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# Forest Inventory and Analysis Fiscal Year 2003 Business Report



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## Introduction

The Forest Inventory and Analysis (FIA) program of the U.S. Department of Agriculture (USDA) Forest Service provides the information needed to assess the status, trends, and sustainability of America's forests. This business report, which summarizes program activities in fiscal year (FY) 2003 (October 1, 2002, through September 30, 2003), gives our customers and partners a snapshot of past activities, current business practices, and future program directions. We designed the report to increase our accountability and foster performance-based management of the FIA program. (Note that this business report does not include statistical information about the forests of the United States. To obtain such information, contact the appropriate regional or national FIA office listed on page 24 of this report.)

The FIA program conducts the Nation's continuous forest census. We collect, analyze, and report information on the status and trends of America's forests: how much forest exists, where it exists, who owns it, and how it is changing as well as how the trees and other forest vegetation are growing and how much has died or been removed in recent years. This information has many uses, such as evaluating wildlife habitat conditions, assessing sustainability of current ecosystem management practices, monitoring forest health, supporting planning and decisionmaking activities undertaken by public and private enterprises, and predicting the effects of global change. The FIA program combines this information with related data on insects, diseases, and other types of forest damage to assess the current health and potential future risks to forests. The program also projects how forests are likely to appear in 10 to 50 years in various scenarios, which enables us to evaluate whether current forest management practices are sustainable in the long run and to assess whether current policies will allow our grandchildren and their grandchildren to enjoy U.S. forests as we do today.

## Changes from Previous Years' Business Reports

The financial table (appendix 2) includes two new rows to show several other forms of direct expenses: "Office Space and Utilities" and "Other Direct Expenses." Past FIA business reports aggregated these items in the "Effective Indirect" category because every research station accounts for these funds in different ways, making it difficult to identify them consistently across stations. In 2003, we attempted to identify these legitimate elements of the direct cost of doing FIA business, separating them from more general research station assessments. **Because we no longer count these items as part of the "Effective Indirect" category, our estimates of effective indirect costs and the rate of those costs in 2003 cannot be directly compared to previous years' FIA business reports.** For more details, see the "Program Resources" section.

In FY 2003, the FIA program once again lost funds to "fire transfers." During the summer, forest fire suppression costs during a severe fire season exceeded the funding appropriated for this task. Funds from many Forest Service nonsuppression financial accounts, including FIA accounts, were transferred to ensure that firefighting could continue. This transfer resulted in a loss of funds available to the FIA program in FY 2003. At the same time, some funds lost to fire transfers in FY 2002 were returned to FIA units for spending in 2003, further complicating our efforts to plan and account for our work. We hope that such transfers will not occur regularly in the future, because this practice had definite impacts on the FIA program. Funds that were returned along with other adjustments to FY 2002 year-end balances appear on the line delineated "Post FY 2002 Adjustments" in appendix 2.

Additionally, this report has a new reporting standard for percent implementation found in appendix 1 to a total forest land basis, including interior Alaska and Hawaii. Previous reports excluded these areas in the percent coverage calculation. Appendix 7 has been added to

provide a 5-year summary to compare the percentages by each method.

## Fiscal Year 2003 Program Highlights

Program highlights for 2003 include outputs and products, program changes, program resources, and partner contributions.

### Outputs and Products

Appendix 1 shows some comparisons across FIA regional units on the rates, cost, and performance for implementing the FIA program. In 2003, Federal funding available for the FIA program totaled \$59,670,590, an increase of \$3,750,760 from the previous year's total available funding of \$55,919,830. The funding consisted of \$55,199,000 appropriated by Congress specifically for FIA plus \$4,471,590 in unspent FIA funds from the previous fiscal year (including \$2,112,247 of returned fire transfers), which should have been available for FIA in FY 2003 (appendix 2). In addition, partners contributed an additional \$10,163,895 toward implementing or enhancing the FIA program in 2003.

In FY 2003, FIA operated in some manner in 46 States (figure 1), covering 43,034 Phase 2 and 3,740 Phase 3 sample locations from the base grid, or 13 percent and 19 percent, respectively, of the total. At the end of FY 2003, the new FIA program covered 71 percent of all forested lands of the United States, an increase from 62 percent of all forest lands in FY 2002<sup>1</sup>. The FIA program produced 138 reports and publications in FY 2003, 29 fewer than in FY 2002. Of these publications, 39 were core publications consisting

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<sup>1</sup> In previous years, we reported implementation exclusive of interior Alaska because this large area (15 percent of U.S. forests) is planned to be treated as a special project. Now that we are getting closer to full implementation, we are adding interior Alaska to the rest of the program and will henceforth speak of implementation percent in terms of "all U.S. forest lands," including interior Alaska.

of reports specific to a complete survey unit, complete State, or national forest. This number represents a reduction of 16 core reports from the FY 2002 total of 55 core publications and reflects the difficulty the FIA program has recently experienced in analyzing and reporting inventory data for geographic units. We also published 23 articles in peer-reviewed journals (5 fewer than in FY 2002), and 36 articles in proceedings from scientific meetings and conferences (compared to 48 in FY 2002). FIA staff participated in 1,450 significant consultations with FIA customers, requiring more than 4,500 hours of staff time—more than two full-time staff positions. These consultations and total hours far outstripped the FY 2002 numbers (1,026 consultations and 3,675 hours, respectively). FIA technical staff met on several occasions to further refine the national core FIA program, resulting in the development and release of Version 2.0 of the national core field guide, development of the first national forest biomass map, enhancement of Internet tools for accessing and analyzing FIA data, and release of the National Information Management System (NIMS), that will provide a single national platform for processing and publishing FIA data. Our Web-based Internet resources processed nearly 15,000 completed data retrievals (up from approximately 12,000 in FY 2002) in which FIA customers obtained user-defined tables and maps of interest, along with nearly 400 retrievals by users of the Forest Service forest vegetation simulator, for which FIA data is a source of input data for modeling forest growth and yield.

### Program Changes in FY 2003

In FY 2003, the FIA program completed the fifth year of program transition to an annual inventory system, as outlined in the Strategic Plan for Forest Monitoring written in response to the Agricultural Research, Extension, and Education Reform Act of 1998 (Public Law 105-185). The enhanced FIA program now includes three sample levels, or "phases": Phase 1, consisting of remote sensing for stratification and analysis; Phase 2, based on the original set of FIA forest mensuration plots (approximately one plot per 6,000 acres);



Forest Service deputy areas: Research and Development, National Forest System (NFS), and State and Private Forestry (S&PF). Historically, the Forest Service research budget contained the bulk of FIA funding. In FY 2003, Congress provided \$41,298,000 of research money for the FIA program, an increase of \$4,800,000 over the FY 2002 level of \$36,498,000 (appendix 2). Congress also provided \$4,949,000 in the S&PF Forest Resource Inventory and Assessment (FRIA) budget line (a decrease of \$66,000 below the FY 2002 level of \$5,015,000) to support the FIA program in those States that provide a cost-share contribution. Congress allocated \$6,160,000 in the NFS Planning and Inventory budget line (a decrease of \$40,000 below the 2002 level of \$6,200,000) to help cover the cost of implementing FIA on national forest lands. Finally, Congress set forth \$2,792,000 in the S&PF/Forest Health Protection budget line (a decrease of \$18,000 below the FY 2002 level of \$2,810,000) to help cover the cost of the FIA program, particularly the Phase 3 sample component. In total, Congress made \$59,670,590 in new or carryover appropriated funding available in FY 2003.

In the summer of 2003, for the second consecutive year, a severe fire season forced the Forest Service to suspend many nonfire work activities to redirect funding to emergency fire suppression activities. This process, referred to as “fire transfer,” resulted in a loss of \$1,101,960 from the FIA program, or roughly 2 percent of available funding. This borrowing occurred late in the fiscal year, resulting in the completion of less-than-expected fieldwork, delays in funding and completing cooperative agreements and grants, and delays in publishing results. For accounting purposes, fire transfer funds are treated as a form of “Effective Indirect” expenses, because they are not spent in direct support of the FIA program.

The uncertainty associated with fire transfer, and the pressure placed on all nonfire budget accounts to conserve funding in case more was needed, also led to a higher-than-desirable amount of total FIA funds remaining unspent at the end of

the fiscal year (\$1,298,107 or over 2 percent). A special line in the table in appendix 2 labeled “Post FY 2002 Adjustments” shows the net return of previous year fires transfers and other post FY 2002 adjustments.

Beginning in this business report, the “Direct Expense” calculation includes charges such as office rent, utilities, FIA employee relocation costs, and other charges that previously were generally assessed by research stations as part of the overhead rate and, therefore, were not broken out separately. Because these charges are a legitimate cost of doing FIA business and we now can account for them separately, this and future editions of the FIA business report will include such costs as part of “Direct Expenses.” The remaining amount counted as “Effective Indirect Expenses” now includes only assessments for research station administration only plus costs assessed to FIA units in support of non-FIA activities. Using this approach, approximately 79 percent of the funding available in FY 2003 was spent in direct support of FIA activities (figure 2), 19 percent covered effective indirect costs (including 2003 fire transfers) charged by research stations, and 2 percent remained unspent at the end of the fiscal year (figure 2).

Across FIA regions, cost and productivity figures vary because of the cyclical nature of the current inventory system and because of differences among field units in operational methods and ease of access. Rates of effective indirect expenses in FIA field units in 2003, including the effect of fire transfer, ranged from about 11 to 29 percent across the country (appendix 2), reflecting differences in both sources of funding and research station overhead assessment practices. The National Office had a 35-percent rate of indirect cost because its FIA budget includes the USDA overhead assessed to the entire FIA program. Figure 3 shows the total appropriated funding available for FIA from FY 1995 to FY 2003 from all sources, as well as the projected future total funding needed to deliver the base Federal program beyond FY 2003.

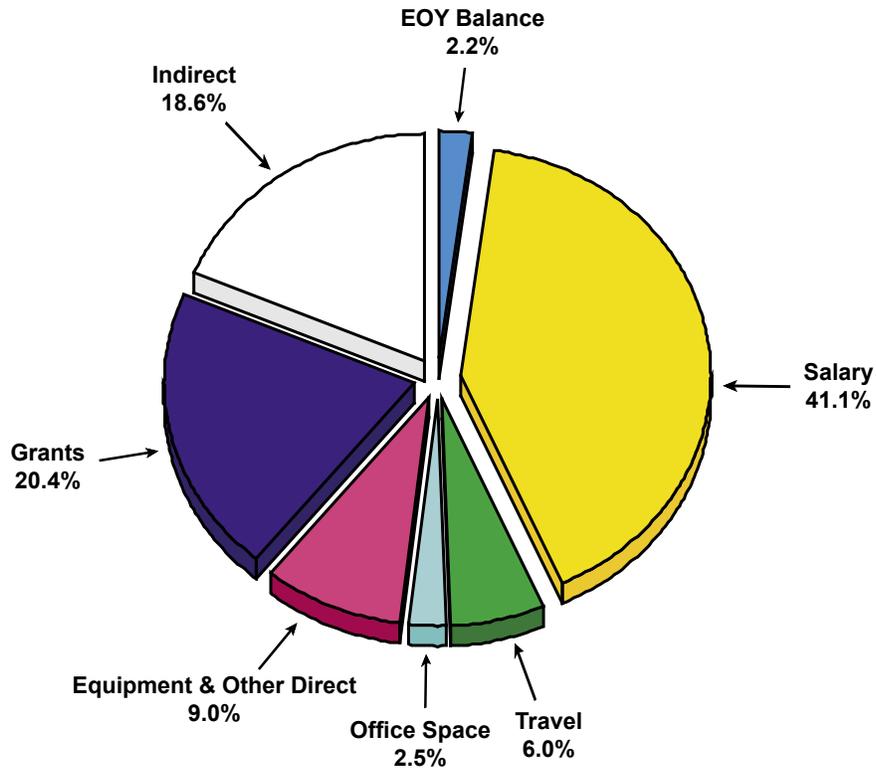


Figure 2. FIA Program Expenditures, by Category, Fiscal Year 2003

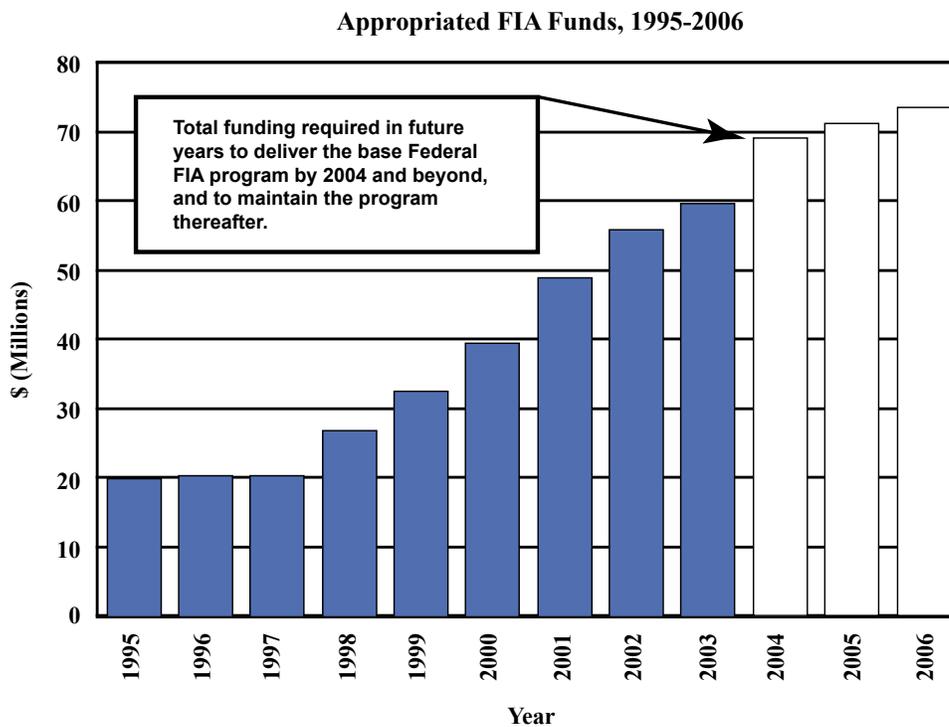


Figure 3. FIA Funding Level, Fiscal Years 1995-2006 (projected)

In FY 2003, FIA program staffing consisted of 403 Federal person-years of effort (appendix 3), down from 410 Federal person-years in FY 2002. The largest change occurred in field crew staff, which decreased from 156 to 143 person-years; otherwise, the relatively small changes may indicate that our nonfield staffing is approaching the strength needed to implement the program over the long run. Of the Federal FIA employees, approximately 55 percent took part in supervising and collecting field data, 26 percent in analysis and information management, 9 percent in program management and administration, 6 percent in techniques research, and 4 percent in Phase 1 production work (figure 4). Each of these percentages falls within 1 or 2 percent of the FY 2002 staffing values.

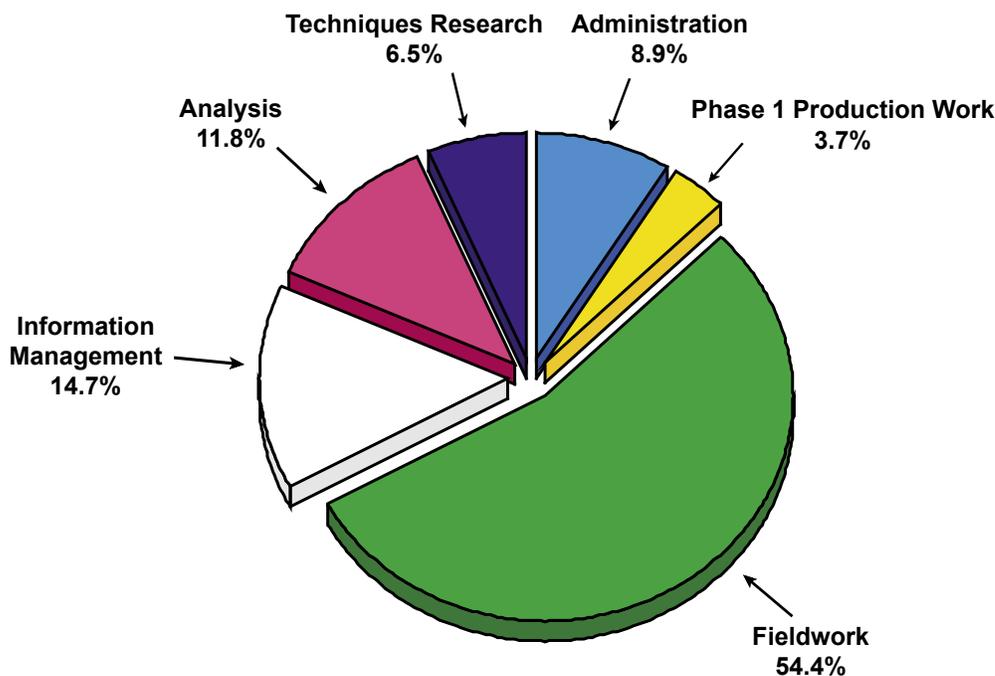
### Partners' Contributions

Congress envisions the complete FIA program as a Federal-State partnership, with both partners contributing resources. We have agreed that the base Federal share of this program is an inventory program that annually collects data from 10 percent of the sample locations in the Western

United States and 15 percent of the sample locations in the Eastern United States, with reports for all States produced at 5-year intervals.

Partners, at their discretion, may choose to contribute the resources required to bring the FIA program up to the full 20-percent measurements per year described in the law. In addition, or alternately, partners may elect to contribute resources for other purposes that add value to the FIA program from their perspective, such as intensifying the base FIA sample location grid to support analysis at finer spatial resolution, funding additional types of measurements on FIA sample locations, or providing analyses or reporting beyond that provided by FIA. Partners' willingness to contribute resources demonstrates the inherent value of the FIA program as a flexible framework on which to address other issues of interest.

Appendix 4 lists those partners who chose to contribute resources to the FIA program in FY 2003, to either achieve the 20-percent program envisioned by Congress or add value to FIA data in other ways. These resources include staff time,



**Figure 4.** *FIA Program Employees, by Job Group, Fiscal Year 2003*

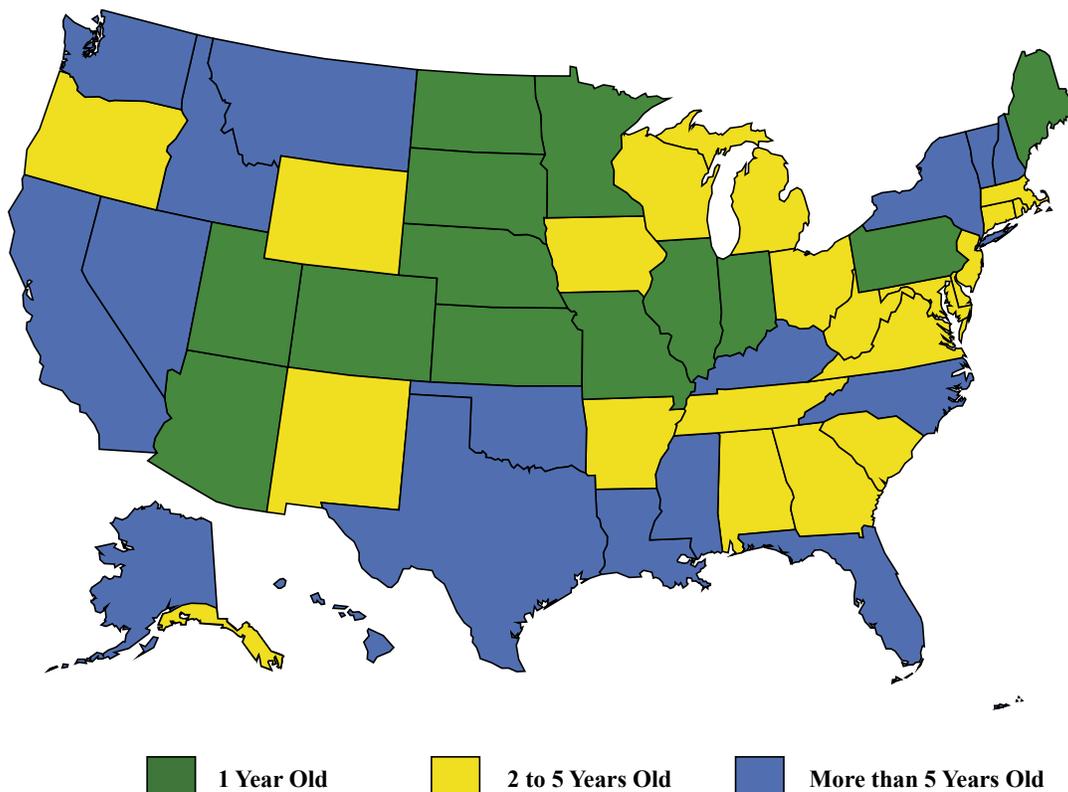
vehicle use, office space, equipment, travel costs, and other noncash items. For reporting purposes, contributions are valued in terms of the cost for the Federal FIA staff to provide the same service, which may not necessarily be the same as the actual cost to the contributing partner. Overall, partners contributed \$3,733,324 toward the full 20-percent FIA program, and another \$6,430,571 in resources that added value to the FIA program, for a total of \$10,163,895 in partners' contributions. This amount is an increase from \$8,655,953 contributed by partners in FY 2002. The source of the partner contributions depends on the region of the country. In the West, where forest land ownership is primarily Federal, the major cost-sharing partners tend to be Federal land managers, particularly the NFS branch of the Forest Service, which contributed approximately \$1.5 million in additional funds to add value to the basic FIA program. In the East, where forest land ownership is predominantly private, States are the major contributors. In FY 2003,

States contributed more than \$3.7 million to help implement the base 20-percent FIA program, plus an additional \$3.3 million to add value to the basic FIA program.

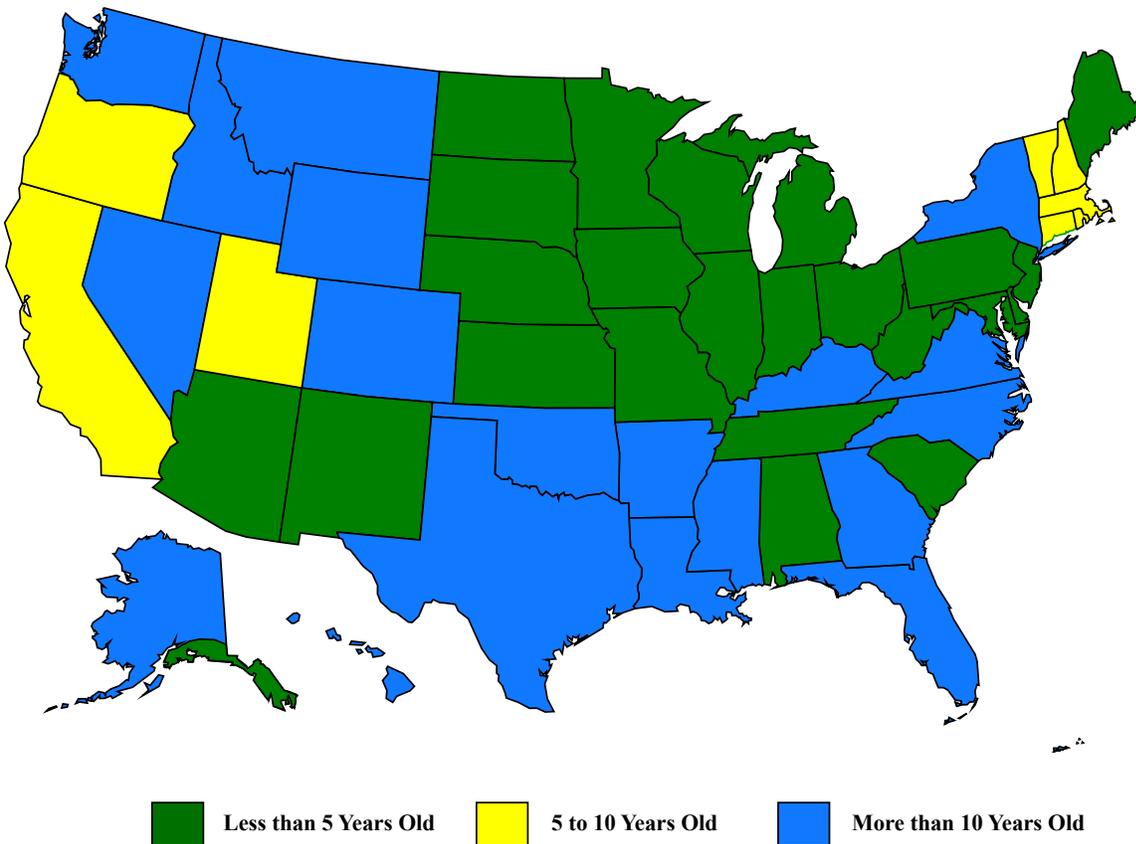
### FIA Data Availability

We designed the FIA program to provide continuously updated, accurate, and reliable information on the status and trends in the Nation's forested resources. Information currency—data that is up-to-date—is one of the chief interests of FIA customers. Our program objectives include providing annual updates for all forested lands sampled as part of the annual inventory system and producing complete analytical reports for all U.S. States on a 5-year cycle.

As we move through our transition and toward full program implementation, how well we satisfy those objectives will be a key performance measure. Figure 5 shows, for each State, the age



**Figure 5.** Availability of State FIA Data, Fiscal Year 2003  
(Age of the most recent data available to the public in online FIA databases)



**Figure 6.** *Publication Status of State Reports, Fiscal Year 2003*  
*(Age of the data used in the latest published FIA report)*

of FIA data accessible in our public database as of October 1, 2003—the start of the 2004 fiscal year. States with 1-year-old data—the program objective—are colored in green, States with data 2 to 5 years old are colored in yellow, and States for which data are more than 5 years old are colored in blue. This map shows that the greatest progress in making current data available continues to be in the north-central region, along with several Northeastern and Southwestern States. The west coast and the southern regions have the largest number of States with data older than 5 years. The number of “green” States increased from 5 in FY 2002 to 14 in FY 2003, and the number of “blue” States dropped from 23 to 15, indicating progress on keeping data current. We believe that the implementation of the national FIA information management system will enable us

to catch up on this backlog and color many more States “green” by the end of FY 2004.

Figure 6 shows, for each State, the data collection year for the most recently published statewide FIA report. States where publications exist based on data less than 5 years old—the program objective—are colored in green. States with publications based on data 5 to 10 years old are colored in yellow, and States in which the most recent publications report on data more than 10 years old are colored in blue. The north-central region again leads the Nation, with all its States basing their reports on data that are less than 5 years old. Progress is more mixed in the rest of the country.

# Fiscal Year 2003 Regional Highlights

The following section presents general information on the types of activities completed in each part of the country in FY 2003. For more detailed information on results, accomplishments, and impacts, contact the respective FIA unit (contact information for each FIA unit can be found on page 24 of this report).

## West Coast

FY 2003 accomplishments for the Pacific Northwest (PNW) FIA unit include—

- ❑ Continuing annual inventory fieldwork in California, Oregon, and Washington, and initiating annual inventory fieldwork in coastal Alaska.
- ❑ Measuring 4,162 Phase 2 plots (10 percent of the regional total, excluding interior Alaska) and 420 Phase 3 plots (17 percent of the regional total, excluding interior Alaska) (appendix 1).
- ❑ Producing 20 publications in FY 2003 (a decrease from the 28 produced in FY 2002), including 3 core reports, 6 proceedings papers, and 4 peer-reviewed publications.
- ❑ Holding three user group meetings and two regional management team meetings and continuing to provide national leadership for the understory vegetation indicator.
- ❑ Developing a policy simulation tool (FIA BioSum) that uses FIA data to estimate biomass availability, financial returns, and fuel treatment efficacy associated with a range of silvicultural prescriptions and price assumptions.
- ❑ Completing research on fire hazards, fire behavior, and fire history for ecosystems at the wildland-urban interface in California, Colorado, and Michigan.

## Interior West

FY 2003 accomplishments for the Interior West FIA unit include—

- ❑ Continuing the annual FIA program in Arizona, Colorado, and Utah, and initiating the complete annual FIA system in Montana.
- ❑ Measuring 4,633 Phase 2 plots (5 percent of the regional total) and 869 Phase 3 plots (15 percent of the regional total) (appendix 1).
- ❑ Producing 19 publications in FY 2003 (an increase from 7 in FY 2002), including 5 core reports (4 being specific to individual national forests), 2 peer-reviewed journal articles, and 8 proceedings articles.
- ❑ Researching topics that include identifying indicators of rangeland health and functionality, predictive modeling and mapping techniques, and wildlife habitat assessment.
- ❑ Holding one regional user group meeting and one regional management team meeting.
- ❑ Continuing to provide national co-leadership for the soil indicator through an agreement with another research unit in the Rocky Mountain Research Station.
- ❑ Recruiting a national FIA information management coordinator, collaborating in the LANDFIRE project aimed at mapping forest fuels and forest condition, and continuing to provide national leadership and staff to ensure the timely entry of FIA data into NFS information management systems, making current FIA data readily available to national forest staff.

The Rocky Mountain Research Station also hosts an FIA techniques research unit with a national mission to conduct research on the mathematical statistics of FIA surveys. In FY 2003, this unit produced 11 publications related to the FIA program (a decrease from the 12 produced in FY 2002), including 9 peer-reviewed journal articles and 2 other publications. The unit also continued its efforts facilitating a multi-institutional partnership to improve forest inventory in the

State of Jalisco, Mexico. During FY 2003, the unit participated in a series of discussions with the rest of the FIA program staff and its own research station management on the relevance of the unit's work to the FIA program. At the end of FY 2003, the Rocky Mountain Research Station, in consultation with the Forest Service Research and Development headquarters staff in Washington, DC, decided to terminate the Station's Fort Collins FIA unit and reallocate its staff to other Forest Service research programs where their skills and knowledge can be better used. The Fort Collins unit will no longer appear in the FIA Business Report.

## North Central

FY 2003 accomplishments for the North Central FIA unit include—

- ❑ Continuing annual inventory fieldwork in all States (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin). The North Central FIA unit is the only FIA unit to be implemented in 100 percent of their region.
- ❑ Measuring 20,026 Phase 2 plots (26 percent of their regional total) and 1,336 Phase 3 plots (28 percent of their regional total) (appendix 1).
- ❑ Producing 44 publications in FY 2003 (an increase from 40 in FY 2002), including 12 State resource reports based on annual inventory data, 6 State timber product output reports, 8 peer-reviewed journal articles, and 9 proceedings papers.
- ❑ Participating in one regional user group meeting and one regional management meeting.
- ❑ Researching topics that include imputation and model-based updating techniques for annual forest inventories, diameter growth models using Minnesota forest inventory and analysis data, and incorporating satellite imagery into forest inventory estimation.
- ❑ Continuing to provide national co-leadership for the soil indicator and for

the measurement of down woody material and, along with the Northeastern Research Station, for the National Woodland Ownership Study.

- ❑ Continuing to develop and manage the Resource Planning Act database and developing and housing national FIA Web applications to make FIA data available to users.

## Northeastern

FY 2003 accomplishments for the Northeastern FIA unit include—

- ❑ Continuing annual FIA operations in Maine, New Hampshire, New York, Ohio, and Pennsylvania, and initiating annual FIA work in Connecticut, Massachusetts, Rhode Island, and Vermont.
- ❑ Continuing Phase 3 data collection in these States plus Delaware, Maryland, New Jersey, and West Virginia.
- ❑ Measuring 3,349 Phase 2 plots (13 percent of the regional total) and 326 Phase 3 plots (20 percent of the regional total) (appendix 1).
- ❑ Producing 21 publications in FY 2003 (a decrease from 27 in FY 2002), including 4 State resource reports and 12 proceedings papers.
- ❑ Continuing collaboration with the Maine Forest Service to complete and publish the fourth annual analysis of annual inventory data collected under the new FIA system (released in October 2003). This Maine Forest Service publication is the first FIA publication that incorporates Phase 2 and Phase 3 data in a single report, and serves as an example of the type of integrated reporting to which we aspire in the future.
- ❑ Holding one user group meeting and one regional management team meeting.
- ❑ Continuing to coordinate the agreement to provide national support for the ozone indicator, and providing national leadership, along with the North Central Research Station, for the National Forest Woodland Ownership Study.

- ❑ Housing a national Spatial Data Service Center to help external FIA customers work with FIA data in a spatial context.

## Southern

FY 2003 accomplishments for the Southern FIA unit include—

- ❑ Continuing annual inventory fieldwork in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, South Carolina, Puerto Rico, Tennessee, Texas, and Virginia, and implementing annual FIA work in North Carolina.
- ❑ Measuring, in collaboration with its partners, a total of 10,864 Phase 2 plots (12 percent of the regional total) and 789 Phase 3 plots (14 percent of the regional total) (appendix 1).
- ❑ Producing 21 publications in FY 2003 (a decrease from 42 in FY 2002), including one State resource report and four State timber product output reports.
- ❑ Attending or hosting one regional user group meeting and hosting two regional management team meetings.
- ❑ Entering into or continuing funding of a number of cooperative ventures with university scientists and other stations on topics that include vegetative diversity measures testing, forest loss associated with urbanization, and satellite imagery use in forest inventory.

## National Office

The National Office of the FIA program coordinates, oversees, and guides the FIA field units engaged in implementing the enhanced FIA program. FY 2003 accomplishments for the National Office include—

- ❑ Producing two publications (nine fewer than produced in FY 2002). Most of the reporting effort in 2003 was focused on supporting several large assessments, including the RPA Forest Resources of the United States 2002, the 2003 National

Report on Sustainable Forests, the update of the Heinz Center's State of the Nation's Ecosystems, the update of the U.S. Forest Resource Facts and Historical Trends brochure, and the Environmental Protection Agency's State of the Environment Report, which were not published in 2003.

- ❑ Organizing, facilitating, and documenting three FIA management team meetings and dozens of briefings for internal and external partners, customers, collaborators, and supporters.
- ❑ Planning, in collaboration with the Society of American Foresters (SAF), the fourth national user group meeting for FIA customers, which was held in Washington, DC, in December of 2003.
- ❑ Participating in several international workshops focusing on global forest resource assessment and reporting, and providing technical advice and consultation to the Governments of Mexico and Australia.

## Spatial Data Service Center

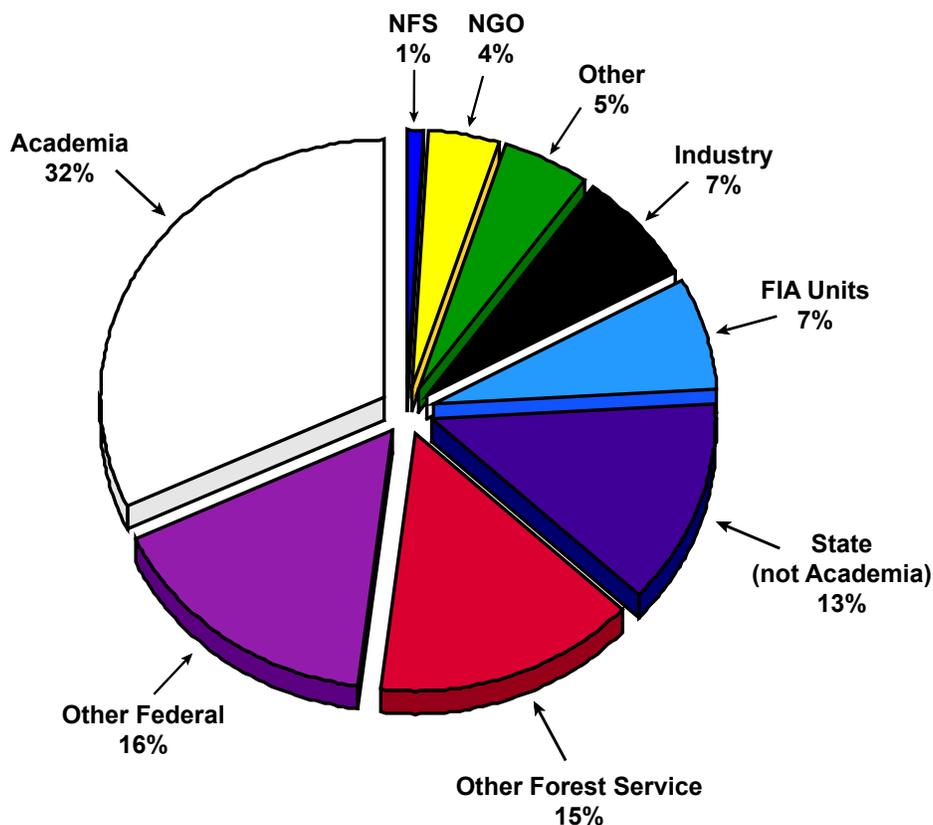
In 2002, in response to growing demand by FIA customers for access to spatial data, we created a Spatial Data Service Center, housed in the Northeastern FIA unit in Newtown Square, Pennsylvania. The center provides one-stop shopping for FIA customers needing access to FIA sample location information that, by law, cannot be made generally available to the public. The center works with customers to help define their needs in terms of precision and area of interest, performs data retrievals, extractions, and overlays required to accomplish the task, and provides output products to the customer that address the customer's needs without violating the ownership privacy requirements. For more information about the center, including operating procedures and instructions on placing requests, visit the center's Web site at [http://www.fs.fed.us/ne/fia/spatial/index\\_ss.html](http://www.fs.fed.us/ne/fia/spatial/index_ss.html). The center gives priority to requests that span multiple FIA unit boundaries.

In FY 2003, the center received 75 requests for data and collaboration plus 21 requests for information about the FIA program. Of the 75 data requests, 44 were completed during the fiscal year, 17 were still in progress at the end of the fiscal year, 5 were put on hold by the requester, and 9 were either withdrawn or abandoned by the requester. The center completes approximately 75 percent of requests in 4 weeks or less; the balance generally require more detailed consultations between service center staff and the requester, and thus take longer. Data requests fall into three broad categories: FIA plot data summaries for user-supplied strata (for example, a watershed basin in a State), imagery analysis (for example, accuracy assessments of user-supplied forest/nonforest maps derived from satellite imagery), and Geographic Information System/spatial data extractions, where FIA data are overlaid on a user-provided coverage to classify FIA plots. Figure 7 shows the breakdown of requests in 2003

by type of organization. In FY 2003, academia represented the center's largest customer group (32 percent of requests). Other FIA units, which requester made the most requests in the first year of operation, accounted for only 7 percent of requests. Approximately 66 percent of the requests involved data from a single FIA unit, 16 percent involved 2 to 4 units, and 18 percent involved all 5 FIA units. As expected, as the service center becomes more widely known, the percent of external customers and of requests spanning multiple FIA units increases as regional FIA units handle their own localized needs.

## Grants and Agreements

Each year, FIA units enter into various grants and cooperative agreements with partners to accomplish specialized work in support of the FIA mission. In some cases, partners provide

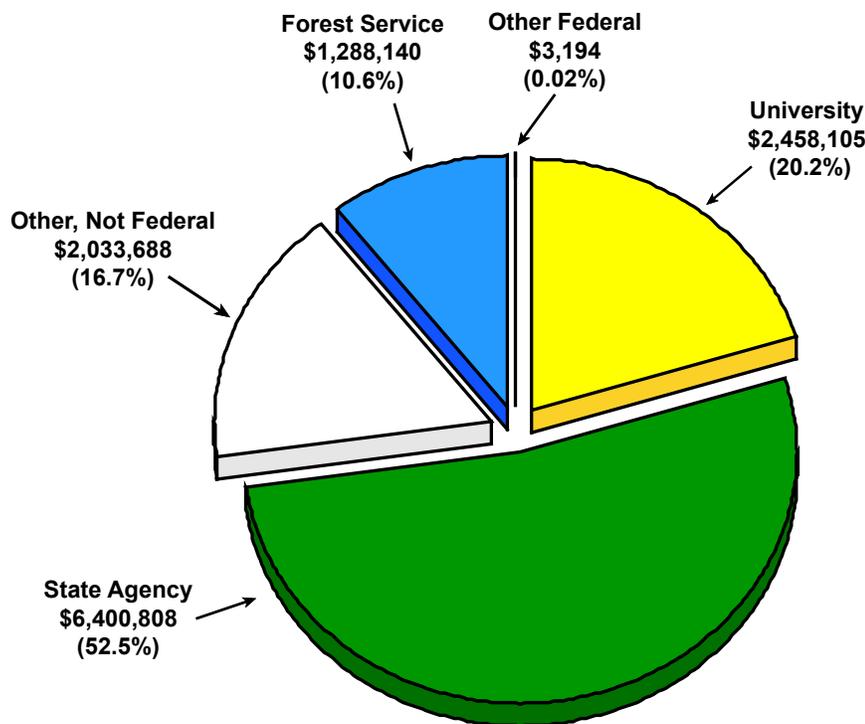


**Figure 7.** Requests Made to the FIA Spatial Data Service Center, by Organization, Fiscal Year 2003

expertise that is not available within the FIA program; in other cases, they share the workload. Appendix 5 lists 93 grants and agreements funded in FY 2003, totaling \$12,183,935 or approximately 22 percent of the total available FIA program budget. The number of grants (up from 53) and the total expenditure of \$7,631,164 (14 percent of the FIA budget) awarded in grants increased significantly from FY 2002. This increase demonstrates the growing reliance of the FIA program on collaboration with external partners to perform work efficiently. Most of these grants and agreements are with partners from State agencies (53 percent of funds) and universities (20 percent of funds) (figure 8). Other cooperators included other Forest Service offices (11 percent of funds) and other non-Federal partners (17 percent of funds). Most grants supported data collection, collaboration, and research in techniques development. We expect to continue to make significant use of grants and agreements to augment FIA staff capacity in analyzing and reporting annual FIA data for individual States.

## Consultations by FIA Staff

Consulting with FIA customers is a growing part of our business. Just as we have increased the information (both data and analyses) available on our Web site, more and more our FIA staff help customers who seek to either understand more about the FIA program and our results or address a specific question not explicitly addressed through other means. Questions pertaining to a single administrative unit (for example, to a single State or national forest) often are referred to partners in that administrative unit (State foresters, national forest analytical staff) who can often provide a better context and who prefer to maintain their contacts with their customers. When questions span multiple administrative units, FIA staff tries to help the customer find an answer. FIA staff does not compete with private sector consultants; rather, we answer questions about our methods and help customers, including private consultants, use FIA data to answer their own questions. Appendix 6 shows the number of significant consultations that FIA



**Figure 8.** Grants and Agreements, by Recipient Group, Fiscal Year 2003

staff provided, by unit and by type of customer, in FY 2003. A “significant consultation” is defined as any dialog with a customer outside FIA that requires more than 1 hour to address and that is not part of our normal course of business in collecting, analyzing, and reporting on FIA information. FIA staff performed 1,450 significant consultations requiring 4,514 staff hours to complete—equivalent to more than 2 full-time staff-years. More than half of the time and approximately a third of the consultations were conducted with other government agencies, such as State and other Federal agencies, as well as internal discussions in the Forest Service. Other major client groups included academic clients (approximately 11 percent of the consultations and 14 percent of the time), industry (16 percent of the consultations and 14 percent of the time), and nongovernmental organizations (6 percent of the consultations and 8 percent of the time). The data also shows some regional variations. For example, industrial customers are the major clients of the Southern FIA unit, while Government organizations (primarily State agencies) are the major clients for other FIA regional units.

## **FIA-National Forest Collaboration**

In FY 2002, the Deputy Chief for Research and Development and the Deputy Chief for NFS signed an internal memorandum of understanding (MOU) providing for permanent inclusion of all national forest lands in the FIA program. This inclusion was a significant step forward for FIA customers, guaranteeing the availability of consistent FIA information across the entire United States, including all national forest lands. Under the terms of the negotiated agreement, the national forests provide permanent funding to help cover the cost of the FIA program on national forest lands, and in return the FIA program agrees to implement the program in a manner consistent with inventory on other lands in the same State and to load FIA data into the national forest information base for use in forest planning and

other strategic scale assessments. FIA also will prepare standardized reports specific to individual national forests, provide advice and assistance in developing forest-level sampling protocols linked to FIA, and collaborate with national forests that want to contribute additional resources for additional sampling. Table 1 highlights some of the expectations outlined in the agreement, and the degree to which the agreement is being satisfied.

In FY 2003, FIA continued to develop and operate applications to load FIA data from national forests into FS Veg. Databases for NFS Regions 1 and 2 were largely populated in 2003, and more western regions are planned for population in 2004.

Based on feedback from the nine NFS regions, FIA in general meets the needs of NFS partners. Some additional work is required in the western regions in the areas of coordinating fieldwork and defining and collecting a consistent set of regional variables on NFS lands to meet NFS needs. More effort is required to obtain FIA data from NFS lands to the NFS staff and in developing data presentations, analyses, and reports tailored to the specific needs of NFS managers. FIA will work on these issues in 2004.

## **Comparing FY 2003 FIA Accomplishments with Plans from FY 2002**

In the FY 2002 business report for FIA, we included a section stating our plans for FY 2003. In table 2, we show how our actions in FY 2003 matched our plans from FY 2002.

## **Fiscal Year 2004 FIA Program Direction**

The FIA program initially intended to implement the Strategic Plan for Forest Inventory and Monitoring by achieving a base Federal program of 10 percent per year in the Western United States and 15 percent per year in the Eastern United States by FY 2003. We have

**Table 1. Highlights of Expectations from MOU to Include All National Forest Lands in the FIA Program**

Criterion	R1	R2	R3	R4	R5	R6	R8	R9	R10
Percent of national forest land covered by annual FIA	72	76	54	25	100	100	88	91	100
Percent of national forest FIA data loaded into FSVeg*	100	40	0	0	0	0	0	0	0
Are regional staff invited to participate in FIA management?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are regional staff informed of plans for fieldwork within region?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are regional staff satisfied with opportunities for enhancing FIA to better meet regional needs?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are regional staff satisfied with technical support and consultation from FIA?	Yes	Region is split between FIA units, which is not efficient	Yes	Yes	Too early to tell	Yes	Yes	Yes	Yes

\* The Field Sampled Vegetation (FSVeg) module of the Natural Resource Information System is the corporate standard database for national forest staff and the primary vehicle for making inventory data available to NFS staff.

made significant changes to our program by forming a partnership with State foresters to lead and implement the FIA program in a more responsive manner, and we are implementing annual inventory systems in every region of the country. Unfortunately, while funding for the FIA program has increased over the past several

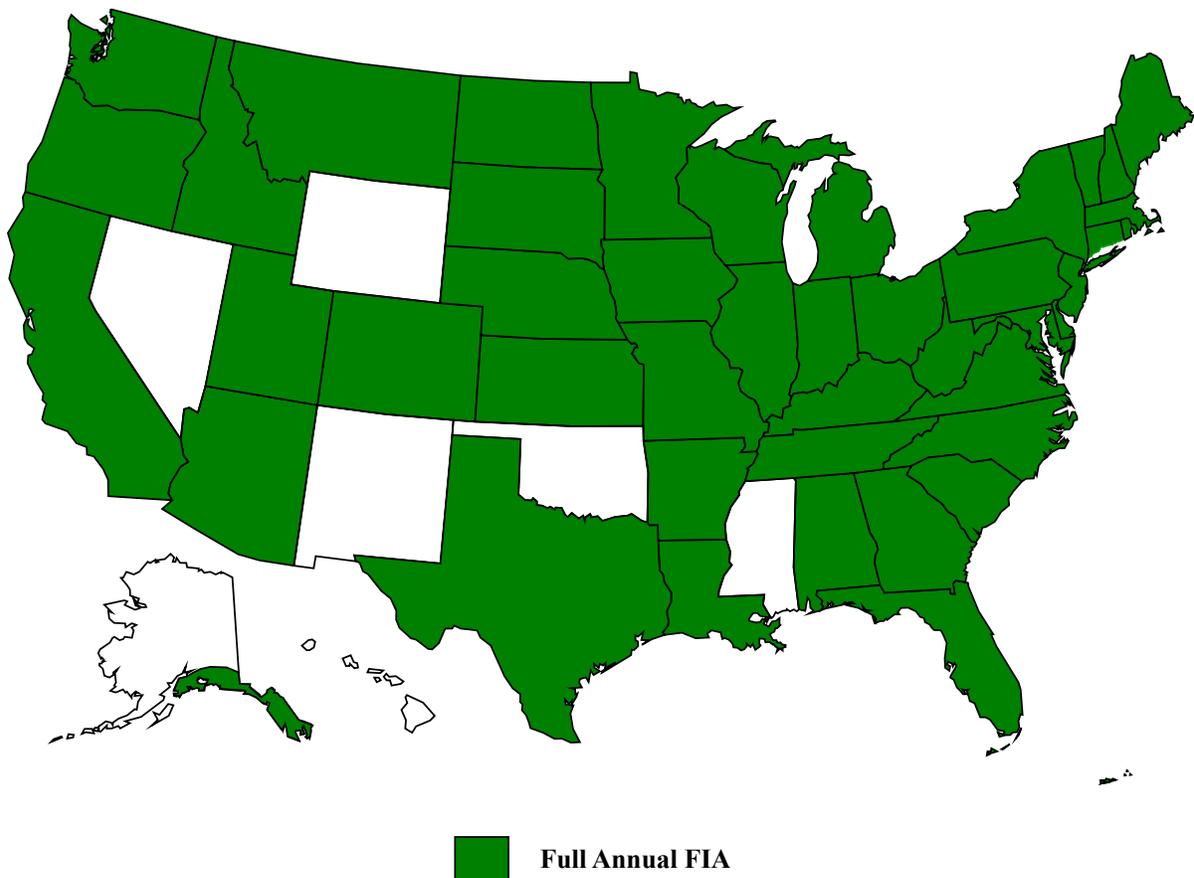
years, it has not increased sufficiently to allow full program implementation as scheduled in FY 2003. We continue to be optimistic that we will achieve the target level of funding by 2005 or 2006, and at that time will achieve full program implementation (figure 3, page 5).

**Table 2.** *Comparison of FY 2002 Plans with FY 2003 Accomplishments*

In the FY 2002 business report, we stated that in FY 2003 we would...	In FY 2003, we...
Continue annual inventories on all forested lands in all current States and initiate annual inventories in coastal Alaska, Connecticut, Massachusetts, Montana, Rhode Island, and Vermont.	Continued annual inventories on all forested lands in all current States and initiated annual inventories in coastal Alaska, Connecticut, Massachusetts, Montana, Rhode Island, and Vermont.
Release Version 2.0 of the national core field guide, Version 1 of NIMS, and initiate work on Version 2 of NIMS that will include Phase 3 plot data and regionally collected data.	Released Version 2.0 of the national core field guide (October 2003), released Version 1 of NIMS (March 2003), and initiated work on Version 1.2 of NIMS (April 2003).
Complete development and testing of vegetative diversity measures to prepare for full implementation in FY 2004.	Completed development and testing of vegetative diversity measures, which are ready for full implementation pending funding (limited implementation in FY 2004).
Continue collaborative stewardship of the FIA program by holding user groups meetings in all regions of the country and at the national level, holding regional management team meetings in all regions of the country, and holding one scientific symposium on FIA.	Held user group meetings and management team meetings in all regions of the country (the national user group did not meet until after the end of the fiscal year). Held one national FIA science symposium.
Continue to make our data more accessible and usable by adding analytical tools and program documentation to online FIA databases and Web pages.	Released the first build of NIMS, which feeds data into the public FIA database. Developed prototypes of several Web-based mapping and analysis applications, which will be released in FY 2004.
Continue to conduct applied research into ways of using technology to increase program efficiency, develop new products to meet customers' needs, and collaborate with partners to reduce program costs and increase the scope of products offered. Develop a prototype set of core map products based on FIA data.	Tested efficiency and practicality of using single-person FIA field crews for remeasurement plots, collaborated with the LANDFIRE national fire risk/fuels mapping project, developed a national forest biomass map and a list of other core map products to be developed over the next 3 years.
Complete the initial loading of FIA core data into national forest information management systems to make FIA data widely available to NFS customers, and initiate the development of loader programs to load FIA regional data.	Completed loading of FIA core data for Region 1 of the Forest Service, and 40 percent of Region 2. Initiated development of loader programs for regional FIA data (part of the second build of NIMS).

In FY 2004, to continue progress towards full program implementation, we intend to accomplish the following goals:

- ❑ Continue transition to an annual inventory system by continuing annual inventories on all forest lands in all current States and initiating an annual inventory system in Delaware, Idaho, Maryland, New Jersey, and West Virginia (figure 9). This change will mean the implementation of an annual inventory in every region of the country and will include coverage of almost 76 percent of the Nation (including interior Alaska) under a cooperative program involving full Federal-State partnerships in program management and delivery.
- ❑ Continue developing and documenting nationally consistent compilation, analysis, and database management procedures, including release of Version 1.2 of NIMS, which will include Phase 3 plot data and regionally collected data.
- ❑ Implement a final protocol for vegetative diversity as a final test where funding permits.
- ❑ Release a national forest cover type map based on FIA data.
- ❑ Continue collaborative stewardship of the FIA program by holding user groups meetings in all regions of the country and at the national level, holding regional management team meetings in all regions of the country, and holding one scientific symposium on FIA.



**Figure 9.** *Planned FIA Implementation Status, Fiscal Year 2004*

- ❑ Continue to make our data more accessible and usable by adding analytical tools and program documentation to online FIA databases and Web pages. Release approximate coordinates for recent periodic plots and annual plots where a sufficient number of plots have been taken to ensure owner confidentiality.
- ❑ Continue to conduct applied research into ways of using technology to increase program efficiency, to develop new products to meet customers' needs, and to collaborate with partners to reduce program costs and increase the scope of products offered. Develop a prototype set of core map products based on FIA data.
- ❑ Complete the initial loading of FIA core data for western National Forest Regions 2, 3, 4, 5, and 6 to make FIA data widely available to NFS customers.

## Long-Term Strategic Direction

The Government Performance and Results Act (GPRA) of 1993 directs Federal entities to develop long-term goals and performance measures to monitor progress toward those goals. Although intended to apply at the agency level, the GPRA framework provides an excellent tool for guiding progress at the project level as well. Table 3 shows our key goals, performance measures, benchmarks, and targets for the FIA program for 2001–03. In future business reports, we will repeat this table to show progress made toward our goals.

## Conclusions

We continue to operate in a new era of partnership and collaboration in which Federal and State agencies and other colleagues work side by side to plan, manage, implement, and continuously improve the FIA program. We are gathering and disseminating information on a wider array of ecological attributes while continuing to serve our traditional customers who require timely information on forest resources. We are increasing the timeliness of our surveys and reporting to provide a continuously updated, publicly accessible information base that includes meaningful reports and analyses as well as elemental data for others to use. We are exploring and using modern technology to expand the scope of our products and to deliver them more efficiently. And we are openly reporting on our progress, accomplishments, successes, and challenges.

In summary, we are committed to working collaboratively with our partners to deliver the best program possible with the available resources. We hope this report opens a window for you into the business practices of the FIA program, and we encourage you to help us improve the program with your feedback.

**Table 3.** *Key Goals, Performance Measures, Benchmarks, and Targets for the FIA Program, 2001-03*

Goal	Performance Measure	2001 Level	2002 Level	2003 Level	Target Level
<b>INPUTS</b>					
Maintain sufficient funding to support the base Federal FIA program	Percent of necessary Federal funding received	81	79	84	100
<b>OUTPUTS</b>					
Include 100 percent of U.S. forest lands in the FIA sample population	Percent forest included in the target FIA sample population	100	100	100	100
Keep fieldwork current	Percent of base Phase 2 sample locations visited per year: East West	14.6	15.5	16.2	15
		6.8	6.1	6.2	10
Make data accessible to national forest customers	Percent of national forest land for which FIA data are loaded into NRIS	0	2	18	100
<b>OUTCOMES</b>					
Keep analysis current	Average number of years between State analytical reports	8	7	7	5
Keep online database current	Average age (years) of most recent update of FIA data available online	6	7	6	1
Customer satisfaction	Percent of customers rating service as “satisfactory” or better	84	89	85	100
	Partner financial contributions expressed as percent of total Federal FIA budget	16	16	18	25



# Glossary of Terms Used in Appendixes

**Base Federal FIA program.** A level of FIA program delivery that includes sampling 10 percent of base grid Phase 2 plots per year in the Western United States, 15 percent of base grid plots per year in the Eastern United States, and 20 percent of Phase 3 plots nationwide, with data compiled and made available annually and complete State analyses performed every 5 years.

**Base grid plots sampled.** The base grid consists of one sample location per approximately 6,000 acres (Phase 2) and one location per approximately 96,000 acres (Phase 3). Some partners choose to intensify beyond the base grid.

**Core reports.** A class of publications that summarizes forest status and trends for a complete administrative unit, such as a whole State or a national forest. Examples include survey unit reports, State statistical or analytical reports, or national forest reports.

**Direct expenses.** All expenses directly attributable to the FIA unit incurred as a part of doing FIA business. Excludes indirect business costs (such as rent, telephones, and administrative overhead outside the FIA unit staff), which are included in "Effective Indirect Expenses." Includes work done for other units as a normal part of FIA business. Includes the following items:

**Salary.** Includes direct salary costs plus benefits charged to the FIA unit. Broken into the following categories:

**Administration.** Program manager, project leader, and clerical staff.

**Phase 1 production.** Aerial photo interpreters, and satellite image analysts engaged in Phase 1 stratification.

**Field support.** Field crew supervisors who spend less than 50 percent of their time measuring plots, and others involved in supporting and coordinating field crews.

**Field crews.** All staff spending at least 50 percent of their time measuring regular plots.

**QA (quality assurance) crews.** All staff spending at least 50 percent of their time doing quality assurance fieldwork.

**Information management.** Programmers, data compilers, and computer system support staff.

**Analysts.** Staff who analyze data and write publications.

**Techniques research.** Primarily research staff conducting FIA-related research on methods and techniques.

**Travel.** Broken into the following categories:

**Office travel.** Travel costs for all staff except field crews and QA crews.

**Field/QA travel.** Travel costs for field crews and QA crews.

**Equipment.** Costs for durable goods used for FIA, including the following items:

**Imagery.** Aerial photos and satellite imagery data files.

**Vehicles.** All vehicle costs, including such items as operating costs, depreciation, and leases.

**Field equipment.** Measurement tools and equipment, such as data recorders carried by field crews.

**Computer/telecommunications.** Computer hardware, software, communications costs.

**Other.** Anything that does not fit into one of the above equipment categories.

**Publications.** Costs for designing, editing, printing, and distributing publications.

**Grants and Agreements.** Cost of cooperative grants and agreements that directly support the FIA mission.

**Office Space and Utilities.** Charges for rent, lease, or other real estate costs for FIA staff, plus utilities.

**Other Direct Expenses.** Anything that does not fit into one of the above categories, including training costs, unemployment, office supplies, postage, awards, moving expenses, and other expenses related to delivering the FIA program.

**FRIA (Forest Resource Inventory and Assessment).**

An account created by Congress in the S&PF portion of the Forest Service budget to provide funds to support FIA.

**FHP (Forest Health Protection).** An account created by Congress in the S&PF portion of the Forest Service budget to protect the health of the Nation's forests. FHP provides some financial support to the FIA program.

**Effective Indirect Expenses.** Indirect expenses include items such as research station management and administrative salaries, operating expenses, research station budget shortfalls, and other items for which the FIA unit is assessed by their research station. Each station has its own means for determining these assessments. Rather than reporting the different rates, we simply calculate the “Effective Indirect Expenses” item by subtraction:

$$\text{Effective Indirect Expenses} = (\text{Total Available Funds}) - (\text{Total Direct FIA Expenses} + \text{End of Year Balance})$$

**Effective Indirect Rate.** Effective Indirect Expenses divided by Total Available Funds. This rate is not necessarily the same as the standard station overhead rate; instead, it reflects the total indirect cost as a fraction of the total funds available to FIA.

**Management meetings held.** Number of national or regional management team meetings held by each FIA unit. A management team for each FIA region consists of partners who share in the funding and implementation of the FIA program. This group typically consists of representatives from the FIA unit, national forest regional offices, S&PF offices, and State forestry agencies.

**NGO (Nongovernmental organization).** A class of customers with whom FIA staff are asked to consult. Includes environmental organizations, professional societies, and other generally not-for-profit organizations.

**NIPF (Nonindustrial private forest land owners).** Private individuals or organizations who own forest land for purposes other than industrial operations.

**Percent of total plots sampled.** Total number of base grid plots sampled divided by the total number of plots in the base grid.

**Percent of full funding.** Total available funds divided by the funding needed to fully implement the base Federal program.

**Percent of region covered by annual FIA.** Sum of forested acres in States currently implementing annual FIA, divided by the total number of

forested acres in each FIA region; a measure of the degree to which the FIA region has moved from periodic to annual inventory.

**Phase 1.** Stratification of the land base into forested and nonforested classes using remotely sensed imagery (aerial photographs or satellite imagery). Performed to increase the efficiency of fieldwork and estimation.

**Phase 2.** A set of sample locations, approximately one every 6,000 acres of land, measured for basic mensurational forest attributes.

**Phase 3.** A subset of Phase 2 sample locations, approximately one every 96,000 acres of land, measured for a more extended suite of ecosystem attributes, including tree crown condition, lichen community diversity, soil data, and down woody debris.

**Publications.** Number of publications per unit, by type of publication, as reported in official agency attainment reports. Publications are one of the major outputs of the FIA program. Types of publications include the following items:

**Core reports.** A report pertaining to reporting inventory results for a complete geographic entity. Includes the following publications:

**National forest reports.** A complete analysis for a single national forest.

**State resource reports.** A complete statistical or analytical summary of the forested resources in a single State.

**State timber product output (TPO) reports.** A complete analysis of TPO data for a single State.

**Regional reports.** A report for a group of States or other contiguous units larger than a single State, such as a regional assessment.

**National report.** A report for the entire Nation, such as the Resource Planning Act report.

**Peer-reviewed journal articles.** An article appearing in a referred or peer-reviewed journal.

**Proceeding papers.** An article appearing in the proceedings from a meeting or symposium.

**Other station publications.** A manuscript published by the Forest Service, such as a General Technical Report.

**Other.** Publications that do not fit into any of the above categories, such as abstracts, books, or other Government publications.

**FY 2003 end-of-the-year (EOY) balance.** Funds reported in the FY 2003 business report as unspent at the end of the 2003 fiscal year, and presumably available for use in FY 2004.

**Significant consultations.** Cases in which an FIA staff person spent at least 1 hour in discussion, analysis, or research to address a specific question or need raised by an external FIA program customer and that is not part of our normal course of business in collecting, analyzing, and reporting on FIA information.

**Total Available Funds.** Total funds available for delivering the FIA program, including funds appropriated by Congress for the FIA program, other funds made available by Forest Service partners, and previous year carryover funds. A measure of Federal funding for the base Federal program.

**User group meetings held.** Number of user group meetings sponsored or attended by each FIA unit. A user group meeting is an open meeting in which a complete regional cross-section of FIA partners and customers are invited to attend. User group meetings differ from the usual smaller meetings with one or two partners that all FIA units call as a normal course of business.

## Points of Contact

For information about the status and trends of America's forests, contact the appropriate office below.

### **Northeast**

Program Manager, FIA  
USDA Forest Service  
Northeastern Research Station  
11 Campus Boulevard, Suite 200  
Newtown Square, PA 19073  
610-557-4075

### **South (includes Puerto Rico and the U.S. Virgin Islands)**

Program Manager, FIA  
USDA Forest Service  
Southern Research Station  
4700 Old Kingston Pike  
Knoxville, TN 37919  
865-862-2073

### **Pacific Northwest (includes Alaska and Hawaii)**

Program Manager, FIA  
USDA Forest Service  
Pacific Northwest Research Station  
620 SW Main Street, Suite 400  
Portland, OR 97205  
503-808-2066

### **North Central**

Program Manager, FIA  
USDA Forest Service  
North Central Research Station  
1992 Folwell Avenue  
St. Paul, MN 55108  
651-649-5139

### **Interior West**

Program Manager, FIA  
USDA Forest Service  
Rocky Mountain Research Station  
507 25th Street  
Ogden, UT 84401  
801-625-5388

### **National Office**

Forest Inventory National Program Leader  
USDA Forest Service  
1601 North Kent Street, Suite 400  
Arlington, VA 22209  
703-605-4177

All our regional Internet home pages, as well as a wealth of statistical and other information, are available through the national FIA home page located at <http://www.fia.fs.fed.us>.

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# Appendixes

## Appendix 1. Performance Measures for the Fiscal Year 2003 FIA Program

	Pacific Northwest	Interior West	Southern	North Central	North East	Fort Collins	National Office	Total
<b>Total Available Funds in FY 2003</b>	\$14,261,391	\$10,534,185	\$15,740,941	\$7,540,821	\$8,047,115	\$436,000	\$3,110,137	\$59,670,590
<b>Total Appropriated Funds, FY 2003</b>	\$12,430,000	\$9,786,000	\$14,396,000	\$6,637,000	\$7,439,000	\$436,000	\$4,075,000	\$55,199,000
<b>Percent of Full Funding</b>	72%	91%	89%	98%	82%	95%	98%	85%
<b>Contributions from Partners</b>								
<b>Supporting the 20% FIA Program</b>	\$0	\$0	\$1,605,803	\$1,081,243	\$1,044,028	\$0	\$2,250	\$3,733,324
<b>Value-added Contributions</b>	\$2,622,488	\$573,181	\$51,691	\$3,158,211	\$25,000	\$0	\$0	\$6,430,571
<b>Base Grid Plots Sampled:</b>								
<b>Phase 2, Forested</b>	1,846	1,413	6,692	3,731	2,135			15,817
<b>Phase 2, Nonforested</b>	2,316	3,220	4,172	16,295	1,214			27,217
<b>Total Phase 2 Plots</b>	4,162	4,633	10,864	20,026	3,349			43,034
<b>Phase 3, Forested</b>	210	259	508	188	200			1,365
<b>Phase 3, Nonforested</b>	210	610	281	1,148	126			2,375
<b>Total Phase 3 Plots</b>	420	869	789	1,336	326			3,740
<b>TOTAL BASE PLOTS</b>	4,582	5,502	11,653	21,362	3,675			46,774
<b>Number of Quality Assurance Plots</b>								
<b>Phase 2 (Forest + Nonforest)</b>	187	226	869	504	383			2,169
<b>Phase 3 (Forest + Nonforest)</b>	19	42	65	24	13			163
<b>TOTAL QA PLOTS</b>	206	268	934	528	396			2,332
<b>Percent of Total Plots Sampled<sup>1</sup></b>								
<b>Phase 2 (10% West, 15% East)</b>	10	5	12	26	13			13
<b>Phase 3 (20% overall)</b>	17	15	14	28	20			19
<b>Percent Region Covered by Annual FIA<sup>2</sup></b>	48	58	88	100	81			71
<b>Publications</b>								
<b>National Forest Reports</b>	0	4	0	1	0	0	0	5
<b>State Resource Reports</b>	3	1	1	12	4	0	0	21
<b>State TPO Reports</b>	0	0	4	6	0	0	0	10
<b>Regional Reports</b>	0	0	1	2	0	0	0	3
<b>National Reports</b>	0	0	0	0	0	0	0	0
<b>SUBTOTAL - CORE REPORTS</b>	3	5	6	21	4	0	0	39
<b>Peer-Reviewed Journal Articles</b>	4	2	0	8	0	9		23
<b>Proceedings Articles</b>	6	8	1	9	12	0		36
<b>Other Station Publications</b>	0	1	1	0	2	1		5
<b>Other Publications</b>	7	3	13	6	3	1	2	35
<b>TOTAL - ALL REPORTS</b>	<b>20</b>	<b>19</b>	<b>21</b>	<b>44</b>	<b>21</b>	<b>11</b>	<b>2</b>	<b>138</b>
<b># Publications per Federal FTE</b>	0.21	0.22	0.24	0.70	0.30	4.10	1.11	0.34
<b>Consulting Activities</b>								
<b>Number of Significant Consultations</b>	40	51	590	196	554	0	19	1,450
<b>Total Hours of Significant Consultations</b>	1,315	461	1,198	784	612	0	144	4,514
<b>User Group Meetings Held</b>	3	1	1	1	1	1	0	8
<b>Management Meetings Held</b>	2	1	2	1	1	0	3	10

<sup>1</sup> Plot counts do not include interior Alaska, Hawaii, Puerto Rico, and Pacific Island territories, which are treated as special projects.

<sup>2</sup> Area covered includes interior Alaska and Hawaii (a departure from past years' reports, which excluded these special areas). Under the old system, the total percentage would have been reported as 84% for 2003 (see appendix 7).

**Appendix 2. Financial Statement for the Fiscal Year 2003 FIA Program**

	Pacific Northwest	Interior West	Southern	North Central	North East	Fort Collins	National Office	Total
<b>I. AVAILABLE FUNDS</b>								
Reported 2002 EOY Balance	\$584,666	\$20,000	\$1,355,540	\$0	\$329,000	\$0	\$70,137	\$2,359,343
Post FY 2002 Adjustments <sup>1</sup>	\$1,252,525	\$567,785	(\$33,699)	\$224,521	\$101,115			\$2,112,247
<b>2003 Appropriated Funds</b>								
Research	\$8,674,000	\$6,250,000	\$12,104,000	\$5,722,000	\$6,199,000	\$436,000	\$1,913,000	\$41,298,000
National Forest System	2,769,000	2,578,000	382,000	364,000	67,000	0	0	\$6,160,000
State and Private-FRIA	987,000	958,000	1,710,000	386,000	908,000	0	0	\$4,949,000
State and Private-FHP	0	0	200,000	165,000	265,000	0	2,162,000	\$2,792,000
National Responsibilities	(\$5,800)	\$160,400	\$23,100	\$679,300	\$178,000	\$0	(\$1,035,000)	\$0
<b>TOTAL AVAILABLE FUNDS</b>	<b>\$14,261,391</b>	<b>\$10,534,185</b>	<b>\$15,740,941</b>	<b>\$7,540,821</b>	<b>\$8,047,115</b>	<b>\$436,000</b>	<b>\$3,110,137</b>	<b>\$59,670,590</b>
<b>II. DIRECT EXPENSES</b>								
<b>Salary</b>								
Administration	\$687,000	\$509,714	\$438,973	\$226,712	\$253,341	\$48,283	\$260,993	\$2,425,016
Phase 1 Production	143,000	146,911	233,865	185,530	134,371	0	0	\$843,677
Field Coordination	536,300	585,179	498,551	164,494	467,203	0	0	\$2,251,727
Data Collection	2,158,400	1,344,564	1,066,738	1,199,036	992,207	0	0	\$6,760,945
Quality Assurance	242,300	641,790	633,533	192,750	304,144	0	0	\$2,014,517
Information Management	799,800	987,126	1,362,606	726,627	625,674	0	0	\$4,501,833
Analysis	870,000	293,584	1,203,788	625,816	491,265	0	0	\$3,484,453
Techniques Research	845,500	256,302	258,855	249,086	467,345	192,199	0	\$2,269,287
<b>Travel</b>								
Office Travel	151,000	164,611	179,426	108,890	78,393	44,784	20,176	\$747,280
Field/QA Crew Travel	850,500	961,050	579,244	226,454	239,368	0	0	\$2,856,616
<b>Equipment</b>								
Imagery	57,000	50,485	6,299	9,155	0	0	0	\$122,939
Vehicles	546,000	309,364	174,760	133,041	205,832	0	0	\$1,368,997
Field Equipment	257,300	102,719	234,894	90,957	236,623	0	0	\$922,493
IT/Communications	208,400	124,891	66,186	63,235	67,783	1,904	4,376	\$536,775
Other	104,400			2,038	11,111	1,313	2,950	\$121,812
Publications	35,000	19,928	11,544	7,823	45,503	4,379	6,000	\$130,177
Grants and Agreements	2,039,788	888,644	5,946,340	775,343	880,866	6,693	1,646,261	\$12,183,935
Office Space and Utilities <sup>2</sup>	454,500	297,043	333,689	169,752	255,824	0	0	\$1,510,808
Other Direct Expenses <sup>3</sup>	673,800	365,800	788,049	127,272	150,664	32,133	58,405	\$2,196,123
<b>TOTAL DIRECT EXPENSES</b>	<b>\$11,659,988</b>	<b>\$8,049,705</b>	<b>\$14,017,340</b>	<b>\$5,284,011</b>	<b>\$5,907,517</b>	<b>\$331,688</b>	<b>\$1,999,161</b>	<b>\$47,249,410</b>
<b>III. FIRE TRANSFER</b>								
	\$0	(\$498,926)	\$0	(\$180,000)	(\$420,899)	(\$2,135)	\$0	(\$1,101,960)
<b>IV. EFFECTIVE INDIRECT EXPENSES (INCLUDES FUNDS LOST TO FIRE TRANSFER)</b>								
Total Effective Indirect	\$2,236,403	\$1,697,846	\$1,670,601	\$2,180,360	\$2,151,124	\$91,097	\$1,095,642	\$11,123,073
Total Effective Indirect Rate	16%	16%	11%	29%	27%	21%	35%	19%
<b>V. 2003 EOY Balance</b>								
	\$365,000	\$786,634	\$53,000	\$76,450	(\$11,526)	\$13,215	\$15,334	\$1,298,107

<sup>1</sup> Some bookkeeping is not completed until after the new FY begins, which may affect beginning balances. These adjustments include items (carryover adjustments and return of fire transfer, among others) that are accounted for here.

<sup>2</sup> Note that this row is new in 2003; formerly, these expenses were lumped into "Other Direct and Indirect Expenses."

<sup>3</sup> Note: Since office space and other direct expenses are no longer included in this line, these figures are not directly comparable to previous years' data.

**Appendix 3. Federal Staffing (Full-Time Equivalents) for the Fiscal Year 2003 FIA Program**

	Pacific Northwest	Interior West	Southern	North Central	North East	Fort Collins	National Office	Total
<b>Administration</b>	11.5	8.4	6.6	3.7	3.3	0.8	1.8	36.1
<b>Phase 1 Production Work</b>	1.2	2.3	5.4	5.1	1.0	0.0	0.0	15.0
<b>Field Coordination</b>	9.7	10.7	7.1	2.9	9.6	0.0	0.0	40.0
<b>Field Crew</b>	35.1	32.1	18.5	28.3	28.9	0.0	0.0	143.0
<b>QA Crew</b>	4.6	10.6	10.7	3.3	7.3	0.0	0.0	36.5
<b>Information Management</b>	12.3	13.8	18.9	7.0	7.3	0.0	0.0	59.1
<b>Analysis</b>	11.1	3.9	17.3	9.7	5.7	0.0	0.0	47.7
<b>Techniques Research</b>	8.7	3.1	3.2	3.3	6.0	1.9	0.0	26.1
<b>TOTAL</b>	94.0	84.8	87.6	63.2	69.2	2.7	1.8	403.3

**Appendix 4. Partner Contributions Toward Implementing FIA in Fiscal Year 2003**

<b>Unit</b>	<b>Partner</b>	<b>Contributions Toward the Base Program</b>	<b>Contributions that Add Value</b>
<b>Interior West FIA</b>			
	Arizona State Land Department		\$5,000
	Colorado Forest Service		166,495
	Univ. of Montana, Bureau of Business and Econ. Research		67,340
	USDA Forest Service FHP Region 4		154,146
	USDA Forest Service FHP Region 4		10,000
	USDA Forest Service Region 1		168,200
	USDI Bureau of Land Management		2,000
	<b>Subtotal, Interior West FIA</b>	<b>\$0</b>	<b>\$573,181</b>
<b>North Central FIA</b>			
	Hoosier National Forest		\$7,000
	Illinois Division of Forest Resources	\$31,228	
	Indiana Department of Natural Resources	47,094	
	Iowa Department of Natural Resources	25,595	
	Kansas State Forest Service	53,580	
	Mark Twain National Forest		23,852
	Michigan Division of Forest Management	470,128	1,270,000
	Minnesota Department of Natural Resources	154,848	444,905
	Missouri Department of Conservation	135,461	288,436
	Nebraska Department of Forestry, Fish, and Wildlife	28,264	
	North Dakota Forest Service	8,857	
	Resources Planning Act		30,000
	Shawnee National Forest		30,000
	South Dakota Department of Forestry and Nat. Res. Mgmt.	32,224	
	Superior National Forest		42,000
	Wisconsin Department of Natural Resources	93,964	1,022,018
	<b>Subtotal, North Central FIA</b>	<b>\$1,081,243</b>	<b>\$3,158,211</b>
<b>Northeast FIA</b>			
	Maine Forest Service	\$455,984	
	Massachusetts Department of Environmental Management		\$5,000
	New Hampshire Department of Res. & Econ. Development		5,000
	New York Division of Lands and Forests	276,606	
	Ohio Department of Natural Resources		15,000
	Pennsylvania Department of Conservation and Nat. Res.	\$311,438	
	<b>Subtotal, Northeast FIA</b>	<b>\$1,044,028</b>	<b>\$25,000</b>

Unit	Partner	Contributions Toward the Base Program	Contributions that Add Value
<b>Pacific Northwest FIA</b>			
	Alaska Department of Natural Resources		\$15,000
	California Department of Forestry		15,000
	USDA Forest Service National Monitoring and Eval. (FHM)		140,000
	USDA Forest Service Region 5		376,000
	USDA Forest Service Region 5		10,000
	USDA Forest Service Region 5		203,385
	USDA Forest Service Region 5		36,000
	USDA Forest Service Region 6		50,000
	Oregon Department of Forestry		35,000
	USDA Forest Service PNW Research Station		4,000
	USDA Forest Service PNW Research Station		36,103
	USDA Forest Service PNW Research Station		161,000
	USDA Forest Service PNW Research Station		1,496,000
	USDA Forest Service S&PF/Western Forest Leadership Coal.		25,000
	Washington State Department of Natural Resources		20,000
	<b>Subtotal, Pacific Northwest FIA</b>	<b>\$0</b>	<b>\$2,622,488</b>
<b>Southern FIA</b>			
	Alabama Forestry Commission	\$180,923	
	Arkansas Forestry Commission	96,627	
	Florida Department of Agriculture & Consumer Services	152,745	
	Georgia Forestry Commission	199,874	
	Kentucky Division of Forestry	121,478	
	Louisiana Department of Agriculture & Forestry	129,658	
	National Council for Air and Stream Improvement, Inc.		45,000
	South Carolina Forestry Commission	112,252	
	Tennessee Department of Agriculture	197,660	
	Texas Forest Service	275,586	
	University of Tennessee		6,691
	Virginia Department of Forestry	139,000	
	<b>Subtotal, Southern FIA</b>	<b>\$1,605,803</b>	<b>\$51,691</b>
<b>National Office FIA</b>			
	Society of American Foresters	\$2,250	
	<b>Subtotal, National Office FIA</b>	<b>\$2,250</b>	<b>\$0</b>
<b>Total, All FIA Units</b>		<b>\$3,733,324</b>	<b>\$6,430,571</b>

**Appendix 5. Grants and Agreements Entered Into by FIA Units, Fiscal Year 2003**

<b>Unit</b>	<b>Amount</b>	<b>Recipient</b>	<b>Purpose</b>
<b>Interior West FIA</b>			
	\$640,363	Colorado State Forest Service	Implementation of annual FIA
	8,000	Nature Conservancy (via WO-FIA)	National Vegetation Classification Survey
	20,000	Remote Sensing Application Center	Local Modis and low elevation mapping, plus national biomass mapping effort
	163,083	University of Montana, Bureau of Business and Economic Research	Timber products output data collection and analysis
	57,198	USDA National Forest Service NRIS Program	FIA data loader for FSveg
	<b>\$888,644</b>	<b>Subtotal, Interior West FIA</b>	
<b>North Central FIA</b>			
	\$7,200	Hiawatha National Forest	Field office rental
	12,332	Indiana Dept. of Natural Resources	Implementation of annual FIA
	2,658	Iowa Dept. of Natural Resources	Implementation of annual FIA
	10,000	Iowa State University	Indicators of forest health in oak savannas and woodlands
	81,109	Kansas State University	Implementation of annual FIA
	31,887	Lumber Jack RC&D	Implementation of annual FIA
	6,000	Mark Twain National Forest	Field office rental
	879	Michigan Department of Natural Resources	Field office rental
	1,584	Michigan Tech University	Field office rental
	28,000	Minnesota Department of Natural Resources	Balsam bough resource inventory project
	342,377	Minnesota Department of Natural Resources	Implementation of annual FIA
	39,742	NC Research Station	Soils analyses
	6,500	North Dakota Forest Service	Implementation of annual FIA
	15,000	Remote Sensing Application Center	Remote sensing product applications and techniques
	3,000	Shawnee National Forest	Field office rental
	86,363	South Dakota Dept. of Forestry & Nat. Res. Mgt.	Implementation of annual FIA
	26,367	University of Michigan	Implementation of annual FIA
	35,000	University of Nebraska	Implementation of annual FIA
	16,000	USNVC	Vegetation classification project
	23,345	Wisconsin Dept. of Natural Resources	Implementation of annual FIA
	<b>\$775,343</b>	<b>Subtotal, North Central FIA</b>	
<b>Northeast FIA</b>			
	\$5,666	Commonwealth of Massachusetts	For Phase 3 data collection and expertise
	5,168	Delaware Dept. of Agriculture	For Phase 3 data collection and expertise
	95,124	Maine Forest Service	Taper study
	375,744	Maine Forest Service	For Phase 3 & 2 data collection and expertise

<b>Unit</b>	<b>Amount</b>	<b>Recipient</b>	<b>Purpose</b>
<b>Northeast FIA (cont.)</b>			
	\$5,294	New Hampshire Dept. of Res. and Econ. Dev.	For Phase 3 data collection and expertise
	30,000	Remote Sensing Application Center	RSAC Software Development
	91,421	State University of New York College of Environmental Science and Forestry	Taper study
	114,076	The Ohio State University	Taper study
	72,259	The Pennsylvania State University	For Phase 3 data collection and expertise
	74,600	University of Massachusetts	National Ozone Indicator Advisor
	11,514	Vermont Dept. of Forests, Parks, and Recreation	For Phase 3 data collection and expertise
	<b>\$880,866</b>	<b>Subtotal, Northeast FIA</b>	
<b>National Office FIA</b>			
	\$40,000	International Institute of Tropical Forestry	Implementation of annual forest inventory
	33,000	Northeastern Area	Damage indicator advisor
	85,000	Remote Sensing Application Center	Remote sensing technology development and application
	104,000	Rocky Mountain Research Station (RWU 4301)	Soil indicator advisor and lab work (west)
	267,000	Southern Research Station (RWU 4803)	National Program Support
	27,681	University of Missouri	Soil sample analysis
	58,527	University of Nevada at Las Vegas	Crown indicator advisor
	674,293	University of Nevada at Las Vegas	Information management support
	110,730	University of Nevada at Las Vegas	Quality Assurance support
	244,030	University of Wisconsin	Lichen indicator advisor support (east)
	2,000	World Wildlife Fund	Protected Area Database
	<b>\$1,646,261</b>	<b>Subtotal, National Office FIA</b>	
<b>Pacific Northwest FIA</b>			
	\$1,000	National FIA Program	NIMS Award
	16,000	National FIA Program	USNVC
	16,345	Oregon State University	Quantifying Carbon Sequestration in OR and WA Forests and Determination of the Accuracy of Existing Carbon Models for the NW
	37,096	Oregon State University	Characterization of Forest Canopy Structure and Wildlife Habitat in Western OR from Regional Inventory Data
	16,322	Oregon State University	Developing Climate and Air Quality Gradient Models of Lichen Communities in CA
	10,000	PNW Research Station - Corvallis Forestry Sciences Lab	Funding for Silver Fire Proposal
	39,000	PNW Research Station - Corvallis Forestry Sciences Lab	Funding for JVA Extension to cover 1 year for Todd Schroeder
	5,000	Remote Sensing Application Center	Support for National Scale Biomass Effort

<b>Unit</b>	<b>Amount</b>	<b>Recipient</b>	<b>Purpose</b>
<b>Pacific Northwest FIA (cont.)</b>			
	30,000	Southern Research Station	Support for National PDR Development
	43,252	University of California, Berkeley	Development of a Geo-Referenced Database for the Circa 1919 Vegetation Type Map/ Weislander Inventory Plots
	36,083	University of California, Davis	Digitizing 1930's Era Wieslander Vegetation Type Maps for CA
	29,988	University of Leeds (UK)	Biodiversity Analyses of Southeast Alaska Inventory Data
	30,908	University of Montana	Forest Market Census and Analysis of CA and OR
	3,194	USDI National Park Service, Mt. Rainier	Ozone Injury Monitoring at Mt. Rainier National Park
	3,600	Washington State Department of Natural Res.	Ozone Monitoring in Washington State
	16,000	Oregon Department of Forestry	Ozone Monitoring in Oregon State
	56,000	David Evans & Associates	Ozone Monitoring & QA
	1,650,000	Maritime Marine	Boat/Helicopter 2-Year Contract
	<b>\$2,039,788</b>	<b>Subtotal, Pacific Northwest FIA</b>	
<b>Fort Collins FIA</b>			
	\$6,693	Colorado State University	Monitoring Symposium
	<b>\$6,693</b>	<b>Subtotal, Fort Collins FIA</b>	
<b>Southern FIA</b>			
	\$542,768	Alabama Forestry Commission	Annual Inventory
	289,880	Arkansas Forestry Commission	Annual Inventory
	458,235	Florida Dept. of Agric. & Consumer Services	Annual Inventory
	599,623	Georgia Forestry Commission	Annual Inventory
	364,433	Kentucky Division of Forestry	Annual Inventory
	388,973	Louisiana Department of Agric. & Forestry	Annual Inventory
	224,910	Mississippi State University	Large area forest inventory
	180,000	National Council for Air and Stream Improvement, Inc.	Adapting and enhancing a Web tool for Southern FIA data
	65,043	National Council for Air and Stream Improvement, Inc.	Habitat modeling
	7,360	Natureserve (Washington Office)	Prototype algorithm
	342,479	North Carolina Division of Forest Resources	Annual Inventory
	5,000	Redcastle Resources (Washington Office)	National biomass
	340,240	South Carolina Forestry Commission	Annual Inventory
	322,958	Tennessee Department of Agriculture	Annual Inventory
	641,755	Texas Forest Service	Annual Inventory
	147,996	University of Georgia	Web-based map and GIS
	35,904	University of Tennessee	Programmer Assistance

<b>Unit</b>	<b>Amount</b>	<b>Recipient</b>	<b>Purpose</b>
<b>Southern FIA (cont.)</b>			
	60,285	VA North Texas Health Care (CASU SRS HQ)	Fred Allen-State Forester liaison
	416,650	Virginia Department of Forestry	Annual Inventory
	31,848	Virginia Polytechnic Institute & State University (SRS HQ)	Sudden Oak Death
	113,000	Cooperative work with SRS-4803 (FHM)	FIA Statistical analyses
	110,000	Cooperative work with SRS-4702	FIA techniques research
	15,000	Cooperative work with RSAC	Remote sensing support
	134,000	Cooperative work with NC-FIA	RPA support
	43,000	Cooperative work with RMRS-FIA	NRIS support
	40,000	Cooperative work with IITF	Puerto Rico inventory support
	25,000	Cooperative work with SRS-Biometrics	Biometrics support for FIA
	<b>\$5,946,340</b>	<b>Subtotal, Southern FIA</b>	
	<b>\$12,183,935</b>	<b>Total Grants and Agreements, All FIA Units</b>	

**Appendix 6. Number and Hours of Significant Consultations by FIA Staff, by Customer Group, Fiscal Year 2003**

Customer Group	Pacific Northwest		Interior West		Southern		North Central		North East		Fort Collins		National Office		Total	
	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.	no.	hrs.
<b>Academic</b>	6	240	9	63	80	170	12	48	59	90	0	0	0	0	166	611
<b>Government</b>	27	886	36	390	134	346	116	464	146	346	0	0	5	44	464	2,476
<b>Industry</b>	2	47	1	1	179	410	31	124	14	39	0	0	0	0	227	621
<b>NGO*</b>	4	127	0	0	40	40	34	136	0	0	0	0	11	74	89	377
<b>NIPF**</b>	1	15	5	7	90	125	2	8	0	0	0	0	0	0	98	155
<b>Media</b>	0	0	0	0	42	47	1	4	7	6	0	0	0	0	50	57
<b>Other</b>	0	0	0	0	25	60	0	0	328	131	0	0	3	26	356	217
<b>TOTAL</b>	<b>40</b>	<b>1,315</b>	<b>51</b>	<b>461</b>	<b>590</b>	<b>1,198</b>	<b>196</b>	<b>784</b>	<b>554</b>	<b>612</b>	<b>0</b>	<b>0</b>	<b>19</b>	<b>144</b>	<b>1,450</b>	<b>4,514</b>

\* NGO = Nongovernmental Organizations

\*\* NIPF = Nonindustrial Private Forest Landowners

**Appendix 7. Land and Forest Area and FIA Annualized Implementation Status by State and Region<sup>1</sup>, 2000-2004**

Reg.	State	Land Area	Forest Area	Annual FIA implemented (forest area)				
				2000	2001	2002	2003	2004 (planned)
		<i>acres</i>				<i>forest acres</i>		
NE	Connecticut	3,101,000	1,859,000				1,859,000	1,859,000
NE	Delaware	1,251,000	383,000					383,000
NE	Maine	19,753,000	17,699,000	17,699,000	17,699,000	17,699,000	17,699,000	17,699,000
NE	Maryland	6,295,000	2,566,000					2,566,000
NE	Massachusetts	5,016,000	3,126,000				3,126,000	3,126,000
NE	New Hampshire	5,740,000	4,818,000			4,818,000	4,818,000	4,818,000
NE	New Jersey	4,748,000	2,132,000					2,132,000
NE	New York	30,223,000	18,432,000			18,432,000	18,432,000	18,432,000
NE	Ohio	26,210,000	7,855,000		7,855,000	7,855,000	7,855,000	7,855,000
NE	Pennsylvania	28,685,000	16,905,000	16,905,000	16,905,000	16,905,000	16,905,000	16,905,000
NE	Rhode Island	668,000	385,000				385,000	385,000
NE	Vermont	5,920,000	4,618,000				4,618,000	4,618,000
NE	West Virginia	15,415,000	12,108,000					12,108,000
NC	Illinois	35,580,000	4,331,000		4,331,000	4,331,000	4,331,000	4,331,000
NC	Indiana	22,957,000	4,501,000	4,501,000	4,501,000	4,501,000	4,501,000	4,501,000
NC	Iowa	35,760,000	2,050,000	2,050,000	2,050,000	2,050,000	2,050,000	2,050,000
NC	Kansas	52,367,000	1,545,000		1,545,000	1,545,000	1,545,000	1,545,000
NC	Michigan	36,359,000	19,281,000	19,281,000	19,281,000	19,281,000	19,281,000	19,281,000
NC	Minnesota	50,955,000	16,680,000	16,680,000	16,680,000	16,680,000	16,680,000	16,680,000
NC	Missouri	44,095,000	13,992,000	13,992,000	13,992,000	13,992,000	13,992,000	13,992,000
NC	Nebraska	49,201,000	947,000		947,000	947,000	947,000	947,000
NC	North Dakota	44,156,000	672,000		672,000	672,000	672,000	672,000
NC	South Dakota	48,574,000	1,619,000		1,619,000	1,619,000	1,619,000	1,619,000
NC	Wisconsin	34,761,000	15,963,000	15,963,000	15,963,000	15,963,000	15,963,000	15,963,000
SRS	Alabama	32,481,000	22,987,000		22,987,000	22,987,000	22,987,000	22,987,000
SRS	Arkansas	33,328,000	18,771,000	18,771,000	18,771,000	18,771,000	18,771,000	18,771,000
SRS	Florida	34,520,000	16,285,000		16,285,000	16,285,000	16,285,000	16,285,000

Reg.	State	Land	Forest	Annual FIA implemented (forest area)				
		Area	Area	2000	2001	2002	2003	2004 (planned)
SRS	Georgia	37,068,000	24,405,000	24,405,000	24,405,000	24,405,000	24,405,000	24,405,000
SRS	Kentucky	25,428,000	12,684,000	12,684,000	12,684,000	12,684,000	12,684,000	12,684,000
SRS	Louisiana	27,883,000	13,812,000	13,812,000	13,812,000	13,812,000	13,812,000	13,812,000
SRS	Mississippi	30,025,000	18,580,000					
SRS	North Carolina	31,180,000	19,302,000				19,302,000	19,302,000
SRS	Oklahoma	43,955,000	7,665,000					
SRS	South Carolina	19,272,000	12,495,000	12,495,000	12,495,000	12,495,000	12,495,000	12,495,000
SRS	Tennessee	26,381,000	14,396,000	14,396,000	14,396,000	14,396,000	14,396,000	14,396,000
SRS	Texas	167,626,000	17,149,000		17,149,000	17,149,000	17,149,000	17,149,000
SRS	Virginia	25,343,000	16,074,000	16,074,000	16,074,000	16,074,000	16,074,000	16,074,000
RMS	Arizona	72,732,000	19,427,000		19,427,000	19,427,000	19,427,000	19,427,000
RMS	Colorado	66,387,000	21,637,000			21,637,000	21,637,000	21,637,000
RMS	Idaho	52,960,000	21,646,000					21,646,000
RMS	Montana	93,157,000	23,293,000				23,293,000	23,293,000
RMS	Nevada	70,276,000	10,204,000					
RMS	New Mexico	77,674,000	16,682,000					
RMS	Utah	52,587,000	15,676,000	15,676,000	15,676,000	15,676,000	15,676,000	15,676,000
RMS	Wyoming	62,147,000	10,995,000					
PNW	Alaska, Coast	39,041,000	13,718,000				13,718,000	13,718,000
PNW	Alaska, Int.	326,000,000	113,151,000					
PNW	California	99,824,000	40,233,000		40,233,000	40,233,000	40,233,000	40,233,000
PNW	Hawaii	4,111,000	1,748,000					
PNW	Oregon	61,442,000	29,651,000	29,651,000	29,651,000	29,651,000	29,651,000	29,651,000
PNW	Washington	42,612,000	21,790,000			21,790,000	21,790,000	21,790,000
<b>U.S.</b>	<b>TOTAL</b>	<b>2,263,230,000</b>	<b>748,923,000</b>	<b>265,035,000</b>	<b>398,085,000</b>	<b>464,762,000</b>	<b>531,063,000</b>	<b>569,898,000</b>
<b>New performance measure, including interior AK and HI&gt;</b>				<b>35%</b>	<b>53%</b>	<b>62%</b>	<b>71%</b>	<b>76%</b>
<b>Old performance measure, excluding interior AK and HI&gt;</b>				<b>42%</b>	<b>63%</b>	<b>73%</b>	<b>84%</b>	<b>90%</b>

<sup>1</sup> Based on 2002 RPA land and forest area estimates by State and States reported as annualized in published FIA Annual Reports



