2005 Survey of Bear Hunters in North Carolina

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Executive Summary

Introduction
We conducted this study to examine the views of North Carolina bear hunters on bear hunting and bear management.

Methods
In order to explore in-depth some topics related to bear hunting and management and to test a draft of the mail survey instrument, we conducted focus groups with bear hunters in Waynesville (Mountains), New Bern (Coast), and Graham (Piedmont) in February and March 2005. Beginning in February 2005, we mailed survey postcards to a random sample of 50,000 of the 299,703 adults (≥16 years) that had licenses which allow big game hunting and held a valid Big Game Harvest Report Card for fiscal year 2004. In June 2005, we mailed 2,426 surveys to every hunter who returned a big game hunter postcard who indicated they had hunted bear during the previous 3 years.

Selected Results
Most (64%) of bear hunters spent 0-20% of their time bear hunting in North Carolina during the past three years on game lands. Western-most bear season zone (Mountain) hunters (40%) were significantly more likely and eastern bear season zones (Coastal) hunters (6%) significantly less likely than expected to have bear hunted over 80% of the time on Game Lands.

A majority of bear hunters (58%) only still hunted (still-only) or most often still (primarily still) hunted bear during the last three years.

A plurality (49%) of bear hunters indicated the length of the bear season in the county in which they spent the most time bear hunting during the last 3 years was about the right length and 46% responded it was too short. Bear hunters in the Mountain season (48 days) (9%) were significantly less likely and those in the lower coastal plain 24 day season zone (LCP Short season) (34%) and upper coastal plain 9 day season zone (27%) significantly more likely than expected to have responded that the bear season was much too short.

Most (68%) bear hunters believed the timing of the bear season in the county in North Carolina where they most often hunted was about right. Mountain season hunters (1%) were significantly less likely and LCP Short season hunters (23%) were significantly more likely than expected to believe the bear season was much too late.

A plurality (49%) of bear hunters believed the current abundance of bears where they bear hunted was about right and 35% indicated bear abundance was too low. Mountain hunters were significantly more likely to believe bear abundance was much to low (11%) or a little to low (41%) than Coastal hunters.

Most (68%) bear hunters agreed that they were satisfied with the current bag limit of 1 bear per hunter per season.

A majority of bear hunters (56%) supported increasing the bear season length to meet WRC bear population goals. Mountain season hunters (24%) were significantly less likely and LCP Short season (51%) and bear hunters in the upper coastal plain 18 day season zone (35%) were

significantly more likely than expected to strongly support increasing the season length to meet WRC population goals.

Most hunters (72%) were opposed to decreasing the bear season length to meet WRC population goals.

A plurality (42%) of bear hunters supported having an earlier bear season to meet WRC population goals, but 31% were opposed to an earlier season. Mountain season hunters (16%) were significantly less likely and bear hunters in the lower coastal plain 48 day season zone (28%) and LCP Short season hunters (50%) were significantly more likely than expected to strongly support having an earlier season in order to meet population goals. A plurality (38%) of bear hunters was opposed to, and 30% supported, having a later season in order to meet WRC population goals.

A plurality (41%) of bear hunters supported having an archery season before the gun season to meet WRC population goals. However, 36% opposed such a season. Significantly more (39%) still-only hunters strongly supported, while significantly more (53%) hunters who only hunted bear with dogs (dog-only) strongly opposed an early archery season to meet bear population goals than expected. Coastal bear hunters (30%) were more likely than Mountain bear hunters (23%) to strongly support an early archery season to meet population goals.

A plurality (46%) of bear hunters supported having a muzzleloading season before the gun season to meet WRC bear population goals, but 32% were opposed to such a season. Still-only hunters (36%) and primarily still hunters (35%) were significantly more likely and dog-only hunters (11%) significantly less likely than expected to strongly support a muzzleloading season to meet bear population goals. Coastal bear hunters (30%) were more likely than Mountain bear hunters (22%) to strongly support an early muzzleloading season to meet population goals.

Half (50%) of bear hunters were opposed to increasing the 1 bear per season bag limit to meet WRC population goals. However, 36% favored such an increase. Dog-only hunters (42%) were significantly more likely to be strongly opposed to increasing the bag limit than expected. Mountain bear hunters (42%) were significantly more likely to strongly oppose an increased bag limit to meet population goals than Coastal hunters (35%).

Most bear hunters (79%) agreed that Bear Sanctuaries have been effective in increasing the bear population in North Carolina. Most (80%) bear hunters agreed that limited permit hunting should be allowed on Bear Sanctuaries.

A majority (52%) of bear hunters agreed that the area in Bear Sanctuaries should be decreased in order to keep bear populations from growing too rapidly; but, 34% of hunters disagreed with decreasing the area in bear sanctuaries. Mountain hunters were less supportive of decreasing the area in Bear Sanctuaries, with a plurality (47%) disagreeing that the amount of Sanctuary area should be decreased.

Bear hunters were split (30% agreed, 34% disagreed) on whether the amount of area in the Bear Sanctuary program should be increased.

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Introduction

Black bear populations in North Carolina increased from the 1970's through 2000 and have stabilized in many coastal areas in recent years while continuing to grow in many mountain areas. Concomitantly, bear occupied range has expanded as the human population in North Carolina has grown. This presents some challenges for the management of this large carnivore. In order to more effectively manage bears in North Carolina, the WRC is developing a long-range bear management plan. Some objectives of the planning process include identifying critical bear management issues and determining public views on these issues. We conducted this study to examine the views of North Carolina bear hunters on bear hunting and bear management.

Methods

Focus groups

In order to explore in-depth some topics related to bear hunting and management and to test a draft of the mail survey instrument, in February and March 2005, we conducted a series of 3 focus groups. We invited bear hunters who lived near Waynesville (Mountains), New Bern (Coast), and Graham (Piedmont) to participate. For the New Bern and Graham groups, we invited a combination of hunters who bear hunted using dogs and those who bear hunted without dogs. All of the Mountain hunters bear hunted using dogs. Before each focus group, we had participants complete a draft of the mail survey instrument.

Survey instrument design

We designed a survey instrument with input from the WRC Bear Management Committee; the survey instrument contained items on bear hunting experience, bear hunting methods, views on bear management, views on hunting ethics, and demographic and background information (Appendix A).

Survey implementation

Identifying bear hunters

Beginning in February 2005, we mailed survey postcards to a random sample of 50,000 of the 299,703 adults (≥16 years) who had licenses which allow big game hunting and held a valid Big Game Harvest Report Card for fiscal year 2004. For those recipients who had not responded, we sent a second postcard in early May. A total of 17,821 big game hunters responded to the survey for an adjusted overall response rate of 41%.

Because of the large non-response rate, we examined differences between big game hunters who responded to the first and second mailings. There were indications of non-response bias because respondents to the second mailing (16%, n=655) were more likely to report not hunting any big game species than respondents to the first mailing (12%, n=1,554). Therefore, big game hunters who hunted one or more species during the past 3 years may have responded at a higher rate than those who did not hunt during the past 3 years.

Fourteen percent of the respondents (n=2,402) reported hunting bear in the previous 3 years and 12% (n=2,038) reported hunting bear in the previous year.

Survey mailings

We mailed 2,426 surveys to every hunter who returned a big game hunter postcard who indicated they had hunted bear during the previous year or previous three years. We used a modified version of The Tailored Design Method (Dillman's 2000) and sent participants up to four mailings. The first full survey mailing (survey instrument and Business Reply return envelope) was mailed on June 14, 2005 and a reminder postcard was mailed to all survey recipients on June 22. Any nonrespondents were sent follow up mailings on July13 and (if necessary) August 22.

Data analysis

All data were analyzed using SPSS 12.0.1. For bivariate comparisons, we used crosstabulations, chi-square tests ($\chi 2$), *t* tests, and *F* tests. For crosstabulations, we omitted categories when > 20% of cells had expected values < 5 or when any cells had expected values < 1. We calculated standardized residuals to determine which cells in crosstabulations were significantly different from expected values. An adjusted residual with an absolute value ≥ 2.0 was evidence against independence in the cell (Agresti and Finlay 1999). We used 2004-05 bear season zones for geographic comparisons. For some geographic comparisons, we combined all eastern bear season zones into the "Coast." Due to rounding, not all percentages total 100%.

In order to calculate mean acceptance for the items about potential regulations changes (Questions 15-18), we recoded responses for these items as follows: Strongly Support = 2, Moderately Support = 1, Neutral or No Opinion = 0, Moderately Oppose = -1, Strongly Oppose = -2.

Results

Response rate

The adjusted response rate (calculated by omitting incorrect addresses and persons ineligible to respond) was 76% (n=1,748).

Bear hunting experience

Most (90%, n=1,510) respondents had hunted bear in North Carolina (Question 1). Nearly half (49%) of hunters had bear hunted in North Carolina for 5 or fewer years, while 13% had bear hunted for over 20 years (Figure 1). Significantly fewer hunters who only still hunted for bear (still-only) (7%) and significantly more hunters who only hunted bear with dogs (dog-only) (24%) had bear hunted in North Carolina for over 20 years than expected (Table 1).

Most (69%, n=964) bear hunters spent the most time bear hunting during the last three years in the eastern bear season zones (Coast), while 31% (n=433) hunted primarily in the western-most bear season zone (Mountains) (Question 13). A plurality (44%) of hunters bear hunted in the upper coastal plain 18 day season zone (UCP Long season) and fewer (≤ 15%) hunted elsewhere on the Coast (Figure 2).

At least 70% of respondents reported hunting bear during the 2002, 2003, and 2004 seasons (Figure 3).

The median number of days bear hunted during the 2004 season was 6.0 (n=827) for the Coast and 10.0 (n=350) for the Mountains; median days bear hunted statewide was 7.0 (n=1,131) (Question 7).

Only 11% (n=147) of bear hunters spent 100% of their time bear hunting in North Carolina on Game Lands (GL) during the last 3 years, and 55% (n=717) spent 100% of their time bear hunting on private lands (Question 4). A majority (64%) of bear hunters spent 0% to 20% of their time bear hunting in during the past three years on Game Lands (Figure 4), while 60% of bear hunters hunted between 80.1% and 100% of the time on private land (Figure 5). Still-only hunters (74%) and hunters who most often still hunted for bear (primarily still) (71%) were significantly more likely and dog-only hunters (46%) significantly less likely to have bear hunted on Game Lands 0% to 20% of the time than expected (Table 2). Mountain hunters (40%) were significantly more likely and Coastal hunters (6%) significantly less likely than expected to have bear hunted over 80% of the time on Game Lands (Table 3). One Mountain focus group participant said, "If it wasn't for the Game Lands, you could get rid of your dogs and everything else."

Twelve percent (n=172) of bear hunters reported leasing land for bear hunting in the past year (Question 5). A quarter (25%) of lessees spent over $1,000 per year on bear hunting leases (Figure 6). Some Piedmont and Coastal focus group participants remarked that leased land is often the only option for hunting bear and hunting leases were becoming more costly. "It's turned into a rich man's sport," said one Piedmont hunter.

Figure 1

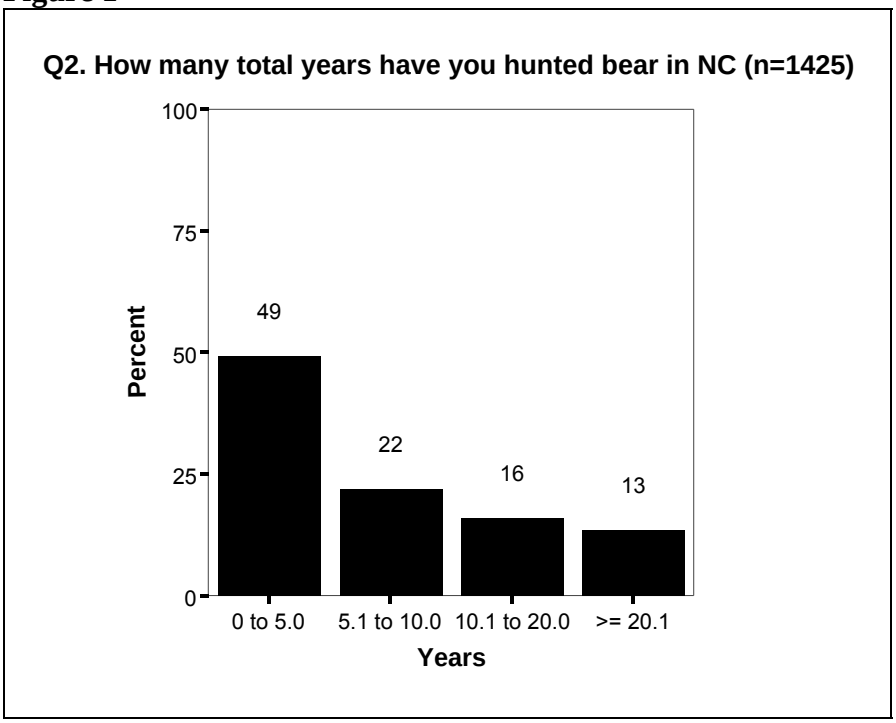


Figure 2

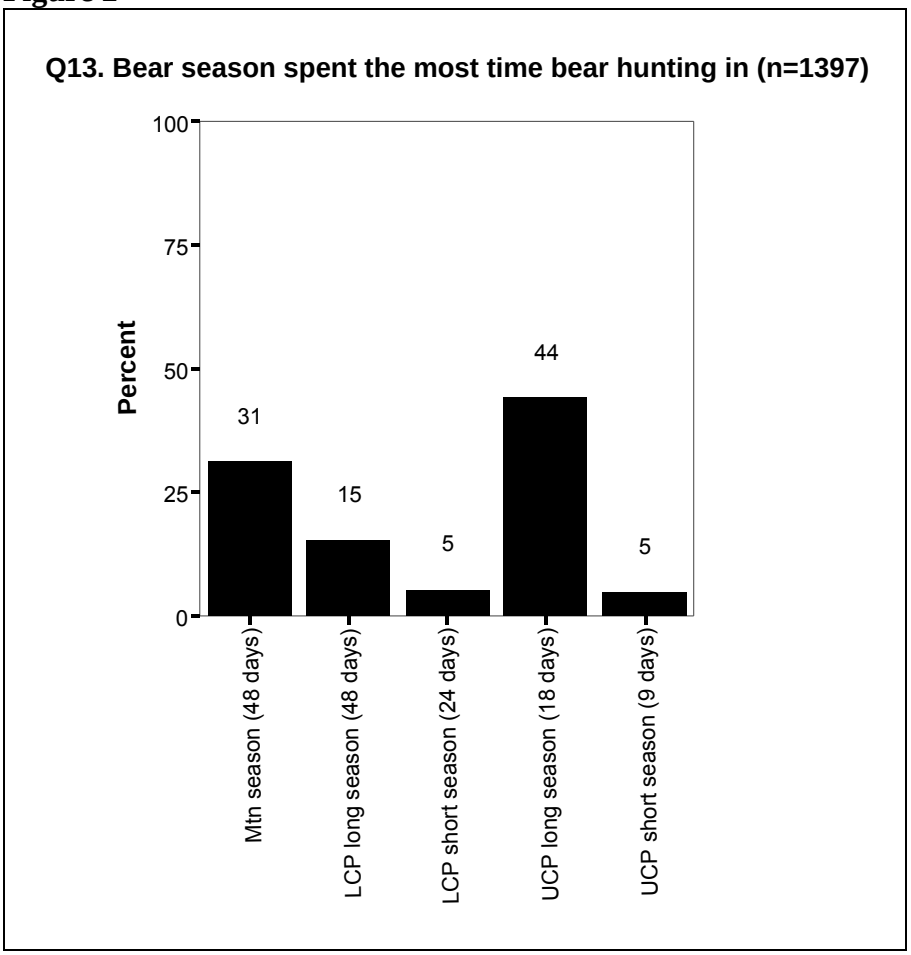


Table 1. Total years bear hunted in NC (Q2) by use of dogs for bear hunting during last 3 years (Q8).

Total years bear hunted	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
0 to 5.0	60.5%[a] (n=340)	36.2%[b] (n=132)	46.1% (n=83)	41.1% (n=51)	33.3%[b] (n=21)
5.1 to 10.0	20.6% (n=116)	20.0% (n=73)	24.4% (n=44)	24.2% (n=30)	34.9%[a] (n=22)
10.1 to 20.0	12.3%[b] (n=69)	19.5%[a] (n=71)	15.0% (n=27)	21.8% (n=27)	17.5% (n=11)
>=20.1	6.6%[b] (n=37)	24.4%[a] (n=89)	14.4% (n=26)	12.9% (n=16)	14.3% (n=9)

χ^2=101.3, df=12, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 3

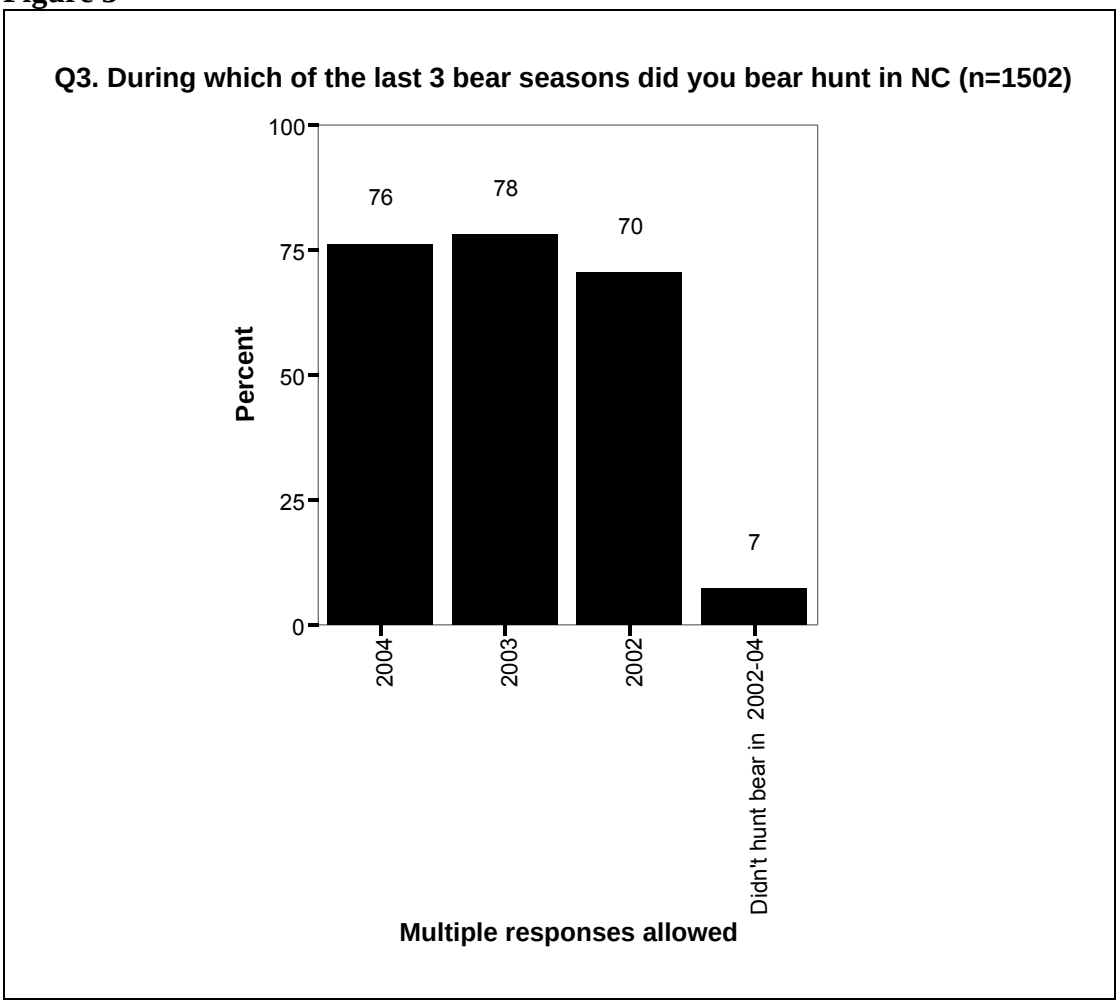

Q3. During which of the last 3 bear seasons did you bear hunt in NC (n=1502)
Percent
100
75
50
25
0
76
78
70
7
2004
2003
2002
Didn't hunt bear in 2002-04
Multiple responses allowed

Figure 4

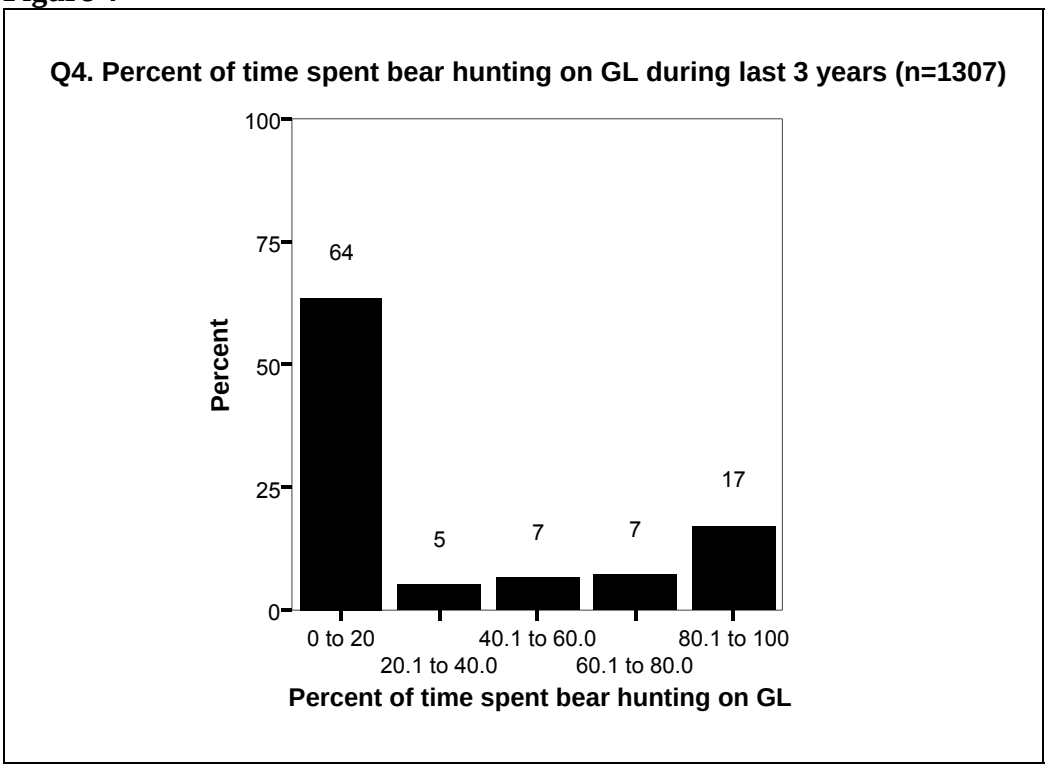


Figure 5

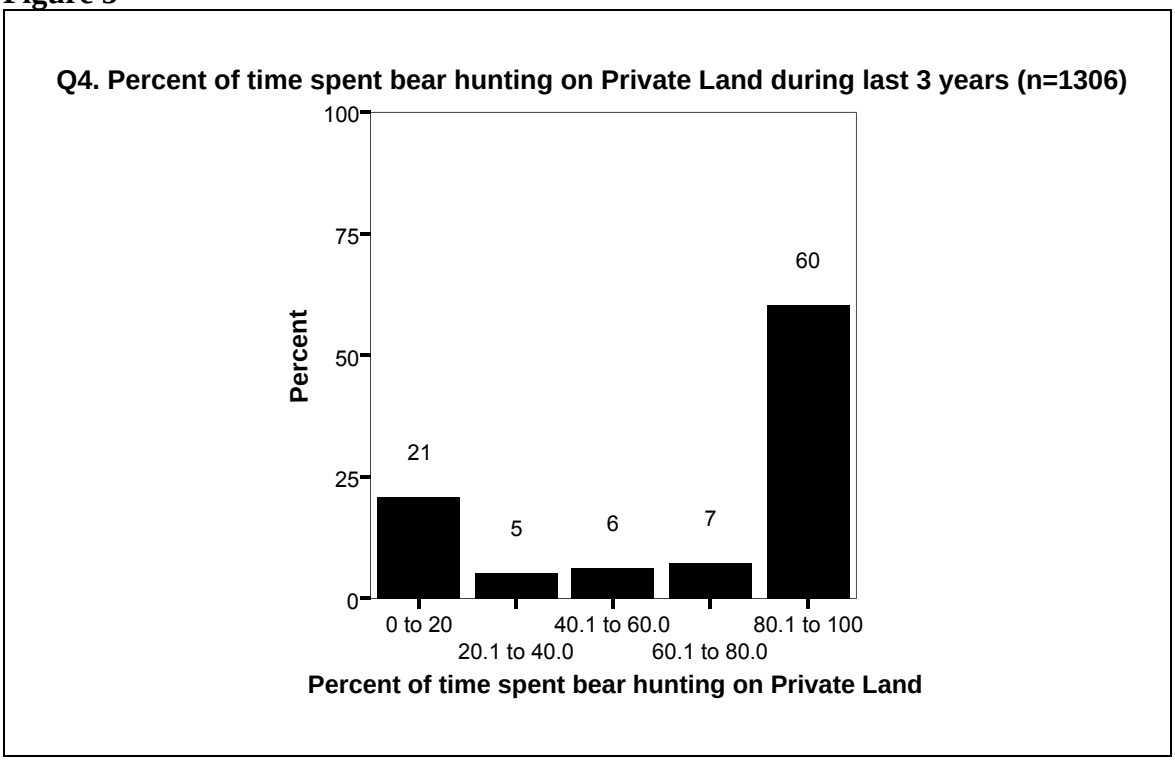


Table 2. Percent of time spent bear hunting on GL during last 3 years (Q4) by use of dogs for bear hunting during last 3 years (Q8).

% of time hunted on GL	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
0 to 20	73.9%[a] (n=417)	46.0%[b] (n=167)	71.3%[a] (n=127)	59.2% (n=74)	60.7% (n=37)
20.1 to 40.0	4.1% (n=23)	6.1% (n=22)	5.6% (n=10)	8.8% (n=11)	1.6% (n=1)
40.1 to 60.0	4.6%[b] (n=26)	9.9%[a] (n=36)	4.5% (n=8)	4.8% (n=6)	14.8%[a] (n=9)
60.1 to 80.0	3.4%[b] (n=19)	14.3%[a] (n=52)	6.2% (n=11)	6.4% (n=8)	4.9% (n=3)
80.1 to 100	14.0%[b] (n=79)	23.7%[a] (n=86)	12.4% (n=22)	20.8% (n=26)	18.0% (n=11)

χ^2=106.6, df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

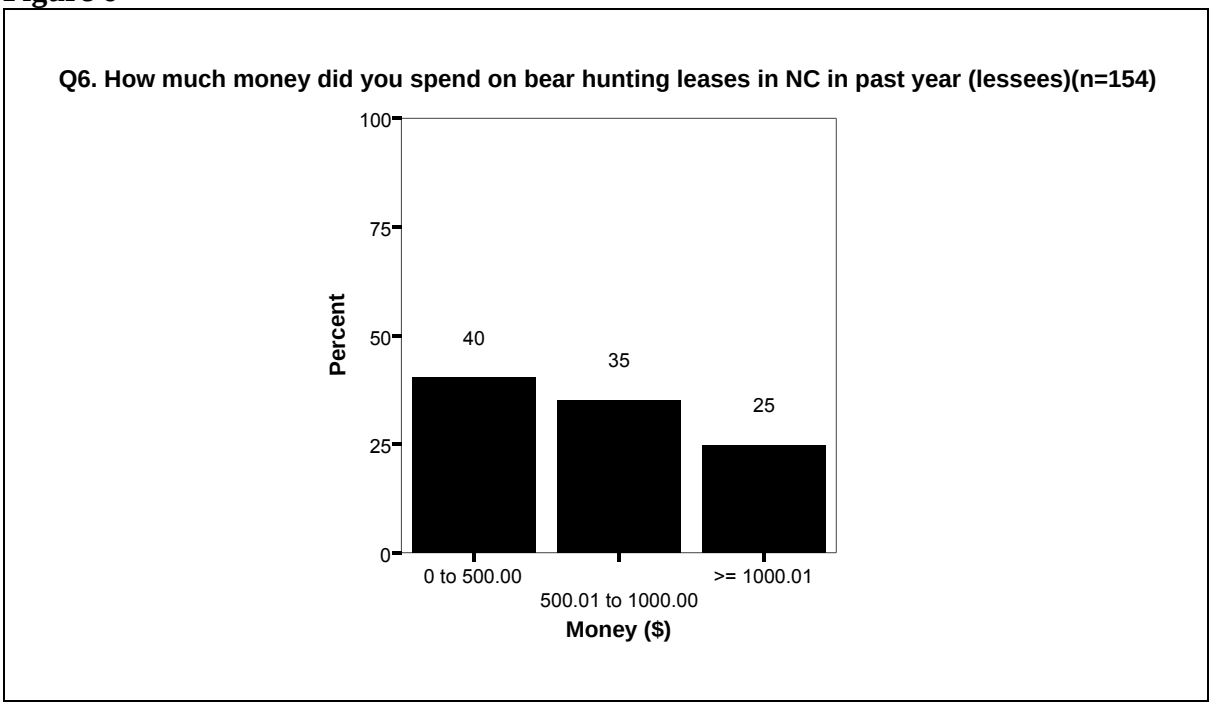
Table 3. Percent of time spent bear hunting on GL during last 3 years (Q4) by region most often bear hunted during last 3 years (Q13).

% of time hunted on GL	Mountains	Coast
0 to 20	25.9%[a] (n=103)	81.4%[b] (n=711)
20.1 to 40.0	5.0% (n=20)	5.3% (n=46)
40.1 to 60.0	12.3%[b] (n=49)	4.2%[a] (n=37)
60.1 to 80.0	16.4%[b] (n=65)	2.9%[a] (n=25)
80.1 to 100	40.3%[b] (n=160)	6.2%[a] (n=54)

χ^2=416.4, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 6



Hunting methods

A majority of bear hunters (58%) only still hunted or most often still hunted during the last three years (Figure 7). Coastal bear hunters (50%) were significantly more likely to have only still hunted and Mountain bear hunters (43%) significantly more likely to have only bear hunted with dogs than expected (Table 4). Fourteen percent (n=198) of bear hunters owned dogs for the primary purpose of bear hunting (Question 9). Most bear hunters (79%) most often used a rifle for bear hunting during last three years (Figure 8). A majority (56%) of bear hunters typically hunted in parties of 5 or fewer people during the last 3 years (Figure 9). Dog-only hunters (40%) and hunters who most often hunted with dogs (primarily dog) (28%) were significantly more likely and still-only hunters (1%) significantly less likely than expected to hunt in parties of at least 10 people (Table 5).

Figure 7

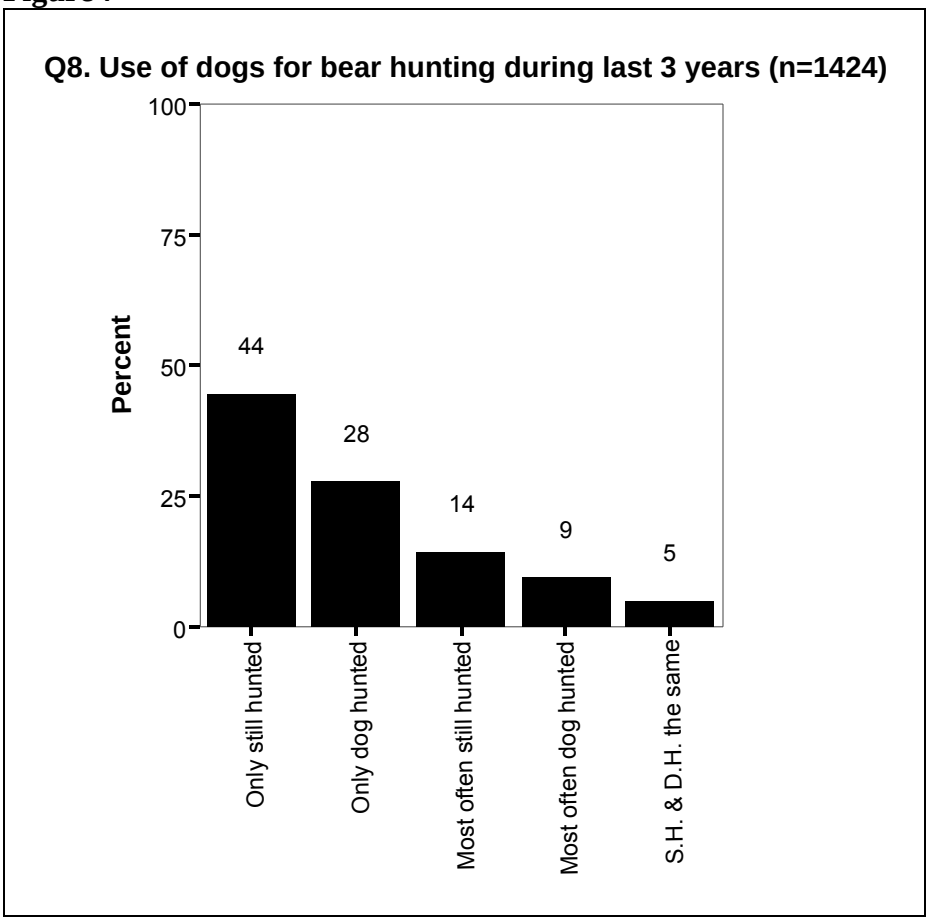


Table 4. Use of dogs for bear hunting during last 3 years (Q8) by region most often bear hunted during last 3 years (Q13).

	Mountains	Coast
Only still hunted	31.2%[a] (n=134)	50.4%[b] (n=480)
Only hunted with dogs	43.4%[b] (n=186)	20.6%[a] (n=196)
Most often still hunted, but also hunted with dogs	10.0%[a] (n=43)	15.9%[b] (n=152)
Most often hunted with dogs, but also still hunted	10.5% (n=45)	8.7% (n=83)
Still hunted and hunted with dogs about the same	4.9% (n=21)	4.4% (n=42)

χ^2=88.5, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 8

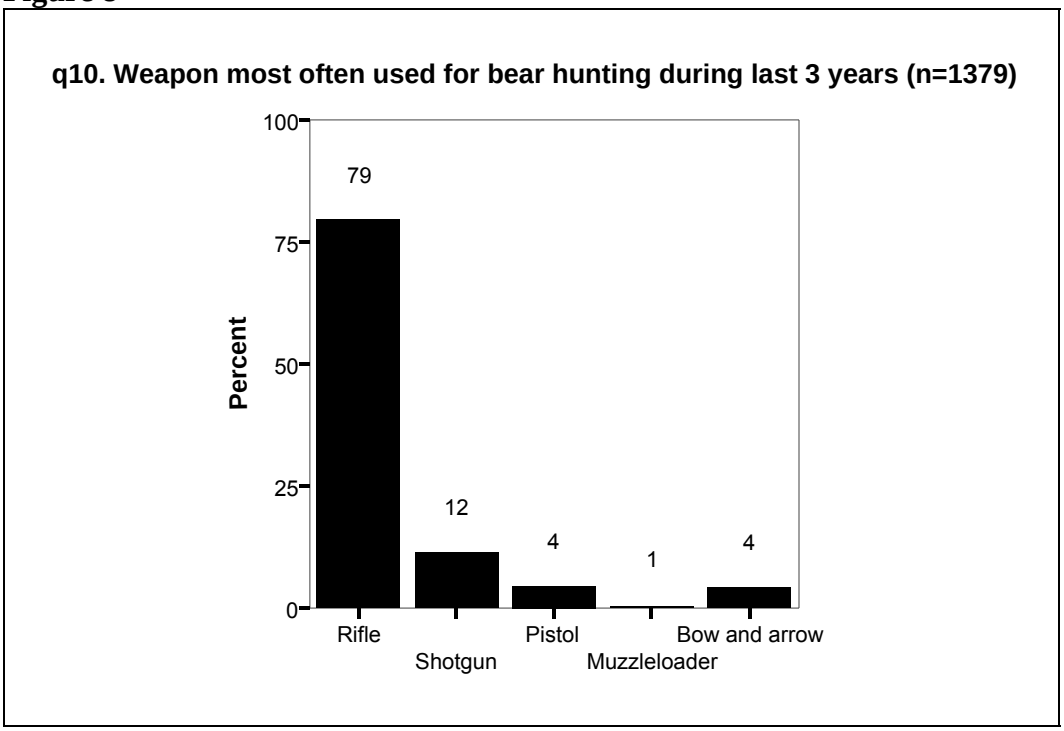


Figure 9

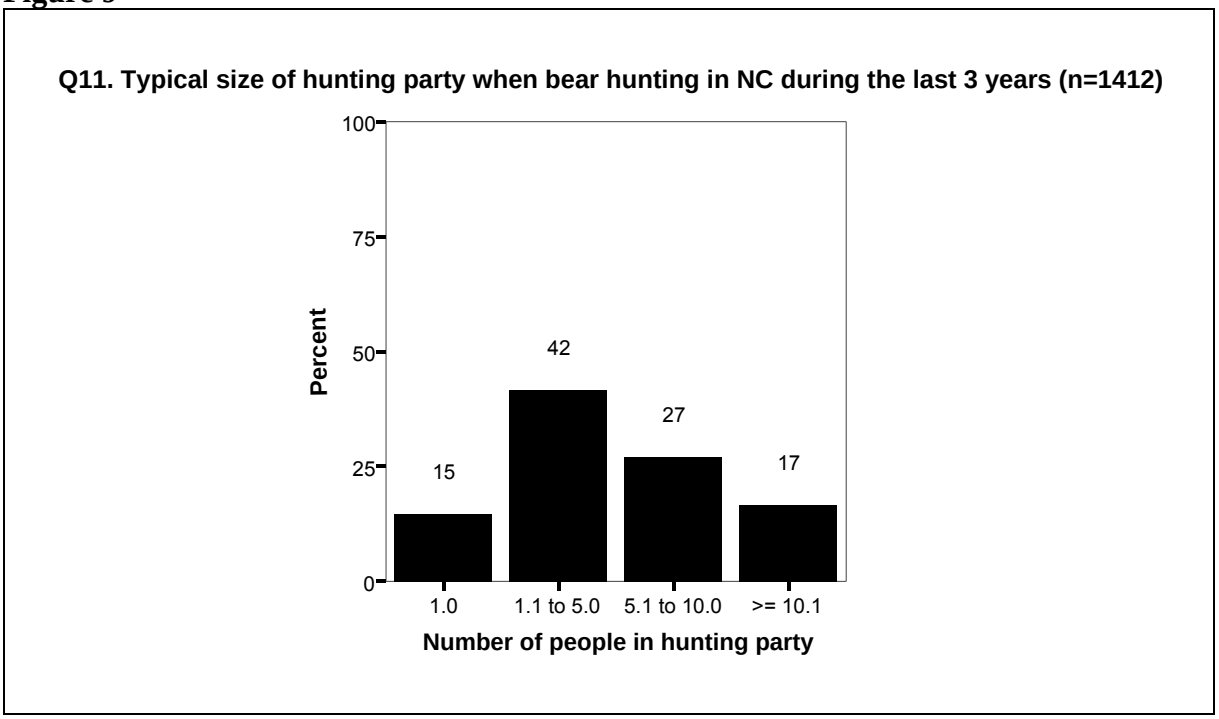


Table 5. Average party size during last 3 years (Q11) by use of dogs for bear hunting during last 3 years (Q8).

Typical size of hunting party	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
1.0	30.3%[a] (n=189)	0.3%[b] (n=1)	3.6%[b] (n=7)	0.8%[b] (n=1)	8.8% (n=6)
1.1 to 5.0	64.7%[a] (n=403)	12.6%[b] (n=49)	47.7% (n=92)	18.1%[b] (n=23)	27.9%[b] (n=19)
5.1 to 10.0	3.7%[b] (n=23)	47.2%[a] (n=183)	33.7%[a] (n=65)	53.5%[a] (n=68)	50.0%[a] (n=34)
>= 10.1	1.3%[b] (n=8)	39.9%[a] (n=155)	15.0% (n=29)	27.6%[a] (n=35)	13.2% (n=9)

χ^2=831.2, df=12, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Support for WRC bear management

Support for WRC bear management was high, with 72% of bear hunters agreeing that they generally support how WRC management of bears (Figure 10). Support for WRC bear management varied by total years of bear hunting in North Carolina, with those who bear hunted 0-5 years significantly less likely to moderately disagree (7%) and those who hunted bear at least 20 years significantly more likely to strongly disagree (5%) that they supported WRC bear management than expected (Table 6). There were some significant differences in support for WRC bear management based on the percentage of time spent bear hunting on Game Lands (Table 7). Still-only hunters (20%) were significantly more likely and dog-only hunters significantly less likely (13%) to be neutral or have no opinion on WRC bear management than expected (Table 8). There were no significant differences in bear management support based on weapon (Table 9). Hunters who hunted in the lower coastal plain 24 day season zone (LCP Short season) (19%) were significantly more likely to moderately disagree with support for WRC bear management than expected (Table 10).

Figure 10

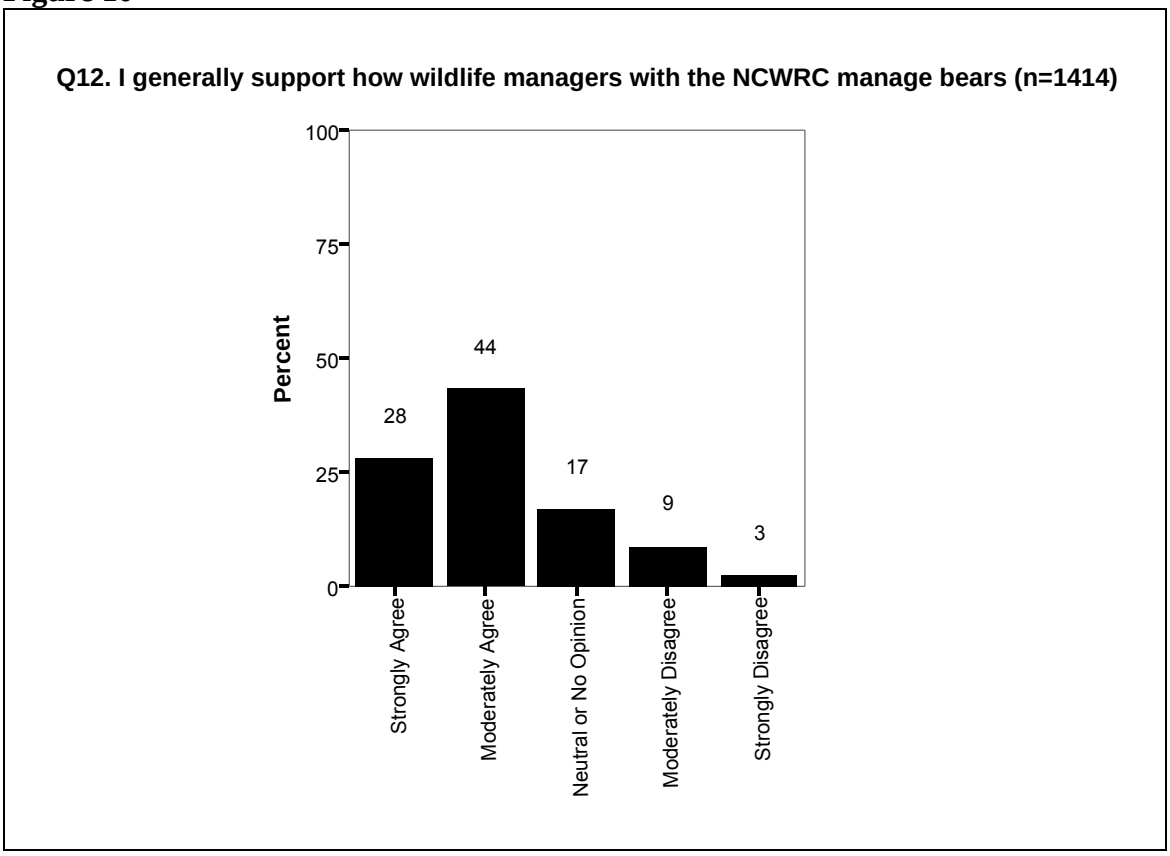


Table 6. Generally support WRC bear management (Q12) by total years bear hunted in NC (Q2).

	Total years bear hunted			
Support for WRC bear management	0-5.0	5.1-10.0	10.1-20.0	>=20.1
Strongly Agree	26.2% (n=164)	29.6% (n=84)	29.0% (n=58)	29.7% (n=52)
Moderately Agree	43.9% (n=275)	43.7% (n=124)	45.5% (n=91)	42.3% (n=74)
Neutral or No Opinion	21.1%[a] (n=132)	14.8% (n=42)	11.5%[b] (n=23)	11.4%[b] (n=20)
Moderately Disagree	6.7%[b] (n=42)	9.9% (n=28)	12.0% (n=24)	11.4% (n=20)
Strongly Disagree	2.1% (n=13)	2.1% (n=6)	2.0% (n=4)	5.1%[a] (n=9)

χ^2=28.1, df=12, p=0.005

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Table 7. Generally support WRC bear management (Q12) by percent of time spent bear hunting on GL during last 3 years (Q4).

Support for WRC bear management	% of time hunted on GL				
	0-20	20.1-40.0	40.1-60.0	60.1-80.0	80.1-100
Strongly Agree	28.1% (n=229)	13.8%[a] (n=9)	29.4% (n=25)	21.5% (n=20)	33.0% (n=73)
Moderately Agree	43.0% (n=351)	43.1% (n=28)	45.9% (n=39)	45.2% (n=42)	44.8% (n=99)
Neutral or No Opinion	17.6% (n=144)	23.1% (n=15)	17.6% (n=15)	15.1% (n=14)	14.9% (n=33)
Moderately Disagree	9.2% (n=75)	16.9%[b] (n=11)	3.5% (n=3)	14.0% (n=13)	5.4%[a] (n=12)
Strongly Disagree	2.1% (n=17)	3.1% (n=2)	3.5% (n=3)	4.3% (n=4)	1.8% (n=4)

χ^2=26.6, df=16, p=0.046

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Table 8. Generally support WRC bear management (Q12) by use of dogs for bear hunting during last 3 years (Q8).

Support for WRC bear management	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Agree	28.9% (n=180)	31.3% (n=120)	24.7% (n=48)	26.9% (n=35)	13.2%[a] (n=9)
Moderately Agree	39.2%[a] (n=244)	45.6% (n=175)	43.3% (n=84)	53.1%[b] (n=69)	52.9% (n=36)
Neutral or No Opinion	19.9%[b] (n=124)	12.8%[a] (n=49)	18.0% (n=35)	14.6% (n=19)	16.2% (n=11)
Moderately Disagree	9.2% (n=57)	7.8% (n=30)	11.9% (n=23)	4.6% (n=6)	11.8% (n=8)
Strongly Disagree	2.7% (n=17)	2.6% (n=10)	2.1% (n=4)	0.8% (n=1)	5.9% (n=4)

χ^2=33.2, df=16, p=0.007

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Table 9. Generally support WRC bear management (Q12) by weapon most often used for bear hunting during last 3 years (Q10).

Support for WRC bear management	Rifle	Shotgun	Pistol	Muzzleloader[a]	Bow and arrow[a]
Strongly Agree	28.8% (n=310)	26.1% (n=40)	18.3% (n=11)	- -	- -
Moderately Agree	43.5% (n=469)	46.4% (n=71)	48.3% (n=29)	- -	- -
Neutral or No Opinion	16.6% (n=179)	17.0% (n=26)	18.3% (n=11)	- -	- -
Moderately Disagree	8.8% (n=95)	7.8% (n=12)	10.0% (n=6)	- -	- -
Strongly Disagree	2.3% (n=25)	2.6% (n=4)	5.0% (n=3)	- -	- -

χ^2=5.0, df=8, p=0.763

[a] Category not included in crosstabulation due to small numbers of respondents.

Table 10. Generally support WRC bear management (Q12) by bear season most often hunted during last 3 years (Q13).

	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Strongly Agree	27.4% (n=116)	22.9% (n=48)	24.3% (n=17)	30.5% (n=185)	30.8% (n=20)
Moderately Agree	45.0% (n=191)	45.7% (n=96)	45.7% (n=32)	41.1% (n=249)	49.2% (n=32)
Neutral or No Opinion	17.2% (n=73)	19.5% (n=41)	11.4% (n=8)	16.7% (n=101)	12.3% (n=8)
Moderately Disagree	7.8% (n=33)	8.6% (n=18)	18.6%[a] (n=13)	9.2% (n=56)	4.6% (n=3)
Strongly Disagree	2.6% (n=11)	3.3% (n=7)	0.0% (n=0)	2.5% (n=15)	3.1% (n=2)

χ^2=20.5, df=16, p=0.200

[a]Adjusted residual ≥ 2.0.

Satisfactions with bear hunting

A plurality (49%) of bear hunter indicated the length of the bear season in the county in North Carolina in which they spent the most time bear hunting during the last 3 years was about the right length and 46% responded that it was too short (Figure 11). Bear hunters in the Mountain season (9%) were significantly less likely and those in the LCP Short season (34%) and upper coastal plain 9 day season zone (UCP Short season) (27%) significantly more likely to have responded that the bear season was much to short (Table 11).

Most (68%) bear hunters believed the timing of the bear season in the county in North Carolina where they most often hunted was about right (Figure 12). Mountain season hunters (1%) were significantly less likely and LCP Short season hunters (23%) were significantly more likely to believe the bear season was much too late (Table 12).

A plurality (49%) of bear hunters believed the current abundance of bears where they bear hunted was about right and 35% indicated bear abundance was too low (Figure 13). Satisfaction with bear abundance varied by percent of time spent bear hunting on Game Lands, with those hunting 20% or less of the time on Game Lands (51%) more likely to believe bear abundance was about right than expected (Table 13). Mountain hunters were significantly more likely to believe bear abundance was much to low (11%) or a little to low (41%) than Coastal hunters (Table 14).

A third (35%) of bear hunters believed the current size of individual bears was too small and 63% indicated that bears were about the right size (Figure 14). There were significant differences in views on the size of bears based on percent of time spent bear hunting on Game Lands (Table 15). Mountain bear hunters (45%) were significantly more likely than Coastal hunters (25%) to believe bears were a little too small (Table 16).

Most (72%) bear hunters believed the number of WRC check stations for reporting bear harvests in the county where they predominantly bear hunted was about right (Figure 15). Coastal (75%) bear hunters were significantly more likely to believe there were about the right number of check stations than Mountain (67%) bear hunters (Table 17).

Most (68%) bear hunters agreed that they were satisfied with the current bag limit of 1 bear per hunter per season (Figure 16). There were no significant differences in views on the bag limit based on percent of time hunted on Game Lands (Table 18). Still-only hunters (4%) were significantly less likely to strongly disagree that they were satisfied with the current bag limit than expected (Table 19). There were no significant differences in views on the current bag limit based on region hunted (Table 20).

Figure 11

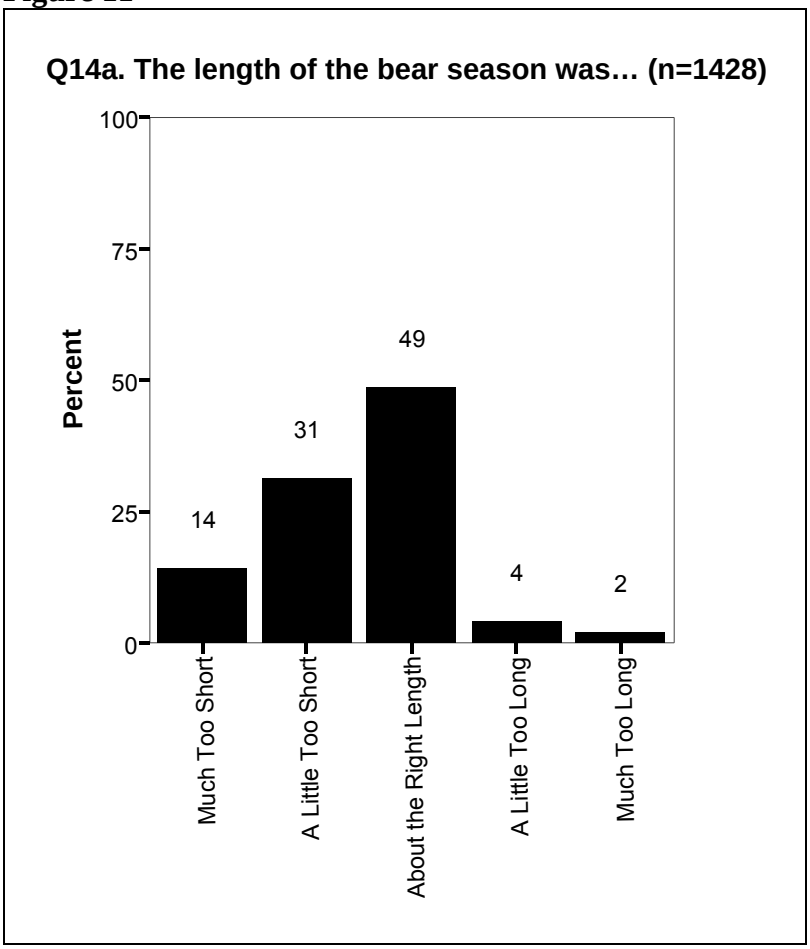


Table 11. Satisfaction with season length (Q14a) by bear season most often hunted during last 3 years (Q13).

The length of the bear season was…	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Much Too Short	9.3%[a] (n=40)	11.7% (n=25)	33.8%[b] (n=24)	14.9% (n=91)	27.3%[b] (n=18)
A Little Too Short	21.9%[a] (n=94)	30.5% (n=65)	35.2% (n=25)	37.3%[b] (n=227)	36.4% (n=24)
About the Right Length	58.4%[b] (n=251)	55.4%[b] (n=118)	28.2%[a] (n=20)	42.7%[a] (n=260)	33.3%[a] (n=22)
A Little Too Long	7.0%[b] (n=30)	1.4%[a] (n=3)	2.8% (n=2)	3.3% (n=20)	3.0% (n=2)
Much Too Long	3.5%[b] (n=15)	0.9% (n=2)	0.0% (n=0)	1.8% (n=11)	0.0% (n=0)

χ^2=102.4, df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 12

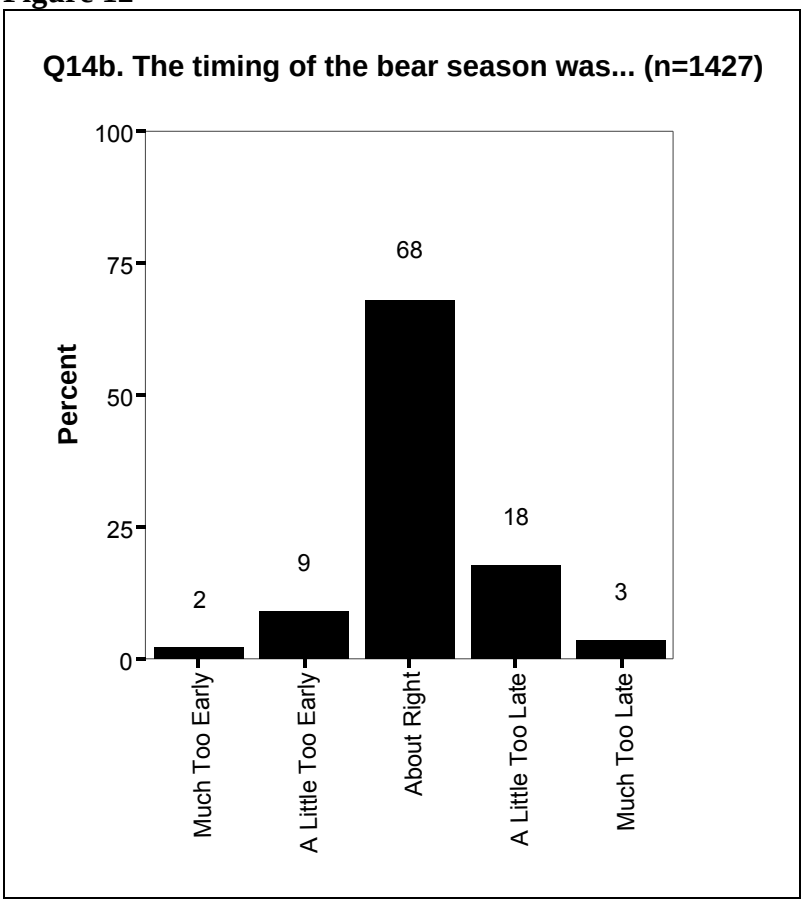


Table 12. Satisfaction with season timing (Q14b) by bear season most often hunted during last 3 years (Q13).

The timing of the bear season was…	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Much Too Early	3.0% (n=13)	2.4% (n=5)	1.4% (n=1)	1.3% (n=8)	1.5% (n=1)
A Little Too Early	12.3%[a] (n=53)	4.7%[b] (n=10)	5.6% (n=4)	8.7% (n=53)	3.0% (n=2)
About Right	71.5%[a] (n=309)	62.3% (n=132)	33.8%[b] (n=24)	70.1% (n=425)	75.8% (n=50)
A Little Too Late	11.8%[b] (n=51)	26.4%[a] (n=56)	36.6%[a] (n=26)	17.3% (n=105)	18.2% (n=12)
Much Too Late	1.4%[b] (n=6)	4.2% (n=9)	22.5%[a] (n=16)	2.5% (n=15)	1.5% (n=1)

χ^2=148.1, df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 13

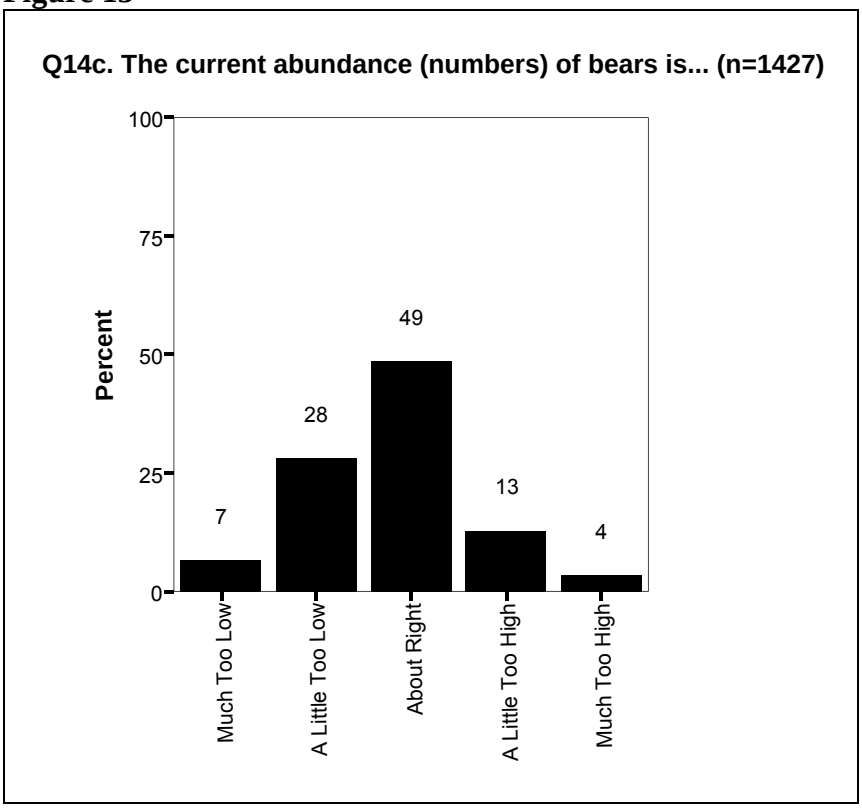


Table 13. Satisfaction with bear abundance (Q14c) by percent of time spent bear hunting on GL during last 3 years (Q4).

The current abundance	% of time hunted on GL		
(numbers) of bears is…	0-20	20.1-80.0	80.1-100
Much Too Low	4.3%[a] (n=35)	6.5% (n=16)	12.4%[b] (n=28)
A Little Too Low	23.3%[a] (n=191)	36.3%[b] (n=90)	36.7%[b] (n=83)
About Right	51.2%[b] (n=419)	45.6% (n=113)	43.8% (n=99)
A Little Too High	17.0%[b] (n=139)	8.9%[a] (n=22)	4.9%[a] (n=11)
Much Too High	4.2% (n=34)	2.8% (n=7)	2.2% (n=5)

χ^2=66.7, df=8, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Table 14. Satisfaction with bear abundance (Q14c) by region most often bear hunted during last 3 years (Q13).

The current abundance (numbers) of bears is…	Mountains	Coast
Much Too Low	10.6%[a] (n=46)	4.8%[b] (n=46)
A Little Too Low	40.9%[a] (n=177)	21.5%[b] (n=205)
About Right	43.6%[b] (n=189)	51.7%[a] (n=493)
A Little Too High	4.2%[b] (n=18)	17.0%[a] (n=162)
Much Too High	0.7%[b] (n=3)	4.9%[a] (n=47)

χ^2=112.2, df=4, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 14

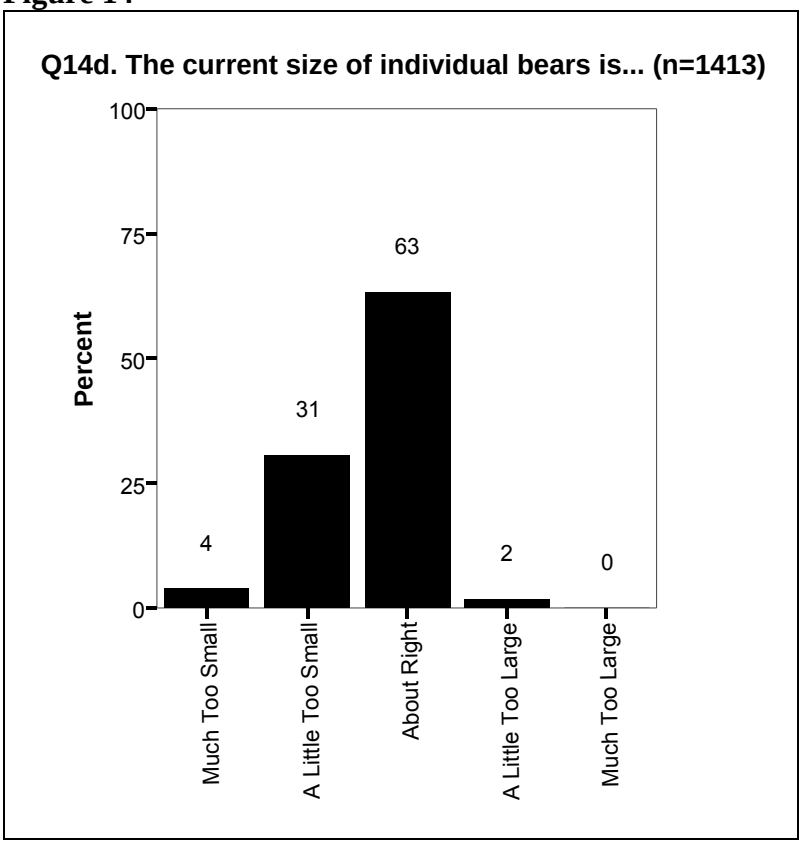


Table 15. Satisfaction with size of individual bears (Q14d) by percent of time spent bear hunting on GL during last 3 years (Q4).

The current size of individual bears is…	% of time hunted on GL		
	0-20	20.1-80.0	80.1-100
Much Too Small	2.7%[a] (n=22)	6.5%[b] (n=16)	4.5% (n=10)
A Little Too Small	26.3%[a] (n=214)	37.8%[b] (n=93)	40.1%[b] (n=89)
About Right	69.4%[b] (n=564)	54.1%[a] (n=133)	54.1%[a] (n=120)
A Little Too Large	1.6% (n=13)	1.6% (n=4)	1.4% (n=3)
Much Too Large[c]	-	-	-

χ^2=34.0=6 p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.
[c] Category not included in crosstabulation due to small numbers of respondents.

Table 16. Satisfaction with size of individual bears (Q14d) by region most often bear hunted during last 3 years (Q13).

The current size of individual bears is…	Mountains	Coast
Much Too Small	5.6%[a] (n=24)	3.1%[b] (n=29)
A Little Too Small	44.8%[a] (n=191)	24.5%[b] (n=232)
About Right	48.8%[b] (n=208)	70.1%[a] (n=663)
A Little Too Large	0.7%[b] (n=3)	2.3%[a] (n=22)
Much Too Large[c]	-	-

χ^2=69.5, df=3, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.
[c] Category not included in crosstabulation due to small numbers of respondents.

Figure 15

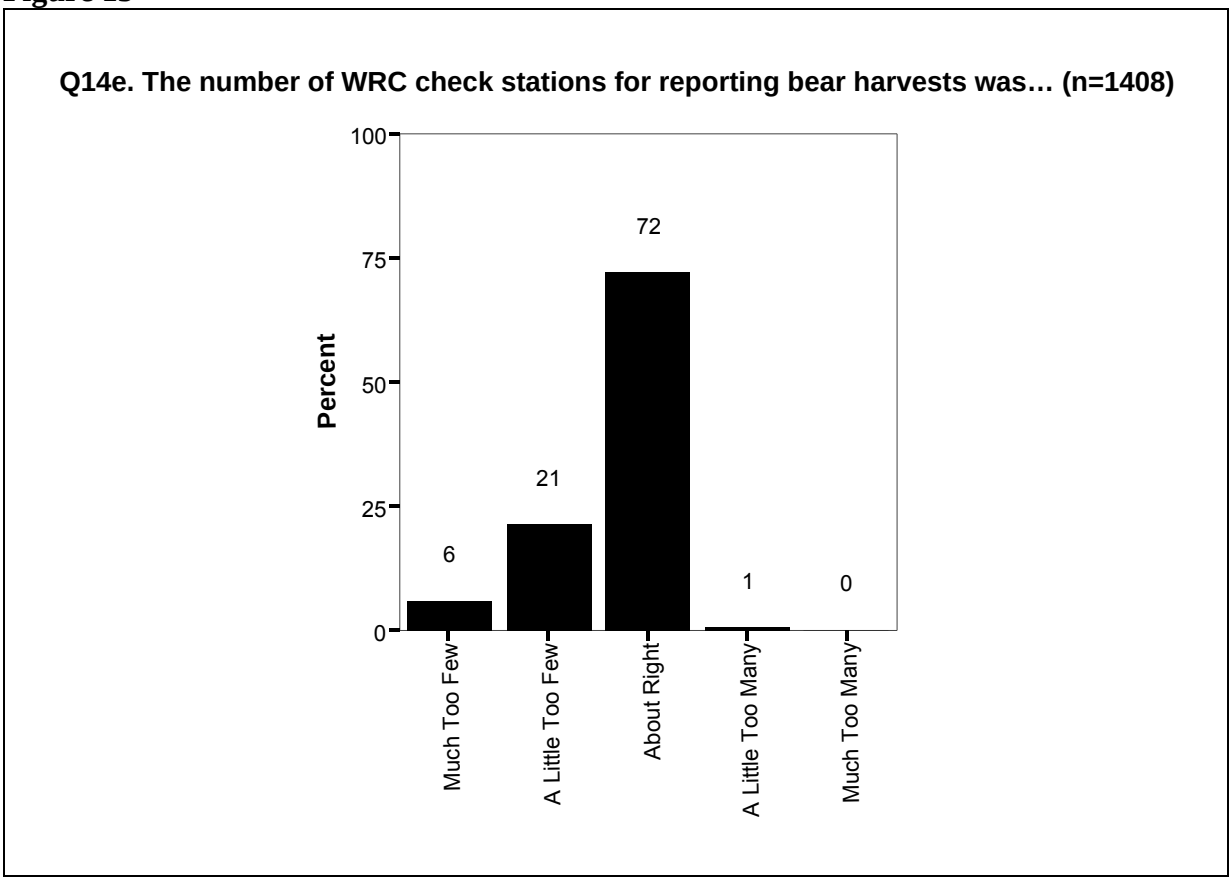


Table 17. Satisfaction with number of WRC bear check stations (Q14e) by region most often bear hunted during last 3 years (Q13).

The number of WRC check stations for reporting bear harvests was…	Mountains	Coast
Much Too Few	8.8%[a] (n=37)	4.5%[b] (n=42)
A Little Too Few	23.9% (n=101)	20.4% (n=191)
About Right	67.3%[b] (n=284)	75.1%[a] (n=703)
A Little Too Many [c]	-	-
Much Too Many [c]	-	-

χ^2=13.3, df=2, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.
[c] Category not included in crosstabulation due to small numbers of respondents.

Figure 16

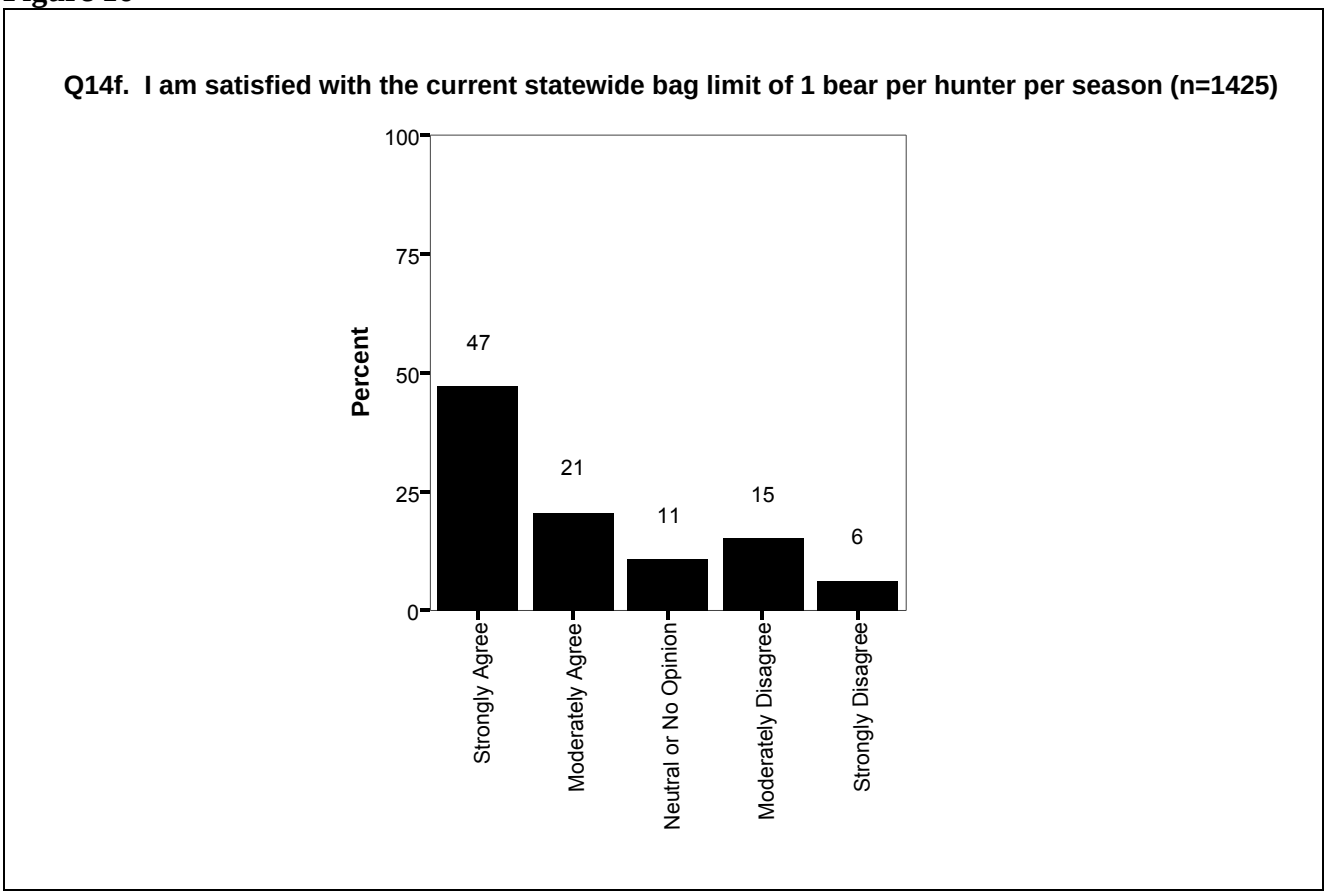


Table 18. Satisfaction with 1 bear per season bag limit (Q14f) by percent of time spent bear hunting on GL during last 3 years (Q4).

Satisfied with the current statewide bag limit of 1 bear per hunter per season.	% of time hunted on GL		
	0-20	20.1-80.0	80.1-100
Strongly Agree	6.4% (n=53)	6.5% (n=16)	5.8% (n=13)
Moderately Agree	15.9% (n=131)	16.6% (n=41)	13.8% (n=31)
Neutral or No Opinion	12.2% (n=100)	8.1% (n=20)	10.3% (n=23)
Moderately Disagree	20.5% (n=169)	22.7% (n=56)	20.5% (n=46)
Strongly Disagree	45.0% (n=370)	46.2% (n=114)	49.6% (n=111)

χ^2=5.0, df=8, p=0.759

Table 19. Satisfaction with 1 bear per season bag limit (Q14f) by use of dogs for bear hunting during last 3 years (Q8).

Satisfied with the current statewide bag limit of 1 bear per hunter per season.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Agree	48.3% (n=302)	49.5% (n=191)	47.4% (n=93)	44.3% (n=58)	32.4%[a] (n=22)
Moderately Agree	21.4% (n=134)	18.7% (n=72)	18.9% (n=37)	24.4% (n=32)	17.6% (n=12)
Neutral or No Opinion	11.8% (n=74)	11.4% (n=44)	7.1% (n=14)	9.2% (n=12)	10.3% (n=7)
Moderately Disagree	14.1% (n=88)	13.7% (n=53)	19.9%[b] (n=39)	15.3% (n=20)	20.6% (n=14)
Strongly Disagree	4.3%[a] (n=27)	6.7% (n=26)	6.6% (n=13)	6.9% (n=9)	19.1%[b] (n=13)

χ^2=37.1, df=16, p=0.002

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Table 20. Satisfaction with 1 bear per season bag limit (Q14f) by region most often bear hunted during last 3 years (Q13).

Satisfied with the current statewide bag limit of 1 bear per hunter per season.	Mountains	Coast
Strongly Agree	49.9% (n=213)	46.0% (n=440)
Moderately Agree	21.5% (n=92)	20.0% (n=191)
Neutral or No Opinion	11.5% (n=49)	10.1% (n=97)
Moderately Disagree	12.6% (n=54)	16.6% (n=159)
Strongly Disagree	4.4% (n=19)	7.2% (n=69)

χ^2=8.4, df=4, p=0.079

Support or opposition to regulations changes

Support or opposition to regulations changes in order to meet WRC population goals

A majority of bear hunters (56%) supported increasing the bear season length to meet WRC bear population goals (Figure 17). Mountain season hunters (24%) were significantly less likely and LCP Short season (51%) and UCP Long season (35%) bear hunters were significantly more

likely than expected to strongly support increasing the season length to meet WRC population goals (Table 21).

Most hunters (72%) were opposed to decreasing the bear season length to meet WRC population goals (Figure 18). Mountain season hunters (8%) were significantly more likely to strongly support decreasing the season length to meet bear population goals than expected (Table 22).

A plurality (42%) of bear hunters supported having an earlier bear season to meet WRC population goals, but 31% were opposed to an earlier season (Figure 19). Mountain season hunters (16%) were significantly less likely and lower coastal plain 48 day season zone (28%) and LCP Short season (50%) hunters were significantly more likely to strongly support having an earlier season in order to meet population goals than expected (Table 23).

A plurality (38%) of bear hunters was opposed and 30% supported, having a later season in order to meet WRC population goals (Figure 20). There were significant differences in views on having a later season based on bear season hunted (Table 24).

A plurality (41%) of bear hunters supported having a bow and arrow season before the gun season to meet WRC population goals; however, a substantial minority (36%) opposed such a season (Figure 21). Significantly more (39%) still-only hunters strongly supported, while significantly more (53%) dog-only hunters strongly opposed a bow and arrow season to meet bear population goals than expected (Table 25). Significantly higher proportions of bow and arrow hunters (91%) and significantly lower proportions of rifle hunters (25%) strongly supported having an early bow and arrow season than expected (Table 26). Coastal bear hunters (30%) were more likely than Mountain bear hunters (23%) to strongly support an early bow and arrow season to meet population goals (Table 27).

A plurality (46%) of bear hunters supported having a muzzleloading season before the gun season to meet WRC bear population goals, but 32% were opposed to such a season (Figure 22). Still-only hunters (36%) and primarily still hunters (35%) were significantly more likely and dog-only hunters (11%) significantly less likely to strongly support a muzzleloading season to meet bear population goals than expected (Table 28). There were no overall significant differences in support for a muzzleloading season based on weapon, although pistol hunters (15%) were significantly less likely than expected to support such a season (Table 29). Coastal bear hunters (30%) were more likely than Mountain bear hunters (22%) to strongly support an early muzzleloading season to meet population goals (Table 30).

Half (50%) of bear hunters were opposed to increasing the 1 bear per hunter per season bag limit to meet WRC population goals; however, a substantial minority (36%) favored such an increase (Figure 23). Dog-only hunters (42%) were significantly more likely to be strongly opposed to increasing the bag limit than expected (Table 31). Views on increasing the bag limit were not significantly different based on bear hunting weapon (Table 32). Mountain bear hunters (42%) were significantly more likely to strongly oppose an increased bag limit to meet population goals than Coastal hunters (35%) (Table 33).

Figure 17

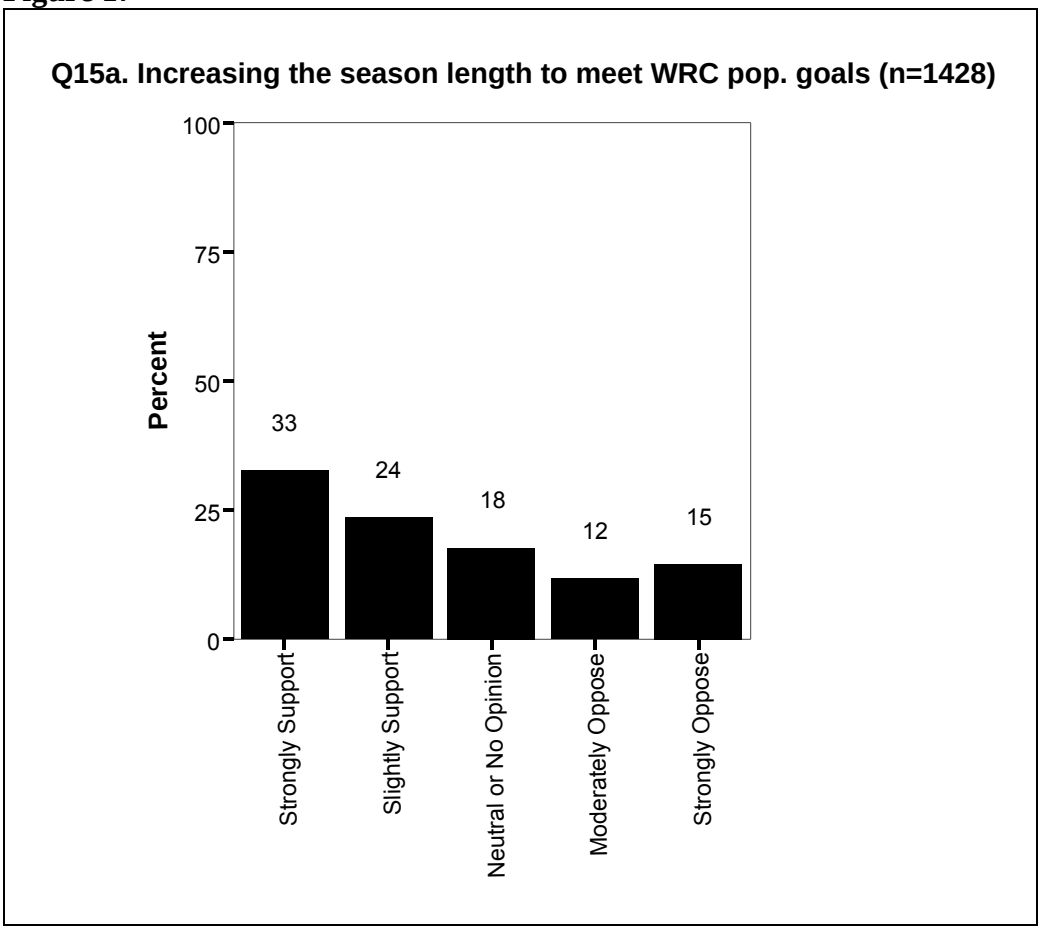


Table 21. Support or opposition to increasing the season length in order to meet WRC population goals (Q15a) by bear season most often hunted during last 3 years (Q13).

Increasing the season length.	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Strongly Support	24.3%[a] (n=104)	31.9% (n=68)	51.4%[b] (n=37)	35.1%[b] (n=213)	38.5% (n=25)
Slightly Support	19.2%[a] (n=82)	27.2% (n=58)	30.6% (n=22)	24.7% (n=150)	23.1% (n=15)
Neutral or No Opinion	19.4% (n=83)	19.2% (n=41)	8.3%[a] (n=6)	16.5% (n=100)	16.9% (n=11)
Moderately Oppose	17.3%[b] (n=74)	12.7% (n=27)	1.4%[a] (n=1)	9.2%[a] (n=56)	10.8% (n=7)
Strongly Oppose	19.9%[b] (n=85)	8.9%[a] (n=19)	8.3% (n=6)	14.5% (n=88)	10.8% (n=7)

χ^2=66.6, df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 18

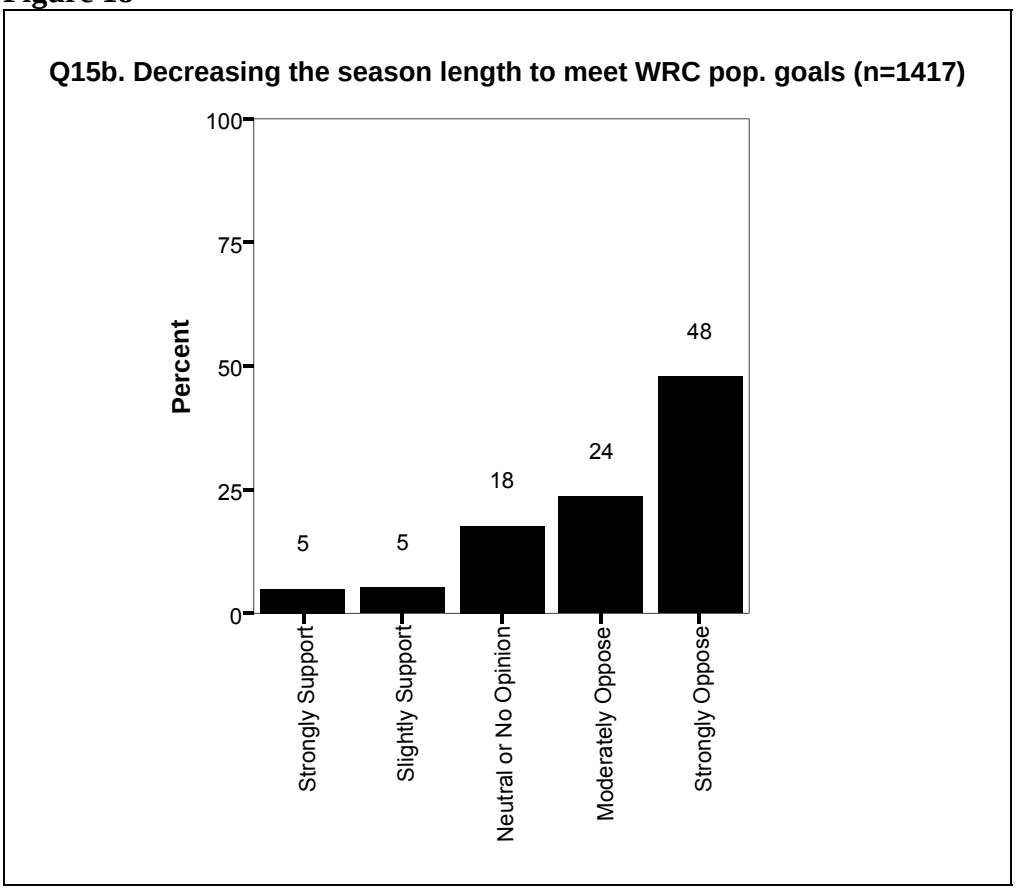


Table 22. Support or opposition to decreasing the season length in order to meet WRC population goals (Q15b) by bear season most often hunted during last 3 years (Q13).

Decreasing the season length.	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Strongly Support	7.8%[a] (n=33)	3.3% (n=7)	1.4% (n=1)	4.0% (n=24)	3.0% (n=2)
Slightly Support	9.5%[a] (n=40)	1.4%[b] (n=3)	2.8% (n=2)	3.6%[b] (n=22)	7.6% (n=5)
Neutral or No Opinion	20.1% (n=85)	16.6% (n=35)	5.6%[b] (n=4)	18.3% (n=111)	15.2% (n=10)
Moderately Oppose	21.0% (n=89)	29.9%[a] (n=63)	28.2% (n=20)	24.0% (n=145)	13.6%[b] (n=9)
Strongly Oppose	41.6%[b] (n=176)	48.8% (n=103)	62.0%[a] (n=44)	50.1% (n=303)	60.6%[a] (n=40)

χ^2=61.3 df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 19

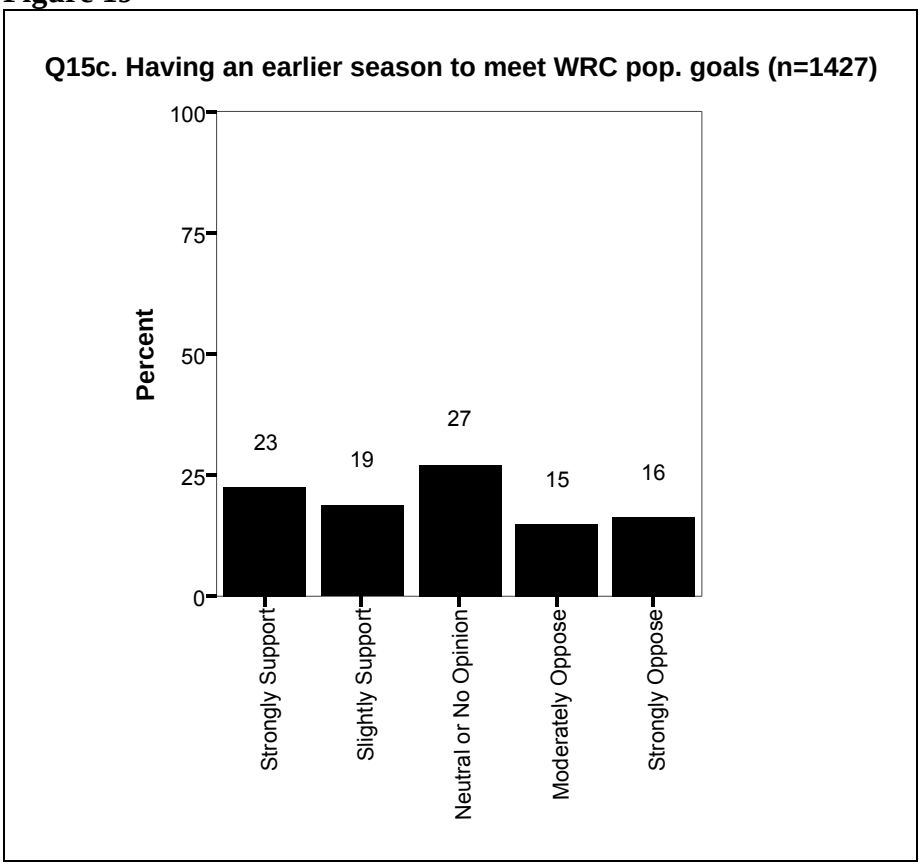


Table 23. Support or opposition to having an earlier season in order to meet WRC population goals (Q15c) by bear season most often hunted during last 3 years (Q13).

Having an earlier season.	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Strongly Support	16.0%[a] (n=68)	27.7%[b] (n=59)	50.0%[b] (n=36)	22.6% (n=137)	16.7% (n=11)
Slightly Support	15.5%[a] (n=66)	26.3%[b] (n=56)	18.1% (n=13)	19.3% (n=117)	19.7% (n=13)
Neutral or No Opinion	23.7% (n=101)	23.9% (n=51)	13.9%[a] (n=10)	31.3%[b] (n=190)	36.4% (n=24)
Moderately Oppose	21.6%[b] (n=92)	9.9%[a] (n=21)	11.1% (n=8)	13.2% (n=80)	12.1% (n=8)
Strongly Oppose	23.2%[b] (n=99)	12.2% (n=26)	6.9%[a] (n=5)	13.7%[a] (n=83)	15.2% (n=10)

χ^2=97.7 df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 20

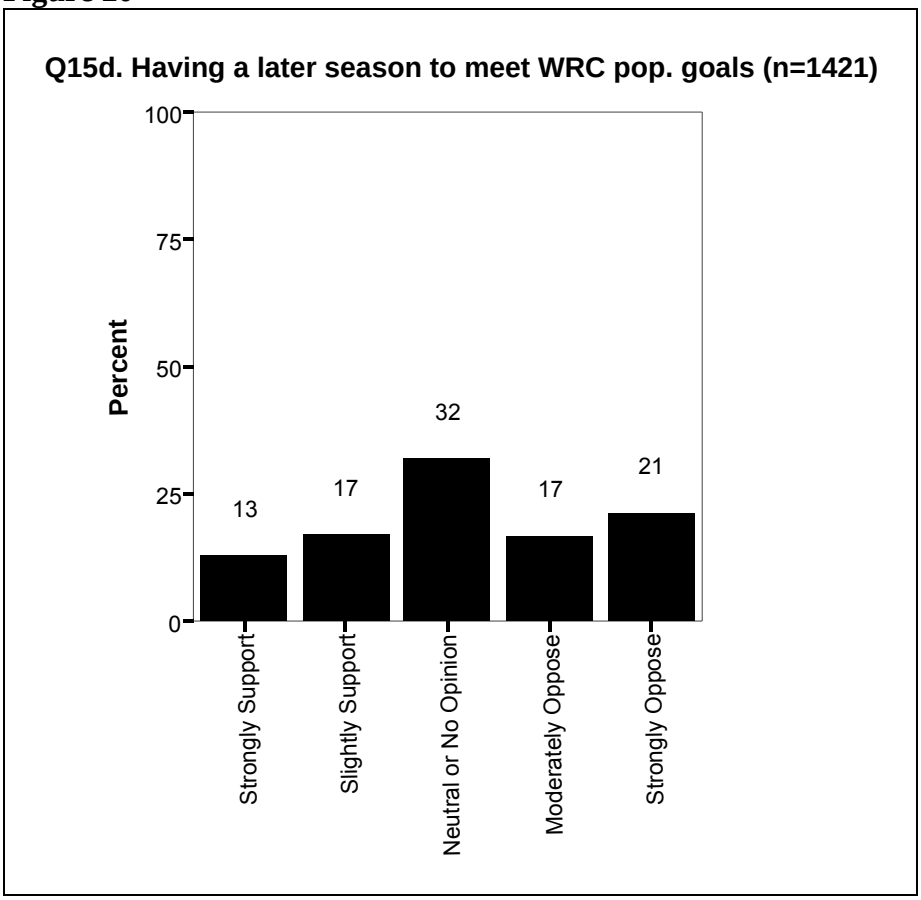


Table 24. Support or opposition to having a later season in order to meet WRC population goals (Q15d) by bear season most often hunted during last 3 years (Q13).

Having a later season.	Mountain season (48 days)	LCP Long season (48 days)	LCP Short season (24 days)	UCP Long season (18 days)	UCP Short season (9 days)
Strongly Support	14.9% (n=63)	13.6% (n=29)	11.4% (n=8)	11.7% (n=71)	9.1% (n=6)
Slightly Support	16.3% (n=69)	17.8% (n=38)	10.0% (n=7)	17.7% (n=107)	22.7% (n=15)
Neutral or No Opinion	29.2% (n=124)	24.9%[a] (n=53)	17.1%[a] (n=12)	37.7%[b] (n=228)	31.8% (n=21)
Moderately Oppose	18.4% (n=78)	17.4% (n=37)	25.7%[b] (n=18)	14.9% (n=90)	15.2% (n=10)
Strongly Oppose	21.2% (n=90)	26.3% (n=56)	35.7%[b] (n=25)	18.0%[a] (n=109)	21.2% (n=14)

χ^2=39.6 df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 21

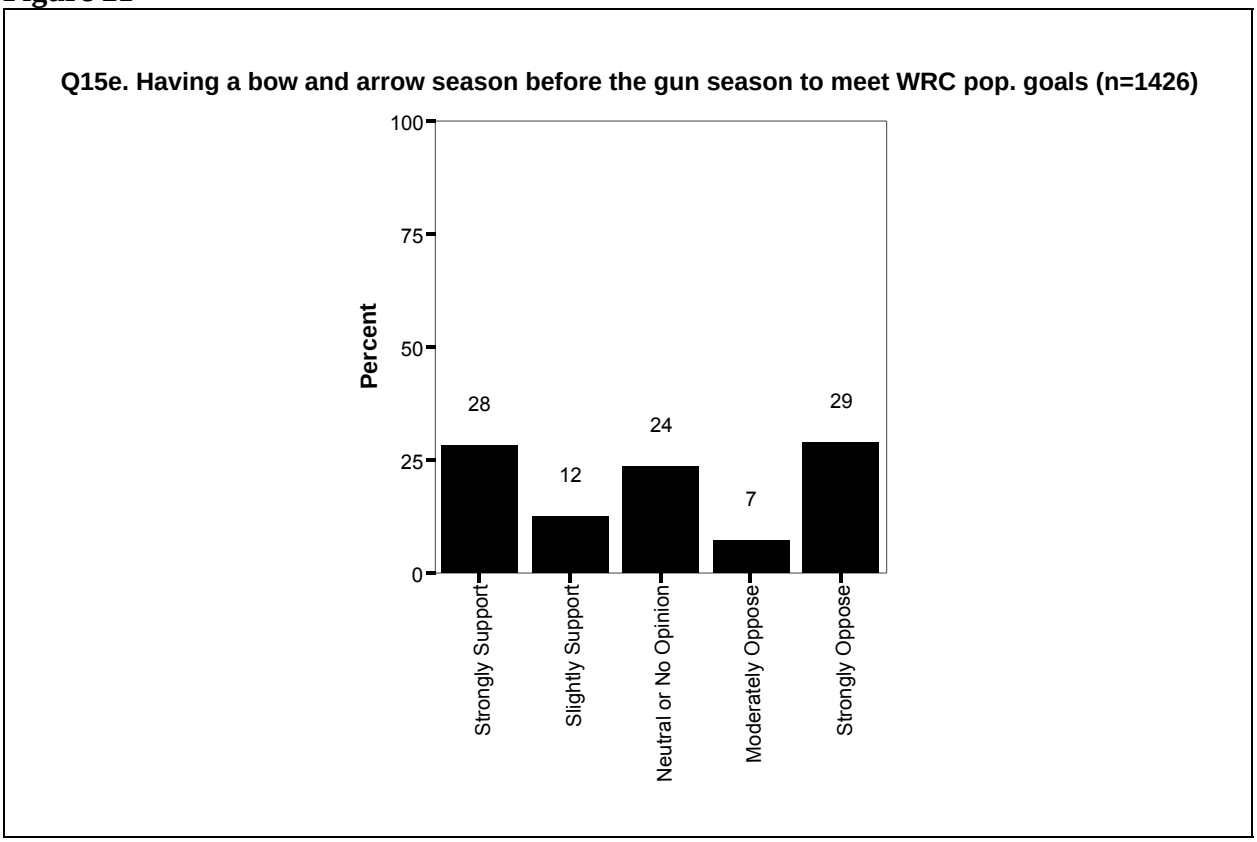


Table 25. Support or opposition to having a bow and arrow season before the gun season in order to meet WRC population goals (Q15e) by use of dogs for bear hunting during last 3 years (Q8).

Having a bow and arrow season before gun season.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Support	38.9%[a] (n=243)	10.4%[b] (n=40)	29.9% (n=59)	24.4% (n=32)	30.9% (n=21)
Slightly Support	13.9% (n=87)	7.0%[b] (n=27)	14.7% (n=29)	14.5% (n=19)	16.2% (n=11)
Neutral or No Opinion	24.0% (n=150)	23.3% (n=90)	29.4%[a] (n=58)	19.1% (n=25)	17.6% (n=12)
Moderately Oppose	6.9% (n=43)	6.7% (n=26)	7.6% (n=15)	8.4% (n=11)	7.4% (n=5)
Strongly Oppose	16.3%[b] (n=102)	52.6%[a] (n=203)	18.3%[b] (n=36)	33.6% (n=44)	27.9% (n=19)

χ^2=206.8, df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Table 26. Support or opposition to having a bow and arrow season before the gun season in order to meet WRC population goals (Q15e) by weapon most often used for bear hunting during last 3 years (Q10).

Having a bow and arrow season before gun season.	Rifle	Shotgun	Pistol	Muzzleloader[a]	Bow and arrow
Strongly Support	25.0%[b] (n=271)	21.7% (n=34)	18.3% (n=11)	-	91.1%[c] (n=51)
Slightly Support	13.1% (n=142)	11.5% (n=18)	11.7% (n=7)	-	1.8%[b] (n=1)
Neutral or No Opinion	24.4% (n=264)	28.7% (n=45)	23.3% (n=14)	-	1.8%[b] (n=1)
Moderately Oppose	7.9% (n=86)	6.4% (n=10)	6.7% (n=4)	-	1.8% (n=1)
Strongly Oppose	29.5% (n=319)	31.8% (n=50)	40.0% (n=24)	-	3.6%[b] (n=2)

χ^2=127.0, df=12, p=0.001

[a] Category not included in crosstabulation due to small numbers of respondents.
[b]Adjusted residual ≤ -2.0.
[c]Adjusted residual ≥ 2.0.

Table 27. Support or opposition to having a bow and arrow season before the gun season in order to meet WRC population goals (Q15e) by region most often bear hunted during last 3 years (Q13).

Having a bow and arrow season before gun season.	Mountains	Coast
Strongly Support	22.7%[a] (n=97)	30.1%[b] (n=288)
Slightly Support	12.2% (n=52)	12.4% (n=119)
Neutral or No Opinion	19.7%[a] (n=84)	26.0%[b] (n=249)
Moderately Oppose	8.0% (n=34)	6.9% (n=66)
Strongly Oppose	37.5%[b] (n=160)	24.5%[a] (n=234)

χ^2=28.8, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 22

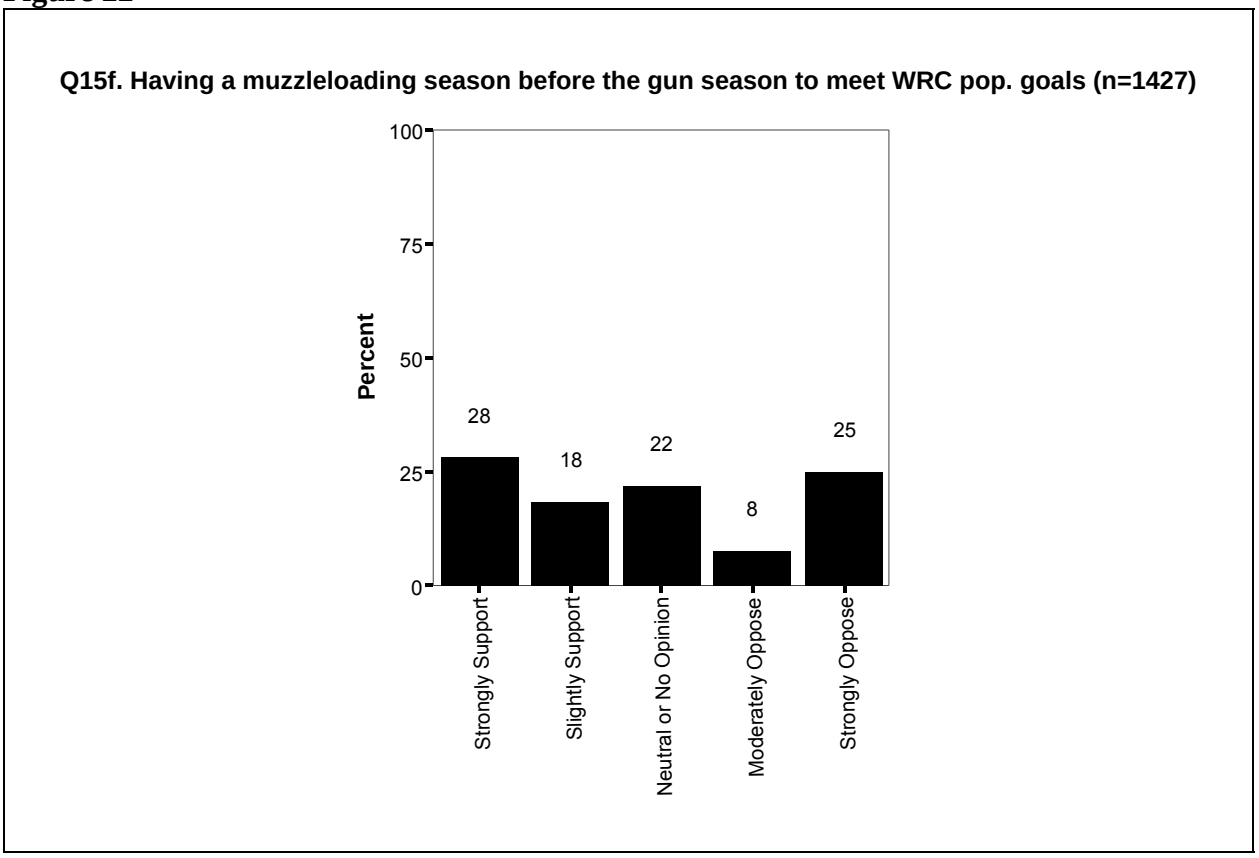


Table 28. Support or opposition to having a muzzleloading season before the gun season in order to meet WRC population goals (Q15f) by use of dogs for bear hunting during last 3 years (Q8).

Having a muzzle-loading season before gun season.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Support	36.2%[a] (n=226)	11.4%[b] (n=44)	35.0%[a] (n=69)	23.7% (n=31)	30.9% (n=21)
Slightly Support	22.1%[a] (n=138)	11.6%[b] (n=45)	19.3% (n=38)	18.3% (n=24)	14.7% (n=10)
Neutral or No Opinion	20.3% (n=127)	23.8% (n=92)	23.9% (n=47)	20.6% (n=27)	22.1% (n=15)
Moderately Oppose	7.0% (n=44)	7.5% (n=29)	7.6% (n=15)	9.9% (n=13)	4.4% (n=3)
Strongly Oppose	14.4%[b] (n=90)	45.7%[a] (n=177)	14.2%[b] (n=28)	27.5% (n=36)	27.9% (n=19)

χ^2=181.9, df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Table 29. Support or opposition to having a muzzleloading season before the gun season in order to meet WRC population goals (Q15f) by weapon most often used for bear hunting during last 3 years (Q10).

Having a muzzle-loading season before gun season.	Rifle	Shotgun	Pistol	Muzzleloader[a]	Bow and arrow
Strongly Support	28.1% (n=304)	24.2% (n=38)	14.8%[b] (n=9)	-	33.9% (n=19)
Slightly Support	18.9% (n=204)	14.6% (n=23)	16.4% (n=10)	-	19.6% (n=11)
Neutral or No Opinion	20.9% (n=226)	26.8% (n=42)	21.3% (n=13)	-	23.2% (n=13)
Moderately Oppose	7.9% (n=86)	5.7% (n=9)	8.2% (n=5)	-	8.9% (n=5)
Strongly Oppose	24.2% (n=262)	28.7% (n=45)	39.3%[c] (n=24)	-	14.3% (n=8)

χ^2=18.7, df=12, p=0.097

[a] Category not included in crosstabulation due to small numbers of respondents.
[b]Adjusted residual ≤ -2.0.
[c]Adjusted residual ≥ 2.0.

Table 30. Support or opposition to having a muzzleloading season before the gun season in order to meet WRC population goals (Q15f) by region most often bear hunted during last 3 years (Q13).

Having a muzzleloading season before gun season.	Mountains	Coast
Strongly Support	22.0%[a] (n=94)	29.8%[b] (n=285)
Slightly Support	17.1% (n=73)	18.8% (n=180)
Neutral or No Opinion	20.4% (n=87)	22.8% (n=218)
Moderately Oppose	7.7% (n=33)	7.4% (n=71)
Strongly Oppose	32.8%[b] (n=140)	21.2%[a] (n=203)

χ^2=28.8, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 23

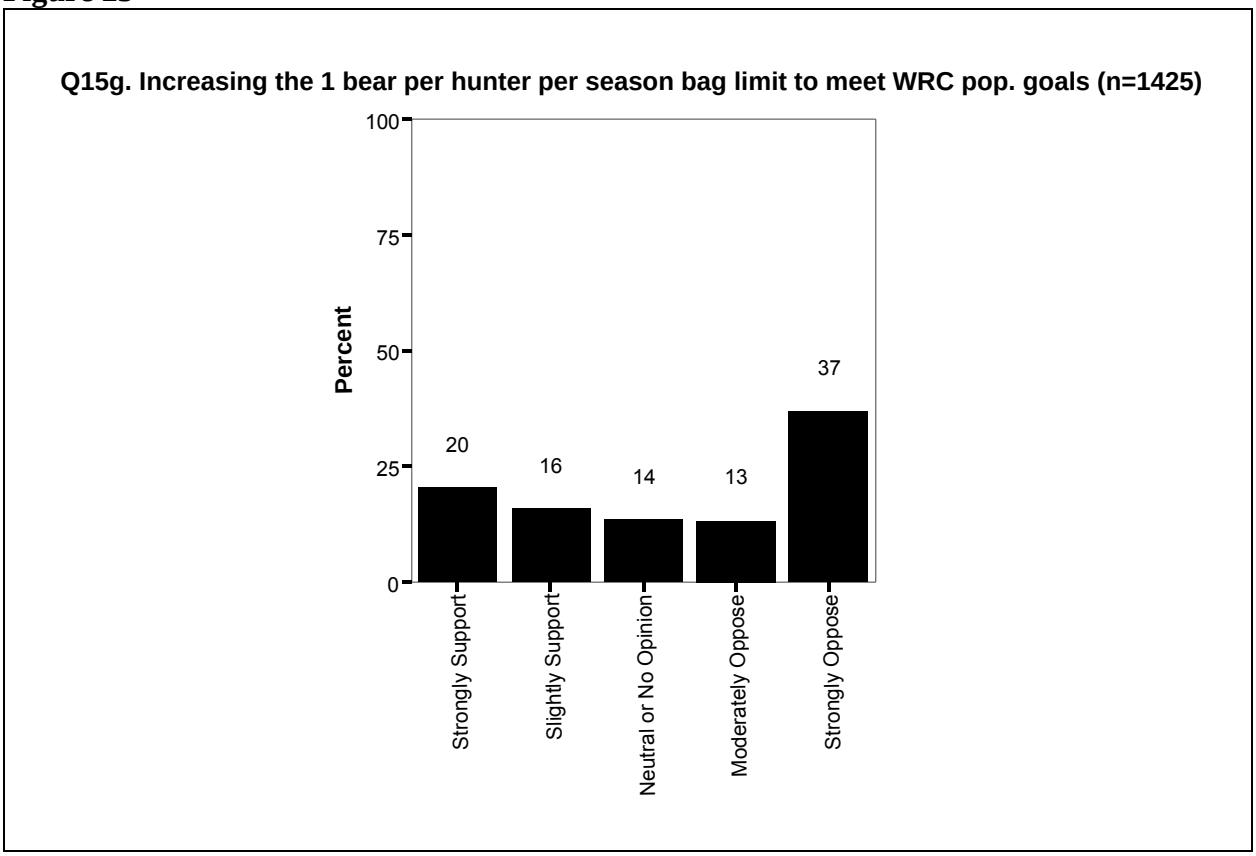


Table 31. Support or opposition to increasing the 1 bear per hunter per season bag limit in order to meet WRC population goals (Q15g) by use of dogs for bear hunting during last 3 years (Q8).

Increasing the 1 bear per season bag limit.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Support	18.9% (n=118)	17.1% (n=66)	24.9% (n=49)	17.6% (n=23)	42.6%[a] (n=29)
Slightly Support	14.4% (n=90)	16.9% (n=65)	19.3% (n=38)	15.3% (n=20)	14.7% (n=10)
Neutral or No Opinion	16.8%[a] (n=105)	11.4% (n=44)	9.6% (n=19)	11.5% (n=15)	10.3% (n=7)
Moderately Oppose	13.4% (n=84)	12.5% (n=48)	13.7% (n=27)	18.3% (n=24)	4.4%[b] (n=3)
Strongly Oppose	36.5% (n=228)	42.1%[a] (n=162)	32.5% (n=64)	37.4% (n=49)	27.9% (n=19)

χ^2=45.9, df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Table 32. Support or opposition to increasing the 1 bear per hunter per season bag limit in order to meet WRC population goals (Q15g) by weapon most often used for bear hunting during last 3 years (Q10).

Increasing the 1 bear per season bag limit.	Rifle	Shotgun	Pistol	Muzzleloader[a]	Bow and arrow
Strongly Support	19.3% (n=209)	24.4% (n=38)	21.3% (n=13)	-	19.6% (n=11)
Slightly Support	16.4% (n=177)	17.9% (n=28)	13.1% (n=8)	-	12.5% (n=7)
Neutral or No Opinion	13.0% (n=141)	14.7% (n=23)	8.2% (n=5)	-	14.3% (n=8)
Moderately Oppose	13.8% (n=149)	10.9% (n=17)	13.1% (n=8)	-	16.1% (n=9)
Strongly Oppose	37.5% (n=406)	32.1% (n=50)	44.3% (n=27)	-	37.5% (n=21)

χ^2=7.5, df=12, p=0.821

[a] Category not included in crosstabulation due to small numbers of respondents.

Table 33. Support or opposition to increasing the 1 bear per hunter per season bag limit in order to meet WRC population goals (Q15g) by region most often bear hunted during last 3 years (Q13).

Increasing the 1 bear per season bag limit.	Mountains	Coast
Strongly Support	16.9%[a] (n=72)	21.7%[b] (n=208)
Slightly Support	14.4% (n=61)	16.9% (n=162)
Neutral or No Opinion	12.5% (n=53)	13.8% (n=132)
Moderately Oppose	14.1% (n=60)	12.7% (n=122)
Strongly Oppose	42.1%[b] (n=179)	34.8%[a] (n=333)

χ^2=9.6, df=4, p=0.048

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Support or opposition to regulations changes in order to decrease conflicts between bears and humans

Support for regulations changes to decrease bear/human conflicts was 56% for increasing the bear season length (Figure 24), 45% for having an earlier bear season (Figure 25), 33% for having a later bear season (Figure 26), 41% for having an early bow and arrow season (Figure 27), 46% for having an early muzzleloading season (Figure 28), and 40% for increasing the bear bag limit (Figure 29). In regard to bear/human conflicts, a Mountain focus group participant said, "What they don't realize, these granola heads, they've moved into the bear's habitat and then they want to tell a bear they can't stay there no more."

Figure 24

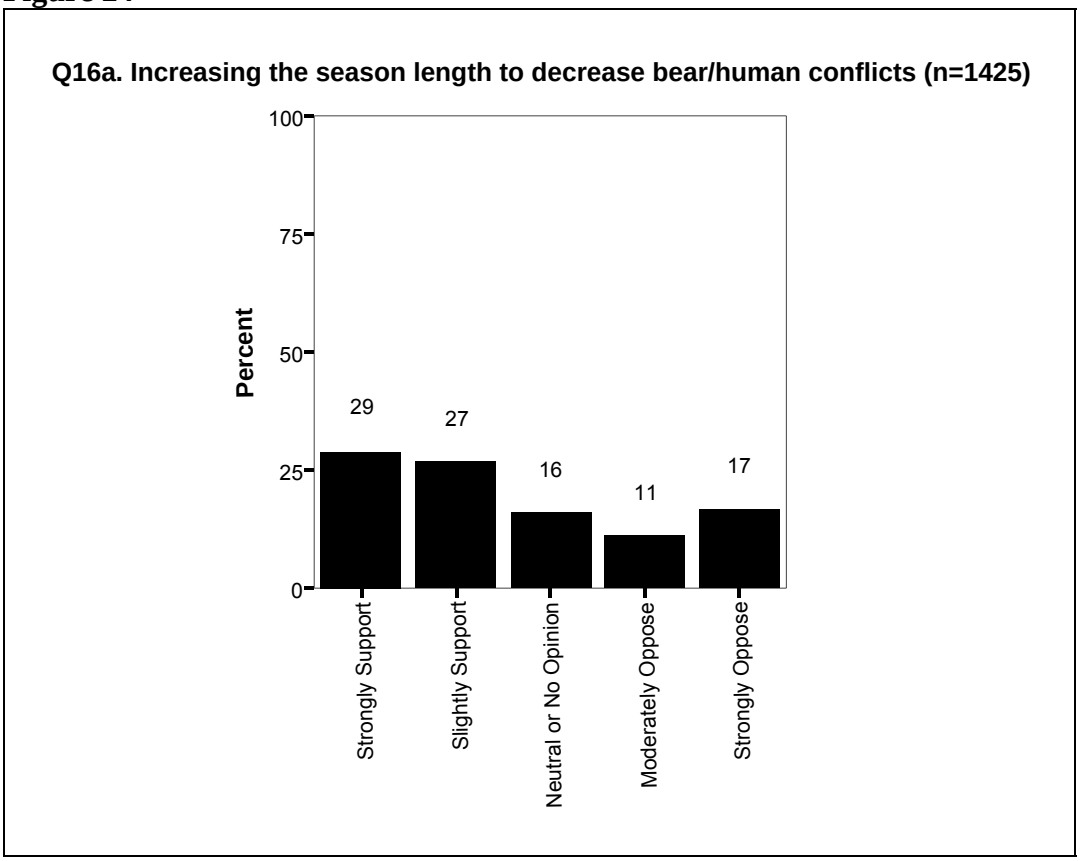

Q16a. Increasing the season length to decrease bear/human conflicts (n=1425)
Percent
100
75
50
25
0
29
27
16
11
17
Strongly Support
Slightly Support
Neutral or No Opinion
Moderately Oppose
Strongly Oppose

Figure 25

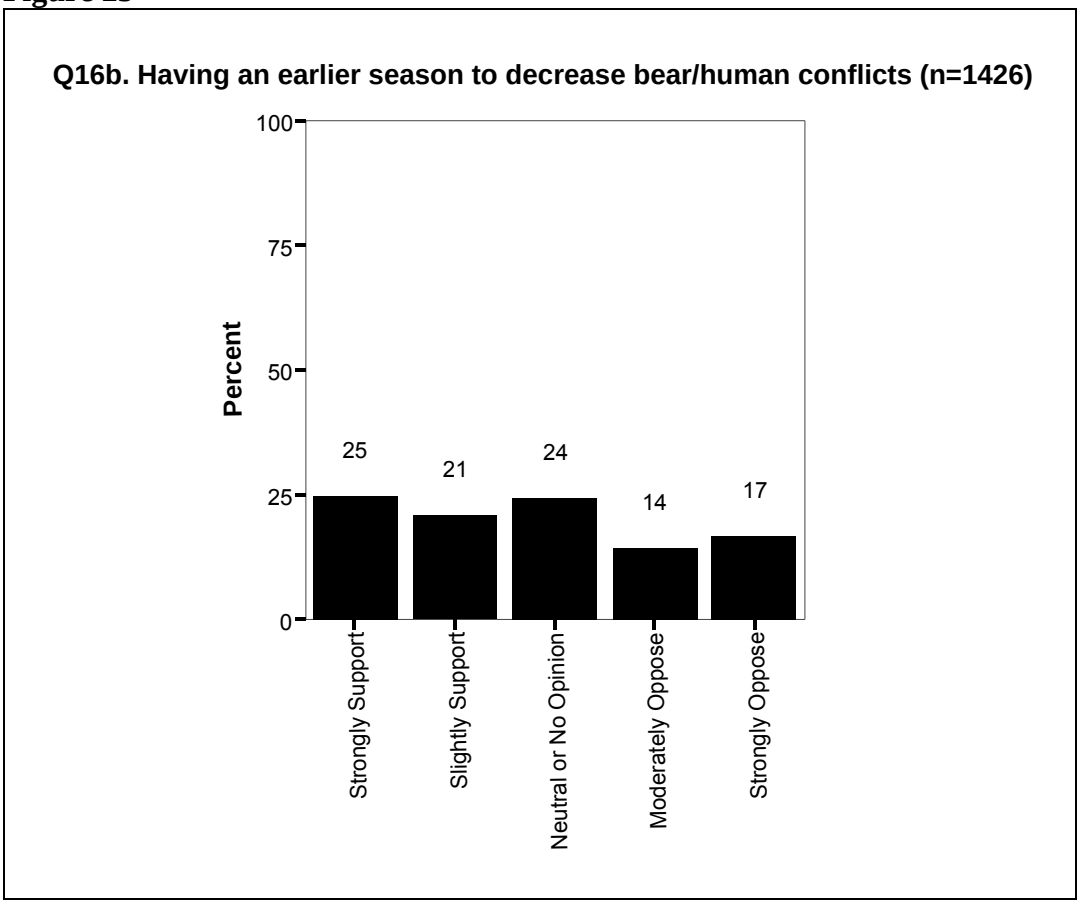

Q16b. Having an earlier season to decrease bear/human conflicts (n=1426)
Percent
100
75
50
25
0
25
21
24
14
17
Strongly Support
Slightly Support
Neutral or No Opinion
Moderately Oppose
Strongly Oppose

Figure 26

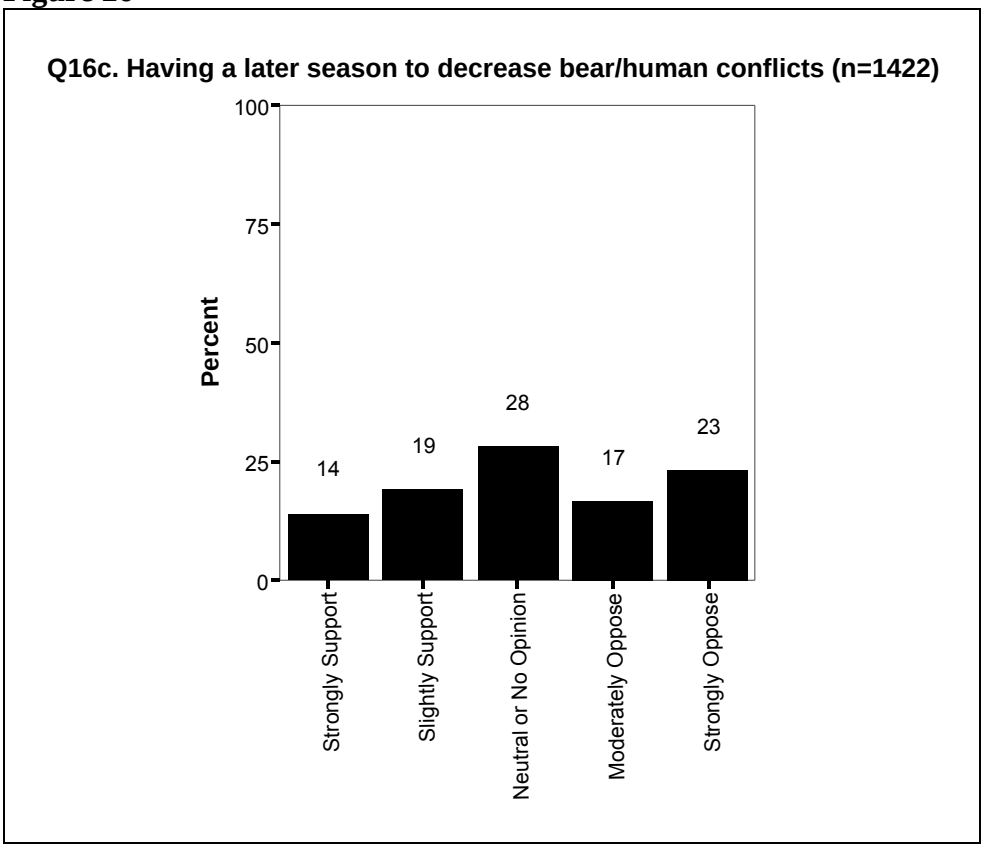


Figure 27

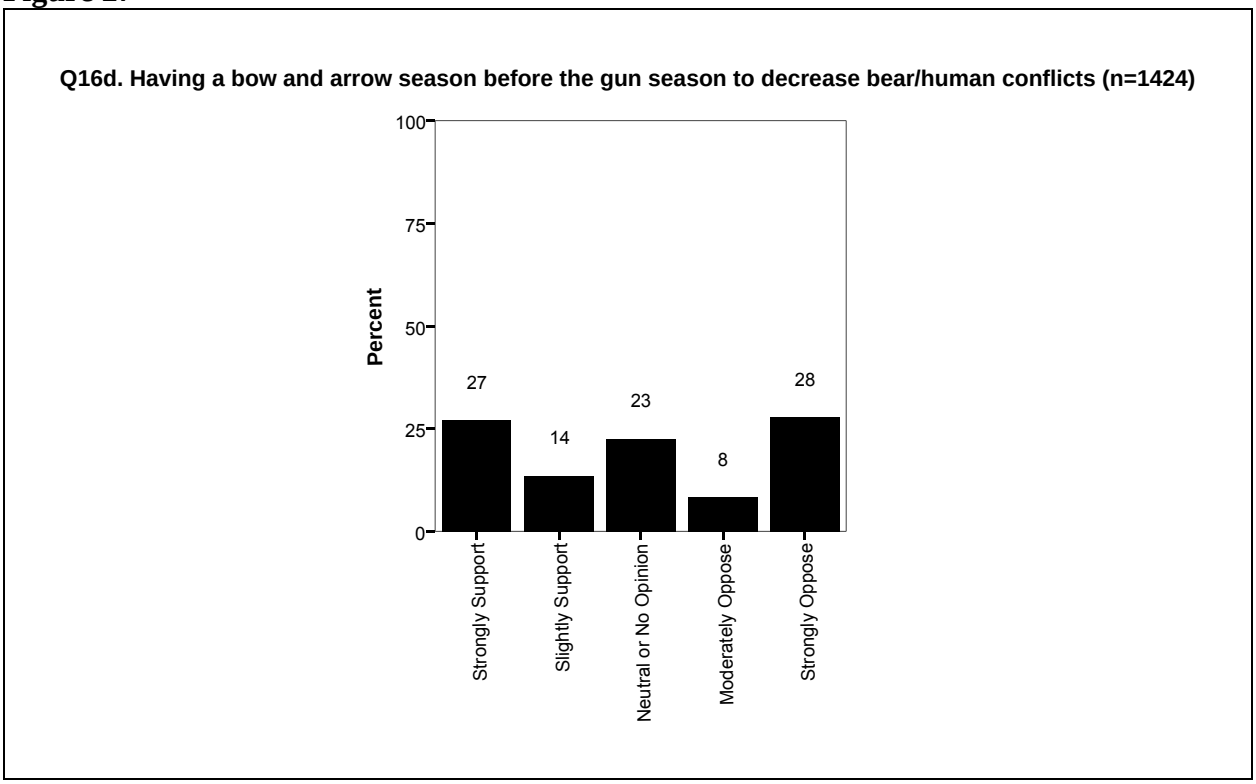


Figure 28

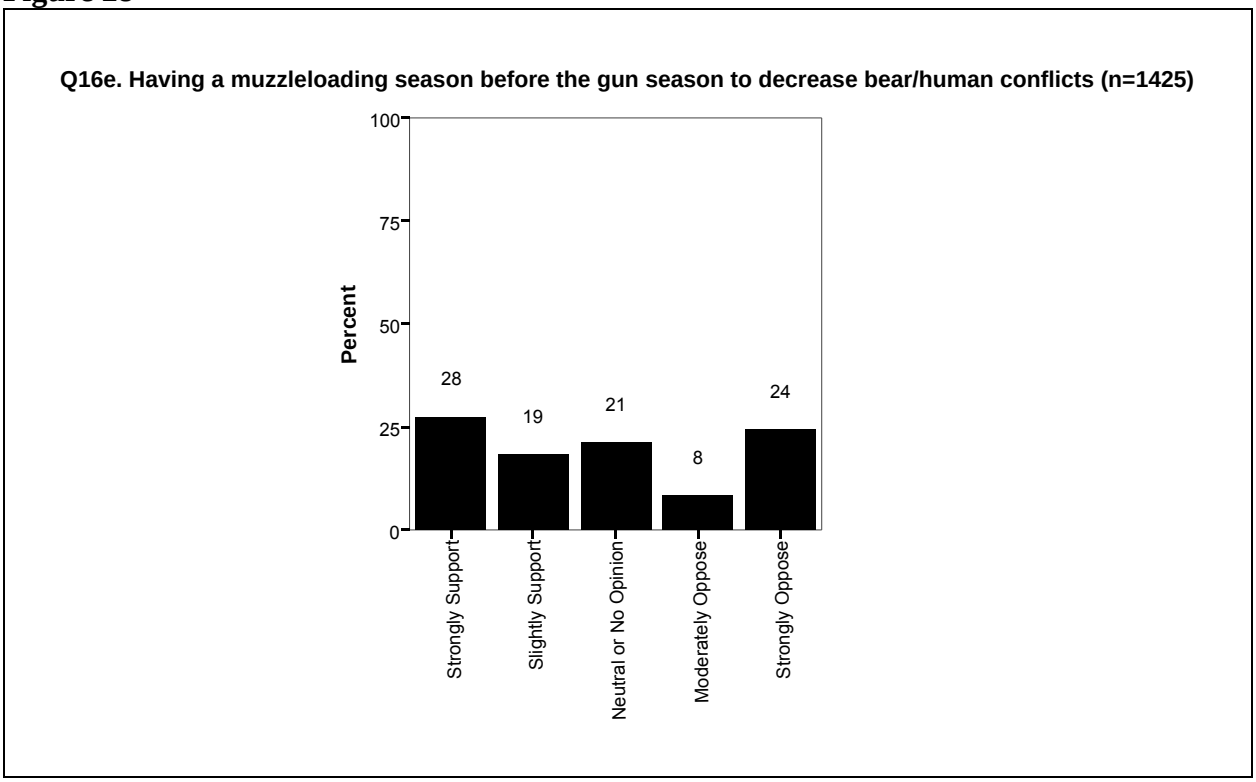
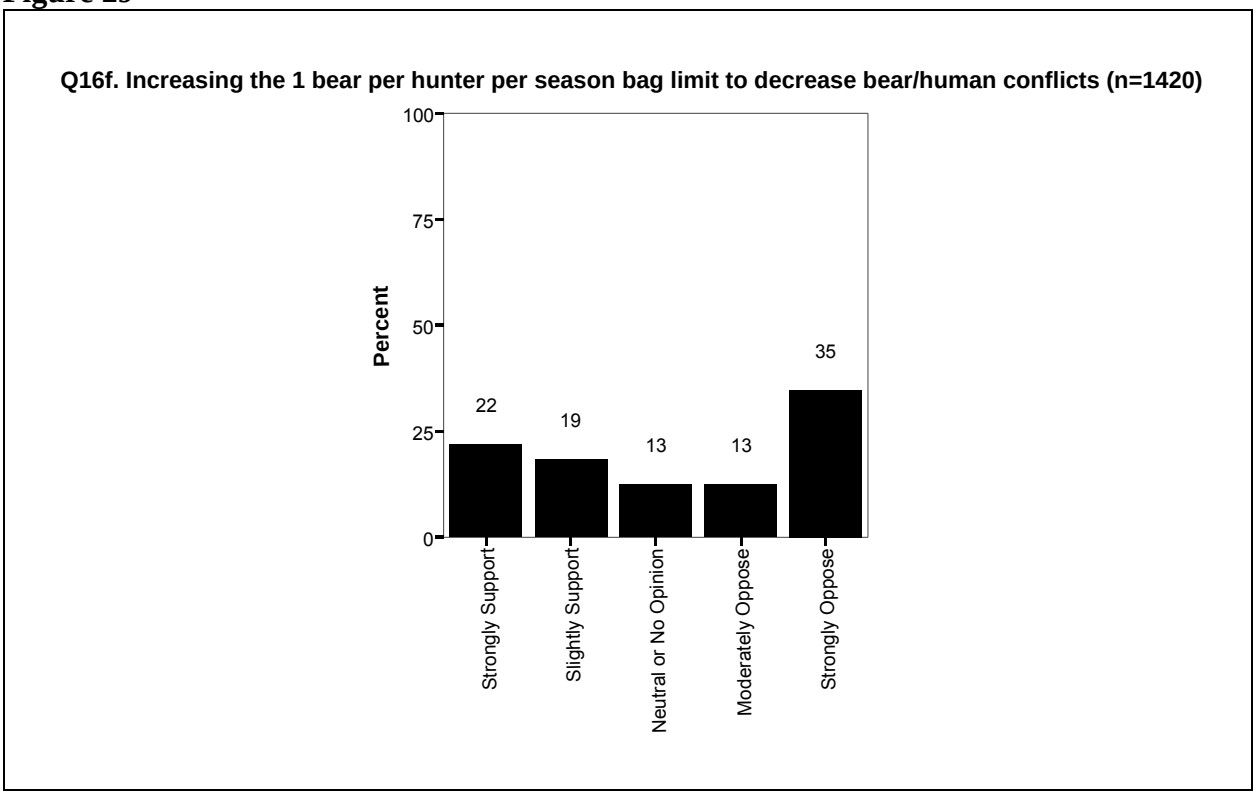


Figure 29



Support or opposition to regulations changes in order to limit hunter disturbance

Half (50%) of bear hunters supported increasing the bear season length in order to limit hunter disturbance by other hunters (Figure 30). A plurality of hunters supported having a bow and arrow season (40%) (Figure 31) or having a muzzleloading season (45%) (Figure 32) before the bear gun season in order to limit hunter disturbance; however, there was also substantial (≥32%) opposition to these two scenarios.

Figure 30

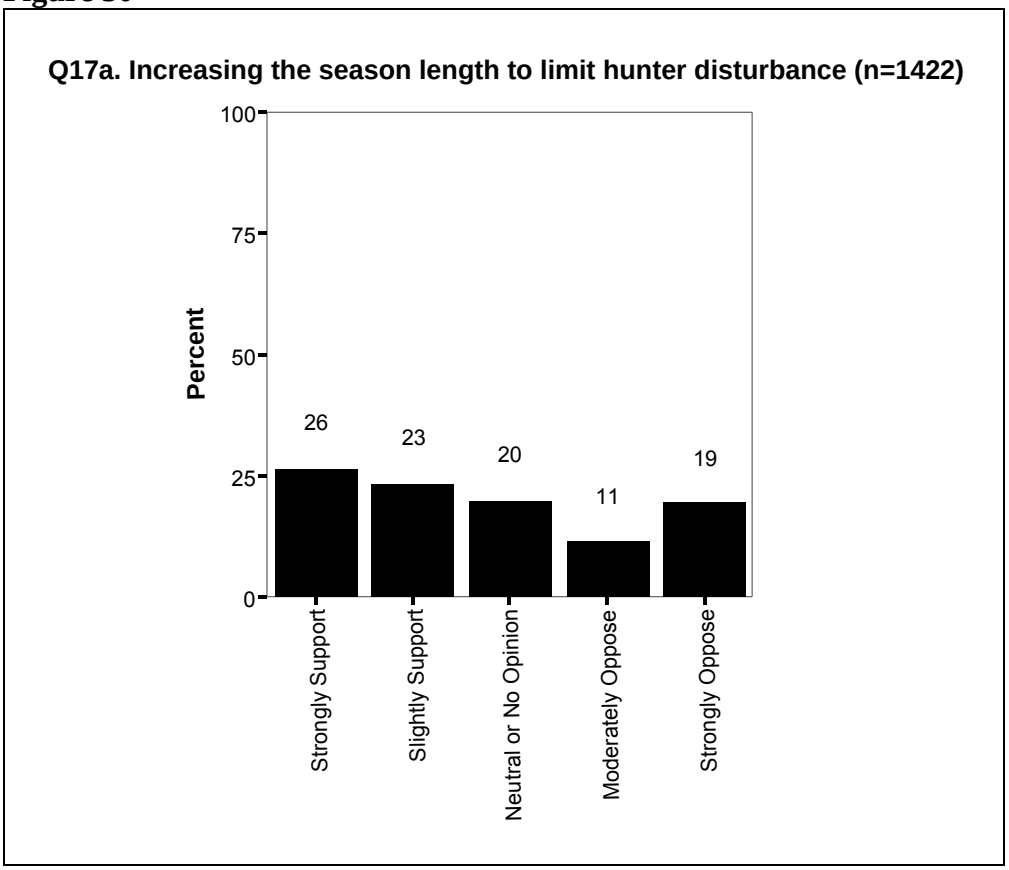


Figure 31

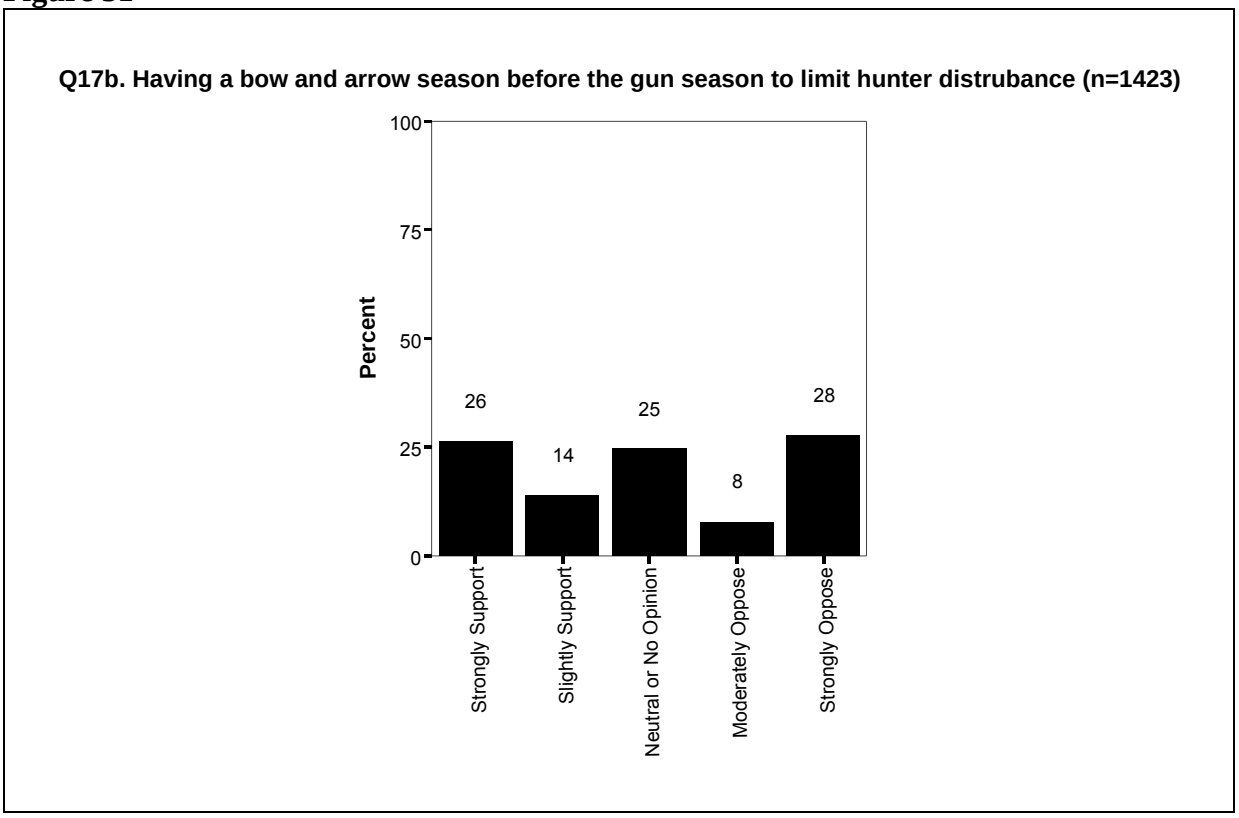
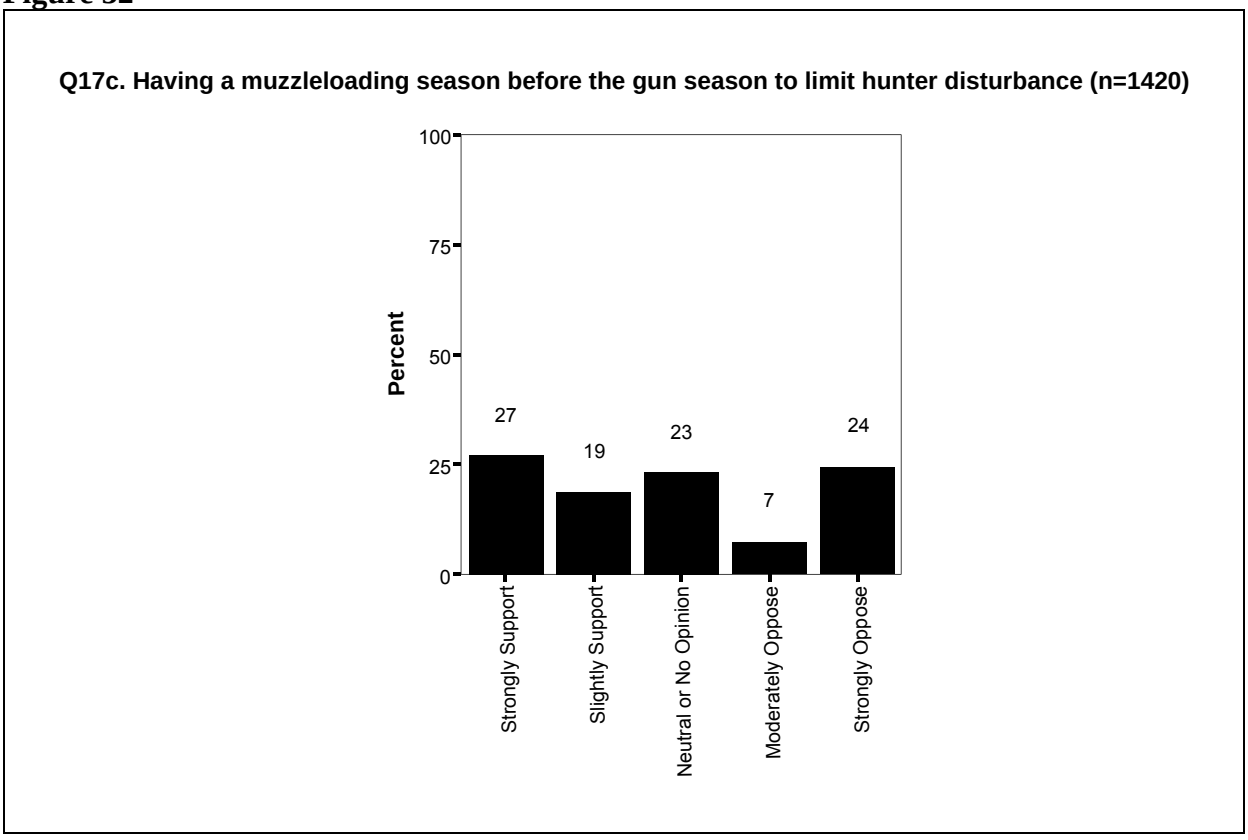


Figure 32



Support or opposition to regulations changes in order to increase opportunities for hunting

Support for regulations changes to increase hunting opportunities was 57% for increasing the bear season length (Figure 33), 43% for having an early bow and arrow season (Figure 34), 48% for having an early muzzleloading season (Figure 35), and 38% for increasing the bear bag limit (Figure 36).

Figure 33

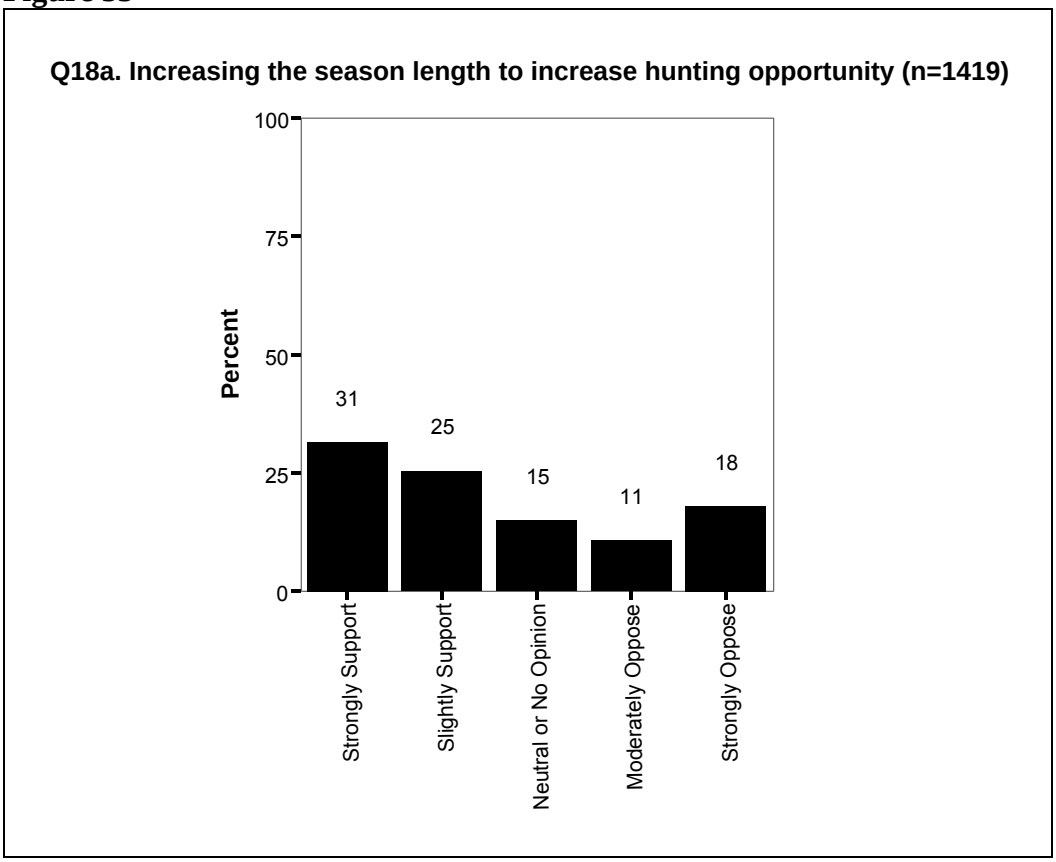


Figure 34

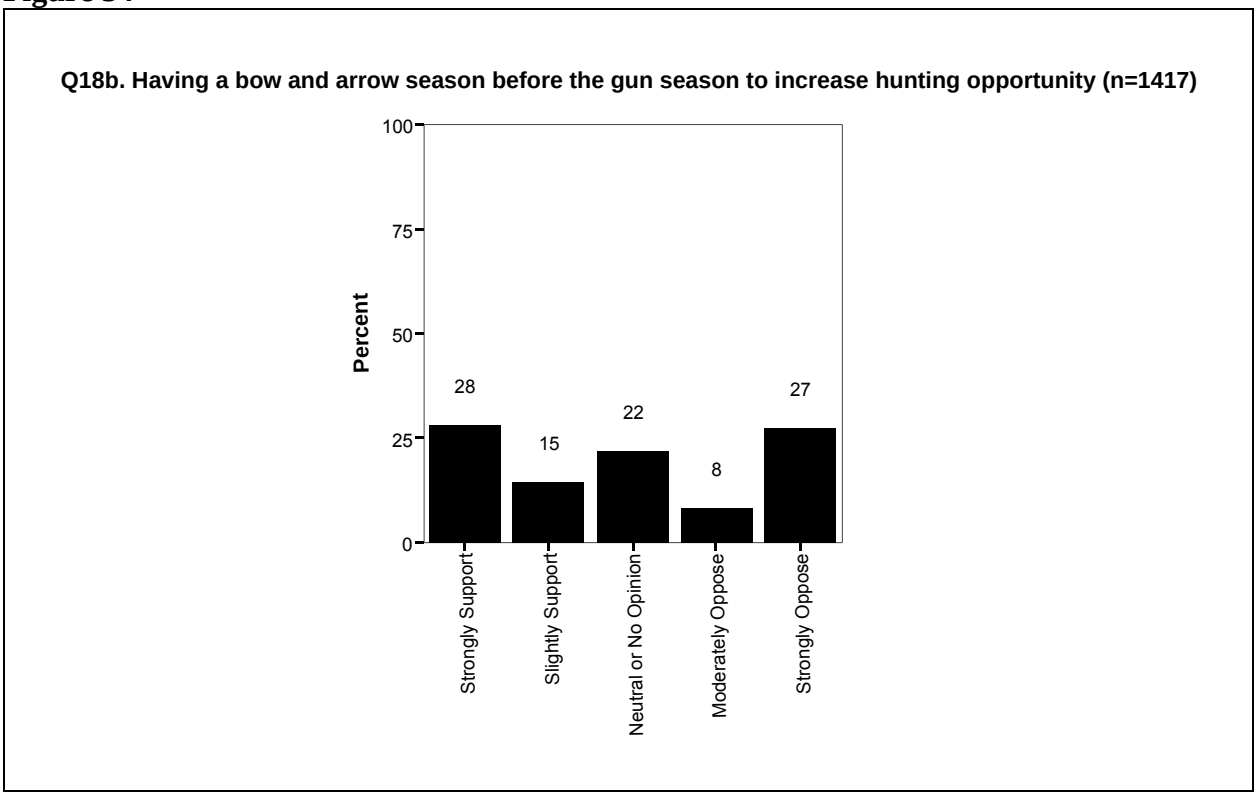


Figure 35

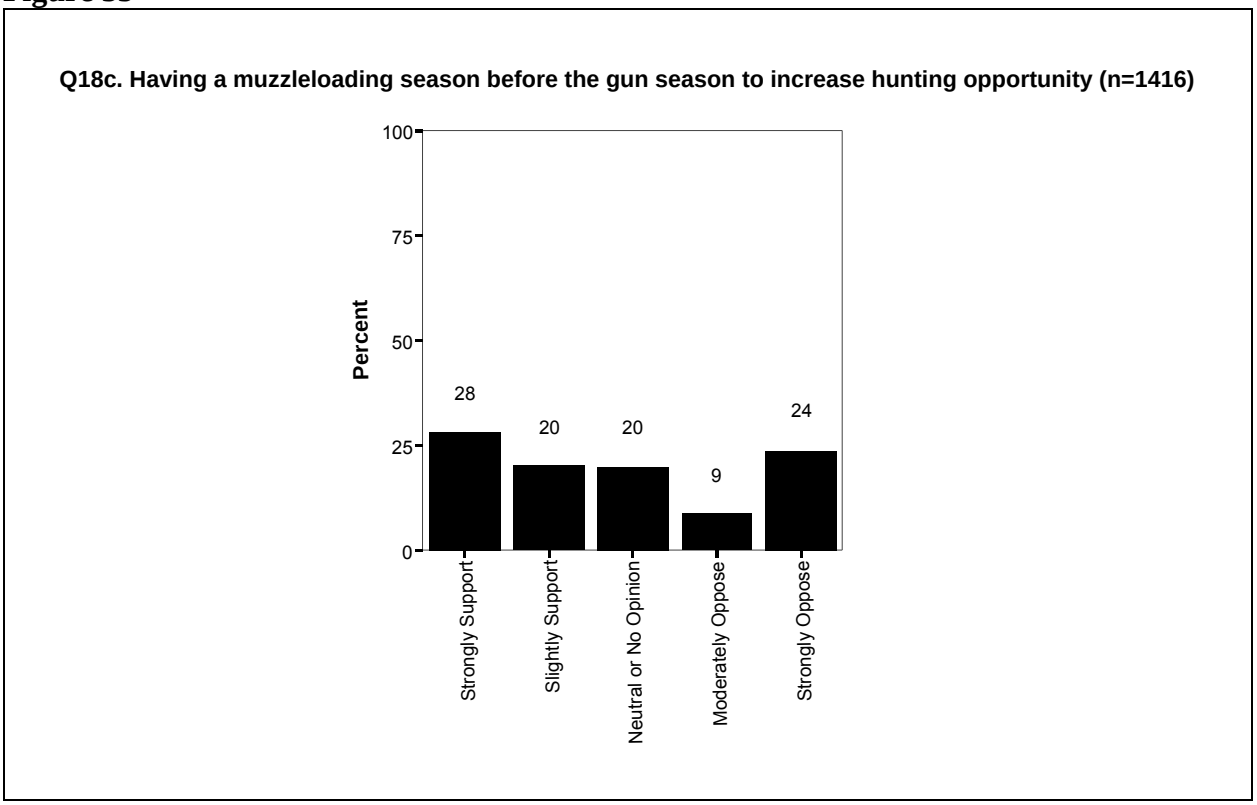
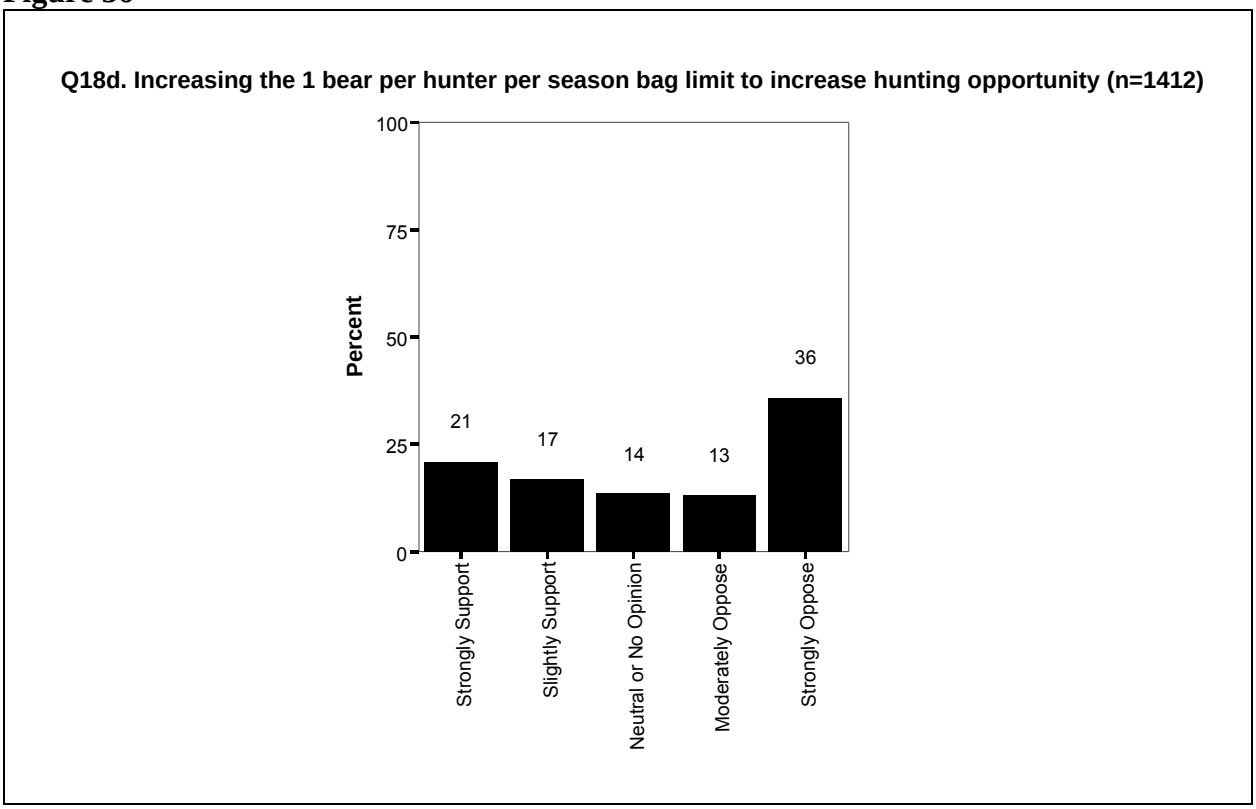


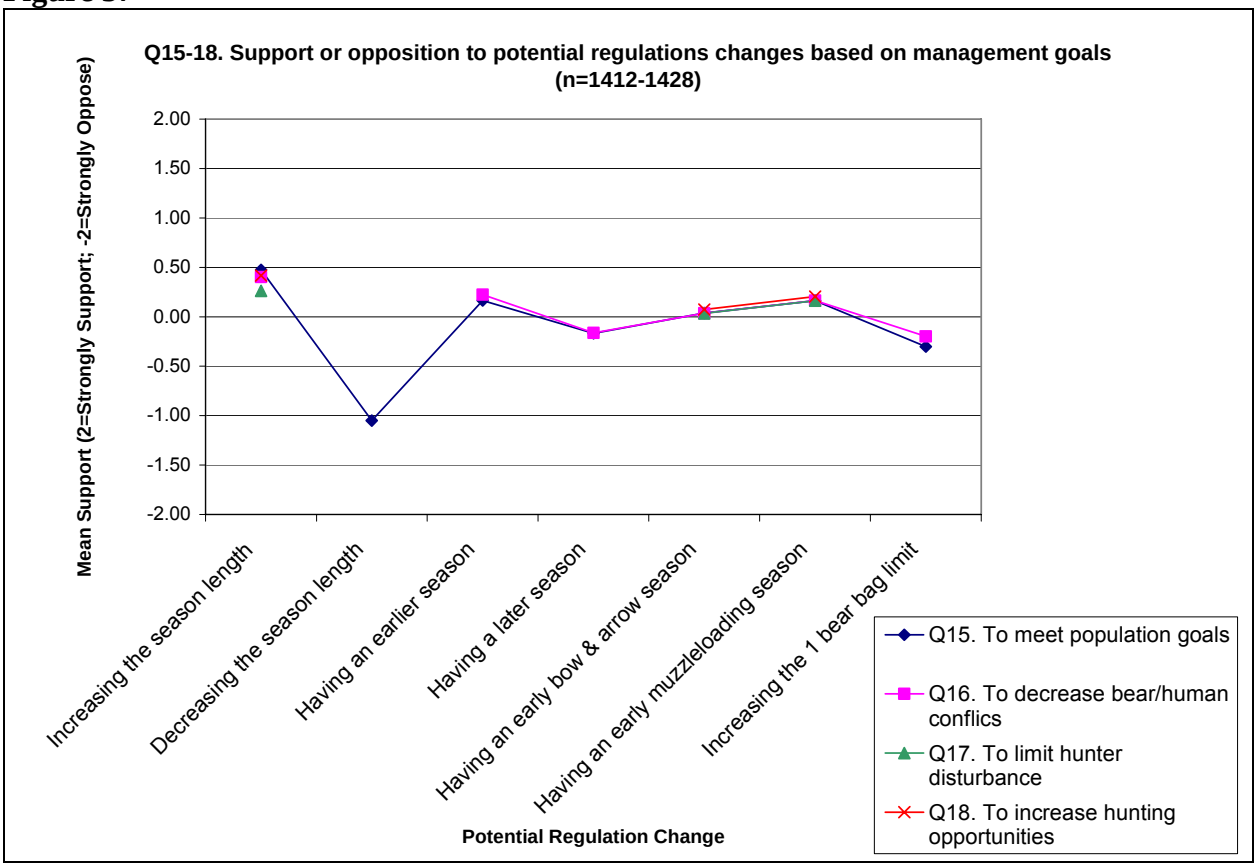
Figure 36



Mean support for bear hunting regulations changes

Mean support for specific bear hunting regulations changes differed little based on the goals for these changes. Mean support for increasing the season length ranged from 0.3 in order to limit hunter disturbance to 0.5 in order to meet WRC bear population goals (Figure 37). Mean support for having an earlier bear season was 0.2 in order to meet WRC bear population goals and in order to decrease bear/human conflicts. Mean support for having a later bear season was -0.2 in order to meet WRC bear population goals and in order to decrease bear/human conflicts. Mean support for having an early bow & arrow bear season ranged from 0.0 in order to limit hunter disturbance to 0.1 in order to increase hunting opportunities. Mean support for having an early muzzleloading bear season was 0.2 in order to meet WRC bear population goals, in order to decrease bear/human conflicts, in order to limit hunter disturbance, and in order to increase hunting opportunities. Mean support for increasing the 1 bear per hunter per season bag limit ranged from -0.3 to meet WRC bear population goals to -0.2 in order to decrease bear/human conflicts.

Figure 37



Views on bear population levels and numbers of bear hunters

A plurality (42%) of bear hunters believed the bear population in the county where they most often bear hunted had increased during the past 5 years (Figure 38). Views on changes in bear population varied significantly different based on region hunted, with significantly higher proportions (49%) of Coastal hunters and significantly lower proportions (27%) of Mountain hunters believing the population had increased (Table 34).

A plurality (48%) of bear hunters believed the numbers of other bear hunters where they bear hunted had increased during the past 5 years (Figure 39). Mountain bear hunters (13%) were significantly more likely and Coastal bear hunters (8%) significantly less likely to believe bear hunter numbers had decreased where they bear hunted (Table 35).

Figure 38

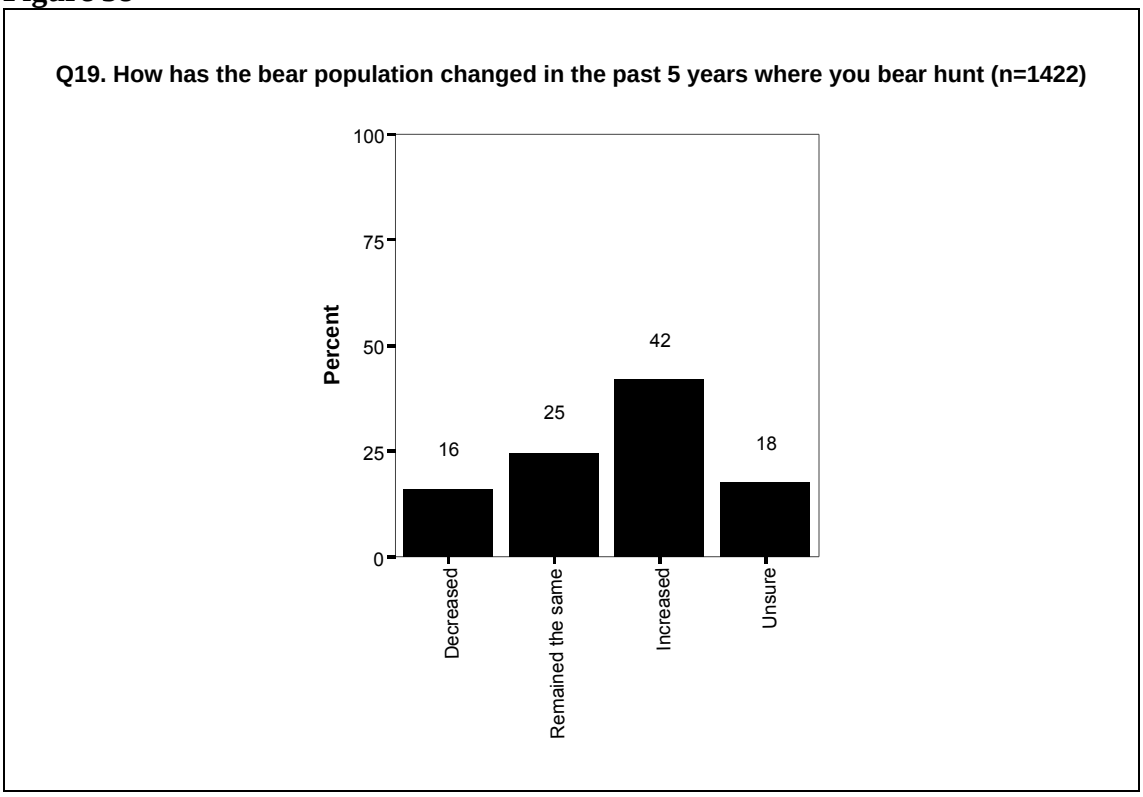


Table 34. Views on changes to the bear population during the last 5 years in the county most often hunted in during the last 3 years (Q19) by region most often bear hunted during last 3 years (Q13).

Changes in bear population during last 5 years.	Mountains	Coast
Decreased	21.6%[a] (n=92)	12.9%[b] (n=123)
Remained the same	31.3%[a] (n=133)	22.1%[b] (n=211)
Increased	27.1%[b] (n=115)	49.2%[a] (n=470)
Unsure	20.0% (n=85)	15.8% (n=151)

χ^2=61.6, df=3, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 39

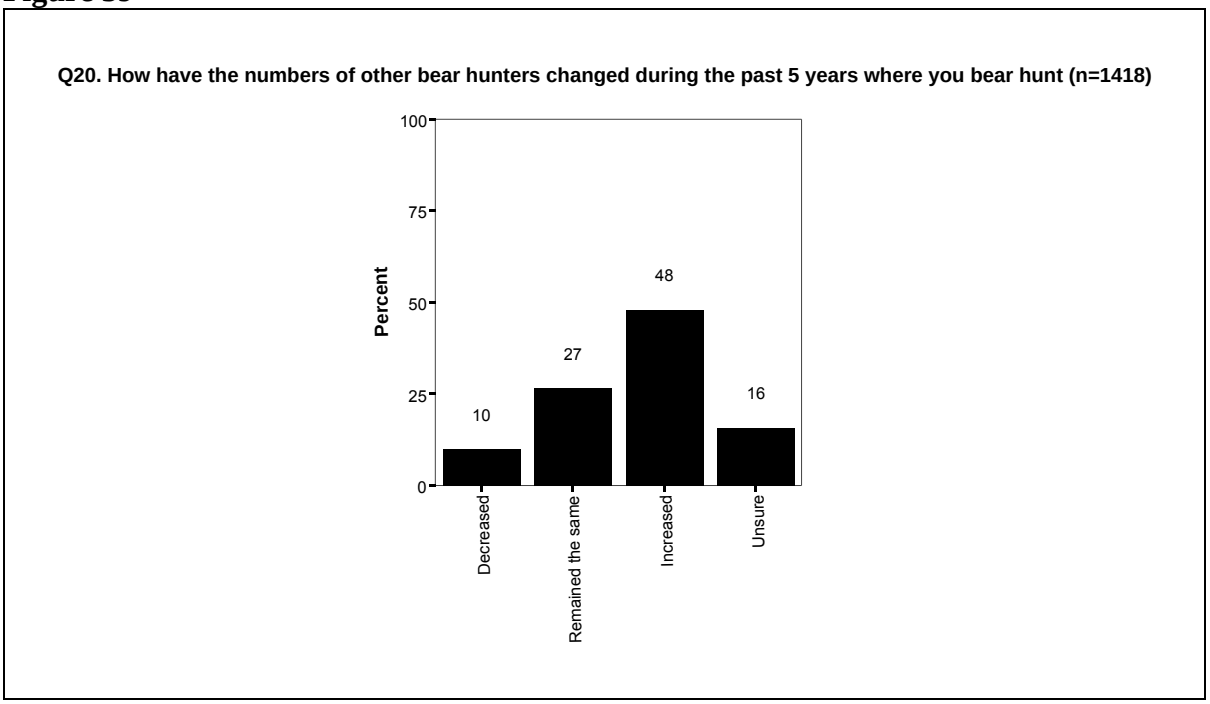


Table 35. Views on changes to the numbers of other bear hunters during the last 5 years in the county most often hunted in during the last 3 years (Q20) by region most often bear hunted during last 3 years (Q13).

Changes in bear population during last 5 years.	Mountains	Coast
Decreased	13.0%[a] (n=55)	8.4%[b] (n=80)
Remained the same	28.1% (n=119)	26.4% (n=252)
Increased	44.3% (n=188)	49.4% (n=471)
Unsure	14.6% (n=62)	15.7% (n=150)

χ^2=8.4, df=3, p=0.039

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Views on Bear Sanctuaries

Most (80%) bear hunters agreed that limited permit hunting should be allowed on Bear Sanctuaries (Figure 40). Coastal bear hunters (55%) were significantly more likely and Mountain bear hunters (37%) significantly less likely to strongly agree that permit hunting should be allowed on Bear Sanctuaries (Table 36). One focus group participant from the coast said, "I think the only way I would be in favor of it, if the biologists…determined that it was growing to a rate that we couldn't keep up with it…A controlled hunt based on their data as to how many bear need to come out of there."

A majority (52%) of bear hunters agreed that the area in Bear Sanctuaries should be decreased in order to keep bear populations from growing too rapidly; but, 34% of hunters disagreed with decreasing the area in bear sanctuaries (Figure 41). Mountain hunters were less supportive of decreasing the area in Bear Sanctuaries, with a plurality (47%) disagreeing that the amount of Sanctuary area should be decreased (Table 37).

Most bear hunters (79%) agreed that Bear Sanctuaries have been effective in increasing the bear population in North Carolina (Figure 42). There were significant differences on views of the effectiveness of Bear Sanctuaries based on region hunted (Table 38). One Mountain focus group participant said, "That's the bread, butter, goldmine, the duck that lays the golden egg…when we go do away with our bear sanctuaries we gonna' do away with our bear."

Bear hunters were split (30% agreed, 34% disagreed) on whether the amount of area in the Bear Sanctuary program should be increased (Figure 43). Mountain bear hunters (19%) were significantly more likely and Coastal bear hunters (13%) significantly less likely to strongly disagree that the amount of area in Bear Sanctuaries should be increased (Table 39).

Figure 40

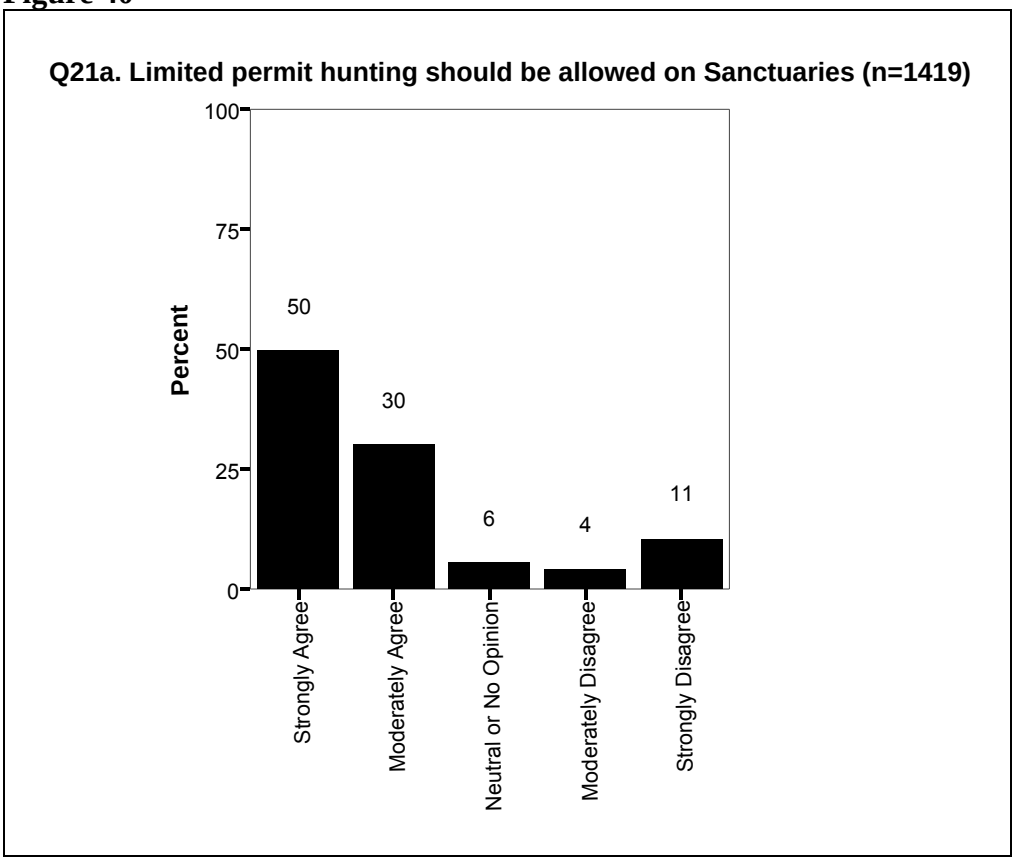


Table 36. Views on allowing limited permit hunting on Bear Sanctuaries (Q21a) by region most often bear hunted during last 3 years (Q13).

Limited permit hunting should be allowed on Bear Sanctuaries.	Mountains	Coast
Strongly Agree	37.4%[a] (n=158)	54.7%[b] (n=522)
Moderately Agree	30.6% (n=129)	30.5% (n=291)
Neutral or No Opinion	4.5% (n=19)	5.9% (n=56)
Moderately Disagree	7.3%[b] (n=31)	2.7%[a] (n=26)
Strongly Disagree	20.1%[b] (n=85)	6.3%[a] (n=60)

χ^2=87.1, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 41

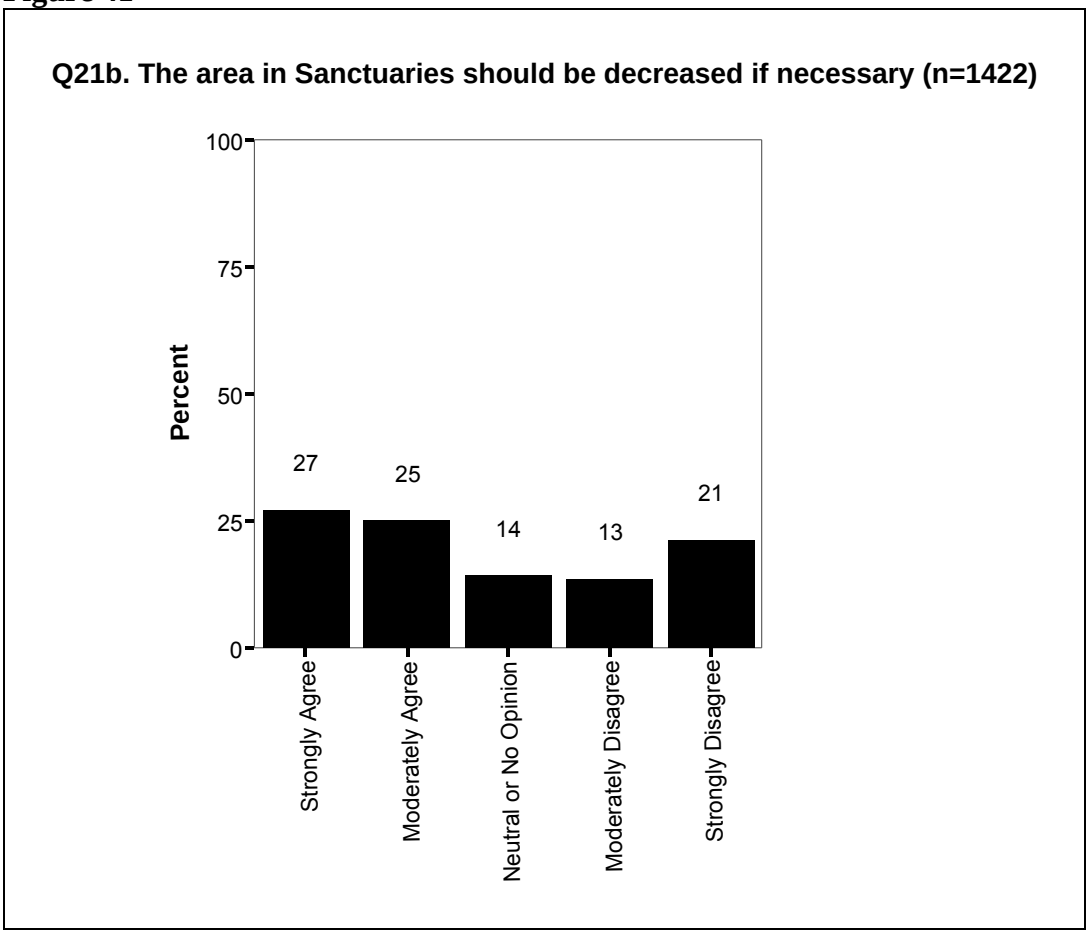


Table 37. Views on decreasing the amount of area in Bear Sanctuaries (Q21b) by region most often bear hunted during last 3 years (Q13).

The amount of area in the Bear Sanctuary program should be decreased if necessary.	Mountains	Coast
Strongly Agree	18.2%[a] (n=77)	30.9%[b] (n=295)
Moderately Agree	23.6% (n=100)	25.4% (n=243)
Neutral or No Opinion	11.8% (n=50)	14.9% (n=142)
Moderately Disagree	15.8% (n=67)	12.3% (n=117)
Strongly Disagree	30.7%[b] (n=130)	16.5%[a] (n=158)

χ^2=50.8, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 42

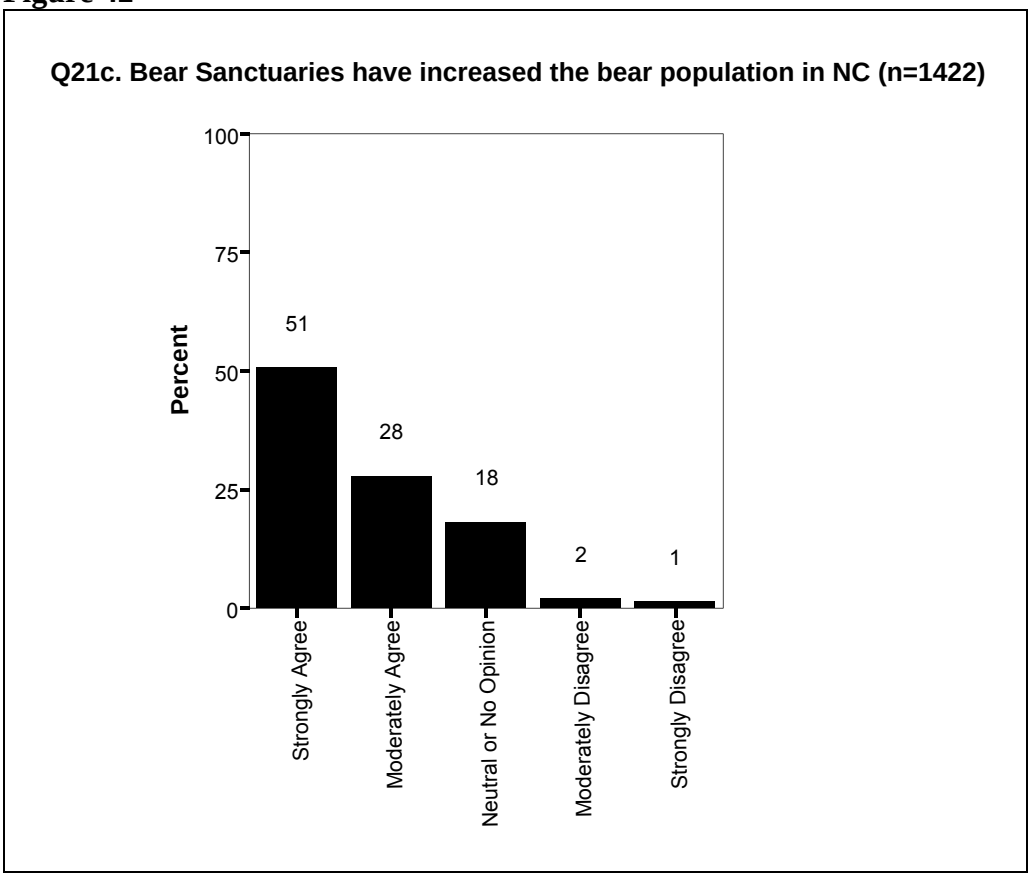


Table 38. Views on the effectiveness of Bear Sanctuaries in increasing bear population (Q21c) by region most often bear hunted during last 3 years (Q13).

Bear Sanctuaries have been effective in increasing the bear population in NC.	Mountains	Coast
Strongly Agree	51.5% (n=219)	50.9% (n=486)
Moderately Agree	27.5% (n=117)	28.1% (n=268)
Neutral or No Opinion	14.6%[a] (n=62)	19.1%[b] (n=182)
Moderately Disagree	4.0%[b] (n=17)	1.3%[a] (n=12)
Strongly Disagree	2.4%[b] (n=10)	0.7%[a] (n=7)

χ^2=20.2, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 43

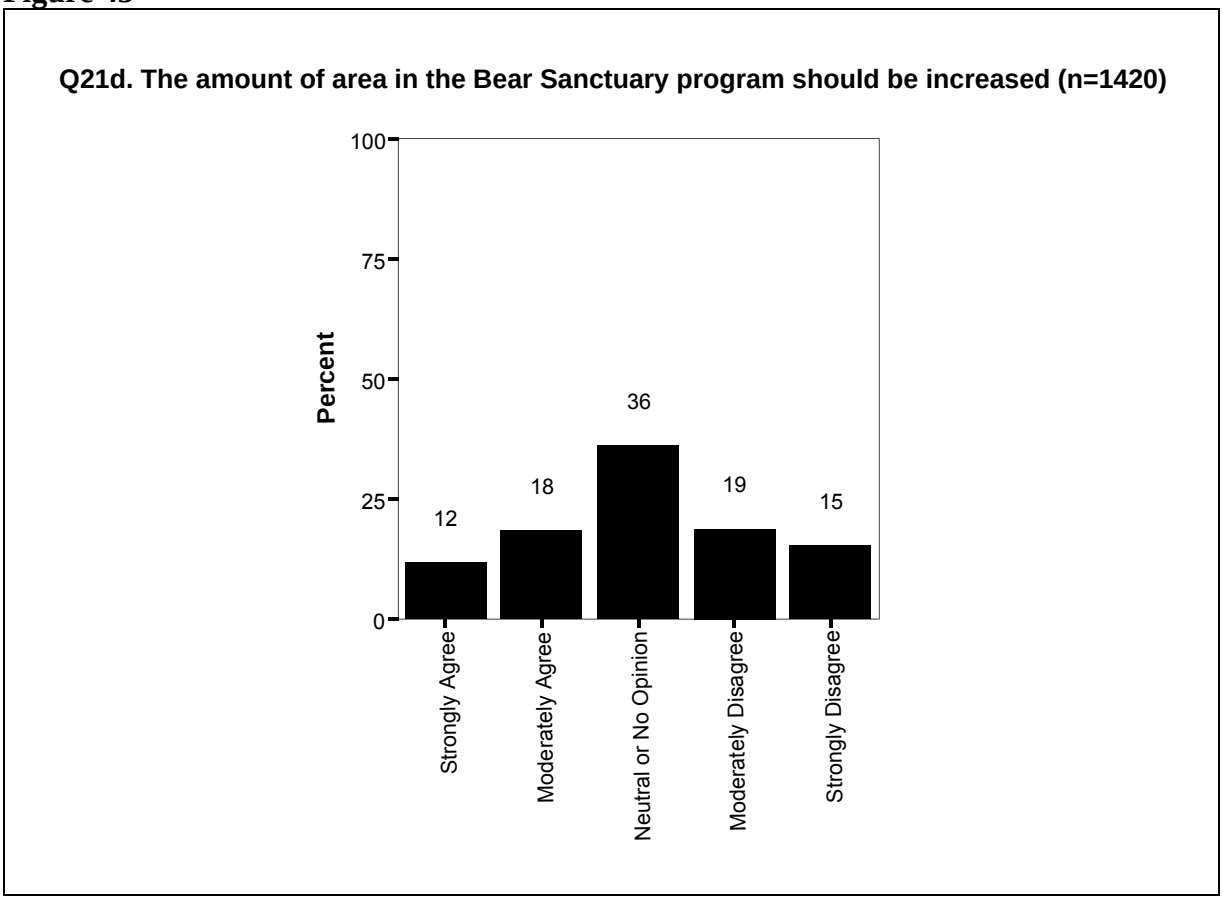


Table 39. Views on increasing the amount of area in Bear Sanctuaries (Q21d) by region most often bear hunted during last 3 years (Q13).

The amount of area in the Bear Sanctuary program should be increased.	Mountains	Coast
Strongly Agree	12.3% (n=52)	11.4% (n=109)
Moderately Agree	17.5% (n=74)	18.7% (n=178)
Neutral or No Opinion	28.6%[a] (n=121)	39.3%[b] (n=375)
Moderately Disagree	22.7%[b] (n=96)	17.2%[a] (n=164)
Strongly Disagree	18.9%[b] (n=80)	13.4%[a] (n=128)

χ^2=20.3, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Bear harvest and reporting

During the 2004 bear season (Question 22), 8% of bear hunters reported harvesting a bear in North Carolina. Hunters who had bear hunted at least 20 years in North Carolina (13%) were more likely than expected to have harvested a bear in 2004 (Table 40). Hunters who bear hunted over 80% of the time on Game Lands were significantly less likely (4%) than expected to have harvested a bear (Table 41). Still-only hunters (5%) and those that still and dog hunted about the same amount of time (2%) were significantly less likely and dog-only hunters (13%) and primarily dog hunters (15%) were significantly more likely to have harvested a bear than expected (Table 42).

Most (61%) bear hunters would prefer to report bear harvest by telephone and 31% preferred reporting bear in person at WRC check stations (Figure 44). A plurality of bear hunters (43%) were opposed to requiring reporting bear harvests in person (Figure 45). A plurality (48%) of bear hunters agreed hunters should be required to obtain a free tag to hunt bear, but 29% disagreed that this should be a requirement (Figure 46).

Table 40. Bear harvest in NC during 2004 bear season (Q22) by total years bear hunted in NC (Q2).

	Total years bear hunted			
Did you personally harvest a bear in 2004?	0-5.0	5.1-10.0	10.1-20.0	>=20.1
Yes	7.6% (n=47)	8.0% (n=23)	8.2% (n=17)	12.8%[a] (n=23)
No	92.4% (n=570)	92.0% (n=265)	91.8% (n=190)	87.2%[b] (n=157)

χ^2=5.0, df=3, p=0.174

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Table 41. Bear harvest in NC during 2004 bear season (Q22) by percent of time spent bear hunting on GL during last 3 years (Q4).

Did you personally harvest a bear in 2004?	% of time hunted on GL				
	0-20	20.1-40.0	40.1-60.0	60.1-80.0	80.1-100
Yes	9.6% (n=78)	8.8% (n=6)	8.0% (n=7)	10.6% (n=10)	3.6%[a] (n=8)
No	90.4% (n=738)	91.2% (n=62)	92.0% (n=80)	89.4% (n=84)	96.4%[b] (n=212)

χ^2=8.5, df=4, p=0.076

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Table 42. Bear harvest in NC during 2004 bear season (Q22) by use of dogs for bear hunting during last 3 years (Q8).

Did you personally harvest a bear in 2004?	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Yes	5.2%[a] (n=32)	13.0%[b] (n=50)	6.0% (n=12)	15.4%[b] (n=20)	1.5%[a] (n=1)
No	94.8%[b] (n=582)	87.0%[a] (n=336)	94.0% (n=187)	84.6%[a] (n=110)	98.5%[b] (n=67)

χ^2=33.0, df=4, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 44

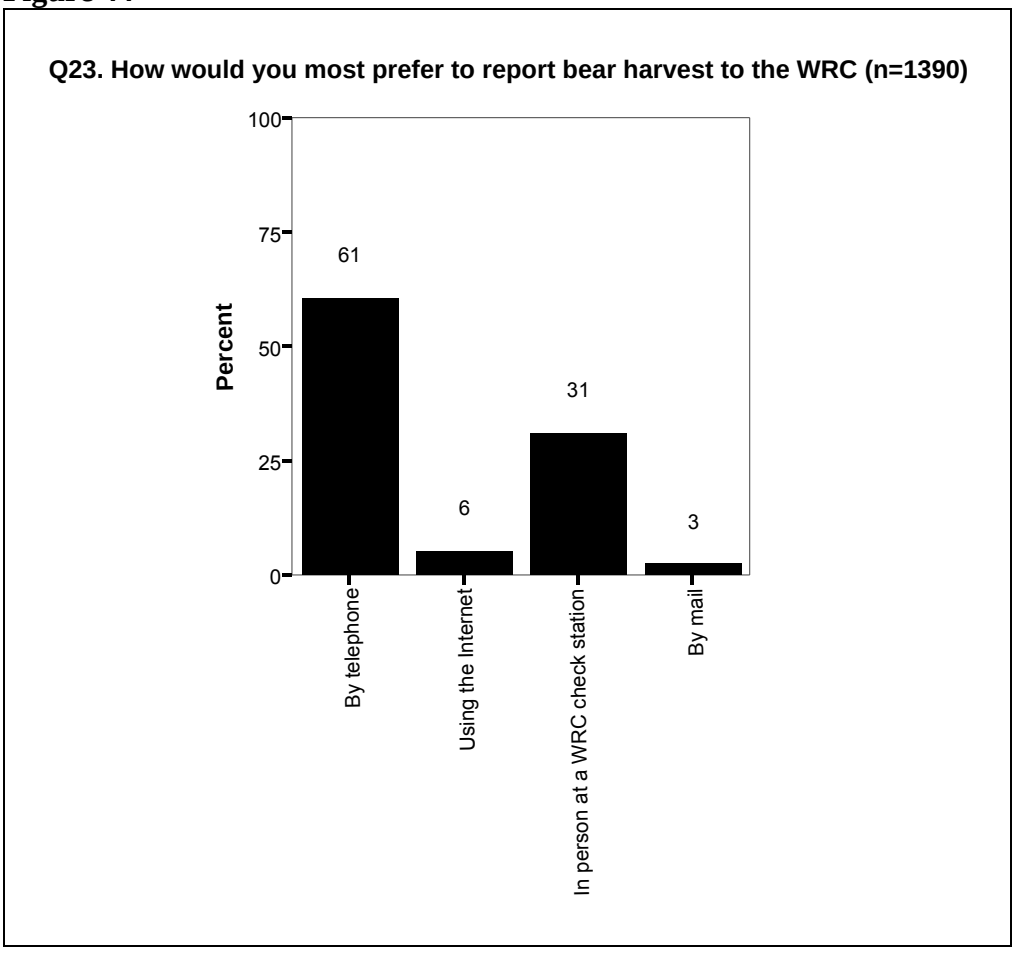

Q23. How would you most prefer to report bear harvest to the WRC (n=1390)
Percent
100
75
50
25
0
61
6
31
3
By telephone
Using the Internet
In person at a WRC check station
By mail

Figure 45

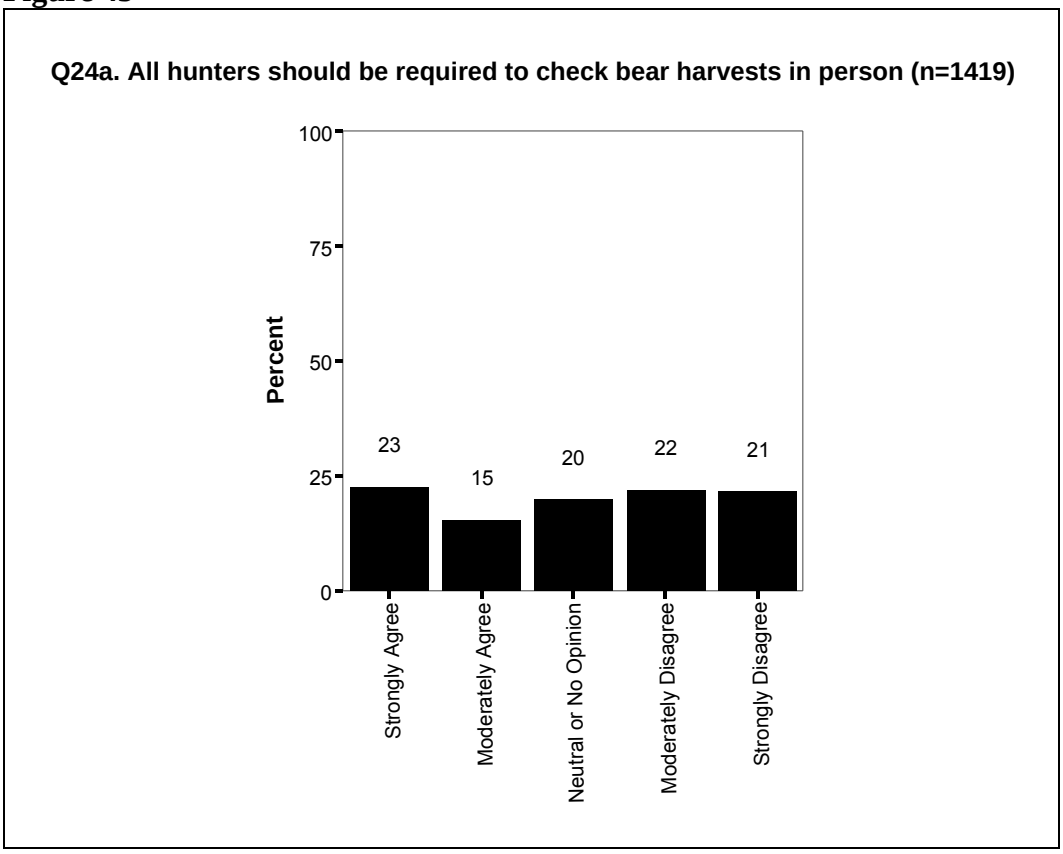
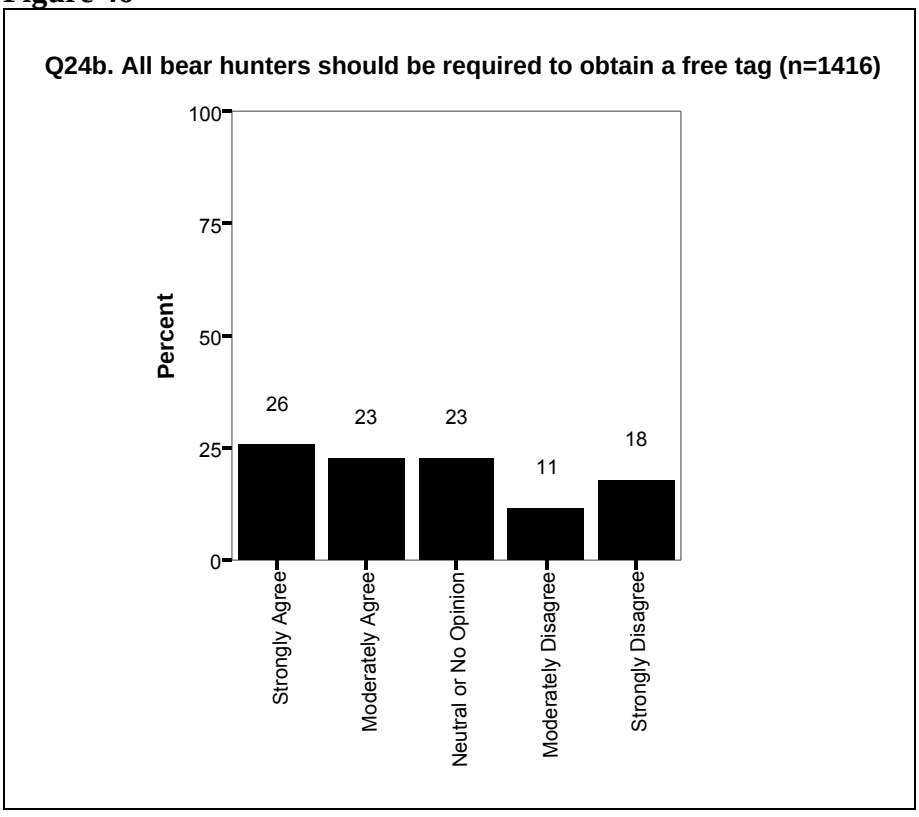


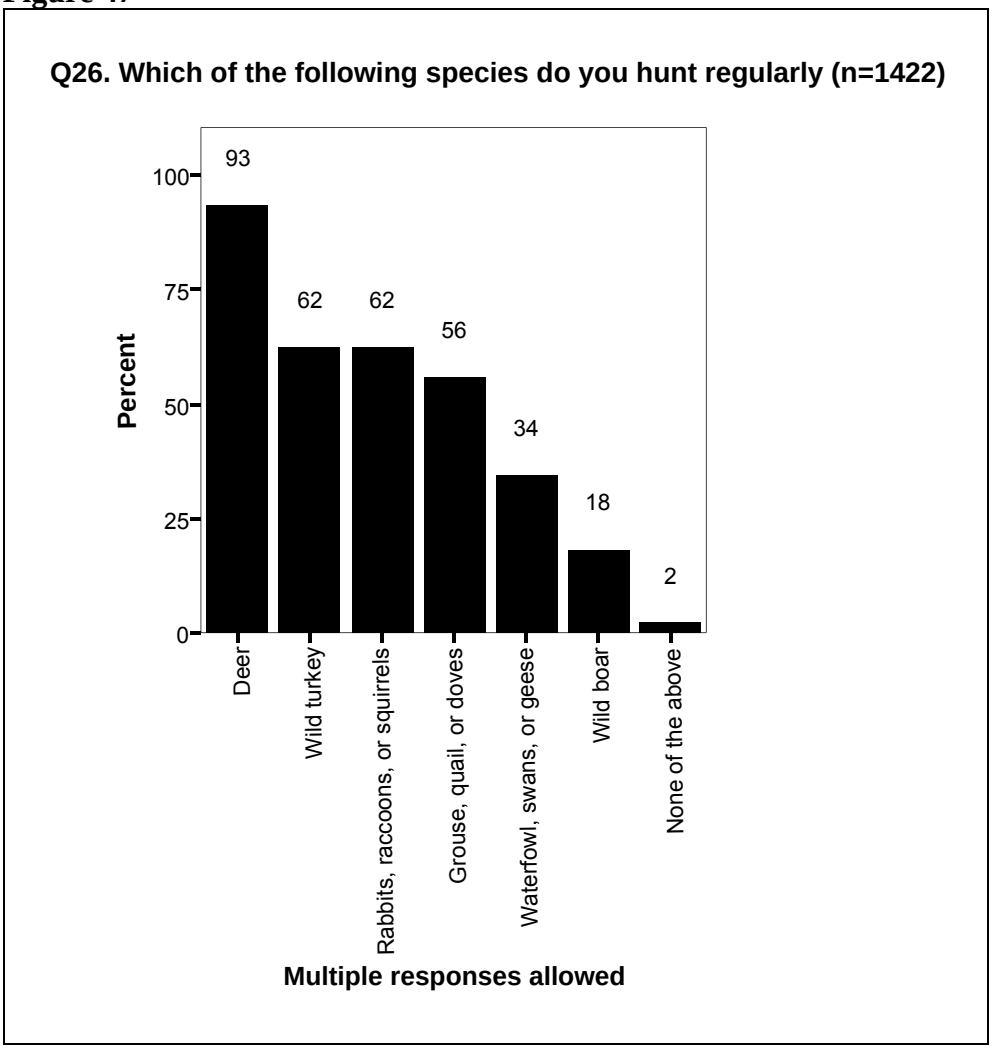
Figure 46



Hunting other species

Most (93%) bear hunters also regularly hunted deer and fewer (≤62%) regularly hunted other species (Figure 47). One focus group participant said, "If it swims, crawls, climbs, or whatever I chase it…I hunt 'em all."

Figure 47



Views on hunting ethics

A majority (54%) of bear hunters approved of hunting bears from stands over bait, while 35% opposed the hunting over bait (Figure 48). Dog-only hunters (52%) were significantly more likely and still-only hunters (14%), primarily still hunters (15%), and primarily dog hunters (17%) were significantly less likely to strongly disapprove of bear hunting over bait than expected (Table 43).

A plurality (49%) of bear hunters disapproved of hunting bears with dogs by tracking them from bait (Figure 49). Still-only hunters (50%) were more likely than expected to strongly disapprove of tracking bears from bait (Table 44).

A majority (58%) of bear hunters approved of hunting on an area where feed or bait has been used to attract bears and then removed before bear hunting season opens (Figure 50). Approval for this practice varied significantly by the use of dogs to bear hunt (Table 46).

A plurality (45%) of bear hunters disapproved of hunting from state-maintained roads (Figure 51). Still-only hunters (9%) were significantly less likely and dog-only hunters (32%) and primarily dog hunters (29%) significantly more likely to strongly approve of hunting from state-maintained roads (Table 46).

A majority of hunters (62%) approved of hunting bears with dogs (Figure 52). Predictably, dog-only hunters (86%), primarily dog hunters (83%), and those who still and dog hunted about the same (71%) were significantly more likely than expected to strongly approve of hunting bears with dogs (Table 47).

Three-quarters (76%) of bear hunters approved of hunting bears from stands on food plots or crop fields (Figure 53). Dog-only hunters (25%) were significantly more likely to strongly disapprove of hunting bears from stands on food plots or crop fields than expected (Table 48).

Most bear hunters (81%) disapproved of hunting bears that weigh less than 100 pounds (Figure 54). Coastal hunters (66%) were significantly more likely than Mountain hunters (54%) to strongly disapprove of hunting bears less than 100 pounds (Table 49).

Bear hunters were fairly split (49% approved, 44% disapproved) on their views about Sunday hunting (Figure 55). Coastal hunters (40%) were significantly more likely than Mountain hunters (32%) to strongly approve of Sunday hunting (Table 50).

A majority (51%) of bear hunters agreed that illegal bear hunting is a common problem in North Carolina (Figure 56).

Figure 48

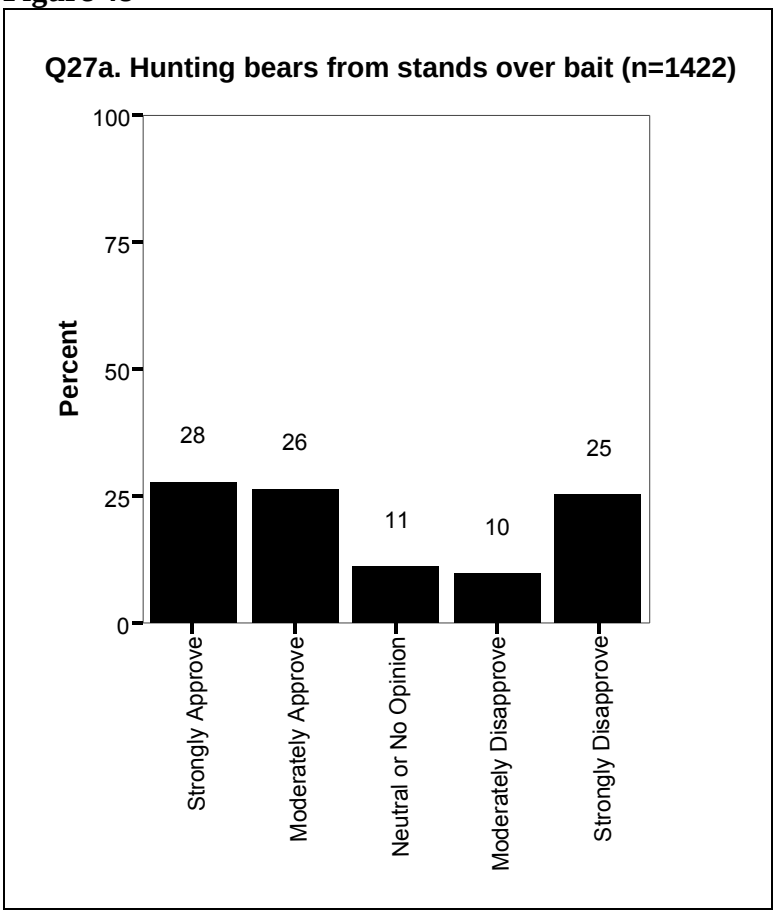


Table 43. Approval or disapproval of hunting bears from stands over bait (Q27a) by use of dogs for bear hunting during last 3 years (Q8).

Hunting bears from stands over bait.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Approve	34.5%[a] (n=213)	11.0%[b] (n=43)	35.7%[a] (n=71)	25.4% (n=33)	41.8%[a] (n=28)
Moderately Approve	32.9%[a] (n=203)	14.4%[b] (n=56)	28.6% (n=57)	32.3% (n=42)	22.4% (n=15)
Neutral or No Opinion	11.5% (n=71)	11.8% (n=46)	9.0% (n=18)	8.5% (n=11)	9.0% (n=6)
Moderately Disapprove	7.3%[b] (n=45)	10.5% (n=41)	12.1% (n=24)	16.9%[a] (n=22)	6.0% (n=4)
Strongly Disapprove	13.8%[b] (n=85)	52.3%[a] (n=204)	14.6%[b] (n=29)	16.9%[b] (n=22)	20.9% (n=14)

χ^2=266.3, df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 49

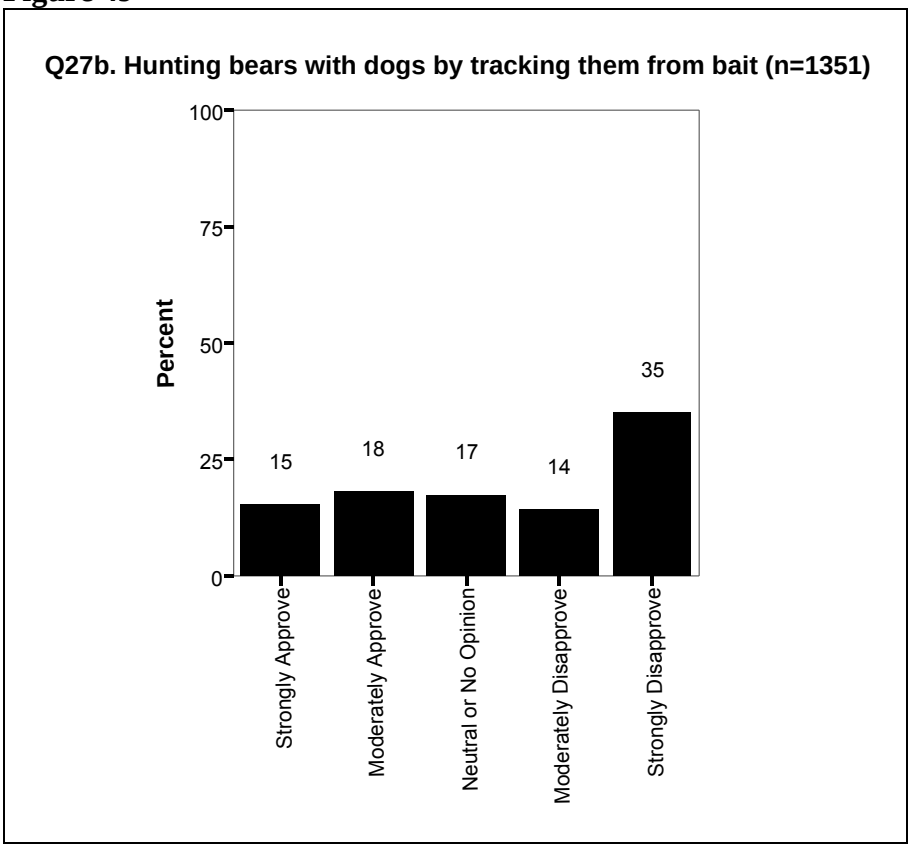


Table 44. Approval or disapproval of hunting bears by tracking them from bait (Q27b) by use of dogs for bear hunting during last 3 years (Q8).

Hunting bears with dogs by tracking them from bait.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Approve	5.3%[a] (n=32)	24.2%[b] (n=88)	21.5%[b] (n=40)	22.7%[b] (n=27)	27.4%[b] (n=17)
Moderately Approve	9.1%[a] (n=55)	25.8%[b] (n=94)	22.6% (n=42)	28.6%[b] (n=34)	21.0% (n=13)
Neutral or No Opinion	18.4% (n=111)	13.7%[a] (n=50)	22.0% (n=41)	13.4% (n=16)	21.0% (n=13)
Moderately Disapprove	17.1%[b] (n=103)	10.7%[a] (n=39)	14.0% (n=26)	15.1% (n=18)	8.1% (n=5)
Strongly Disapprove	50.0%[b] (n=301)	25.5%[a] (n=93)	19.9%[a] (n=37)	20.2%[a] (n=24)	22.6%[a] (n=14)

χ^2=207.0, df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 50

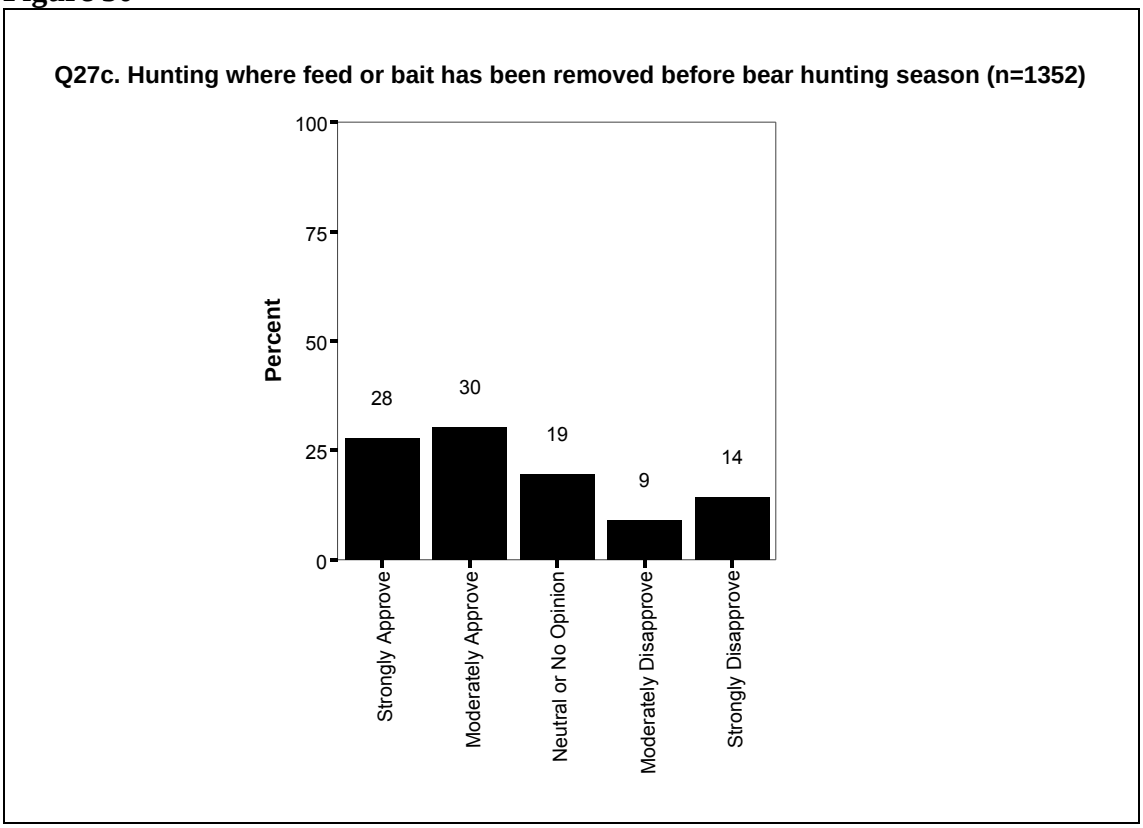


Table 45. Approval or disapproval of hunting an area where feed or bait has been used to attract bears and then removed before bear hunting season opens (Q27c) by use of dogs for bear hunting during last 3 years (Q8).

Hunting where feed or bait has been used and removed prior to bear season.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Approve	24.5%[a] (n=147)	29.9% (n=109)	27.1% (n=51)	29.2% (n=35)	40.3%[b] (n=25)
Moderately Approve	29.7% (n=178)	28.8% (n=105)	31.9% (n=60)	35.8% (n=43)	24.2% (n=15)
Neutral or No Opinion	21.3% (n=128)	16.7% (n=61)	20.2% (n=38)	19.2% (n=23)	14.5% (n=9)
Moderately Disapprove	10.0% (n=60)	9.6% (n=35)	7.4% (n=14)	6.7% (n=8)	4.8% (n=3)
Strongly Disapprove	14.5% (n=87)	15.1% (n=55)	13.3% (n=25)	9.2% (n=11)	16.1% (n=10)

χ^2=18.3, df=16, p=0.309

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 51

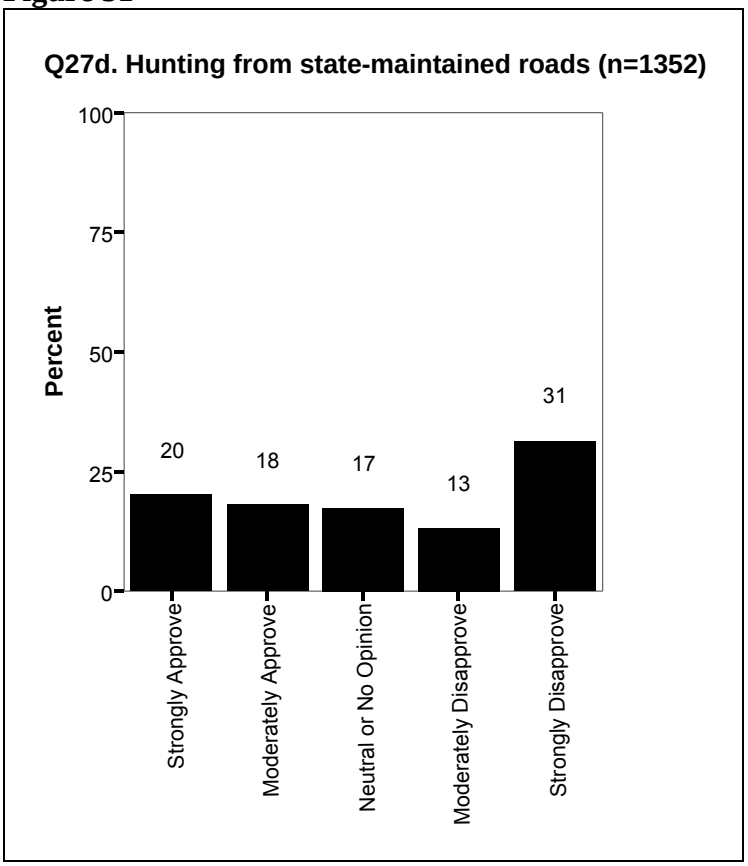


Table 46. Approval or disapproval of hunting from state-maintained roads (Q27d) by use of dogs for bear hunting during last 3 years (Q8).

Hunting from state-maintained roads.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Approve	8.5%[a] (n=51)	32.4%[b] (n=119)	24.6% (n=46)	29.2%[b] (n=35)	24.2% (n=15)
Moderately Approve	11.2%[a] (n=67)	26.2%[b] (n=96)	22.5% (n=42)	20.8% (n=25)	14.5% (n=9)
Neutral or No Opinion	16.9% (n=101)	17.4% (n=64)	16.6% (n=31)	17.5% (n=21)	21.0% (n=13)
Moderately Disapprove	15.5%[b] (n=93)	8.7%[a] (n=32)	16.0% (n=30)	15.8% (n=19)	9.7% (n=6)
Strongly Disapprove	47.9%[b] (n=287)	15.3%[a] (n=56)	20.3%[a] (n=38)	16.7%[a] (n=20)	30.6% (n=19)

χ^2=216.5, df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 52

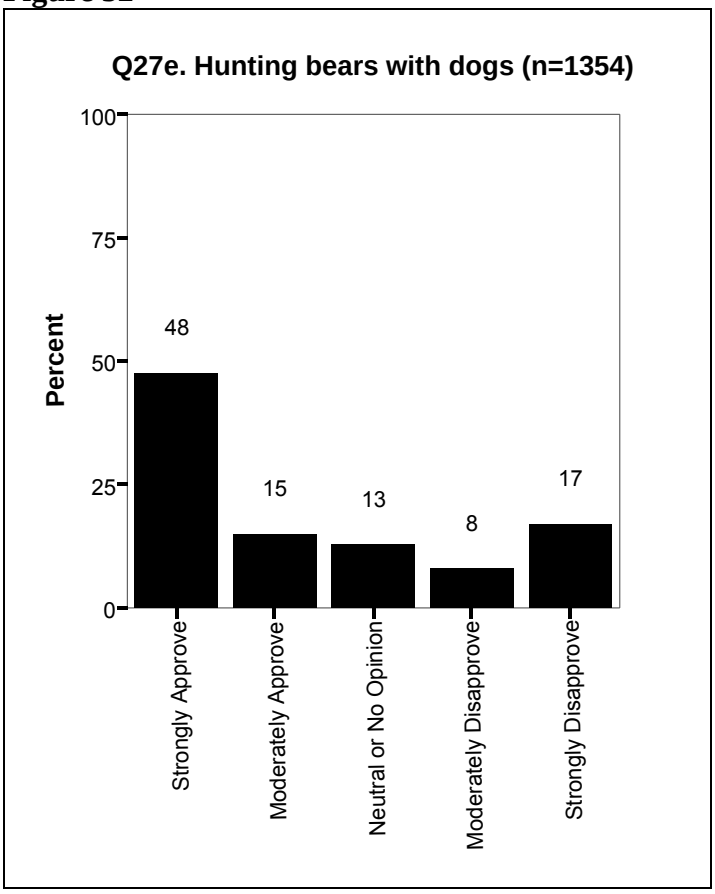


Table 47. Approval or disapproval of hunting bears with dogs (Q27e) by use of dogs for bear hunting during last 3 years (Q8).

Hunting bears with dogs.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Approve	11.7%[a] (n=70)	86.4%[b] (n=317)	53.2% (n=100)	82.5%[b] (n=99)	71.0%[b] (n=44)
Moderately Approve	15.3% (n=92)	8.2%[a] (n=30)	23.9%[b] (n=45)	15.0% (n=18)	19.4% (n=12)
Neutral or No Opinion	22.8%[b] (n=137)	3.3%[a] (n=12)	11.2% (n=21)	0.8%[a] (n=1)	6.5% (n=4)
Moderately Disapprove	14.7%[b] (n=88)	1.1%[a] (n=4)	6.4% (n=12)	0.8%[a] (n=1)	1.6% (n=1)
Strongly Disapprove	35.5%[b] (n=213)	1.1%[a] (n=4)	5.3%[a] (n=10)	0.8%[a] (n=1)	1.6%[a] (n=1)

χ^2=713.7, df=16, p=0.001

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 53

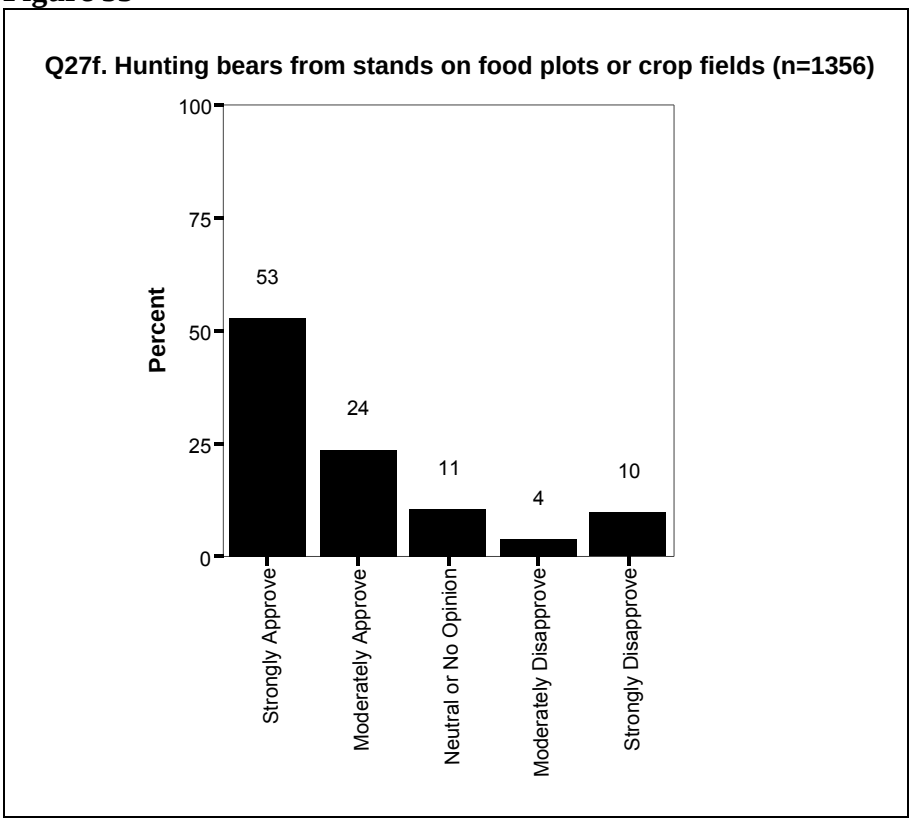


Table 48. Approval or disapproval of hunting bears from stands on food plots or crop fields (Q27f) by use of dogs for bear hunting during last 3 years (Q8).

Hunting bears from stands on food plots or crop fields.	Only still hunted	Only hunted with dogs	Most often still hunted, but also hunted with dogs	Most often hunted with dogs, but also still hunted	Still hunted and hunted with dogs about the same
Strongly Approve	58.6%[a] (n=353)	31.3%[b] (n=115)	66.0%[a] (n=124)	63.3%[a] (n=76)	64.5% (n=40)
Moderately Approve	26.6%[a] (n=160)	19.1%[b] (n=70)	21.3% (n=40)	23.3% (n=28)	22.6% (n=14)
Neutral or No Opinion	8.8% (n=53)	17.2%[a] (n=63)	5.9%[b] (n=11)	7.5% (n=9)	8.1% (n=5)
Moderately Disapprove	1.5%[b] (n=9)	7.6%[a] (n=28)	3.2% (n=6)	4.2% (n=5)	1.6% (n=1)
Strongly Disapprove	4.5%[b] (n=27)	24.8%[a] (n=91)	3.7%[b] (n=7)	1.7%[b] (n=2)	3.2% (n=2)

χ^2=220.4, df=16, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 54

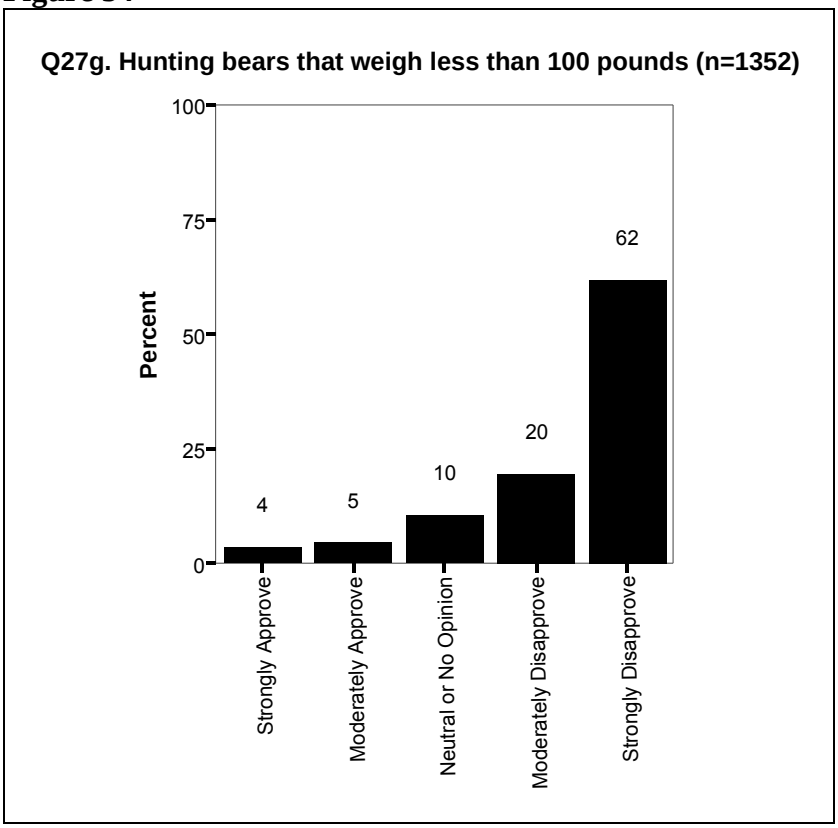


Table 49. Approval or disapproval of hunting bears that weigh less than 100 pounds (Q27g) by region most often bear hunted during last 3 years (Q13).

Hunting bears < 100 lbs.	Mountains	Coast
Strongly Approve	4.9%[a] (n=20)	2.8%[b] (n=25)
Moderately Approve	7.9%[a] (n=32)	3.5%[b] (n=32)
Neutral or No Opinion	12.3% (n=50)	9.3% (n=84)
Moderately Disapprove	21.0% (n=85)	18.9% (n=171)
Strongly Disapprove	53.8%[b] (n=218)	65.6%[a] (n=595)

χ^2=24.4, df=4, p=0.001

[a]Adjusted residual ≥ 2.0.
[b]Adjusted residual ≤ -2.0.

Figure 55

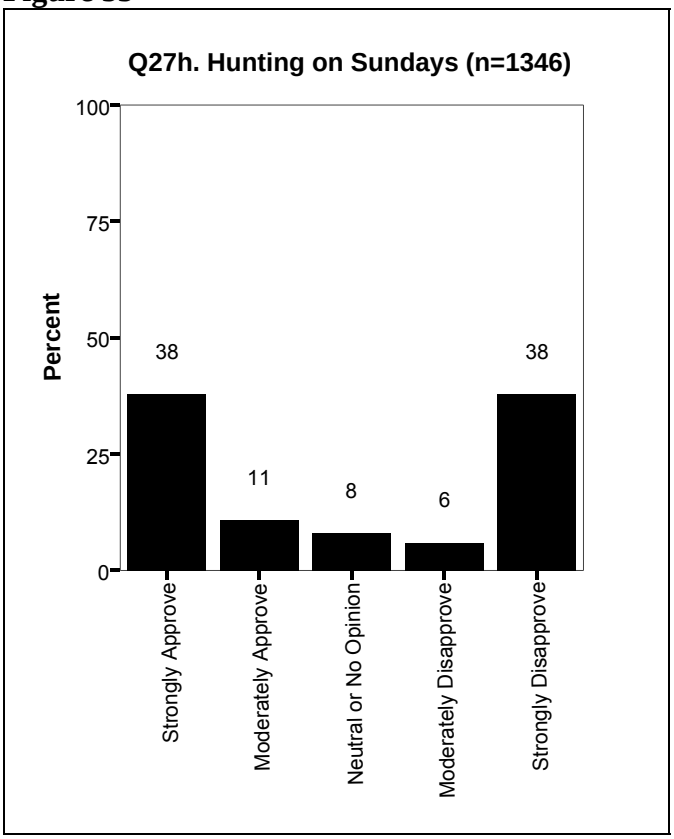


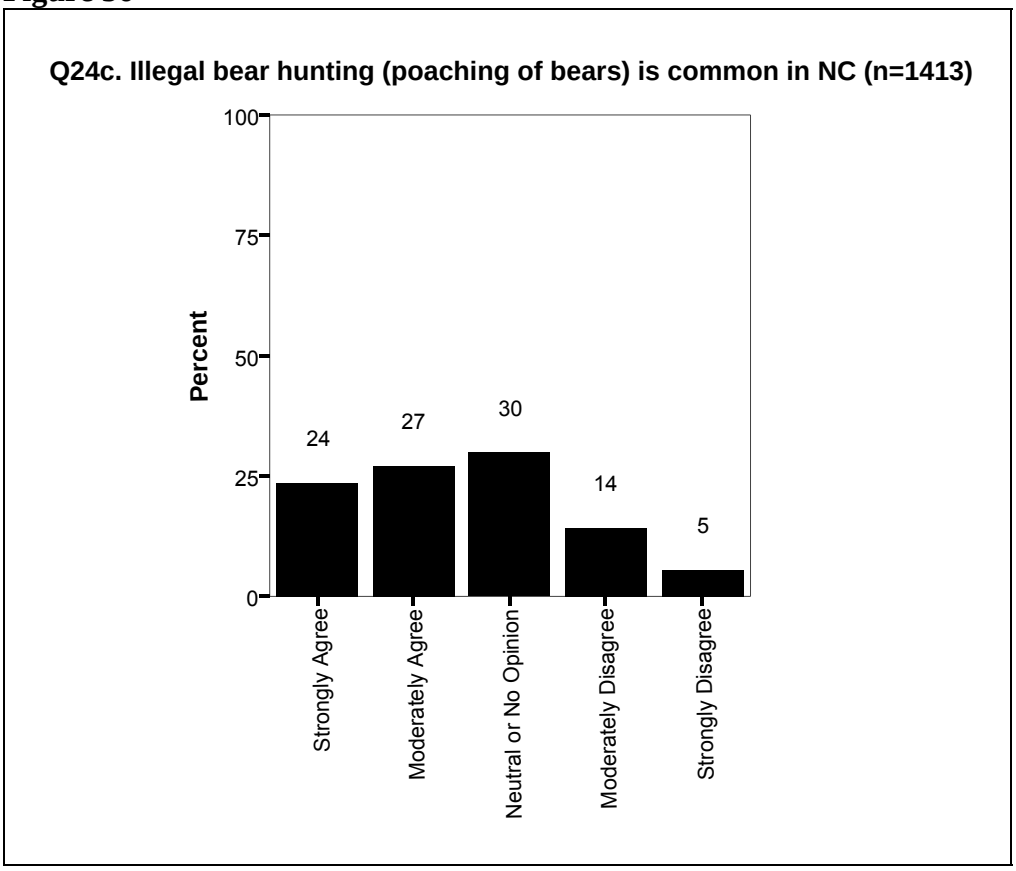
Table 50. Approval or disapproval of hunting on Sundays (Q27h) by region most often bear hunted during last 3 years (Q13).

Hunting on Sundays.	Mountains	Coast
Strongly Approve	31.9%[a] (n=129)	40.0%[b] (n=361)
Moderately Approve	8.9% (n=36)	11.8% (n=107)
Neutral or No Opinion	7.7% (n=31)	8.2% (n=74)
Moderately Disapprove	7.7% (n=31)	5.1% (n=46)
Strongly Disapprove	44.0%[b] (n=178)	34.9%[a] (n=315)

χ^2=16.5, df=4, p=0.002

[a]Adjusted residual ≤ -2.0.
[b]Adjusted residual ≥ 2.0.

Figure 56



Demographics and background information

Most (94%, n=1272) bear hunters lived in North Carolina (Question 28). Nearly all (98%, n=1327) bear hunters were male (Question 31); the overall North Carolina population is 48% male (Census 2000). Most (92%) bear hunters were at least high school graduates (Figure 57), 45% were at least age 45 (Figure 58), and 68% had annual gross household incomes of at least $40,000 (Figure 59). By contrast, for the general population in North Carolina, 78% are high school graduates, 45% are at least age 45, and 49% have annual household incomes of $40,000 or more (Census 2000).

Figure 57

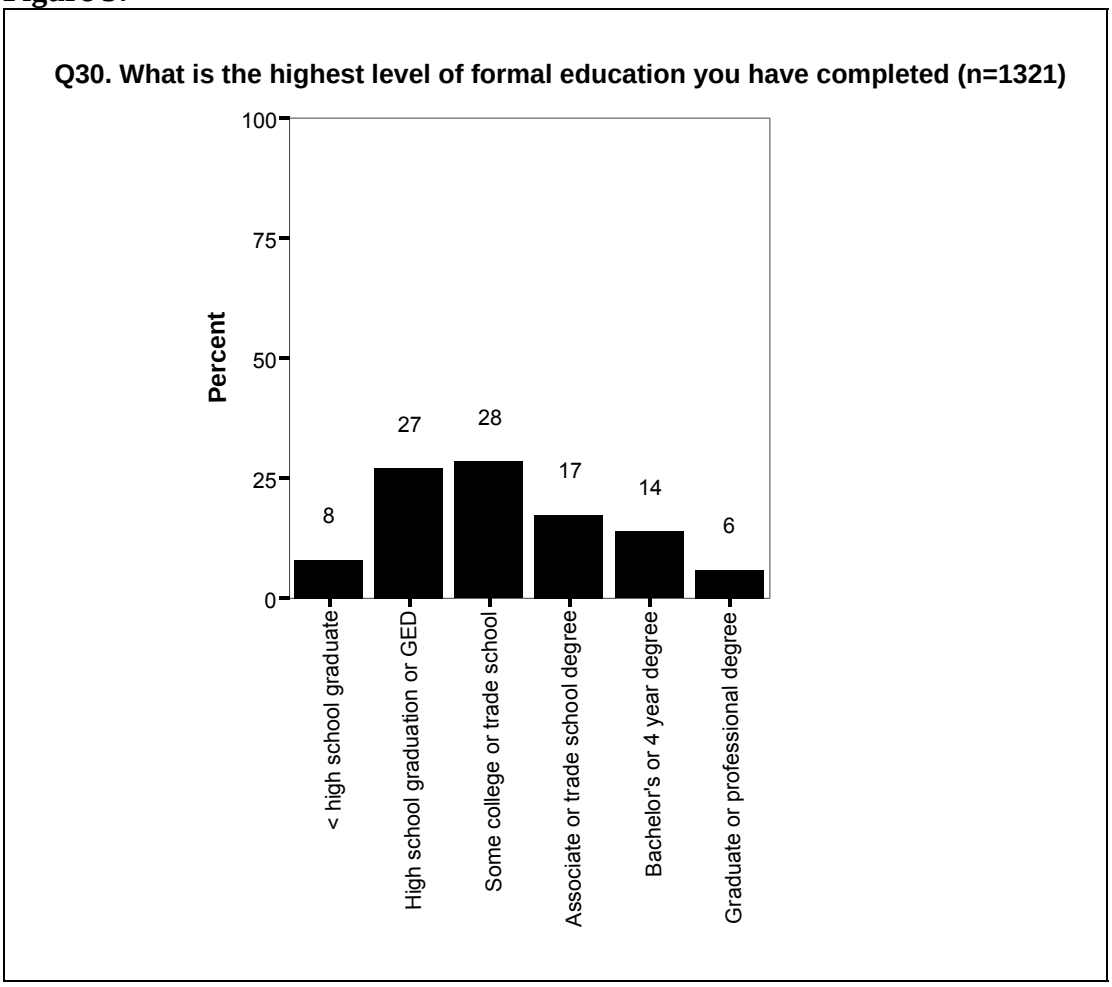

Q30. What is the highest level of formal education you have completed (n=1321)
Percent
100
75
50
25
0
8
27
28
17
14
6
< high school graduate
High school graduation or GED
Some college or trade school
Associate or trade school degree
Bachelor's or 4 year degree
Graduate or professional degree

Figure 58

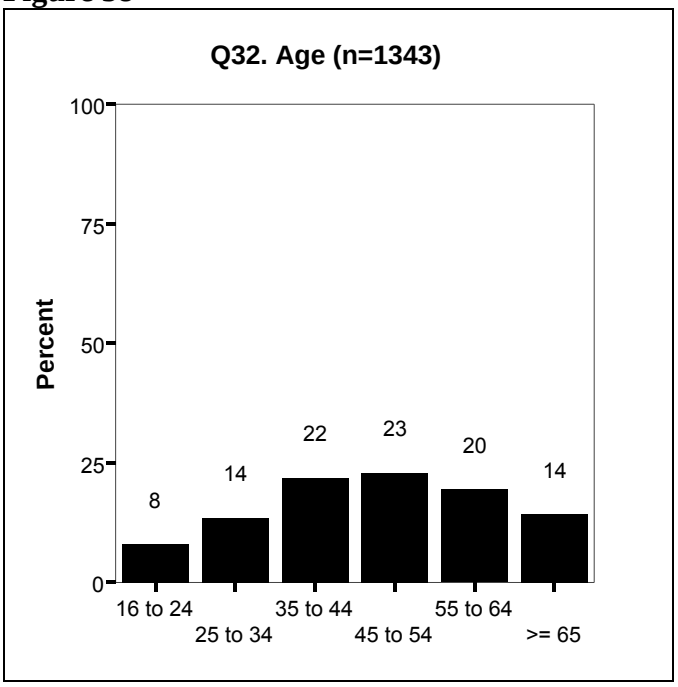
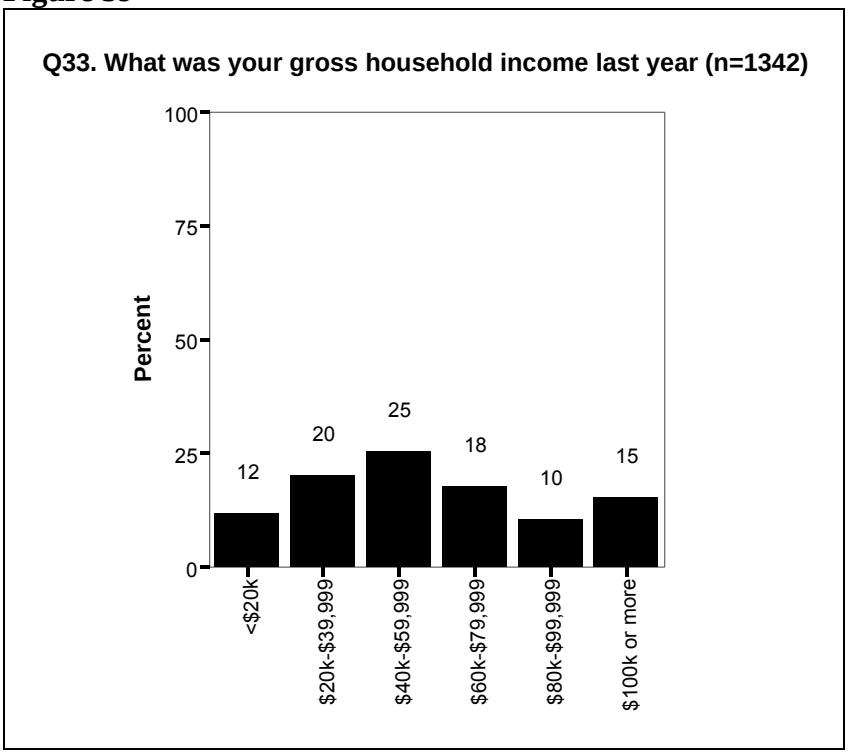


Figure 59



Management Implications

Areas bear hunted

Mountain hunters were more likely than Coastal hunters to have hunted on Game Lands. This may indicate a high importance for public hunting areas in the Mountains. Or, this may point to a lack of opportunity for bear hunting on Game Lands on the Coast.

Regulations to affect bear harvest

Low bear abundance and belief that the size of individual bears was too small was more of a concern to Mountain bear hunters than those that hunted on the Coast. This may be why Mountain bear hunters were generally less likely to support measures that could increase bear harvest (e.g., increasing bear season length, having an early bow and arrow or muzzleloader season) and more likely to support regulations changes that could potentially decrease bear harvest (e.g., decreasing the season length) than Coastal hunters.

Statewide, pluralities of hunters believed the current length of the bear season where they most often hunted was about the right length. However, majorities of hunters in the shorter Coastal bear seasons believed the season length was too short. The lengthening of these seasons would likely be less controversial than lengthening the Mountain season, because there was substantial opposition by Mountain hunters to lengthening the season to meet WRC bear population goals. Coastal bear hunters would also probably be more likely to support having earlier bear hunting seasons than Mountain hunters.

Raising the current bear bag limit would likely be met with substantial opposition, especially by Mountain hunters. Having an early bow and arrow or muzzleloader season would likely be opposed by many dog hunters.

Bear Sanctuaries

Most North Carolina bear hunters seem convinced that Bear Sanctuaries have been effective in increasing bear populations and many would likely support having limited permit hunting on Sanctuaries; however, there would likely be more opposition to bear permit hunts on Sanctuaries in the Mountains. Decreasing the amount of area in Bear Sanctuaries would probably face substantial opposition; again, Mountain hunters would likely be more opposed to this than Coastal hunters.

Bear hunting techniques

Views on baiting bears varied depending on how the baiting was done. Hunting where bait has been removed and hunting from stands over bait were supported by higher proportions of bear hunters than tracking bears with dogs from bait.

There was strong opposition to hunting bears weighing less than 100 pounds, although a ban on hunting bears less than 100 pounds would likely have more support in the Coastal than the Mountains.

There is a perception by many hunters that poaching of bears is common in North Carolina and this may contribute to some of the opposition to regulations changes that could increase bear harvest.

Literature Cited

Agresti, A. and B. Finlay. 1999. Statistical methods for the social sciences, Third edition. Prentice Hall, Upper Saddle River, New Jersey, USA.

Dillman, D.A. 2000. Mail and internet surveys: the tailored design method. John Wiley & Sons, Inc., New York, New York, USA.

Appendix A: Survey Instrument

2005 North Carolina Bear Hunter Survey

This survey is an opportunity for you to let us know about experiences you may or may not have had while bear hunting in North Carolina and to tell us your views on how bears are managed in North Carolina.

Bear Hunting Experience

1. Have you ever bear hunted in North Carolina?
   - ☐ 1. Yes → **Continue to question 2.**
   - ☐ 2. No → **Please stop here and return the survey.**

2. How many <u>total years</u> have you hunted bear in North Carolina?
   _____ Years

3. During which of the last three bear hunting seasons did you hunt bear in North Carolina? **Check all that apply**.
   - ☐ 1. I hunted bear in 2004 → **Continue to question 4.**
   - ☐ 2. I hunted bear in 2003 → **Continue to question 4.**
   - ☐ 3. I hunted bear in 2002 → **Continue to question 4.**
   - ☐ 4. I did not hunt bear in North Carolina during any of these years → **Please stop here and return the survey.**

4. Please estimate the percentage of your time <u>during the last three years</u> spent bear hunting in North Carolina that was done on public Game Lands managed by the N.C. Wildlife Resources Commission and on private land. (Enter "0%" if you did not hunt at all on a particular type of land.)

	Type of Land	Percentage of Time Spent Bear Hunting
1.	Game Lands	%
2.	Private land	%
3.	Total	100%

5. Did you lease any land <u>in the past year</u> for the primary purpose of bear hunting?
   - ☐ 1. Yes → **Continue to question 6.**
   - ☐ 2. No → **Skip to question 7.**

6. How much money did you spend on bear hunting leases in North Carolina in the past year? $_____

7. Please list all of the counties in which you hunted bear in North Carolina during the 2004 bear season and indicate how many different days you hunted in each county. (Any part of a day hunted in a county should be counted as 1 day.) **Check "None" if you did not hunt during the 2004 bear season.**

	County Name	Number of Days Bear Hunted in Past Year
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

☐ None

Hunting Methods

8. When bear hunting in North Carolina during the last three years, did you still hunt, hunt with dogs, or both still hunt and hunt with dogs? **Check one**.
   - ☐ 1. Only still hunted
   - ☐ 2. Only hunted with dogs
   - ☐ 3. Most often still hunted, but also hunted with dogs
   - ☐ 4. Most often hunted with dogs, but also still hunted
   - ☐ 5. Still hunted and hunted with dogs about the same amount of time

9. Do you own any dogs for the primary purpose of bear hunting?
   - ☐ 1. Yes
   - ☐ 2. No

10. During the last three years, what weapon did you most often use for bear hunting? **Check one**.
    - ☐ 1. Rifle
    - ☐ 2. Shotgun
    - ☐ 3. Pistol
    - ☐ 4. Muzzleloader
    - ☐ 5. Bow and arrow

11. When bear hunting in North Carolina during the last three years, what was the typical or average size of your hunting party?

    _____ People

Views on Bear Management

Please indicate the extent to which you agree or disagree with the following statement:

12. I generally support how wildlife managers with the North Carolina Wildlife Resources Commission manage black bears. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

13. In what county in North Carolina have you spent the most time bear hunting during the last three years? **Enter only one county.**

    _____ County

14. Please indicate the extent to which you agree or disagree with the following statements for the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years:

    a. The length of the bear season was… **Circle one**.

Much Too Short	A Little Too Short	About the Right Length	A Little Too Long	Much Too Long
1	2	3	4	5

    b. The timing of the bear season was... **Circle one**.

Much Too Early	A Little Too Early	About Right	A Little Too Late	Much Too Late
1	2	3	4	5

    c. The current abundance (numbers) of bears is... **Circle one**.

Much Too Low	A Little Too Low	About Right	A Little Too High	Much Too High
1	2	3	4	5

d. The current size of individual bears is... **Circle one**.

Much Too Small	A Little Too Small	About Right	A Little Too Large	Much Too Large
1	2	3	4	5

e. The number of Wildlife Resources Commission check stations for reporting bear harvests was… **Circle one**.

Much Too Few	A Little Too Few	About Right	A Little Too Many	Much Too Many
1	2	3	4	5

f. I am satisfied with the current statewide bag limit of 1 bear per hunter per season. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

15. The Wildlife Resources Commission sets bear population goals for the numbers of bears in North Carolina based on bear habitat, human population, and the desires of citizens, including hunters. Please indicate the extent to which you support or oppose each of the following possible bear hunting regulations changes ***in order to meet bear population goals set by the Wildlife Resources Commission*** in the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years:

a. Increasing the season length. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

b. Decreasing the season length. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

c. Having an earlier season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

d. Having a later season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

e. Having a bow and arrow season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

f. Having a muzzleloading season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

g. Increasing the 1 bear per hunter per season bag limit. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

16. When people and bears live in the same area, conflicts may occur. Please indicate the extent to which you support or oppose each of the following possible hunting regulations changes ***in order to decrease conflicts between bears and humans*** in the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years:

a. Increasing the season length. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

b. Having an earlier season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

c. Having a later season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

d. Having a bow and arrow season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

e. Having a muzzleloading season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

f. Increasing the 1 bear per hunter per season bag limit. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

17. Please indicate the extent to which you support or oppose each of the following possible hunting regulations changes ***in order to limit hunter disturbance by other hunters*** in the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years:

a. Increasing the season length. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

b. Having a bow and arrow season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

c. Having a muzzleloading season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

18. Please indicate the extent to which you support or oppose each of the following possible hunting regulations changes ***in order to increase opportunities for hunting*** in the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years:

a. Increasing the season length. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

b. Having a bow and arrow season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

c. Having a muzzleloading season before the gun season. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

d. Increasing the 1 bear per hunter per season bag limit. **Circle one**.

Strongly Support	Slightly Support	Neutral or No Opinion	Moderately Oppose	Strongly Oppose
1	2	3	4	5

Bear Population Levels and Hunting Participation

19. In your opinion, how has the black bear population changed during the past five years in the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years? **Check one**.
    - ☐ 1. The bear population has decreased.
    - ☐ 2. The bear population has remained the same.
    - ☐ 3. The bear population has increased.
    - ☐ 4. I am unsure.

20. In your opinion, how have the numbers of other bear hunters changed during the past five years in the county in North Carolina (question 13) in which you spent the most time bear hunting during the last three years? **Check one**.
    - ☐ 1. The number of bear hunters has decreased.
    - ☐ 2. The number of bear hunters has remained the same.
    - ☐ 3. The number of bear hunters has increased.
    - ☐ 4. I am unsure.

21. The Wildlife Resources Commission has set aside Bear Sanctuaries in North Carolina where bear hunting is currently not allowed. To what extent do you agree or disagree with the following statements about Bear Sanctuaries?

a. Limited permit hunting should be allowed on Bear Sanctuaries if wildlife managers determine it is necessary to keep bear populations from growing too rapidly. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

b. The amount of area in the Bear Sanctuary program should be decreased if wildlife managers determine it is necessary to keep bear populations from growing too rapidly. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

c. Bear Sanctuaries have been effective in increasing the bear population in North Carolina. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

d. The amount of area in the Bear Sanctuary program should be increased. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

Bear Harvest and Reporting

22. Did you personally harvest a bear in North Carolina during the 2004 bear season?

- ☐ 1. Yes
- ☐ 2. No

23. How would you most prefer to report bear harvest to the Wildlife Resources Commission? **Check one**.

- ☐ 1. By telephone
- ☐ 2. Using the Internet
- ☐ 3. In person at a Wildlife Resources Commission check station
- ☐ 4. By mail

24. To what extent do you agree or disagree with the following statements?

a. All bear hunters should be required to check their bear harvests in person with a Wildlife Resources Commission representative. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

b. All bear hunters should be required to obtain a free tag, separate from the Big Game license, which would allow the Wildlife Resources Commission to identify and count the numbers of bear hunters. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

c. Illegal bear hunting (poaching of bears) is a common problem in North Carolina. **Circle one**.

Strongly Agree	Moderately Agree	Neutral or No Opinion	Moderately Disagree	Strongly Disagree
1	2	3	4	5

Conservation Organizations

25. Please list any organizations related to hunting or conservation that you have been a member of or contributed money to in the last 3 years. **Check "None" if you have not belonged to any.**

    _____

    _____

    _____

    ☐ None

Hunting Other Species

26. Which of the following species (other than bear) do you hunt regularly? **Check all that apply**.

    ☐ 1. Deer
    ☐ 2. Wild turkey
    ☐ 3. Wild boar
    ☐ 4. Waterfowl, swans, or geese
    ☐ 5. Rabbits, raccoons, or squirrels
    ☐ 6. Grouse, quail, or doves
    ☐ 7. None of the above.

Views on Hunting Ethics

27. To what extent do you approve or disapprove of the use of following bear hunting techniques?

    a. Hunting bears from stands over bait. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

b. Hunting bears with dogs by tracking them from bait. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

c. Hunting on an area where feed or bait has been used to attract bears and then removed before bear hunting season opens. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

d. Hunting from state-maintained roads. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

e. Hunting bears with dogs. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

f. Hunting bears from stands on food plots or crop fields. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

g. Hunting bears that weigh less than 100 pounds. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

h. Hunting on Sundays. **Circle one**.

Strongly Approve	Moderately Approve	Neutral or No Opinion	Moderately Disapprove	Strongly Disapprove
1	2	3	4	5

Background Information

In order for us to understand people's responses to the previous questions more fully, we need to know a few things about your background. Remember that your responses are completely confidential.

28. In what state do you live? **Check one**.
    - ☐ 1. North Carolina
    - ☐ 2. Other _____

29. In what county do you live?
    _____ County

30. What is the highest level of formal education you have completed? **Check one**.
    - ☐ 1. Less than a high school graduate
    - ☐ 2. High school graduation or GED
    - ☐ 3. Some college or trade school
    - ☐ 4. Associate or trade school degree
    - ☐ 5. Bachelor's or four year degree
    - ☐ 6. Graduate or professional degree

31. Are you male or female?
    - ☐ 1. Male
    - ☐ 2. Female

32. In what year were you born? _____

33. Which of the following best represents your gross household income (before taxes) last year? **Check one**.

- ☐ 1. Less than $20,000
- ☐ 2. $20,000 to $39,999
- ☐ 3. $40,000 to $59,999
- ☐ 4. $60,000 to $79,999
- ☐ 5. $80,000 to $99,999
- ☐ 6. $100,000 or more

Thank you for helping us with this project!

If you have any other comments you would like to share with us, please use the space below.

Please use the enclosed addressed and postage-paid envelope, or return this survey to:

Bear Hunter Surveys
N.C. Wildlife Resources Commission
1724 Mail Service Center
Raleigh, NC 27699-1724