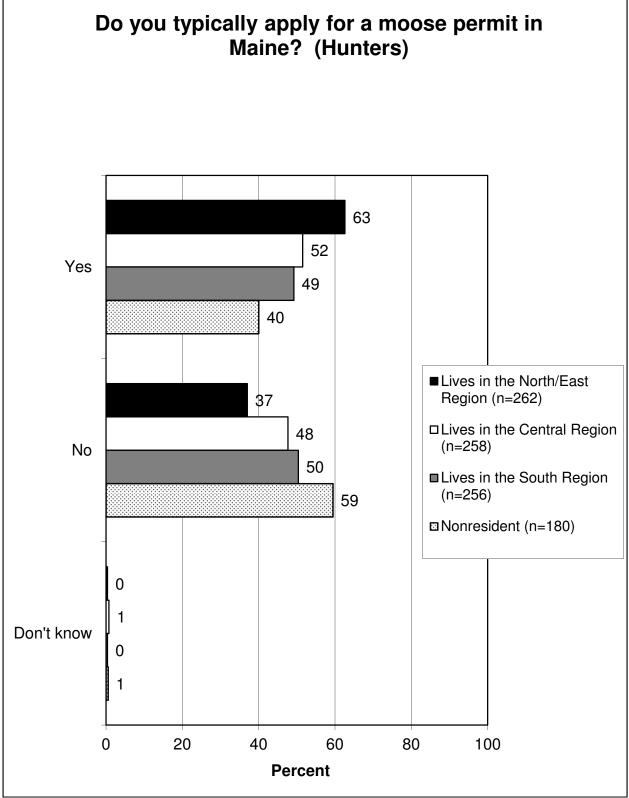


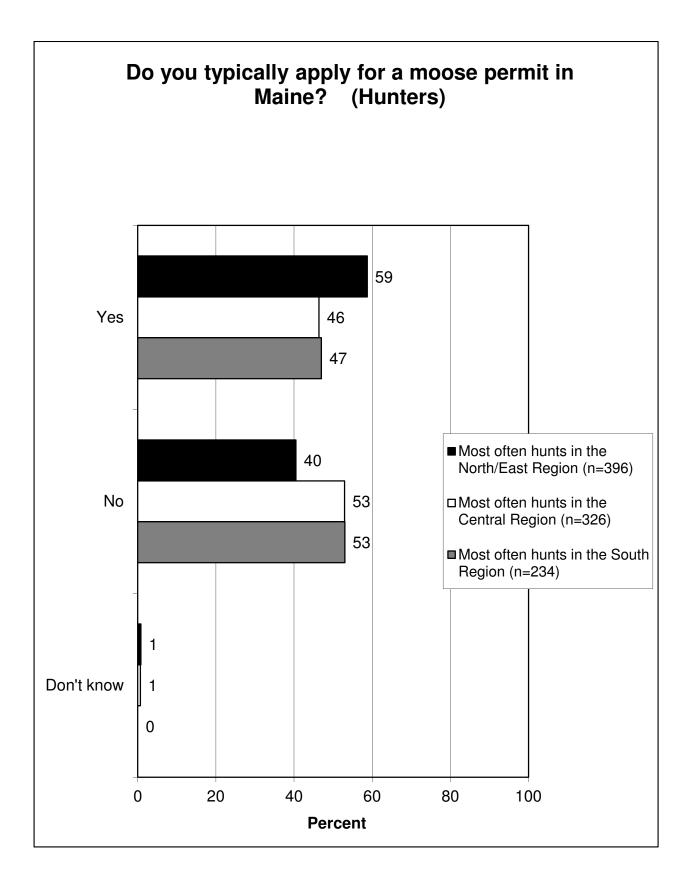


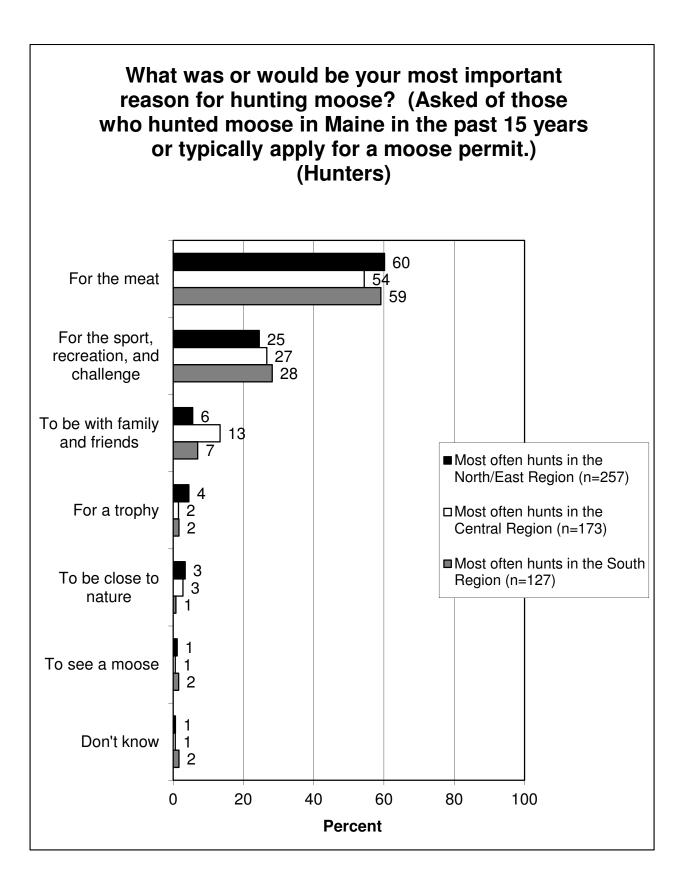


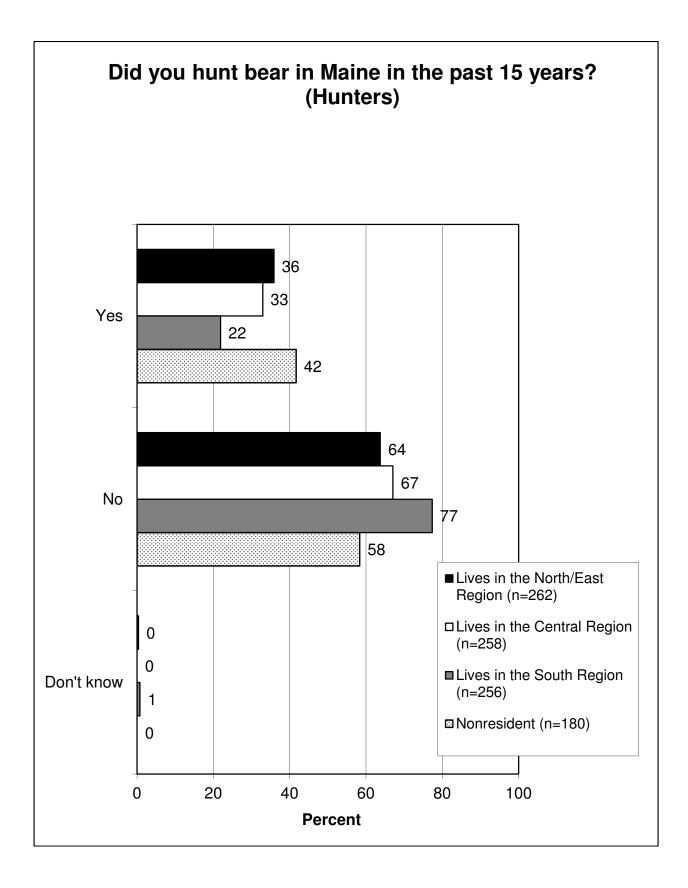


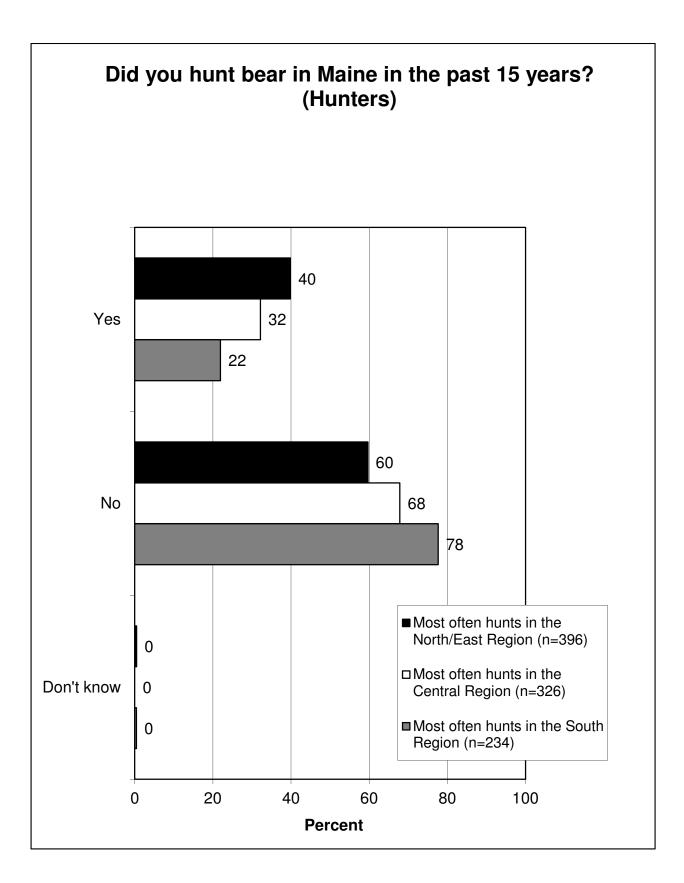


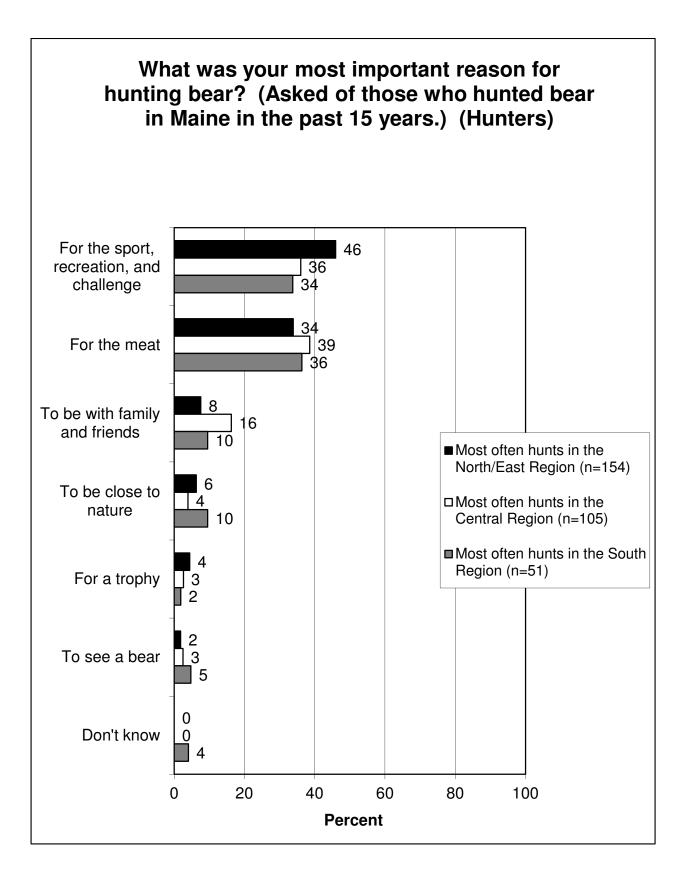


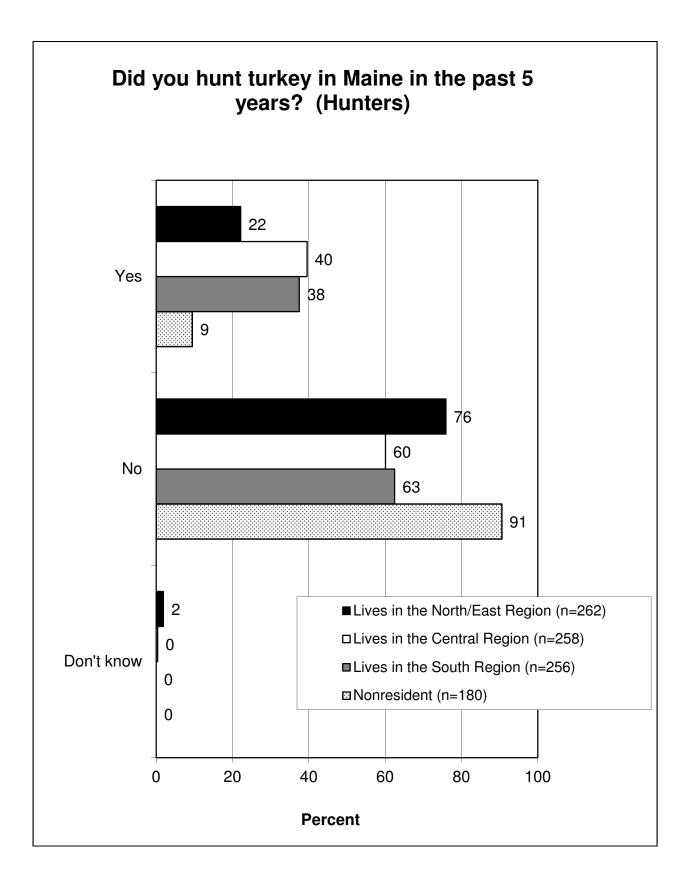


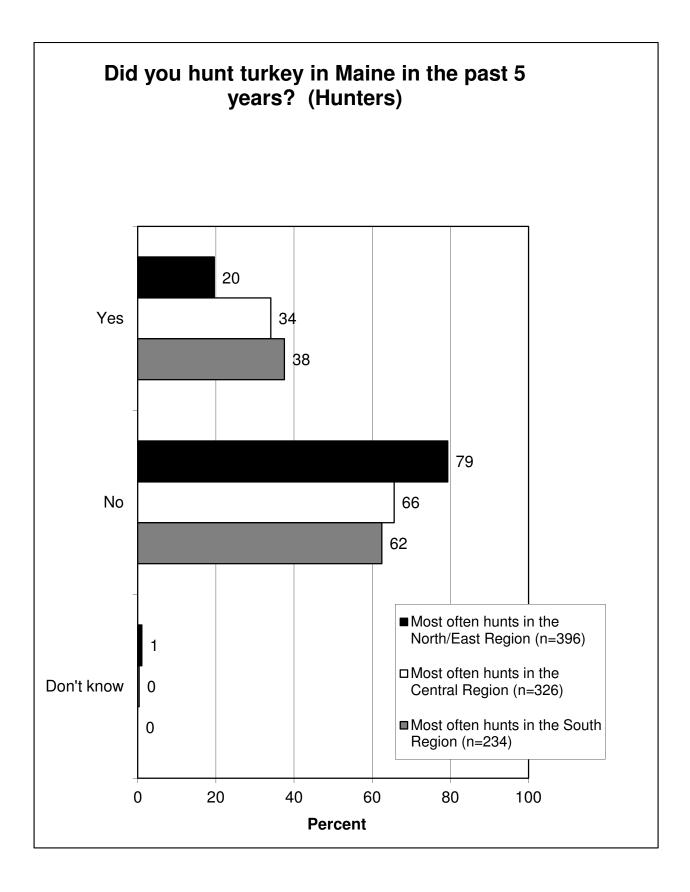


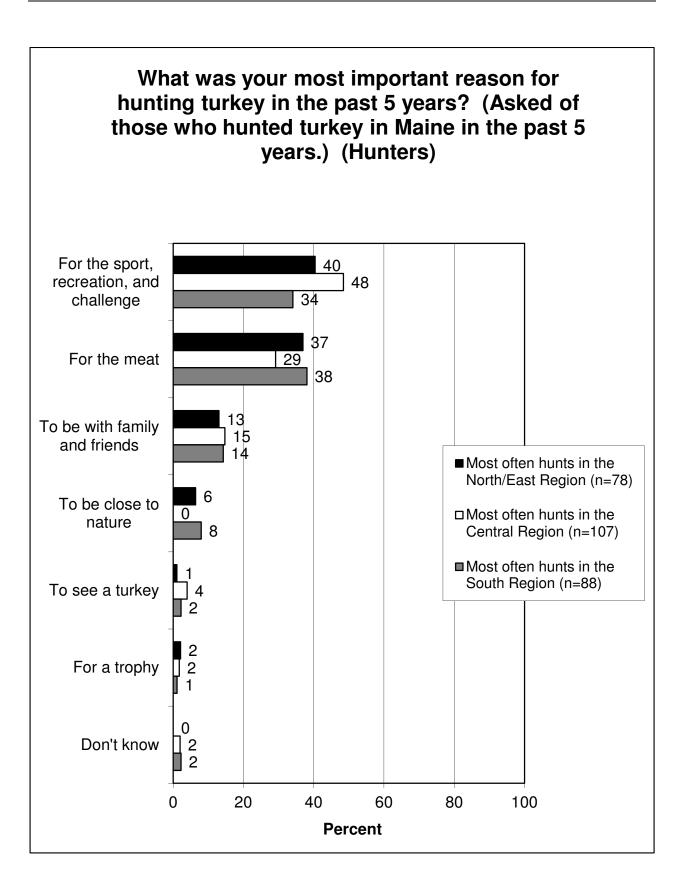






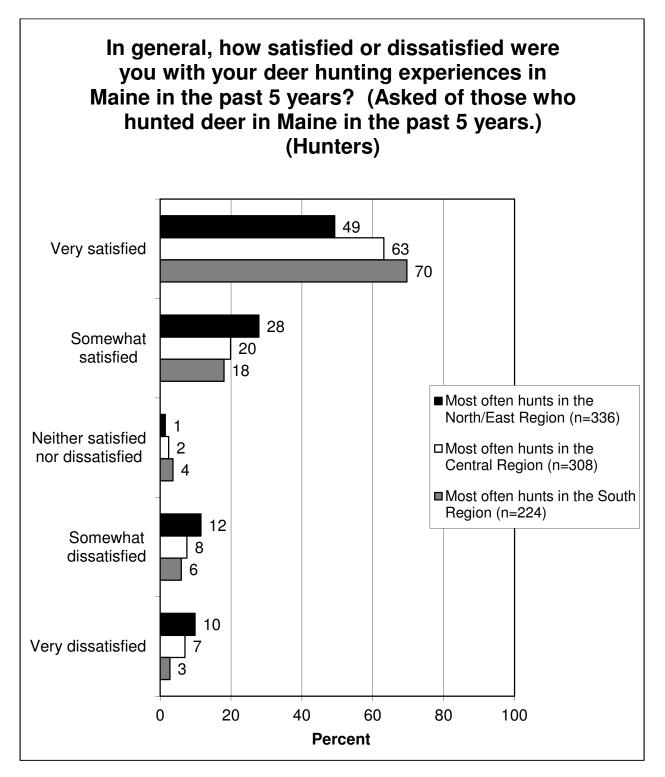


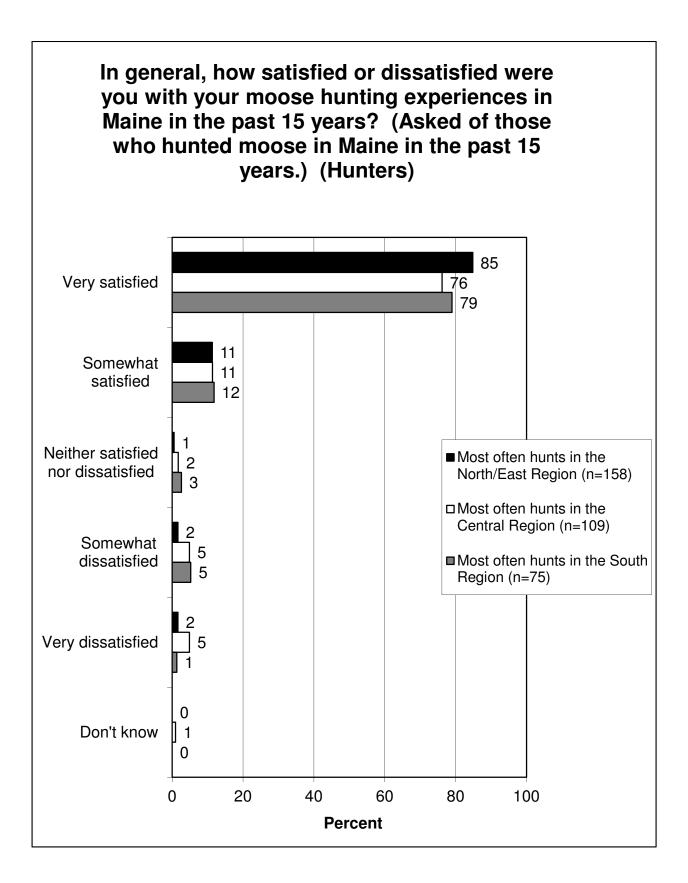


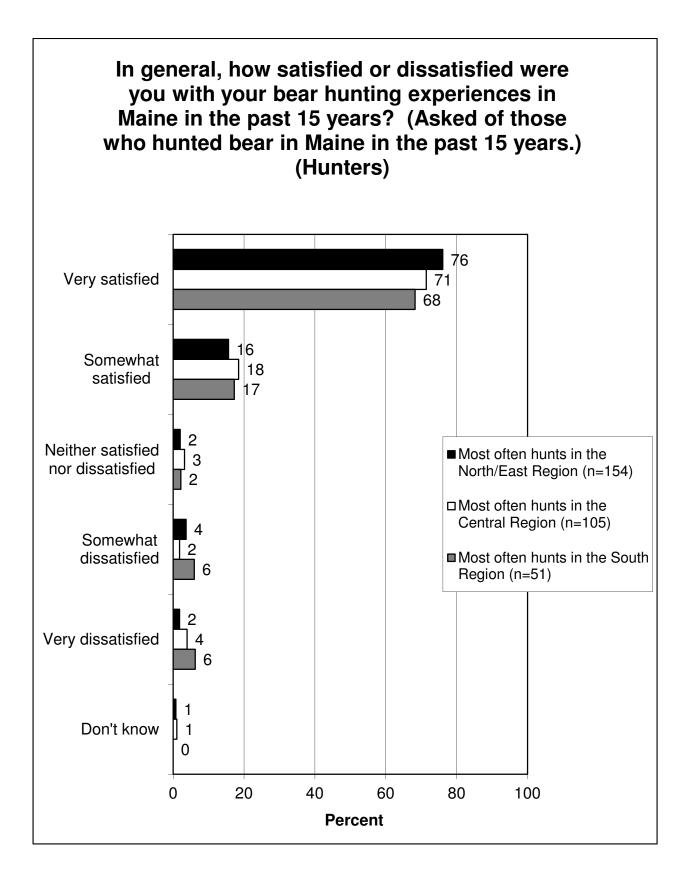


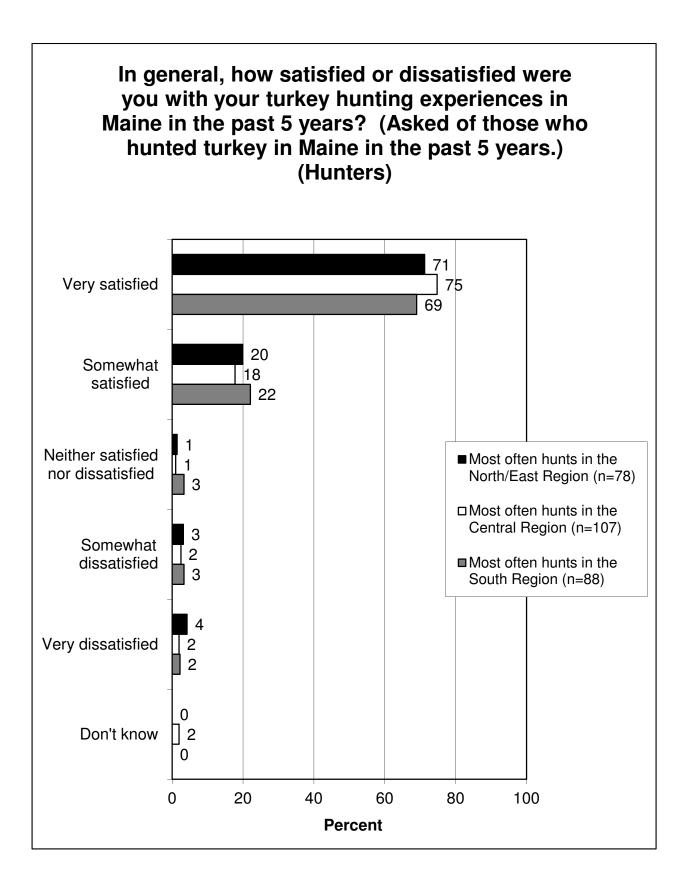
Satisfaction and Dissatisfaction With Hunting—Hunters

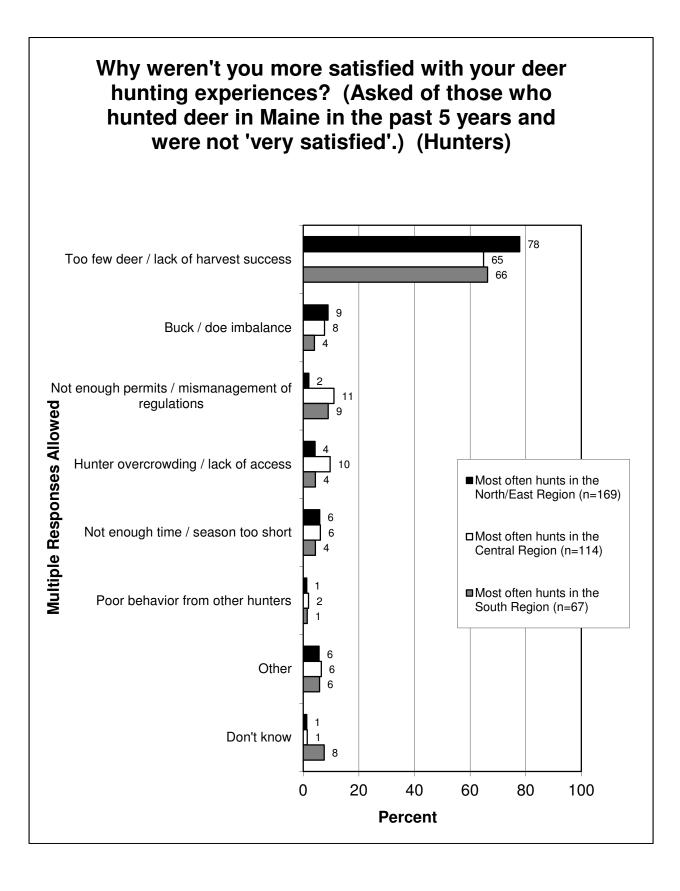
Satisfaction with deer, moose, bear, and turkey hunting. Reasons for not being more satisfied.

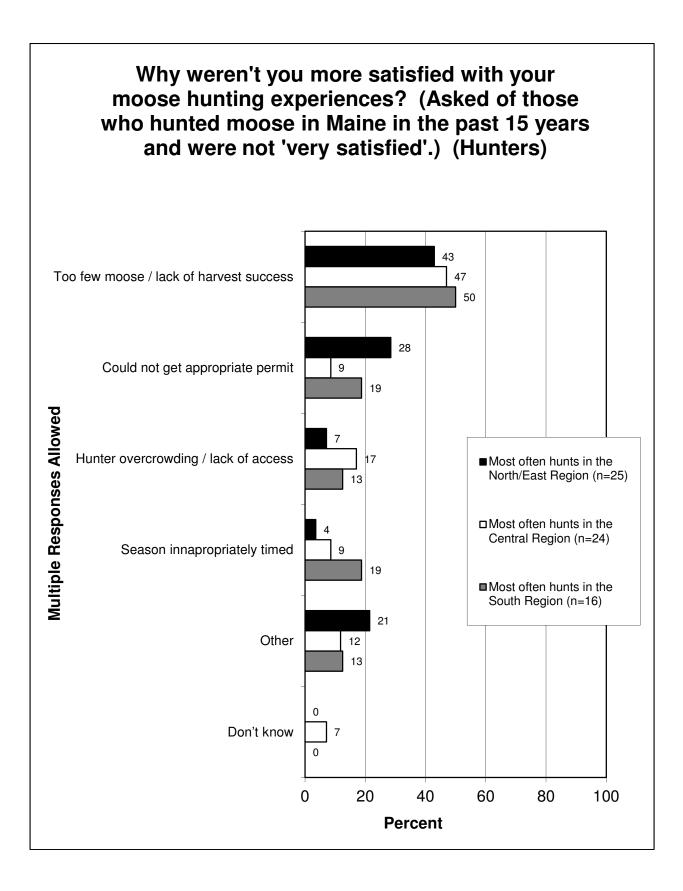


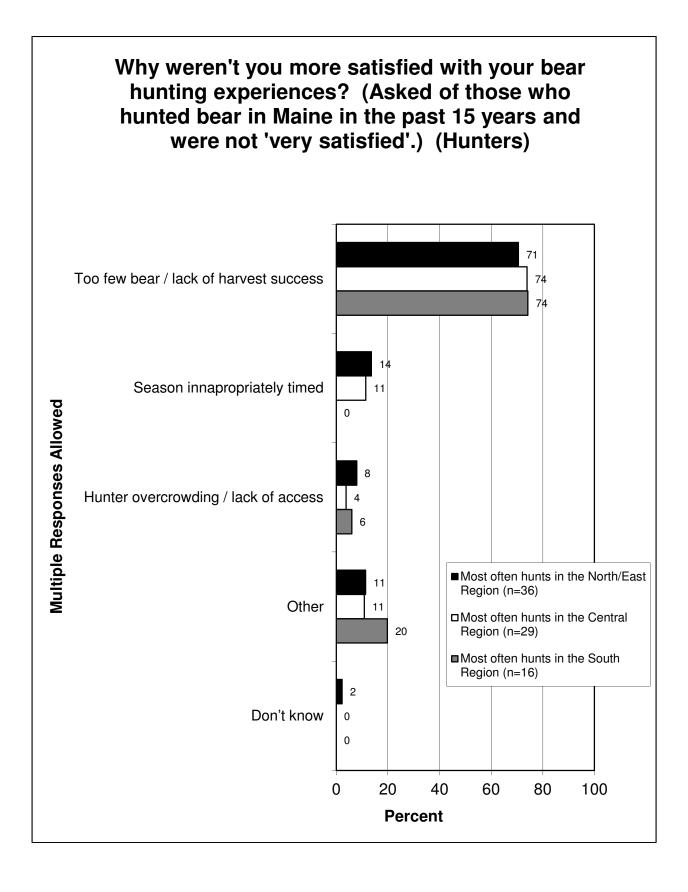


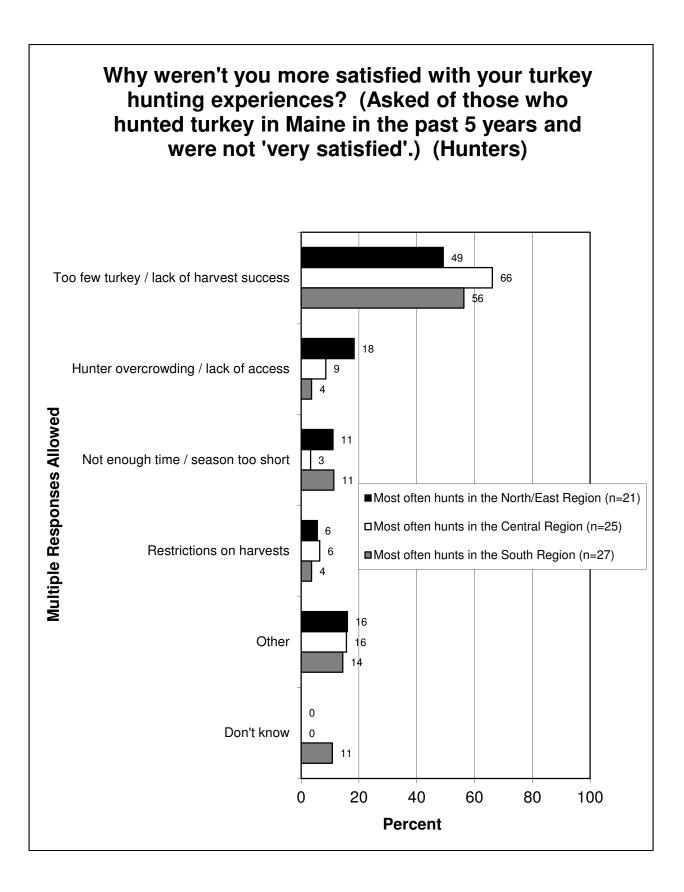






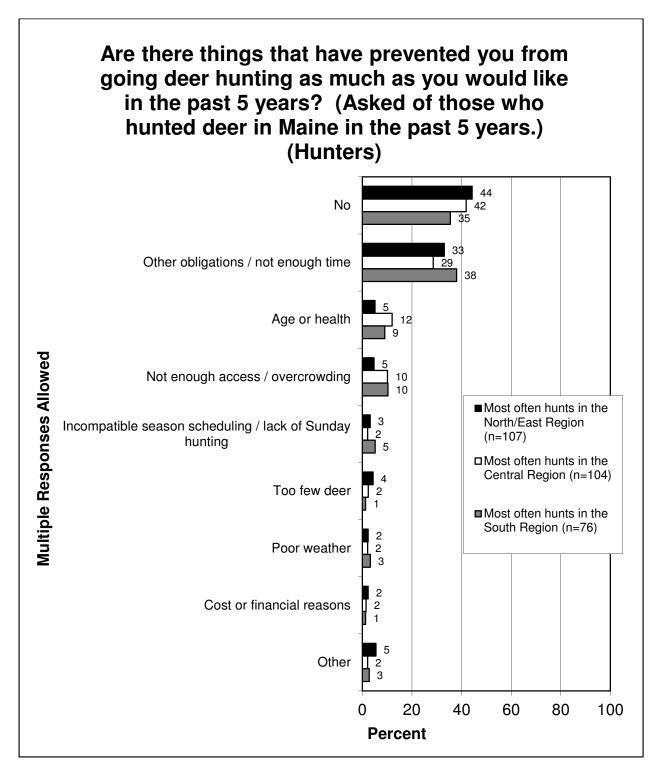


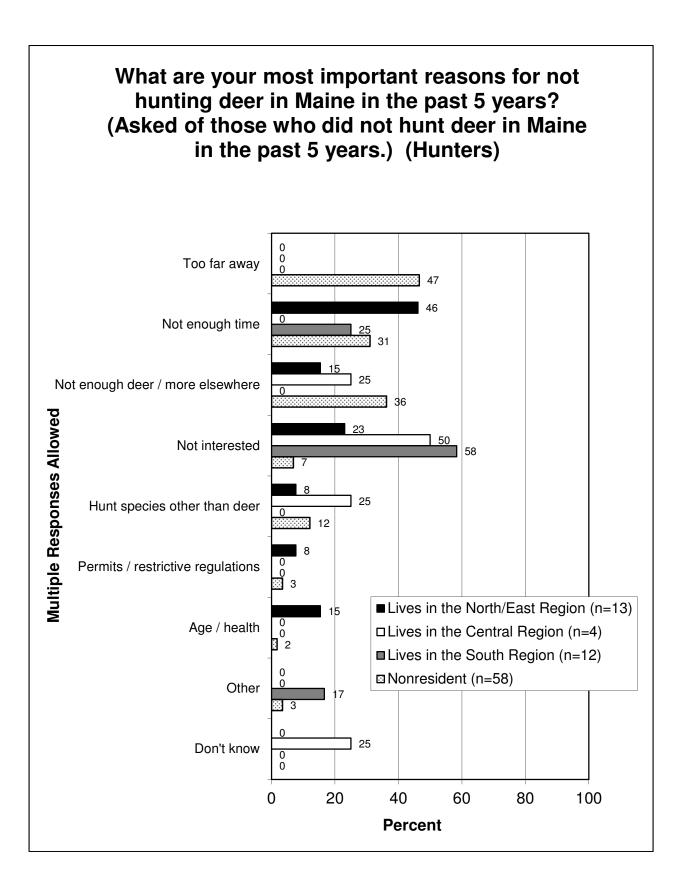


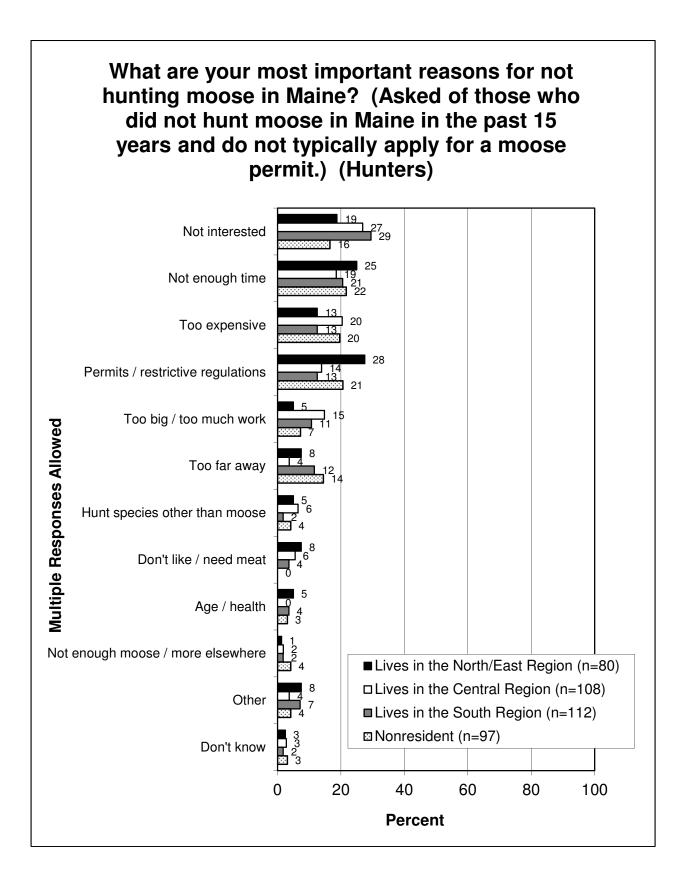


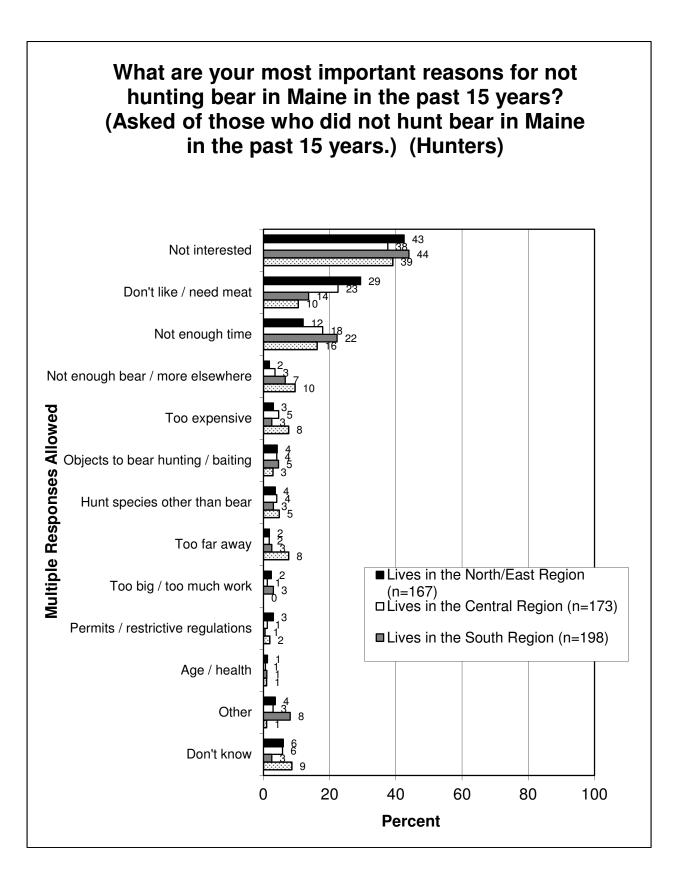
Constraints to Hunting—Hunters

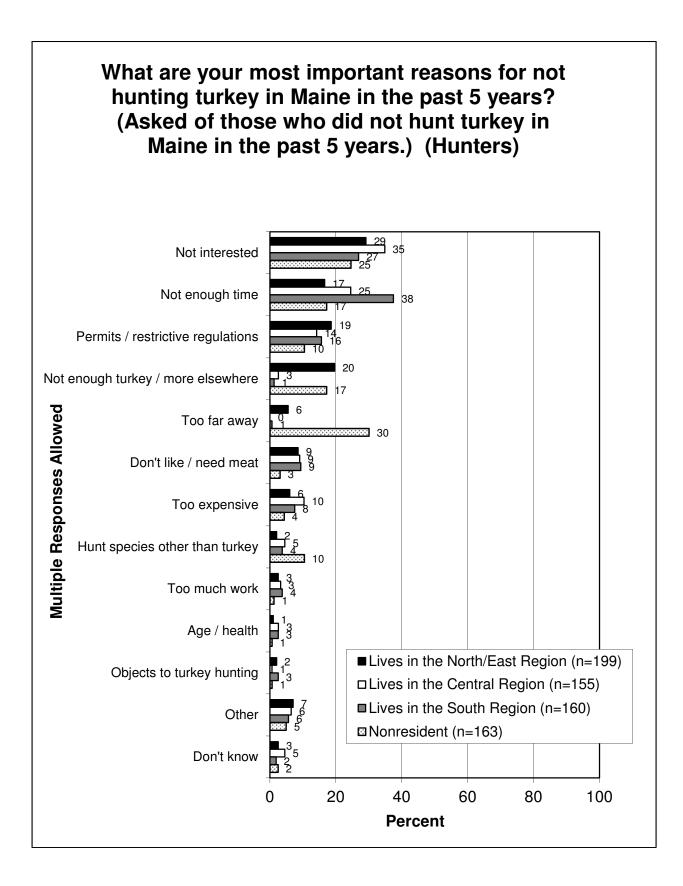
Constraints to deer hunting. Reasons for not hunting deer, moose, bear, and turkey.





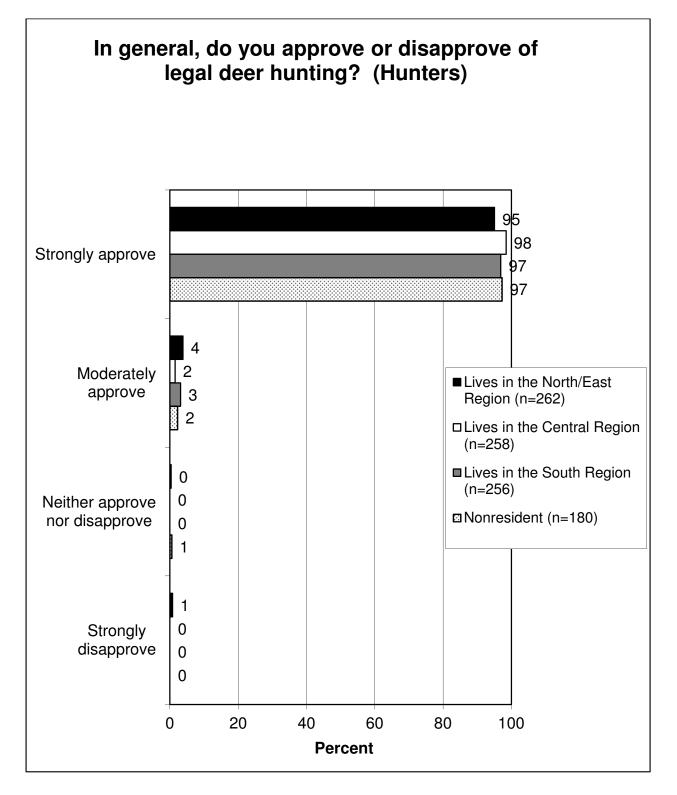


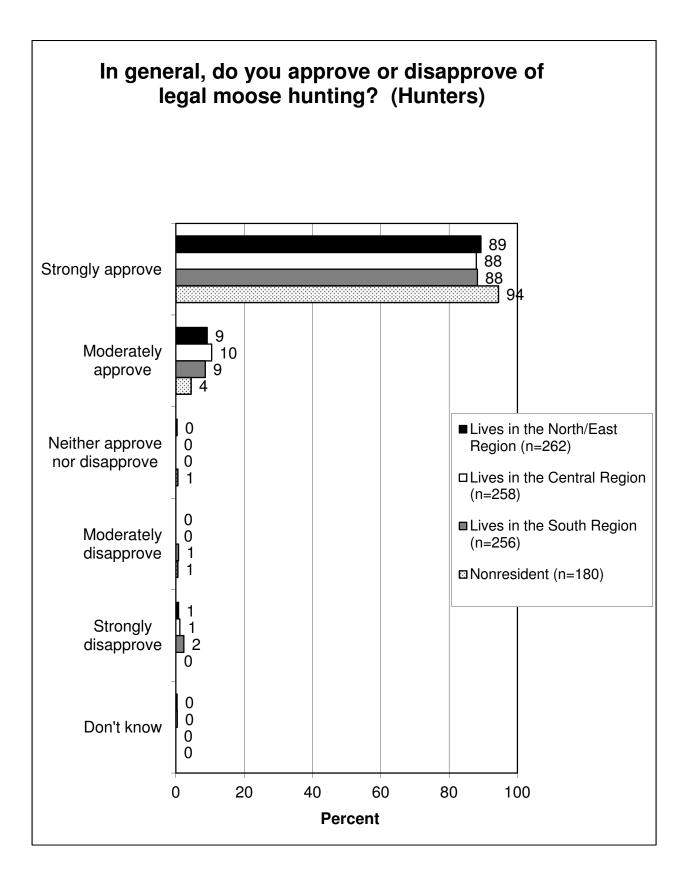


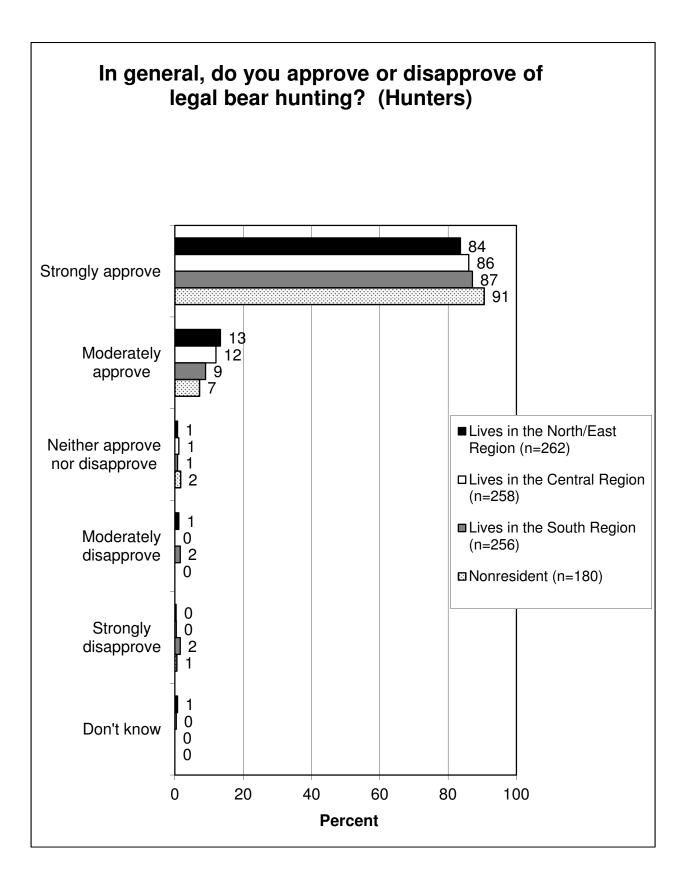


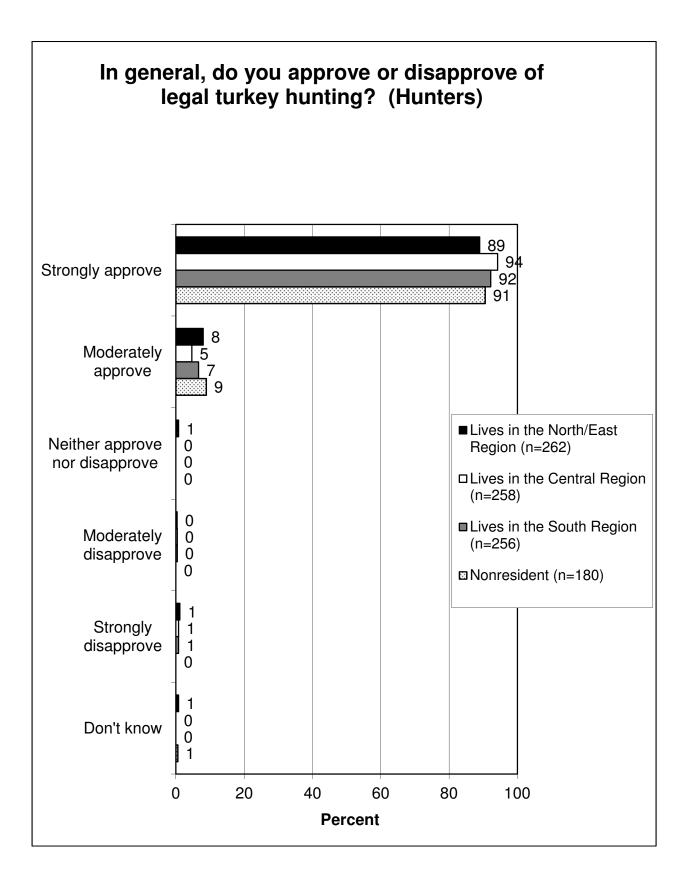
Opinions on Hunting—Hunters

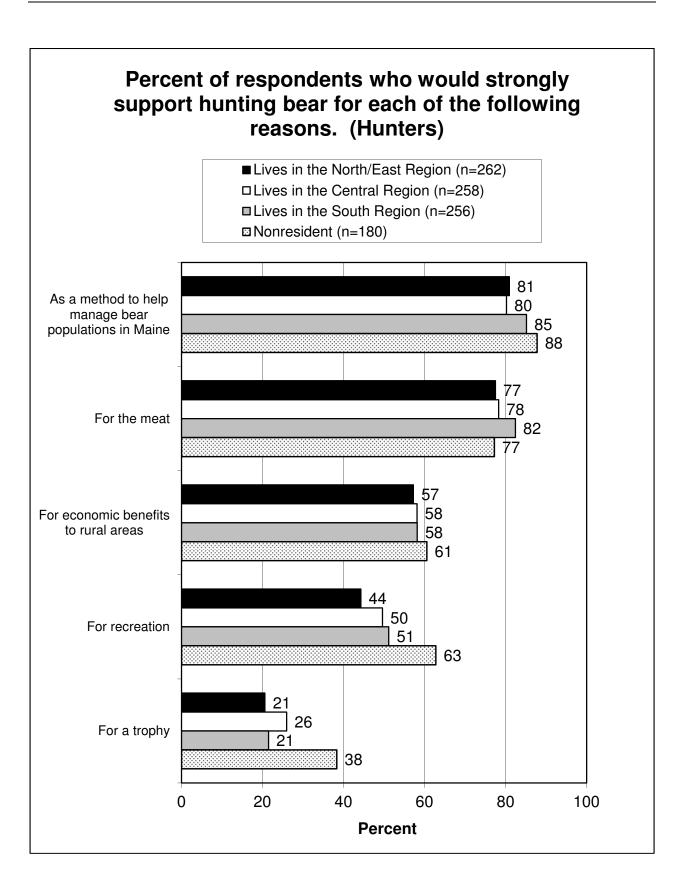
Approval/disapproval of hunting. Support for/opposition to hunting bear for various reasons.

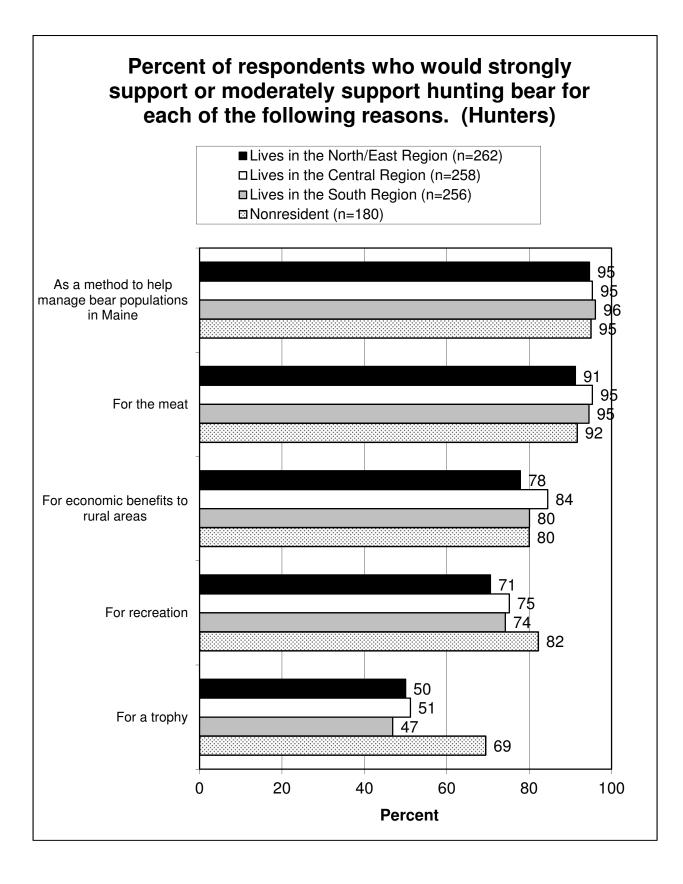


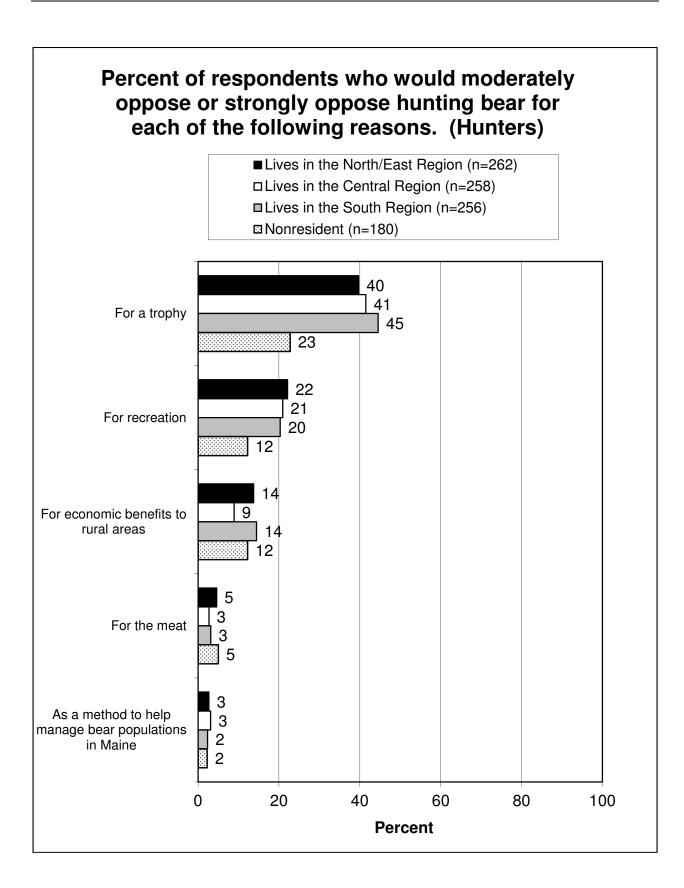


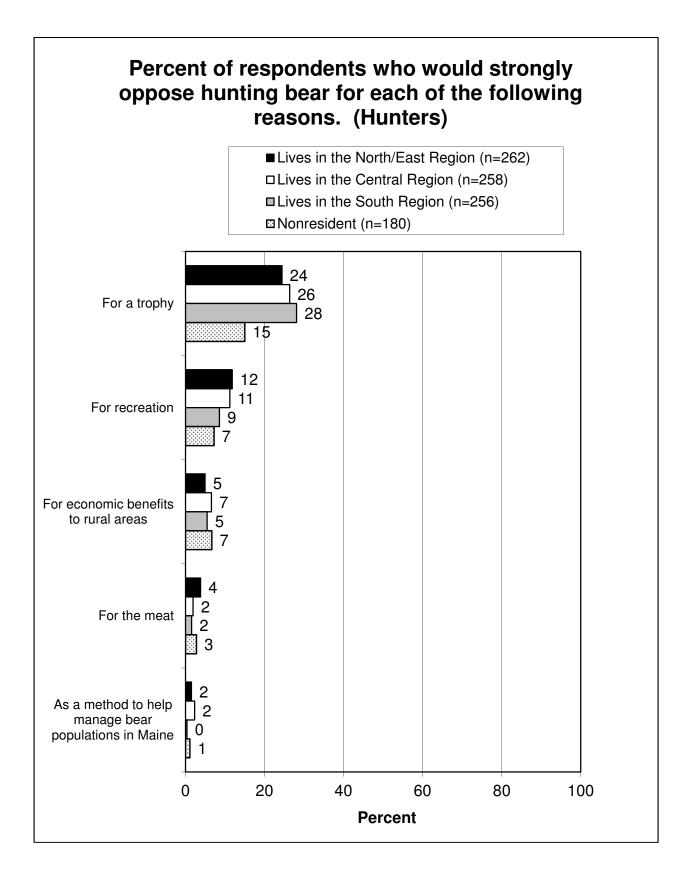






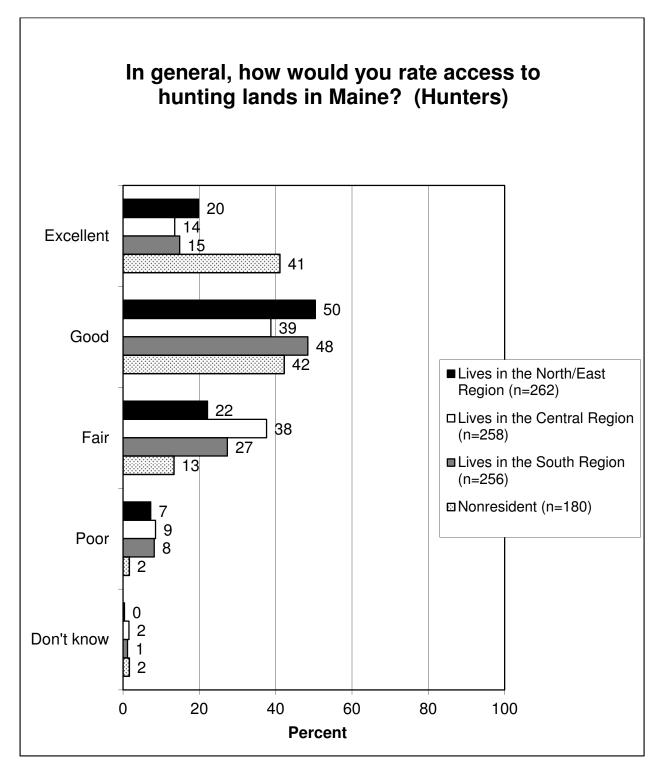


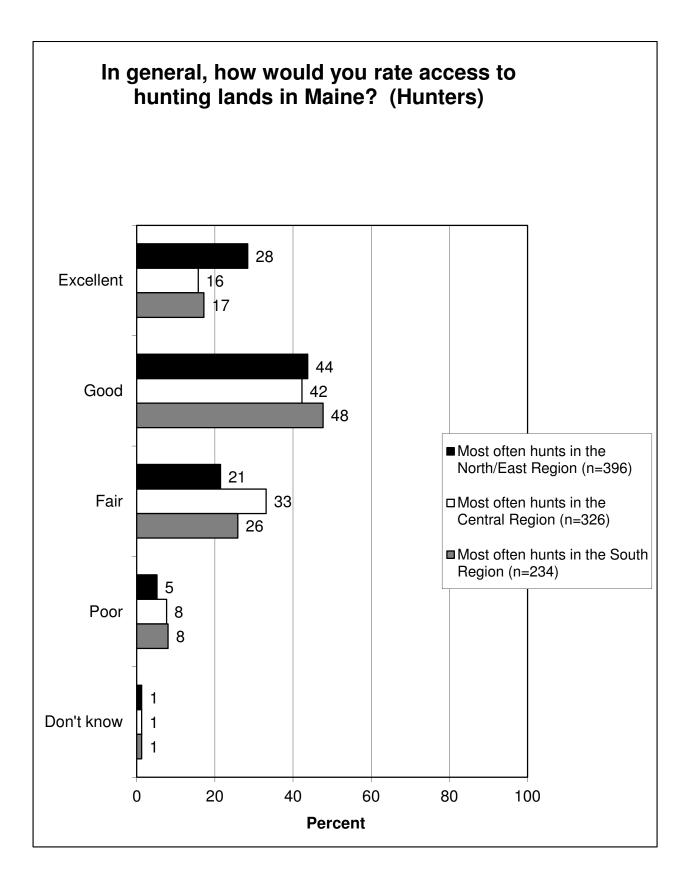


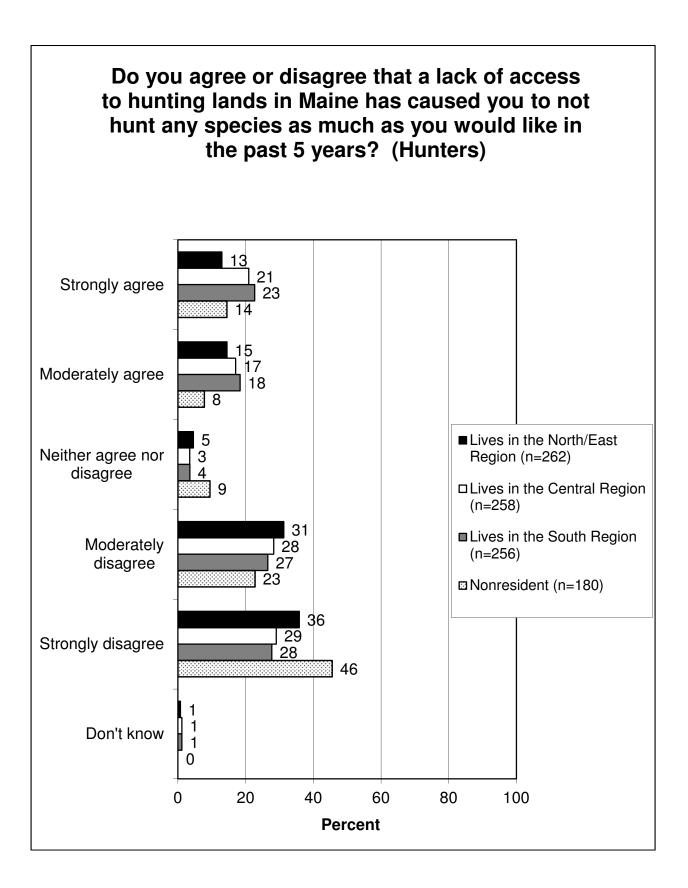


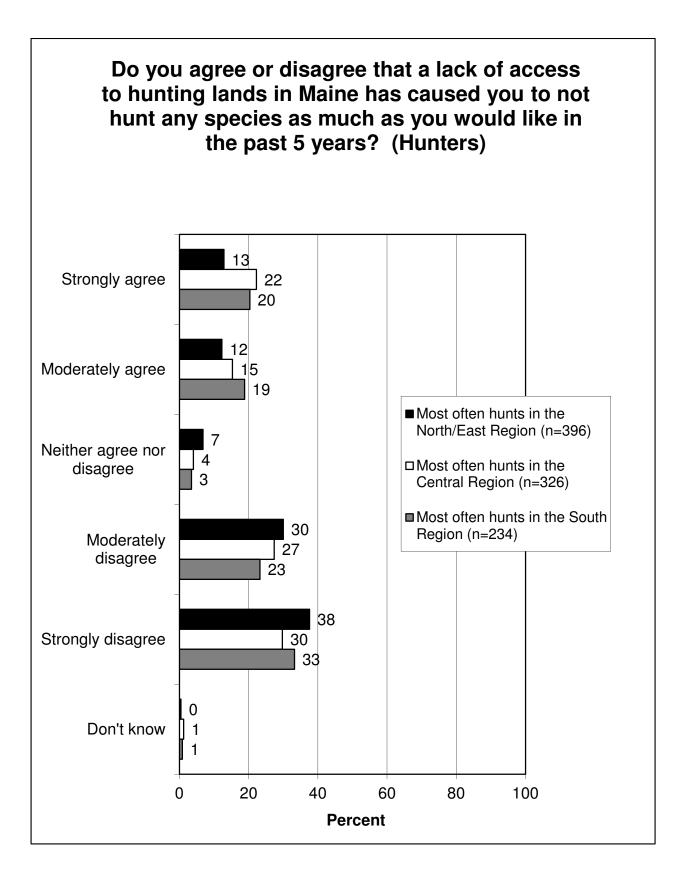
Hunting Access—Hunters

Hunters: ratings of access. Whether lack of access has been constraint to hunting participation.



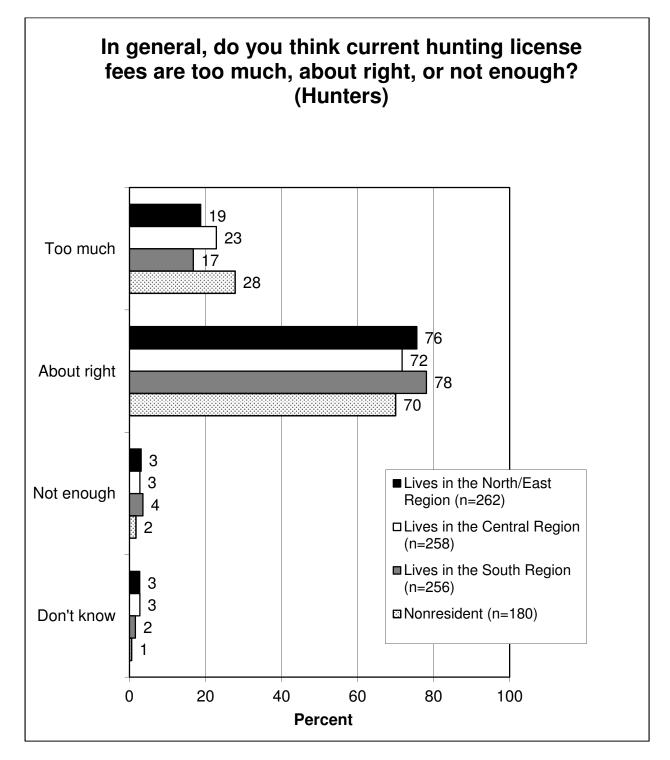


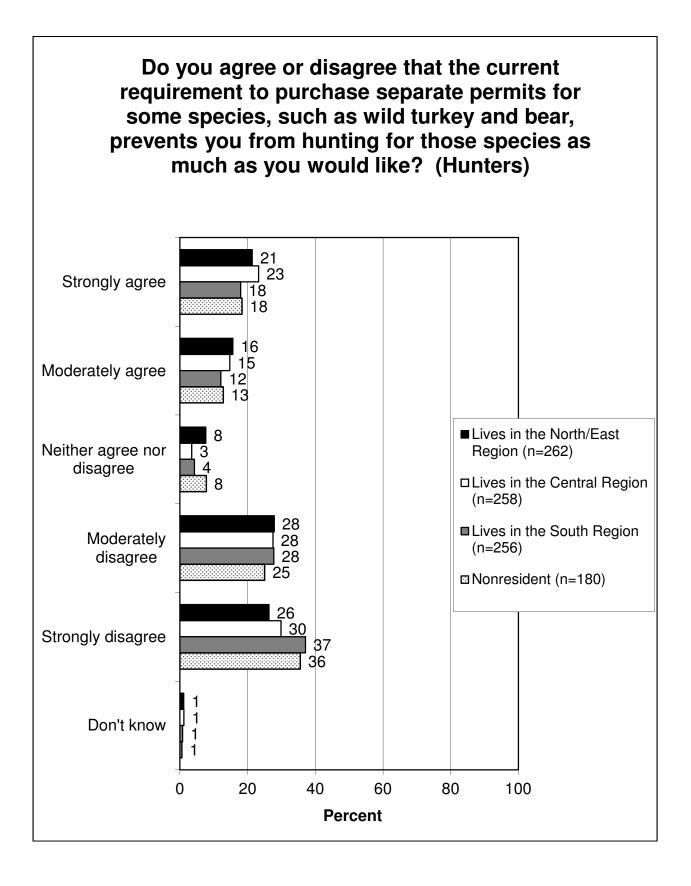




Hunting Licensing and Fees—Hunters

Whether cost of hunting fees is too much. Whether separate purchase requirements inhibit hunting.





Opinions on Regulations and Specific Aspects of Hunting—Hunters

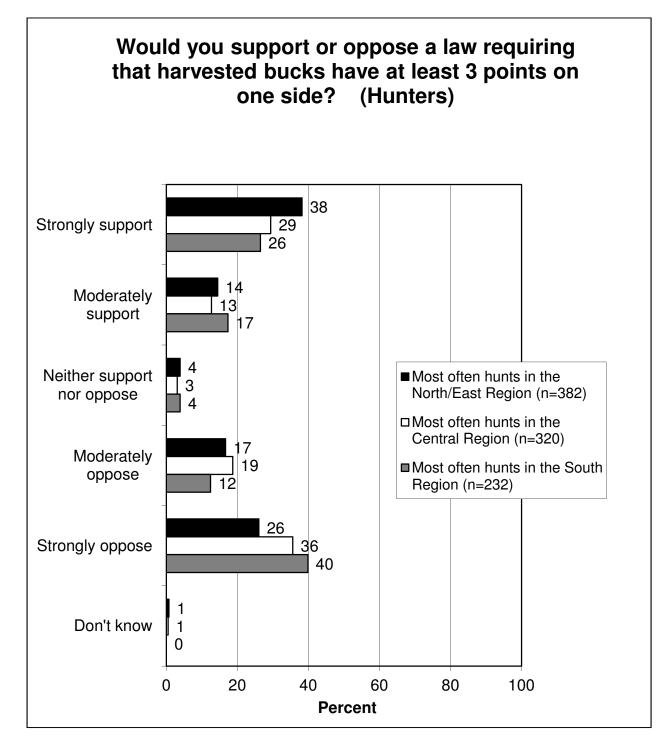
Opinions on the 3-point rule.

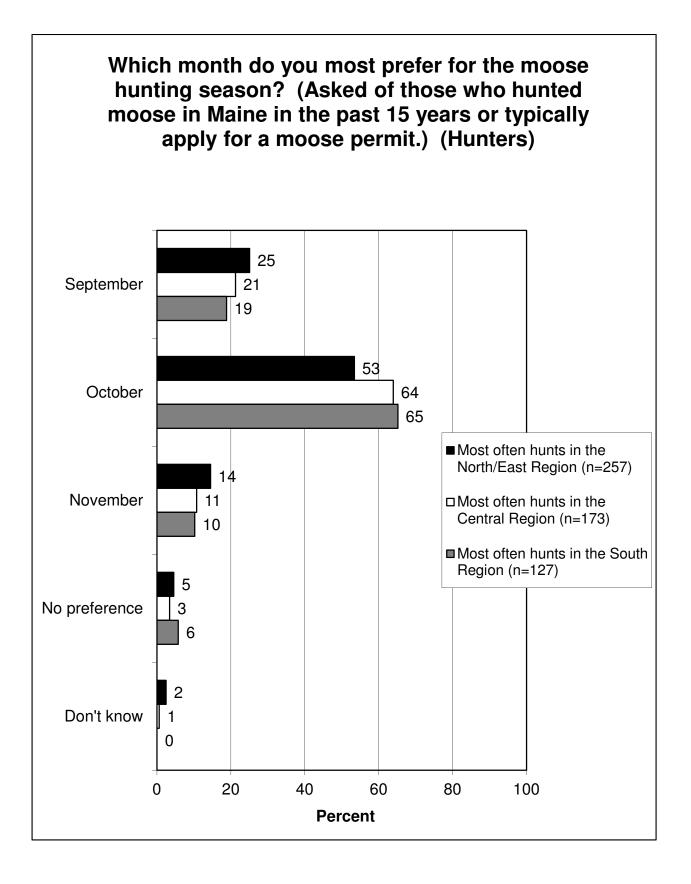
Which month preferred for moose hunting.

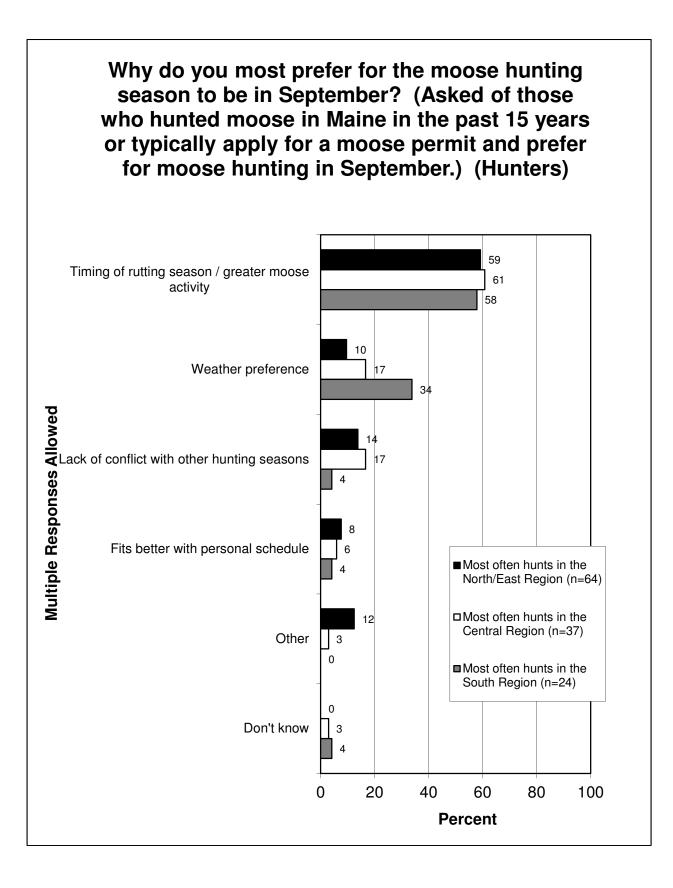
Why that month is preferred.

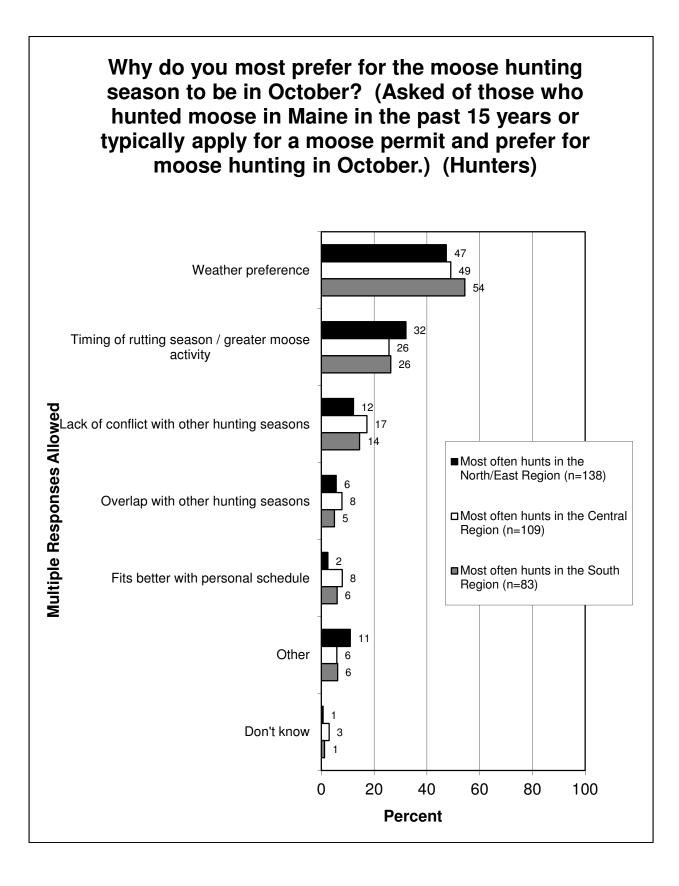
Opinion on a split moose season.

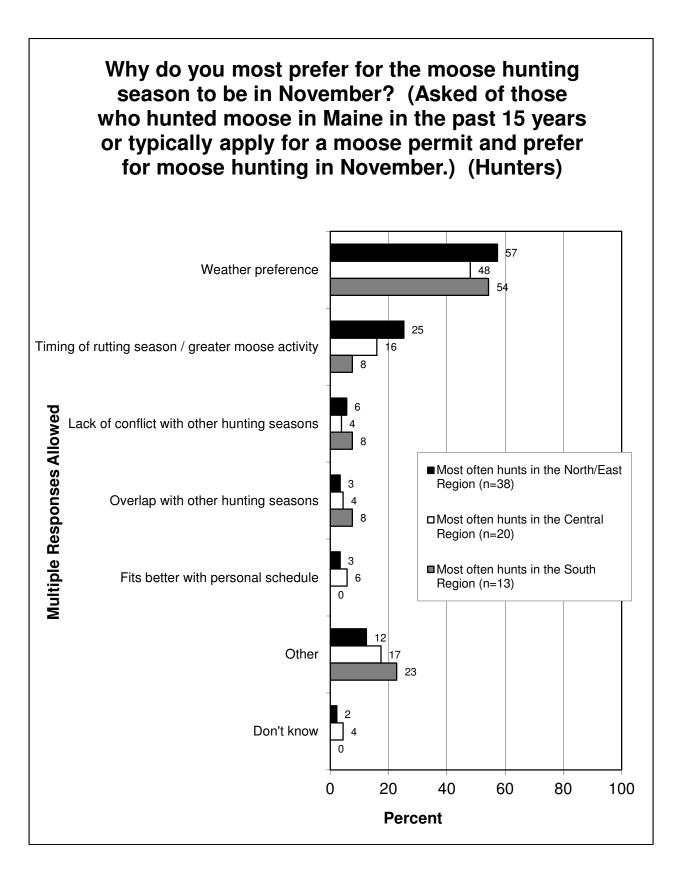
Opinions regarding tradeoff on number of permits versus chance of harvest.

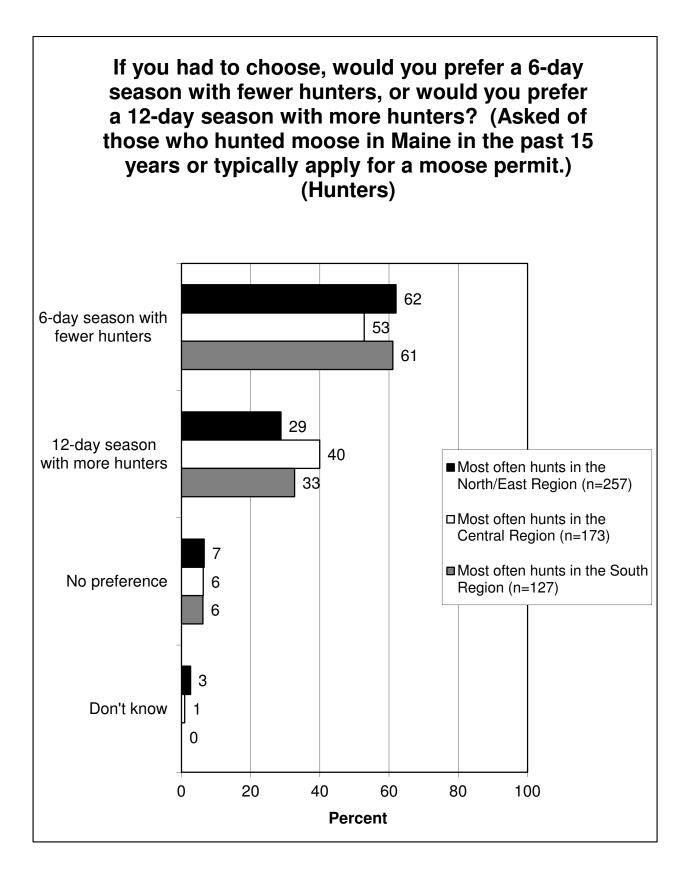


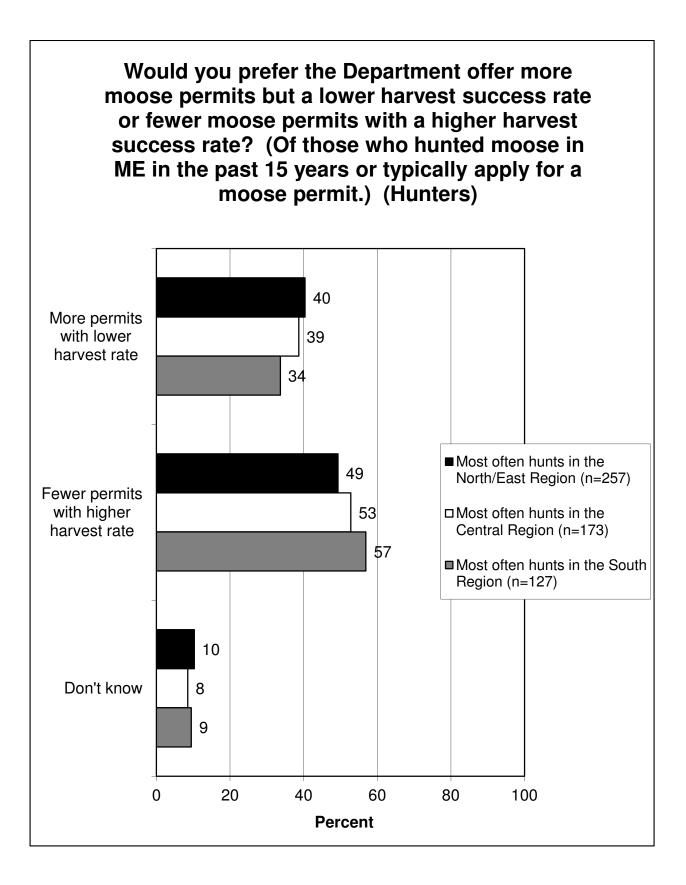






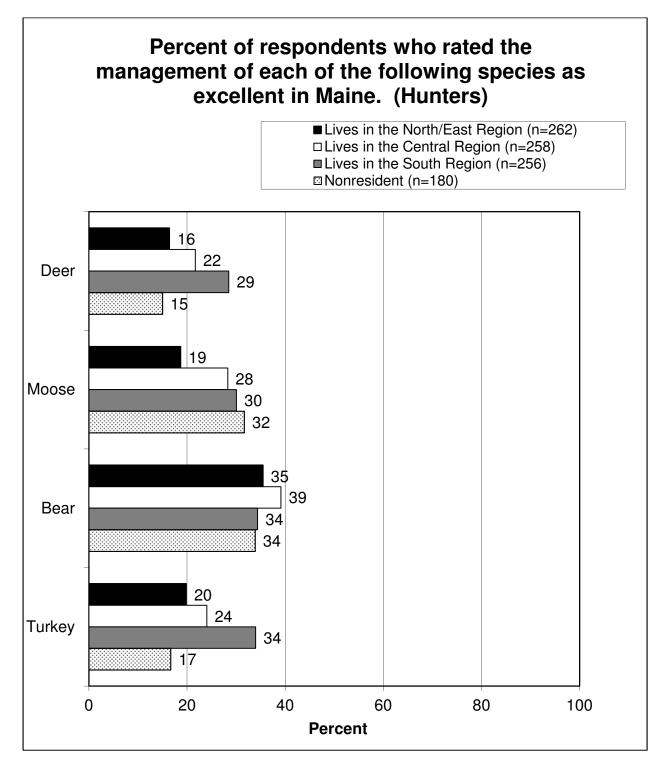


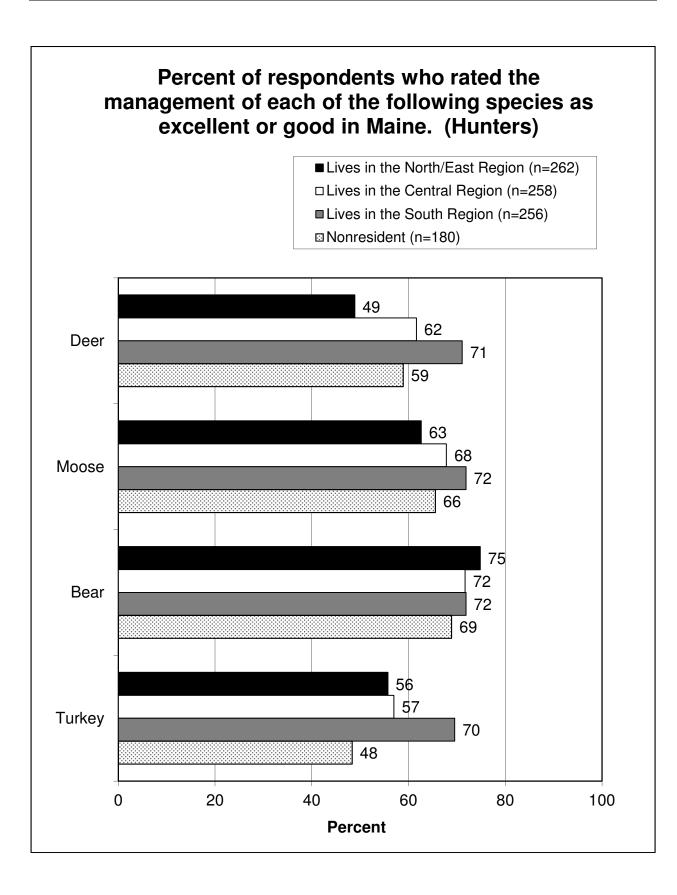


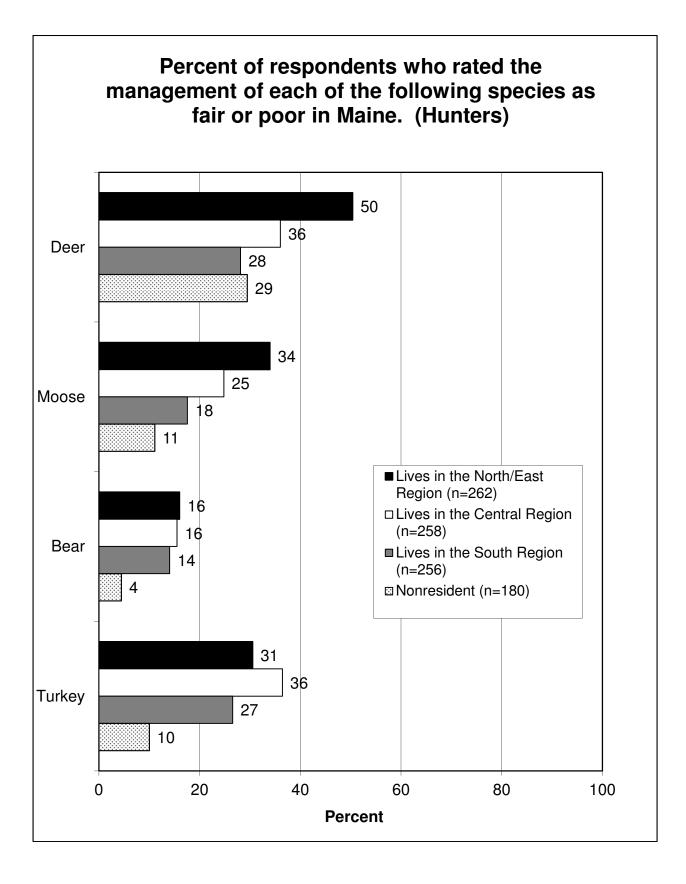


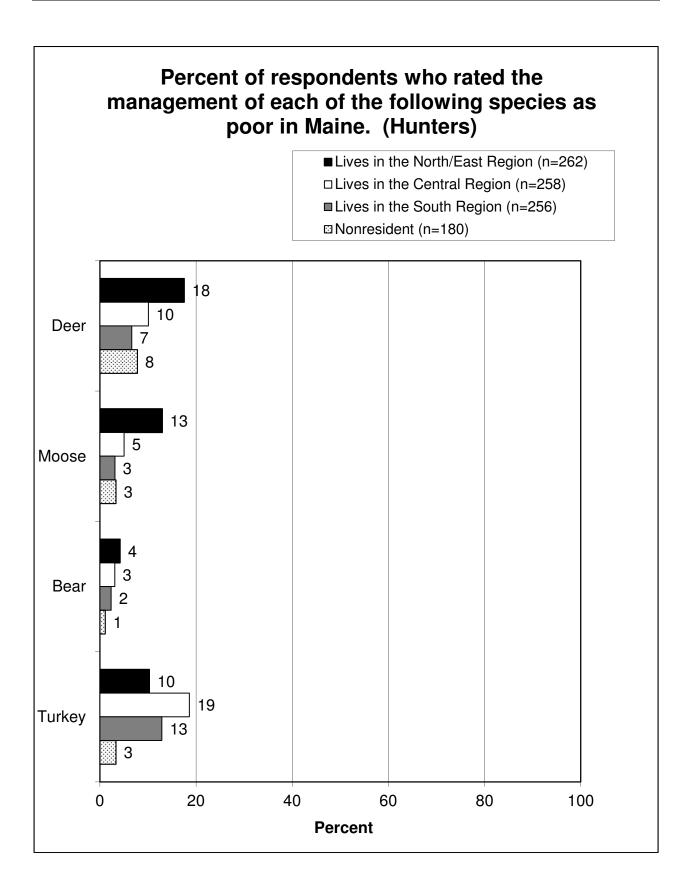
Land Management in General—Hunters

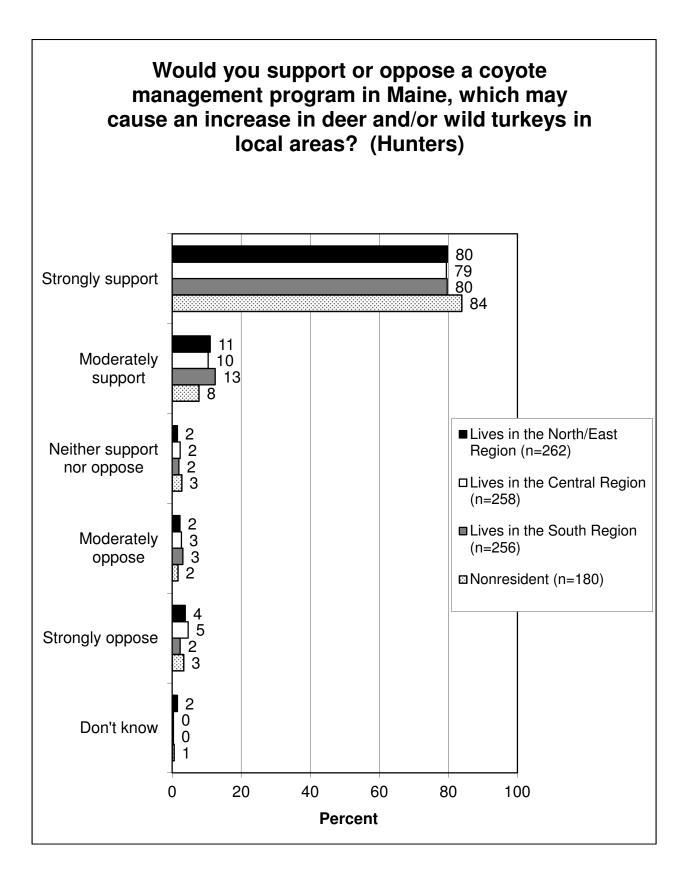
Opinions on management of all four species shown together. Support for/opposition to coyote management.





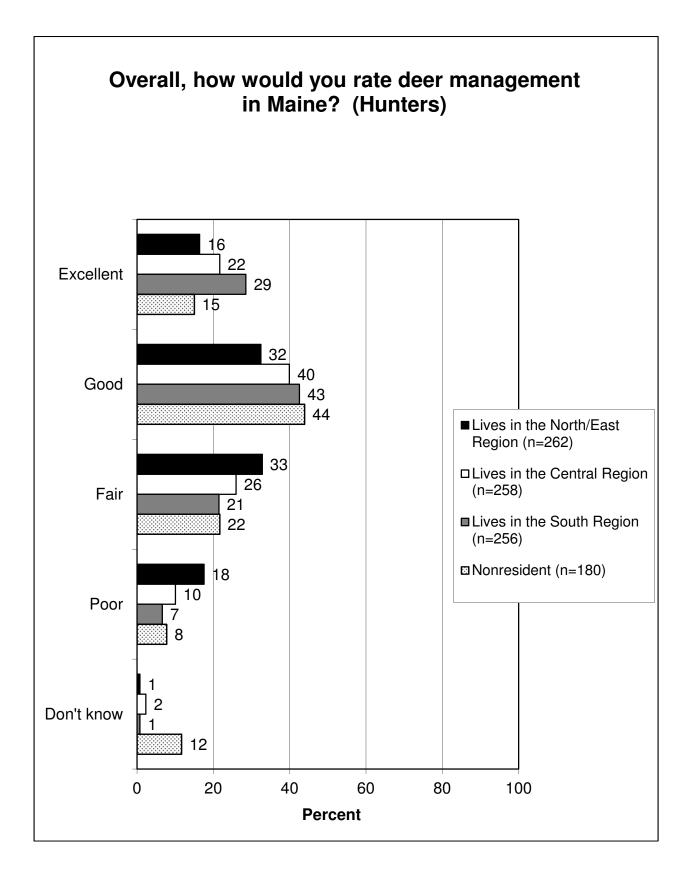


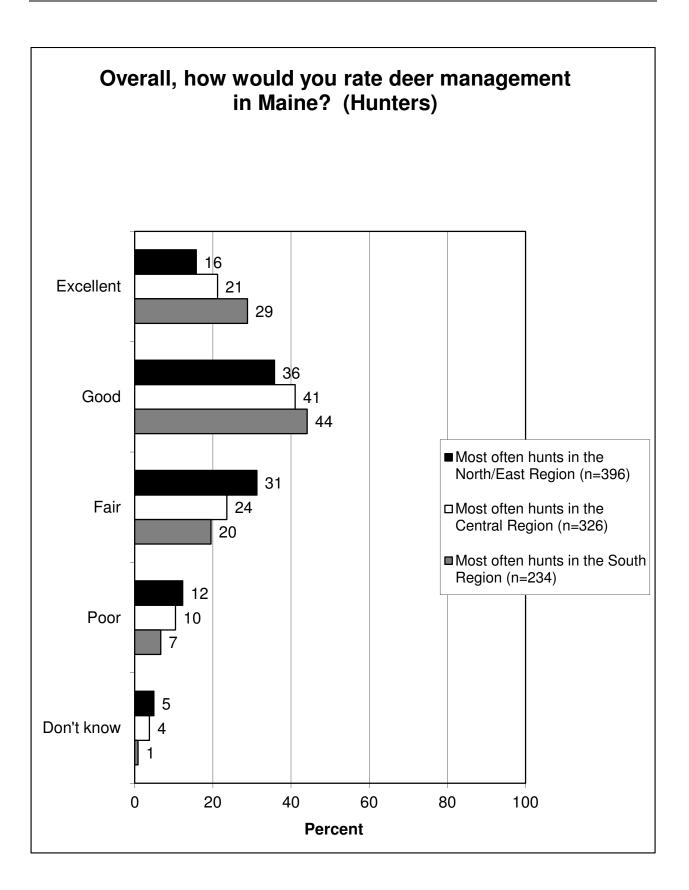


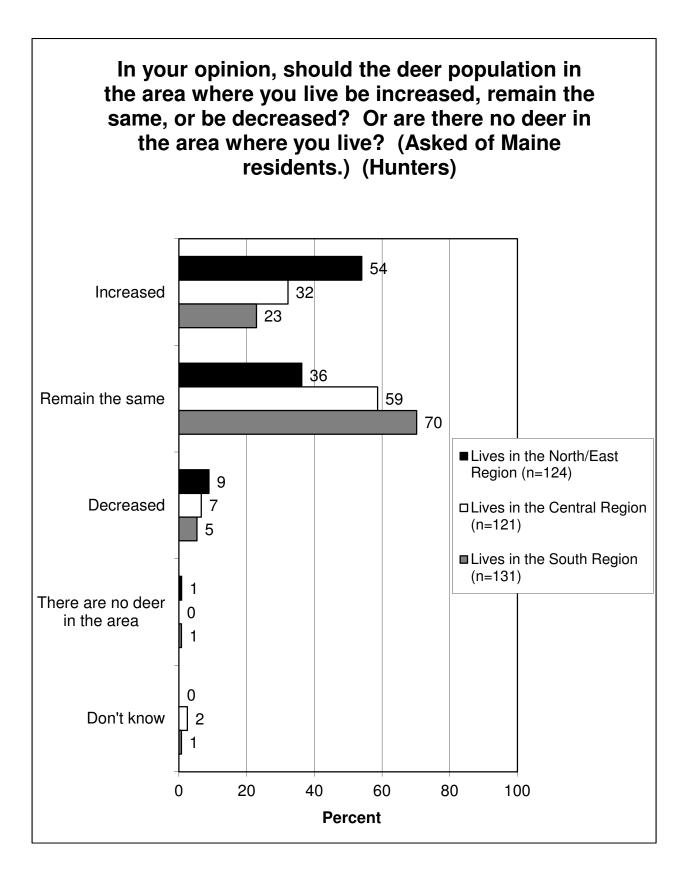


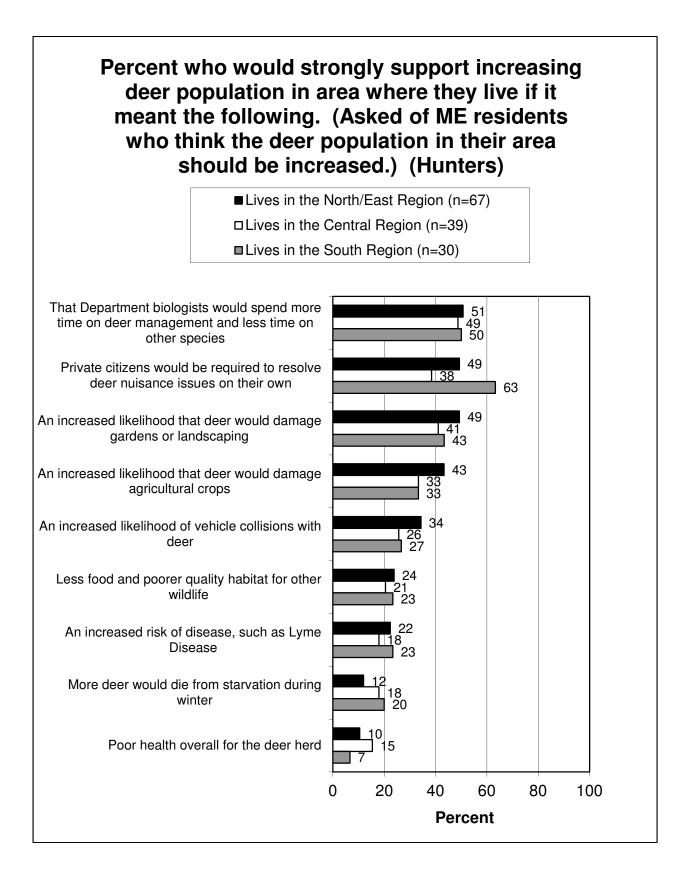
Deer Management—Hunters

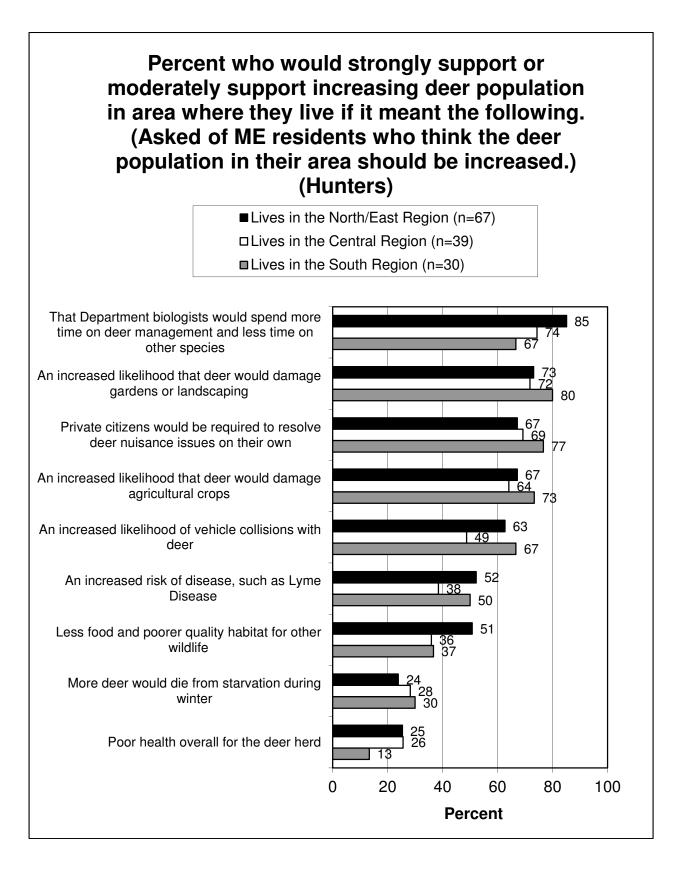
Ratings of deer management. Opinions on the size of the deer population. Support for increasing deer population with various caveats. Factors to be considered in managing deer. Support for/opposition to hunting as a way to manage deer. Support for/opposition to various methods to control deer. Opinions on deer and moose tradeoffs.

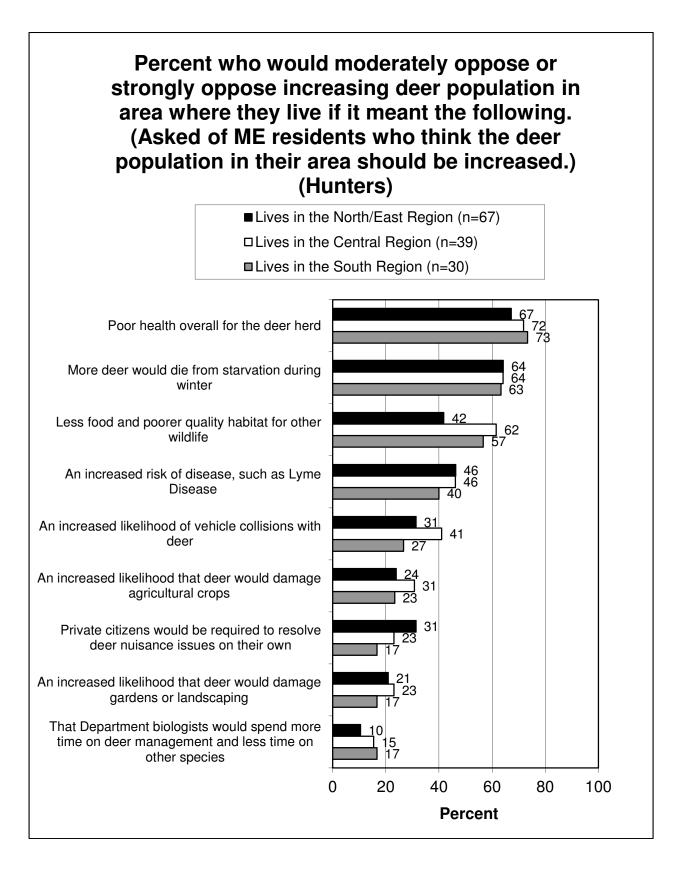


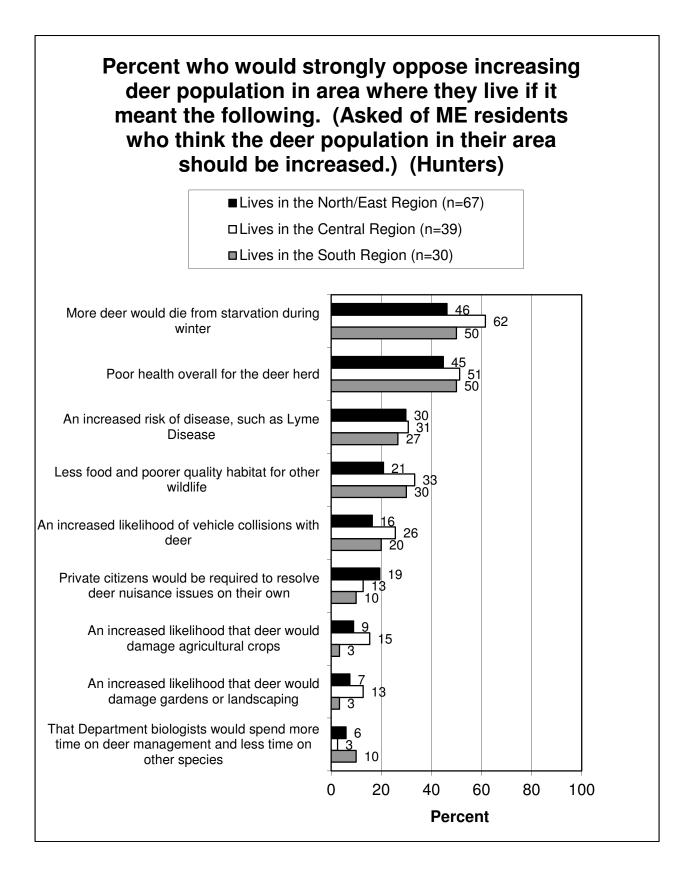


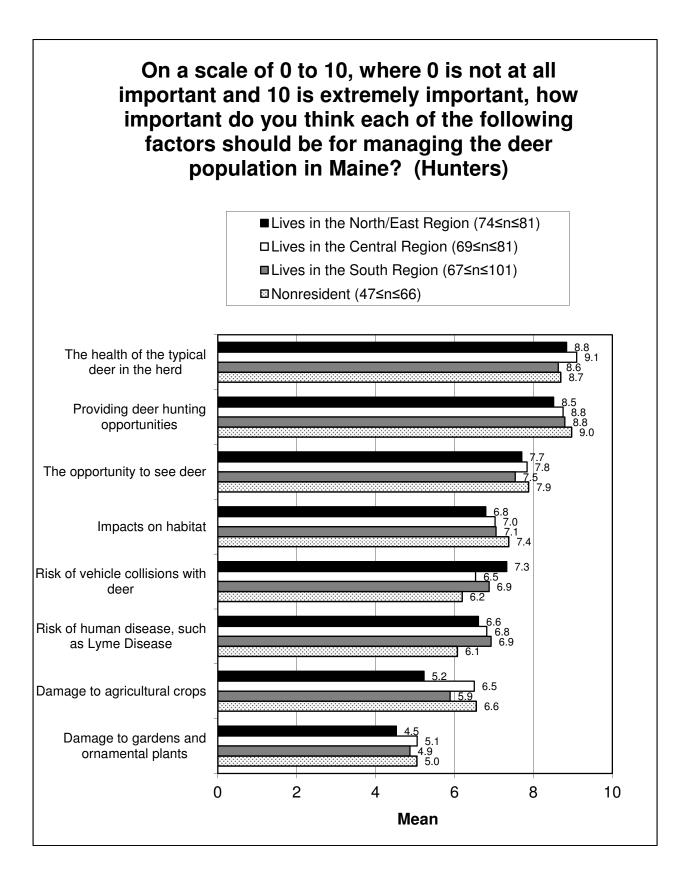


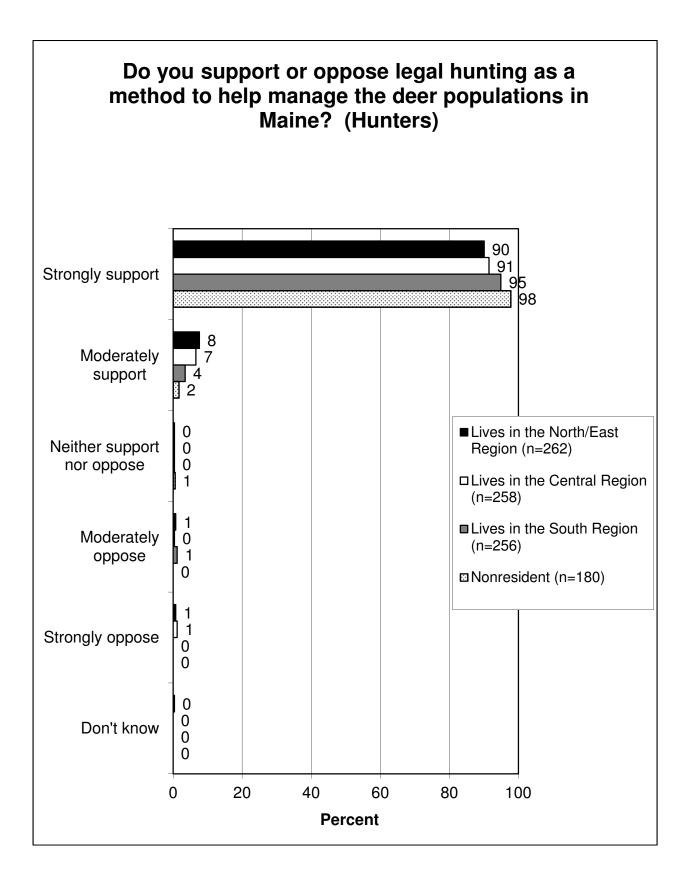


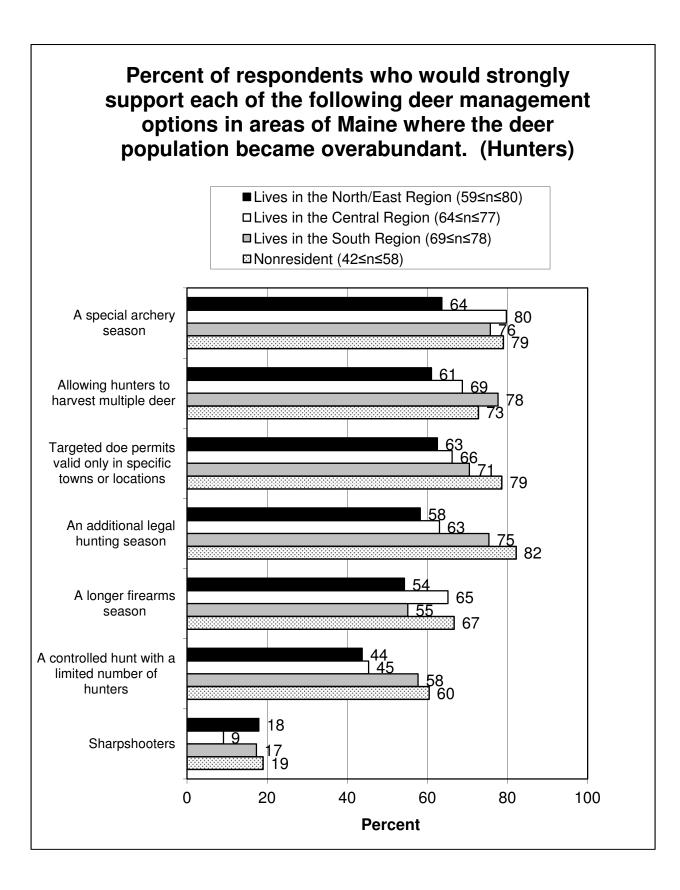


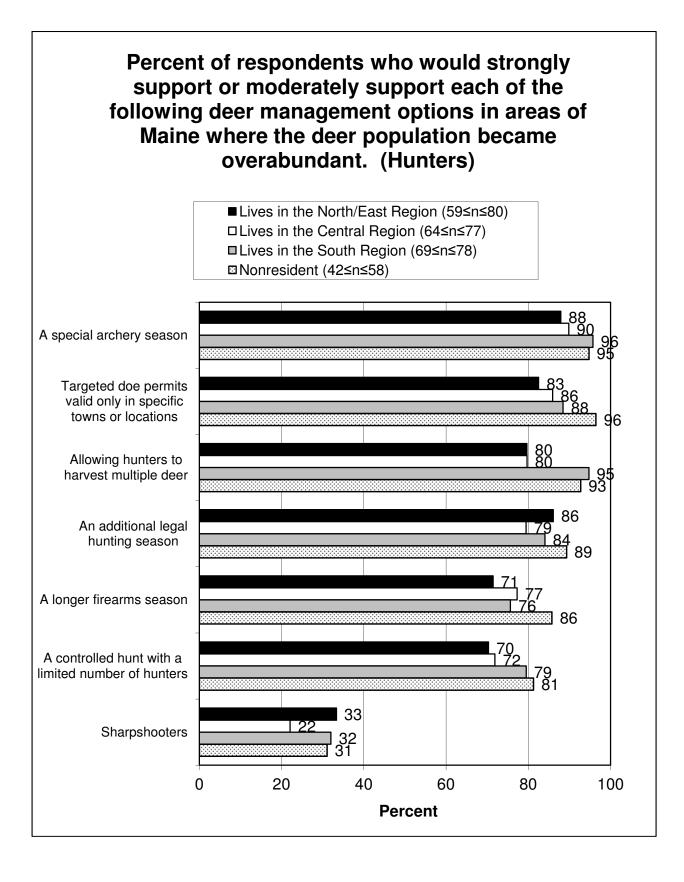


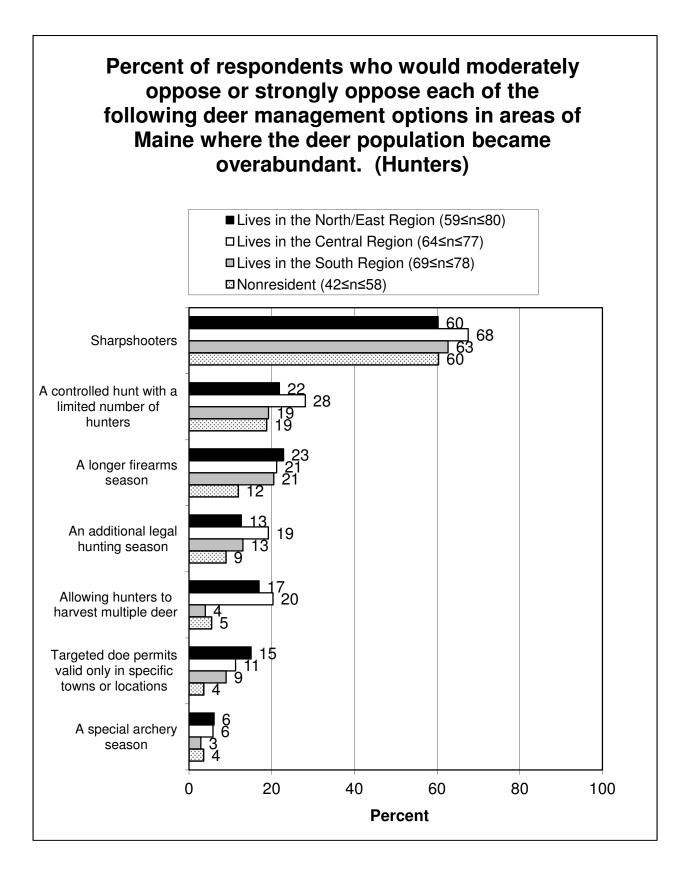


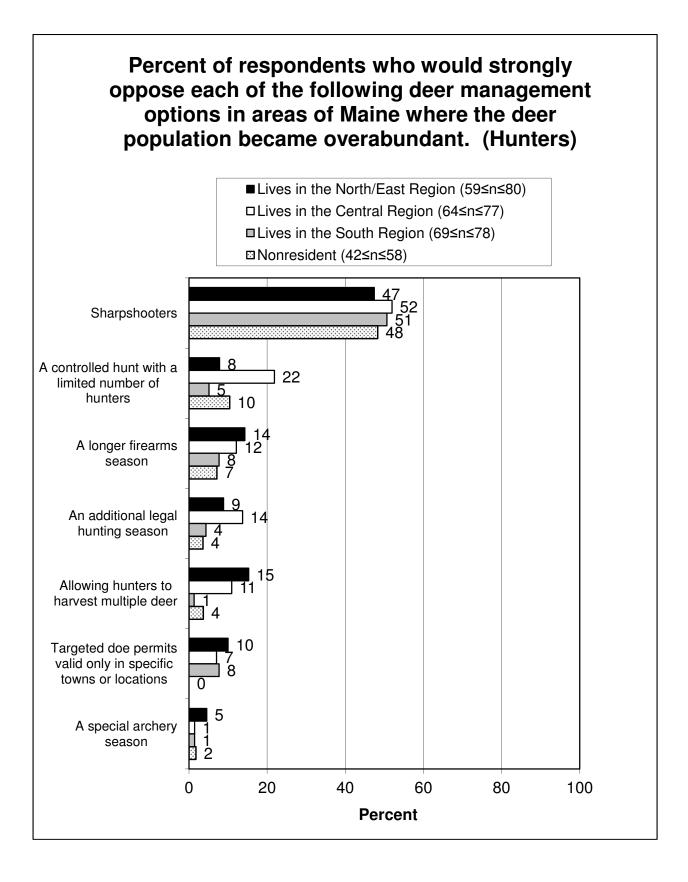


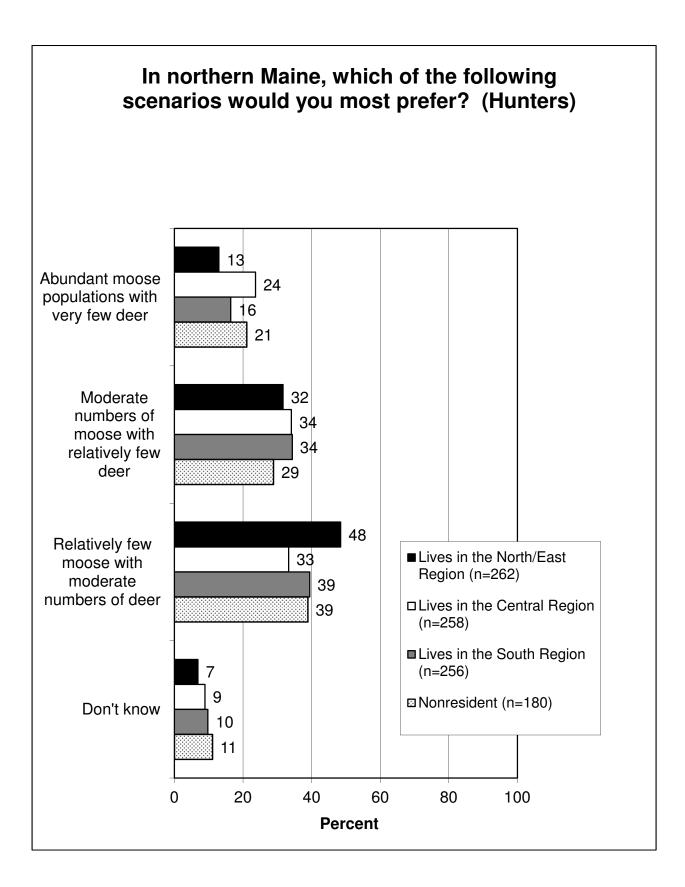












Moose Management—Hunters

Ratings of moose management.

Opinions on the size of the moose population.

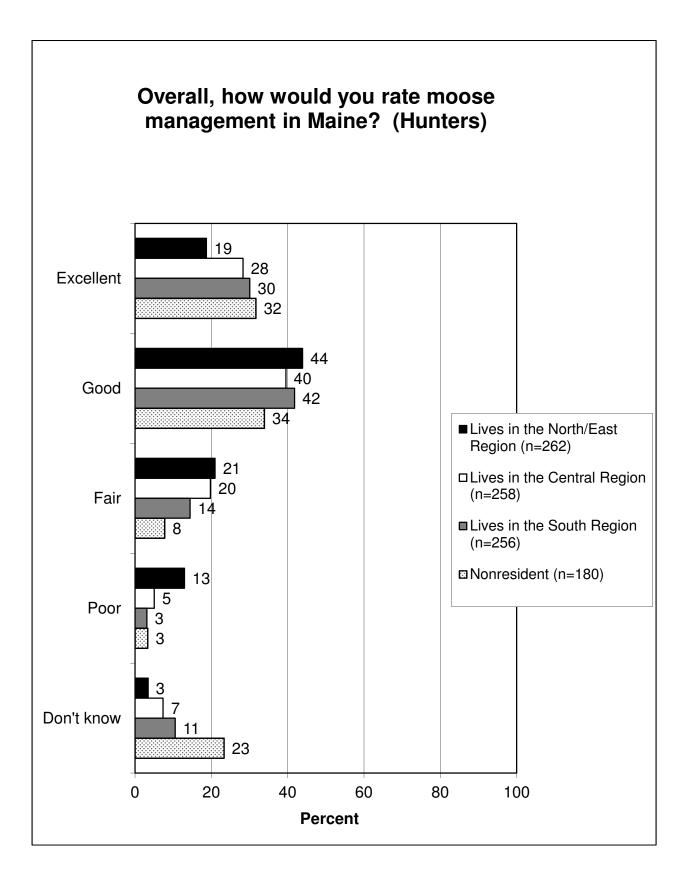
Support for increasing moose population with various caveats.

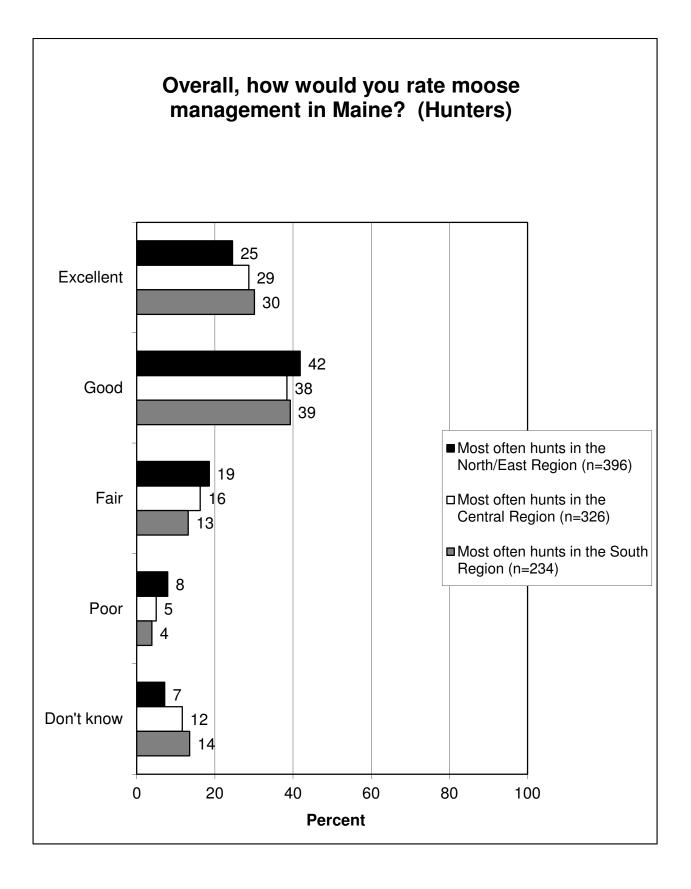
Factors to be considered in managing moose.

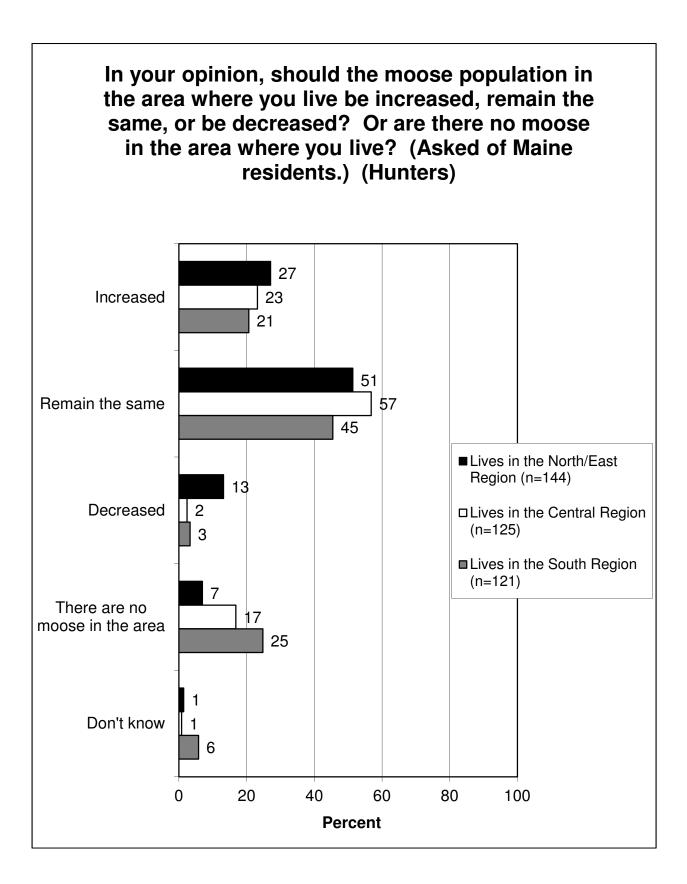
Support for/opposition to hunting as a way to manage moose.

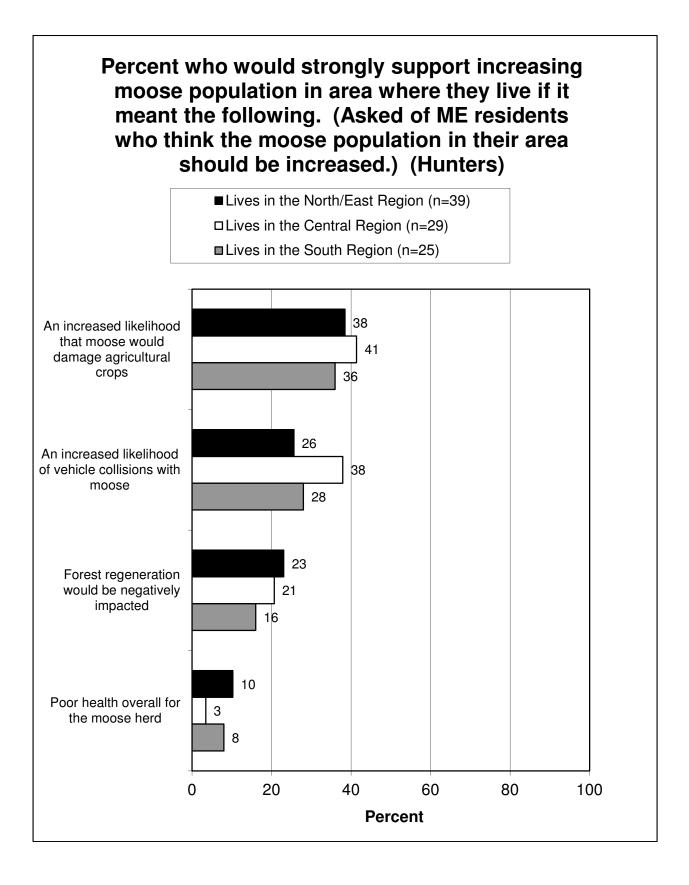
Opinion on adjusting moose harvest for health of the moose population.

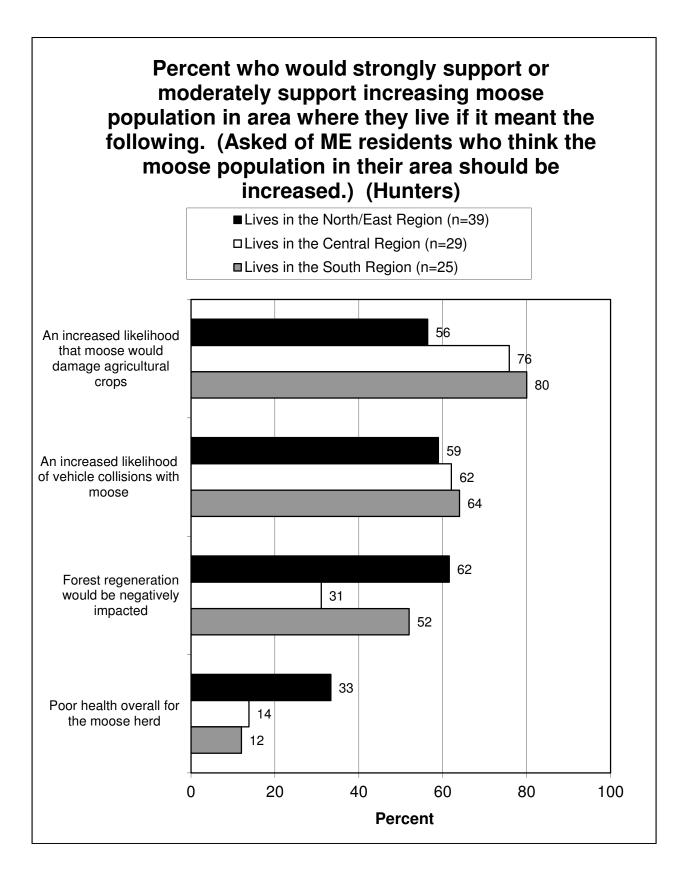
Opinion on moose hunting in southern Maine.

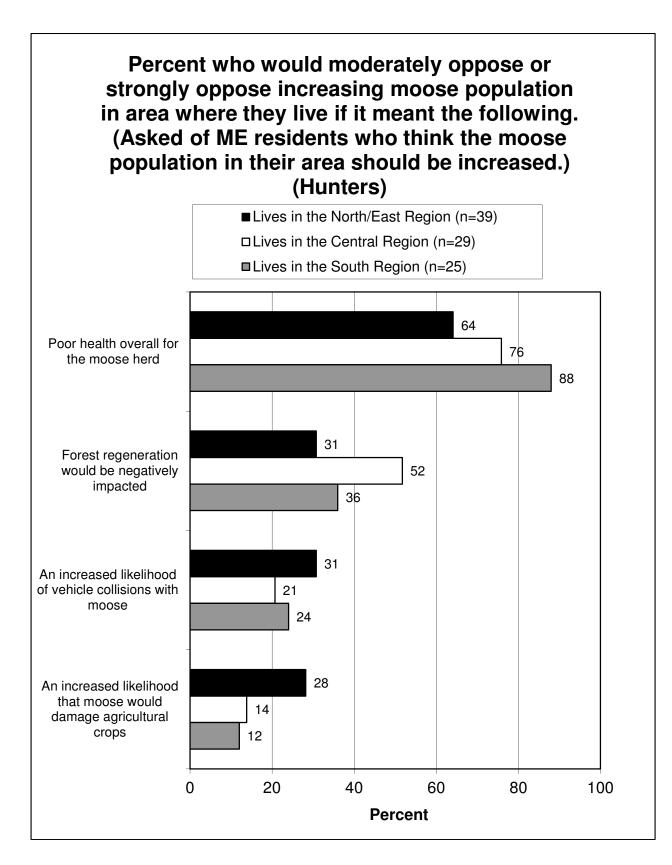


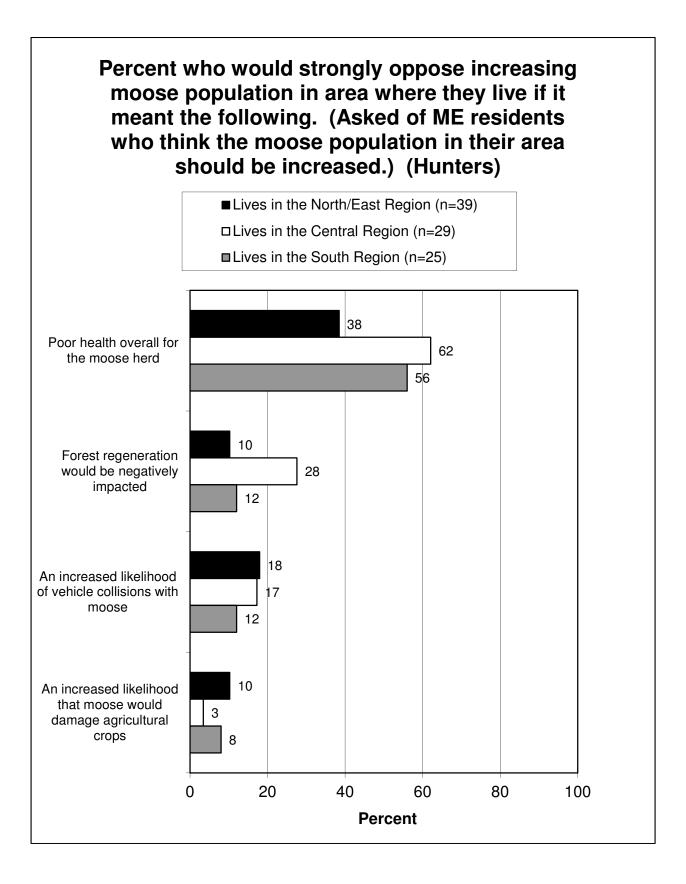


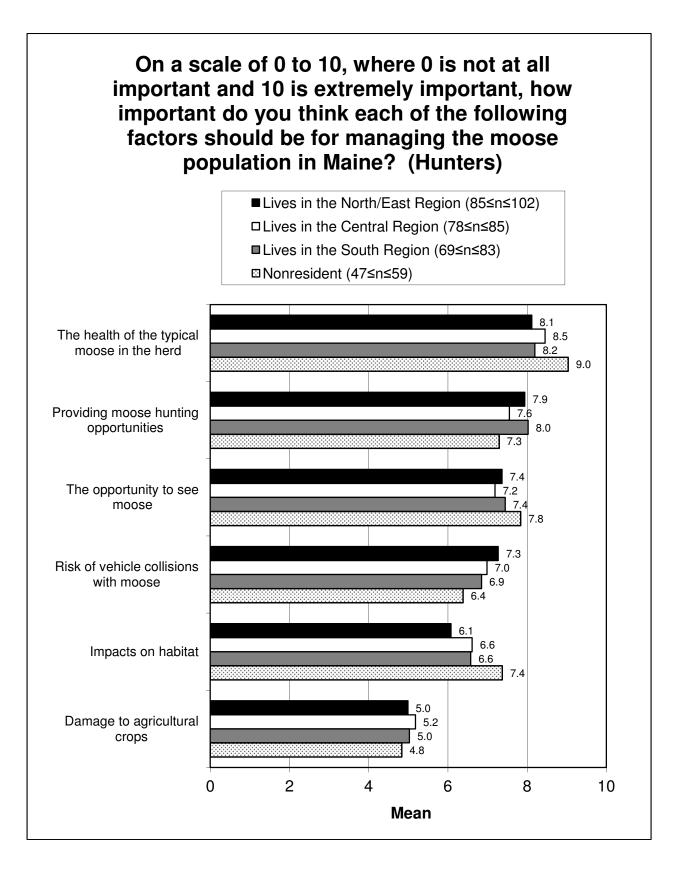


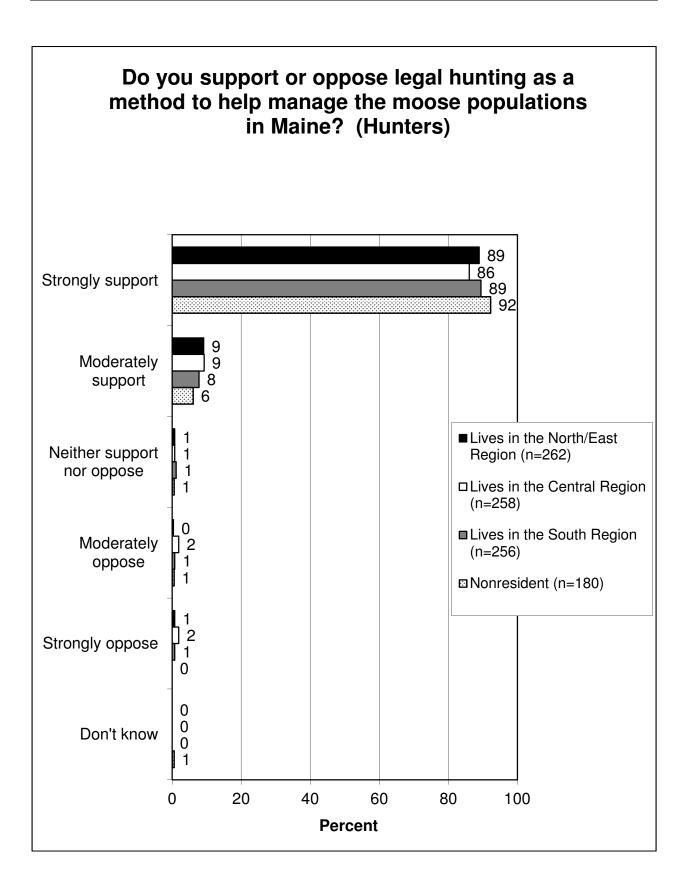


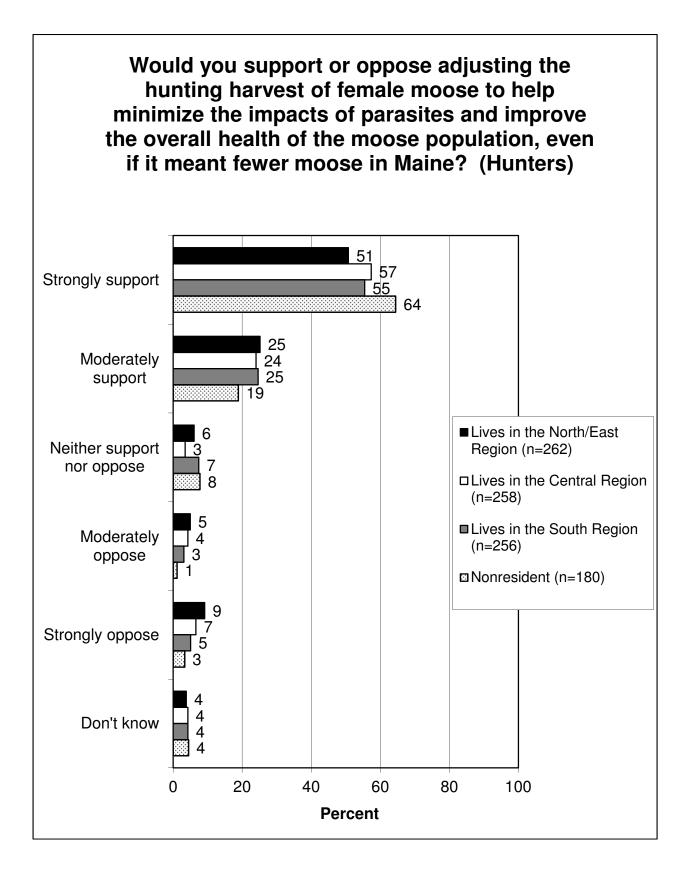


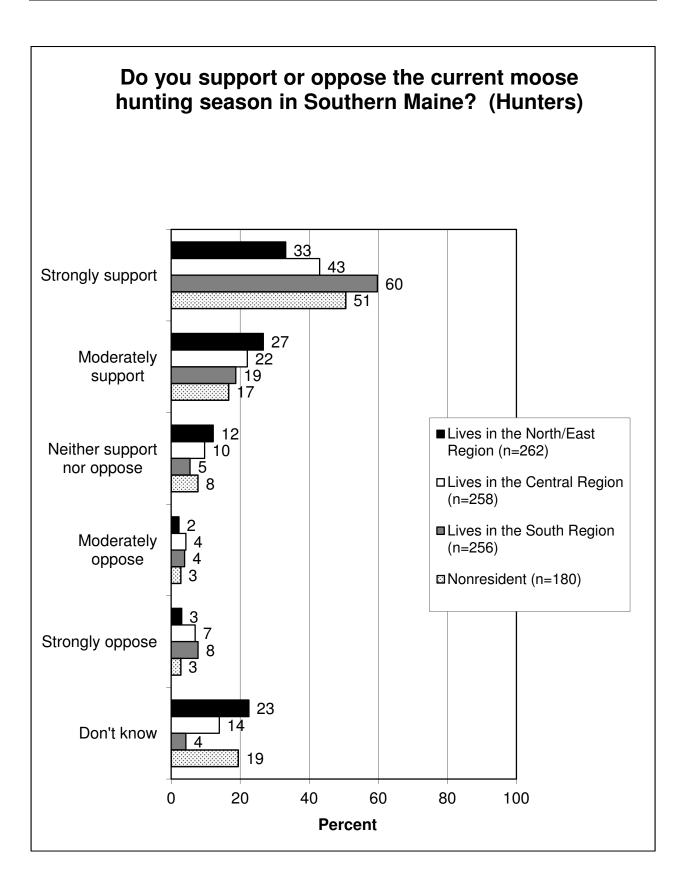






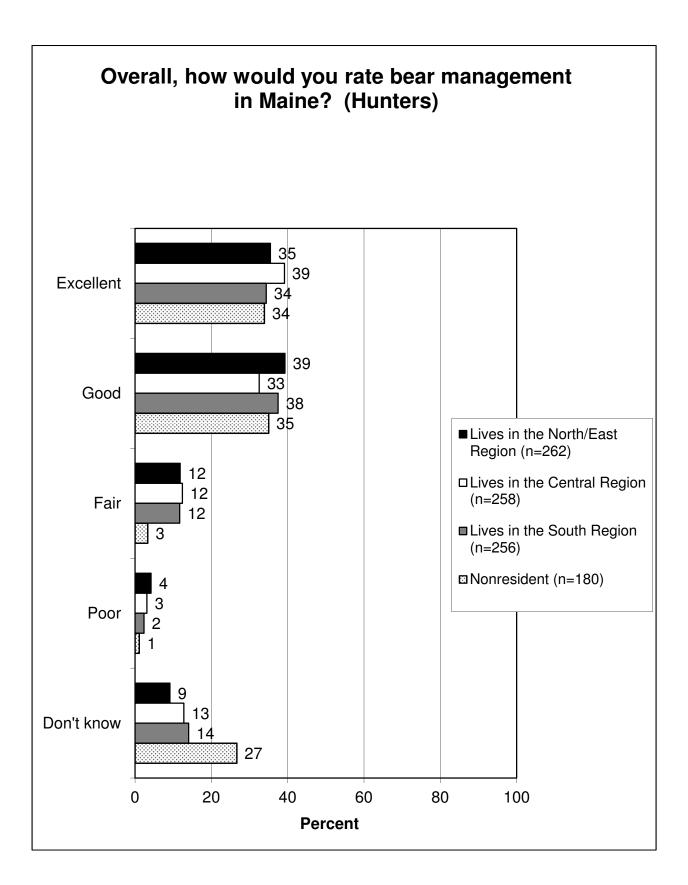


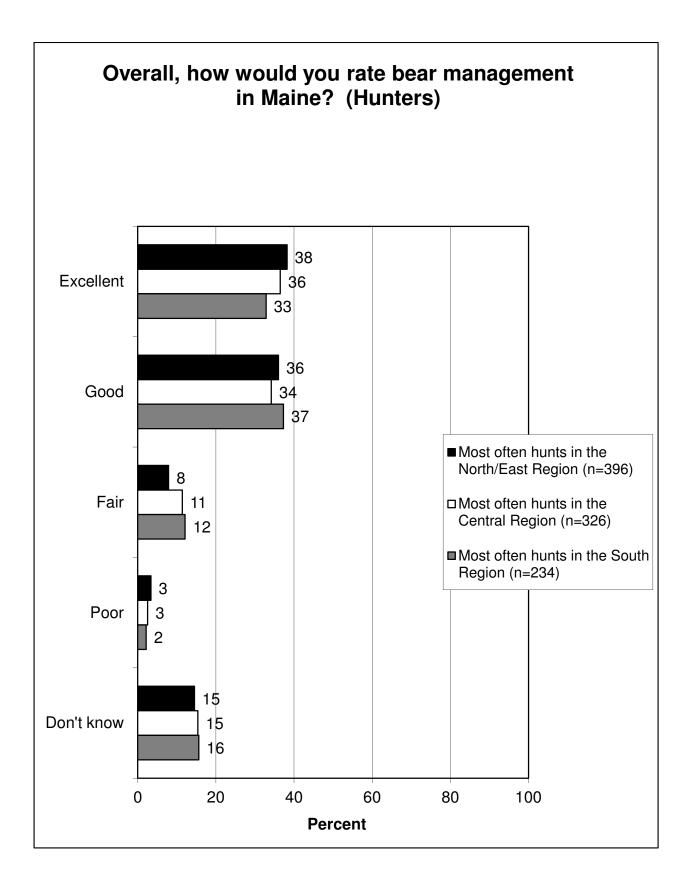


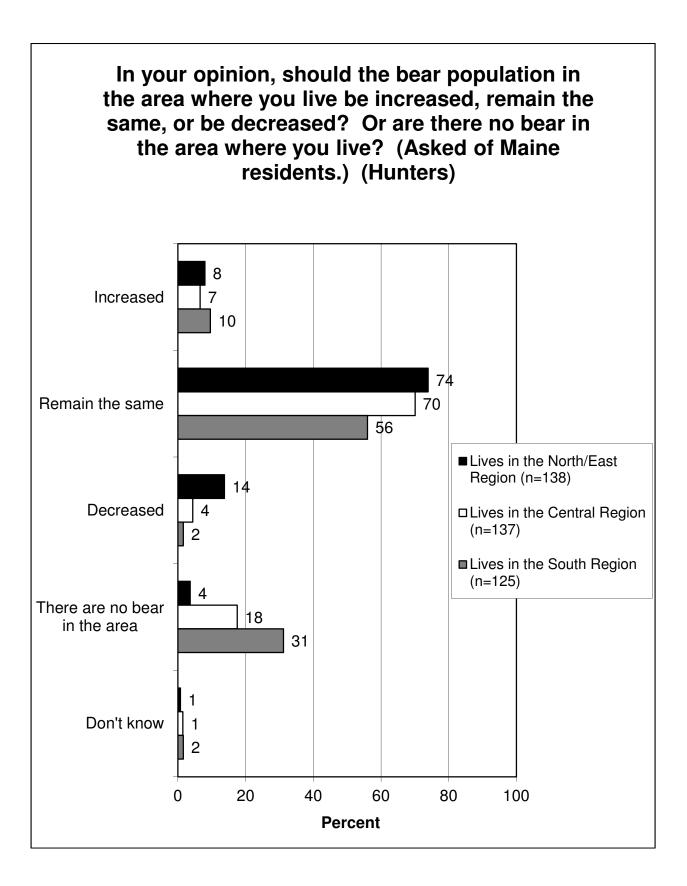


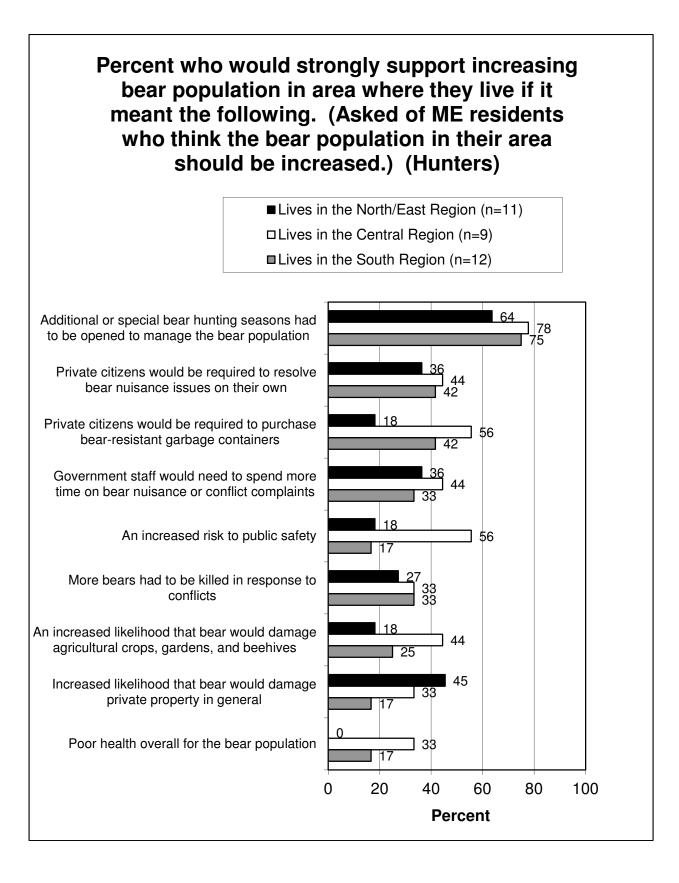
Bear Management—Hunters

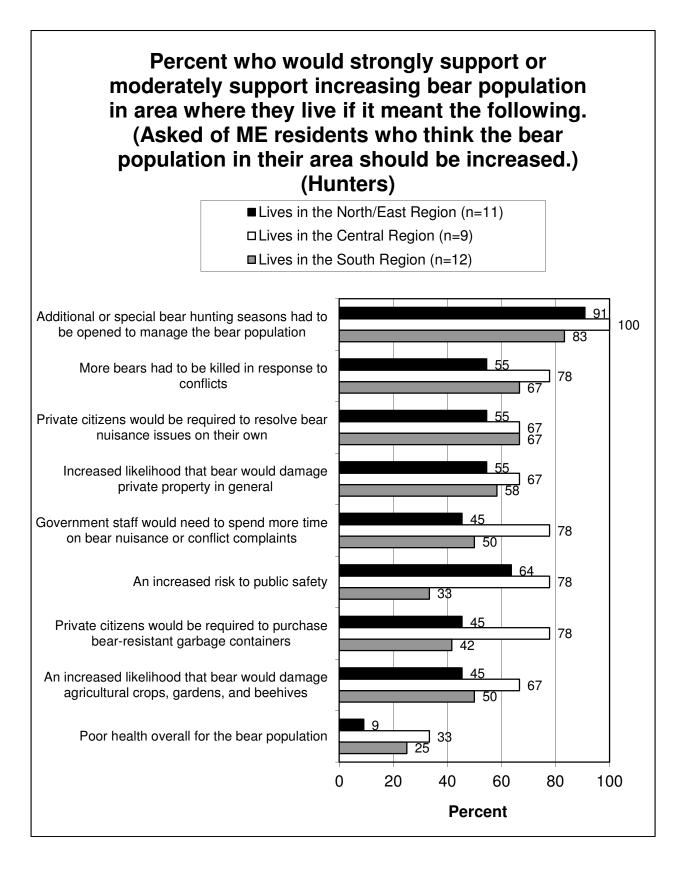
Ratings of bear management. Opinions on the size of the bear population. Support for increasing bear population with various caveats. Factors to be considered in managing bear. Support for/opposition to hunting as a way to manage bear. Opinion on allowing bear populations to expand south.

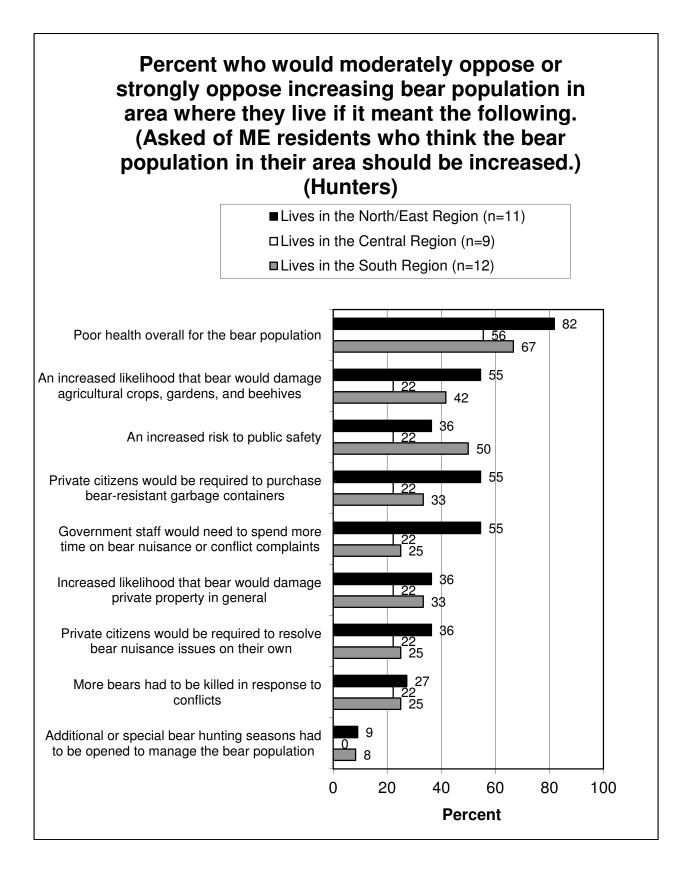


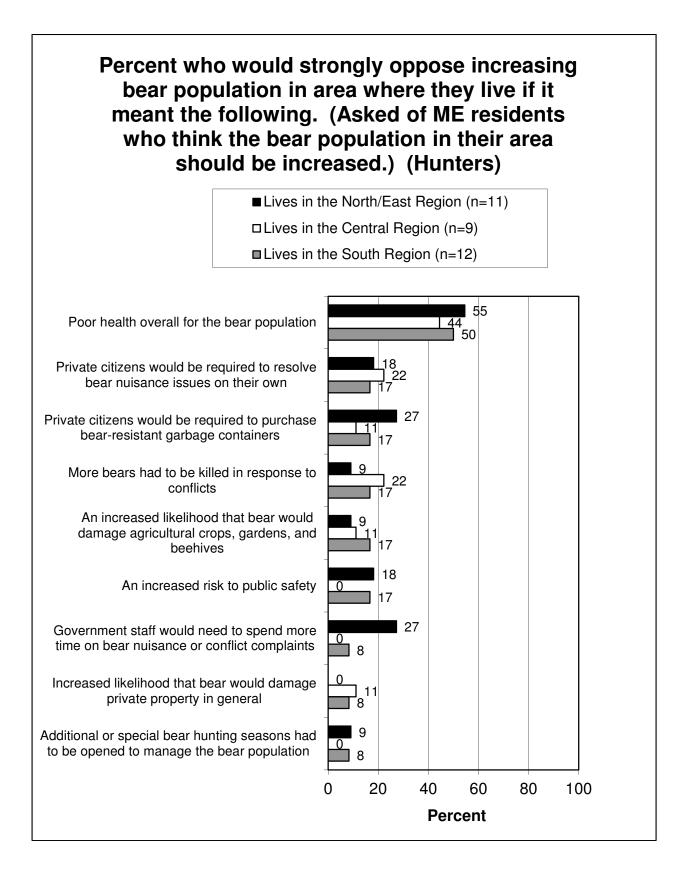


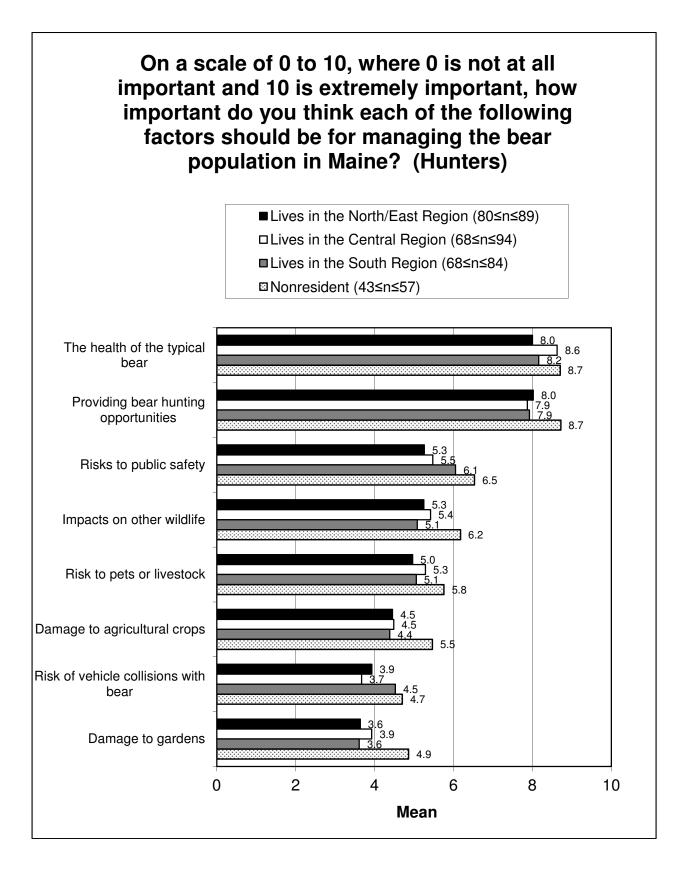


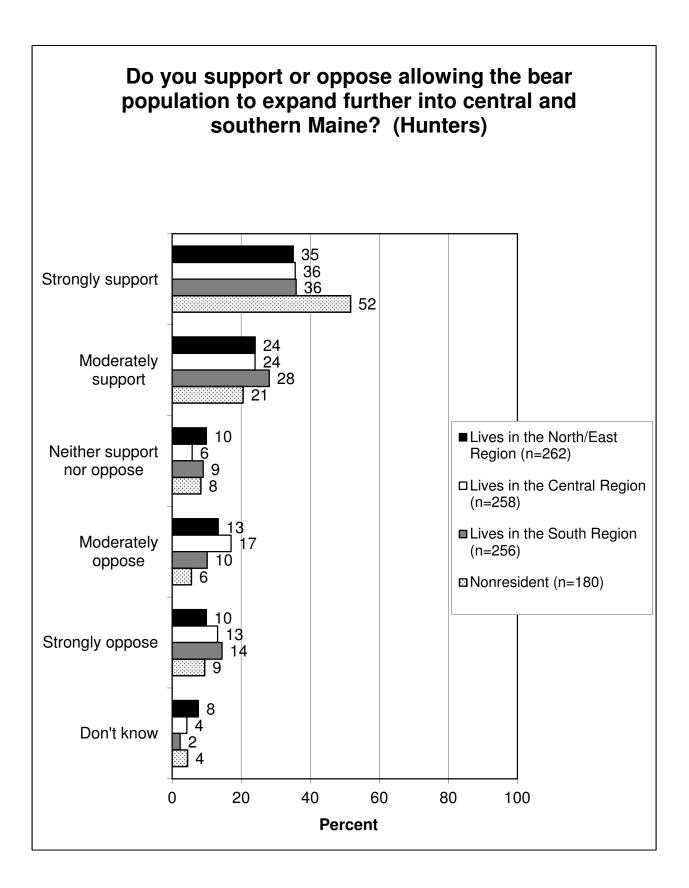












Turkey Management—Hunters

Ratings of turkey management.

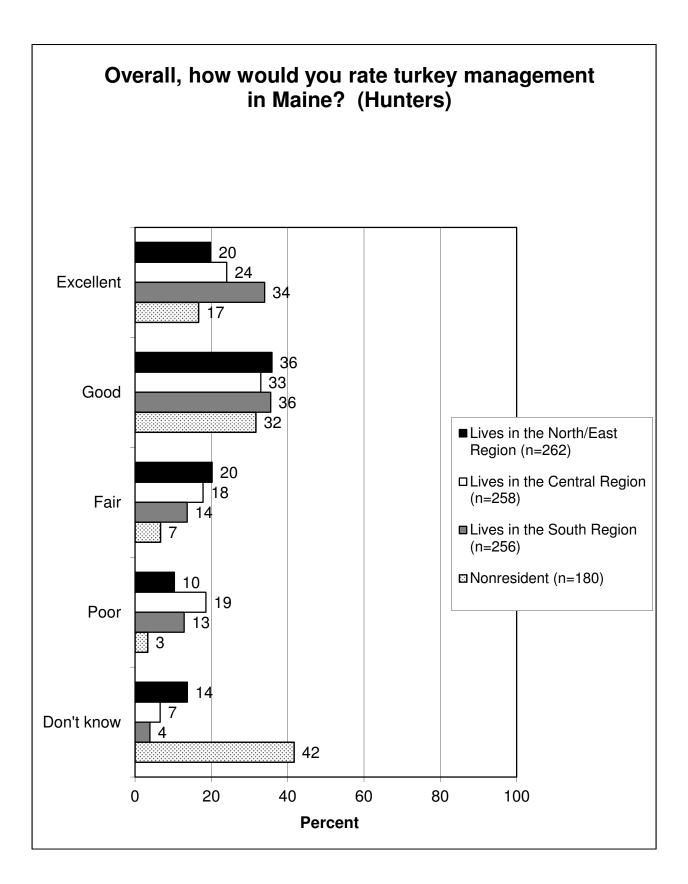
Opinions on the size of the turkey population.

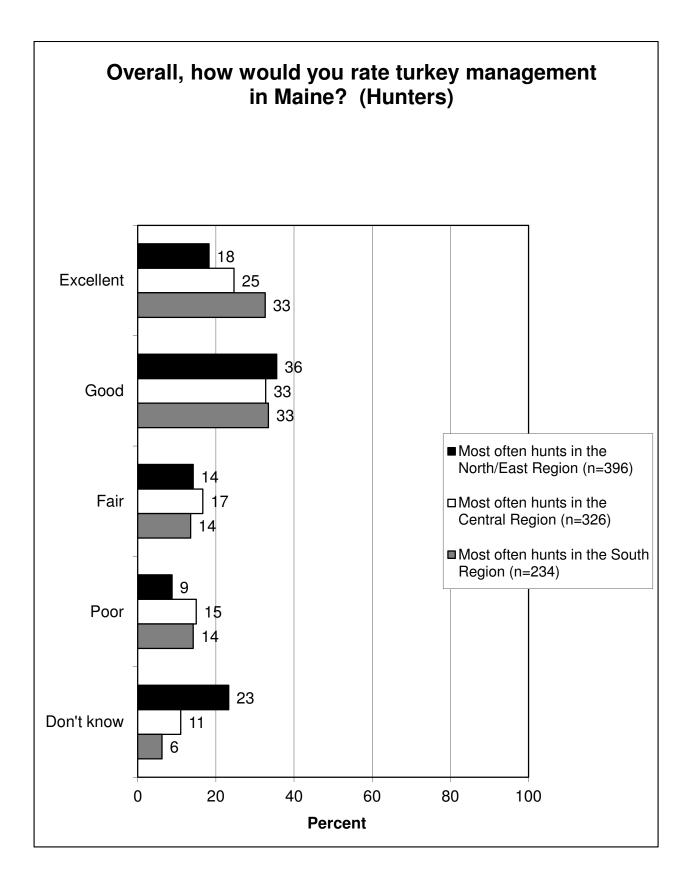
Support for increasing turkey population with various caveats.

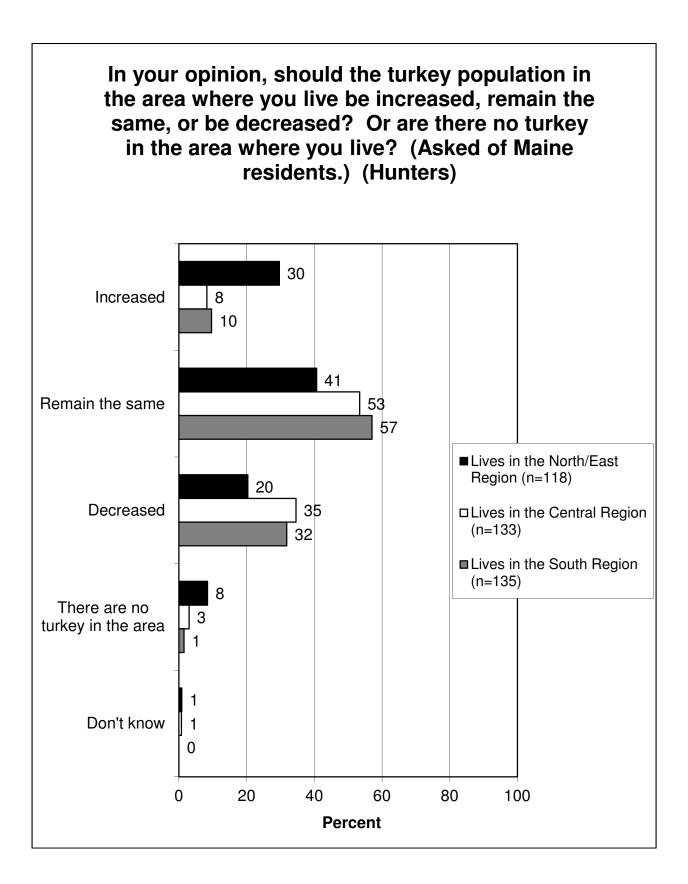
Factors to be considered in managing turkey.

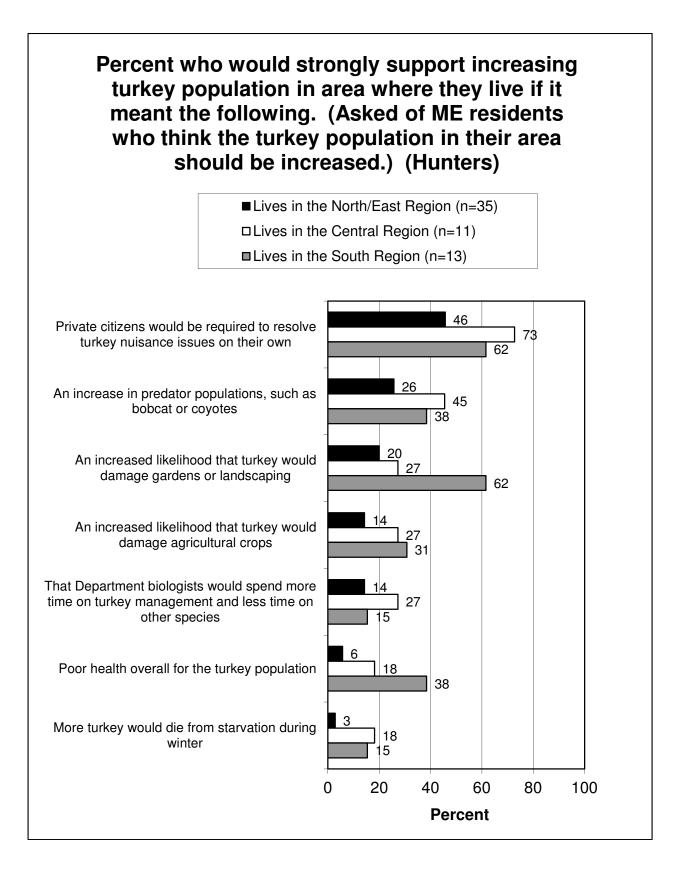
Support for/opposition to hunting as a way to manage turkey.

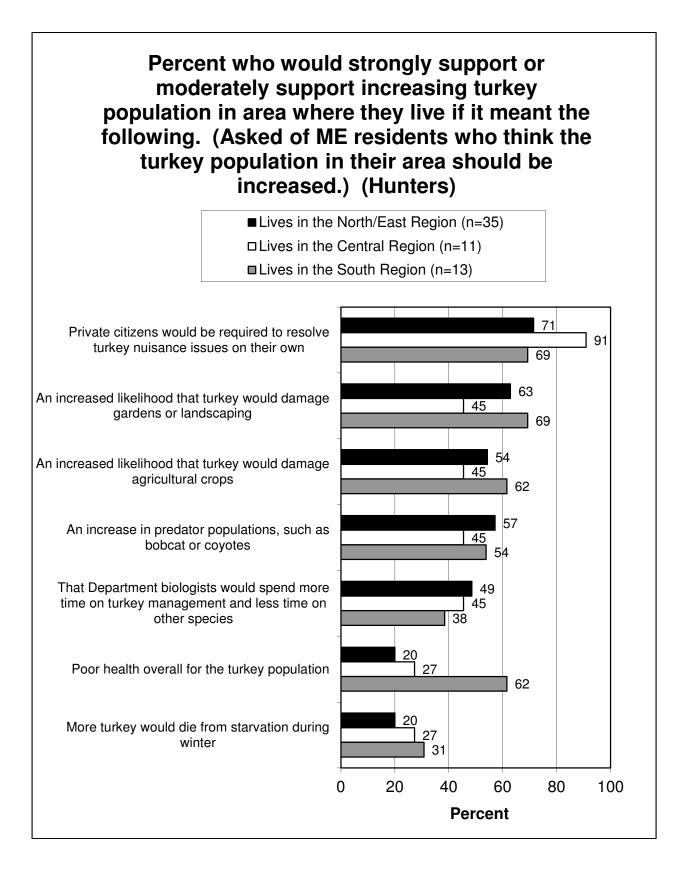
Opinion on methods to control turkey if they become overabundant.

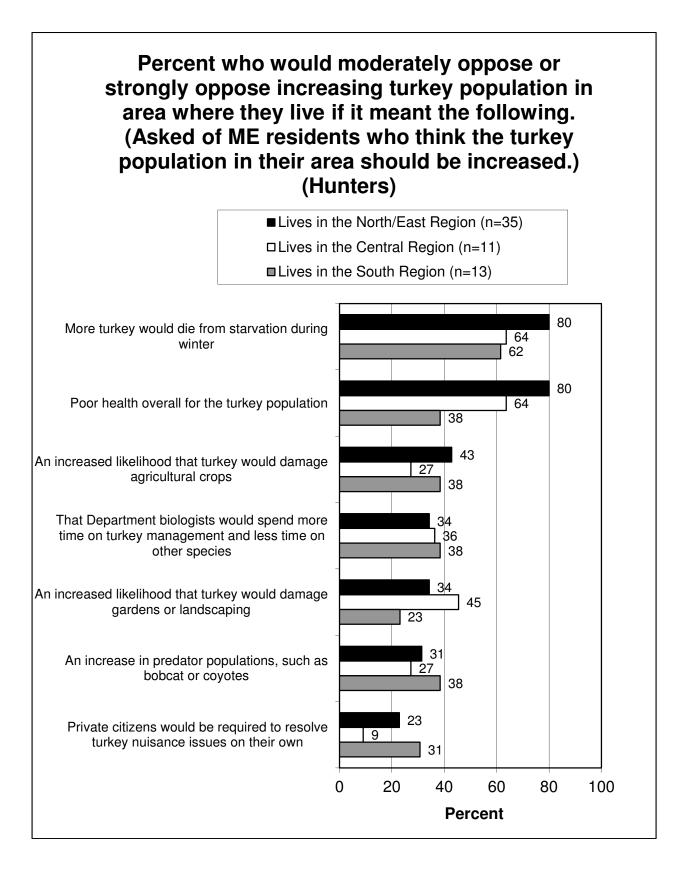


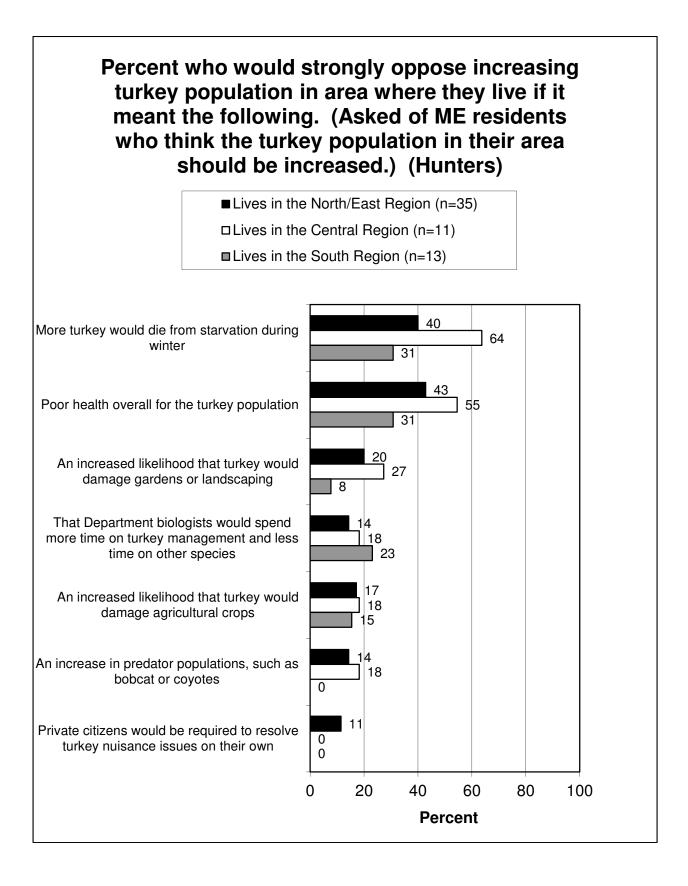


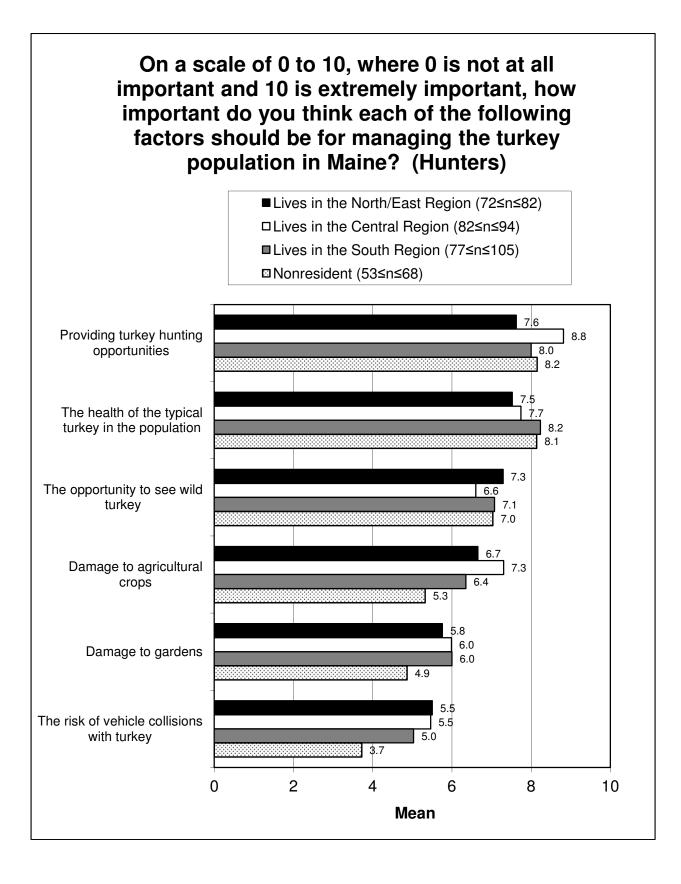


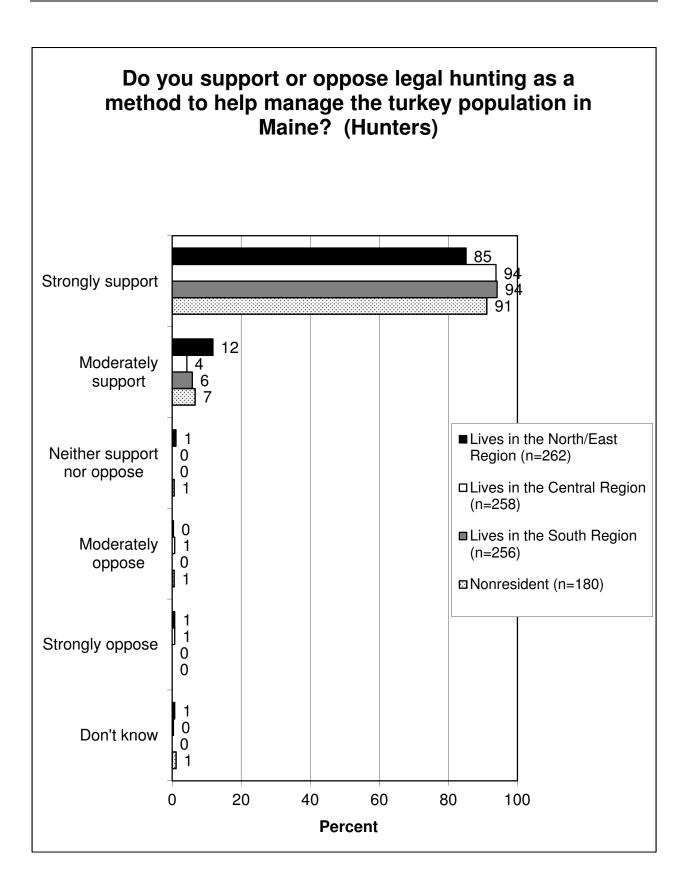


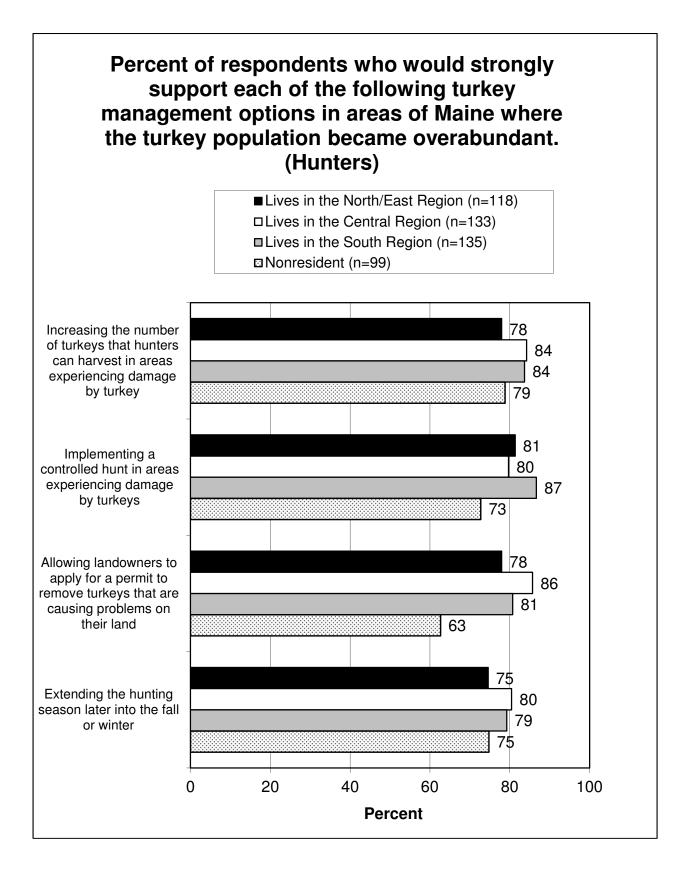


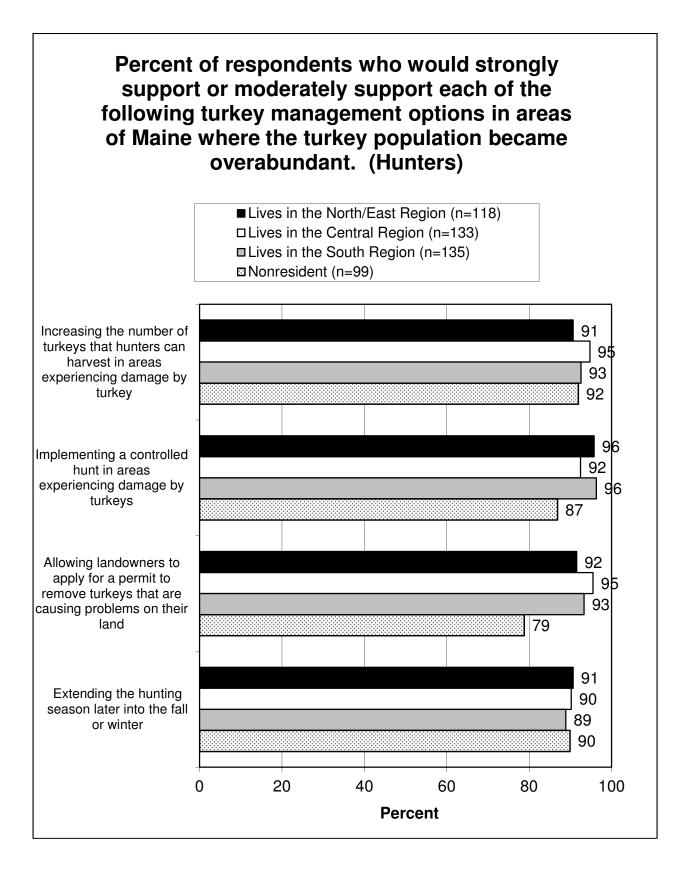


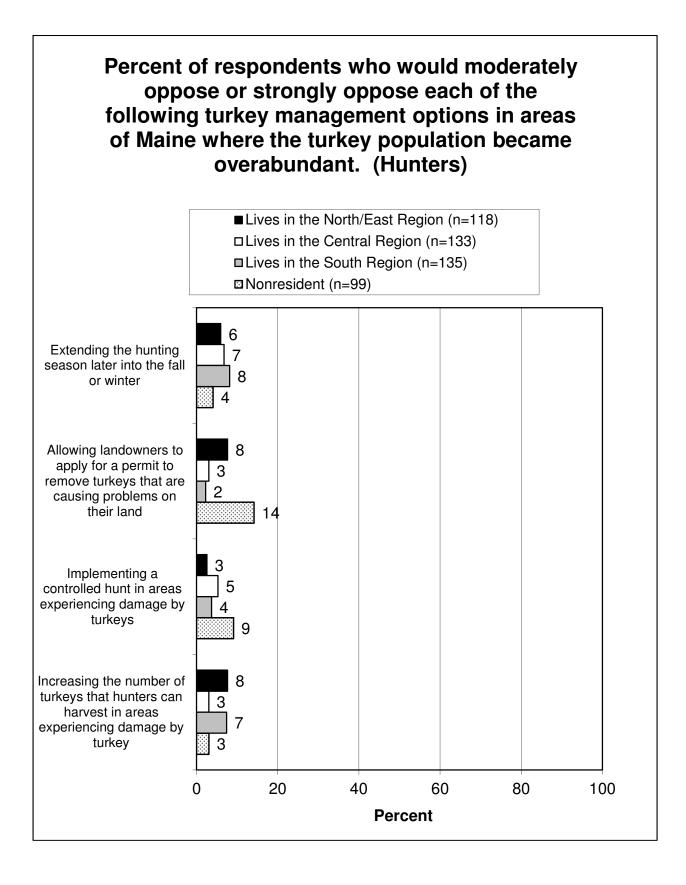


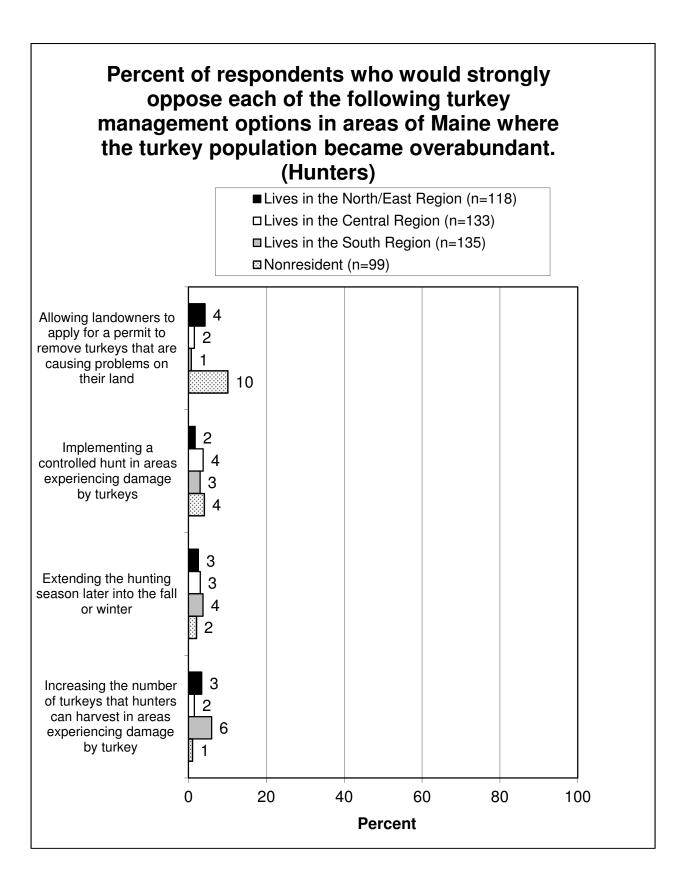






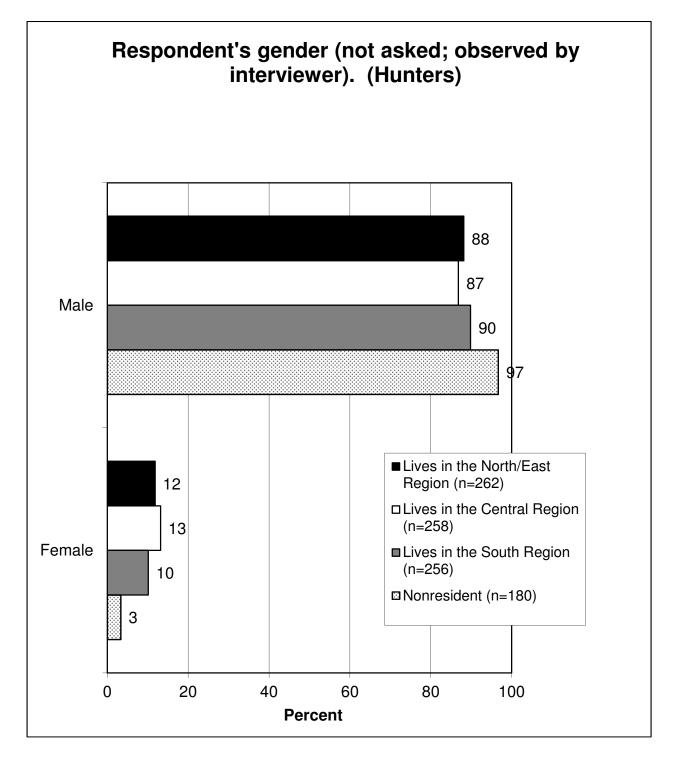


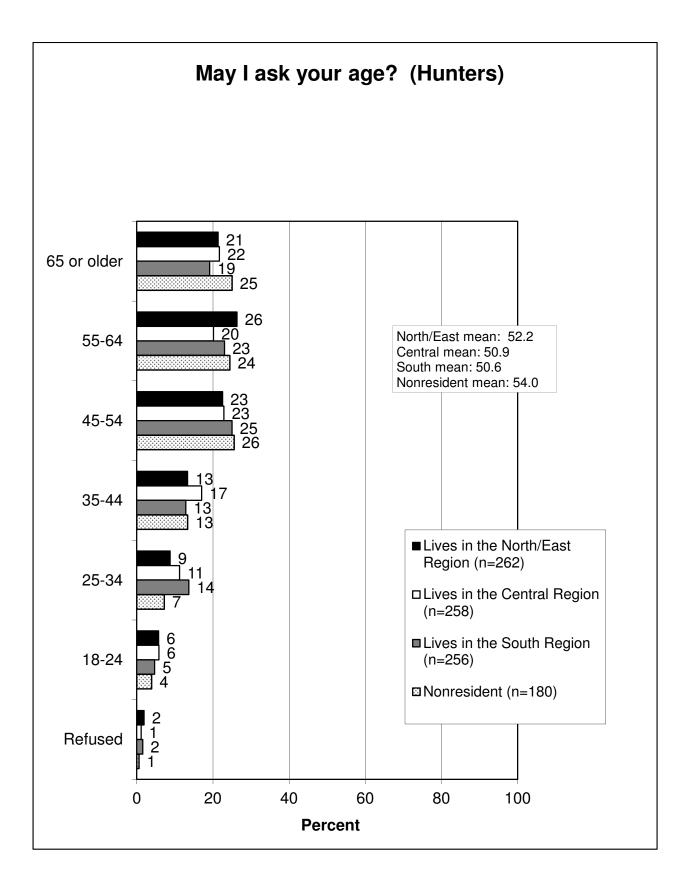


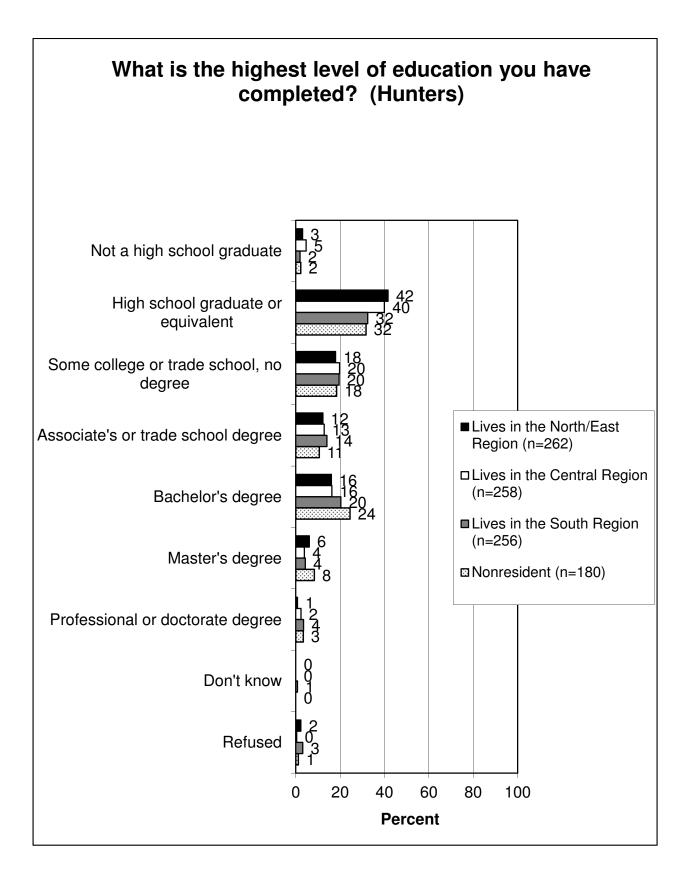


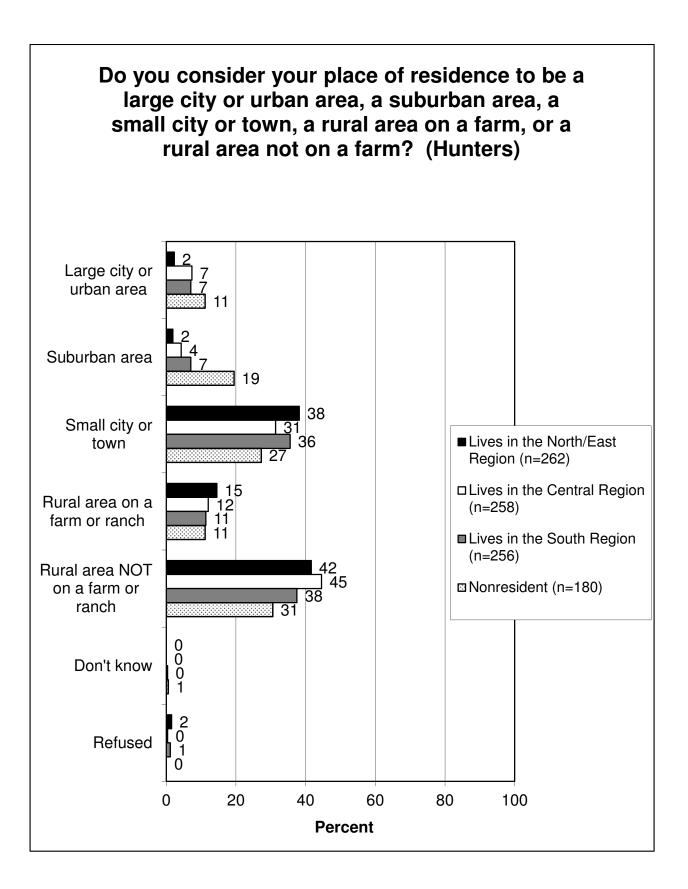
Demographic Data—Hunters

Gender. Age. Education. Residential character of where residence is located.









ABOUT RESPONSIVE MANAGEMENT

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

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

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

Specializing in research on public attitudes toward natural resource and outdoor recreation issues, Responsive Management has completed a wide range of projects during the past 25 years, including dozens of studies of hunters, anglers, wildlife viewers, boaters, park visitors, historic site visitors, hikers, birdwatchers, campers, and rock climbers. Responsive Management has conducted studies on endangered species; waterfowl and wetlands; and the reintroduction of large predators such as wolves, grizzly bears, and the Florida panther.

Responsive Management has assisted with research on numerous natural resource ballot initiatives and referenda and has helped agencies and organizations find alternative funding and increase their membership and donations. Additionally, Responsive Management has conducted major organizational and programmatic needs assessments to assist natural resource agencies and organizations in developing more effective programs based on a solid foundation of fact. Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management has also conducted focus groups and personal interviews with residents of the African countries of Algeria, Cameroon, Mauritius, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe.

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

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

Visit the Responsive Management website at: www.responsivemanagement.com