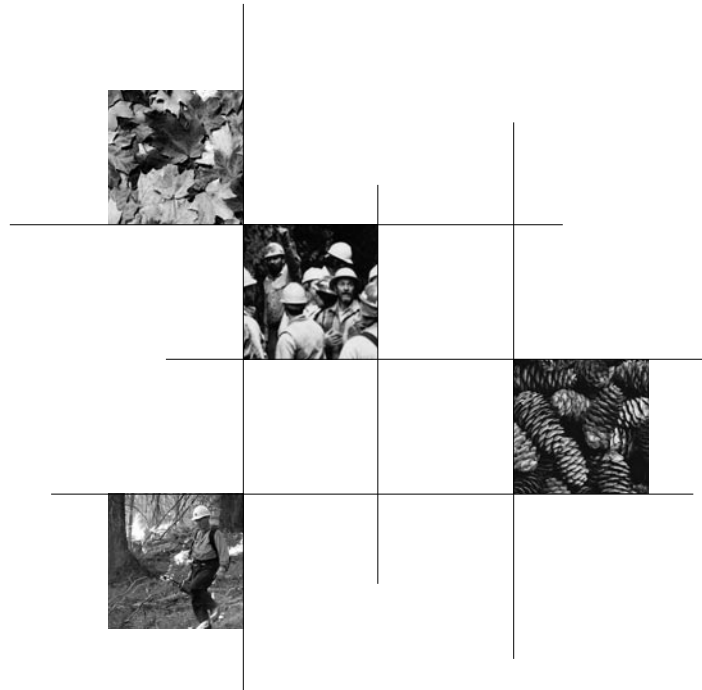


EFFECTS

THE BUSINESS AND EMPLOYMENT EFFECTS OF THE NATIONAL FIRE PLAN IN OREGON AND WASHINGTON IN 2001



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Executive Summary

The National Fire Plan (NFP) seeks to increase fire suppression capabilities, reduce fire hazards, restore fire-adapted ecosystems, and create economic benefit for rural communities and businesses. In Title IV of the 2001 Department of Interior Appropriations Bill, Congress also authorized the Departments of Interior and Agriculture (Forest Service) to consider benefit to rural communities when awarding contracts to reduce fire hazard. This report examines how the direction to consider local benefit in the National Fire Plan appropriation language may be affecting rural communities and other entities that provide services to the federal land management agencies as contractors and federal employees.

Project Scope

We examined National Fire Plan procurement contract data and information about staff hired using NFP funds. The analysis uses data collected by the Forest Service, Bureau of Land Management (BLM), and US Fish and Wildlife Service for Oregon and Washington for fiscal year (FY) 2001. In general, the study does not consider funds granted to nonprofits or state and local governments, nor does it consider Fire Plan accomplishments achieved using in house staff.

Summary

During the first year of the National Fire Plan, Congress gave \$242.5 million to the Forest Service and BLM in Oregon and Washington. The two agencies used \$25.1 million of these funds to procure goods and services such as thinning, brushing, facilities construction, prescribed burning, etc. The majority of contracted fire hazard reduction and restoration work occurred in southern and eastern Oregon, but contractors located in the cities along Interstate 5 captured much of the contract value, especially the larger contracts.

Our analysis shows that the Forest Service appears to have made use of the local preference language of the Title IV authority, as local contractors captured proportionately more of the ecosystem management (i.e. forest work including fire hazard reduction) Fire Plan contracts than was the case with contracts funded through normal channels. For the BLM, the results were mixed. At the county level, local contractors tended to capture more Fire Plan contracts than non-Fire Plan contracts, but some of the differences between Fire Plan and regularly funded contracts did not hold up under statistical analysis. This suggests that the difference between Fire Plan and non-Fire Plan funded contracts was less pronounced for the BLM than the Forest Service.

The opportunity to provide local preference via the Title IV authority tended to benefit HUB zone contractors as well. HUB zone contractors—those certified to be located in poor communities—captured proportionately more Fire Plan contract dollars than non-Fire Plan contract dollars. However, 8(a) contractors—certified women and minority contractors—captured proportionately fewer Forest Service Fire Plan contract dollars and proportionately more BLM Fire Plan contract dollars.

In FY 2001, the National Fire Plan created as many as 230 new, permanent Forest Service jobs with benefits, providing considerable local opportunities for rural communities, especially in eastern Oregon and Washington. An estimated one-half to two-thirds of the people hired did not relocate for their job. For the poorest communities in rural Oregon, most jobs paid above the local median wage, but for the wealthier communities, jobs often paid below median wage. Many of these jobs paid some benefits. Moreover, at least 99% of the fire fighting crewmember jobs paid more than the minimum wage.

Contracting Results

During FY 2001:

- Using National Fire Plan funds, the Forest Service procured over \$10.3 million of goods and services and the BLM procured over \$14.8 million in Oregon and Washington. The majority of this work occurred in eastern and southern Oregon.
- Of this combined \$25.1 million, \$8.2 million was used for thinning work.
- Contractors in 7 cities (Merlin, Portland, Eugene, Medford, Bend, Port Orchard, and Connell) captured 60% of the contract dollars. This mirrors patterns of contract capture from previous years.
- All else being equal, Forest Service contractors' headquarters were 58 miles closer to the national forest when performing Fire Plan funded ecosystem management contracts than was the case with regularly funded contracts for similar types of work.
- HUB zone contractors captured 16% of regularly funded Forest Service contract value and 19% of the Fire Plan contract value involving ecosystem management work. By contrast, 8(a) contractors captured 12% of regularly funded contract value and 7% of Fire Plan contract value.
- For the BLM in eastern Oregon, contractors performing Fire Plan funded work had headquarters 84 miles closer, on average, to the county where the work occurred than was the case for regularly funded contracts; the reverse was true in western Oregon.

Hiring Results

During FY 2001:

- The Forest Service hired 878 firefighting staff using NFP funds. Of those, over 40% were engine crewmembers and 30% were hand firefighting crewmembers.
- Of the 878 jobs, nearly 70% of them were located in eastern Oregon and Washington.
- Of these Forest Service jobs, 61% were temporary jobs, 26% permanent, and 13% promotions for existing Forest Service employees.
- In Oregon, approximately 40% of the jobs paid above the local median wage (not including overtime or hazard pay). At least 99% of them paid above the minimum wage for contract fire suppression crews.
- The Fish and Wildlife Service hired 86 fire staff members in FY 2001. Ninety-five percent of them were paid above the federal minimum wage for contract crews and the wages compared favorably to local median wages.

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Introduction

The National Fire Plan (NFP) is a ten-year, comprehensive plan to reduce fire hazard and improve fire suppression capacity. It was created in response to the severe wildfires that occurred across the US during the summer of 2000 and was first funded for fiscal year (FY) 2001. It is an interagency effort between the Departments of Interior and Agriculture that seeks to increase fire suppression capabilities, reduce fire hazards, restore fire-adapted ecosystems, and create economic benefit for rural communities and businesses. For FY 2001, Congress provided \$1.8 billion dollars in funding and directed the Departments of Interior and Agriculture to improve fire suppression capacity, build local capacity to reduce fire hazard, and develop markets for the byproducts of fire hazard reduction.

Congress also authorized these agencies to consider benefit to rural communities when awarding contracts to reduce fire hazard. Specifically, Title IV of the FY 2001 Interior Appropriations legislation gave the Department of Interior (Bureau of Land Management (BLM), Bureau of Indian Affairs, Fish and Wildlife Service, and National Park Service) and the United States Department of Agriculture (USDA) Forest Service the authority to offer preference to local firms and businesses that hired and trained local workers when awarding contracts funded with NFP funds for fire hazard reduction. This language allowed these agencies to direct procurement contracts to local private, nonprofit, and cooperative entities, and small and micro-businesses that “will hire and train a significant percentage of local people to complete such contracts.” (See Appendix 1 for the legislative language.)

In addition, in 1998, the governor of Oregon, the Forest Service’s Pacific Northwest regional forester, and the Oregon/Washington BLM state director signed a

memorandum of understanding directing “all line officers in both Oregon and Washington to support the proposed goal that by year 2002 all procurement and management actions will incorporate local, social, and economic needs” (Kitzhaber et al. 1998 as quoted in USDA Forest Service 2001:14).

This report examines how the direction to consider local benefit in the National Fire Plan authorization language and the regional memorandum may be affecting rural communities and other groups that are involved with the federal land management agencies in procurement contracting. It is important to understand the effect of this direction because some people see ecosystem management services contracting as an economic opportunity for rural communities that are struggling to recover from the decline of public lands logging and the consolidation of milling capacity. Others are concerned that this new direction might take jobs away from minority forest workers who live in more urbanized areas.

In Oregon and Washington, the current service-contracting market for ecosystem management services (thinning, road restoration, wildlife habitat improvements, noxious weed treatment, etc.) contains some small firms that work close to home in rural communities performing equipment-intensive work. It also includes larger firms located along the Interstate 5 corridor that work across Oregon and Washington. Businesses located along the Interstate 5 corridor have typically captured labor-intensive work such as precommercial hand thinning, brush piling, etc. (Moseley and Shankle 2001).

Purpose

This report considers how procurement contracting and agency hiring of new staff as a result of the FY 2001 National Fire Plan funds and the local preference language of Title IV may be affecting rural communities in Oregon and Washington and other contractors and workers who have historically been awarded federal procurement contracts to perform ecosystem management services. Generally, this monitoring effort asks:

- What are the employment and contracting-related economic effects of the NFP?
- How are these effects distributed?
- How did the local preference language of the Title IV authority affect this distribution?

Our assumption is that, if the Title IV authority were effective in encouraging the agencies to consider the benefit to rural communities, then we would see a difference in the location of contracting firms that have been awarded NFP contracts. In particular, we would expect contractors located closer to the work site to get proportionately more NFP contracts than is the case with regularly funded contracting.

The five federal agencies involved in the NFP have already reported on many of the accomplishments during the first year of the NFP (USDA and United States Department of Interior (USDI) 2002; Government Printing Office 2002). Our report complements the Pacific Northwest and national reports by considering the effects of the NFP on employment and other economic opportunities for rural communities in Oregon and Washington.

Method and Scope

We examined National Fire Plan procurement data and information about staff hired using NFP funds in Oregon and Washington. We obtained procurement information from the Forest Service and the BLM for the first year of the National Fire Plan, FY 2001. The procurement data came from the National Procurement Data Center's SF-279 form that all federal agencies are required to complete for each procurement contract valued over \$25,000. In addition, we acquired contract registers (sometimes called acquisition registers or acquisition logs) from each national forest in Oregon and Washington to gather information about contracts valued between \$2,500 and \$25,000 and get more detailed descriptions of contracts valued over \$25,000.

To understand the effects of the local preference language of the Title IV authority, we focused on those contracts that were related to ecosystem management—forest and watershed restoration and maintenance, fire hazard reduction, and rehabilitation (Cf. Beltram, et al. 2001). For example, these work included thinning, brushing, piling, noxious weed control, prescribed burning, biological surveying, snag creation, riparian restoration, and tree planting. This enabled us to create comparable cases between Fire Plan and non-Fire Plan contracts, consider the contracts to which the Title IV authority applied, and take advantage of some previous analysis (Moseley and Shankle 2001).

For the Forest Service, we calculated the distance between the contractor headquarters and national forest where work was performed using ESRI's ArcView 3.2 software. The national forest was the smallest administrative unit available for consistent analysis. To minimize error incurred by using this large scale, distance was calculated by averaging the distance between the contractor's headquarters and 25 randomly generated points within the national forest

boundary, measured in air miles. Unlike the Forest Service, the BLM tracks work location by county rather than by management area. Therefore, we used the same approach to calculate distance as with the Forest Service, but substituted counties for national forests.

Although distances can be calculated along roads, it was not a practical approach for this study because the available data did not permit pinpointing work sites.

To understand what affects the distance that contractors travel, we created six sets of variables: award amount, urbanity, region where work occurred, work types, type of contractor (HUB zone or 8(a)), and funding source (Fire Plan or non-Fire Plan).

Similar to the contractor-work location distance calculations, we calculated the urbanity variable as the average distance from 25 random points within each national forest or county to the nearest city with 50,000 or more inhabitants. The population size of 50,000 was chosen to match the census Bureau's definition of a metropolitan area (US Bureau of the Census, 2001).

For the Forest Service analysis, we divided each state into four ecological regions: coastal (Siuslaw, Siskiyou, and Olympic National Forests); western Cascades (Rogue River, Umpqua, Willamette, Mount Hood, Gifford Pinchot, and Mount Baker-Snoqualmie National Forests); eastern Cascades (Fremont, Winema, Deschutes, Wenatchee, Okanogan, and Colville National Forests); and the Blue Mountains (Ochoco, Malheur, Wallowa Whitman, and Umatilla National Forests). For the BLM, we separated each state into western and eastern regions, divided by the crest of the Cascades. The western region consists of the wetter one-third of the states west of the Cascades, and the eastern region includes the more arid two-thirds of the states east of the Cascades.

The work type variables were created using a survey where we asked key informants to rank the skill level and labor-equipment intensity of 180 different work tasks on a scale of 1 to 5. Each contract was coded with a skill level and a labor-equipment intensity by averaging the survey responses.

For the type of contractor variable, we determined whether the contractor was designated as a HUB zone or 8(a) contractor by looking up each contractor in Pro-Net, a Small Business Administration database that includes all HUB zone and 8(a) contractors (Small Business Administration 2002).

To evaluate the effects of NFP funds on employment opportunities, we obtained hiring information from the Forest Service and the US Fish and Wildlife Service. The Forest Service data included the position, grade, duty station, race, gender, and zip code of residents at the time of hiring. The Fish and Wildlife Service data included the same information, except for the zip code of residence at the time of hiring and race and national origin information.

This study does not consider grants to nonprofit organizations or government agencies because we generally did not have data about these grants. The exception is that the BLM procurement dataset does include a few contracts with state and local governments and nonprofit organizations.¹ This report does not consider Fire Plan accomplishments achieved using in house federal staff. The procurement data do not include information about fire suppression contracting, and the analysis does not cover timber sales, although the NFP might have funded the preparation of some timber sales. As such, the study considers a limited but important part of the potential benefit of the National Fire Plan by looking at the economic effects of procurement and hiring.

¹ Only one Fire Plan contract in the dataset was awarded to a government entity.

Procurement Contracting

Type and Amount of Work

In FY 2001, the Pacific Northwest Region of the Forest Service received \$184.7 million of National Fire Plan funds (see Table 1). The Oregon and Washington state offices of the BLM together received \$57.8 million. The two agencies spent these funds on new suppression staff, equipment and buildings, grants to agencies and nonprofit organizations, and the planning and implementation of fuel hazard reduction projects in Oregon and Washington (USDA and USDI 2002; General Printing Office 2002). The Forest Service and BLM spent \$20.9 million and \$20.8 million, respectively, on hazardous fuel reduction. Some of this work was completed with in house crews and equipment, whereas other work was completed via contracts with independent businesses. These fuel reduction projects, along with those of the Bureau of Indian Affairs, National Park Service, and Fish and Wildlife Service, are shown in Fig. 1. Of the total \$242.5 million in NFP funds allocated to the Forest Service and BLM in Oregon and Washington, the two agencies spent \$25.1 million or 10% procuring goods and services (other than fire suppression services).

Another way to measure the importance of the \$25.1 million worth of Fire Plan procurement is to compare it to the total Forest Service and BLM procurement. The \$25.1 million of Fire Plan procurement was about 14% of the total procurement funds in our database.²

Of all the national forests, the Blue Mountains spend the most National Fire Plan money on procurement, whereas less fire-

prone forests, such as the Gifford Pinchot and Mt. Hood National Forests, procured no NFP funded goods or services (see Fig. 2). The bulk of the BLM Fire Plan procurement occurred in Jackson, Klamath, and Lake Counties in southern Oregon (see Fig. 3).

Of the \$25.1 million spent procuring goods and services, the BLM and Forest Service procured about \$8.2 million of thinning, the most common type of hazard reduction. In addition, the two agencies purchased another \$12 million worth of other hazard reduction and postfire rehabilitation services. The remainder of the purchases was to increase fire suppression preparedness, especially through facilities construction (see Appendix 2).

The Forest Service and BLM awarded about 226 contracts related to the NFP in FY 2001, the largest of which was valued at \$1.6 million. Contractors from 55 cities and towns in Oregon and 17 in Washington captured contracts. Contractors from seven of those cities captured 60% of the total NFP contract value (see Appendix 3).

The cities that received the most money were, in order: Merlin, OR; Portland, OR; Port Orchard, WA; Connell, WA; and Medford, OR. Contractors in many other cities across the region received contracts in smaller amounts (see Fig. 2 and Fig. 3). Towns with larger circles on the maps indicate that contractors in these areas received more contract dollars than those towns with smaller circles. There is a large concentration of contractors along the Interstate 5 corridor and a scattering of contractors across the eastern portion of the region.

² The database includes all contracted funds entered into the National Procurement Data Center's SF-279 form for the Forest Service and BLM plus additional contracted funds that appeared on national forest acquisition registers in the Pacific Northwest Region for fiscal year 2001. Fourteen percent is probably an overestimate. Our discussion with procurement technicians and contracting officers suggests that the Fire Plan contracts were more consistently entered into the procurement database than regularly funded procurements.

TABLE 1
National Fire Plan Funds for Oregon and Washington
(USDA Forest Service, Pacific Northwest Region and
USDI Bureau of Land Management, Oregon and Washington)

	National Fire Plan Funds	Hazardous Fuel Reduction	Procurement of Goods& Services
Forest Service	\$184.7 mil	\$20.9 mil	\$10.3 mil
BLM	\$57.8 mil	\$20.8 mil	\$14.8 mil
Total	\$242.5 mil	\$41.7 mil	\$25.1 mil

This pattern of a concentration of contractors along the Interstate 5 corridor repeats earlier results (Moseley and Shankle 2001). However, it is not clear from comparing Fig. 2 and Fig. 3 with Fig. 4, which shows non-Fire Plan contract capture, whether there are any changes in the proportional distribution of NFP compared to non-NFP contracts, except perhaps, the absence of coastal contractors performing Fire Plan contracts. In part, it is difficult to identify differences because there are so many more non-Fire Plan contracts than Fire Plan contracts. This potential variation is of interest because, if the local preference language of Title IV was effectively used, we would expect the contractors that performed NFP work to have headquarters closer to the national forest or BLM district where the work occurred than contractors who performed regularly funded contracts.

Effects of the Title IV Authority

To understand whether the local preference language of the Title IV authority had an effect on the location of contractors hired, we considered whether contractor headquarters were closer to the national forests or BLM districts where the work occurred than was the case for contracts funded through ordinary channels. Admittedly, there are other ways that the Title IV authority might have been used. Distant contractors could have provided benefit to the local community by hiring and training workers who lived

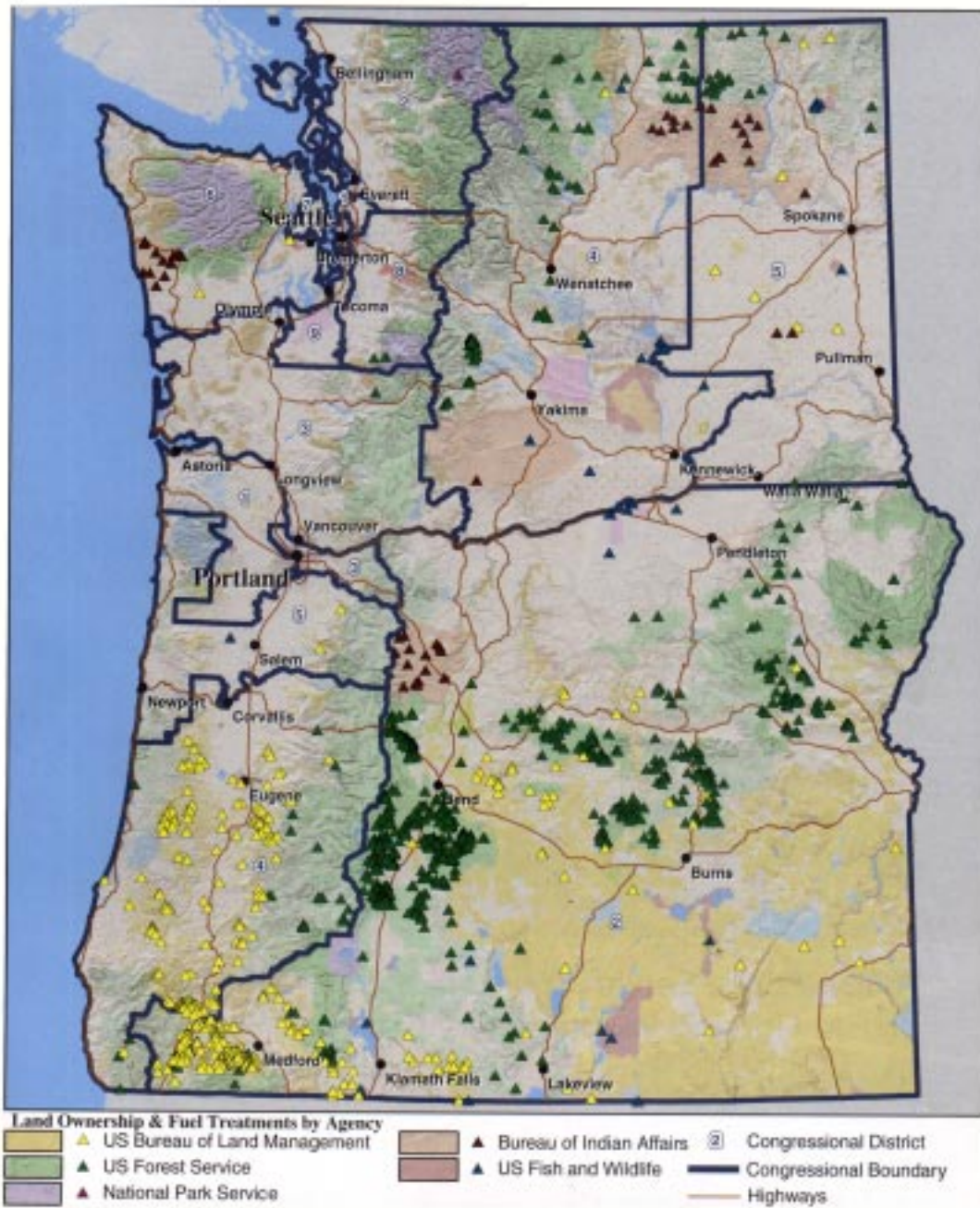
near the work location. We know of at least one case where this occurred. However, data about the residence of contractor employees are not generally collected, so we used contractor headquarters as a reasonable proxy. Because of differences in data collection methods, we had to consider the Forest Service and BLM separately.

Forest Service and the Title IV Authority

When broken down by region, we found that there was a statistically significant difference in the average distance traveled for NFP and regularly funded contracts (see Table 2). In both the Blue Mountains and Eastern Cascades, where there were enough Fire Plan contracts for comparison, the average distance traveled was less for Fire Plan than for regularly funded contracts.

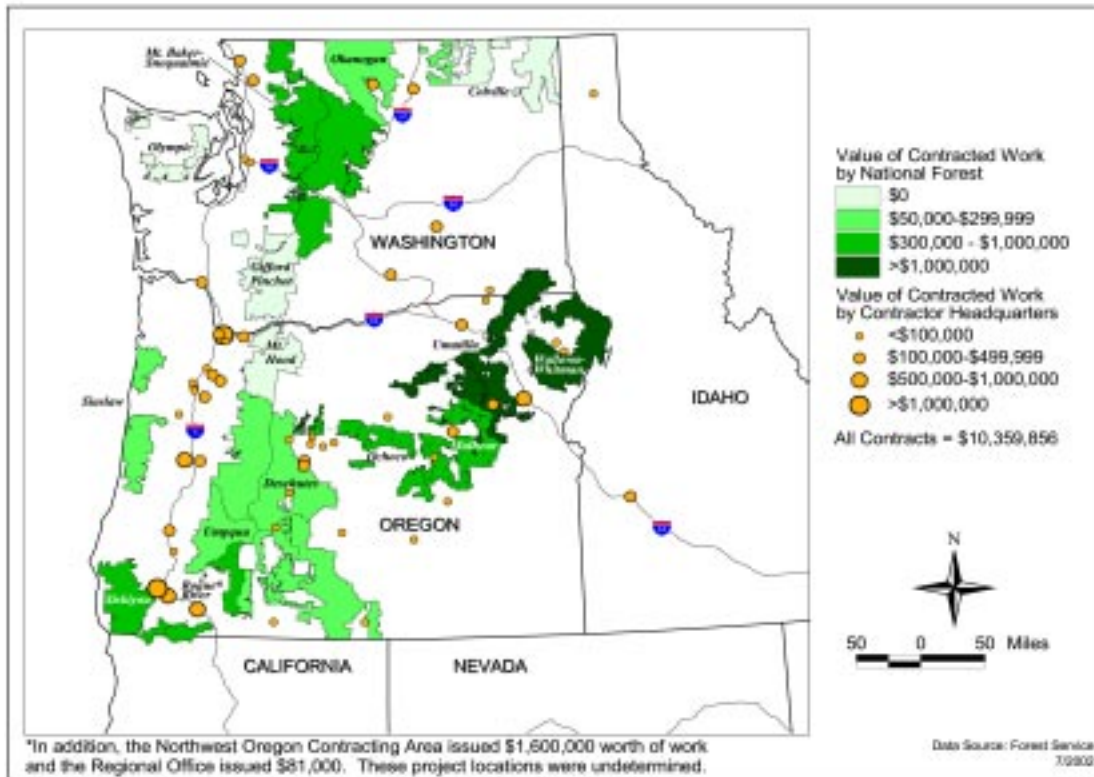
To further this analysis, we performed a regression to control for other factors such as the equipment intensity and skill required to perform the work and the proximity of the work to a major city. In regression tables such as Table 3, the numbers may be thought of as distances measured in air miles. Larger positive numbers mean that contractors travel farther to work under those conditions; negative numbers means that contractors travel shorter distances to work under those conditions. For example, all else being equal, contractors traveled 2.82 air miles farther for each additional \$10,000 in contract value. Likewise, contractors traveled,

Figure 1
 Hazardous Fuel Reduction Projects
 (US Departments of Agriculture and Interior, FY 2001)



Source: Government Printing Office (2002)

FIGURE 2
National Fire Plan Contracted Work and Contractor Headquarters by National Forest (USDA Forest Service, Pacific Northwest Region, FY 2001)



all else being equal, 45.36 air miles further to work in the western Washington Cascades than in the western Oregon Cascades. The asterisks indicate that the relationship is statistically significant.

Contractors traveled further to work in the Blue Mountains and the Washington Eastern Cascades than other regions (see Table 3). In addition, contractors traveled shorter distances to perform equipment-intensive work than labor-intensive work. That is, businesses involved in contracts that required heavy equipment such as backhoes, caterpillars, etc. tended to be located closer to the work site than businesses that performed labor-intensive work such as hand thinning and brush piling. On a scale of 1 to 5, each unit increase in equipment intensity

decreased the expected travel distance by approximately 20 air miles. Thus, we would expect contractors to travel 100 air miles further for the most labor-intensive work than the most equipment-intensive work, all else being equal. The skill level of the work was not shown to be statistically significant, which may be more a result of the poor quality of the skill measure rather than the irrelevance of skill for determining distance traveled between work site and contract headquarters.

The opportunity that came with NFP funding seems to have had an effect on the distance that contractors traveled to perform restoration and rehabilitation work. All else being equal, we found NFP funded contracts to be awarded to a contractor about 58 air

FIGURE 3
National Fire Plan Contracted Work by County of Performance and Contractor Headquarters (USDI Bureau of Land Management, FY 2001)

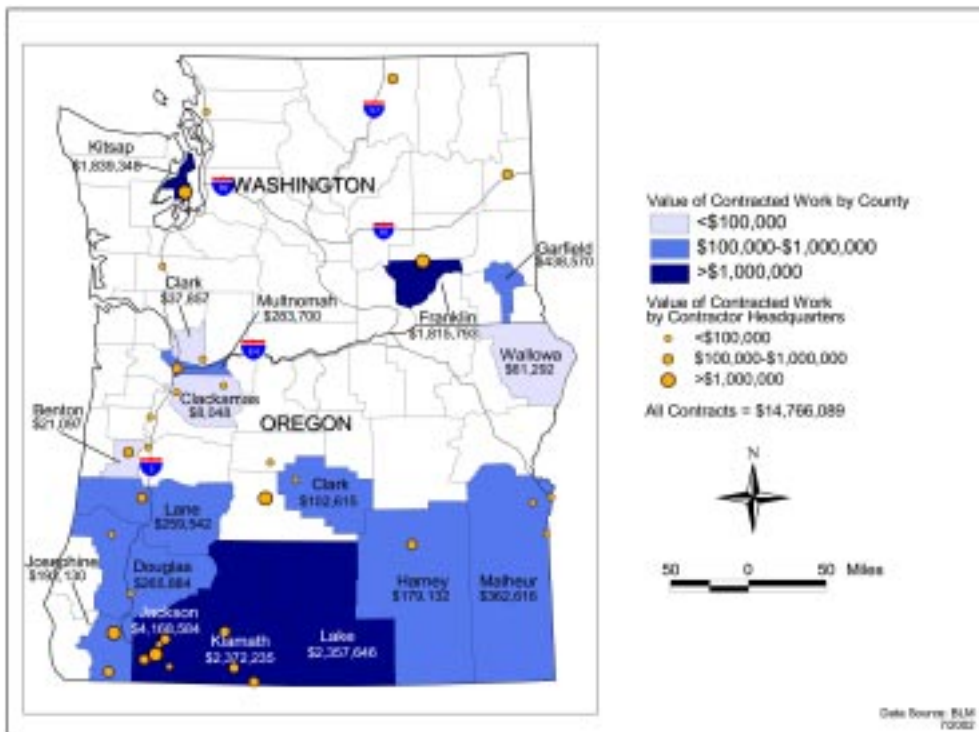


FIGURE 4
Non-Fire Plan Funded Procurement Contracts, by Contractor Headquarters, (USDA Forest Service and USDI BLM, Pacific Northwest Region, FY 2001)

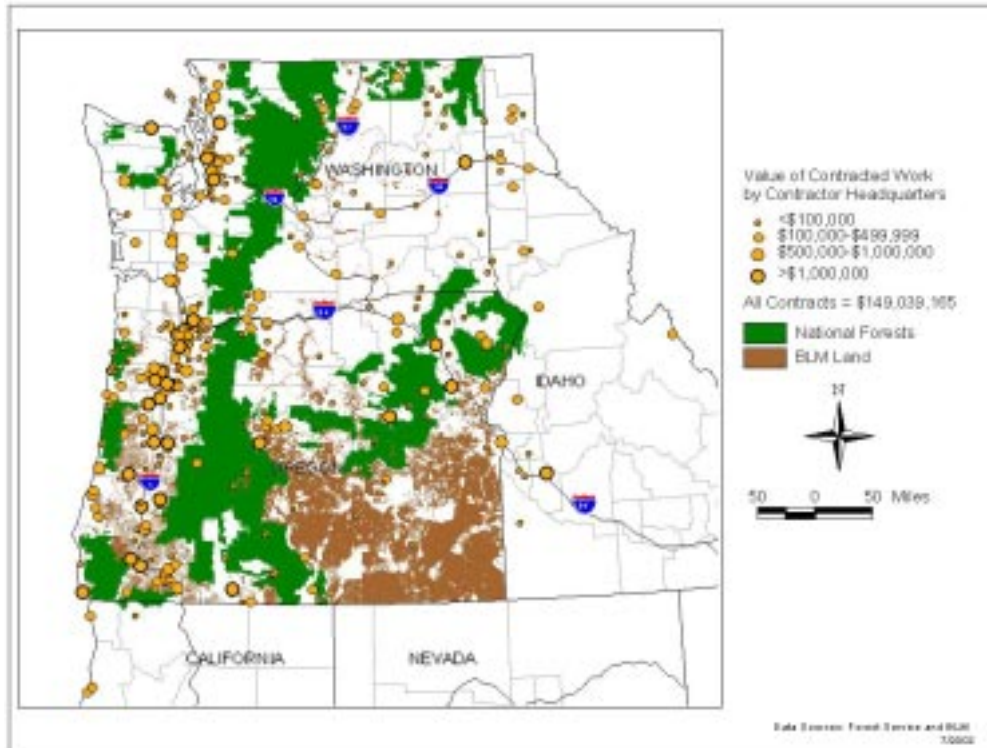


TABLE 2

**Mean Distance Between Work Location and Contractor Headquarters,
Ecosystem Management Services
(USDA Forest Service, Pacific Northwest Region, FY 2001)**

Region	Mean distance (air miles)			N
	Regular Contracts	Fire Plan Contracts	Difference	
Blue Mountains	170	123	47 **	234
Eastern Cascades (OR and WA)	147	113	34 **	173

**Significant at .05 or less

TABLE 3

**Regression Results for Ecosystem Management Services
(USDA Forest Service Pacific Northwest Region, FY 2001)**

	Unstandardized Coefficient
Constant	145.99 **
Award amount (\$10,000)	2.82 **
Distance to closest city (>50,000 population)	-0.76 **
<i>National forest region</i>	
OR Western Cascades (reference)	---
OR Coastal	11.63
WA Coastal	69.08 *
WA Western Cascades	45.36 **
OR Eastern Cascades	33.86
WA Eastern Cascades	151.04 **
Blue Mountains	119.32 **
<i>Work characteristics</i>	
Skill level ^a	7.69
Labor-equipment mix ^b	-20.19 **
Fire Plan contract ^c	-58.26 **
	R ²
	0.15
	N
	729

**Statistically significant at .05 or less.

*Statistically significant at .10 or less.

^a low = 1 to high = 5

^b Labor intensive = 1 to equipment intensive = 5

^c No = 0, yes = 1

miles closer to the national forest than a regularly funded contract. These results suggest that in Oregon and Washington, the Forest Service used the local preference language of the Title IV authority and this likely resulted in more local contract awards for NFP funded contracts than regularly funded contracts.

BLM and Title IV Authority

An evaluation of the effects of the Title IV authority on the BLM procurement had to be conducted differently because the BLM tracks work location by county rather than by management area, as the Forest Service does. In general, the BLM appears to have a con

tracting pattern similar to the Forest Service. Contractors are located primarily along the Interstate 5 corridor in Oregon (see Fig. 5). In addition, there is a smattering of contractors in rural communities. However, contractors in rural counties capture less than 10% and frequently less than 5% of the contract value of ecosystem management services performed in these counties (see Table 4).

If we focus on ecosystem management services, as we did for the Forest Service, we can compare the percentage of local (county) capture for those counties where NFP work was performed (see Fig. 6 and Table 4). Of the thirteen counties where ecosystem management contracts were funded from both Fire Plan and regular sources, contractors in ten counties captured proportionately

more Fire Plan procurement dollars than regularly funded procurement contract dollars.

To further quantify this analysis, we measured distance between the contractor headquarters and the county where the work was performed in Oregon, using a method similar to the one used with the Forest Service contract data. Some caution should be used when interpreting the results because we measured distances using county boundaries, not BLM landownership boundaries. This may be problematic for counties where the BLM land is concentrated in one corner of the county.

Surprisingly, Fire Plan contracts performed in western Oregon went to more distant businesses, but the difference in distance

FIGURE 5
Ecosystem Management Contracts by Contractor Headquarters
(USDI Bureau of Land Management, FY 2001)

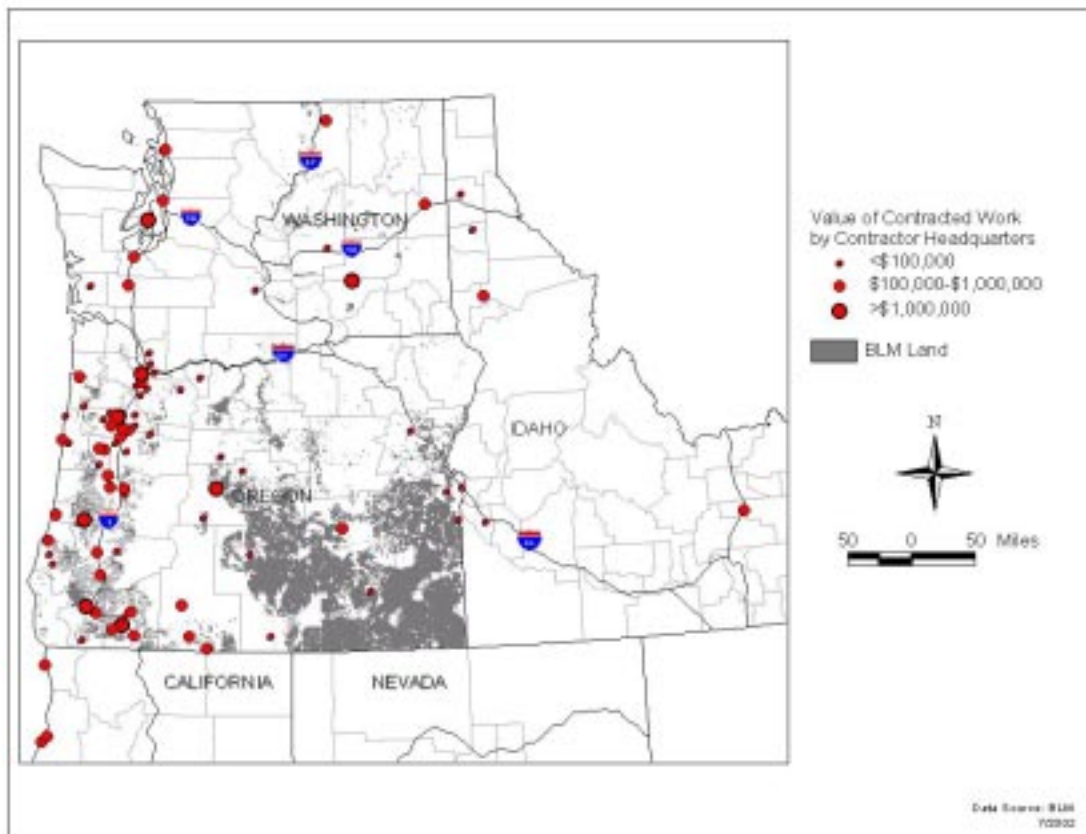


FIGURE 6
Ecosystem Management Contracts by County (Total Dollars and Percent Local Capture)
(USDI Bureau of Land Management, FY 2001)

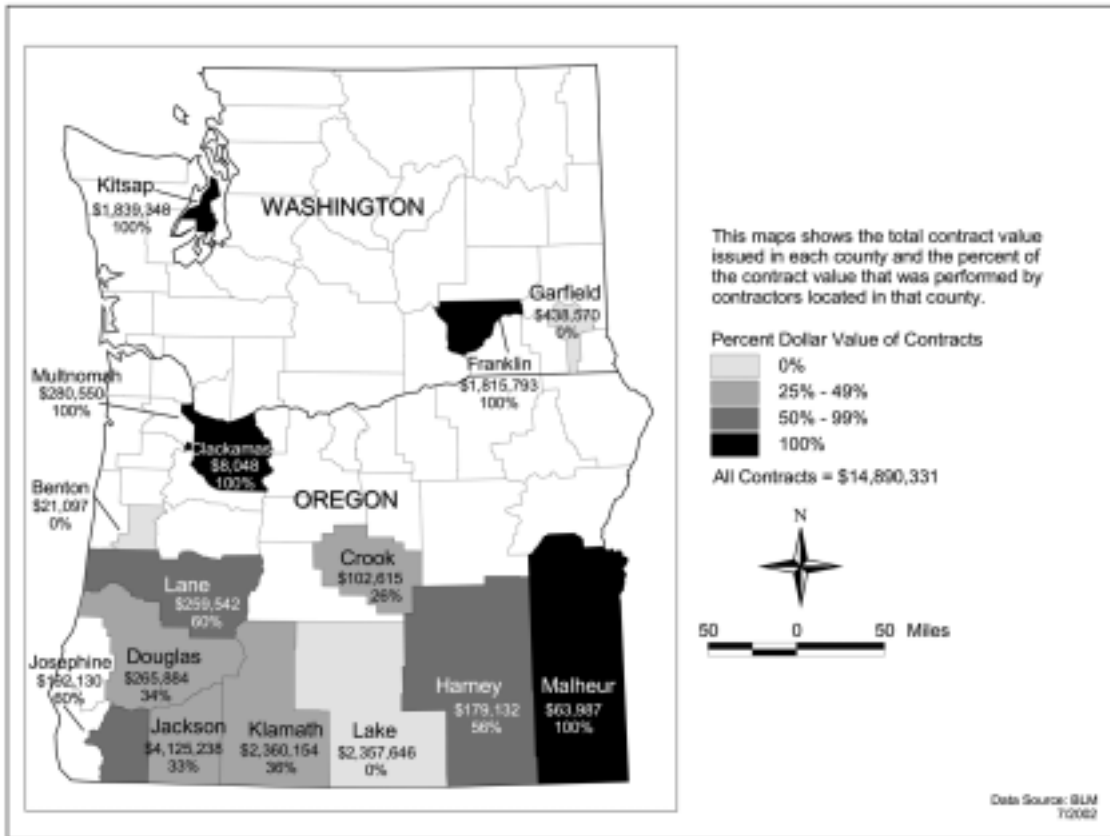


TABLE 4
Amount and Percentage of County-Level Contract Capture, Ecosystem Management Services
(USDI Bureau of Land Management, FY 2001)

County	Dollars		%		
	Regular	Fire Plan	Regular	Fire Plan	Difference
Clackamas	\$486,596	\$8,048	93.0	100.0	7.0
Crook	\$227,828	\$102,615	0.0	26.2	26.2
Douglas	\$7,304,269	\$265,884	28.6	34.0	5.4
Franklin	\$121,433	\$1,815,793	0.0	100.0	100.0
Harney	\$383,918	\$179,132	2.2	55.8	53.6
Jackson	\$6,112,889	\$4,125,238	55.1	26.1	-29.0
Josephine	\$1,002,176	\$192,130	37.9	60.4	22.5
Klamath	\$118,153	\$2,360,154	3.3	87.2	83.9
Lake	\$741,182	\$2,357,646	7.6	0.0	-7.6
Lane	\$1,964,491	\$259,542	15.6	54.0	38.4
Malheur	\$285,980	\$63,987	0.0	100.0	100.0
Multnomah	\$698,082	\$280,550	31.0	100.0	69.0

between Fire Plan and non-Fire Plan contracts was not statistically significant (see Table 5). However, in eastern Oregon, Fire Plan contracts, on average, went to contractors closer to the county where the work was performed than non-Fire Plan contracts. This relationship was statistically weak, but suggests a possible trend.

To consider factors other than region, we performed a regression analysis. The results were similar to those for the Forest Service, although relationships were generally weaker (see Table 6). For the BLM, contractors traveled further to work in eastern Oregon than western Oregon counties. As with the Forest Service, contracts involving heavy equipment, all else being equal, were awarded to contractors closer to the work site than labor-intensive contracts. However, unlike the Forest Service, distances traveled for Fire Plan funded contracts were not statistically different than regularly funded contracts.

These results are inconclusive about the BLM's use of the local preference language of the Title IV authority and its effects. The Title IV authority appears to have had some effect in eastern Oregon, but the significance disappears when controlling for other factors that have typically influenced the distance contractors travel to work on federal lands.

Procurement to HUB Zone and 8(a) Firms

One potential negative effect of the Title IV authority could be that contractors close to national forests capture contracts to the detriment of HUB zone and 8(a) contractors—contractors that the Small Business Administration (SBA) has certified to be located in poor communities [Historically Underutilized Business (HUB) zones] or owned by woman or minorities [8(a)]. An understanding of the effects on HUB zone and 8(a) businesses is particularly important because the language of Title IV could be interpreted to exempt the federal land management agencies from the Small Business Administration set aside requirements.

The Forest Service and BLM participate in SBA programs that provide preference to certain types of small businesses. The HUB zone program directs the federal land management agencies to set aside some contracts for businesses located in historically underutilized business (HUB) zones—impoverished rural counties, select urban census blocks, and Indian reservations. In addition, the 8(a) program sets aside some contracts for qualified minority and women-owned contracting firms. To understand how

TABLE 5
Mean Distance Between Work Location and Contractor Headquarters
Ecosystem Management Services
(USDI Bureau of Land Management, Oregon, FY 2001)

Region	Mean Distance (air miles)			N
	Regular Contracts	Fire Plan Contracts	Difference	
Western Oregon	75	102	-27	142
Eastern Oregon	185	116	69 *	38

* Significantly different at .10 or less

TABLE 6

**Regression Results for Ecosystem Management Services
(USDI Bureau of Land Management, Oregon, FY 2001)**

	Unstandardized Coefficient
Constant	87.12 **
Award amount (\$10,000)	0.07
<i>Region</i>	
Western Oregon (reference)	---
Eastern Oregon	71.98 **
<i>Work characteristics</i>	
Skill level ^a	8.60
Labor-equipment mix ^b	-13.41 **
Fire Plan contract ^c	-19.18
	R ² 0.10
	N 179

**Statistically significant at .05 or less.

*Statistically significant at .10 or less.

^a Low = 1 to high = 5

^b Labor intensive = 1 to equipment intensive = 5

^c No = 0, yes = 1

HUB zone and 8(a) businesses fared in the face of the Title IV local preference language, we focused again on ecosystem management contracting, including fire hazard reduction, restoration, and rehabilitation contracts. Our data did not allow us to consider whether the Forest Service or BLM contracts were specifically set aside for HUB zone and 8(a) firms. Instead, we simply considered whether a HUB zone or an 8(a) firm had been awarded a contract.

In general, the Forest Service awarded more funds to both 8(a) and HUB zone contractors than the BLM (see Table 7). But both the Forest Service and the BLM awarded proportionately more Fire Plan funds to HUB zone contractors than was the case with normal funds. This is not surprising. Many national forests and BLM districts are located near or in HUB zones because, in Oregon and Washington, most HUB zones are rural communities or Indian reservations. For most national forests and BLM districts, awarding contracts close to the national forest or BLM land implies

awarding them to contractors located in HUB zones, if not HUB zone certified firms. The results for 8(a) firms are mixed. The BLM awarded proportionately more National Fire Plan contracts to 8(a) firms whereas the reverse was true for the Forest Service, suggesting no clear pattern.

To understand how funding source, HUB zone, and 8(a) designation interacted to affect the distance contractors traveled to work, we first need to understand how HUB zone and 8(a) affects the distances that contractors travel more generally. Looking at Forest Service procurement, we see that, after controlling for such variables as equipment intensity and region, contracts awarded to Oregon and Washington HUB zone firms would be expected to go to contractors located 29 air miles closer to the national forests where the work was performed than to contracts awarded to non-HUB zone firms (see the first column of Table 8). No such relationship—positive or negative—exists for 8(a) firms. In general, the “8(a)” designation does not take contracts away from rural

TABLE 7

**Percent Contract Capture, by HUB Zone and 8(a) Firms
(USDA Forest Service, Pacific Northwest Region and
USDI Bureau of Land Management, Oregon and Washington)**

	%	
	Regular	Fire Plan
Forest Service		
8(a)	11.7	7.2
HUB Zone	15.3	18.8
Bureau of Land Management		
8(a)	3.0	7.1
HUB Zone	2.9	5.3

TABLE 8

**Regression Results for Ecosystem Management Services
Considering HUB Zone and 8(a) Contractors
(USDA Forest Service Region 6, FY 2001)**

	Unstandardized Coefficient		
	All Contracts	All Contracts excluding Fire Plan variable	Fire Plan Only
Constant	151.84 **	152.877 **	235.889 **
Award amount (\$10,000)	2.75 **	2.859 **	1.642 **
Distance to closest city (>50,000 population)	-0.75 **	0.296	-0.996 **
<i>National forest region</i>			
OR Western Cascades (reference)	---	---	-171.805 **
OR Coastal	12.60	15.034	-176.493 **
OR Eastern Cascades	29.32	34.221	-46.29
WA Coastal	70.31 *	68.23 *	NA ^d
WA Western Cascades	42.29 *	41.822 **	NA ^d
WA Eastern Cascades	150.30 **	151.672 **	-67.492 *
Blue Mountains	102.87 **	114.323 *	---
<i>Work characteristics</i>			
Skill level ^a	5.99	5.665	2.841
Labor-equipment mix ^b	18.94 **	-19.665 **	-6.515
8(a) contractor ^c	-3.77	-3.837	52.98 *
HUB zone contractor ^c	-28.65 **	-26.976 *	-38.543 *
Fire Plan contract ^c	not in model	-57.091 **	not applicable
	R ²	0.15	0.15
	N	729	729
			83

**Statistically significant at .05 or less.

*Statistically significant at .10 or less.

^a Low = 1 to High =5

^b Labor intensive = 1 to equipment intensive = 5

^c No = 0, yes = 1

^d No fire plan contracts in this region

communities, nor does it specifically contribute to rural county benefit.

In general, Forest Service contracts that go to HUB zone businesses go to companies located closer to the worksite, and contracts awarded to 8(a) businesses go to businesses at about the same distance as contracts awarded to regular firms. We can now turn to a consideration of Fire Plan contracting. If we include “Fire Plan” as a variable, as is shown in the second column of Table 8, we see that these relationships still hold, with only minor changes in the distances. That is, all else being equal, contracts awarded to HUB zone firms are awarded to closer businesses; contracts awarded to 8(a) firms are no further or closer to the work site than regular contracts awarded to regular businesses.

However, a further regression analysis that considers only Fire Plan contracts shows some differences. Considering only Fire Plan contracts, we see that, when a Fire Plan contract was awarded to an 8(a) firm, it was, all else being equal, awarded to a more distant contractor than a contract that was awarded to a normal business. Conversely, Fire Plan contracts awarded to HUB zone contractors were, all else being equal, awarded to contractors even closer to the national forest than contracts awarded to contractors without special status (see the third column of Table 8).

A similar analysis of BLM procurement does not show a statistically significant difference in the distances that 8(a) and HUB zone businesses travel compared to regular businesses in either Fire Plan or normally funded contracts.

Conclusion: Procurement

These results suggest that in Oregon and Washington, the Forest Service used the local preference language of the Title IV authority, which led to local contractors capturing proportionately more of the ecosystem management Fire Plan contracts than was the case with contracts funded through normal channels. Our results suggest that, all else being equal, contractors’ headquarters were 58 miles closer to the national forest where the work took place than with non-Fire Plan funded contracts. This use of the authority appeared to benefit HUB zone contractors as well, who captured proportionately more Fire Plan contract dollars than non-Fire Plan dollars. However, 8(a) contractors captured proportionately fewer Forest Service Fire Plan contract dollars than non-Fire Plan contracts.

The BLM results are more mixed. At the county level, contractors located in the county where the work was performed generally captured proportionately more Fire Plan contract dollars than non-Fire Plan funded contracts. As was the case with the Forest Service, HUB zone contractors fared somewhat better with Fire Plan contracts than non-Fire Plan contracts. However, some of the differences between Fire Plan and regularly funded contracts did not hold up under statistical analysis, suggesting that the differences between Fire Plan and non-Fire Plan funded contracts are less pronounced for the BLM than for the Forest Service.

Fire Staff Hiring

One goal of the National Fire Plan is to increase the ability of the federal land management agencies to quickly suppress wildfires. Although Congress did not direct that NFP funded hiring create rural community benefit, these funds have helped to create and maintain jobs and are a potential employment opportunity for rural communities located near federal lands. Consequently, it is important to understand what type of opportunity these jobs represent for people living in rural communities in Oregon and Washington, and how these opportunities compare with contracting opportunities.

Number and Types of Jobs

For this study, we examined hiring data from the Forest Service and US Fish and Wildlife Service. Hiring information was not available for the BLM. During FY 2001, the Forest Service in Oregon and Washington hired 878 employees using NFP funds, primarily for fire suppression jobs. The Wenatchee and Wallowa-Whitman National Forests hired the largest number of NFP-funded fire staff (173 and 91 hires respectively), followed by the Malheur and Deschutes National Forests (see Table 9).

TABLE 9
New Fire Staff by Workplace
(USDA Forest Service, Pacific Northwest Region, FY 2001)

Location	N
Columbia River Gorge NSA	2
Colville National Forest	28
Deschutes National Forest	53
Fremont National Forest	46
Gifford Pinchot NF	7
Malheur National Forest	73
Mt. Baker-Snoqualmie NF	20
Mt. Hood National Forest	49
Ochoco National Forest	40
Okanogan National Forest	38
Olympic National Forest	5
Redmond Smokejumper Base	7
Rogue River National Forest	45
Siskiyou National Forest	33
Siuslaw National Forest	1
Umatilla National Forest	47
Umpqua National Forest	47
Wallowa-Whitman NF	91
Wenatchee National Forest	173
Willamette National Forest	33
Winema National Forest	40
Total	878

Source: USDA Forest Service

TABLE 10**New Fire Staff by Workplace
(USDI Fish and Wildlife Service, Oregon and Washington, FY 2001)**

Location ^a	N
Klamath Basin NWRC	16
Turnbull NWR	12
Sheldon Hart Mtn. NWR	8
Malheur NWR	8
Hart Mtn. NAR	8
Little Pend Oreille NWR	7
Hanford Reach NM	6
Sheldon Hart NWRC	3
Klamath Marsh NWRC	3
Div of Refuge Operations	3
Umatilla NWR	2
Oregon FWO	2
Klamath Falls FWO	2
Columbia NWR	2
Willamette Valley NWRC	1
Upper Columbia FWO	1
Mid-Columbia NWRC	1
McNary NWF	1
Total	86

^a NWR = National Wildlife Refuge
 NWRC = National Wildlife Refuge Complex
 NM = National Monument
 NAR = National Antelope Refuge
 FWO = Fish and Wildlife Office

Source: USDI Fish and Wildlife Service

The US Fish and Wildlife Service hired 86 fire staff using both NFP and non-NFP funds.³ The top two hiring locations were the Klamath Basin National Wildlife Refuge Complex (NWRC) and the Turnbull National Wildlife Refuge (NWR) (see Table 10).

Forest Service employees were hired for a variety of fire suppression positions (see Fig. 7). The largest percentage of people was hired for engine crews (41%) and hand crews (32%). Job information for the Fish and Wildlife Service is not as detailed and it is more difficult to determine what kind of fire-related work that staff performed (see Fig. 8).

Job Quality

The number of jobs created with NFP funding is only one measure of economic opportunity. It is also important to consider

job quality. The Ecosystem Workforce Program has defined a quality job in ecosystem management as a job that includes: (1) family supporting wages and benefits; (2) a healthy and safe workplace; (3) opportunities for advancement; (4) job durability; and (5) the chance to work near home (Brodsky and Hallock 1998; Ecosystem Workforce Program 2002). We consider each of these factors in turn, with the exception of health and safety, for which we have no data.

Wages and benefits

In general, the NFP funded staff were hired at the low and middle general services (GS) grade (see Fig. 9 and Fig. 10). The median grade was GS 4 for the Forest Service and GS 5 for the Fish and Wildlife Service.

³ Separate information about NFP funded suppression hiring was not available.

FIGURE 7

**National Fire Plan Hires by Worktype
(USDA Forest Service, Pacific Northwest Region, FY 2001)**

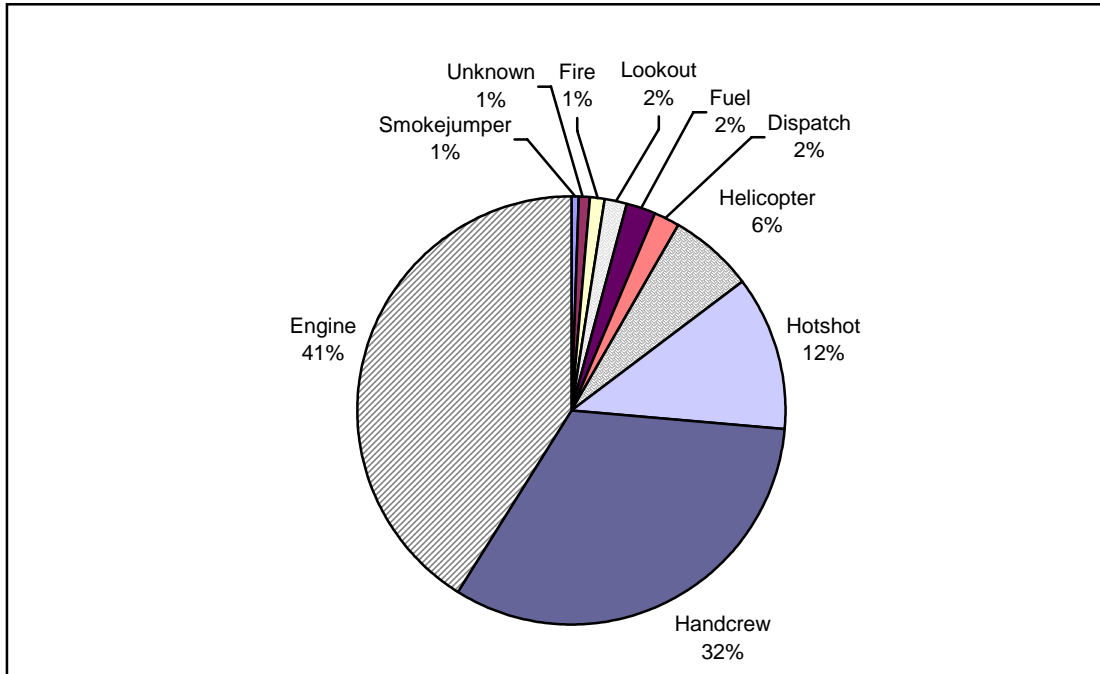


FIGURE 8

**Fire Staff Hires by Worktype
(Fish and Wildlife Service, Oregon and Washington, FY 2001)**

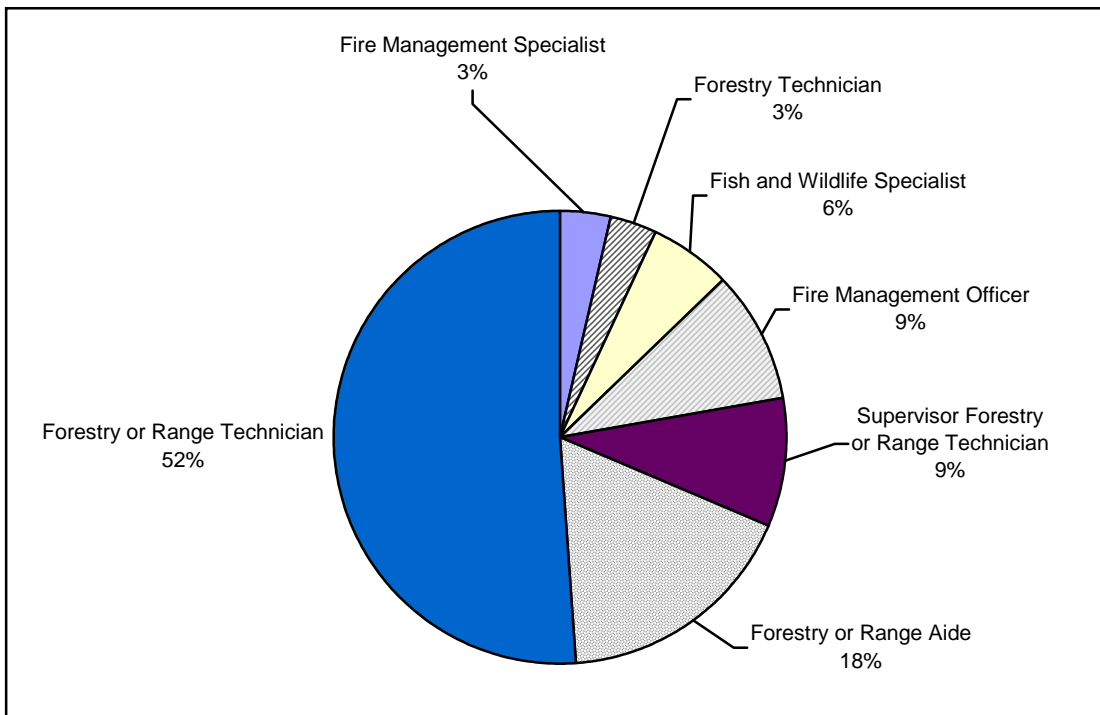


FIGURE 9
National Fire Plan Hires by Grade and Appointment
(USDA Forest Service, Pacific Northwest Region, FY 2001)

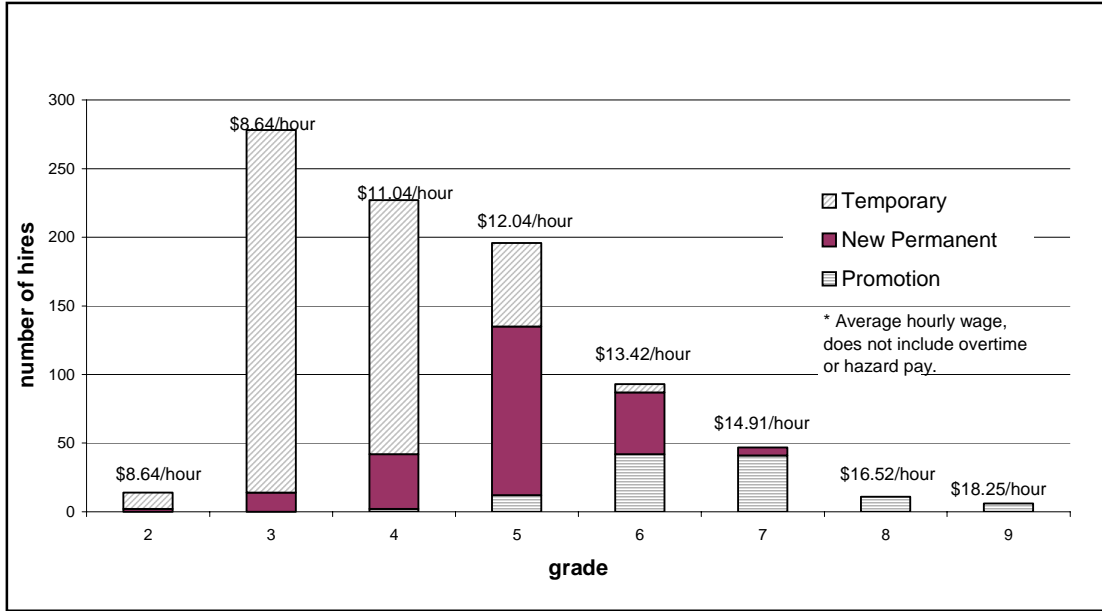


FIGURE 10
Fire Staff Hires by Grade and Appointment
(USDA Forest Service, Pacific Northwest Region, FY 2001)

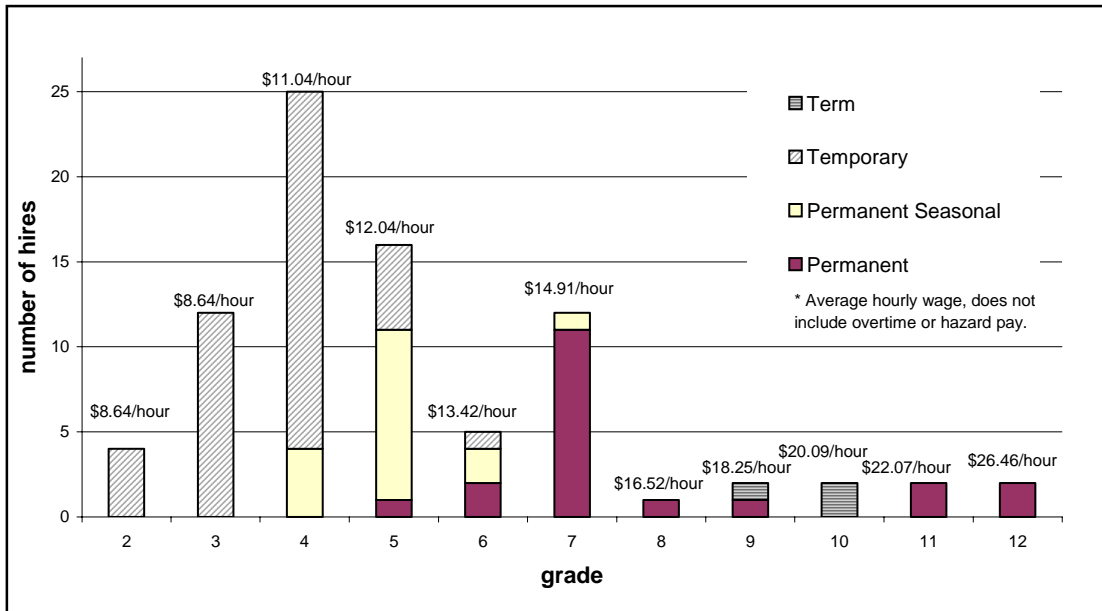


TABLE 11

National Fire Plan Hires At or Above the Median Wage, by National Forest (USDA Forest Service, Oregon National Forests, FY 2001)

National Forest	Total	At or Above Local Median Wage	
		N	%
Redmond Smokejumper Base	7	7	100
Siuslaw	1	1	100
Malheur	73	50	68
Wallowa-Whitman	91	48	53
Columbia River Gorge NSA	2	1	50
Ochoco	40	20	50
Rogue River	45	17	38
Mt. Hood	49	17	35
Deschutes	53	18	34
Fremont	46	15	33
Siskiyou	33	9	27
Willamette	33	6	18
Winema	40	6	15
Umpqua	47	4	9
Total	560	219	39

To understand how well these jobs pay, we compared them to the local median wages, the same benchmark that the Oregon Economic and Community Development Department uses to evaluate job creation. Because we did not have information about actual pay, we approximated the hourly wage at each grade by averaging the wage at the lowest step with the wages at the highest step on the FY 2001 pay scale (US Department of Personnel Management 2002).⁴ There are ten steps in each grade. For national forests in Oregon, we found that, in the poorest communities in Oregon, these fire positions, on average, have produced jobs above the county median wage. However, for moderate or high-income communities, fire jobs are typically below the median wage. The percentages of hires at or above the median wage varied from a high of 100% at the Redmond Smokejumper Base to a low of 9% in the Umpqua National Forest (see Table 11).

It is also useful to compare the wages of these jobs with the federal minimum wage

for contract fire crews. The Department of Labor has set the minimum wage at \$8.64 per hour, about the same wage as a GS 2. Of the 878 Forest Service hires, only 12 (1.3%) were hired at a GS 2; the remaining staff were hired at a higher wage. Ninety-five percent of Fish and Wildlife hires were above a GS 2.

Although these hourly wages compared favorably to local mean average wages and are consistently above contract crew minimum wages, it is important to remember that most of these jobs are seasonal jobs that do not provide year-round income. In addition, we do not have information about overtime or hazard pay for employee or contract crewmembers, which may in fact raise income for these jobs.

All permanent and some temporary employees receive health care and retirement benefits (USDA Forest Service 2002). By contrast, contract crews are typically paid \$2.02 per hour in lieu of benefits. However,

⁴ We had no information about hazard or overtime pay.

our data could not tell us the dollar value of these benefits or how many temporary employees were eligible for these benefits.

Job durability and opportunity for advancement

In addition to wages and benefits, other measures of job quality include job durability—the likelihood that the job will last—and the opportunity for advancement—either improving wages within the existing job or the opportunity for promotion. Sixty-one percent of the Forest Service’s NFP funded jobs in Oregon and Washington were temporary, 26% were new permanent positions, and 13% were promotions. This is as expected, given the seasonal nature of fire suppression. These temporary jobs offer no formal job durability beyond the term of the appointment or opportunity for promotion. However, returning temporary employees can be hired at higher grades as they gain experience. Unfortunately, we do not have information about the number of returning temporary employees. Nor do we know if the pay for those who returned increased beyond the cost of living. Thirteen percent of Fire Plan funded jobs provided existing Forest Service staff with promotions. This suggests the Fire Plan funds are creating some opportunities for advancement among existing permanent employees.

Figure 9 shows the breakdown of job status by GS level for Forest Service hires. The shaded area on each bar indicates how many Forest Service jobs of each grade were temporary, permanent, or promoted staff. As we would expect, the temporary hires were generally lower grade and thus paid lower wages than permanent staff. The same general trend holds true for the Fish and Wildlife Service for their temporary, term, permanent seasonal, and permanent full-time employees (see Fig. 10).

These data indicate that the NFP has resulted primarily in a large number of temporary hires at low grades, with some new permanent hires at middle grades and a smaller number of promotions to higher grades. We cannot tell from these data how many of the temporary employees will be rehired, thereby creating job durability and opportunities for promotion.

Geographic and Demographic Distribution of Jobs

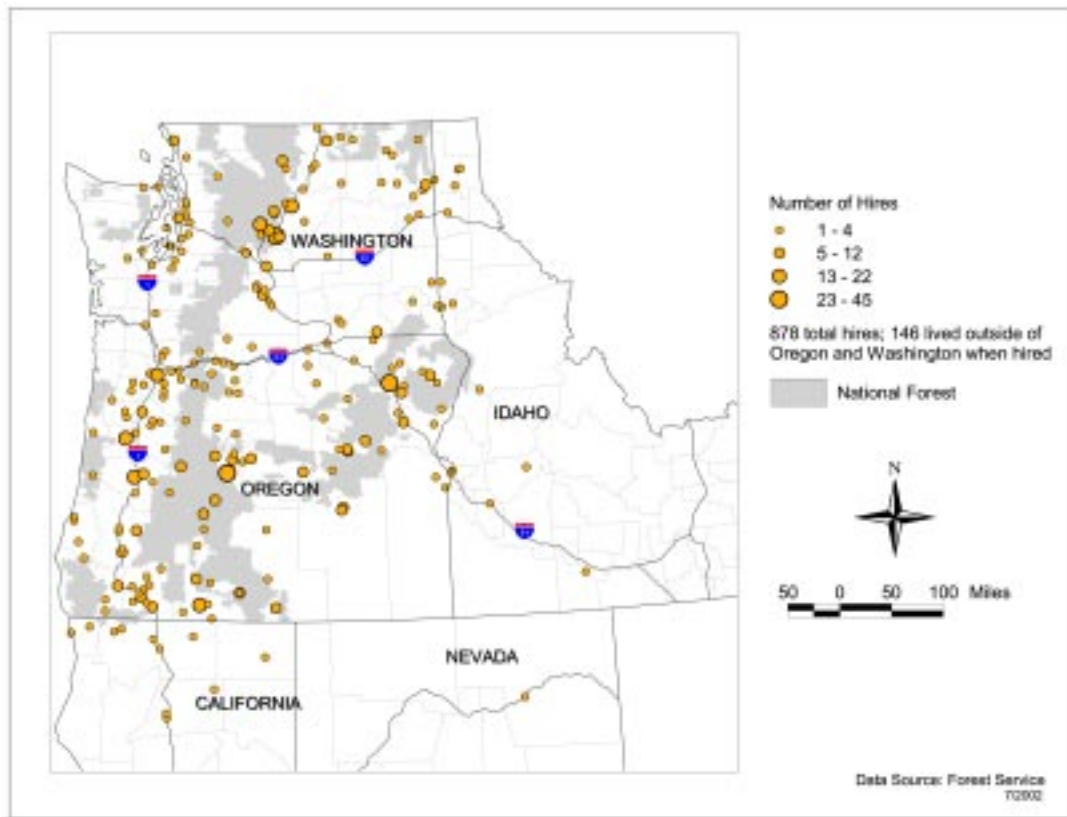
The majority of the 878 Forest Service hires occurred in the Eastern Cascades (356 hires) and Blue Mountains (252 hires). Of the 878 hires, 732 (83%) lived in Oregon and Washington at the time they were hired. Of those hired to work in the Eastern Cascades, over 50% lived within 50 air miles of their

TABLE 12
Number of National Fire Plan Hires by Distance to Work Location
(USDA Forest Service, Pacific Northwest Region, FY 2001)

Distance (air miles)	Coastal		Western Cascades		Eastern Cascades		Blue Mountains		All Regions	
	N	%	N	%	N	%	N	%	N	%
< 50	12	31	92	40	190	53	84	33	378	43
50-125	12	31	69	30	89	25	73	29	243	28
126-300	6	15	25	11	37	10	53	21	121	14
>300	9	23	45	19	40	11	42	17	136	15
Total	39		231		356		252		878	

Note: Some percentages may not add to 100 due to rounding errors.

FIGURE 11
National Fire Plan Hires by Residence at Time of Hire
(USDA Forest Service, Pacific Northwest Region, FY 2001)



duty station at the time they were hired and therefore would be unlikely to relocate for their new position. The corresponding figure for the Blue Mountains was 33%. Seventy-eight percent of Eastern Cascade hires and sixty-two percent of Blue Mountain hires lived within 125 miles of their work location (see Table 12).

Forest Service employees hired or promoted with NFP funds lived in both rural and urban communities at the time they were hired (see Fig. 11). At the forest level, there were concentrations of hires close to national forests, especially when compared to contractor headquarters for procurement (see Fig. 12 and Fig. 13).

The race and national origin of the Forest Service NFP hires were predominantly white (81.1%). Hispanic (6.8%) and American Indian/Alaskan Native (5%) were the two

largest minority groups (see Fig. 14). These percentages correspond roughly to the demographics of rural Oregon. All of the hires are US citizens, as required by law. By contrast, “Mexican immigrants constitute half or more of the contract [fire suppression] crews” (Pulaski 2002). Race and national origin information were not available for the Fish and Wildlife Service.

For both the Forest Service and Fish and Wildlife Service, hires were predominantly male. Twenty-six percent of the Forest Service hires and 19% of the Fish and Wildlife hires were female.

If we perform a regression similar to our analysis for contracts, we find that race, gender, grade, and region do not appear to explain the distance traveled to take a fire job with the Forest Service (see Table 13).

FIGURE 12
National Fire Plan Hires by Residence at Time of Hire
(Deschutes National Forest, FY 2001)

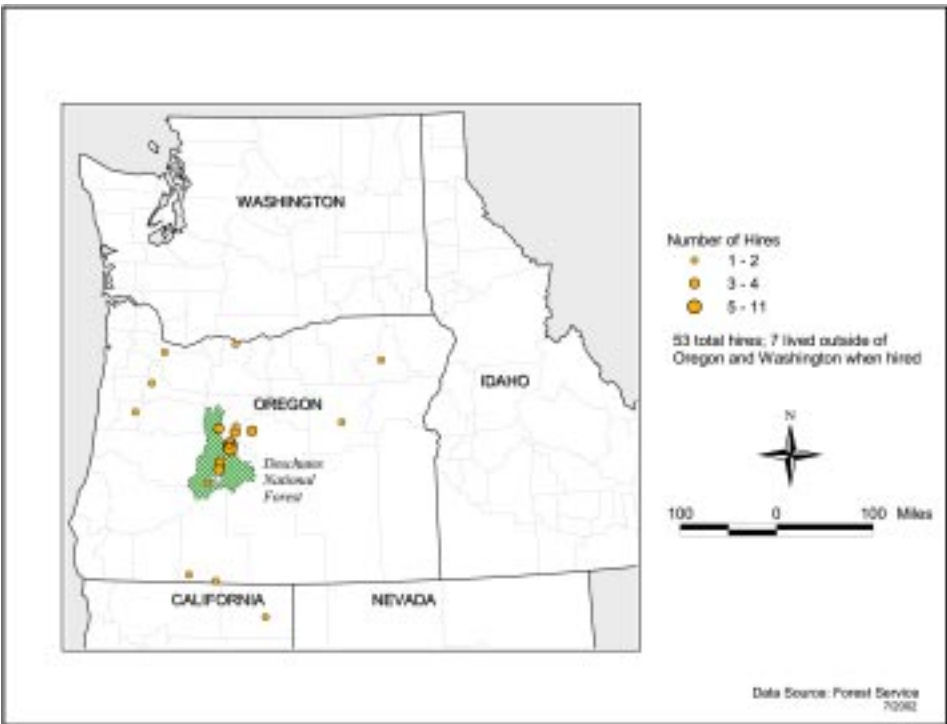


FIGURE 13
National Fire Plan Hires by Residence at Time of Hire
(Fremont National Forest, FY 2001)

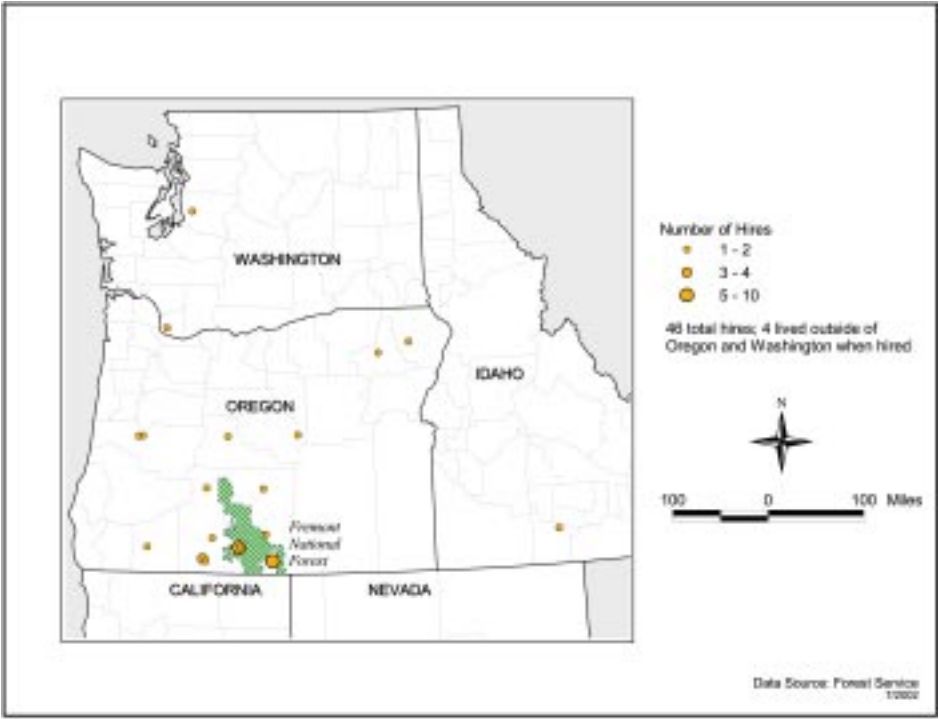
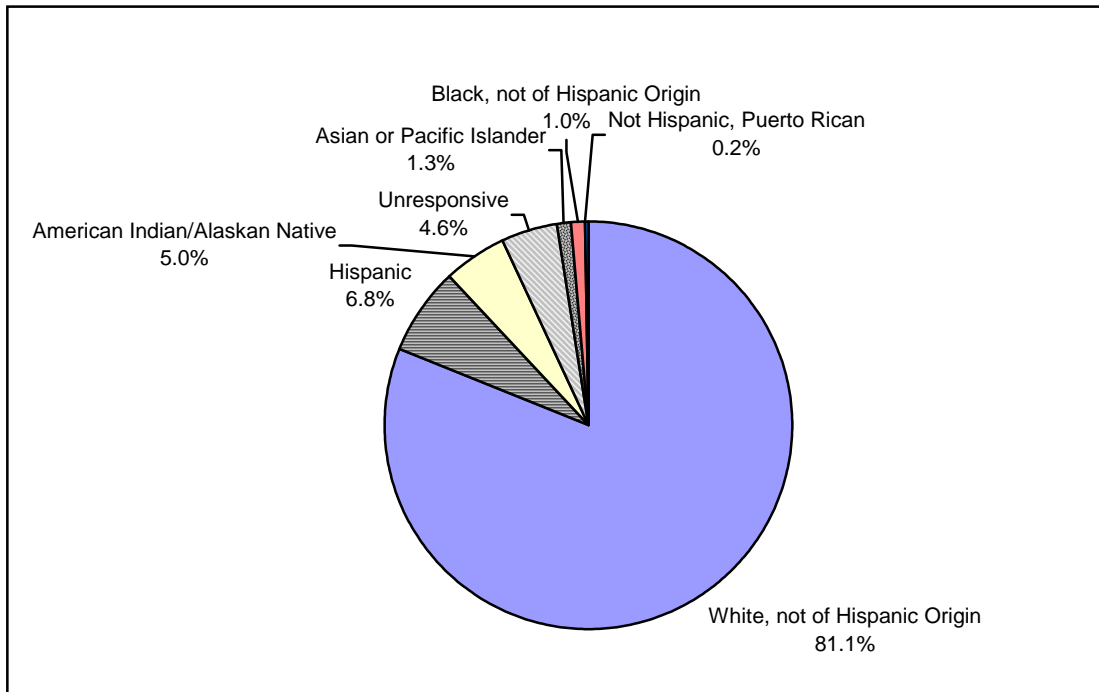


FIGURE 14
National Fire Plan Hires by Race and National Origin
(USDA Forest Service, Pacific Northwest Region, FY 2001)



People are more likely to move for new permanent positions than temporary ones. Similarly, people are more likely to move for positions in helicopter and smokejumper crews than engine crews. No other variables show statistical significance. Moreover, this model explains only 3.5% of the variance in distance that people traveled for fire suppression positions with the Forest Service.

This lack of significance held up for most subdivisions of the data. That is, when considering, for example, whites only, Hispanics only, or men only, there was either limited or no statistical significance between the various independent variables and where people lived when hired. There was, however, one exception. Women were liable to move longer distances for both promotions and permanent positions, whereas men were no more likely to move for new permanent jobs or promotions than temporary jobs.

Conclusions: Hiring

Of the 878 Fire Plan funded jobs, the Forest Service appears to have created about 230 new, permanent jobs, many of them located in rural communities. On average, the 878 jobs offered were above median wage jobs for the poorest communities but had relatively less impressive wages when compared to wealthier communities. Wages are nearly always higher than the minimum wages for contract fire crews.

The analysis further suggests that the Forest Service hires its fire staff primarily from within Oregon and Washington. Between one-quarter and one-half of the employees probably relocate, whereas one-half to three-quarters probably already live in the communities where they obtained positions. Race, gender, pay level, job type,

TABLE 13
Regression Results for National Fire Plan Hiring
(USDA Forest Service, Pacific Northwest Region, FY 2001)

	Unstandardized Coefficient
Constant	130.30
Award amount (\$10,000)	
Distance to closest city (>50,000 population)	0.35
<i>Worktype</i>	
Engine crew (reference)	---
Hand crew	57.75
Hotshot	91.72
Air ^a	140.01 **
Nonphysical ^b	23.27
<i>Race/National Origin</i>	
White (reference)	---
Hispanic	30.76
Native American	-49.30
Other	-63.39
<i>Appointment</i>	
Temporary (reference)	---
Permanent	74.86 *
Promotion	-46.23
<i>National forest region</i>	
Blue Mountains (reference)	---
OR Western Cascades	-31.94
OR Eastern Cascades	-68.02
WA OR Coast & WA Western Cascades	67.35
WA Eastern Cascades	-8.84
	R ² 0.04
	N 604

**Statistically significant at .05 or less.

*Statistically significant at .10 or less.

a Air includes helicopter and smokejumper crews

b Nonphysical includes dispatch, lookout, fuel, fire

and region where the jobs were located had little, if any, influence on how far people moved to take a fire job with the Forest Service.

If we consider that rural communities have low populations, this analysis suggests that rural community residents are somewhat more likely, all else being equal, to get fire suppression jobs with the Forest Service than urban residents. This contrasts with contracting for fuels reduction and other ecosys-

tem management procurement, which appear more likely to be awarded to contractors along the Interstate 5 corridor. We must be careful not to over interpret this information because one group is performing fire suppression and the other ecosystem management services. More importantly, one group consists of businesses and the other group consists of employees. We have no information about the residence of the people hired by the contractors.

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Acronyms

BLM	Bureau of Land Management
FY	fiscal year
GPO	General Printing Office
GS	General Services
HUB zone	Historically Underutilized Business zone
NAICS	North American Industry Classification System
NFP	National Fire Plan
NWR	National Wildlife Refuge
NWRC	National Wildlife Refuge Complex
USDA	United States Department of Agriculture
USDI	United States Department of the Interior

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Appendix 1: Title IV Appropriations Language

The, Title IV of the Interior Appropriations Legislation, FY 2001, repeated again for the FY 2002 budget, provides that:

- (1) In expending the funds provided with respect to this title for hazardous fuels reduction, the Secretary of the Interior and the Secretary of Agriculture may conduct fuel reduction treatments on Federal lands using all contracting and hiring authorities available to the Secretaries applicable to hazardous fuel reduction activities under the wildland fire management accounts. Notwithstanding Federal government procurement and contracting laws, the Secretaries may conduct fuel reduction treatments on Federal lands using grants/cooperative agreements. *Notwithstanding Federal government procurement and contracting laws, in order to provide employment and training opportunities to people in rural communities*, (emphasis added) the Secretaries may award contracts, including contracts for monitoring activities, to –
 - (A) Local private, nonprofit, or cooperative entities;
 - (B) Youth Conservation Corps crews or related partnerships, with state, local and nonprofit youth groups;
 - (C) Small or microbusinesses; or
 - (D) Other entities that will hire or train a significant percentage of local people to complete such contracts.

**Appendix 2:
National Fire Plan Procurement by Product Service Code
(USDA Forest Service, Pacific Northwest Region,
USDI Bureau of Land Management, Oregon and Washington, FY2001)**

Product-Service Code	Dollars		
	BLM	Forest Service	Total
<u>Services</u>			
Tree Thinning Services	\$5,636,900	\$2,572,714	\$8,209,614
Seeds and Nursery Stock	\$4,220,398		\$4,220,398
Other Range/Forest Improvements Services (nonconstruction)	\$2,357,645	\$206,692	\$2,564,337
Land Treatment Practices Services (plowing/clearing, etc.)	\$1,078,499	\$648,206	\$1,726,706
Forest/Range Fire Suppression/Presuppression Services	\$187,691	\$1,303,927	\$1,491,619
Other Natural Resources and Conservation Services	\$422,455	\$380,646	\$803,101
Site Preparation		\$671,559	\$671,559
Forest/Range Fire Rehabilitation Services (nonconstruction)		\$406,574	\$406,574
Aerial Photographic Services	\$288,597		\$288,597
Archeological/Paleontological Programming Services	\$112,624		\$112,624
Other Photographic, Mapping, Printing, and Publication Services	\$52,697		\$52,697
Seed Collection/Production Services		\$21,060	\$21,060
Data Analyses (other than scientific)		\$20,776	\$20,776
ADP Software and Telecommunications Services	\$6,413		\$6,413
Other Housekeeping Services		\$5,165	\$5,165
Fencing, Fences, Gates and Components	\$4,923		\$4,923
Subtotal	\$14,368,843	\$6,297,320	\$20,666,163
<u>Goods and Supplies</u>			
Fire Fighting Equipment	\$19,868	\$225,889	\$245,757
Miscellaneous Communication Equipment	\$229,214		\$229,214
Miscellaneous Items	\$56,928		\$56,928
Miscellaneous Alarm, Signal and Security Detection	\$26,929		\$26,929
Vehicular Cab, Body, and Frame Structural Components	\$14,368		\$14,368
Subtotal	\$347,307	\$225,889	\$573,196
<u>Construction and Real Estate</u>			
Construction of Structures and Facilities Maintenance Buildings		\$1,643,411	\$1,643,411
Prefabricated and Portable Buildings	\$37,857	\$697,912	\$735,769
Construction of Structures and Facilities Highways, Roads, Streets, etc.		\$276,878	\$276,878
Purchase of Structures and Facilities Other Residential Buildings		\$189,797	\$189,797
Construction of Structures and Facilities Other Nonbuilding Facilities		\$158,712	\$158,712
Maintenance, Repair or Alteration of Real Property Office Buildings		\$137,737	\$137,737

Product-Service Code	Dollars		
	BLM	Forest Service	Total
Construction of Structures and Facilities			
Conference Space and Facilities		\$104,000	\$104,000
Construction of Structures and Facilities			
Other Utilities		\$103,048	\$103,048
Construction of Structures and Facilities			
Other Administrative Facilities and Service Buildings		\$99,378	\$99,378
Construction of Structures and Facilities			
Troop Housing Facilities		\$54,800	\$54,800
Maintenance, Repair or Alteration of Real Property			
Troop Housing Facilities		\$24,668	\$24,668
Construction of Structures and Facilities			
Other Residential Buildings		\$22,932	\$22,932
Miscellaneous Construction Equipment		\$16,204	\$16,204
Maintenance, Repair or Alteration of Real Property			
Parking Facilities Conservation		\$13,260	\$13,260
Lease or Rental of Facilities Office Buildings	\$12,081		\$12,081
Subtotal	\$49,938	\$3,542,736	\$3,592,675
<u>Architect and Engineering</u>			
Other Architect and Engineering Services		\$252,383	\$252,383
A&E Production Engineering Services		\$41,527	\$41,527
Subtotal	\$0	\$293,910	\$293,910
Total	\$14,766,088	\$10,359,856	\$25,125,944

**Appendix 3:
National Fire Plan Procurement by Contractor Headquarters
(USDA Forest Service, Pacific Northwest Region,
USDI Bureau of Land Management,
Oregon and Washington)**

Rank		Dollars		
		BLM	Forest Service	Total
	<u>Cities in Oregon</u>			
1	Merlin	\$3,873,167	\$1,377,719	\$5,250,886
2	Portland	\$345,551	\$1,803,574	\$2,149,124
3	Medford	\$1,115,802	\$662,954	\$1,778,757
4	Bend	\$1,103,869	\$351,240	\$1,455,110
5	Eugene	\$216,433	\$587,590	\$804,023
6	Jacksonville	\$730,294		\$730,294
7	Baker City		\$645,583	\$645,583
8	Malin	\$627,142		\$627,142
9	Grants Pass		\$607,486	\$607,486
10	Klamath Falls	\$460,241	\$2,403	\$462,645
11	Chiloquin	\$404,030		\$404,030
12	Philomath	\$319,100		\$319,100
13	John Day		\$269,932	\$269,932
14	Scotts Mills		\$269,203	\$269,203
15	Salem	\$90,000	\$116,454	\$206,454
16	Springfield		\$188,060	\$188,060
17	Mount Angle		\$182,733	\$182,733
18	Aumsville		\$157,120	\$157,120
19	Roseburg		\$151,300	\$151,300
20	Pendleton		\$135,409	\$135,409
21	Sumpter		\$122,885	\$122,885
22	Eagle Point	\$116,978		\$116,978
23	Cave Junction	\$115,972		\$115,972
24	Corbett		\$104,000	\$104,000
25	Hines	\$100,016		\$100,016
26	Elkton	\$90,400		\$90,400
27	Prineville	\$26,916	\$58,451	\$85,367
28	Canyon City		\$78,039	\$78,039
29	Powell Butte		\$73,108	\$73,108
30	Myrtle Creek	\$14,368	\$54,800	\$69,168
31	White City	\$66,456		\$66,456
32	Enterprise		\$62,625	\$62,625
33	Corvallis		\$60,000	\$60,000
34	Albany	\$49,996		\$49,996
35	Sisters		\$47,984	\$47,984
36	Joseph		\$45,750	\$45,750
37	Ashland	\$41,555		\$41,555
38	Lakeview		\$40,438	\$40,438
39	Milton Freewater		\$40,030	\$40,030
40	Ontario	\$36,614		\$36,614

Cities in Oregon, continued

		Dollars		
Rank		BLM	Forest Service	Total
41	Vale	\$32,200		\$32,200
42	Adrian	\$31,787		\$31,787
43	Gilchrist		\$31,674	\$31,674
44	Woodburn		\$28,899	\$28,899
45	Culver	\$21,291		\$21,291
46	Burns		\$20,665	\$20,665
47	LaPine		\$16,070	\$16,070
48	Canby	\$14,007		\$14,007
49	Mitchell		\$11,785	\$11,785
50	Redmond		\$9,093	\$9,093
51	Welches	\$8,047		\$8,047
52	Terrebonne		\$4,230	\$4,230
53	Seneca		\$2,684	\$2,684
54	Christmas Valley		\$2,625	\$2,625
55	Riley		\$2,540	\$2,540
Subtotal Oregon		\$10,052,232	\$8,427,135	\$18,479,367
<u>Cities in Washington</u>				
1	Port Orchard	\$1,843,848		\$1,843,848
2	Connell	\$1,815,793		\$1,815,793
3	Bellingham		\$463,000	\$463,000
4	Spokane	\$438,570		\$438,570
5	Omak		\$276,878	\$276,878
6	Grandview		\$254,185	\$254,185
7	Sedro Wolley		\$189,797	\$189,797
8	Longview		\$141,663	\$141,663
9	Tonasket	\$125,190		\$125,190
10	Winthrop		\$115,006	\$115,006
11	Othello		\$103,048	\$103,048
12	Walla Walla		\$99,378	\$99,378
13	Mount Vernon	\$74,300		\$74,300
14	Washougal	\$37,857		\$37,857
15	Mercer Island		\$29,545	\$29,545
16	Chehalis	\$28,325		\$28,325
17	Seattle		\$18,128	\$18,128
Subtotal Washington		\$4,363,884	\$1,690,628	\$6,054,512
Out of Region		\$349,973	\$242,093	\$592,066
Total Fire Plan		\$14,766,089	\$10,359,856	\$25,125,945