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I am submitting herewith a thesis written by Lisa Marie Ferro entitled "Congressional Voting on the Below-Cost Timber Sale Issue: Ideologically or Economically Driven?" I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Geography.

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CONGRESSIONAL VOTING ON THE BELOW-COST TIMBER SALE ISSUE: IDEOLOGICALLY OR ECONOMICALLY DRIVEN?

A Thesis

Presented for the

Master of Science

Degree

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Lisa Marie Ferro

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DEDICATION

This thesis is dedicated to my parents,

Don and Linda Ferro,

for their continuous support and encouragement

throughout my education.

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ABSTRACT

This study examines Congressional responses to the revelations in the mid-1980s that a considerable number of national forest timber sales are "below-cost", i.e. the cost of preparing the timber for sale is greater than the revenue realized by the government. The issue presents an unusual opportunity to study the conflicts between ideology and local economic self-interest in Congress because the two major Congressional ideologies - environmentalism and fiscal responsibility - are in an unusual alignment on this issue: below-cost timber sales are widely considered both environmentally harmful and fiscally irresponsible. A profile of each legislator was compiled. It included: pattern of voting on environmental issues, pattern on fiscal issues, and party affiliation. A profile of each legislator's district or state was also compiled, including presence of federal land, presence of below-cost timber sales, number of forestry related jobs, importance of the forest industry and percent urban. A number of statistical techniques, correlations, group means, multiple regressions, factor analysis, and discriminant analysis, were used to explore the relationships between voting on the three Congressional proposals to reduce such sales, the Fowler rider in the Senate (1992) and the Jontz and Porter amendments in the House (1992 and 1993), and the legislator's personal and district profiles. It was

hypothesized that those legislators whose districts had a national forest timber industry within them would vote to maintain the below-cost sales (and the subsidies to their district that the sales represented). Legislators without such sales in their districts, and therefore without a local economic stake, would be free to vote to end them on ideological grounds.

Voting proved different than hypothesized: ideology variables were far stronger predictors of voting than were measures of local self-interest. Moreover, fiscal conservatives tended to vote against ending the subsidy. Their votes, plus those who did vote local self-interest were sufficient to prevent the curtailment of below-cost sales. Two reasons are advanced for the seeming contradiction. First, given the great number of bills on which legislators are expected to vote, they cannot be fully informed about the ramifications of each. In the absence of such information, it is safer to fall back on partisan instincts than ideological ones. Second, some fiscal conservatism is in fact a cover of respectability for a pro-business, pro-growth ideology. Fiscal conservatism on most issues, except when government subsidies of business or growth are involved, is consistent with such an ideology.

Attempts to end wasteful and environmentally harmful public lands practices must formulate strategies taking both issue ignorance and covert growthist ideology into account.

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CHAPTER I

Introduction

Over the past several years, a unique set of environmental issues has reached the Congressional agenda. While environmentalists often mobilize against environmentally-destructive activities on public lands, some issues stand apart because of the approach environmentalists have undertaken to draw attention to their concerns. This set of issues includes the environmentally-destructive economic uses of natural resources on public lands: timber harvesting, mining, and grazing. At first blush it would seem that environmentalists, who value the systemic integrity of natural areas, would oppose such uses of public lands. Such opposition would be in line with their usual political agenda. However, the approach that environmentalists have taken on these issues is to expose these programs for their economic inefficiencies. Environmentalists normally downplay such economic concerns because many environmental programs they do support require money to attain their goals. Raising concerns about economic inefficiencies is perhaps an attempt to appeal to a broader coalition of interests in Congress, while adding legitimacy to their arguments: how can we continue environmentally-destructive programs that lose money when the national deficit is of major concern to Americans?

Focusing specifically on timber harvesting in the national forests, critics of this practice have charged that many timber sales are "below-cost," that is where timber sales receipts fail to cover the government's costs of preparing and administering the sale (The Wilderness Society, 1993). The United States Forest Service's timber sale program is losing millions of dollars. Estimates run anywhere from $200 to $500 in losses each year. This, in effect, is an economically-irrational program which results in a subsidy to the timber industry and distorts the price of the resource. Those opposed to this subsidy question why the Forest Service continues to sell timber at a loss. The Forest Service has responded by citing the mission of the national forests as a reserve of timber, claiming that many communities are dependent upon these sales, and justifying the costs of the program by citing many benefits to recreation and wildlife which are produced by logging.

Environmentalists disagree with the "benefits" produced by logging. They are concerned that many of the sales which are below-cost are so because they occur in environmentally-fragile areas. Many logging sites located in rugged terrain are very costly to log because of the difficulty in reaching them. Long roads must be constructed often up steep mountain sides to reach many areas in national forests. To make the sale viable to timber companies, the government absorbs some of the road costs by attributing them to increased

recreational benefits to the national forest. These areas also tend to be extremely environmentally fragile (Lancaster, 1990). When areas of steep terrain are stripped of their vegetative layer, increased erosion degrades water quality and unique species of flora and fauna are at risk of endangerment in that ecosystem. Construction of roads into previously remote areas also aids in the spread of disease and insects where they may never have reached under other circumstances (Rice, 1989). At the core of this debate is the purpose of the Forest Service's timber sales. Is it to provide timber to the residents of our nation at any cost? Should the national forests provide timber only in an environmentally- and fiscally-responsible manner? Or, should the goal of our national forests be to maintain the biological diversity of our nation, even if it means not harvesting timber at all? Such questions, which will not be answered in this study, represent the opinions of those who have mobilized around this issue as the Forest Service, the Administration and Congress are confronted with constituents opposed to the current timber sale program and those who have mobilized to support it and protect their interests.

The thesis addressed in this study is that members of Congress will vote to support local economic interests even when an issue, such as below-cost timber sales, embodies larger ideological views, or beliefs, of today's society.

This issue lends itself especially well to test this thesis because it combines environmentally-responsible and fiscally-conservative ideologies, two ideologies normally opposed in contemporary national politics. Those who vote in support of the narrow interests of their local forestry constituency cannot easily claim they voted for some benefit for society as a whole, as a legislator is often able to do with many other pork-barrel issues. Their vote is largely based on the economic interests of their constituency, thus it is, in a sense, spatially-bound to the characteristics of the constituency. This vote is constituent-serving, and, at the same time, self-serving in the sense that the legislator supports the economic interests of those who elected him/her into office. On the other hand, a vote to eliminate below-cost timber sales favors the broader interests of today's society; it is ideologically driven and not spatially bound to local economic interests.

Because below-cost timber sales occur in specific regions of the United States, this subsidy provides economic benefit to a few states and Congressional districts. At the same time, this subsidy negatively impacts the rest of the country by placing a strain on the economy and by destroying natural resources valued for their integrity. Therefore, how the economic geography and political realities of below-cost timber sales affect Congressional voting on this issue is the central question of this study.

The expected results are that members of Congress with constituents dependent upon national forest timber, and especially below-cost timber, will vote to maintain the subsidy. They will support their local interests and disregard the environmental and fiscal ideological implications of this issue because ultimately their careers are dependent upon these local interests. All other legislators will vote to eliminate the subsidy in the name of environmentally-responsible or fiscally-conservative ideological reasons. With no local interests to protect, it is in their interest to support the prevailing ideologies of fiscal and environmental responsibility, whether their concern is sincere or symbolic.

In addressing this issue, this study will first examine the background of the below-cost timber sale issue, how its economic and political nature have resulted in the subsidization of timber from our national forests. "The Economics of Public Lands Timber Production" will explore the history of the establishment of national forests: where they're located and why. Next, an examination of the timber industry will illustrate its relationship with the Forest Service and below-cost timber sales. Finally, the portrayal of the economic uses of national forests (timber harvesting, livestock grazing and mining) will illuminate the similarities between the programs; the below-cost timber sale issue is not

unique, it is one example of the recent questions raised over the management of public lands. "The Politics of Public Lands Timber Production" follows, exploring the value-charged circumstances under which the national forest timber sales program finds itself and disclosing the political nature of the pricing of resources on public lands. These economic and political factors will illuminate the current situation of the below-cost timber sale issue and how this affects its place on the Congressional agenda.

This study will then examine three Congressional votes on the below-cost timber sale issue. In 1992, Senator Wyche Fowler (Democrat, Georgia) presented a rider in the Senate to cut the Forest Service's budget by $35 million; this cut would be directed to the timber sale program and eliminate 25 percent of the below-cost timber sales. During the same legislative session, Congressman Jim Jontz (Democrat, Indiana) presented an amendment in the House of Representatives to cut $16.8 million from the Forest Service budget, limiting the Forest Service's ability to prepare timber sales. The following year, Congressman John Porter (Republican, Illinois) made a second attempt in the House to eliminate below-cost sales through an amendment to reduce the Forest Service budget by $18 million, impacting the Forest Service's roadbuilding program with the aim of eliminating below-cost timber sales. An analysis of each of these votes will be conducted to determine whether legislators are voting to support ideologies

or local interests. This analysis will use a series of statistical tests: correlations, group means, multiple regressions, factor analysis, and discriminant analysis. The discussion that follows will focus on how Congress actually did vote on an issue with broad, ideological interests and local interests especially well separated, and propose explanations of why these three legislative attempts at changing the current policy of below-cost timber sales have been unsuccessful thus far.

The significance of this study will lie in the conclusions reached on how Congress votes on issues where ideology and local interests conflict. Currently, Congressional attention is focused on the below-cost timber sale issue and two other characteristically similar public lands issues, mining and grazing. Thus, legislators are confronted with different spins on the "jobs versus the environment" conflict, and more fully with a conflict over local interests versus contemporary political ideologies. Will legislators react as predicted above, or are other factors in the complex reality of our national politics affecting voting in Congress on the below-cost timber sale issue?

CHAPTER II

The Economics of Public Lands

Timber Production

Distribution of National Forests

The Forest Service owns 191.9 million acres of land in 44 states (see Figure 1). These 191.9 million acres are heavily concentrated, though, in twelve western states (each containing greater than 5 million acres), including: Alaska, Washington, Oregon, California, Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico. The next highest concentration of national forest lands (states containing between 1-5 million acres) occur in the northern tier states of North and South Dakota, Minnesota, Wisconsin and Michigan, the southeastern states of Virginia, West Virginia, North Carolina, Florida, and Mississippi, and finally, the state of Missouri. The remaining 21 of the initial 44 states each contain less than 1 million acres of national forest. Six states, Massachusetts, Rhode Island, New Jersey, Maryland, Delaware and Iowa, have no national forest.

This pattern is a product of history. By the 1890s, most of the original public land in the East was already in private ownership. The timber reserves were created out of what land

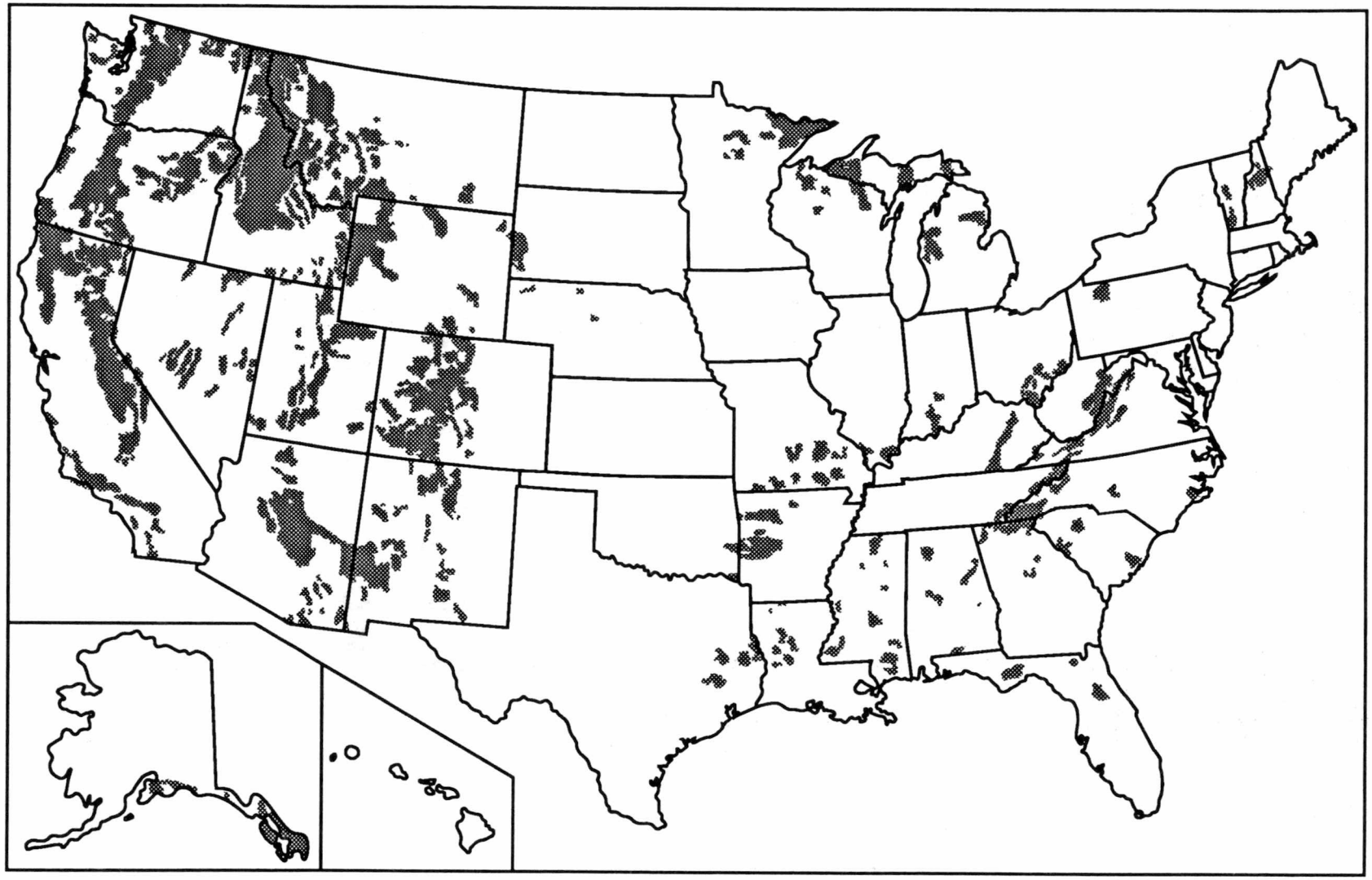

Figure 1: **The National Forests** (United States Geological Survey, 1970).

still remained in the public domain, which was mainly located in the West. The creation of forest reserves, beginning in the 1870s through Congressional acts, was aided by the General Revision Act of 1891 which authorized the president to "set apart and reserve, in any State or Territory having public lands wholly or in part covered with timber or undergrowth, as forest reserves." Together, Presidents Harrison and Cleveland set aside 17.5 million acres under this act. (Management of these reserves was not provided for until 1897.) The largest additions to the reserves were accomplished by President Theodore Roosevelt assisted by forester Gifford Pinchot (who later became Chief of the Forest Service); Roosevelt increased the acreage of the forest reserves to 140 million by 1907. By this time, much of the land in the East had been cut over and this denuded land was thought by some to give rise to several massive floods that occurred in the early 1900s (Cubbage *et al.*, 1993). In response, the Weeks Law of 1911 authorized the federal government to purchase land in the East to protect watersheds. Since it was necessary to purchase land in the East from private landowners, creating forest reserves was more difficult and costly than in the West, where a simpler process existed of declaring a reserve out of land that was already publicly owned. Therefore, due to these financial and political constraints, national forests are located primarily in the West.

The Timber Market

Within the United States, there are approximately 740 million acres of forest, about two-thirds of which are rated as commercial forests, i.e. capable of growing at least 20ft^3 of wood per acre annually. Commercial forests are separated into two types, hardwoods and softwoods, which have different economic uses, different markets, and are located in different regions of the country (see Figure 2).

Hardwood forests consist mainly of broadleaf deciduous trees, such as oak, maple and hickory. They are located mostly in the Northeast, Midwest and mid-South regions of the U.S. and extend into the Southeast along the Mississippi River Valley. States in this region with substantial acreage in national forests (greater than 1 million acres) include: Minnesota, Wisconsin, Michigan, Missouri, West Virginia, Virginia, North Carolina and Mississippi.

Hardwoods comprise 56 percent of U.S. forests. However, they are less valuable than softwoods because they grow in mixed species forests in which it is necessary to use selective cutting, a difficult harvesting method. Selective cutting increases the price of the timber and, thus, lowers the demand. The commercial uses of hardwoods include furniture making and flooring.

Softwood forests are comprised of needleleaf conifers, such as spruce, pine and cedar, which have a softer wood and wider grain than that of hardwoods. Most are found in the

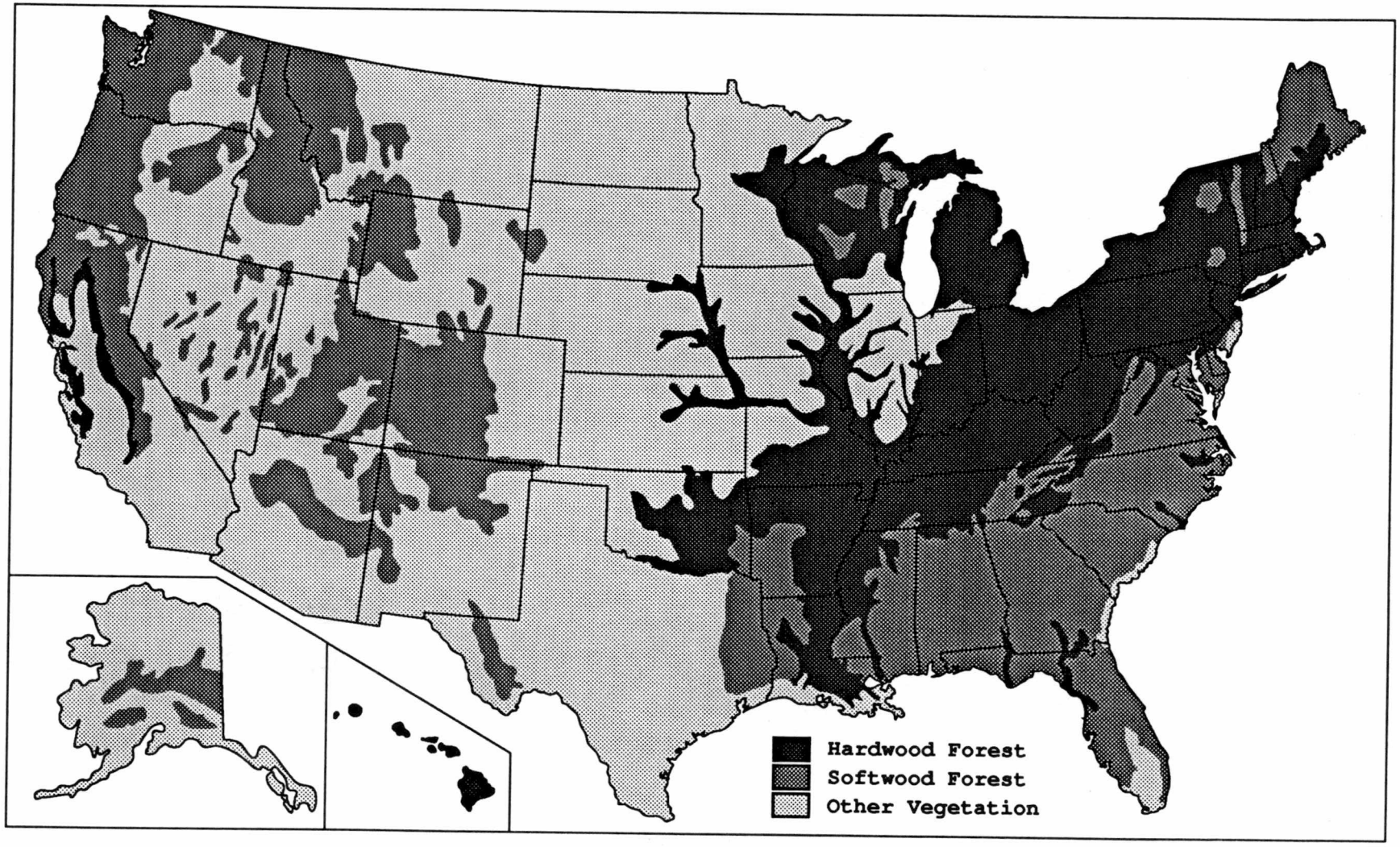

Figure 2: **U.S. Distribution of Hardwood and Softwood Forests** (Kuchler, 1949).

West and the Southeast coastal region, encompassing those states with the greatest acreage in national forests.

Softwoods often grow in dense single-species stands at a relatively uniform, high growth rate on average. Thus, clear cutting is often the silvicultural technique used, rendering an easy harvest that produces high yields since they grow in dense stands. These characteristics taken together produce the greater economic value of softwoods. They are used mainly in production of paper products, lumber and plywood. While softwoods comprise a smaller portion of commercial forests, they are in much greater demand, accounting for 83 percent of the total U.S. demand in 1981 (Cutter *et al.*, 1985).

A study of the timber market by Richards (1987) demonstrates that since the 1950s, there has been no simple discernable trend in lumber consumption in the U.S. (Table 1). In general terms, the demand for softwoods has increased, while hardwood demand has experienced a slight decline. Over these years, despite short term cycles in the economy, the timber market overall has experienced rising real prices. The effect of these rising prices has prompted the development of new technologies. This, in effect, increases the current timber supplies. Richards also notes the increasing focus on the production of softwood timber and speculates that this could led to "a shift away from quality and more to availability of wood fibre." This shift would favor logging areas where large amounts of softwood timber could be

Table 1: **Hardwood and Softwood Demand in the United States (1950-1985).**

Year	Softwood[a]	Hardwood[a]
1950	80	18
1960	71	15
1970	77	18
1980	86	17
1985	104	14

[a]measured in millions of meters^3

(Richards, 1987)

harvested for the least cost.

The Timber Industry and National Forests

Ownership of timberland in the United States is mainly private, accounting for 72 percent of the total acreage. Of this, individuals and organizations not harvesting timber own 58 percent. The forest industry owns the remaining 14 percent (Cubbage *et al.*, 1993), however this is not evenly distributed across the U.S. (see Table 2). The forest industry owns between 15 and 20 percent of commercial timberland in the Northeast, Southeast, South Central and Pacific Coast states. National forest ownership in those regions is as follows: Northeast, 2.8%; Southeast, 5.8%; South Central, 6.2%; Pacific Coast-Northwest, 35.8%; and Pacific Coast-Southwest, 50.2%. In the Rocky Mountain and Great Plains states, the percentages become greatly skewed in favor of the Forest Service; in the Rocky Mountain states, 60.4% of forestland is national forests while only 5.1% are owned by the forestry industry, and in the Great Plains, 26.7% national forest compared to 0.6% forest industry land. Finally, in the Lake States, both the Forest Service and the forest industry own less than 10% of forest land (Mason, 1990).

Where the amount of land owned by the timber industry is approximately equal to or less than that owned by the Forest Service in a given region, the timber industry is most dependent upon national forest timber. Thus, in general,

Table 2: **Ownership of Commercial Timberland (1987).**

Region	National Forest	Forest Industry
Northeast	2.8	15.7
Southeast	5.8	19.9
South Central	6.2	19.3
Lake States	9.7	5.7
Great Plains	26.7	0.6
Rocky Mtn States	60.4	5.1
Pacific NW	35.8	17.8
Pacific SW	50.2	15.8

Note: All numbers are expressed as a percentage of the total acreage of commercial timberland.

(Mason *et al.*, 1990)

timber operators in the West and Lake States depend to a greater degree on timber from national forests than do other regions of the country (Crandall, 1994). Additionally, because the Forest Service is the dominant landowner in the West, where the greatest amount of softwood timber is found, the Forest Service owns 45 percent of the nation's standing softwood timber. Traditionally, the national forests have supplied 25 percent of this market. However, over the past few years, due to the increase in lawsuits, they have been supplying less than ten percent of the market and accounted for only eight percent in 1994.

Characteristics of the Timber Industry

A study by Culhane (1981) of 22 individual forest products firms found most of the organizations were medium-sized, owner-operated individual businesses. These firms employed an average of about one hundred people in which they did both the logging and milling of the timber. They also tended to be the largest employer of the towns in which they were located. Most firms were members of a timber industry association, such as the National Forest Products Association or the Federal Timber Purchasers Association, which allow them to take an organized lobbying role in Forest Service timber policy making.

Doug Crandall, the Vice President of Public Forestry at the National Forests Products Association, described the

characteristics of the timber industry (1994). He stated that the timber industry consists of all sizes of companies, with no one size dominating the market. There are many more small companies, but this is offset by the volume of large companies.

Economic Uses of Public Lands

In the early settlement era of America's history, our nation's leaders were concerned with clearing land for settlements, farms, and the raising of livestock; resources were to be used to advance and develop society (Lancaster, 1990; Robinson, 1975). Thus, the exploitation of natural resources was accepted. This spurred concern over the exploitative use of land, which set the stage for the development of the United States Forest Reserves (later to become the Forest Service). They were established under the Forest Reserve Organic Administration Act of 1897 (commonly referred to as the Organic Act): no forest reserve "could be established, except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of the citizens of the United States" (Steen, 1976). Under the Organic Act, the selling of timber from our national forests became an accepted practice.

During the early years of the Forest Service, the economic importance of selling timber ranked second behind the receipts generated from the grazing of livestock. Not until the 1920s, did timber sales emerge as the predominant economic function of the Forest Service, and it has since grown in importance. Immediately after World War II, the United States experienced an increase in housing production, which increased demand on the nation's timber supplies. Loggers turned toward the national forests to supply the extra timber. Between 1950 and 1959, the yearly timber cut from the national forests rose from 3.5 billion board feet to 8.3 billion (Kriz, 1990). By 1987, the yearly timber cut reached 12.7 billion board feet (Shabecoff, 1989).

Although the most economically-important use of national forests since the 1920s has been timber production, public lands are available for a variety of economic uses. According to a study by O'Toole (1988), resources from national forests produced the following receipts in 1985: timber, $917.4 million; mining, $160.5 million; and grazing, $30.8 million. Mining, grazing and logging occur on public lands due to the governmental effort to entice citizens to settle the West a century ago. These programs remain intact even though the social and political circumstances which gave rise to them no longer exist.

Mining and Grazing

The mining and grazing programs on public lands are similar to the timber sale program because all were born of an era promoting resource extraction on public lands. All programs are considered outdated since they do not respect current values of environmental and fiscal responsibility. The Mining Law of 1872 allows miners who discover minerals on public lands to file a claim permitting them to extract those minerals. Miners are not required to pay the government for this type of hard-rock mining, but, for a small payment of $2.50 to $5.00 per acre, they can purchase the title to the land. Exploration for coal, oil, gas, phosphate, potash, and other minerals is allowed under the Mineral Leasing Act of 1920. Mining these resources involves leases to private developers, who pay a rental fee and royalty for the minerals.

Western ranchers are able to graze their stock on Forest Service and Bureau of Land Management (BLM) land under several conditions. Grazing is permitted on "allotments" or defined geographic areas which are based on physiographic features or historic grazing patterns. An inventory of the range is conducted to assess its condition and determine the carrying capacity of the allotment. Next, the Forest Service issues permits (the BLM issues licenses) for the use of the land, usually covering a ten-year period. These grazing permits are normally renewable (Culhane, 1981) and are transferrable to a buyer of a ranch and its livestock.

Timber Harvesting

In preparing for a timber sale, the Forest Service follows a series of mandated steps. As in grazing, the first step is to prepare an inventory of the national forests. Next, the allowable cut is determined. Under the allowable cut calculation, both the potential yield (the maximum sustainable harvest in compliance with other multiple use considerations) and the annual programmed harvest (based on demand for the timber and funding for the program) are assessed. Next, the timber management plan prescribes that plans for the sale be created, including a five-year schedule of when the sales will take place, when and where the roads will be constructed, and what silvicultural techniques will be used for the cut. In preparation for the sale, an environmental analysis report (similar to an environmental impact statement) and an appraisal of the timber sale are conducted. The appraisal includes an estimate of the market value of the timber from which the costs of building logging roads, harvesting and milling the timber and a profit margin are subtracted to produce the "stumpage value" or the minimum price for which the timber may be sold. In the case of below-cost sales, often the costs of road building are too great for a harvester to make a profit on the sale, so the government absorbs these costs to guarantee the timber harvester a profit. In these situations, the timber will not be sold for less than the $0.50 per thousand board feet base rate, whereas

road construction, for example, costs an average of $10 to $20 per thousand board feet (O'Toole, 1988).

After the sale prospectus is distributed, the sale is awarded to the highest bidder through an open bidding process (either sealed bids or oral auctions). The final stage of the timber management program is the harvesting of the timber and the cleanup and reforestation of the site. To secure cleanup and reforestation, the timber operators may be required to make a deposit in the K-V Fund (named for the Knutson-Vandenburg Act of 1930) which was initially intended for reforestation of the area, but has, over the years, expanded to include other activities such as site preparation, seeding and planting, and thinning or other improvement work on the stand after it has become established (Culhane, 1981).

Why Many Timber Sales are Below-Cost

The original study on below-cost timber sales conducted by the Natural Resources Defense Council in 1980, provides an historical view of where below-cost timber sales tend to occur in the United States (Barlow, 1980). Figure 3 depicts this information estimating the percentage of below-cost sales in each of the nine Forest Service regions. Regions containing large portions of national forests operating below-cost are found in the Rocky Mountain states, the Intermountane Region, and Alaska. Additionally, the northern Midwestern states and southern Appalachia are largely recognized as below-cost

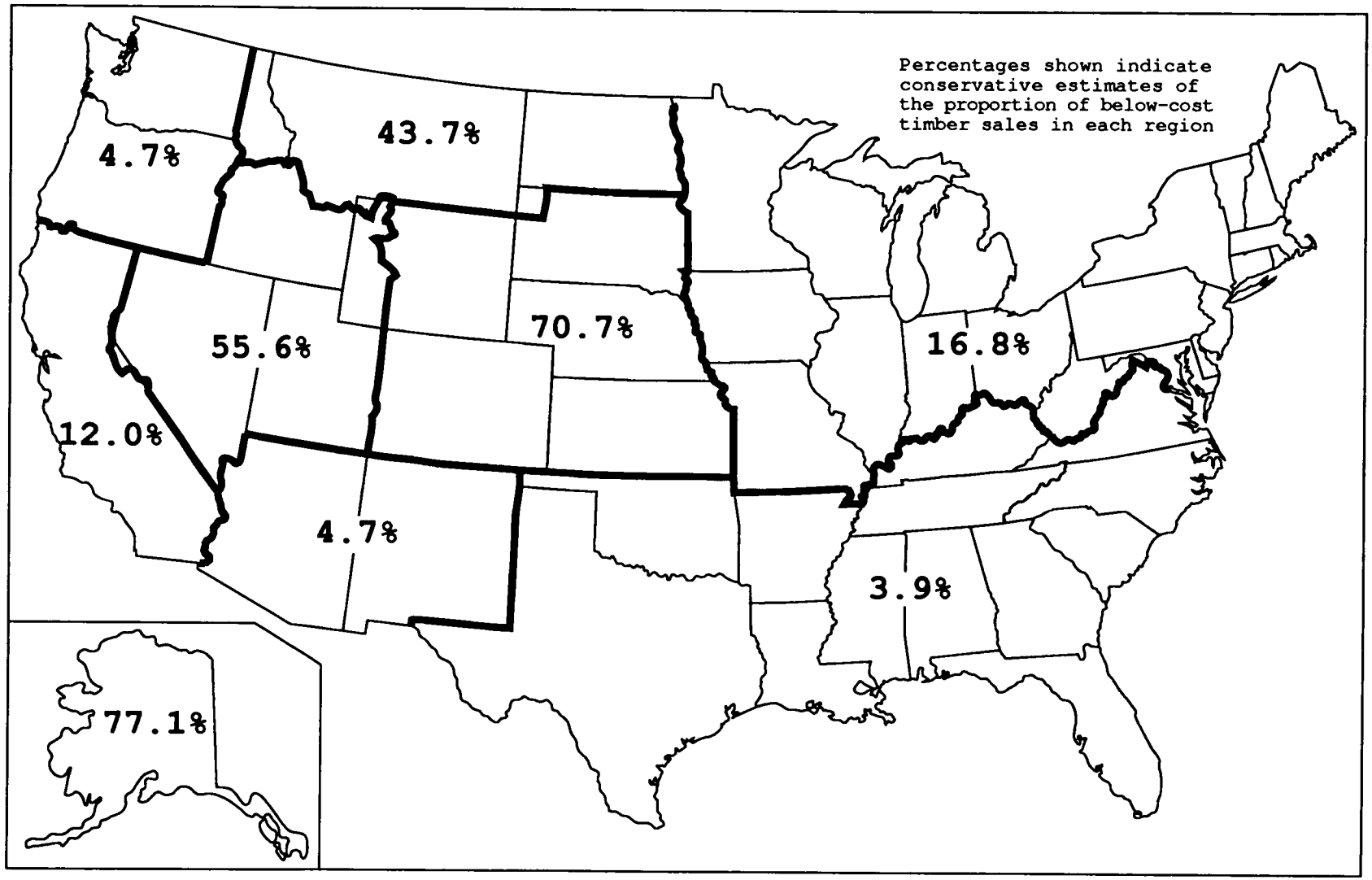

Figure 3: **Estimates of the Quantities of Timber Sold Below Cost by Region, 1978.** (Barlow, *et al.*, 1980)

areas, however, they are not exposed on this map since other national forests within these regions operate above-cost and therefore, absorb the impact of the below-cost sales in these regions.

Regions in the West along with the southern Appalachian region are below-cost areas that have been highly targeted by critics. They were reserved due to their inability to produce good farm crops and difficult terrain that prohibited settlement, basically "left over" land that was easy for the government to reserve. Southern Appalachia is predominately hardwood forests, which are more difficult to harvest. The Rockies are primarily softwood forests located in extremely steep terrain. Additionally, these areas, especially in the Rockies, are remote, making lengthy and expensive logging roads necessary. Logging these areas is also environmentally questionable; the terrain combined with the removal of the vegetative cover creates great problems of erosion.

Because the Forest Service guarantees loggers a profit on national forest timber sales, the Forest Service absorbs losses incurred by sales that lose money. The Forest Service then justifies these losses on the basis of benefits to recreation and wildlife provided by logging the area. Many environmentalists dispute the "scientific basis" of these benefits, claiming these sales do more harm than good to the environment (see Rice, 1989).

Regions most dependent upon national forest timber, especially softwood primarily located in the West, will be impacted most by legislation eliminating below-cost sales from national forests. Small companies would be hit the hardest (Crandall, 1994). Larger companies would feel the impact, but because they probably also log privately-owned land, they would tend to pull out of an area that becomes too expensive to log (Gorte, 1994); they have the ability to adjust to changing policies on federal land.

CHAPTER III

The Politics of Public Lands

Timber Production

The Rise of Environmentalism

In public lands policy, issue conflict often develops because policies dictating how land is to be managed were born of an era that regarded land very differently than it is perceived today and because the land is currently managed under philosophies differing from those held by a politically-active segment of today's society. Culhane (1981) classifies the philosophies that have guided natural resource management in the United States into four categories: utilitarianism, progressive conservation, romantic preservation, and environmentalism.

A utilitarian view of natural resources predominated in the nineteenth century and held that resources were inexhaustible and to be exploited to advance society. Around the turn of the century, Americans began learning that there was, in fact, a limit to natural resources and abused land could actually be harmful to humans (deforestation, it was learned in Europe, led to an increase in dangerous flooding). Culhane identifies the rise of the progressive conservation movement as a response to the disasters created by utilitarian

exploitation. President Theodore Roosevelt and forester Gifford Pinchot were leaders of this progressive conservation movement that dictated the "wise use" of natural resources to protect against the overconsumption that had deforested Europe and the eastern U.S. This philosophy led the movement to establish the forest reserves, based on Pinchot's principle of "providing the greatest good for the greatest number [of people] in the long run" (Culhane, 1981). Along with the progressive conservation movement, romantic preservationism developed. According to Culhane, this philosophy evolved in response to the "artificiality and disharmony of urban, technological culture." The romantic preservation movement included such naturalists as Henry David Thoreau, John Muir, Aldo Leopold, and Edward Abbey, who valued nature for nature's sake, not for human consumption.

Modern environmentalism, the fourth land management philosophy important to America's history, followed conservation and preservation. Rachel Carson's account of the DDT crisis of the late 1950s in Silent Spring is widely recognized as an important mobilizing force behind the development of the environmental movement. Humans are dependent upon a healthy biosphere, as the return in spring of Carson's birds was dependent upon a healthy, non-pesticide-contaminated ecosystem. Environmentalists tend to favor nature when conflict arises. They vary, however, in the degree to which they accept the necessity of controlled

consumption of natural resources, ranging along a spectrum of reluctantly accepting it to vehemently opposing it.

The Forest Service was created as a response to utilitarian exploitation by members of the progressive conservation movement. According to Culhane (1981), the progressives believed natural resources should be managed by first, creating public agencies dedicated to the public interest, and second, using professional management by technical experts. Culhane states that environmentalists do not believe in these solutions; they are often pitted against government agencies in management disputes because of differences in the technical, use-centered management style of public agencies versus environmentalists' beliefs in maintaining healthy, complex, natural systems over human use.

Environmentalists have gained access to, and applied pressure on, all areas of federal resource and environmental policy making, including, of course, the management of public lands. Environmentalists are opposed to environmentally-destructive logging, grazing and mining. Environmentalists lobby Congress and the office of the President, testify at Congressional hearings, do research with the aim of influencing policy, and initiate lawsuits. Through these routes and others, environmentalists have significantly impacted the course of public lands politics over the past several decades.

Spurred by the environmentalists' gains in the 1960s and

early 1970s, an opposition mobilized, consisting of those committed to improving quality of life through increased material development. They believe in allocation of resources by an unregulated market and are concerned that the environmental movement threatens economic growth and quality of life. In the late 1980s, this "wise use" movement gained momentum with an agenda to protect individual and private property rights. Maintaining mining, grazing, and logging rights to national forests are among their goals to protect resource extraction programs on public lands. Those of the wise use movement believe they have a right to extract these resources. Cubbage *et al.* (1993) suggest that America swings back and forth between the community and government versus individualism and markets dichotomy. Thus, the successes of environmentalists spurred the "wise use" reaction. Currently, issues involving public lands are a result of this environmental versus resource extraction conflict.

A Conflict Over Values

At issue in the debate over public lands is what is their purpose, for what or whom are they to be managed? This can be viewed as a philosophical debate: "should the national forests be used or preserved?" (Shabecoff, 1989). On one side, environmentalists oppose subsidizing environmentally-damaging resource extraction on national forests. They are opposed by those who believe in extracting natural resources

to enhance our quality of material life. Clawson (1974) states that policy making dependent upon pressure groups often tends to result in a piecemeal approach; the outcome is usually conflict instead of compromise without realizing any common interests.

Wagner (1991) addresses this conflict over values and land management practices, stating that natural resources should be managed to satisfy social values. The definition of natural resources, he explains, is "objects and substances in nature that have value to humans." Therefore, since the value of natural resources is understood in terms of society, they should be managed for society's benefits. Wagner continues by describing the resource extraction versus environmentally-responsible values toward natural resources and believes that policy should reflect the dominant values of the present era. Therefore, the current battle over public lands can be viewed as a natural outcome; those striving to eliminate the below-cost timber sale subsidy are attempting to realign natural resource management with the changing social values rooted in the environmental movement.

Irrational Pricing on Public Lands

The three main resource extraction programs on public lands, mining, grazing, and logging, have all been charged by critics as in need of updating. Mining is governed by a 120-year old law which does not charge royalties on gold and

silver, sells federal land for as little as $2.50 per acre, and does not require land reclamation. Public rangeland is leased to ranchers at a fraction of the cost of grazing on private lands. And, the timber sale revenues do not cover the costs of preparing the sale while timber harvesting also damages the environment. Efforts by Congress and the Administration over the past several years to update all these programs have been defeated. Thus, instead of being governed by the market, the pricing of these programs is politically determined.

The Forest Service cites several benefits of logging national forests to justify those sales operating below-cost, but to which it is difficult to assign a dollar value. These benefits accomplish other forest management objectives (Beuter, 1991). Opponents, including Rice (1989), Resource Economist for The Wilderness Society, argue these claims are insubstantial. First, the Forest Service claims that recreation is improved due to easier access into forests on roads built primarily for logging. With 360,000 miles of roads already in national forests (eight times the length of the interstate highway system), the demand for recreation access is well met, and new roads will only detract from the quality of increasingly demanded wilderness recreation, according to Rice. Second, water flow into reservoirs increases after an area has been logged. The Forest Service assumes all this additional water will be held in reservoirs

and used for irrigation. However, recent computer simulations of the Colorado River Basin do not support this because the increased flows occur during spring and during floods when water demand is lowest. Reservoirs are already filled to capacity as a practice during these periods. Third, the Forest Service claims that logging creates forest edges which promote biological diversity. On the contrary, while many game species would benefit from a complex habitat, logging roads may increase hunting pressure. Also, the Forest Service cites increases in numbers of species with logging, but does not differentiate between abundant species and those in need of protection and what has happened to each one's habitat. The Forest Service asserts that logged openings mimic natural disturbance openings, but it does not account for the decreased complexity due to the removal of logs instead of their remaining in place and decaying. Finally, protection from fires, insects and disease are asserted benefits of logging without understanding the importance of these processes to the natural health of the forest ecosystem.

Many critics believe the Forest Service, whatever its rationale, continues these sales because foresters maintain a "timber primacy" attitude, i.e. the notion that society is dependent upon forest products, which must be produced at any cost. O'Toole (1988) relates timber primacy to a religion; the Forest Service has a sacred mission to provide wood to avert a possible timber famine, which was predicted in the

early 1900s to impact the country at a later date and was one of the reasons for creating forest reserves. Clary (1986) and Robinson (1975) are similarly critical.

O'Toole suggests that perhaps the Forest Service has continued to support the timber primacy belief because it supports another goal of bureaucratic organizations, budget maximization. Because government agencies are based on a budget and not a profit, success may be defined by increasing the budget, through which bureaucrats believe they will be able to accomplish more and run a more effective agency. As demand for timber increased after World War II, the Forest Service found a reliable means to increase their budget. In a study for Resources for the Future, Clawson (1974) found that over 90 percent of all Forest Service receipts are from timber sales. Sample (1990) believes that management of natural resources on the national forests is driven by short-term annual budget objectives and have not been corrected by attempts in the 1970s and 1980s at long-term comprehensive planning.

O'Toole (1988) states that below-cost timber sales compound the problem of budget maximization. By artificially underpricing timber on national forests, the amount of timber demanded increases. This creates the appearance of a shortage of timber. The Forest Service and timber operators respond by lobbying Congress to increase the Forest Service's budget so the timber sale program can meet this artificially-increased

demand. The Forest Service, therefore, is insulated from the true demand for timber; instead the prices and demand should dictate how much timber the Forest Service should sell. Since timber receipts are greater than those generated from recreation, timber may be emphasized where recreation would be more valuable. O'Toole suggests using markets to sensitize forest managers to the demand for all forest resources. By charging modest fees for recreation, it would be able to compete with timber. This, O'Toole asserts, might lead to decreased logging and thereby indirectly promoting other wilderness goals.

Ideological Coalitions and Below-Cost Timber Sales

With a great number of interest groups actively pursuing policy change on public lands issues, the below-cost timber sale issue is one of many which have reached the Congressional agenda. Therefore, understanding the ideological variables influencing legislators' positions on below-cost timber sales will illuminate patterns found in the voting on this issue.

Many have researched the building of ideologically-based coalitions in Congress (such as Lindblom and Woodhouse, 1993; Manley, 1977; Peters, 1993). Legislators practice coalition building in the United States in order to create a majority to pass legislation when voting based along party lines fails. Our weak party system has contributed to this coalition-building activity (Lindblom and Woodhouse, 1993). Coalitions

may be formed by creating legislation that will appeal to a winning majority of Congress members, such as the National Defense Education Act of 1958. This act combined liberals interested in education reform and conservatives favoring stronger defense. The coalition thus created was broad enough to pass the Act.

A similar tactic has been used to coalesce opinion around issues concerning the economic uses of public lands. For example, selling timber from national forests was initially an environmental issue, as environmentalists were concerned about the destruction of our natural resources. Environmentalists were not powerful enough to eliminate what they felt were unreasonable timber sales (i.e. those environmentally-destructive sales which the government was subsidizing). The below-cost timber sale issue was then expanded by emphasizing its fiscal irresponsibility through a study by the Natural Resources Defense Council in 1980 (Shabecoff, 1980). The Natural Resources Defense Council charged the Forest Service with losing millions of dollars on timber sales, and providing what was, in effect, a subsidy to timber companies. The Wilderness Society became active on this issue during the late 1980s, conducting further studies on below-cost timber sales while the General Accounting Office investigated and demanded reform of the Forest Service's accounting system. The issue has serious economic implications during a time when much concern has been raised over the national budget. This

brought in "fiscal responsibility" groups, such as the National Taxpayers Union, creating an unusual environmental-fiscal conservative alliance.

Critics of the timber sale program are concerned with the dominant role of timber sales in national forests because they believe that other uses are being jeopardized, and the Forest Services's multiple use doctrine is being violated. This conflict in values over the economic uses of public lands has provoked mobilization around the below-cost timber sale issue, first by the environmentalists. Then, fiscal conservatives joined based on their ideological opposition to these subsidies. Finally, forest products groups have responded to protect their economic interests. This mobilization has spurred activity in Congress.

CHAPTER IV

Research Design

To test the hypothesis of how members of Congress will vote on the below-cost timber sale issue, this study followed the ensuing research design. Spreadsheets were created for each of the roll call votes, composed of each legislator's vote, as recorded by the Congressional Quarterly Weekly Report, and several measures of both the ideological and local interest factors in order to test their respective power in influencing individual votes. This chapter will first explain the operationalization of the ideological and local interest factors and then the statistical tests performed on these variables. It will finally present the backgrounds of each of the three votes and discuss their contributions to the understanding of voting on this issue.

Operationalization of Variables

Variables that will identify an ideological influence on voting on the below-cost timber sale issue include: environmental responsibility and fiscal conservatism. Party affiliation and degree of urbanization of the district or state represented will also be included in this group of ideological influences on voting. While they do not represent

specific ideological beliefs, they were included based on the interest aggregations represented by these variables. The environmental variable was broken down, first, into the percentage rating given each member of Congress by the League of Conservation Voters (1992, 1993) based on how they voted on a number of selected environmental issues. And second, into a variable measuring environmentally-responsible voting only on public lands issues through the same index. The purpose for this refinement of the environmental variable was to test whether members of Congress treated public lands issues differently than other environmental issues. The next variable measured the fiscal propensity of legislators. This rating based on percentages measured how conservatively members of Congress vote on fiscal issues and was produced by the National Taxpayers Union (1993, 1994). The fourth variable measured the degree of urbanization (as a percentage) of each legislator's district, based on census data (U.S. Bureau of Census, 1983, 1990b, 1990c). The use of this variable was based on the assumption that there are distinct urban and rural views which may approximate ideological beliefs. Since legislators with urban districts do not have many constituencies dependent upon resource extraction, they may tend to more strongly support environmental issues. Rural-based legislators may have timber interests within their district or may be generally more sympathetic to those interests whose livelihood is dependent upon resource

extraction. The last ideological variable split legislators by party affiliation to test for Republican or Democratic biases towards voting on this issue (treated as a dichotomous dummy variable).

The last four variables included in this study seek to represent a state's dependence on national forests. This will indicate the degree to which legislators vote to support local interests on the below-cost timber sale issue. These variables include measures for each state of: the forest industry as a percentage of the state's total industrial base, the amount of federally owned land, the net receipts of national forest timber sales, and the number of persons employed in forestry. The 1991-92 Green Index (Hall *et al.*, 1991) provided the measure of the strength of the forest industry as a percentage of the state's total industrial base. This same index also gives the percentage of land in each state owned by the federal government, the assumption is that the more important federal government land is to a constituency, the more probable it is that a legislator will support economic uses of public lands. The next variable records, in real dollar amounts, the net gain or loss for the timber sale programs on national forests in each state, as recorded by the Timber Sale Program Annual Report, FY 1991 (USDA Forest Service, 1992). This will distinguish between forestry interests in general and below-cost interests. The final variable indicates how important forestry is as an

employer in each state by recording the total number of persons employed in forestry in mid-March of 1990 by state, as stated by the County Business Patterns, 1986-1990 (U.S. Bureau of Census, 1990a).

Explanation of Statistical Tests

A series of statistical tests are performed on these variables. Initially, correlations will test which variables correlate most strongly to voting on this issue. Group means tests will provide additional insight to the correlation results and their strengths. Next, multiple regression tests on the variables will be used to show the relative strength of each variable in explaining each vote. In order to confirm that the two groups of variables, the ideological and local interest groups, are indeed different, a factor analysis will be performed for each vote on the variables. The final statistical test will be the discriminant analysis conducted on the resulting factors from the previous factor analysis. This will be used to determine the extent to which these factors selected are sufficient to successfully predict voting on the below-cost issue. The discriminant analysis test will also be useful in that it flags those cases where it mispredicted how a member of Congress would vote based on the variables, so an examination of those cases should yield a better understanding of the votes.

Below-Cost Timber Sale Legislation

These statistical tests will be run on all three of the Congressional votes on below-cost timber sales. The degree to which each of the three votes is useful for interpretation varies, however.

The Fowler Rider

Senator Fowler (Democrat, Georgia) was the Chair of the Subcommittee on Conservation and Forestry of the Committee on Agriculture, Nutrition, and Forestry in 1991, thus his interest in the below-cost timber sale issue is based on his involvement in forestry issues. At an 11 April 1991 oversight hearing on "Below-Cost Timber Sales and National Forest Management," Senator Fowler stated that his concern in this issue stemmed from the realization that our national forests are experiencing increasing demands, which require resolution. As we realize our natural resources cannot be replaced, we are confronted with a challenge to provide the best possible management for our national forests. Fowler has been active on this issue for several years, and his stated aim was to develop an "honest accounting system" that assesses the real value of the resources in question and accounts for the real costs and benefits to the taxpayer. He continued with an ideologically-loaded statement,

> "And to go even further, ideally, and I still retain a modicum unapologetically of idealism, ideally we would like to see the Forest Service at the forefront of the fight to protect our forests

> from excessive timbering and roadbuilding, to ensure wildlife diversity and the survival of threatened woodland species, and to preserve some semblance of the scenic grandeur and natural wonder of our forests for those who come after us" (Fowler, 1991).

Senator Fowler is a Democrat from Georgia. The League of Conservation Voters rates him highly (83%) for a number of selected issues with environmental implications. Thus, he can be considered as having an environmental ideology, as seems evident from his statement quoted above. In terms of his views of fiscal matters, he cannot be considered conservative. The National Taxpayers Union gives Fowler a low rating of 32%, meaning he voted fiscally conservative on only 32% of the issues with fiscal implications.

The rider presented by Fowler, Congressional Quarterly Senate vote 173 (Congressional Quarterly, 1992a), would have cut the Forest Service's budget by $35 million. This cut was to be directed to reduce below-cost timber sales by 25 percent. It was tabled, or killed, on 5 August 1992 (50-44) by a motion from Senator Larry Craig (Republican, Idaho), a fiscally conservative (75% rating by the National Taxpayers Union) Senator for whom environmental issues are of little importance (0% rating by the League of Conservation Voters). Craig opposed this rider because the elimination of below-cost timber sales would increase the price of an average home and eliminate thousands of timber jobs (Davis, 1992).

In the Senate, the majority of Senators have timber

interests within their state (44 states have national forests corresponding to 88 Senators). However, those Senators with below-cost timber sale interests are in a minority; forty of the 94 Senators voting on the Fowler rider had below-cost timber sales on national forests in their state. If voting on this rider followed the hypothesis, this vote would be close, because even though the majority of Senators have some timber interests within their state, those specifically with below-cost interests constitute under fifty percent of the Senate. A vote to kill the Fowler rider is considered in favor of maintaining the below-cost timber subsidy.[1] This rider provides a straightforward vote on the below-cost timber sale issue since it is not clouded by other Congressional issues and, thus, is useful for interpretation.

The Jontz Amendment

Congressman Jim Jontz (Democrat, Indiana) was a member of the Subcommittee on Forests, Family Farms, and Energy of the Committee on Agriculture in 1991. In testimony before this committee, Jontz approaches this issue from the view that the most productive timber producing lands are privately owned because the timber industry purchased them. Land which was held in the public domain simply is, by and large, not the most economically suited to timber production. He points out

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[1]For all three votes, a vote to maintain the subsidy was entered in the spreadsheet as a "1", and a vote to eliminate the subsidy was entered as a "2".

that many of the factors relating to public lands not being of the highest timber producing quality render it prone to environmental problems, such as building long roads into roadless areas which fragment forests and produce sedimentation of streams. Jontz states, "...we are asking for environmental trouble. We are asking for problems in the courts when we insist on extracting timber under these very difficult circumstances because it is not easy for the agency to do that and still adhere to the requirements of the law" (Jontz, 1991).

Jontz can thus be considered an environmentalist. He received a 100% rating by the League of Conservation Voters. On fiscal matters, he is moderate, with a 47% rating by the National Taxpayers Union. After attempting to address the below-cost timber sale issue through the Committee on Agriculture, Jontz ended up working through the Appropriations Committee. His amendment to the Interior Appropriations bill, Congressional Quarterly House vote 302 (Congressional Quarterly, 1992a), aimed to cut the Forest Service's budget by $16.8 million, or 10 percent of the amount set aside for timber sale preparations. However, Congressman Norman D. Dicks (Democrat, Washington), in an effort to protect hometown logging jobs (Congressional Quarterly, 1992b), offered a substitute amendment which reduced Jontz's cut to $8 million and was accepted by the House on 23 July 1992 (216-206). This "softened" cut came from administrative costs and did not

limit timber sales, making some concessions to fiscal conservatives, but not to environmentalists.

Less than one-quarter of the Representatives in Congress (n=102) during the Jontz vote had national forests within their district with timber sale programs. Thus, legislators with local timber interests are in the minority. A vote in favor of the substitute amendment is considered against the Jontz amendment and thus against a strong attack on eliminating below-cost timber sales. The League of Private Property Voters (1992), a group concerned with preventing federal government regulation of public and private lands, agreed with this interpretation by viewing a vote for the Dicks' amendment positively because it was "the lesser of the two evils." This vote, along with the Fowler rider, provides a good base for interpreting Congressional voting on this issue since it was not clouded by other issues, as is the Porter Amendment.

The Porter Amendment

Congressman John Porter (Republican, Illinois) serves on the House Appropriations Committee and his reputation of fiscal conservatism has been widely recognized by groups such as the National Taxpayers Union, Watchdogs of the Treasury, the Grace Commission's Citizens Against Government Waste, the National Federation of Independent Business and the U.S. Chamber of Commerce. He was ranked 12th among all House

members in 1992 for his fiscally-conservative voting record. Porter also claims to have an environmental ideology, and The League of Conservation Voters rates him as a moderate at 56%, still well above the national average of 44%. According to Vicki Elkin (1994), Legislative Assistant to the Congressman, Porter is concerned with environmental issues, but he especially looks for issues that also make economic sense, such as below-cost timber sales. Porter's involvement in below-cost sales was mainly a result of timing. Jontz lost his reelection campaign for the 103rd Congress, so Porter picked up the below-cost timber sales issue from Jontz (Elkin, 1994).

The amendment Porter introduced to the Interior Appropriations bill, Congressional Quarterly House vote 323 (Congressional Quarterly, 1993a), was touted by the Congressman himself as a vote to "save money and protect the environment" (Porter, 1993a), which demonstrates his dual interest in the issue as reducing the losses to taxpayers and, at the same time, acting in an environmentally-responsible manner. In another announcement to Congress about the upcoming vote, an attempt at building a coalition of taxpayers and environmentalists is evident in the announcement's title, "Cutting spending with green scissors" (Porter, 1993b). Porter's amendment, which was defeated on 14 July 1993 (164-262), aimed to reduce the Forest Service's budget by $18 million in fiscal year 1994. This budget cut was to be

directed to the construction of forest roads and preparation of timber sales in roadless areas. A vote in favor of the Porter amendment is considered in favor of eliminating the below-cost timber sale subsidy. As for the Jontz amendment, local timber interests are again in the minority in the House, with 104 Representatives (less than one quarter) having national forest timber sale programs in their district.

A vote on this amendment represented more than a simple vote to eliminate below-cost timber sales, however. This vote occurred during President Clinton's first year in office while the Congress was still "getting used to" a new president and party in the White House (Elkin 1994). With a Democrat in office and a Democratic Congress, the dynamics of this new arrangement were being worked out. It was the general feeling of Congressional Democrats that the Presidents's first budget ought to be given a chance to work; it was not appropriate to further cut the Forest Service's budget. Thus, this lessens the analytic potential of the Porter amendment since the below-cost timber sale issue was clouded by larger Congressional issues.

CHAPTER V

Results

Correlations on the Variables

The initial results from the correlation tests point to ideological considerations exerting greater influence on voting than the local interest factors (Table 3). It is significant to note that all the correlations between local interest variables and votes were negative, and on a whole, weaker than the ideological variables. The only two unexpected sign changes occurred in the Porter amendment where ideological views weakened over all, but still were more significant than local constituent influences. Additionally, only seven of the twelve correlations on the local interest variables had 1-tailed significance at the .01 level while twelve of the fifteen ideological variables had 1-tailed significance at the .001 level with an additional variable having 1-tailed significance at the .01 level.

One observation to note concerning the variables is that the public lands ratings paralleled the environmental ratings fairly closely in each vote with the greatest variance being 0.0253. This is not surprising since the public lands rating is a refined measurement of the environmental score, assessing the degree to which environmental considerations were taken into account when voting on public lands issues specifically.

Table 3: **Correlations on Variables by Vote.**

VARIABLES	FOWLER RIDER	JONTZ AMENDMENT	PORTER AMENDMENT
-Ideological-			
environmental	0.6610**	0.6042**	0.2518**
public lands	0.6577**	0.5822**	0.2771**
fiscal	-0.6154**	-0.2601**	0.1266*
party	0.6961**	0.2631**	-0.0936
percent urban	0.1883	0.3536**	0.1769**
-Local Interest-			
forest industry	-0.2285	-0.2530**	-0.1485*
federal landowner	-0.3560**	-0.2054**	-0.0478
net receipts	-0.1162	-0.1258*	-0.0326
forestry employ.	-0.2118	-0.2171**	-0.1221*

Notes: 1-tailed significance: * = .01 ** = .001

Number of cases:
Fowler 94
Jontz 420
Porter 423

Therefore, there is little difference in Congressional response to public lands issues and environmental issues on the whole.

The Fowler rider in the Senate, which had a total of 94 cases, produced strong positive correlations significant at the .001 level between those voting in favor of ending the subsidy and high environmental and public lands ratings and a Democratic party affiliation (between 0.6577-0.6961). A strong and significant correlation of -0.6154 was produced with fiscal conservatives. Since many Democratic environmentalists tend to be less fiscally conservative than their Republican counterparts, further evaluation was necessary to check that this correlation was not a result of the low fiscal ratings of Democratic environmentalists. Out of the 25 most fiscally-conservative Senators (all had ratings above 60%), all but one voted to keep the subsidy, therefore, the strong negative correlation was not clouded by a possible spurious correlation. A non-significant correlation between degree of urbanization of a legislator's district and how they voted on below-cost timber sales indicates that this is not an urban-rural issue. The four local interest variables correlated to the votes on the Fowler rider were all negative, demonstrating that those with timber interests in their constituencies tended to vote to maintain the subsidy, however only one variable, the amount of land in a state owned by the federal government, produced a significant (.001 level)

correlation of -0.3560. All other correlations were insignificant.

Voting on the Jontz amendment followed the Fowler rider to some extent, but several distinctions can be discerned from the results. All but one correlation are significant at the .001 level; the remaining correlation, net receipts, is significant at the .01 level. The weaker Jontz correlations produced more significant correlations than those of the Fowler rider due to the larger number of cases in the House (a greater *n*). Overall, the correlations are stronger for the ideological measures. The environmental and public lands ratings are again the strongest at 0.6042 and 0.5822 respectively. The negative correlation produced by fiscal conservatives and favorable to the elimination of the subsidy weakened in comparison to the Fowler rider, now only a -0.2601 correlation, signifying that perhaps more fiscal conservatives aligned with environmentalists on this issue in the House than in the Senate. Of the top 103 fiscally-conservative Representatives (approximately the top 25%), 31, or 30%, voted to eliminate the subsidy, demonstrating that more fiscally-conservative voters did, in fact, vote to eliminate below-cost sales as compared to those for the Fowler rider. Another correlation that weakened with respect to that correlation produced in the Senate is that of party affiliation to 0.2631, becoming less of a Democratic issue. Finally, concerning the ideological measurements of this issue, the Jontz amendment

pulled more of the urban vote than either of the two other votes, with a correlation of 0.3536. All of the correlations concerning the local interests of those voting on this issue were significant, as previously mentioned, however they were weaker correlations than those found for the Fowler rider. The strongest local interest correlation of -0.2530, measuring the importance of the forestry industry in a state and its ability to influence a Congress member's vote, was weaker than the weakest correlation for ideological values.

The correlations for the Porter amendment were the weakest of the three. Ideological considerations continued to be more important where the three highest correlations for this vote occurred, however they were much weaker than their counterparts under the other two cases. Environmental and public lands ratings once again represented the highest correlation (0.2518 and 0.2771) with a .001 level of significance. The only other significant correlation at the .001 level was that of degree of urbanization correlated to favoring elimination the subsidy at 0.1769. One of the more interesting of the simple correlations was produced between fiscal conservatives and those in favor of eliminating below-cost sales. It changed signs in this case and became positively significant at the .01 level ($r = 0.1266$), where there was previously a negative correlation. Out of 106 of the most fiscally-conservative legislators (25% of those voting on this amendment) 49 legislators, or almost 50%, voted

to eliminate the subsidy, signifying that more fiscal conservatives, as compared to the other two votes, were voting to eliminate the below-cost timber sale subsidy. The second striking correlation from this case was that for the first time, party affiliation became non-significant, with a very low correlation of -0.0936. This was the first vote in Congress in which below-cost timber sales became a non-party issue. Again, local constituent influences were less important than ideological views, with the only two significant correlations, at the .01 level, being that of the importance of the forest industry in each state and the numbers of persons employed by forestry in each state, -0.1485 and -0.1221 respectively.

Group Means of the Variables

Table 4 displays the group means of each variable for those who voted for and against eliminating below-cost timber sales. These reflect the results produced by the correlation tests while providing additional insight into where each group of voters emerged along the spectrum of the variables. The variables measuring environmental, fiscal, and public lands ratings, how urban a district is, the importance of the forestry industry in each state and how much land in each state the federal government owns are all expressed as percentages. Party affiliation was measured as a binary variable: "1" for Republicans and a "2" for Democrats. And

Table 4: **Group Means on Variables by Vote.**

VARIABLES	FOWLER RIDER		JONTZ AMENDMENT		PORTER AMENDMENT	
	yes[a]	no[b]	yes	no	yes	no
-Ideological-						
environmental	69.4	28.9	63.2	25.9	64.0	50.1
public lands	78.7	26.3	79.9	37.1	68.2	49.0
fiscal	31.8	53.5	40.3	51.1	47.9	41.0
party[c]	1.93	1.24	1.74	1.48	1.53	1.63
percent urban	71.1	65.6	81.4	65.3	80.3	72.4
-Local Interest-						
forest industry	7.3	11.5	5.3	8.5	5.8	7.8
federal landowner	11.4	29.7	11.5	19.8	15.5	17.5
net receipts[d]	1693	9312	3595	9761	6773	8575
employment[e]	237	517	308	552	373	521

Notes: [a]a vote to eliminate below-cost timber sales.
[b]a vote to maintain below-cost timber sales.

All measurements are average ratings expressed as percentages, unless otherwise noted.

[c]Party affiliation is measured as a "1" for Republicans and a "2" for Democrats.

[d]Net receipts are measured in thousands of dollars.

[e]Employment is measured as numbers of persons employed in forestry.

finally, national forests' net receipts and forestry employment by state are measured in actual dollars and numbers of persons respectively.

The more meaningful results of this test are found in comparing several of the ideological measures' group means of Porter's amendment with those of Fowler's and Jontz's. First, in considering the group means measuring environmental responsibility, it is interesting to note that for all three votes, the ratings for those who oppose below-cost timber sales are greater than 60%. However, for those voting to maintain the subsidy, environmental ratings rose significantly on Porter's amendment as compared to the other two, from under 30% to 50.1%.

While the actual change in numbers for the fiscal ratings were not quite as dramatic for the measure of fiscal conservatism as compared to the environmental scores, the change of group means between those voting for and against the subsidy is note worthy. For the first two legislative attempts, legislators with higher fiscal conservative ratings (Fowler rider: 53.5%; Jontz amendment: 51.1%) voted against changing timber policy, as compared to those in favor of ending below-cost sales (Fowler rider: 31.8%; Jontz amendment 40.0%). Those supporting the Porter amendment, however, had a higher group mean (47.9%) than those opposed to it (41.0%), demonstrating increased support for the Porter amendment by fiscal conservatives than had occurred for the previous two.

The results of the group means of party affiliation follow the same pattern as the fiscal ratings. The Fowler rider produced the highest degree of a Republican-Democratic split on this issue, with those voting against policy reformulation having a group mean of 1.2 (highly Republican) and those pro-reform, 1.9 (highly Democratic). The party lines become less defined when examining the Jontz amendment. Representatives supporting the subsidy had a group mean of 1.5 (mid-way between Republican and Democrats) and those opposing the subsidy, 1.7 (slightly more Democratic). Votes cast for the Porter amendment show a higher group mean of 1.6 (slightly more Democratic) for those voting against the amendment as compared to a 1.5 mean (mid-way between Republican and Democrats) of those supporting Porter's amendment.

Multiple Regression on the Variables

Stepwise regression procedures were used on each vote.[1] The results of these tests also point to ideological considerations weighing heaviest on voting decisions (Table 5).

Only party membership and environmental ratings had significance when regressed with all the variables included on

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[1]The first variable selected under this stepwise procedure is that with the highest correlation to the dependent variable. Then each following variable is selected based on the highest partial correlation until selected variables are no longer able to meet the entry and removal requirements of this procedure.

Table 5: **Multiple Regressions on Variables.**

STEP	VARIABLE	R^2	R^2 CHANGE
a. **FOWLER RIDER**			
1	party affiliation	0.485	0.485
2	environmental rating	0.557	0.072
b. **JONTZ AMENDMENT**			
1	environmental rating	0.365	0.365
2	forest industry	0.417	0.052
3	fiscal rating	0.448	0.031
4	federal landowner	0.466	0.018
5	percent urban	0.479	0.013
6	public lands rating	0.486	0.007
c. **PORTER AMENDMENT**			
1	public lands rating	0.077	0.077
2	fiscal rating	0.390	0.313
3	forest industry	0.406	0.016

the Fowler rider. Party membership produced an R^2 of 0.48456. The environmental ratings increased the R^2 to 0.55716. Both variables belong to the ideological category, with party membership being strongest, meaning that Democrats mainly voted to eliminate the subsidy and Republicans were in favor of maintaining the status quo. Environmental considerations also were important in voting to eliminate below-cost sales.

The Jontz amendment included the greatest number of variables in the multiple regression results, including in order of importance: environmental ratings, importance of the forest industry in each state, fiscal ratings, quantity of land federally owned in each state, how urban each Congressional district is, and public lands ratings. Members of Congress with high environmental ratings voting to eliminate below-cost sales produced an R^2 of 0.36511. Party membership was probably excluded because of its high intercorrelation with environmental ratings. The forest industry variable increased the R^2 by 0.05213 with the remaining variables having partial correlation coefficients between 0.03088 and 0.00699. Thus, the ideological measure of environmentalism exerted the strongest influence on voting against below-cost sales. Subsidies were supported to a lesser degree by those voting to maintain the sales to protect their local economic interests where forestry is an important industry in the state.

The Porter amendment presents a new angle on the

ideological considerations taken into account when voting on the below-cost timber sale issue. The public lands rating, with the strongest correlation, was entered first in the multiple regression with an R^2 of only 0.07679. Fiscal conservative interests were entered as the second variable with an R^2 of 0.31280. The third variable entered, the forest industry, exerts much less influence with an R^2 of 0.01682. Again, the ideological variables were relatively more important in explaining voting on this issue, and the fiscal variable gained in importance for the first time, possibly signifying an environmental-fiscal coalition developing around the effort to eliminate below-cost timber sales.

Factor Analysis

The next step in analyzing these data was to conduct a factor analysis test on each of the votes in order to group the variables into a smaller number of factors. My hypothesis was that these factors would represent the break down between ideological and local interest variables. An explanation of the results of the factor analysis follows, and ultimately the factors will be utilized by the remaining statistical test, the discriminant analysis.

The results of the factor analysis (Table 6) for all three votes were fairly consistent. Four of the ideological variables, environmental, public lands and fiscal ratings, and party affiliation, loaded on the first factor after varimax

Table 6: **Factor Analysis on Variables After Varimax Rotation.**

VARIABLES	FACTOR 1	FACTOR 2	FACTOR 3
a. **FOWLER RIDER**			
-Ideological-			
environmental rating	.88235	-.06646	.13543
public land rating	.90318	-.17573	.01690
fiscal rating	-.84794	-.14117	-.11751
party affiliation	.86663	-.04467	.07760
percent urban	.09444	-.02662	.96181
-Local Interest-			
forest industry	-.11487	.75296	-.45525
federal landowner	-.54905	.29815	.14479
net receipts	-.06773	.90618	.14688
employment	-.05293	.90228	-.03226
b. **JONTZ AMENDMENT**			
-Ideological-			
environmental rating	.88205	.01032	.21531
public land rating	.86437	-.12367	.10741
fiscal rating	-.87062	-.02713	-.02201
party affiliation	.86425	.03245	-.02623
percent urban	.25893	.08739	.84656
-Local Interest-			
forest industry	.05462	.63495	-.57978
federal landowner	-.19758	.67215	.36788
net receipts	.04231	.89091	-.00118
employment	.02583	.90318	-.08396

Table 6 (continued)

VARIABLES	FACTOR 1	FACTOR 2	FACTOR 3
c. **PORTER AMENDMENT**			
-Ideological-			
environmental rating	.91291	.00514	.17683
public land rating	.93957	-.03651	.11049
fiscal rating	-.92942	-.02828	.00733
party affiliation	.90387	.04513	-.03985
percent urban	.18913	.01396	.86473
-Local Interest-			
forest industry	.05155	.72700	-.45488
federal landowner	-.12596	.60045	.47137
net receipts	.04740	.90238	.09829
employment	.02630	.91142	.02445

rotation; loadings ranged between 0.85 and 0.94. This will be referred to in the following statistical tests as the "ideological factor". Variables measuring the strength of the forest industry relative to other industries by state, the amount of land the federal government owns in each state, the net receipts of Forest Service timber sales in each state, and the number of people employed in forestry by state loaded heavily on the second factor, ranging from 0.60 to 0.91. This factor will be called the "local interest" factor. Of note, the variable measuring the amount of land owned by the federal government by state for the Fowler vote does not load heavily on the second factor. The variable measuring how urban each member of Congress's district is loads highly on the third factor (between 0.85 and 0.96), and will be called the "urban factor".

Discriminant Analysis on the Factors

The final statistical test conducted on these data was the discriminant analysis, using scores produced by the factor analysis. The classification results matrix, or "confusion matrix", (Table 7) discloses how well the ideological and local interest factors predicted voting on the below-cost timber sale issue. Later, the discriminant analysis results will also be used to examine anomalies in voting since the test highlights those whose votes were mispredicted based on the factors.

Table 7: **Classification Results of Discriminant Analysis.**

ACTUAL GROUP	# OF CASES	PREDICTED GROUP	
		keep subsidy	end subsidy
a. **FOWLER RIDER**			
keep subsidy	50	38 76.0%	12 24.0%
end subsidy	44	3 6.8%	41 93.2%
b. **JONTZ AMENDMENT**			
keep subsidy	212	171 80.7%	41 19.3%
end subsidy	208	42 20.2%	166 79.8%
c. **PORTER AMENDMENT**			
keep subsidy	262	196 74.8%	66 25.2%
end subsidy	161	54 33.5%	107 66.5%

Note: a. Percent of "grouped" cases correctly classified: 84.04%

b. Percent of "grouped" cases correctly classified: 80.24%

c. Percent of "grouped" cases correctly classified: 71.63%

Voting on the Fowler rider was predicted most accurately at 84.04%. Those who were classified correctly as voting to eliminate the subsidy had the highest classification at 93.2%, while only 76% were predicted correctly of those who voted to maintain the subsidy. This indicates that predicting how people were voting against this change in policy was less definable by these variables. The classification rates drop slightly for the Jontz amendment to 80.24% overall, with the predictions for those voting for and against the subsidy relatively equal at 80.7% and 79.8% respectively. Finally, the number of cases classified correctly was lowest on the Porter amendment at 71.63%. Those who voted for the Porter amendment had lower prediction rates, at 66.5%, as compared to 74.8% of those classified correctly voting to maintain below-cost timber sales.

All of the statistical tests demonstrated that ideological factors were the strongest in predicting voting on this issue. They had the strongest correlations, accounted most strongly for the order of entry of variables in the multiple regressions, and produced strong, interpretable factors in the factor analysis, thus demonstrating their coherency as a group. However, none of the three votes split cleanly along an ideological-local interest line, statistically proving false the hypothesis that members of Congress with constituents dependent upon national forest

timber would vote to protect the subsidy while all other legislators would vote to eliminate the subsidy for ideological reasons.

CHAPTER VI

Congressional Politics of Public Lands Timber Production

Statistically, ideological factors influencing voting on the below-cost timber sale issue were stronger than the factors measuring local interest considerations, as was expected. However, as strong as the ideological factors were, they did not pull enough of the vote to pass this legislation, as was predicted by the hypothesis. Since members of Congress with below-cost timber sale interests within their districts are in the minority, some legislators must have voted to maintain the subsidy over the broad interests this issue encompasses even though they had no local interests to protect. This chapter will trace how Congress reacted to the below-cost timber sale issue and to each vote individually. Then, it will present several reasons why a minority of legislators protecting local interests were able to prevent policy change notwithstanding the nationally-held ideological interests this issue embodies.

Legislative History of Below-Cost Timber Sales

The first governmental response to the charges of a timber subsidy by the National Resources Defense Council in

the early 1980s was an investigation into the Forest Service's accounting system through Congressional hearings and by the General Accounting Office. After finding shortcomings in the accounting procedures, the General Accounting Office instructed the Forest Service to create a new system, which was called the Timber Sale Program Information Reporting System (TSPIRS). TSPIRS highlighted forests operating below-cost, but instead of eliminating these economically-irrational sales, the Forest Service justified them based on other benefits to the forests, such as recreation or resource management. This was an unsatisfactory response for many critics who kept pressure on Congress for reform. So Congress continued holding hearings in attempt to find a solution to this issue. Thus far, all attempts at legislation aimed at eliminating below-cost sales which have made it through their respective committees and put to a vote, have failed.

One issue at question when examining the legislative history of below-cost timber sales is in which House of Congress will reform most likely be initiated? Polsby (1990) suggests the Senate may be the likely house for reform of issues such as this. He describes the contemporary nature of the Senate as being national in its outlook. He says, "Now, as a matter of course, Senators interest themselves in constituencies beyond those mobilized exclusively in their home states and seek to influence national policy on the assumption that it is politically useful to them to achieve

national recognition and national resonance in their work." Polsby sees an increase in senators seeking national offices, citing at least ten senators since the 1950s as serious presidential candidates, for which national recognition of their Senate work is necessary. This is in contrast to a pre-1950s (pre-television) Senate which considered itself a "deliberative counterweight" to an "allegedly more impulsive House of Representatives." Polsby concludes his assessment of the contemporary Senate as the probable setting for innovative public policy because the careers of senators are more dependent upon imaginative and enterprising solutions than upon preservation of the status quo.

Reforming below-cost timber sale policy and other public lands issues in the Senate, however, has not been as successful as Polsby's theory proposes. Gorte (1994), Specialist in Natural Resource Policy at the Congressional Research Service, explains that Westerners have a proportionately higher share of membership in the Senate, while in the House, Western interests are a minority; therefore, Westerners have been more successful at blocking reform of public lands issues in the Senate. Due to the minority of Western interests in the House, the House has been the setting for most of the activity addressing below-cost timber sales. Additionally, the House seems to favor more progressive action perhaps because it accounts for a greater share of "true environmentalists", those whose main agenda

consists of fighting for environmental responsibility in our country (Gorte, 1994).

Activity concerning the reform of the below-cost timber sales issue supports the idea that Western interests have been successful in keeping this issue off the Senate agenda. Polsby's description of the contemporary Senate should be thought of, therefore, as a general trend, not a steadfast rule applicable to each and every issue. However, the results of the Fowler vote in the Senate tend to support Polsby's theory. Senators voted against their ideology and in support of local interests less than was predicted by the hypothesis. This is, however, only one of many votes considering the change of policy over how we manage our public lands, and the Senate has been less active overall on this issue than has the House.

Another interesting point about Congressional treatment of below-cost timber sales is that Congress has addressed this issue more successfully through the Appropriations Committee, than either house's committees that specifically cover forestry issues. Hearings have taken place in both committees, but legislation that has been put to a vote in Congress has emerged through Appropriations. Gorte (1994) attributes this to the Appropriations Committee's growing importance since the 1980s especially in light of the issue of the national deficit. As the budget has become more of a concern, fiscal conservatism has become more desirable. This,

combined with the rising power of the Appropriations Committees, has provided the setting for progressive change on public lands and other issues.

Additionally, Sidney Yates, Chairman of the House Interior Appropriations Subcommittee, is an urbane, cultured Democrat from Chicago who is an ardent supporter of the environment (Camia, 1994). Yates, under whom Forest Service appropriations fall, sees his committee as the center of much of the dispute over public lands policy. This may prove to be a positive setting for reform of the below-cost timber sale issue since he is sympathetic to this issue and willing to work for a solution to this problem through his committee (Taylor, 1993).

The public lands controversies of mining and grazing have received more Congressional attention over the past few years than has the below-cost timber sale issue. Because of the similarity of these three issues, it is significant to point out that most of the attempts at reform of grazing, and to a lesser degree, mining, have taken place in the House. The Congressional Quarterly (1993b) discusses the legislative history of grazing fees: in each of the last three years, the House passed fee increases in the Interior Appropriations bill, and each year they traded the increase away in conference with the Senate. The House has attempted to put a one year moratorium on the processing of new mining claims

while the 1872 law was updated, however, the Senate has also managed to drop this provision. If this history is indicative of Congressional treatment of public lands issues, then we can expect that reform of the below-cost timber sale issue will be more successful in the House than in the progressive and innovative Senate described by Polsby.

The Senate and Below-Cost Timber Sales

The Fowler Rider, the only Senate vote over below-cost timber sales, was tabled by a small majority (50-44). It did not build an environmental-fiscal conservative coalition in the Senate. The alignment around this amendment was primarily that of Democratic environmentalists, having the strongest negative relationship with fiscal conservatives of the three votes. While the discriminant analysis was very successful in predicting voting on this rider, six of the fifteen total mispredictions were probably categorized incorrectly because even though they had low environmental ratings (less than 50 percent) and had strong timber interests in their state, they were Democrats who voted to maintain the subsidy. Party affiliation is an important variable in predicting voting on this amendment according to the multiple regression results; this probably accounts for this group of mispredictions. The remaining nine mispredictions fall in one of two groups. First, Northeastern Republicans (three in this group) inclined to vote more environmentally than other Republicans (Gorte,

1994). They voted to eliminate the subsidy. The second group consists of environmentally minded (greater than 50 percent environmental rating) Democrats with strong timber interests in their constituencies who voted to maintain the subsidy (five of the six in this group had below-cost sales in their state). Thus, it can be considered that six senators abandoned their ideological views to support the economic interest of their constituents. However, eighteen senators voted to eliminate below-cost timber sales while upholding their ideological views towards environmental issues (environmental ratings above 50 percent) in spite of the fact that they had timber interests in their states.

The Fowler amendment was not a symbolic piece of legislation; it aimed to cut the Forest Service budget by $35 million, which would have eliminated 25 percent of the below-cost timber sales. The Fowler rider would have impacted those dependent upon below-cost timber sales and caused legislators with constituents dependent upon the subsidy to protect local interests. According to the Forest Service's accounting records for Fiscal Year 1992, 40 of the 94 voting Congress members had below-cost timber sales within their states. So, therefore, the majority should have voted to eliminate the subsidy with those 40 legislators protecting local interests. However, this did not happen even though, on the whole, Senators tended to support ideologies over local constituent interests. Figure 4 depicts the distribution of votes on the

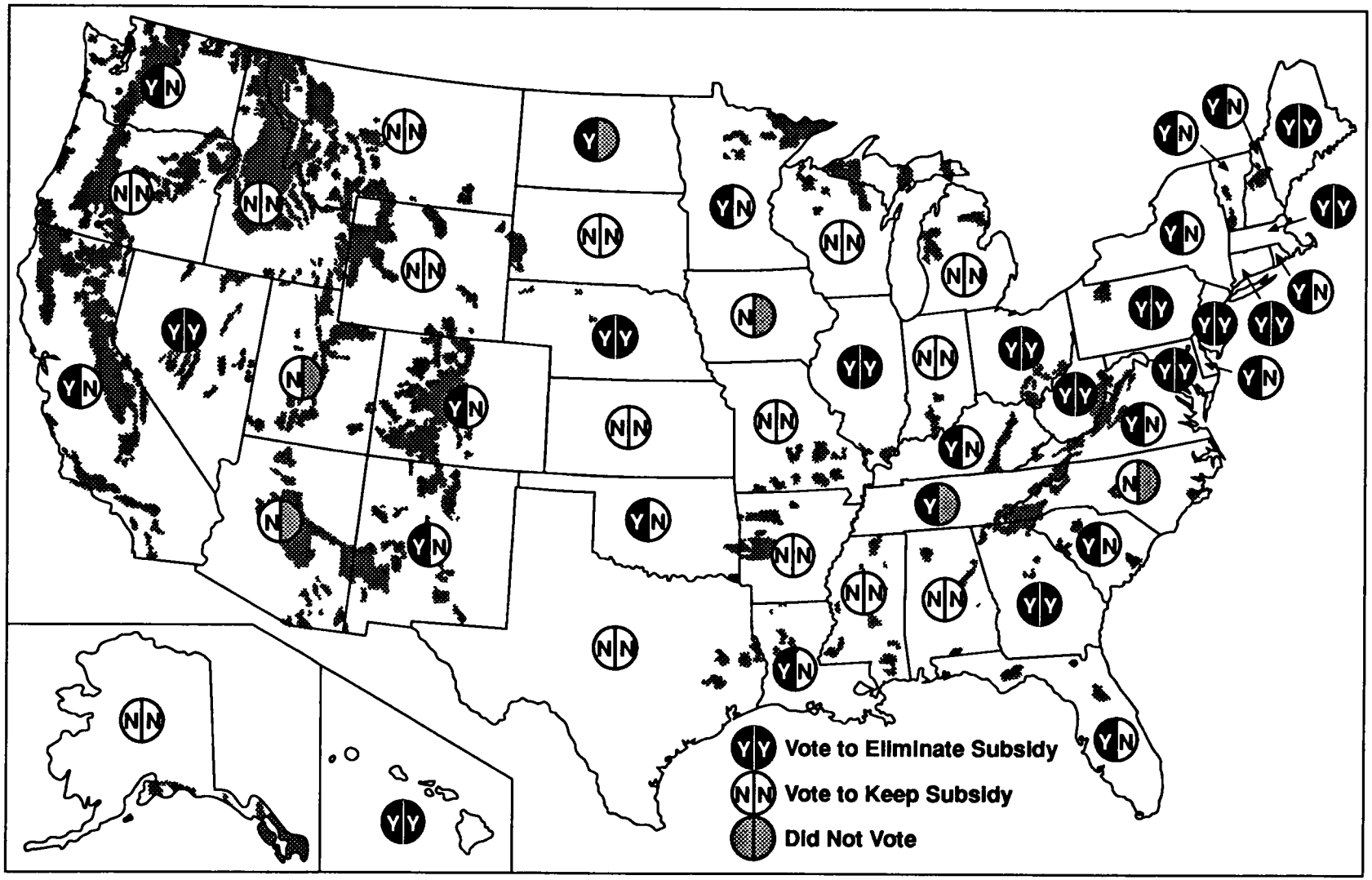

Figure 4: **Votes on the Fowler Rider and Distribution of National Forests** (Congressional Quarterly, 1992; United States Geological Survey, 1970).

Fowler rider compared to the location of national forests, further illustrating that voting did not follow the pattern of national forests, where local interests in national forest timber sales exist.

The House and Below-Cost Timber Sales

The Jontz Amendment

The Jontz amendment was also defeated, in effect, by a small majority who voted in favor of the substitute amendment (216-206). Although the Jontz amendment did not build the environmental-fiscal conservative coalition to which this issue lends itself, it did draw more of the fiscally-conservative vote than did the Fowler rider. However, legislators voting in support of the amendment and fiscally-conservative legislators were still negatively correlated. The alignment around this amendment is largely environmental (the only variable which stands out strongly) on the side of eliminating the subsidy with a substantial portion of legislators voting to protect their local timber interests.

The predictive capability of the discriminant test was still fairly strong for the Jontz amendment. One shortcoming of this test was that the timber interest variables were entered on a state-wide basis for all members of Congress; this did not differentiate between districts with national forests within their boundaries from those without.

Therefore, a total of seven states encompassing 132 Congressional Districts were selected for a closer analysis of districts containing national forests. California, Colorado, Florida, Illinois, Michigan, Ohio and South Carolina were chosen for the following reasons. First, together, they had a relatively high misprediction rate (27%) compared to the United States as a whole (19.76%). Secondly, they all have national forests in some districts but not in others, so it is useful to separate them. The results are similar to those found for the Fowler vote. A total of four members of Congress voted to maintain the subsidy, probably because of timber interests in their district (all below-cost), even though they had moderately strong environmental ideologies. Seven members of Congress voted to eliminate the subsidy even though they had constituents dependent upon the timber industry (five of which were below-cost). Their vote may have been motivated by their desire to uphold their strong environmental ideologies. The largest category of mispredicted votes on this amendment (18 of the 32 total) consisted of those who voted to eliminate the subsidy and had low environmental ratings (between 7-42 percent). All but five had fiscal ratings that were higher than the group mean for those voting to eliminate the below-cost sales. Since none in this group had timber interests in his or her constituency that were dependent upon national forest timber, they may have attempted to boost their environmental ratings

on an issue that would not negatively affect any interests within their constituency. Or, perhaps, these few recognized the fiscal implications of this issue and voted on these motivations.

Voting on the Jontz amendment did not conform to the hypothesis, even though it was predominately governed by ideology. A few did succumb to local economic interests and voted contrary to their beliefs. However, almost twice as many, in the states under consideration, voted against local economic interests and followed their ideological leanings.

The Porter Amendment

The results from the analysis of the Porter amendment differ markedly from those of the previous year's legislation. Congressman Porter's attempt at legislating the elimination of below-cost timber sales was less successful than Fowler's and Porter's (it was rejected by a 164-262 vote), but it was successful in building a coalition of environmentalists and fiscal conservatives. There is finally a positive correlation between fiscal ratings and votes to eliminate the subsidy. Although the environmental rating has a significant, positive correlation, it is much weaker than it was on the Jontz amendment vote, and the group mean of the environmental ratings of those opposing Porter's amendment rose significantly. As the non-significant correlation with party affiliation demonstrates, below-cost timber sales has, for the

first time, become a non-party issue. Thus, the alignment around this amendment is a broad, but weak coalition of environmentalists and fiscal conservatives.

The discriminant analysis' capability of predicting voting on this issue dropped to 71.6%, signifying no one strong single ideology as a guide to voting. Closer examination of the ten states selected above for the Jontz amendment, shows that 36 of 139 votes were mispredicted, or 25.9%. Nine members of Congress voted to eliminate the subsidy following their ideological beliefs even though they had timber interests in their constituencies, while eight voted to keep the subsidy against their ideology to appease timber interests in their district. A surprisingly large number of legislators (sixteen) voted against Porter's amendment, while having no national forests within their districts and having either a strong environmental (eleven) or fiscally-conservative (five) ideology.

This amendment, which drew a broader coalition of interests, was not as widely accepted by Congress as was expected. Voting did not follow the predicted patterns set out in the hypothesis. This may be attributed to other issues surrounding this amendment which precluded a straightforward vote, such as the issue of giving President Clinton's first budget a chance.

Why Has Below-Cost Timber Sale Legislation Failed?

The hypothesis set forth in this study did not accurately describe Congressional voting on the below-cost timber sale issue. According to the hypothesis, legislation should have been enacted since those members of Congress with local timber interests are in the minority in Congress.

Perhaps the best explanation for the unsuccessful attempts at creating an environmentally-responsible and fiscally-conservative alliance may be attributed to the beliefs held by those who are labelled fiscally conservative. A member of Congress who opposes government spending on, for example, social programs and maintains a pro-business, non-interventionist government stance, may be labelled "fiscally conservative." When an issue, such as below-cost timber sales, involves cutting government spending versus subsidies for business, this legislator may actually support the subsidy because it benefits business interests. Those who are labelled fiscally conservative may actually be pro-growth and, therefore, against eliminating a subsidy to industry. This conclusion seems evident when examining a group of the top 25 percent of the most fiscally-conservative Republicans for the Jontz and Porter votes. Thirty percent of the fiscal conservatives voted in favor of the Jontz amendment, and 46 percent for the Porter amendment. The relatively low percentage for the Jontz amendment may be attributed to party politics. One hundred of 103 representatives in this

fiscally-conservative group were Republican and may have opposed the Democratic piece of legislation on those grounds. However, all the top fiscal conservatives for the Porter vote were Republican, they were voting on a Republican amendment, and yet only 46 percent (49 Representatives of 106 total) voted to eliminate the subsidy. Of those voting to maintain the subsidy, 25 had national forests within their district and may have voted to protect local interests. Thirty-one, or 29 percent, of the most fiscally-conservative Representatives, voted to maintain the subsidy while having no timber interests within their district. These results indicate reliance on a fiscal conservative label is naive because the term incorporates more than just those legislators out simply to cut all wasteful government spending. True fiscal conservatives are aligning around the below-cost timber sale issue, but many of those considered fiscally conservative are indeed pro-business and support government spending on issues involving subsidies to industry; they refer these subsidies as "economic stimuli" instead. This issue provides an opportunity for separating out these two ideologies while for many other issues, pro-growth, pro-business legislators can hide behind a fiscal conservative cover. Thus, relying on the fiscal conservative vote to pass legislation to eliminate below-cost timber sales may be futile since it may not pull the expected number of votes.

Another explanation for the failure of this legislation

is that a heavy workload in Congress has complicated the opportunity for enlightened votes on specific issues. It is logistically impossible for each member of Congress to become fully acquainted with each piece of legislation for which a vote is taken. Understanding the complexities of perhaps 20 to 30 issues for which roll call votes are taken at one time is quite a difficult, if not impossible, task (Kohn, 1994). Therefore, many legislators may not have understood the full environmental and fiscal implications of the below-cost timber sale issue. Part of the failure of the Fowler rider and Jontz amendment may be attributed to their inattention to the fiscal ramifications of this issue; had they drawn more attention to it, their legislation may have been more successful.

Mezey (1989) discusses the weakness of party leadership as a disadvantage of our political system. Weak parties increase the difficulty of creating coalitions to pass legislation. Therefore, members of Congress interested in an issue such as below-cost timber sales try to align the issue with broad interests that will appeal to a winning coalition of legislators. However, occasionally, party discipline may be a greater factor than many realize. For example, voting on the Fowler rider was mainly along party lines with those crossing lines to protect local forestry interests. The main explanation for the failure of the Porter amendment was also party discipline (Elkin, 1994): a Republican introducing legislation aimed at cutting the new Democratic President's

first budget caused Democratic legislators, who under other circumstances would probably have voted to eliminate below-cost sales, to vote against this amendment.

A substantial number of legislators voted to eliminate below-cost timber sales even though they had local interests within their constituency in favor of maintaining the subsidy. This is contrary to the hypothesis; these legislators were predicted to vote to maintain the subsidy. Why would they abandon the needs of the local interests who elected them into office? It is possible that the ideological interests within their constituency are more numerous and/or more vocal than the timber interests. Therefore, a member of Congress voting on this issue would perceive greater benefit in upholding the ideological position of this issue versus the less influential local economic interests, of which he/she may not even be aware.

Once mobilization occurs around an issue concerning a change in policy, such as below-cost timber sales, it becomes evident that disrupting the status quo is quite difficult. Peters (1993) discusses several obstacles encountered in changing policy, with which those concerned with below-cost timber sales may be confronted. First, the existence of the timber sale program has produced interests who rely on the sales; they become threatened by any proposed change in policy and thus mobilize to resist. This is seen in groups such as the National Forest Products Association (NFPA) testifying at

hearings in support of below-cost timber interests. They additionally devote resources toward researching the issue. An example of this is a recent NFPA report claiming that the amount of money lost by the government in below-cost sales is less than the amount that the government would lose by no longer being able to collect the income taxes on timber jobs lost through the elimination of below-cost timber sales.

Peters discusses another problem in policy change - creating a Congressional coalition. This is usually more difficult in policy change than in establishing new policies. The implications of new programs are often vague. It may be easier for legislators to support a program based on limited information where the benefits can be expounded and the drawbacks are as yet not identified. With an existing program, the advantages and disadvantages are readily identifiable, and thus the legislator may be unwilling to commit to change because knowingly upsetting constituents may damage a political career.

Peters continues by discussing a coalition around policy change based on dissatisfaction with the current program, as in the below-cost timber sale issue. This may be a coalition consisting of individuals from both the left and right (environmentalists and fiscal conservatives). Peters warns that managing a broad coalition such as this may mean that the only solution that can be agreed upon is termination of the program as opposed to the status quo. However, with a strong

mobilization by those resisting change, this outcome is unlikely for below-cost timber sales, but a drawn out battle is probable.

What appeared to be a straightforward vote on an issue pitting ideology and local interests against each other, was, in actuality, more complex. Understanding the realities of policy making in today's legislature combined with exposing the hidden ideologies of some members of Congress illuminates the obstacles that below-cost timber sales, and other similar issues, encounter on the Congressional agenda.

CHAPTER VII

Conclusion

Stalemate Over the Below-Cost Timber Sale Issue

Below-cost timber sales is but one example of a whole set of issues currently facing Congress concerning the conflict over the economic uses of public lands. The results of this study for this set of issues are perhaps hopeful in that, by and large, members of Congress tend to uphold their ideological beliefs instead of surrendering to the local economic interests of a minority of their constituency. The question remains then, why do issues such as below-cost timber sales, grazing, and mining, issues with a clear, overwhelming ideological appeal, end up deadlocked in Congress?

The elimination of below-cost timber sales will obviously impact regions of the country unequally. The Western states, and especially the Intermontane states, will be affected by changes in policy governing the uses of public lands. Most of the national forests are located in the West. When lands owned by the Bureau of Land Management, and other federal agencies are included, one finds an entire region of the country largely dependent upon federal lands. Perhaps as a result of this, the West as a region tends to be fairly coherent politically. Delegations rated by the League of Conservation Voters as having the lowest environmental records

included Idaho, Utah, Wyoming and Mississippi in the Senate and Alaska, Wyoming, Arizona and Louisiana in the House (1992). In fiscal terms, the National Taxpayers Union rates the West slightly higher than other regions of the country (just below 50% for both houses). The National Taxpayers Union (1992) states that those members of Congress who want to increase spending on some programs can raise their score by voting for cuts in other programs. Thus, perhaps the few fiscal spending issues Western legislators do support are those which benefit their region, such as public lands subsidies. The economic realities of this region probably influence the selection of candidates for federal level offices, thus providing delegations less environmentally minded and moderately strong towards fiscal issues overall. In this situation, local interests have had an important role in determining the ideologies of those elected. Therefore, when an issue such as below-cost timber sales is voted on, many Western legislators may not be voting against their ideologies. So, an environmental-fiscal conservative coalition would not appeal to them. This provides a significant block of legislators opposed based on local and ideological concerns to a policy change which would eliminate below-cost timber sales and presents a serious obstacle to reform.

A second angle on the West versus East issue concerning below-cost timber sales is that of the distribution of

softwood timber. Since softwood timber is predominantly located in below-cost areas of the West where the Forest Service is a major owner of forests, and since the demand for softwoods is increasing in the United States, many claim that the Forest Service must provide this timber at any cost. Opponents argue that the demand can be met with private timber managed properly. The coastal Southeast is the other geographic area of softwood timber, the majority of which is privately owned. This is also an area that can be logged with less environmental damage because of the terrain (erosion is not as damaging on this flatter land) and one with greater accessibility to these forests. Thus, the elimination of below-cost sales on national forests will impact the West to a greater degree, and probably also those smaller timber companies who do not have the flexibility to relocate to other areas. A new policy should not have the disastrous effects on the U.S. economy (specifically the housing market) as predicted by many supporting timber interests because there is timber in existence that can meet the demand, is less costly to harvest, and will produce less environmental damage. If this reality can be expounded in Congress, it may pull the vote of those currently opposing new policy towards supporting it with the realization that their constituents will not be negatively impacted by rising housing costs. This could help eliminate some of the gridlock over this issue.

Another reason for stalemate on issues such as below-cost

timber sales is due to the Forest Service's multiple use doctrine, which guides the management of its public lands. Many different, often conflicting, uses are sanctioned on national forests. The Forest Service has set itself up for competition over its uses. Those with economic interests are protecting their livelihood, while those with environmental and fiscal interests are opposing the subsidizing of resource extraction. Therefore, reaching an agreement on this issue for these conflicting interests will probably not be simple.

Building a coalition of interests around this issue actually produced the worst results in terms of successfully passing legislation to eliminate below-cost timber sales. With the fiscally-conservative, Republican Congressman Porter introducing an amendment, the characteristics of those supporting and opposing the legislation changed dramatically from the Fowler rider and Jontz amendment. This may be attributed to other issues facing Congress which clouded a straightforward vote on Porter's below-cost timber sales legislation. An environmental-fiscal conservative coalition was created as evidenced in the correlation and group means results. If a new piece of legislation could maintain the fiscally-conservative interests finally captured by Porter while regaining the Democratic environmentalists who were distanced by the Porter amendment, perhaps a successful amendment could be passed and an end to the stalemate achieved.

The Future of Below-Cost Timber Sales

The below-cost timber sale issue is currently experiencing more legislative success through the Appropriations Committees. This is not, however, a permanent solution to the issue. All an appropriation's amendment or rider can do is treat the symptoms of the problem by eliminating funding for the program. These committees are unable to address the real problem within the Forest Service that has given rise to this issue, the Forest Service's timber primacy attitude. Until legislation can successfully correct the incentives within the Forest Service that give the selling of timber primary importance, the below-cost timber sale issue will not truly be solved.

Congressional reform of the below-cost timber sale issue has not been achieved as easily as the hypothesis predicted. This study approached the below-cost timber sale issue as one which separates out ideological and local interests. On other issues, a legislator may be able to support local interests while claiming a broader ideological goal, but this was not thought possible for below-cost timber sales. However, voting on this issue did not fall cleanly along the ideology-local interest lines. Several reasons were developed to explain this outcome including the usual complications that issues encounter once they reach the Congressional agenda.

An extant pro-business, "wise-use" ideology was not initially recognized as a serious obstacle to reform of this

issue. Thus, for an issue which appears to encompass the major ideologies of contemporary national politics, this study found conflict at the ideological level, an unexpected result. This realization illuminates the limits of depending upon the fiscal conservative vote to pass this legislation. It also demonstrates that even the most fiscally-conservative legislators do have issues for which they will support spending, so it separates out the pro-growth legislators from the group of fiscal conservatives. Therefore, those interested in effecting the elimination of below-cost timber sales have a more accurate measure of the number of fiscally-conservative legislators they can depend upon to support their legislation.

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