

Responsive Management



Issues Related to Hunting and Fishing Access in the United States: A Literature Review

January 2004

Prepared for the Theodore Roosevelt Conservation Partnership

Issues Related to Hunting and Fishing Access in the United States: A Literature Review

January 2004

Responsive Management National Office

Mark Damian Duda, Executive Director
Peter E. De Michele, Ph.D., Director of Research
Carol Zurawski, Research Associate
Martin Jones, Research Associate
Joy E. Yoder, Research Associate
William Testerman, Survey Center Manager
Alison Lanier, Business Manager
Steven J. Bissell, Ph.D., Qualitative Research Associate
Ping Wang, Ph.D., Quantitative Research Associate
James B. Herrick, Ph.D., Research Associate

130 Franklin Street
Harrisonburg, VA 22801
Phone: 540/432-1888 Fax: 540/432-1892
E-mail: mark@responsivemanagement.com
www.responsivemanagement.com

TABLE OF CONTENTS

Introduction and Overview of Findings.....	1
Chapter One: Hunter Access Issues.....	7
The Importance of Hunting in the United States	7
Access Issues as a Cause of Hunter Dissatisfaction	10
The Physical Aspect of Access	20
Access to Public Lands	25
Access to Private Lands	30
Research Implications for Improving Hunter Access to Private Lands.....	38
Chapter Two: Angler Access Issues	48
The Importance of Fishing in the United States	48
Access Issues as a Cause of Angler Dissatisfaction	51
Access to Public Lands	58
Access to Private Lands	68
Chapter Three: The Psychological Aspect of Access.....	75
Literature Cited	82
Appendices.....	85

INTRODUCTION AND OVERVIEW OF FINDINGS

This report is a literature review pertaining to hunter and angler access issues in the United States. This review was conducted by Responsive Management for the Theodore Roosevelt Conservation Partnership (TRCP). The TRCP helped to develop legislation – The Voluntary Public Access and Habitat Incentive Program, or Open Fields – aimed at maintaining and expanding access for hunting and fishing. This legislation calls for the expenditure of up to \$50 million annually over the next 4 years to encourage private landowners (of farm and ranch land) to make their lands available for public access under state administered programs. This literature review provides background and support for the ongoing development of this legislation.

Hunting and fishing are historically important cultural and recreational activities in the United States. Research has shown that access to land for hunting and fishing is becoming more of a problem and is a cause of hunter and angler dissatisfaction. This report explores issues related to hunting and fishing access on public and private lands and also explores both the physical and psychological aspects of access.

A summary of the major findings from this literature review is provided below:

- Hunting and fishing are important historical, social, and cultural outdoor recreation activities in the United States that enjoy broad public support.
- Causes for the decline in hunting and fishing participation and reasons for hunter and angler dissatisfaction have become increasingly important to fish and wildlife agencies as they work to improve hunter and angler satisfaction and curb the decline in hunting and fishing participation.
- The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation showed that in 2001, of the 13 million hunters 16 years old and older who hunted in 2001, 162,000 (1%) said that they did not hunt in 2001 as much as they would have liked because there were not enough places to hunt/not enough access, and of the 34.1 million anglers 16 years old and older who fished in 2001, 232,000 (1%) anglers said that the reason they did not fish as much as they would have liked in 2001 was because there were not enough places to fish/not enough access (USFWS, 2001).

- Of even more concern than lack of access being a source of hunter dissatisfaction is the fact that hunters view access as becoming a *greater* problem.
- Issues related to hunting and fishing access involve both physical and psychological challenges, such as a lack of places to hunt/fish or inability to access those areas, as well as hunters' and anglers' *perceptions* that there are fewer places to hunt and fish.
- Access issues appear to be somewhat of a greater concern for hunters than for anglers.
- Access to private lands is a greater problem than access to public lands.
- Private landowners were more likely to experience negative behavior by hunters than by anglers and were, therefore, more cautious about allowing hunting access than fishing access on their property.
- Hunting access problems (physical access) may occur for several reasons, including road closures, landlocked lands, changes in landownership, and/or residential and industrial development. Studies to determine if the physical reality of access is becoming more limited to hunters so far have found mixed results.
- The research suggests that some public lands may be landlocked by private lands. These lands may be accessed by a secondary road or by a remote access area, or some may be closed off completely.
- Most hunters nationwide (57%) hunt exclusively on private land, and a very large majority of hunters (82%) hunted on private land at some time during 2001. A small percent of hunters (14%) only hunt on public land (USFWS, 2001). Generally, hunters give fairly positive ratings to access on public lands, although that rating has fallen slightly over the past few years.
- The research suggests that hunters feel that access to private land has become more difficult over the years. In general, hunters feel that access to private lands is worse than access to public lands. Hunters also see access to private lands as getting *increasingly* worse than access to public lands.
- The research suggests that hunters feel that private land access is inadequate due to limited access rather than the existence of too few private hunting lands.
- To develop strong cooperative partnerships with private landowners, hunters and anglers must have strong outdoor ethics and act accordingly. Sportsmen, especially hunters, have

been cited in several studies as being destructive, being rude, and trespassing on private property.

- Many Washington hunters were supportive of having state fish and wildlife agencies work with private landowners through management plans, incentives, or liability releases to open more private land to hunting access.
- Although, overall, anglers appear to be satisfied with their state agency's efforts to provide fishing opportunities, this attitude varies by location.
- On public lands (National Forests), the research suggests that most anglers prefer a more remote fishing experience.
- Access issues may also be directly related to hunters' and anglers' *perception* that there are not enough places to hunt or fish and that there are fewer places to hunt or fish than in the past. This may be driven in part by a lack of information about hunting and fishing access locations.
- As sportsmen increasingly see the encroachment of development in their communities, they may assume that access is being threatened, even if they have not personally experienced access problems.
- Poor hunter and angler access is an easily defined and identifiable reason for dissatisfaction. If a hunter or angler experiences dissatisfaction due to access, this incident is likely not to be forgotten and to be reported as a "top-of-the-mind" reason for their dissatisfaction.
- The issue of access takes on many forms. For example, a hunter's or angler's attitude toward access can differ based on his or her preferred mode of access. A mile hike into a prime hunting ground or fishing lake may not be considered a problem for a hunter or angler who enjoys hiking, while a mile hike on foot to a hunting ground or fishing location for a sportsman who prefers to use an ATV is indeed a problem.
- Access problems are not always caused simply by a lack of access points, roads, or trails, but lack of good information as well. Lack of information on various access points or alternative roads to hunting areas are being cited by more and more hunters. Studies have shown that information on where to fish is of top concern to anglers.

Summary of Issues Related to Access

As the research indicates, hunter and angler access issues are a complex composition of physical and psychological factors. In addition, public land access problems are somewhat different than private land access problems. In order for hunter and angler access issues and concerns to be dealt with most effectively, all aspects of access must be considered. Below is a brief outline identifying the major issues with hunting and fishing access.

I. Hunting Access

A. Public Land

- Hunters generally give positive ratings to public land accessibility, although this rating is declining.
- Some public land is landlocked by private land. Some of these public lands are accessible by secondary roads, but not all of the roads are open to the public. Also, some public lands are accessible only by remote access points.
- Roadless areas in the National Forests are important to hunters.
- There is a lack of information about
 - Road closures (permanent and temporary)
 - Access points/trails

B. Private Land

- Many hunters believe access to private land is worse than access to public land. Many hunters also believe that landowners are closing access to private land more now than previously.
- Hunters believe that limited access opportunities, rather than availability of private hunting locations, is causing access problems.
- Poor hunter behavior reported by landowners on private lands includes,
 - Trespassing
 - Property destruction
 - Rude behavior

- There is a lack of information about
 - State/landowner partnerships to improve access
 - Access points/trails

II. Fishing Access

A. Public Land

- Some public fishing land is likely landlocked by private land, as with public hunting lands. However, there are not any comprehensive studies detailing this.
- Anglers prefer remote fishing experiences on National Forest lands; they would rather not give this up in favor of greater access to National Forest lands.
- Too much access may, in fact, detract from angler satisfaction, as anglers often complain about overcrowding.
- There is a lack of information about
 - Road closures (permanent and temporary)
 - Access points/trails

B. Private Land

- There is a lack of information about
 - State/landowner partnerships to improve access
 - Access points/trails

III. Physical Issues

- Fewer accessible locations for hunting and fishing.
- Road closures.
- Condition of roads/poor road quality.
- Alternative routes to hunting lands.

IV. Psychological Issues

Perception of fewer lands for hunting and fishing, driven by:

- Increased urbanization – perception of urbanization encroaching on favorite hunting or

fishing locations.

- A previous experience that is not forgotten, resulting in access becoming a “top-of-the-mind” reason for hunter and angler dissatisfaction.
- Perception of distance: A mile hike into a prime hunting or fishing location may not be considered a problem for sportsmen who enjoy hiking, while a mile hike on foot to a location for sportsmen who prefer to use an ATV is an access problem.
- Road quality.
- There is a lack of information about
 - Road closures (permanent and temporary).
 - Various access points or alternative roads to hunting areas or fishing locations.
 - State programs in partnership with landowners to increase private land access.

V. Landowners

- More landowners are concerned about allowing hunting on their land than allowing fishing.
- Many landowners are not aware of liability protection programs set up by their state.
- Incentive programs include easements, cooperative programs, “walk-in” programs and hunter ethics courses.
- Restriction of private lands is often driven by a desire to control access, rather than a desire to make money (from incentives).
- Misconduct by hunters is the largest deterrent to landowners allowing access.
- Minimizing hunter misconduct, involving landowners and hunter/anglers in information and education programs, informing landowners of wildlife management agency services, educating landowners on recreation use statutes, and offering non-monetary incentives are important aspects of dealing with access problems.

CHAPTER ONE: HUNTER ACCESS ISSUES

THE IMPORTANCE OF HUNTING IN THE UNITED STATES

Hunting is historically an important recreational activity in the United States. According to the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 13 million Americans 16 years old and older hunted in 2001 (USFWS, 2001). However, because all hunters do not hunt every year, Responsive Management estimates there are about 28 million Americans who consider themselves hunters, regardless of whether they hunt every year or have even hunted in the last few years. The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (2001) reports that upwards of 44 million Americans have hunted at some time in the past.

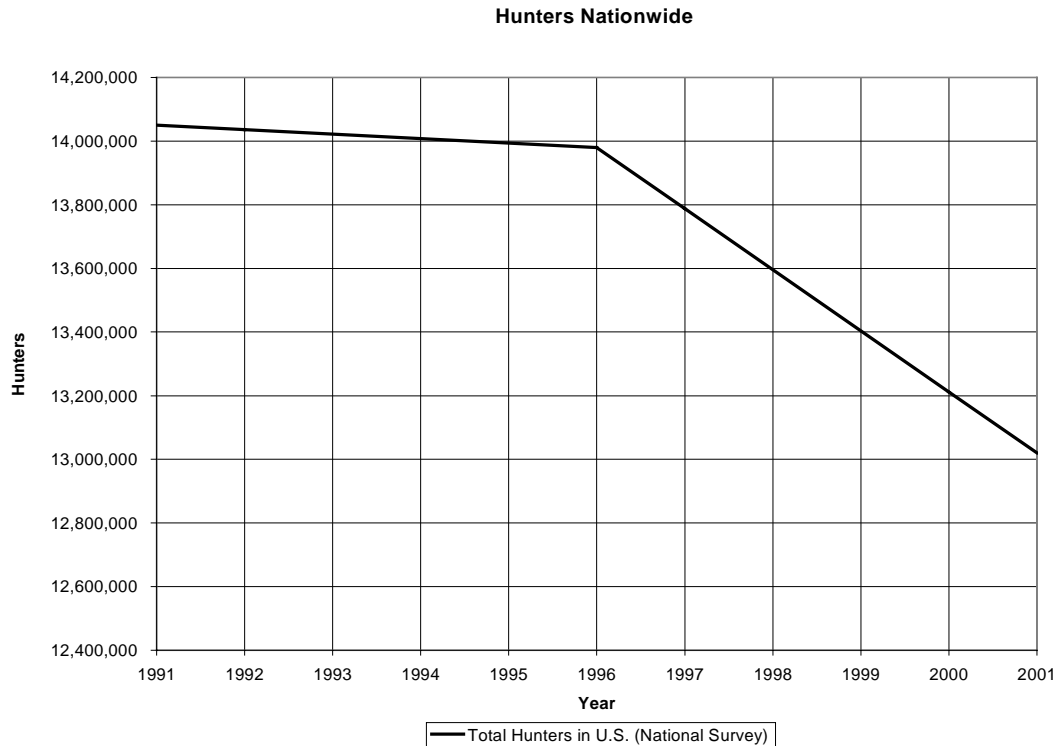
Hunting is an important historical, social, and cultural activity in the United States that enjoys broad public support. Sizable majorities of Americans support hunting and the preservation of hunting opportunities in America. A 2001 public opinion survey conducted by Responsive Management for Ducks Unlimited showed that 67% of Americans 18 years old and older nationwide approved of legal hunting (2001a). In 2003, a Responsive Management study for the Izaak Walton League of America showed that 75% of Americans nationwide approved of legal hunting (2003d).

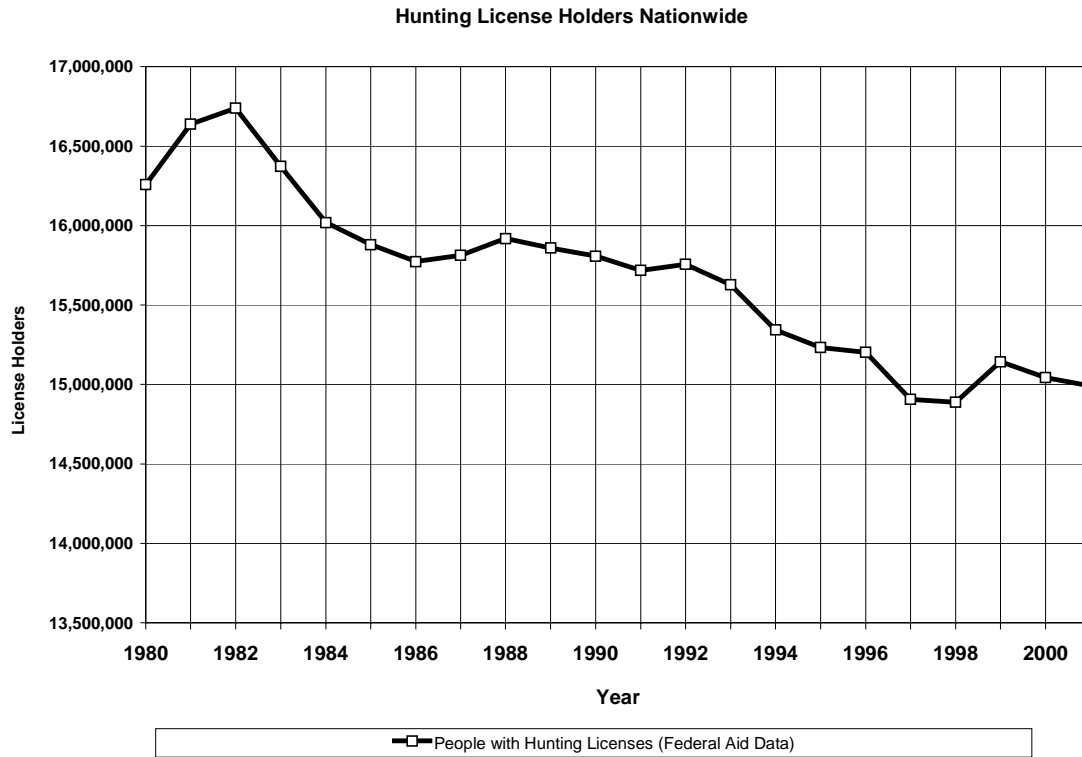
Beyond its historical importance as a recreational activity in the United States, hunting contributes to the economy and conservation. Hunters are avid conservationists who contribute more money to wildlife conservation than any other group in the United States. For instance, each year, hunters contribute millions of dollars to wildlife conservation through the Federal Aid in Wildlife Restoration Program (Federal Aid). Federal Aid monies are raised through a manufactures' excise tax on sporting arms, handguns, ammunitions, and archery equipment. For numerous state fish and wildlife agencies, Federal Aid monies combined with hunting and fishing license sales constitute the major source of their funding.

Hunting also has a major economic impact on the United States' and on individual state economies. Hunters contribute large amounts of money to the economy through the pursuit of their sport. In 2001, hunters spent an estimated \$20.6 billion on their sport (USFWS, 2001).

Hunting produces nearly \$3 billion in federal income taxes and nearly \$25 billion in retail sales, and hunting supports almost 600,000 jobs in the United States (Southwick, 2001). As an example of how hunting has contributed to a state's economy, Southwick Associates estimates that in 2001 hunting related expenditures generated \$4.2 million in retail sales in Washington and created nearly 7,000 jobs (2001).

Given the many benefits hunting provides, it is unfortunate that participation in hunting is declining. There has been a general decline in hunting participation for the last two decades. Hunting participation decreased from 14 million hunters in 1991 to 13 million hunters in 2001. This represents a 7% decline nationwide (USFWS, 2001).





Declining numbers of hunters are a concern for numerous reasons. First, declining hunting participation affects the budgets of many state fish and wildlife agencies and thousands of businesses that depend on hunting-related expenditures. Rural economies are also disproportionately impacted by decreased revenue from hunters because so many rural economies depend on hunting-related expenditures as a major source of revenue. However, perhaps most importantly, hunters represent a cultural tradition with a long-standing history of wildlife conservation successes in the United States.

Please see Appendix A for a series of graphs depicting hunters on a state-by-state basis.

ACCESS ISSUES AS A CAUSE OF HUNTING DISSATISFACTION

- **Causes for the decline in hunting participation and reasons for hunter dissatisfaction have become increasingly important to fish and wildlife agencies as they work to improve hunter satisfaction and curb the decline in hunting participation.**

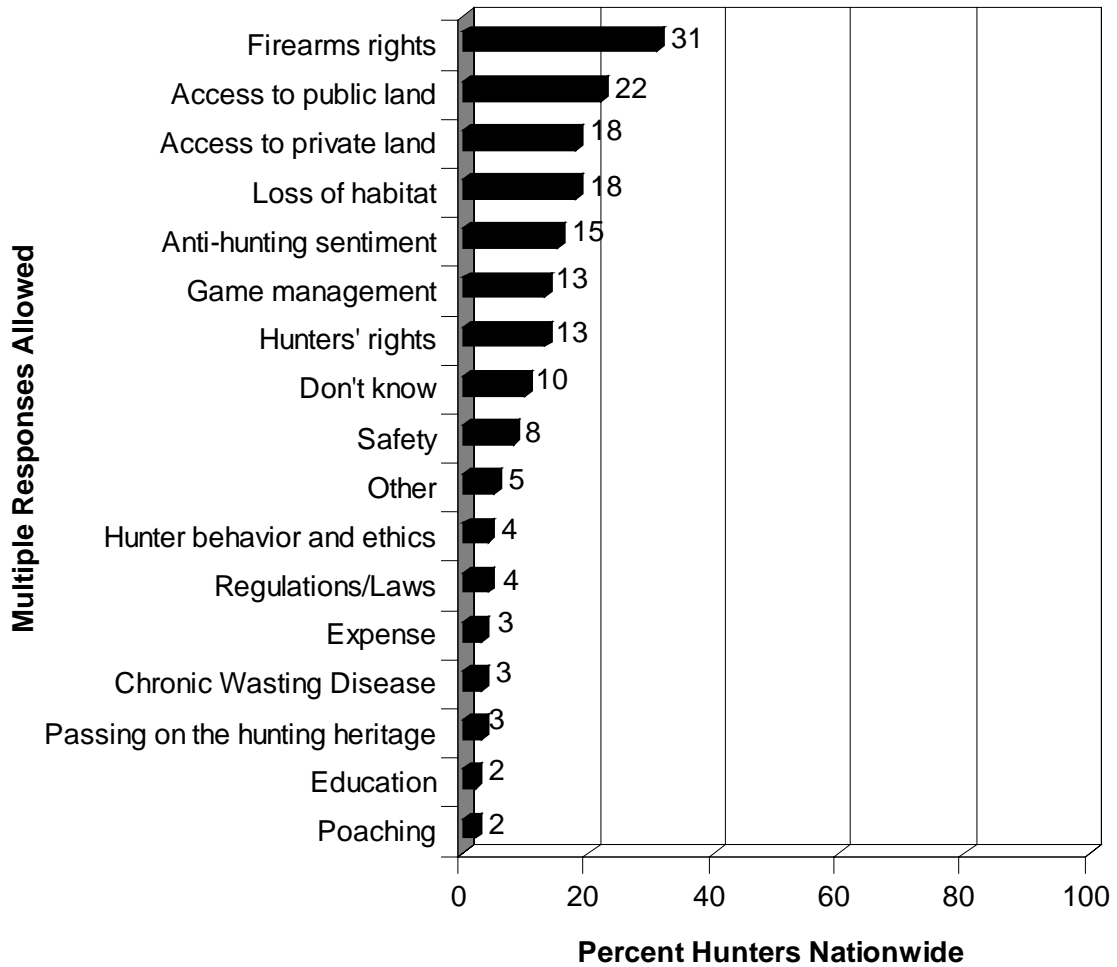
One reason that hunters increasingly report as a cause of dissatisfaction is poor hunting access. Access problems negatively affect hunters by taking away from their enjoyment of hunting and/or causing them to hunt less often. Previous studies have shown that access is a leading reason for hunter dissatisfaction, and that not enough available hunting access is a significant factor that influences hunters' decision to stop hunting.

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation showed that in 2001, of the 13 million hunters 16 years old and older who hunted in 2001, 162,000 (1%) said that they did not hunt in 2001 as much as they would have liked because there were not enough places to hunt/not enough access (USFWS, 2001).

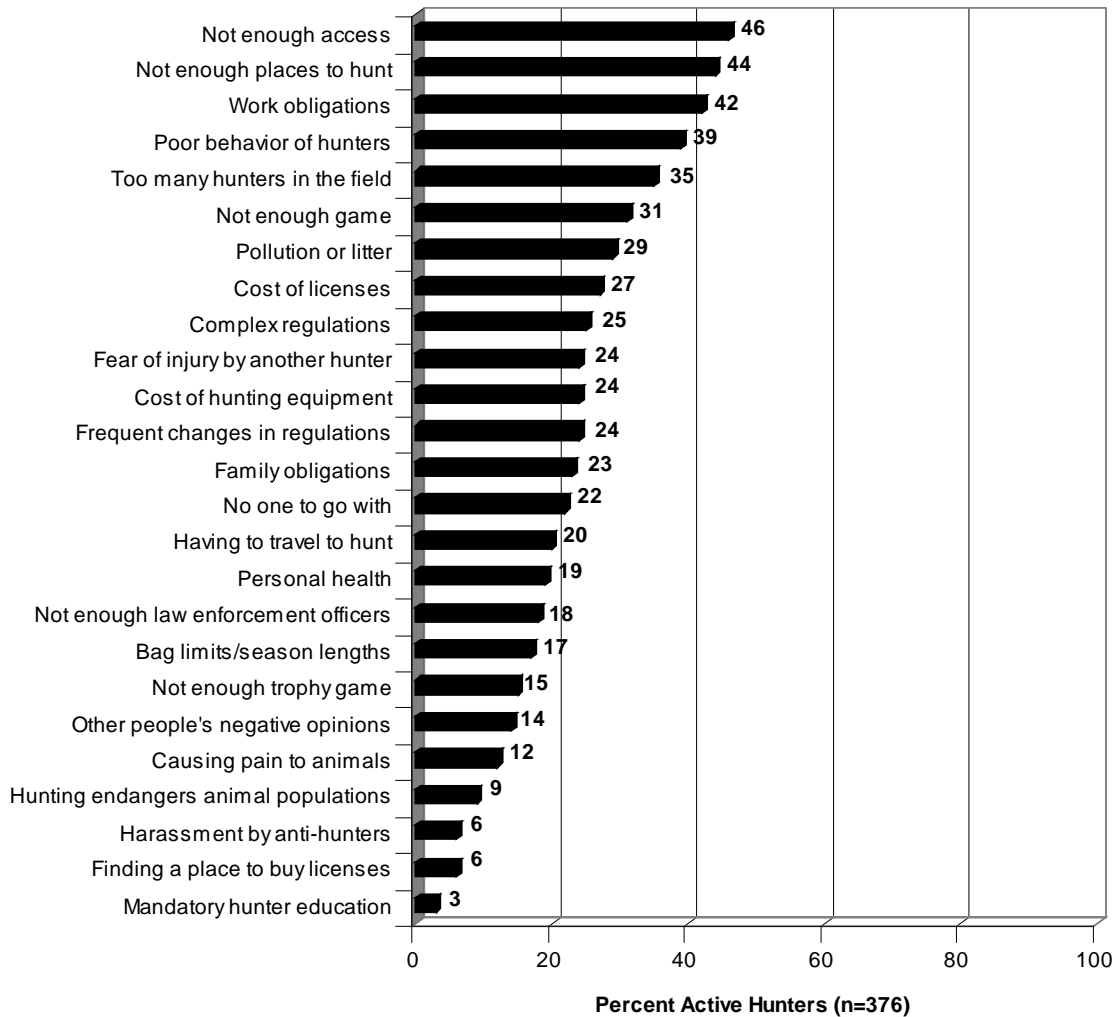
A Responsive Management study conducted in 2002 of licensed hunters nationwide found that 22% of hunters reported access to public lands as one of the two most important issues facing hunting today, and 18% of hunters reported access to private lands as one of the two most important issues facing hunting today (2002e).

In a study conducted by Responsive Management under a grant from the United States Fish and Wildlife Service, access was the top rated cause of hunter dissatisfaction among active hunters out of a possible 25 causes of dissatisfaction posed to hunters: 46% of hunters said that not enough access took away from their hunting satisfaction (1995). Twenty-nine percent of ex-hunters interviewed said that not enough access influenced their decision not to hunt.

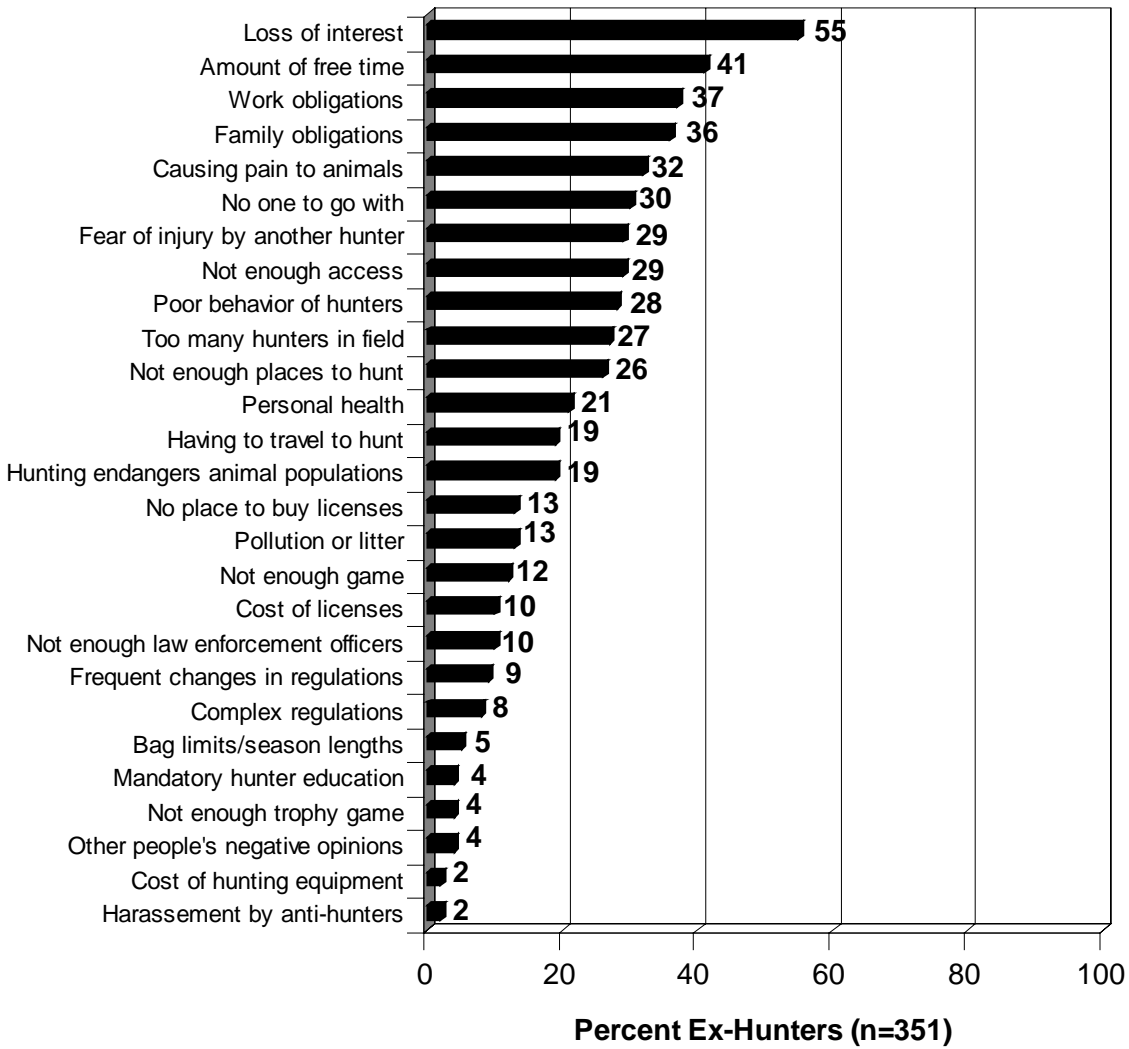
What do you feel are the two most important issues facing hunting today?



The following issues took away from hunting satisfaction.



The following issues influenced my decision not to hunt.



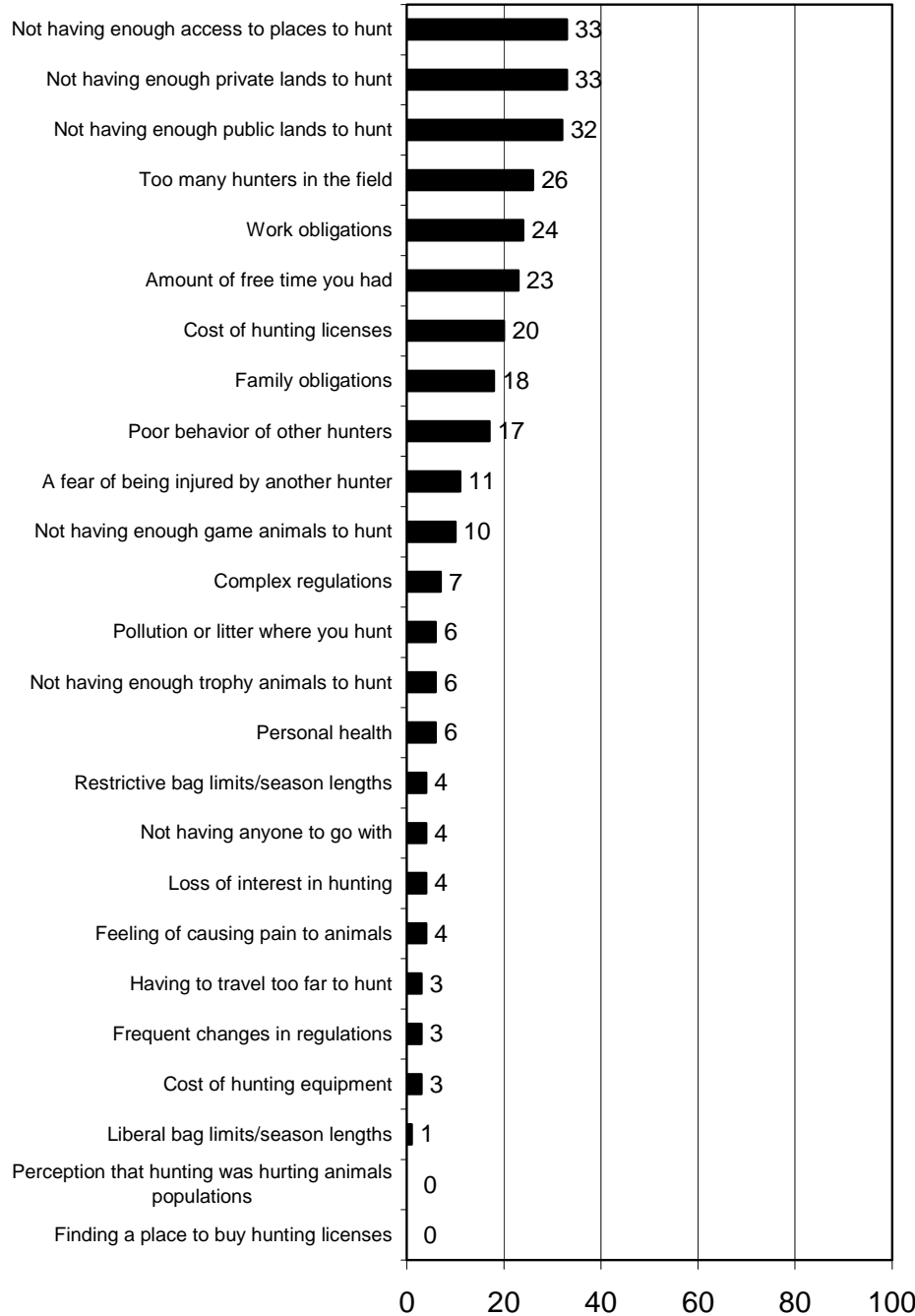
Responsive Management has also conducted research in several states that document the problem of hunter access. For example, in a study conducted in 1998 of New Jersey hunters, the top three reasons that strongly influenced ex- and decreased-activity New Jersey hunters' decision not to hunt or hunt less were not having enough access to places to hunt (33%), not having enough private lands to hunt (33%), and not having enough public lands to hunt (32%) (Responsive Management, 1998c). In fact, having more places to hunt (22%) was the second most common reason stated when ex- and decreased- activity hunters were asked what it would take to get them to hunt more often in New Jersey.

In Mississippi, 6% of Mississippi residents who were dissatisfied with their hunting experiences in Mississippi said it was because there were not enough places to hunt (Responsive Management, 1998d).

In a 2002 study of Kansas residents' participation in, opinions on, and attitudes toward outdoor recreation, the second most important reason for hunters' dissatisfaction was that there was not enough hunting access/no place to go (10%). The number one reason was that there were not enough game animals to hunt (50%). In a similar question, respondents who had indicated that they hunted in the 12 months prior to the survey were asked for the primary reason that they did not hunt more in Kansas, and 67% answered that they did not have enough time. However, the second most common reason was that it was too difficult to gain access to private areas (9%).

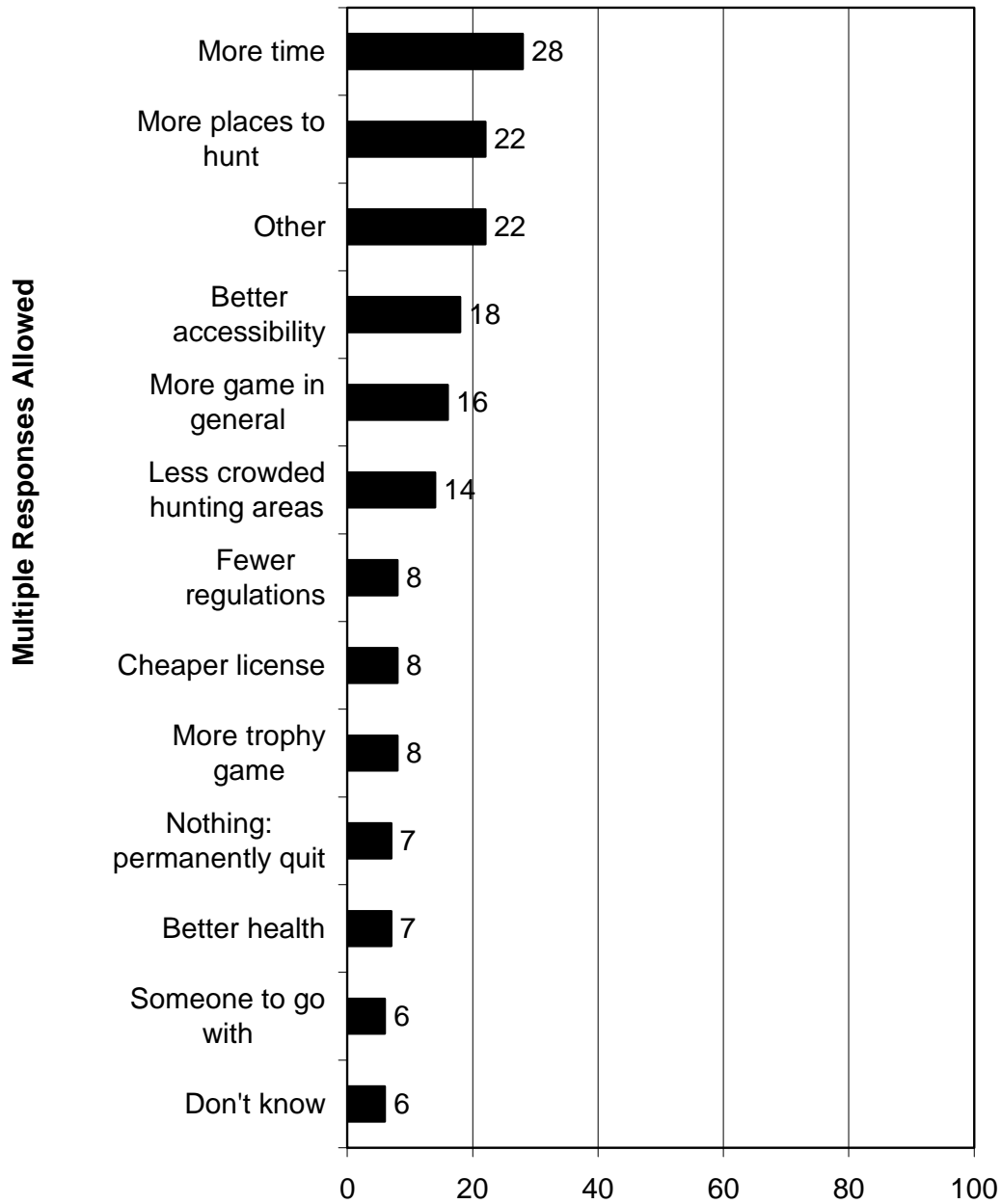
The state of Alabama has seen recent declines in hunting license sales. One of the primary reasons for former hunters not going hunting in the recent years in Alabama was because there were very few public hunting grounds (18%) (no particular reason; just haven't had the time was the top reason) (Mehmood, et. al., 2003).

Q25-49. Factors that strongly influenced ex- and decreased-activity-hunters' decision not to hunt or to hunt less (New Jersey hunters).



Percent of ex- and decreased-activity-hunters in NJ (n=90)

Q51. What would it take to get you back into hunting or to hunt more often in New Jersey?

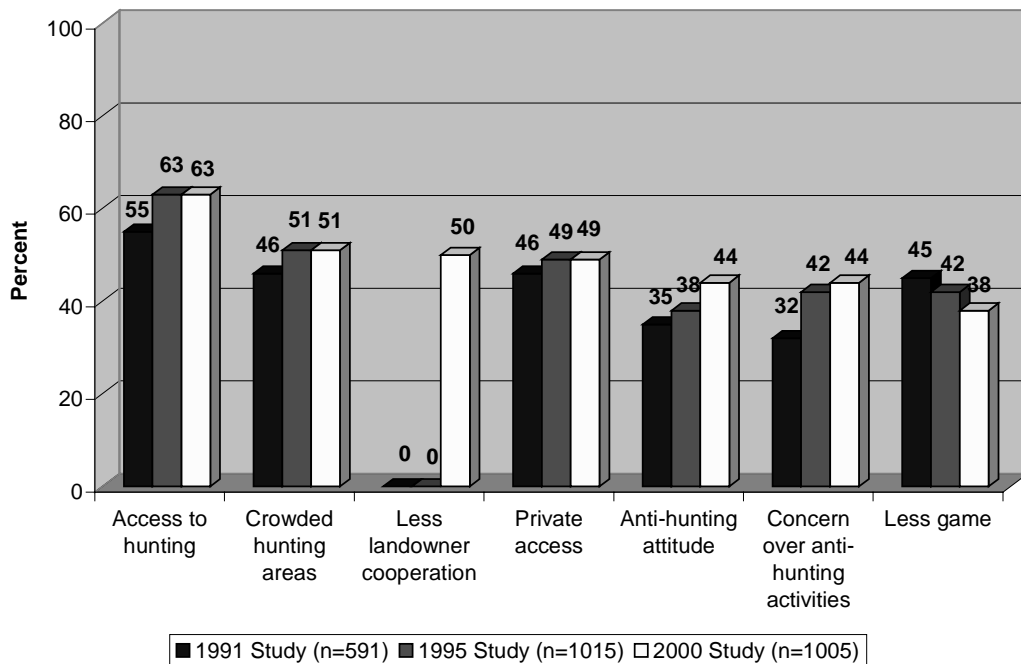


Percent of ex- and decreased-activity-hunters in NJ (n=90)

- **Of even more concern than access being a source of hunter dissatisfaction is the fact that hunters view access as becoming a greater problem.**

Larger percentages of hunters are reporting lack of access as a cause of dissatisfaction that is taking away from their hunting experiences than in the past. A trends study conducted for the National Shooting Sports Foundation (2000b) in 1991, 1995, and 1999 found that in 1991, 55% of hunters identified access to hunting as the leading issue that has become a greater problem for hunting. This number rose to 63% of hunters in 1995 and 1999 identifying access to hunting as the leading issue that has become a greater problem for hunting (Responsive Management, 2000b).

Reasons why hunting has become a greater problem (much and somewhat combined) within each 5-year time frame prior to survey date.



In a focus group with hunters conducted for the Izaak Walton League of America (Responsive Management, 1998), one Washington hunter stated his frustration with increasingly poor hunter access:

I've lived here since 1967 and have seen a lot of changes. I hunt big game and birds, but I hunt all over. I hunt less and less for birds over the years, except chuckars. I'm tired of begging for places to hunt, and I don't like to pay for it. You end up hunting the same place over and over. To me, hunting is partly an adventure. I don't like the aspect of not having places to hunt.

--Washington hunter

- **Issues related to hunting access involve both physical and psychological challenges, such as a lack of places or a lack of access sites, as well as hunters' perceptions that there are fewer places to hunt.**

Studies on hunting access are beginning to show that dissatisfaction caused by poor hunting access is a complex and multi-faceted issue that involves numerous factors and constituent groups. Providing quality hunting opportunities requires a combination of proper management of public lands, working partnerships with private landowners, and an understanding of the psychological perceptions of hunters. It should be noted that access involves both the physical opportunities/locations to hunt as well as hunters' perceptions, fears, and awareness of hunting access issues. If efforts to alleviate hunter dissatisfaction from poor access concentrate only on the provision of physical opportunities/locations, a significant component of the hunting access issue may be missed.

The intricacies of hunting access problems have not yet been fully evaluated. It is difficult to generalize about the causes of poor hunting access since access is such a location-specific issue. Hunting access problems may occur for several reasons, including road closures, landlocked lands, changes in landownership, and/or residential and industrial development. Many of the causes of limited hunting access can be identified, and practices can be implemented to alleviate these complications. For example, leasing of private lands or partnerships with private landowners can help provide greater hunting opportunities. However, other causes of limited hunting access are more general and pertain to broader social and psychological changes in society. For example, changes in land use from agriculturally zoned to residentially zoned and development of land have made more prevalent the idea that hunting opportunities are being threatened and have increased hunters' perception that hunting access is becoming worse. Also, the definition of hunting access problems is a relative term dependent on each hunter's idea of how easily hunting lands *should* be reached. Each hunter will have different expectations on how easily hunting lands should be reached, and one hunter may perceive difficulty in reaching

hunting land while another hunter may not. Finally, poor access is an easily defined cause of hunter dissatisfaction that may be reported at a higher rate than other causes of dissatisfaction *because* it is easily defined. This does not imply that hunting access is necessarily the most significant factor in hunter dissatisfaction, just that poor hunting access is more readily identified as a reason for dissatisfaction.

THE PHYSICAL ASPECT OF ACCESS

The practical on-the-ground reality of whether fewer hunting opportunities exist and the perception that access is becoming a greater problem represent two separate issues. The reality of whether hunter access is becoming more limited represents a physical constraint to hunting; the perception that access is becoming more difficult represents a psychological constraint.

- **Studies to determine if the physical reality of access is becoming more limited to hunters so far have found mixed results. However, the research does agree on is that access to private lands is a greater problem than access to public lands.**

The reality of the physical limitations of access to hunting lands will always be contingent on both state-specific regulations as well as local conditions. No direct comparison between one state and another or even one local region and another can be clearly made. Some states possess more public lands than other states and, thus, can more easily provide hunting access. Other states possess more private land, which requires different methods of providing hunter access.

In 2003, Responsive Management initiated a detailed evaluation of hunting access in Colorado, conducted for the Congressional Sportsmen's Foundation titled, *Access to Federal Hunting Lands in Colorado*. Colorado was identified as a state that has a high but declining level of hunting participation and possesses a diversity of large amounts of federal public land. In addition, information on Colorado hunters was available that led to a high quality sample.

Consistent with other Responsive Management studies (1998, 2000b, 2003c), access to private lands was reported as being more difficult than access to public lands. A majority of hunters in Colorado reported access to private hunting lands as fair or poor (54%), while a relatively low percentage (27%) rated access to public hunting lands as fair or poor. Likewise, a majority (69%) of Colorado hunters rated access to public lands as excellent or good, compared to 41% of Colorado hunters who rated access to private lands as excellent or good (Responsive Management/Ecosystem Management Research Institute, 2003).

In this study, the Geographic Information System (GIS) component conducted by Ecosystem Management Research Institute concluded that most public lands in Colorado are generally

accessible to the public. In Colorado, only 1-12% of federal lands are landlocked by private land. It is expected that the actual amount of legally landlocked federal lands is closer to the lower end of the 1-12% range than the upper end, but the available maps could not provide a more specific estimate (Responsive Management/Ecosystem Management Research Institute, 2003).

- **The research suggests that some public lands may be landlocked by private lands. However, many “landlocked” lands are in fact accessible by a secondary road, some of which are open to the public.**

Few public lands in Colorado are truly landlocked by private lands. However, large proportions of public lands in Colorado are surrounded by private lands and are accessible only by a secondary road. Some of these secondary roads are open to the public; however some of these lands may be crossed by secondary roads, which are controlled by private landowners and not open to the public. Additionally, some landowners may try to block legal public access of public land by posting public lands as being private, as some hunters have noted in attitude surveys. In addition, many public lands may be accessible by foot from more remote road access points, while more nearby road access points are blocked by private land restrictions. While this may be frustrating to some hunters, these public lands would not be considered “landlocked” (Responsive Management/Ecosystem Management Research Institute, 2003).

Bureau of Land Management (BLM) and United States Forest Service (USFS) lands in Colorado were analyzed to determine the distance from road access points to public hunting lands. It was determined that a majority of BLM lands are accessible from only a short distance from a road access point, although these road access points tend to be from secondary roads. Only 4% of BLM land and 8% of USFS lands in Colorado are farther than 1 mile from a road (Responsive Management/Ecosystem Management Research Institute, 2003).

Six National Forests and one BLM Resource Area in Colorado were examined in more detail for both current road information and historical road information derived from travel maps from the 1980s. These comparisons of historical to current maps reveal that more roads and trails have been added over time. More roads may seem beneficial to hunting access, but it is possible that

roads may mean more opportunities for access problems. Trends towards widespread closure of roads or trails to motorized vehicles were not observed, but such closures may be taking place at the local management level. However, it should be noted that even with a substantial increase in mapped roads and trails, the percentage of federal lands within ¼ mile and especially within 1 mile of mapped motorized access did not increase proportionally. It was apparent that many of the new roads added to the travel maps were additional roads in areas that already had access from roads. This is an interesting analysis as this may mean that access in some cases may not have improved even though the number of roads has increased. The addition of new roads, even in areas that were previously accessible, may mean that local closure of roads might deny motorized access to hunting area via a particular road, but that the hunting area would still have motorized access but from a road, trailhead, or roadway via a different location (Responsive Management/Ecosystem Management Research Institute, 2003).

In this study, most hunters in Colorado did not report access problems. Most public lands in Colorado are accessible to the public and are within 1 mile of a road. As noted earlier, it is hard to make generalizations about hunting access due to its location-specific nature. The results reported here about hunting access in Colorado cannot be generalized to all locations. For example, Colorado possesses a larger amount of public land than other states may possess. Thus, access issues and hunter opinions toward accessibility of public lands may be different in those states with less public land. The results in Colorado do, however, illustrate the complexity of physical constraints to hunting access: road closures, condition of roads, and awareness of alternative routes to hunting lands. The Colorado study also illustrates that despite the increased reporting of hunting access as a problem, the physical on-the-ground reality does not always correspond with these reported problems.

Responsive Management also conducted a study on state hunting lands for The Conservation Fund (2003a). In this study, state fish and wildlife agencies were asked to rate the accessibility of state-owned hunting lands as well as rate the accessibility of all hunting lands in the state. The following two tables have the rankings of the states as the agencies self-reported their ratings of accessibility to hunting lands on both state-owned land and all hunting lands. Bold

means that the number of hunters is increasing or being maintained in that state and italic means the number of hunters is decreasing in that state.

The table below shows the agency's rating of the accessibility of all state-owned and state-leased hunting land.

TABLE 1: RANKING OF THE AGENCY'S RATING OF ACCESSIBILITY OF ALL STATE-CONTROLLED HUNTING LAND (Ranked from best access to states with the least access)

State	Agency's Rating of Accessibility of State-Controlled Hunting Land (1-10: 1 = Poor, 10 = Excellent)	Rank	State	Agency's Rating of Accessibility of State-Controlled Hunting Land (1-10: 1 = Poor, 10 = Excellent)	Rank
<i>Delaware</i>	10.00	1	<i>Florida</i>	7.00	25
<i>North Carolina</i>	10.00	1	New Hampshire	7.00	25
<i>Colorado</i>	9.67	3	<i>Rhode Island</i>	7.00	25
<i>Iowa</i>	9.33	4	Georgia	6.80	29
<i>Massachusetts</i>	9.00	5	Arkansas	6.67	30
<i>Mississippi</i>	9.00	5	Louisiana	6.50	31
Missouri	9.00	5	South Dakota	6.25	32
Alaska	8.67	8	<i>Michigan</i>	6.14	33
<i>Arizona</i>	8.50	9	Nevada	6.00	34
Idaho	8.50	9	Tennessee	6.00	34
<i>Wyoming</i>	8.50	9	<i>West Virginia</i>	6.00	34
<i>Ohio</i>	8.25	12	<i>Maryland</i>	5.86	37
<i>Illinois</i>	8.00	13	Kentucky	5.80	38
Montana	8.00	13	<i>Washington</i>	5.75	39
<i>New Jersey</i>	8.00	13	<i>Hawaii</i>	5.67	40
New Mexico	8.00	13	<i>Connecticut</i>	5.25	41
Oklahoma	8.00	13	<i>Oregon</i>	5.20	42
<i>Pennsylvania</i>	7.90	18	South Carolina	5.00	43
Kansas	7.67	19	Texas	5.00	43
Minnesota	7.60	20	Alabama	4.50	45
Nebraska	7.50	21	Utah	4.20	46
Vermont	7.50	21	<i>New York</i>	4.00	47
<i>Indiana</i>	7.38	23	<i>Virginia</i>	2.75	48
<i>Maine</i>	7.33	24	North Dakota	No Data	
<i>California</i>	7.00	25	Wisconsin	No Data	

Mean is 7.06.

The table below shows the agency's rating of the accessibility of all hunting land.

TABLE 2. RANKING OF THE AGENCY'S RATING OF ACCESSIBILITY OF ALL HUNTING LAND (Ranked from the best access to states with the least access)

State	Agency's Rating of Accessibility of These Types of Hunting Acres Throughout State (1-10: 1 = Poor, 10 = Excellent): All Lands	Rank	State	Agency's Rating of Accessibility of These Types of Hunting Acres Throughout State (1-10: 1 = Poor, 10 = Excellent): All Lands	Rank
North Dakota	10.00	1	<i>Illinois</i>	7.06	26
<i>Connecticut</i>	9.69	2	<i>Mississippi</i>	7.00	27
<i>North Carolina</i>	9.36	3	<i>Maryland</i>	6.92	28
<i>Delaware</i>	8.29	4	<i>Florida</i>	6.80	29
Alaska	8.25	5	<i>Rhode Island</i>	6.75	30
Idaho	8.14	6	Nevada	6.73	31
<i>Colorado</i>	8.00	7	<i>Wyoming</i>	6.70	32
New Mexico	8.00	7	Oklahoma	6.60	33
Kentucky	7.82	9	<i>Iowa</i>	6.56	34
<i>Arizona</i>	7.78	10	<i>Virginia</i>	6.50	35
Minnesota	7.78	10	Georgia	6.46	36
<i>Ohio</i>	7.70	12	<i>Hawaii</i>	6.38	37
<i>Indiana</i>	7.67	13	South Dakota	6.38	37
Nebraska	7.67	13	<i>California</i>	6.20	39
<i>Massachusetts</i>	7.50	15	Alabama	6.11	40
Missouri	7.50	15	South Carolina	5.91	41
New Hampshire	7.50	15	Kansas	5.67	42
Vermont	7.50	15	<i>Washington</i>	5.50	43
<i>West Virginia</i>	7.50	15	Utah	5.22	44
Arkansas	7.29	20	<i>New York</i>	5.10	45
<i>Maine</i>	7.29	20	Texas	5.00	46
<i>New Jersey</i>	7.25	22	<i>Michigan</i>	4.88	47
Louisiana	7.13	23	<i>Oregon</i>	4.63	48
<i>Pennsylvania</i>	7.11	24	Montana	No Data	
Tennessee	7.10	25	Wisconsin	No Data	

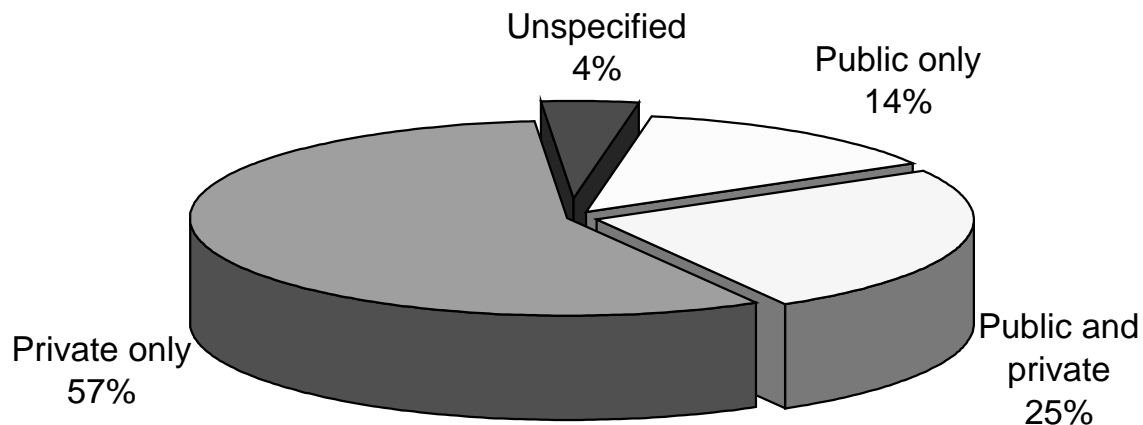
Mean is 7.04.

ACCESS TO PUBLIC LANDS

- **The research shows that, overall, more hunters hunt on private lands than hunt on public lands. However, this trend varies by location.**

Most hunters nationwide (57%) hunt exclusively on private land with a very large majority of hunters (82%) hunting on private land at some time during 2001. A small percent of hunters (14%) only hunt on public land (USFWS, 2001). The fact that most hunters hunt either exclusively on private land or on both public and private land complicates the issue of hunting access due to the fact that state regulatory agencies are restricted in their management of hunting opportunities on private lands.

Percent of Hunters Hunting on Public and Private Land

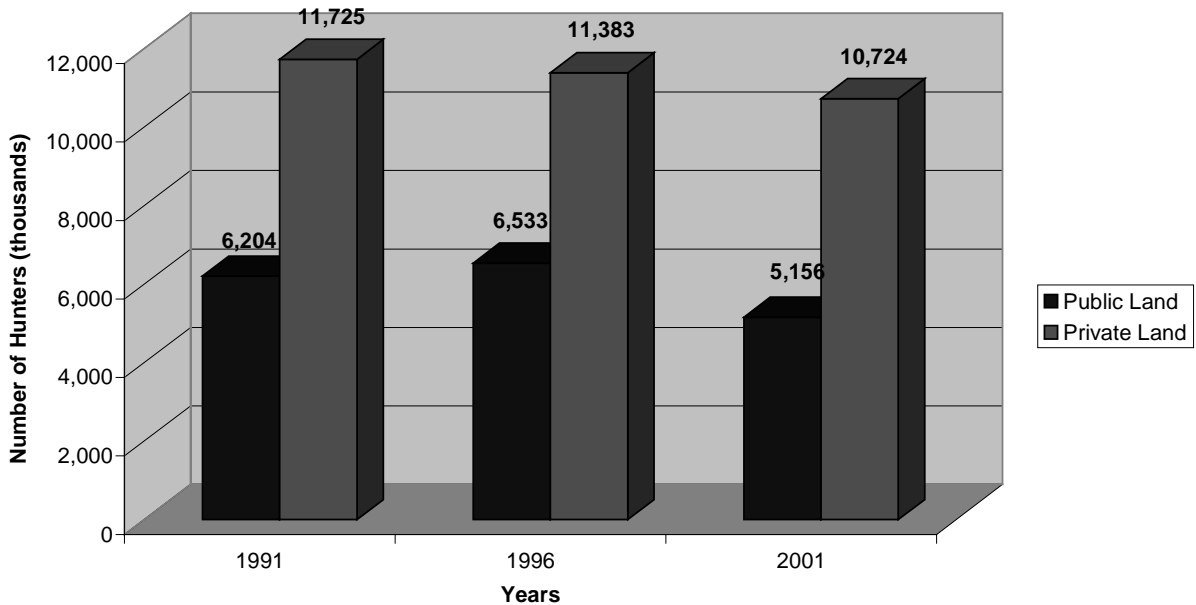


While more hunters hunt on private land than hunt on public land, hunting activity on public lands, especially federal lands, is substantial. Those hunters who hunted on public land did so for a total of 60 million days in 2001 (USFWS, 2001).

Overall, following the national trend in the declining number of hunters, the number of hunters hunting on public land is decreasing (USFWS, 2001). Nationally, since 1991, the number of hunters who hunt on public lands has decreased by nearly 17%, while the number of hunters who

hunt on private lands has decreased by 9%. However, the percentage of hunters who hunt on public and/or private lands varies according to state. For example, in Colorado where there is an abundance of public land, just less than a majority of hunters (45%) hunted on private lands in the past 10 years. Most hunters (92%) in Colorado hunted on public lands (Responsive Management/Ecosystem Management Research Institute, 2003). In contrast, in Texas, only 3% of the state is public land; thus, most hunting in Texas takes place on private lands.

**Trends in the Number of Hunters Hunting on Public and Private Land
1996-2001**



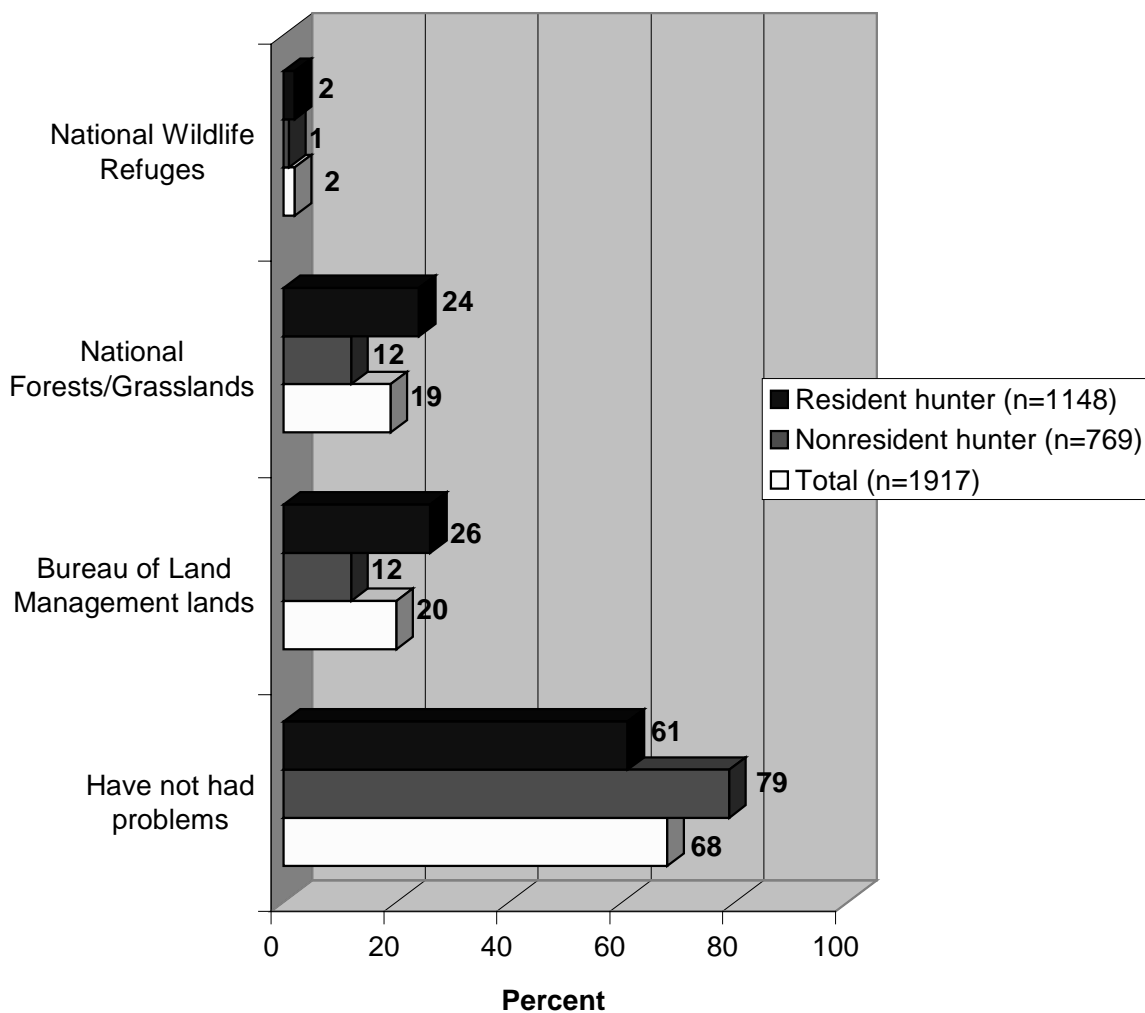
Source: 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

- **Generally, hunters give fairly positive ratings to access on public lands, although that rating has fallen slightly in recent years.**

In Responsive Management's (and Ecosystem Management Research Institute's) study on hunter access in Colorado (2003), a majority (68%) of hunters had not had access problems on federal public land. The percentage of Colorado hunters rating public land access as excellent or good (69%) was more than double the percentage rating it as fair or poor (27%). It is a positive finding to discover that majorities of hunters overall said that public land access in Colorado had

remained about the same over the past 10 years. However, the percentage of hunters who said that public land access in Colorado has gotten worse (28%) exceeds the percentage who said that access has gotten better (9%).

Have you personally had problems accessing any of the following types of federal public lands in Colorado in the past 10 years? (Asked of those who hunted on federal public lands in Colorado in past 10 years.)

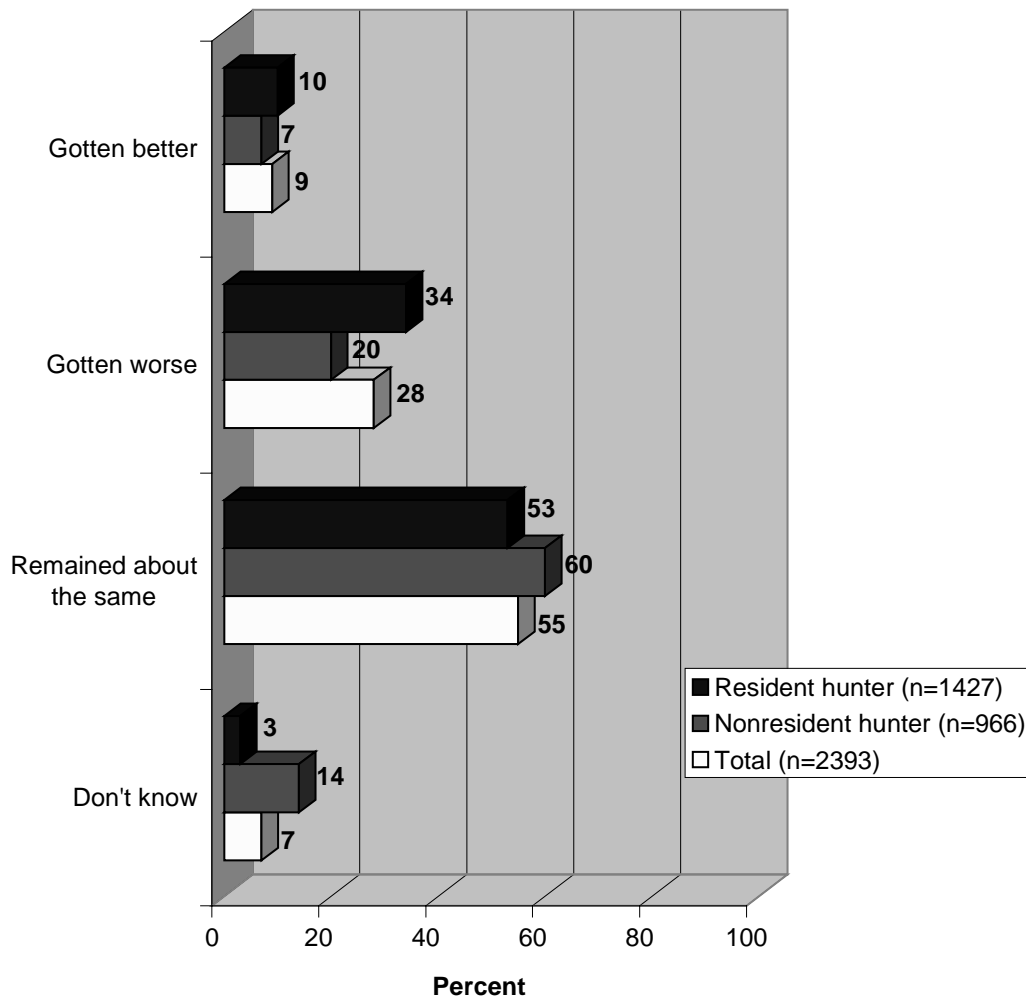


Respondent Rating of Public Land Access in Colorado

Hunter Type	Excellent	Good	Fair	Poor	Excellent and Good	Fair and Poor
Resident Hunters	21	46	21	10	67	31
Nonresident Hunters	22	49	17	5	71	22
All Hunters	21	48	19	8	69	27

Source: Responsive Management/Ecosystem Management Research Institute, 2003b

Over the past 10 years, would you say that access to public hunting lands in Colorado has gotten better, gotten worse, or remained about the same?



In a study conducted by Responsive Management on National Forests, 16% of hunters rated the quality of hunting on National Forests, as compared to hunting on other lands, as better, 32% rated the quality as about the same, 16% as worse, and 36% did not know (Responsive Management, 1999e). Thirty percent of hunters rated the quality of access to hunting locations on National Forest lands, as compared to hunting on other lands, as better, 28% rated the quality of access as about the same, 11% as worse, and 31% did not know.

The aforementioned study (Responsive Management, 1999e) also showed that hunters are generally satisfied with the amount of roads that are currently available on National Forests. For example, 14% of hunters reported that there are too many roads in the National Forests to provide access for hunting opportunities, 46% reported there were just the right amount, 18% reported there were too few roads, and 22% did not know. Also, 19% of hunters wanted the number and amount of roads in the National Forests increased, but 55% wanted the number and amount kept at present levels, and 16% wanted the number and amount decreased. Nine percent did not know. Thirty-five percent of hunters rated the Forest Service's road management as very adequate, 40% as somewhat adequate, 2% as neutral, 5% as somewhat inadequate, and 1% as very inadequate.

Overall, hunters were very supportive of limiting the number of roads and off-road vehicles in National Forests: 67% of hunters supported (45% strongly and 22% moderately) limiting the number of roads and off-road vehicles in certain designated roadless areas in the National Forests and allowing hunters and anglers to access the areas by foot travel only. Twenty-two percent opposed (10% strongly and 12% moderately), and 6% neither supported nor opposed (Responsive Management, 1999e).

ACCESS TO PRIVATE LANDS

- **The research suggests that hunters feel that access to private land has become more difficult over the years. In general, hunters feel that access to private lands is worse than access to public lands. Some hunters feel that access problems are a result of an increase in closed private lands.**

In 2001, 10.7 million hunters hunted on private land, and, of those, 7.4 million hunted exclusively on private land. Those hunters who hunted on private land did so for a total of nearly 170 million days, or nearly 3 times as many days as were hunted on public land (USFWS, 2001).

In a study conducted by Responsive Management on hunter behavior on public and private lands for the Izaak Walton League of America (1998), many hunters in a series of focus groups reported access problems as a result of an increase in closed private lands. Generally, hunters feel that landowners are restrictive in allowing outdoor recreation opportunities on private land and, thus, feel that access to public lands is better. There was the opinion that private landowners were less likely to give permission than in years past, wanted access fees, had leased land to make money, or were concerned about liability. The following comments from hunters express some of the changes hunters have seen in relation to access to private lands.

Probably ten, twelve years ago. Before that, nothing was posted. You'd pull up to a gate, it wasn't posted, you'd shut the gate, you'd leave the land the way it was when you got there. You don't drive off the roads, you come up to a gate, it's closed, you open it up and close it behind you so the cows don't get out or anything else. You respected the land. Pretty much, no one bothered you unless you got some hard ass or something like this here. And now, you have to get permission from the landowner, even if it's close to your lot to hunt big game.

--Montana hunter

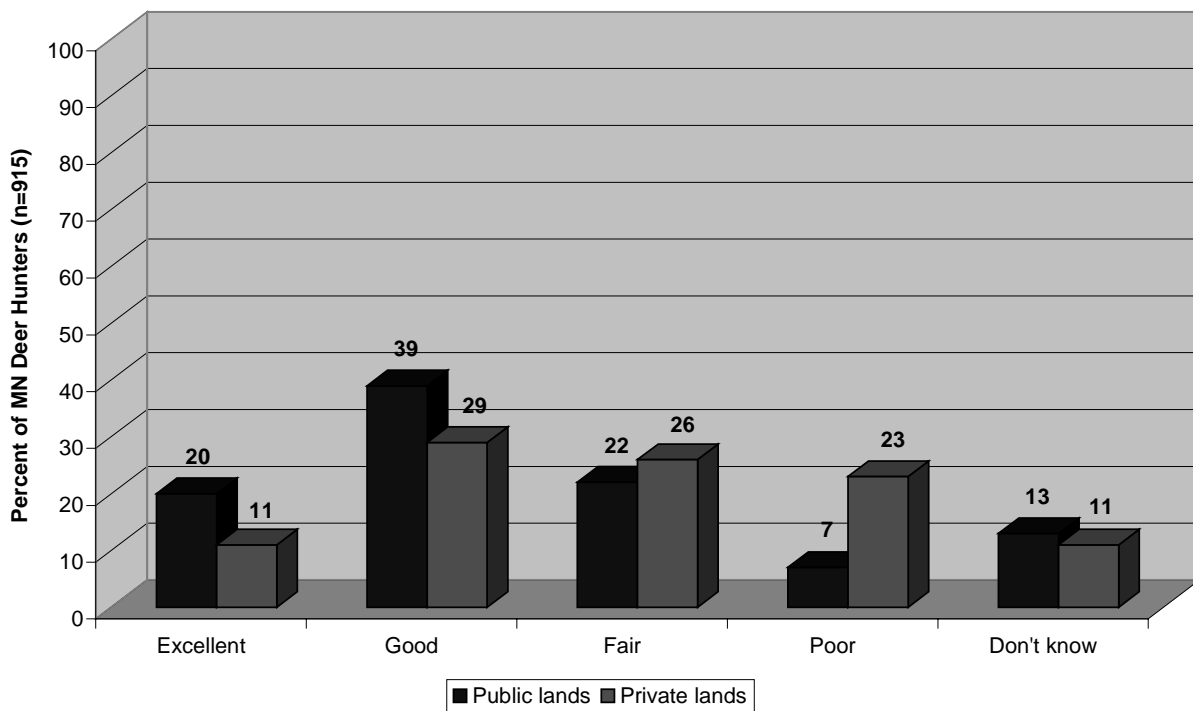
It's getting much more difficult to even get on private lands. I've run into this particularly in the last two years. The choicer parts of the state lands, public lands, are really not very accessible any more.

--Washington hunter

Overall, access is a bigger problem on private lands than it is on public lands. In general, access to private lands has a lower rating than access to public lands, and the rating of private land access is not improving relative to the rating of public land access. In a Responsive Management

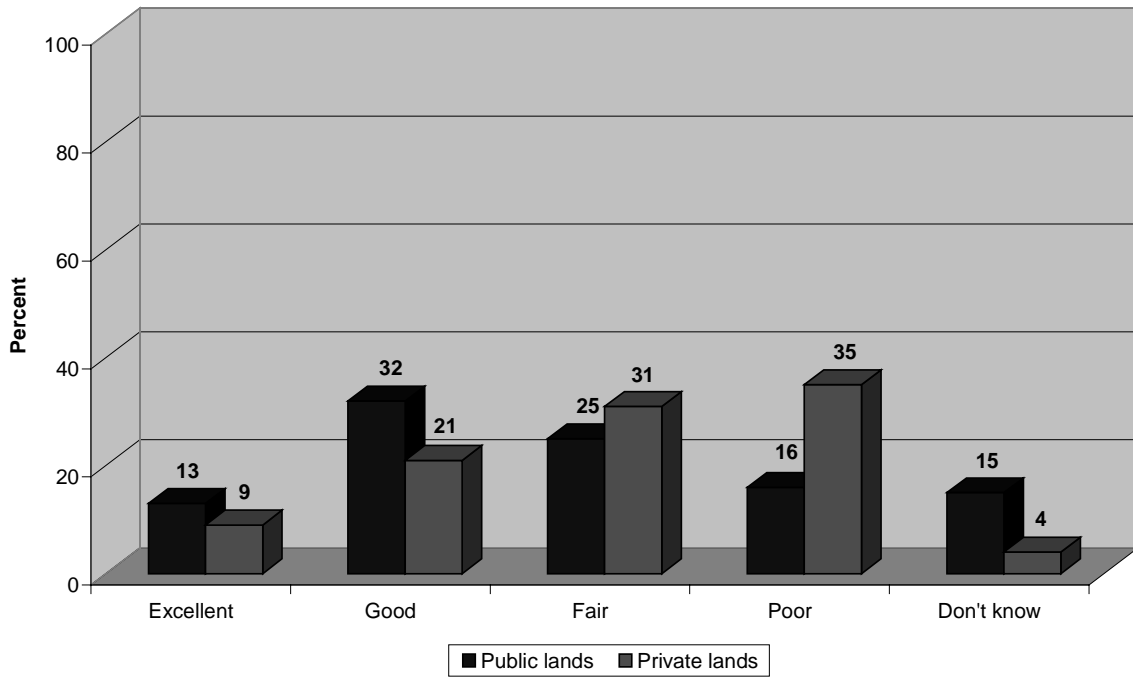
study conducted for the Virginia Department of Game and Inland Fisheries, 16% of Virginia hunters rated access to public hunting lands as poor, while 35% of Virginia hunters rated access to private hunting lands as poor (2000a). In a Responsive Management study conducted for the Minnesota Department of Natural Resources, Minnesota deer hunters were more than three times more likely to say hunting access on private lands was poor for deer hunting compared to hunting access on public lands for deer hunting (23% rated private land access as poor; 7% rated public land access as poor) (2002a). In a Responsive Management study conducted for the Texas Parks and Wildlife Department, 15% of Texas hunters rated access to public hunting lands as poor while 17% rated access to private hunting lands as poor (2001b).

How would you rate deer hunting access on public/private lands in Minnesota?



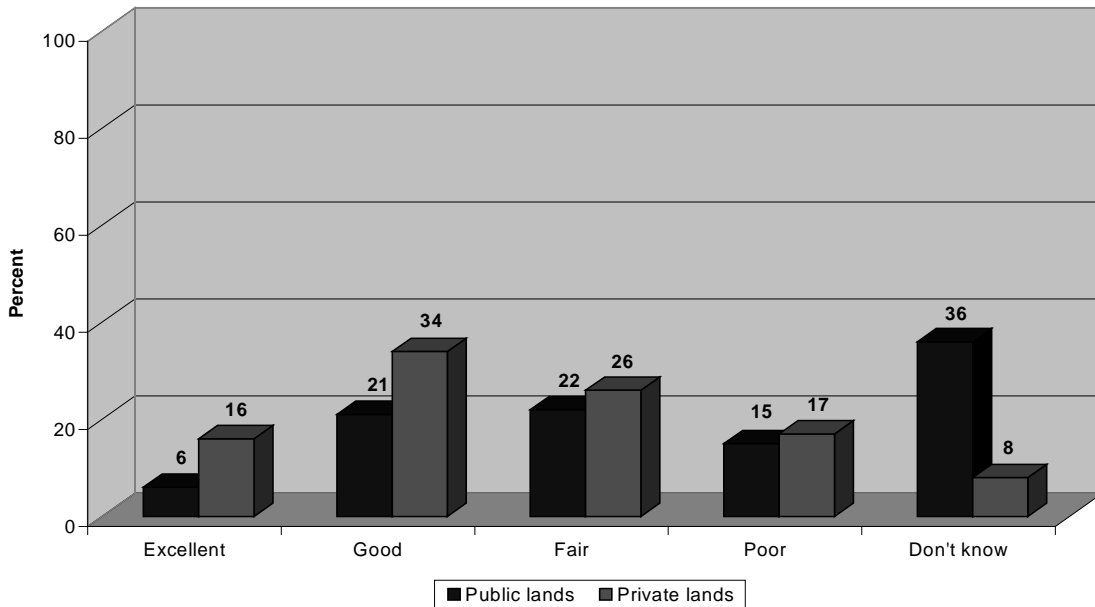
Percent Minnesota Deer Hunters

Would you rate access to public/private hunting lands as excellent, good, fair, or poor in Virginia?



Percent Virginia Hunters

Would you say that access to public/private hunting lands is excellent, good, fair, or poor in Texas?



Percent Texas Hunters

In Colorado, 31% of Colorado hunters who had hunted on private land rated access to private hunting lands as poor. In comparison, all other types of public land, including federal public lands, were rated poor by much lower percentages (7% to 12%) (Responsive Management/Ecosystem Management Research Institute, 2003). The tabulation below shows a comparison of access ratings of all types of land in Colorado, rated by only those who had hunted on that particular type of land. Each type of public land in Colorado had a majority rating its access as excellent or good; in contrast, access to private lands in Colorado was the only land type to not be rated as excellent or good by a majority of respondents. High ratings for access as excellent or good were given to federal public lands (71%) and general public lands in Colorado (69%), while private lands in Colorado had the lowest percentage of respondents rating access as excellent or good (41%) and the highest percentage of respondents rating access as fair or poor (54%) (Responsive Management/Ecosystem Management Research Institute, 2003).

Ratings of Access of All Types of Land in Colorado
(Sorted by Percent Rating Excellent or Good)

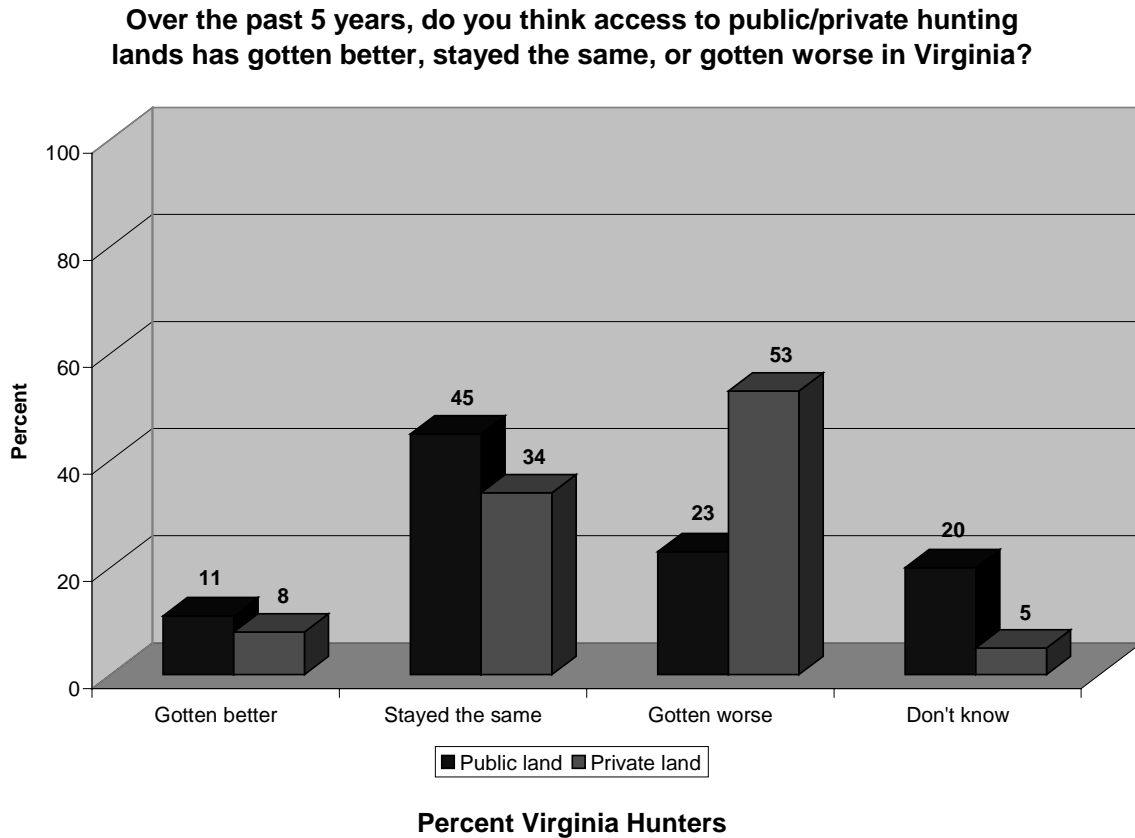
Land Type	Percent Rating Excellent	Percent Rating Good	Percent Rating Fair	Percent Rating Poor	Percent Rating Excellent or Good	Percent Rating Fair or Poor
National Forest/Grassland Land	20	53	17	7	73	24
Federal Public Land	20	51	20	8	71	28
Public Land	21	48	19	8	69	27
BLM Land	15	46	25	12	61	37
National Wildlife Refuge Land	9	43	23	8	52	31
Private Land	15	26	23	31	41	54

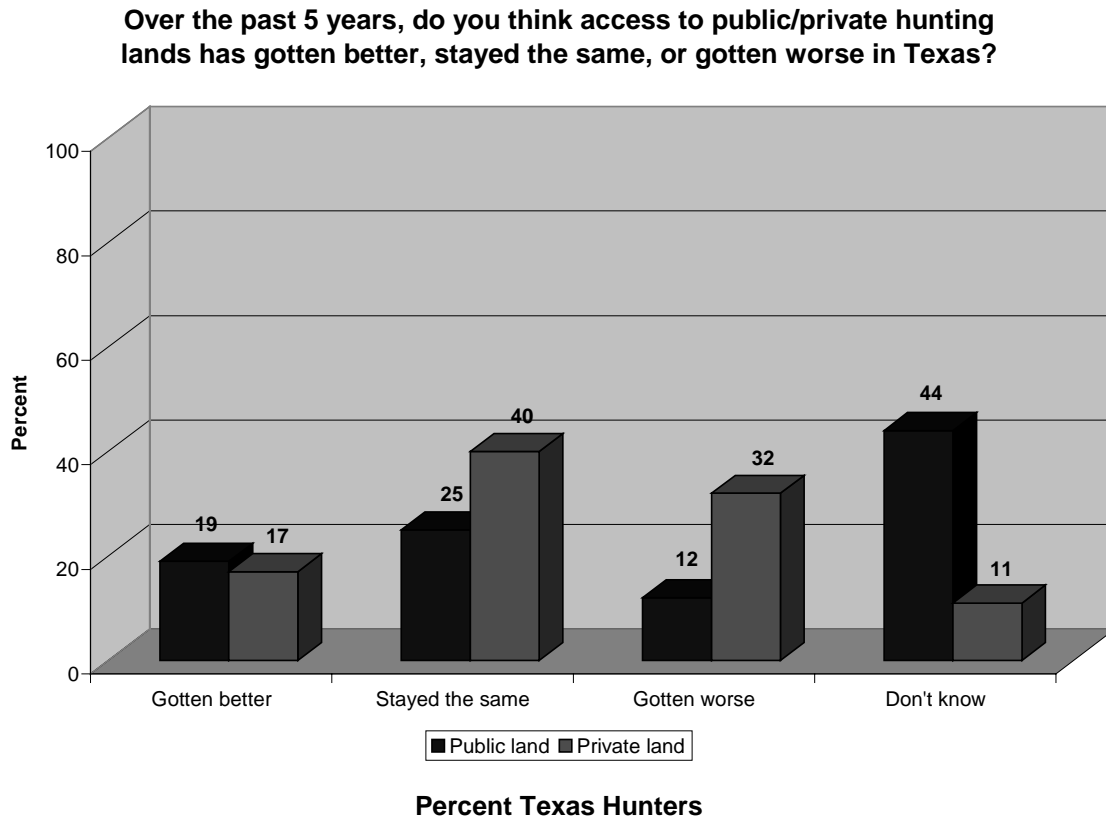
Source: Responsive Management/Ecosystem Management Research Institute, 2003

- **Hunters also see access to private lands as getting increasingly worse than access to public lands.**

Twenty-three percent of Virginia hunters felt that access to public hunting lands had gotten worse in the past 5 years, while more than twice that many (53%) felt that access to private hunting lands had gotten worse in the past 5 years (Responsive Management, 2000a). Twelve percent of Texas hunters felt that access to public lands had gotten worse over the past 5 years

compared to 32% of Texas hunters who felt that access to private hunting lands had gotten worse over the past 5 years (Responsive Management, 2001b).





In Colorado, private lands relative to public lands had a higher percentage of hunters who said that access had gotten worse over the past 10 years in Colorado. The percentage of Colorado hunters who reported that private land access had gotten worse in Colorado over the past 10 years (47%) exceeded the percentage who reported access had gotten better over the past 10 years (38%). Very low percentages of hunters said that private land access had gotten better (6% overall, 7% of resident hunters, and 3% of nonresident hunters) (Responsive Management/Ecosystem Management Research Institute, 2003).

Poor hunting access on private lands can cause hunters to decrease their hunting days on private lands and encourage more hunting on public lands. In Colorado, hunters are hunting fewer days on private land in favor of hunting on public land. A strong majority of Colorado hunters (61%) who had hunted on private lands in the past 10 years said that the number of days per year that they have hunted on private lands has remained about the same. The percentage of hunters who said that the number of days they have hunted on private land has decreased (21%) is slightly

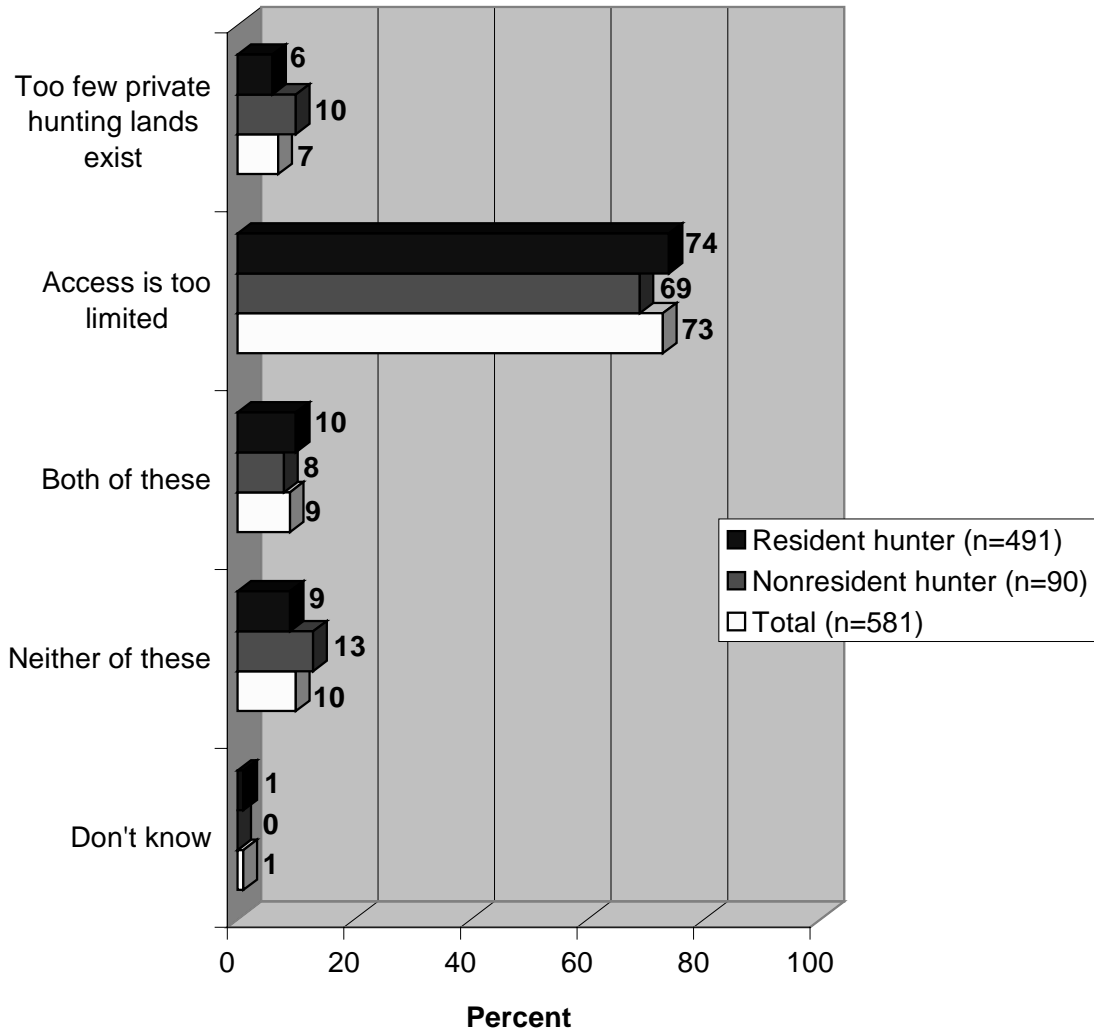
higher than the percentage who said the number of days they have hunted on private land has increased (16%) (Responsive Management/Ecosystem Management Research Institute, 2003).

- **The research suggests that hunters feel that private land access is inadequate due to limited access rather than the existence of too few private hunting lands.**

Regarding hunters who are hunting fewer days on private land in favor of public lands, the most common reason given for hunting less on private lands was the lack of availability of hunting opportunities on private land. Forty percent of Colorado hunters said they hunted more on public lands because of a lack of availability of private hunting opportunities, and an additional 20% of hunters said they hunt more on public land because there are too many hassles dealing with private landowners (Responsive Management/Ecosystem Management Research Institute 2003).

Hunters who hunt on private lands in Colorado but who rated private lands access as fair or poor, said that their low rating is because of limited access rather than because too few private hunting lands exist (Responsive Management/Ecosystem Management Research Institute 2003). This is an important finding. Hunters feel that private land exists for hunting, but that they are blocked from using it and/or it is becoming increasingly more difficult to obtain opportunities to hunt on these private lands.

Did you rate access to private hunting lands in CO as fair/poor because too few private hunting lands exist for hunting or because access to these lands is too limited? (Asked of those who hunted on private lands and who said that access is fair/poor.)

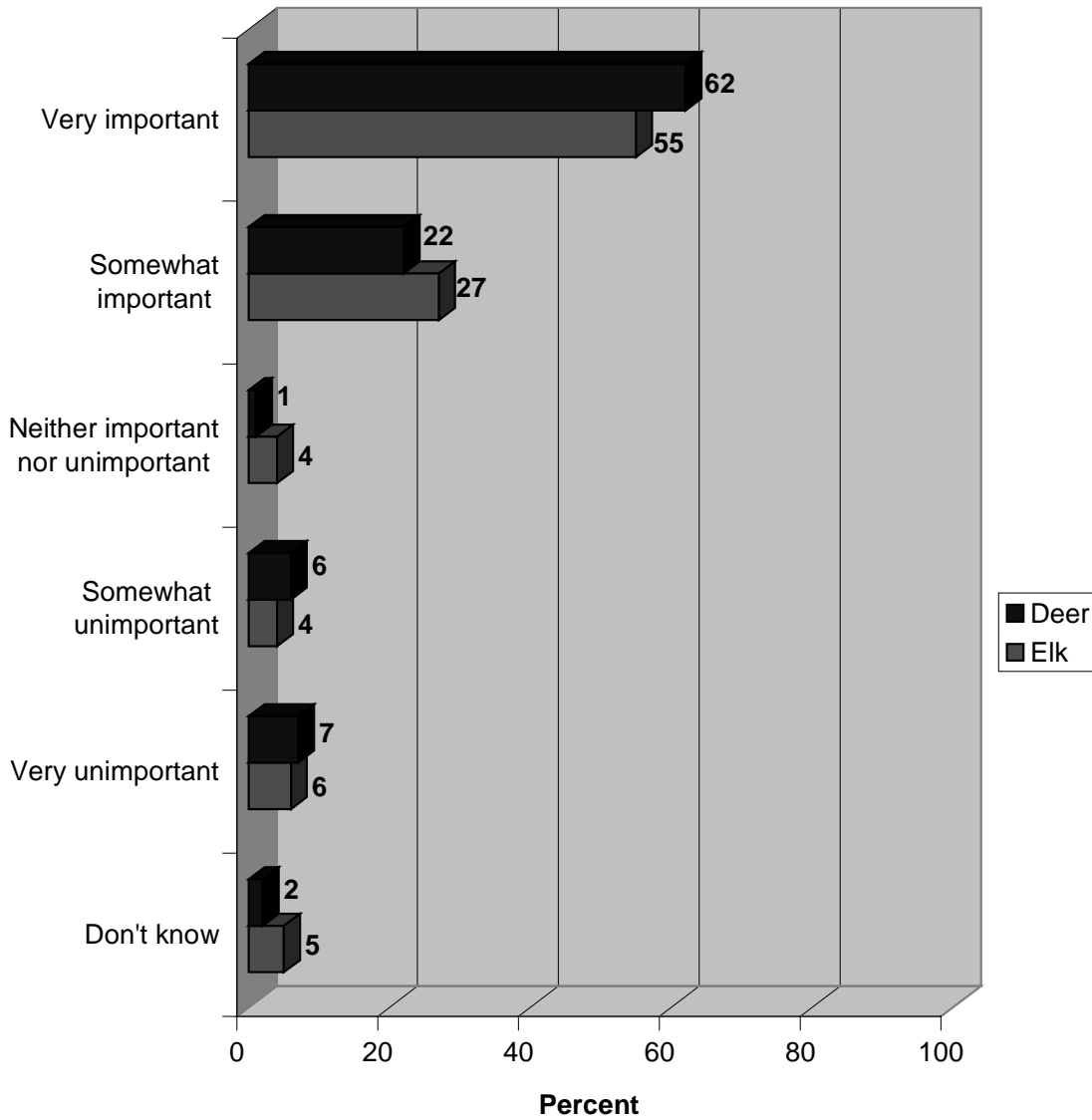


RESEARCH IMPLICATIONS FOR IMPROVING HUNTER ACCESS TO PRIVATE LANDS

- **The research shows that hunters are very supportive of state programs designed to improve hunter access to private lands.**

In a 2002 study conducted by Responsive Management for the Washington Department of Fish and Wildlife (WDFW), *Washington Hunters' Opinions on and Attitudes Toward Game Species Management*, hunters who hunted various types of game were asked their opinions on the WDFW game management policies. This study concluded that hunters felt that the management of hunting lands, and especially private hunting lands, is an important function for the WDFW. Over 85% of hunters said they think private lands are very or somewhat important to wildlife, and over 70% of hunters said they think private lands are very or somewhat important to outdoor recreation. Pertaining to the desire for increased access for hunting big game (deer and elk), 82% of hunters thought it was important to increase access for deer hunting, and 84% of hunters thought it was important to increase access for elk hunting (Responsive Management, 2002b).

How important or unimportant is increased access to private and public lands for hunting the following species in Washington?



Source: Responsive Management, 2002b

Specifically pertaining to hunting on private lands, over 70% of Washington hunters agreed that access to private lands for recreational hunting is important even if an access fee is charged (Responsive Management, 2002b).

In both a 2002 study of Washington hunters and a 2003 study of the WDFW's Private Land Wildlife Management Areas, hunters were found to generally support WDFW efforts to promote hunting opportunities on private lands. Hunters in general felt that the PLWMA program opens private lands to hunting and provides more access. Specifically, this study on the PLWMA program found that 80% of hunters who lived around PLWMA land but did not hunt PLWMA land and 86% of hunters who did hunt PLWMA lands felt that the PLWMA program was very or somewhat important in providing hunting access opportunities. The most common reason cited for why these hunters felt that the PLWMA program was worthwhile was because they felt that the program provided access to private lands that would otherwise be closed to hunters. Thirty-two percent of PLWMA hunters and an equal percentage of Washington hunters in general held the opinion that the PLWMA program had provided hunters significantly or somewhat more hunting access. Twenty percent of each group believed the program had provided less public access. Majorities of both hunter groups thought the PLWMA program should be continued and expanded (Responsive Management, 2003c).

- **Many hunters in Washington were supportive of having state fish and wildlife agencies work with private landowners through management plans, incentives, or liability releases to open up more private land to hunting access.**

Several different types of incentives that can be provided to landowners to encourage them to open up their lands were presented to Washington hunters to assess their level of support for these incentives. Washington hunters were generally supportive of all types of programs that would allow greater access to private hunting lands.

- Over three-quarters (77% - 87%) of all types of hunters in Washington agreed that private land programs should provide incentives to landowners in exchange for improvement of wildlife habitat.

- 70% or more of all types of hunters in Washington agreed that private land programs should provide incentives to landowners in exchange for access onto their lands for outdoor recreation.
- A majority of Washington hunters were willing to pay a private landowner for the opportunity to hunt the animal of their choice with the exception of turkey hunters (only 42% of turkey hunters were willing to pay an access fee to a landowner to hunt turkey) (Responsive Management, 2002b).

The survey results showed high support among all types of Washington hunters for having the WDFW actively pursue additional public access to private lands through:

- Easements (72% - 86%),
- Cooperative programs (80% - 90%), and
- “Walk-in” only management (79% - 85%) (Responsive Management, 2002b).

Access to private lands involves both responsibilities of hunters to respect the land and a trust and rapport that landowners bestow on hunters. As one hunter from New York commented in the study for the Izaak Walton League (1998):

Maybe I'm wrong, but it just seems like people have become more aware with all these problems they see and say, "I don't want to hunt." Same thing if it was a landowner walking in here and says, "Wow, I don't want anybody on my land because I don't want to get shot. I don't want my sheep to get shot, and I don't want liability." Hunters, farmers, whoever, they're becoming a little more aware probably.

- **Hunters and private landowners have differing opinions on the perceived reasons why access to private lands has become more difficult in recent years.**

Responsive Management's study conducted for the Izaak Walton League of America (1998) on private land access and hunter ethics found that landowners and hunters share many of the same concerns and beliefs about access to private lands. Landowners and hunters agree that access to private lands has become more difficult in recent years; however, the perceived reasons for this are different among hunters and landowners. There are, however, significant differences in the

details and in what each group perceives to be cause-and-effect. Hunters tend to feel that landowners are closing land due to:

- 1) Poor hunter behavior,
- 2) To generate income from leasing hunting rights, and
- 3) Issues of liability.

Landowners on the other hand, feel that land is being closed due to:

- 1) Development and new ownership patterns,
- 2) An enhanced need to control who is on their property, and
- 3) A limit on the number of hunters (Responsive Management, 1998).

Landowners in the focus groups felt that they were allowing, in most cases, about the same number of hunters they have always allowed on their property to hunt. They may be doing this through lease arrangements, but for most landowners, this is an issue of control, not to generate income. Landowners feel an obligation to manage the wildlife on their property and to manage the recreation as well. This means that they are not willing to allow an excessive number of hunters on their property. Few of the landowners were unwilling to allow hunting; their primary concern was the proper management of their lands.

Washington hunters apparently recognize the complications involved with private landowners attempting to maintain control over their land while managing the game on that land. All hunter types in Washington had high percentages who agreed with the statement, "Public hunting access on private lands can best be assured over the long term by promoting policies to increase the economic viability of farming, including tree farming, and to control urban sprawl, thus conserving the agricultural and rural landscape" (percents ranged from 74% to 86% among all hunter types) (Responsive Management, 2002b).

Indicative of hunters everywhere, a New York hunter expressed understanding and sympathy with some of the problems that landowners face if they choose to open their land to public hunting:

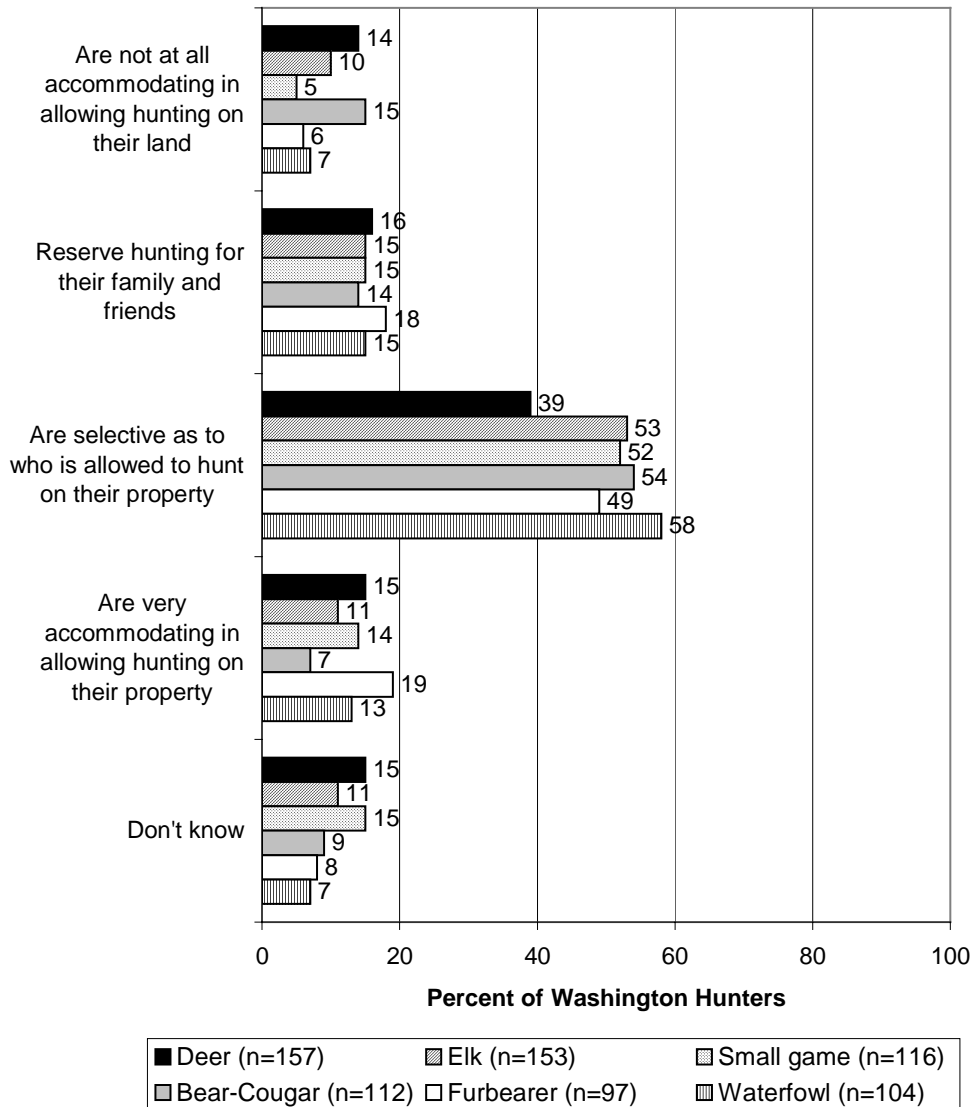
I can't blame the private landowners because all it takes is one hunter who is not trained, and who doesn't know how to manage wildlife, to go out there one year and then that landowner has it in his head that's the way all hunters are. Then he won't allow anybody on his land. Plus, as soon as they figure that, if they let one or two people [in] then their truck shows up or their car is there, then more people are going to come to the door and say, "Hey, can I hunt here, can I hunt here, can I hunt here?" So, then he'll say, "I don't want anybody."

--New York hunter

Washington hunters, thus, describe landowners as selective in allowing hunting on their lands.

Washington hunters most commonly said that landowners are selective as to who is allowed to hunt on their property (39% - 58%) or that landowners reserve hunting opportunities for family and friends only (14% - 18%). Low percentages of hunters (7% - 19%) said they would describe landowners as very accommodating in allowing hunting on their property.

Thinking about hunting access on private lands in Washington, in general, how would you describe WA landowners? Would you say they...?



It is clear from Responsive Management research that access to private lands is reported as being worse than access to public lands. Fish and wildlife agencies may have more options available for managing the public land under their jurisdiction. Fish and wildlife agencies can work to improve road and trail access and to reduce road closures into and on public lands. Working with private landowners to improve hunter access and to increase hunting opportunities can be a

much more complicated issue. It is clear that hunters support the idea of having fish and wildlife agencies partner with private landowners. Support for the PLWMA program in Washington was high, and hunters consistently supported incentives that encourage landowners to open their lands to hunting.

Specifically pertaining to partnerships between the WDFW and landowners, it is important to remember that landowners do not see state agencies as a vehicle to control access. Landowners should not be asked to relinquish control of access to their property as a condition of cooperative agreements. This factor alone is probably enough to discourage many landowners from entering into cooperative management programs.

Also, if hunters expect landowners to increase access to their property, they must have strict guidelines of hunting ethics. Fortunately, the research suggests that some hunters are aware that their behavior can have a profound impact on whether private land access is continued. However, if landowners are to trust hunters on their property, hunters must not cause destruction, leave trash on the property, or otherwise leave a negative impression in the minds of private landowners.

Wright et. al. (1998) studied varying groups of East Texas landowners and their decisions to allow or limit access of hunters and found differences in landowner attitudes and motivations. The study identified access decisions by landowners and the reasons landowners grant or restrict access to be important information upon which to build hunter access programs. Prohibitionists, landowners who would not grant access to hunters, were older, were more likely to be female, were more likely to have stronger anti-hunting attitudes, and had more education than other landowners. Exclusionists, landowners who excluded all access except personal and family use, placed importance on the resource and excluded others to maintain those resources for personal use. Both prohibitionists and exclusionists held negative attitudes toward hunters and hunter behavior. Restrictionists, landowners who allowed access only to family, friends, or business associates, placed a high value on the land's recreation potential and were less concerned about liability and hunter behavior. Open access landowners, individuals who allowed people who are not personal acquaintances to hunt on their property without imposing a fee, were least

concerned with liability, hunter behavior, and property damage. The final group, leasors, assess a fee for hunter access rights. Leasors' main objective was investment for land ownership and exhibited low concern for hunter-related damage and perceived liability.

Wright and Kaiser (1986) analyzed the perceptions of state wildlife administrators to determine the degree to which they felt hunter access was a problem nationally. Over half of the administrators considered access a major problem, while 48% of administrators considered access a minor problem. Administrators felt that misconduct by hunters is the largest deterrent to landowners allowing access, with 59% ranking hunter misconduct as highly significant in property owners' decision to preclude access. Perceived liability, "protectionist" attitudes by landowners (antihunting sentiments or the desire to maintain exclusive rights to wildlife resources), and lack of economic incentives/compensation were not considered significant factors by a majority of administrators regarding landowners' decisions to preclude access to hunters. Wright and Kaiser (1986) conclude that minimizing hunter misconduct, involving landowners as well as hunters in information and education programs, informing landowners of wildlife management agency services, educating landowners of recreation use statutes, and offering non-monetary incentives (technical assistance, plants, seeds, tax incentives) are important aspects of dealing with hunter access problems.

Lauber and Brown (2000) found that in a study about private hunting lands access in Dutchess County, New York, the most important reasons for posting of land included: a desire to control the use of their property, a concern about problems with hunters or others, a concern about liability if someone was hurt on their property, and a concern about their personal safety.

Access clearly should be a concern of conservation organizations, sportsmen's organizations, and fish and wildlife agencies that wish to maintain high levels of satisfaction among hunters and retain hunters in the sport. Access is identified as a top reason for dissatisfaction and for hunting less or leaving the sport altogether. Fish and wildlife agencies must confront the complicated issues of urbanization, increased development, road closures, and changes in landowner patterns. In addition, conservation organizations, sportsmen's organizations, and fish and wildlife agencies should recognize the psychological impact that poor hunting access has on hunters'

satisfaction as well as the reasons why access is often reported as a leading cause of dissatisfaction. There are, unfortunately, no “silver bullets” to solve some of these problems. The collective efforts to tackle both the physical barriers to increased access and the psychological prevalence of hunter access issues will result in increased hunter satisfaction and improved relations among conservation organizations, sportsmen’s organizations, and fish and wildlife agencies and hunters and private landowners.

CHAPTER TWO: ANGLER ACCESS ISSUES

THE IMPORTANCE OF FISHING IN THE UNITED STATES

As with hunting, fishing is also an important recreational activity in the United States. To go fishing as a child is a nearly universal experience for Americans. There are probably few other recreational activities that are as widely shared as taking a rod and line and trying to catch a fish in a pond, stream, lake, reservoir or river. Responsive Management research shows that more than 80% of Americans have fished at some time in their lives, and more than 70% have fished after the age of 16.

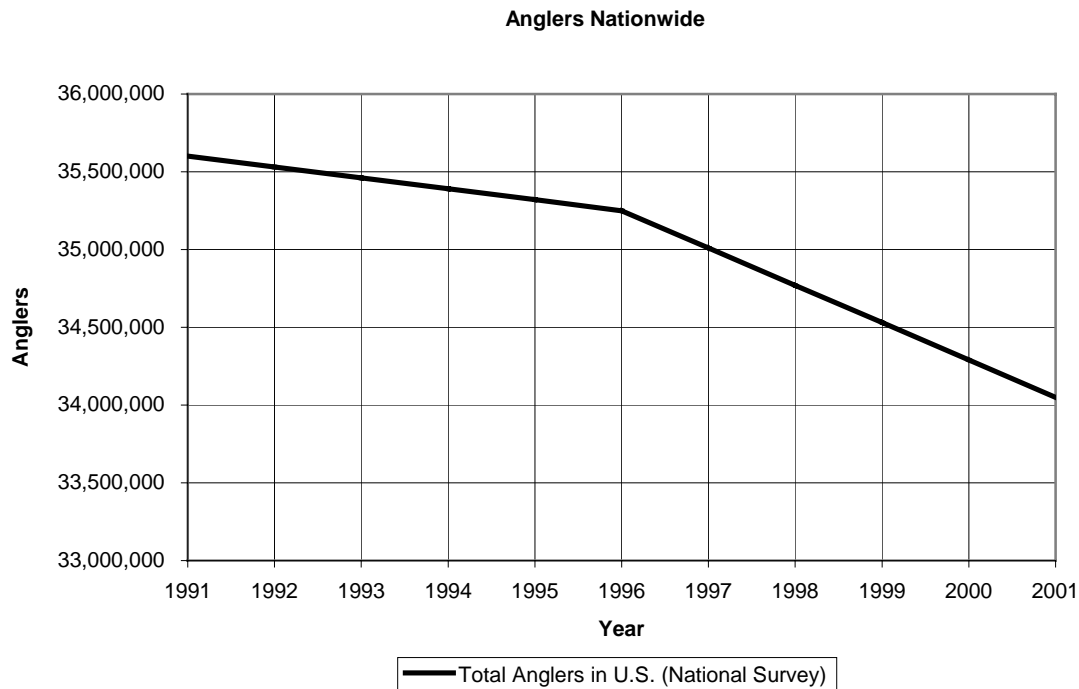
Research has documented the many benefits of fishing to the American public, including its contribution to family cohesiveness and values, an enhanced and increased understanding of the environment, and many health-related benefits as well. What is clearly good for the health, well-being and outdoor education of the American family is also good for the American economy. In 2001, anglers contributed \$35.6 billion to the nation's economy in travel, equipment and other expenditures associated with fishing (USFWS, 2001). These expenditures support both big and small businesses across the nation, from the car and truck industry to major retail stores to small local family businesses. Perhaps more importantly, however, sport fishing is a net contributor to the nation's fisheries and natural resources. More than \$597 million was spent in 2001 on license fees, providing a major source of financial support for state fisheries programs (USFWS, 2001). And through the Federal Aid in Sport Fish Restoration Program, anglers contribute millions of dollars to the conservation of our nation's fisheries as well. The program includes a manufacturer's excise tax on fishing rods, reels, creels, artificial baits and lures. Funds from license fees and manufacturers' excise tax have built the most successful program of fisheries management, conservation and restoration in the world.

Fishing is an important historical, social, and cultural activity in the United States that enjoys broad public support. Sizeable majorities of Americans overall support fishing and the preservation of fishing opportunities in America. A 1999 public opinion survey conducted by Responsive Management for the International Association of Fish and Wildlife Agencies showed

that 94% of anglers and 85% of non-anglers approved of legal recreational fishing (Responsive Management, 1999).

According to the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 34.1 million Americans 16 years old and older fished in 2001 (USFWS, 2001). In 2001, anglers spent an average of 16 days fishing and took an average of 13 fishing trips (USFWS, 2001).

After a decade of substantial growth in the total number of anglers nationwide, fishing participation in the U.S. has leveled off nationwide and has decreased substantially in many states. Between 1980 and 1990, fishing participation among those aged 6 years and older increased by 20%. Between 1991 and 1996, fishing participation declined from 35.6 million anglers 16 years of age and older to 35.2 million nationwide. In 2001, the number declined further to 34.1 million anglers (USFWS, 2001). As a percentage of the general population, fishing has decreased slightly. In 1991, 19% of those aged 16 years and older fished, whereas only 17% fished in 1996 and 16% fished in 2001.



Declining numbers of anglers are a concern for numerous reasons. First, declining fishing participation affects the budgets of many state fish and wildlife agencies and thousands of businesses that depend on fishing-related expenditures. Rural economies are also impacted by decreased revenue from anglers because, as with hunting, so many rural economies depend on fishing-related expenditures as a major source of revenue. However, perhaps most importantly, fishing represents a cultural tradition with a long-standing history of wildlife conservation success in the United States.

FISHING ACCESS AS A CAUSE OF ANGLER DISSATISFACTION

- **Although access issues are important to anglers, access appears to be less of a reason for dissatisfaction among anglers than it is among hunters. The leading causes of angler dissatisfaction are instead related to social issues.**

Causes for the decline in fishing participation and reasons for angler dissatisfaction have become increasingly important to conservation organizations, sportsmen's organizations, and fish and wildlife agencies as they work to improve angler satisfaction and curb the decline in fishing participation. As with hunter access issues, natural resource and outdoor recreation organizations are exploring angler access issues as a potential reason contributing to angler dissatisfaction. There is less available research pertaining to angler access than hunter access. However, the research suggests that many of the problems relating to hunter access are also directly applicable to angler access.

Although the research suggests that access issues are a leading cause of hunter dissatisfaction, access appears to be less of an influence on angler dissatisfaction. However, the research suggests that access issues are becoming increasingly important to anglers. Access is becoming more of a problem for anglers for two major reasons. First, land development for subdivisions, shopping malls and industrial parks is eating up vast areas once used by anglers for fishing and access to fishing spots. Second, many private landowners are closing off access to prime fishing areas because of vandalism or intrusive behavior among a few of those using their property. All in all, there are two difficulties for anglers – less land available overall and fewer ways of getting to what is left.

In addition to these two major access issues, there are numerous related sub-issues. Some anglers like to hike or walk to their fishing spot to ensure a more private experience with as much solitude as possible. When roads are built too close to their favorite fishing spot, access becomes an issue. It is not that there isn't enough access but there is actually too much access. For example, in a study conducted for the Florida Game and Fresh Water Fish Commission (Responsive Management, 1995b), one respondent had mixed feelings concerning access saying, "It's going to be difficult no matter where you are. It shouldn't be any more accessible, there's

enough people out there already.” Other anglers like to get to their fishing spot using an all terrain vehicle (ATV). If access to these ATVs is restricted, these anglers experience access problems. And for anglers with disabilities, access means something entirely different – simply being able to get to a fishing spot. Access issues can take on many forms, and solving one access problem for one group of anglers can cause access problems for other anglers. Access issues can also be seasonal. For example, on some public lands, roads can be closed seasonally; access is only a problem during certain times of the year.

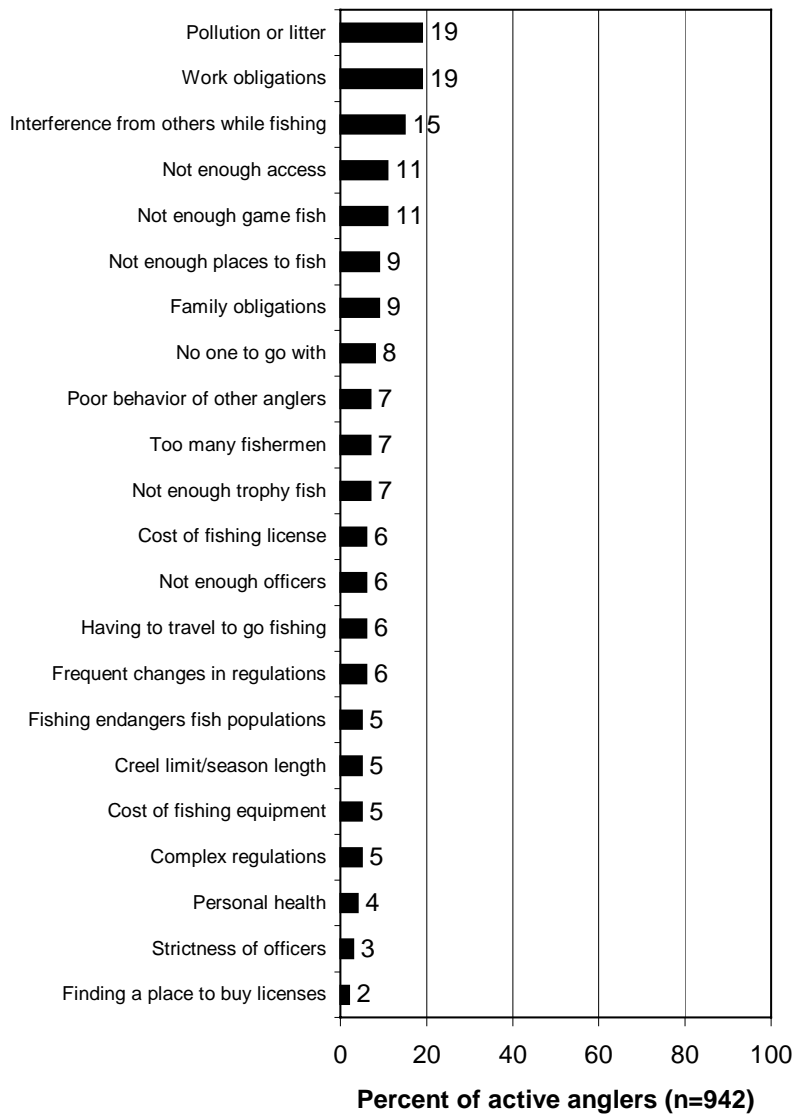
Although access issues may be increasingly important to anglers, research has shown that dissatisfactions stated most frequently as strongly influencing anglers’ decision not to fish are generally not resource-based, but social issues (Responsive Management, 1999). For example, in a 1999 study, Responsive Management found that a majority of anglers (55%) did not fish as much as they would like because of a lack of time, and their lack of time was directly related to work obligations. Only 5% of anglers said they did not know where to go or that it was hard to find a good location.

Supporting this finding, in a 1995 nationwide study on factors related to hunting and fishing participation in the United States, the three issues that took away most strongly from fishing satisfaction among active anglers were pollution or litter, work obligations, and interference from people doing other recreational activities where they fish (Responsive Management, 1995). Eleven percent of active anglers felt that not enough access strongly detracted from fishing enjoyment, and 9% said that not enough places to fish strongly detracted from fishing enjoyment. The same study found that the top five issues that strongly influenced inactive anglers to not fish were amount of free time, lost interest, family obligations, work obligations, and not having anyone to go with (Responsive Management, 1995). Seven percent of inactive anglers stated that not enough access strongly influenced their decisions not to fish, and 6% of inactive anglers stated that not enough places to fish strongly influenced their decisions not to fish.

Nevertheless, according to the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, of the 34.1 million anglers 16 years old and older that fished in 2001, 232,000 (1%) said that the reason they did not fish as much as they would have liked in 2001 was because there

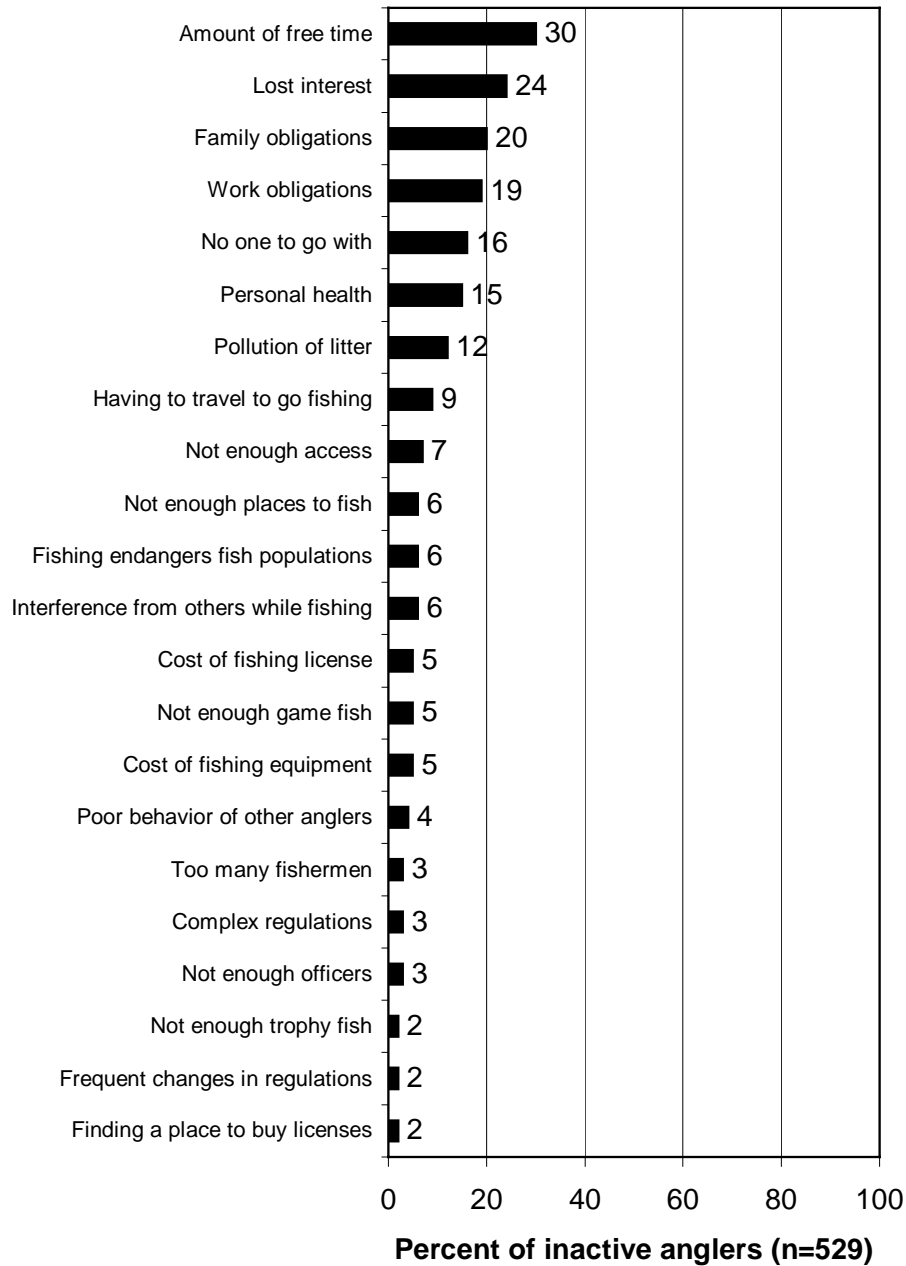
were not enough places to fish/not enough access (USFWS, 2001). Also, in a nationwide study conducted by Siddall, Inc. for the Recreational Boating and Fishing Foundation, 8% of current anglers said that they did not fish in the previous year because they were too far from a good fishing area (Siddall, Inc., 2003).

The following have strongly taken away from my fishing enjoyment.



Source: Responsive Management, 1999

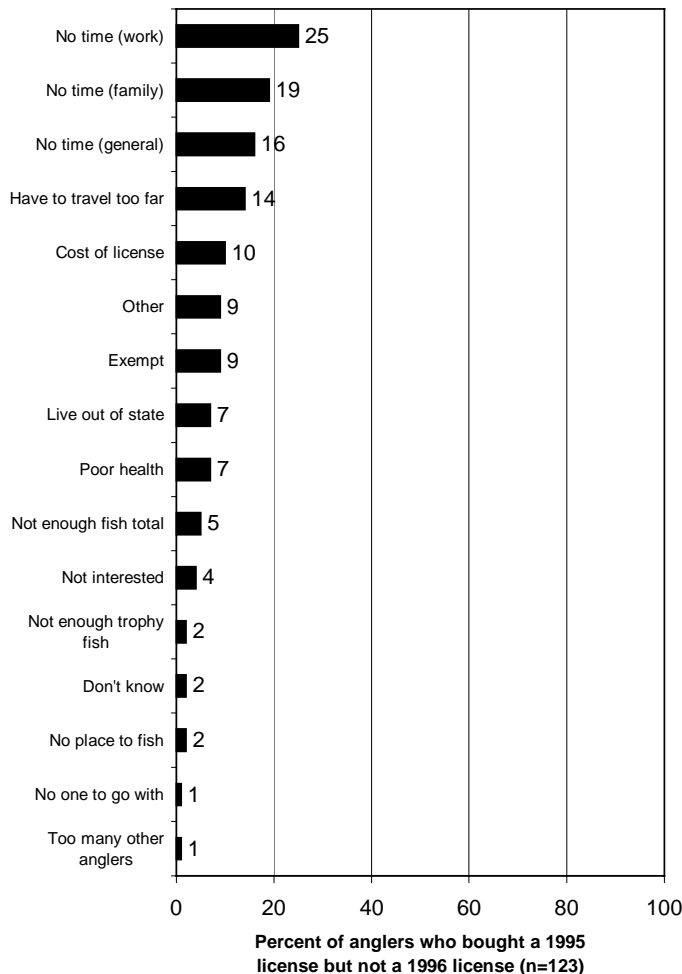
The following have strongly influenced my decision not to fish.



Source: *Responsive Management, 1999*

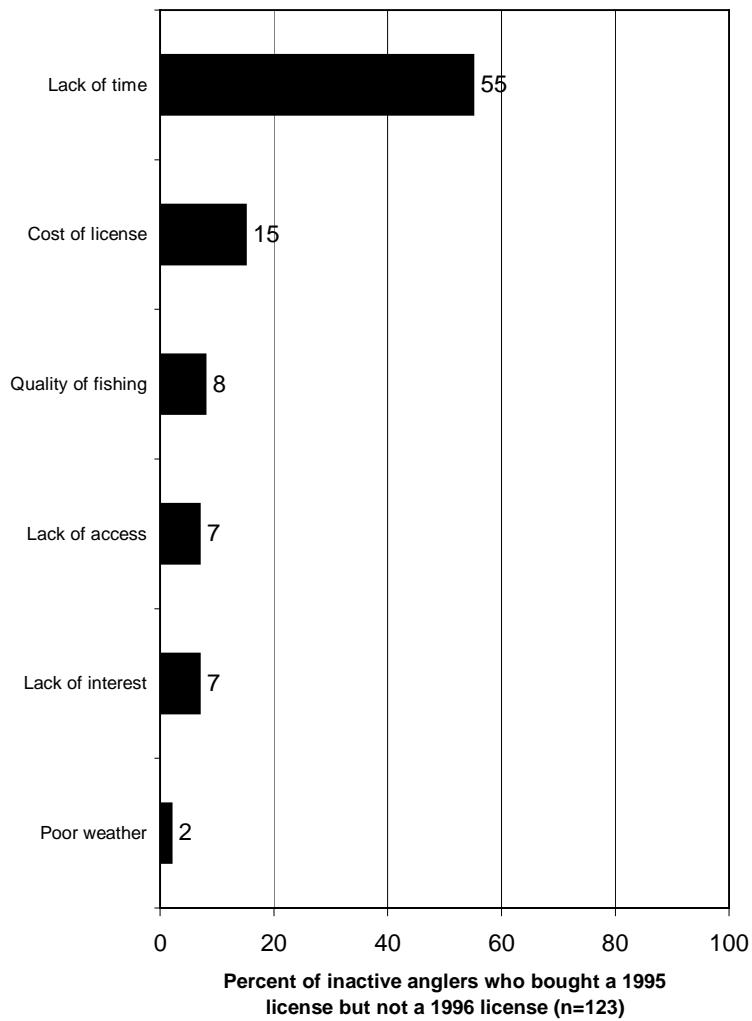
Historically, Pennsylvania was ranked in the top five states in total fishing licenses sold. However, between 1990 and 1996, the Commission lost nearly 200,000 license buyers. To better understand the reasons why license sales declined so dramatically and to gather information on angler attitudes toward license sales and reasons for not purchasing a 1996 license, a telephone survey was conducted of 1995 license buyers. License holders (1995) were screened and separated into those who purchased a license in 1996 (active anglers) and those who did not (inactive anglers). Inactive anglers were asked for the reason(s) they did not purchase a 1996 license. The top three most frequent reasons were all related to lack of time: work obligations, family obligations, and not enough time in general (Responsive Management, 1998). Two percent stated that, “no place to fish” was a reason for not buying a 1996 license.

Reasons for not buying a 1996 Pennsylvania fishing license.



In addition to asking inactive anglers why they did not buy a 1996 license in an open-ended manner, six issues were presented to inactive anglers who were instructed to say whether each issue did or did not influence their decision to not purchase a 1996 license. Of the six issues presented to inactive anglers, lack of time was by far the issue that most influenced their decision to not purchase a 1996 license.

Decision not to buy a 1996 Pennsylvania fishing license was strongly influenced by the following factors.



In a study conducted in Mississippi in 1998, Responsive Management found that 87% of statewide respondents who had been freshwater fishing in Mississippi in the previous 2 years said that they were very satisfied or somewhat satisfied with their freshwater fishing experiences. However, 8% of Mississippi residents who said they were *dissatisfied* with their freshwater fishing experiences said it was because there were not enough places to fish, and 7% said it was because the fishing areas aren't convenient. The number one reason was not enough fish (39%).

ACCESS TO PUBLIC LANDS

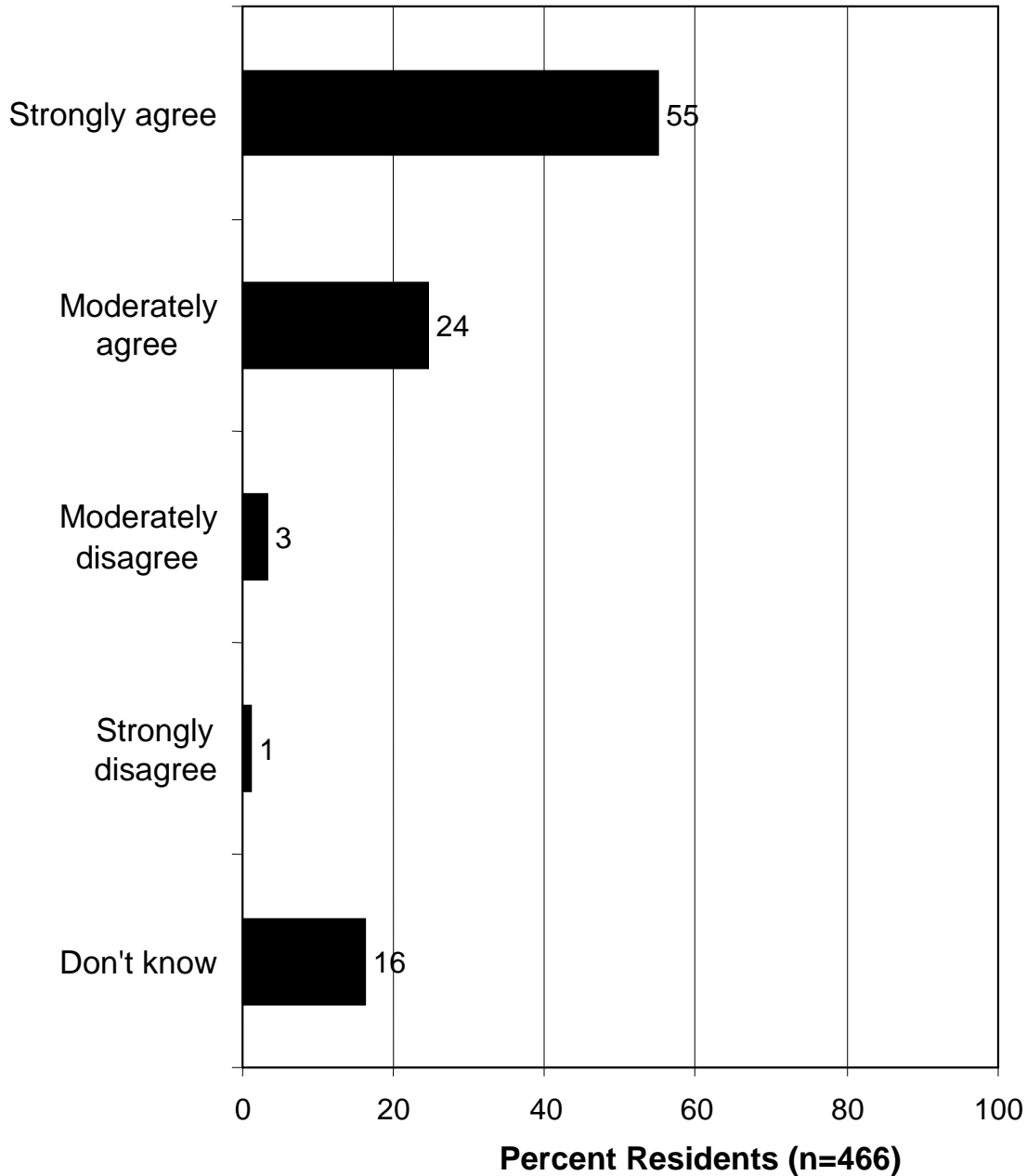
- **Anglers are generally satisfied with their state agency's efforts to provide fishing opportunities.**

Although overall, anglers appear to be satisfied with their state agency's efforts to provide fishing opportunities, this attitude varies by state. A nationwide study on factors related to hunting and fishing participation found that active anglers were satisfied with their state fish and wildlife agency's efforts to provide fishing opportunities. Twenty-seven percent of active anglers nationwide rated their state agency's efforts to provide fishing opportunities as excellent, 46% rated it as good, 18% rated it as fair, 4% rated it as poor, while 6% did not know or had no opinion of their state fish and wildlife agency's efforts to provide fishing opportunities (Responsive Management, 1995).

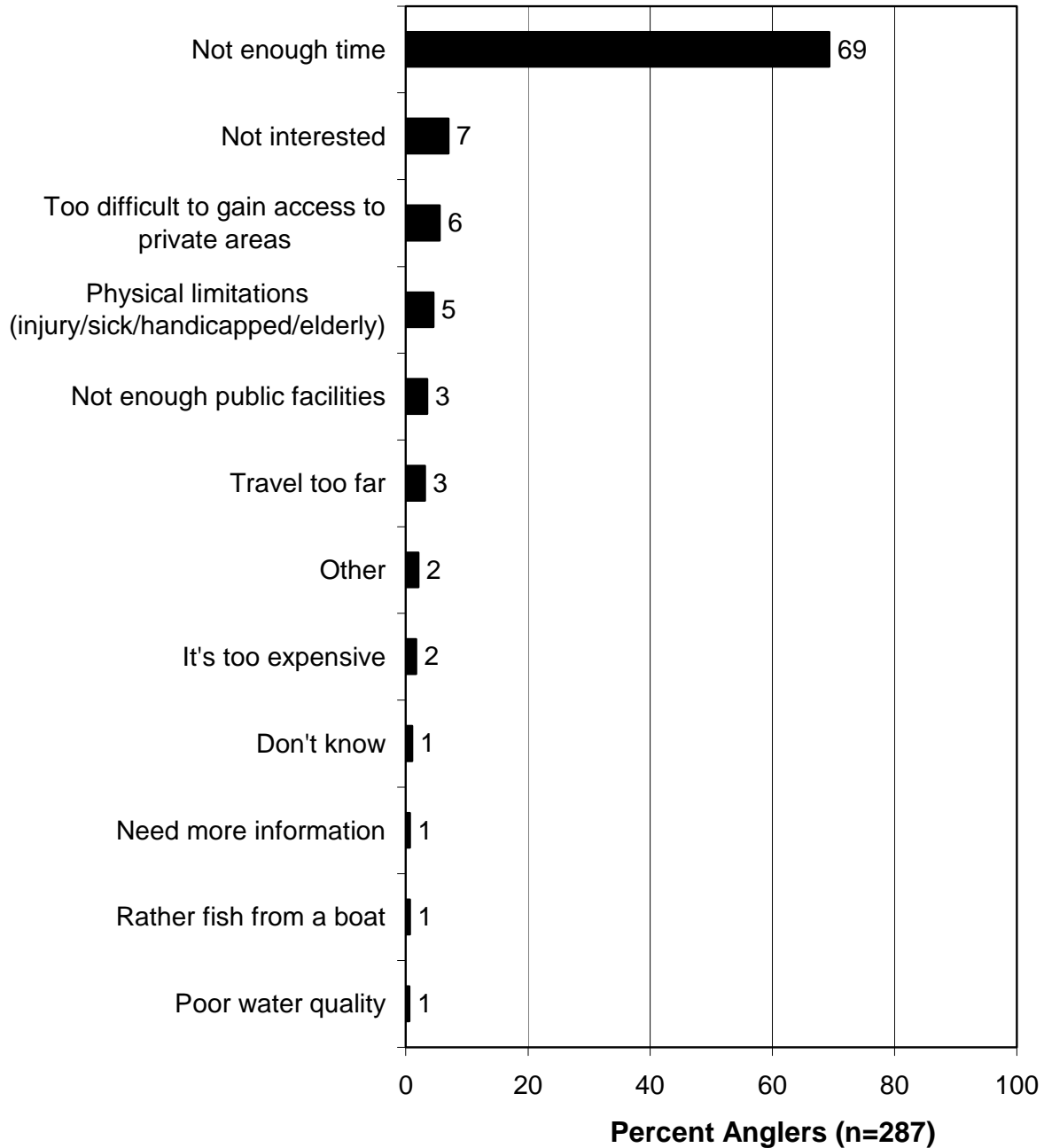
Residents of Kansas are also generally satisfied with public fishing opportunities in their state. A Responsive Management study conducted in Kansas in 2002 (Responsive Management, 2002d) showed that only 3% of Kansas residents said that not enough public facilities was the primary reason they did not fish more from a shore or dock in Kansas. Of those Kansas residents who did not fish from a shore or dock in Kansas in the 12 months prior to the survey, 1% said that not enough public facilities and the difficulty of gaining access to private areas was a primary reason for not fishing from a shore or dock in Kansas. When Kansas residents were asked about fishing opportunities from a shore or dock, majorities strongly (55%) or moderately (24%) agreed that there are adequate opportunities to go fishing in Kansas from a shore or dock. Only 3% moderately disagreed, and 1% strongly disagreed.

This study also asked Kansas residents about why they did not fish more from a boat in Kansas, and not enough public facilities was fairly low down on the list of possible reasons (only 1% of Kansas residents named this as a reason). In addition, a majority of Kansas residents agreed that there are adequate opportunities to go fishing from a boat in Kansas (Responsive Management, 2002d).

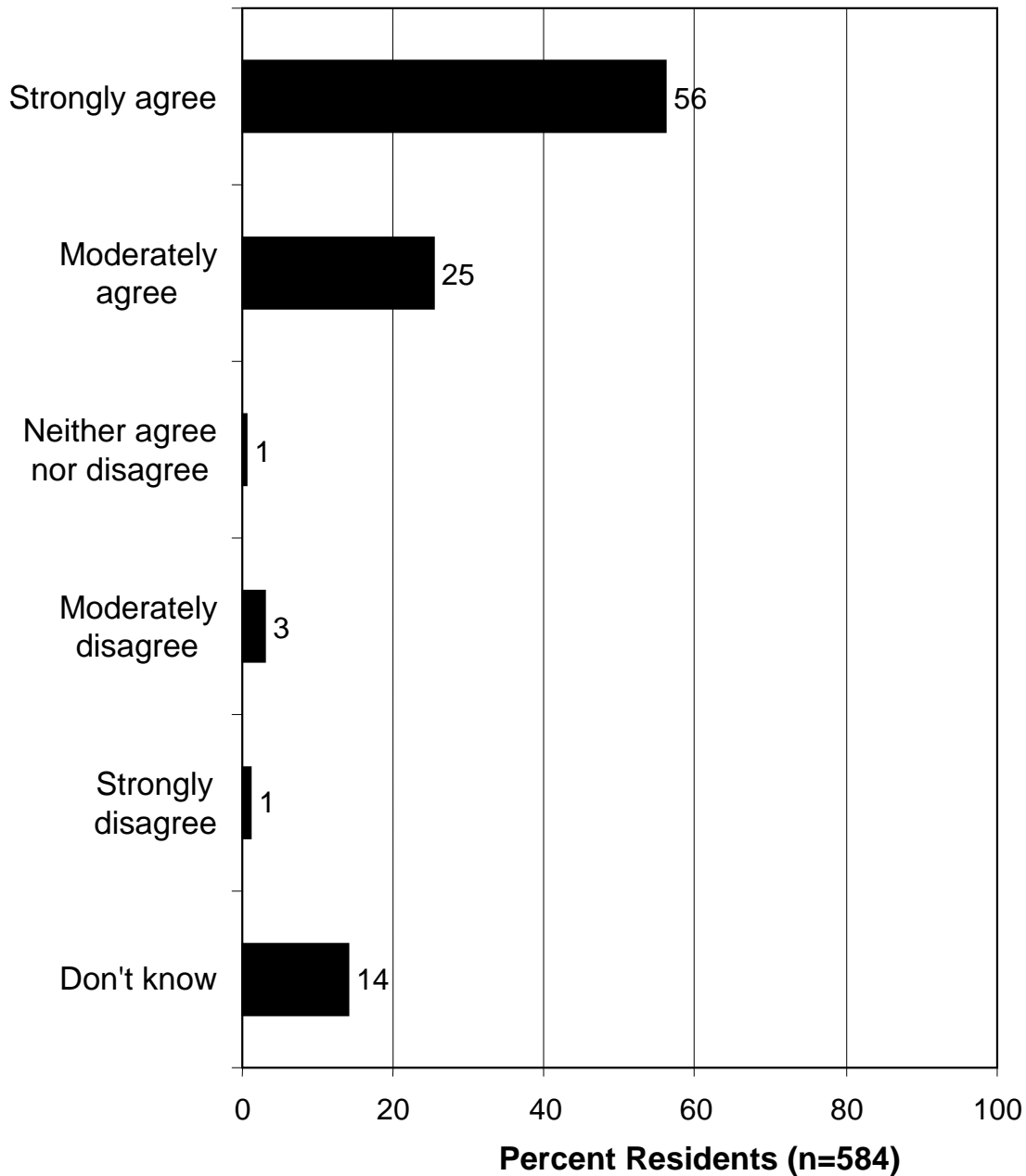
Q103. Do you agree or disagree that within the state of Kansas there are adequate opportunities to go fishing from a shore or dock?



Q50. Which of the following is the primary reason you did not fish from a shore or dock more in Kansas?



Q107. Do you agree or disagree that, within the state of Kansas, there are adequate opportunities to go fishing from a boat?



In Virginia, there was a higher proportion of anglers who were dissatisfied with public access. A study on Virginia anglers showed that 11% rated shoreline access in places they fish as excellent, 36% rated shoreline access as good, 32% rated shoreline access as fair, and 17% rated shoreline access as poor (Responsive Management, 1999b). A sizeable number of anglers felt that the number and size of boat ramps at places where they fish were fair or poor (41%). However, it should be noted that a larger number of anglers felt the number and size of boat ramps at places where they fish were excellent or good (48%).

However, a large majority (65%) of Virginia anglers felt that the Virginia Department of Game and Inland Fisheries' efforts to provide fishing opportunities were excellent or good. However, 22% of anglers felt that the Department's efforts were fair, and 4% felt they were poor in terms of providing fishing opportunities (Responsive Management, 1999b).

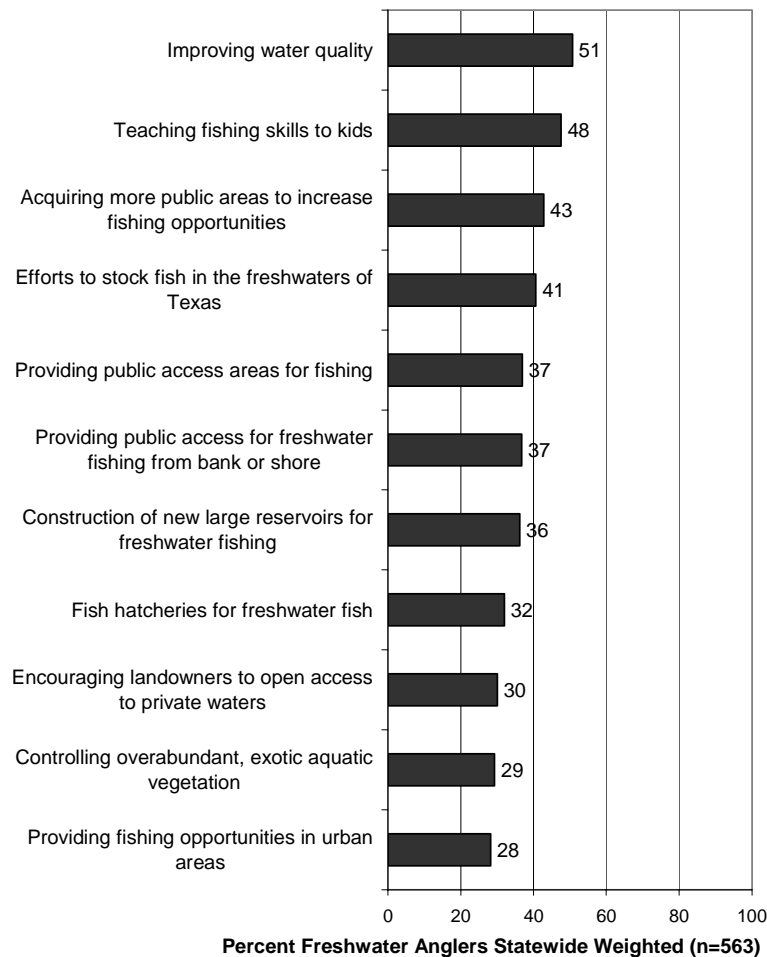
Overall, problems with access did not appear to detract from fishing satisfaction in Virginia. For example, only 2% of anglers said that no access or poor access to fishing areas took away from fishing satisfaction or caused anglers to not fish as much as they would like. Nevertheless, nearly half of anglers felt the Virginia Department of Game and Inland Fisheries should provide much more effort on acquiring more public areas for fishing. Although boaters were generally satisfied with access to waters, some boaters expressed significant interest in developing new access areas.

In a study of West Virginia residents' attitudes toward the state's land acquisition program and fish and wildlife management, 40% felt that much more effort should be spent constructing recreational access sites on streams, rivers, and lakes (Responsive Management, 1998e).

In a study of Texas anglers, 26% rated the Texas Parks and Wildlife Department as doing an excellent job, 49% rated the Department as doing a good job, 18% rated the Department as doing a fair job and only 2% rated the Department as doing a poor job in terms of efforts to provide freshwater fishing opportunities. Saltwater anglers were asked to rate the Department's efforts in providing saltwater fishing opportunities, and 23% rated the Department's efforts as excellent, 55% as good, 14% as fair, and 3% as poor.

The study also showed that priority freshwater fisheries programs for freshwater anglers included improving water quality (51%), teaching fishing skills to kids (48%), acquiring more public areas to increase fishing opportunities (43%), and efforts to stock fish in the freshwaters of Texas (41%). These activities were program areas where Texas anglers felt much more time and money should be spent. Saltwater anglers were less interested in time, money and personnel being spent on access issues; the priority saltwater fisheries programs for saltwater anglers included improving water quality (54%), teaching fishing skills to kids (54%), fish hatcheries for saltwater fish (38%), artificial reef programs (35%), providing public access areas for fishing (33%), fish-related research (32%), and acquiring more public areas to increase fishing opportunities (28%).

Q68-88. Percent who think TPWD should spend MUCH MORE time, money and personnel on ... (Freshwater Anglers)

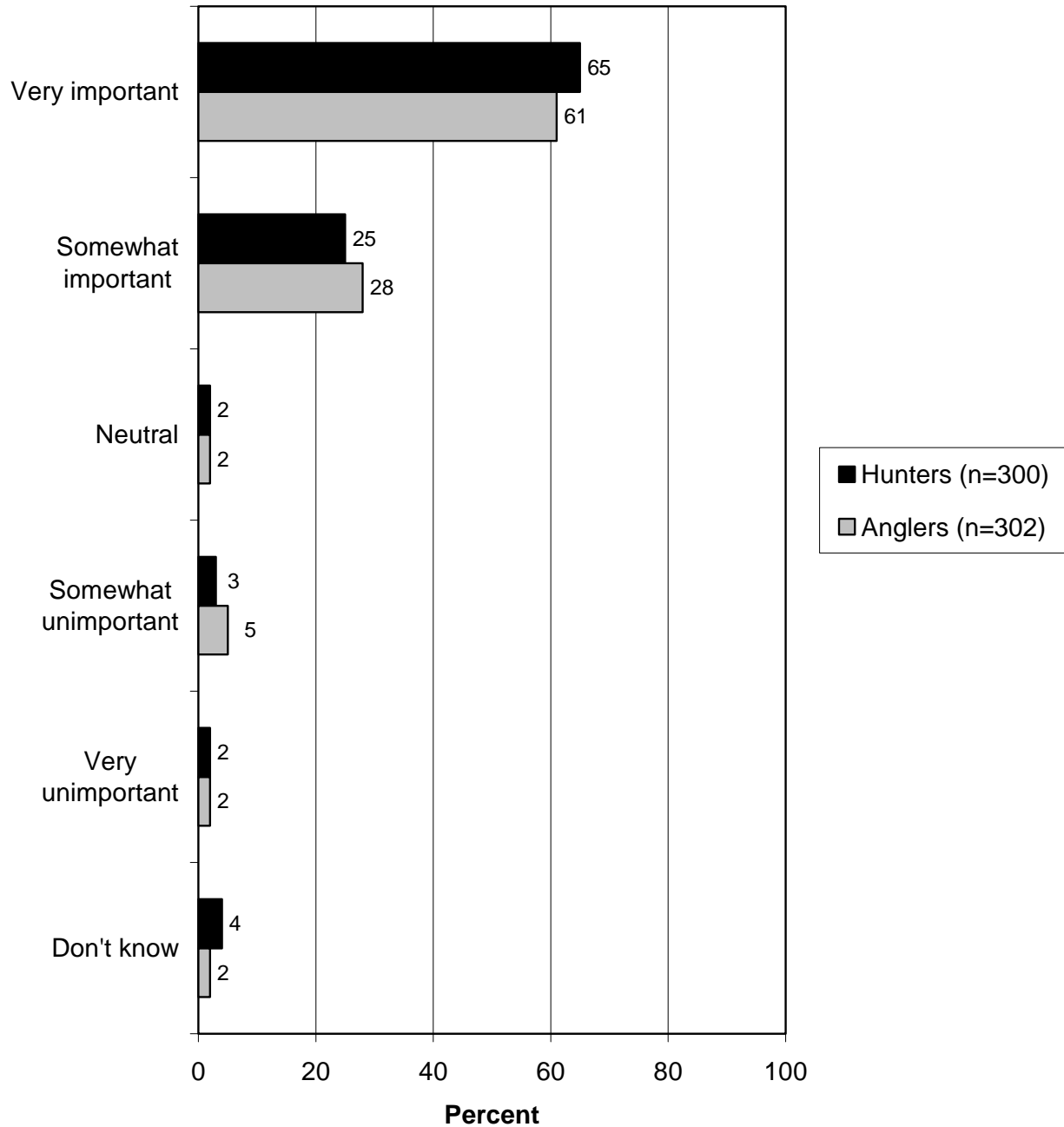


Even if some anglers may desire greater access to public lands, the research suggests that anglers do not wish to sacrifice their quality fishing time “getting away from it all” in favor of more roads in National Forest lands to allow for greater access. On public lands, the research suggests that most anglers prefer a more remote fishing experience. In a Responsive Management study on fishing access in National Forests, anglers felt that fishing opportunities in more remote areas was an important use of National Forests. More than 8 out of 10 anglers stated that this type of use was important. Also, most anglers placed a higher value on having a quiet experience than on greater public access for off-road vehicles. Eighty-two percent of anglers preferred a quiet fishing experience over greater off-road vehicle access. However, having some areas with access for off-road vehicles is important to some anglers. For example, almost half (47%) of anglers said that providing places where people can use off-road vehicles is an important use of the National Forests (Responsive Management, 1999e).

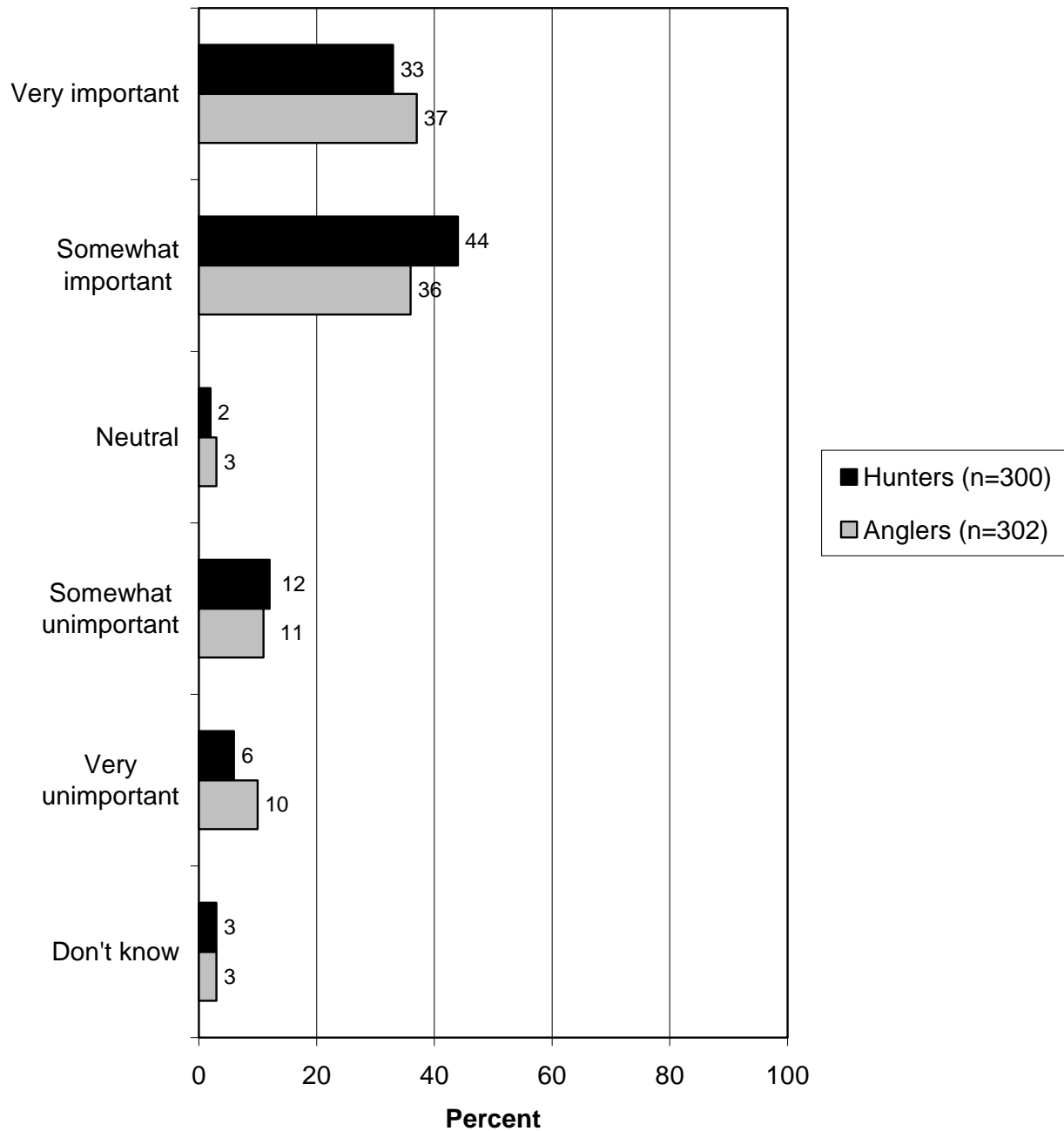
This study also showed that anglers were generally satisfied with the amount of access for fishing in National Forests. For example, 10% of anglers reported that there are too many roads in the National Forests to provide access for fishing opportunities, 45% reported there are just the right amount, and 17% reported there are too few roads. The study also showed that most anglers (55%) felt that the quality of access to fishing locations on National Forest lands was the same or better as access to fishing locations on other lands. Seventeen percent of anglers wanted the number and amount of roads in the National Forests increased, 53% wanted it kept at present levels, and 15% wanted it decreased. Seventy-two percent of anglers supported (49% strongly and 23% moderately) limiting the number of roads and off-road vehicles in certain designated roadless areas in the National Forests and allowing hunters and anglers to access the areas by foot travel only; 20% opposed (9% strongly and 11% moderately) and 5% neither supported nor opposed (Responsive Management, 1999e).

Despite these findings, the study showed that both hunters and anglers felt that providing easy-to-access fishing opportunities is an important use of National Forests and that fishing is an important use of National Forests.

Q33. Is fishing important or unimportant to you as a use of the National Forests?



Q39. Is providing easy-to-access fishing opportunities important or unimportant to you as a use of the National Forests?



As with hunting, it is likely that some, but not all, public lands are landlocked by private lands. Some of these private lands may be completely inaccessible, or accessible by a secondary road. However, it is difficult to comment on this topic because to date, a comprehensive study similar to the study conducted for the Conservation Fund on hunting lands has not been conducted for fishing lands.

ACCESS TO PRIVATE LANDS

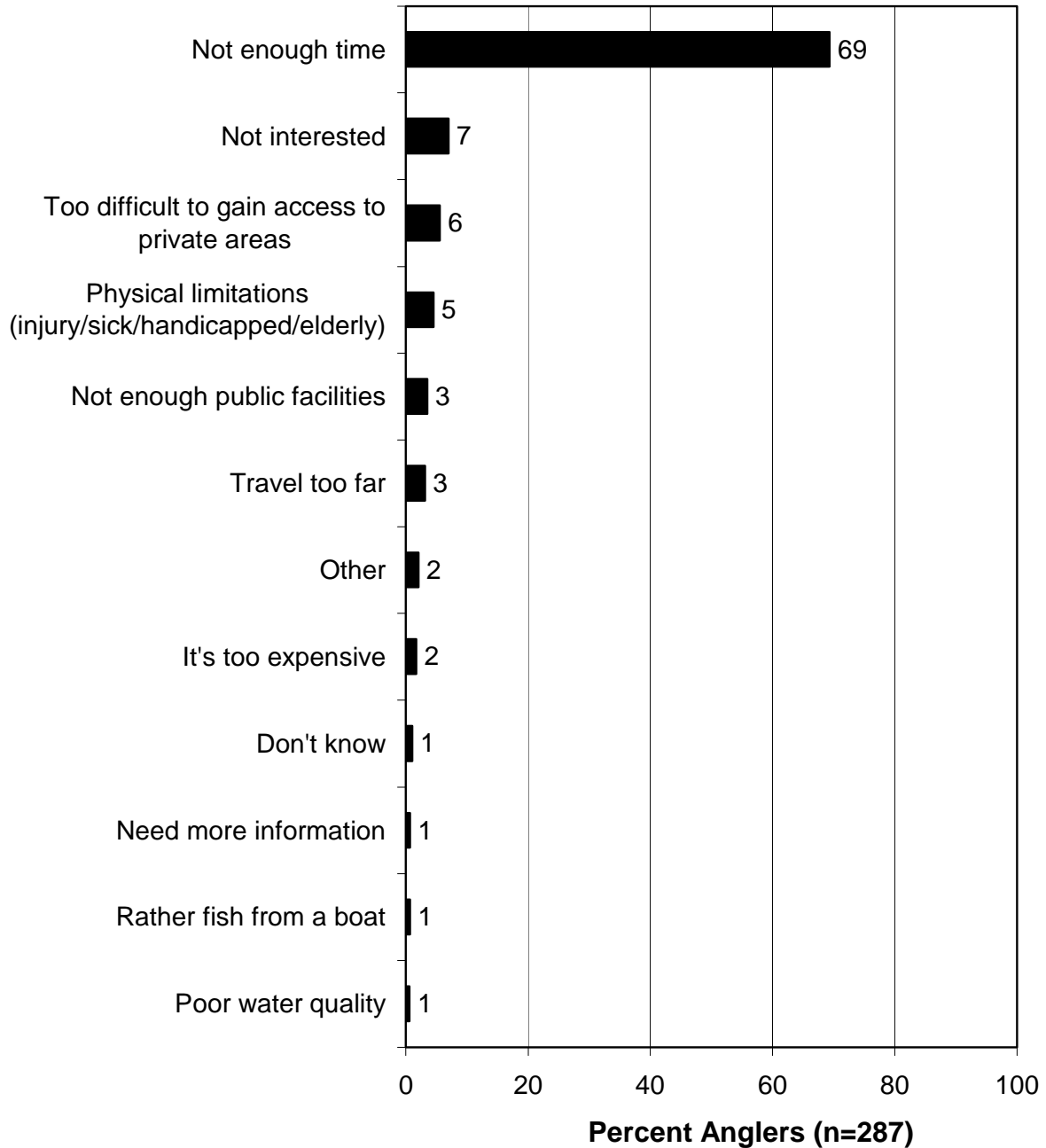
- **As it is with hunting lands, access to private lands for fishing is a greater problem than access to public lands.**

In states with large amounts of public lands, fishing access is less of an issue than in states with less public land. In Texas, 96% of land is privately owned. A study conducted by Responsive Management in 2001 found that access is a problem for some anglers in Texas. Almost half (47%) of freshwater anglers felt that freshwater shoreline access is fair to poor, while 45% felt the number and size of boat ramps where they fish is fair to poor (Responsive Management, 2001c). Thirty-eight percent of saltwater anglers felt the number and size of boat ramps where they saltwater fish were fair to poor, and 32% felt saltwater shoreline access in Texas was fair to poor (Responsive Management, 2001c).

Freshwater anglers were asked if anything took away from their freshwater fishing satisfaction or caused them not to fish as much as they would like in freshwater, and only 4% stated that no access or poor access to fishing areas detracted from their satisfaction (compared to 42% who said nothing takes away from their satisfaction, 20% that said not enough time, 14% who said weather, 5% who said too crowded, and 4% who said quality of water; pollution). Only 3% of saltwater anglers said that no access or poor access to a fishing area took away from their saltwater fishing satisfaction or caused them to not fish in saltwater as much as they would like.

A Responsive Management study conducted in Kansas in 2002 showed that 6% of Kansas residents who fished from a shore or dock in the 12 months prior to the survey said that the difficulty of gaining access to private areas was the primary reason they did not fish more from a shore or dock in Kansas (Responsive Management, 2002e). In contrast, only 3% of Kansas residents said that not enough public facilities was the primary reason for not fishing more from a shore or dock in Kansas.

Q50. Which of the following is the primary reason you did not fish from a shore or dock more in Kansas?



- **The research suggests that landowners are less concerned about allowing fishing on their property than they are about allowing hunting on their property.**

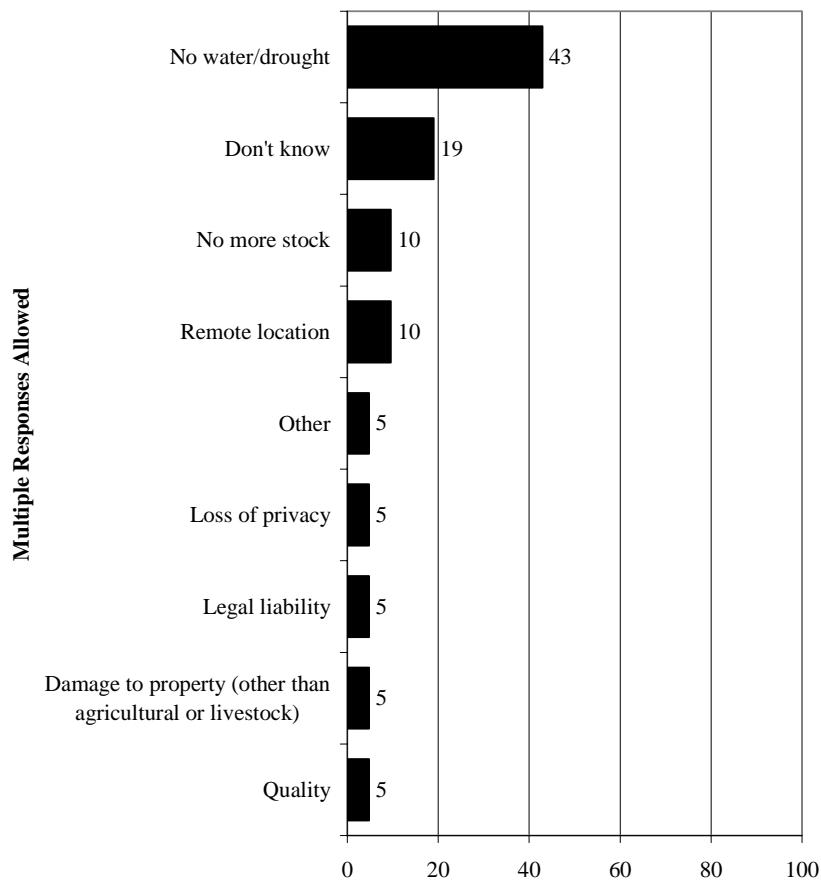
The Texas study also surveyed landowners in the state. Thirty-seven percent of landowners said that they allowed fishing on their tract of land, 27% said they did not, and 36% said that their tract of land did not have fishing opportunities. Of those landowners who formerly allowed fishing on their land, only 5% said that they stopped allowing fishing on the property because of legal liability and 5% said it was because of damage to property (other than agricultural or livestock).

This contrasts significantly with reasons why landowners who formerly allowed hunting on their land stopped allowing hunting on their property. Poor behavior of hunters and damage to property (other than agricultural or livestock) were two of the top three reasons why landowners no longer allowed hunting on their property (both were 14%). In a study of West Virginia landowners, 35% said that they had experienced problems with the behaviors of hunters on their property (64 % said they had not experienced problems). Of those landowners who had experienced problems, the types of problems they typically experienced were trespassing (71%), hunters being rude or not courteous (29%), littering (19%), and hunters being unsafe (11%). West Virginia landowners strongly opposed an option to allow the public to hunt on their land in return for annual payment from the DNR (80% opposed, 11% supported). There was much less opposition toward the option for an “Advanced Hunter Safety and Ethics” program and requiring the hunter to present a certificate when asking permission to hunt on a landowner’s property (41% opposed, 53% supported). These studies suggest that landowners are more concerned about hunters than anglers for fear of poor hunter behavior and destruction to their property.

Most landowners allowed close family and friends access to their land, but 21% allowed others by permission or a person leasing the land. A majority (86%) of landowners who allowed fishing on their land during the previous year did not charge a fee for fishing on their land, while 13% did charge a fee.

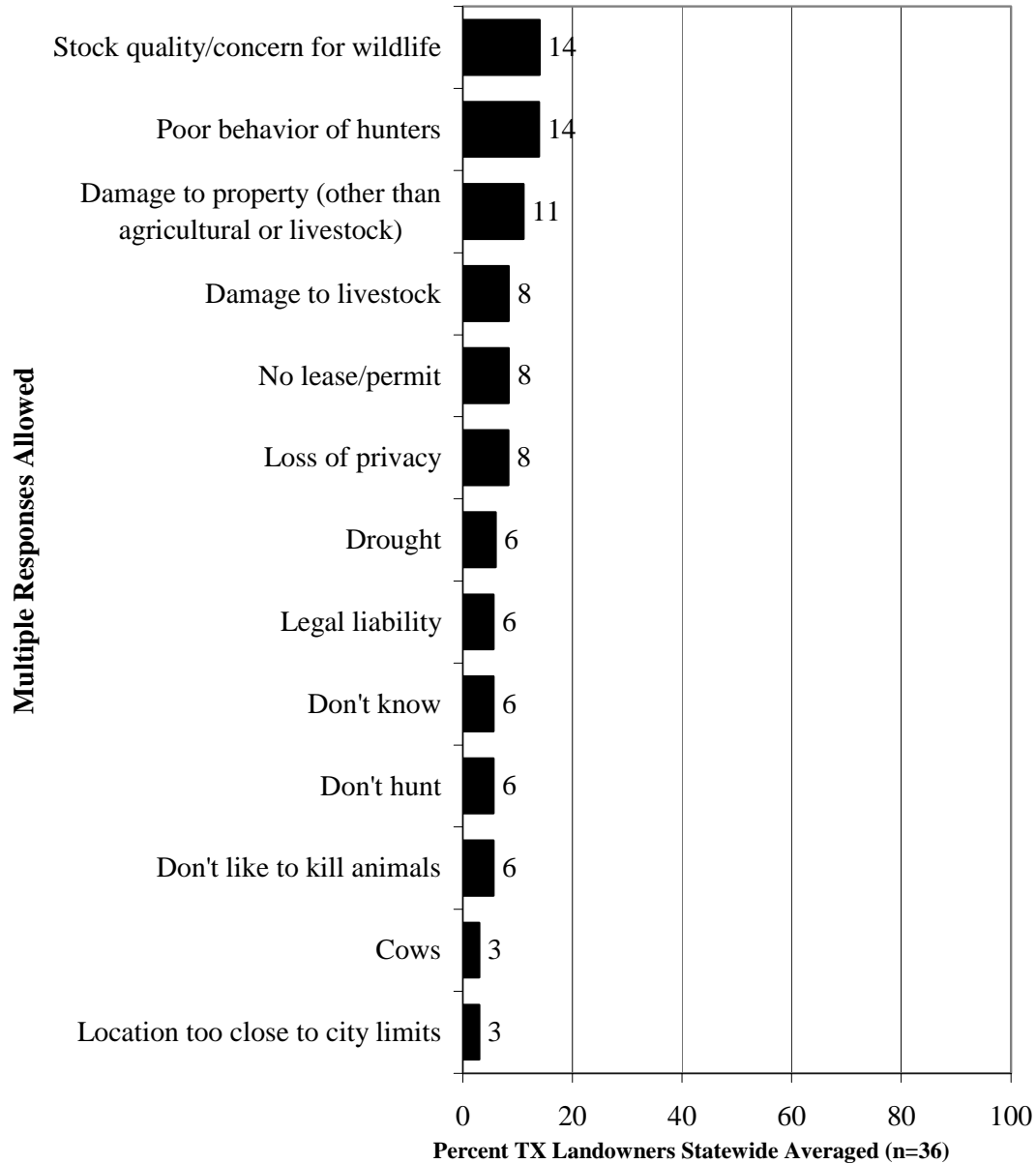
Thirty-six percent of landowners in Texas did not allow canoe or river access on their tract of land and 7% did, but 56% did not have a body of water on their tract of land to allow access. Twenty-five percent of landowners who stopped allowing canoe or river access on the property said it was because of damage to property (other than agricultural or livestock). As with fishing access, majorities of landowners did not charge for canoe or river access and allowed close family and friends onto their land. Eighteen percent allowed canoe or river access to others by permission/persons leasing the land.

Q25. Why have you stopped allowing fishing on this property? (Asked of landowners who formerly allowed fishing on their land.) (Statewide)

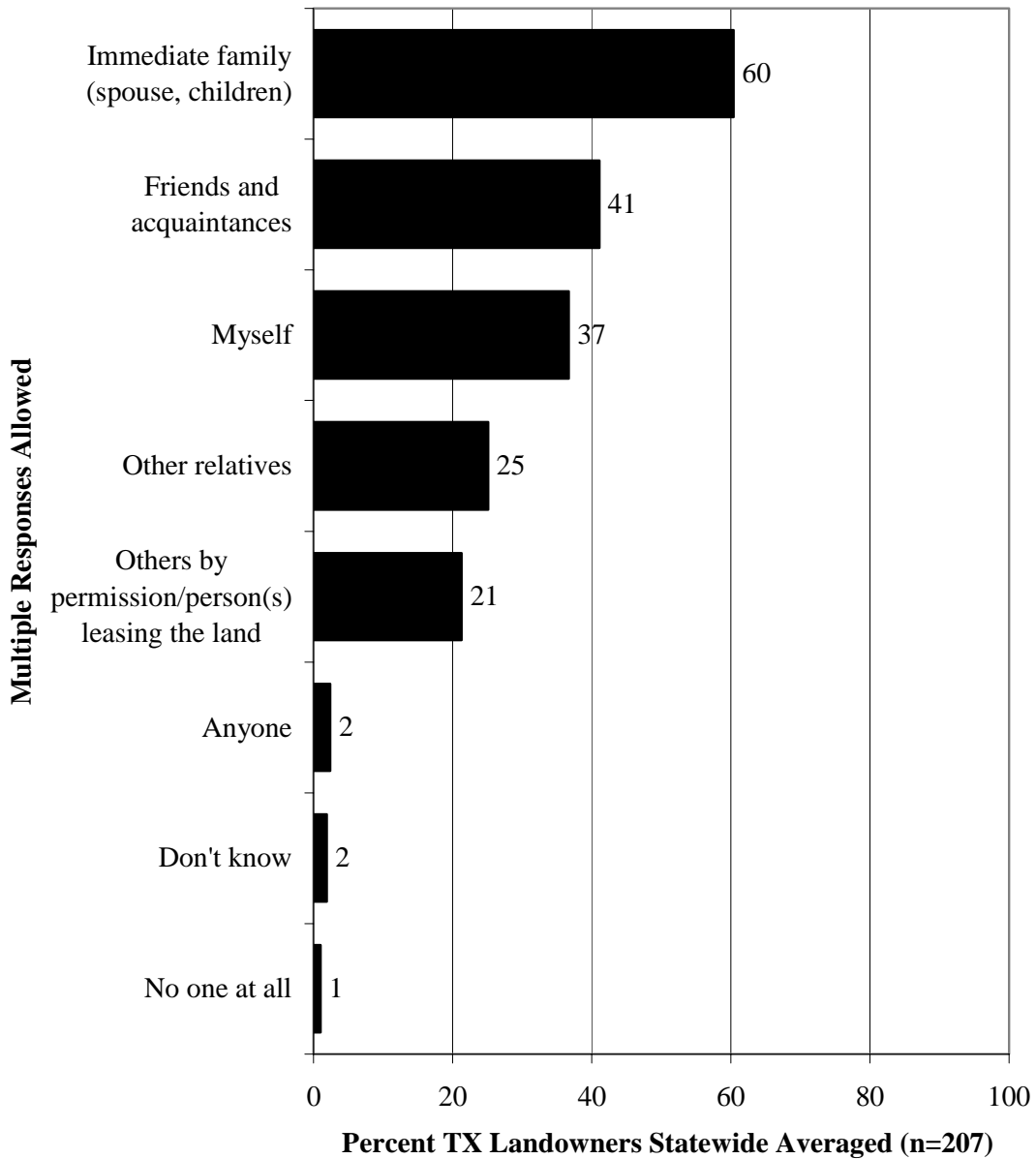


Percent TX Landowners Statewide Averaged (n=21)

Q16. Why have you stopped allowing hunting on this property? (Asked of landowners who formerly allowed hunting on their land.)
(Statewide)



**Q28. Whom, including yourself, do you allow to fish on this tract of land? (Asked of landowners who currently allow fishing on their land.)
(Statewide)**



- **Landowners are concerned about liability when allowing access to their property.**

The Texas study showed that a majority of large landowners in Texas had major concerns about allowing access to their land for outdoor recreation in general, and hunting in particular. As previously mentioned, there was less concern about opening their land to fishing.

Most large landowners (more than 640 acres) were not aware that the State of Texas provides liability protection for landowners that allow outdoor recreation use on their property. Sixty-seven percent of landowners stated they had a major concern over legal liability when considering allowing access to their land for outdoor recreation, while 66% expressed major concerns over legal liability when considering allowing access to their land for hunting. Lower percentages, but large numbers nonetheless, of landowners expressed major concerns over legal liability when considering allowing access to their land for camping (43%), hiking, viewing wildlife or studying nature (all 40%), fishing (29%), and river or canoe access (24%). Only 20% of large landowners were aware that the State of Texas provides liability protection for landowners that allow outdoor recreation use on their property; 79% stated that they were not aware. In a separate but related question, 39% of large landowners agreed that if they did not have to worry about legal liability, they would be more likely to open up their land for more outdoor recreation opportunities for others (55% disagreed). Thirty-six percent said they would be very likely to open up their land for more outdoor recreation opportunities if they could receive significant tax breaks or cash payments.

A majority of large landowners in Texas (64%) were not interested in opening up their land to provide more outdoor recreational opportunities for others. Eleven percent, however, were very interested and 22% were somewhat interested in opening up their land to provide more outdoor recreational opportunities to others.

CHAPTER 3: THE PSYCHOLOGICAL ASPECT OF ACCESS

- **Hunter and angler access issues may also be directly related to hunters' and anglers' *perception* that there are not enough places to hunt and fish and that there are fewer places to hunt and fish than in the past. This appears to be driven in part by a lack of information about hunter or angler access locations.**

As wildlife habitat is increasingly threatened by urban growth and development, lands available for outdoor recreation are becoming fewer. Lands open to outdoor recreation are increasingly becoming threatened, and a proactive approach to maintaining lands for outdoor recreation needs to be a priority. However, the increasing reporting of access as a problem for sportsmen needs to be kept in context. Access may be increasingly reported as a problem for sportsmen (especially hunters) due to psychological perceptions. Access possesses both a physical reality of fewer places to hunt and fish as well as a psychological perception about the availability of hunting and fishing lands, how easily these lands should be accessed, and the amount of information sportsmen have about access to hunting and fishing lands.

First, as hunters and anglers increasingly see the encroachment of development in their communities, they may assume that access is being threatened, even if they themselves have not experienced access problems. If a hunter or angler passes land that has been developed on the way to their favorite recreation spot, even though they may not have an access problem to the hunting or fishing locations of their choice, they may worry about the future encroachment or development of their lands. As hunters and anglers begin to see changes from traditional land use to more urbanization and development, the protection of hunting lands and fishing locations will naturally become more important.

Second, poor access is an easily defined and identifiable reason for hunter and angler dissatisfaction. If a hunter or angler experiences dissatisfaction due to access, this incident is likely to not be forgotten and to be reported as a "top-of-the-mind" reason for their dissatisfaction. For example, if a sportsman is blocked from hunting or fishing due to a road closure or a newly posted area of land, this experience will most likely be strong enough to make

an impact on their hunting or fishing experiences and also easily remembered as an important cause of their dissatisfaction.

Third, the issue of access takes on many forms. For example, a hunter's or angler's attitude toward access can differ based on their preferred mode of access. A mile hike into a prime hunting ground or fishing lake may not be considered a problem for someone who enjoys hiking, while a mile hike on foot to a hunting ground or fishing spot for a hunter or angler who prefers to use an ATV is indeed a problem. In the same vein, the quality of access for some hunters or anglers may be based on the quality of roads in and around hunting and fishing areas. Though it was found that 92% of public forest lands in Colorado were within 1 mile of a road, many of these roads were secondary roads whose conditions may vary (Responsive Management/Ecosystem Management Research Institute, 2003).

Finally, access issues are not always simply lack of access points, roads, or trails, but lack of good information as well. Lack of information on various access points or alternative roads to hunting areas are being cited by more and more hunters. Responsive Management/Ecosystem Management Research Institute found that there is a statistically positive correlation between hunters who had difficulty getting information on federal public lands in Colorado and those hunters who had access problems. A hunter may find a road closed to his favorite hunting spot on the morning of his hunt but not know that an alternative route to the same hunting area lies only a few miles away (2003).

Knowledge Issues

- **One problem that is likely contributing to both hunter and angler access is a lack of information on where to find locations to go hunting or fishing.**

The research suggests that if hunters and anglers had more information about hunting and fishing locations, or state programs to help improve access, they might be less likely to cite access problems as a cause for dissatisfaction with their sport. The number one issue that Virginia anglers wanted more information on was clean water, but the next most requested issue was fishing locations: 77% of anglers wanted more information on where to fish.

In a plan developed for The Sport Fishing and Boating Partnership Council to develop a national outreach strategy for recreational fishing and boating, five primary constraints to participation were identified. The second constraint that was identified was, “lack of access to and *knowledge* of facilities” (documented in Fedler and Ditton, 2000).

In a study conducted in 2002 on Kansas residents’ opinions on and rating of the Kansas Department of Wildlife’s programs, majorities of respondents did not know anything about the Department’s programs related to hunter and angler access (Responsive Management, 2002). For example, 67% of Kansas residents knew nothing about the “Walk-in Hunter Access” program, 72% knew nothing about the “Fishing Impoundments and Stream Habitats” program, and 81% knew nothing about the “Free Fishing Days” program.

Respondents’ Knowledge Levels of Various Programs

Program	Knowledge Level (Percentage Giving an Answer)*	
	Knows Something	Knows Nothing
Q15. Hunter Safety Education	69	31
Q16. Boating Safety Education	45	55
Q6. “Walk-In Hunter Access”	33	67
Q7. “Fishing Impoundments and Stream Habitats”	28	72
Q14. Youth Hunting Seasons	26	74
Q13. Free Park Admission Days	23	76
Q9. “Hooked on Fishing—Not on Drugs”	20	80
Q10. 4H Fishing Education	20	80
Q12. Free Fishing Days	18	81
Q5. “Parks 2000”	14	85
Q8. “Water Works Wonders” (boating/fishing promotion)	14	86
Q11. “Pass It On” (hunter recruitment)	12	87

When Kansas residents were asked to rate the effectiveness of the programs, large percentages of respondents felt that the programs that helped to address hunter and angler access issues were effective or successful. In addition, respondents were asked about their specific behaviors resulting from the programs: 15% of those who had some knowledge of the “Walk-in Hunter

Access” program increased the number of days that they hunted because of the program, 13% of those who had some knowledge of the “Fishing Impoundments and Stream Habitats” program increased the number of days that they fished because of the program, and 14% of those who had some knowledge of the “Free Fishing Days” program increased the number of days that they fished because of the program.

The overall implication is that hunters and anglers need to become more aware of some of the programs that are readily available to help address hunter and angler access concerns.

Effectiveness/Success of Programs

Program	Percent Indicating Program Was Effective/Successful	Percent Indicating Program Was Ineffective/Unsuccessful
Q29. “Parks 2000”	51	4
Q30. “Walk-In Hunter Access”	54	9
Q31. “Fishing Impoundments and Stream Habitats”	45	11
Q32. “Water Works Wonders”	52	11
Q33. “Hooked on Fishing—Not on Drugs”	46	5
Q34. 4H Fishing Education	40	8
Q35. “Pass It On”	51	6
Q36. Free Fishing Days	67	7
Q37. Free Park Admission	57	7
Q38. Youth Hunting Seasons	71	2
Q39. Hunter Safety Education	80	1
Q40. Boating Safety Education	56	8

Summary of Issues Related to Access

As the research indicates, hunter and angler access issues are a complex composition of physical and psychological factors. In addition, public land access problems are somewhat different than private land access problems. In order for hunter and angler access issues and concerns to be dealt with most effectively, all aspects of access must be considered. Below is a brief outline identifying the major issues with hunting and fishing access.

I. Hunting Access

A. Public Land

- Hunters generally give positive ratings to public land accessibility, although this rating is declining.
- Some public land is landlocked by private land. Some of these public lands are accessible by secondary roads, but not all of the roads are open to the public. Also, some public lands are accessible only by remote access points.
- Roadless areas in the National Forests are important to hunters.
- There is a lack of information about
 - Road closures (permanent and temporary)
 - Access points/trails

B. Private Land

- Many hunters believe access to private land is worse than access to public land. Many hunters also believe that landowners are closing access to private land more now than previously.
- Hunters believe that limited access opportunities, rather than availability of private hunting locations, is causing access problems.
- Poor hunter behavior reported by landowners on private lands includes,
 - Trespassing
 - Property destruction
 - Rude behavior

- There is a lack of information about
 - State/landowner partnerships to improve access
 - Access points/trails

II. Fishing Access

A. Public Land

- Some public fishing land is likely landlocked by private land, as with public hunting lands. However, there are not any comprehensive studies detailing this.
- Anglers prefer remote fishing experiences on National Forest lands; they would rather not give this up in favor of greater access to National Forest lands.
- Too much access may, in fact, detract from angler satisfaction, as anglers often complain about overcrowding.
- There is a lack of information about
 - Road closures (permanent and temporary)
 - Access points/trails

B. Private Land

- There is a lack of information about
 - State/landowner partnerships to improve access
 - Access points/trails

III. Physical Issues

- Fewer accessible locations for hunting and fishing.
- Road closures.
- Condition of roads/poor road quality.
- Alternative routes to hunting lands.

IV. Psychological Issues

Perception of fewer lands for hunting and fishing, driven by:

- Increased urbanization – perception of urbanization encroaching on favorite hunting or fishing locations.
- A previous experience that is not forgotten, resulting in access becoming a “top-of-the-mind” reason for hunter and angler dissatisfaction.
- Perception of distance: A mile hike into a prime hunting or fishing location may not be considered a problem for sportsmen who enjoy hiking, while a mile hike on foot to a location for sportsmen who prefer to use an ATV is an access problem.
- Road quality.
- There is a lack of information about
 - Road closures (permanent and temporary).
 - Various access points or alternative roads to hunting areas or fishing locations.
 - State programs in partnership with landowners to increase private land access.

V. Landowners

- More landowners are concerned about allowing hunting on their land than allowing fishing.
- Many landowners are not aware of liability protection programs set up by their state.
- Incentive programs include easements, cooperative programs, “walk-in” programs and hunter ethics courses.
- Restriction of private lands is often driven by a desire to control access, rather than a desire to make money (from incentives).
- Misconduct by hunters is the largest deterrent to landowners allowing access.
- Minimizing hunter misconduct, involving landowners and hunter/anglers in information and education programs, informing landowners of wildlife management agency services, educating landowners on recreation use statutes, and offering non-monetary incentives are important aspects of dealing with access problems.

LITERATURE CITED

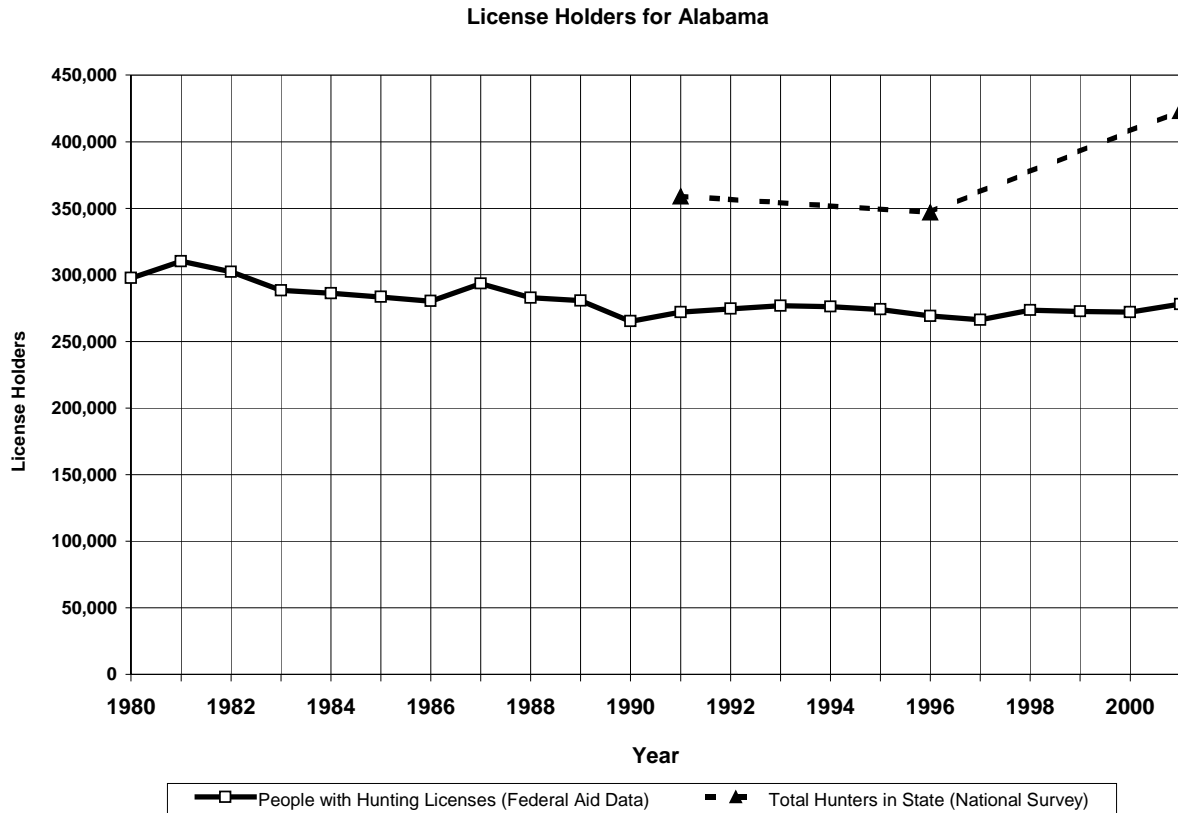
- Lauber, T. Bruce and Tommy Brown. (2000). *Hunting Access on Private Lands in Dutchess County*. HDRU Series No 00-12. Department of Natural Resources, Cornell University.
- Mehmood, Sayeed, D. Zhang and J. Armstrong. (2003). *Factors Associated with Declining Hunting License Sales in Alabama*. Human Dimensions in Wildlife. Volume 8, Number 4.
- Recreational Boating and Fishing Foundation. Process described in Fedler, Anthony and Robert Ditton. (2000). *Developing a National Outreach Strategy for Recreational Fishing and Boating*. Fisheries. Volume 25, Number 1.
- Responsive Management. (2003a). *Restoring the Balance: An inventory and assessment of state public hunting land needs*. Harrisonburg, VA: The Conservation Fund.
- Responsive Management/Ecosystem Management Research Institute. (2003b). *Access to Federal Hunting Lands in Colorado*. Harrisonburg, VA: The Congressional Sportsmen's Foundation.
- Responsive Management. (2003c). *Washington State Hunters' and Landowners' Opinions on the Private Lands Wildlife Management Area Program*. Harrisonburg, VA: Washington Department of Fish and Wildlife.
- Responsive Management. (2003d). *Public Attitudes Toward Wildlife*. Harrisonburg, VA: The Izaak Walton League of America.
- Responsive Management. (2002a). *Minnesota Deer Hunters' Opinions and Attitudes Toward Deer Management*. Harrisonburg, VA: Minnesota Department of Natural Resources.
- Responsive Management. (2002b). *Washington Hunters' Opinions on and Attitudes Toward Game Species Management*. Harrisonburg, VA: Washington Department of Fish and Wildlife.
- Responsive Management. (2002c). *Washington Residents' Opinions on and Attitudes Toward Hunting and Game Species Management*. Harrisonburg, VA: Washington Department of Fish and Wildlife.
- Responsive Management. (2002d). *Kansas Residents' Participation in, Opinions on, and Attitudes Toward Outdoor Recreation*. Harrisonburg, VA: Kansas Department of Wildlife and Parks.
- Responsive Management. (2002e). *Hunters' Satisfaction toward Hunting Experiences in the United States*. Harrisonburg, VA: Safari Club International.

- Responsive Management. (2001a). *Public Awareness of and Attitudes Toward Wildlife in the United States*. Harrisonburg, VA: Ducks Unlimited.
- Responsive Management. (2001b). *Texas Parks and Wildlife for the 21st Century: Hunter Survey*. Harrisonburg, VA: Texas Parks and Wildlife and Texas Tech University.
- Responsive Management. (2001c). *Texas Parks and Wildlife for the 21st Century: Angler Survey*. Harrisonburg, VA: Texas Parks and Wildlife and Texas Tech University.
- Responsive Management. (2000a). *House Bill 38 and Future Directions for the Department of Game and Inland Fisheries: Results of Constituent and Staff Studies and Recommendations for Future Action*. Harrisonburg, VA: Virginia Game and Inland Fisheries.
- Responsive Management. (2000b). *National Shooting Sports Foundation Hunting Participation and Attitude Trends Survey*. Harrisonburg, VA: National Shooting Sports Foundation.
- Responsive Management. (1999). *The Future of Fishing in the United States: Assessment of Needs to Increase Sport Fishing Participation; Phase V*. Harrisonburg, VA: Produced for the International Association of Fish and Wildlife Agencies via a Federal Aid grant.
- Responsive Management. (1999b). *House Bill 38 and Future Directions for the Department of Game and Inland Fisheries: Angler Survey*. Harrisonburg, VA: Virginia Department of Game and Inland Fisheries.
- Responsive Management. (1999c). *House Bill 38 and Future Directions for the Department of Game and Inland Fisheries: Results of Constituent and Staff Studies and Recommendations for Future Action*. Harrisonburg, VA: Virginia Department of Game and Inland Fisheries.
- Responsive Management. (1999d). *West Virginia 1998 Landowner Survey*. Harrisonburg, VA: West Virginia Division of Natural Resources, Wildlife Resources Section.
- Responsive Management. (1999e). *Theodore Roosevelt Conservation Alliance Survey*. Harrisonburg, VA: Theodore Roosevelt Conservation Alliance.
- Responsive Management. (1998). *Factors Related to Hunter Behavior on Public and Private Land and Barriers to and Opportunities for Encouraging Private Landowners to Open Their Land to Hunters*. Harrisonburg, VA: Izaak Walton League.
- Responsive Management. (1998b). *Wildlife and the American Mind*. Harrisonburg, VA. Book produced for the U.S. Fish and Wildlife Service via a Federal aid grant.
- Responsive Management. (1998c). *New Jersey Hunter Retention and Deer Hunter Satisfaction*. Harrisonburg, VA: New Jersey Division of Fish, Game and Wildlife.

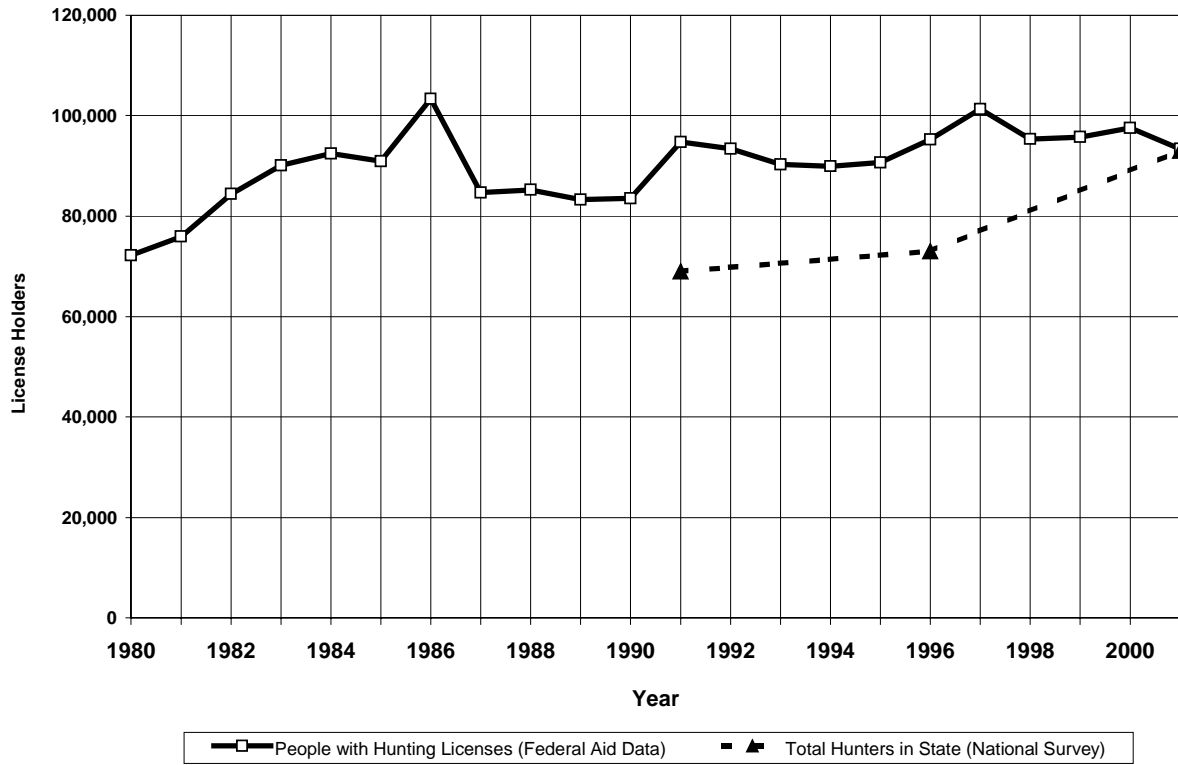
- Responsive Management. (1998d). *Mississippi Residents' Opinions of and Attitudes toward State Fish and Wildlife Management*. Harrisonburg, VA: Mississippi Department of Wildlife, Fisheries and Parks.
- Responsive Management. (1998e). *West Virginia Residents Attitudes Toward the Land Acquisition Program and Fish and Wildlife Management*. Harrisonburg, VA: West Virginia Division of Natural Resources.
- Responsive Management. (1995). *Factors Related to Hunting and Fishing Participation in the United States: Phase IV: Quantitative Analysis*. Conducted for the Western Association of Fish and Wildlife Agencies via Federal Aid administered grant 14-48-0009-92-1252. Harrisonburg, VA.
- Responsive Management. (1995b). *Hunting and Fishing License Market Assessment: Discussions, Recommendations and Strategies*. Harrisonburg, VA: The Florida Game and Fresh Water Fish Commission.
- Siddall, Inc. (2003). *Boating and Fishing Attitude Segmentation Study*. Prepared for the Recreational Boating and Fishing Foundation.
- Southwick and Associates. (2001). *Economic Contributions of Hunting*. Produced for the International Association of Fish and Wildlife Agencies via a Federal Aid administrative grant.
- U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, U.S. Census Bureau. *1991, 1996 and 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*.

APPENDICES

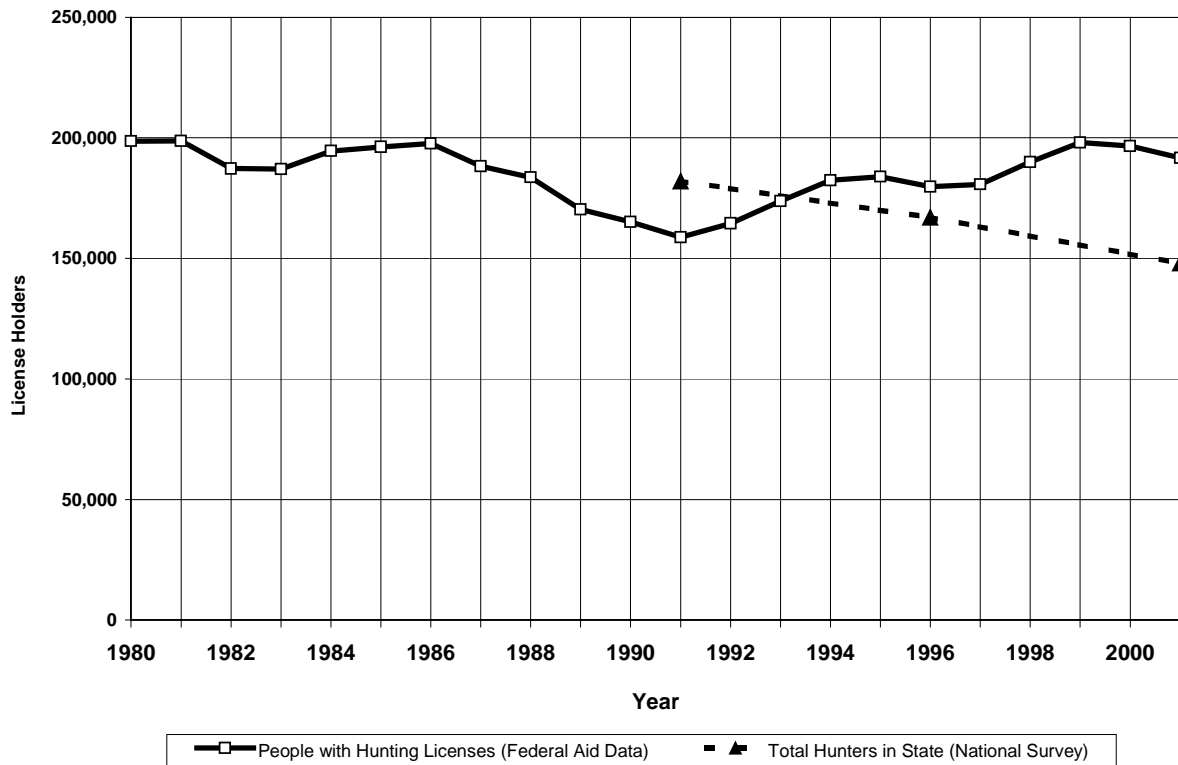
Graphs of License Holders and Hunters By State (Hunting)



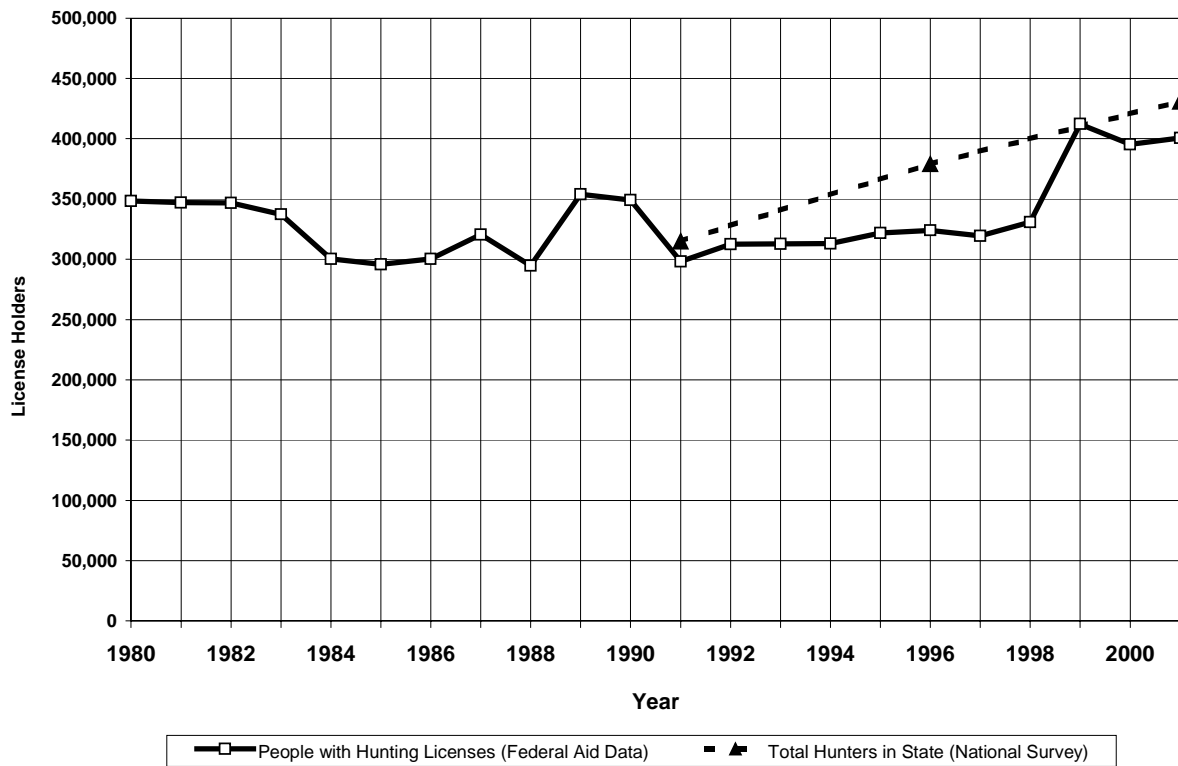
License Holders for Alaska



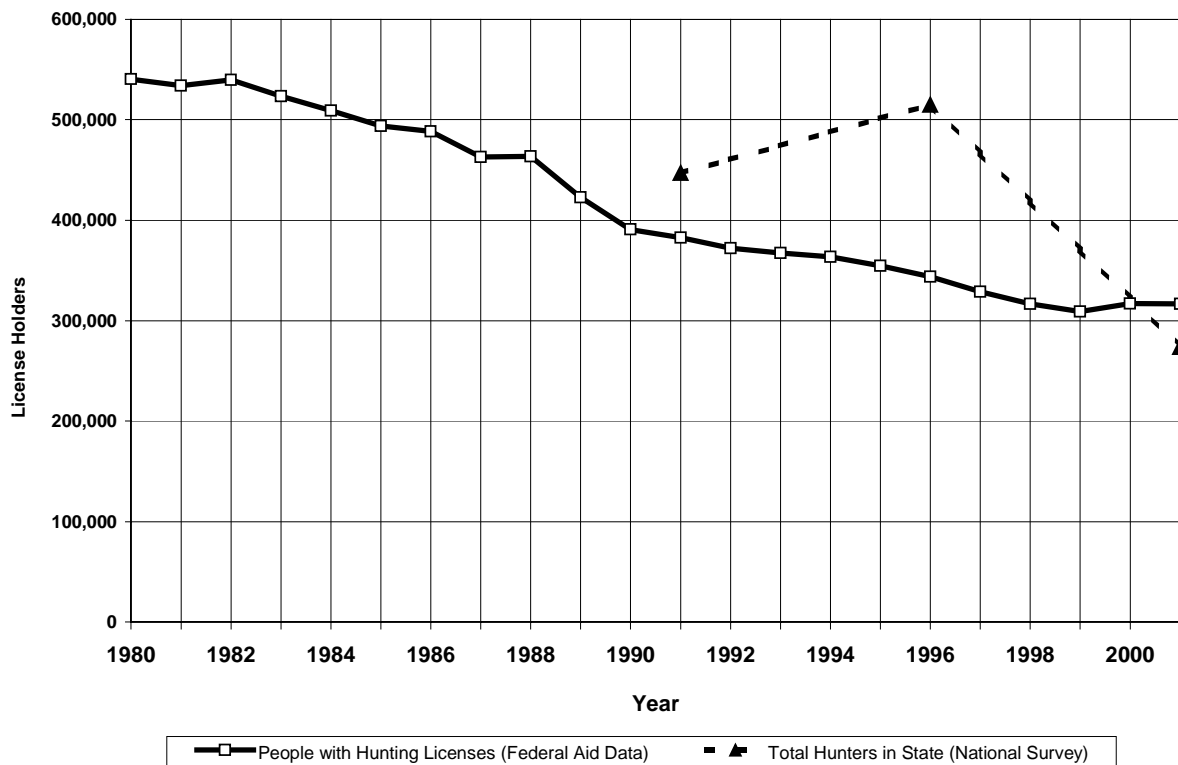
License Holders for Arizona



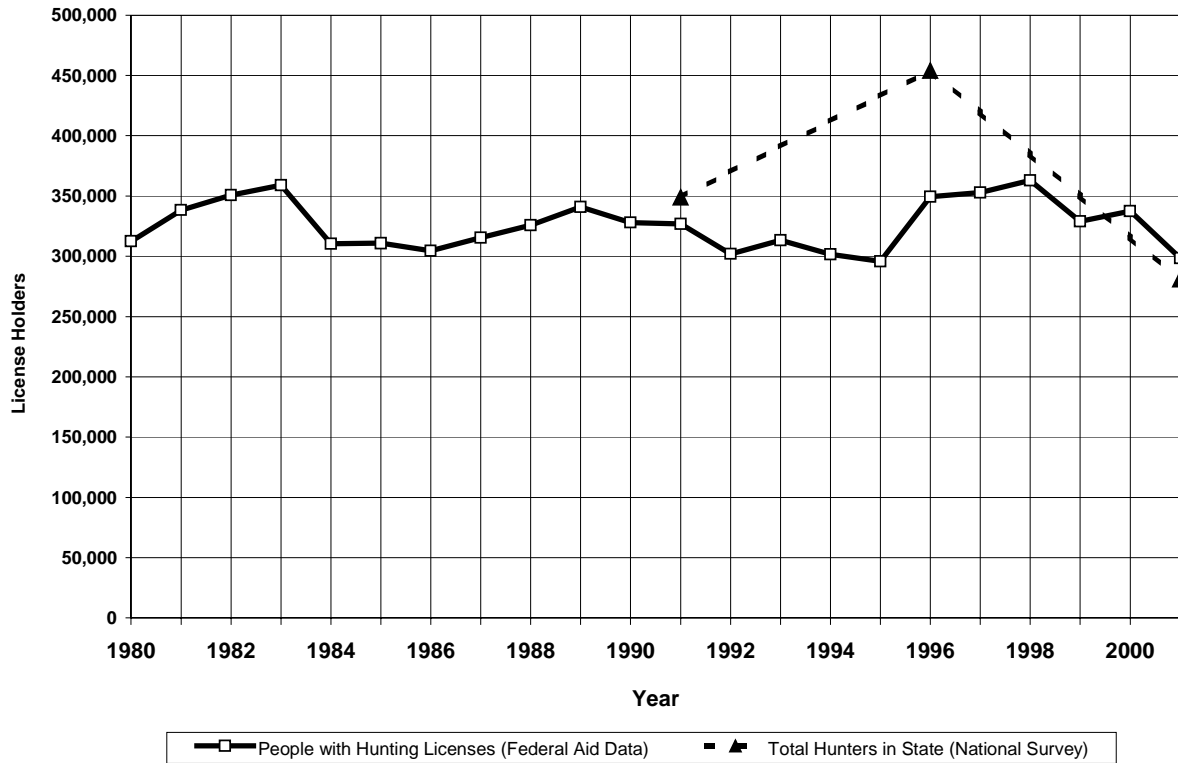
License Holders for Arkansas



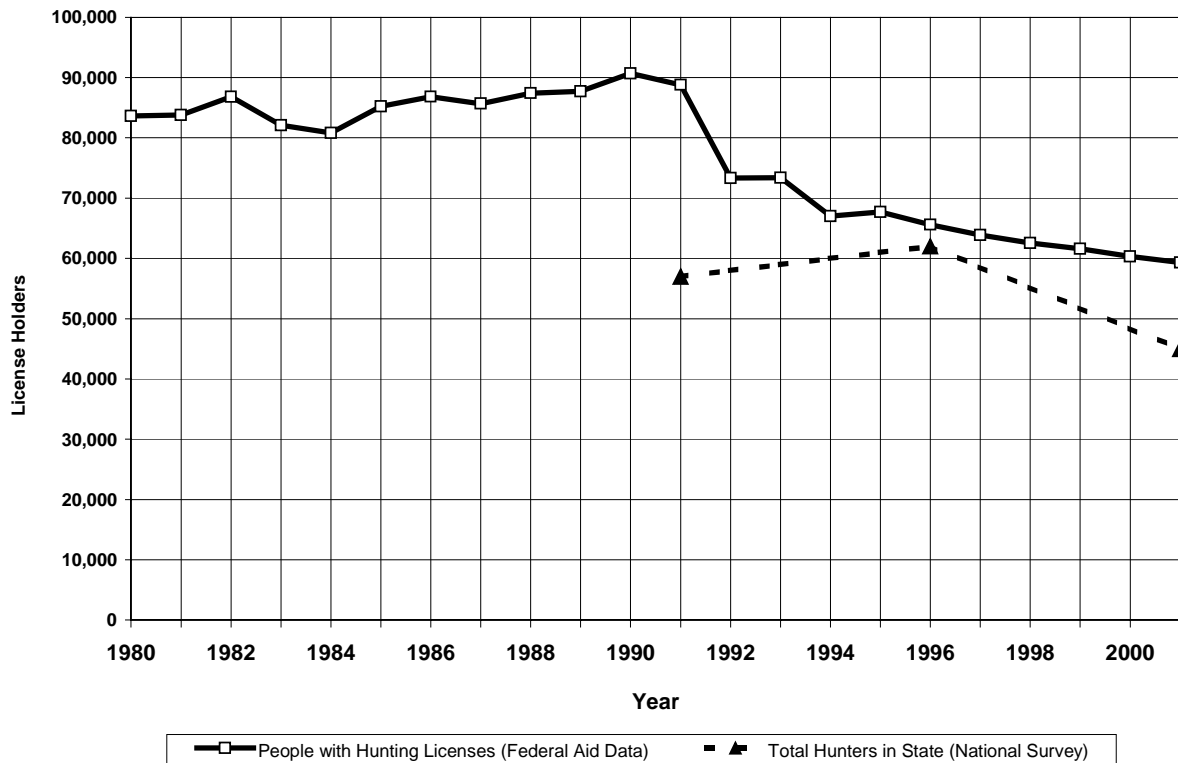
License Holders for California



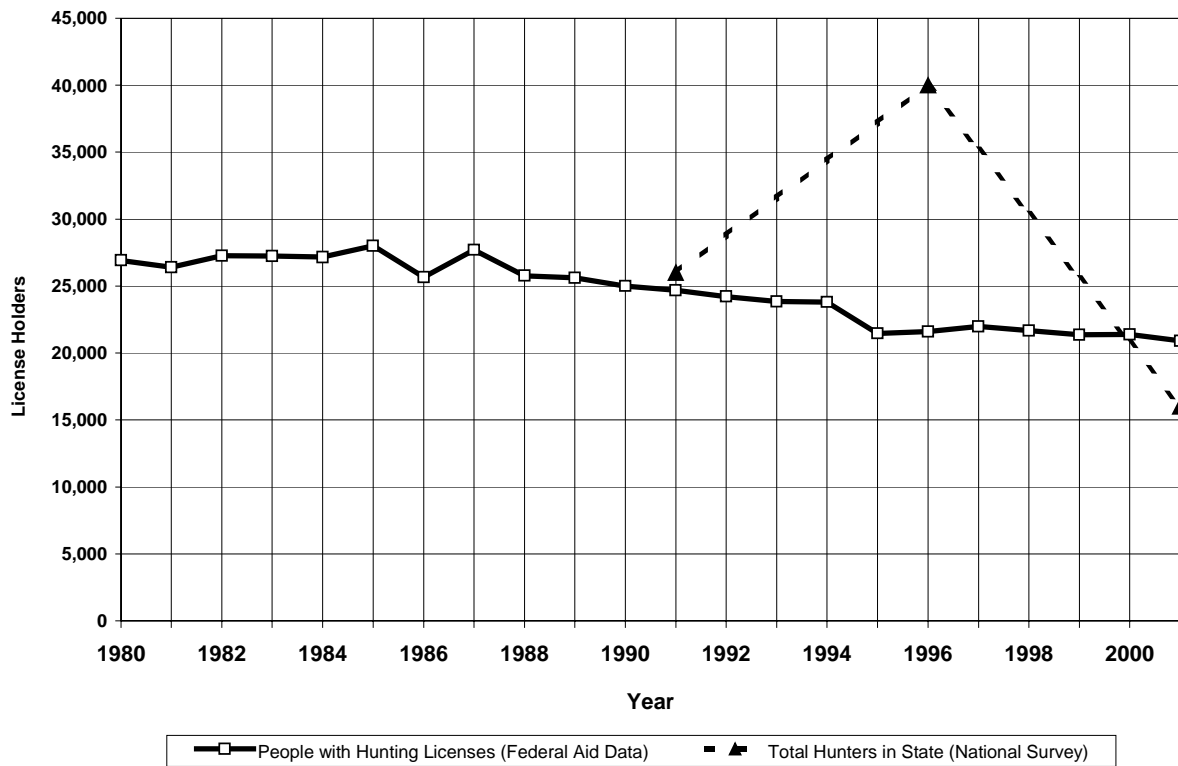
License Holders for Colorado



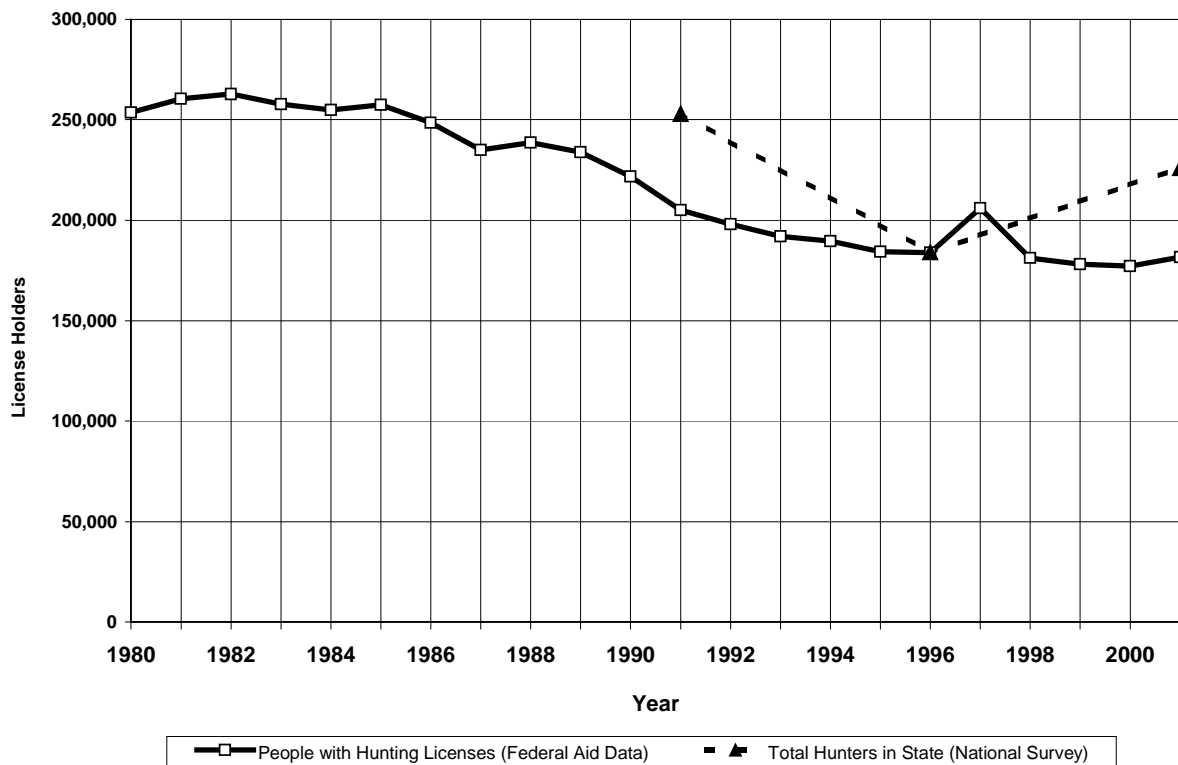
License Holders for Connecticut



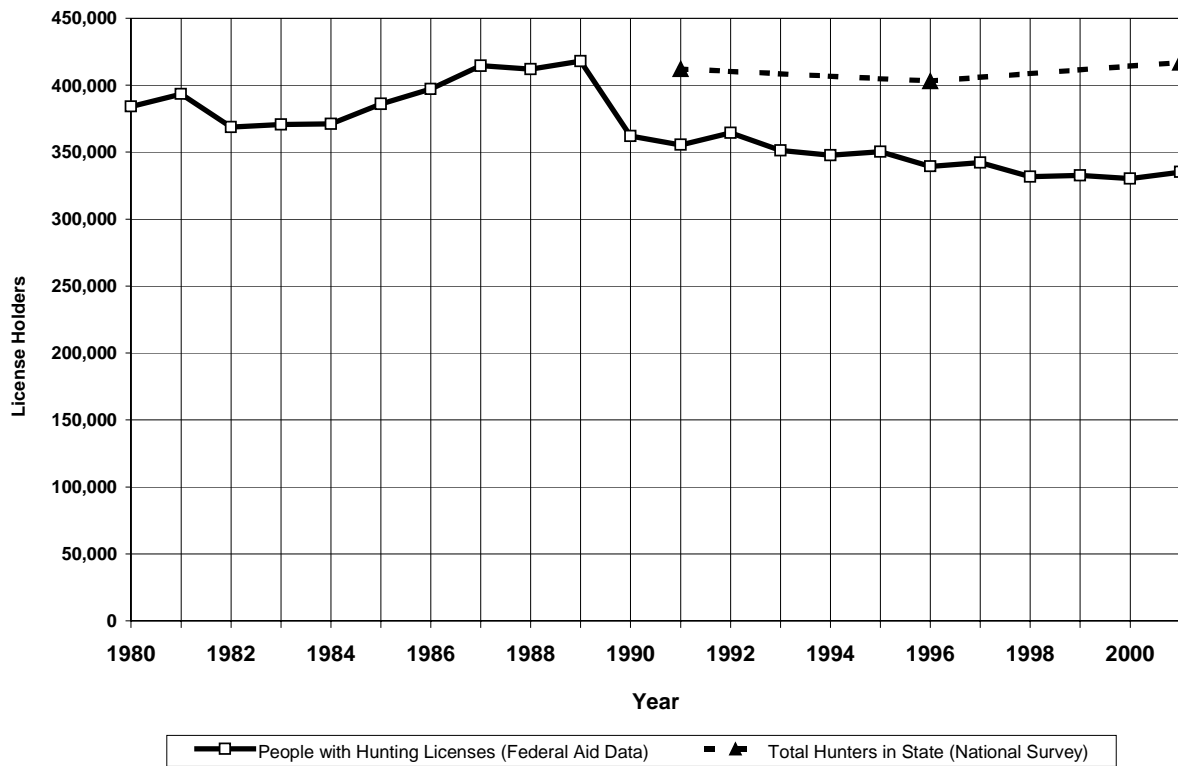
License Holders for Delaware



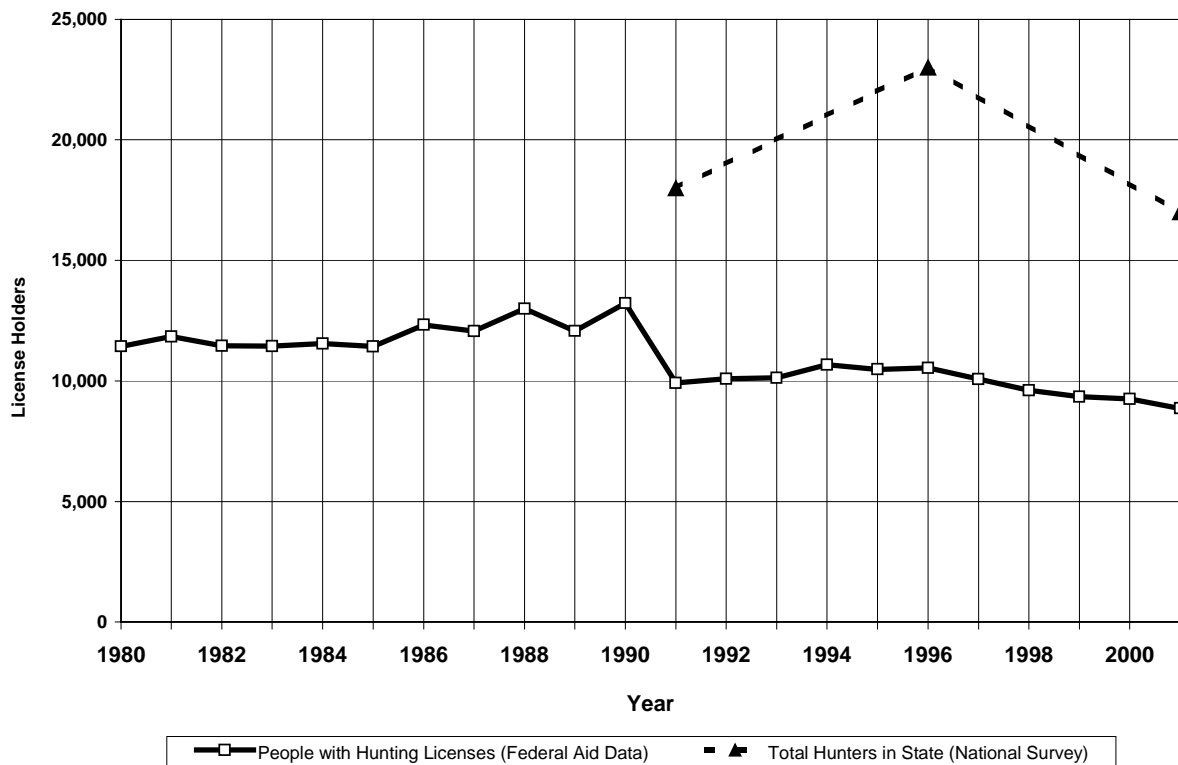
License Holders for Florida



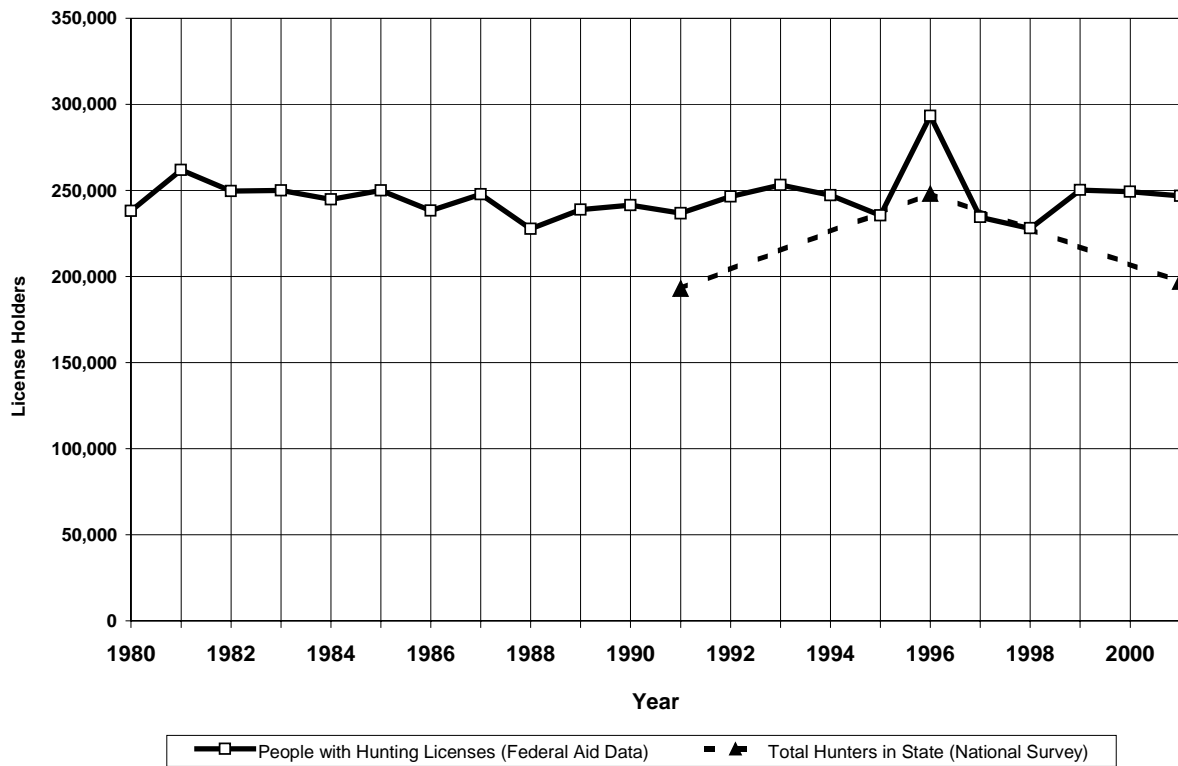
License Holders for Georgia



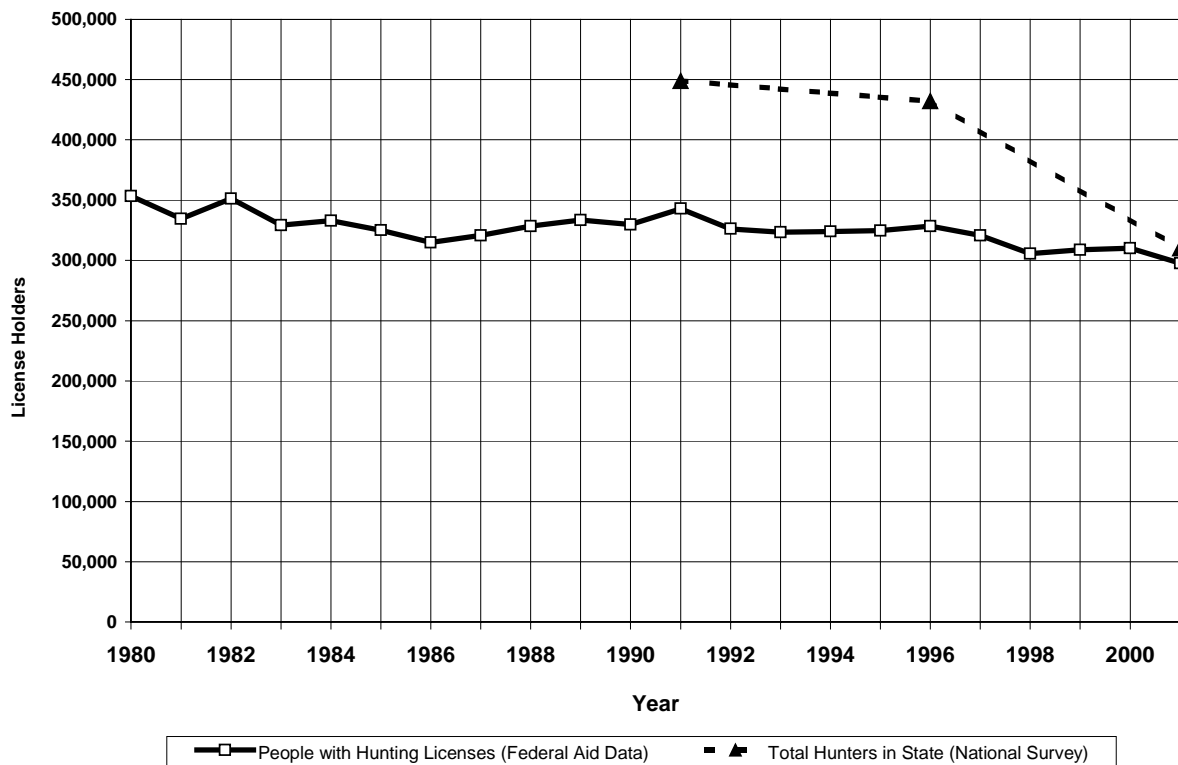
License Holders for Hawaii



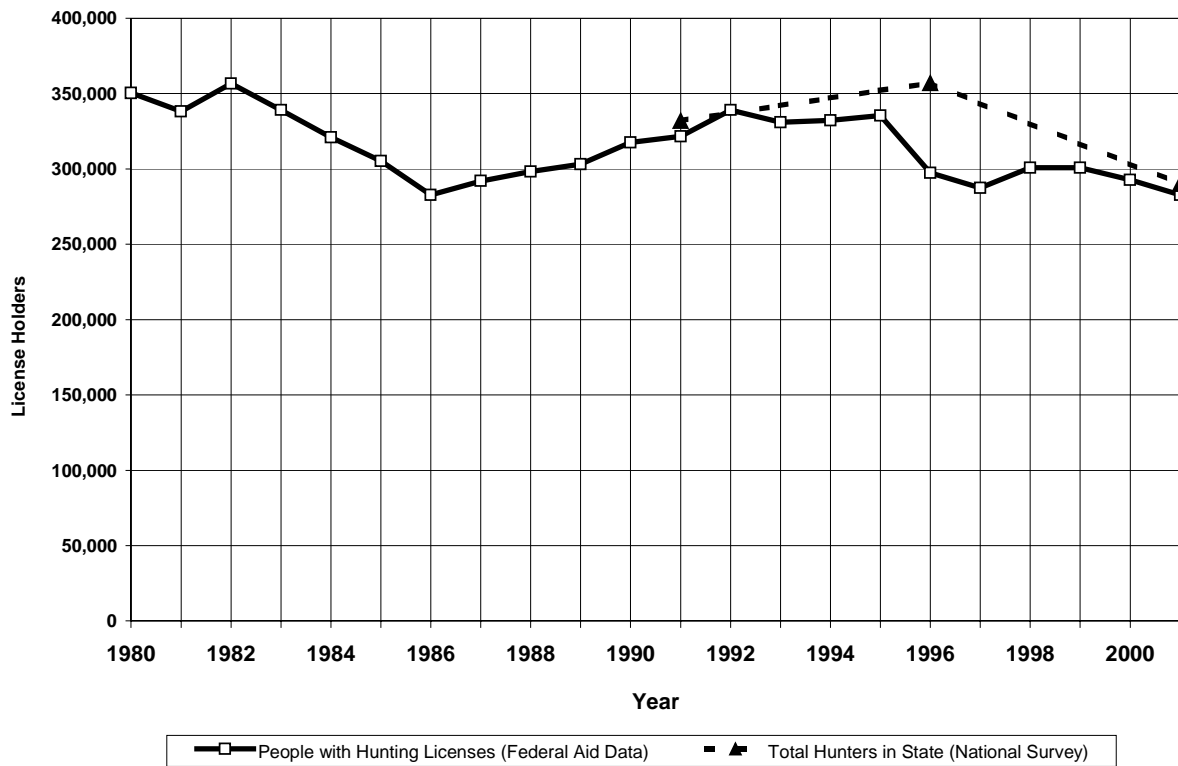
License Holders for Idaho



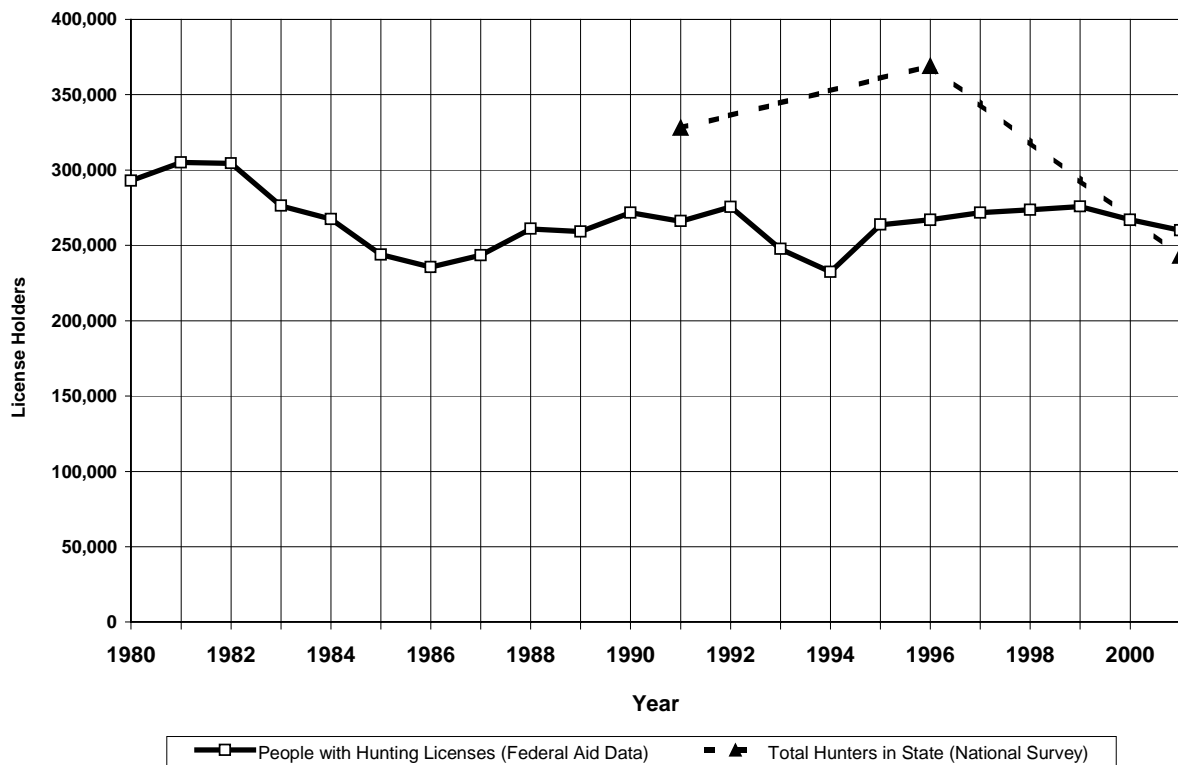
License Holders for Illinois



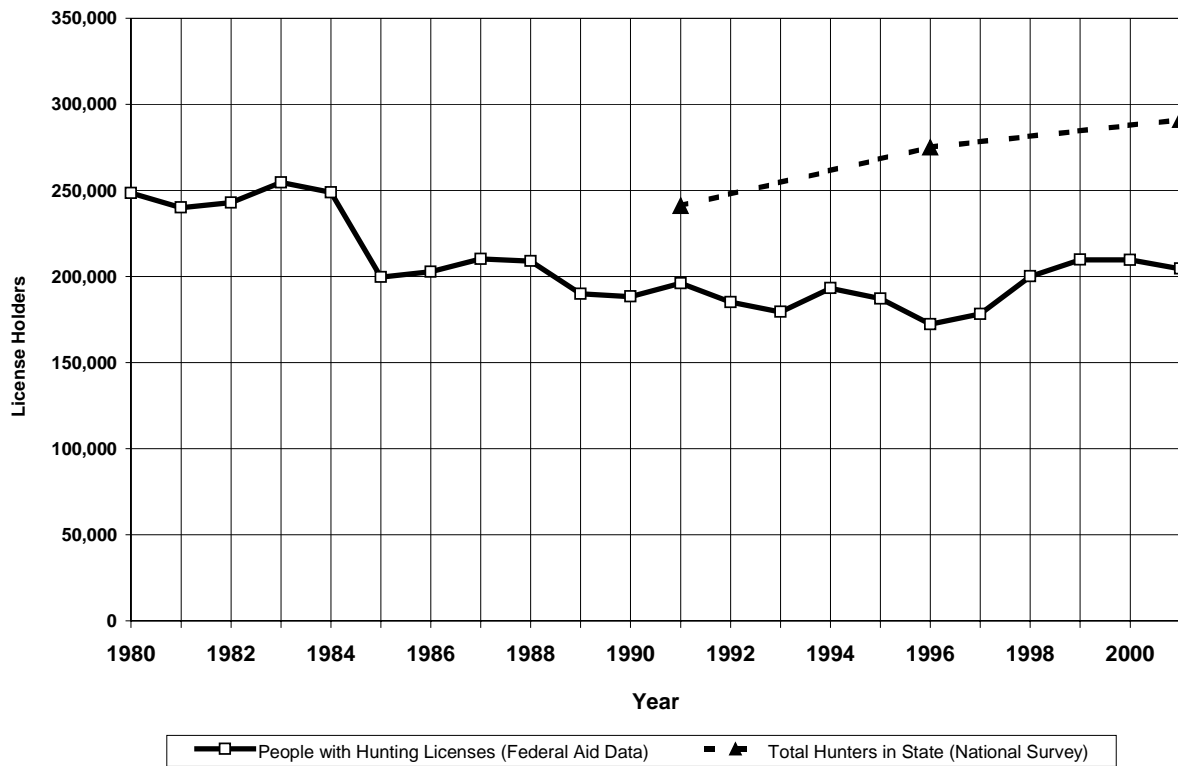
License Holders for Indiana



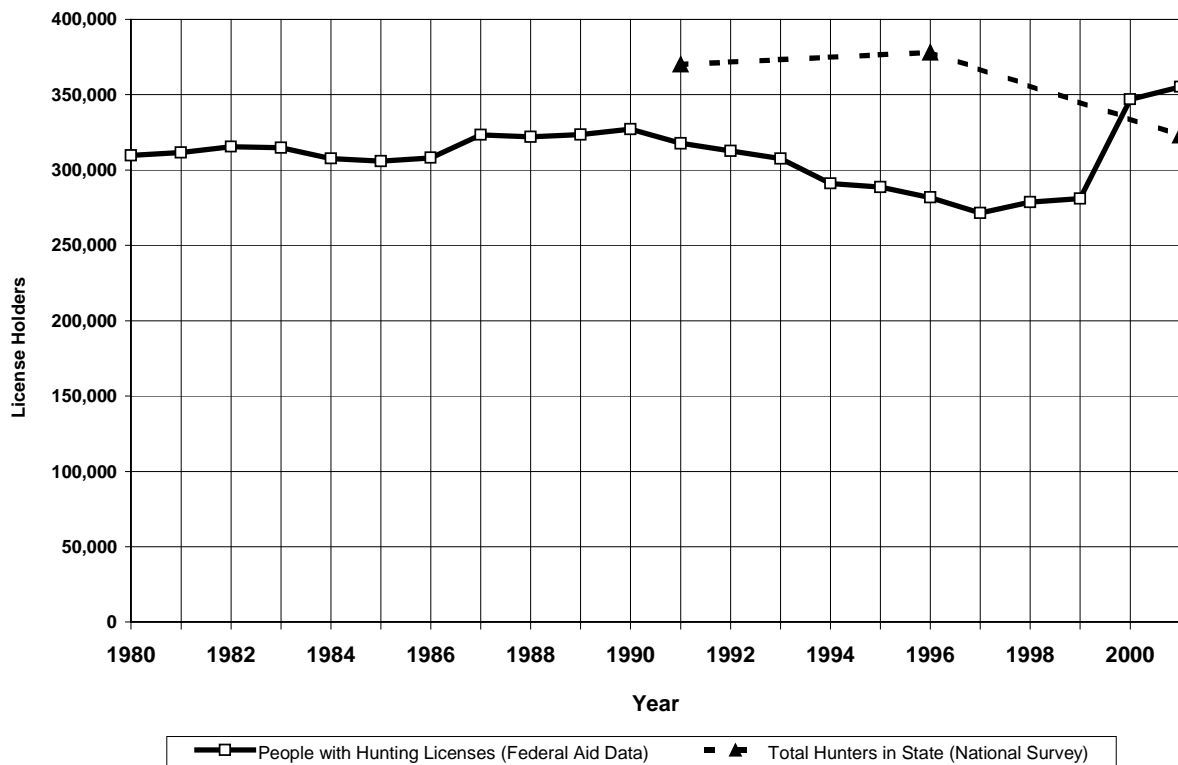
License Holders for Iowa



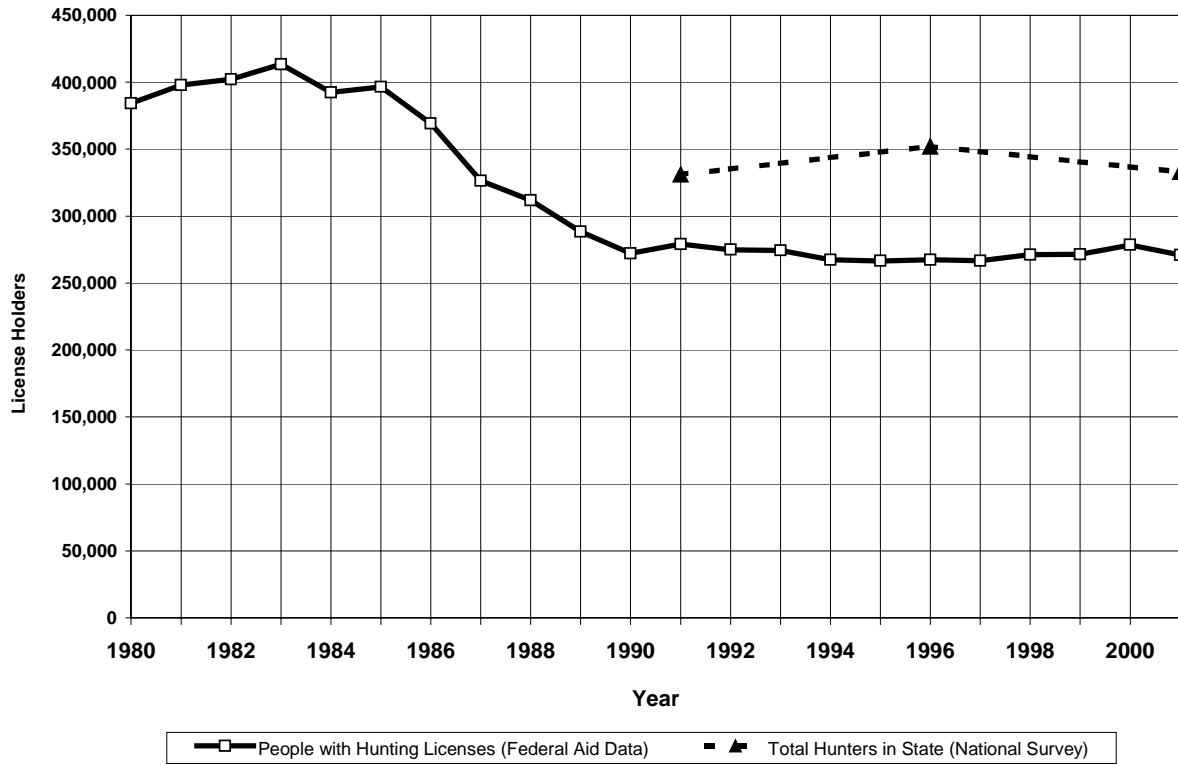
License Holders for Kansas



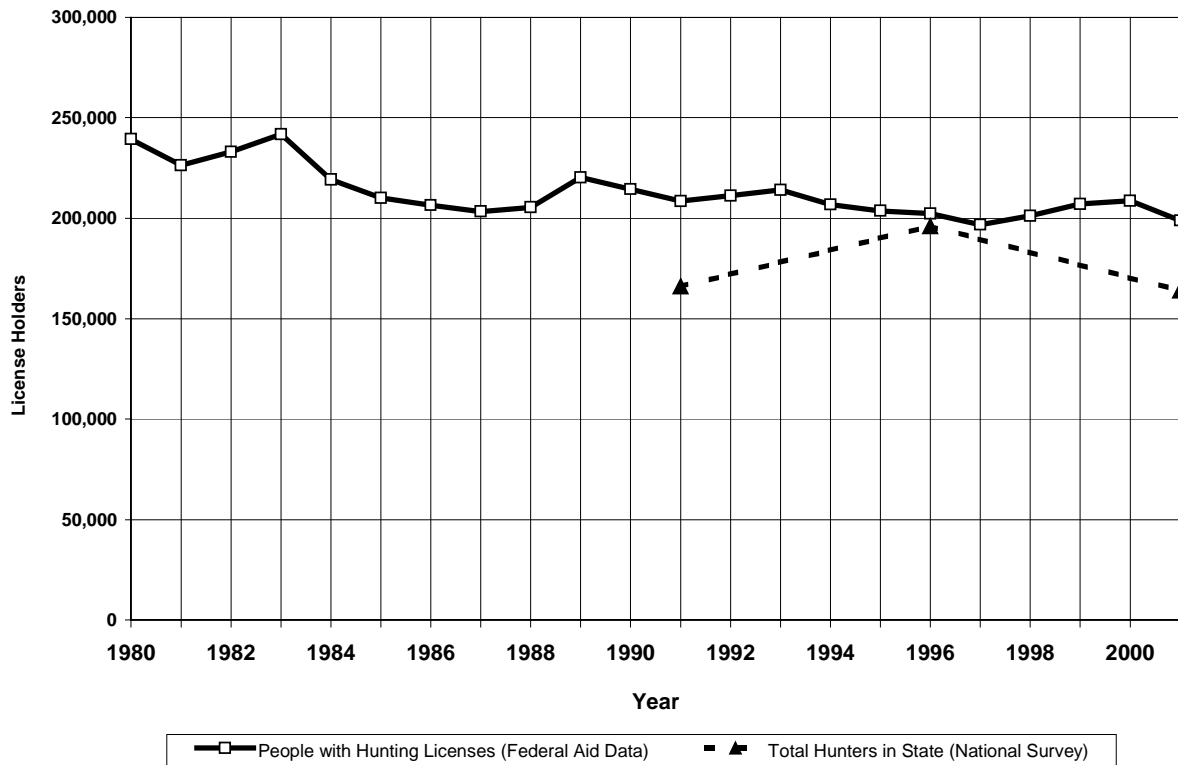
License Holders for Kentucky



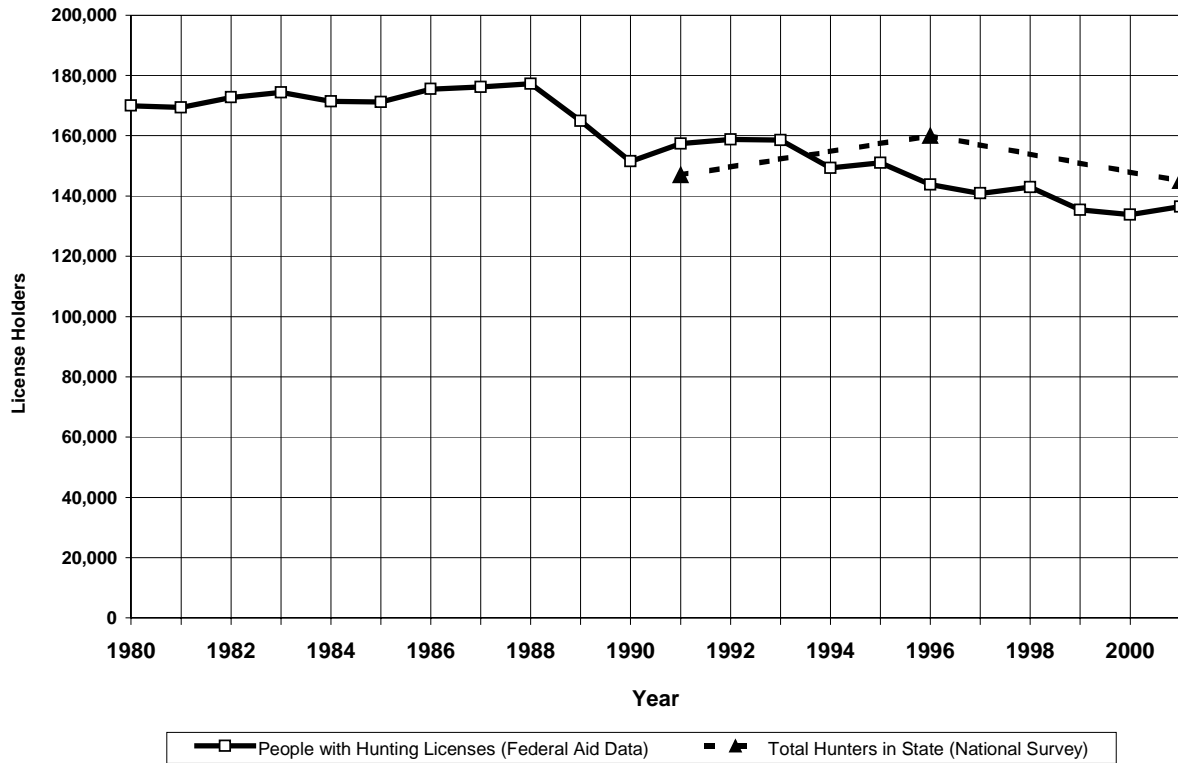
License Holders for Louisiana



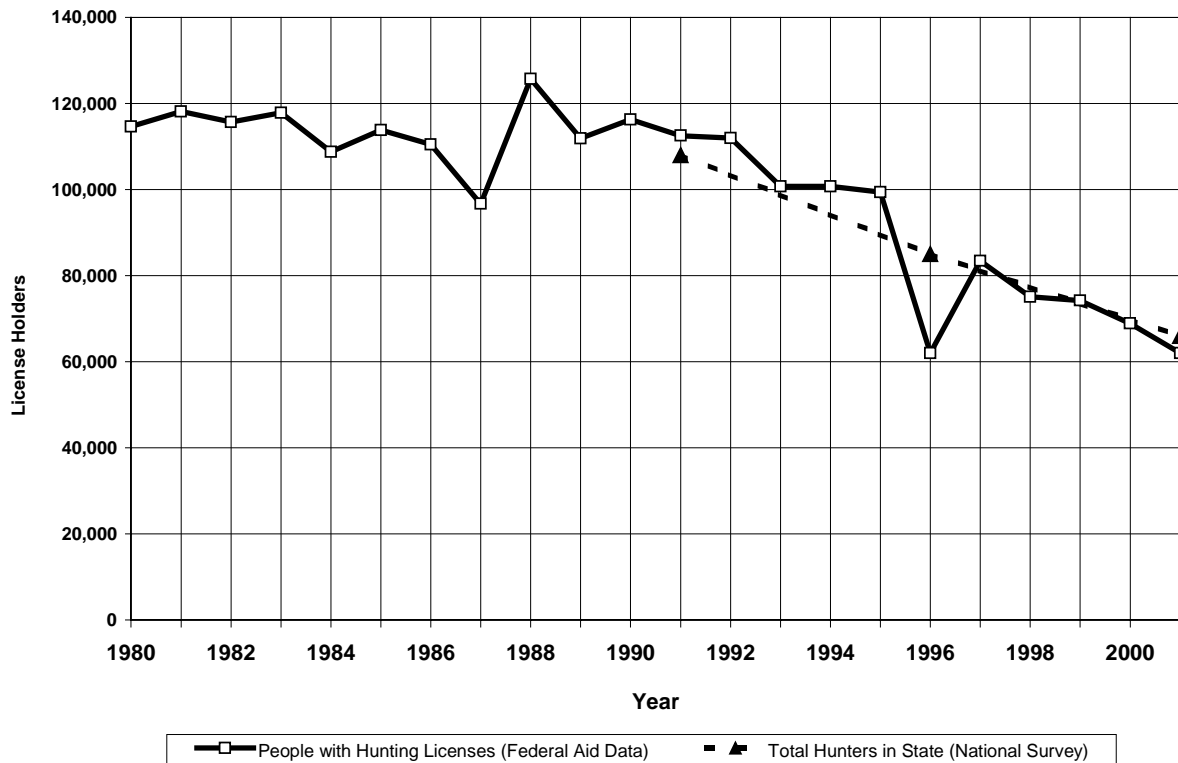
License Holders for Maine

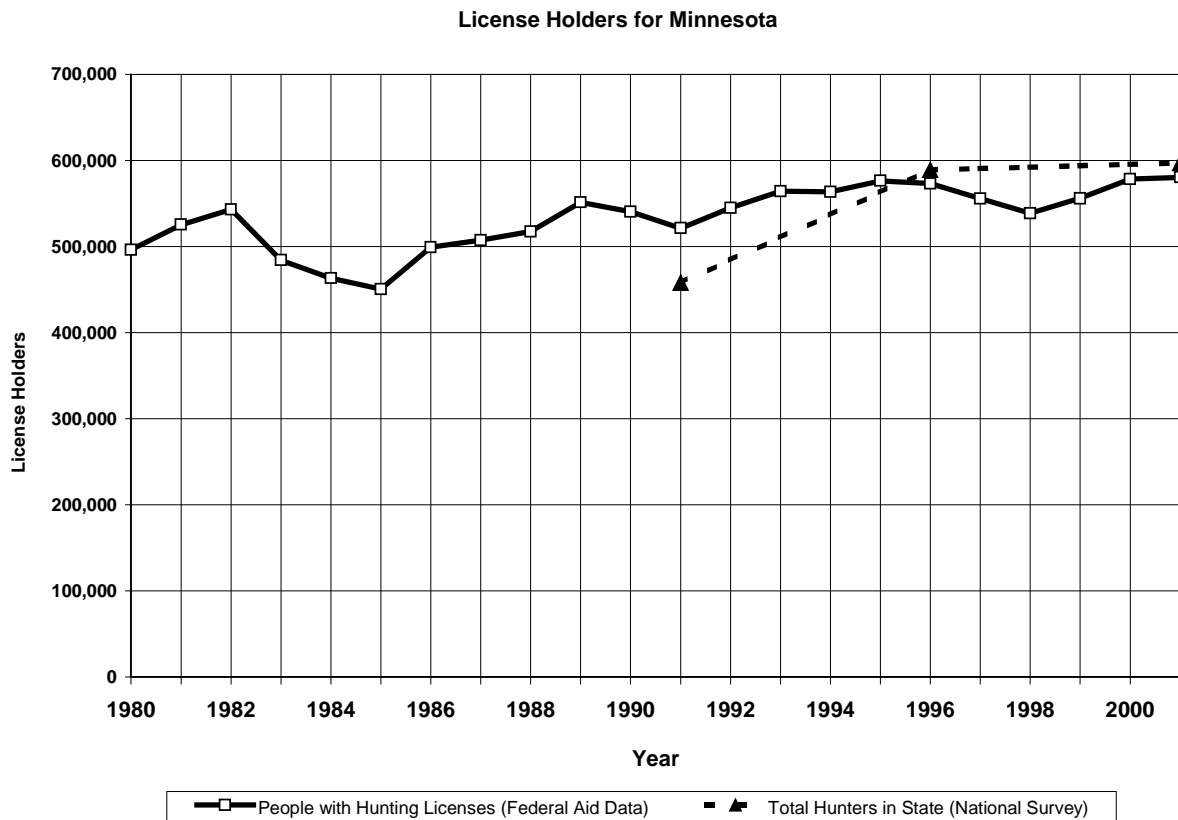
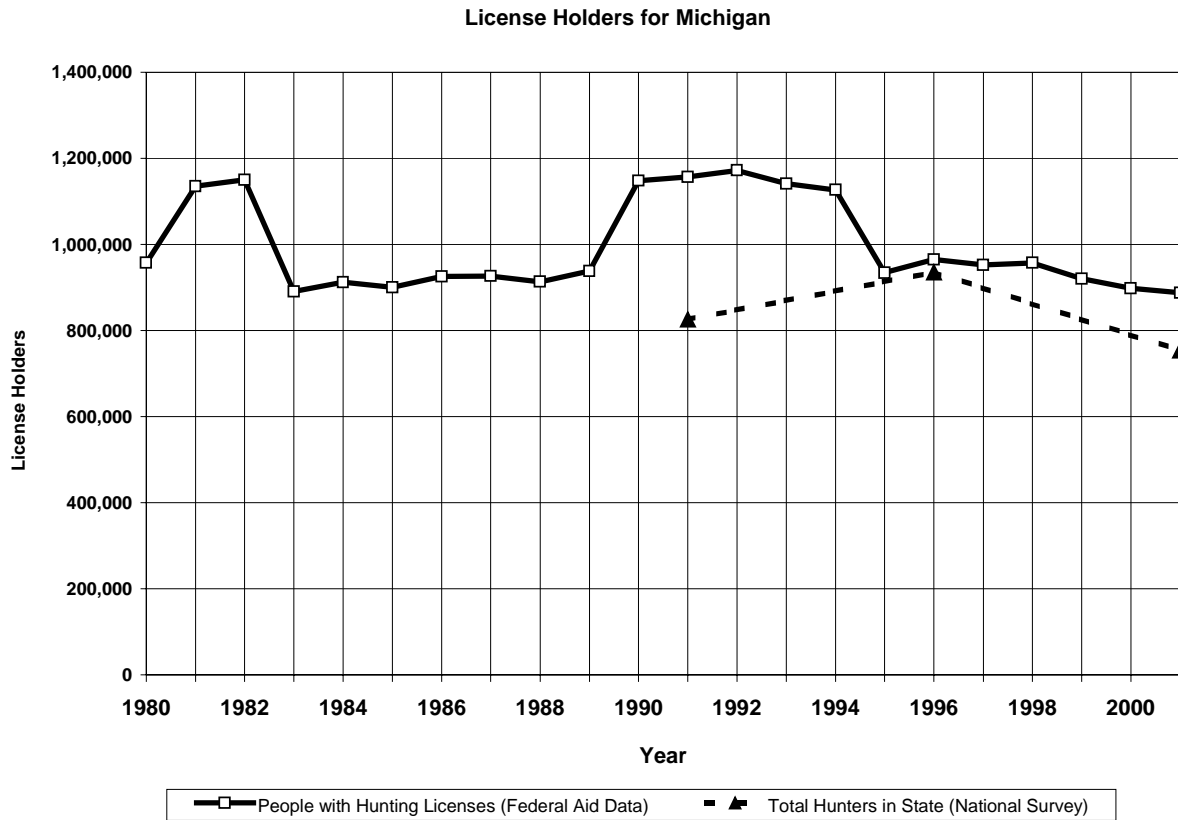


License Holders for Maryland

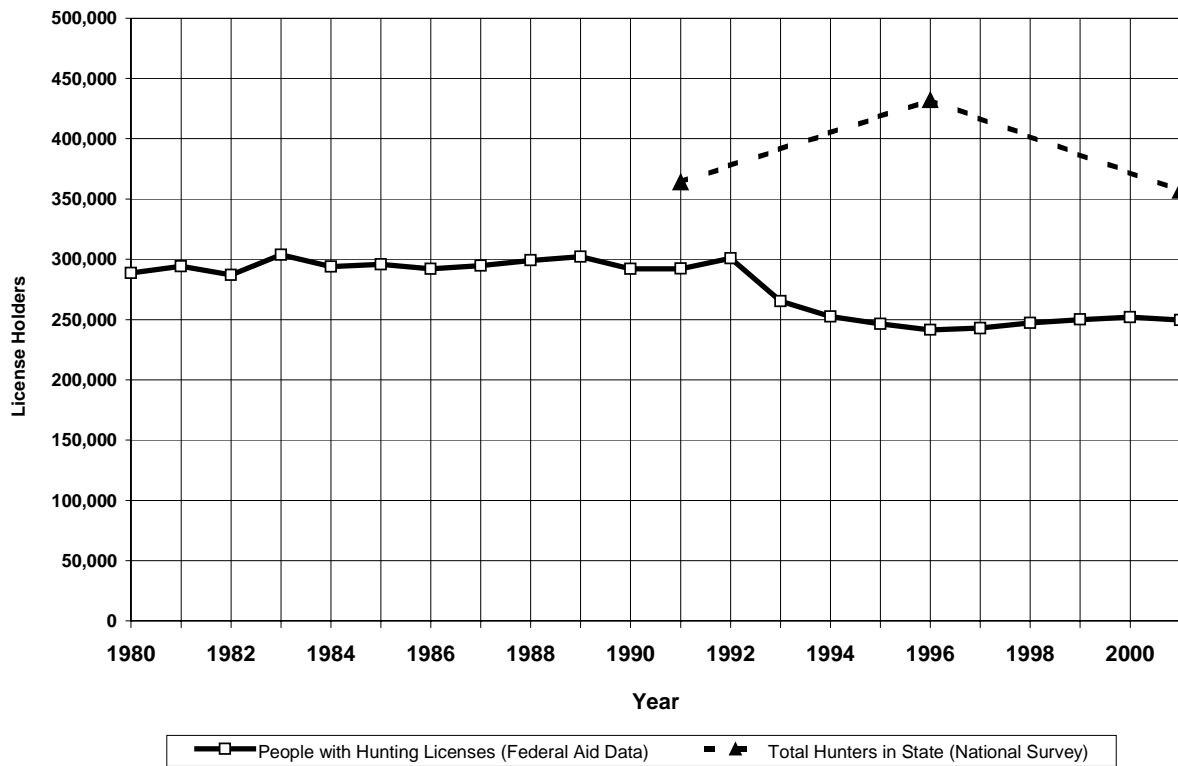


License Holders for Massachusetts

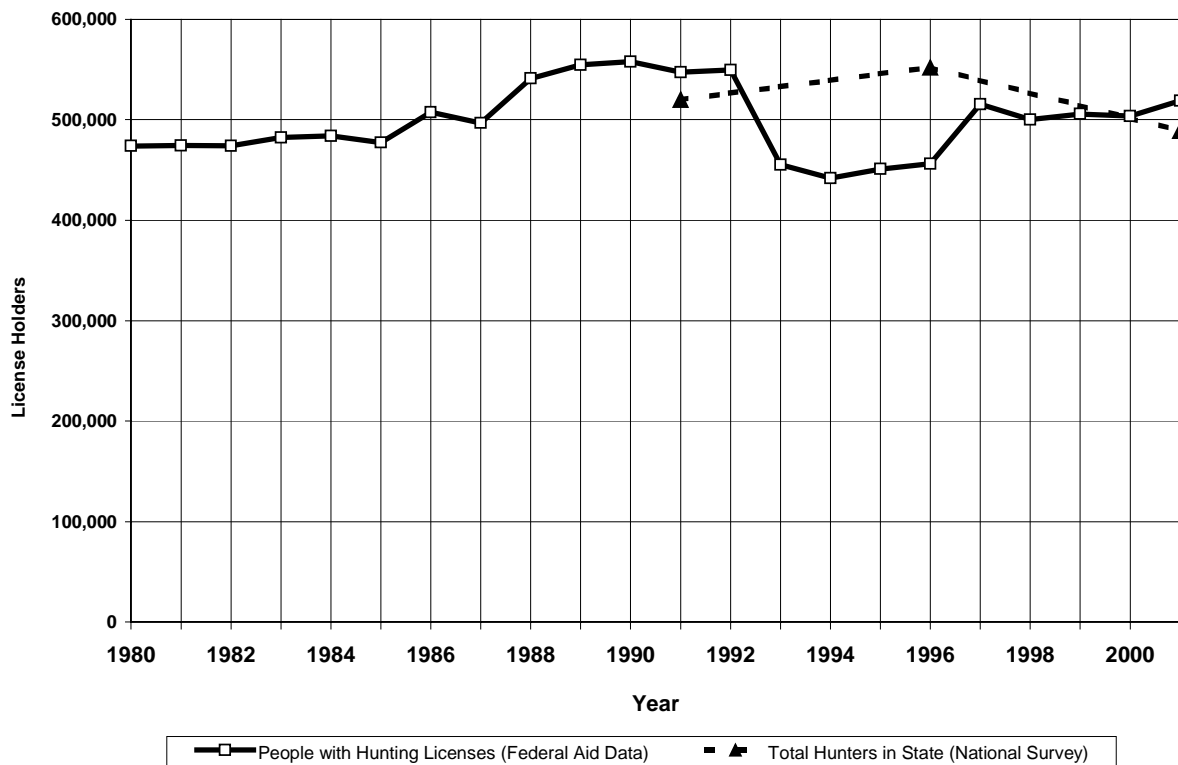




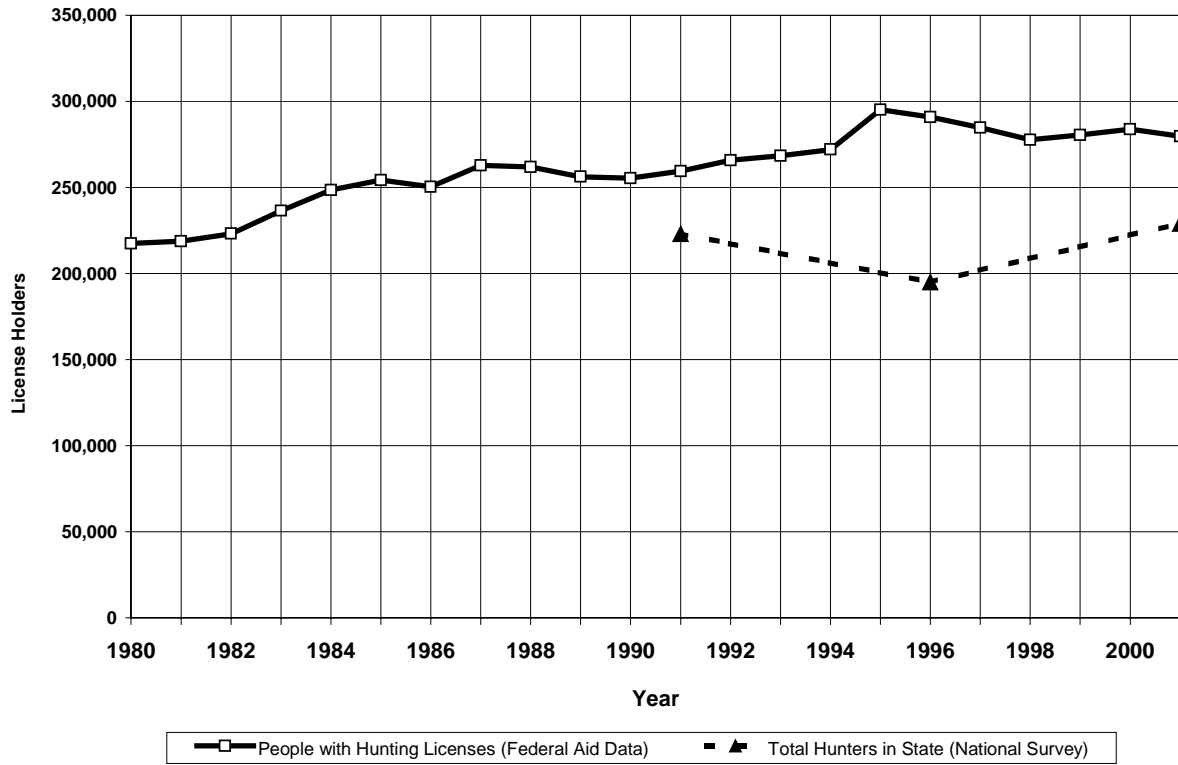
License Holders for Mississippi



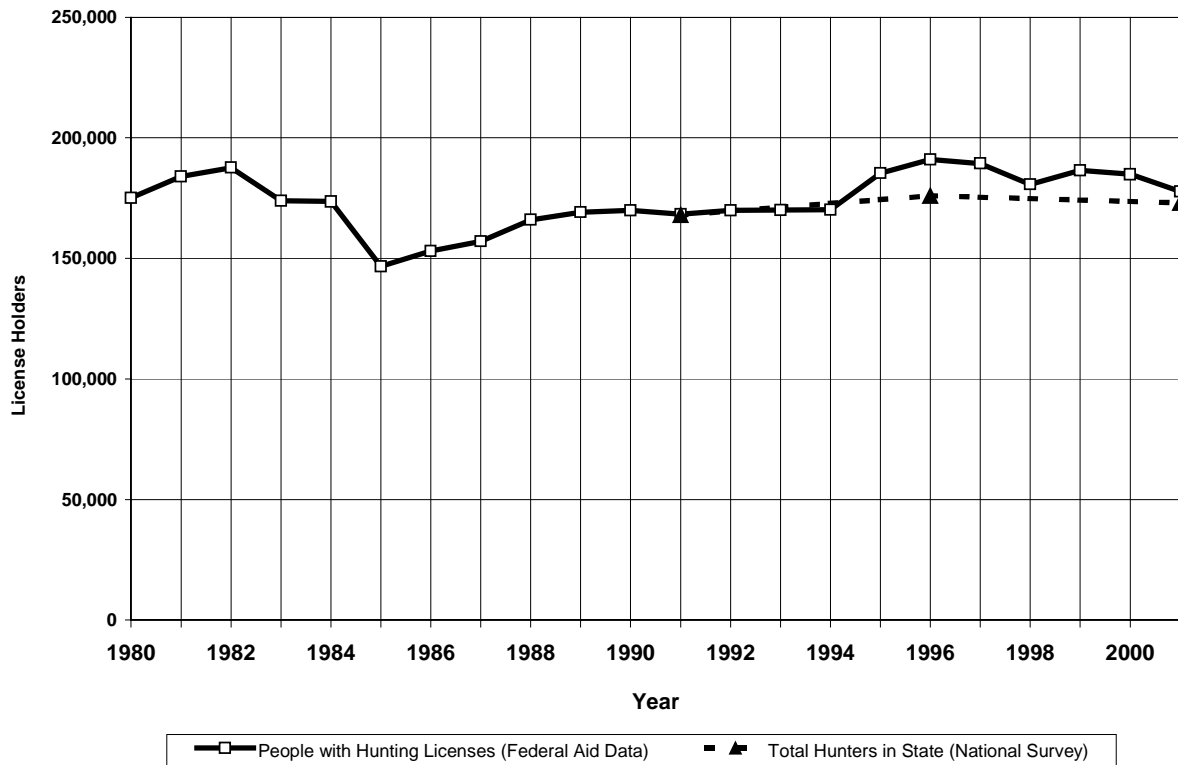
License Holders for Missouri



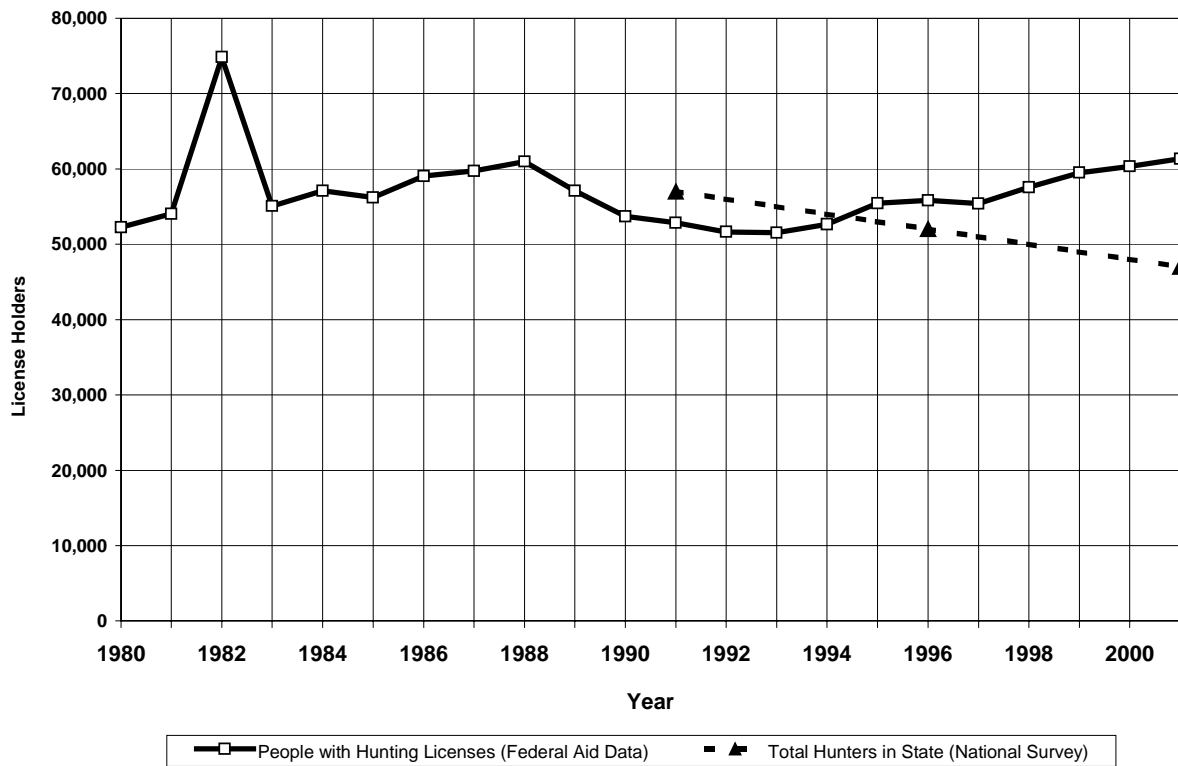
License Holders for Montana



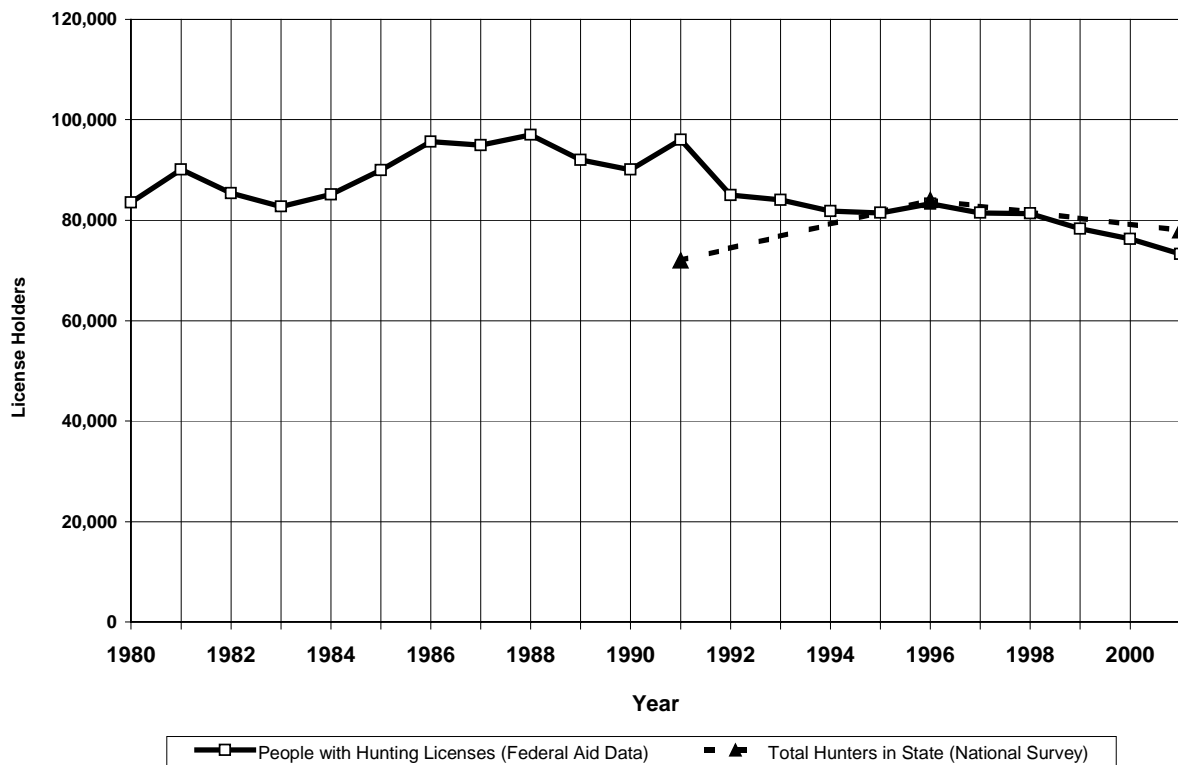
License Holders for Nebraska



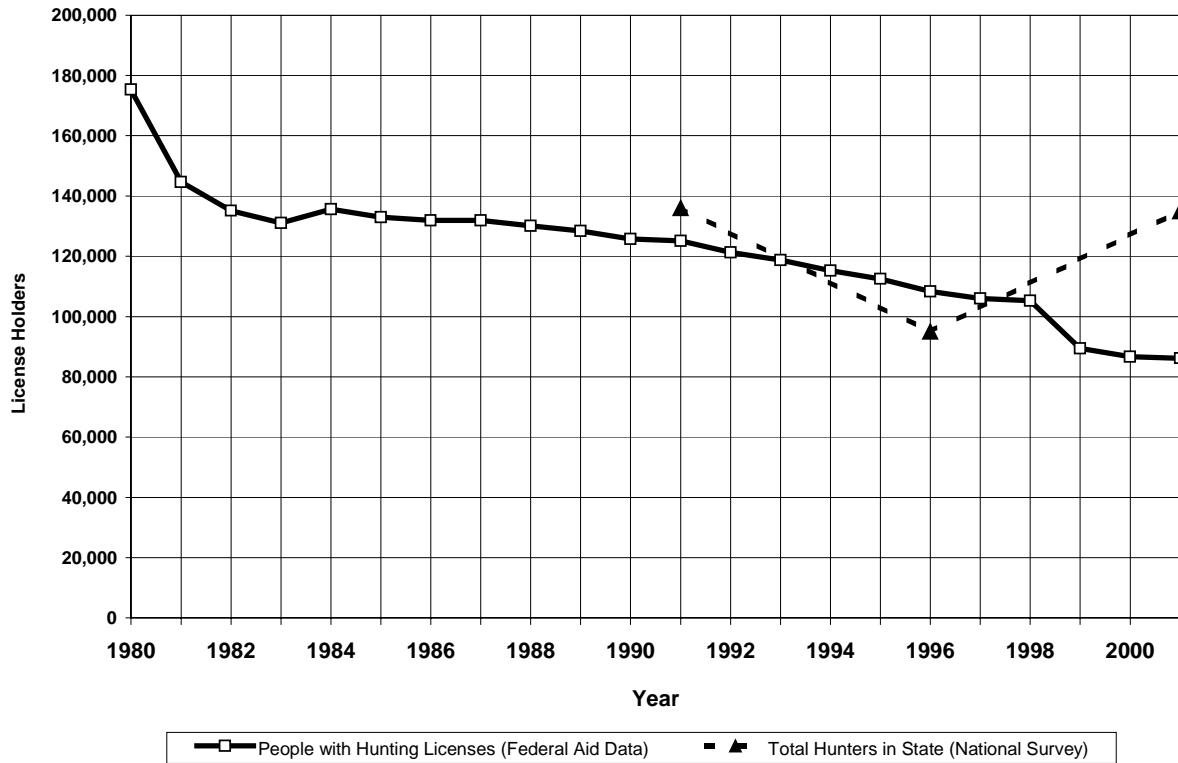
License Holders for Nevada



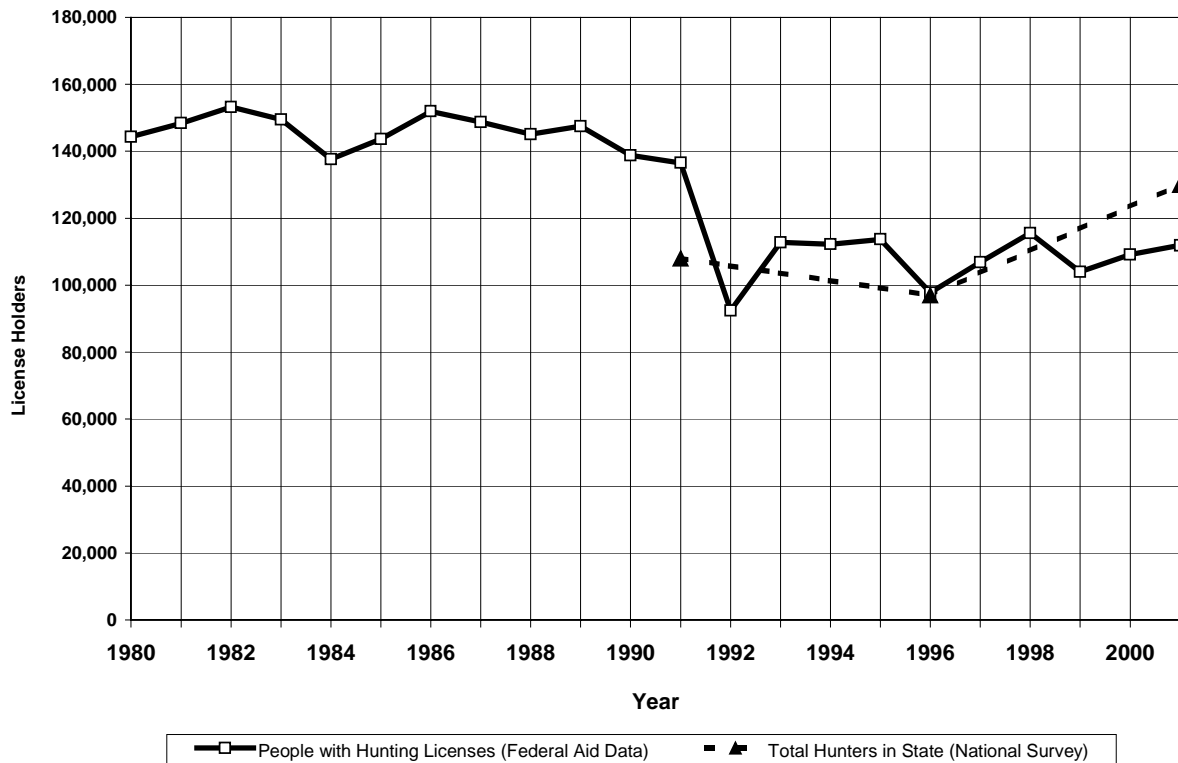
License Holders for New Hampshire



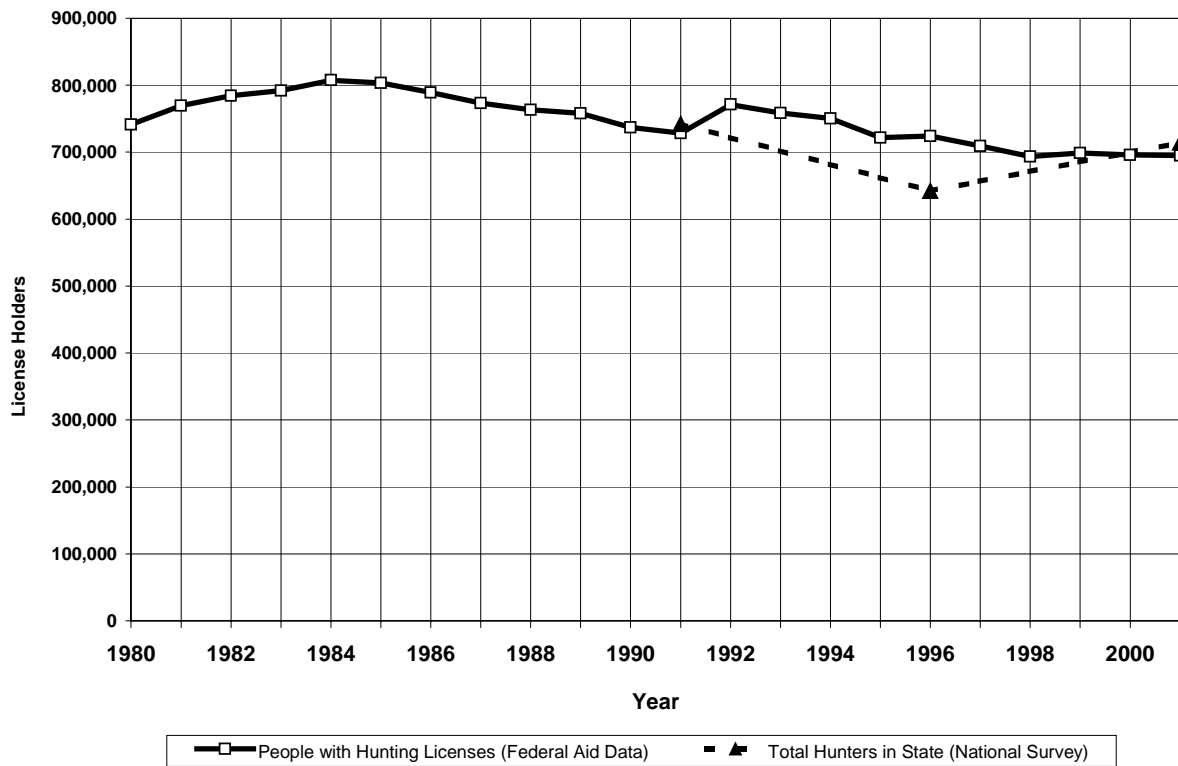
License Holders for New Jersey



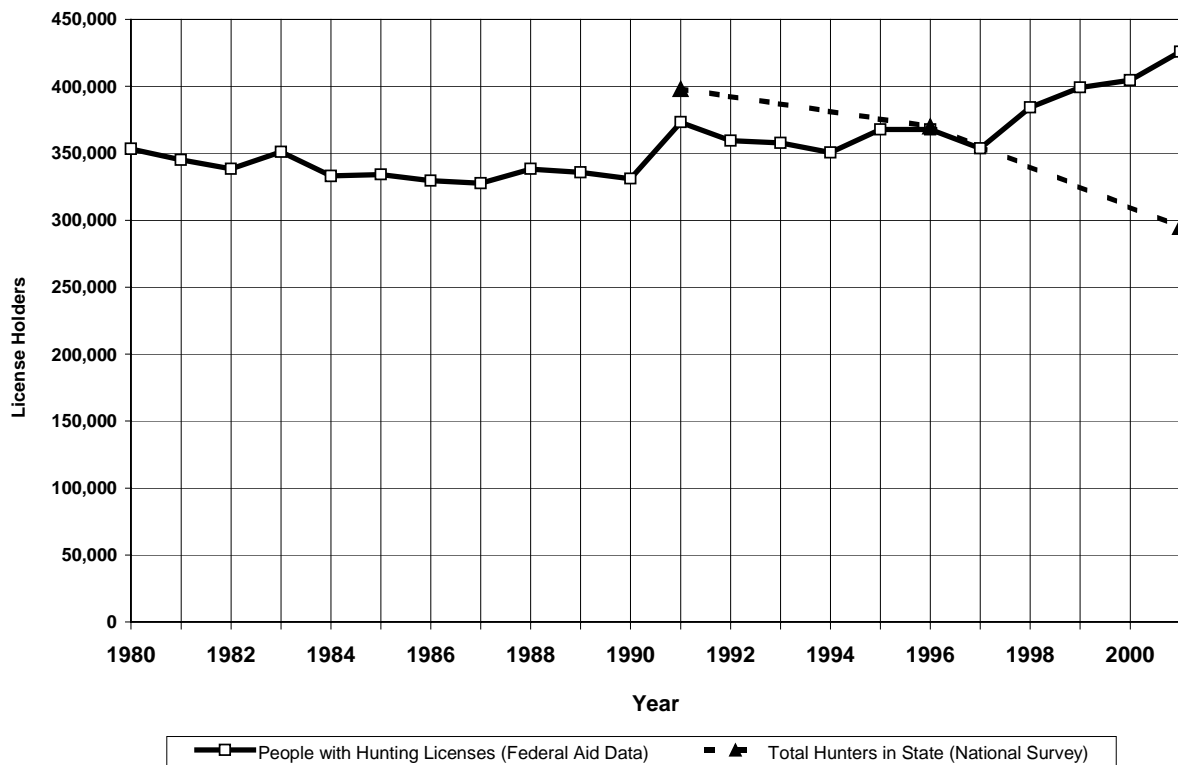
License Holders for New Mexico



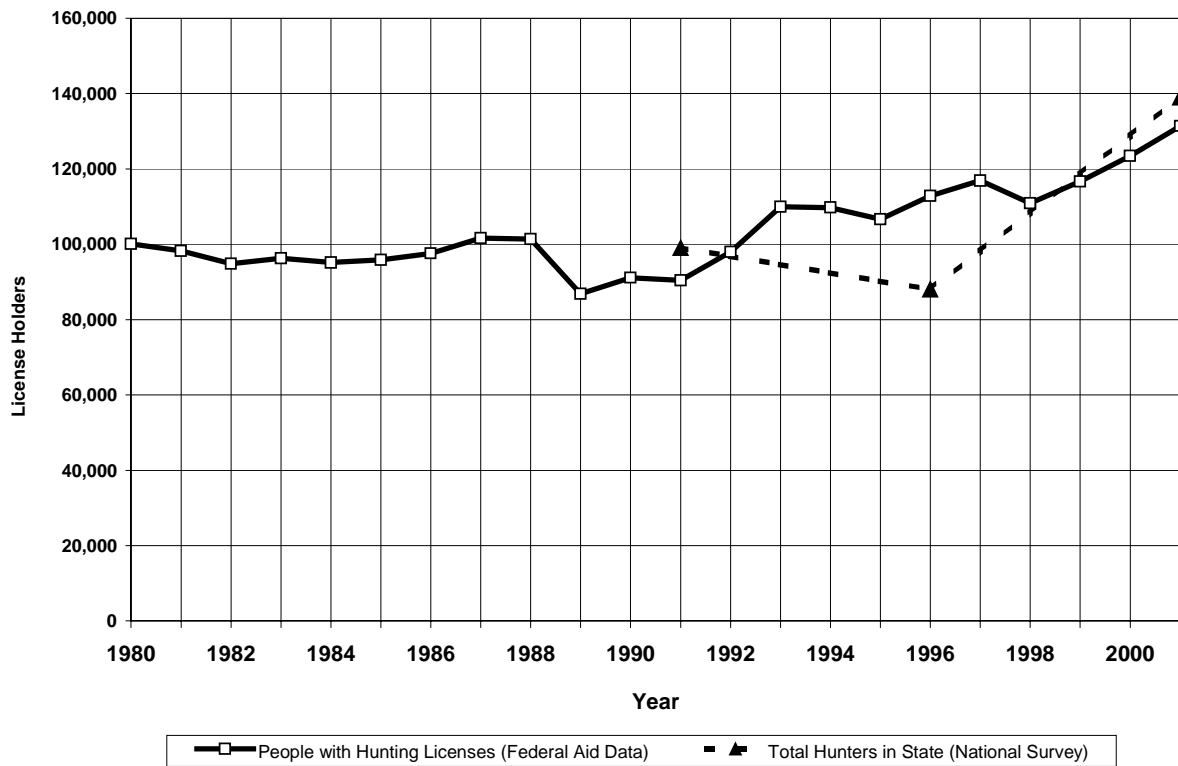
License Holders for New York



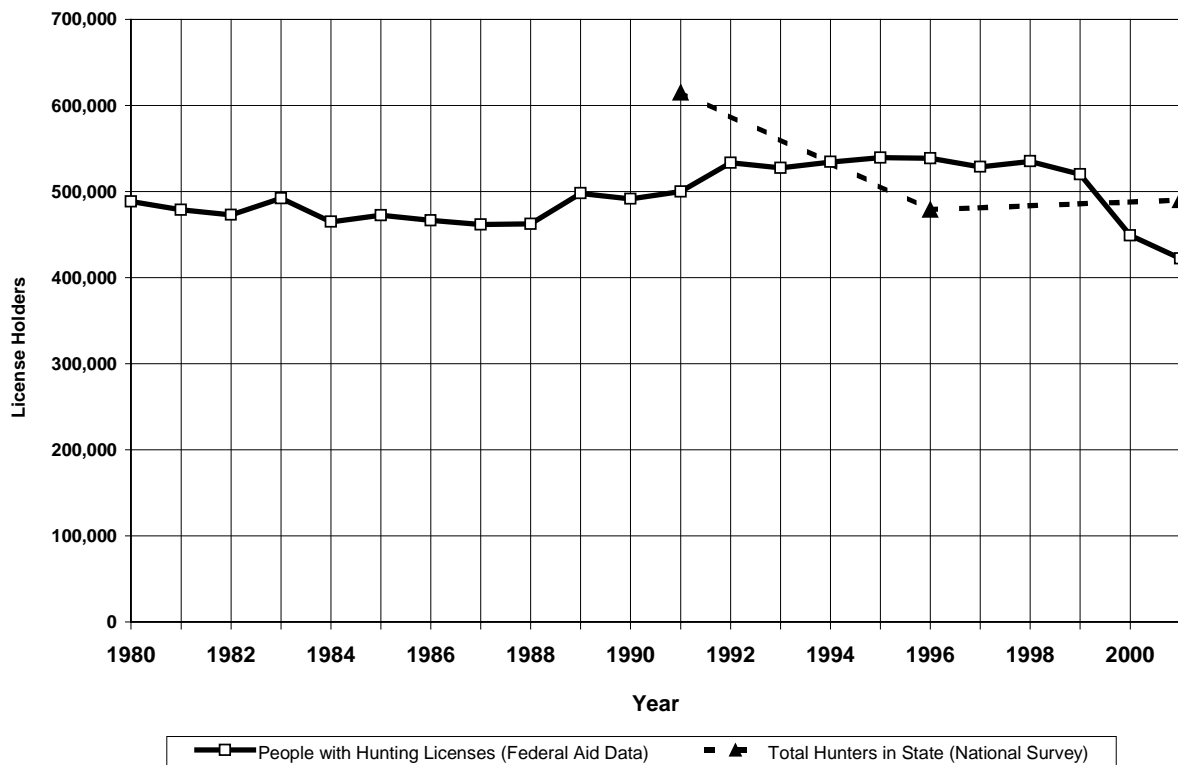
License Holders for North Carolina



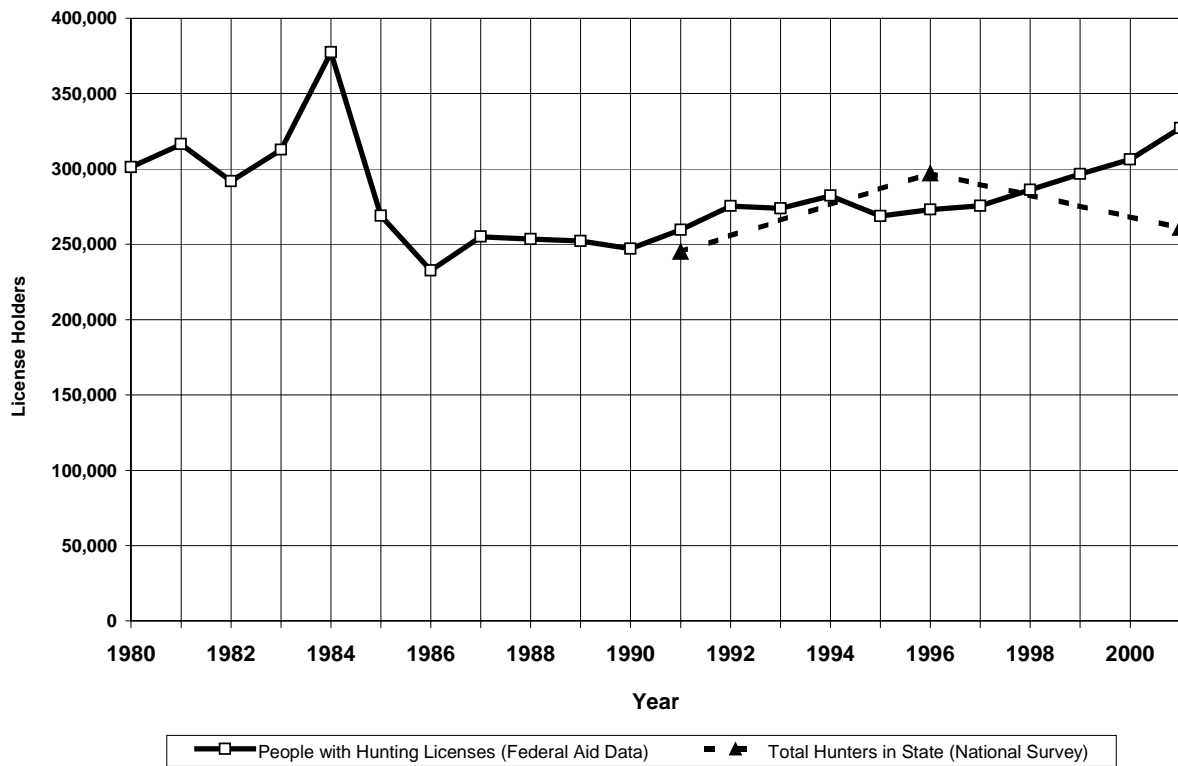
License Holders for North Dakota



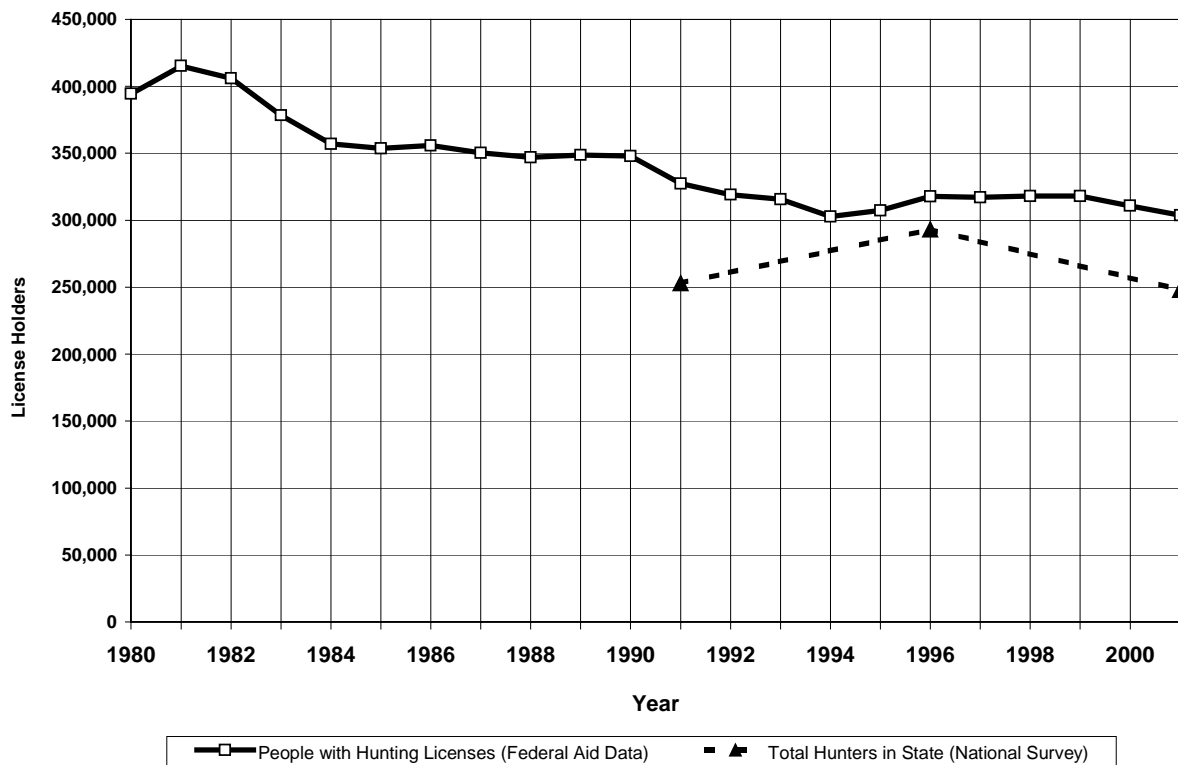
License Holders for Ohio



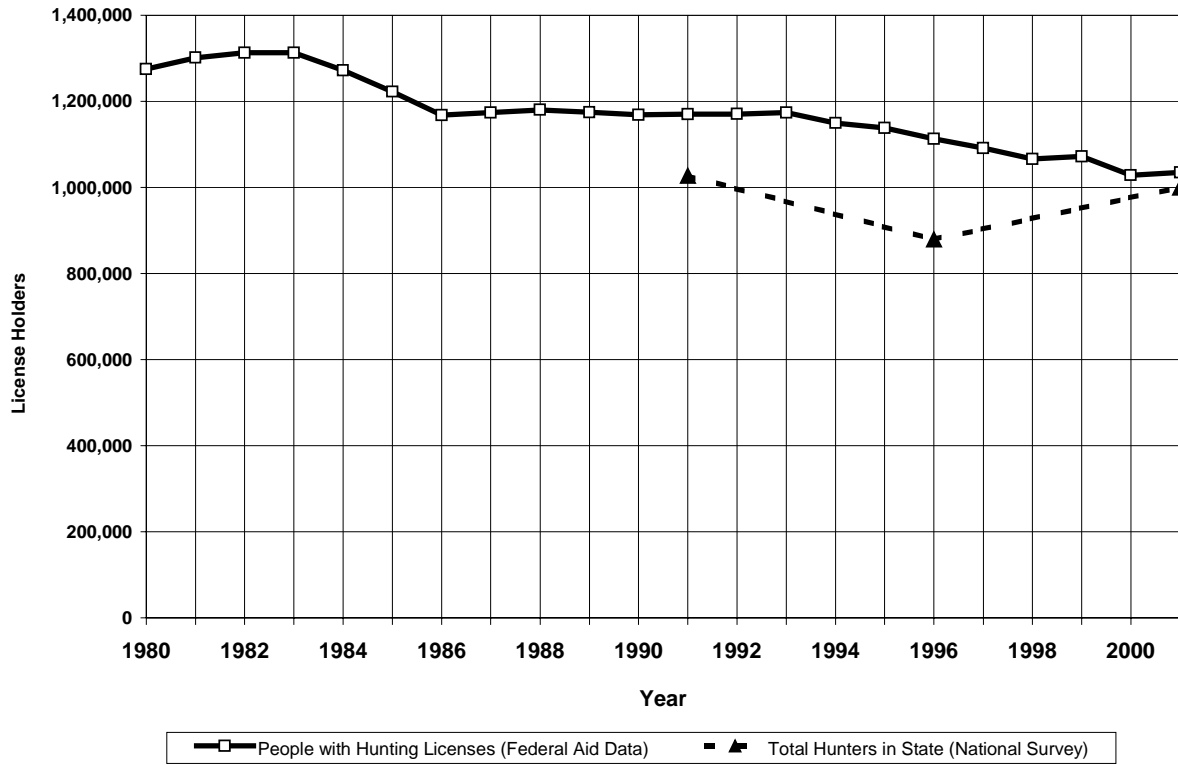
License Holders for Oklahoma



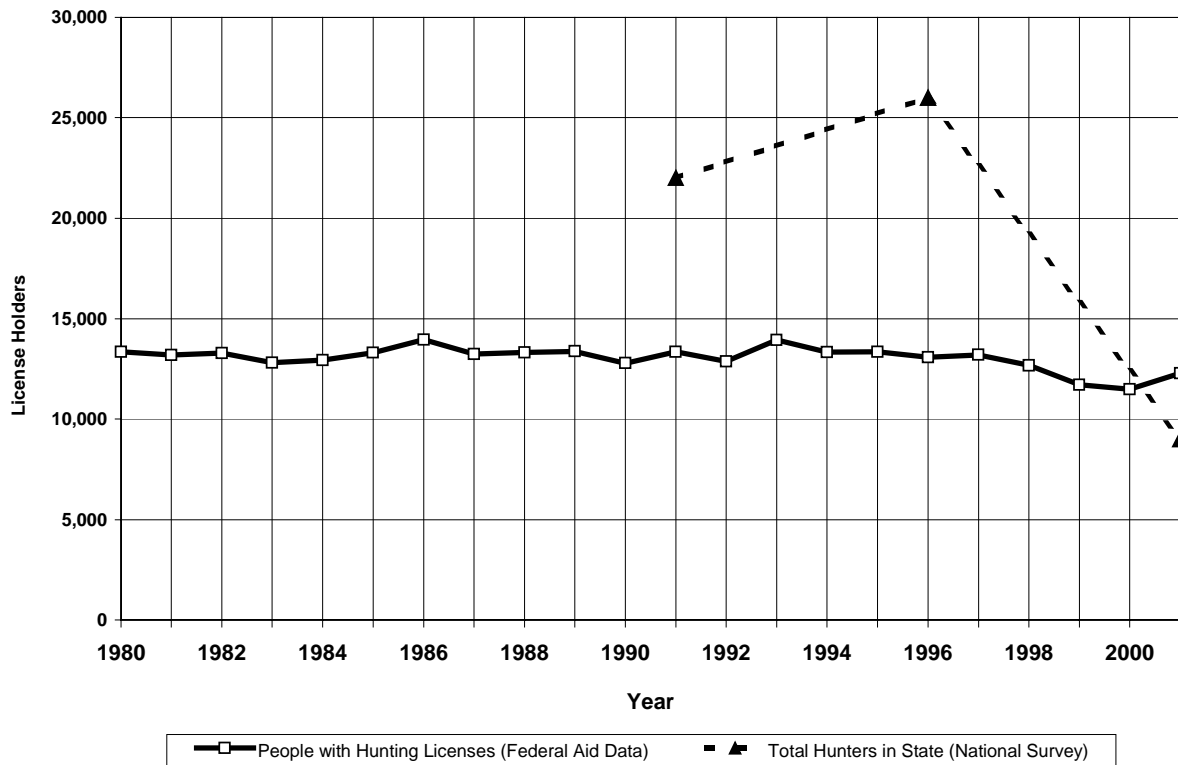
License Holders for Oregon



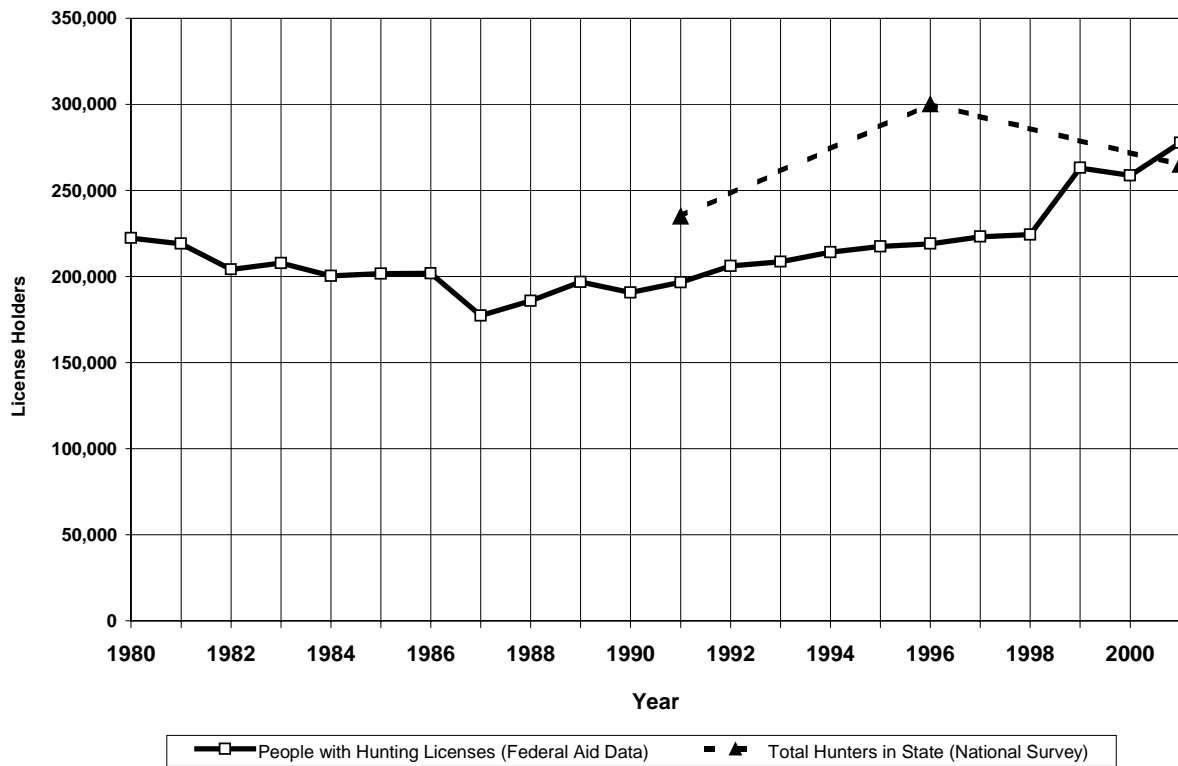
License Holders for Pennsylvania



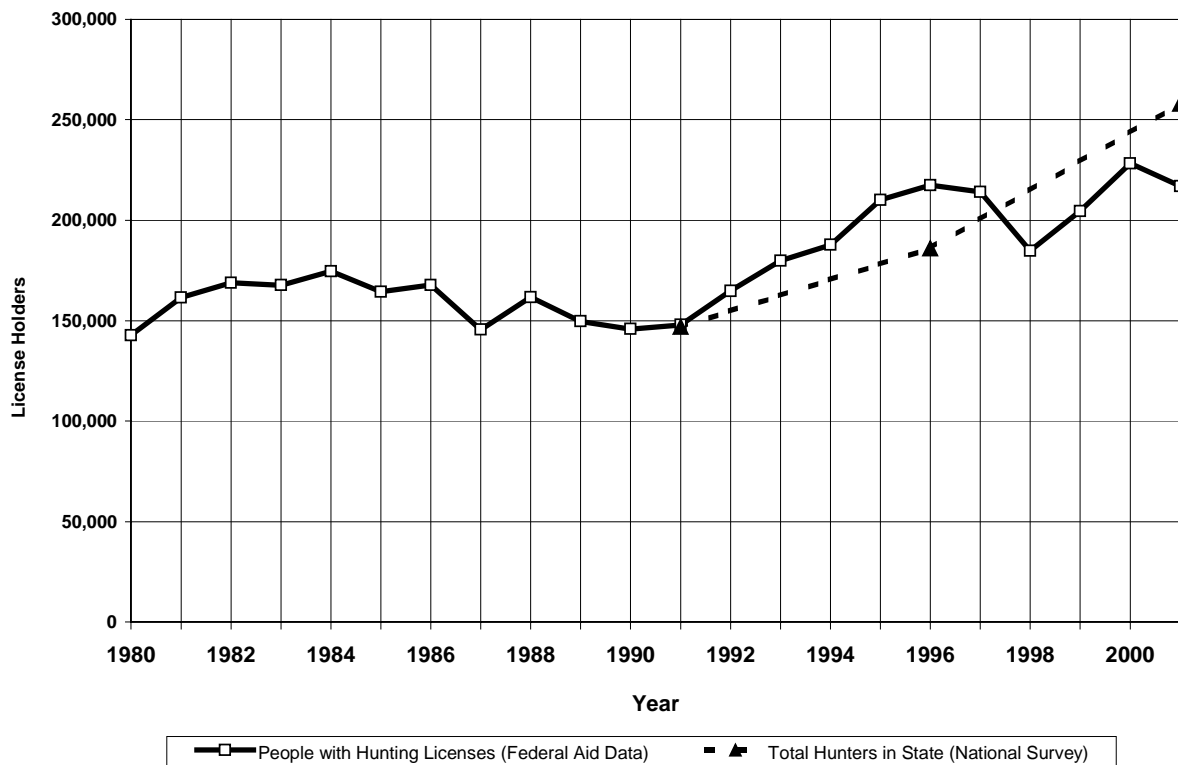
License Holders for Rhode Island



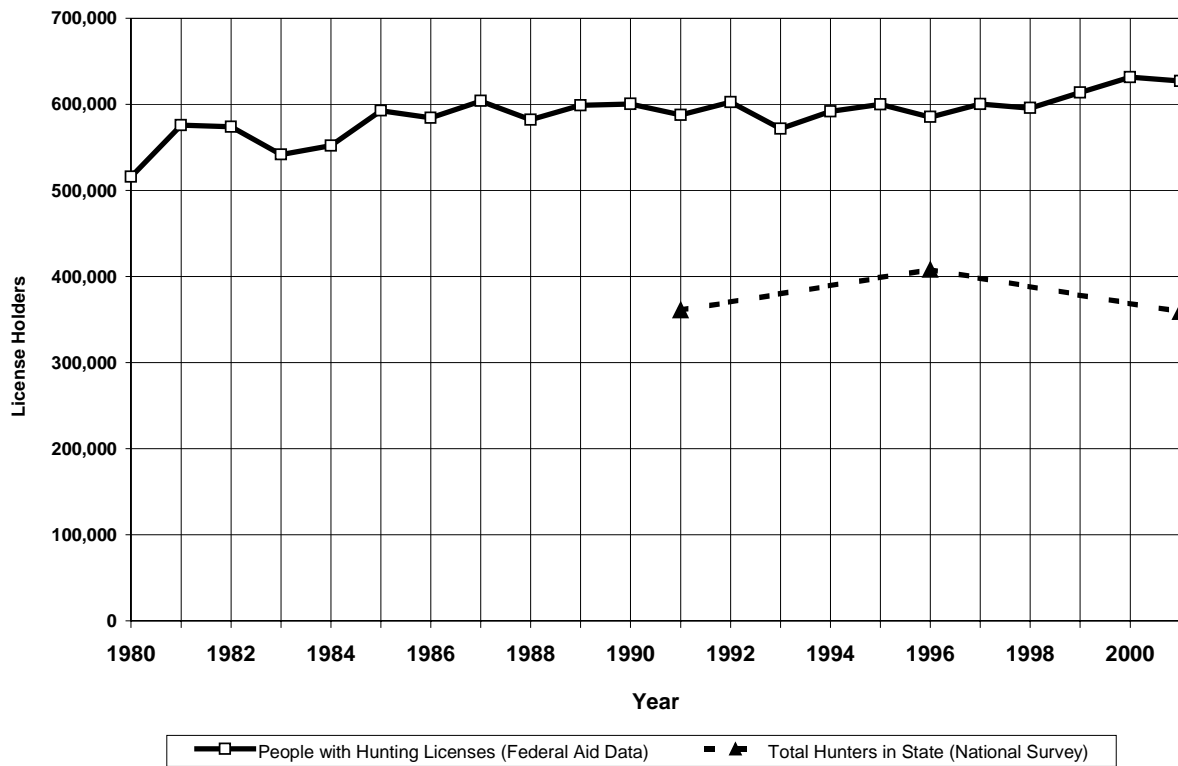
License Holders for South Carolina



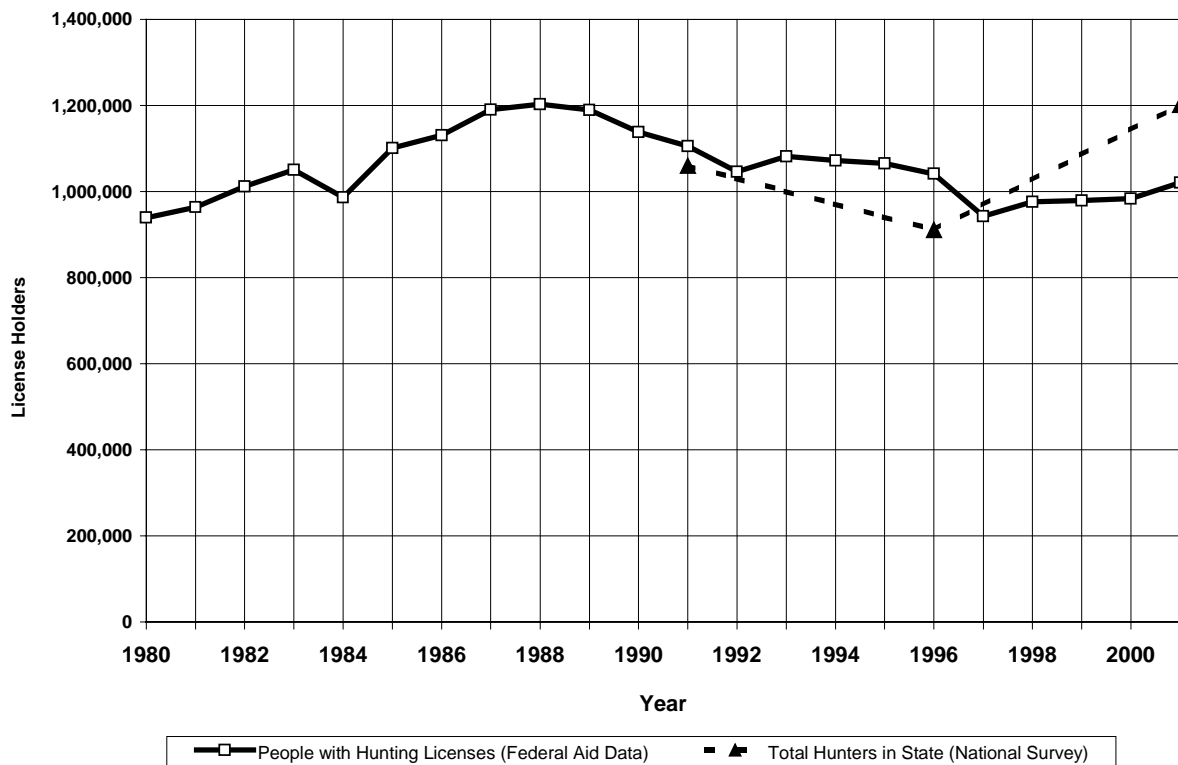
License Holders for South Dakota



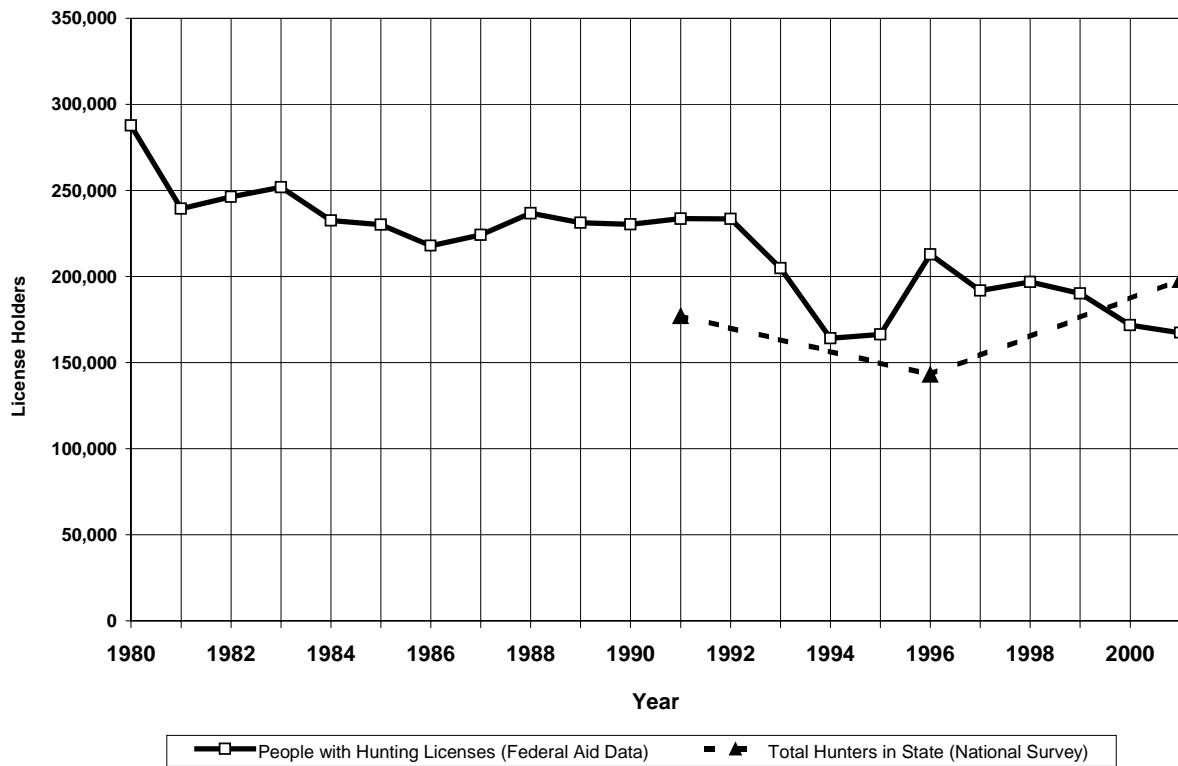
License Holders for Tennessee



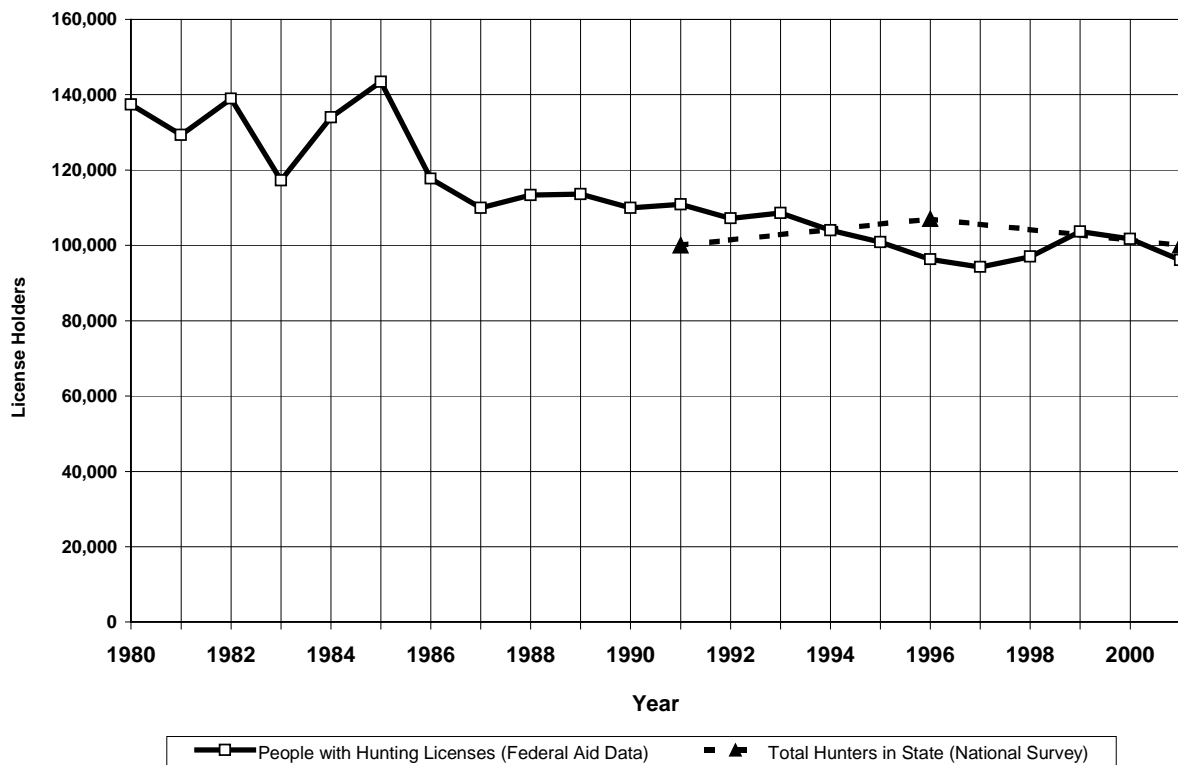
License Holders for Texas



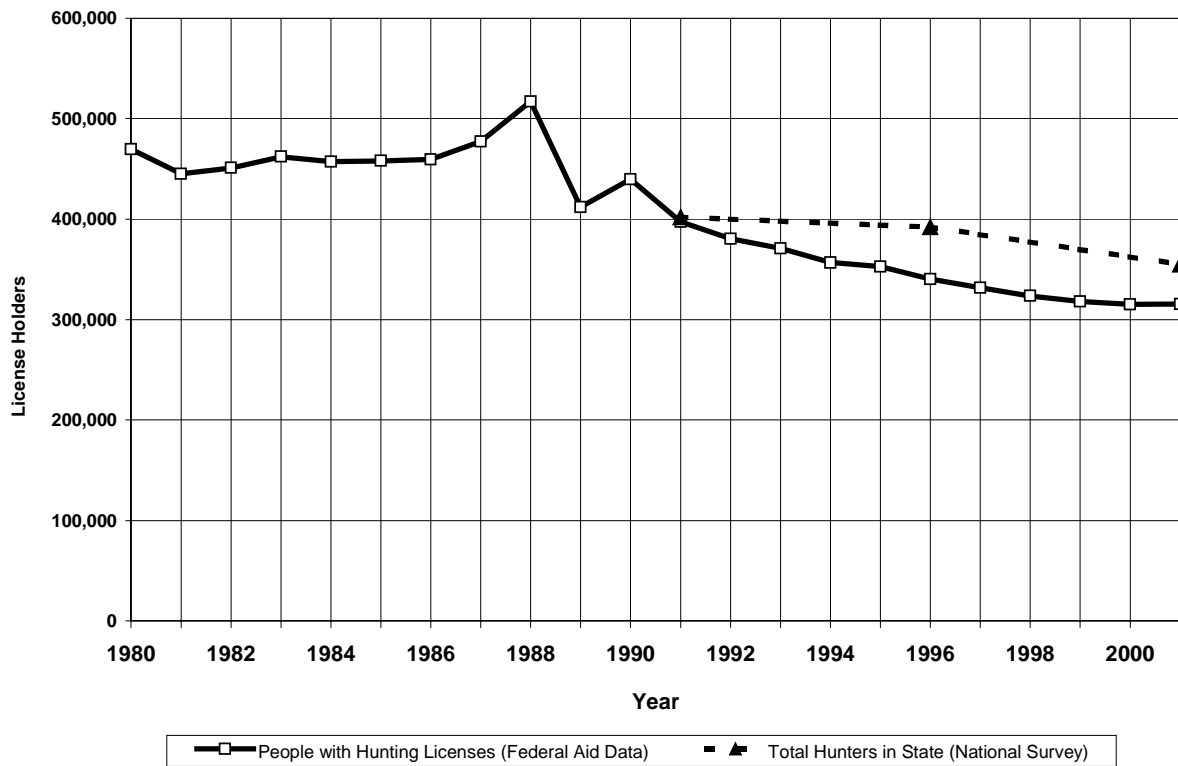
License Holders for Utah



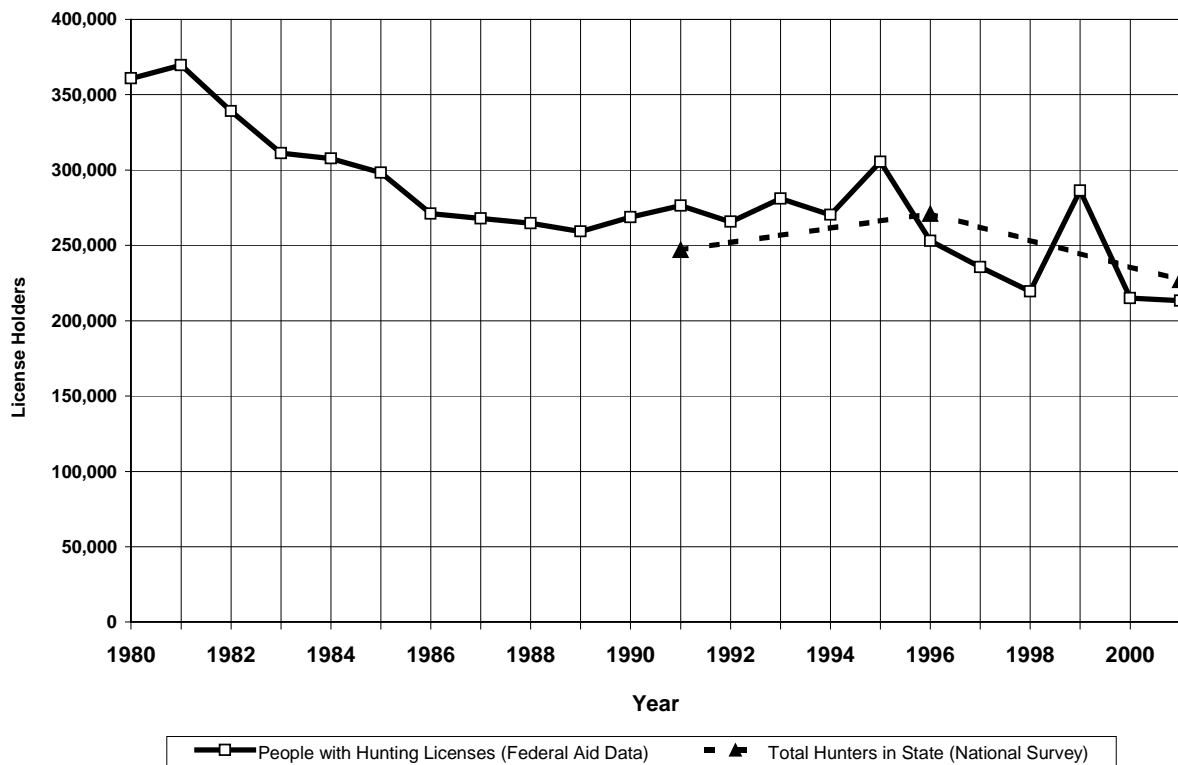
License Holders for Vermont



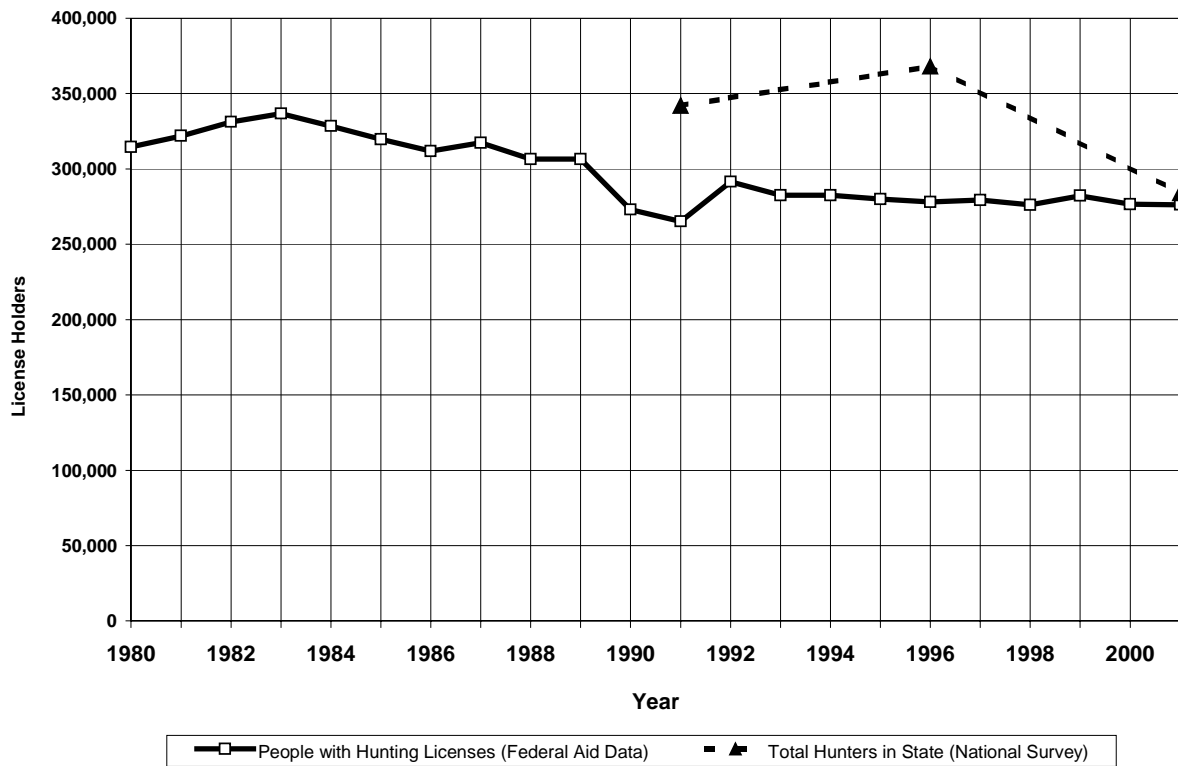
License Holders for Virginia



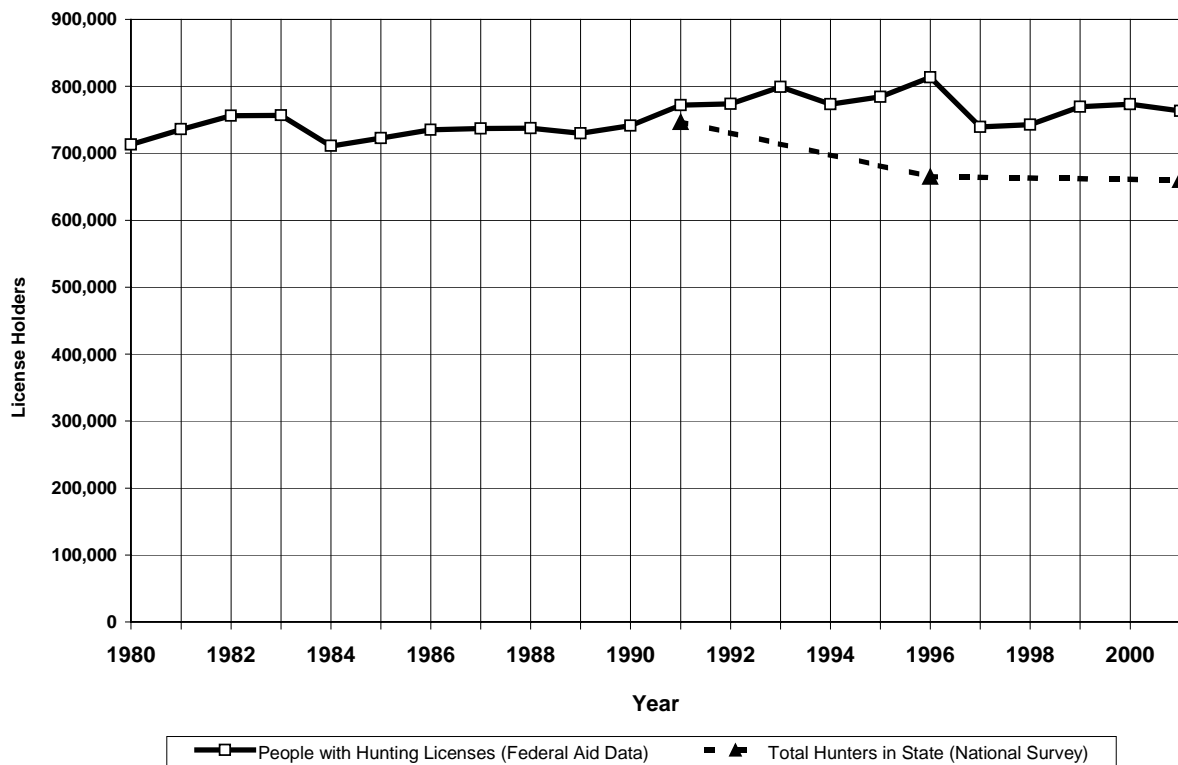
License Holders for Washington



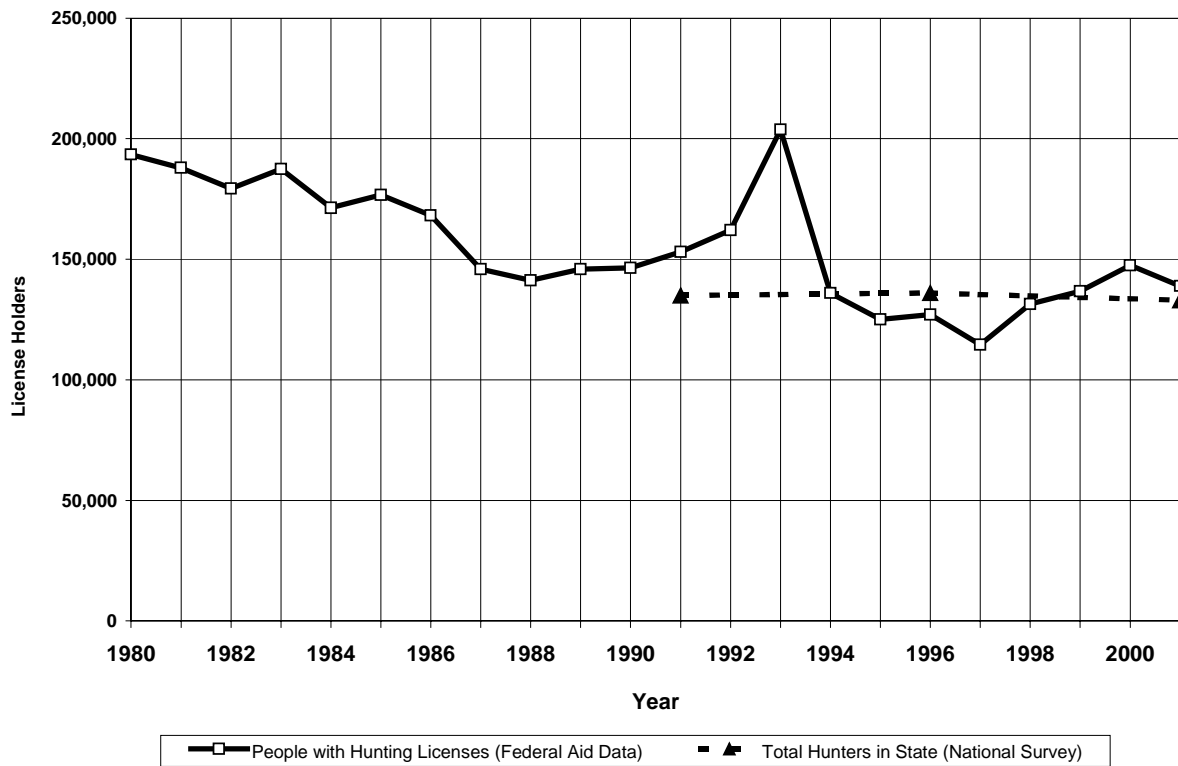
License Holders for West Virginia



License Holders for Wisconsin



License Holders for Wyoming



License Holders for Nation

