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ABSTRACT

This workshop collection contains four case studies regarding particular relationships between specific resources and clientele or user groups, and three discussions based on those four papers and/or conference discussions. The first paper discusses urban land use origins and compares urban policies with rural policies suggesting that future rural land use should not be based on urban policies. Focusing on poverty and coal mining in Kentucky, the second paper, by Cynthia L. Duncan and William A. Duncan, supports community-oriented development policies. The third paper, by Joe B. Stevens, provides an historical overview of the Pacific Northwest's economy; discusses the current status of forest, human, and community resources with a focus on poverty; and, through operationalizing the concept of "income distribution," suggests that multiple definitions are needed to examine the impact of forest-related policies. Focusing on blacks, the final case study, by T. T. Williams, Richard Morse, and Avery Webber, is concerned with the impact of government policies on minority rural land ownership, management, and use. After a brief history, the paper looks at contemporary black rural land tenure in the South and suggests implementation of policies designed to strengthen the capability of small farmers to increase their total output, thus enhancing economic viability of black farmers. Comments focus briefly on major points from the case studies and suggest areas for further investigation. (PM)

Rural Development, Poverty, and Natural Resources
Workshop Paper Series

Part V

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PREFACE

In the summer of 1983, with a grant from the Ford Foundation, Resources for the Future convened a workshop on "rural development, poverty, and natural resources." Over forty leading researchers and community development leaders participated in the two-and-a-half day workshop. Workshop discussions were organized around ten commissioned papers, commentators' remarks, and a luncheon address. The papers covered broad issues of rural development, resource ownership and use, and the incidence of poverty and its relationship to natural resources including six case studies focusing on specific resources in various geographic settings.

The workshop papers and the comments on them are available in a six-part series as follows. An overview paper summarizing the key topics and issues discussed will be available in the spring of 1984.

Part I

Sociodemographic and Economic Changes in Rural America, by Kenneth L. Deavers and David L. Brown, Economic Research Service, U.S. Department of Agriculture; with *comments* by Ronald C. Powers, North Central Regional Center for Rural Development, Iowa State University.

Rural Policy: An Independent View, by Edward J. Blakely, Institute of Government Studies, University of California, Berkeley.

Part II

Income Distribution, Poverty, Natural Resources, and Public Policies: Conceptual and Research Issues, by Emery N. Castle and Mark Goldstein, Resources for the Future, Inc.; with *comments* by Philip M. Raup, Department of Agricultural and Applied Economics, University of Minnesota.

Part III

Real Income, Poverty, and Resources, by Irving Hoch, Julie Hewitt, and Vicky Virgin, Resources for the Future, Inc.; with *comments* by Edna Loehman, Department of Agricultural Economics, Purdue University.

Part IV

Ownership Patterns of Natural Resources in Rural America: Implications for Distribution of Wealth and Income, by Marion Clawson, Resources for the Future, Inc.; with *comments* by Robert G. Healy, Conservation Foundation.

Part V

The City House and the Country House: Land-Use Policies and Rural Poverty in the Northeast, by Frank J. Popper, Resources for the Future, Inc.

Coal, Poverty, and Development Policy in Eastern Kentucky, by Cynthia L. Duncan and William A. Duncan, Mountain Association for Community Economic Development.

Development and Management of Forest Resources for Rural Development in the Pacific Northwest, by Joe B. Stevens, Department of Agricultural and Resource Economics, Oregon State University.

Natural and Human Resources: Major Public Policy and Minority Rural Land Ownership, Management, and Use, by T. T. Williams, Richard Morse, and Avery Webber, Tuskegee Institute; with *comments* by Paul Barkley, Department of Agricultural Economics, Washington State University; Brady J. Deaton, Department of Agricultural Economics, Virginia Polytechnic Institute and State University; and Marty Strange, Center for Rural Affairs.

Part VI

Water and Poverty in the Southwest, by Helen Ingram, University of Arizona; F. Lee Brown, University of New Mexico; Gary Weatherford, Santa Clara University; Gil Bonem, the Center for Natural Resource Studies; Steve Mumme, Colorado State University; and Wade Martin, University of New Mexico.

Indian Natural Resource Development: The Impact on Poverty: Overview of Issues, and Proposals for Research by Susan Williams, Fried, Frank, Harris, Shriver and Kampelman; with *comments* by John Folk-Williams, Western Network, and Allen V. Kneese, Resources for the Future, Inc.

The six-part series and the overview paper are available from: the National Center for Food and Agricultural Policy, Resources for the Future, Inc., 1755 Massachusetts Avenue, [redacted] Washington, D.C. 20036.

Kenneth R. Farrell, *Director*
National Center for Food and Agricultural Policy

THE CITY HOUSE AND THE COUNTRY HOUSE: LAND-USE POLICIES AND RURAL POVERTY IN THE NORTHEAST

by Frank J. Popper

For a region with an urban reputation, the Northeast is surprisingly rural. The region--by the Census Bureau's definition, the nine states from Maine through Pennsylvania and New Jersey--has 7.39 million people in nonmetropolitan areas,[1] a larger population than New York City. Pennsylvania, with fourteen Standard Metropolitan Statistical Areas containing over four-fifths of its population, also has 2.15 million nonmetropolitan residents--the biggest rural population of any state in the country.[2] The region is full of large, sparsely settled, environmentally valuable near-wildernesses: Maine's Unorganized Territories, Vermont's Northeast Kingdom, New York's Adirondack Park, New Jersey's Pine Barrens, Pennsylvania's North Central Highlands, the Delaware Water Gap bridging New Jersey and Pennsylvania.

The region is heavily agricultural, especially in its Middle Atlantic areas. Large parts of New York and Pennsylvania have historically had highly productive agricultures, and New Jersey--away from the twin gashes of the New Jersey Turnpike and the Garden State Parkway--deserves to be called the Garden State. Yet the Northeast's six New England states--which contain about three-eighths of its area and nonmetropolitan population[3]--have rocky soil that might have totally prevented farming had America been settled west to east. Nowhere in the Northeast is agribusiness prevalent.[4]

The Northeast has extensive long-forested areas (the Adirondacks and the northern part of Maine, the Pine Tree State), others that are reverting to forest as agriculture declines (much of inland northern New England), and three national forests (Allegheny in Pennsylvania, Green Mountain in Vermont, White Mountain in New Hampshire and Maine). The region has some mining and other extractive industries--there is, for instance, much coal

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in northeast and western Pennsylvania, marble in Vermont, granite in New Hampshire (the Granite State), still some oil in western Pennsylvania, and the Adirondacks have the world's largest zinc, garnet, ilmenite, and open-pit magnetite mines.[5] Comparatively little of the Northeast (2 percent) is federal land;[6] there are no big national parks or Indian reservations, no rangelands at all. But the Northeast has large state holdings--at least a tenth of Connecticut, New York, and Pennsylvania is in state parks and forests.[7]

The region has rural enclaves of wealth--in, for example, northwest Connecticut, south coastal Maine, coastal Rhode Island, the Adirondacks, parts of southern Vermont and New Hampshire, Pennsylvania's Bucks County, Massachusetts' Martha's Vineyard, Nantucket, and Cape Cod--that are often interspersed with (and served by) larger rural areas of poverty. (The 1980 poverty line for a farm family of four persons, two adults under 65 and two children under 18, is an annual income under $7,096.[8]) There are other, more self-contained rural poverty areas in northern and eastern Maine, central and western Massachusetts, northern Rhode Island, northern New Hampshire, the Northeast Kingdom, the Pine Barrens, central and western Pennsylvania, and northern, central, and western New York, especially the Appalachian counties along the Pennsylvania border. The insulated poverty areas usually have unproductive agricultures, or are near small, fading mill or manufacturing towns. The people of the rural Northeast, rich or poor, are largely native-born whites. Only about 1 percent of the region's rural population is black,[9] but approximately 26 percent of its rural poverty population.[10] The Hispanic, Indian, Oriental, and foreign-born proportions of its rural poverty population are negligible. Eleven percent of its total nonmetropolitan population is in poverty.[11]

To the Midwestern or Western eye, much of the rural Northeast has a half-European, well-maintained look. The British past is evident--even in such names as New Hampshire, New Jersey, New York, New England, at a greater remove Pennsylvania and Maine. The conservationist impulse--to preserve the land heritage--is strong. Yet parts of the region are experiencing fast growth in rural population. The Northeast is dotted with areas of relatively recent second-home development: southern Vermont, central New Hampshire, the New Jersey shore, Pennsylvania's Podonos, Massachusetts' Berkshires, New York's Adirondacks, Catskills, and Finger

Lakes. New England is one of the centers of the back-to-the-land movement.[12] Between 1970 and 1980, the nonmetropolitan counties of New Jersey grew by 52 percent.[13] Small Massachusetts and southern New Hampshire towns are attracting new high-tech factories. All these rapid land-use changes have invigorated the region's traditional commitment to environmentalism. For instance, a 1981 study by a Chicagoan of six nationally significant experiments in state land-use regulation found three in the Northeast--New York's Adirondack Park Agency Act, Pennsylvania's program for controlling strip mining, and Vermont's effort to plan and regulate most large land uses.[14]

Drawing its illustrations primarily from the Northeast, this paper first argues that most rural land-use policies have urban origins that predispose them toward protecting existing property values, stimulating economic development on behalf of people who already have some (or a good deal of) money, and maintaining the environment. The policies were never much intended to help the poor, promote broadly based economic development, or equalize the distribution of land resources (and the economic return from them). In rural areas, as in urban ones, the land-use policies have largely succeeded in their primary aims. But as a result, they have--often regressively--slighted antipoverty, broad economic-development, and distributional goals or made their attainment harder. The paper then shows that rural land-use policies can reconcile the divergent sets of goals; it offers two feasible approaches--one ongoing, the other emerging--that allow land-use policies to do more for the poor, broad economic development, and resource redistribution without abandoning the policies' initial objectives. The paper concludes with suggestions for land-use research that would aid the new approaches. With minor modifications, the paper's argument applies in rural places outside the Northeast.

The City House: The Urban Roots of Rural Land-Use Policies

The two distinctive American contributions to land-use policy are zoning and the national park. Americans invented them, and to this day no other nation has a true equivalent of zoning. Both devices developed in the Northeast in the late nineteenth and early twentieth centuries--admittedly a time when the nation was more Northeastern than today. Both

devices originated primarily with financially well-off, politically liberal WASP businessmen and citydwellers--Progressives, in the era's terminology--who sought to restrain economic development and channel it in the directions they approved. Both devices are typically opposed by those they harm: the proprietors of pariah and not-yet-arrived industries, some established industrialists who dislike any public intervention that does not subsidize them, others--including the urban and rural poor--who would benefit from the development the devices prevent. Both devices are profoundly urban.

Zoning--establishing districts and controlling the land uses in them--is the better-known case. In 1909 the Supreme Court upheld a zoning-like 1903 ordinance that limited the height of Boston buildings, but the device's earliest precursors were the nuisance laws, often going back to colonial times, that restricted the location and operation of objectionable land uses such as factories, tanneries, and slaughterhouses. Well into the twentieth century, zoning mechanisms were used to segregate objectionable poor people such as the blacks and Irish. New York's landmark 1916 zoning ordinance fought objectionable land uses and objectionable poor people; wealthy Protestants and German Jews on Fifth Avenue instituted it to protect the affluent residential and shopping district from the spread of Seventh Avenue garment factories owned by poorer Polish and Russian Jews and operated by far poorer immigrants from a variety of ethnic backgrounds.[15]

The New York ordinance eventually led the Commerce Department under Secretary Herbert Hoover and President (also former Massachusetts Governor) Calvin Coolidge--then considered the sort of moderate Republicans who would save business from its excesses--to issue model zoning legislation; the 1924 Standard State Zoning Enabling Act was quickly adopted by the many states that wanted their localities to zone. A 1928 Massachusetts zoning case, Nectow v. City of Cambridge, went to the Supreme Court and became one of the key decisions upholding the device. By 1930 nearly every state had enacted a version of the enabling act permitting zoning in all or most of their counties, cities, and towns. During the voracious post-1945 expansion of most metropolitan areas, zoning became suburban--and again acquired a reputation as a means to exclude objectionable poor people and their industrial and residential land uses. The 1970s environmental variants of

suburban zoning--growth-control ordinances, urban limit lines, and the like--confirmed the reputation. Nearly all large- and medium-sized American municipalities have zoning, and it has now been the nation's basic urban land-use control for two generations.

The origins of the national park and its variants are similarly urban, Northeastern, established-wealthy. The first proposal for a "nation's park" (in the Rockies) came in 1832 from George Catlin, a Philadelphia writer and painter of substantial means, who later--along with other Northeast patricians such as Cornelius Hedges and Nathaniel Langford--lobbied for the 1872 creation of Yellowstone National Park. Among their allies was perhaps the richest man in the country, Jay Cooke, the New York City banker and railroad magnate, who believed the remote park would attract tourists who would have to come by train.[16] New York State's 1892 creation of the Adirondack Park, the Northeast's first major state park (and as big as Vermont, larger than any national park outside Alaska), was motivated by such figures as "Adirondack" Murray, an eminent Boston clergyman, and Verplanck Colvin, a comfortable Albany naturalist, along with numerous wealthy residents of New York City who owned large Adirondack "camps"--actually lavish summer estates of rustic decor.[17] Subsequent national forces in the park-and-forest movement were New York's Theodore Roosevelt, Pennsylvania's Gifford Pinchot, New Jersey's Woodrow Wilson (whose administration established the National Park Service in 1916), and New York's Robert Marshall--Progressives all. Local poorer residents of Wyoming, Montana, and New York resisted the creation of the Yellowstone and Adirondack Parks,[18] just as the less wealthy neighbors of national and state parks, forests, and wildernesses resisted later public acquisitions. Those who sometimes travel thousands of miles for recreation on these lands--persons whom University of California, Santa Barbara historian Roderick Nash calls "nature importers"[19]--have traditionally been relatively affluent.[20]

Zoning and the national park share not only urban social origins, but also urban underlying assumptions. Both devices are intended to limit densities--of land uses and populations, and therefore of structures and technologies (such as automobiles and manufacturing processes). Both devices restrict quantitative increases in densities (more apartments or trailers in suburbs, say, or more roads in national parks) and qualitative

shifts in their components or character that are in effect increases in density (more poor people in city neighborhoods and suburbs, more logging in national parks). Both devices are based on the assumption that increases in densities produce greater negative externalities (that is, higher third-party social costs). Yet the assumption, while valid in crowded cities and suburbs, is often uncertain in rural areas, especially lightly settled ones that have room to absorb many of the externalities. The devices also assume that decreases in densities--rare in urban areas--are not much of an issue; in the unlikely event that they occur naturally, the devices will not stand in their way. The devices assume that large numbers of apparently plausible increases in densities are in fact bad, must be prevented or at least controlled. The devices, in their emphasis on limiting densities, amount to urban mechanisms for ruling out many forms of urban development.

The urban, density-limiting assumptions of zoning and the national park extend into their operating principles. Both devices rely on regulatory mechanisms backed by land-use plans or maps--each mutually reinforcing ways to prevent unwelcome densities. Both devices set density standards for land uses--for instance, minimum lot sizes in urban areas, camping restrictions in national parks, aesthetic criteria everywhere. Both devices separate land uses, forbid combinations of land uses incompatible in abutting areas, confine some land uses to designated areas, designate areas prohibited to other land uses, prohibit still other land uses anywhere--all to limit density and its consequences. Urban zoning ordinances that cluster factories are equivalent to national park regulations that group concessions. The suburb's R-1 residential zone where single-family homes are permitted but apartments proscribed has its counterpart in the national forest's wilderness area where grazing is allowed but mining outlawed. And so on. Thus zoning and the national park employ urban, density-limiting techniques to cut off a good deal of land-use change.

The devices have never charmed those who might benefit most from land-use change--the poor. The suburban exclusionary zoning that, for example, requires half the vacant residential land within 50 miles of New York City's Times Square to have a lot size of at least an acre[21] has long been a target of civil-rights and public-housing groups. In Houston, the

only large American city without zoning, poor blacks and Hispanics have always opposed it because they see it as a threat to their chances of bringing in extra cash by operating a grocery in the front of their house or a repair shop in the garage; wealthier groups in the city have been somewhat more likely to support zoning.[22] The West's recent Sagebrush Rebellion was in part a revolt by the local (white) poor against the constraints all forms of federal public land place on local economic development.[23] There have been similar local resistances to North Carolina national parks and Minnesota national wildernesses.[24] In North Carolina's Swain County (80 percent federally owned), residents complain that the Great Smoky Mountains National Park "is the most visited national park in the U.S., but that doesn't help our economy any."[25] In urban areas or near national preserves, the poor tend to see zoning and the national park--correctly--as alien urban creations imposed on them by socially or physically distant urban elites. The devices defend the economic interest of existing property owners by hindering the creation of new ones. They protect the environment for people securely established in it. They stimulate economic development for people who already profit from it. They do little or nothing for the poor.

The County House: The Rural Application of Urban Land-Use Policies

The vast bulk of rural land-use policies, in both small towns and the countryside, are essentially copies of zoning and the national park. They use urban approaches so as to limit density. They restrain economic development, confine it to paths that do not much help the poor. Sometimes the rural land-use policies are the products of transplanted or multi-residenced urban elites. Often the rural land-use policies are actual imitations of urban ones. When, in the early 1970s, the central Vermont town of Woodstock (1980 population: 1,178) had to redo its zoning because it was undertaking a historic-preservation program largely financed by the Rockefeller family, it slightly adapted model language put out by the nearby Ottauquechee Regional Planning Commission. The commission had in turn borrowed its language from the zoning of Burlington, Vermont's largest city, which derived from the ordinance of Boston, New England's largest city[26]--on back to the 1924 Commerce Department model enabling act, the

1916 New York City zoning law, and the 1903 Boston one. In their transfer from urban to rural areas, land-use policies undergo some change--minimum lot sizes become larger, say, or sawmills replace apartments as objectionable uses. But the rural land-use policies remain variations on an urban, density-limiting theme.

Until at least the early 1970s, however, many rural localities were reluctant to adopt land-use policies. Some were too poor to want them, others too lightly settled to need them, still others too conservative or ruggedly individualist to tolerate them. There were localities that, for instance, considered the policies a step toward socialism; in 1974, Bolivar, New York (1970 population: 1,285), in Appalachian-depressed Allegany County, rejected zoning as a crypto-Communist plot and--a bit inconsistently--because "Spiro Agnew started as a zoning officer."[27] Some rural localities adopted land-use policies, but only in the weakest form they could arrange. They were largely unwilling to take advantage of the opportunities offered by the state enabling acts. As of 1967, nonmetropolitan local governments spent an average of 70 cents a year for each resident on all land-use activities[28]--a figure that represented under $1,000 annually for a town with the 1960 population of Woodstock, Vermont. In 1971, only 40 percent of New York State's towns had zoning, and no counties.[29] There have been repeated cases in Connecticut and New Jersey where lightly staffed rural local governments could not even find copies of their planning documents or zoning ordinances.[30] Such communities' true land-use policies were not to have any. The localities allowed economic development--at whatever rate--to proceed unaffected by land-use policy.

Yet by the early 1970s the national development boom that had lasted the entire previous decade was putting growth pressures on rural areas that had never experienced them. The Interstates were beginning to be completed--for example, Interstate 87, the Northway, made the Adirondacks easily accessible to much of the Northeast. New second-home colonies and developments appeared throughout the region, especially in Pennsylvania's Poconos and New York's Catskills.[31] Much of the region's farming continued to decline, particularly in New England--for the first time Vermont had more people than cows.[32] Northern New England, from the St. Lawrence Valley to central Maine, was one of America's great areas of nonmetro-

politan population growth.[33] The environmental movement emerged to resist all these land-use transformations.

A large number of governments in the rural Northeast responded with more active land-use policies, but again they used the urban models of zoning and the national park to counter what was considered too much--or the wrong kinds--of economic development. Some relatively wealthy localities, such as Woodstock, strengthened their zoning on their own initiative. Other localities--for instance, in Massachusetts--invigorated their conservation commissions, a municipal body indigenous to New England that often combined regulatory (zoning) and preservation (national park) functions.[34]

Most states began to zone environmentally important areas or activities. With federal funding Connecticut, Massachusetts, and New Jersey produced effective coastal-management programs. Pennsylvania began a program to control strip-mining that became a national model and eventually received federal funding. Maine developed a program to regulate siting of large facilities, and Vermont one to zone the whole state and also give localities incentives to zone. Many Northeast states--Massachusetts was a leader--devised programs to preserve wetlands.[35] New York and New Jersey began state zoning programs to preserve farmland, and localities such as Pennsylvania's West Hempfield Township began local ones.[36] Many states started special regional programs to limit development in rural areas of mainly private holdings (Massachusetts' Martha's Vineyard, New York's Tug Hill) and in ones that mixed private and public--mainly state--holdings (New York's Adirondack Park, New Jersey's Pine Barrens, Maine's Unorganized Territories).[37] All the Northeast states showed a renewed interest in maintaining and protecting their state parks and forests and (if they had them), their national ones.

The rural poor have consistently been indifferent or opposed to these measures, for they get little benefit from them. The measures have always seemed ways, as it were, for wealthy urbanites with country houses to protect themselves and their surroundings and to keep too many other people, urban or rural, from getting their own country houses. In rural areas with strong and seasonally stable economies (perhaps based on recreation or tourism), the measures seemed ways for wealthy ruralites to maintain a regime that had no real place for the rural poor. In the more numerous

places with weak, failing, or seasonally unstable economies, the measures offered the poor even less. In the Adirondacks, where a fifth of the permanent population lacks indoor plumbing and the unemployment rate between September and June often goes well over 20 percent, the introduction of the Adirondack Park Agency's regional land-use controls provoked what amounted to a civil resistance--featuring "citizen speak-outs," demonstrations in Albany, deliberate non-compliance, and low-level violence--between 1973 and 1977 and resentment that lingers still. The Adirondack experience deterred New York State from creating an equivalent agency for the Catskills.[38] A speaker of the Vermont House, a far-from-wealthy farmer, denounced the state's land-use program--for much of the 1970s perhaps the nation's most ambitious--as coming from the "stratosphere of the elite."[39] Similarly, there is little evidence that poor or small farmers greatly support farmland-preservation programs that rely on state zoning,[40] since they often want a chance to sell their land to a developer to provide for their retirement.

Urban-style state and local programs to limit the density of rural land use often favor large developers, rigidify land markets, increase costs for builders and buyers, keep up property values, and even promote economic development,[41] but there is little evidence that the economic development massively reaches the rural poor, much less that it redistributes resources to them. Although these are not supposed to be environmental programs for wealthy urban vacationers or rural rich people, the poor see them that way. I once walked through Lake Placid, New York (1980 population: 2,490), with a none-too-affluent local opponent of the Adirondack Park Agency, a farmer who suddenly gestured to the surrounding, quite present mountains and wilderness, saying, "Look at it all. It's gorgeous. It may not be pristine enough for those APA purists, but it's basically undeveloped and nearly all of it has no chance of ever being built up. That's fine with me. It shows we've done a good job of protecting the place all these years. Now these arrogant outsiders from the Agency come in, tell us we're ignorant about our own land."[42] This is not an anti-environmental know-nothing, a builder-at-any-price--it is a man who both cares for the land and knows he has to make his living from it. His voice is authentic; the poor do not differ substantially from others in their environmentalism, nor do rural people or Northeasterners.[43] But too many

land-use policies threaten--however inadvertently--to keep the rural poor in picturesque poverty. Then they deliver on their promise.

Ignoring the City House: Rural-Style Land-Use Policies

Might the promise be different? The answer is yes. In recent years many rural Northeast governments have started to pursue land-use policies that do not have urban origins or density-limiting intentions, and so suit rural settings better. The new policies--whether they are a reaction to Depression-level conditions in rural economies or the inability of past policies to help (or avoid harming) the poor--pay more attention to economic development than previous ones. The new policies are a way of accommodating or encouraging market forces operating in rural places without assuming they are totally like those in urban ones.

A number of rural Northeast governments no longer automatically take the urban approach of limiting development's density; instead they limit its externalities, regardless of density. In the interest of economic development they assume that increases in externalities, not in densities, are the proper concern of land-use policies--a sensible assumption anywhere (including cities and suburbs[44]), but especially in rural areas lacking dense populations. In Massachusetts, for instance, small towns such as Charlemont, Conway, Gay Head, and Groton do not establish zoning districts based on land-use classifications, city plans, or maps, nor do they even try to control the location of projects. They merely require that new projects meet performance tests--that industrial developments, say, meet specified air- and water-pollution standards.[45]

Along similar lines, many local governments do not try to protect farmland by agricultural zoning or other preservation-area devices to fix the sites of farms--rather, they try to give financially marginal farming the means to resist the externalities, economic and otherwise, of competitor land uses. As of 1980, all states but Georgia and Kansas had property taxes giving farmland--especially that held by poor people--preferential treatment.[46] (Most states have other tax breaks for non-farmer ruralites who are low-income or land-poor.[47]) New York had reduced inheritance taxes on farmland estates so that hard-pressed heirs would not be compelled to sell their land for non-farm uses;[48] it also had a state law protecting

farming against local zoning--commonly called a "right-to-farm" law.[49] Connecticut, Massachusetts, New Hampshire, and Rhode Island, as well as Burlington County, New Jersey, and Suffolk County, New York, had programs to buy development rights for farmland--that is, easements that would keep it from being developed.[50] As of 1982 the Connecticut Agriculture Department's program--then less than four years old--had bought development rights for 2,350 acres on nine farms at about $1,600 an acre. These had been selected from over 250 offers to sell development rights.[51] Pennsylvania had several forms of property- and inheritance-tax relief that were specifically intended for the poor, a right-to-farm law, a program to buy development rights, and a governor's executive order prohibiting state agencies from taking development actions that would diminish the supply of prime farmland.[52]

In an interesting variation on defending the land uses of the poor from the externalities of those of the wealthier, New Jersey's Pinelands Commission exempts the main residences of "Pineys"--a nonderogatory term for the often-poor natives of the Pine Barrens--from the minimum-lot-size requirements others must meet. The Commission believes that the Pineys represent "a cultural, social, and economic link to the essential character of the Pinelands." If a Piney wishing to build a dwelling on a lot can show membership in a family that has lived in the Pinelands for at least 20 years and primary employment in a resource-related activity in the Pinelands (lumbering, bog-iron production, sand and gravel extraction, or agriculture such as cranberry or blueberry cultivation), the lot-size requirement is reduced or waived.[53]

Some rural Northeast governments have deliberately begun to neglect both the densities and externalities of development--they have simply stepped away from their past land-use policies in order to promote growth. In an early instance, in the middle 1970s, the Adirondack Park Agency--under pressure from the park's localities that had consistently resisted the agency's concept of environmentalism--gave up regulatory jurisdiction over most wetlands, modified its minimum-lot-size requirements (which previously had allowed only one new building per 43 acres on most of the Park's private land), became less insistent that localities zone (or zone all their land or use the zoning techniques the agency wanted), hired a

staff economist who was an Adirondack native (both firsts), and simplified and speeded procedures for applicants, especially small ones.[54]

More recently, a large number of Northeast rural localities have sought to apply to their land-use policies the Reaganesque perspective of "regulatory reform." In north-central Connecticut, for instance, Windsor 1980 population: 25, 04) has established an interagency group, described as "the point of final approach for most development applications," that allows representatives of every relevant city department to comment on a project proposal; the developer gets the group's written recommendations t the end of the day[55]--highly expeditious treatment. Federal support for state coastal-management and strip-mining programs has dwindled, as have the programs themselves. Environmental initiatives in tate and federal parks and forests have fallen off. In other situations necessarily hard to document, rural governments may quietly drop or not enforce their past land-use policies. Still other governments, especially in the poorest localities, never really had land-use policies and so need not dispense with them to entice or stimulate development that will help the poor.

Owning The Country House: A More Drastic Approach

There is a more radical way to disregard the densities, externalities, and regulation of land uses; a new approach to economic development--or rather, one recently rediscovered in an American context--directly attacks pr sent patterns of rural landownership and their distributive consequences. The approach assumes that the concentrated ownerships charact ristic, in the Northeast, of the age of the mill towns and the timber barons are still alive. It assumes that land--a key factor of production--is denied the poor, with results unfair to them and inefficient for the larger society. The approach therefore tries to find ways to give the rural poor greater access to land.

In areas of the country with better soils than most of the Northeast--the Midwest, for example--the approach takes the form of giving small or aspiring farmers credit subsidies to buy land,[56] but in the Northeast it has focused on community land trusts. These are institutions where land is owned by a nonprofit (and therefore lightly taxed) group that rents it--usually at below-market prices--to individuals for timbering, farming, or

homesites for as long as 99 years. The trust's initial land typically comes through donation (often creating tax breaks for the donor). The rental income pays for property taxes and the purchase of additional land. There are operating land-trusts in, among other rural Northeast localities, St. George, Vermont; Hancock County, Maine; the Monadnock Mountain area of southern New Hampshire; and the Ottauquechee Valley area of central Vermont. A prime advantage of land trusts is that the initial donation may come from anywhere. The one in poverty-stricken Hancock County--where 91 percent of the adult population cannot qualify for a bank loan--came from the Carmelite order of nuns. The long-run economic-development potential of land trus s has barely been tapped.[57]

A more challenging alternative is to take political action against the large ownerships--to document their extent, chart their impacts, and advoca e ways to undo hem. Several Nader-style groups, federal and state research agencies, and investigative reporters have in recent years found that the concentration of American rural landownership is much like that of a Third World country to which the State Department would recommend land reform. In Maine seven outside timber-and-paper companies, none with headquarters closer than Stamford, Connecticut, own 6.5 million acres--over a third of the state's land (and an area larger than Massachusetts and Rhode Island combined) that accounts for 87 percent of the timber industry's landholdings in Maine and 90 percent of its production.[58] In the Adirondacks one percent of the owners hold more than half the private land, and three timber firms own more than 125,000 acres (about 195 square miles) apiece.[59] The little-known Coe-Pingree timber holdings in New Hampshire and Maine--owned by one family--reportedly total about 1.1 million acres.[60] The less-known holdings of the Phipps family--descendants of Andrew Carnegie's onetime accountant and reputedly the biggest Northeast landowners--have never been publicly estimated.[61]

The most revealing data for the overall region comes from the Agriculture Department's 1978 Landownership Survey, which found that the largest 5 percent of owners--whether individuals or corporations--held 35 percent of the Northeast's farmland, ranging from 46 percent in Maine to 18 percent in Vermont. Looking at the figures from the opposite standpoint--that of the poor--the smallest 37 percent of owners held less than 3 percent of the Northeast's farmland. When the Survey examined all of the Northeast's

land--that is, primarily rural land rather than farmland--it found that the largest 1 percent of owners held 46 percent of the region, with a high of 73 percent in Maine (presumably because of the timber holdings) and a low of 14 percent in Vermont. The largest 5 percent of owners held 76 percent, with 87 percent in Maine and 37 percent in Vermont. The smallest 87 percent of owners held 10 percent of the Northeast's land.[62] This is not the even distribution of rural landownership envisioned by Jeffersonian yeoman democracy.

By far the best recent study of the economic-development impacts of concentrated rural land ownership comes from central and southern Appalachia. A six-state, 80-county project sponsored by the Appalachian Regional Commission, led by the Highlander Center in New Market, Tennessee, and conducted by 60 local people around the region first documented the region's concentrated ownership--primarily by large absentee coal, oil, and timber companies and wealthy individuals. Then it demonstrated that the big landowners consistently (usually intentionally) avoided property taxes, used their near-monopoly positions to depress local wage rates and supplier prices, kept public services at minimum levels to discourage competitor corporations and industries, prevented diversification of economic opportunities, constrained the supply of land and housing, impeded the expansion of local lending institutions, and drew capital out of the region. The result for many local people was poverty--low income, little job security, high unemployment, no credit, prevalent company or one-industry towns, vulnerability to boom-and-bust cycles, inadequate public services, excessive taxation for what services there were, high prices for land and housing. The ownership patterns went a long way toward explaining rural Appalachia's decades-long depression.[63] Although Appalachia's rural ownership concentrations are somewhat higher than the Northeast's[64] and their effects more marked, one can recognize Appalachia-like inhibition of economic development in many of the poorer parts of the rural Northeast, such as northern Maine's timber counties or some of western Pennsylvania's coal ones.

While none has been pursued in the Northeast, there are plausible policies that could reduce ownership concentration and its impacts. As a direct result of the Appalachian Regional Commission-Highlander Center project, Alabama, Kentucky, Tennessee, and West Virginia have passed laws

to make large landowners pay a greater share of property taxes.[65] Several Midwest states have long limited corporate and outside ownership of land or farmland.[66] In some near-monopoly situations, antitrust laws could be invoked against concentrated ownerships.[67] Community organizers are always pleased with the education and mobilization that follow local publicity about concentration figures; for this purpose and for monitoring changes in landownership concentration over time, it would be helpful if the Agriculture Department's 1978 Landownership Survey--the first such national effort since 1946[68]--could be repeated regularly, perhaps every ten years. States and rural localities could undertake similar surveys. Some environmental impact statements could be required to deal with the ownership concentration effects of proposed projects. Local and state land-use bodies could do likewise in their regulatory reviews. Public and private groups could do more to examine ownership concentration, its trends, and its consequences.

Understanding the Country House: Needed Land-Use Research

Most past rural land-use policies, because they originated in cities or among the wealthy (usually both), have not done much to stimulate broadly based rural economic development or help the rural poor. The newer rural-style land-use policies and attacks on concentrated ownership may yet do more. The time could be propitious. The federal government, except for some anti-pollution, taxation, and data-gathering activities, has largely lost interest in rural land-use policies, leaving the field free for state and local initiatives. The deep rural recession that has hit many already-poor areas in the last few years shows few signs of dissipating and may eventually provide a climate for sharp policy departures comparable to that of the 1930s. Misguided or regressive conceptions of environmentalism are giving way to ones with more room for economic development.

What sort of research would clarify the possibilities for the newer policies? First, it would help to know more about what effects the policies that have been adopted--for instance, performance standards, preferential taxation, right-to-farm laws, purchases of development rights, regulatory simplification and streamlining, the federal government's desertion of state land-use programs, property taxation aimed more at the

large owner, limitations on ownership concentration--are actually having. In some circumstances regulatory reform may harm the environment or anti-ownership measures discourage economic development, but we do not know if such policies' costs exceed their benefits. Nor do we know their unexpected costs and benefits, or their tradeoffs between short- and long-term effects. Along the same lines, we need more research on what happens to the poor rural localities that renounce (or never had) effective land-use policies. These near-desperate bids to get or retain development--do they succeed? Do they fail? Do they make any difference at all? Do they work for some projects or places but not others? We have no idea.

Second, it would be useful to take another look at the economies of scale that are supposed to justify the accumulation by corporations and wealthy individuals of large amounts of land. Are large timber operations, mines, or farms really more efficient than small ones? Do they in fact result in lower prices and better products for consumers, higher wages and better working conditions for employees, and less total environmental damage? The Appalachian findings suggest not, as does a good deal of research on California agribusiness,[69] but there is no hard evidence for any rural Northeast land use. The economic advantages of large scale, if they exist at all, may spring mainly from artificial biases such as inequitable taxes, better access to credit and government, more advantageous tie-ins with suppliers, buyers, and middlemen, and the almost automatic assumption of business people, bankers, public officials, and economists that the large producer must inherently be more efficient. But on closer analysis, if the biases were reduced or even if they were not, the small producer might emerge as more efficient (and benevolent) in a surprising number of situations. Alternatively, the large producer might not have to be so large, and there might be more room for new small producers. Yet without analysis--for instance, a comparison of two similar rural Maine small towns, one owned primarily by a few large timber companies and the other with more dispersed ownership--we do not know.[70]

Last, we need a better conceptual framework for devising and evaluating rural land-use policies, one less dependent on urban, density-limiting assumptions.[71] Too many--indeed, nearly all--of the ways we have typically looked at rural land-use changes are obvious borrowings of century-old concepts from cities and suburbs. The transplants are derivative, super-

ficial, unable to take root in the countryside. They rarely work truly well, even for the rich. They most often harm the poor. There have to be more effective ways to examine and choose land-use policies than by focussing only on the densities and externalities they create in rural areas that may already have abundant room to absorb both. Better ways to comprehend rural land-use policies would devote at least as much attention to economic development as to its side effects, might lead to arrangements that combine more development on rural land with greater equality in its ownership. If we are to help the rural poor, we need a deeper grasp of what is happening on their meager bit of earth.

Notes

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3. U.S. Department of Commerce, 1980 Census.

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5. Natural Resources Defense Council, Elaine Moss (ed.), Land Use Controls in New York State (New York, Dial Press/James Wade, 1975) p. 131, note 4.

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12. Cheryl Russell, "Life on the Fringes," American Demographics, May 1982, p. 43.

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14. Frank Popper, The Politics of Land-Use Reform (Madison, University of Wisconsin Press, 1981).

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19. Nash, Wilderness and the American Mind, pp. 342-378.

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23. See Frank Popper, "The Ambiguous End of the Sagebrush Rebellion," in Charles Geisler and Popper (eds.), Land Reform, American Style (Totowa, New Jersey, Rowman and Allanheld, 1983). Another version of this essay appears as Popper, "Let's Reopen the West," Planning, May 1983.

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COAL, POVERTY, AND DEVELOPMENT POLICY IN EASTERN KENTUCKY

by Cynthia L. Duncan and William A. Duncan

Introduction

Bumper stickers on cars and pickup trucks in eastern Kentucky read: COAL IS KENTUCKY'S ACE IN THE HOLE. State agencies and Congressional representatives promote Kentucky coal, seeking larger markets and smaller environmental, health, safety, and taxation costs for the industry. Congressman Hal Rogers, from southeastern Kentucky, recently introduced a bill which would eliminate a 15 percent cut in the depletion allowances for coal and iron ore, scheduled to take effect next October. He said, "We already have huge piles of coal sitting on the ground. Equipment is lying idle. Coal operators already have their backs against the wall. The last thing in the world we need is another tax 'increase' like this one" (The Hazard Herald-Voice, June 23, 1983). When the Republican candidate for governor in the state met with coal industry executives recently, he promised to reduce taxes and regulations for the industry if elected (Lexington Herald-Leader, September 15, 1983).

These politicians are echoing their constituents' point of view. Almost every coal county resident--store clerks, car dealers, miners, and mine operators--will agree that the jobs which accompany growth in the coal industry are the key to the region's prosperity. However, coal actually does not provide many jobs compared to the capital investment required (Checchi, 1966) and the costs borne by communities. The jobs it does provide come and go with a volatile market without improving income distribution or overall community well-being. Like other primary industries,

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coal is especially sensitive to business cycles and changing world markets. Historically, the brunt of the industry's instability has been borne by coal miners and coal communities.

In this paper we argue that coal mining has not been "developmental" in eastern Kentucky and brought lasting benefits to coalfield residents and their communities because public policy has failed to make it developmental. For over a century the dominant theme in state and federal policy measures regarding coal has been promotion of market-led growth. However, industrial growth alone has not developed the region's communities. Economic development is a process through which local residents make the economy better serve their fundamental needs. The process requires not only economic growth, but also patterns of investment and distribution which ensure direct and durable benefits for coal communities. To illustrate this difference between growth and development in eastern Kentucky, we examine a coal county and a non-coal county, comparing the patterns of distribution in local economies and relating these to the quality of their community goods and services. Then we discuss the limitations of past policy toward the coal industry in Kentucky. Drawing on insights derived from international development experience, we propose that policy be formulated to rebalance cost and benefits so that poor people and poor communities in the coal producing areas benefit from the development of these resources.

Quality of Life in Coal Counties

Over 75 percent of eastern Kentucky counties have been chronically depressed since the 1950s (Davis, 1979) and, overall, they continue to lag behind the state and the nation in economic and social well-being. When oil prices increased during the decade of the seventies, coal markets were strong and production in the region increased. Economic growth in the coal industry increased employment and income in coal counties. However, even in these relatively good times, residents of coal counties faced consistently worse conditions than residents of those eastern Kentucky counties which had even a moderate level of manufacturing activity. Duncan and Tickamyer (1983) compared the quality of life in coal and manufacturing counties in eastern Kentucky, using data for 1977 and 1978, "mild recovery" years in which the economy was neither expanding rapidly nor in recession.

Their study showed that even when mining brought new jobs and per capita incomes rose higher than in nearby manufacturing counties, there was still more unemployment, poverty, and income inequality in coal counties.

By almost any measure of quality of life, coal counties in eastern Kentucky are less well off:

- Unemployment is generally higher in coal counties: between 1976 and 1980, unemployment in coal counties remained between one and two points higher than in manufacturing counties.
- Income inequality in 1978, as measured by the Gini coefficient, was .424 in coal counties, compared to .407 in manufacturing counties (relatively equal income distribution is represented by coefficients of .200 to .350).
- The proportion of students who graduated from high school is substantially lower in coal than in manufacturing counties: 55 percent versus 62 percent.
- Much less housing is built: in Kentucky overall, housing starts equaled 161 percent of the increase in households between 1970 and 1977 and in eastern Kentucky's non-coal manufacturing counties, starts equaled 94 percent of the household increase. But in coal counties with no manufacturing, the figure was only 53 percent.
- The 1980 census shows that, in coal counties, mobile homes accounted for 49 percent of the new housing added in the 1970s, while in manufacturing counties, mobile homes comprised only 25 percent of the new homes.
- There was a lower level of public water service in coal counties: almost 82 percent of the people in eastern Kentucky's coal counties were not served by public water systems in 1975, while the figure goes down to 42 percent in manufacturing counties.
- Overall, coal counties had fewer doctors per thousand residents than manufacturing counties: 0.62 versus 0.73.
- Per capita bank and savings and loan deposits were also lower: about $2,790 in coal counties in 1978, and $3,647 in manufacturing, compared to $5,600 in the rest of eastern Kentucky and $7,157 nationally (in 1979).

While coal production has not brought the benefits generally expected from job-creating activities, coal communities have also absorbed a signi-

ficant share of the costs of mining coal--costs which people feel are the price they must pay to allow the industry to work. Landowners find that there are few limits to what damage can be done to the land in the course of taking out the coal. Soil erosion, acid run-off, and coal particles leave the streams heavily polluted in any watershed that is mined. Coal dust fills the air near cleaning facilities or heavily traveled coal haul roads. Enormous coal trucks use up underbuilt roads faster than severance and local property tax income can rebuild them. And miners continuously give their lungs, limbs, and lives in an inherently unhealthy occupation made more hazardous when mine owners seek to economize on safety measures.

Coal has not proved to be "an ace in the hole" for the people in eastern Kentucky coal counties. However coal is a valuable resource which the nation will continue to tap for its energy needs. The foundation of economic life for many counties in the region has been, and will continue to be, coal. Other economic activity like manufacturing has not been able to compete with coal for the capital of the finance system, the entrepreneurial energy of the region's residents, and the policy support of state and federal government. But the way in which coal has been developed has obstructed attempts to improve the quality of life in the region, rather than providing the benefits that are supposed to go with economic activity.

Distribution Mechanisms in Eastern Kentucky Counties

The Mountain Association for Community Economic Development (MACED) has begun to look more closely at how patterns of natural resource development affect Kentucky communities. We are analyzing the local mechanisms of economic distribution--the series of public and private investment choices which, taken together, determine the extent to which the wealth produced by an area's basic industry is or is not distributed throughout the local economy. In the private sector, the distribution of income and the investment of wealth are determined by the occupational and wage structure of local industry, and by the way royalties and capital are invested by corporations, financial institutions, and families. The public sector harvests the fruits of economic growth through taxation policies and redistributes them through fiscal spending decisions.

These investment choices and distribution patterns, whether they occur in the private sector or the public, depend upon political as well as economic factors. For example, public policy at the state and national level influences wage levels, credit rates, and the relative profitability of different investments based on tax policies and other regulations. Federal, state, and local policies combine with the local economy to determine local development patterns. Institutions which control capital decide whether to invest locally. Various combinations of citizens and leaders in the counties make decisions about the raising and spending of tax revenue. Fundamental distribution patterns are formed. It is here that growth becomes development or it does not.

To illustrate the role these distribution patterns may play in determining the extent to which economic growth can contribute to economic development--to structural improvements which enable the economy to serve the fundamental needs of area residents--we will compare economic, social, and fiscal characteristics of a coal county with those of a non-coal county in eastern Kentucky.

Martin County, a 231 square mile county in a mountainous area along the West Virginia border of eastern Kentucky, is a good example. It had inadequate transportation facilities until recently and so produced little coal until the boom spurred in 1973 by the oil embargo. Coal-based growth has been telescoped into the last ten years, making the effect of current public policies and private development practices all the more visible. Now 82 percent of the total earned income in the county comes directly from coal mining. The largest mountaintop removal strip mine in the world is there. In 1981 the county produced almost 14 million tons of coal, making it second only to Pike County (over three times its size) in annual coal production in the state.

Per capita income rose dramatically in Martin County between 1970 and 1980, from $1,759 to $6,885, a nominal growth of 291 percent. During the same period, the average per capita income in the United States grew 140 percent to $9,489. Martin was the fortieth poorest county in the United States in 1970 but had moved up to the middle of the pack by 1980. Even during the recessionary period of 1982, when the official unemployment rate was 10.6 percent in Kentucky, and as high as 25 percent in some eastern Kentucky counties, the figure was only 6.4 percent in Martin County. All

in all, the county appears to be flourishing because its local coal industry is flourishing.

However, this rapid improvement in income levels and job opportunities has not been reflected in comparable improvements in community goods and services. Improvement in the quality of life in the county has not kept pace with the increased income levels. Furthermore, although the proportion of Martin County families living below the federal established poverty level decreased from 31 percent to 23 percent between 1970 and 1980, the actual number of families with incomes of less than 80 percent of Kentucky's median family income increased slightly. It appears that the decrease in the poverty rate is a result of the influx of people during the decade.

After losing 2,400 people (21 percent of its population) between 1950 and 1970, the population increased dramatically during the 1970s, from 9,377 to 13,925--a growth of almost 50 percent during a period when the state of Kentucky as a whole grew by 13 percent. Some 1,500 families moved into the county to mine coal, but during most of the decade, housing starts amounted to only 12 percent of the total increase in households. Over 57 percent of the county's new housing during the 1970s was mobile homes.

There appear to be several reasons for the county's housing problems. First, flat land is scarce and expensive. A house lot near the county seat might cost about $10,000, though there is little buildable land available at any price. The Appalachian Land Ownership Task Force documented that more than half the land in the county is held by nonresidents. Beyond that, residents are not confident that the coal boom will last long enough to pay off a mortgage. Trailers are a way for miners to keep purchase costs down and rent a small plot rather than incurring long-term debt for a house and land. Although they are a clear improvement over substandard housing, they make up such a large part of housing starts in the county because residents have no other choice. Finally, although there is a small branch savings and loan association in the county, the county's one bank is the primary source of mortgage loans. The bank is working on ways to improve its terms now, but for years it has been following the universal coalfield practice of minimizing its risk in the event of a downturn in the coal market by writing mortgages with 15 year terms and a 25 percent down payment requirement.

There is little public investment in improving the quality of life because general tax revenues and the county budget have not kept pace with economic growth. In 1970, the county budget was just under $2 million. In 1980 it was $4.7 million, an increase of only 135 percent in current dollars. Real estate tax revenues grew a little more, from $80,000 to $214,000, but still comprised a minor portion of the budget. Federal and state funds, including the coal severance tax, make up the rest of the county's revenue.

This public sector poverty in the face of enormous economic growth is also reflected in the county's investment in education. In 1970, the county's contribution to its school budget was $267,845, or 15.3 percent of the total cost of running its schools. In 1980, the county's contribution was $474,205, but had decreased to about 10 percent of the school budget. During the same period the total expenditure per pupil, including all federal, state, and local support, grew from $413 to $1,042. But in 1980, the average expenditure per pupil in the United States was $2,094 and the Kentucky average was $1,315, making it forty-seventh in the nation in educational funding.

There is virtually no county expenditure in health. There are three full-time doctors and four more who come from time to time during each week, but there are no health facilities at all aside from their offices. And while the water system has recently been extended to serve as many as 60 percent of the county's residents, there is no sewer system. In several communities raw sewage runs on the surface whenever the ground is wet until it eventually drains into the creek.

Montgomery County, Kentucky, which has no coal, provides a stark contrast. It has less land area but a much higher population density: 98 people per square mile compared to 60 in Martin. It is also flatter, lies just outside a standard metropolitan statistical area (SMSA), and has a more diversified economic base. The economy has developed slowly over the past century. Railroads came early and the county seat served as the agricultural trading center for the surrounding area. Since the land is not suitable for large-scale agriculture, farms have remained small. There are eleven manufacturing firms in the county. Most are locally owned, but manufacturing employment is dominated by three outside firms which located there in the mid-1960s and now provide 69 percent of the 2,470 manufactur-

ing jobs in the county. Per capita income in 1980 was $6,444 and median family income was $13,648, 87 percent of that in Martin County.

Although aggregate incomes have been high and unemployment has been relatively low in Martin County over the last ten years, the county's economic advances appear to be tenuous. Three out of four jobs in the county are in coal. There is virtually no farming or manufacturing, and only 12 percent of the workforce is employed in services. Eight percent are employed in wholesale or retail trade. No other rural county in the state has such a small proportion of self-employed workers. And, there is a low labor participation rate: only 42 percent of the county's working age population are in the labor force, compared to 57 percent statewide. Wage levels vary widely. While in 1979 a coal miner made an average of $522 in weekly wages, the next highest wage category was less than half of that amount. Wages ranged down to $160 per week, with a mean of $433. The average gross income per taxpayer was $21,894, again reflecting the high wages for those employed in the coal industry.

In Montgomery County, on the other hand, average weekly wages have been consistently lower, ranging from a high in 1979 of $224 in construction to a low of $141 in wholesale and retail trade, with a mean of $178. Gross income per taxpayer in 1980 was only $11,760, a little over half that in Martin. Nonetheless, Montgomery County has fewer families living in poverty: 18.6 percent versus 23 percent in Martin. Part of the difference may be explained by the fact that the county has a labor force participation rate of 60 percent and that its employment and income are distributed across economic sectors, with 9 percent employed in farming, 41 percent in manufacturing, 28 percent in wholesale and retail trade, and 10 percent in services. As would be expected, the 1978 Gini coefficient, in which a low figure represents a more nearly equal distribution of income, was also significantly lower in Montgomery County: .381, compared to .430 in Martin.

By most of our other measures of development, Montgomery County is better off than Martin. For instance, Montgomery has 0.6 physicians per thousand people, while Martin has only 0.3. Montgomery's school budget is 19 percent higher, on a per pupil basis, and 25 percent more of its adult population has graduated from high school. And, while the majority of new housing units in Martin County in the 1970s were trailers, only 11 percent of new homes in Montgomery were mobile homes.

The expected correlation between economic indicators such as income and quality of community goods and services does not hold for these two cases. Higher wages and higher incomes in Martin have not been translated into a higher quality of life.

We can begin to investigate the question of why lower incomes support a better quality of life in Montgomery County by looking at the private and public distribution mechanisms through which each county's wealth is recycled. There are interesting differences between the two counties. For example, retail sales are one indicator of the vitality in the local economy. Although total income and average wage levels were significantly higher in Martin County, retail sales were half that of Montgomery County: $2,500 a year per person compared to $5,000 per person. A brief drive through each county would show why. Montgomery County has well developed commercial districts while Martin County has only a few stores clustered around the courthouse of its county seat. Thus far, the coal boom has not spurred retail investment.

Part of the reason for this lack of retail activity may be the lack of locally available credit. The single bank in Martin County is aggressive, but it remains small. Deposit growth has barely kept pace with increases in per capita income. Although deposits per capita grew from under $800 in 1970 to $2,300 in 1980, this is still low compared to $4,113 in Kentucky overall and an average of $7,512 in the United States. While the figure reflects a low rate of savings in the county, the bank president also points out that most of the coal is mined by outside owned companies which do not use the local bank.

Deposits per capita in the banks and thrifts in Montgomery County were $7,663 in 1980. Over the last five years, while Martin County's single bank has had an average loan-to-deposit ratio of 64.48 percent, one bank in Montgomery County had an average ratio of 80 percent and all four banks together had an average ratio of 73.4 percent. Furthermore, a bank's loan mix influences the growth of the local economy. About 20 percent of all loans made by Montgomery County banks are for commercial projects, and about 19 percent are for houses, close to the national norms. In contrast, Martin County's bank made 26 percent of its loans for residential purposes and only 8 percent for commercial. These differences in lending profiles reflect loan demand as well as bank policy. However, whether lack of

financing is constraining new economic initiatives or there is a lack of demand for financing in Martin County, it is evident that the kind of investing on which new, locally rooted economic activity feeds is not taking place.

Differences in public sector financing are just as apparent. Most public services in eastern Kentucky are provided by county governments. The primary source of local revenue to finance these services is the property tax, the level of which is determined by the combination of the property tax rate and the assessed value of the property in the county. Martin County has a property tax rate of about 21 cents per $100 valuation and a school tax rate of about 14 cents. Montgomery County has a property tax rate of about 16 cents and a school rate of about 28 cents. However, the real difference in tax effort appears in the assessment practices: in Martin County property assessments run about half of the market value, while in Montgomery County they are over 90 percent (Kentucky Department of Revenue, 1980).

The underassessment of land is reflected in a more extreme form in the lack of taxation on mineral holdings. Although Martin County has coal reserves with enormous value, less than $200 in real estate tax was paid on the coal itself in 1980. For example, the Appalachian Land Ownership Study found that in Martin County in 1979 the largest landowner paid a $74 tax on 81,333 acres of coal and a $17,000 tax on 47,869 acres of land held in the county (Appalachian Regional Commission, 1980). Altogether Montgomery Countians pay about one-third more county taxes per capita than do Martin Countians. The higher assets of Martin County apparently are not being tapped to support county services.

Montgomery County clearly has not experienced growth comparable to that in Martin County over the past ten years. In fact, it lost 9 percent of its manufacturing jobs in the 1970s. It also does not appear to have an explicit development strategy that is in some fashion superior to that of Martin County. Its chief advantage is that it has not had to face the task of trying to harness natural resource development for the benefit of county residents, something few communities appear to have done successfully.

Martin County does have to face this task. Its location and topography do not give it development options other than coal. It was an extreme-many other eastern Kentucky counties, coal mining has brought income and

employment but living conditions have not improved at the same rate. Many of the benefits which politicians had projected and residents had hoped would come are still lacking. This lack of developmental impact of coal on the county appears to be a direct, if unintended, result of an explicit economic strategy, which is the subject of the next section.

Development Policy as Promotion

As early as 1870, when the national economy was expanding after the Civil War, Kentucky's governor and legislators made plans to develop the natural resources in the state. Since industrial expansion in the Northeast and Midwest would provide an increasing demand for natural resources, they felt that the abundant coal, iron, and timber in eastern Kentucky could be the means by which the state would become integrated into the nation's industrial economy. The state needed both additional capital and additional labor to carry out these plans, and, as Alan Banks has demonstrated, they developed strategies to attract both to the state. Officials produced geological surveys and pamphlets describing the opportunities for laborers and investors in the state and had recruiting agents operating in Europe and northeastern United States (Banks, 1979, pp. 60-63). Businessmen r sponded enthusiastically, and within a few years land and resources were sold to outside investors who had the capital to exploit them (p. 70). With the support of the state's elected officials, these investors were able to bring in railroads and laborers to begin the extraction process.

Before 1890 coal mining was such a small-scale activity in eastern Kentucky that government reports referred to it as "farmers' diggings." By 1920, however, the mines in Bell, Harlan, Letcher, and Perry counties had hired nearly 20,000 men, over 60 percent of the workforce, most of them employed by large corporations (Banks, 1979, p. 25). In just a few decades, state government had succeeded in attracting the necessary outside investment capital, and coal production that used wage labor replaced subsistence farming as the core of the local economy. But state policy was confined to promotion of large-scale outside investments. This established a pattern in which resource ownership was concentrated and coal production occurred with neither regulation nor accountability to the public.

Before the turn of the century over half the land in coal rich counties was concentrated in the hands of nonresidents (Banks, 1979, p. 58). In 1980 the Appalachian Land Ownership Task Force documented concentrated and absentee ownership in eighty Appalachian counties. The researchers found that 53 percent of the total land surface in their sample--which recorded "all absentee, corporate and government owners with holdings over 20 acres, and all local individual owners with holdings over 250 acres"--was controlled by "only 4 percent of the local population, along with absentee holders, corporation, and government." The group also documented that 80 percent of the mineral rights in their sample was absentee owned (Appalachian Regional Commission, 1981, p. 1). The top twenty-five land and mineral owners in the Kentucky sample paid an average of only 27 cents per acre (1980).

As the dominant employer in one-third of the state and the state's fourth largest industry, the coal industry wielded enormous political power. In his 1975 study of strip mine legislation in the state, Marc Landy found that the industry's influence permeated state politics. In fact, in 1966, Landy found that one-third of the state senators had direct political and/or economic ties to the coal industry (1976, p. 9). Coal owners have used their power to keep coal taxes low; minimize health, safety, and environmental regulations; and secure public funding for the roads and other infrastructure needed to get the coal out. Local investment by coal companies themselves has been restricted to production facilities, employee housing, and other projects which directly meet the needs of the mines.

Over the years, the highly competitive and volatile market for coal has had significant effect on policy toward the industry. Residents have been reluctant to advocate policies which tax or regulate coal because their historical experience of booms and busts has made them grateful for whatever jobs were available. The industry regards the volatile market as a rationale for resisting regulations and taxation. A West Virginia coal operator wrote that coal companies were "prisoners of a market over which they had no control" (quoted in Simon, 1981a, p. 181).

From the early 1900s, the combination of the coal industry's political power and the nature of the coal market has resulted in a generally unintrusive public policy toward coal. Coal union leader John L. Lewis won the

right to organize miners during Roosevelt's administration, and there have been some health and safety programs passed to protect miners, but the government has not taken action which specifically gave coal communities leverage or return from coal production. (It is interesting, however, that during the 1930s and 1940s the government intervened to stabilize the market (Seltzer, 1983), and during World War II the government seized and administered coal mines to ensure steady supplies for the war effort (Walls, 1978).) While the state as a whole and owners of coal and related service businesses have benefited, miners and local residents have paid the costs of depending on an inherently dangerous and unstable industry--an industry which essentially was unfettered by regulations or local accountability.

Other eastern coal states pursued similar policies, promoting economic growth based on unregulated private investment in natural resource exploitation (Simon, 1981b). Consequently the dramatic drop in demand for coal after the war was devastating for coal-dependent communities in the Appalachian region. Unemployment and outmigration exacerbated the conditions of persistent poverty and dependency that had characterized the Appalachian region for so long. In the 1960s, these conditions prompted public concern outside the region, and the Appalachian Regional Commission (ARC) was created to improve the area. The commission recognized that the "normal economic growth process had not worked" because "the wealth from exploiting natural resources left the region" and "investments in the community economy and social system were never made" (Newman, 1972, p. 30).

To remedy this lack of investment, ARC planned to use federal resources to build the health and educational systems and the physical infrastructure. Their strategy was one of growth inducement, and drew upon "the example of many underdeveloped countries which were using public investments to try to stimulate private capital investment" (Newman, 1972, p. 50). Monroe Newman, a key participant in these early discussions, reported that the "clearly implied theme...was that economic growth, i.e. enlargement of income-earning opportunities, would lead to (this) more general development...a belief that was far more readily accepted in the early 1960s than a decade later" (1972, p. 50).

Once again policy makers left the distributional decisions to the private sector and expected the economic activity to spark more "general

development." Unlike the Tennessee Valley Authority, the federal initiative to develop Appalachia represented no departure from the established approach to economic development. Fifteen years later, $4.5 billion of ARC investment in highways and community facilities does not seem to have significantly reduced the region's dependence on a volatile coal market and on federal transfer payments. While the roads have improved dramatically, they still primarily serve to haul coal. Health care facilities and new vocational educational programs have been established, but since there is no dependable local tax base to support them, it is likely that they will operate only as long as there is outside subsidy. Industrial parks have been built, and in some cases have improved opportunities; but they are on the periphery of the region rather than in the coalfields, and most have only a few tenants. Over the years, attempts to bring non-coal jobs to the coalfields have had little impact.

However, despite these failures in development policy, state and federal concepts of economic development policy are slow to change. Kentucky state government continues to promote aggressively all forms of energy development, from coal to the most speculative synthetic fuels projects. While the western states appear to have learned from the experience in eastern coalfields and have allocated more of the costs of development to the industry through taxes and regulation, the primary mission of the Kentucky Energy Cabinet is still promotion, rather than regulation or impact mitigation. One of the most successful coal developers in the state is now the secretary of energy, who appears to wear both hats interchangeably.

Development Policy and the Policies of Redistribution

If promotion of economic growth does not stimulate improved conditions in eastern Kentucky, what policy measures would encourage development in the coalfields? International development experience is instructive. In 1970 Singer wrote that international development theorists and practitioners had learned from "bitter experience" that "it is not sufficient to think of development simply in terms of economic growth" (1970, p. 69). Among the more important research of the 1970s which pointed to this conclusion were the statistical analyses conducted by Adelman and Morris. In

Economic Growth and Social Equity in Developing Countries (1973), they reported results which surprised the development establishment, themselves included: economic growth in forty-four underdeveloped countries had not improved the condition of the poorest 60 percent of the population. In fact, their analysis showed that in the early stages, economic growth made the poor so much poorer, in an absolute sense, that it would take them a generation just to recover their original position (1973, p. 179).

Specifically with regard to places with abundant natural resources, Adelman and Morris found that income inequality varied substantially according to the social and political arrangements in the country. When the country and its resources were dominated by outsiders and a few local elites, income concentration was much greater. Concentration was least when there was a large public sector investing in human resources (1973, pp. 168-170). The authors concluded that "...hundreds of millions of desperately poor people have been hurt rather than helped by economic development. Unless their destinies become a major and explicit focus of development policy in the 1970's and 1980's, economic development may serve merely to promote injustice" (1973, p. 192).

In a similar vein, a report by the United Nations Research Institute stressed the interrelationship between economic and social elements: "it is not sufficient to realize the amount of resources brought about by economic growth. It is also necessary to examine the impact of these resources on the life of the people" (Smith, 1974, p. 96). Smith maintains that "the concept of development as economic growth has come increasingly into question, (and) the equity issue is gaining recognition" (1977, p. 202). While debates about strategy continue in the international arena, few would still equate economic development with economic growth. Although it makes the development task more difficult, it is generally accepted that structural factors, including political and economic interests, are central to the development process. These factors are seen as determining the distribution of the costs and benefits of economic activity among different segments of society (Ayres, 1983). Consequently, development policies in the 1970s and 1980s emphasize eradication of poverty, providing more diversified employment opportunities, and reducing income inequalities (Todaro, 1981, p. 57).

However, insights drawn from experiences in international development have hardly influenced the domestic policy debate. Since World War II regional economists have studied problems of spatial inequalities in the development process, and many have argued that regional imbalances are inherent in capitalist economic growth (Holland, 1977; Myrdal, 1957; Friedmann, 1966; Hansen, 1973). Rural poverty has been attributed to "mismatches of labor demand and supply" (Summers, et al., 1976), and depressed rural areas have been regarded as "victims of technological change" in agriculture and mining (Miernyk, 1980, p. 6). These analyses represent accurate descriptions of what happens when the market is the mechanism for distributing economic opportunity. Policies based on these descriptions aim to alter the spatial outcome of that distribution process by stimulating industrial expansion in depressed areas. They have left the distribution mechanism itself--the market--intact. "The economic problem was to maintain high rates of national growth in productive activity and to match people with jobs. All other problems were merely transitional, dealing with some of the 'inevitable' and 'difficult' social costs of this process" (Friedmann and Weaver, 1979, p. 117). The political and social dimensions of the distribution process are rarely introduced in regional development theory.

However, regional inequalities and skewed distribution of benefits within areas that experience economic growth persist. Holland (1977) and Markusen (1979) argue that economic development has political dimensions that override technological or market considerations. These political aspects of development focus upon the issue of distribution. Evaluations of rural industrialization can be interpreted as evidence that the social distribution of benefits of economic growth is a major determinant of how developmental that growth becomes for local residents (See Tickamyer and Duncan, 1983). In 1979, H.L. Seyler summarized articles which analyzed the impact of rural industrialization in the United States, saying, "There is a tendency to confuse growth and development when discussing expectations from economic change....The critical question here is does growth in aggregates promote the kinds of structural changes that yield welfare improvements, including an elevated quality of life?" (Lonsdale and Seyler, 1979, pp. 99-100).

Many economists have dismissed the coal industry as a source of the kind of development which improves the quality of life, because it has an unstable market and weak linkages in the economy (Bowman and Haynes, 1963; Pfrommer, 1975; Sullam, et al., 1980; Pagoulatos and Anschel, 1981). A volatile market, an increasingly capital-intensive industry which buys and sells outside the local economy--how could such an industry ever be molded to enhance local community well-being? We are wondering, however, whether these limitations on the contribution that coal can make to developing a local economy are, in fact, impenetrable. If they reflect established coal development practices which public policy could change, then alternatives could be devised to reduce the costs and increase the benefits to coal communities.

Initial analysis indicates that conditions may be somewhat better in coal counties outside eastern Kentucky. The politics governing the distribution mechanisms in these places may differ from those which dominate the more depressed coal counties. Matthew Crenson's book, The Unpolitics of Air Pollution, appears to present an analagous case in its study of two steel cities in Indiana. In one city, Gary, U.S. Steel dominated the town and was regarded as wholly responsible for its prosperity. With the acquiescence of the local Democratic Party, the company was able to ensure that the issue of air pollution was not raised. In East Chicago, on the other hand, where there were several steel companies and no strong party organization, the city took action to clear its air pollution 13 years earlier (1971, pp. 80-81). The makeup of the political and economic interests in the two cities led to significantly different public policy, even though both depended on the same industry for jobs and income.

Crenson's study suggests that the politics associated with particular combinations of economic interests determine the way costs and benefits are distributed in a given industry and its host community or region. Montana may represent another example of this dynamic. It appears that the state's experience in the copper industry and its current diversity of political and economic interests have resulted in policies which ensure that the coal industry provides benefits beyond employment opportunities for local communities.

Development Policy to Benefit Coal Communities in Kentucky

The question is, then, how to make exploitation of coal and other natural resources developmental in Kentucky. Most often, when public policy toward natural resource development has gone beyond fostering growth in the extraction industry, it has provided government-funded "impact aid" to clean up the problems left to communities. Another approach, beginning to emerge in western states, attempts to gain quid pro quos for the community as part of the development process, requiring companies to attend to impact issues in the course of developing the project (Sullam, et al., 1978). These approaches have surfaced relatively recently in response to the problems of energy development boomtowns. If they were applied to eastern Kentucky coalfields, they would represent a substantial improvement over the status quo.

However, a third, community-oriented approach appears to have greater potential to meet the needs of the poorest people in the communities and generate the kind of lasting improvements which distinguish economic development from economic growth. Policy proposals which made local benefit the primary yardstick would aim to rebalance the cost-benefit equation, moving more of the cost to the private side and more of the benefit to the public side, toward poor people and communities. The approach requires building a new understanding that the public--in community, state, and federal laws--has a legitimate and leading role in making decisions about the way resources are invested and distributed. To work, communities would have to have status at the table, as well as good information and the ability to hold both the public and private sector actors accountable (Bradford, 1983). State and federal policy could provide that opportunity.

At first glance so fundamental a change in the role of communities may seem unlikely. However, Congress endorsed a similar perspective with regard to urban investment patterns when it passed the Community Reinvestment Act, which required privately owned financial institutions to fulfill a responsibility to both a particular territory and to the low- and moderate-income residents in that area. We consider this a viable direction for resource development policy which directly benefits low-income people and communities.

Notes

1. Figures on unemployment, housing starts, and mobile homes are from Special Reports issued by the State Data Center at the Urban Studies Center, University of Louisville, 1982.

   Gini coefficients of concentration of effective buying income of Kentucky families in 1978 were calculated by Charles Perry, Department of Sociology, University of Kentucky, using data from the survey of buying power by Sales and Marketing Management, Kentucky Deskbook, Frankfort, Ky., 1977.

   Figures on education and doctors were provided by Kentucky state government agencies. Details are in Duncan and Tickamyer, 1983. Figures on public water service are from "Rural Water Supplies in Kentucky: A Status Report," by Kenneth Pigg.

   Bank and savings and loan deposit figures are from the Kentucky Deskbook, Frankfort, Ky., 1980, and Statistical Abstracts for the United States, 1980.

2. Figures on Martin and Montgomery counties come from a number of sources. Income, poverty, migration, population density, labor participation, and housing figures are from Special Reports (1982) and the 1982 Housing Report, for Kentucky, issued by the State Data Center, Urban Studies Center, University of Louisville. County budget figures are from the Kentucky Department of Revenue, 1980. Education expenditures are from the Kentucky Department of Education.

   Figures on retail sales, wages, and economic sectors were taken from the Kentucky Deskbook, Frankfort, Ky., 1981. Bank lending profiles were taken from Sheshunoff's Banks of Kentucky, 1982.

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DEVELOPMENT AND MANAGEMENT OF FOREST RESOURCES FOR RURAL DEVELOPMENT IN THE PACIFIC NORTHWEST

by Joe B. Stevens

I. Introduction

After preparing an initial outline of this paper, I half-seriously thought of changing the title to "The History, Economics, and Politics of Oregon Timber, With Limited Favorable Implications for Poor People."[1] This would have to be somewhat facetious since the Pacific Northwest states have historically been lands of opportunity. As labor-scarce Western states, they provided many people with a greater economic chance than existed elsewhere. As timber-rich states, their early "captains of industry" or "robber barons", as Cox (1981) frames the choice of title, certainly "developed and managed" forest and other natural resources so as to attract labor, reward capital, and create a foundation for future economic activity.

In what follows, I will first develop a brief historical overview of the region's economy, followed by a look at the current status of forest, human, and community resources. Rural poverty does exist in the Pacific Northwest, although not to the extent that it does in some other regions. The wood products industry, at least in western Oregon and Washington, faces serious long-term timber supply problems, however, and many communities and workers are highly dependent on wood processing for their livelihood. There are sixty-two small Oregon communities in which more than 80 percent of the manufacturing work force is employed by wood products firms (Weeks, 1982).

Next, I will deal briefly with operationalizing the concept of "income distribution" and conclude that multiple definitions of the concept are needed to examine the impact of forest-related policies. Three conceptual-

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analytical frameworks (conventional economic analysis, public choice theory, and dual labor market theory) will help in explaining income distribution and poverty in these multiple perspectives. Finally, I will consider several specific forest resource policies and ask if they might be adopted, whether they would be effective in reducing poverty if adopted, and whether they would lead to increased efficiency of resource use.

In spite of the dominant role of forest resources in the region's economic development, I will conclude that for us to now use these resources for the purpose of combatting rural poverty is not very likely in a political sense, and if they are used in this manner, it will likely be because of the political power of wood products firms and trade associations in augmenting the harvest of public timber.

Throughout, the approach will be suggestive rather than definitive; and eclectic rather than adhering to a particular disciplinary point of view. In many cases, what might appear to be stated as facts are probably best viewed as plausible hypotheses that need to be tested. I hope I will be able to differentiate between the two. Value judgments are often present, and I hope they too are identified.

II. The Role of Forest Resources in Economic Development of the Pacific Northwest: Historical Overview and Current Status

A recently published historical geography of Oregon by Dicken and Dicken (1979) lends interesting insights for our purposes here. A few of the highlights are:

1. By 1850, a few mills were busy turning out sawtimber for the needs of the 11,000 settlers, largely farmers, in the Willamette Valley. The first lumber mill had been built at Fort Vancouver in 1828, using Hawaiian workers to export lumber to the Sandwich Islands (lumber exports and foreign workers are old issues in Oregon). Later, more sawmills were built along the Columbia and Willamette Rivers to supply local needs, for shipbuilding, and for packing boxes for salmon export. By 1900, over 4,000 people worked in lumber mills, largely "cargo mills" on tidewater where lumber could be exported by ship. Still, Oregon lagged behind the Puget Sound area with its water transportation system.

2. Between 1900 and 1930, the stage was set for national ascendance of the Pacific Northwest lumber industry due to popula-

tion growth in the East, improvements in transportation and logging technology, and the depletion of the timber resources in the Upper Midwest and the South. World War I swelled the demand for lumber and 40,000 were employed in the mills, now largely located at the margins of the Willamette Valley. The lower and more accessible locations were logged heavily by the private sector. Wood products accounted for two-thirds of the state's exports, industrial wages, and value added. Heavy immigration continued. Some lands were set aside as National Forests prior to 1907.

3. Between 1930 and 1950, Oregon shared with the U.S. the depths of the Great Depression and the boom of the World War II era. Employment in wood products ranged from 25,000 in the depths of the depression to 51,000 in 1947 and accounted for half of the state's industrial workers and value added. Plywood emerged as a major new industry. The lumber industry moved southward through the state, away from the major rivers and earlier harvests. Reforestation by the private sector was minimal, although some companies made serious efforts.

4. Since 1950, the softwood log harvest has increasingly been made up of smaller diameter logs coming from second-growth forests. Comparative advantage in plywood production has shifted toward the Southern states. Oregon has shared the national trend toward urbanization, income growth, and increased non-timber uses of forest resources.

With respect to current status, the wood products industry remains the largest in the Pacific Northwest but its relative importance has declined over time because of the trend toward provision of services rather than goods. Unlike the service industries, however, the wood products industry faces more immediate biological constraints. To cite Gedney et al. (1975):

> The rate of liquidations of old growth timber resources has historically been based on the demand for wood products. In the long run, however, production from a region's timberlands must be brought into balance with the forest's biological capacity to renew itself. This is often below the liquidation rate of the old-growth resource (p. 2).

Farther removed from population centers, the wood inventories of the Northwest were left to accumulate as the old-growth forests of the Lake States and Northeast, and later the South, were depleted. Now, the old-growth softwood reserves in the Northwest are becoming scarce, at least those held by the private sector. The one major difference between these

situations, of course, is the existence of the National Forest system and the public sector's commitment to sustained yield of forest resources as stated in the Multiple Use, Sustained Yield Act of 1960 and reaffirmed by the Forest and Rangeland Renewable Resources Planning Act of 1974 and the National Forest Management Act (NFMA) of 1976 (Protasel, 1980).

The central timber supply issue is stated in a nutshell by Gedney et al. (1975):

> ...with only limited private old-growth resources available and most of the remaining old growth in public ownership, the level of supply will mainly depend on public timber harvesting policies (p. 3).

That is, how and under what conditions, if any, will public old-growth inventories in the Northwest be used to supplement private sector output? I will return to this question with its major implications for income distribution, but it should be noted, as did Clawson (1975), that there are other (related) policy issues, including methods of harvest, extent of land withdrawals, management practices, log exports, and outputs from non-corporate owners. Each has implications for income distribution and rural poverty.

One characteristic of resource ownership is that a disproportionate amount of the more productive forest land is owned by corporations, firms, and private individuals (figure 1). This land is often located at lower elevations, with less slope, and is thus more accessible. In the Douglas-fir region of Oregon and Washington, where about four-fifths of these states' lumber is produced, forest industry corporations alone own 44 percent of all the land in the most productive site classes but only 29 percent of all commercial forest lands (Gedney et al., 1975, p. 40). Largely as a result of private harvest policies based on net profit and wealth incentives, the standing inventory of sawtimber (considering all ownerships) declined by 11 percent in the Pacific Northwest and by 20 percent in Western Oregon between 1952 and 1977 (table 1). As vehicles of state control, it should be noted that the forest practices acts of Oregon (1971), Washington (1974), and Idaho (1974) specify appropriate management, road construction, and reforestation practices on private lands, but have never directly controlled rates of harvest (Protasel, 1980).

Table 1. Sawtimber Inventory, Pacific Northwest, 1952-1977

(Net volume in billion board feet of trees)[a]

Year	Western Oregon	Eastern Oregon	Western Washington	Eastern Washington	Idaho	Total
1952	406.8	115.4	275.5	76.2	137.7	1,011.6
1962	375.6	107.9	263.1	77.1	139.8	963.5
1970	350.8	104.5	249.4	75.1	139.8	920.2
1977	327.3	103.6	252.0	78.3	139.1	900.3
% change 1952-1977	-20	-10	-9	3	+1	-11

Source: Bruner, William E. and Perry R. Hagenstein, Alternative Forest Policies for the Pacific Northwest, Study Module V, Forest Policy Project, Washington State University, 1981.

[a]International 1/4" Rule less deductions for rot or other defects.

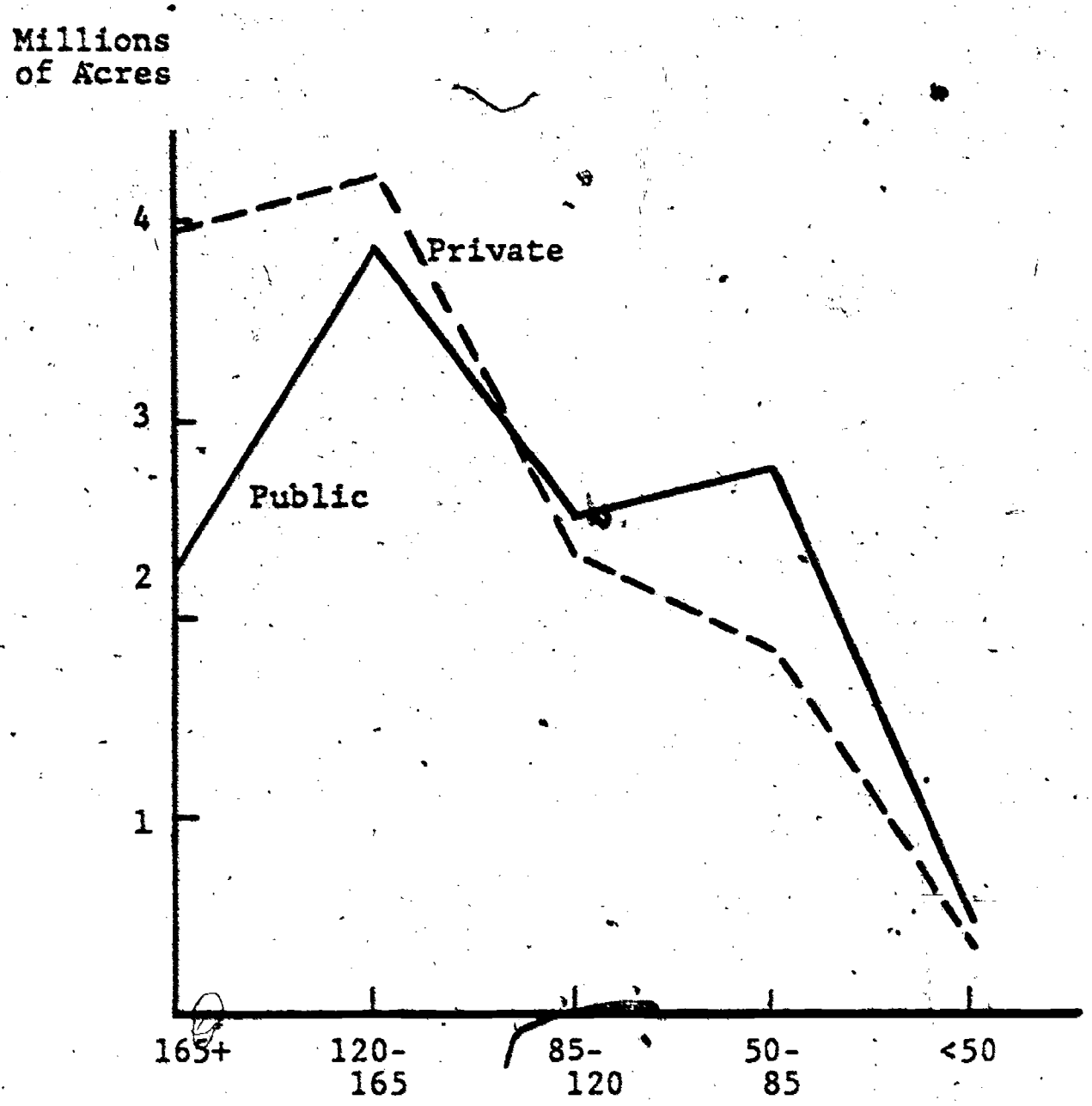
Concomitant with this harvest pressure on private lands, the softwood timber harvest from public lands has increased substantially over the past thirty years (figure 2). As it relates to Forest Service lands, this was done within a non-declining, even flow (NDEF) framework, which was formalized by the National Forest Management Act (NFMA) of 1976. According to Protasel (1980),

> This Act directs the Secretary of Agriculture to "limit the sale of timber from each national forest to a quantity equal to or less than a quantity which can be removed from such forest annually in perpetuity on a sustained yield basis" (pp. 2-13).

With this act, the Forest Service no longer has discretionary authority to balance annual growth and harvest over the entire system, which could have allowed accelerated harvest of some mature forests while allowing others to grow.[2]

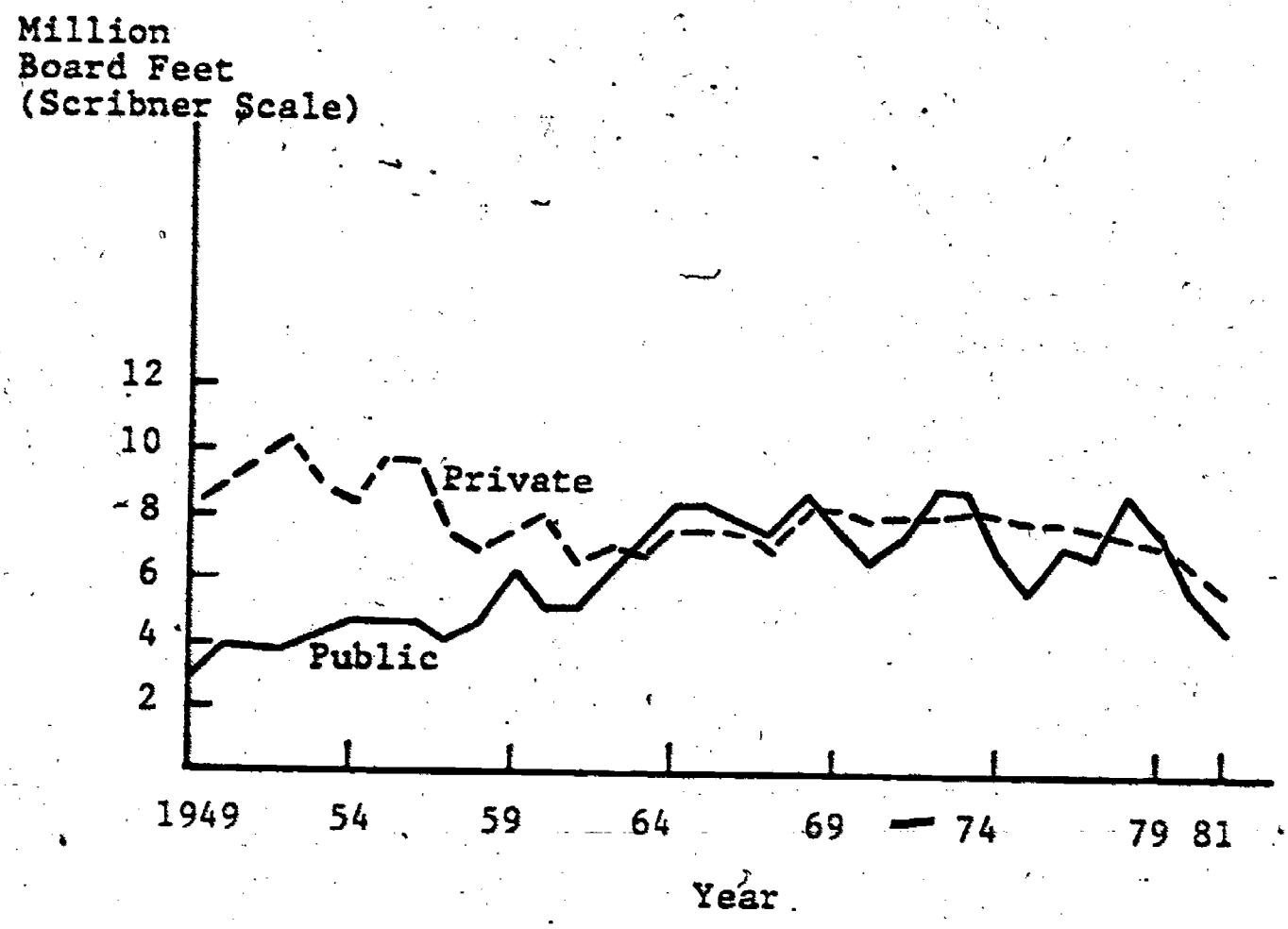
Although there has been a decline in private harvest and an expansion of public harvest, historical employment data for the wood products industry reflects the predominance of demand factors rather than supply factors (figure 3). Between 1960 and 1975, wood products employment in Washington

Figure 1. Ownership of Commercial Forest Land by Productivity Class, Western Oregon and Western Washington, 1970.



Source: Gedney, D.R., D.D. Oswald, and R.D. Fight, Two Projections of Timber Supply in the Pacific Coast States, Resource Bulletin PNW-60, Pacific Northwest Forest and Range Experiment Station, U.S. Forest Service, 1975.

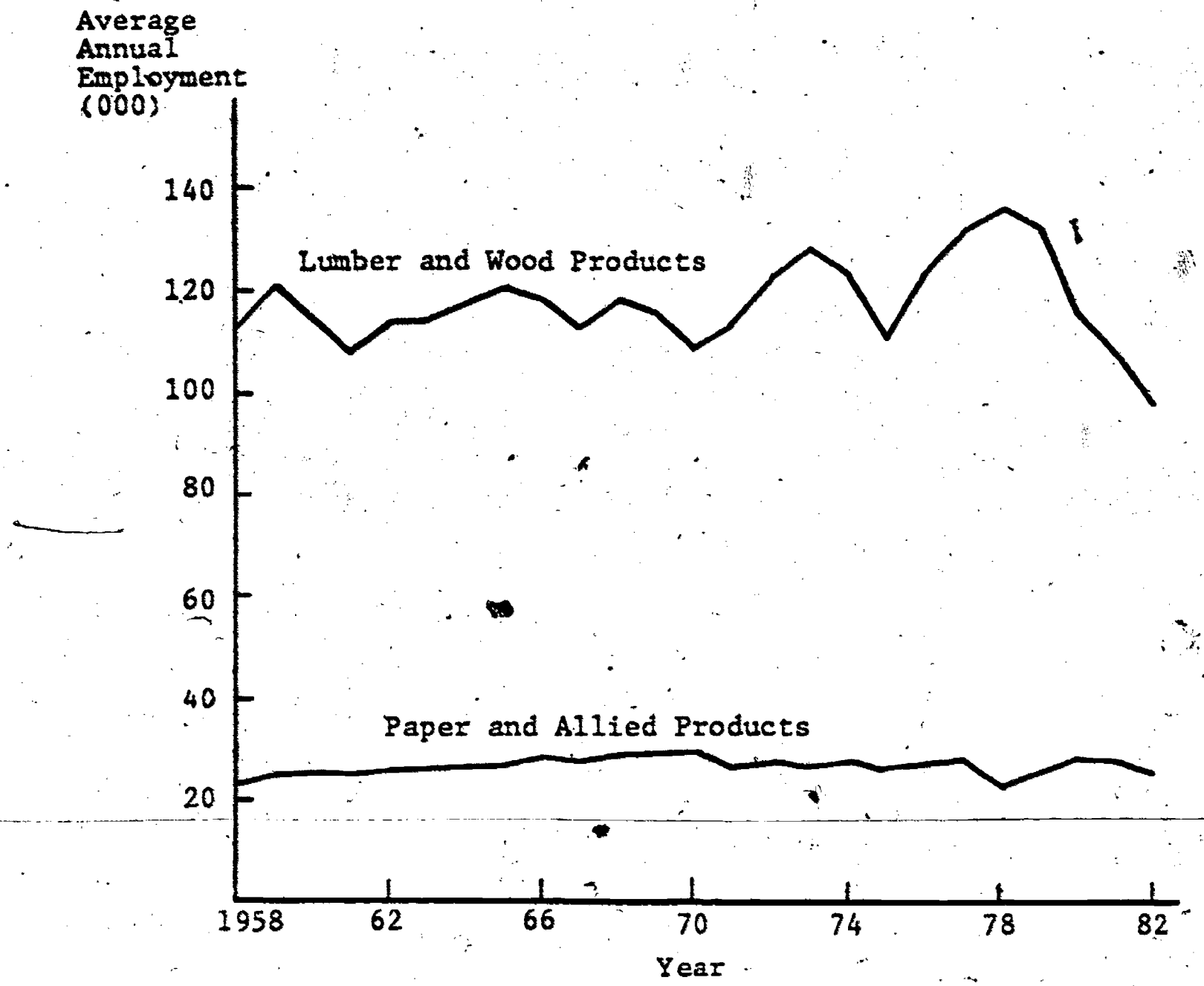
Figure 2. Oregon and Washington Timber Harvest.



Source: U.S. Forest Service. Pacific Northwest Forest and Range Experiment Station. Production, Prices, Employment and Trade in Northwest Industries.

Wall, Brian R. Log Production in Washington and Oregon, An Historical Perspective, Resource Bulletin.PNW-42, Pacific Northwest Forest and Range Experiment Station, 1972.

Figure 3. Wood Products Employment, Washington and Oregon.



Source: U.S. Forest Service, Pacific Northwest Forest and Range Experiment Station, Production, Prices, Employment, and Trade in Northwest Forest Industries.

and Oregon ranged between 110,000 and 125,000 workers, about 60 percent of whom were in Oregon. The relative importance of the industry is also greater in Oregon, where about 40 percent of the manufacturing work force (7 percent of the labor force) are in wood products, compared to 20 percent in Washington (Bruner and Hagenstein, 1981, table 4-3).

The current and long-lasting recession and the highest interest rates for home mortgages, however, has raised havoc with the wood products industry. Close to half of the workers in Oregon have been reported to be laid off or working reduced hours, and the total timber harvest in Oregon in 1982 has been reported to be just over half the record year of 1972 (Forest Industries, March 1983). This squeeze on profits will reinforce earlier trends toward plant modernization and substitution of capital for labor (Weeks, 1982).[3]

In contrast to the timber uses of forest resources in the Northwest, the growth in recreation and related uses has been steady and substantial. In their recent study of non-timber uses of forest land for the Pacific Northwest Regional Commission, Powel and Loth (1981) reported:

- 19.8 million visitor days of National Forest recreation use in 1978 on developed sites comprising only 0.08 percent of the commercial forest land base

- 24.4 million visitor days of dispersed recreation use on the National Forests

- 1.2 million acres of forest land devoted to watershed protection

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- a substantial but unspecified contribution of forest lands to the $73.4 million value (in 1974) of sport and commercial fisheries supported by the Columbia River system

- 5.9 million forested acres of designated wilderness lands (8 percent of the land base) plus another 2.6 million in RARE II additions proposed by the Carter Administration.

Although these types of data could be presented in great detail, it is not clear what constitutes the "recreation industry" and what relevance this has to rural poverty. Recreationists do spent money that gets translated into local employment impacts, but the likely recipient is still rather "fac[illegible]." Projections of increased recreation usage are usually

translated into local impacts through use of (often national) secondary data on trip expenditures, employment multipliers, and employment per unit of sales, by sector of the local economy. In a recent report to the Pacific Northwest Regional Commission, for example, Centaur Associates and Montgomery (1981) estimate the size of the forest-related recreation industry in the Northwest to be 25,935 persons, or about 14.4 percent as large as the wood products industry. They also estimate that an additional 100,000 visitor days would create from thirty-six to sixty-seven jobs, depending on the type of recreation. While this is interesting to know, it tells us little about whether an unemployed mill worker could be absorbed into a recreation industry which those authors predict will double in size over the next forty years.

Although there are other issues in forest policy that would affect income distribution, I would argue that the largest single issue is the coming shortfall in private log harvest and the pressure to accelerate harvest on public lands. Although several controversial Forest Service reports had pointed out this shortfall earlier (U.S. Forest Service, 1973; Wall, 1973; Gedney et al., 1975), the most definitive and widely cited study is the so-called Beuter Report, completed at Oregon State University by Beuter, Johnson, and Scheurman (1976). This report concluded that:

- private timber supplies in western Oregon will be inadequate to fill the gap between current total harvest and current allowable cut from public lands
- this deficit could constitute 22 percent of current harvest by the year 2000
- declines in harvest can be expected as early as 1985 in the important Eugene timbershed
- the deficit could be covered by accelerating the harvest of mature old-growth public timber.

The situation in the Eugene timbershed (table 2) strongly hints at those conclusions. There, the Forest Service has 68.7 percent of the inventory but only 38.1 percent of current harvest, while the forest industry has but 15.9 percent of the inventory and 45.6 percent of the harvest.

Table 2. Distribution of Area, Inventory, and Harvest by Ownership Class, Lane County, Oregon

Owner Class	Commercial Timber Area	Standing Sawtimber Volume[a]	Current Harvest[a]
	(----------percent----------)		
National Forest	50.1	68.7	38.1
BLM	12.3	10.3	11.6
State & Other Public	1.0	0.5	0.7
Forest Industry	26.7	15.9	45.6
Other Private	9.9	4.6	4.0
All Classes	100.0	100.0	100.0

Source: Beuter, J.H., K.N. Johnson, and H. Lynn Scheurman, Timber for Oregon's Tomorrow, Research Bulletin 19, Forest Research Lab., School of Forestry, Oregon State University, January 1976.

[a]Trees 8 inches and larger in dbh.

The Beuter et al. report was not an advocacy position but rather a simulation model which explored "reasonably possible occurences," as the authors termed it. Its implications, however, have been seized upon with alacrity by the forest industry and by individuals in some public agencies who have been shown to share basic attitudes of development (rather than conservation or preservation) with representatives of the timber industries (Protasel, 1980). In particular, the 1980 Oregon Timber Supply Assessment of the Oregon State Forestry Department makes a clear call for acceleration of National Forest harvests. To do so, however, would require Forest Service approval of a "departure" policy from NFMA on non-declining even flow (Schallau, 1983), a process on which I will defer discussion until later in this paper. At this point, suffice it to say that many jobs are at stake and that the industry and part of government wants to harvest more public timber, but that the general public would probably not be too receptive to the idea because of environmental implications.

One final dimension of "current status" that needs to be explored is the relationship between income distribution, rural poverty, and timber dependency among Northwest communities. As stated earlier, many communities in the region are highly dependent on wood products employment. Because of this, Linda Owen and I were somewhat surprised to find that

employment changes between 1965 and 1970 in Douglas-fir dependent counties had little relationship to changes in log harvest (adjusted for cross-hauling between counties) during this period (Stevens and Owen, 1982). While half of the export base of these counties was in wood products, on the average, the other half was not and should also have been considered in our analysis. That is, even "dependent communities" are not totally dependent.

This finding led me to ask whether these counties were characterized by especially low incomes. Using Linda Owen's (1979) data on timber dependence,[4] I made separate plots of the extent of timber dependence against the extent of poverty and median family income, using very old 1969 census data (figures 4 and 5). A glance at these plots suggests that there is no obvious relationship, that highly dependent (and thus highly vulnerable) communities may vary considerably in the extent of poverty and the level of income.[5] It can be noted, however, that timber-dependent counties do tend to have a higher incidence of poverty and lower incomes than other counties in Oregon and Washington. Moreover, Fitch and Schefter (1974) found that counties of this type (the non-Willamette Valley western counties) had slipped from a slightly worse than average income condition in 1949 to a considerably worse than average condition in 1969. At the same time, counties in the urbanizing Willamette Valley had improved their relative income position by a considerable extent. While it is tempting to look at a simple plot and conclude that timber dependence does not matter, we need to look carefully at the dynamics of income, population, and industrial change over time before we draw this conclusion.

III. Income Distribution and Forest-Related Policies: Multiple Contexts and Explanations

If one's purpose is to explain the impact of some forest policy change on income distribution and poverty, one needs to define exactly what is being explained. Explaining variation in workers' incomes, for example, would call for a somewhat different set of explanatory variables than would be useful in explaining differences in per capita incomes among regions. Forest-related policies may be important, however, in both types of models. For this reason, I have chosen to define four alternative contexts with

Figure 4. Timber Dependence and Poverty, Western Oregon and Washington.

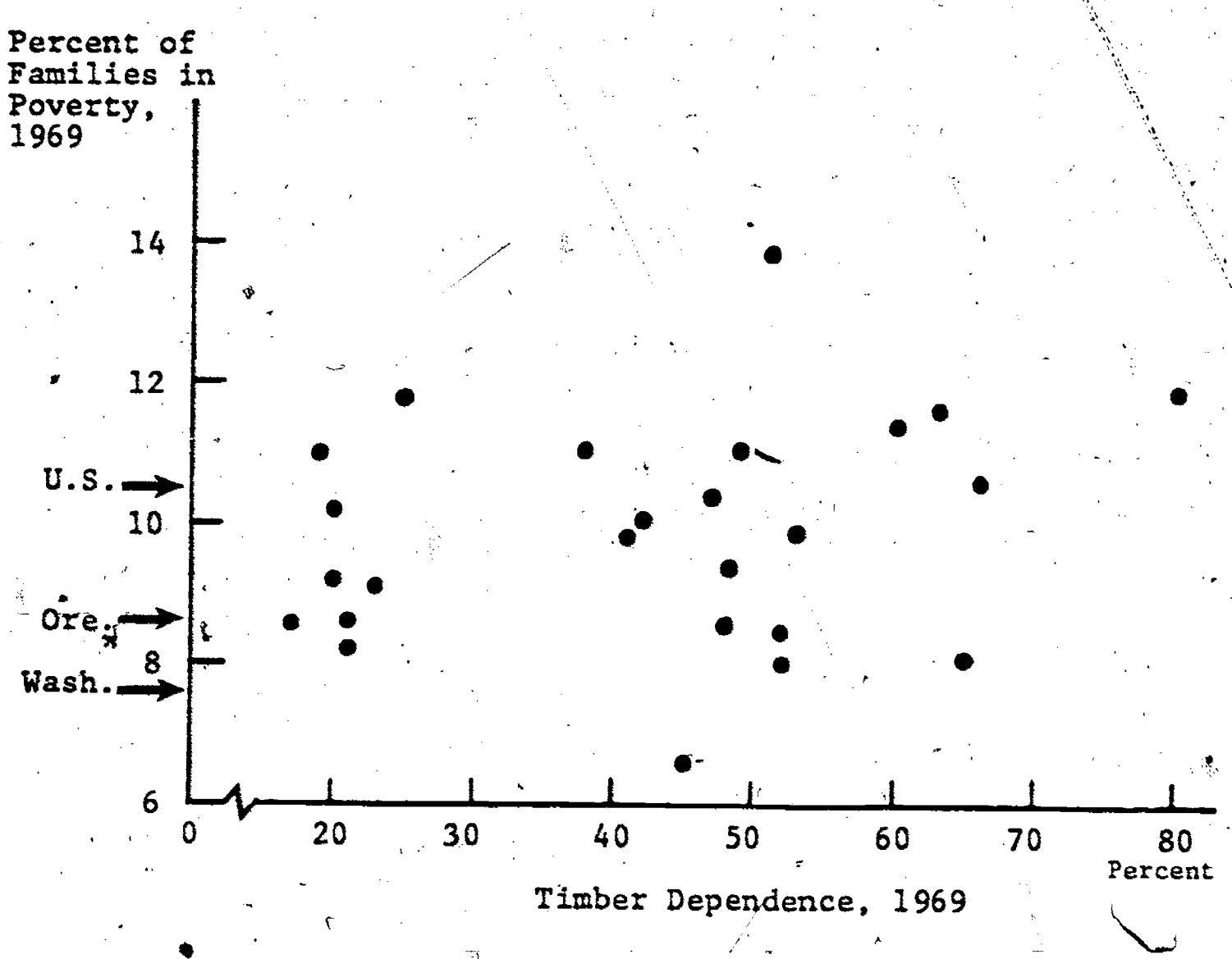
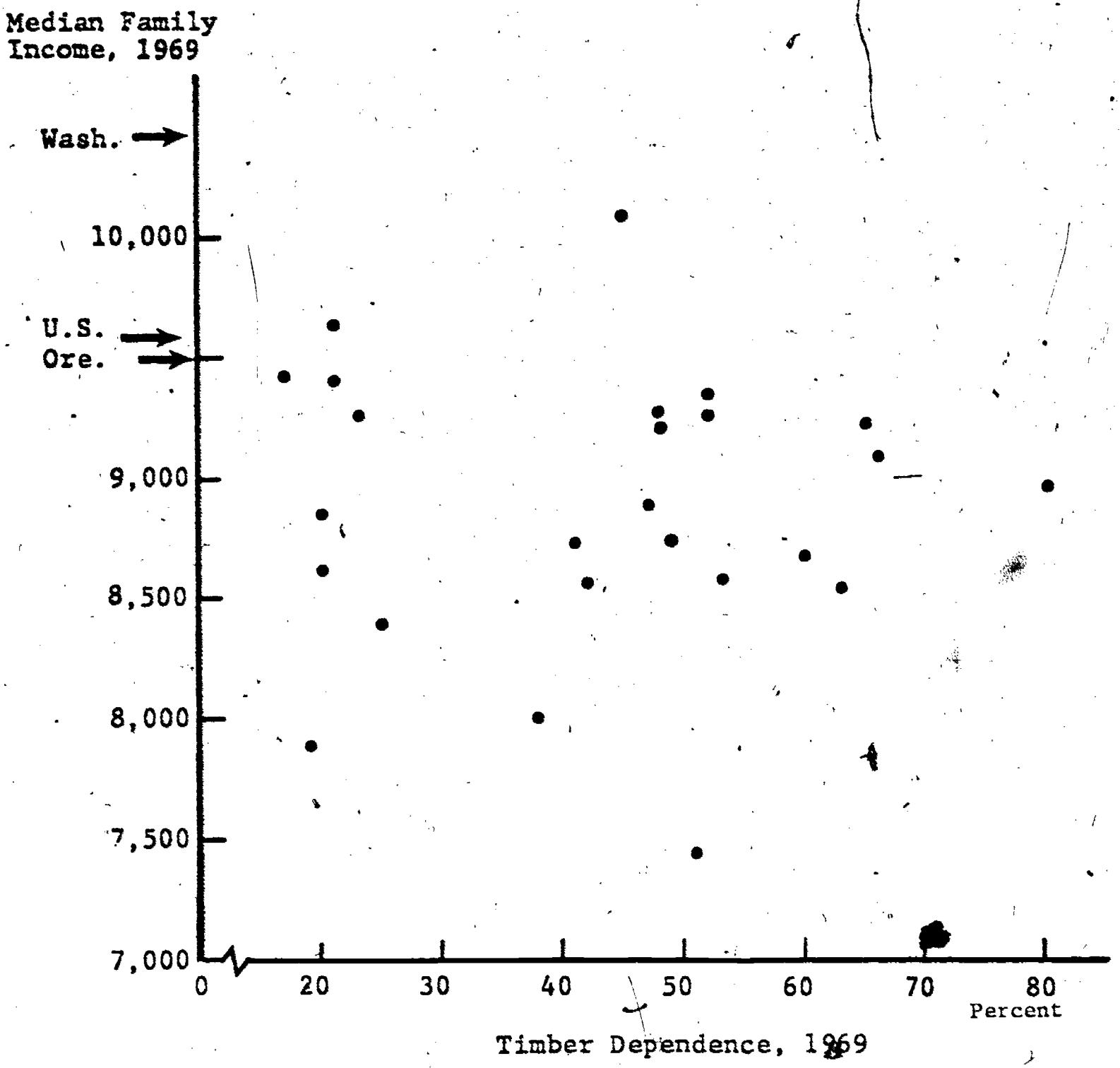


Figure 5. Timber Dependence and Family Incomes, Western Oregon and Western Washington.



respect to income distribution, and then to indicate how forest-related (and other) policies might affect these particular distributions. To do this, I will draw on what I see as relevant analytical frameworks for postulating cause and effect relationships. Space does not permit developing these frameworks in their entirety, but I hope a case can be made that they are worthy of further pursuit.

1. Factor Shares. The first of these is the distribution of income among factors of production, particularly labor and capital. Historically, the ownership of labor and capital in wood products has been quite separate; with the exception of a few "gyppo" loggers, wage labor rather than self-employment is the rule. A few often-cited cases do exist of worker-owned plywood plants (Berman, 1967), but many communities affected by closures in recent years have found this difficult to replicate, in spite of serious efforts to do do. Since wage labor has been the general case, its share of the total product is, in principle, negotiable, but only to a degree. Lacking access to overall decision making, excessive wage demands would lead to substitution of capital for labor, reduced employment, and ultimately, dislocation of capital to alternative locations.

I believe that it would be safe to say that wood products labor unions in the Northwest have not been as powerful as these in some other sectors of the economy. The majority of mill workers and loggers do not belong to unions. Collective bargaining, while improving other conditions of employment, has probably raised wages for some workers but at the ultimate expense of jobs held by others. This lack of strength has been pointed out as somewhat puzzling since the Northwest labor movement has far more than its share of radical heritage (Schwantes, 1979). Based initially on anti-Asiatic sentiments, a strong left-wing labor movement emerged during the 1885-1917 period, and the turbulent history of the Wobblies (I.W.W.) in the woods and mills late in that period has been well documented (for example, Smith, 1971). A recent dissertation by Lembcke (1978), for example, examines why the same union (the I.W.A.) has been so strong in British Columbia relative to the United States. He finds several plausible explanations resting in different industrial structures, different worker ethnicities, and different types of intervention by government.

Further research on collective action by workers would be useful in explaining labor and capital share, although it is my personal view that the relevance of collective labor action for reducing rural poverty is probably minimal. Crown Zellerbach, for example, recently announced plans to build a $30 million plant near Astoria, Oregon, to be manned by only 120 workers (Wall Street Journal, June 23, 1983). These workers, each responsible for a quarter of a million dollars worth of fixed capital, will and should be rewarded. For the more typical worker, the chance of poverty depends on how much he or she actually works as well as what the wage rate happens to be. This question, I think, raises the need for a distributional context which is a little different from the classical factor share situation.

2. Inter-regional Income Distribution. A second context is that of income distribution between the Pacific Northwest, on one hand, and the rest of the United States on the other hand. A model to explain regional growth would ideally consist of five elements, including resource availability, technology, demand, space, and institutions (Edwards, 1981). Historically, there is little doubt that comparative advantage in lumber production, development of internal and foreign markets, and improvements in transportation have had much to do with the growth of the Northwest's economy. At the same time, elements of policy controlled at the national level have profoundly affected the regional economy. For example, home ownership by families has been encouraged as a national goal, and the privileged tax status of interest paid on residential mortgages has obviously been a boon to the Northwest timber industry. To maximize this advantage, however, requires low and stable interest rates, another factor which is outside the Northwest's control. The decline in lumber and wood products employment from 136,500 workers in 1978 to 97,500 in 1982 is grim testimony to the Northwest's sensitivity to high interest rates.

3. Intra-regional Income Distribution. A third context is income growth and distribution within the Pacific Northwest itself. A somewhat different set of variables would be required to explain this, although historical and current resource endowments and differential access to markets would continue to be important factors. The problems of overcoming space seem especially important, however, to both firms and households. The Fitch and Schefter (1974) results, for example, indicate that Oregon

counties nearest to urbanizing centers have grown in income terms more than more distant ones. T.W. Schultz's (1951) "urban-industrial matrix" is plausible here; labor markets in urban areas may work as efficiently in transferring labor out of wood products as out of agriculture.

While they do have different focuses, these three distributional contexts (labor/capital, regional, subregional) are alike in several respects. First, data on individuals must be aggregated. By that act, valuable detail is lost. (Because of this, a fourth context--distribution within a labor force--will be developed momentarily.) Second, they are familiar contexts for analysis by regional economists who ask useful questions such as "Would increasing the availability of resources (for example, capital) improve per capita incomes?". There is real value, however, in going beyond these standard questions and answers in attempting to explain income distribution. In particular, I believe that elements of a public choice or collective choice approach can be used to understand the development and evolution of forest-related policy itself. This, together with conventional economic analyses of the effects of these policies, would allow us to better understand the relationships between forest resources and rural poverty.

IV. Public Choice, Forest Policy, and Income Distribution

In a public choice framework, an attempt would be made to use economic reasoning to explain forest-related legislation and major administrative decisions as economic phenomena rather than simply viewing them as politics or public administration.[6] Obviously, space does not permit a very full elaboration of this framework. In short, however, there would be models of a "market" for collective action with respect to forest policy. There would be actual or potential "demanders" of collective action, including timber industry firms and trade associations, dependent communities, amenity users and groups, labor groups, and individual workers and consumers. There would be "suppliers" of collective action including political parties and candidates at local through national levels, administrative agencies such as the Forest Service, and perhaps even the judiciary. Each actor would be maximizing something, which may or may not be consistent with the "public interest" (Steiner, 1970). Each would be

rationally active or inactive in a political sense, depending on their perceptions of gains and costs to them.

Because we have substantial public land ownership in the United States, the market is relied on only minimally for allocating most forest resources. Instead, public land managers have to walk a tight-rope between constituent groups, the law, appropriations committees, and their own professional standards and training. While the dilemmas of the management agencies have been well documented (for example, Steen, 1976; Dana, 1956), a public choice framework might fruitfully be applied to to the other actors in the policy process, including their interactions with management agencies. Out of this approach, I believe that eventually a number of hypotheses can be developed to "explain" forest policy and, indirectly, to suggest the likelihood that forest resources will be used to ameliorate rural poverty. These hypotheses would have something to do with the following considerations.

A. Consumers of marketed forest commodities are probably the easiest to satisfy, since they are quite likely to be politically inactive. In Hirshman's (1970) terms, they have an "exit" option (not buying). Moreover, the individual payoff from a "voice" option (political participation aimed at lower prices) is very low.

B. The political response of dependent communities is fairly predictable, since 25 percent of Forest Service timber receipts are returned to local government. Moreover, the statutory distribution of timber harvest receipts from state lands would cause local elected officials to actively pursue greater timber harvests, lower property taxes, and hence a higher probability of reelection (Breton, 1974).

C. In contrast to consumers, forest-related firms have more individual incentive to make their needs known to management agencies and elected officials. Moreover, "in unity, there is strength," hence the existence of the voluntary trade association to further the interests of the member firms. More than any other single topic, it would be useful to have additional studies of the wood products trade associations and their relationships to members and nonmember firms, agencies, and elected officials. At present, their main concern appears to be increased access to public timber and protection of the existing timber base from wilderness designation. There is a new and rich historical literature, however, on earlier attempts

to regulate production, prices, wages, and working conditions in the name of community stability (Robbins, 1981, 1982; Cox, 1981; Schallau, 1983; Fickle, 1980). Under price and profit pressures and through the auspices of the National Industry Recovery Act (NIRA), for example, the West Coast Lumberman's Association and the National Lumber Manufacturers Association developed a Lumber Code in the early 1930s which set price and wage agreements and assigned production quotas (Robbins, 1981). Two things happened to this abortive attempt at cartelization. One, the NIRA was declared unconstitutional by the Supreme Court. Two, the benefits from the code were perceived as inequitable by small operators, who openly violated it by selling below the minimum price. Many of these issues were raised again with the quiet creation of Washington's Shelton Unit under the 1944 Sustained Yield Forest Management Act (Hoover, 1978). That act defined an integrated harvest unit which consisted of private and public ownerships, including Forest Service land. Operators who did not have private timber within the unit were not pleased with the distribution of benefits, and no other major unit was ever created under the act.

D. The collective action logic of Mancur Olson (1965) suggests that strong environmental groups should really not exist, that their members would rationally be inactive due to low personal ratios of benefits to costs. That they do flourish is a puzzle which Mitchell (1979), Hardin (1982), and others are currently exploring. One implication, however, is rather clear; these groups represent many votes, while trade associations represent fewer votes but more dollars of campaign support for candidates. In many respects, forest policy issues in the future may increasingly be resolved in political markets where votes of amenity users are played off against the dollars of commodity users. In this type of situation, we can expect passage of highly visible legislation, calculated to assuage voters, but legislation which is negotiable in its administrative details, in order to satisfy the firms and trade associations.

E. In principle, the collective action thesis should hold for workers as well as for commodity consumers (where it does hold) and for amenity consumers (where it often does not hold). In fact, it has been extensively documented that lower income people and unemployed workers have low levels of political activity (Verba and Nie, 1972; Scholzman and Nie, 1979; Wright, 1976). In spite of earlier acts of individual sacrifice in the

labor movement, workers now seem content to signal their preferences on forest policy through others, which is a lower cost option. In particular, they often choose (though usually with a certain amount of symbolic separateness) to support the political positions of their employers, who are supposed to be their protagonists. More than a few pickups have bumper stickers saying "Sierra Club, Kiss My Axe," and more than a few workers have mailed employer-supplied postcards to their Congressman in protest of wilderness designations. Many industry positions including those on accelerated public harvest, land withdrawals, and log exports would also seem to benefit wood products workers. Even with plant closure legislation, where workers might be expected to take a different political stance, Young and Newton (1980) report that most workers reaffirm the idea that the company should have the right to shut the doors anytime.[7] In many respects, the political power of the worker has been co-opted by the employer and he joins the commodity consumer as a not-so-potent force for the management agency to reckon with.

F. On the supply side, the management agency must deal with elected officials who serve as the source of funds in Niskanen's (1971) bilateral monopoly model of bureaucratic behavior. If these officials happen to have seniority and are on an appropriations committee, they must be listened to. The general portrayal of politicians in the public choice literature is that they may seek selfless or selfish goals, but they have to be reelected in order to continue to seek them (Breton, 1974). And to be reelected, it helps to keep a majority of their constituents happy. Matters of forest policy are often not of paramount importance even in the Northwest, but few candidates can afford to ignore them. In the final analysis, only votes count, but campaign dollars, time, and endorsements help to produce votes. Better information on campaign contributions through political action committees (PACs) should now be available and could productively be used in research on forest policy and income distribution.

G. Finally, the management agencies themselves. Many of their actions are prescribed by law, but many others are subject to administrative discretion, interpretation of statute, and political sensitivities. A popular theme has been that regulatory agencies are frequently "captured" by those whom they regulate. The foundations of this theme were books by Bernstein (1955) and Edelman (1964). The theme is now coming under more

rigorous scientific scrutiny, however, both in general (Wilson, 1980) and in natural resources (Culhane, 1981). In particular, a rigorously stated "economic theory of regulation" has been developed by Stigler (1971) and Peltzman (1976), "...wherein government officials are vote maximizers who arbitrate among competing interests that seek to use government to redistribute resources" (Wilson, 1980, p. 361). Most, if not all, of the hypotheses suggested in (A) through (F) above can be folded into a theory of regulation and tested with respect to forest management agencies.

V. Dual Labor Markets and Income Distribution

Returning to the multiple perspectives on income distribution, a fourth is that of income distribution within a wood products labor force. The advantage of this level of disaggregation is that the poor and near-poor are identifiable instead of being masked by living in a low (or high) income county. The disadvantage is that there has been only one study of this sort, to my knowledge (Stevens, 1978). The context for this particular study was social marginalization, which is a negative aspect of the economic development process whereby individuals, families, communities, classes, or cultures can become isolated and enclaved relative to mainstream economic society (Padfield and Young, 1977).[8]

There were two principal findings of the Oregon wood products labor study. First, it was discovered that the 75,000 jobs in 1972 (that is, average monthly employment) were actually held by about 110,000 different individuals (Stevens, 1979). This led to discovery of a duel labor force resembling that which is postulated in the dual labor market literature (Doeringer and Piore, 1971; Cain, 1976).[9] On one hand there were about 60,000 "core" workers whose labor earnings came solely from wood products; these were the "stable" workers, 40 to 50 years of age and with perhaps six to ten or more years of seniority with their current employer. Their position seemed fairly secure as long as their employer remained in business. When mills closed, their seniority was important because of employer preferences for stable workers. In a normal year, their earnings were quite respectable. Most had worked outside wood products earlier in their careers, but they could earn more by working in wood products.

On the other hand, there were about 25,000 peripheral workers who worked full time but spliced wood products and other jobs together to make a living. Primarily in their twenties and with little seniority at low-skill jobs, they seemed neither committed to nor sought after by wood products employers.[10] Even so, their labor earnings in 1972 were about midway between all unskilled and semiskilled Oregon workers. While their average unemployment rate over their career (7.9 percent) was close to the Oregon average, one-third of them earned less than $6,000 in 1972 and one-fourth were unemployed more than 10 percent of the time. As a whole, this group had coped reasonably well. This was a period of "good times," however, not the early 1980s, at which time widespread mill closures and cutbacks imposed severe costs on both types of workers.

The second major finding was that the adaptations of both groups made economic sense in light of their own circumstances (Stevens, 1980b). The core workers tended to wait out a mill closure, knowing that their seniority and stability would help them compete at other local mills. Peripheral workers, on the other hand, tended to change jobs frequently because income gains from a "job-changing" strategy exceeded that from a "staying" strategy. This was so in spite of the fact that they accumulated negative human capital in the form of an unstable work history (Young and Stevens, 1978). They could ultimately escape the consequences of this by leaving wood products, which many intended to do and which was possible at the time of the study (but is very difficult now).

In summary:

> Rather than being an aberration, then, job-changing seems to be rational economic behavior. The floater has been created, as it were, by the industry, by the nature of the industry's production process and its volatility, and by the social mileau of rural areas and small towns. Indeed, he is very much a part of the human ecology of the timber region. If other jobs are available, as they generally have been, he can escape the industry. If other jobs are not available, he will suffer because he responded "correctly" to market signals! (Stevens, 1979, p. 720).

VI. Use of Forest-Related Policies to Reduce Rural Poverty

It is clear that even in normal times a particular subset of the labor force is definitely at risk from market fluctuations and forest-related

policies, even though many workers are reasonably well protected. Based on my research for 1972, perhaps 5,000 to 10,000 of Oregon's wood products workers were highly vulnerable to factors which affected the short-term or long-term demand or supply of timber resources.[11] The vulnerability has to be much greater than this now, since industry employment has fallen by 24,500 jobs in Oregon over the last five years.[12]

Whether the industry, the public, or the worker himself is responsible for the well-being of the peripheral worker is very much a value judgment. Regardless, economic vibrations cause not only job loss but a variety of other social ills. For example, strong relationships between alcohol consumption, child abuse, and unemployment have recently been documented in eleven small communities in Oregon (Weeks and Drengacz, 1982). There is little doubt, then, that forest-related policies do affect income distribution in its broadest sense when statistical relationships can be found between changes in the prime rate and the incidence of child abuse. The real questions are whether we can use forest-related policies to undo or prevent these things, and if we can, would forest-related policies be the most effective way of doing it?

One issue that must first be dealt with, however, is that of appropriate criteria for forest resource policy. Krutilla and Haigh (1978) consider this in some detail and conclude that economic efficiency is really the only reasonable criterion.[13] They argue that the Forest Service and other land management agencies are forced to deal in the allocative sphere since they do not have the appropriate tools to deal with stabilization (for example, monetary and fiscal policy) or distribution (for example, progressive income tax, inheritance laws). By this token, their argument goes, one must judge agency actions solely on the basis of aggregate net benefits from forest resource use. Conscientious persons might wish to change the income distribution, of course, but let them do it outside the realm of forest policy. I would suggest that the idea that efficiency is paramount is clearly a value judgment and not a scientific conclusion. There <u>are</u> "losers" in forest policy; sometimes they are compensated, but most often they are not.[14] The appropriate criterion for policy, in my judgment, has to be whatever blend of efficiency and distributional considerations one feels comfortable with in an ethical sense.

In this context, then, there are some specific forest-related policies which have been or could be considered. Each would have impacts on income distribution. I will discuss each briefly, attempting to gauge their effectiveness by these criteria as well as using the public choice framework to suggest their political viability.

1. Accelerated Harvest on Public Lands. This is the issue that would affect the most people, short of slowing the rate of labor-saving technological change, an option which would be both inefficient and politically nonviable at this point in time.[15] As argued many times by Clawson (1976) and others, the Forest Service is simply not allocating resources efficiently when it maintains huge inventories of old-growth timber that are slow growing and subject to windfall and disease. Accelerated harvest "...without jeopardizing the forest's long-run ability to produce wood" (Schallau, 1983, p. 11), as is possible in western Oregon at this time, would seem to have the dual advantages of being an efficient use of forest resources (if reforested successfully) and continuing to provide jobs for workers, including those at the margin of economic obsolescence. Moreover, it could happen: The NFMA of 1976 contained a "departure" clause which would allow departures from nondeclining even flow to achieve community stability.

On the other hand, there are some problems; some doubt that we really have the knowledge base to ensure adequate reforestation. The largest problem, however, is that the need to accelerate harvest is not strongly felt, if felt at all, among the public. Even in Oregon, talk of a timber crisis draws blank stares. People are used to seeing trees, lots of trees, in the woods. What crisis? In addition to those environmental costs of accelerated harvest that could be taken into account in an efficiency framework, I suspect that the Oregon public would perceive huge unmeasured environmental costs from both harvest and reforestation, including the use of chemical herbicides for brush control. And one would expect that office-seekers (or holders) would listen to them. Schallau notes the growth in environmental concern as it would relate to approval of a departure policy today compared to creation of the Shelton Unit forty years ago:

> The world is now much more complex than it was during the 1940s. For example, during the December 1943 hearings before the House

Committee on Agriculture on the "Act to Promote Sustained Yield Management" (S. 250), only nine people testified--all favoring passage. In contrast, the list of agencies and individuals submitting comments on the draft USDA regulations, which included the departure clause, filled more than 10 pages in the Federal Register [1979] (1983, p. 10).

2. Acceleration of Reforestation on Public Lands. Independent of the old-growth issue, there is a backlog of harvested federal lands which in the judgment of the Forest Service need to be reforested and for which money has not been appropriated. Whether these are efficient investments is not clear, given high discount rates and a long rotation period. They would employ some people, however, since reforestation is very labor intensive (and very hard work). By and large, however, loggers and mill workers tend not to be tree-planters; most of that work now seems to be done by illegal Mexican aliens, women, and "back to the earth" folks. The target effectiveness of this approach is probably fairly low; more intensive management such as pre-commercial and commercial thinning would probably rank higher on that score.

As a variant of this option, one might want to increase the level of reforestation on private lands. In theory, this could be implemented through the Forest Practices Acts of the three Northwest states (Protasel, 1980). In practice, it would be different. In Oregon, for example, the statutorily appointed regional forest practice committees (largely appointed from private land or timber owners) recommend practices which are "...appropriate to the forest conditions within its region..." (ORS 527.660). Needless to say, it would not be expected that uneconomic reforestation investments would be forced on private owners by themselves.

3. Wilderness Land Withdrawal. Nothing arouses furor or frenzy like this option, since it is usually quite specific with respect to time and place. It is often more vague, however, in terms of when (or if) the timber would have been harvested, how rich and how few the backpackers are, and how poor the local folks are or will become. Generally, I suspect that these are greatly overstated by the opponents of withdrawals and understated by the proponents. Clearly, if a local timber supply is removed from the harvest base, some peripheral workers will be affected or even caused to lose their economic viability. And just as clearly, the question

of compensation for both displaced capital and labor is appropriate. Many of the real questions, it seems, are empirical ones which do not get resolved. For example, what <u>are</u> the other opportunities for the workers and for idled capital? What <u>are</u> the real prospects for their absorption into the recreation or other industries? These are questions which are relevant to both efficiency and distributional frameworks and need to be addressed on a case-by-case basis. Schallau and Polzin (1983) found that nontimber prospects for growth varied widely in four Northwest communities and argue that this--along with timber prospects--is relevant when considering the need for "departures" from current harvest policy. Clearly, this approach is appropriate for wilderness designation as well.

4. Log Exports. This has also been a hotly debated issue with ports, (highly paid) longshoremen, some larger private firms, and the Washington Department of Natural Resources on one side and timber towns, mill workers, the federal agencies, and the states of Oregon and Idaho on the other side. Direct exports of logs from federal lands are banned, and "substitution" (exporting private logs and replacing them with federal logs) is controlled by comparisons with historical records of buyers (Lindell, 1978). Oregon and Idaho follow this lead but the State of Washington itself is an active exporter, accounting for 22 percent of log exports from Washington in 1972.

Aside from "who gains and who loses," total domestic activity is clearly reduced by exporting logs rather than processed lumber. To process 1,000 board feet into plywood and veneer requires 19.5 person-hours, into lumber requires 12.6 person-hours, but into exported logs requires only 4.7 person-hours (Darr, 1975). From a national viewpoint, on the other hand, someone must export something if we are to buy Toyotas and Hondas. Someone must sacrifice, but the mill workers say, "Why us?". The issues are complex, especially to someone outside this particular area, but the recent RFF book on international trade in forest products, edited by Sedjo (1981), clarifies many of these issues. In particular, the chapters by Haynes et al. and Wiseman and Sedjo examine total log export bans and suggest the following impacts--only very slight short-term declines in lumber prices as foreign purchasers shift from logs to lumber, limitations in domestic processing capacity (and perhaps even increases in lumber prices because of this), declines in stumpage prices, increases in domestic processing, large wealth transfers, and net losses in national economic welfare ranging from

$50 million to $141.7 million annually. They further note, however, that there are a great many uncertainties, for example, in the ability of the Japanese to shift from log imports to lumber imports.

5. Contract Extensions on Federal Timber Purchases. Two or three years ago, about 8 billion board feet of stumpage (about 10 to 15 percent of the yearly federal harvest in the Northwest) were sold at inflated prices to buyers who banked on continuing inflation. When prices suddenly deflated, a number of medium-sized lumber companies (often without timber of their own) were left holding the bag. If forced to honor the contracts, industry sources claim that one-fourth of the lumber production capacity in Oregon and northern California would be threatened with bankruptcy (Forest Industries, May 1983, p. 7). One company, for example, owes more on contracts than the company itself is worth. Senator Mark Hatfield (R., Oregon) has been promoting legislation that would offer relief on 40 percent of a buyer's contract volume, but there is a lack of industry agreement on the matter between Northwest and South and even within the Northwest. Enforcement of the contracts would no doubt impose some severe losses on owners of capital, but from a hard-hearted point of view, the timber would still be in the forest, new owners would resume operation, and workers would experience only some "down time" of unknown length. They would probably prefer, of course, not to incur even that cost.

That the issue has even been raised to such prominence is fairly strong evidence of the political strength of the firms and their associations.[16] The worker who finds himself without a job or the merchant who invests incorrectly seldom has this level of recourse.

6. Small Business Set-Asides. This type of program, setting aside a certain portion of timber sales for small firms, is clearly intended to affect income distribution through natural resource policy. A controversial program, it offers some local advantages if small firms are more likely to reinvest locally than are large corporations. Like many programs, it can have unintended consequences. A few years ago, one low-income coastal county in Oregon had several small mills which used set-aside timber. When the last one closed, the logs had to be processed outside the county at the nearest small mill. Ultimately, the one large mill also closed, partly for lack of timber supply, according to the local people.

7. Plant Closure Legislation. The ability of a firm to announce an often unexpected closure is increasingly being questioned. Local people suddenly find themselves out of work, their business suffers, they pay more taxes, and they often have fewer public services. In Oregon, a number of legislative bills has been introduced to require advance notification of closures, at least by larger plants. These run counter to capitalist instincts and never make it out of committee. A much more positive and successful approach was defeated by only one vote in the 1981 House. This was a "prior notice" bill which would have allowed a business giving 120-day notice of planned reduction to apply to the Department of Economic Development for various aids, including technical and managerial assistance (Weeks, 1983, p. 69). The whole process involves a great deal of symbolism as well as substance, and one gubernatorial candidate moved farther and farther from his early support of this issue as election day approached. He waffled, moved much too slowly, and was decisively defeated.

8. Capital Reinvestment Within the State. If advance notification of a closure is not politically feasible, telling a firm where to reinvest its profits seems doubly unlikely. This, in a very real sense, is symptomatic of the underlying problem with our "development and management of forest resources," or "capitalistic exploitation of natural resources"; the choice of phrase is a value judgment. William Robbins, a forest historian, states it this way:

> ...The real problem is capital flow out of the region and the manipulations of the multinational corporations, which shift their investments to more lucrative fields when conditions are right.
>
> And in this state, the forest products giants are the major culprits. Profits made from harvesting old-growth timber in the Northwest have been invested in a variety of profitable ventures in other sections of the country and in foreign nations. Meanwhile, timber-dependent communities in Oregon and Washington are left with chronic social problems: high unemployment, diminished tax bases, increased alcoholism, and the other abuses associated with an impoverished population (Corvallis, Oregon Gazette-Times, June 28, 1983).

It is not difficult to document the flow of capital even among non-giants in the industry.[17] Medford Corporation, for example, was created in

1935 by the Chicago investment firm of Baker, Fentress and Company (which had interests in as many as 100 West Coast lumber companies) to take over a bankrupt firm in southern Oregon (LaLande, 1979). The firm prospered and in 1979 provided employment for 2,200 men and women. In early 1981, the Medford Corporation announced that it planned to build a $40 million medium-density fibreboard plant in Ireland (New York Times, January 17, 1981). The new plant would produce for the European market, while the Oregon plant would concentrate on the Far East. Within our market framework, capital is encouraged to flow to its most productive use. Until our political structure becomes as concerned about workers and communities as it is about capital, we will continue to have more conferences on this topic.

Notes

1. The reader is urged to note that because of time constraints, data and insights from Oregon are used more often than those from the other Northwest states.

2. According to McGuire (1982), the Forest Service had not actually used this authority for some time, but the NFMA removed it from discretionary debate.

3. In western Oregon, for example, the number of employees per million board feet of lumber processed in sawmills and planing mills dropped from 7.8 in 1950 to about 4.0 in 1970. In veneer and plywood plants, this ratio declined from 14.4 in 1950 to about 7.0 in 1970 (Wall and Oswald, 1975). Much of this decline was due to closures in the 1950s of many small mills and the emergence of larger integrated mills; the rate of decline flattened out substantially toward the end of that period.

4. Timber dependence was defined as wood products employment (SICs 2411, 242, 2432) as a percentage of the total basic employment, which was defined as SICs 1, 7-10, 12-14, 19-39, 42, 44, 55, 58, 70, 91, and 92. This list includes manufacturing, mining, some transportation, state and federal government, lodging, and selected retail services. For further detail, see Owen (1979).

5. In 1969, ten counties in Oregon and Washington had a poverty rate which was 25 percent above the national level of 10.5 percent of households (i.e., 13.1 percent or more). Only one of these was in the Douglas-fir region; all of the others were in the eastern part of

these states. Among the latter, nearly all had higher than average minority populations (Native Americans, Hispanics). Several of these, however, have significant timber harvests from Forest Service and/or Indian lands and deserve further study along the lines of this conference.

6. A first-time reader of this type of approach is referred to Ostrom and Ostrom (1971) and the latter portion of Castle et al. (1981).

7. That co-optation of the workers' value system is one of the major sources of worker powerlessness is a theme that pervades the Young and Newton analysis.

8. The results of this multi-state research were summarized by Young and Newton (1980) and a companion volume edited by Gallaher and Padfield (1980).

9. That literature has these broad premises; the key distinction is between good and bad jobs, not between skilled and unskilled workers; labor markets are segmented into primary and secondary sectors with minimal mobility between the two; and, secondary workers often develop patterns of job instability which reinforce their entrapment in the secondary sector.

10. In addition, about 14,500 college students were employed on a seasonal basis during 1972, another 4,500 workers left the labor force through retirement or disability, and another 5,500 could not be accurately classified.

11. Employment Division records indicate a high degree of unemployment insurance coverage in this industry. On the other hand, over half of the unemployment periods among peripheral workers were not covered by unemployment compensation, possibly because they had not worked the minimum period and knew they were not eligible for coverage (Stevens, 1978, p. 48). That the real facts are not well known is symptomatic of the problems of the "discouraged worker" and hidden poverty (Harrington, 1962).

12. People do adapt, of course, according to the circumstances and their abilities. For example, Oregon has changed from a high net in-migration status in the late 1970s to net out-migration in the early 1980s. I would suspect, however, that many of these are "turnarounds" of recent in-migrants from California (Stevens, 1980a) and that the peripheral wood products workers have either remained in Oregon or made the (often unsuccessful) long distance treks which seem to catch the attention of the media. Again, no one really knows.

13. Krutilla and Haigh also conclude that Congress had this in mind when they passed the laws. I believe that a more appropriate interpretation is that Congress "muddled through" by agreeing on means or policies without attempting to define or agree upon objectives (Lindblom, 1959).

14. The major instance of compensation was in 1978 when the Redwoods National Park was expanded. Workers were paid up to $350 per week for relocation, retraining, and severance pay (Millen, 1979).

15. Coping with the distributional consequences of technological change in general, however, is one of society's largest problems and will not go away (Okun, 1975).

16. During the conference for which this paper was written, a five year, interest-free contract extension was announced by the Reagan administration.

17. In apparent response to the maturation of a timber-dependent economy and impending decline in economic activity, commercial banks in Douglas County, Oregon (Roseburg) invested an increasing share of their funds outside that area over the 1958-1977 period (Schallau, 1980).

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NATURAL AND HUMAN RESOURCES: MAJOR PUBLIC POLICY AND MINORITY RURAL LAND OWNERSHIP, MANAGEMENT, AND USE

by T.T. Williams, Richard Morse, and Avery Webber

Introduction

This paper is concerned with the impact of government policies on minority rural landownership, management, and use. The specific focus of this paper is on rural blacks, the black farmer and landowner, and black-owned or controlled farmland. More specifically, we shall be primarily concerned with contemporary black landownership, management, and use patterns in the South and their implications.

We shall also give special attention to major public policies that influence the development, ownership, management, and use of rural land, and how such policies affect incomes and the quality of life among rural blacks in the South. A final concern in this paper is alternative policy options that might be considered for the purpose of altering undesirable outcomes of current programs.

In the many volumes of material written about black Americans over the past several decades, relatively scant attention has been focused on rural blacks, the black farmer, black rural landowners, and their farmland. The bulk of this material has centered around the wholesale flight of blacks to cities--the big cities--and the problems confronting them there (Beale, 1976, p. 284).

As recently as World War II, the majority of blacks in this country lived in the rural South, where their major occupation was agriculture. The latest census (1980), however, revealed that of the 26.5 million blacks in the United States, 38.5 percent lived in the North, and 74 percent lived in metropolitan areas. The nonmetropolitan black population, nevertheless,

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still numbered approximately 26 percent of all black Americans (U.S. Bureau of the Census, 1980). Thus, the problems confronting rural blacks continue to constitute a significant part of the American dilemma.

Brief History

When the Civil War ended, the federal government confronted the problem of what to do with the former slaves. Some advocated granting them full civil and property rights. Most Americans, however, were not willing to go that far. After much and heated debate, Congress in 1865 passed a stopgap measure over the veto of the new president, Andrew Johnson, establishing the Bureau of Refugees, Freedmen and Abandoned Lands, commonly known as the Freedmen's Bureau. During its short existence (1865-72), the Freedmen's Bureau stood between the freed men and the wrath of their ex-masters, providing direct medical aid, establishing hospitals, and distributing rations. The bureau also established day and night schools, and contributed to the acquisition by blacks of small amounts of land, particularly in South Carolina (Bennett, 1970, p. 187).

At the same time that the federal government was grappling with the problem of what to do with the emancipated slaves, the freed men themselves were developing concepts of what freedom meant to them and aspirations for their futures as freed men. Above all else, there was a mania for land and education. The efforts of the Freedmen's Bureau and philanthropic organizations did much to satisfy the hunger for education. "But no one--and that is the greatest tragedy of Reconstruction--no one satisfied the hunger for land" (Bennett, 1970, p. 188). To be sure, the Freedmen's Bureau Bill of 1865 provided for the allocation of "unoccupied lands" (not to exceed 40 acres) among the freed men, and many blacks believed that there would be a large-scale distribution of land among them. This did not happen, however, because the 1865 Congress was not prepared for land reform on such a grand scale. Hence, blacks were only permitted to purchase small, 5-to-10 acre tracts of land from the Freedmen's Bureau (Graber, 1978, p. 274; Washington and Favors, 1973, p. 36). The tragic failure of the land reform movement during Reconstruction left the black population without a land base (Marbury, 1979, p. 85).

The development of a strong black land base became the preeminent ideological imperative of black thought by the 1890s. As indicated by Beale, newly emerging agriculture and mechanical colleges for blacks provided training institutes on advanced agricultural techniques.

> Formal training aimed at producing agricultural leaders began with the opening of Hampton Normal and Agricultural Institute at Hampton, Virginia, in 1868, under the auspices of the American Missionary Society.
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> A decade later Hampton had trained Booker T. Washington, whose ideas dominated black agricultural thinking for at least two generations thereafter. Washington established Tuskegee Institute in Alabama in 1881. Here in the years that followed he saw the need for demonstration work in the field, for scientific research at the Institute and for the organization of farmers. Tuskegee hired the man who was to become his generation's foremost black scientist, George Washington Carver, in 1896, and sponsored the first black demonstration specialist T.M. Campbell, in 1906. In the 1890s the Tuskegee Farmers Conference became an annual event with a South-wide influence in the shaping of programs and thought for black farm families; similar conferences were developed by other states. Unfortunately these never led to an organized, economically effective organization of black farmers (1976, p. 285).

Within a single generation, thousands of young black men were trained to become more competent in the agricultural sciences than any white plantation owner had ever been (Marable, 1979, pp. 12-13). However, the bulk of black land acquisitions resulted from purchases of small tracts over the 40-year period from 1870 to 1910.

Black land tenure in the rural South reached its peak in 1910; there were approximately 15 million acres being farmed by blacks in the South at that time.

Following 1910, land owned or controlled by black farmers began a speedy and tragic course of decline, with the exception of the period from 1937 to 1950.

The Southern economy, which was based primarily upon cotton, began to fail after 1910. Bad weather, soil erosion, overpopulation, and the boll weevil drove many farmers, black and white alike, off the land. Blacks had been migrating from the South since the end of the Civil War, but the economic conditions in the South during this time led to an acceleration of the migration.

Two developments during the period between 1937 and 1950 fostered minor growth in both the number of blacks and black farmers who owned land. The first was the creation in 1937 of the Farm Security Administration (FSA). The FSA was responsible for 150 resettlement projects, including 9 all black projects in the deep South. Among the more successful of these projects was one located in Holmes County, Mississippi, where 9,350 acres of land were distributed among black families, and one in Wilcox County, Alabama, where 10,000 acres were distributed. By 1943 the FSA had resettled 2,200 black families on a total of 161,000 acres of land in nine southern states (Graber, 1978, p. 274).

The second development between 1937 and 1950 that led to minor growth in black-owned land in the South was World War II. The prosperous conditions engendered by the war and immediate postwar period produced a growth in both the number of blacks and black farmers who owned land. But these developments did little to turn the tide of black land loss or migration (Graber, 1978, p. 274; McGee and Boone, 1979, p. xviii). By 1974, land owned and operated by black farmers had plunged to approximately 5.5 million acres.

The establishment of the Emergency Land Fund (ELF) in 1971, which works to promote black land retention in the South, accelerated a growing concern for the increasing decline in black-owned agricultural land in the Southeastern United States and the possible contribution of heirs' property to that decline.

Contemporary Black Rural Land Tenure in the South

Black-owned land in the South is highly concentrated in an area commonly known as the Black Belt, stretching across Alabama and parts of Mississippi, Georgia, North Carolina, and South Carolina (Graber, 1978, pp. 272-76; Salamon, 1976, pp. 3-6). Four states (Alabama, Mississippi, North Carolina, and South Carolina) contain almost 60 percent of all black-owned rural land in the region; Mississippi alone contains nearly one-quarter of this land. Black-owned agricultural land is also concentrated within the several states. Only 492 of the more than 1,000 counties in the South contain as much as 2,000 acres of black-owned land. Only 92 counties contain in excess of 20,000 acres (Salamon, 1976, pp. 3-6).

Black-owned and/or controlled parcels typically are comparatively small in size and generally do not yield sufficient sales of farm products to provide a reasonable standard of family living. Nearly two-thirds of all black farm operations sell less than $2,500 worth of farm products per year. Hence, many black farm operators depend heavily on off-farm jobs or income (U.S. Department of Agriculture, 1980). Although the size of both black- and white-owned parcels have trended upward, the average size of white parcels doubled between 1935 and 1969, rising to 283 acres. During that same period, the average size of black parcels increased 44 percent, rising only to 78 acres (Beale, 1976, p. 287).

Black land acquisitions in the South have historically been restricted to less desirable, marginal lands--typically in the hilly regions and poor soil areas (Beale, 1976, p. 308; Salamon, 1976, p. 23). But some black-owned land, perhaps a declining amount, is strategically located, for example, in the South Carolina coastal areas (Thomas, 1978).

Estimates of black-owned heir property vary from 33 percent to 85 percent of all rural, black-owned land (Graber, 1978, p. 276). These parcels typically follow the same size and location patterns as black-owned land in general. Heir property, in particular, tends to be located in counties and areas where there has been a lack of non-agricultural development. On the other hand, the amount of heir property is significantly lower in counties where there are large amounts of timber owned by timber companies, oil explorations, extensive resort developments, and sprawling suburban development. The scarcity of heir property in areas characterized by heavy industrial and intensive land development is, in many cases, due to efforts by land investors and developers to clear titles to such properties, which they subsequently purchase (Graber, 1978, p. 276; Washington and Favors, 1973, p. 37).

Considerable acreage of black-owned land is not utilized in farm production. It has been estimated that nearly one-fourth of all crop-land on the farm of black owners lies idle or has crop failure, compared with only one-ninth on farms of white owners. In addition, approximately three-eighths of the remaining land of commercial black owners consists of woodlands, which is usually of low economic value, except for firewood or hunting (Beale, 1976, p. 300).

The Bureau of Census ranks farms by the value of products sold. Using this criterion, relatively few blacks have a real toehold in agriculture. Without a radical change in their scale of operation, the majority of commercial black farm operators have little chance of making a decent living from farming. In 1976 thirty-seven percent of black farm operators (full and part owners combined) were not producing enough to be classed as commercial farmers. A comparison of black-operated and white-operated commercial farms in the South revealed that the average value of products sold was $3,845 for the black farmer and $13,816 for the white farmer (Beale, 1976, pp. 297-98). Although the above average incomes reflect the disparity between the two groups, they are a bit misleading. "Nearly two-thirds of all black farms sell less than $2,500 worth of farm goods a year" (U.S. Department of Agriculture, 1980). Moreover, of the 24.5 million poor, 39 percent live in rural areas, including 42 percent of all white poor and 32 percent of all black poor (Rodgers, Jr., 1979, p. 77). To say the least, rural poverty is a serious problem and it must be considered as dysfunctional for the small farmer and the country as a whole.

Southern black farmers have been handicapped by their small acreage, lagging propensity to change, old age, low levels of formal education, and outmoded equipment (Beale, 1976, p. 302). The typical southern black farmer tends to operate his farm in the "old-time manner," growing traditional crops (cotton, tobacco, and peanuts), using older methods and equipment, and producing mainly for home consumption. Even commercial black farmers in the South put much more emphasis on subsistence than do their white counterparts. For example, the majority of white southern commercial farmers who raise cattle or hogs raise them for sale. On the other hand, the majority of black commercial farmers who raise livestock do so for home consumption. Similar patterns can be observed for chickens, eggs, and milk. Beale (1976) summarized the lagging propensity of black farmers to change in the following manner.

> The four types of commercial farms--cotton, tobacco, general, and other field crops--account for 86 percent of all southern white farmers. The major significance of this fact is that the crops involved are allotted crops for which the acreage is restricted by law, that more often than not they are in surplus supply, and that they are either stationary or contracting in acreage.

In contrast, the black farmer has only minor representation in the sectors of agriculture that have been expanding in the South, such as livestock, dairy or poultry farming and truck crops. Throughout the South the agricultural colleges and other shapers of farming trends have long been preaching the theme of a "green revolution" to southern farmers--that is, a conversion of lands to hay crops and improved pastures and the raising of more livestock. This movement clearly came of age in the 1950s for the 1959 census revealed that the South as a region for the first time had more livestock farms than cotton farms. But for the black farmer, it is almost as though such a change never occurred. Only four percent of the black southern farmers are livestock specialists (cattle, hogs and sheep), and only an additional one percent are dairymen or poultrymen.

Nothing more sharply distinguished white from black farmers in the South than the different degree of reliance on livestock. Ninety percent of the total value of products sold by black farmers in 1950 consisted of crops and only ten percent of livestock and livestock products. On southern white operated farms, fifty-two percent of the total product value was from crops and forty-eight percent from livestock--an almost even balance (pp. 300-301).

Age is the most significant characteristic of black farm operators affecting productivity. In each of the major tenure classes--full owner, part owner, and tenant--the average age of black southern farmers is higher than that of white farmers (Beale, 1976, p. 204). In 1960, blacks who were beyond the most productive age bracket--thirty-five to fifty-four years of age--owned a disproportionate share of black-owned land. For example, more than one-third of the blacks owning land in the Southeast were over sixty-five years of age, and they owned two-fifths of the land owned by blacks (Browne, 1974, p. 113). The high age level of black owners and operators helps to explain the comparatively low level of productivity of black-owned farms.

Some notion of the educational status of black landowners can be discerned from Beale's (1976, p. 304) study of blacks in American agriculture. The average years of schooling completed by the nonwhite farm population twenty-five years old and over was 6.1 years, compared with 11.2 years for the white farm population and 12.3 years for the total urban population. Only 8 percent of adult black farm residents had completed high school, the lowest level of schooling in the United States outside certain Indian tribes. Some gradual improvement has taken place since

1976, but the pace has been slow. The increase in nonwhite farm high school graduates twenty-five years old and over went only from 2 percent to 8 percent in thirty years. In this regard the black farm population was more than a generation behind the white farm population, 14 percent of whom were high school graduates in 1940.

With such low levels of education, it is easy to understand how frequently it is possible for these farmers to fail to understand the complexities of government programs that affect their heavily controlled crops, or to take full advantage of the services that the government and the experiment stations can provide them (Beale, 1976, p. 305).

Both black and white farmers alike enjoy the benefits of technological advances unknown or unavailable to most farmers of past generations. The extension of electricity to farms is now nearly universal; and the great majority of farmers now own either an automobile or a truck, affording them much greater freedom of movement and choice in purchasing or selling. But there are other important conventional facilities and equipment that most black farmers still do without. For example, only one-fourth of nonwhite-operated farms had telephones in 1976, compared with two-thirds of white-operated farms. Nevertheless, the proportion of black farmers with telephones in 1976 was double what it was a decade earlier. The telephone is a contemporary convenience that the typical commercial white farmer takes for granted. It enhances his marketing ability and broadens his range of communication generally. Many black farmers, because of a lack of sufficient income or perhaps a lack of experience with the advantages of having a telephone, are at a comparative disadvantage in marketing ability and general communication (Beale, 1976, p. 303).

"Equally if not more important for broad-range marketing ability, communication, and reduced isolation generally is the paved or improved road. "As the last claimants to land, black landowners more often obtained poor land away from the main traveled roads" (Beale, 1976, p. 303). In the South as a whole, in 1959, only 57 percent of all commercial-scale nonwhite farms were located on paved or improved roads, compared with 72 percent for commercial white farms (Beale, 1976, p. 303). While the situation has improved since 1959, a disproportionate number of black farms are still located on dirt or unimproved roads.

A final essential for efficient farm operations, particularly in the production of field crops (which most black farm enterprises grow), is a tractor. The black farmer is also at a disadvantage here. Limiting the comparison to full commercial owners, the "elite" group, Beale (1976, p. 30) reported that only 39 percent of nonwhites had one or more tractors compared with 70 percent of the white full commercial owners. In fact, noncommercial southern white farmers are more likely to have use of tractors than are commercial black full owners.

Recommendations and Summary

Modern technology has been viewed as the major force behind economic development. This technology has created in rural America large-scale and highly specialized farms. But despite the impact of modern technology on agricultural production, there are groups of farmers who suffer from poverty and isolation. They lag behind other farmers on indicies used to measure quality of life, that is, income, education, housing, and health.

Not all farms in the United States are commercially profitable. For example, 6 percent of farmers produce over 50 percent of the total output, and 94 percent produce the other farm output. The latter group of farmers is struggling to hold on to the land they own. It is this 94 percent that are overlooked in policy formation and implementation. Some of these farmers maintain their economic viability by off-farm employment and doing the farm work on weekends.

The loss of black farmers, the decline in small and part-time farmers, and the increase in large-scale farming have caught the attention of policy makers. However, there is a lack of consensus about an appropriate strategy for helping these groups. In this paper we take the position that retention of the black and other small farmers (part-time or otherwise) should be the focus of national policy. Certainly, these farmers are experiencing difficulty in maintaining and operating their farms. Policies to improve the status of black farmers and other small-farm operators will result in their increased contribution to the total volume of food and fiber produced from our farmland.

Policy strategies designed to strengthen the capability of small farmers to increase their total output will foster (1) a supply buffer for

market crises experienced by large-scale farmers; (2) a source of local farm produce in close proximity to the urban population; (3) an alternative outlet for family labor, thus reducing welfare rolls; and (4) a mechanism to place emphasis on "people" rather than "things."

Such policy strategies for small farmers would enhance the economic viability of black farmers and instill hope in black youth that there is a future in agriculture. On paper, American agriculture has the most effective mechanism for helping small farmers improve their quality of life--the land grant system. Research and extension programs in these institutions must provide answers to such questions as:

- How can the small farm become a viable economic unit?
- What strategies are needed to deliver timely services to the small farmer?
- How will the small farmer be affected by the increased emphasis on the private sector?
- How can the land grant system effectively interface with USDA in developing strategy for small farmers?

Enumerated and discussed below are three specific recommendations to ensure a future for small farmers in American agriculture:

Delegate to the 1890 Land Grant universities and Tuskegee Institute the responsibility for the production, marketing, and community development focusing on coordination of the small-farm clientele. Most of the 1890 Land Grant universities are located in southern states where the relatively small black farmers are concentrated. It would be operationally feasible for these universities to focus on research, management, and technical needs of small farmers. Naturally, the federal government would provide the resources for research extension and the establishment of an experimental farm at each of the universities to test research findings and extension strategy.

Historically, the 1890 universities and Tuskegee Institute, through their academic research and outreach programs, have reached an appreciable number of rural Americans in need of assistance.

Even today there are rural families that are perpetual liabilities to the state where they reside. In order to improve employment opportunities and enhance the general welfare and quality of life for these rural dwellers, the 1890 universities, colleges, and Tuskegee Institute are prepared

to expand their outreach capabilities to make an impact on the various socio-economic factors that adversely affect the lifestyles of small black fa[redacted]. The outreach role these institutions would assume should focus on training and rural service delivery programs in cooperation with community-oriented groups. These universities should be encouraged to take the leadership role in providing services to small farmers. While the 1890 universities and Tuskegee Institute programs have focused on the limited-resource farmers, their efforts have been plagued with insufficient funds, thereby precluding the establishment of an adequate information pool upon which concrete long-term programs can be developed.

Sharpen the focus of federal agencies to work with small farms. Few black farmers are being adequately served by such agencies as the Cooperative Extension Services (CES), the Farmers Home Administration (FmHA), and the Soil Conservation Service (SCS). It is recommended that the 1890 universities, colleges, and Tuskegee Institute be given the responsibility of designing and testing strategies for the delivery of services to small farmers within the programmatic intent of these federal agencies.

Moreover, the services proposed must include self-help programs and technical assistance. The above recommendations should lead to: (1) a better way of life, (2) a break in the poverty cycle, and (3) a future for black farmers in American agriculture.

The Bottom Line

The typical black farmer of 1983 will not be around at the end of the century unless specific strategies are developed now to assure their economic viability.

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A DISCUSSION OF FOUR PAPERS ON RESOURCES, INCOME, AND WELL-BEING

Comments on the Duncan; Popper; Williams, Morse, and Webber; and Stevens Case Study Papers

by Paul Barkley

Each of the four case studies is about a particular relationship between a particular resource and a particular clientele or user group. Each is interesting because it provides breadth or depth to our collective understanding of the real world and each provides the fuel for large numbers of inquiries, hypotheses, and policies about resources and the men and women who use them. Each is limited, however; since a case study cannot provide an empirical basis for policy or for action outside the confines of its own group or location.

Although the four stories address quite different resources in different regions, there is a sameness to them. All are about income. All are about essentially stock resources. All are about (or hint at) policies or practices that have a tremendous effect on workers' incomes, but are outside the immediate control of the local group. (Put another way, all are about externalities.) All are about access to a resource or access to the rewards from resource exploitation. Two of the papers, the one by Popper and the one by Williams and his collaborators, are about land tenure and the access to land. Since access is their main theme, they become only tangentially involved in the classic relationship between efficiency and equity. The papers by the Duncans and by Stevens are about the distribution of rents earned through exploitation. As such, they must come to grips with questions about efficiency and equity. They build on implicit assumptions about this tradeoff and introduce one more vagary--instability--into their discussions. All are provoking papers and should be given close scrutiny. They will be discussed in pairs here. Within each pairing, the individual papers will be mentioned and treated separately.

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Access to Land

More than anything else, access determines income distribution through time and across individuals. Access to factors of production stands behind the classical theory of income distribution. It is also behind every battle over land use and every controversy between labor and management. While markets may set the prices, institutions and the rules of marketing may decide who can buy and who can sell: they provide the context in which access is established.

The rules of access relating to land are particularly convoluted. While exchanging land may require only money or other negotiating resources, the use of land, once exchanged, is circumscribed by rules in the form of covenants, zoning restrictions, truncated rights, tax laws, and status rights. The two "access cases" address these kinds of themes.

Frank Popper's work on the Northeast appears to be an appealing and nicely written piece on the origins and consequences of zoning and public ownership in a variety of Northeast settings. Likening Popper's paper to the church choir is perhaps apt. Sopranos carry the melody: zoning and national parks are urban in their origins and have a rich history. The altos sing a harmonizing tune that echoes the sopranos. This harmony says that these two developments have spread almost intact to rural areas. The tenors sing a frightful counter melody that begins to raise questions about the propriety or usefulness of transferring these urban devices to rural areas. The bass section concentrates on the rhythm and provides structure for the whole piece. The bass (or base!) is an important story of externalities, inability to gain access, and intrusion of one culture into another culture. The result is a well-orchestrated piece that is easy listening but one that portends that there is more to the problem than meets the eye.

Popper cannot prove that there is a relationship between land tenure and poverty, but he would like more people to have access to the land in the Northeast that is now held by a very few individuals or families. While one might applaud this egalitarian instinct, one must also wonder if a massive redistribution of land would have any effect on the incidence of poverty. Strong arguments can be made to show that breaking up the land holdings could result in a class of subsistence farmers who, in addition to

suffering low farm incomes, might also, because of remoteness, be very hard to serve with an acceptable collection of public services.

It is the zoning issue that continues to draw attention. Zoning is inarguably a means of controlling population density. In its simple applications, it exerts control by specifying the kinds and numbers of houses or businesses that can occupy a given territory. At the hands of sophisticated managers, the technique can be used to impose income restrictions, race restrictions, or ethnic restrictions as well. Popper develops this theme then equivocates in its application to rural areas. Cities, either through edict, the democratic process, or through some process related to efficiency, derive an "appropriate" level of density, and zone so as to achieve it. The zoned level of density is frequently below the level of density that would be promulgated by free market exchanges. Hence, zoning is restrictive and it limits access. In restricting access, zoning also limits the number of (real or perceived) negative externalities that must be absorbed by the zoners or by those whom the zoners wish to protect.

Zoning in rural areas may also be restrictive in that it differentiates between what people can do and what they cannot. In so doing, it also reveals the approved level of density. Popper fails to develop the most critical issue: does increased density bring net positive or net negative externalities to a rural area? Many will contend that increased density, on balance, brings positive external gains to rural areas. If this is so, there is an optimal density, and the optimal degree of zoning must follow. This will, of course, vary from place to place. The investigator's job is to give numeric content to this optimal zoning.

All things taken, Popper fails to deliver on a major promise. He sets out to use land policy to reconcile a divergent set of goals that includes economic growth, environmental protection, increased access, and optimal density (neutral externalities). His conclusions allow us only to infer that zoning and redistributing land are, at best, weak tools in this effort. We are left wondering how zoning and national parks are related to poverty and how land use in the Northeast can be rearranged so as to better meet the demands of a diverse population.

Williams and his associates address an historical theme. The blacks came out of the Civil War as free persons, but the ordinary routes through

which land could be secured were closed to them. An American population who had heard all there was to hear about the land ethic and who knew no trade except farming could not have land. The story of agencies from the Freedmen's Bureau to the Farm Security Administration is recounted. The emphasis is on the difficulty that blacks have had in gaining access.

The story can be told in a conventional way and it is. The conclusion or lesson is that black farmers, like their white counterparts, are producing commodities that are generally in oversupply. Land use efforts to help increase incomes of black farmers would be very hard to establish and manage. While there may be a resource-oriented solution to the problems of a single black farm family, it is untoward to think of removing black poverty from Alabama, Mississippi, and the Carolinas by manipulating property rights, tenure, or access.

Distribution of Rents

The Duncans and Joe Stevens are concerned with different problems. Coal mining and forestry (forest products) are activities that require huge labor forces to produce saleable products. The labor forces working in these extractive industries are no different from industrial labor forces. They work and earn wages when the plant is open; they live on modest accumulations and transfer payments when the plant is closed. They are at the mercy of the plant managers who, in turn, are at the mercy of a highly volatile and increasingly international market. Small changes in relative prices cause plants to open or close on a moment's notice. The owners act in their own self-interests and the workers must absorb the economic penalities that arise from the nearly complete separation between operating decisions and labor.

If these papers had been written a decade ago, they would have surely fallen in with the mood of that era and developed a theory in which resource owners exploited workers (which they certainly do) and conspired to keep workers in poverty. The authors would have used emotional outbursts to decry "the system" and the conspirators who keep the system for themselves. The present papers do not fall into this trap. The authors recognize inequity, but rely on more constructive analyses to ask about the relationship between the resource, the worker, and disposable income.

The Duncáns worry about a county that has just passed through a major boom. During the boom, incomes increased, population increased by 50 percent, and (unmentioned by the authors) housing units increased by 70 percent. In spite of this, the poor remained poor, open sewage ran in the creeks, and bank deposits per capita were abysmally low. When the boom ended, conditions worsened. The communities in the county geared up for profits that were never fully realized and combinations of social overhead capital that were never put in place. No one can doubt this. The case is well made.

One must recognize, however, that the plight of the coal-producing county was made all the worse by a recession in the general economy. People moved to Martin County, Kentucky, in droves once the word was out that jobs were available in the mines. The unanswered (and, of course, unanswerable) question is: How would the county have fared if new workers had not poured in? Comparative statistics ought to be able to give some clues. In this case, the clues were hidden behind a series of external and national phenomena that compounded the local problem.

The comparisons between the low, stable-income Montgomery County and high, volatile-income Martin County are interesting, but they fail to answer a pressing question: Do individuals prefer stability or a chance at high incomes? This is an important question that has a significant bearing on the public and private choices of the people in areas dependent on a single resource.

The timber products work force is no less interesting. Stevens uses a number of paradigms trying to find acceptable explanations for worker behavior. He finally settles on a combination of the public choice paradigm and the dual labor force hypothesis. This is acceptable since this combined approach does not violate the apparent intentions of the workers nor does it offend the sensibilities of investigators looking at the problem from the outside. The Stevens case discusses poverty, the conflict between the labor pool and the mill operators, and the political problems associated with change.

Both the coal case and the forest case end on a weak note. They both promise policies, but neither delivers in a meaningful way. The relationship between the resource base, poverty, and community development is articulated--especially by the Duncans--but no resource-oriented policy

is given much chance at success if the object is to relieve poverty. In forestry, the only recommendation is a temporary and ultimately devastating palliative: cut the trees. But the public will not permit that. Answers in the coal case are even more obscure and seem to hinge on inducing the coal-owning firm to behave in a way that is consistent with improving the community in which the labor pool resides. In both cases, the authors suggest that the firm has some responsibility toward its local public, but both papers also suggest that the firm gets more favored treatment from public policies than do the members of the labor force.

It may be instructive to think of firms in these special kinds of circumstances to be the connectors between the individual worker and economic society. The specialized workers have highly developed skills that are rewarded when they are used but which undoubtedly have very low opportunity costs. (If this is true, the workers are already sharing in the rents earned by resource exploitation.) If the firm closes or is disrupted, the social consequence is very high for the local area--perhaps for the state or region, as well. If a worker is laid off or drops out of the labor pool, he may be damaged quite severely, but the broader effect, even locally, is somewhat minor. This line of reasoning can be developed into a case for government protection of firms rather than direct protection of individuals. The various tax concessions and extended payback periods mentioned by the authors may be less objectionable in this light. Apparently, the forest product workers agree when they abdicate nearly all of their political power to the mill owners.

The relationship between the exploiting firm and the local community deserves considerable attention. The Duncans were most concerned about this, but the relationship is also present in forest products. The Duncans imply that more linkages, both forward and backward, should be developed between the firm and the local community. The firm should be more concerned with its environment and should either voluntarily make payments to the local public sector or be less hostile toward the prospect of higher severance taxes to be used in support of the local infrastructure.

The authors of these papers seem to be overlooking the most venerable example of integrating an exploiting firm or industry and its labor force. For decades, or perhaps centuries, the company town has melded into one unit the owner of the resource, the owner of the capital needed to turn the

resource into a saleable product, and the labor force needed to operate the capital fixtures. Admittedly, the company town can be horrendously oppressive and can reduce labor to a most pitiable state. Both the popular and the technical literature is replete with examples of oppressed workers living in rigidly controlled towns. In this more enlightened era, however, it does seem reasonable that the coal companies could buy the towns in Martin County and become custodians for the social overhead capital in addition to being wage payers. The prospect of integration through this mechanism seems about as likely as that of increasing the severance tax and returning a portion of the revenue thus gained to the local coal county communities. To be sure, the company town is an idea whose time has passed--but so is the Delco, wind-operated generating plant! With some studious imagination and limited application, elements of the company town may be usefully revived to protect incomes, towns, and resources.

In sum, these four use studies are fascinating vignettes about resources and poverty. They capture the frustration that local residents must have about the tradeoff between equity and efficiency. They add a third member to this timeless tradeoff by introducing income stability. All things taken, the authors of the case studies appear to agree that public policy addressing a resource--land, forests, or coal--is probably a weak approach to alleviating poverty or furthering rural development. Beyond that, they seem to struggle with the problem of how resources can be used in the eternal battle to eradicate poverty in rural areas. I suspect the task of finding a comprehensive policy device that enhances labor income, promotes community development, and protects a resource base will require the best of these studies plus much additional inquiry, experimentation, and frustration.

TOWARD AN INTEGRATIVE ASSESSMENT

Comments on the Duncan; Popper; Williams, Morse, and Webber; and Stevens Case Study Papers

by Brady J. Deaton

My charge was to capture the essence of comments made during our two lively, small-group, discussion sessions today while commenting on the four papers presented by Duncan and Duncan; Popper; Williams, Morse, and Webber; and Stevens. As you are well aware, this is no small charge given the variety of approaches, concepts, and experiences being shared in this thoughtful setting.

Our discussions today have reflected the growing conviction that natural resources do, in fact, matter in the creation and alleviation of rural poverty. Policies that govern and respond to natural resource use may have an important bearing on the quality of life of people affected by the natural resource. It has become apparent that use of different natural resources by society has had varying effects on rural communities. We must distinguish among the historical, legal, and cultural framework of the Appalachian coal economy, the timber industry of the Northwest, the plight of small-scale farmers in the South, and land use policies in the Northeast.

First I want to provide a framework that I believe will help integrate much of what we have heard today. Then I will relate aspects of the papers to various components of the relationships illustrated in figure 1.

The pattern model depicted in figure 1 appears quite relevant to our discussion. It is drawn from the induced innovation work of Vernon Ruttan and Yujiro Hayami. Their studies of agricultural development have emphasized the importance of four components of change: (1) technology, (2) institutions, (3) cultural endowments, and (4) resource endowments.

Interrelationships occur among all of these four components. Social and cultural change are associated with changes in the economy, rate, and

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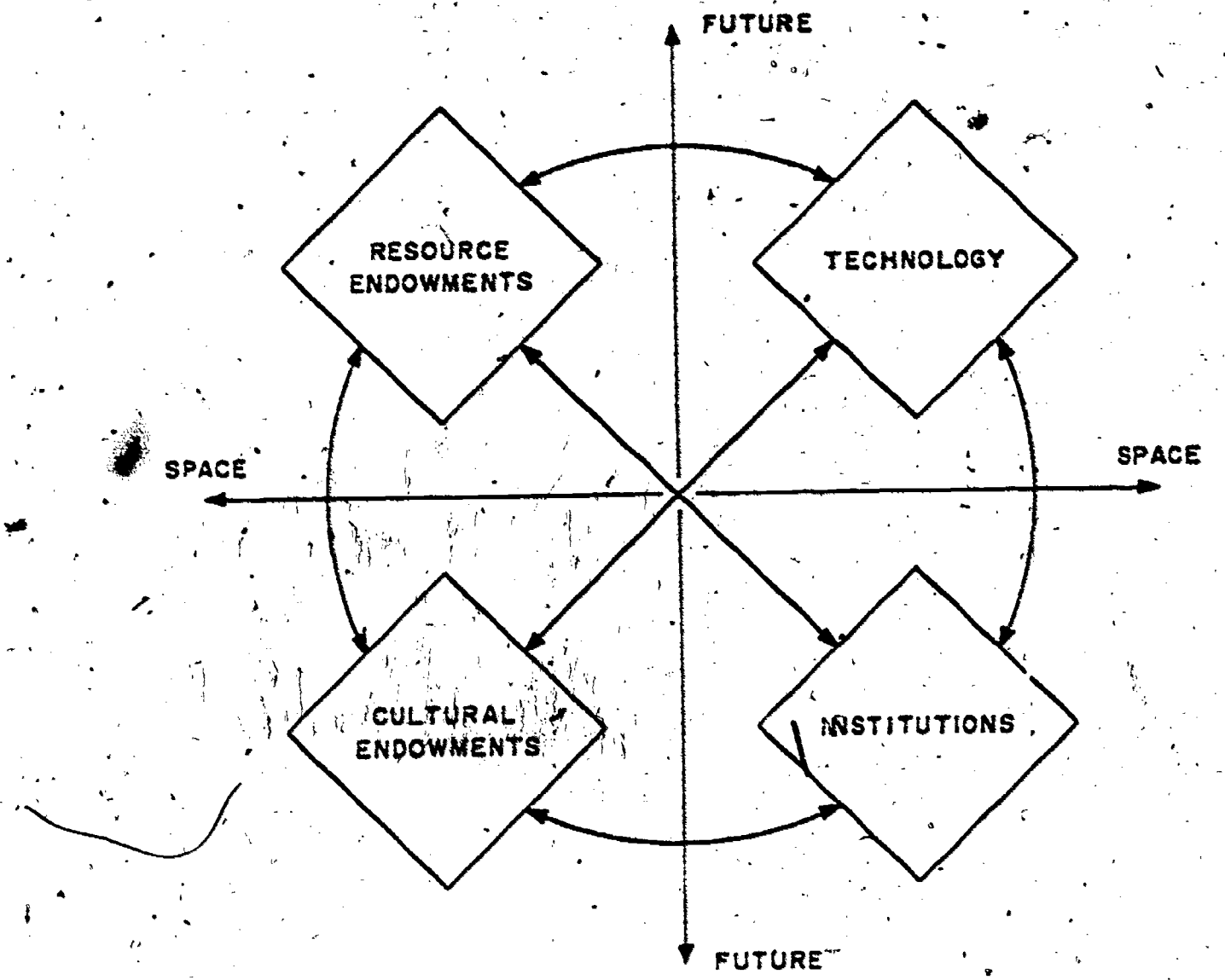

Figure 1: Components of Institutional Change With Spatial and Dynamic Dimensions

direction of natural resource use. I have drawn attention to the time and space dimensions that should be explicitly recognized in this framework and about which we have heard a great deal at this conference.

The time dimension of the model reflects the intergenerational considerations that must be brought to bear when considering questions of resource use. In no area does this appear to be more significant than in our education institutions. John Rawls in his Theory of Justice stressed the significance of education to the future quality of society. Through the values and policies brought to bear on education, we shape the basic fabric of our society.

The Williams, Morse, and Webber paper echoes this theme and illustrates the long-term struggle that ensues from educational deprivation. They cite Beale's 1976 study which found the average years of schooling attainment among black landowners who were 25 years of age or older to be 6.1 years, whereas the similar group of white farm population was 11.2 years. They observe that: "With such low levels of education, it is easy to understand how frequently it is possible for these farmers to fail to understand the complexities of government programs that affect their heavily controlled crops, or to take full advantage of the services that the government and the experiment stations can provide them."

Williams and his colleagues also cite the early emphasis placed on land and education by the Freedman's Bureau, while the "federal government was grappling with the problem of what to do with the emancipated slaves." Unfortunately, federal concern for black education was inadequate in our nation's history. The dire consequences have been all too obvious. I applaud the efforts of Williams, Morse, and Webber to bring these points out for discussion. The interrelationships between the institutions of education, land ownership, and other factors illustrated in figure 1 have shaped the problems associated with small farm operators in the south and elsewhere.

The Duncans' paper calls attention to the distributional mechanisms in the Appalachian coal economy. Underlying their stimulating paper is the institutional setting in the Appalachian Region that has been shaped by a history of judicial decisions that favored resource exploitation to the detriment of locally based infrastructure and economic development. The

evolution of the legal structure has been illuminated in Harry Caudill's classic book, Night Comes to the Cumberlands.

The judicial underpinning of the distributional system could be given more emphasis. Indeed, this may be the most overlooked critical issue in this workshop. In any event, the time dimension of figure 1 reminds us that we can never totally escape our institutional and cultural heritage. These factors must be incorporated into a broader perspective of the natural resource-poverty interrelationships in order to grasp the magnitude of the task with which we are confronted.

Stevens' paper reviews a wide range of stimulating and innovative literature. His paper also illustrates some of the critical differences between coal- and timber-based economies. Both the Stevens and the Duncan and Duncan papers illustrate the critical nature of industry-specific cyclical savings and technological shifts. These are harsh events for people caught up in those economies without the breadth of human capital investments necessary to undergird reasonable labor market adjustments.

Stevens states that "whether the industry, the public, or the worker himself is responsible for the well-being of the peripheral worker himself is very much a value judgment." This is a challenging thought which can be analytically approached within the context of some basic premises about the nature of justice in our society. From John Rawls' perspective, we would have to question the future being shaped by whatever decision is reached. An intergenerational perspective is essential.

I am somewhat troubled by the direction that could be suggested by the Public Choice Theory reviewed by Stevens. The inherently individualistic basis of this theory seems inadequate for addressing issues such as education and labor training. In these areas, externalities are pervasive and all our futures will be altered by the decisions reached. Rawls' recognition of certain commonalities of interests and shared values may be a more appealing approach to such issues.

Both the Duncans' and Stevens' papers raise the issue of alternative approaches for obtaining institutional control over the wealth generated from natural resource exploitation. This issue is being raised around the country and is being acted upon at the state and local level. I suspect we will hear a great deal more about it in the future.

I thank each of the authors for very readable, interesting papers. They have been daring in some respects, intellectually stimulating, and professionally responsible.

COMMENTS ON THE DUNCAN; POPPER; WILLIAMS, MORSE, AND WEBBER; AND STEVENS CASE STUDY PAPERS

by Marty Strange

I am going to spend most of my time reporting on what the discussion was in our group, choosing to do that rather than talking at length about the four papers myself. When I was asked to participate in this capacity, I protested that having never seen a black farmer, knowing nothing about Oregon, other than it is not Oregon, and understanding only vaguely that coal is dark, hard, and burns and agreeing too much with Frank Popper and being unable to be entertaining as he was, I would not have much to say about the papers, per se.

But I do think that the group discussion we had was particularly good. I felt very good about the discussion all day today, and I am going to try to say some things about our discussion on local development strategies. And I am going to save some time for group number one to amend or offer minority reports, in whole or in part, or to object or to do whatever they need to do.

I think we said several important things about local government strategies. One is that the bottom-line standard has to be whether the economic activity involved improves local conditions. Whether it contributes to national market situations in the macro sense, or whether it makes sense for the individual firm in the micro sense, is not really important any more. And we began to learn that the process of development means that we all move together or we do not move at all; that is, we end up with a better feeling of well-being after it is done than we had before we started.

Second, political developments intrinsic to that local development strategy are as important--or perhaps more important--than the economic activities that are part of it. We cited, for instance, the value which black land ownership has for the political participation of blacks; we talked about it in the context of the civil rights movement a little bit,

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we talked about it in terms of participation in the cooperative movement. In fact, we talked at great length about cooperatives and reached a kind of a summary judgment that cooperatives may not have done as much as they could for poor people in the economic sense, but have done a great deal for poor people in terms of sharpening political skills and involvement in the political process.

As a part of that whole discussion about the politics of development--which clearly runs through all the papers in the disqussion today--we began to talk a bit about the glue that holds various development strategies together. And we raised the question of whether there were differences between urban and rural development strategies--important differences--or whether there were important differences among rural development strategies and how it was they were located in different areas.

We reached the conclusion that there may be differences in content of the development activity, but that there is little difference in the dynamic of change or in the exercise of power that is part of the development process. So, we reached the conclusion that there is no universal development strategy--but there may be a universal development process that involves taking back control over the lives of people who are affected by economic activity associated with the resources that are in their immediate environment.

And implicit in that was another summary judgment: that natural resources are to rural development strategy what real estate is to urban development strategy. You don't "do rural" without "doing resources."

We had a very interesting discussion about the whole problem of reallocating cost and benefits that come from development, and doing so without revolution.

We talked a great deal about how in western coal and mineral development generally, there have been some successful efforts to capitalize from the development activity; that is, some premium (often via a severance tax) associated with development activity has created state treasuries. This premium can be used for development of the state. But the jury is not yet in as to how such a capital fund is going to be used, and whether the development strategies associated with it will be any different from the development strategies that have proceeded in the past or the development strategies which left Appalachia in the condition it was in.

And then we talked some about the inherent difference between--and I think this has not received enough attention throughout the conference as a whole--the difference between resources that are used consumptively and those which do not have to be used consumptively. And I emphasize this because I am not aware of any natural resource in America that is not used consumptively.

The mythology of agriculture is that land is a renewable resource, but it is not a renewable resource in the manner in which we have used it. We have consumed half of the topsoil in the Corn Belt in the 100 years that we have farmed commercially there, topsoil which took 750 million years to produce. This is not a renewable activity; this is a consumptive activity. The only reason we do not define it that way is that our planning horizon is short; we do not think far enought into the future.

So we talked some about how, when resources are used consumptively, and particularly when technologies are capital intensive, the relationship between people and resources is frequently reduced to job dependency. Somebody else is providing the capital, somebody else is providing the technology. You may or may not participate in that, but what you see is a job out of that resource. And in that situation, our political perspective tends to be limited. How wealth and income produced by those resources is distributed in these communities becomes a political question, or it does not become a question. In the hunky dory world, it is not a question--and that is the world we lived in for quite a long time.

But in the world we live in now, it <u>is</u> a political question, and the marketplace is simply not an adequate allocator of these costs and benefits. The political process that is invoked in many situations, and will continue to be invoked, is critical. Whether the democratic system functions well enough determines in large part how the people associated with those resources are either going to benefit from them or be denied their product.

To summarize our local development discussion, we might re-state the old Jeffersonian observation that "self-government is always better than good government," "self-development is always better than good development."

I might add a footnote of my own: three or four simple remarks about the ownership and use of resources in the agricultural context. (This may

pertain more to Marion Clawson's paper than the four case studies, but you can treat this as a fifth case study if you want to.)

One is that, more and more, ownership of agricultural resources is not related to the use; that is, use decisions are increasingly made by someone other than land owners. This is particularly interesting because our land heritage involves an assumption that the right of ownership will promote the exercise of responsibility. The family farm itself is the cultural embodiment of that idea, the owner-operator somehow has a long-term interest, sees beyond the short planning horizon, and will exercise both a bundle of rights and a bundle of responsibilities that go with it.

Of course, because we have had so much land, and because we have been a labor-short agriculture for so many years, we seem to set aside the bundle of responsibilities and settle on the opportunity that the bundle of rights provided. I think there is increasing evidence that that is not going to hold up any more. The motivation for owning agricultural land has nothing to do any more with the opportunity to work, which is what the motivation once was. If you have to work land to pay for it, you cannot afford it.

Now, the motivation for owning land is to claim a social product from it, to claim the income from it. Every year throughout the 1970s, capital gains from land price appreciation exceeded net farm income. It was worth more every year to own land than it was to farm it. In that context, the investment decisions become very different, they become very mixed. One of the by-products of this is the rise of management as the important function in the entrepreneurial scheme; it is not ownership that is important any more and it is not labor, it is management.

However, where the real concentration has occurred in American agriculture is not in land ownership, although that is not an insignificant feature, as the data have shown. The real level of concentration is in the management function. We have the capacity now, with our technology and with this level of concentration and management, and with the short planning horizon that I talked about, to do great damage in American agriculture with respect to the resource base itself.

I am afraid that it is hard to relate that to poverty directly. I think we like to see victims in poverty analysis, and I think this conference is asking the right questions, but maybe we are framing our analyses a little wrong as we go along. I think the question is not the

relationship between poor people and resources, but the relationship between rich people and resources, or more precisely, those who do control resources. What is their motivation, how do they use them, how do they get control over them, and how do they keep control? These are bigger questions.

I think that there is a great deal going on in American agriculture that props up inefficient farms and inefficient land use patterns. I also know there is a great deal in the tax code that props up inefficient use of resources. I know that the payment-in-kind (PIK) program has simply undergirded those decisions that were made to develop irrigation in areas of the state of Nebraska where it simply is not good economics and simply not efficient.

The separation of ownership from operation constitutes a subtle trend. It is not, for instance, simply absentee investors and corporations who take an interest in land, (although they clearly do). Instead, this process of separation is an evolutionary process that occurs within the farm structure, within the mainstream commercial family farm in subtle ways.

It used to be that if a farmer and his family could burn the mortgage, could pay for the farm, start one child or maybe two in farming, send the rest of them to college, and pay for their own retirement, it was enough; it was what life was about. Those were essentially the cultural goals of American agriculture.

Well, if you are a child on the family farm today and you inherit a quarter section of land--well, begging the pardon of all the people who work in academic institutions here--a college degree is not worth a quarter section of Iowa farmland, not by a long shot.

And if all you get out of that family farm is an education, you have been disinherited. Now that creates different motivations, it certainly does. What happens is we create devices by which we can divide the ownership of that farm among all the heirs so that none of them is disinherited, without breaking up the operation of the farm, without breaking up that management unit. We need to keep that management unit concentrated because that is what the economies of scale are.

So, what do we do? The most popular device, not the only one, but the most popular one, has been to incorporate the family farm; and then you

pass on stock to the kids. Such a device also has big estate tax advantages because you can make gifts in the form of stock and avoid the state taxes.

Well, that is fine, except what that does is strange. Most of these children are not going to farm. You see your brothers and sisters run off to St. Louis, Chicago, Minneapolis, and other dens of inequity, and they get married, and they marry badly, or they have children; and what happens is that suddenly all of the problems that were bad enough when they were just family problems are now farm finance problems.

The one heir who is on the farm is a minority stockholder in a corporation over which he has a lot less control than he wishes. And he begins to behave differently, with a managerial function in mind that changes his attitude toward land. And that changes his attitude toward the social product and who should claim it.

All of that is by way of saying that this process of separation of ownership from operation of resources, ownership from use and control, is a dynamic that is tied to the growing value of resources proportional to the population base. yet we have not found a way to address the problem. The growing concentration of control is as much a problem as the growing concentration of ownership. The marketplace is a poor distributor of rights and responsibilities in this kind of a system.

We need to consider more than we have so far in this conference the question of what end-use resources are put to. I do not think that is an independent variable. I think we have been accepting it too much as an independent variable. For example, the development issues faced by Wyoming farmers and ranchers in the area of coal development cannot be considered, absent a discussion of how that coal is used. A good part of the coal is sent to Nebraska, where it is turned into electricity to irrigate the sand hills region of the state. We would like to believe that that means we are feeding the hungry world. That, of course, is the political rhetoric that is behind that kind of activity. But we do not produce corn to feed a hungry world. Nebraska agriculture provides 85 percent of the corn that is shipped to Japan, now our largest single export market for corn. Our irrigation in the sand hills of Nebraska is tied to assumptions about the future of the export market. The most important political economy issue in the state of Nebraska is the relative value of the yen to the dollar. That

also shapes our opinion a great deal about the automobile industry in this country.

The point is that as we deplete the Ogallala Aquifer, which we are doing, Congress becomes concerned because there is a lot of economic development activity associated with the current use of the Ogallala Aquifer. Moreover, it is the kind of activity which most of the people in this conference would probably say was pretty good development activity: it is primarily indigenous; that is, almost all of the center pivot irrigation systems manufactured in the world are made in the region. Most of the energy used to drive them is produced in the region. Most, although surely not all, of the irrigation is done by family farms, albeit many of them are on the road to becoming something different, as I pointed out a minute ago.

A lot of people would say that was pretty good development activity--and in fact, when Congress is aware of the threat to the future of this economic activity because of declines in the water table, they spend $6 million on a study, the High Plains study, to decide how we can continue irrigation activity in the face of declining groundwater.

What they are talking about is diverting the Missouri River to provide the water that now comes out of the Ogallala. There are also government programs to encourage water conservation and a host of other activities. To my mind this does not get to the heart of the issue. We have over-capitalized agriculture in the Great Plains, and we produce too much corn, and that corn does not have any place to go. We cannot sell it at a price that will justify what we have invested in Great Plains irrigation.

So Congress should have been asking: What is the best use of the Ogallala Aquifer? What is the best use of the Great Plains, and how do we get ourselves out of the situation that we are in? I think that is the important question.

In other words, what happens when development fails? How do we redirect development efforts that appear to have gone awry? So the end-use to which the resource is put is not an independent variable, it is a very important one.