



# America's Family Forest Owners

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ABSTRACT

The number of family forest owners in the conterminous United States increased from 9.3 million in 1993 to 10.3 million in 2003, and these owners now control 42% of the nation's forestland. The reasons why people own forestland are diverse. Some of the more common ones are aesthetic enjoyment, the tract is part of a farm or home site, and to pass the land on to heirs. Half of the family forest owners have harvested trees, but only 3% of them have a written forest-management plan. Trends in owners' ages and future land-use intentions suggest widescale transfers of family forestland in the near future.

**Keywords:** Nonindustrial private forests; small-scale forestry; landowner survey; forest inventory; National Woodland Owner Survey

There are an estimated 620 million acres of forestland in the conterminous United States (Smith et al. 2004). Nearly two-thirds, or 393 million acres, is in private ownership. Private owners include forest industry companies, other businesses or corporations, partnerships, tribes, families, and individuals. Family forests include lands that are at least 1 ac in size, 10% stocked, and owned by individuals, married couples, family estates and trusts, or other groups of individuals who are not incorporated or otherwise associated as a legal entity.

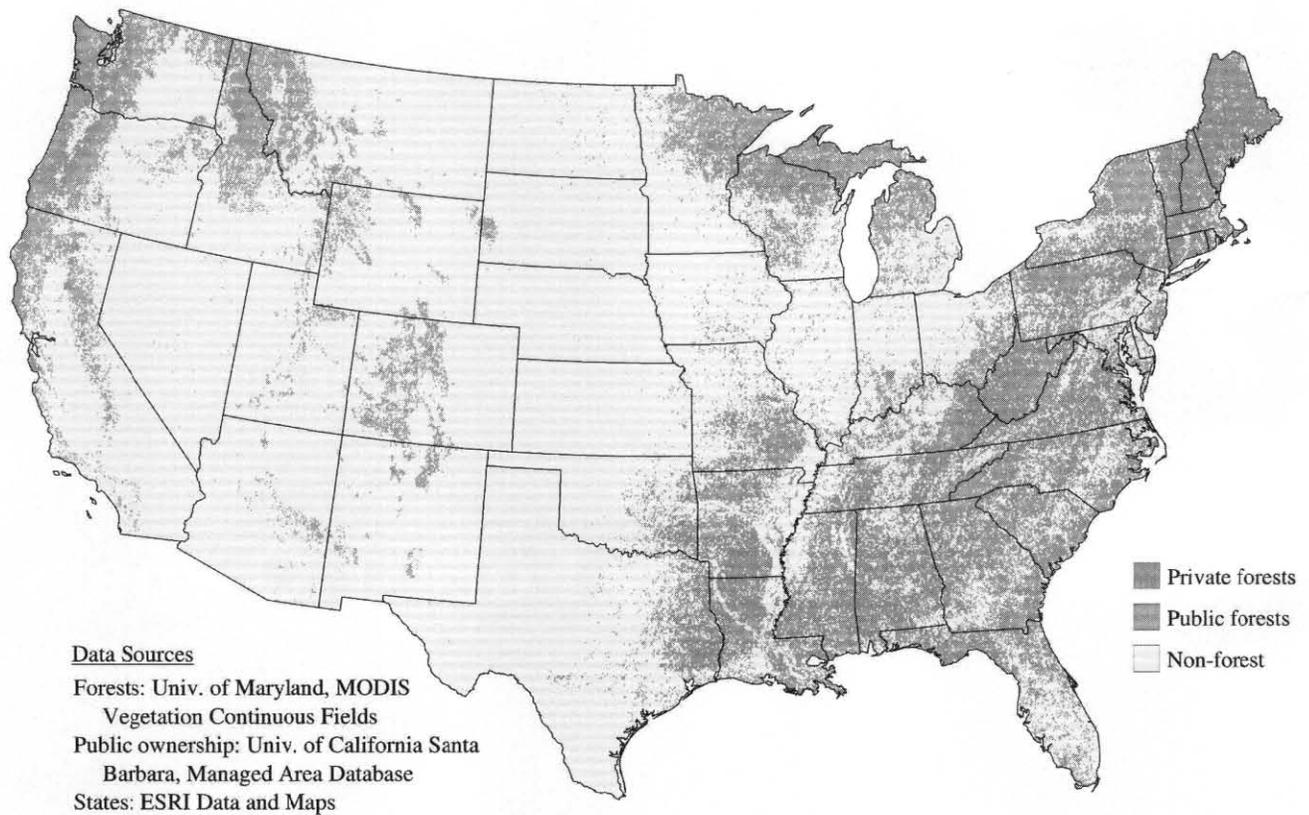
Family forest owners constitute the dominant ownership group in the United States, holding 4 of every 10 forested acres.

The pattern of forest-landownership in the United States (Figure 1) is rooted in Euro-American settlement patterns and resultant anthropogenic uses of the land (MacCleery 1993). In the East, where Euro-American settlement occurred earliest, 83% of the forestland is in private ownership. In the West, the reverse is true, with two-thirds of the forestland publicly owned. There, prior to settlement, the

federal government owned all land and maintained control of land that was not homesteaded or sold. Much of the latter was too remote or mountainous. Many public forests in the East were acquired following abandonment or tax foreclosures on large tracts of land from the late 1800s through the 1930s.

Family forests provide important environmental, social, and economic benefits. An owner's relationship with her land has important implications for forest sustainability, including the sustainable production of timber and the continued flow of services, such as groundwater recharge, from this valuable resource.

To better understand the factors that affect the use and management of private forestland, private forest owners have been surveyed periodically. National surveys were completed in 1978 (Birch et al. 1982) and 1993 (Birch 1996). In 2002, the USDA Forest Service initiated a new system of annual



**Figure 1. Public and private forest ownership in the United States, 2003.**

surveys of the nation's private forest owners. In this article, we present selected findings from the first 2 years—2002 and 2003—of the National Woodland Owner Survey (NWOS).

### Methods

The NWOS is carried out as part of the USDA Forest Service's mandate to conduct "a comprehensive inventory and analysis of the present and prospective conditions" of the nation's forests (Forest and Rangeland Renewable Resources Planning Act of 1974, P.L. 93-378). The NWOS is administered by the Forest Inventory and Analysis (FIA) program and represents the social complement to the program's biologic resource inventory.

The objectives of the NWOS are to characterize the private forest landowners of the United States and determine why they own land and what they intend to do with it. Basic demographic information is compiled along with data on forestland characteristics, own-

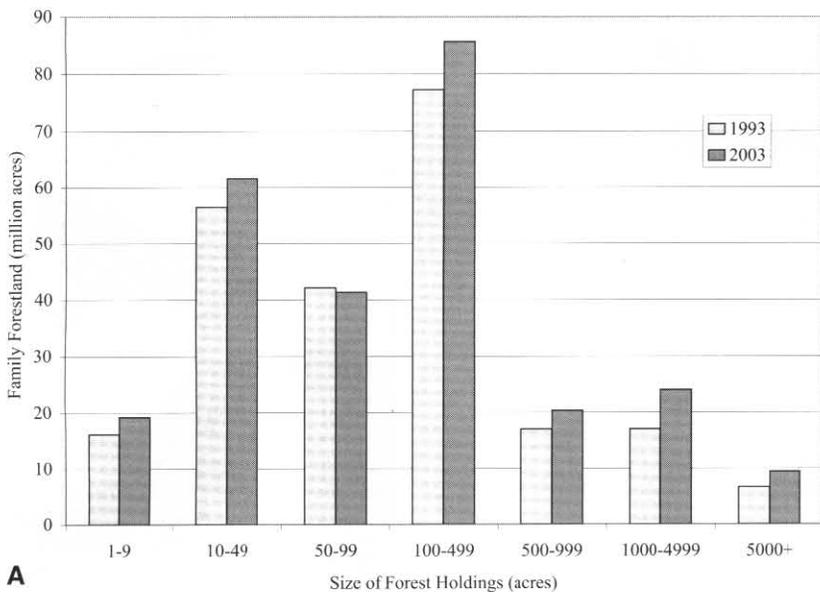
ership objectives, forest use and management, forestry education and outreach, landowners' concerns, and future land-use intentions.

Following survey methods outlined by Dillman (2001), questionnaires were mailed to a random sample of the nation's private forest landowners (B.J. Butler and E.C. Leatherbery, National Woodland Owner Survey manual, in preparation). Attempts were made to contact nonrespondents by means of follow-up telephone interviews. As part of the sampling design, a systematic set of points was placed over the United States. Each point was identified as forested or nonforested through interpretation of remotely sensed imagery and/or ground reconnaissance. For each point that was forested, the owner was identified through public records.

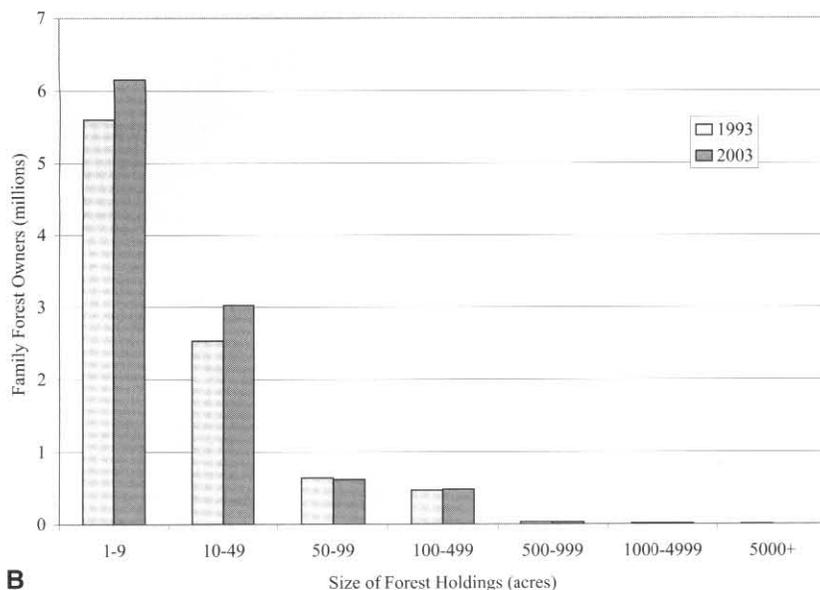
Currently, the NWOS is being implemented annually. Survey cycles for states range from 5 to 10 years. The annual design means that each year, a

randomly selected portion (10–20%) of the full sample of private owners in a state is contacted. Although the sample size during the first several years may not provide adequate precision for estimating state-level parameters, the systematic sampling design allows for reliable national and regional estimates. As additional annual surveys are completed, the precision of the estimates will increase and detailed results will be published.

A total of 17,363 private landowners were mailed surveys as part of the NWOS in 2002 and 2003. Between 27 and 1,412 owners were contacted in each of the 47 conterminous states sampled. The number of owners contacted varied according to the area of private forestland, number of private forest landowners, and sampling intensity in a state. The relatively small amount of private forestland in Nevada hindered us in contacting landowners there, but we assumed that the State's landowners' characteristics were similar



**A**



**B**

**Figure 2. Distribution of (A) family forests and (B) family forest owners in the United States by size of forest holdings, 1993 and 2003.**

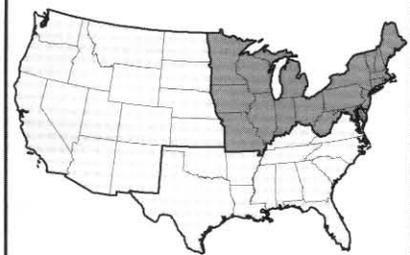
to those of landowners from neighboring intermountain states. Although future results will encompass all 50 states, data for Alaska and Hawaii are not included here.

In all, 6,352 family forest owners returned completed surveys. After adjusting for undeliverable questionnaires, the national response rate was 46%. Response rates generally were highest in the western and northern states and lowest in the southern states.

Because the primary sampling units are points on the ground, the probability of a given landowner being in-

cluded in the sample is inversely proportional to the amount of forestland that she owns. As the size of an owner's forest holdings approach the inverse of the state's sampling intensity (e.g., 15,000 ac), the probability of being included in the sample approaches 1. The Horvitz-Thompson Estimator (Horvitz and Thompson 1952) accounts for the probability proportional to size aspect of the sampling design and is used to estimate numbers of owners. For area estimates, simple random sample estimation procedures (e.g., Cochran 1977) are used.

### Family Forest Owners of the Northern United States, 2003



#### Number of owners:

4.8 million

#### Area of forestland owned:

93.9 million ac  
(55% of the region's forestland)

#### Size distribution of landholdings:

Size (ac)	Acres (thousands)	Owners (thousands)
1-9	9,257	2,926
10-49	28,084	1,365
50-99	18,699	280
100-499	29,998	180
500-999	3,596	6
1,000-4,999	2,722	2
5,000+	1,510	<1

#### Average landowner age:

60 years

#### Education (at least some college):

56% of the family forest owners;  
who own 59% of the family forestland

#### Absentee owners:

23% of the family forest owners;  
who own 32% of the family forestland

#### Most common reasons for owning:

1. Enjoyment of beauty and scenery
2. Privacy
3. Protection of nature and biological diversity

#### Harvesting experience (past 5 years):

27% of the family forest owners;  
who own 39% of the family forestland

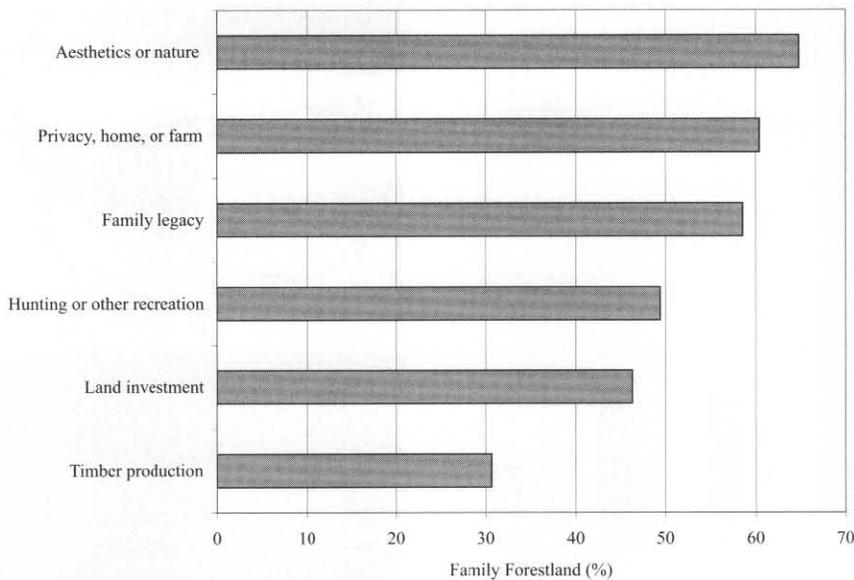
#### Written management plans:

4% of the family forest owners;  
who own 15% of the family forestland

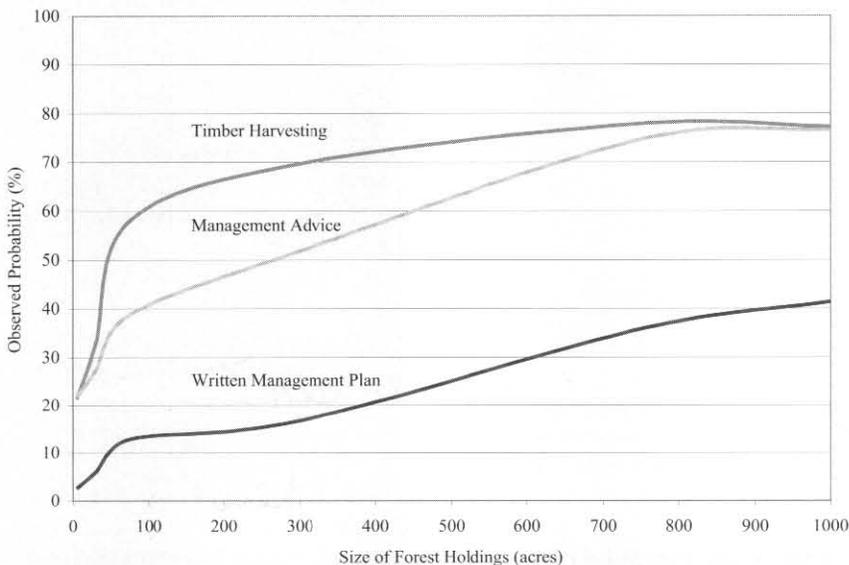
#### Have sought management advice (past 5 years):

13% of the family forest owners;  
who own 31% of the family forestland

The information presented here reflects family and individual forest owners for the 48 conterminous states. The NWOS covers all private landowners, but results pertaining to corporations, partnerships, tribes, and other nonfamily organizations are excluded so that



**Figure 3. Reasons for owning family forestland in the United States, 2003. Numbers include land-owners who ranked each potential reason as very important (1) or important (2) on a seven-point Likert Scale. Categories are not exclusive.**



**Figure 4. Relationship between forest-management activities and size of family forest owners' landholdings.**

the trends in family forests can be highlighted.

### Family Forest Owners

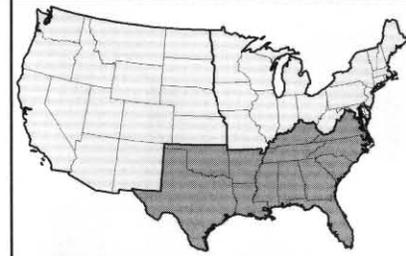
*How Many Family Forest Owners Are There?* There are an estimated 10.3 million family forest owners in the United States. Collectively, they control 262 million acres, or 42%, of the nation's forestland. Nearly 9 of 10 family forest owners have their land in the eastern United States. The North accounts for 46% of family forest owners and the South 42%. The remaining

12%, or 1.3 million owners, are dispersed across the West.

#### *Who Are Family Forest Owners?*

From a demographic perspective, family forest owners are somewhat different than the average American. For example, family forest owners have more formal education: 62% have attended college compared to only half of the general population 25 years or older (US Department of Commerce, Census Bureau 2002). Family forest owners also tend to be older than the general population. The average age of Ameri-

### Family Forest Owners of the Southern United States, 2003



#### **Number of owners:**

4.3 million

#### **Area of forest land owned:**

127.6 million ac

(59% of the forestland)

#### **Size distribution of landholdings:**

Size (ac)	Acres (thousands)	Owners (thousands)
1-9	7,255	2,424
10-49	26,890	1,338
50-99	18,996	288
100-499	43,993	243
500-999	11,132	18
1,000-4,999	13,749	8
5,000+	5,543	<1

#### **Average landowner age:**

60 years

#### **Education (at least some college):**

65% of the family forest owners;

who own 70% of the family forestland

#### **Absentee owners:**

30% of the family forest owners;

who own 43% of the family forestland

#### **Most common reasons for owning:**

1. Pass land on to heirs
2. Enjoyment of beauty and scenery
3. Land investment

#### **Harvesting experience (past 5 years):**

18% of the family forest owners;

who own 42% of the family forestland

#### **Written management plans:**

3% of the family forest owners;

who own 20% of the family forestland

#### **Have sought management advice (past 5 years):**

16% of the family forest owners;

who own 43% of the family forestland

cans 25 years or older is 49 years. By contrast, the average age of family forest owners is 60 years.

*How Familiar Are Family Forest Owners With Their Land?* Seven of 10 family forest owners maintain a primary residence within 1 mile of the forestland that they own. Resident forest owners are more prevalent in the North, where 77% of the owners have a primary residence near their forestland compared to 70% in the South and 68% in the West. Some family forest owners have a secondary home—vacation home or cabin—on their forestland. Nationally, 12% of the

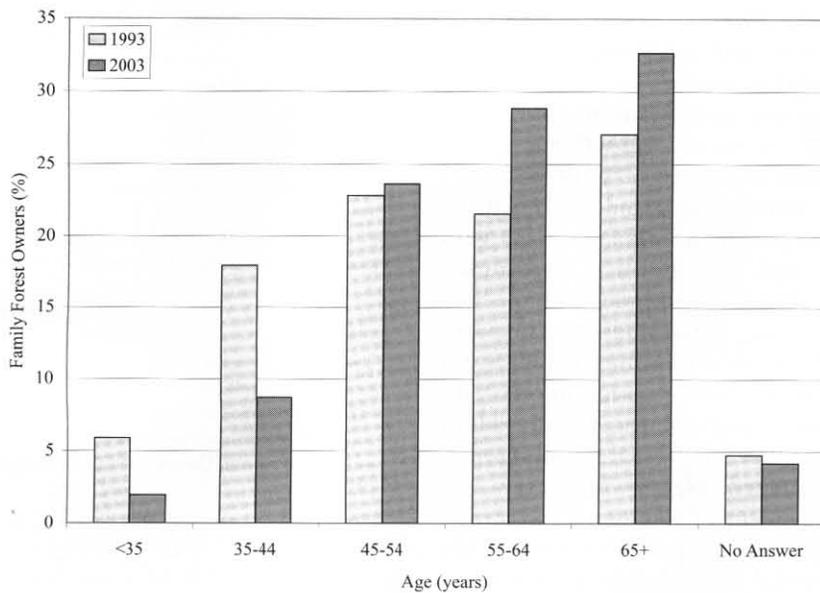


Figure 5. Age of family forest owners in the United States, 1993 and 2003.

owners have a secondary home located within 1 mile of their forestland. The proportion of owners with second homes is greater in the West and North (17 and 15%, respectively) than in the South (7%).

*What Size Holdings Do They Have?* Most family forest owners hold relatively small tracts (Figure 2). Nine of 10 owners control 1 to 49 ac. Although owners with smaller holdings predominate, those with larger holdings own most of the forestland. Owners with 50 or more acres hold 69% of the family forestland but account for only 11% of the family forest owners.

Holding sizes tend to be smaller in the North than in the South and West. In the North, 40% of family forests consist of fewer than 50 ac; in the South and West, only about one-fourth of family forests are held by owners with fewer than 50 ac.

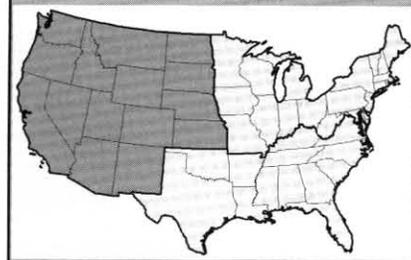
*Why Do They Own Forestland?* Family forest owners hold their acreage for multiple reasons. Respondents were asked to rate the importance of a series of potential reasons for owning forestland on a seven-point Likert Scale. The most common reasons cited as very important (Likert value = 1) or important (value = 2) are to enjoy beauty/scenery, to protect nature and biological diversity, that the acreage is part of a farm or home site, for privacy, and to pass the land on to heirs (Figure 3).

There is regional variability in the reasons why people own forestland. Aesthetic enjoyment is cited more frequently in the North and West than in the South; land investment is more likely to be cited as important by owners in the West and South than in the North; and family legacy is ranked as important more often by owners in the South than the North or West.

*How Important Is Timber Production?* Nationally, relatively few owners—only 9%—indicate that timber production is an important reason for holding forestland. Family forestland in the South is more likely to be owned by people who cite timber production as an important reason for holding forestland than forestland in the other regions. Forty-one percent of the family forestland in the South is owned by people who indicate that timber production is an important reason for owning forestland, compared to 22 and 18% in the North and West, respectively.

*How Likely Are Owners to Harvest Trees?* Half of the family forest owners have harvested trees at some point during their ownership tenure. When those who harvested only firewood are excluded, 26% of the owners have harvested timber (e.g., sawlogs or pulpwood). Owners who have harvested trees control 71% of the family forestland and 46% of these owners have

### Family Forest Owners of the Western United States, 2003



#### Number of owners:

1.3 million

#### Area of forestland owned:

27.6 million ac

(12% of the region's forestland)

#### Size distribution of landholdings:

Size (ac)	Acres (thousands)	Owners (thousands)
1-9	2,711	809
10-49	6,639	325
50-99	3,677	55
100-499	11,706	64
500-999	5,602	9
1,000-4,999	7,550	4
5,000+	2,329	<1

#### Average landowner age:

62 years

#### Education (at least some college):

76% of the family forest owners;

who own 72% of the family forestland

#### Absentee owners:

32% of the family forest owners;

who own 49% of the family forestland

#### Most common reasons for owning:

1. Enjoyment of beauty and scenery

2. Pass land on to heirs

3. Privacy

#### Harvesting experience (past 5 years):

9% of the family forest owners;

who own 34% of the family forestland

#### Written management plans:

5% of the family forest owners;

who own 12% of the family forestland

#### Have sought management advice (past 5 years):

27% of the family forest owners;

who own 33% of the family forestland

harvested during the last 5 years. The more forestland owned, the more likely it is that the owner has harvested trees (Figure 4).

*How Prevalent Is Forest Management?* Only 3% of the owners have a written management plan while 16% have sought management advice. Among owners who have harvested trees, 22% sought professional advice during their most recent harvest. The more forestland owned, the more likely it is that an owner has a written forest management plan or has sought forest management advice (Figure 4).

### Ownership Dynamics: 1993–2003

The number of family forest owners in the United States increased by 11% between 1993 and 2003. Most of this increase occurred among owners with less than 50 ac of forestland (Figure 2). These changes are happening concurrently with the large influx of people moving from urban to rural areas (Egan and Luloff 2000).

The average age of family forest owners is increasing. Between 1993 and 2003, the number of family forest owners 65 years of age or older increased by 34% (Figure 5). Owners 65 years or older control 44% of the family forestland; 20% is owned by people 75 years or older. The advancing age of these owners portends a large increase in the transfer of forestland in the near future. This supposition is bolstered by the large number of owners who cite family legacy as an important reason for holding forestland.

The reasons for owning forestland have not changed appreciably over the past decade. That the land is part of a home or farm remains important to many owners. However, the relative importance associated with some reasons for ownership has changed. For example, owning land to pass along to heirs, for aesthetic enjoyment, and for land investment have increased in relative importance, while owning for timber production has decreased.

Various dynamic, interrelated forces are affecting family forest owners, how they use and view owning their land, and their view of the future. These forces are social (e.g., demographics and social paradigms), economic (e.g., timber and real estate markets), political (e.g., tax policies and the availability of incentive programs), and biophysical (e.g., the state of the forest and land resources) in nature. In the next 5 years, most landowners plan to do little with their acreage, though a significant number are planning major changes or activities. The most common planned activities are some type of harvesting—for firewood, sawlogs, or both. Within the next 5 years, 10% of the owners plan to pass at least some of their land on to their heirs, 8% intend to buy more forestland, and 5% plan to sell forestland.

### Conclusions

New and increasing numbers of family forest owners will present a challenge and an opportunity for the forestry community, but will the forestry community be ready? With more people owning forestland, there will be more people in intimate contact with the land. This affords an opportunity to educate more people about the benefits and responsibilities associated with forest stewardship. However, for effective communication to occur, innovative and sophisticated methods of communicating with forest landowners are needed. New owners likely will have different backgrounds and ownership objectives and be less aware of the potential benefits of good forest management than previous owners. Also, new owners probably will have fewer management options due to smaller holding sizes and, at least currently, weak markets for timber.

Findings from the NWOS indicate that because of the advanced age of many owners and their stated intentions for their land, land transfers will be substantial during the next 10–20 years. The transfer of lands to the next generation could result in minimal or dramatic changes depending on the personal goals of the new owners. Will aesthetic enjoyment as a reason for owning forestland continue to increase and will ownership for timber production continue to decrease?

The fate of much of the nation's forests is in the hands of the 10.3 million families and individuals who control 42% of the forestland. Family forest owners play an important role in supplying the public with timber, outdoor recreation opportunities, and watershed protection. We need to continue to refine our understanding of family forest owners so that we can develop more enlightened opinions and effective policies.

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