

Highlights of Key Recruitment and Retention Research

Hunting Heritage Action Plan Project



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Following are highlights and selected results from the literature regarding recruitment and retention (R&R) of hunters.

R&R Analysis, 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

This U.S. Fish and Wildlife Service report examines recruitment and retention using data from the 1991, 1996, 2001, 2006 National Survey of Fishing, Hunting and Wildlife Associated Recreation (U.S. Fish and Wildlife Service, 2007).

- About 5% fewer 6-19 year-olds living at home had ever hunted in 2005 compared to those who had ever hunted in 1990 (dropped from 16% to 11%).
- In 1990, 49% of all individuals who had ever hunted in their lives remained active; by 2005, this percentage fell to 43%.
- 67% of first-time hunters were 20 years of age and younger. This underscores the importance of recruitment during the adolescent years. However, it also means that about a third of first-time hunters were 21 and over.
- It's a surprise to many that about a third of first-time hunters were 21 and over. While adolescence is the most important time for recruitment, young adults and the middle aged also provide substantial numbers of new recruits.
- Additional research revealed that close to a quarter of first time hunters 21 and over were 21 to 29 years old; half of them were 30 to 45 years old; and about a quarter were over 45.
- Females are often initiated into hunting and fishing at older ages than males.
- Rural residents participate in hunting for the first time at a younger age than urban residents (38% of first-time hunters living in rural areas are 12 or younger, compared to 26% in urban areas). Hunters initiated at younger ages tend to have higher levels of dedication to the sport and tend to be more active later in life.
- The percent of all children living at home in the United States who have ever been hunting or fishing has declined steadily from 1990 to 2000. However, the decline in both activities leveled off from 2000 to 2005.
- The West North Central [census] region [ND, SD, NE, KS, MN, IA, MO] experienced the least decrease in R&R. Do wildlife agencies in this region have practices that could be applied elsewhere (e.g., are public areas managed differently? Do they promote it better?), or are other factors in play (more areas to fish and hunt, less urbanization, etc.)?
- The smallest decline in initiation rates was seen among children living in suburban areas (inside metropolitan area but not in central city).
- Fishing and hunting are familial activities, with children's activities heavily influenced by parents within the household. If retention of parents can be improved, it is likely that initiation of children can also be improved.
- The cost of hunting has been an issue to those with lower incomes. It is important to note that the costs associated with hunting are not limited to equipment, licenses, fuel, etc. Costs also include those associated with spending time in leisure activities and not working.
- Participation rates of hunting age children (13-19) of both sexes are highly correlated with parent participation rates.

Waterfowl Hunter Recruitment and Retention Efforts

- A special waterfowl R & R committee has been set up. They are actively looking for mechanisms to reverse the declining trends in waterfowl hunting.
- Significant effort is being devoted to improve their understanding of the leisure science, rural culture and social sciences literature. Specifically they are examining the “Motivation/Constraint Decision Model,” the “Adoption-Stage Model,” and the “Social Capacity Model” to see how these theoretical frameworks can help develop effective programs to improve retention rates and increase recruitment.
- Research suggests that regulations can have an effect on satisfaction and short-term participation when there are dramatic changes (e.g., major reduction in opportunity or increased costs). However, it is difficult to predict accurately the specific regulatory conditions affecting participation or magnitude of the effect(s) (Enck, 2004).
- Moderate changes in such things as season length or bag limits have not been shown to produce significant effects on R&R (Enck, 2004).
- Regulations may introduce new constraints to low-commitment hunters and may serve as the impetus for a gradual withdrawal from the activity (Manfredo, 2004).
- Without better understanding of interactions, changes in regulations may not have the intended consequences in terms of hunter satisfaction, participation, or involvement in conservation. (Manfredo, 2004).
- Long-term participation appears to be primarily influenced by broad-based changes in an individual’s social and cultural values, many of which are beyond the natural resource manager’s control.
- Analysis of state license sales indicates that there is a much larger pool of “active” hunters than previously suspected. In any given year, only a portion of this pool of hunters actually hunts. As a result, the composition of hunters in any given year may be very different from the previous year.
- It is believed that a large percentage of hunters who eventually desert the sport do not make a conscious decision to quit. Termination is often marked by prolonged inactivity with the intention of one day returning to the activity.

NSSF Hunting Participation Think Tank

In 1999 the National Shooting Sports Foundation assembled a Think Tank of national experts to examine the literature and develop recommendations for increasing participation in hunting and shooting sports (Wentz and Seng, 2000). This work remains one of the best summaries of the issue to date. Some research-based conclusions:

- *Probably the biggest obstacle facing hunter participation today is the lack of social infrastructure and social support for hunters.* This has impacts at every stage of development. Becoming a hunter involves more than just firing a gun or going afield to harvest game. It is more attitudinally based and involves development of an individual’s perception of him/herself as a hunter and as part of a hunting culture. Providing social support is very difficult.
- Development of social competence is critical for creating long-term hunters. Many agency programs (e.g., hunter education) focus on building technical competence, with little thought toward how regulations or policies may restrict development of social competence (apprentice opportunities, minimum age restrictions, passport programs, etc.).

- People typically move through the following basic stages of development as they become hunters (Decker, 1986). These stages are not always linear and people may fall away from any stage, but there also are specific strategies that can be used to effectively target people in every stage—to try to get them to proceed on to the next stage.
- Awareness – discovery that hunting is a possibility
- Interest – realize that hunting holds interest
- Trial – try hunting (not necessarily in the field with a firearm)
- Continuation – like it enough to do it again and again
- Hunting Proponent – become an active advocate
- Temporary Cessation – lapse for various reasons, but intend to continue
- Desertion – give it up permanently
- All hunters have one or more motivations for hunting—primary reasons why they become involved and stay involved. These motivations have been described as (Decker, et al., 1987):
 - *Achievement* – motivated by numbers of animals harvested, trophy animals, methodology, recognition, and demonstration of skill.
 - *Affiliative* – motivated by relationships and interactions with family & friends.
 - *Appreciative* – motivated to seek solitude and “wilderness” experiences.

People in every stage of hunting involvement may have one, two, or all three of these motivations, but in general, research suggests that people in earlier stages tend to have single motivations; often achievement-oriented. Agencies should provide opportunities for hunters to develop and satisfy multiple motivations to encourage long-term participation.

Hunter Retention and Recruitment:

- Two surveys and workshops were conducted in Indiana and North Carolina. The findings generally supported previous work (Responsive Management, 2005; Responsive Management, 2006).
- Key recommendations in North Carolina included:
 - improving access
 - providing landowner incentives to allow access (tax incentives, direct payments
 - habitat improvement projects, and liability protection)
 - identifying target markets
 - “how-to” outreach efforts
 - developing plans and evaluation mechanisms for existing programs
 - simplifying regulations: allowing hunting on Sunday
 - developing hunter ethics education programs
 - improving enforcement and increased penalties for breaking the law
 - improving small game hunting opportunities
 - providing more shooting ranges

- ▣ reducing the cost of licenses; and
- ▣ developing an “estate program” where equipment can be passed down, or shared with new hunters (Responsive Management, 2005)
- Key recommendations in Indiana included:
 - ▣ the agency should assist in developing social support for existing hunters;
 - ▣ create additional opportunities for hunting on private lands
 - ▣ encourage older hunters to mentor newcomers
 - ▣ develop special hunting opportunities for seniors (and possibly pair them with mentoring opportunities)
 - ▣ develop an ethic education program to remind hunters that their actions can help or hurt long-term hunting recruitment and retention, as well as access to land
 - ▣ improve hunter compliance by enhancing enforcement efforts
 - ▣ explore instituting a low-cost beginners license and a multi-year license; and
 - ▣ publicize the benefits of hunting (including providing food for the hungry) to the general public (Responsive Management, 2006)
- The North Carolina report also summarizes recent research on recruitment and retention efforts (Responsive Management, 2005). These findings include:
 - ▣ retaining current or lapsed hunters will likely pay more dividends than trying to recruit new hunters (reducing the churn rate)
 - ▣ there is a direct relationship between active hunters and recruiting new hunters
 - ▣ improving current hunter satisfaction is important in retaining existing hunters
 - ▣ improved access to land is critical to retaining and recruiting hunters
 - ▣ hunters are recruited by hunters
 - ▣ social support systems and repeated “hands-on” experiences are critical for hunters to develop their own self-image as hunters
 - ▣ hunters go thru an “adoption model” that is critical to understand; and
 - ▣ all programs should be well planned, have specific goals and objectives, and be evaluated

Lapsed Hunters

- This study concluded that the primary reasons people stopped hunting were (Responsive Management, 2004):
 - ▣ the lack of time
 - ▣ competing family obligations
 - ▣ personal health issues
- Improving access and having more land available were rated high by participants as agency initiatives that would encourage them to return to hunting.
- Approximately $\frac{2}{3}$ of lapsed hunters indicated they plan to hunt again (Responsive Management, 2004).

- Other research indicates that current hunting activity is a strong predictor of future hunting activity (Witter, Mycroft, 2007.). While many of the lapsed hunters *intend* to return to hunting, they often do not.
- Keeping active-hunters active seems to be important for both retention and long-term recruitment (Mehmood, et al., 2003).

Miscellaneous Results

POPULATION PROJECTIONS (U.S. CENSUS BUREAU)

- The country's population is expected to become older. Childbearing rates are expected to remain low while baby-boomers — people born between 1946 and 1964 — begin to turn 65 in 2011. By 2030, about 1-in-5 people would be 65 or over.
- Participation in hunting generally declines with age: 8% of 16-17 year olds hunt; while only 3% of 65 year olds or older hunt (US Fish and Wildlife Service, 2006).
- Nearly 67 million people of Hispanic origin (who may be of any race) would be added to the nation's population between 2000 and 2050. Their numbers are projected to grow from 35.6 million to 102.6 million, an increase of 188 percent. Their share of the nation's population would nearly double, from 12.6 percent to 24.4 percent.
- The black population is projected to rise from 35.8 million to 61.4 million in 2050, an increase of about 26 million or 71 percent. That would raise their share of the country's population from 12.7 percent to 14.6 percent..
- Women make up 51% of the US population, and this is expected to remain roughly constant through 2030. [Women make up about 9% of all hunters; yet only 1% of women hunt (U.S. Fish and Wildlife Service, 2006)].
- Nearly three-fourths of the U.S. population lives in non-rural housing, and this percentage is expected to continue to rise.

WOMEN HUNTERS

- There were about 1.2 million female hunters in the US in 2006 (US Fish and Wildlife Service, 2006). The highest concentrations were in the Midwest (35%), followed by the West (29%) and the South (22%). Female participation was the lowest in the Northeast (14%).
- Women living in rural areas are three times more likely to hunt than those living in urban areas. (U.S. Fish and Wildlife Service, 2006).
- On average, women spend fewer days hunting, take fewer trips to hunt, and spend less money on hunting than men. (U.S. Fish and Wildlife Service, 2006).
- Women's motivations for hunting (Responsive Management, 2003c):
 - Meat (47%)
 - Be with friends and family (27%)
 - However, affiliative reasons (being with family and spouses) were cited as the most important reason; meat was the least cited reason by (Connelly et. al., 1996)
 - Sport or recreation (20%)
 - Be close to nature (7%)
- Primary constraint for women's participation in hunting is lack of leisure time, presumably because of family responsibilities (Connelly, et. al., 1996).
- The lack of skills necessary to be "safe and comfortable" in the outdoors were important barriers when women had leisure time available (Connelly, et. al., 1996).

SINGLE-PARENT FAMILIES

- No data indicates that children of single-parent households participate hunting less than dual family households. However, uncles and grandfathers are significantly more likely to step in and fill the role of hunting mentors in single, mother-households (Responsive Management, 2003a).

RURAL VS. URBAN LIFESTYLE

- It is generally understood that rural residents are more likely to hunt than urban residents. However, there also is strong evidence that those influenced by family are more likely to hunt than those without social support (Hayslette, 2001; Miller and Vaske 2003). However, the interactions of these variables are poorly understood. That is, a rural resident's propensity to hunt may not be based on where they live as much as it is based on other variables, such as social support, gender, or other variables. Stedman and Heberlein, (2001) tested some of these variables and found that rural males whose fathers did not hunt are more likely to hunt than urban males whose fathers did not hunt. But in no other cases did rural upbringing result in an increased propensity for hunting.
- In a survey of 2,872 resident Illinois hunters, place of residence (rural vs. urban) was not a good predictor of hunting effort. A person who grew up in a rural area is more likely to be introduced to hunting, but living in a rural area doesn't make them more likely to hunt. (Miller and Vaske 2003).
- A survey indicated that rural hunters and hunters with more than 26 years of experience were more likely to invite a novice or beginner to go hunting than urban hunters, or those with less than 26 years of experience (Responsive Management, 2002).
- Older, urban-hunters, with less than 26 years of experience, were the least likely to invite someone to participate (Responsive Management, 2002).
- The most effective messages tested in focus groups and telephone surveys dealt with bonding and spending quality time with family and friends. However, 15 of the 17 messages tested received high ratings among hunters (Responsive Management, 2002).

AGE OF INITIATION

- Numerous studies indicate that children initiated at an earlier age tend to be more avid and long-term participants than those initiated later in life (Responsive Management/National Shooting Sports Foundation, 2008).
- The trend in older-aged initiation is increasing: Applegate (1982) determined that during 1951-1961, 18 % of hunters were initiated *after* age 20; this percentage increased to 29 % during 1962-1972; and in 2005 the percent of hunters initiated after age 21 increased to 33 % (US Fish and Wildlife Service, 2007).

MENTORING

- Fathers and friends are identified the *most preferred* hunting partners of youth interested in hunting (both those who had gone hunting and those who have not yet gone). All other relationships and potential mentors were much less preferred (Responsive Management, 2003a).
- However, the youths expressed a willingness to be taught by others who were experienced (Responsive Management. 2003b).
- Parents, generally, were only willing to allow their children to participate with "people they knew well"(Responsive Management. 2003b).

PREFERENCES

- Results from a New York duck hunter survey suggest that hunter satisfaction is based more on maximizing hunter-duck interactions than maximizing harvest. That is, hunters are satisfied with seasons that maximize interactions with ducks or with particular kinds of ducks, more than total harvest (Enck et. al., 2006)

REPLACEMENT RATIO

- There are some data that suggest that the average nationwide hunter replacement ratio is only 0.69 (for every 100 hunters lost, only 69 take their place). Investigators acknowledge this is only an indicator, but it has resulted in efforts (*Families Afield* campaign) to reduce barriers to young hunters (lower minimum age; allow trial before hunter education, etc.). (Silvertip Productions, et. al., no date).
- Boxall (2001) followed age-cohorts of hunters in Alberta to construct a quasi-actuarial table of hunters. This study documented an approximate 30–35% desertion rate for new hunters after their first year. Approximately 40% of those dropping out the first year returned, but were much more likely to drop out over time.
- In addition, females had a higher recruitment rate than males, but even higher drop out rate over time (Boxall, 2001).
- Overall, approximately 10% of the hunter population deserted each year after the initial high drop out rate (Boxall, 2001).

NON-HUNTING PARTICIPATION

- There are many people who are critical parts of the hunting community who never take a firearm into the field. Family members (spouses, elderly, etc.) of active hunters may not buy licenses, but they are essential components of the social infrastructure that sustains hunting (Stedman et. al., 1993).
- People are more likely to solidify initial interest in hunting if they experience particular hunting-related activities (target shooting, eating game meat, sharing stories) before they are licensed to hunt. (Decker et. al., 1984).

PREDICTORS OF DECREASED PARTICIPATION

- Increasing age was not a good predictor of decreasing hunting participation once the influences of situational and personal constraints were controlled. The *best* predictors of decreased hunting effort are the perceived personal (lack of time) and situational (no land for hunting, not enough game) constraints. (Miller and Vaske 2003).
- However, for some hunters, physical ailments and health concerns have been strong deterrents to participation and influenced their decision on dropping out of hunting. As hunter populations age, health concerns are likely to become more important (Responsive Management, NSSF 2008).
- Poudyal et al., (2008) developed a model to predict hunting demand in the Southeastern United States. Several variables, using existing county-level environmental, economic, sociologic, educational, demographic and age data-sets, were used in the model. Projections were made up thru 2030. All scenarios that were modeled predicted declines in hunting demand. The projected declines varied from 5.3% to more than 18% for the region. The authors also state that their projections are likely to be conservative.

HUNTER EDUCATION

- Conclusion from three studies indicates that the requirement for mandatory basic hunter education does not appear to have any significant effect on recruitment rates (Applegate, 1984; Heberlein, 1996; Responsive Management, 1997).
- However, Responsive Management (1997) found that 19% of the 13–20 year old survey respondents very or somewhat interested in hunting (31% of respondents; 6% overall) indicated that a requirement to take a hunter education course would prevent them from participating.

- This finding is off-set by findings of an analysis of three sets of data from the National Survey of Fishing, Hunting and Wildlife-Associated Recreation (1985, 1990 and 1995) that indicated that the impact of this requirement was minimal; and may *increase* recruitment in the 11–15 year age group (Responsive Management, 1997).
- Several surveys revealed that 93% of non-hunters and 89% of all active hunters believe that all new hunters should be required to pass a hunter education course. In addition, a large majority of non-hunters and a growing number of active hunters believe that *current hunters* should be required to take a refresher course (Responsive Management, 1997).
- Responsive Management (1997) also concluded advanced courses on hunting (bow hunting and muzzle loader) may increase recruitment rates.
- Bad or unsafe behavior by hunters is consistently cited as a reason that active hunters drop out of hunting; and that landowners restrict or prohibit access to their lands. Ethics education refresher courses were recommended by Responsive Management (2005 and 2006) as actions that agencies could take to reduce drop-out rates among hunters and encourage landowners to open their lands to hunting.

Other Observations

There are many factors that are contributing to the decline of hunting participation. Some are broad societal trends that managers will have little or no control over (urbanization, isolation from the land, competition for time, transient nature of society, health issues, family/work commitments, decline of rural “culture,” etc.).

Other factors are related to the supply of hunting opportunity and/or hunter capability/willingness, which managers and their partners may indeed be able to affect (loss/lack of social support, lack of access to land, status of huntable populations of small game and waterfowl, timing of seasons, quality of hunt, cost, etc.).

It is likely that most hunters and anglers who eventually desert the sport do not make a conscious decision to quit. Termination is often marked by *prolonged inactivity with the intention of one day returning to the sport*. The single-most powerful predictor of continued involvement in outdoor activity is consistent, year-to-year participation. Most state agency license databases show that less than half of hunting license buyers purchase a license every year.

Agencies and organizations should capitalize on the fact that there likely are 2 to 3 more times the number of hunters in the population than actually buy permits in any single year (churn). These individuals fall into one of two groups:

1. A group poised to purchase permits (perhaps with some prompting), or
2. A group poised to skip yet one more year of outdoor involvement, and move closer to eventual desertion of the activity, with the only lingering evidence of their support for conservation being (one can hope) their voting behavior.

Moving as many people as possible from group 2 into group 1 should be a prime short-term objective of the hunting community. This effort alone will not reverse the long-term decline in hunters. But it could reverse the short-term decline in permit buyers, providing more funds and active potential mentors to help address the long-term issues over which the community has influence.

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