



SUSTAINING THE FOREST SERVICE

# Increasing Workforce Capacity

to increase the pace and scale of restoration on national forest system lands

Presented to Secretary of Agriculture Sonny Perdue  
July 25, 2019



# About this Report

The National Association of Forest Service Retirees (NAFSR) is dedicated to sustaining the Forest Service mission and adapting to today's and tomorrow's challenges. Consistent with that goal, the organization has produced a series of letters and reports regarding agency culture, budget, and regulatory and administrative reforms which can be viewed at <https://nafsr.org>.

This report focuses on challenges to accomplishing the agency's current initiative to increase the pace and scale of restoration on national forest system lands. While there is a natural tendency to quibble about numbers, it is important for readers to focus on agency trends.

Since the tumultuous 1990s and the historic fire season of 2000, there has been a dramatic shift in workforce composition. This shift has affected the agency's capacity to complete critical restoration work. Addressing the crisis in workforce capacity will require changes in hiring and administrative processes.

NAFSR passionately supports the agency's initiative to increase the pace and scale of restoration on national forest lands. This report is offered to facilitate positive and meaningful change that will enable the world's premier land management agency to successfully implement its restoration program.

## Methodology

NAFSR used both quantitative and qualitative methods in compiling this report. All data regarding mechanical treatment and personnel numbers was obtained directly from the agency.

Information regarding work capacity was generated from a series of field interviews conducted using a standard set of questions. Thirty-three interviews were conducted with representation from every region. Interviewees included district rangers, forest supervisors, staff officers and program managers.

## Conclusions and Recommendations

- Hire, train and mentor employees with the skills sets necessary to increase the pace and scale of forest restoration. Change the overall workforce composition.
- Take immediate action to revamp the hiring process, streamlining procedures, removing all roadblocks and restoring connections with field units. It takes far too long to recruit and hire skilled employees.
- Eliminate administrative burdens that currently take valuable time from personnel charged with managing programs in the field and achieving results on the ground.
- Increase funding to hire new employees, contract work and enter into partnerships needed to increase the pace and scale of forest restoration.
- Delegate authority to field units that currently have responsibility for results, but not the commensurate authorities.
- Implement all actions previously suggested by NAFSR including regulatory and administrative reforms and the 2021 budget initiative. Success can only be achieved through comprehensive reform.



# Work Capacity Data and Analysis

## Introduction

In order to get a clear and more complete perspective of Forest Service workforce capacity, NAFSR reviewed a variety of data sets that displayed information over time. This information, which was provided by the Forest Service, was used to compare the numbers of people, types of skills, levels of funding and levels of vegetative treatment over the past decades so that trends could be identified.

The data displayed in this section complements and supports information obtained from employee interviews. It also supports NAFSR's hypothesis that the Forest Service does not presently have workforce capacity to meet national or local priorities for accelerating restoration projects.

In analyses like these, there is a tendency to disagree about the exact precision of the numbers. Absolute numbers are not a critical part of the questions or answers presented in this report. Rather, the answers to the workforce capacity questions are found in the trend lines generated using the data, and the stories from field interviewees.

In this section of the report, graphs and tables display information for resource programs critical to accomplishing forest restoration work. Each figure clearly shows major trends for these resource areas. Some corresponding narrative is provided to provide context.

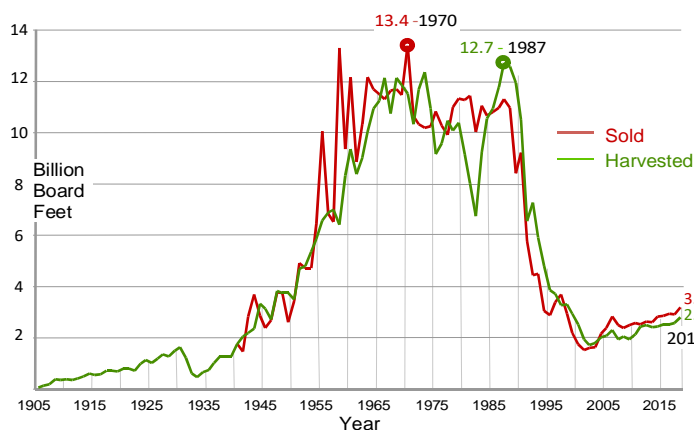
## Analysis of Forest Management

### *A History of Mechanical Vegetation Treatments*

The Forest Service is a multi-faceted agency established by President Theodore Roosevelt in 1905 to manage the lands for multiple uses including wood for timber and fuel, drinking water, forage, wildlife habitat and recreation. The agency's mission is to sustain the health, diversity and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

For decades the agency's primary forest management tool was timber harvest; therefore, it is important to look at the harvest trends over the decades to understand the evolution of vegetation treatments.

**Figure 1 – Timber Sold and Harvested 1905-2017**



The Forest Service has treated fuels mechanically since 1905. The number of acres harvested peaked in 1987 when more than 12.7 BBF were harvested, treating roughly 802,000 acres.

Mechanical harvest dropped dramatically in the early 1990s as social, economic, and ecologic factors converged. Litigation also increased the complexity of NEPA analyses.

Harvest levels have been relatively stable from the mid-2000s to present. If the agency hopes to accomplish ambitious restoration goals, there must be a sharp uptick in this trend line.

## *Fire Shapes Management and Policy*

The Forest Service has been managing wildland fires on national forests and grasslands for more than 100 years. According to the National Interagency Center’s website, wildfires spread across vast acreages in the 1920s, 30s and 40s, with the most acres burned occurring in 1930 when fires burned an estimated 52 million acres in the United States.

In response, the Forest Service adopted new aggressive firefighting policies and invested in research and technology. The agency was successful in reducing the number of acres burned by aggressively attacking new fires; building capacity; developing an infrastructure of roads, trails and lookout towers; incorporating the aerial delivery of firefighters and retardant; and enacting proactive fire prevention campaigns. Research and the resulting models enabled fire managers to further improve suppression strategies.



There was a noticeable decrease in the acreage burned annually in the 1950s. By 1955, fire spread was limited to slightly more than eight million acres, a reduction of roughly 85%. The trend of smaller fires held steady until about 1994 when fires scorched more than four million acres. The intense and costly fire season of 2000 caught the nation’s attention and prompted the Administration to mandate the National Fire Plan to reduce fire impacts on rural communities and assure sufficient firefighting capacity into the future. Congress funded the ambitious plan which had unintended and profound impacts on the composition of the agency’s budget and workforce.

Sensing the need for further action, the Administration supported the Healthy Forests Initiative in 2002 and directed the Departments of Agriculture and Interior, and the Council on Environmental Quality to improve regulatory processes to ensure more timely decisions, greater efficiency, and better results in reducing the risk of catastrophic wildfires. The central legislative component was the Healthy Forests Restoration Act of 2003 which Congress passed with bipartisan support. The legislation contained provisions intended to expedite the preparation and implementation of hazardous fuels reduction projects on federal lands.

As large, destructive fires continued to be the norm, Congress acted again, passing the Federal Land Assistance, Management and Enhancement Act (FLAME) Act in 2009. This legislation required the development of a national plan, which came to be known as the National Cohesive Wildland Fire Management Strategy. The strategy has four components: restore, maintain, adapt and respond.

Policies, laws, strategies and resources haven’t significantly reduced the impacts of wildland fires which burned across nearly 8.8 million acres in 2018. With 80 million acres identified as “at risk” of catastrophic wildfire, the Forest Service will need to use every management tool in its arsenal to address the management challenges posed by fire. These include prescribed burning, timber sales, stewardship contracts, managed natural wildfire ignitions, herbicides and noncommercial mechanical fuel treatments. NAFSR is convinced the Forest Service is not funded or staffed adequately to meet this challenge.

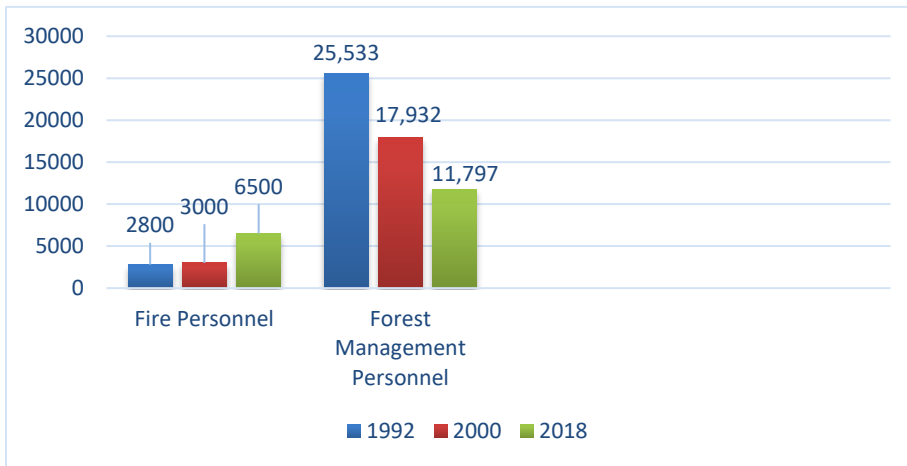
*“An increasing percentage of the Agency’s resources have been spent each year to provide for wildfire suppression, resulting in fewer resources available for other management activities such as restoration. In 1995, wildland fire management funding made up 16 percent of the Forest Service’s annual spending, compared to 57 percent in 2018. Along with a shift in funding there has been a corresponding shift in staff from non-fire to fire programs, with a 39 percent reduction in all non-fire personnel since 1995.”*

-Federal Register / Vol 84, No 114 / Thursday, June 13, 2019 / Proposed Rules

# Analysis of Personnel Trends in Forest Management and Fire

## Personnel Trends 1992-2018

Figure 2 – Comparison of Forest Management and Fire Personnel 1992-2018

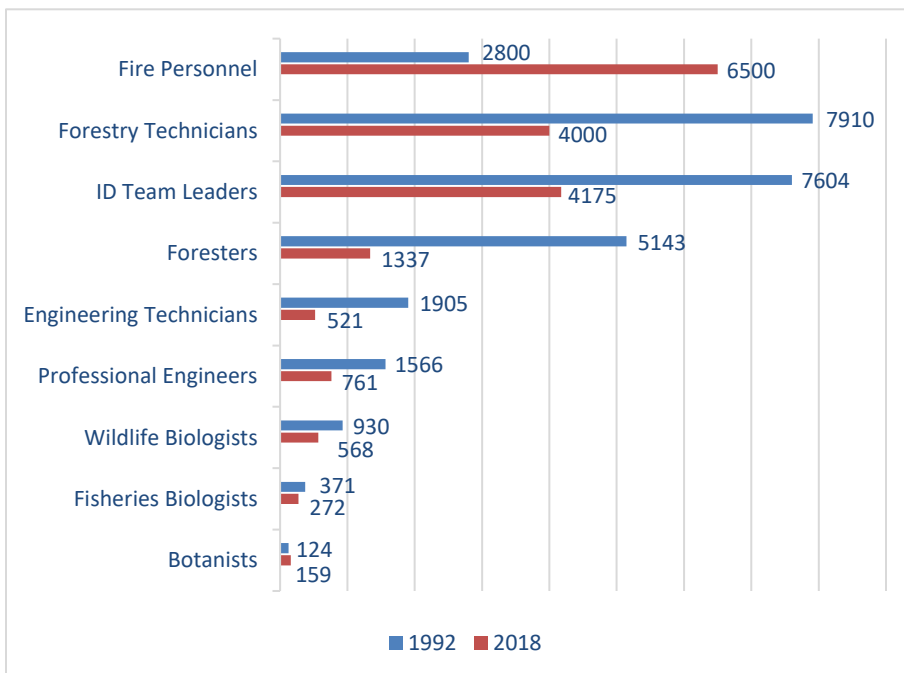


Implementation of the National Fire Plan in 2001 facilitated a massive change in the overall composition of the agency’s workforce.

According to statistics provided by the Forest Service, the number of fire personnel has risen 132 percent since 1992. At the same time, the ranks of specialists needed to support restoration projects--including prescribed fire and silvicultural treatments--decreased by 54 percent.

Over the past years the agency has repeatedly stated its intent to accelerate the pace and scale of restoration on national forest lands to improve forest health. Recently, this goal was codified in the December 21, 2018 Executive Order 13855 entitled “Promoting Active Management of America’s Forests, Rangelands, and Other Federal Lands to Improve Conditions and Reduce Wildfire Risk.” After analyzing Forest Service workforce trends, NAFSR has concluded these initiatives simply cannot succeed without a major change in the workforce composition.

Figure 3 – Comparison of Forest Management and Fire Personnel by Job Series 1992-2018



For purposes of this analysis, NAFSR defined critical non-fire support personnel to be:

- Foresters
- Forestry Technicians
- Professional Engineers
- Engineering Technicians
- Interdisciplinary Team Leaders
- Wildlife Biologists
- Fisheries Biologists
- Botanists

Other than fire, the only discipline to increase in numbers is botany, though there are few in the agency and increase was slight.

Interviews indicate a further need for additional expertise in the fields of contracting, archaeology, and recreation.

## Personnel Changes by the Numbers

Figure 4 – Changes in Skills by Number and Percentage<sup>1</sup>

Skill	FY 1992	FY 2018	Loss/Gain	Percentage
Forester	5143	1337	-3806	-74%
Engineering Technician	1905	525	-1380	-72%
Professional Engineer	1566	761	-805	-51%
Forestry Technician	7910	4000	-3910	-49%
Interdisciplinary Team Leader	7604	4175	-3429	-45%
Wildlife Biologist	930	568	-362	-38%
Fisheries Biologist	371	272	-99	-27%
Botanist	124	159	+35	+28%
Fire	2800	6500	+3700	+132%

For those who prefer quantitative analysis, this table provides the actual numbers and percentages associated with the change in workforce composition over the last 26 years. The most dramatic reductions in personnel have occurred in the disciplines of forestry and engineering. These skills must be restored if the agency is going to meet established restoration goals.

NAFSR understands that workforce composition should change over time as agency priorities change. Workforce numbers will also fluctuate with changing budgets and unit configurations, and as efficiencies are gained through the development and use of new technologies. A change this dramatic, however, demands the immediate attention of agency leadership.

While the numbers tell part an important part of the work capacity story, employees have additional analysis that should be strongly considered. The second half of this report, explores the real-life perceptions of employees in the field.



<sup>1</sup> National Finance Center personnel counts 4/24/19

# Summary of Field Interviews from All Regions

## Overview

As part of an ongoing discussion with USDA Secretary Sonny Perdue, NAFSR volunteered to take a close look at the workforce capacity of the Forest Service, in terms of today's challenges, to accomplish both new and established priorities.

The USDA Forest Service manages 193 million acres of national forests and grasslands. These acres are an absolutely critical part of America's infrastructure. Every acre is being managed at some level.

The national and local needs and priorities, plus many other factors, define what type and level of management is applied on every acre, from Wilderness, to dispersed recreation, to active vegetative management with the primary goal of forest restoration.

As shown in previous graphs, the overall make up and numbers of skills and skill levels has changed dramatically over the years. When combined with reduced budgets, reorganizations, the increase of centralized decision-making, and accelerated fire suppression costs, NAFSR believes that the agency cannot fulfill its management responsibilities in most of the natural resource areas unless major changes are made.

To test this assumption, NAFSR representatives conducted lengthy interviews with 33 employees in all nine regions. Interviewees included forest supervisors, deputy forest supervisors, district rangers, and staff officers stationed in nine regions. The questions covered five themes: leadership, culture and direction; workforce capacity; consolidation and zoning; on-the-ground management; and partnerships and cross-boundary work. It was somewhat amazing that the problems and viewpoints in the field were remarkably similar throughout the country. They highlighted very similar management problems on every unit. As a group, they had serious doubts that they could accomplish their responsibilities over the long term.

The next section of this report summarizes the field level responses from the interviews by category. All questions from the interviews were the same and were not adjusted for differences in geography, politics, or leadership. One can disagree with the interview results; however, they are very real opinions from those managers closest to the ground who have the responsibility for results, but often do not have the necessary authorities to get the work done.

In the responses, there was one over-riding theme: **Important management priorities in most of the resource areas will not be accomplished with the current mix and level of skills in today's Forest Service.**

Please take time to read and think about the interview synopsis.



# Synopsis of Interviews from Nine Regions

## *Leadership, Culture and Direction*

### **Working Well**

- Morale is fairly good
- People like their jobs
- Local support is mixed across the country
- Quality of new personnel is good if adequate leadership is provided
- Processes are improving and becoming more efficient



### **Concerns**

- Units are below critical mass in terms of people and skills and cannot meet expectations
- Administrative requirements are deeply affecting the productivity of all field personnel
- New personnel are inexperienced, affecting decisions and results
- Districts are responsible for results, but lack the authority necessary to achieve them
- Priorities are clear but units are not confident they can be achieved
- Technical training is lacking in timber, engineering, wildlife and fisheries
- Many zoned personnel are spread so thin they can't successfully complete priority work.

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## *Workforce Capacity*

### **Working Well**

- Fire organization

### **Concerns**

- Administrative processes and centralized services are not user friendly
- The most “broken” administrative practice is the hiring process, which takes too long to complete and removes many approvals and decisions from the affected field units. This applies to both seasonal and permanent hiring procedures.
- Following the “process” often appears to be more important than achieving desired results
- With the exception of fire, all programs are suffering due to a lack of skills, personnel and funding
- Those providing centralized services do not seem to understand or care about customers in the field
- The perceived focus appears to be national data needs, not achieving work on the ground





## Consolidation and Zoning

### Working Well:

- It is estimated that 15-50% of the work is performed by partners, volunteers and community groups



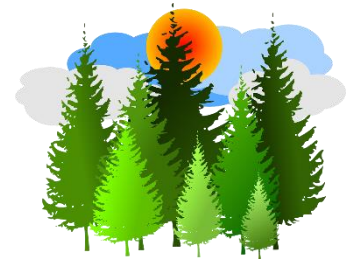
### Concerns:

- Some units believe they are zoned to the point of failure
  - Large land bases, increased travel times, and lack of connection with communities is rendering many zoned units ineffective as they are not able to complete critical work and maintain essential relationships
  - To increase the pace and scale of work, units will require a commensurate increase in critical skills including heritage, timber, engineering, soils, NEPA leadership, non-fire forestry technicians, contracting officer representatives, wildlife biologists and local partnership coordinators
  - There is broad agreement that the Forest Service is abdicating its land stewardship responsibilities in the program areas of recreation, trails and special use program management<sup>2</sup>
  - Forest supervisors and district rangers are very concerned about the continued erosion of funding and skills in the above-listed programs
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## On the Ground Management

### Working Well

- The Environmental Analysis and Decision Making (EADM) initiative is positive, and units have high expectations it will bring about needed change
  - The level of understanding about and status of the current effort varies widely
  - It would be a monumental disaster to morale if this effort failed



### Concerns

- The necessary skill sets and funding are simply not available to get the work done
- The recreation program funding has dropped extensively for a very long time and the Forest Service cannot provide for the needs and expectations of the booming tourism market
- Process and administrative burdens exist in hiring, contracting, procurement and grants and agreements
- There is a strong disconnect between those leaders who want to get work done and those leaders who are responsible for the administrative functions necessary to get that work done. This is a universal frustration in the field.

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<sup>2</sup> Though not the focus of this report, recreation and special uses have also been adversely affected by changes in the workforce, processes and funding. Given that support for the agency is strongly tied to the public's ability to use national forest system lands, this is a substantial issue with significant ramifications that demands attention from agency leadership.

## Partnerships

### Working Well

- Good Neighbor Authority (GNA) is a valuable asset and helpful tool in some locations. Its use depends on the individual state's interest, capacity and funding.



### Concerns

- Overall, the GNA program is limited by funding and certain authorities not being granted to the states
- The limiting factor to expansion of GNA, or shared stewardship, is people, skills and funding to do the job
- Field units do not have a clear understanding of what approach is planned without additional funding for the counties or states to fully participate





## NAFSR Conclusions and Recommendations

When examining the personnel data in conjunction with interview results<sup>3</sup>, **it is readily apparent that the Forest Service cannot meet national direction to increase the pace and scale of Forest restoration with its current workforce.**

The key recommendations for addressing this need are as follows:

1. Hire, train and mentor employees with the skills sets necessary to increase the pace and scale of forest restoration. Change the overall workforce composition.
2. Take immediate action to revamp the hiring process, streamlining procedures, removing all roadblocks and restoring connections with field units. It takes far too long to recruit and hire skilled employees.
3. Eliminate administrative burdens that currently take valuable time from personnel charged with managing programs in the field and achieving results on the ground.
4. Increase funding to hire new employees, contract work and enter into partnerships needed to increase the pace and scale of forest restoration.
5. Delegate authority to field units that currently have responsibility for results, but not the commensurate authorities.
6. Implement all actions previously suggested by NAFSR including administrative reforms and the 2021 budget initiative submitted to the Secretary of Agriculture. Success can only be achieved through comprehensive reform.

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<sup>3</sup> All data, graphs and complete interview results are available directly from NAFSR upon request.