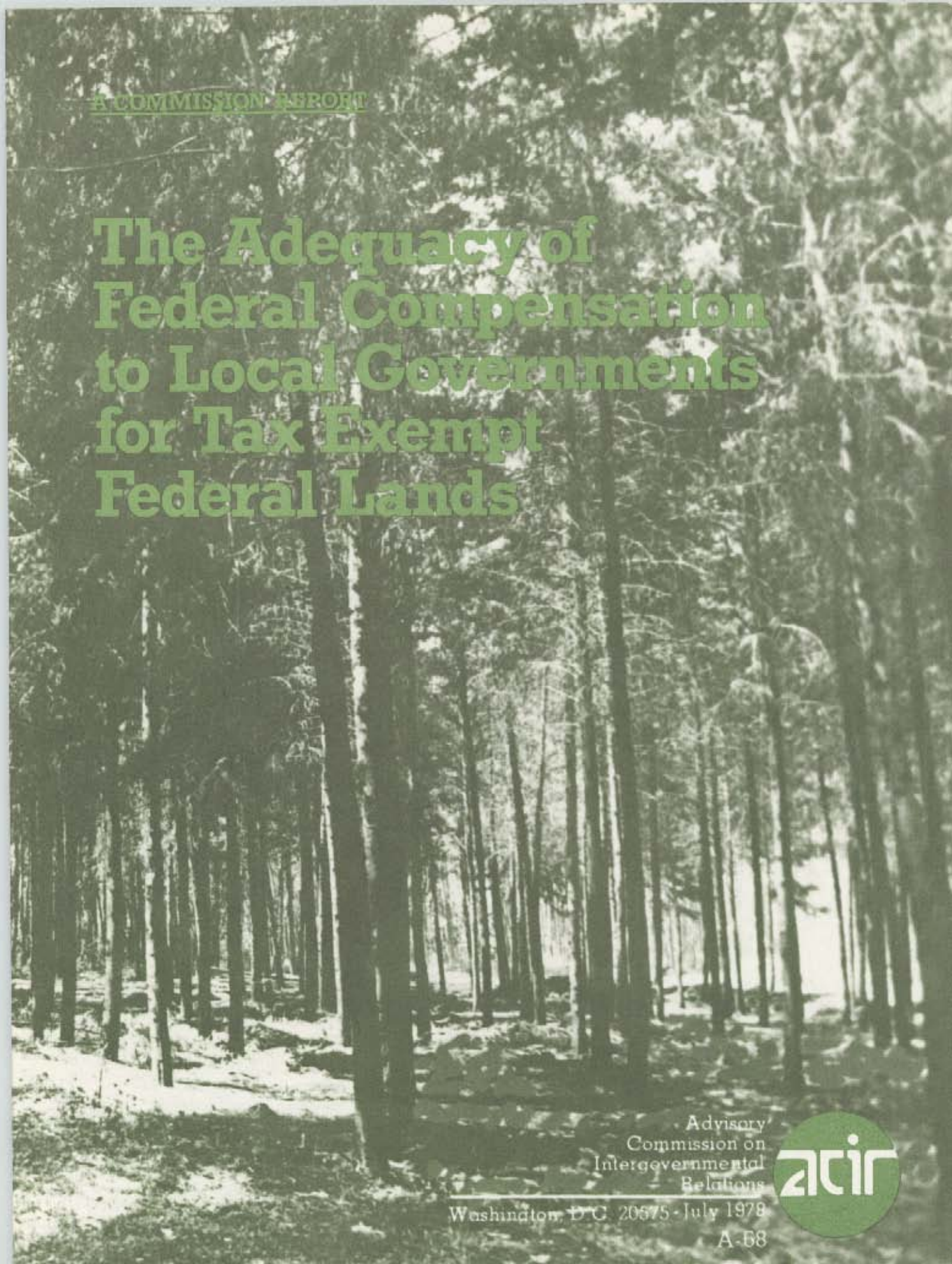
A COMMISSION REPORT

The Adequacy of Federal Compensation to Local Governments for Tax Exempt Federal Lands



Advisory Commission on Intergovernmental Relations

Washington, D.C. 20575 - July 1978

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Preface

This study deals with a persistent problem of intergovernmental fiscal relations—the "fairness" of compensation paid by the federal government to local governments to offset any adverse economic effects of the presence of tax-exempt federal land.

Over the years dating from 1906, many bills have been introduced in Congress to provide various methods of compensation. Four major studies of the topic in the last 30 years have done little to resolve the issue to the satisfaction of local governments. This history suggests the difficulty of the Commission's assignment.

In 1975 the Commission undertook this study at the request of the Forest Service and originally contracted to evaluate only the National Forest receipts sharing program. In the meantime Congress passed the *Payments in Lieu of Taxes Act of 1976*, P.L. 94-565, which incorporated a minimum federal payment to counties of 75¢ per acre for national forests, national parks, and nearly all other open federal public land holdings. Congress also amended the definition of forest receipts to be shared thereby raising the payments to the counties. With the concurrence and, indeed, encouragement of the Forest Service, the Commission study was extended and enlarged to take into account the effect of the new laws.

Legislation to broaden P.L. 94-565 will undoubtedly be forthcoming as consideration is given to compensating local governments for the presence of other types of federal property. Thus, in presenting this report, the Commission is fulfilling one of the responsibilities spelled out for it by Congress, namely, to make available technical assistance to the Executive and Legislative Branches of the federal government in the review of proposed legislation to determine its overall effect on the federal system.

Robert E. Merriam
Chairman

Acknowledgements

The Commission's forest receipts study, like most ACIR reports, reflects the cooperative effort of many individuals. Michael Harder and Henry Raimondo were this study's principal architects and draftsmen. The funds for the project came from the Forest Service, U.S. Department of Agriculture.

The Commission followed its traditional three-step procedure: a thinker's session to develop the study outline, continuous consultation with knowledgeable individuals throughout the research undertaking, and a critic's session to review the draft report and optional policy recommendations prior to consideration by the Commission.

In the course of these procedures, Harder and Raimondo had the full cooperation of USDA and Department of Interior personnel. Officials in six states—California, Idaho, Oregon, Nevada, Washington and Wisconsin—compiled the data needed to estimate property taxes on forest land. Elmer Cronk, director of assessments in New Brunswick Province, and Lewis Greensword, chief of the Municipal Grants Division in Canada's Department of Finance, gave us an understanding of the Canadian federal and provincial financial relations with respect to exempt public property.

County officials and representatives of the National Association of Counties, along with representatives of the timber industry provided valuable testimony to the Commission and information and insight to the staff. A special note of thanks is due Ray Doerner, commissioner, Douglas County, Oregon.

At various points in the course of the study, Charles Stephenson, I. M. Labovitz, Kenneth Tollenaar, and David Klemperer were kind enough to review and criticize parts of the manuscript.

Harder and Raimondo also had help from the ACIR staff. Jean Ryan handled virtually all of the clerical chores. Gordon Folkman assisted with research at various times. Will Myers edited the study for final publication.

The Commission records it appreciation for the help rendered by all the individuals and organizations named. Full responsibility for the content and accuracy of the study rests, of course, with the Commission and its staff. The report was prepared under the general supervision of John Shannon, ACIR's assistant director, for Taxation and Finance.

Wayne F. Anderson
Executive Director

John Shannon
Assistant Director

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Chapter I

Issues, Findings and Recommendations

The federal government has been a major landowner almost from the birth of the nation. Until the end of the 19th century, federal policy was to transfer federally owned land to private ownership. That policy gradually ended in favor of permanent ownership of vast acreages (public domain) by the federal government.

As the policy changed, local governments claimed they deserved compensation from the federal government for the adverse effects of federal land ownership within their boundaries. The local spokesmen assert that fiscal problems can result from additional local expenditures imposed by the federal presence, from the denial of the tax revenue that would be paid if the land were privately owned by a taxable owner, and from precluding a host of secondary benefits that would result from private ownership of the land.

Local claims frequently have been countered by maintaining that while federal ownership may create adverse fiscal effects, it also provides direct and indirect local benefits. Receipts sharing has never proved entirely satisfactory to local officials. They have complained that they would obtain far more revenue for local use if the federal government had to pay taxes equivalent to what a private owner would have to pay on such land.

They have also complained that the federal presence imposes additional costs on their government, particularly road and public safety costs arising out of the need to cope with tourists and others using the forests. These contentions have led to proposals that would go beyond federal receipts sharing to the payment of a tax equivalency on federal land or to federal reimbursement of costs imposed on local government by virtue of the presence of the National Forest or other federal land.

Since 1908 the federal government has accepted the obligation to share with local governments a percentage of the revenues it derives from the sale of timber and from other uses made of National Forest land.

ORIGIN AND SCOPE OF STUDY

In the fall of 1975, the Advisory Commission on Intergovernmental Relations entered into a contract with the Forest Service, U.S. Department of Agriculture, to examine the fairness of its receipt sharing program. In October 1976 Congress enacted P.L. 94-565, a general law which provides compensation to states and localities not only for the National Forest land but also for most other types of federal land. In 1976 Congress also enacted P.L. 94-588 to expand, from "net" to

"gross," the income from National Forests subject to the 25% sharing. With the concurrence of the Forest Service, the ACIR study was expanded to include a study of the fairness of payments to counties for almost all federal open land. Despite the breadth of coverage—nearly 90% of federal public lands —this study does not cover the federal mineral receipts sharing program nor proposals for compensating local governments for federal office buildings or other improvements on federal land.

The *Payments in Lieu of Taxes Act of 1976*, P.L. 94-565, covers federal land in more than 1,500 counties and supplements nine different receipt sharing laws which provide compensation to these counties. The supplement to existing laws equals the amount necessary to guarantee that total federal payments to a county meet certain per acre minima.

The basic guaranteed payment is 75¢ per acre of federal land, subject to per capita limitations which vary in relation to population size classes of counties. The supplement to counties whose payments exceed the guarantee is 10¢ per acre, subject to the same per capita limitations by county population size class. Thus, the supplement assures each county a somewhat larger payment than it received in 1976 even if its payment otherwise exceeded the 75¢ minimum.

The compensation program for National Forest counties was supplemented under the provisions of P.L. 94-565. The receipts sharing program for National Forest counties pays 25% of the revenue earned from the forests to the counties where the forests are located.

This study sets out both to evaluate the claim that there are adverse local fiscal effects associated with federal land and to develop federal policies which would compensate for any such adverse fiscal effects.

Federal receipts sharing payments give rise to several additional intergovernmental issues:

1. To which government should the payment go, state or county?
2. Should the payment be restricted to use for roads and schools?
3. Can the payments be stabilized for each jurisdiction?
4. Should the federal government provide transition payments in the case where it acquires land for forest or other open space use?

Background research for this study included a review of previous studies concerned with the local fiscal effects of public lands. This literature search and analysis leads the Commission to believe that:

- The results of previous studies are inconclusive as to whether public land creates an overall adverse fiscal effect on local governments. Some studies estimated that federal land ownership results in a net fiscal loss while others determined that federal land ownership creates greater benefits than burdens. The studies attempted to identify and measure specific effects of federal land; for example, the amount of taxes foregone and in-kind benefits. Such a method confronts serious problems in estimating the value of benefits and costs and in apportioning the benefits and costs to the proper level of government.

FINDINGS AND CONCLUSIONS

To assess the fairness of federal receipts sharing programs, fiscal data by county were analyzed to determine whether three alleged patterns exist:

1) a clustering or grouping of the revenue and expenditure data as predicted by the claim that the presence of public land results in denied tax base or imposed expenditure effects,
2) an association of the alleged adverse fiscal effects with counties with the most extensive federal land, especially National Forest land, and
3) a systematic dissimilarity between fiscal characteristics of counties with federal land, including those with National Forest land and fiscal characteristics of a group of otherwise similar counties with little or no federal or National Forest land.

Alaskan local governments were excluded from the analysis because of the unique structure of such governments, the existence of vast unorganized territory, and the noncomparability of local public service requirements between Alaska and other states.

The study encompassed the land supervised by the Bureau of Land Management, the U.S. Forest Service, the Army Corps of Engineers, the Bureau of Reclamation, and the National Park Service. National Forest land as a separate category and federal land including National Forests were subjected to separate, similar tests. The procedure and the results are presented in detail in *Chapters V* and *VI* and summarized here.

Deprived Tax Base

It has been claimed that federal land ownership denies county governments of tax base with the result that they are unable to raise revenue to the extent desired or can only do so with extra tax effort. To test this charge this study asked, "Does the extensiveness of federal land within a county influence the tax burden of people who reside there?"

The answer is no.

Public land counties including National Forest counties, and other counties are virtually indistinguishable with respect to property taxes per capita, own source revenues per capita, or tax effort. There is no systematic grouping of public land counties that would substantiate a claim of denied tax base. Some public land counties exhibit the characteristics that would be associated with a denied tax base effect but so do nonpublic land counties and in about the same proportion.

This study found that the percentage of counties with characteristics that would be associated with a denied tax base effect does not vary systematically with the extensiveness of public land.

An analysis of counties with 15% or more federal land showed the predicted adverse fiscal characteristics in a slightly greater proportion of cases than might be expected. But the small number of counties involved *suggests special problems in certain counties rather than a general problem of denied tax base associated with extensive federal land holdings.* At most, this finding may indicate that receipts sharing programs give inadequate reimbursement to only those counties with the most extensive public land.

The evidence from this analysis leads to the conclusion that factors other than federal land ownership explain the low per capita revenue or high tax effort characteristics in all but a few public land counties.

Imposed Costs

It has been claimed that federal land ownership adds to general operating expenditures of local governments because of the need to make new or additional expenditures in excess of what local residents themselves would require. To test this assertion, this study asked, "Does the extensiveness of federal land within a county influence the level of local expenditures in the county?"

Again, the answer is *no.*

Public land counties, including National Forest counties, and other counties are virtually indistinguishable with respect to per capita general expenditures, per capita fire and police expenditures, and per capita highway expenditures. There is no systematic grouping of public land counties that would substantiate a claim of imposed expenditures. Some public land counties exhibit the characteristics that would be associated with imposed expenditure effects but so do nonpublic land counties and in about the same proportion.

This study found that the percentage of counties with characteristics that would indicate imposed expenditures does not vary systematically with the extensiveness of public land.

An analysis of counties with 15% or more federal land showed the predicted adverse fiscal characteristics in a slightly greater proportion of cases than might be expected. But, the small number of counties involved *suggests special problems in certain counties rather than a general problem of imposed expenditures associated with extensive federal land holdings.* At most, this

finding may indicate that receipts sharing programs give inadequate reimbursement to only those counties with the most extensive public land.

The evidence from this analysis leads to the conclusion that factors other than federal land ownership explain high per capita expenditures in all but a few public land counties.

Federal and State Financial Aid Programs

Federal and state aid programs have been developed to provide local governments with general and special financial support. Such aid programs already may offset the alleged adverse fiscal effects associated with federal land ownership. To test how federal and state aid affects public land counties, this study asked, "Do the federal and state intergovernmental transfers to local governments provide sufficient compensatory aid to public land counties to offset either alleged denied tax base or imposed expenditure effects, or both, in such counties?"

The answer to this question is *yes.*

Federal and state aid is greater on average in public land counties than in other counties. Because these aids are greater for public land counties where no particular fiscal problem is discernible, the logical conclusion is that no unreimbursed fiscal problem existed in public land counties prior to 1976.

An analysis of counties, with 15% or more federal land, which exhibited the denied tax base and imposed characteristics showed that federal and state aid per capita is relatively higher than in other counties. *Thus, aid programs, including receipts sharing as it existed prior to 1976, apparently responds to the problem in these counties and such aid is sufficient to alleviate entirely the additional tax effort such counties make.*

Compensation Method

In the course of its study of federal compensation policy *the Commission found that it would not be feasible to base a compensation program on the net fiscal impact of federal land ownership in each county.* The accounting approach to measuring the overall impact of public land on local government finances as used in previous studies and as advocated frequently by local officials falls too far short of accuracy. Indeed, the approach used in this study also has its limitations; it is capable only of measuring the overall impact on the federal land counties as a group. Thus as a practical matter, policymakers have limited options in choosing compensation methods. They can either determine payments without measuring the problem for which the compensation exists, or measure selected aspects of the overall impact. Current federal compensation policy through receipts sharing exemplifies the former approach while such alternative approaches as "tax equivalency" and "imposed expenditures" typify the latter. The "tax equivalency" approach would make payments for the predominant foregone benefit—for the taxes that would be forthcoming from the land if it were in private ownership. The "imposed expenditure" approach would make payments for the most readily measurable spillover costs.

In contrast, the present system does not attempt to base the payments directly on a measure of the effects. It proceeds from the notion of a governmental partnership in which a substantial percentage of receipts derived from the National Forests are earmarked for sharing with local government. This partnership philosophy was expanded by Congress in 1976 to assure that each local government obtain a minimum payment to compensate for any adverse effect of a National Forest although receipts obtained by the federal government from the use of its land may be minimal or nonexistent.

A DIFFERENT METHODOLOGY

NOTICE TO READER

Commission members Cutler, Dealaman and Dunn have raised major concerns about the study methodology and findings. Their criticisms, *together with the staff response, are set forth beginning on page 11.*

Because past research efforts to determine the fiscal impact of public land ownership by measuring the specific elements of the overall effect failed to yield reliable results, an alternative method—the comparative county approach—was developed for this study.

The underlying premise of the new approach is that the current fiscal situation in the counties with federal land encompasses all the effects of federal land ownership. The new approach then asserts that the costs and benefits of federal land ownership—whether they are current spillovers or foregone effects, direct or indirect—must manifest themselves somewhere in the local governments' current expenditures and revenues. Thus, if the fiscal characteristics of counties with federal land differ according to the extent of federal land or in comparison to similar counties, the difference is considered to be the net impact of federal land ownership.

The comparative county approach has at least two distinct advantages over the accounting approach used in previous studies. It is more comprehensive and less speculative. The accounting approach necessarily avoids quantifying some of the less direct impacts of the federal land. The comparative approach captures all the effects, no matter how indirect they may be because eventually a fiscal effect must influence local revenues or expenditures.

Instead of speculating on the value of each benefit and cost that would be associated with the federal land under private ownership, this approach makes a single assumption in order to quantify the net effect of federal land ownership: that the counties containing federal land would *not* be an advantaged or a disadvantaged group of counties in comparison to other counties if the federally owned land were privately owned. With this assumption, the degree to which the federal land counties generally are different from the comparison group indicates the influence of federal land ownership.

RECOMMENDATIONS

At the outset of this study to determine the fairness and adequacy of the compensation program for tax exempt federal land, it was anticipated that there would be a systematic relationship between the extensiveness of public land in a county and its revenue and expenditure characteristics. When analysis revealed that such a relationship did not exist and that federal and state aid programs, prior to 1976, compensated public land counties for any adverse fiscal effects associated with federal land, the Commission had to consider whether to recommend that Congress repeal recent legislation which increased the amount of National Forest receipts that are shared and provided a minimum per acre payment to many counties heretofore not eligible for compensation.

THE METHOD AND ADEQUACY OF FEDERAL COMPENSATION

The Commission concludes that the pre-1976 level of compensation, based on receipt sharing, was generally adequate to offset any adverse effect of federal land ownership—the counties covered by P.L. 94-565 were neither fiscally "disadvantaged" nor fiscally "advantaged" in comparison to similar counties which have little or no federal land. The Commission, however, also concludes that the increase in compensation voted by the Congress in 1976, when spread across approximately 1,500 counties, was not of sufficient magnitude to elevate federal land counties into a fiscally "advantaged" class. The Commission therefore recommends that the current federal compensation program be retained.

The Commission further concludes that the compensation method, as amended in 1976, may not completely protect against unusual cases of fiscal distress caused by federal land ownership. The Commission therefore, recommends that Congress amend the P.L. 94-565 to authorize the appropriate federal official to grant additional compensation to those P.L. 94-565 counties that meet the following hardship criteria:

1) **at least 25% of the county acreage is P.L. 94-565 federal land, and**

2) **the county can demonstrate that to finance an average level of expenditure it would have to exert a tax effort in the upper third for counties that are comparable in all major respects except for the size of federal land holdings.**

By retaining the present payment system, including the 1976 increases, the Congress enhanced the federal-local government partnership. The minimum payment provision, for example, may improve the *method* of distribution in two ways. Approximately 80% of federal land counties will be aided under the 75¢ per acre provision. This stabilizes payments to these counties—the size of the payment they receive no longer is subject to the fluctuations in income from the federal land.

Second, federal-local relations were continuously irritated by the inequity in payment methods existing prior to 1976. Receipt sharing produced some big "winners" and many "losers"—that is some counties with federal land received little or no federal compensation while others received large payments. For example, there were no payments for the National Parks. Now about 80% of federal land counties will have their total compensation determined according to the same formula.

While the empirical analysis of the payment program did not find that expenditures were imposed on localities by the federal presence, the method of research could have failed to measure relatively slight effects.

The special provision for hardship cases recommended by ACIR would compensate for a fiscal problem as it normally is defined, an excessively high tax burden without a correspondingly high level of public services. It would allow the federal government to respond directly to the exceptional cases of financial distress, without rewarding counties that show no such distress.

Hardship would be defined as a tax burden well in excess of the average with only average or below average public services. The cause of hardship would be attributed to federal land ownership when the tax burden in federal land counties exceeded significantly the average tax burden in counties that are comparable except that they have little or no federal landholdings. To provide additional assurance that aid is not paid when the problem is unrelated to public land, compensation would be limited to counties having a minimum of at least 25% of the land area under federal ownership.

An ACIR simulation of this test indicates that few if any counties experience the hardship condition. But with the *capacity* to respond to hardship situations would come two improvements in federal compensation policy. Even though the current program generally compensates for the fiscal effects of federal land, no compensation program covering 1,500 diverse counties can uniformly provide adequate compensation. This recommendation would install a "safety valve" to assure that a generally adequate program does not allow severe problems, even if they are exceptional, to go without remedy. The safety valve provision, secondly, can avert the need to provide a general increase in program funding covering all counties if, in the future, special cases of fiscal distress are found.

The case for a shift away from the present compensation system to one based either on tax equivalency or imposed expenditure cannot be sustained either philosophically or administratively. Although a tax equivalency *principle* often is proclaimed, it appears that the advocates recognize that the federal obligation actually should not extend beyond the imposed costs—many so-called tax equivalency proposals or programs include steps designed to identify the expenditures imposed. Nevertheless, a tax equivalency still could be justified if it was a good approximation of the imposed costs of federal land. The property tax, however, is not designed to recover the costs imposed by the property. Open space land is especially likely to pay more in taxes than the land requires in local public services. In the case of the National Forest, where the Forest Service provides many of the required services for the property it manages, a tax equivalency would doubly subsidize local services.

The advocates of tax equivalency contend that a basic right to a normal tax base is at stake. This contention, however, now

flies in the face of evidence that counties with federal land already have a normal tax base. Research for this study shows that several tax effort and expenditure problems that would be related to an abnormally low tax base were unsubstantiated.

STATE TAXATION OF THE PRIVATE INTEREST IN PUBLIC LAND

From a legal viewpoint, there is no constitutional impediment to stop states from taxing private interests in public lands.[1] In the case of forest land, these taxable private interests include: the value of timber cutting contracts of private firms which may be subjected to an ad valorem tax, referred to as the *"possessory interest tax,"* or the value of the timber harvest which may be taxed by a *"yield tax."*[2]

The possibility that states can enact such taxes raises two interrelated policy questions: should the states either be encouraged to tax the private interest or discouraged from adopting such taxes, and should the federal payment program take account of the possibility that states could tax the private interest?

Use of either tax by more states may be supported by the "equal tax treatment" principle; that is, taxpayers in similar economic circumstances should be treated equally in the interest of fairness. To fulfill the principle in the case of forests means that if there is a tax on timber harvested from private forests there should be a tax on timber harvested from public forests by private timber purchasers (i.e., possessory interest tax or yield tax). This helps to assure that the private interests in public lands do not have an unfair tax advantage over similar economic interests in private lands.

The argument against the spread of the possessory interest or the yield tax to private interests in public forest land rests on the estimate of who ultimately would bear the burden of the tax. An economic analysis prepared for this report indicates that most of the burden of a tax on the private interest in public forest land would fall ultimately on the federal government—indirectly a new federal compensation program would be created each time another state enacted the tax. A tax on the private interest in public land would have the effect of raising the direct and indirect payments above the intended and heretofore justified level.

The Commission refrains from making any recommendation on either state timber tax policy or on the relationship between state timber tax policy and the federal compensation program. It does so while recognizing that the federal compensation program will produce unequal effects in states depending upon whether or not the private interest in timber in National Forests is subject to state taxation. The Commission is persuaded that a host of considerations such as revenue needs, timber management philosophy, and others beyond the scope of this study would have to be weighed before a sound policy recommendation could deal with this issue.

THE UNIT OF GOVERNMENT WHICH SHOULD RECEIVE THE FEDERAL PAYMENT

Throughout the history of the federal payment program, the problem of federal land ownership usually has been pinpointed as being the adverse fiscal effect on local government. Even if the federal compensation is primarily intended to offset local fiscal problems, a case can be made for making such payments to the state without specifying that the money be passed through to counties. The states virtually determine the fiscal resources of each county by altering local government structure, delegating tax authority, assigning responsibility for functions, and providing financial assistance. If federal land adversely affects local governments' tax base or imposes expenditures, the burden may be borne statewide through aids which take into account the size of the local tax base or the level of local expenditures. When states equalize fiscal resources or provide aid to offset the type of problems caused by the federal land, the state may be the logical recipient.

The differences in state-local fiscal practices raise the issue: Should the federal payments be designated exclusively for states or counties?

The Commission concludes that the fiscal disruption that would be caused by making the state the recipient of federal compensation under those programs where the counties now receive the payments, (i.e., National Forest land payments) outweighs the potential benefit of a uniform state recipient policy. The Commission, therefore, recommends that the currently designated recipients not be changed.

Many of the payment programs have existed for years and, over time, they have become part of the interrelated web of state-local financial relationships. If the payments which now go to the counties were shifted to the states, some fiscal disruption would occur—unless the states simply turned the funds back to the same counties.

FEDERAL LAND ACQUISITION AND LAND MANAGEMENT PRACTICES

The Commission's research showed that by and large no actual fiscal burden rests on counties as a result of having foregone taxes on federal land the county never had on its tax roll. In two situations, however, the presence of federal land may cause an actual revenue loss in the current budget: when the federal government acquires land that previously was taxable and when changes in federal land management policies sharply reduce receipt sharing payments.

The Commission concludes that local governments can experience severe fiscal disruptions due to substantial federal acquisitions of taxable land and to sharp reductions in receipt sharing payments caused by changes in federal management policies. The Commission, therefore, recommends that the Congress authorize the appropriate federal agencies to make adjustment payments in federal compensation programs for several years to permit the affected state and local governments to adjust to the revenue loss resulting either from substantial federal land acquisitions or from sharp reductions in receipt sharing payments.

Local governments in particular have difficulty adjusting to fluctuations in revenue. The federal government should do what it can in its federal-local fiscal relations to help local governments avoid sharp increases in local taxes or sudden reductions in local spending. Such problems for local government can arise when the federal government acquires land that has been taxable or when its land management decisions sharply curtail receipt sharing payments; for example, when part of a productive forest is converted to a wilderness area. To avoid numerous adjustment payments, however, Congress should set a threshold of significance by which federal payments are reduced due to federal land management decisions, say 50%, before a county could qualify for reimbursement. The 75¢ per acre minimum payment under P.L. 94-565 already operates to minimize the number of cases where management decisions can cause a precipitous drop (e.g., 50%) in federal compensation.

EARMARKING THE FEDERAL PAYMENT

Current law governing the National Forest receipt sharing program restricts the use of the shared receipts to roads and schools. State law *may* specify the allocation between the uses. The results of a survey of state practices are shown in *Table 1.*

The Commission concludes that the road and school restrictions on the use of the National Forest receipt sharing compensation serve no useful purpose and, therefore, recommends that the Congress remove all restrictions on the local use of the federal compensation payment.

When this federal payment program was first established in 1906, roads and schools were the principal local government functions. Restricting the use of the 25% receipt sharing payments to those functions was, in effect, no restriction at all. Now, however, the scope of legitimate local functions includes a vast array of services. The Commission's analysis failed to reveal an association between federal land holdings and per capita

Table 1

NATIONAL FOREST RECEIPTS ACT USE OF FUNDS

State	Allocation of Funds Specified by State Law			Method of Distribution to Localities	
		Yes			
	No	Percent Roads	Percent Schools	All Directly	Some Indirectly
Total	12	24		34	2
Alabama		50	50	X	
Alaska					
Arizona	X			X	
Arkansas		25	75	X	
California		50	50	X	
Colorado	X			X	
Florida		50	50	X	
Georgia		50	50	X	
Idaho		70	30	X	
Illinois		50	50	X	
Indiana	X			X	
Kentucky		50	50	X	
Louisiana		50	50	X	
Maine		60	40		X[4]
Maryland					
Michigan		25	75	X	
Minnesota	X			X	
Mississippi		50	50	X	
Missouri		25	75	X	
Montana		66.7	33.3	X	
Nebraska		20	80	X	
Nevada		50	50	X	
New Hampshire	X[2]				X
New Jersey					
New Mexico		50	50	X	
North Carolina	X			X	
Ohio	X			X	
Oklahoma		75	25	X	
Oregon		75	25	X	
Pennsylvania	X			X	
South Carolina	X			X	
South Dakota		50	50	X	
Tennessee		50	50	X	
Texas		50	50	X	
Utah					
Vermont	X			X	
Virginia		0	100	X	
Washington	X[1]			X	
West Virginia		20	80[3]	X	
Wyoming	X[1]			X	

[1]Requires a minimum amount for both roads and schools, but allows local discretion regarding the allocation as long as the minimum is satisfied.

[2]The funds due to areas that contain incorporated towns are distributed to the towns which may divide the money between roads and schools as they choose. The remainder, 27% in 1976, is divided between the state Education and Highway Departments as the administration chooses, typically 50/50.

[3]Most funds are divided according to these percentages; however, payments to localities within the Knob-Seneca Rocks National Recreation Area are divided 63% for education and 37% for roads.

[4]The state operates schools in the unorganized parts of the state and the Education Department receives the school share for operation of the schools in those areas.

local highway expenditures. School finance in most states, is a shared responsibility with the state government providing a greater share of per pupil expenditures to school districts that are relatively poor in local tax capacity. Thus, the connection between federal land and roads and schools is tenuous, at best.

If the current designation results in the locality spending more for roads and schools than it desires, an inefficiency is created—people get less of what they want in other public facilities or services. Conversely, if the local government applied the federal revenue to roads and schools without distorting the pattern of expenditures, the designation is, in effect, meaningless.

Thus, the elimination of earmarking of receipts sharing funds would seem to serve more useful purposes than its continuation.

STABILITY OF FEDERAL PAYMENTS

Local governments are affected not only by the amount of federal aid, but also by the stability of payments from one year to the next. The local budgeting process benefits when year-to-year fluctuations are minimized. The 1976 statutory change which establishes a 75¢ per acre minimum payment (modified by certain per capita limitations) also adds stability in the payments for about 80% of the counties. When the payments under other programs fall below the minimum amounts, the new program supplements the payment up to the minimum. Accordingly, the variation in sharable receipts no longer affects these counties. A several-year moving average would further stabilize the payment to the other 20% of counties.

The Commission concludes that significant fluctuations from year-to-year in the amount of receipt sharing compensation paid to a county inhibits orderly budget planning. The Commission, therefore, recommends that the Congress direct that payments be determined by using a several-year moving average of the factors in the National Forest receipt sharing formula.

STATE REVIEW OF COMPENSATION NEEDS AND PRACTICES

To provide the background for the study of the local fiscal effects of federal land, current federal and state compensation practices in both the U.S. and Canada were inventoried. This listing revealed that:

- Current state and federal programs to compensate local governments for public land are roughly divided between receipt sharing and tax equivalency, although most tax equivalency programs do not reimburse the full amount of potential taxes. Canadian compensation programs tend to place more emphasis on tax equivalency.

- Thirty-three states compensate localities for the presence of certain state property. In most cases only a small, specific category of property gives rise to a payment. The evidence indicates that states, on the whole, make smaller payments to compensate local governments than does the federal government.

The Commission finds that most states compensate local governments for only a small portion of state-owned property. The Commission, therefore, recommends that each state examine the impact of state-owned land on local government finances and compensate its local governments for any adverse effects of state-owned property.

In broad terms, state land ownership has the same type of local fiscal effects as that of federal ownership. States generally do not compensate their local governments *directly* for the effect of state land. Although 33 states have at least one compensation program, most programs include only small, specific categories of state land. Potentially, communities with extensive state-owned land are adversely affected if they receive no payments. Another possibility, however, is that some existing state aid programs indirectly offset the effects of state land. A study in

each state would show whether a problem exists and would lay the groundwork for corrective state action.

CONTRASTING VIEWPOINTS ON METHODOLOGY

Minority Report of Members Representing County Governments

This minority report is being filed in the performance of our duties as Commissioners to help clarify the report on payments-in-lieu of taxes by the Advisory Commission on Intergovernmental Relations (ACIR).

We are concerned that due to errors in study methodology some of the study findings and assumptions are incorrect and misleading.

We have five major concerns about the study methodology:

1. *The composition of the test and control groups did not separate "public land counties" from "private land counties" as claimed.* Approximately 400 counties receiving payments-in-lieu of taxes were included in the "private land counties" group while approximately 800 counties with little federal land were included in the "public land counties" group.

2. *The study did not include most types of federal lands and 90% of all federal land holdings as claimed.* The study only included about 60% of federal land holdings. It did not include military lands, Indian lands, Alaskan lands, fish and wildlife refuges, post offices, and federal office buildings.

3. *The study did not isolate all fiscal effects of federal land holdings as claimed.* There was no effort made to either evaluate the level or quality of service provided by public land counties or to consider the effect of state-imposed tax and expenditure ceilings.

4. *The control groups did not compare similar counties as claimed.* The test group included counties primarily from the west and the control group included counties predominantly from the south and northeast.

5. *The 70 counties found to have a demonstrable tax burden should not have been dismissed as a "slight deviation."* These 70 counties, out of about 300 counties with large public land holdings, support county government claims that large holdings of tax exempt federal lands create a local fiscal burden.

We are *not* taking issue with any recommendations of the Commission, rather we are concerned with possible interpretations of some of the findings and the possible effect on the federal payments-in-lieu of taxes program (P.L. 94-565). All "quotes" in this minority report are taken directly from the ACIR study report.

Specifically, we challenge the study finding that:

> *the pre-1976 level of compensation, based on receipt sharing, was generally adequate to offset any adverse effect of federal land ownership—the counties covered by P.L. 94-565 were neither fiscally "disadvantaged" nor fiscally "advantaged" in comparison to similar counties which have little or no federal land.*

We contend that in fact, *no such comparison was made in this study.* The counties "covered by P.L. 94-565" were *not* compared to "similar counties which have little or no federal land."

A serious error was made in the study attempt to establish a "public land counties" test group and a "comparable private land counties" control group. First, the "public land counties" test group of 1,198 counties does *not* include all counties receiving payments under P.L. 94-565, as claimed. Approximately 400 counties and townships receiving these payments were not included and instead were included in the so called "private land counties" control group. The "private land counties" control group also included all other counties containing types of

federal lands not covered by P.L. 94-565. On the other hand, more than 800 of the counties in the "public land counties" group contain less than 25% of their land in federal ownership. We believe these counties should not have been classified as "public land counties" for an empirical comparative study. For this type of study to have any validity it must be absolutely clear that the test and control groups have isolated probable causitive effects. Neither control group accomplished this isolation.

We believe it was misleading, and incorrect, in the study introduction to claim that the test group was expanded from National Forest lands to include "most other types of federal lands." We believe the study was expanded to include only parks, wilderness, and lands administered by the Bureau of Land Management, in addition to the National Forest. It is not clear if Bureau of Reclamation lands or Army Corps of Engineers lands are included. The study group definitely does *not* include military lands, Indian lands, fish and wildlife refuges, Alaskan lands, post offices, and the many federal office buildings and land throughout the country.

The study group did not include "nearly 90% of federal public land area" as claimed. The actual public land area for the included lands is less than 60% of all federal holdings.

The use of the "90%" figure and the phrase "most types of federal land" is misleading and incorrect.

At best, even if all P.L. 94-565 counties had been isolated in one control group, the ACIR study would have demonstrated that counties with certain types of federal land had no "disadvantage" or "advantage" when compared to counties with other types of federal land. But even this is not true.

In the first place, Congress was limited during the enactment of P.L. 94-565 by Committee jurisdiction to certain types of federal lands. The ACIR study should not have been so limited. There has been no claim by county governments that the tax immunity of one type of federal lands produces a "disadvantage" greater than the tax immunity of other types of federal lands.

Further, county governments have not claimed that every federal land holding no matter how small would produce a fiscal "disadvantage" that could be measured by an empirical per capita tax or expenditure comparison. We do not believe this can be done with all of the functions performed by county governments that are totally unrelated to federal lands. This is especially true for counties like Los Angeles County, CA, and Salt Lake County, UT, that were included along with many other metropolitan counties, in the "public lands counties" test group.

In addition, we just cannot accept the ACIR study claim that "the comparative approach captures all the effects, no matter how indirect they may be because eventually a fiscal effect must influence local revenues or expenditure." This assumption completely rejects the possibility that the level or quality of service provided by public land counties may be reduced due to a restricted tax base. The ACIR claim also ignores the fact that many counties have state-imposed tax and expenditure ceilings. If the ACIR assumption *were* true on the other hand, for this to be a valid study of the fiscal impact of all tax exempt lands, no matter how small, the study would have to include state-owned lands as well as federal lands. No such effort was made in this study.

The claim that the counties in the two study groups were "similar" except for public land holdings, may be the most serious study error of all. The test group contained counties primarily in the west, where most of the public lands are located, and the control group contained counties predominately from the south and northeast. We believe the functional and attitudinal differences that vary between counties of these regions make it virtually impossible to use a per capita tax effort comparison as a valid measure of "fiscally disadvantaged" counties. For validity the two groups should have been balanced on a state-by-state or regional basis—and we believe they could have been balanced if the test group had been limited to only counties with large holdings of federal lands and the control group limited to nonmetropolitan counties with little or no federal lands.

Finally, this minority, the elected county officials represented on the Commission, be-

lieve that the 70 counties found in the study to have either a significantly higher than average tax burden or higher than average expenditure pattern actually support the county government contention that large holdings of federal land create a local fiscal burden. These 70 counties should not have been dismissed in the study as "one slight deviation from the general conclusion." This "slight deviation" we believe is representative of 70 counties out of about 300 counties with large holdings of federal lands—not 70 out of 1,198 counties in the ACIR test group.

We believe the demonstrated tax burden found in these 70 counties reinforces the findings of the Public Land Law Review Commission, who in 1970, using a case study method rather than an empirical comparative approach, found that a demonstrable tax burden exists for state and local governments with large federal land holdings.

We believe the tax burden in these 70 public land counties also reinforces Congressional findings in 1976 when Congress enacted a policy for a payments-in-lieu of taxes program in the *Federal Land Policy and Management Act*, increased the *Mineral Leasing Act* payments to state and local governments, increased Forest Reserve payments to counties and finally authorized payments-in-lieu of taxes in P.L. 94-565.

William Dunn, Commissioner
Salt Lake County, UT

Doris W. Dealaman, Freeholder-Director
Somerset County, NJ

Lynn G. Cutler, Supervisor
Black Hawk County, IA

The minority report on ACIR's study of the federal forest receipts sharing study identifies five concerns about the study methodology. Following are the ACIR staff's responses to these concerns.

Concern 1. *The composition of the test and control groups did not separate "public land counties" from "private land counties" as claimed.*

A. Approximately 400 counties receiving payments-in-lieu of taxes were included in the "private land counties" group.

This allegation stems from an evaluation of the ACIR preliminary report prepared for the July 7, 1976, critics' session. In conformance with established Commission procedures, the preliminary report presented at the critics session was revised for both the Commission meeting and for final publication. These revisions took account of the comments of critics, the availability of new or corrected data and related analyses, and in the case of this publication, Commission action.

Shortly after the critics' meeting ACIR staff obtained, for the first time, the Department of Interior preliminary data on estimated payments and number of eligible counties under P.L. 94-565. Cross checks of eligible counties identified in ACIR tabulations based on data provided by the U.S. Department of Agriculture revealed that 331 counties or county-type governments had gone uncounted in the ACIR tables contained in the report for the critics' session. Instead of 1,198 public land counties eligible for P.L. 94-565 payments as shown in ACIR tables in the preliminary draft of *Chapter 6*, there are 1,529 such jurisdictions—not counting Alaskan boroughs. Before the Department of the Interior data became available there was no way to check the completeness of the USDA data. The search for the uncounted jurisdictions was begun immediately. The staff discovered that the missing jurisdictions represented public land county, or county-type, governments located in *11* states, three of which Idaho, New Mexico, and Nevada, had counties with extensive federal acreage.

On reanalyzing the data, the staff discovered that 224 of the 331 counties do not contain extensive federal acreage. The staff determined, moreover, that the preliminary cross tabulations of counties by per capita revenue and expenditure classes and extensiveness of federal land, although understating the number of eligible P.L. 94-565 counties, had not biased the findings. In other words, ACIR staff on reanalyzing the data found that the 331 counties would be dis-

tributed across the rows and columns in all the cross tabulations when they were prepared for final publication of the report. The staff decided therefore to perform other analyses needed in preparation for Commission consideration of the report at its September 1976 meeting, and to rerun the data completely to test further its conclusions as time permitted.

When the data on all 1,529 counties or county-type governments was reanalyzed, trivial changes appeared in the proportion of counties at various revenue or expenditure levels, as shown in tables such as *Tables 60, 62* and *65*. In the case of *Tables 60* and *65* the similarity in the distribution of public land counties and comparable private land counties with respect to tax and spending levels was further reinforced. The final tabulations thus did not alter the conclusions stated in the preliminary report for which the critics' session was convened.

B. Approximately 800 counties with little federal land were included in the "public land counties" group.

To reduce the possibility of unwarranted inferences from data that include many counties with little federal land, the report tested whether local fiscal magnitudes are systematically related to the extensiveness of federal land in public land counties. This test confirmed and strengthened the finding of the comparative county approach, namely that counties covered by P.L. 94-565 were neither fiscally "disadvantaged" nor fiscally "advantaged" in comparison to similar counties which have little or no federal land. It showed that the extensiveness of federal land is not systematically related to high local property taxes or low per capita expenditures. The report included yet another test expressly designed to avoid an erroneous conclusion based on data for counties with little federal land. The third test applied only to counties with the most extensive federal land to identify those with a combination of three "above normal" local indicators of revenue burden and effort and yet only an average local expenditure level. This test for adverse fiscal effect revealed *no* federal land counties that meet a fairly stringent specification of fiscal hardship. As the specification of what constitutes fiscal hardship is relaxed to identify only county areas and county governments with above average property taxes per capita (an average based on counties of comparable population size to exclude those with large cities)—the least stringent test imaginable—a mere *95* out of a total of *458* counties with extensive federal land show an adverse fiscal effect. No one could conscientiously propose that a federal payment be based on a mere showing of above average property taxes per capita.

Concern 2. *The study did not include most types of federal lands and 90% of all federal holdings as claimed.*

The claim that the coverage of this report encompasses nearly 90% of the federal public land area is accurate. The chief sponsor of the P.L. 94-565 was quoted in *County News* as recently as October 10, 1977, as follows: "The federal government owns more than one-third of the nation's land and this program provides for compensation for about 90 percent of the acreage involved."[3]

The issue of the extent of federal land coverage, however, is irrelevant to the evaluation of the fairness of the programs to county governments, the focus of this report. Presumably the rationale for the federal compensation programs is that the federal presence has an adverse fiscal impact on such governments. Analyses of the revenue and expenditure characteristics of county governments and governments in county areas failed to reveal any systematic relationship between fiscal characteristics and extensiveness of federal land, or any pattern of fiscal characteristics that distinguish counties with public land from comparable counties without public land. Admittedly, the analysis covered 652 National Forest counties and 1,529 public land counties in states other than Alaska. The addition of 11 Alaskan local governments to the analysis in either *Chapter V or Chapter VI*, would not change the basic findings as they are so few in number and so varied in fiscal characteristics.

Concern 3. *The study did not isolate all fiscal effects of federal land holdings as claimed. There was no effort made to either evaluate the level or quality of service provided by public land counties or to consider the effect of state imposed tax and expenditure ceilings.*

The text of the preliminary study as well as the final report concedes the impossibility of showing adverse fiscal effects that take the form of a lower quality of services. Thus, it is our conclusion that neither the report nor those who criticize its methodology can prove that public land counties render lower or higher quality services or have lower or higher quality services because of the presence of federal land. The report notes the lack of any method to measure the quality of public services other than dollars spent on them. It goes further to note that there is no reason to believe that the relationship of dollars spent to quality of public services is any different for public land counties than for all counties. Thus, the report asserts with substantial justification that there is little likelihood of any bias being introduced into the study from this quarter.

An analogous argument can be made with respect to the effect of state-imposed tax and expenditure ceilings. We know of no evidence to support the possibility that state-imposed fiscal constraints have an impact clearly different in public land counties than in other counties. Since counties in the control group, as well as in the public land group both face these types of state-imposed constraints, the existence of state fiscal controls would seem to have little relevance to the report's conclusions.

Concern 4. *The control groups did not compare similar counties as claimed.*

The report concedes that the control group and test group differ in composition to some extent but that comparisons drawn state-by-state would entail an even greater risk of error, namely, that public land counties would be compared to atypical private land counties.

The geographic distribution of the comparison group, admittedly, is not perfectly matched with the distribution of the federal land counties. The counties in the over-represented area (southeast and northeast) are roughly divided, however, between those that spend and tax higher than counties in the west and those that spend and tax lower than counties in the west. There is a possibility therefore, (albeit slight) that the comparison method is biased because of factors which vary by state.

Irrespective of any shortcomings that may exist in the representativeness of the control group, however, ACIR staff's analysis failed to detect a fiscal problem associated with the extensiveness of public land in a county.

Concern 5. *The 70 counties found to have a demonstrable tax burden should not have been dismissed as a "slight deviation."*

Counties with demonstrably higher tax burdens and lower expenditures are the focus of an entire phase of analysis.

The report points out that throughout the analysis of both the 562 National Forest counties and the 1,529 public land counties there were counties with relatively high extensiveness of federal land that had the fiscal features of counties with the denied tax base and imposed expenditure effects. In order to determine more confidently whether federal lands created a fiscal hardship a special analysis was prepared for these counties. The counties were examined with respect to revenue and expenditure characteristics that would indicate adverse fiscal effects. In this analysis, however, the revenue and expenditure characteristics were combined to portray what may be termed a cumulative scale of fiscal adversity. Specifically, the analysis defined fiscal hardship under several revenue and expenditure assumptions. At one extreme, a county was to be considered a fiscal hardship case if it exerted a relatively high tax effort and burden yet had an average or below average per capita expenditure level. Specifically this situation occurs when a county is characterized by three above normal revenue features (high per capita property tax level, plus high per capita own

source revenue, plus high tax effort) and yet has only an average or below average per capita expenditure level. When this test is applied to counties with the most extensive federal acreage, *not one hardship case emerges* from an analysis of 335 National Forest counties and 458 public land counties containing the most extensive federal acreage. If counties with less extensive federal acreage are examined a few cases of possible fiscal hardship begin to emerge.

It may be argued that the fiscal hardship test is too stringent. At the other extreme, when the criteria are eased to one revenue feature—namely above average per capita property taxes—and no expenditure criteria are applied, only 95 of 458 public land counties with 15% or more of their area being public land and 73 of 335 National Forest counties with 15% or more of their area being National Forest qualify as hardship cases.

No one can conscientiously support special compensation to counties because they experience above average per capita property taxes. Moreover, the fact that only 20% of the counties with extensive public land, including National Forest land, experience this above average per capita property tax burden provides inadequate justification for a compensation program that benefits all 1,529 counties with public land that now qualify for payment under P.L. 94-565. Hence, the Commission recommends the grant of additional compensation to only those counties that can prove hardship by meeting certain specified tests.

After a review of the five concerns raised in the minority report, the conclusions of the study remain unchanged.

This report was drafted in accordance with the Commission's long standing procedures that seek critical and disinterested reviews of the methodology and conclusions of its studies. Ample time and opportunity was given to those interested in the topic to evaluate the report. While some did not agree with the report the general consensus of the critics was very favorably disposed toward the report's method. Every attempt was made to incorporate constructive comments offered at the critics' session and received subsequently.

Together, the text and appendices present much of the data and all of the methods used in analyzing the data upon which the study conclusions are based. With this publication, the Commission and its staff hope to encourage others to review the work of the Commission staff which led to the conclusions and recommendations contained in this report and to replicate and improve upon it.

FOOTNOTES

[1]A substantial judicial history supports taxing the private interest on public land. Most recently, in January, 1977, the U.S. Supreme Court upheld California's right to tax employees of the Forest Service on their possessory interest in housing that is owned by the federal government (*U.S. vs. County of Fresno*, No. 751262). Previously, while considering legislation to tax the yield from public forests, the legislative counsel in California reaffirmed the legality of taxation of the private interests on public land citing the following cases: *Forster Shipbuilding Company, Inc. vs. County of Los Angeles* (1960), 54 Cal. 2nd 450, 455, and *San Pedro, Los Angeles and Salt Lake Railroad Company vs. City of Los Angeles* (1919), 180 Cal. k8, 22, 23 were cited in legislative counsel of California memorandum #21078, October 30, 1975. Detailed history can be found in Karl E. Wolf, *State Taxation of Government Contractors*, Chicago, IL, Commerce Clearing House Inc., 1964, pp. 213-220.

The right to tax the private interest apparently is not necessarily negated by compensation for the public property. For example, National Forest receipts are shared with the counties and courts have held that compensation is not directly in-lieu of taxes. See *Georgia Pacific Corporation vs. County of Mendocino*, 357 Fed. Supp. 380 Caff'd, 515 Fed. 2nd 285, pp. 387-390; *Board of Supervisors of County of Modoc vs. Archer*, 18 Cal. App. 3d 717, 725, 96 Cal. Reptr. 379, 385 (3d Dist. 1971); *Tree Farmers, Inc. vs. Goeckner, supra*, 385 P. 2d at 651; *Trinity Independent School District vs. Walker County*, 287 S.W. 2d 717, 719-723 (Tex. Civ. App. 1956). See also, *School District No. 24J vs. McCarthy*, 244 Or. 379, 418, P. 2d 817 (1966) (dissenting opinion). . . .

[2]For a description of how California values various types of possessory interests including the method formerly employed to value the right to harvest timber see, California State Board of Equalization, Property Tax Department, Assessment Standards Division, *Assessors Handbook: The Appraisal of Possessory Interests*, Sacramento, CA, Board of Equalization, 1974.

[3]National Association of Counties, *County News*, Washington, DC, National Association of Counties, Vol. 9, No. 40, October 10, 1977, p. 1

Chapter II

The Intergovernmental Aspects of Federal Land Policy

HISTORY OF INTERGOVERNMENTAL POLICY FOR FEDERAL LANDS

At the end of the American Revolution, the lands extending west of the original 13 states to the Mississippi River were claimed by seven of them under their colonial charters. From that time until 1802, these seven states ceded the land outside their current boundaries to the federal government. Purchases, annexations and foreign cessions from 1803 until 1867 filled out the greatest part of the land now owned by the federal government.[1]

During the 19th century, public policy was clearly directed toward transferring the federal land to private owners and to states. That view of the federal role in land ownership was consistent with the prevailing outlook, that the federal government should play a small role in economic matters. Also its need for money added impetus to the policy of selling the federally owned land.[2]

Later when Ohio (1803), Louisiana (1812), and Indiana (1816) were admitted to the Union, they received 5% (3% in the case of Ohio) of the funds raised from the sale of public domain land within their borders. This practice was the result of state agreements to accept certain conditions upon entering the Union and is not clearly related to the receipt sharing programs that developed later.

The policy of transferring federal land to private ownership ended gradually. In 1891 Congress enacted a system for reserving land from the public domain for permanent federal ownership. Next, the *Pickett Act of 1910* enabled the President to withdraw public lands from those available for settlement or sale. The *Weeks Act of 1911* symbolized the reversal of the former policy of disposing of federal land. It provided for the acquisition of land by the federal government.

Another major piece of legislation, the *Taylor Grazing Act of 1934*, defined a new federal land ownership policy. It authorized the Secretary of the Interior to create grazing districts on federal land that was not already committed to another public use. The practical effects of these changes in federal law were clear; the federal government would remain the permanent owner of a vast amount of the land area of the United States.

During the same time that federal ownership became permanent, changes in forest land management also occurred. Alarmed by the decreasing forest cover, conservationists urged the federal government to protect this resource. At first private groups and local governments made some conservation efforts. Then in 1872 Congress responded with the creation of Yellowstone Park.

Professional forestry practices were introduced into the federal government's land management at the same time. Late in the 19th century the government hired an advisor to investigate consumption, imports and exports of timber; to estimate future supply and demand; and to review means of conservation and reforestation. The office of this first professional advisor subsequently grew into the U.S. Forest Service. The combination of the conservation motive and the withdrawal of lands from settlement and sale started the debate which still continues over the proper ways to conserve and use the National Forests and the natural resources they represent.

The changed posture of the federal government regarding land ownership and land management spurred another debate as well. At issue was the financial consequences on state and local governments of permanent federal ownership of land.

In 1896 a National Forest Commission, appointed by the Secretary of the Interior, recommended the creation of extensive forest reserves. President Cleveland acted on the recommendations by incorporating 21 million acres in 13 new reserves. A public uproar followed which indicated that, especially in the west, many had come to believe that permanent federal ownership had detrimental fiscal consequences on local governments. Some have argued that these adverse fiscal consequences are due to the tax immunity of federal land.

Doctrine of Tax Immunity

The U.S. Constitution does not explicitly mandate intergovernmental tax immunity. Rather, judicial precedent established the theory of dual sovereignty under which the federal and state governments enjoy immunity from the taxes levied by the other.[3]

The prohibition on taxation of federal instrumentalities by states originates with *McCulloch vs. Maryland* in 1819. Specifically, the issue in this case was whether Maryland had the constitutional authority to impose a tax on a bank chartered by Congress. The Supreme Court declared the tax unconstitutional. Chief Justice John Marshall wrote that "the power to tax involves the power to destroy.... If the states may tax one instrument, employed by the federal government in the execution of its powers, they may tax all the means employed by the government, to an excess which would defeat all the ends of government. This was not intended by the American people. They did not desire to make their government dependent on the states."[4]

Marshall's position was that the power to tax could infringe upon the authority of the federal government to act; thereby, making the government dependent upon the states. Such a situation would be contrary to the development of a federal system. Thus, he decided that states may *not* impose special and discriminatory taxes on federal instrumentalities; but may impose general and nondiscriminatory taxes.[5]

Subsequent opinions of the courts extended this tax prohibition to include all taxation by states of federal instrumentalities and all taxation by the federal government of state instrumentalities.[6] While recent court decisions have placed qualifications on the immunity doctrine, states have no authority to tax federal instrumentalities that Congress chooses to exempt.[7] In summary, the court's concern is over the power to tax the federal government without congressional consent.

The Call for Payments

Local officials persistently have sought legislation to ameliorate the alleged adverse consequences of federal land ownership. The legislation has been of two types: first, tax equivalency payments to be made by the federal government in the amount that would be forthcoming if the lands were subject to property taxes levied by the local taxing authorities; and second, receipt sharing among recipient governments of a percentage of revenues derived from resource sale on or use of public lands. Between 1908 and 1934 four major revenue sharing arrangements affecting federal land became law: (1) *National Forest Revenue Act (NFRA)*,—this 1908 law is the legal foundation for the program covered by this report, (2) *Mineral Leasing Act* (1920), (3) *Taylor Grazing Act* (1934), and

(4) *Revested Oregon and California Railroad Grants Lands* (1916) and *Reconveyed Coos Bay Wagon Road Grant Lands* (1919).[8]

In 1976 two major changes were made in the programs for federal land. One amended the NFRA and the other embodied a new concept applicable to most federal land. The older as well as newer provisions are described below.

National Forest Revenue Act, 1908

In May 1908 Congress adopted the NFRA. It provides that 25% of the National Forest receipts will be shared with the counties containing the forest land (the actual payment is made to the state, which must distribute the payment to the localities in which the forests are located). The funds are to be used by the recipient county for its roads and schools.[9] Some states determine the allocation between roads and schools, while others leave the allocation decision to the counties. Prior to 1976, two additional provisions of the law important to the federal receipts sharing program were: 10% of the receipts to be used by the Forest Service for roads and trails in the National Forests while the remaining 65% went into the U.S. Treasury; and, the Forest Service can require the purchaser of timber to dispose of slash and brush (or pay the Forest Service to do the job) *and* to deposit funds with the Forest Service so that it can remove trees and growth from the cut-over area and then reforest it. The latter are called K-V *(Knutson-Vandenberg Act)* funds.[10] (Because this law was a major influence on National Forests receipts it is explained in more detail after a review of the other legislation.)

Mineral Leasing Act, 1920 (MLA)

The *Mineral Leasing Act*, though similar to NFRA, returns a larger share of receipts than NFRA to the states where the revenue originated. Also, in a departure from previous legislation, MLA funds are used by the federal government to assist states with development of irrigation projects. MLA provides that: (1) 50% of the mineral leasing receipts be returned to the states of origin for use in road construction and school operations (this was raised from 37.5% in 1976); and (2) 10% be placed in the U.S. Treasury to cover administrative overhead. The remaining amount (40%) is directed to the Reclamation Fund for federal irrigation development projects.

Taylor Grazing Act, 1934 (TGA)

The *Taylor Grazing Act* offered a third approach to receipt sharing. The provisions are: (1) 50% of all grazing receipts go to the appropriate counties without restrictions as to use (counties usually spend the money for range improvement); (2) 25% is earmarked by the federal government for range improvements; and (3) 25% goes into the U.S. Treasury. When Congress amended TGA in 1947, the percentage distribution was varied by type of grazing land (e.g., grazing district, an isolated tract, and ceded Indian land). Regardless of the exact percentages, range improvement, roads, and schools are the beneficiaries of the TGA receipts.

Revested Oregon and California Lands, 1916 (O&C) and Coos Bay Wagon Road Grant Lands, 1916 (CBWR)

Two laws cover land that the federal government repossessed after transferring it to private ownership. Since the land once was privately owned, local jurisdictions had levied taxes on it. When the federal government regained ownership, it agreed to make payments in lieu of taxes *only* from revenues generated from the land.

The provisions for the O&C lands are: (1) 50% of the revenues are returned to the county without restrictions on use; (2) 25% of the revenues are set aside for road construction, tree planting, and the like; and (3) 25% of revenues go to the U.S. Treasury.

The two counties with CBWR land receive federal funds through a payment in lieu of taxes program, but it differs from the O&C program. Counties collect amounts equivalent to, and in lieu of, property taxes, up to a maximum of 75% of the revenue generated by the

Figure 1

CLASSIFICATION OF FEDERAL RECEIPT SHARING PROGRAMS BY PERCENT OF RECEIPTS PAID TO STATE OR LOCAL GOVERNMENTS AND USE OF PAYMENT

Percent of Federal Receipts	Use of Payment			
	Roads and Schools	**Schools**	**Counties and Roads**	**States**
5	Statutes Providing for Admission of New States into Union, 1802-1958			
25	National Forest Revenues Act, 1908		Revested Oregon and California RR Grant Lands, 1916	
	Bankhead Jones Farm Tenant Act, 1937			
	Migratory Bird Conservation Act, 1964			
	Klamath Wildlife Refuge Act, 1964			
33.5	Taylor Grazing Act, 1934			
37.5				Federal Power Act, 1920
50.0				Mineral Leasing Act, 1920
75	Army Corps of Engineers, 1941			
90				Mineral Leasing on State Selected Indemnity Lands, 1960
				Public Sales Act as Applied to Alaska, 1964
Variable		Arizona and New Mexico Enabling Act, 1910		Sale of Material from Federal Lands, 1947

SOURCE: EBS Management Consultants, Inc., *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands*, Washington, DC, Public Land Law Review Commission, July 1968.

property. The CBWR lands are assessed at least every ten years by a three-person group composed of a county assessor, a Department of Interior assessor, and an unaffiliated third person.

Amendment to the NFRA, 1976

In October 1976 a simple but significant amendment to the NFRA became law. Purchasers of timber had been required to make the initial outlays for the costs of many of the access roads required to harvest the timber.

Procedurally, was that the sale price of the timber was set on the assumption that there already was access. Before the purchasers actually paid for their purchases, however, they were given credit for the estimated costs of building the roads. As a result, the cash receipts to the federal government were less than they would have been by the amount of the costs of building access roads. Since the counties shared in cash receipts, this procedure deprived them of 25% of the costs of building access roads. The new law, P.L. 94-588, simply requires that 25% of the gross sale price will be shared with the counties. At this writing it is estimated that this provision will increase payments to counties by $60 million and reduce federal receipts by a like amount.

The Guaranteed Minimum Payment Law—Payments in Lieu of Taxes Act of 1976

Also in October 1976, Congress enacted a new payment law covering not only the Na-

Figure 2

CLASSIFICATION OF FEDERAL PAYMENT IN LIEU OF TAXES PROGRAMS BY TYPE AND BY RECIPIENT, 1976

Type	Counties	State and County	Schools	State
Tax Equivalency	Reconveyed Coos Bay Wagon Road Grant Lands, 1919	Tennessee Valley Authority, 1933	Educational Impact Grants, 1950	
	Designated Watersheds under the Department of Agriculture, 1944			
	Superior National Forest, 1948			
	Grand Teton National Park, 1950			
	Trinity River Basin Project, 1955			
Negotiated	St. Lawrence Seaway Act, 1954	Columbia River Basin Project, 1937		
Flat	Payments In Lieu of Taxes Act, 1976			Boulder Canyon Project, 1928

SOURCE: EBS Management Consultants, Inc., *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands*, Washington, DC, Public Land Law Review Commission, July 1968; and U.S. House of Representatives, Committee on Interior and Insular Affairs, *Payment in Lieu of Taxes Act*, Report to Accompany H.R. 9719, 94th Cong., 2d sess., Washington, DC, U.S. Government Printing Office, May 7, 1976.

tional Forest land but other open space federal land as well.

P.L. 94-565 provides that each county will receive an additional 10¢ per federally owned acre over the combined payment under all payment programs (including the *National Forest Revenue Act* program), or 75¢ per federally owned acre, whichever is greater. The 75¢ and 10¢ per acre standards are modified for counties with small populations by setting a maximum per capita payment. Forty-five population categories are established. For counties with populations under 5,000 the limit is $50 per capita. At the other extreme, the limit is $20 per capita for counties with populations over 50,000. No payment under P.L. 94-565 may exceed $1 million.

Other Payment Programs

Looking at the broad scope of federal land-related payment programs, there are currently 25 federal reimbursement programs that distribute money to state and local units which contain federal property. Of these, 21 are designed to compensate for the loss in potential tax revenue associated with tax exempt federal property and to provide additional revenues to state and local governments.[11]

The 25 programs are listed in *Figures 1* and *2*.[12] *Figure 1* sorts the revenue sharing programs by percent of revenue shared and by use of payment; *Figure 2* sorts the tax equivalency programs by determination of tax payment and by use of payment. In this table, programs are defined as "tax equivalency" if tax rate and valuation factors are part of the payment formula; virtually no program seeks to pay an amount exactly equivalent to a tax.

Three general conclusions can be drawn from these tables.

First, Congress is more willing to share receipts from federal land than to adopt a tax-like obligation. Fourteen of the 25 programs are receipt sharing rather than payment in lieu (this includes four of the five major programs).

Second, Congress is more inclined to favor payment for specific uses than for general uses. Ten of the programs direct the federal funds to roads and schools, while 15 send the money to states and counties without specifying the use of the funds, but in dollar terms, the specific use funds bulk far larger in amount than general use funds.

Third, receipt sharing reflects the partnership approach because the federal and local governments divide the revenues earned; the federal government most often shares receipts in the 25% to 50% range, although some shares are as little as 5% and some as much as 90%.

The Federal payment system *is* a patchwork of uncoordinated programs. Trees cut in three different counties could generate revenue under three different sharing formulas one or more of which may serve neither taxpayer equity nor the financial needs of the recipient jurisdictions.

State Compensation for State-Owned Property

The states themselves frequently hold extensive acreage including state forests. It is useful therefore to analyze what provisions states make for compensating a local government for substantial state-owned acreage.

ACIR surveyed the 50 states to determine their practices with respect to compensating local governments for the existence of state-owned property (*Table 2*). Financial payments are made to local governments based on one or more categories of state-owned land in 33 states. Local taxation of some state-owned property is allowed in 16 states. Fourteen states neither provide financial compensation nor allow local taxation.

When states adopt payment programs or allow local taxation, they seldom provide for full coverage of all state property. In most cases only a small, select category of property gives rise to a payment.

Payment Programs

State programs may be classified under four categories:

Table 2

STATE PAYMENTS FOR AND LOCAL TAXATION OF STATE PROPERTY, 1976

State	State Payment Program	Local Taxation Permitted[a]	State	State Payment Program	Local Taxation Permitted[a]
U.S. Total	33	16			
Alabama			Montana	X	
Alaska		NA	Nebraska		
Arizona			Nevada		X
Arkansas	X	X	New Hampshire	X	
California	X		New Jersey		X
Colorado	X		New Mexico		
Connecticut	X		New York	X	X
Delaware			North Carolina	X	X
Florida	X		North Dakota	X	
Georgia	X		Ohio	X	X
Hawaii			Oklahoma		
Idaho	X		Oregon	X	X
Illinois	X		Pennsylvania	X	
Indiana	X	NA	Rhode Island		
Iowa			South Carolina	X	
Kansas	X	X	South Dakota	X	
Kentucky			Tennessee		
Louisiana	X	NA	Texas	X	X
Maine			Utah	X	
Maryland	X		Vermont	X	X
Massachusetts	X		Virginia		X
Michigan	X	X	Washington	X	X
Minnesota	X	X	West Virginia		
Mississippi	X	NA	Wisconsin	X	X
Missouri	X	NA	Wyoming		X

[a]NA = No Answer.
Source: ACIR survey of the states, 1976.

Tax Equivalency—21 States. The broadest aid program of this type would set the payments to offset exactly the taxes that would be received from the property if it were in private ownership. Few if any state programs completely match this description; that is they do not attempt to pay a full tax equivalency. For purposes of this presentation, however, programs which use valuation and tax rate factors in determining the payment were placed in this category.

Receipt Sharing—18 States. Programs which return a portion of the receipts the state earns from its property.

Flat Per Acre Payment—Seven States. Programs which pay a fixed amount per acre of state land.

Other. Any other payment program.

A variety of property classifications are used to distinguish which properties entitle localities to payments. Distinguishing factors include the use of the property, the agency responsible for it, and the relative extent of

Table 3

State Programs To Compensate Local Governments for State Property, 1976

State	None	Tax Equivalency (TE)	Receipt Sharing (RS)	Flat Per Acre Amount (F/A)	Other (O)	FY 1975 Expenditure (dollars)[a]	Description of Eligible State Property
U.S. Total[b]	17	30	27	8	3		
Alabama	X						
Alaska	X						
Arizona	X						
Arkansas					X[c]	-0-	Forests (O)
California		X				NA	Lands acquired for forest purposes (TE)
			X				
		X				NA	Lands acquired for highway purposes (RS)
			X			NA	Lands acquired prior to 1949 for wildlife management purposes which produce income and after 1949 whether or not they produce income (TE)
						NA	Tidal and submerged land or lands on which mineral rights were reserved (RS)
Colorado			X			2,100	Forests (RS)
Connecticut		X				NA	All property except highways and bridges (TE)
Delaware	X						
Florida		X				NA	Some prison farm land in Bradford County (TE)
Georgia		X				60,000	All land in counties if in excess of 20,000 acres if that county receives no revenue directly from the land (TE)
Hawaii	X						
Idaho			X			NA	Land acquired for parks and forests (RS)
Illinois		X				76,500	University of Illinois property used for income producing purposes or leased to staff members (TE)

		X			102,700	All lands of Education Department (TE)
			X			
Indiana[d]					NA	Forests (RS)
Iowa	X					
Kansas		X[e]			29,100	Any type agreed to by a state agency (TE)
Kentucky	X					
Louisiana[d]			X		NA	Lands containing mineral leases (RS)
Maine	X				278,600	Land acquired for "Green Acres" and waterway programs (TE)
					860,000	State buildings in Trenton, New Brunswick, and Ewing Township (O)
Maryland			X		206,300	Forests, parks, scenic preserves, parkways, and recreation areas (RS)
Massachusetts		X			14,555,800	All property (TE)
Michigan				X	4,300	Lands controlled by the State Military Board (F/A)
			X		NA	Department of Natural Resource land when sold (RS)
				X	1,750,000	State tax homestead, swamp lands, and lands under Department of Natural Resources control (F/A)
		X			-0-	Lands deeded to United States for Sleeping Bear Dunes National Lakeshore (TE)
		X			-0-	Lands dedicated as wilderness, wild or natural areas under control of Department of Natural Resources (TE)
Minnesota					139,000	Game and fish lands (RS)
			X		99,800	Forest lands (RS)
			X		218,700	Conservation area lands (RS)
			X		NA	All land administered by the Natural Resource Department (F/A)
				X		
					794,500	Lands held in trust due to tax forfitures (RS)
			X			
Mississippi[d]			X		NA	Parks and forests (RS)
Missouri[d]				X	NA	Forest cropland (F/A)
Montana			X		NA	Acquired forest land (RS)
				X	NA	Grazing land if more than 6% of County area (F/A)
Nebraska	X					
Nevada	X					

Table 3 (cont.)

State Programs To Compensate Local Governments for State Property, 1976

State	None	Tax Equivalency (TE)	Receipt Sharing (RS)	Flat Per Acre Amount (F/A)	Other (O)	FY 1975 Expenditure (dollars)[a]	Description of Eligible State Property
New Hampshire		X				NA	Acquired land for parks and recreation (TE)
			X				
		X				NA	Forest land (RS)
						NA	Forest land (TE)
New Jersey		X				NA	Land acquired by Port of New York Authority (TE)
				X			
						23,500	Some land acquired by Board of Conservation and Development (F/A)
		X					
		X				63,000	Some land owned by Palisades, Interstate Park Commission (TE)
		X				19,500	Some land acquired for Round Valley Reservation and Spruce Run Reservation (TE)
					X		
New Mexico	X						
New York		X				NA	Land in cities of 75,000 or more if value is over 25% of city total (TE)
North Carolina			X			NA	Lands donated for forests or parks (RS)
			X				
						NA	Timberland (RS)
North Dakota			X			NA	Acquired forest lands (RS)
	X					NA	Land under the control of Commissioner of Fish and Game (TE)
Ohio			X			NA	Land adjacent to certain lakes (RS)
	X					NA	Land held by the Division of Wildlife (TE)
			X				
						NA	Forests (RS)
Oklahoma	X						
Oregon			X			5,255,100	Forest land (RS)
		X				111,800	Lands under the control of the Game Commissioner (TE)
Pennsylvania		X				NA	Acquired lands for flood control (TE)
		X				NA	Acquired lands for recreation, conservation and historical purposes (TE)
				X		NA	Forests (F/A)

Rhode Island		X				76,100	Reservoir land acquired by State Water Resources Board when in excess of 25% of value of all real property (Big River and Wood River Reservoir land) (TE)[f]
South Carolina				X		NA	Forest lands and park lands (RS)
		X				NA	Public Service Authority lands acquired before 1950 (TE)
				X		NA	Forestry Commission lands (RS)
South Dakota		X				NA	Lands lying outside of incorporations under Board of Charities and Corrections and Board of Regents (TE)
		X				NA	School land (TE)
Tennessee	X						
Texas	X						
Utah		X				300	Land managed by Wildlife Division (TE)
Vermont			X			NA	Forests and parks (RS)
Virginia	X						
Washington			X			6,113,000	Forests (RS)
			X			261,500	Harbor areas and tidelands within an established port district (RS)
		X				119,500	Game lands over 100 acres (TE)
			X			NA	Forests and parks (RS)
					X	NA	Agency or institution land (O)[g]
West Virginia	X						
Wisconsin					X	273,100	Forest, hunting and fishing grounds (F/A)
		X				3,749,950	State buildings if a significant portion of total values (TE)
Wyoming	X						

a NA = No Answer.

b The number of programs rather than the number of states with programs are totaled. The text summarizes the number of states which have the various types of programs.

c Program authorization exists, but no payments have ever been made.

d These states did not complete the ACIR survey. Information for this report is taken from a 1967 survey conducted for the Public Land Law Review Commission.

e Voluntary agreements rather than formula bases for calculating payments.

f Declining payments over 25 years beginning in 1963.

g Payments made to fire districts only.

SOURCE. ACIR survey of the states, 1976; and EBS Management Consultants, Inc., *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands.* Washington, DC, Public Land Law Review Commission, July 1968.

the property in a locality. *Table 3* shows the programs by state and indicates the types of property included in each program. Property types include state parks and forests, wilderness areas, highway access, and recreation sites.

Local Taxation

The same kind of distinguishing features used in payment programs are employed to determine which state property may be taxed. Sixteen states permit some local taxation of state property. Five states subject state forests (as a separate category) to local taxation, four of the five also single out state parks. *Table 4* describes the categories of state property that local governments may tax, and shows additional information about local taxation of state property.

In general all county, school district, and municipal governments may tax when local taxation is allowed. In Arkansas and Minnesota, however, only the county may tax; Nevada excludes special districts from taxing authority; New Hampshire, Vermont and Virginia allow only school districts to tax two of the three types of taxable state property.

When states allow localities to tax state property they usually have permitted the local authorities to assess the property. Only Michigan and New York place assessing responsibility for state property at the state level.

In subjecting state property to local assessment, the state usually requires that its property be assessed at the same level as comparable private property. Arkansas, Vermont and Virginia, however, put some restrictions on the assessment level that may be used.

FEDERAL GOVERNMENT PROGRAMS IN CANADA

Both the federal and provincial governments have programs to compensate local governments for services to public property.[13] Since 1950, the federal government has made grant payments to local governments on nationally owned real property. The British North America Act, Canada's counterpart to the U.S. Constitution, provides for intergovernmental tax immunity. In 1950 the Canadian federal government began making payments to local governments in lieu of property taxes under an Order in Council which was the forerunner to the current law, the Municipal Grants Act. At first, local governments were eligible only if the value of the federal property equaled at least 4% of the total value of the federal and locally taxable property. In 1955 this threshold was lowered to 2% and in 1957 it was removed. The basic concept that lay behind the grant system was that the tax exempt status of the federal property caused a financial burden to the locality since local government services were required by the federal property.

The Program

The grant in lieu program applies to a very wide variety of government real property holdings including office buildings, post offices, research laboratories, defense establishments, harbour properties, airports, experimental farms, penitentiaries, fish hatcheries, police detachments, military hospitals and vacant land. The payments are limited to real property, but this restriction is not important since personal property taxes are virtually nonexistent in Canada. In the 1977-78 fiscal year, it is estimated that total payments under the Municipal Grants Program will be $111.5 million. Total revenues of local governments in Canada from property taxes are approximately $6 billion.

The program may be outlined as follows:

Grants Rather Than Taxes. The Municipal Grants Act does not admit a tax paying responsibility of the federal government; the law is careful to define the payments as discretionary grants rather than as taxes. In accordance with this legal concept, municipalities must submit annual applications for the grants.

Tax Equivalency With Exclusions and Limitations. The spirit of the law is to make payments in lieu of taxes. The payments, however, do not necessarily represent full tax equivalency. Certain types of government-

owned property are excluded from coverage under the act. Most properties are eligible for grants but even in these cases the payments may be less than a full tax equivalency.

Excluded properties. The categories of excluded properties are:

1. Exempt are undertakings for the conservation, irrigation, reclamation, rehabilitation, or reforestation of land.

2. Parks, monuments, museums, Indian land reserves are also excluded.

3. Improvements not designed to shelter people, plant, or moveable property are not included. Examples include wharves, retaining walls, and aircraft runways.

4. Buildings, other than family housing at defense establishments, but only if the establishment is largely self-sufficient regarding public services. Grants are paid on all land at such bases.

5. The value of the private interests on the federal property that a municipality *could* tax are excluded regardless of whether the municipality actually taxes the private interests. For example, the value of property leased to tenants who are taxable in respect to their occupancy is deducted from the value of the federal property in computing the grant. Canadian provinces empower their municipalities to tax private occupants of government properties, that is, occupants with leasehold interest, and such properties are therefore excluded from grants.

6. Buildings and lands associated with the Houses of Parliament are excluded from the regular grant program. Instead special annual grants are made to Ottawa as reasonable compensation for services provided by the host city.

7. Government enterprises, known as "Crown Corporations", numbering about 55 and including the National Railways and Air Canada, are excluded from the Municipal Grants Act. They, however, pay grants (or actual taxes in a few cases where intergovernmental immunity does not apply) to local governments under separate legislation.

Adjustments to Full Tax Equivalency for Included Properties. For those categories of federal property subject to grant, the grant may be based upon a tax rate which is less than the full tax rate if the federal government provides local services at its own expense. Reduced rates apply mainly to defense properties.

Eligibility. The program covers independent taxing jurisdictions providing local government services. Thus, more than one taxing authority may receive grants for the same federal property. This occurs most often in Quebec where school commissions are empowered to levy and collect school taxes. In all, approximately 2,500 taxing authorities are beneficiaries of the grant program. This includes almost one-half of the total number of municipalities in Canada.

There are some situations in which the provinces levy property taxes to finance the cost of services usually provided by municipalities and in these cases the provinces become eligible to receive federal payments. Typically this occurs in the areas with no real local government, or where provinces have taken over complete responsibility for school financing (New Brunswick and Prince Edward Island). In 1975-76, $2.7 million of the $79.4 million total was distributed to three provinces and to the Yukon and Northwest Territories.

Administration

The Municipal Grants Division of the Canadian Department of Finance administers the program with a professional staff of 18. The administrative task is set in motion by the annual application process. In applying for a grant, each municipality submits the assessed value of each federal property and provides information concerning total taxable property assessments, the municipal budget, and tax rate. If there is any reason

Table 4

LOCAL TAXATION OF STATE-OWNED PROPERTY, 1976

State	Local Taxation Permitted In Some Cases[a]	Jurisdictions Which May Tax State Property				State or Local Assessment		Assessed At The Same Level as Other Property		Type of State Property Subject to Local Taxation		
		County	Municipality	School	Special District	State	Local	Yes	No	Forests	Parks	Other
U.S. Total	16	13	11	8	6	2	14	12	4	5	4	
Alabama												
Alaska	NA											
Arizona												
Arkansas	X	X					X		X	X		
California												
Colorado												
Connecticut												
Delaware												
Florida												
Georgia												
Hawaii												
Idaho												
Illinois												
Indiana	NA											
Iowa								X		X	X	
Kansas	X	X	X	X	X		X					Land leased for agricultural production
Kentucky												
Louisiana	NA											
Maine												
Maryland												
Massachusetts								X				
Michigan	X	X	X	X	X	X		X[b]				Game farm
Minnesota	X	X					X					Acquired game lands
Mississippi	NA											
Missouri	NA											
Montana												
Nebraska								X				
Nevada	X	X	X	X			X					a. Fish and game property if subject to taxation when acquired b. The portion of the value of property in excess of 17% of other property (only Carson City qualifies)

[a] NA = No Answer.

[b] State officials believe, but do not know, that state land is assessed at the same level as privately owned land.

[c] The assessed value at time of acquisition is taxable.

[d] Only some parks may be taxed.

[e] Only in extremely unusual circumstances.

[f] School districts may tax property type (1) but not type (2).

[g] Certain service charges only. Few localities use this provision.

[h] Only school districts may tax property types (1) and (3), all jurisdictions may tax type (2).

Source: ACIR survey of the states, 1976.

Table 4 (cont.)

LOCAL TAXATION OF STATE-OWNED PROPERTY, 1976

State	Local Taxation Permitted In Some Cases[a]	Jurisdictions Which May Tax State Property				State or Local Assessment		Assessed At The Same Level as Other Property		Type of State Property Subject to Local Taxation		
		County	Municipality	School	Special District	State	Local	Yes	No	Forests	Parks	Other
New Hampshire												
New Jersey	x		x				x		x			Those lands exceeding 9% of the aggregate in a municipality
New Mexico												
New York	x	x	x	x	x	x		x	x	x[d]		
North Carolina	x	x	x				x	x				Properties devoted to other than predominant public purpose
North Dakota								x				
Ohio	x[c]	x	x	x	x		x	x	x	x		Highways
Oklahoma												
Oregon	x	x	x	x	x		x					Property leased or held by a person whose real property, if any, is subject to ad valorem taxation and to municipal charges
Pennsylvania												
Rhode Island												
South Carolina												
South Dakota	x											
Tennessee												
Texas	x	x		x[e]			x					
								x				1. Farms using convict labor
Utah												
Vermont	x		x				x					
Virginia	x	x	x				x					2. University of Texas endowment land not used by the university
Washington	x	x					x					
West Virginia												
Wisconsin	x	x	x	x	x		x					
Wyoming	x											All[g]
							x		x	x	x	Game lands
								x	x			
								x				1. Residential property held by educational institutions
												2. Property held by the investment board
								x				3. Agricultural land Game and fish

for federal officials to believe that the assessed values might be out of line with those for taxable properties, a field visit is made to the municipality by one of the federal appraisers. The principal purpose of such a visit is to obtain information (which is kept in strict confidence) about the values of taxable buildings in the municipality. Where it is felt that federal properties are valued in excess of the values of other comparable properties every effort is made to reach agreement with the local assessor. The final decision for determination of values upon which the grants are paid, however, rests with the federal government.

No hearing or appeal procedure is provided. This is consistent with the concept of the law that no right of taxation is conferred to the local jurisdictions by the act and that the payments are grants. The Municipal Grants Division considers it very important, however, to maintain close working relationships with municipal and provincial officials. With such relationships the central staff can be kept small. If the program provided for formal adversary proceedings, federal officials believe that its administration would become much more complex and that the cost of processing payments would increase greatly.

Much of the time of the small staff is devoted to on-site inspections with particular attention to valuing new federal construction and property acquisitions, and to reassessing existing facilities to new base levels established by municipalities. Federal property in approximately 350 municipalities is inspected each year.

PROVINCIAL GOVERNMENT PROGRAMS IN CANADA

The provinces have addressed the problems caused by their owning tax exempt land by adopting payment programs and in some cases by permitting local governments to tax provincial property. The categories that usually remain exempt include legislative buildings, parks, vacant land, conservation and reforestation areas, and highway lands. Most of the extensive provincially owned timber land is not eligible for payments since the provinces provide the local services to most areas outside of incorporation.

The provincial governments pay grants to compensate for their tax exempt property. In 1976, the grants amounted to $23.9 million on $1.5 billion of assessed value. (Complete information on assessed values or grants in lieu was not available for Alberta, Northwest Territory, Ontario, Nova Scotia, Prince Edward Island, or Newfoundland.)

Each of Canada's ten provinces and two territories has a compensation program for public lands. Nine reimburse municipal governments for provincial lands through a tax equivalency formula, while three make payments that are not based on the assessed or market value of the public land. *Table 5* shows the current payment in lieu programs and the municipal taxation practices of the Canadian provincial and territorial governments with respect to their property. Four of the ten provinces permit municipal taxation of some of their property.

A REVIEW OF STUDIES ON COMPENSATION FOR FEDERAL LAND

Because the question of compensating for the fiscal consequences of permanent federal ownership of vast amounts of land has been alive in Congress for so long, there have been several formal studies of the issues involved and of alternative compensation policies. Each dealt with the broad question of federal tax immunity concerning nearly all forms of federal property ownership.

The intergovernmental effects of federal property ownership have been a major subject of five studies. The conclusions and recommendations of each are recounted in this section to enable the reader to review them in detail.

Federal Real Estate Board[14]

This group was created to analyze the fiscal problems associated with federal acquisitions of land. According to the Executive Order creating the board, "The Federal Real Estate Board shall study, and make appropriate recommendations regarding, the situation in different communities adversely affected by the loss of tax revenue on land pur-

Table 5

CANADIAN PROVINCIAL GOVERNMENT TAX AND GRANT PRACTICES ON PUBLIC LANDS, 1976

Province	Taxation of Provincial Property Permitted	In Lieu of Tax Payment	
		Tax Equivalency	Other
Alberta	X	X	
British Columbia			X
Manitoba		X	
New Brunswick	X	X	
Newfoundland		X	
Northwest Territory		X	
Nova Scotia			X
Ontario	X	X	
Prince Edward Island	X	X	
Quebec			X
Saskatchewan		X	
Yukon Territory		X	
Total	4	9	3

SOURCE: Provincial Directors of Assessment, *A Report Prepared for the 1976 Conference of Ministers of Municipal Affairs*, New Brunswick, Canada, Provincial Directors of Assessment, 1976.

chased or acquired by the federal government" (E.O. 8034 January 14, 1939).

The board also considered the effects of the federal ownership of public domain land, land that never has been privately owned. Representatives of nine federal agencies formed the board membership.

The report published in 1943 sets out some general principles that should guide the federal government's responsibility concerning all categories of land ownership and then separately examines the categories, one of which includes the National Forest land. The problem caused by federal ownership is related to the tax exempt status of the federal property according to the report. The study first considers whether the proper federal role should be to make tax equivalency payments for its property. In rejecting this approach, the report makes several points. One is that special services are given locally by the federal government, such as fire protection, watershed protection, and road construction. The report also observes that some federal land requires less than the normal level of public services. Finally, with respect to administration, the report foresaw difficulties with valuing land and accounting for varying tax practices among the states.

The study adopted four general principles by which the payment programs may be formulated.

1. Each class of real estate, according to the general character of its use, should be considered separately. In view of the variety of conditions under which federal real estate is held and operated, no blanket formula could possibly bring about the desired balance between the local and federal interest.

2. The amount of the federal contribution should take into consideration the extent of actual tax loss, the benefits to the local community from federal ownership, and the effect of federal ownership on requirements for services of state and local governments. A related factor in special cases may be the revenue producing character of the property.

3. Where the determination of the actual tax loss and other factors with respect to each taxing district concerned is difficult or impossible, and where the real estate in question is revenue producing, contribution on a receipts sharing basis is a practicable alternative. The portion of receipts to be contributed in support of state and local government in such cases should be so determined as to achieve on the average an approximate balance between tax losses on account of federal exemption on the one hand and cash contributions and other benefits connected with federal ownership of the particular class of real estate on the other, taking into account also any changes in requirements for local governmental services.

4. Federal contributions ought not be made to specific local jurisdictions in such a way as to impede reforms in the organization and functioning of local government. Accordingly, such contributions should be payable to the successors of existing units resulting from consolidations or reorganizations, or to equivalent administrative subdivisions under direct state operation like the "unorganized territory" of northern Maine.

In the section concerning forest land, the study considered six criticisms of the payment system:

1) the wide fluctuation from year to year in the amounts paid to individual counties;

2) the distribution of the receipts earned in each forest among the counties on an acreage basis;

3) the difference between payments and taxes lost;

4) the fact that when the forest acquires land by trading rather than purchasing, the revenues from the acquired land are not subject to the 25% sharing provision;

5) the restriction on the use of the money —roads and schools may not be the best use of the funds in all counties; and

6) the lack of consistency between the payment dates in several related programs.

To achieve stability in the level of payments the board recommended the use of a moving five-year average; that is paying counties 25% of the average receipts over the past five years. Regarding the second objection, the board concluded that it was inequitable to allow the counties with less productive land within a National Forest to share in receipts earned from more productive land elsewhere in the forest. The inequity cited was that if the land were privately owned the counties with less productive land would receive less tax income. To correct the inequity, it was recommended that the sharable receipts be apportioned among counties within a forest based on the relative value of standing timber each county contains.

On the question of the adequacy of payments, the study made a distinction between public domain land and acquired land. The report observes that public domain land has never been taxed, and that "the whole structure of local government has been built around these lands without the benefit of such taxes." The report implies that the taxes that could be earned from this land should not be considered as actual lost taxes. The study concluded that there is no reason to increase the level of payment with respect to lands from the public domain.

Federal acquisition of privately owned land, however, causes a subtraction from the tax base and deserves different treatment, according to the study. Since much of the forest land the government was acquiring at the time was recently cutover, there was often little revenue to be shared under the 25% provision. Accordingly, for this problem the board recommended that a partial tax equivalency payment be made for a limited number of years. The recommended procedure would calculate the payment by multiplying two-thirds of the average rural tax rate by the value of the acquired land. Two-thirds rather than a full tax equivalency was justified by

the fact that federal ownership brought immediate benefits to the community, especially liquidation of tax delinquency. The recommended temporary nature of the tax equivalency was related to the fact that under federal management, the acquired cutover forests would become productive and there would be receipts to share. When the forests become fully productive a tax equivalency payment is no longer justified, according to the study. This same procedure should be employed to respond to the fourth objection described above; that land acquired through trading did not pay 25% of the revenues it earned.

Regarding the restriction of the use of the funds to roads and schools, the report concluded that the procedure is inequitable. In some cases, better use of the funds could be made if they were devoted to other public purposes.

The last objection to which the board responded was the lack of consistency in payment dates. The board simply recommended that the dates be made consistent.

Hoover Commission—Council of State Governments[15]

The Commission on Organization of the Executive Branch of Government (Hoover Commission) reviewed federal-state relations but did not address the federal land question. However, the commission contracted with the Council of State Governments (CSG) for a study which included a section on tax immunity. The review was forwarded directly to Congress in March 1949.

The CSG report noted that the debate on the effects of tax immunity was difficult to settle for several reasons.

1. While federal ownership restricts the tax base, the argument is also made that if a substantial portion of federal land were available to the private market there would be a substantial decrease in the value of similar land already in private ownership. Divestiture of federal land might result in only a slight net gain in values.

2. The net gain in local revenues might be offset by the costs to local governments of extending public services to land coming into private ownership.

3. Because most federal public domain never has been available for local taxation there is a question whether its present status has had any adverse local tax impact.

4. Some of the federally owned land would be exempt in any case, because it would be owned by states and localities for use as parks, watershed and the like.

CSG concluded that further action dealing with the effects of tax immunity could be expedited only if officials of the states and the national government would agree on basic principles. CSG noted that many major philosophical issues remained unresolved.

Bureau of the Budget Recommendations[16]

In April 1949, officials of federal, state and local governments met for a conference on intergovernmental fiscal relations. At the conference the Bureau of the Budget was asked to develop comprehensive recommendations on the subject of payments to state and local governments which have had property removed from the tax base because of acquisitions by the federal government. The bureau made its recommendations in August 1951, in the form of a bill and an accompanying report explaining its recommendations, Executive Communication No. 722. Several kinds of federal property were excluded from consideration. Property that would not qualify for payments under the bill included all public domain land and any other real property that was acquired before 1946 or some other specified date. Accordingly, the recommendations would have affected only a small fraction of National Forest land.

For the property included, the bill establishes a series of classifications which divide the property according to its use. Administratively determined payments would be made for three groups of property: (1) properties serving broad national or regional purposes;

(2) resettlement and certain defense housing projects; and (3) other property upon which payments being made according to other programs were phased out. The payments would be based on a tax equivalency adjusted for the services provided to or furnished by the federal government. Special payments for cases in which the federal ownership caused a hardship were also provided for in this bill.

Two groups of properties were exempted from payments: (1) properties used for purposes that would make them exempt from taxes in private ownership; and (2) properties used primarily for services to the local public. Finally, there were three groups of properties for which consent to local taxation was given: (1) properties held pending the disposition of certain business transactions; (2) properties leased or sold to private persons under conditional sale contracts; and (3) properties already subject to taxation which the owning agency decided should continue to be subject to taxation.

Commission on Intergovernmental Relations (Kestnbaum Commission)[17]

The Kestnbaum Commission was established in 1953 and reported in 1955. Its report concludes that the tax immunity of federally owned property has reduced the tax base of many communities with a particularly severe impact in communities where the federal property is a large portion of total property. The commission's recommendations did not directly address the matter of National Forests. The commission referred to the report of its Study Committee on Payments in Lieu of Taxes and Shared Revenues and stated that this report provides a sound basis for Congress to develop a program. Accordingly, the committee's report is reviewed here.

The committee's report considers two broad categories of federal properties; those for which shared revenue payments are made and those for which there are no such payments. Since the eight detailed recommendations made concerning the latter category do not affect the National Forests, they are not summarized here except to say that the framework for establishing the recommendations was the property tax system but that a simple tax equivalency approach was rejected due to (a) the diverse nature of the property, (b) the fact that the federal government "self-serviced" some of its property, and (c) the varying impacts of tax equivalency payments upon the local tax base.

Turning to the matter of the National Forests the committee concluded, "the present revenue sharing arrangements on national forests are operating to general satisfaction." The present arrangements were found to be particularly satisfactory with respect to the vast area of lands from the public domain.

The four recommendations made by the committee respond to the problem areas the committee's study uncovered:

1. The proposal to calculate the payments based on a five-year moving average was designed to provide greater stability in the payments and would facilitate budgeting by the counties.

2. The recommendation to include the value of the timber traded away in calculating payments was intended to achieve greater equity. If the federal government trades timber for land, the land is received instead of cash. On the other hand when the timber is sold for cash, the receipts are sharable. Fair treatment required that the value of the traded timber should be sharable.

3. The committee recommended eliminating the restrictions that the funds be used only for roads and schools which would allow communities to meet locally determined needs and enhance the powers of self-government.

4. Acquired lands should receive in lieu of tax payments for a period of time (ten years) because the acquisitions result in an actual decrease in taxes to the jurisdictions which contain the land. The amount of the payment in the first two years should be based on the average tax rate in effect in the community in the two preceding years. Thereafter the pay-

ments should decline by increments of two-fifths of the original amount every two years.

Public Land Law Review Commission (PLLRC)[18]

In its 1970 report, *One Third of the Nation's Land*, the Public Land Law Review Commission included recommendations for federal compensation for the tax immunity of federal land. The 19-member bipartisan commission studied a wide range of issues concerning all kinds of federal ownership, excluding only Indian Reservations. Their report did not contain a separate section for National Forest land. The PLLRC's major recommendations are summarized in the following ten points.

1. The federal government should make payments to compensate state and local governments for the tax immunity of federal lands. This position was related to a larger goal that the burden of federal ownership should be spread among all the people of the United States rather than borne by those states and local governments in whose area the lands are located.

2. Payments should not attempt, however, to provide full equivalency with ad valorem tax revenues that would be received if the property were in private ownership. A discount of 10% to 40% should be applied to a full tax equivalency to recognize that federal ownership also provides benefits. A general discount rather than an exact calculation was recommended because the Commission concluded that those benefits cannot be measured with precision. Discounted equivalency payments are preferable to receipts sharing, since receipts bear no relationship to the fiscal burdens associated with federal ownership.

3. A discount also should be made in payments to communities whose tax effort is below the national average. This would avoid shifting the cost of local government to the federal government.

4. The payments should be made to states and the states should distribute the payments to local units of government according to criteria and formulae they establish. The proper role for the federal government is to deal directly and solely with the states and the federal government should not take a position on how the states distribute the funds.

5. The compensation formula should not distinguish between public domain lands and acquired lands. Although most of the previous reports thought that this distinction was important, the PLLRC did not explain why they rejected it.

6. The federal payments should not be earmarked for roads and schools.

7. The General Services Administration should be given responsibility for the valuations which should be made every 5-10 years, but with annual adjustments based on estimates. The value of improvements should be excluded in calculating a tax equivalency. The report did not deal with the conceptual and technical problems of valuation that concerned some of the other studies.

8. The tax equivalency payments adjusted by 10-40% would not be appropriate for all situations. Accordingly, a method for further adjustments for cases of extraordinary burdens or benefits should be adopted.

9. State and local governments were encouraged to tax private possessory interests on federal land. The report observed that taxing the private interest on public land would afford state and local governments a significant opportunity to supplement conventional property tax income.

10. Finally, the report recommended that changes from the current level of payments to a new level be phased in over a period of years.

SUMMARY

As the permanence and magnitude of federal land ownership became clear, claims that local jurisdictions were adversely affected multiplied. The dominant theme advanced to support the claims has been the argument that the tax immunity which accompanies federal land ownership causes a loss of taxes. Other adverse financial impacts have been cited as well.

The legislative response to the complaint of lost taxes by and large has been to enact receipt sharing measures. Only in the case of the program for the Coos Bay Wagon Road Grant Lands have payments been based on a calculation of a tax equivalency. The 1976 law, *The Payment in Lieu of Taxes Act*, introduced a new concept, that of a guaranteed minimum payment. Since the Congress was presented with a variety of claims of adverse effects and neither the legislation nor the committee report specify the purpose, it cannot be concluded whether the basis for the minimum is lost taxes or any other particular claim of adverse impact.

The five major studies which directly or indirectly are related to the National Forest land questions offer valuable insights into how the issue has been evaluated in the past. Two considerations appear in all the reports: the tax equivalency philosophy and the matter of direct costs and benefits of federal ownership. All of the reports adopted "lost taxes" as at least part of the definition of the problem. None of the reports, however, recommended that the federal responsibility should be simply to pay for lost taxes. Rather, a variety of direct costs and benefits of federal ownership should play a strong role in determining payments.

Except for the PLLRC all of the studies concluded that the duration of federal ownership, especially the distinction between public domain land and acquired land, should weigh heavily in the determination of the size of the federal payments. By and large the distinction was based on the argument that over time, economic and fiscal conditions adjust to the presence of federal land. Consequently the definition of lost taxes in the first four studies was the actual loss of tax revenues the local governments had had. The PLLRC shifted the definition to the foregoing of potential taxes that might be derived from the federal land. Unfortunately, the PLLRC report offers no explanation for its rejection of the concept that the federal ownership of the public domain land might be seen as having an impact different from the ownership of recently acquired land.

The CSG report contained no recommendations concerning payments on account of federal properties. But the other groups all recommended that there be some program of payments based on federal ownership and use of real properties within their boundaries. Each report called for some flexibility for hardship cases and, except for the PLLRC report, suggested exemptions and exclusions from payments based on a classification of the property according to use. None of the reports proposed to subject federal land to ordinary ad valorem taxation.

FOOTNOTES

[1]Glen O. Robinson, *The Forest Service*, Baltimore, MD, Johns Hopkins University Press, 1975, pp. 2-3.

[2]*Ibid*, footnote 2, p. 16.

[3]Harold M. Groves and Robert L. Bish, *Financing Government*, New York, NY, Holt, Rinehart and Winston, Inc., 1973, pp. 330-36.

[4]John M. Dillion, *John Marshall, Complete Constitutional Decisions*, Chicago, IL, Callaghan & Company, 1903, pp. 252-92, esp. p. 288.

[5]*Ibid.*, p. 292.

[6]For a development of these limitations, see: (1) Non Reciprocal Immunity—*South Carolina vs. United States*, 199 U.S. 437 (1905), *State of New York vs. United States*, 326 U.S. 572 (1945); (2) Tax on Special Contract Work for the Government—*Metcalf and Eddy vs. Mitchell*, 269 U.S. 514 (1925); (3) Tax on Government if Indirect Burden—*Fox Film Co. vs. Doyal*, 286 U.S. 123 (1932); *Wilcuts vs. Bunn*, 282 U.S. 480 (1933); and (4) Permit Nondiscriminatory Tax—*Helvering vs. Gerhardt*, 304 U.S. 405 (1938).

[7]*Federal Land Bank vs. Bismarck Lumber Co.*, 314 U.S. 95 (1945).

[8]For a more detailed history from which this is drawn, see Marion Clawson, *Uncle Sam's Acres*, New York, NY, Dodd, Mead, and Company, 1951, pp. 341-47; and Marion Clawson and Burnell Held, *The Federal Lands*, Baltimore, MD, Johns Hopkins University Press, 1957, pp. 233-47.

[9]Twenty-five percent is an arbitrary figure. Some fav-

ored 10%; others felt that was "too low." Thus 25% emerged as an acceptable figure for the Congress in 1908.

[10]This allows funds which are derived from the federal lands to be spent on those lands automatically.

[11]Marion Clawson, *op. cit.*, p. 345.

[12] The rationale for the remaining four programs is unclear. Also, another program is omitted since the federal government never has made a payment under its authority. It is the "General Services Administration-Surplus Property Program," 40 U.S.C. 490 (1964). See EBS Management Consultants, Inc., *Revenue Sharing and Payments in Lieu of Taxes on the Public Land,* Vol. II, Washington, DC, Public Land Law Review Commission, July 1968.

[13]Five publications summarize Canadian property tax exemption practices. They are: Lewis H. Greensword, "Grant in Lieu of Taxes on Federal Property;" *International Property Assessment Administration 8: Proceedings of the Forty-First International Conference on Assessment Administration,* Chicago, International Association of Assessing Offices, 1976; Lionel D. Feldman Consulting Ltd., *Inventory and Analysis of Tax Exempt Real Property Legislation in Canada,* Prepared in Cooperation with the Intergovernmental Committee on Urban and Regional Research, for the Conference of Ministers of Municipal Affairs, March 15, 1973; *A Canadian Approach to Minimizing Real Property Tax Exemptions.* (Prepared for the Conference of Ministers of Municipal Affairs, August 1974); *Definition of Real Property for Assessment of Taxation Purposes.* (Prepared for the 1975 Conference of Ministers of Municipal Affairs, August 18, 1975); and *A Report Prepared for the 1976 Conference of Municipal Affairs*, August 16, 1976.

[14] Federal Real Estate Board, Report to the President, Federal Contributions to State and Local Governmental Units with respect to Federally Owned Real Estate; 78th Congress, 1st sess., House document 216, 1943. Also in 1943, the Treasury Department submitted a report on Federal, State, and Local Government Fiscal Relations (in response to a Senate resolution). The report includes recommendations generally similar to those of the Federal Real Estate Board and an examination of intergovernmental tax immunities and payments-in-lieu-of-taxes. It was published as Federal, State, and Local Government Fiscal Relations: Letter from the Acting Secretary of the Treasury transmitting . . . a report; 78th Congress, 1st sess., Senate document 69, June 1943. See pp. 24-26 for recommendations and pp. 269-96 for the analysis.

[15]U.S. Commission on Organization of the Executive Branch of the Government, Washington, DC, U.S. Government Printing Office, 1949; and Council of State Governments, *Federal-State Relations,* A Report of the Commission on Organization of the Executive Branch of the Government, Washington, DC, U.S. Government Printing Office, 1949, pp. 111-25.

[16]U.S. Bureau of the Budget, Executive Communication No. 722, Regarding Payments in Lieu of Taxes. Draft of bill and accompanying report submitted to the House of Representatives by F. J. Lawton, Director, August 16, 1951, Washington, DC, U.S. Government Printing Office, 1951.

[17] *Payments in Lieu of Taxes and Shared Revenues,* a study committee report submitted to the Commission on Intergovernmental Relations, Meyer Kestnbaum, Chairman, Washington, DC, U.S. Government Printing Office, 1955, pp. 6-10, 12-13, and 93-107.

[18] Public Land Law Review Commission, *One Third of the Nation's Land, A Report to the President and to the Congress by the Public Land Law Review Commission,* Washington, DC, U.S. Government Printing Office, 1970, pp. 235-41.

CHAPTER III

Publicly Owned Property and Federal Intergovernmental Responsibility

One-third of the land area of the 50 states or 762 million acres is federally owned. The Bureau of Land Management, Department of the Interior, has exclusive responsibility for 60% of the federal lands or 448 million acres. The National Forest lands under the supervision of the Forest Service, Department of Agriculture, constitute another 24% of federal lands, or 187 million acres. Five western states—Alaska, California, Idaho, Montana and Oregon contain approximately 50% of the National Forest acreage although 45 states, Puerto Rico, and the Virgin Islands contain National Forest land.[1]

This chapter covers two intergovernmental aspects of public lands: first, the fiscal impact of federal property ownership on governments; and second, competing rationales which support differing programs to compensate for federal land ownership.

FISCAL IMPACT OF FEDERAL OWNERSHIP

The history of federal land ownership is one of competing claims regarding the actual intergovernmental impact of federal ownership. While the issue of federal responsibility to the states is considered at various points in this report, its focus is mainly on the federal responsibility to local governments. Local government fiscal problems can result from additional expenditures imposed by the federal land, from the denial of the tax revenues that would be paid if the land were privately owned, and from precluding a host of secondary effects that would result from private ownership of the land. Each is a part of the overall impact of federal ownership.

Measurement problems aside, the overall fiscal impact of public land ownership could be determined by a comparison of two situations encompassing four types of effects: the benefits and costs of federal land ("spillover effects") on the one hand and the benefits and costs that would have been associated with the same land under private ownership ("foregone effects") on the other. Under federal ownership, there are positive and negative effects on local revenues and on local public service that could be determined. A positive effect on local public services occurs when local residents benefit from public services provided by the federal land; a negative effect occurs when local taxpayers must provide public services, directly or indirectly, because of the federal land. If all these effects could be measured, a net effect can be determined.

The other consequence of federal owner-

ship is to preclude private ownership of the land—the community must forego the net effect that would be associated with the land under private ownership. Under private ownership the same land would generate negative and positive effects on the local revenues and on local public services. One of the positive effects that is foregone is the tax that would have been collected. Once again, a net effect of the foregone private ownership option could be calculated. The difference between the two net effects measures the extent to which the community is better or worse off with federal ownership of the land as compared to private ownership.

Claims of fiscal harm by the affected communities and the research on the fiscal impact related to the federal land usually identify several specific aspects of the overall impact. Testimony to this Commission provides examples (*Appendix A*). To describe these effects more graphically, the positive and negative features of National Forest land are reviewed below under the headings "Forest-Community Spillovers," and "Federal Government Displacing the Private Landowner" which correspond to the two types of effects: the effect of federal land on current public services and of the local opportunity foregone because of the absence of private development.

Forest-Community Spillovers

Federal land and the activity associated with it may require local budget expenditures or, conversely, it may yield local services. While the National Forest property is publicly owned and maintained, the forest and the locality are interdependent.

Spillovers, it is contended, arise because intensive use of the National Forest for business and recreational purposes increases the demand for local roads, law enforcement, health care, social services, environmental quality, and pollution control.[2] Moreover, local taxpayers do not use the additional public services, yet they must pay for them through local taxes, higher than otherwise would prevail. Neither the service increases nor the tax increases would have occurred if the local government had to satisfy only local demands.

Conversely, National Forests may also provide current local benefits of the type local governments provide. But if additional local expenditures outweigh the benefits, the local taxpayer is forced to support the nontaxpaying beneficiaries of the local budget.

Two local budget components frequently are cited as reflecting the extra cost of National Forests; they are road maintenance due to the logging and recreational use of the forests, and police protection due to additional tourists in the community. In addition, the counties claim that the recreation use of the forests and the commercial activity that arises to serve the tourists have a direct and indirect pervasive fiscal effect—adding expenses in all budget categories.

The benefits of the forest may also be direct and indirect. For example, the National Forest may give rise to employment opportunity currently and the sustained yield policy guiding the Forest Service's timber management may create a more stable long-term employment base for the community than would otherwise be the case.

Federal Government Displacing the Private Landowner

The study of local budget opportunities foregone shifts the focus from the flow of current costs and benefits of federally owned land to the fiscal effect of precluding private ownership of the land. The major foregone benefit is the tax (usually the ad valorem and the forest yield tax) that would be collected from most private owners of the land. Local government claims of adverse effects from National Forests usually focus on this impact. Federal ownership also may result in some cost saving by reducing the need to provide public services to the land that otherwise would be in private ownership—the extent of this benefit depends on the use the land would have under private ownership.

Under private ownership of the land, other less direct but potentially significant effects would occur.[3] The process of economic development in a region involves entrepreneurs organizing, utilizing and allocating economic resources for the purpose of producing goods and services for sale. Since the use of

the National Forest is not based on the same market forces which determine the use of private land, this influences the process of development. For example, National Forest timber resources in wilderness areas cannot be purchased and used in commercial timber activities, and there are many restrictions on the ability of business firms to purchase or use lands in National Forests for recreational facilities. Regions with National Forests, as well as other public lands, might become critically dependent upon federal land use policy rather than the usual market forces. This dependency influences the rate and direction of the regional economic development. Again, the less direct effects of displacing private ownership could be positive or negative.

If the foregone benefits exceed the foregone costs (including direct and indirect costs and benefits), a desirable opportunity is lost. The extent to which the community would be better off under private ownership of the land also is a local subsidy to the National Forests.

These two broad categories—"Forest-Community Spillover" and the "Federal Government Displacing the Private Landowner" —together constitute the fiscal impact of federal land ownership. The full accounting of the impact of federal ownership would net the positive and negative effects in each category—the measure of the fiscal impact of federal ownership is the difference between these two net effects. An example demonstrates how an overall effect would be computed. For the sake of simplicity, suppose the only effects are the four listed in *Figure 3* opposite and the per capita dollar value of each effect is the amount in parentheses.

The first step is to calculate the net effect of the land under federal ownership. Current costs would be subtracted from current spillover benefits to determine whether the effect of the land is negative or positive; in the example the current impact is -$500 ($2,500-$3,000). The same procedure determines the effect the land would have in private ownership; in the example this effect was positive, $3,000 ($10,000-$7,000). Since federal ownership causes the community to forego this effect the foregone net effect is subtracted from the current spillover net effect to calculate the overall impact; in the example this is (-$500)-(+$3,000) = -$3,500. The community is $3,500 worse off with federal ownership than if the land were privately owned.

A selective analysis which concentrated only on one or a few of these elements could create an entirely misleading picture. For example, federal land which provides a net benefit to the community may displace yet a greater private ownership benefit. Then, the impact of federal ownership is adverse.

Figure 3

IMPACT OF FEDERAL LAND OWNERSHIP

Current Spillover Effects of the Land in Federal Ownership

Benefit	*Cost*
Use of National Forest Roads for Local Traffic	Additional Road Maintenance on Local Roads Leading to the Federal Land
($2,500)	($3,000)

Foregone Effects of the Land in Private Ownership

Benefit	*Cost*
Property Taxes	Construction and Maintenance of Roads to Additional Private Residences
($10,000)	($7,000)

On the other hand, federal land may impose a net deficit on a community, but save the community from a still greater deficit—namely, where a use of private land results in a heavy public service requirement and a net tax cost to the community. In this case the impact of federal ownership is beneficial. Of course, if only the positive or only the negative features were selected for study, the conclusions about the effect of federal ownership would be distorted arbitrarily.

FEDERAL RESPONSIBILITY TO COMPENSATE LOCAL GOVERNMENTS FOR FEDERAL LAND

The federal government long has accepted an obligation to provide compensation to local governments because of the fiscal effects of federal land ownership. Six alternative approaches to a compensatory policy are developed and analyzed in this study. The first three are based on determining and reimbursing one or more of the specific effects of federal land ownership, as described above:

1) "Fiscal Impact of Federal Ownership" which would pay the difference between the net impact of public land ownership and private land ownership;
2) "Imposed Expenditure" which selects the current effect on local expenditures as the basis for payment; and
3) "Tax Equivalency" which selects the effect on the locality's foregone revenues as the basis for payment.

The next two alternatives make a payment because there are adverse fiscal effects but no attempt is made to measure the effects in these two approaches:

4) "Partnership" which adopts the sharing of receipts based on the existence of an adverse impact of federal ownership, but without actually attempting to measure an impact; and
5) "Flat Per Acre Payment" which also avoids measuring the fiscal impact in favor of an administratively simple per acre payment formula.

In combination, these two approaches constitute a sixth approach and reflect the existing reimbursement program for federal land.

The sixth approach would reimburse an estimate of the overall fiscal impact of federal land without attempting to measure specific tax or expenditure effects. This alternative termed "Comparable Tax Burden" for this purpose, would assure that the federal ownership does not create an extraordinary tax burden.

Fiscal Impact of Federal Ownership

The most comprehensive of the approaches requires a reimbursement for the total fiscal impact based on an accounting of each of the fiscal effects caused by federal land ownership. The underlying rationale is that such a payment would offset the entire effect of federal ownership so that the community would enjoy the fiscal condition that would have prevailed had the land been turned to private ownership. The basis for compensation would be the method depicted in *Figure 3.* To implement the approach, estimates of each spillover effect of the federal land on local revenues and services would have to be developed in order to determine a net spillover effect by subtracting the negative from the positive effects. Then a similarly calculated net foregone effect would be subtracted from the above net effect to determine an overall impact.

Because the net effect is difficult if not impossible to derive, both of the next two approaches depart from an attempt to reimburse for the net effect of federal land ownership. Each selects a particular component of the overall impact, necessarily to the neglect of the others, as the basis for measuring the federal responsibility. The Imposed Expenditure approach looks at the adverse fiscal result currently associated with the federal land and Tax Equivalency is concerned with one fiscal result—the foregone option of private ownership.

Imposed Expenditures

This approach is derived from the Forest-Community Spillover aspect of total fiscal impact. The federal land and the activity on it demand additional public service expenditures from the local government. The rationale for adopting this approach is that it reflects a current actual effect.

A reimbursement plan based on this approach could use estimated imposed expenditures as determined by a formula of general applicability or as detailed in an application prepared by each county containing a National Forest. Specific expenditure categories which are most heavily affected by the fed-

eral land could be identified. Alternatively, the impact on the local budget could be estimated since some claim that all the normal services are affected.

Tax Equivalency

The tax equivalency approach is derived from the Federal Government Displacing the Private Landowner (the foregone effects) aspect of total fiscal impact. When the search for the adverse effect of the federal land shifts from the effect on the current budget to foregone effects, the analysis also shifts from the expenditure to the revenue side of the local budget. Studies of the effect of public property on local budgets frequently only measure the foregone taxes and judge the fairness of any reimbursement scheme by whether it approximates tax equivalency. Local officials often contend that paying a tax equivalency should be made a principle in intergovernmental finance and that the other negative and positive effects of federal land ownership should be disregarded. They argue that the fact that private land is subject to a tax is reason enough to subject public land to the same tax.

Note on Benefit Adjustments

Both the Imposed Expenditure and Tax Equivalency approaches select a measure that accounts only for the negative aspect of federal ownership. Either can be adjusted for the benefits associated with the federal land. Such an adjustment would be a step toward a more accurate approximation of the actual impact of federal ownership.

A deduction of benefits from imposed expenditures omits the impact of the foregone option—the net tax gain or loss that would be associated with private ownership of National Forests. This omission may be desirable, since it can be argued that the federal government should have no obligation to pay for a foregone opportunity. If the presence of federal land once was a problem, private individuals and businesses have long since taken the presence of federal land into account in their decisions of where to locate. Accordingly, the expectation should be that the taxable in public land counties is relied on no more severely than is the base in other counties.

Alternatively, the benefits of the federal land could be deducted from the tax equivalency. When benefits are subtracted from a tax equivalency, the payment may exceed the imposed expenditures. The payment would then subsidize local services unrelated to the activity associated with the National Forest. The strongest tax equivalency advocates would resist accounting for the benefits of federal land even when they exist. When benefits are not accounted for in a tax equivalency, the approach stays closer to the private taxation analogy on which it is based.

The next two approaches recognize the significant problem of measuring the impact of federal ownership. Instead of basing the payment on a measure of the impact, they adopt an administratively simple method for making the payment. Nevertheless, the justification for them rests on the assumption that an adverse impact exists.

Partnership

This approach designates a share of the revenue earned from the National Forest for the counties. Especially because the real costs and benefits cannot be known, a relationship analagous to business partners is formed. Both the federal and local governments must incur costs to make the federal land productive; both deserve a share of the rewards—the receipts obtained from the use of the land.

Flat Per Acre Payment

Like the partnership alternative, the per acre payment approach makes no claim that the payment approximates the actual fiscal impact on local governments of federal land ownership. Also, as in the case of the partnership alternative, this approach adopts an administratively simple device—a set payment per acre.

In 1976, Congress enacted legislation based on this approach. The new law, P.L. 94-565, guarantees counties 75¢ per acre of public land (modified by certain per capita limitations) covering nearly all types of federal land.

Comparable Tax Burden

This approach does not seek to compensate for the actual effects of federal ownership, but rather to assure that the effects do not place counties in a position of fiscal distress. The rationale for the approach is that if federal land counties are financially worse off than counties that are similar, except for the presence of the federal land, there is presumptive evidence that the fiscal problem is caused by federal ownership.

Data collected by the Bureau of the Census for the Federal General Revenue Sharing program and for its governmental finances publications permit the development of this approach. "Extraordinary" per capita tax effort required to provide "normal" per capita local expenditures can be used as the basis for payment. Alternatively, the particular fiscal problem of each county could be dealt with by using a case by case method.

FOOTNOTES

[1]U.S. Department of the Interior, Bureau of Land Management, *Public Land Statistics, 1974*, Washington, DC, U.S. Government Printing Office, 1974, pp. 1, 11-30.

[2]Charles Roe, "An Analysis of the Economic Externalities of Federal Landholdings on Local Governments in Western North Carolina," unpublished paper, Chapel Hill, NC, University of North Carolina, November 1975, p. 18.

[3]For a further discussion of the indirect effects see Donald Seastone, "The Regional Dependency Effect of Federal Land Ownership," *Land Economics*, Vol. 46, No. 4, Madison, WI, University of Wisconsin, November 1970, pp. 294-403.

Chapter IV

Tax Equivalency: The Question of Implementation

Tax equivalency often is used as the standard for judging the fairness of reimbursement. The report by the Public Land Law Review Commission, for example, asserted that the loss of potential tax income was the only fair standard for compensation.[1]

This chapter explores the elements of local taxation that may be associated with the computation of a tax equivalency based compensation program; considers the aspects of local taxation for which a tax equivalency program must account; and evaluates the feasibility of implementing this approach.

The tax equivalency concept, theoretically could encompass every state and local tax that is foregone due to federal land ownership. If the land were privately owned, states and localities would collect additional sales, income, excise, license, and other taxes. It would be quite impractical, however, to estimate any taxes other than those related directly to the land—the property tax and the tax on the yield from the forests. In this chapter "taxes" will refer only to the local property tax and the yield tax, unless otherwise specified.

Under the tax equivalency approach, the federal payment would equal the local taxes that would be paid on federal land if it were in private ownership. Tax procedures for forest land often differ from the tax method applied to other private land. Thus, this chapter explores the special accounting that would have to be made of the taxes on forest land.

STATE TAX LAWS APPLICABLE TO PRIVATE FOREST LAND

Tax laws applicable to forest land vary from state to state (*Table 6*). In some states no distinction is drawn between timberland and other land. In several states the law provides special treatment specifically for timberland or for a broader land classification that includes timberland.

An increasing number of states have authorized use value assessment rather than full market valuation for agricultural or open space land. Where statutory provision is made for use value assessment, an appraisal usually is made on the basis of the income projected to be available from the property in its current use. This use value is then adjusted to conform to the statutory assessment standard or actual assessing practice.

An analysis of tax laws reveals the following:

1. State valuation standards (ratio of assessed to full market value) vary from 15% to 100% of fair market value. (Still greater variations are created in the implementation of the laws.) In addition, five states vary the standard between

Table 6

STATE STATUTORY TAX TREATMENT OF COMMERCIAL TIMBERLAND AND FORESTS

States	State Valuation Standard for Ad Valorem Taxation of Forests	Exemption of Timberland from Property Tax	Exemption of Forest from Property Tax	Provision for Use Value Assessment of Timberland or other Modifications in the Property Tax	Provision for Use Value Assessment of Forest or other Modifications in the Property Tax	Nonproperty Taxation Yield Tax	Nonproperty Taxation Severance Tax	Remarks
Alabama	15[a]		X			By Application	X	
Alaska	100							
Arizona	18[a]							
Arkansas				By application			X	
California	25		*Under conditions*	*By contract*		X		
Colorado	30		30 years	X	X			
Connecticut	70			By application*		X		
Delaware	100							
Florida	100			X	X			
Georgia	40							
Hawaii	70	If placed under government control				X[c]		
Idaho	20	See remarks	X	X	X	X		Reforestation land valued at fixed $1 per acre
Illinois	50							
Indiana	33.3	See remarks						Classified forest land valued at fixed $1 per acre
Iowa	100			$14.82 per acre				
Kansas	30							
Kentucky	100						X	
Louisiana	10							
Maine	100			*	*			
Maryland	100			Assessment freeze by applications				
Massachusetts	100	See remarks	X			X		Classified forest land valued at fixed $10 per acre
Michigan	50	X	X			X		
Minnesota	201			X	X	By Contract		
Mississippi						X		
Missouri	33.3	See remarks	X			X		Classified forest cropland valued at fixed $3 per acre
Montana	Various[a]			X				
Nebraska	35							
Nevada	35			By application				
New Hampshire	100			By application		X[d]		
New Jersey	100		X	By application				
New Mexico	33.3			By application				

New York	100			By application		X		
North Carolina	100		X					
North Dakota	50			By application				
Ohio	50	See remarks						By application taxed at 50% of the local rate
Oklahoma	35							
Oregon	Other[b]			By application		e	X	
Pennsylvania	75			By application				
Rhode Island		X	X	By application				
South Carolina	100							
South Dakota	60							
Tennessee	25[a]		X	X	X			
Texas				X	X			
Utah	30							
Vermont	50							
Virginia	100						X	
Washington	100		X			X		
West Virginia	100	See remarks					X	Classified Tax Rates
Wisconsin	100	See remarks				X		Classified Land Tax $.20 per acre
Wyoming								

—no specific valuation standard, but must be assessed in proportion to value.

*CN —but subject to conveyance tax depending on length of time held from original acquisition.

*MN—productivity based assessment at specified value levels for forest land exceeding 500 acres.

[a]By law, all classes of property are not subject to the same valuation standard.

[b]The standard in Oregon is 30% of "Immediate Harvest Value," 30% of the value of timber would have if it were harvested on the assessment date. The land itself is valued at 100%.

[c]Hawaii has a yield tax law but no applications have been made to have land included under the tax.

[d]The New Hampshire yield tax is scheduled to terminate in 1980.

[e]Oregon has adopted a yield tax to replace the ad valorem tax on timber starting in 1978.

SOURCE: U.S. Bureau of the Census, Governments Division, *Property Values Subject to Local General Property Taxes in the United States*, Special Studies No. 69, Washington, DC, U.S. Government Printing Office, 1974; *Timber Tax Journal*, 1975 Ed., Washington, DC, Forest Industries Committee on Timber Valuation and Taxation, 1976; Commerce Clearing House, Inc., *State Tax Reporter*, Chicago, IL (loose leaf service).

classifications of property. (In a sixth state, West Virginia, there is a uniform valuation standard, but tax rates differ by property classifications.)

2. The value of forest land or of the forests is wholly or partially exempt from property taxation in 16 states. Frequently, the exemption is available only by contract or upon application to the state.

3. Use value assessment or other restrictions to full market assessments apply in 27 states to either or both the assessment of forest land or of the standing timber; in 13 of the states the differential assessment is provided only upon the approval of an application.

4. A yield tax is applied to the value of the timber harvest in 15 states.

5. A severance tax is applied to timber in four states. This tax is levied on the value of the harvest and is like a yield tax in that respect. As opposed to the yield tax, however, the severance tax does not replace the property tax, and is imposed on the timber operator rather than on the timber.

In Alabama, Arkansas, California, Louisiana and New Hampshire the yield or severance tax is applied to timber taken from federal land.

These significant variations from state to state in the treatment of timberland and commercial forests would have to be incorporated into the implementation of an accurate tax equivalency approach. Three conclusions can be drawn from this information regarding how a tax equivalency reimbursement program would be implemented.

1. Tax equivalency depends on different legal tax provisions among the states; there is no standard or uniform method of either valuation or taxation of forest land applying among the states.

2. Differences among states in the application of tax laws to forest land hinge in some instances not on the characteristics of the land, but rather on whether the owner agrees to engage in certain forest management or land use activities. Land management practices on federal land might meet the qualifications some states set for full or partial exemption from a tax. A controversy could arise, therefore, over the proper basis for a tax equivalency.

3. Apparently the value of the yield from the National Forests or the property value of the possessory interests in harvesting rights in a National Forest can be taxed by states and localities. This possibility is analyzed in *Chapter I.*

National Forests contain some land that is not commercial forest land, and therefore a table displaying the legal basis for taxing commercial timberland among the states does not cover the state tax provisions that apply to all National Forest land.

ADMINISTRATION OF STATE TAX LAWS

The statutory assessment standard is known to be honored more in the breach than in the observance in most states. Consequently, the development of a federal program to reflect tax equivalency accurately must account for the variations in the administration of tax laws among the states. Under local administration, alternatively, federal review of whether the local determinations were accurate might be considered acceptable. Such annual or periodic federal review would confront the same variety of assessment practices.

Tax equivalency based on the local property tax is fraught with problems. Uniform local property tax administration is hampered by the existence of 13,500 separate primary assessing jurisdictions. To determine accurately a tax equivalency payment, the market value of forest land should be adjusted down to the actual ratio of valuation to sales price that prevails in the assessing jurisdiction. While progress toward uniformity of assessments has been steady over the years, two

measures of the degree of uniformity of assessment indicate that much remains to be done and that in most states the average assessment level remains far below the statutory standard. *Table 7* shows that the ratio of assessed valuation to sales price for residential property differs from the legal assessment ratio. The ratio of assessed value to sales price is as low as 4% of the statutory ratio in South Carolina; and it is less than 50% of the legal standard in 18 of the 43 states for which the ratios were computed. Since residential property is easier to assess than other types of property, it is reasonable to conclude that assessments of forest land are far from uniform.

Assessments of residential property both within and among jurisdictions vary widely around the average (*Table 8*). The wide variation in residential ratios suggests that the ratio of assessed valuation to sales price for forest land also is widely dispersed around the average. Assuming that the average ratio for either forest land or residential property were chosen as the basis for computing a tax equivalency payment, it is clear that the payment could not be characterized as accurately determined. When the special problems of estimating the value of public land are added (discussed in the last section of this chapter), the prospects are not bright for perfecting the payment to achieve even rough justice.

INFORMATION FOR DETERMINING A TAX EQUIVALENCY

The problem of varying state laws, made more complex by administrative practice which departs from the legal standard, is compounded by the lack of reliable data concerning local tax practices. One vital data set for the equivalency approach is the ratio of assessed valuation to sales price. *Table 8* presents information on these ratios for residential property only. Seldom is such information available for the timberland classification separately. Counting the states which officially report information and those which release unofficial calculations, *Table 9* suggests the limits of information. A tax equivalency program would have no assessment ratio evidence available for calculating or reviewing a tax equivalency payment for forest property in 15 states, indirect evidence in 27 states, and direct evidence in only eight states.

Because of this information constraint, the calculation of a tax equivalency payment could rely on assessment ratio information specifically for forest land for 31.4% of the National Forest land area. For 46% of the National Forest land area, the calculations could use the ratio for property classifications that either include forests with other classifications or approximate the ratio—specifically, 28.2% of the area is in states providing information on agricultural land which presumably is assessed somewhat like timber land and 17.8% is in states giving the ratio information for all property classifications combined.

States containing 22.6% of the National Forest land area provide neither official information nor unofficial calculations concerning the actual assessment ratios for any property classification. The only insight into the ratios applicable to forest land in these states would be the ratio for nonfarm residential property made quinquennially by the Bureau of the Census. In these states, federal administrators would confront the choice of relying on the ratio information that was developed strictly from residential property or of developing a federal program to conduct ratio studies.

Tax Collections From Private Forest Land

The tax paid on private forest land provides one perspective on a tax equivalency program. The perspective has a major limitation, however; namely, that National Forest land is not directly comparable to private forest land. Much of the National Forest land was assembled from the less productive land that remained in the public domain after years of selling and homesteading.

While the per acre tax paid on private forest land does not directly suggest the tax equivalency amount for public land, the information makes two points. It demonstrates the variation in the per acre property tax among and within states which means that a

Table 7

LOCAL RESIDENTIAL PROPERTY ASSESSMENT LEVELS AND STATE LEGAL STANDARDS, 1971

State	Ratio of Assessed Value to Sales Price[2] (Percent)	Legal Assessment Standard[1] Level (Percent)	Valuation Concept	Ratio of Actual Level to Legal Standard (Percent)
		(Full Value Standard States)		
Oregon	87.1%	100%	True cash value	87.1%
Kentucky	83.8	100	Fair cash value	83.8
Alaska	75.1	100	Full and true value in money	75.1
New Hampshire	65.1	100	Full and true value in money	65.1
Florida	63.2	100	Full cash value	63.2
Maine	52.9	100	At just value in compliance with the laws of the state	52.9
Massachusetts	49.3	100	Fair cash valuation	49.3
Maryland	47.8	100	Full cash value less an allowance for inflation	47.8
District of Columbia	47.5	100	Full and true value in lawful money	47.5
Wisconsin	46.7	100	Full value at private sale	46.7
Delaware	36.5	100	True value in money	36.5
West Virginia	36.2	100	True and actual value	36.2
Virginia	34.8	100	Fair market value	34.8
New Mexico	27.5	100	Assessed in proportion to its value	27.5
Pennsylvania	26.6	100[3]	Actual value (the price for which the property would sell)	26.6
New York	25.8	100	Full value	25.8
Missouri	23.1	100	True value in money	23.1
Texas	18.0	100	Full and true value in money	18.0
Mississippi	14.7	100	Assessed in proportion to its value	14.7
South Carolina	4.0	100	True value in money	4.0
		(Fractional Value Standard States)		
Tennessee	32.6	35	Actual cash value	93.1
Georgia	35.7	40	Fair market value	89.2
Iowa	23.3	27	Actual value	86.3
Michigan	41.5	50	Full cash value	83.0
California	20.0	25	Full cash value	80.0
Nebraska	27.5	35	Required to be valued at its actual value and assessed at 35%	78.6
Nevada	27.1	35	Full cash value	80.0
Hawaii	54.0	70	Fair market value or a percentage thereof	77.1
Illinois	37.8	50[4]	Fair cash value	75.6
Ohio	36.9	up to 50[5]	True value	73.8
Washington	36.1	50	True and fair value	72.2

Table 7 (cont.)

State	Ratio of Assessed Value to Sales Price[2] (Percent)	Legal Assessment Standard[1] Level (Percent)	Valuation Concept	Ratio of Actual Level to Legal Standard (Percent)
		(Full Value Standard States)		
Kansas	21.3	30	Fair market value	71.0
Indiana	23.5	33-1/3	True cash value	70.6
Colorado	20.7	30	Actual value	69.0
Alabama	19.7	30	Fair and reasonable market value	65.7
Arkansas	12.5	20	True market value in money	62.5
South Dakota	36.5	60	True and full value in money	60.8
Arizona	10.7	18[6]	Full cash value	59.4
Idaho	10.6	20	Market value	53.0
Oklahoma	18.2	35	Fair cash value	52.0
Utah	14.9	30	Reasonable fair cash value	49.7
North Dakota	15.1	50	Full and true value in money	30.1
Minnesota	8.5	30[7]	Market value	28.3
Montana	7.7	30[8]	True and full value	25.7
		(Varying Valuation—Determined Locally)		
Connecticut	47.8	Up to 100	Uniform percent of market value within local district	n.c.
Louisiana	13.1	Not below 25	Actual cash value (land at not less than $1 per acre)	n.c.
New Jersey	58.3	20-100[9]	Uniform percentage at true value	n.c.
North Carolina	44.6	[10]	True value in money	n.c.
Rhode Island	50.5	[10]	Full and fair cash value	n.c.
Vermont	33.3	Up to 100[10]	Fair market value	n.c.
		(Value Determined By State Tax Commission)		
Wyoming	16.6	[11]	Fair value	n.c.

Note—Latest comparable data available for all states until 1978 (1977 Census of Governments). Later information is available for some states directly from their revenue departments.

n.c.—Not computed.

[1]The "legal standard" rates shown are applicable generally. There are numerous exceptions in several states.

[2]Aggregate assessment—sales price ratio. Residential single-family property.

[3]In fourth to eighth class counties, real property must be assessed at a predetermined ratio not to exceed 75%.

[4]"Fair cash value" is defined as 50% of the actual value of real and personal property, except in counties of more than 200,000 where real property is classified for tax purposes.

[5]State Board of Tax Appeals authorized to set a fraction for statewide application. In 1972, this fraction was set at 35%.

[6]Legal standard varies from 18% to 60% depending on class of property.

[7]Estimated. Legal standard varies by class of property. Residential homesteads are assessed at 25% on first $12,000 of market value, 40% on excess.

[8]Legal standard varies from 1%-100% depending on class of property.

[9]In a multiple of ten established by each county board of taxation. If a county fails to establish a uniform percent, 50% level is employed until action is taken.

[10]Uniform percentage, determined locally.

[11]At a fair value in conformity with values and procedures prescribed by the State Tax Commission.

SOURCE: ACIR staff compilation based on data from Commerce Clearing House, Inc., *State Tax Reporter.* Chicago, IL (loose leaf service).

Table 8

SELECTED INDICATORS OF PROPERTY TAX ASSESSMENT QUALITY, 1971

Assessment Levels

Percentage of Assessed Value to Sales Price of Sold Properties (Aggregate Assessment-Sales Price Ratio)

All Types of Property		Single-Family Nonfarm Houses	
State	**Ratio**	**State**	**Ratio**
Ave.—Median	**30.5**	**Ave.—Median**	**32.6**
—Mean	**32.7**	**—Mean**	**34.0**
Kentucky	83.9	Oregon	87.1
Oregon	82.8	Kentucky	83.8
Alaska	73.2	Alaska	75.1
New Hampshire	61.9	New Hampshire	65.1
New Jersey	58.0	Florida	63.2
Florida	57.7	New Jersey	58.3
Hawaii	51.5	Hawaii	54.0
Rhode Island	50.6	Maine	52.9
District of Columbia	48.3	Rhode Island	50.5
Maine	48.1	Massachusetts	49.3
Massachusetts	47.0	Connecticut	47.8
Maryland	46.9	Maryland	47.8
Connecticut	46.4	District of Columbia	47.5
Wisconsin	45.2	Wisconsin	46.7
North Carolina	42.6	North Carolina	44.6
Michigan	41.7	Michigan	41.5
Illinois	37.6	Illinois	37.8
South Dakota	36.3	Ohio	36.9
Ohio	35.6	Delaware	36.5
Washington	35.2	South Dakota	36.5
West Virginia	34.9	West Virginia	36.2
Delaware	34.8	Washington	36.1
Georgia	34.2	Georgia	35.7
Virginia	33.8	Virginia	34.8
New York	30.8	Vermont	33.3

Assessment Uniformity—Single-Family Nonfarm Houses

Composite Coefficient of Intra-Area Dispersion (percent)		Coefficient of Interarea Dispersion (percent)	
State	**Percent**	**State**	**Percent**
Ave.—Median	**22.5**	**Ave.—Median**	**14**
—Mean	**not computed**	**—Mean**	**not computed**
Kentucky	12.5	Utah	4
Nevada	13.4	Iowa	5
Michigan	14.6	Maryland	5
New Hampshire	15.0	Nevada	5
California	15.7	Oregon	5
North Dakota	15.7	Montana	6
Connecticut	16.0	California	8
Oregon	16.5	Nebraska	8
Colorado	16.9	Ohio	8
New Jersey	16.9	Arizona	9
Virginia	17.0	Indiana	9
Hawaii	17.2	Kentucky	9
Florida	18.1	Colorado	10
Massachusetts	18.2	Illinois	10
Maine	18.5	South Dakota	10
Nebraska	18.9	Florida	11
Ohio	19.5	Hawaii	11
Maryland	19.6	Michigan	11
Vermont	21.2	New Mexico	11
Tennessee	21.4	Idaho	12
Alaska	21.5	Alaska	13
Minnesota	22.2	Kansas	13
South Dakota	22.3	West Virginia	13
Kansas	22.5	Delaware	14
North Carolina	22.5	Minnesota	14

Tennessee	30.5	Tennessee	32.6	New Mexico	22.8	Oklahoma	14
Vermont	29.4	Nebraska	27.5	Iowa	22.9	Tennessee	15
Nebraska	27.1	New Mexico	27.5	Illinois	23.0	Wyoming	15
Pennsylvania	27.0	Nevada	27.1	Indiana	23.1	Connecticut	16
Nevada	26.7	Pennsylvania	26.6	Montana	23.3	Missouri	17
New Mexico	25.1	New York	25.8	Georgia	23.6	New Hampshire	17
Indiana	22.7	Indiana	23.5	Washington	23.9	Arkansas	18
Iowa	22.5	Iowa	23.3	Rhode Island	24.1	Rhode Island	18
Missouri	21.5	Missouri	23.1	Utah	24.1	Texas	19
Kansas	20.0	Kansas	21.3	Arizona	24.7	New Jersey	21
California	19.7	Colorado	20.7	Louisiana	25.1	Vermont	21
Alabama	18.3	California	20.0	Mississippi	25.6	Washington	21
Colorado	17.6	Alabama	19.7	Texas	25.7	North Carolina	22
Texas	17.1	Oklahoma	18.2	West Virginia	25.7	North Dakota	23
Wyoming	16.4	Texas	18.0	Wyoming	25.8	Maine	24
Oklahoma	15.2	Wyoming	16.6	Oklahoma	26.1	Wisconsin	24
North Dakota	14.6	North Dakota	15.1	Missouri	26.5	South Carolina	25
Utah	14.0	Utah	14.9	New York	26.8	Alabama	26
Mississippi	12.7	Mississippi	14.7	South Carolina	27.9	Pennsylvania	26
Louisiana	12.4	Louisiana	13.1	Alabama	28.1	Georgia	29
Arizona	10.2	Arkansas	12.5	Delaware	30.0	New York	32
Arkansas	9.8	Arizona	10.7	Pennsylvania	30.0	Mississippi	33
Idaho	9.8	Idaho	10.6	Arkansas	30.2	Virginia	35
Minnesota	8.2	Minnesota	8.5	Idaho	31.6	Massachusetts	40
Montana	8.2	Montana	7.7	Wisconsin	[1]	Louisiana	42
South Carolina	3.8	South Carolina	4.0	District of Columbia	not applicable	District of Columbia	not applicable

Note—Latest comparable data available for all states until 1978 (1977 Census of Governments). Later information for selected items is available for some states directly from their revenue departments.

[1]Not computed. Median coefficient of intra-area dispersion is 14.5.

SOURCE: ACIR staff compilation based on U.S. Bureau of the Census, Governments Division, *Taxable Property Values and Assessment-Sales Price Ratios*, Vol. 2, 1972 *Census of Governments*. Washington, DC: U.S. Government Printing Office, 1973.

program using state or regional average information would lead to quite inaccurate payments in many places. The information also provides preliminary information regarding the proportion of "tax loss" that might be taxable because of the private interest in public land. Most states with extensive National Forest land do not systematically collect information on the amount of taxes from private forest land. With the assistance of state officials it has been possible, however, to develop estimates for six states *(Tables 10-16).*[2]

Property Tax

States

In three of the six states only the property tax is levied on land which may compare somewhat with National Forest land. In California, a legislative committee studying forest taxation estimated the property taxes on private forest land in a sample of counties *(Table 10).* On a per acre basis, taxes on land vary in the ratio of 1-to-50 between the low and high county; taxes on timber vary in the ratio of 1-to-100. The tax on the land value is 16% of the total tax. The data reflect the method of taxing forests that California used until 1976 when the state switched from ad valorem taxation of forest land to a yield tax on the value of the timber harvest (as with other states' yield tax laws, the bare land value of forest land remains subject to ad valorem taxes).

For Idaho, the variation in property taxes per acre is in the ratio of 1-to-14 as between the counties with the lowest and highest payment. It is not possible to separate the tax between the tax on land and the tax on timber in Idaho (*Table 11*).

Only half of the National Forest land is commercial forest land. Nonproductive forests, grazing land, mountains, and deserts make up the other half. Therefore, it is useful to consider taxation in a state where none of the privately owned land is classified as forest land, but where there is extensive acreage of less productive land which may approximate the less productive parts of National Forest land. Nevada experience permits such a comparison. In Nevada, property taxes on agricultural land that is not cultivated are 11

TABLE 9

ASSESSMENT RATIO INFORMATION PROVIDED BY STATES ACCORDING TO A PROPERTY CLASSIFICATION APPROXIMATING OR INCLUDING TIMBERLAND

Land Classification	Number of States	Percent of National Forest Land
Timber	8	31.4
Agriculture	18	28.2
All Categories Combined	9	17.8
Not Available	15	22.6
TOTAL	50	100.0

SOURCE: ACIR staff compilation based on U.S. Bureau of the Census, Governments Division, *State and Local Ratio Studies and Property Assessment*, Special Studies No. 72, Washington, DC, U.S. Government Printing Office, 1975, p. 22; U.S. Department of Agriculture, Forest Service, "National Forest System, File 1380 (5400)," 1974 (internal document).

Table 10

LAND, TIMBER, AND TOTAL TAXES PER ACRE ON FOREST LAND IN CALIFORNIA, 1974-75

County Revenue	Tax on Land	Timber	Total Taxes
High	$22.36	$26.00	$37.56
Low	.57	.25	1.16
Median	1.05	5.10	6.62
Average	1.00	5.40	6.39

Table 11

PROPERTY TAX PER ACRE ON FOREST LAND IN IDAHO, 1975

County Revenue	Tax
High	$2.86
Low	.20
Median	.53
Average	.55

times higher in the high tax county than in the low tax county (*Table 12*).

The data from California, Idaho and Nevada indicate that the amount of property taxes collected from land that somewhat approximates National Forest land varies tremendously from state to state and within states. Statewide averages vary from $6.39 per acre in California to $.15 per acre on noncultivated land in Nevada. The ratio of the low county to the high county is 1:32 in California, 1:14 in Idaho, and 1:11 in Nevada. Information from California indicates that the tax on land alone provides less revenue than the tax on timber value alone; only 16% of the tax is from the land in California.

Table 12

PROPERTY TAX PER ACRE ON AGRICULTURAL LAND IN NEVADA, 1975-76

County Revenue	All Agricultural Land	All Agricultural Land Excluding Cultivated Land
High	$1.36	$.55
Low	.08	.05
Median	.38	.24
Average	.25	.15

A Yield Tax State

The value of the standing timber is exempt from property taxation in Washington, but a percentage of the value of the timber harvest is collected as a "yield tax." The bare land value of forest land remains subject to the property tax.

The yield tax in Washington is of special interest because it can be used to estimate roughly the amount of tax states forego by not taxing the private interest in National Forest land. Washington's total taxes from timber and timberland are $5.93 per acre, as shown in *Table 13*. Of the total $5.28, or 89%, is from the yield tax on timber. To the extent that National Forest land, nationwide, is similar to private forest land in Washington, 89% of the taxes foregone from the National Forests are lost due to the failure of states to tax the private interests in timber on National Forest land. Only 11% of the foregone tax is due to potential tax from the federal land itself.

The data from Washington indicate a large intrastate variation; taxes in the county with the highest per acre revenue are 69 times higher than they are in the county with the lowest per acre revenue.

Mixed Tax System States

Oregon taxes the forest land and the harvest, and the methods vary between western and eastern Oregon. In 19 western counties, the property tax is applied to both the value of the land and the standing timber. Another property tax, called the "additional tax," is applied in the year of harvest. (This system is being replaced by a yield tax, similar to Washington's, effective in 1978.)

In western Oregon, only 18% of the taxes are attributed to the value of the land. The taxes in the county with the highest revenue per acre are nine times higher than they are in the county with the lowest revenue per acre. (See *Table 14.*)

In 15 counties in eastern Oregon, the tax system provides for a property tax on the value of the land only and for a severance tax at the time of harvest based on the volume of wood harvested and an estimate of its value. In eastern Oregon, the property taxes on the

Table 13

PROPERTY AND YIELD TAXES PER ACRE ON FOREST LAND IN WASHINGTON, 1976

County Revenue	Property Tax on Land Only	Yield Tax Value on of Harvest	Total Taxes
High	$1.18	$17.05	$18.04
Low	.07	.17	.24
Median	.57	2.97	3.53
Average	.65	5.28	5.93

Table 14

TAXES PER ACRE ON FOREST LAND IN 19 COUNTIES IN WESTERN OREGON, 1976

County Revenue	Property Taxes Land	Timber	Additional	Total Taxes
High	$1.77	$8.52	$2.21	$12.06
Low	.53	.49	.06	1.35
Median	1.29	2.55	.57	4.63
Average	1.08	3.94	.97	5.99

land are 38% of the total taxes. (See *Table 15.*) This percentage is higher than in the other states because the forest land in eastern Oregon is less productive for commercial forestry purposes and because the forest land also gains value from other compatible uses.

Three systems for taxing timber land exist in Wisconsin. Normal ad valorem taxes apply to the value of land and standing timber on 85% of the state's timberland acres. A forest crop law and a woodland tax law exempt the other timberland from property taxation when the owner agrees to certain conditions regarding forest management practices and land use. In place of property taxes, owners of this land pay 10¢ or 20¢ per acre. Based on a sample of one-half of the counties, a great variation among counties in the per acre taxes characterizes Wisconsin experience, as it does other states. Per acre taxes in the county with the highest revenue per acre are 33 times higher than in the county with the lowest taxes per acre. (See *Table 16.*)

The other 15% of Wisconsin's forest land is taxed at 10¢ or 20¢ per acre. Considering both the land subject to regular property taxation and that which is taxed by one of the two special procedures, the average tax on private forest land is $1.75 per acre.

IMPLEMENTATION OF A TAX EQUIVALENCY PROGRAM

The implementation of a tax equivalency program would confront the problems inherent in property taxation discussed in this chapter plus additional difficulties peculiar to valuing public land. With federal administration, each issue in valuing public land would bear on the administrative cost and on the exactness of the tax equivalency calculation. With local administration, any federal review of the accuracy of the locally determined tax equivalency would raise issues involving valuation concepts. This section develops a model for the federal determination of a tax equivalency. Tax equivalency programs for the foregone yield and severance tax and for the ad valorem tax are considered separately. The two elements are then melded to provide an intergovernmental program for carrying out a tax equivalency payment system.

Yield and Severance Tax

Table 6 in this chapter, which summarized the tax laws by state, shows that a yield tax replaces the property tax on timber in 14 states (15 by 1978). In all these states the bare land value of forest land remains subject to the property tax. Six states employ a

Table 15

PROPERTY AND SEVERANCE TAXES PER ACRE ON FOREST LAND IN 15 EASTERN OREGON COUNTIES, 1975

County Revenue	Property Tax on Land Only	Severance Tax	Total Taxes
High	$ .63	$1.49	$1.85
Low	.14	0	.14
Median	.42	.27	.72
Average	.43	.69	1.12

Table 16

PROPERTY TAXES PER ACRE ON THE FOREST LAND SUBJECT TO REGULAR PROPERTY TAXATION IN WISCONSIN, 1975

County Revenue	Tax Per Acre
High	$12.72
Low	.38
Average	2.03
Median	2.17

severance tax. Because the law and tax rate usually do not vary within states, administering this part of a tax equivalency would have to account for the yield tax laws of only 15 states and the severance tax laws of six states.

Nearly every state's yield and severance tax law has provisions that add some administrative complexity to the determination of an equivalency. Some states' yield tax provisions are optional; the owner must apply to the state for approval. Conditions for approval include that the land could not be used for a more valuable purpose (Hawaii), public access is guaranteed (most states), the per acre value does not exceed a set figure (Louisiana, Massachusetts and Missouri), and an acceptable timber management plan is submitted. In addition, in Alabama, Arkansas, Connecticut and Missouri there is a complex schedule which varies the tax rate according to the type of timber harvested. A fairly exact tax equivalency program would determine whether the federal property met the various conditions applicable in each state and apply the appropriate tax rate.

A yield tax law typically calls for an estimate of the immediate harvest value of the timber harvested. States do not use the actual selling price because many firms that own timber stands process their own timber into lumber and other wood products. The estimating process is not a problem in the case of National Forest timber; but the fact that timber sales by the Forest Service usually provide for harvesting over several years is. The sale information does not indicate how the sales price should be divided among the years. The harvest in the second and ensuing years after the sale may have a greater or lesser value than the selling price would indicate. Consequently, the value should be estimated by applying the average market price for each type of tree to the volume harvested during the year. The state's yield tax rate would be applied to the estimated value.

The *Ad Valorem Tax Equivalency* concept is to reimburse localities for one of the effects of federal ownership—the foregone opportunity to tax the land. For most states the starting point for an ad valorem tax equivalency is the determination of market value. Nearly all the states assess the value of at least the land on which the forests stand at full market value or a prescribed percentage of market value *(Table 7)*. The determination of the value of the National Forests is spared none of the problems nor the expense local governments face in valuing private property. In addition, special problems are created in the attempt to estimate accurately the market value of the National Forests.

Both the major value estimating methods —sales comparison and income capitalization—rely on assumptions for which there is no firm basis. Accordingly, any method for implementing a tax equivalency program is open to substantial honest disagreement between the federal and the local governments over the value estimated.

To implement the *sales comparison approach,* there must be comparable property. Much of the National Forest land was assembled from the less desirable parts of the public domain—the portion that remained unsold after years of sale or settlement of public land. In addition the federal land generally is not comparable to private land, and is an overwhelming presence (including National Forests, National Parks, and other types of federal land) in many areas. On an area basis, the federal government owns 97% of Alaska and 87% of Nevada. In ten other states the federal land constitutes 29% or more of the total acreage in the state: Arizona 44%, California 45%, Colorado 36%, Idaho 64%, Montana 30%, New Mexico 33%, Oregon 52%, Utah 66%, Washington 29%, and Wyoming 48%.[3] Of course, federally owned land is a higher percentage in many counties in these states. Consequently, the opportunity to find comparable privately owned parcels is significantly diminished.

In the case of National Forest land which is commercial forest (49% of the total[4]), sales of truly comparable privately owned commercial forest land may indicate value. For in this situation the land in federal ownership serves the same economic function as the land would have in private ownership. True comparability, however, would be most elusive. Value depends not only on the physical characteristic of the land, but also on accessibility and the market for timber. There must be extensive acreage of privately owned land in each

economic region so that enough sales occur to make the sales reliable indicators of value in each category of federal land. This imperative cannot be met for much of the federal acreage. For example, there is virtually no private forest land in Colorado—but the National Forest encompass 14.4 million acres.

It is still more difficult to arrive at accurate estimates where National Forest land —commercial timberland or other—could have a significantly different use in private ownership and where federal land imparts to private land benefits which are capitalized into private land values. Under these circumstances, selecting comparable land sales is fraught with problems. When the federally owned land would have a different use in private ownership the consequence is that federal ownership restricts the supply, and therefore enhances the value of the private land that is in the other use. For example, when most of the lake shore property in an area is not available for development, the portion that is available takes on greater value. It would be inappropriate to base the value of federal land on sale prices of apparently private comparable land when those prices are predicated on the fact that federal land is not available.

Several examples suggest that federal ownership enhances the value of private land in other uses by making it scarce. For example, a 10,500 acre tract of land on Lake Tahoe was owned by an estate which kept the land off the market for many years. The price for land in the area ranged from a low of $4,000 an acre for a large tract (645 acres) to $150,000 an acre for smaller parcels. The Forest Service, nonetheless, purchased the 10,500 acres (including six miles of Lake Tahoe lake frontage) for only $1,022 per acre because the availability of this large tract depressed the fair market value of land in that area. In Jackson Hole, WY, extensive federal land ownership has left only 3% of the area in private ownership. Sale prices range from $4,000 to $8,000 per acre. Across the mountain range in Fremont County, ID, land which is physically equivalent, adjacent to Yellowstone National Park and developed for recreational use, sells for $1,500 to $2,500 per acre. In both examples, the Forest Service's office for property appraisal attributes much of the price difference to the impact of extensive acreage being kept off the market.[5]

The value of land also incorporates the benefits of adjoining the surrounding land. Some benefits capitalized into private land value are intrinsic to federal ownership itself. Advertisements for second homes adjacent to National Forest attest to this role. Federal ownership of the forests guarantees the homeowner access to open space land that will not be developed. The portion of the value of private land that comes from the intrinsic benefit of federal ownership cannot be used to indicate the value federal land would have if it were for sale.

While adjustments should be made for these factors, there is no sound, objective basis for making them. Accordingly, a tax equivalency would incorporate to a significant extent the judgments of those responsible for the estimates, or it would use existing sales information to estimate value even when such information may not be a reliable indicator.

The *income capitalization technique* does not avoid the obstacles mentioned above but it would be preferable for estimating value where the federal land is commercially productive forest. This method estimates values by capitalizing a projected income flow (i.e., by determining the present value of future income). In a study done for ACIR, Dr. W. David Klemperer described how this method would work.[6] By projecting an income flow based on the Forest Service's forest management plan, this method would make no estimate of the additional value the land may have due to the potential to manage the forests in an economically more productive manner or to the possibility of using the land for an entirely different purpose. However, a strong argument can be made for omitting the additional value the land would have if its use were changed. Federal ownership prevents the change in use from actually occurring, and thus saves the county the additional expense of serving more intensively used land. These two factors (which constitute the "foregone effects" described in *Chapter III)* do not necessarily balance, but, since measuring each is speculative, they can well be omitted.

Forest Service management of the forests

could significantly affect the value estimated by this method. One of the complaints county officials register about the current payment plan is that Forest Service decisions to restrict timber production reduce their payments; for example, when a forest is reserved as a wilderness area. Adjustments can be made by hypothesizing the income flow the forests could yield if it were managed for timber production. If a substantially increased production were hypothesized, however, the reduction in prices that would result from increased production also should be estimated.

The income capitalization method is not applicable where the projected income flow does not indicate the value the land would have under private ownership—the half of the National Forests which are not commercially productive forest land. In states which subject the land, but not the timber to a property tax the income approach can be used in modified form. The states which employ a yield tax fall in this category *(Table 6)*. Dr. Klemperer concluded that although the theory exists for estimating bare land value by this technique, the method is so sensitive to input assumptions that as a practical matter it is impossible to use in states where a separate estimate of the bare land value is required. The modified income approach would determine a value of timber and land combined, but then the portion that is bare land value would be determined based on the relationship between the value of land and timber as ascertained by the sales comparison approach.

Aside from the problem of alternative land use and the problem of separating land from timber values, estimates made by this method are quite sensitive to assumptions adopted concerning the capitalization rate, future prices, and technology for utilizing wood products. Dr. Klemperer concluded: "Even if all variables were kept within 'reasonable' ranges, the possible present values of future income could vary significantly."[7]

If a tax equivalency approach is adopted and if it would reimburse for all the potential tax on the federal land, the income capitalization technique is superior—but it is applicable only for commercial forest land. Its superiority is not because it yields more reliable estimates, but because of its administration. The estimates resulting from the income capitalization or the sale comparison methods rely on assumptions about which there can be significant disagreement. However, the assumptions required for the income capitalization method can be made subject to a deliberate, reviewable decision process which would allow affected counties to be fully aware of the method by which the land is valued and would provide consistent application of the methodology in all counties.

The income capitalization method also can be administered more economically. Based on the tax equivalency payments program for part of the Superior National Forest in Minnesota, the cost of assessing the entire National Forest area would be $15.2 million. If an assessment every ten years would suffice as in the program in Minnesota, the annual cost would be $1.5 million. The income method can be employed at a fraction of this cost.

After the market value of the National Forest property is estimated, three additional steps are required to calculate a tax equivalency. The first is to apply the appropriate assessment ratio to the value of federal land to derive a value consistent with the taxable value of private land. Next, the special tax provisions applicable to forest land must be determined. A variety of adjustments and exemptions are applied to forest land values or to the value of the timber states with significant areas of forest (See pp. 47 and *Table 6* in this chapter.) A tax equivalency can now be calculated by applying an appropriate tax rate.

The tax rate existing at the time a tax equivalency program is instituted would be inappropriate. That tax rate was determined without the public land in the base. For example, if the estimated value of the National Forest in Douglas County, OR, were added to the tax base and if the compensation were added to the levy the tax rate would be cut by about 40%.[8]

The federal and local levels are each suited to carry out the work required by particular parts of the program. In this model the federal government would directly undertake the estimate of the foregone yield and severance tax. The information concerning

the volume of timber harvested is collected by the Forest Service in the normal course of its affairs. Judgment would have to be made regarding the applicable tax in states which provide for special tax measures upon application.

The federal government would estimate the value of the National Forests in the ad valorem tax equivalency. If counties estimated value according to local methods, they would confront the problems discussed above, magnified many times over. In many counties there would be no private land comparable to the public land and there would be insufficient basis for interpreting the sale price of private land as an indicator of the value public land would have on the market. Estimates by the federal government might at least assure a consistent approach. The estimate of value made by the federal government would be certified to the local government which would estimate the tax equivalency.

An appropriate administrative procedure for estimating a tax equivalency after the value has been estimated is suggested by Canada's method for administering the Municipal Grants Act, described in *Chapter II.* The counties would submit a proposed tax equivalency payment to the federal government, along with information supporting the accuracy of the estimate. The estimate of a tax equivalency would follow the steps outlined above: (1) the county would convert the full market value to an assessed value, (2) calculate the preferential provisions applicable to forest land, (3) add the value to the local tax base, (4) calculate an adjusted tax rate and (5) determine the tax equivalency by applying the rate to the assessed value of the National Forest. The federal government would retain the authority to adjust the counties' estimate of the land value where a review indicates the estimate is incorrect.

The alternative—direct federal estimating—would be virtually impossible to carry out. An enormous data gathering task is required. Information on assessment ratios, special tax provisions applicable to forest land, and elements of the tax rate calculation would have to be assembled from 600 counties.

Still, information vital for assuring consistent tax equivalency payments would be lacking. For example, as *Table 10* in this chapter shows, 22.6% of the National Forest land lies in states which provide neither official reports of assessment ratios nor unofficial calculations. Only 31.4% of the National Forest land is in states which report an assessment ratio specifically for timberland.

FOOTNOTES

[1]Public Land Law Review Commission, *One Third of the Nation's Land: A Report to the President and to the Congress by the Public Land Law Review Commission*, Washington, DC, U.S. Government Printing Office, 1970, pp. 235-41.

[2]The estimates in *Tables 10-16* were developed with the assistance of state departments of revenue or taxation. The state officials supplied data from which the estimates were developed and also helped interpret the data. The procedure used for developing estimates of per acre tax on *timber* in California, Oregon and Washington deserves further elaboration. The number of acres of *land* classified as forest land is known. However, the number of acres containing *timber* subject to taxation is not known. The two numbers are not equal due to tax exempt timber in California and Washington and to taxes which apply only to the timber harvested in Oregon and Washington. The tax on timber was divided by the acres of timberland to determine a per acre tax. This method accurately indicates the overall tax contribution. It averages the higher per acre tax earned from the acres on which there was a tax that year with the acres on which there was no tax that year.

[3]U.S. Department of the Interior, Bureau of Land Management, *Public Land Statistics, 1974*, Washington, DC, U.S. Government Printing Office, 1974, p. 10.

[4]U.S. Department of Agriculture, Forest Service, *The Outlook For Timber in the United States*, Washington, DC, U.S. Government Printing Office, 1974, p. 11.

[5]The data for these examples were provided upon ACIR staff request by the Forest Service in a memorandum to Michael Harder from Don Howell, May 11, 1977.

[6]See *Appendix B*, p. 181.

[7]*Ibid.*, p. 36.

[8]The consultants study, *Appendix B*, included an estimate of the value of the Umpqua National Forest. The staff allocated a portion of the value to Douglas County based on the proportion of the Umpqua acreage which lies in Douglas County. The resulting value approximately equaled the value of taxable property in Douglas County; therefore the tax yield could have been raised by a tax rate 50% of the prevailing tax rate if the Umpqua had been taxable. However, the assumption also should be made that the county would have taxes to make up for the federal payment. When the federal compensation is added to the levy, the *rate* could have been reduced by 40%—instead of 50%.

Chapter V

The Fiscal Impact of The National Forest on Local Government Finances

This chapter seeks to discover how federal ownership of the National Forest and the compensation under the *National Forest Receipt Sharing Act* (1908-76) and the *Taylor Grazing Act* (1934) influence local governments' finances. To analyze this question this chapter presents background information on the National Forest system; critically reviews the previous empirical literature on this question; develops a research methodology; applies this methodology to evaluate the fiscal impact of National Forest land on local governments; and analyzes the distributional impact of federal compensation under P.L. 94-588, *The National Forest Management Act of 1976.*

BACKGROUND INFORMATION ON THE NATIONAL FOREST SYSTEM

The National Forest System consists of 187 million acres (or 8% of the United States area) distributed throughout 652 counties in 43 states.[1] Its value has been estimated at $42 billion.[2] *Table 17* shows the location of National Forest land by administrative region and by state. Seven states—Delaware, Hawaii, Iowa, Maryland, Massachusetts, New Jersey and Rhode Island—contain no National Forest land. Idaho has 39% of its acres in National Forests while three states—Connecticut, Maine, and New York—have less than 1% of their acres set aside in National Forest. Region 4 (Idaho, Nevada and Utah) contains 18% of the National Forest acres while Region 9 (the northeastern states) represents 6%. The western states of Alaska, California, Idaho, Montana and Oregon hold more than 50% of the National Forest land.[3]

The Forest Service manages the 187 million acres under a multiple use policy. The National Forests are intended to provide economic, recreation, and conservation benefits. *Table 18* depicts the range of activities related to the National Forest land.

Table 19 shows the trends in supplies of forest products. From 1962 to the present, National Forests have supplied approximately 16% of the forest products in the United States. This is expected to continue until 1990. Thereafter, a slight relative decline is anticipated: 15.5% in 2000; 15.4% in 2020. Farms and miscellaneous private land will continue to supply the greatest share of forest products.[4]

Table 20 accounts for the income from the National Forest System for 1975. The data reflect the National Forest role as a timber producer. Over 54% of the system's revenues are earned through timber sales. Leases

Table 17

NATIONAL FOREST ACRES BY STATE, 1974

State	National Forest Acres (in thousands)	Percent of National Forest Acres	Percent of State Acres
REGION 1			
Montana	16,710	8.9%	18.0%
North Dakota	1,106	.6	3.0
REGION 2			
Colorado	14,362	7.7	22.0
Kansas	107	.1	0[a]
Nebraska	351	.2	1.0
South Dakota	1,992	1.1	4.0
Wyoming	9,252	4.9	4.0
REGION 3			
Arizona	11,408	6.1	16.0
New Mexico	9,221	4.9	12.0
REGION 4			
Idaho	20,363	10.9	39.0
Nevada	5,111	2.7	7.0
Utah	8,047	.1	15.0
REGION 5			
California	20,072	10.7	20.0
REGION 6			
Oregon	15,442	8.2	25.0
Washington	9,068	4.8	6.0
REGION 8			
Alabama	638	.3	2.0
Arkansas	2,462	10.7	7.0
Florida	1,082	.6	3.0
Georgia	855	.5	2.0
Kentucky	635	.3	3.0
Louisiana	595	.3	2.0
Mississippi	1,137	.6	4.0
North Carolina	1,143	.6	4.0
Oklahoma	291	.2	1.0
South Carolina	607	.3	3.0
Tennessee	618	.3	2.0
Texas	779	.4	1.0
Virginia	1,593	.9	6.0
REGION 9			
Connecticut	.001	0[a]	0[a]
Delaware	0	0	0
Illinois	253	.1	1.0
Indiana	178	.1	1.0
Iowa	0	0[a]	0[a]
Maine	50	0[a]	0[a]
Maryland	0	0	0
Massachusetts	0	0	0
Michigan	2,697	1.4	7.0
Minnesota	2,800	1.5	6.0
Missouri	1,448	.8	3.0
New Hampshire	683	.4	12.0
New Jersey	0	0	0
New York	13	0[a]	0[a]
Ohio	162	.1	1.0
Pennsylvania	502	.3	2.0
Rhode Island	0	0	0
Vermont	251	.1	15.0
West Virginia	958	.5	6.0
Wisconsin	1,491	.8	4.0
REGION 10			
Alaska	20,716	11.0	6.0

[a]These jurisdictions contain some National Forest land, but their percentage rounds to zero.

SOURCE: Forest Service, USDA, "National Forest System, File 1380 (5400)," 1974.

Table 18

PROJECTED DEMAND FOR NATIONAL FOREST AND RANGE PRODUCTS

(Medium Level—Base Year Equals 100)

Uses	Base Year	YEARS 1980	2000	2020
Remote Camping (visitor days)	1975	106	133	180
Birdwatching (visitor days)	1975	107	138	168
Small Game Hunting (visitor days)	1975	106	121	135
Fresh Water Fishing (visitor days)	1975	111	156	204
Forest-Range Grazing (millions of acres)	1970	117	150	164
Timber (billions board feet)	1970	131	173	219
Water (consumptive use) (acre feet)	1975	103	123	139

SOURCE: A Summary of the Program and Assessment for the Nation's Renewable Resource, Forest Service, U.S. Department of Agriculture, Washington, DC, U.S. Government Printing Office, 1975, p. 8.

Table 19

TRENDS IN SUPPLIES OF FOREST PRODUCTS[a]

(Million Cubic Feet)

	Years 1952	1962	1970	1980	1990	2000	2020
National Forests	898	1,684	2,016	2,519	2,714	2,917	2,929
Other Public	528	672	834	1,130	1,376	1,637	1,689
Forest Industry	3,186	2,834	3,430	3,378	3,360	3,641	3,895
Farms and Miscellaneous							
Private	6,133	4,989	5,874	8,291	9,558	10,654	10,528
TOTAL	10,745	10,179	12,154	15,318	17,009	18,849	19,040

[a]Estimates by the U.S. Forest Service assume 1970 level of forest management.
SOURCE: U.S. Forest Service, *The Timber Outlook in the United States*, 1974.

Table 20

INCOME EARNED BY NATIONAL FOREST SYSTEM, 1975

(Millions of Dollars)

Source of Income	Amount	Percent of Total
Cash Receipts from Sale and Use of Timber Resources		
Timber	$341.3	54.3%
Grazing	7.7	1.2
Land Uses	1.4	.2
Recreation	5.5	.9
Power	.5	.1
Mineral Leases and Permits	12.4	2.0
Admission and User Fees	4.3	1.7
Subtotal	(373.1)	(59.4)
Cash Receipts from Deposits of Contractors to Be Expended on National Forests	79.2	12.6
Miscellaneous Sales and Rentals	3.0	.5
Other Income		
Collection of Federal Power Commission for Power Licenses on Public Domain National Forest	2.0	0
Collection in Conjunction with Department of Interior for Leases, Licenses, and Permits	75.0	11.9
Value of Roads Built by Timber Purchasers Through Allowance in Selling Price of Timber	97.6	15.6
TOTAL	$628.1	100.0%

SOURCE: Forest Service compilation.

(11.9%) and the value of roads built by timber purchasers (15.6%) are the other two major sources of revenue.

THE ECONOMICS OF THE NATIONAL FOREST RECEIPT SHARING PROGRAM

A portion of the income shown in *Table 20* is shared with state and local governments as a payment in lieu of taxes. In fiscal year 1975, $91.1 million was distributed to states and counties with National Forest land. Prior to 1976, this receipt sharing worked through the following formula.

Receipts are earned from timber sales (RT); from leases (RL); and from permits (RP). From these receipts the Forest Service subtracts money for "timber sale betterment" (KV) and for brush disposal and restoration of improvements (DR)[5]. Thus, the National Forest receipt sharing funds (F) are defined as:

$$F = RT + RL + RP - KV - DR \quad (5\text{-}1)$$

the ith county share (CS) is

$$CS = a/A \times .25F \quad (5\text{-}2)$$

where: "a" is the county's acreage of a National Forest, and "A" is the total acreage of a National Forest.

Since for any one county (a/A) varies little, if at all, from year to year we can group

$$k = (a/A \times .25) \quad (5\text{-}3)$$

Thus, the county share can be rewritten as

$$CS = kF \quad (5\text{-}4)$$

The obvious conclusion is that the county share (CS) is a function of the receipt fund (F) and varies as the receipts vary. The receipt sharing funds (F) increase when RT, RL, or RP increases faster than KV or DR. This partially explains fluctuations (increases and decreases) in the amount distributed from year to year.

There are four implications of the structure of the receipt sharing formula:

1. **Productivity**—The more productive a National Forest is (the greater the sum of RT, RL, and RP minus KV and DR), the greater will be the county share (CS).

2. **Stability of Payments**—The stability of the level of payment is related over time to the net productivity of the forest and the market for timber. As they vary, so will the payment.

3. **Environmental Considerations**—The shared receipts fund is sensitive to land management practices which influence the revenue productivity of the National Forests; for example, clear cutting vs. selective cutting decisions. The shared revenue impact of such management de-

cisions on each county will depend largely upon the elasticity of the demand for timber.[6]

4. **Investment in the National Forests**—The greater the amount currently being invested in a National Forest (the greater the KV and DR), the lower will be the amount currently available for sharing with counties (CS).

These two interests—the county share and forest investment—are set in conflict with one another in the short run.

The four points summarize the highlights of the National Forest Receipt Sharing Program.[7] Each shows that variations in revenue may cause changes in payments to counties.[8] After 1976 the amount shared included KV and DR. A later section of this chapter describes this in more detail.

Table 21 presents the distribution of counties by per acre payment for 1975 and by the extensiveness of National Forest land within a county. It shows that 81% (529/652) of the counties receive 75¢ per acre or less. Only 2% (14/652) receive over $5 per acre. This table does not measure how much or how little the payments are concentrated. Without implying that unequal per acre payments are undesirable, it is useful to determine the degree of inequality.

How can the degree of inequality of the distribution of shared receipts be measured? One method is to measure the percent of all shared receipts that go to the counties representing the 10% of National Forest land that yields the lowest per acre payment. Then measure the amount to the counties representing the 20% of the National Forest and the next lowest per acre payments, and so forth.

If the distribution of the per acre shared receipts were uniform, the counties with 20% of the National Forest land would receive 20% of the shared receipts; and counties representing 60% would receive 60% of the shared receipts. This is shown in *Chart 1* as the "Line of Lorenz Equality." The entire diagram is called a *Lorenz Curve.* It plots the cumulative percentage of National Forest land, in counties against the percent of shared receipts the counties receive.[9] For example, in 1975, counties with 10% of the land that yields the lowest per acre payment received 1% of the shared revenues; counties with 45% received 7%; counties with 67% received 19%; and counties with 76% of the land received 29% of the shared revenues.

The inequality depicted in *Chart 1* is measured by a Gini coefficient. *Table 22* presents the Gini coefficients for the 1965,

Table 21

DISTRIBUTION OF COUNTIES BY PER ACRE NATIONAL FOREST RECEIPTS SHARING PAYMENTS AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY, 1975

Per Acre Payment Level	Extensiveness of National Forest Land (percent of county area)				
	0-5%	5%-10%	10%-15%	15% and Above	Total
$.75 or Less	117	82	53	277	529
$.76-$5	27	11	20	51	109
$5 or More	5	1	1	7	14
Total	149	94	74	335	652

SOURCE: ACIR staff calculation based on data from Forest Service, U.S.D.A.

Chart 1

LORENZ CURVE OF RECEIPTS AND NATIONAL FOREST ACRES, 1975-6

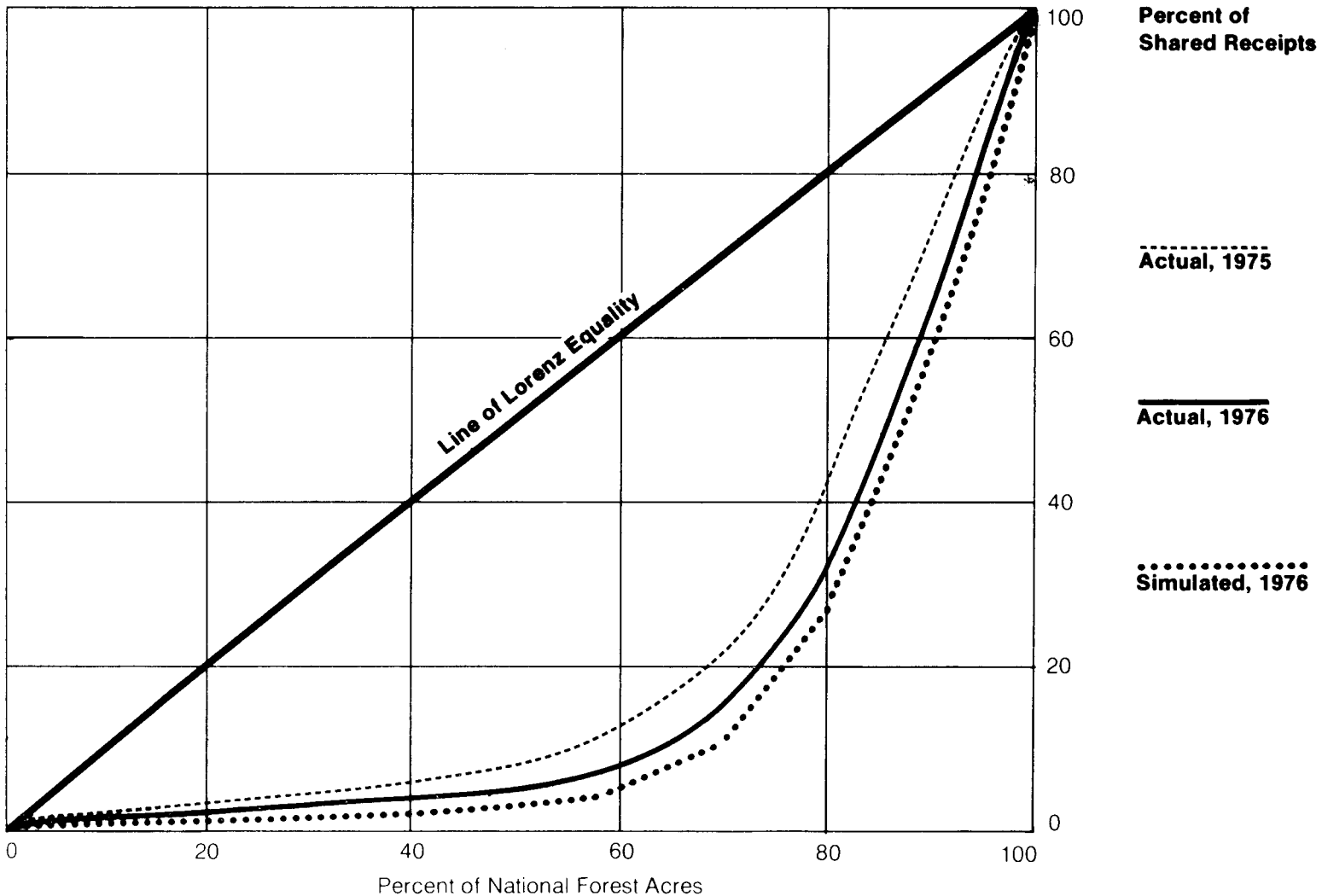


Table 22

GINI COEFFICIENT FOR LORENZ CURVE ON NATIONAL FOREST PAYMENTS AND NATIONAL FOREST ACRES

Year	Payment	Gini Coefficient
1965	National Forest Receipt Sharing (NFRS)	.251
1970	NFRS	.285
1975	NFRS	.310
1976	NFRS	.299
1976	Estimated Gross National Forest Payment (P.L. 94-588, *National Forest Management Act of 1976*)	.281

SOURCE: ACIR staff calculations based on data from Forest Service, U.S.D.A.

1970, 1975 and 1976 National Forest Receipt Sharing payments and the simulated payment that would have occurred in 1976 if the current law (P.L. 94-588) had been in effect. The closer the Gini coefficient is to 1.0, the more evenly distributed is the National Forest payment. Conversely, the closer the coefficient is to 0.0, the more unevenly distributed (more concentrated in a few counties) is the payment. As *Chart 1* and *Table 22* show, the distribution became less even from 1975 to 1976 (.310 vs. .299). Further, the legislative change which increased the sharable income has made the payment distribution more unequal (.299 vs. .281). This Lorenz inequality results from the unequal productivity of National Forest land. Productive land earns more revenue and, therefore, provides a larger share for local governments.

Review of the Literature

The costs and benefits to local governments of federal land have been estimated on three occasions; twice by Ellis T. Williams of the U.S. Forest Service in publications dated 1955 and 1965, and once by the EBS Management Consultants, Inc., in 1968 under contract to the Public Land Law Review Commission.

Williams compared the estimated tax foregone due to federal ownership with the local benefit of the receipt sharing payment and certain types of federal expenditures for a sample of 40% of the National Forest acres.[10] Forest Service researchers interviewed local assessing officers to estimate the market value of the National Forest in each sample county selected. National Forest acres in the sample counties were classified according to the local assessment practice. The acreage in each class was then multiplied by the average value per acre for that class. The sum across all classes was the total assessed value of the National Forest land. The property tax revenue foregone was estimated by multiplying the assessed value of the National Forest by the prevailing tax rate per $100 of assessed value. The prevailing rate included state, county, school and other local taxing districts. The results for the sample counties were generalized to apply to the entire National Forest system.

Benefits generated by the National Forest land were divided into two categories: contributions-in-kind and indirect. Contributions-in-kind were calculated as the expenditure for local public services that would have been made if the land were not federally owned.[11] Three types of contributions-in-kind which save local expenditures were identified: (1) construction and maintenance of roads, trails and structures; (2) fire control; and (3) forest highways.

The benefit derived from the construction

and maintenance of roads, trails, and structures was estimated by averaging Forest Service expenditures for these purposes over a three-year period. Only expenditures on roads which served as a mail or school bus routes were included since roads serving these functions could "reasonably" be expected to be built and maintained by state or local authorities.

Fire control service benefits were estimated by computing the average annual expenditures per acre being made by the respective states on private lands during the same three-year period. These expenditures were used because they were judged to be a better indicator, in most cases, of saved expenditures than actual expenditures by the Forest Service.

The *Federal Highway Act of 1921* provides federal funds for the construction and maintenance of highways of "primary" importance to the states, counties or communities within, adjoining or adjacent to the National Forest. These funds are independent of the federal aid highway program and accrue to the states only because of the existence of the National Forest. As a result, both studies considered such highway expenditures as a contribution-in-kind to the state and local governments.

Williams did not attempt to estimate indirect benefits, but he did present a criterion for identifying them. The criterion was "those benefits over and above those that would normally stem from forest land in private ownership."[12] Several examples of indirect benefits resulting from the federal ownership and management of forest land are: (1) timber and other resource management provides stability for forest industries and local economies; (2) livestock industries and recreation-based industries benefit from the assurance of a permanent grazing and recreation resource in numerous local areas; and (3) benefits are derived from watershed management and from the recreational opportunities provided.

A net benefit (foregone costs minus foregone tax revenue) was compared to the cash reimbursement made by the federal government. This payment included the 25% shared receipts from the *National Forest Receipts Sharing Act of 1908*, and payments from the *Arizona and New Mexico Enabling Act of 1910*, the boundary *Waters Canoe Act of 1966*, and the *Oregon and California Revested Railroad Grant Land of 1916* (only in the 1962 study). The framework developed in *Chapter III* can be applied to the methodology of Williams' studies. The property tax revenue and the contributions-in-kind would be a *foregone* benefit and a *foregone* cost, respectively. The federal compensation payment is a *current* benefit. *Table 23* shows the significant role played by the estimate of benefits in the determination of the impact of National Forest lands.

In both the 1955 and 1965 studies, the

Table 23

SUMMARY OF WILLIAMS' 1955 AND 1965 STUDIES OF FOREGONE TAXES, FUND PAYMENTS, AND CONTRIBUTIONS-IN-KIND

(Cents Per Acre)

	1955	1965	Increase	Percent Increase
Estimated Foregone Tax (calendar year)	19¢	43¢	24¢	126%
25% Fund Payments (fiscal year)	11	19	8	73
Contributions-In-Kind (fiscal year)	24	44	20	83

25% payment is less than the estimated foregone tax revenue (1955—58% and 1965—44%). Only after Williams included the contributions-in-kind did the National Forest more than compensate *on average* for the estimated foregone tax revenue (1955—16¢ per acre, and 1965—20¢ per acre).[13]

After Williams' two studies, the Public Land Law Review Commission (PLLRC) directed EBS Management Consultants, Inc., to study the impact of federal land on local jurisdictions.[14] EBS conducted 55 case studies (five states and 50 counties) to assess the impact of federal land. The EBS staff selected the 55 cases so that their results would include intensive federal land holdings that were distributed nationwide.

Data from the Bureau of the Census and from over 600 personal interviews were collected to estimate the net benefits of federal land to the case study areas. The calculation of the net effects included the estimation of foregone property tax revenues, and the valuation of in-kind benefits and costs.

EBS used a methodology similar to Williams' to derive the property tax revenue that federal lands would pay if they were privately owned. With the assistance of tax assessors, EBS grouped the federal land into local land classes used for comparable private land. Since the categories were very broad, they included lands that were not comparable to the federal land. Average assessed values per acre were determined for each class. Then the 1966 rural tax rate which was found by subtracting the municipal levies from the weighted average county tax rate was applied to the assessed value of the federal land to obtain the estimated foregone property tax revenue.[15]

EBS also credited the federal government with providing in-kind benefits to the local governments. Federal officials estimated the value of the goods and services given to the local and state governments. In some cases the value of the benefit to the local jurisdiction was made equal to the cost of providing goods or services. The annual value of capital goods, such as roads, bridges and other federal installations, was computed based on the capital cost divided by the life of the asset. Evidently, EBS also measured some benefits as saved costs; for example, rights of way on the federal land.

The report also estimated the in-kind costs to state and local governments. Detailed financial accounts were not available, so the state and local officials estimated the cost imposed upon the government. The specific items were law enforcement, fire protection, and road maintenance.

When the EBS study is placed within the framework described in *Chapter III*, its property tax revenue estimate is a *foregone* benefit. In addition to foregone costs (saved expenditures), EBS used *current* benefits—the actual use of the federal property or services.

A Critique of the Studies

The two studies by Williams accounted for nearly all the factors required to estimate a tax equivalency as described in *Chapter IV*. Apparently, considerable effort was devoted to refining the estimates by accounting for local taxation methods. The methods, however, fell short of the model presented in *Chapter IV* on two counts. Williams reports that a tax equivalency was computed by multiplying the estimated value by the prevailing tax rate rather than by a recomputed tax rate. Based on the consultant's estimate of the value of the Umpqua National Forest (*Appendix B*), the addition of the portion of the Umpqua's value to the Douglas County tax base would double the tax base and reduce the effective tax rate by approximately 40% (from $15.79 to $9.80 per $1,000 assessed valuation). Thus, a tax equivalency computed by using existing tax rates can overestimate the amount of the payment to Douglas County by as much as 100%.

The Williams' study apparently made no attempt to account for the effect that federal land ownership has on the value of private land. It increases the value of private land by restricting the supply and by the special benefits it creates to adjacent land. The discussion in *Chapter IV* concluded that the comparable sales method would not accurately indicate the value the federal land would have. This criticism probably would apply to any attempt to estimate the value of federal land

since it is difficult to determine the influence of federal land on private land values.

The major problem with evaluating the EBS estimate of value is that the study gives only a sketchy description of the methodology. According to the report: "In discussions with county assessors and/or other officials, an assessed value for each class of land was derived; in most cases the comparable lands were used for the fairly broad categories."[16] Because the report makes no reference to attempts to solve the special problems of valuing public land, presumably no effort was made to address them. Kenneth Tollenaar reviewed the EBS methodology and noted: "The report's efforts to estimate local property tax 'losses' are very unsophisticated and must be regarded as subject to great skepticism."[17]

The estimation of benefits generated by federal lands raises another set of methodological problems. An estimation of benefits involves (1) identifying the benefits, (2) valuing them, and (3) apportioning them among levels of government.

In the Williams' studies, estimates of the expenditures that "reasonably" would have been made if the federal land were privately owned served to identify the benefits—thus foregone costs. In the EBS study, most benefits are normally identified as the use of federal property by local governments—thus EBS measured *current* benefits (although, in other cases, EBS also identified benefits as foregone costs).

After the benefits are identified, their dollar value must be ascertained. Williams apparently based the value of the benefit upon an estimate of the local expenditures saved. He included federal expenditures when they were equal to the amount the locality would have been willing to spend. This method leaves considerable scope for judgment by the researcher. Since the expenditure levels among non-National Forestcounties vary greatly, it is difficult to determine whether under private ownership of the forest land each National Forest county would have chosen a high, low or average expenditure level. The EBS study apparently accepted, in most cases, the amount of federal expenditures as the value of the benefit (or contribution-in-kind) to the local government. Their estimates did not include the free public services which the local citizen gained from the federal land.

All three studies do not clearly apportion costs and benefits among levels of government. In some instances, the principal unit is the county; in other cases, the town; and finally, the state and local governments combined. The Williams and the EBS reports were aware of this problem. For example, the EBS staff asked federal officials to distribute benefits across the state and local governments. While such a method does apportion the benefits, it is of doubtful validity because benefits vary depending upon one's viewpoint. The degree of variance inherent in this method adds to the problem.

The shortcomings of these studies do not stem from low quality research. On the contrary, they were comprehensive efforts which diligently sought to quantify the costs and benefits associated with federal ownership. Any attempt to identify, value, and apportion the individual effects related to 187 million acres must fail because of the size of the task. The studies affirm the difficulty of estimating the net benefits of federal land. The analysis developed under the "Fiscal Impact of Federal Ownership" approach in *Chapter III* demonstrated that any attempt to measure the fiscal impact of the federal land on state and local governments will have limited success.

A completely different methodology is needed. One alternative is to start with an understanding that the current fiscal situation in National Forest counties includes the net effect of the National Forests and of the payment system as they were prior to 1976. If the fiscal decisions by the National Forest counties regarding tax or expenditure levels differ according to the extensiveness of National Forest land or in comparison to similar counties, the difference is considered to be the unreimbursed effect of federal land ownership. Thus, while the costs and benefits cannot successfully be separately measured, the net result can be estimated. This alternative was adopted for this study.

THE NEW METHOD FOR EVALUATING THE IMPACT OF FEDERAL OWNERSHIP ON LOCAL GOVERNMENTS

Federal ownership of the National Forest land under this alternative, is postulated to have little or no effect on the current fiscal situation of local governments. Most of the National Forest land was federally owned long before the present day communities were organized. Whatever potential disadvantage is associated with extensive National Forest land should be offset by market forces and intergovernmental arrangements.

From the time of the first settlers to the present, each group of residents has had to account for the federal land ownership in location and economic development decisions. Federal ownership may once have affected the size and composition of the economic base of the community—the foregone benefits and costs discussed in *Chapter III*. Meanwhile, however, the community would reach a size such that the costs of public services could be delivered at a "reasonable" tax rate. The restriction on the tax base would be balanced by smaller populations than otherwise would be the case. The movement by many states to preserve open space rather than encourage development lends support to this point. Often it is advantageous to prevent development—a purpose well served by the National Forest lands.

Under the new methodology it is also possible to consider whether federal and state aid correct for any unreimbursed effect of federal land ownership. The federal and state intergovernmental transfers redistribute money to local government in part so that they can provide certain public services without unduly burdensome local taxes. If federal ownership generated any adverse fiscal effects, existing intergovernmental transfers may already offset them.

The Unit of Observation and the Data

The analysis that follows focuses on the relationship between local government finances and the National Forest land because local government officials claim that local governments bear the alleged fiscal burdens generated by federal ownership of the National Forest within their boundaries.[18] Before narrowing the focus to the local fiscal impact of National Forests, an analysis is made of the impact on the 50 state-local fiscal systems. This is essential because state aid programs equalize the revenue base across all local governments (e.g., school financing) or subsidize the expenditure levels for all local governments (e.g., highway expenditures) and these programs could offset the alleged adverse fiscal effects generated by the federal ownership and borne by the local governments.

County governments receive the federal compensation for National Forest land, the analysis might therefore define "local government finances" as only county government finances. To contend that the fiscal consequences of the National Forest affect only county governments would be completely arbitrary. The empirical research avoids this problem by defining "local government finances" in two ways: (1) as the sum of all appropriate revenue and expenditure data for all local governments—county, municipality, township, school district, and special district—in the county, and (2) as the county government alone. The analysis of all local governments is presented in this chapter while the analysis of the county government is described in the *Appendix D*. Conclusions that apply to both definitions will be mentioned throughout the report.

To perform the analysis, the data from the *Census of Government 1972*, the *City-County Data Book 1972*, and the Forest Service payments and ownership computer records (1964-1975) were assembled on magnetic computer tape. Each record was organized by state and county FIPS* codes. *Figure 4* provides a listing of the data.

The Method of Analysis

In October 1976, the federal government increased the compensation to local governments which had National Forest within their boundaries. The proponents of this action argued that an increase in payments was necessary because of the alleged adverse ef-

*Federal Information Processing Standards.

Figure 4

DATA SOURCES FOR ACIR STUDY OF FEDERAL RECEIPTS SHARING PROGRAMS

1972 Census of Governments

Own Source Revenue
Taxes
Property Taxes
Charges
State Aids
Federal Aids
General Expenditures
Expenditures for:
- Parks & Recreation
- Police Protection
- Education
- Fire Protection
- Highways

Family Income
Ratio of Own Source Revenue to Total Personal Income
Ratio to Own Source Revenue to General Expenditures

1972 City-County Data Book

For 1967,
Own Source Revenue
Taxes
Property Taxes
State Aids
General Expenditures
Expenditures for:
- Education
- Highways

For 1970,
Population
Low Income Families
Net Migration
Median Age
Unemployment
Land Area

Forest Service

Per acre receipt sharing payment (1964-76)
Ratio of National Forest acres to total county acres (1964-75)
National Forest Region

fect of federal land ownership borne by local governments.[19] If the increase over the previous level of aid were justified on this basis, the "adverse fiscal effect" of the National Forest land would manifest itself in the revenue and expenditure levels of the local governments. The report tests for two manifestations of adverse fiscal effects. *First,* if federal ownership of the National Forest land within a jurisdiction denies the jurisdiction a needed tax base, the problem would show itself in one of two ways; either the jurisdiction would maintain its level of services and exhibit a relatively high tax effort *or* it would avoid overtaxation by reducing its level of services. The problem should be seen as a relatively high per capita revenue or a relatively low per capita expenditure. This is the *denied tax base effect. Second,* National Forest spillovers (e.g., increased local expenditures for fire and police protection, and highways) may impose expenditures on a jurisdiction. This would show itself either as higher per capita general operating expenditures or higher per capita expenditures in specific categories which are influenced by National Forest spillovers. This is the *imposed expenditure effect.* If this pattern does not emerge from the examination of revenue and expenditure variables, there is no case for an increase in aid.

The tests for these "adverse fiscal consequences" include an examination of revenue and expenditure variables stratified by the extensiveness of the National Forest land within the jurisdiction. If the denied tax base or the imposed expenditure effects influence local governments' fiscal decisions, the influence should increase as the extensiveness of National Forest land increases.

In addition, the revenue and expenditure decisions of local governments with National Forest land within their jurisdictions are compared to local governments with private, commercial forest land within their boundaries to investigate whether jurisdictions with private, commercial forest landholdings behave any differently from jurisdictions with National Forest landholdings. There are 2,631 counties with private, commercial forests. To exclude those which also may have extensive public landholdings, the comparison in this study is made with private, commercial

forest counties which have *less* than 10% public land area and *less* than 10% National Forest land area. These private, commercial forest counties number 1,505.

The report tests the fiscal data for county areas in three ways: (1) a clustering or grouping of the revenue and expenditure data as predicted by the denied tax base or imposed expenditure effects, (2) an association of the alleged adverse fiscal effects with the extensiveness of the National Forest land, and (3) a comparison of the fiscal characteristics of the National Forest counties with a control group of private, commercial forest counties.

Comments on the Research Methodology

Seven potential criticisms of this research methodology should be mentioned.

First, a comparison of fiscal information requires that the data be converted into like units of measure. This study adopted the conventional technique of stating the local government fiscal data in per capita terms. Since the research deals with land issues, there is a case for analyzing the data in per acre or square mile terms. But, because the specific services analyzed are primarily people related—police and fire protection and highways—and because people vote for and pay for these services, the per capita unit was chosen.

Second, the study assumes that the dollars spent on a public service, such as police protection, represent the quality of that service. This is done because there is no way to measure the quality of local public services, nor is there reason to believe that the "dollars-quality of service" relationship is different for National Forest (and public land) counties than for all other counties. Therefore, little, if any, bias is introduced into the study because of this assumption.

Third, some of the tests for the effect of federal land ownership compare counties in which federal land is a low proportion of the county area with those in which federal land is a high proportion of the county area. The assumption is that whatever the effect of federal land, the effect should be greater when the federal land occupies a greater proportion of the county. It is conceivable that the fiscal effect of relatively small federal landholdings could in some cases be greater than the effect of relatively large federal landholdings. Only if the activity level is always inversely related to extensiveness would the analysis be affected. There is no evidence which supports this inverse relationship.

Fourth, the comparative approach uses a nationwide sample. Although the factors influencing local fiscal decisions vary by state or by region, the comparison group is distributed among the states in roughly the same proportion as the federal land *(Appendix C)*. Accordingly, the factors which vary by state affected each group approximately equally. If a state-by-state analysis had been employed, the comparison group would have been very small for some states. This would increase the risk that federal land counties would be compared to atypical private land counties.

The geographic distribution of the comparison group, admittedly, is not matched perfectly with the distribution of the federal land counties. There is, therefore, some possibility that the actual effect of federal land is somewhat different from that measured by the comparisons. Counties in the south and northeast are somewhat overrepresented in the comparison group. This is because federal land is more extensive in the west. The counties in the overrepresented area are roughly divided between those that spend and tax higher than counties in the west and those that spend and tax lower than counties in the west. There is a possibility therefore (albeit slight) that the comparison method is biased because of factors which vary by state.

Fifth, another potential problem is that the sample may serve to overstate the fiscal impact of National Forest and public land. For example, comparable private, commercial forest counties and comparable private land counties are scarce in the high tax and high spending states of the far west. Thus, these type counties are underrepresented in the control group. The result could be that the fiscal impact of public land could be exaggerated by comparison. Even with this potential bias, the analysis still failed to detect a fiscal problem in public land counties.

Sixth, in order to base the analysis on comprehensive local expenditure and revenue data, the information was taken from the *1972 Census of Governments.* More current data would have been preferable. The empirical findings, however, could be altered by more recent information only if the fiscal changes in the intervening years, (primarily due to the Federal General Revenue Sharing program and the inflation) affected counties with federal land significantly differently than other counties. Such a differential effect would seem quite unlikely.

Seventh, the scales on the tables may be too broad so that the adverse fiscal effects of the National Forest land would fall within a cell rather than move a county from one cell to another. To check this possibility an analysis was made to see if the results were sensitive to different scales. The general results were not altered.

These seven criticisms are cited not because they are unique to this study, but because they are the conventional problems encountered in empirical research. Since they are conventional, they have been identified so that the reader is aware that the research has sought to reduce their effects on the study's results.

THE EVALUATION OF THE IMPACT OF THE NATIONAL FORESTS ON LOCAL GOVERNMENT FINANCES

This section examines the need prior to 1976 for additional federal compensation for National Forest land by asking three questions.

1. Does the extensiveness of National Forest land within a jurisdiction influence the tax burden of the people who reside within that jurisdiction? The federal ownership may deny the locality the use of its potential tax base. The result is that the local government is unable to raise desired revenues or can only do so with a substantial tax effort.
2. Does the extensiveness of the National Forest land within a jurisdiction influence the expenditures of the local government? Federal ownership of the National Forest may add to general operating expenditures or specific categories of expenditures because of spillover costs. Even if the total expenditure level is unaffected, the spillover costs of the National Forest could increase the relative budget share of particular expenditure items (e.g., law enforcement and highways) at the expense of other local services.
3. Do the federal and state intergovernmental transfers to local governments provide aid to National Forest counties so that they are able to pay any alleged imposed expenditures? Federal and state governments distribute considerable assistance to local units which may counter any negative fiscal consequences of federal ownership.

Federal aid to state and local governments amounted to $49.7 billion in 1975. Only part of this goes to local governments. Federal General Revenue Sharing pays local governments about $4 billion. In addition, according to an ACIR estimate, states pass about 20% of the federal aid they receive through to local governments.[20] Some of this aid may already offset part of the alleged fiscal consequences associated with federal ownership of the National Forests. State aid which amounted to $52 billion may have the same effect by distributing some or all of the fiscal impact of the National Forest statewide.[21]

A Brief Analysis of State Impact

The alleged fiscal burden attributed to federal ownership of land is usually assigned to local governments. Before the problem is analyzed in its usual terms, the effect on states should be examined. Any burden of federal land could be borne statewide because state aids equalize fiscal resources or respond to the same expenditure demands that the National Forests may impose. If a problem exists and is shifted to the state, it should reveal itself in a comprehensive measure of fiscal stress within the state-local finance system.

The Advisory Commission on Intergovernmental Relations has developed a measure

Table 24

RELATIVE STATE-LOCAL FISCAL PRESSURE USING RESIDENT PERSONAL INCOME TO ESTIMATE FISCAL CAPACITY, 1964-75

(Indexed on Median)

High and Falling

	[a]	[b]
Wisconsin	119/	88
Arizona*	114/	75
New Mexico*	110/	77
Louisiana	109/	91
Wyoming	108/	73
Montana*	106/	27
Oregon*	103/	90
Washington	103/	88
Mississippi	102/	67

High and Rising

Vermont*	132/181
Massachusetts	125/284
California*	125/158
Hawaii	124/249
Minnesota	121/115
Maine	111/144
Nevada	110/172
Maryland	105/245
Rhode Island	103/179
West Virginia	102/129
Michigan	102/115
New Jersey	101/258
Illinois	101/233
Delaware	101/260
Pennsylvania	100/207

Low and Falling

South Dakota	100/-87
Iowa	99/ -2
Colorado*	99/ -9
Utah*	97/ 8
North Dakota	96/-100
Indiana	95/ 100
Idaho*	94/-26
Kansas	93/-44
North Carolina	92/ 75
Nebraska	91/ 74
South Carolina	90/ 96
Texas	87/ 44
Oklahoma	87/-15
Florida	86/-42
Tennessee	86/ 37
Alabama	84/ 46
Arkansas	82/ 4

Low and Rising

Kentucky	95/168
Connecticut	93/171
Alaska	93/279
Georgia	93/121
New Hampshire*	92/152
Dist. of Columbia	92/213
Virginia	91/213
Missouri	89/130
Ohio	85/104

[a]Tax pressure index for 1975.

[b]Index of change in tax pressure 1964-75.

*More than 10% of the acres in the state are National Forests.

SOURCE: Advisory Commission on Intergovernmental Relations. *Measuring the Fiscal "Blood Pressure" of the States in 1964-75.*

of fiscal stress of the state and local governments in each state, not merely at a single point in time, but over the 1964-75 period.[22] This was done by calculating for each state the ratio of own source state-local tax collections to resident personal income for 1975. These ratios were then indexed to the ratio of the median state. The report presents estimates of the average annual rate of change in the ratio of total state and local taxes to resident personal income from 1964 to 1975. This average annual rate was also indexed to the rate of change of the median state. When combined these index numbers form a measure of fiscal stress. The numerator indicates the state's relative position in 1975. The denominator indicates the state's relative change in pressure from 1964 to 1975. Thus, the median state's fiscal pressure is 100 over 100.

Table 24, taken from the ACIR report cited, divides the states into four categories: those with relatively high and rising pressure; those with relatively high and falling pressure; those with relatively low and rising pressure; and those with relatively low and falling pressure. For example, Wisconsin's pressure of 119/88 shows that Wisconsin is above the median (119) in relative state-local fiscal pressure in 1975 and below the median (88) in relative change in fiscal pressure from 1964 to 1975. In general, states in the high and rising category can maintain the quantity and quality of public services only if they continue to bear a relatively high tax burden. States in the low and falling category can improve the quantity (and quality?) of public services or maintain a low tax pressure position.

States with an asterisk have over 10% of their land in National Forest land—Arizona (16%), California (20%), Colorado (22%), Idaho (39%), Montana (18%), New Hampshire (12%), New Mexico (12%), Oregon (25%), Utah (15%), and Vermont (15%). If these state-local finance systems were experiencing the denied tax base and/or imposed expenditure effects, they should be found systematically in the high and rising category. This would be so because the states with a relatively high concentration of National Forest lands must not only raise revenues for public services from an allegedly denied tax base, but must also pay for the imposed spillover costs associated with the National Forest.

Table 24 does not support the expectation. Of the ten states, two—California and Vermont—are in the high and rising category; four—Arizona, Montana, New Mexico and Oregon—are in the high and falling category; three—Colorado, Idaho and Utah—are in the low and falling category; and one—New Hampshire—is in the low and rising category. The evidence shows states with a relatively high concentration of National Forest land exhibit diverse, not uniform, fiscal stress measures. From the perspective of state and local governments, the facts dispute the claim that the degree of fiscal stress in a state-local finance system is directly associated with the extensiveness of National Forest land within that state. If there is no problem in the state as a whole, one interpretation of the analysis is that any problem that exists among local governments could be solved by intrastate transfers.

Analysis of Local Impact

The alleged fiscal burdens also should be examined from the perspective of the local government, since there may be a federal obligation even if the state as a whole is not affected by federal ownership of the National Forests. The research presented here organized government finance information at the county level summing up pertinent fiscal data from the county government and all other substate governments—municipalities, townships, special districts, and school districts. The same analyses were conducted for county governments alone *(Appendix D).* In both cases, the three questions presented at the beginning of this section guided the research.

Revenues

The first question asked whether the extensiveness of National Forest land within a jurisdiction creates the denied tax base or imposed expenditure effects.

The next six tables *(Tables 25-30)* present tax information for 3,105 counties (of which 652 have some National Forest land) as it re-

lates to the extensiveness of National Forest land in each county. The analysis proceeds by looking at three measures of local revenue raising—property taxes, own source revenue, and tax effort. Each successive measure provides a more comprehensive description of the local jurisdiction's fiscal position. Recall that the revenue raising decisions reflect the combined effect of federal land ownership and the 25% National Forest Receipt Sharing and Taylor Grazing programs as they existed until October 1976.

PER CAPITA PROPERTY TAXES

The research focused first on the tax revenue related question posed at the outset. The analysis found that the adverse fiscal consequences attributable to federal ownership did not exist. *Table 25* distributes counties on the basis of per capita property taxes raised by all governments in a county and by the extensiveness of National Forest land within a county. The rows are per capita property taxes, ranging from the $65 or less category to the $260 or more category. For example, there are 657 counties which raise $65 or less per capita property taxes for all levels of local government. Of these, 492 have no National Forest land and 165 have some: 45 have 0-5%; 33 have 5%-10%; 16 have 10%-15%; and 71 have 15% or more National Forest land. When all counties are taken, the average per capita property tax varies from $131 for counties with the lowest share of National Forest land to $179 for those with the highest share.

The slightly higher average per capita property tax in National Forest counties as a group ($155 vs. $153) does not support the claim of a fiscal problem. If the local governments with National Forest land experience the alleged denied tax base effect even after they have received a federal receipt sharing payment, the distribution of counties in *Table 25* should cluster *systematically* in the upper-right-hand cell—high concentration of National Forest land and low per capita property taxes—or the lower-right-hand cell—high concentration of National Forest land and high per capita property taxes. If they experienced the alleged imposed expenditure effect, the distribution of counties should *systematically* cluster in the lower-right-hand cell—high concentration of National Forest land and high per capita property taxes.

The clustering of counties that would indicate that federal ownership of National Forest land causes a distinctive denied tax

Table 25

THE DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA PROPERTY TAXES AND BY THE EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Property Tax Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$65 or Less	492	45	33	16	71	165	657
$65-$130	683	44	28	26	70	168	851
$130-$195	513	29	17	12	62	120	633
$195-$260	437	12	7	12	60	91	528
$260 or More	328	19	9	8	72	108	436
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Property Tax	$153	$131	$121	$141	$179	$155	$154

SOURCE: ACIR staff calculation.

Table 26

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY PER CAPITA PROPERTY TAX LEVELS

1972 Per Capita Property Tax Level	National Forest Counties (N = 652)	Private Forest Counties With Public Land (N = 2,631)	Private Forest Counties With Less Than 10% Public Land (N = 1,505)
$65 or Less	25.2%	22.6%	23.0%
$65-$130	25.8	27.2	27.0
$130-$195	18.4	20.1	20.6
$195-$260	14.0	17.8	18.7
$260 or More	16.6	12.3	10.7
TOTAL	100.0	100.0	100.0

SOURCE: ACIR staff calculation.

base problem does not occur. Of the 652 National Forest counties, 165 (25.3%) possess the concentration of National Forest land and the low local per capita property taxes that the denied tax base effect would predict; and 108 (16.6%) show the concentration of National Forest land and the high local per capita property taxes which the imposed expenditure effect or denied tax base effect would produce. As a result, 379 counties (58.2%) with National Forest land do *not* exhibit the obvious effects of the depleted tax base or imposed expenditures.

As further evidence that the alleged adverse fiscal impact does not materialize, *Table 25* shows that a jurisdiction's level of per capita property taxes is not influenced by the extensiveness of National Forest land within the jurisdiction. The 652 National Forest counties are distributed across all per capita property tax levels regardless of the extensiveness of National Forest land. *Table 25* shows that 71/165 of the National Forest counties with a relatively low per capita property tax level ($65 or less) have a relatively high (15% or more) concentration of National Forest land. Many counties with even less area in National Forest land (94) have per capita property taxes in the range of $65 or less.

The conclusion that there is no problem of denied tax base is strengthened when the property tax position of National Forest counties is compared to counties with private, commercial forest land. If the tax exempt status of National Forest land created the denied tax base and imposed expenditure effects, the distribution of National Forest counties across per capita property tax levels should differ from the distribution of counties with private (i.e., tax paying) forests. *Table 26* shows the comparison. One column distributes the 652 National Forest counties; the next distributes the 2,631 private forest counties; and the third distributes the 1,505 private forest counties with *less* than 10% National Forest area and *less* than 10% other public land area. For example, 25.2% of the National Forest counties as compared to 22.6% or 23.0% of the private forest counties raised $65 or less in per capita property taxes; the percentages for the $260 or more category are 16.6% and 12.3% or 10.7% for the public versus private forest counties. Thus, when compared to counties with private forests, 38 more National Forest counties than might be expected exhibit high per capita property taxes.

The case for the adverse fiscal impact of the National Forest land on local government finances (and therefore, the case for additional federal reimbursement) is usually made in terms of the local property tax. Given the present reimbursement levels, *Tables 25* and *26* do not support the predicted adverse prop-

erty tax effects. While the analysis presented is based on the sum of county and subcounty governments, the same conclusion holds when the above analysis is conducted on county governments alone *(Appendix D).*

PER CAPITA OWN SOURCE REVENUES

Since property taxes represent only 39% ($42.9 million/$109.6 million) of local government own source revenues, the fiscal impact analysis also should be performed using a measure which equals all revenues raised by a jurisdiction—property taxes, other taxes, and user charges. Based on such an analysis, it was found that the extent of National Forest land did not affect the jurisdictions' revenue raising capacity. *Table 27* presents the distribution of per capita own source revenues by the extensiveness of National Forest land within a county. The rows are per capita own source revenues, ranging from the $90 or less category to $360 or more category. The columns are once again the extensiveness of National Forest lands.

If federal ownership of National Forests caused a distinctive denied tax base effect, jurisdictions should concentrate in the upper-right-hand or lower-right-hand cells. If federal ownership of forests caused a distinctive imposed expenditure effect, jurisdictions should cluster in the lower-right-hand cell. Using the per capita own source revenue measure, only 206/652 (31.6%) National Forest counties possess the characteristics required to show the existence of a denied tax base or imposed expenditure effect, but 446 (68.4%) National Forest counties do *not* exhibit the predicted fiscal characteristics. This weakens the case for additional federal reimbursement beyond the *National Forest Receipt Sharing* and *Taylor Grazing Act* programs, as they stood prior to 1976.

Instead of the distribution that would indicate a special problem associated with the extent of National Forest land, the National Forest counties are spread throughout the range of per capita revenues. National Forest counties are distributed in all five per capita own source revenue categories regardless of the degree of National Forest land within the county. For example, 13.7% (89/652) raise $90 or less; 27.8% (181/652) raise $90-$180; 24.2% (158/652) raise $180-$270; 16.4% (107/652) raise $270-$360; and 17.9% (117/652) raise $360 or more. (Average per capita own source revenues in National Forest counties range from $193 to $266.) If the adverse fiscal effects of the National Forest lands exceeded

Table 27

THE DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA OWN SOURCE REVENUES AND BY THE EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Own Source Revenue Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$90 or Less	238	19	20	9	41	89	327
$90-$180	644	53	32	26	70	181	825
$180-$270	686	42	20	17	79	158	844
$270-$360	552	16	14	7	70	107	659
$360 or More	333	19	8	15	75	117	450
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Own Source Revenue	$235	$207	$193	$231	$266	$238	$235

SOURCE: ACIR staff calculation.

Table 28

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY PER CAPITA OWN SOURCE REVENUE LEVELS

1972 Per Capita Own Source Revenue Level	National Forest Counties (N = 652)	Private Forest Counties (N = 2,631)	Private Forest Counties With Less Than 10% Public Land (N = 1,505)
$90 or Less	13.5%	10.5%	9.8%
$90-$180	27.8	28.3	29.9
$180-$270	24.3	26.8	27.5
$270-$360	16.4	22.1	22.7
$360-or More	18.0	12.3	10.1
TOTAL	100.0%	100.0%	100.0%

SOURCE: ACIR staff calculation.

the present receipt sharing payments, there would be no such dispersion of National Forest counties.

Once again, this conclusion should be checked against the group of private, commercial forest land. If the tax exempt status of National Forest land generates the fiscal burdens usually claimed, the distribution of per capita own source revenues in National Forest counties and private forest counties with little or no federal land should differ. *Table 28* presents this comparison. The three distributions are once again very similar although this table argues that whatever the fiscal consequences of tax exempt National Forest land, the National Forest federal reimbursement existing before 1976 generally offset them. When compared to counties with private forests, 52 more National Forest counties than might be expected exhibit high per capita own source revenue.

LOCAL TAX EFFORT

Federal land could also affect local tax effort, which is the ratio of total own source revenue divided by total personal income. *Table 29* presents the distribution of tax effort by National Forest concentration within a county. The rows are local tax effort, ranging from the 0-8% category to the 17% and above category. The columns are once again the extensiveness of National Forest lands.

Just as with *Tables 25* and *27*, if the National Forest counties experience the denied tax base effect to a greater extent than other counties, they should fall within the upper and lower-right-hand cells because these counties apply little tax effort and permit their public service levels to decline or exert a high tax effort to provide adequate service levels. Those counties which experience the imposed expenditure effect should group in the lower-right-hand cell because they must increase their effort to finance the imposed services. Generally, the National Forest counties are dispersed over the range of local tax effort values. Only 45.9% (299/652) of the National Forest counties exhibit the characteristics that should be a pattern if the denied tax base and imposed expenditure effects occur; 54.1% do *not*. The average local tax effort ranges from 10.9% to 13.5% for counties with National Forest land.

Table 30 compares the distribution of local tax effort between National Forest counties and private forest counties. If the tax exempt status of National Forest land generates adverse fiscal spillovers, the distributions should differ. A review of the data in *Table 30*

Table 29

THE DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY LOCAL TAX EFFORT AND BY THE EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Local Tax Effort Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
0-8%	564	37	32	24	81	174	738
8%-11%	558	45	20	10	56	131	689
11%-14%	585	27	25	16	60	128	713
14%-17%	339	22	5	9	58	94	433
17% and Above	407	18	12	15	80	125	532
TOTAL	2,453	149	94	74	335	652	3,105
Mean Local Tax Effort	12.3%	11.3%	10.9%	12.3%	13.5%	12.5%	12.4%

SOURCE: ACIR staff calculations.

Table 30

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY LOCAL TAX EFFORT LEVELS

1972 Local Tax Effort Level	National Forest Counties (N = 652)	Private Forest Counties (N = 2,631)	Private Forest Counties With Less Than 10% Public Land (N = 1,505)
0-8%	26.7%	24.3%	24.9%
8%-11%	20.1	23.5	24.9
11%-14%	19.6	23.9	26.2
14%-17%	14.4	13.8	12.2
17% and Above	19.2	14.6	11.8
TOTAL	100.0%	100.0%	100.0%

SOURCE: ACIR staff calculation.

shows that the distributions differ slightly. For example, 26.7% of the National Forest counties have a tax effort between 0-8% compared with 24.3% or 24.9% of the private forest counties. The difference between the two groups continues through the 17% and above category (19.2% vs. 14.6% vs. 11.8%). When compared to counties with private forests, 48 more National Forest counties than might be expected exhibit high tax effort.

The slight variation between the distributions which appears in this comparison raises the question whether there is a significant need for federal reimbursement *above* the sharing provided until 1976. The study will examine whether this minority of counties suffer from federal ownership of the National Forest by relating the tax effort to per capita general expenditures.

The data on local property tax, local own source revenues, and local tax effort reveal that the revenue levels in National Forest counties were similar to those in private forest counties. The revenue information also showed that fiscal characteristics of National Forest counties were *not* directly related to the extensiveness of National Forest land within the county. The distribution of the specific revenue variables by the extensiveness of National Forest land was generally scattered across the degree of extensiveness rather than grouped in the manner predicted. Generally, the analysis of only county governments supports this conclusion.

Expenditures

The second major analytical question deals with the relationship of National Forest land extensiveness to per capita local government expenditure decisions. As with revenue levels, the denied tax base and imposed expenditure effects would manifest themselves as extraordinarily low or high local per capita expenditure levels. If federal ownership caused the denied tax base effect, jurisdictions' per capita expenditures would be relatively low. The imposed expenditure effect could either force up the local per capita expenditure levels or distort the relative budget share of specific expenditure items which are assumed to be associated with National Forest spillovers. If the relative share is distorted, the assumption would be that local citizens are deprived of some benefits of their local expenditures.

Table 31

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA EXPENDITURES AND BY THE EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita General Expenditure Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$250 or Less	563	49	30	21	70	170	733
$250-$300	452	26	22	17	27	92	544
$300-$350	456	25	13	6	43	87	543
$350-$400	317	15	9	8	45	77	394
$400 or More	665	34	20	22	150	226	891
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Expenditures	$340	$321	$325	$351	$407	$370	$346

SOURCE: ACIR staff calculation.

PER CAPITA GENERAL EXPENDITURES

Table 31 distributes per capita local expenditures for all local governments by the extensiveness of National Forest land. Total local government spending in 26% (170/652) of the counties was $250 or less per capita while spending in 34.7% (226/652) was $400 or more. There is a dispersion of the National Forest counties throughout the table rather than a systematic relationship between per capita expenditure levels and extensiveness of National Forest land. Jurisdictions' per capita expenditure levels vary regardless of the extensiveness of National Forest land they contain. Average per capita expenditure varies from $321 in the counties with the relatively low (0-5%) concentration of National Forest land to $407 in the counties with a relatively high (15% or above) concentration.

Table 32 compares the distribution of National Forest counties and private forest counties to evaluate whether the per capita expenditure levels of National Forest counties are unusual. The $250 or less category contains 26.1% of the National Forest counties; 23.9% (or 23.7%) of the private forest counties. In the $400 or more category, 34.7% of the National Forest counties are found as compared with 27.7% (or 24.5%) of the private forest counties. Thus, 67 more National Forest counties than might be expected exhibit high per capita local expenditures.

PER CAPITA EXPENDITURES AND TAX EFFORT

This relatively greater concentration of higher spending counties in National Forest groups is explored further to see if a fiscal problem is indicated. Consider the relationship between local tax effort and per capita expenditures. If the extensiveness of National Forest land matters, the number of counties affected by the denied tax base or imposed expenditure effects should increase as the degree of National Forest land increases.

Table 33 presents the percentage distribution of per capita local expenditures by local tax effort for low (0-5%) and high (15% and above) degree of National Forest land. The rows are local tax effort, ranging from 0-8% to 17% and above. The columns are per capita local expenditures, ranging from $250 or less to $400 or more. The table supports two conclusions: (1) local tax effort and per capita expenditures are directly related *regardless* of the extensiveness of National Forest land; that is, low effort means low per capita expenditures and high effort means high per capita expenditures. There is no significant evidence that the federal ownership of Na-

Table 32

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY PER CAPITA GENERAL EXPENDITURE

1972 Per Capita General Expenditure Level	National Forest Counties (N = 652)	Private Forest Counties (N = 2,631)	Private Forest Counties With Less Than 10% Public Land (N = 1,505)
$250 or Less	26.1%	23.9%	23.7%
$250-$300	14.1	18.0	20.1
$300-$350	13.3	17.6	19.0
$350-$400	11.8	12.8	12.6
$400 or More	34.7	27.7	24.5
TOTAL	100.0%	100.0%	99.9%

SOURCE: ACIR staff calculation.

Table 33

PERCENTAGE DISTRIBUTION OF COUNTIES WITH LOW AND HIGH EXTENSIVENESS OF NATIONAL FOREST BY PER CAPITA LOCAL EXPENDITURES AND BY LOCAL TAX EFFORT*

1972 Local Tax Effort Level	Per Capita Local Expenditures and Extensiveness of Federal Land											
	$250 or Less		$250-$300		$300-$350		$350-$400		$400 or More		Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
0-8%	19.3%	17.0%	4.0%	3.3%	1.0%	1.5%	—	1.0%	—	1.0%	24.3%	23.8%
8%-11%	10.6	3.9	8.6	3.0	5.4	3.6	3.4%	2.7	2.0%	3.3	30.2	16.5
11%-14%	2.0	—	2.0	—	6.0	5.1	2.7	5.1	5.4	7.2	18.1	17.4
14%-17%	1.0	—	2.0	1.0	4.0	1.8	3.4	3.3	4.7	11.6	15.1	17.7
17% and Above	—	—	1.0	1.0	—	1.0	1.0	1.5	10.6	21.0	12.6	24.5
TOTAL	32.9%	20.9%	17.6%	8.3%	16.4%	13.0%	10.5%	13.6%	22.7%	44.1%	100.0%	99.9%

*Low Extensiveness = 0-5.0% National Forest of county area.
High Extensiveness = 15% or more National Forest of county area.
SOURCE: ACIR staff calculation.

tional Forest land is uniquely associated with a condition of high local tax effort and low per capita expenditures as the denied tax base effect would claim; but the data do suggest that (2) as the extensiveness of National Forest land increases, the local tax effort and per capita local expenditures increase in many counties.

Since this second conclusion suggests the imposed expenditure effect, the next stage of the investigation will isolate expenditure items which are most sensitive to National Forest cost spillovers; namely, fire and police protection and highway expenditures.

PER CAPITA EXPENDITURES FOR CERTAIN FUNCTIONS

Table 34 shows the distribution of per capita fire protection expenditures by the extensiveness of National Forest land. The rows are per capita fire protection expenditures, ranging from $1 or less to $6 or more. The columns are the extensiveness of National Forest land, ranging from none to 15% or more.

National Forest counties are distributed across all categories of per capita fire protection expenditures regardless of the extensiveness of National Forest within their boundaries. For example, 232 spend $1 or less per capita while 140 spend $6 or more. Of those that spend $1 or less, 55.2% (128/232) have 15% or more of their land areas in National Forests.

Average per capita fire protection expenditures also vary regardless of the extensiveness of National Forest land. Those counties without National Forests spend *on average* $3.59 per capita as compared with $3.40 on average for National Forest counties; specifically $3.19 (5.0% or less National Forest area); $3.21 (5%-10%); $3.94 (10%-15%); and $3.59 (15% or more). This argues that; (a) local governments save money on fire protection because of the Forest Service's fire fighting activities; rather than (b) spend more on fire protection because of the extensiveness of National Forest lands.

It is also noteworthy that the mean share of expenditures devoted to fire protection in National Forest counties is less than in counties without National Forest land.

Table 35 shows the distribution of per capita police protection expenditures by extensiveness of National Forest land. The rows are per capita police protection expenditures, ranging from $5 or less to $14 or more. The columns are the concentration of National Forest land, ranging from 0-5% to 15% or more.

The general dispersion of National For-

Table 34

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA FIRE PROTECTION EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Fire Protection Expenditures Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$1 or Less	805	51	32	21	128	232	1,037
$1-$2	463	27	22	11	54	114	577
$2-$4	438	32	16	16	49	113	551
$4-$6	249	10	6	8	29	53	302
$6 or More	498	29	18	18	75	140	638
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Fire Protection Expenditure	$3.59	$3.19	$3.21	$3.94	$3.59	$3.48	$3.57
Mean Share of Expenditures in these Counties (percent)	1.03%	.97%	.89%	1.08%	.89%	.93%	1.01%

SOURCE: ACIR staff calculation.

Table 35

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA POLICE PROTECTION EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Police Protection Expenditure Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$5 or Less	375	30	18	7	45	100	475
$5-$8	569	29	21	20	45	115	684
$8-$11	604	30	21	8	55	114	718
$11-$14	414	27	14	10	67	118	532
$14 or More	491	33	20	29	123	205	696
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Police Protection Expenditure	$10.56	$9.87	$10.38	$12.53	$13.71	$12.22	$10.91
Mean Share of Expenditure in These Counties (percent)	3.05%	3.02%	3.11%	3.48%	3.22%	3.18%	3.08%

SOURCE: ACIR staff calculation.

est counties across all levels of per capita police protection expenditures (100 counties spend $5 or less, while 205 spend $14 or more) argues against the existence of a systematic relationship between the presence of National Forest lands and imposed spillover costs for law enforcement. However, 31.4% (205/652) of the counties do fall into the highest spending category.

Average per capita police protection expenditures do increase as the extensiveness of National Forest land increases ($9.87 to $13.17). This represents different shares of the aggregate local government budget. The analysis posed by the next question discusses the possibility that the alleged burden for law enforcement is offset by intergovernmental aid.

Similar comments can be made about the relationship between per capita highway expenditures and the extensiveness of National Forest land. *Table 36* shows this relationship. The rows are per capita highway expenditures, ranging from $10 or less to $50 or more. As usual, the columns are the extensiveness of National Forest land.

National Forest counties are distributed across all levels of per capita highway expenditures. This contradicts the claimed imposed expenditure effect. In fact, only 18.4% (120/652) of the National Forest counties spend $50 or more per capita on highways. Only counties with 15% or more of National Forest land have above average per capita highway expenditures ($43.58) and an above average share (9.63%) of their expenditures allocated to highways. The analysis in the next question will determine whether intergovernmental highway aids offset this higher expenditure level.

At this point the analysis of all governments in the county and of county government shows that the relationship that would be hypothesized if a problem existed between local revenues and local expenditures and the extensiveness of the National Forest land is not confirmed. National Forest counties display varying revenue-expenditure combinations. To be sure, some of the 335 counties with the highest concentration of National Forest land exhibit denied tax base or imposed expenditure effects. Even for these counties, however, the empirical research does not conclusively argue that the extensiveness of federal ownership adversely influences the local fiscal picture.

Table 36

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA HIGHWAY EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND

(N = 3,105)

1972 Per Capita Highway Expenditure Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$10 or Less	409	32	17	18	46	113	522
$10-$20	568	28	22	24	58	132	700
$20-$35	714	56	32	14	87	189	903
$35-$50	358	19	13	10	56	98	456
$50 or More	404	14	10	8	88	120	524
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Highway Expenditure	$30.27	$25.71	$27.02	$25.17	$43.58	$35.02	$31.27
Mean Share of Expenditure in These Counties (percent)	8.36%	7.69%	7.96%	6.57%	9.63%	8.59%	8.41%

SOURCE: ACIR staff calculation.

Table 37

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA FEDERAL AND STATE AIDS AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Federal & State Aid Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$90 or Less	570	19	7	9	26	61	631
$90-$140	663	46	28	20	59	153	816
$140-$190	563	45	32	20	101	198	761
$190-$240	340	23	12	14	65	114	454
$240 or More	317	16	15	11	84	126	443
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Aids	$150	$156	$172	$167	$203	$184	$157

SOURCE: ACIR staff calculation.

Intergovernmental Revenue

Question three asks whether the intergovernmental aids that the National Forest counties receive offset any negative effects of the forests. Federal and state aids seek to equalize the revenue base of local governments, as well as to meet the need for certain public services. If the aid distribution accomplishes this dual goal, it may offset any adverse fiscal effects of the National Forest land.

Tables 37 and *38* help answer the question. *Table 37* shows the distribution of per capita federal and state aids by the extensiveness of National Forest land. The rows are per capita federal and state aids, ranging from the $90 or less category to the $240 or more category. The columns are the extensiveness of National Forest land. Of the high concentration National Forest counties, 25.1% (84/335) receive $240 or more per capita in federal and state aids. In general the National Forest counties are eligible for relatively high levels of intergovernmental aids.

On average, National Forest counties receive greater aids ($184 vs. $150) than non-National Forest counties. This is particularly the case for the distribution of federal and state highway aids. *Table 38* shows the distribution of per capita highway aids (combined federal and state) by the extensiveness of National Forest land. Recall that high (15% or above) concentration National Forest counties spend relatively more per capita on highways (on average $16 to $18 more). This preliminary evidence seemingly supports the imposed expenditure effect. *Table 38,* however, refutes such an interpretation.

On average, the National Forest counties received $7 per capita more in highway aids; and the counties with extensive National Forest land (15% or above) received $18 per capita more than the non-National Forest counties. Of the 335 high concentration National Forest counties, 42.7% (143/335) received $28 or more in highway aids. In all, 31.9% (208/652) of the National Forest counties fell into this category.

The empirical evidence does not support an imposed highway expenditure claim. Even if some imposed highway expenditures existed, the problem is countered by relatively greater highway aids. The example illustrates why the distribution of intergovernmental aids should be considered when the claim of an adverse fiscal impact of the National Forest lands is evaluated.

The overall effect of intergovernmental aids on local government finances is displayed in *Table 39* which distributes counties by the ratio of own source revenues to total local ex-

Table 38

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA HIGHWAY AIDS AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Highway Aid Level	No National Forest Land	Extensiveness of National Forest Land, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
None	162	8	3	4	26	42	204
$8 or Less	810	45	26	27	68	167	977
$8-$18	524	37	24	16	48	124	648
$18-$28	358	31	16	14	50	111	469
$28 or More	599	28	25	13	143	208	807
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Highway Aid	$18.65	$17.94	$20.37	$16.78	$36.61	$27.75	$20.56

SOURCE: ACIR staff calculation.

penditures and by the extensiveness of National Forest land. The rows are the ratio of own source revenues to total local expenditures ranging from .50 or less to .80 or more. The lower this ratio, the less a local government pays of its expenditures from own source revenues and the *more* it receives state and federal assistance. The columns are the extensiveness of National Forest land.

The evidence shows that the National Forest counties receive relatively more assistance *on average* from the federal and state governments than non-National Forest counties; and therefore, contribute less to their own expenditures. Non-National Forest counties contribute 66% while National Forest counties contribute 59%. Further, the degree of assistance increases for the high concentration National Forest counties. More than 50% of the counties (174/335) with the most extensive National Forest land are in the lowest ratio category (.50 or less) which means the local taxpayers pay one-half or less of expenditures from their own source revenue. Indeed, 50% of all National Forest counties (325/652) are in the lowest ratio category (.50 or less) of local expenditures paid from local revenue sources. This percentage grows to 71.2% (464/652) of the National Forest counties when the second lowest ratio category (.50-/60) is included.

Table 40 adds another dimension to the information presented in *Table 39*. Each category of extensiveness of National Forest land and the ratio of own source revenue to total expenditures is further subdivided into per capita spending levels. The table shows whether the effect of the National Forest land on the ratio of own source revenue to total expenditure depends on the level of spending in the county. The National Forest counties are distributed across all per capita expenditure levels regardless of the extent of National Forest land. For example, 23.5% of the counties with a small proportion of their land in National Forests and 20.3% of the counties with a high proportion have low per capita expenditures and pay a small percentage of the expenditures from own source revenue. As the per capita expenditures rise, the local contribution remains relatively low. For the high spending counties, 4.5% of the low concentration and 13.4% of the high concentration counties pay one-half or less towards their expenditures. Apparently higher intergovernmental aids go to National Forest counties to offset any imposed expenditure effect on local expenditures.

The examination of intergovernmental assistance to local governments with National Forest land shows that existing programs respond to financial problems associated with federal land ownership. This conclusion helps explain the earlier findings that the overall fiscal condition of National Forest counties is generally not worse than other counties.

Table 39

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY RATIO OF OWN SOURCE REVENUES TO TOTAL LOCAL EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

(N = 3,105)

1972 Ratio of Own Source Revenues Local Expenditure Level	No National Forest Land	Extensiveness of National Forest Land, 1975					Total
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	
.50 or Less	936	66	54	31	174	325	1,261
.50-.60	461	33	16	16	74	139	600
.60-.70	442	30	18	17	46	111	553
.70-.80	341	14	5	7	23	49	390
.80 or More	273	6	1	3	18	28	301
TOTAL	2,453	149	94	74	335	652	3,105
Mean Ratio	.66	.64	.55	.64	.56	.59	.64

SOURCE: ACIR staff calculation.

Table 40

DISTRIBUTION OF PERCENT OF COUNTIES WITH LOW AND HIGH EXTENSIVENESS OF NATIONAL FOREST BY RATIO OF OWN SOURCE REVENUES TO TOTAL LOCAL EXPENDITURES AND BY PER CAPITA EXPENDITURES*

1972 Ratio of Own Source Revenues to Total Local Expenditures	Per Capita Local General Expenditure Level and Extensiveness of National Forest											
	$250 or Less		$250-$300		$300-$350		$350-$400		$400 or More		Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
.50 or Less	23.5	20.3	8.9	5.2	5.1	7.6	2.2	5.9	4.5	13.4	44.3	52.9
.50-.60	3.7	2.1	5.9	2.1	5.1	4.5	3.0	3.8	4.5	9.6	22.2	22.1
.60-.70	3.7	1.6	3.0	.7	5.1	.7	3.7	2.8	4.5	7.9	20.0	13.7
.70-.80	1.6	.4	1.6	.4	1.6	.7	.7	2.8	3.7	2.8	9.2	7.1
.80 or More	.7	—	—	.7	1.6	1.6	1.6	—	—	2.8	3.9	5.2
TOTAL	33.2	24.4	19.4	9.1	18.4	15.1	11.1	15.3	17.2	35.5	100.0	100.0

*Low Extensiveness = 0-5.0% National Forest Area of County Area.
High Extensiveness = 15% or More National Forest Area of County Area.

SOURCE: ACIR staff calculation.

THE FINDINGS SUMMARIZED

Does the extensiveness of National Forest land within a jurisdiction influence the tax burden of the people who reside within that jurisdiction?

No! The analysis indicates that per capita property taxes and own source revenues, as well as local tax effort are virtually indistinguishable in National Forest counties from those of private forest counties and do not exhibit the systematic grouping that would substantiate the denied tax base and imposed expenditure effects. While a significant minority of National Forest counties exhibit the characteristics that would be associated with a denied tax base effect, the analysis determined that the predicted effects are not confirmed. While some National Forest counties exhibit the predicted revenue characteristics, the percentage is no greater than the proportion of other counties exhibiting the same characteristics. Nor does the percentage vary by extensiveness of National Forest land. Because the distribution of National Forest counties is not different, the conclusion is that factors other than the federal ownership of land explain the low revenue in some National Forest counties.

While no general pattern appeared which would substantiate the existence of a problem, it should be noted that the counties with the most extensive (15% and above) National Forest land showed the predicted characteristics in slightly greater proportion than would be expected if there were no revenue problem associated with the National Forest land. These few counties do not substantiate a general problem, although this finding may indicate that the receipt sharing program gives inadequate reimbursement to some of the counties with the most extensive National Forest land.

Does the extensiveness of National Forest land within a jurisdiction influence the expenditures of the local government?

No! The analysis reveals no systematic grouping of counties on the basis of extensiveness of National Forest land with respect to general expenditures, fire and police protection expenditures, and highway expenditures as the denied tax base and imposed expenditure effects would require. Where high concentration National Forest counties did exhibit potential adverse fiscal effects of the National Forest, state and federal aids appeared to offset the fiscal consequences. The overall expenditure evidence does not support the contention that an imposed expenditure problem exists.

While no general pattern appeared which would substantiate the problem, it should be noted that the counties with the most extensive (15% and above) National Forest land showed the predicted characteristics in slightly greater proportion than would be expected if there were no imposed expenditure problem associated with the National Forest land. These few counties do not substantiate a general problem, although this finding may indicate that the receipt sharing program gives inadequate reimbursement to some of the counties with the most extensive National Forest land.

Do the federal and state intergovernmental transfers to local governments provide aid to National Forest counties so that they are able to pay any alleged imposed expenditures?

Yes! The analysis indicates that in the minority of National Forest counties which exhibit the denied tax base and imposed expenditure characteristics, federal and state intergovernmental aids to local governments are relatively higher than in other counties. Federal and state aids to the National Forest counties are greater (on a per capita basis) than aid to other local governments. Since these aids are high to National Forest counties and no fiscal problem is discernible, the evidence does not support the claim that an unreimbursed fiscal problem existed prior to 1976.

There are counties with 15% or more National Forest land which disproportionately show the predicted revenue and expenditure characteristics. Although existing aid programs apparently respond to the problem in these counties such aid may be insufficient to alleviate entirely the additional tax effort they make.

A Note on the Analysis of the National Forest Counties

Throughout the above analysis, there has been a set of National Forest counties which have a relatively high extensiveness of National forest land and have the fiscal features of counties with the denied tax base and imposed expenditure effects. In order to more confidently determine whether National Forest lands create adverse fiscal effects *Tables 41* and *42* look respectively at those counties which have more than 30% and those that have more than 15% of their land in National Forest. These counties are examined with respect to the same revenue and expenditure characteristics specified throughout this chapter. In this instance, however, the revenue and expenditure characteristics are combined to portray what may be termed a cumulative scale of fiscal adversity. Specifically, the tables define fiscal hardship under several revenue and expenditure assumptions. At one extreme a county may be considered as experiencing fiscal hardship if it is exerting a relatively high tax effort yet had an average or below average per capita expenditure level. According to the conditions set forth in the tables this situation is met when a county is characterized by all three revenue features (high per capita property tax level, plus high per capita own source revenue, plus high tax effort) and has an average per capita expenditure level ($344). When this test is applied to those counties which have over 30% of their land in National Forest not one hardship case emerges *(Table 41).* If the extensiveness of National Forest land is reduced to 15% only one county emerges as an example of fiscal hardship *(Table 42).*

It may be argued that the fiscal hardship test is too stringent. Even when the condition is relaxed, however, to only one revenue feature (high per capita property tax level) with no expenditure conditions only 73 of the 335 counties which have 15% or more of their land in National Forest qualify as hardship cases.

The answers to the above three questions indicate that in 1976 there was no case for additional Federal reimbursement to counties which contain National Forest land. In 1976, the 94th Congress passed two laws which increased the compensation for federal tax exempt land. P.L. 94-588, *The National Forest Management Act of 1976*, and P.L. 94-565, *The Payment In Lieu of Taxes Act of 1976.*

Table 41

ASSOCIATION OF REVENUE BURDEN AND LOW EXPENDITURE LEVEL WITH EXTENSIVENESS OF NATIONAL FOREST BY COUNTY WITH 30 PERCENT OR MORE NATIONAL FOREST

(N = 202)

Revenue Feature[1]	Per Capita Expenditure Levels[2] Average	Above Average	High	Revenue Test Only
Most Stringent				
Revenue Test	0	1	17	35
Moderately Stringent				
Revenue Test	0	4	19	40
Least Stringent				
Revenue Test	0	6	21	44

[1]Most Stringent = Local tax effort ratio .17 or more, per capita own source revenue $360 or more, per capita property taxes $260 or or more.
Moderately Stringent = Per capita own source revenue $360 or more, per capita property taxes $260 or more.
Least Stringent = Per capita property taxes $260 or more.
[2]Average = Per capita expenditures $344, the mean level among 1,505 comparable private, commercial forest counties adjusted for public land.
Above Average = Per capita expenditure $482, one standard deviation above the mean.
High = Per capita expenditure $620, two standard deviations above the mean.
SOURCE: ACIR staff calculation.

The next section evaluates the first of these acts since it covers only National Forest land. The next chapter discusses the fiscal impact of all public land and evaluates *The Payment In Lieu of Taxes Act of 1976.*

P.L. 94-588—THE NATIONAL FOREST MANAGEMENT ACT OF 1976—SHARING THE GROSS RECEIPTS

An earlier section of this chapter explained that the National Forest Receipt Sharing Program (1908-76) subtracted funds for "timber sale betterment" (KV) and for brush disposal and restoration (DR) from the receipt sharing fund (F). (See equation on page 66.) In addition, timber purchasers are often required to construct access roads as part of the purchase contract. Then the estimated construction costs are credited against the amount owed for the timber. This did not affect overall income to the Forest Service, but it did affect the amount of shared receipts. P.L. 94-588 directs the Forest Service to share the gross income earned from the National Forest land in the 1977 fiscal year payment.

For analysis in this study, the distribution of 25% of the gross income as directed in P.L. 94-588 has been simulated using data for the 1976 fiscal year. If this change had been in effect for the 1976 fiscal year distribution, the National Forest Receipt Sharing Program would have increased by approximately $36 million, a 35.3% increase (this estimate excludes the payment to Alaska). *Tables 43* through *48* use the simulated payments to trace through the effect of the law on the distribution of National Forest receipts sharing among counties.

The additional payment will go primarily to the counties which already receive high payments. *Table 43* compares the distribution of actual net payments in 1976, the simulated 1976 payments, and the increase in payment, by the extensiveness of National Forest land. Of the additional shared receipts, 8.6% ($3.1 million/$36.0 million) went to counties with 5% or less National Forest land. This represented a 138.3% increase in shared receipts which raised the per acre payment from $.26 to $.62. Those counties with 15% or more National Forest land received an increase of 28.8% which raised per

Table 42

ASSOCIATION OF REVENUE BURDEN AND LOW EXPENDITURE LEVEL WITH EXTENSIVENESS OF NATIONAL FOREST BY COUNTY WITH 15 PERCENT OR MORE NATIONAL FOREST

(N = 335)

Revenue Feature[1]	Per Capita Expenditure Levels[2] Average	Above Average	High	Revenue Test Only
Most Stringent Revenue Test	1	3	26	55
Moderately Stringent Revenue Test	1	7	30	64
Least Stringent Revenue Test	3	11	32	73

[1]Most Stringent = Local tax effort ratio .17 or more, per capita own source revenue $360 or more, per capita property taxes $260 or more.
Moderately Stringent = Per capita own source revenue $360 or more, per capita property taxes $260 or more.
Least Stringent = Per capita property taxes $260 or more.
[2]Average = Per capita expenditure $344, the mean level among 1,505 comparable private, commercial forest counties adjusted for public land.
Above Average = Per capita expenditures $482, one standard deviation above the mean.
High = Per capita expenditure $620, two standard deviations above the mean.
SOURCE: ACIR staff calculation.

Table 43

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL FOREST RECEIPT SHARING PAYMENTS (1976) BY EXTENSIVENESS OF NATIONAL FOREST LAND

(In Thousands of Dollars)

Extensiveness of National Forest Land (1)	Actual National Forest Payment, 1976 Amount (2)	Actual National Forest Payment, 1976 Cents Per Acre (3)	Simulated National Forest Payment, 1976 Amount (4)	Simulated National Forest Payment, 1976 Cents Per Acre (5)	Simulated Amount Minus Actual Payment Amount (6) (4-2)	Percent Change (7) (6÷2)
0-5%	$ 2,240.0	26¢	$ 5,337.0	62¢	$ 3,097.0	138.3%
5%-10%	3,630.9	44	7,267.6	88	3,636.7	100.2
10%-15%	6,701.3	60	10,253.8	91	3,552.5	53.0
15% and Above	89,227.6	66	114,896.3	85	25,668.7	28.8
TOTAL[a]	$101,799.8		$137,754.7		$35,954.9	35.3%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 44

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL FOREST RECEIPT SHARING PAYMENTS (1976) BY NATIONAL FOREST REGION

(In Thousands of Dollars)

National Forest Region (1)	Actual National Forest Payment, 1976 Amount (2)	Actual National Forest Payment, 1976 Cents Per Acre (3)	Simulated National Forest Payment, 1976 Amount (4)	Simulated National Forest Payment, 1976 Cents Per Acre (5)	Simulated Amount Minus Actual Payment Amount (6) (4-2)	Percent Change (7) (6÷2)
1	$2,642.4	15¢	$5,656.7	32¢	$3,014.3	114.1%
2	1,541.0	6	2,341.9	9	800.9	52.0
3	2,624.8	13	3,664.7	18	1,039.9	39.7
4	446.9	1	666.7	2	219.8	49.2
5	23,431.0	116	31,998.5	158	8,567.5	36.6
6	60,154.5	233	78,515.4	305	18,360.9	30.6
8	7,649.4	61	10,326.4	83	2,677.0	35.0
9	2,168.4	19	3,312.0	29	1,143.6	52.8
TOTAL[a]	$100,658.4	60¢	$136,482.3	81¢	$35,823.9	35.6%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

acre payments from $.66 to $.85. This increase, however, was 71.4% ($25.7 million/$36 million) of the additional funds.

This distribution of a significant amount of the additional funds among a small number of counties is confirmed by the Gini coefficient which measures the degree of equality in any distribution. The closer to zero the Gini value is, the more unequal (or the more concentrated) the distribution is. The Gini value for the simulated distribution is .281, a decline from the Gini value of .299 for the actual distribution.

Table 44 displays the geographical distribution of the simulated payment and the increase. Although Region 1 (Montana and North Dakota) received the greatest percentage change, 114.1% ($3 million), Regions 6 and 5 combine for 75.2% ($26.9 million/$35.8 million) of the additional payment. *Tables 43 and 44* show that the additional payment goes to a small number of counties in the northwest.

Table 45 shows that as the level of own source revenue increases, the simulated payment increases. For example, those counties raising between $180-$270 receive $.67 per acre while those raising $360 or more receive $1.09 per acre.

Table 46 presents the distribution of actual and simulated 1976 payments by local tax effort (1971-72). It shows that local governments with an effort of 17% or higher collect 49.3% ($17.7 million/$35.8 million) of the additional payment. This raises the per acre payment in these counties from $.60 to $.98, a 64% increase. Local governments with an 8% or lower local tax effort received 5.3% ($1.9 million/$35.8 million) of the increase of shared funds and an increase of 24% in their per acre payment.

Table 47 presents the distribution of the simulated payments by per capita expenditure levels. National Forest counties spending $350 or more receive 87% ($123.1/$136.5) of the simulated payments. Local governments with relatively high expenditures may not finance them from own source revenues. In fact, local governments which pay the lowest percentage of their local expenditures from their own sources benefit more from the additional payment. As *Table 48* shows, the local governments which raise 50% or less of their expenditures receive 24% of the new funds while the governments that raise between 50% and 60% receive 32%. This means that 56% ($19.9 million/$35.8 million) of the new payment goes to local governments which

Table 45

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL FOREST RECEIPT SHARING PAYMENTS (1976) BY PER CAPITA OWN SOURCE REVENUES, 1970

(In Thousands of Dollars)

1972 Per Capita Own Source Revenue Level	Actual National Forest Payment, 1976 Total (2)	Cents Per Acre (3)	Simulated National Forest Payment, 1976 Amount (4)	Cents Per Acre (5)	Simulated Amount Minus Actual Payment Amount (6) (4-2)	Percent Change (7) (6÷2)
$90 or Less	$2,096.8	20¢	$2,766.6	26¢	$669.8	32.0%
$90-$180	6,658.5	32	9,089.1	44	2,430.6	36.5
$180-$270	22,430.5	54	27,897.9	67	5,467.4	24.4
$270-$360	32,725.4	83	39,899.3	101	7,173.9	21.9
$360 or More	36,747.1	71	56,829.3	109	20,082.2	54.7
TOTAL[a]	$100,658.3		$136,482.2		$35,823.9	35.6%

[a]Total may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 46

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL FOREST RECEIPT SHARING PAYMENTS (1976) BY LOCAL TAX EFFORT (1972)

(In Thousands of Dollars)

1972 Local Tax Effort Level (1)	Actual National Forest Payment, 1976 Amount (2)	Actual National Forest Payment, 1976 Cents Per Acre (3)	Simulated National Forest Payment, 1976 Amount (4)	Simulated National Forest Payment, 1976 Cents Per Acre (5)	Simulated Amount Minus Actual Payment Amount (6) (4-2)	Percent Change (7) (6÷2)
0-8%	$7,970.4	32¢	$9,853.3	39¢	$1,882.9	23.7%
8%-11%	11,255.1	50	15,623.8	69	4,368.7	38.9
11%-14%	27,251.5	65	33,394.9	80	6,143.4	22.6
14%-17%	26,449.7	38	32,207.2	46	5,757.5	21.8
17% and Above	27,731.7	60	45,403.0	98	17,671.3	63.7
TOTAL[a]	$100,658		$136,482.2		$35,823.8	

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 47

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL FOREST RECEIPT SHARING PAYMENTS (1976) BY PER CAPITA EXPENDITURES, 1972

(In Thousands of Dollars)

1972 Per Capita Expenditure Level	Actual National Forest Payment, 1976 Amount (2)	Actual National Forest Payment, 1976 Cents Per Acre (3)	Simulated National Forest Payment, 1976 Amount (4)	Simulated National Forest Payment, 1976 Cents Per Acre (5)	Simulated Amount Minus Actual Payment Amount (6) (4-2)	Percent Change (7) (6÷2)
$250 or Less	$4,486.4	47¢	$6,219.0	65¢	$1,732.6	38.6%
$250-$300	2,591.4	32	4,333.5	53	1,742.1	67.2
$300-$350	1,818.0	8	2,829.7	12	1,011.7	55.7
$350-$400	17,674.5	57	22,723.6	73	5,049.1	28.6
$400 or More	74,088.0	81	100,376.2	110	26,288.2	35.5
TOTAL[a]	$100,658.3		$136,482.0		$35,823.7	35.6%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 48

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL RECEIPT SHARING PAYMENTS BY THE RATIO OF LOCAL OWN SOURCE REVENUE TO TOTAL LOCAL EXPENDITURES, 1972

(In Thousands of Dollars)

Ratio of Own Source Revenue to Total Local Expenditures (1)	Actual National Forest Payment, 1976 Amount (2)	Actual National Forest Payment, 1976 Cents Per Acre (3)	Simulated National Forest Payment, 1976 Amount (4)	Simulated National Forest Payment, 1976 Cents Per Acre (5)	Simulated Amount Minus Actual Payment Amount (6) (4-2)	Percent Change (7) (6÷2)
0-.50	$34,705.5	47¢	$43,287.0	59¢	$8,581.5	24.7%
.50-.60	22,136.0	53	33,474.6	80	11,338.6	51.2
.60-.70	29,373.8	110	37,081.0	139	7,707.2	26.2
.70-.80	11,331.9	98	18,717.6	162	7,385.7	65.2
.80 or More	2,588.1	36	3,359.5	47	771.4	29.8
TOTAL[a]	$100,135.3		$135,919.7		$35,784.4	35.7%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 49

DISTRIBUTION OF ACTUAL AND SIMULATED NATIONAL FOREST RECEIPT SHARING PAYMENTS (1976) TO COUNTIES GROUPED BY MEDIAN FAMILY INCOME, 1970

(In Thousands of Dollars)

Counties Grouped by 1970 Median *Family Income* Levels (1)	Number of Counties (2)	Actual National Forest Payment, 1976 (3)	Simulated National Forest Payment, 1976 (4)	Simulated Minus Actual Payment (5) (4-3)	Percent Change (6) (5÷3)	Forest Payments as a Percent of Income Within Counties Grouped by Family Income Levels Actual (7)	Simulated (7)
$6,000 or Less	165	$5,158.7	$6,665.6	$1,506.9	29.2%	.17%	.22%
$6,000-$7,000	112	3,026.4	5,509.7	2,483.3	82.1	.08	.14
$7,000-$8,000	140	12,124.6	21,364.1	9,239.5	76.2	.18	.32
$8,000-$9,000	153	49,994.2	64,653.8	14,659.6	29.3	.33	.13
$9,000 or More	82	30,354.5	38,289.0	7,934.5	26.1	.06	.08
TOTAL[a]	652	$100,658.4	$136,482.2	$35,823.8	35.6	.13	.17

[a]Total may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

raise 60% or less of their total local expenditures.

Counties with high average income benefit more than those with lower income. *Table 49* shows the distribution of actual and simulated 1976 payments by the median income level of the jurisdiction to test whether low income communities benefit relatively more from the National Forest Receipt Sharing Program.

The table groups the 652 National Forest counties by the median family income level of the county. These 652 counties account for 16% of the total 1970 family income in the United States.

Not only did the high income ($8,000 or more) jurisdictions receive 80% ($80.3 million/$100.7 million) of the actual payment, but they will receive 63% ($22.6 million/$35.8 million) of the additional funds. Column 7, "Forest Payments As a Percent of Income Within Counties Grouped by Family Income Levels," demonstrates that high income counties benefit more from the distribution. The new payment represents .22% of total family income in the low income jurisdictions compared with .32% of the income in $7,000-$8,000 group and .43% of the income in $8,000-$9,000 group. Only in the highest income category does the payment drop to .08% of the income.

CONCLUSION

The analysis prepared for this study indicates that the claims which led to the 36% increase in National Forest payments under P.L. 94-588 are not substantiated. Further, the provisions of P.L. 94-588 are subject to four criticisms:

1. The alleged adverse fiscal effects generated by National Forest land were not substantiated. Therefore, the case for this program has not been shown.
2. Even if a general fiscal problem existed, the payments under P.L. 94-588 are concentrated on those counties which already receive the highest payments.
3. A majority of the "new" compensation money goes to counties which already receive significant federal and state aids. For example, 56% of the new money goes to counties which pay for 60% or less of their own expenditures.
4. The federal compensation goes to income "rich" counties.

In general, the counties which receive the greatest share of the additional money do not appear to be adversely affected by the presence of the National Forest.

FOOTNOTES

[1]U.S. Department of Agriculture, Forest Service, "National Forest System, File 1380 (5400)," 1974 (internal document).

[2]Marion Clawson, *The National Forest*, Resources for the Future, Reprint 127, Baltimore, MD, Johns Hopkins University, 1976, p. 1.

[3]U.S. Department of Agriculture, *op. cit.*

[4]U.S. Department of Agriculture, Forest Service, *The Timber Outlook in the United States*, Washington, DC, U.S. Government Printing Office, 1974, p. 52.

[5]Specifically the payment for each national forest is the sum of the following items of revenue for that particular forest:

Timber and Forest Regular Receipts + Grazing + Land Uses + Recreation + Power + Mineral Leases and Permits + Admission and User Fees = Cash Receipts from Sale and Use of Timber Sources

Minus the sum of:

Timber Sale Area Betterment + Brush Disposal + Cooperator Contributions + Restoration of Improvements.

The net figure represents the total in the shared receipts fund for the particular forest.

[6]*West Virginia Division of the Izaak Walton League of America, et al, vs. Earl Butz, et al* ("Monongahela Decision of 1973"), on the *Organic Act of 1897*, halted clear cutting on some National Forest land. The fiscal consequences *could* be a reduction in the revenues in the 25% fund. For a popular discussion of the issues in the Monongahela case, see "Panel Votes Controversial Timber Bill," *Congressional Quarterly*, Washington, DC, Congressional Quarterly, Inc., May 15, 1976, pp. 1179-83; Arthur J. Magida, "The Squabble Over Trying to Clear the Forest for the Trees," *National Journal*, Washington, DC, Government Research Corp., May 15, 1976, pp. 664-5; and Thomas Love, "Clear Cutting Forests: Efficient Timbering or Disaster," *Washington Star*, June 4, 1976, p. 1 and p. 16.

[7]These four points also are the areas where this program receives much of its criticism.

[8]The process obviously affects the revenue placed in the fund. For a discussion of (1) the National Forest timber sale process, see Marion Clawson and Burnell Held, *The Federal Lands*, Baltimore, MD, Johns Hopkins University Press, 1957, pp. 195-254; (2) market power of large firms in the timber industry, Walter J. Mead, "Re-

source Control as a Basis for Market Power: The Case of Timber," in Mason Gaffney, ed., *Extractive Resources and Taxation,* Milwaukee, WI, University of Wisconsin, 1967, pp. 139-56; and (3) tax treatment of timber property, Philip Stern, *The Rape of the Taxpayer,* New York, NY, Random House, 1973, pp. 287-94.

[9]The Gini coefficient provides an index of the degree of inequality in a distribution. The coefficient is a ratio defined as the area under a Lorenz Curve relative to the total area under the main diagonal. Inequality is expressed as actual deviation from perfect equality relative to total possible deviation.

[10]Ellis T. Williams, "National Forest Contributions to Local Governments," *Land Economics,* Vol. 31, No. 3, Madison, WI, University of Wisconsin, August 1955, pp. 204-14; and U.S. Department of Agriculture, Forest Service, "National Forest Contributions to State and Local Governments," 1965 (Mimeograph).

[11]Ellis T. Williams, *op. cit.,* p. 210.

[12]*Ibid.,* p. 25.

[13]*Ibid.,* p. 14.

[14]EBS Management Consultants, Inc., *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands,* Vols. III and IV, Washington, DC, Public Land Law Review Commission, July 1968.

[15]*Ibid.,* Vol. III, p. 5.

[16]*Ibid.*

[17]Kenneth C. Tollenaar, University of Oregon, letter to Sam Johnson, Oregon State Representative, September 16, 1968.

[18]See *Appendix A* for the testimony of local officials and local government association spokespersons.

[19]U.S. House of Representatives, Committee on Interior and Insular Affairs, *Payment in Lieu of Taxes Act,* Report to Accompany H.R. 9719, 94th Cong., 2nd sess., Washington, DC, U.S. Government Printing Office, May 7, 1976.

[20]Advisory Commission on Intergovernmental Relations, *The States and Intergovernmental Aids,* Report A-59, Washington, DC, U.S. Government Printing Office, February 1977, pp. 14-21.

[21]Advisory Commission on Intergovernmental Relations, *Significant Features of Fiscal Federalism—1976-77,* Vol. II, Report M-110, Washington, DC, U.S. Government Printing Office, March 1977, p. 58.

[22]Advisory Commission on Intergovernmental Relations, *Measuring the Fiscal "Blood Pressure" of the States—1964-75,* Report M-111, Washington, DC, U.S. Government Printing Office, February 1977.

Chapter VI

The Fiscal Impact of Public Lands on Local Government Finances

This chapter extends the fiscal impact analysis developed in *Chapter V* to all public lands which will receive payments under P.L. 94-565, *The Payment In Lieu of Taxes Act of 1976.*[1] Once again the research examines how federal land ownership and federal compensation influence local government finances by means of an evaluation of the fiscal impact of public land on local governments and an analysis of the distribution of federal compensation money under *The Payment In Lieu of Taxes Act of 1976.*

BACKGROUND INFORMATION ON PUBLIC LANDS FEDERAL LAND OWNERSHIP

The public land potentially covered by P.L. 94-565 is shown by state and by federal agency in *Table 50.* These public acres amount to 30.3% of the land area of the United States. Thirty-eight states have federal public land that amounts to 1% or less of their area; nine have between 1% and 5% of their area in federal land; two have between 5% and 10%; and one has 47%. The Pacific states contain 58.7% of these federal public lands—Alaska (46.6%), California (5.9%), Oregon (4.5%), and Washington (1.7%). The northeastern states have the least federal land, approximately .2% of their area—New Hampshire (.1%) and Pennsylvania (.1%).

From the states' vantage point, seven have 40% or more of their acres federally owned—Alaska (87.1%), Nevada (77.3%), Idaho (61.6%), Utah (60.5%), Oregon (50.9%), Wyoming (47.9%), and California (40.5%). In general, federal public land is concentrated in the western portion of the United States.[2]

FEDERAL COMPENSATION FOR PUBLIC LANDS

The federal government compensates state and local governments for federally owned property within their boundaries. *Table 51* presents a list of the nine federal compensation programs which make payments for the public lands discussed in this chapter.[3] These were reviewed at greater length in *Chapter II.* Eight programs (including the two largest) are receipt sharing programs similar to the National Forest program while one is a form of tax equivalency program; five are designated for use on roads and schools; and six have the state government as the recipient of the payment.

The distribution of per acre payments from the above programs are shown by region in

Table 50

DISTRIBUTION OF SELECTED PUBLIC LAND BY AGENCY AND BY STATE

(In Thousands of Acres)

States	Army Corps of Engineers	Bureau of Land Management	Bureau of Reclamation	Forest Service	Park System	Total	Percent of Total	Percent of State
United States, Total	7,641.7	473,783.6	7,601.6	187,224.4	24,682.4	700,933.7	100.0	30.3
Alabama	63.6	.4	—	636.4	6.3	706.7	.1	2.1
Alaska	52.9	299,130.0	—	20,717.2	7,006.0	326,906.1	46.6	87.1
Arizona	33.6	12,586.6	1,060.0	11,434.6	1,603.4	26,718.2	3.8	36.7
Arkansas	492.0	.4	—	2,460.0	7.7	2,960.7	.4	8.7
California	108.0	15,584.9	1,117.1	20,073.1	4,214.2	41,097.3	5.9	40.5
Colorado	35.7	8,881.9	315.6	14,361.6	528.9	23,573.7	3.4	35.3
Connecticut	7.0	—	—	a	—	7.0	a	.2
Delaware	12.8	—	—	—	—	12.8	a	1.0
Florida	26.3	.4	—	1,081.6	1,373.5	2,481.8	.4	6.6
Georgia	339.4	—	—	852.9	15.8	1,208.1	.2	3.2
Hawaii	a	—	—	—	238.4	238.4	a	5.8
Idaho	49.5	12,020.3	441.4	20,347.7	86.4	32,945.3	4.7	61.6
Illinois	189.9	—	—	250.8	—	440.7	.1	1.2
Indiana	111.1	—	—	173.2	3.0	287.3	a	1.2
Iowa	175.7	—	.1	.4	1.5	177.7	a	.5
Kansas	303.8	.6	93.9	107.9	.7	506.9	.1	1.0
Kentucky	295.5	—	—	626.0	62.2	983.7	.1	3.8
Louisiana	75.4	1.2	—	595.2	.1	671.9	.1	2.2
Maine	a	—	—	50.1	34.4	84.5	a	.4
Maryland	7.3	—	—	—	27.2	34.5	a	.5
Massachusetts	16.8	—	—	—	23.7	40.5	a	.8
Michigan	1.8	—	—	2,693.5	564.2	3,259.5	.5	8.8
Minnesota	140.9	43.6	a	2,797.0	.6	2,982.1	.4	5.6
Mississippi	296.4	.5	—	1,136.7	31.3	1,464.9	.2	4.8
Missouri	445.9	—	—	1,444.4	47.5	1,937.8	.3	4.4

Montana	606.1	8,141.5	287.0	16,706.5	1,159.5	26,900.6	3.8	28.6
Nebraska	56.4	3.7	67.1	351.0	4.9	483.1	.1	1.0
Nevada	.7	48,417.6	918.9	5,110.6	262.3	54,710.1	7.8	77.3
New Hampshire	18.5	—	—	683.3	.1	701.9	.1	11.8
New Jersey	13.2	—	—	—	15.2	28.4	a	.6
New Mexico	15.5	12,721.6	198.4	9,227.0	240.8	22,403.3	3.2	28.8
New York	13.3	—	—	13.3	5.5	32.1	a	.1
North Carolina	64.9	—	—	1,137.1	334.3	1,536.3	.2	4.6
North Dakota	559.0	68.5	104.6	1,105.6	69.1	1,906.8	.3	4.2
Ohio	102.2	—	—	159.6	.1	261.9	a	1.0
Oklahoma	838.8	7.1	69.5	291.1	.9	1,207.4	.2	2.7
Oregon	107.1	15,650.5	230.3	15,440.2	160.9	31,589.0	4.5	50.9
Pennsylvania	94.1	—	—	499.0	10.9	604.0	.1	2.1
Rhode Island	.1	—	—	—	—	.1	a	a
South Carolina	99.9	—	—	604.5	4.0	708.4	.1	3.6
South Dakota	519.3	276.3	53.2	1,985.0	139.0	2,972.8	.4	6.0
Tennessee	190.5	—	—	617.7	255.8	1,064.0	.2	3.9
Texas	703.7	—	65.9	779.1	863.4	2,412.1	.4	1.4
Utah	—	22,622.9	1,305.5	8,051.0	888.3	32,867.7	4.7	60.5
Vermont	6.0	—	—	246.1	—	252.1	a	4.1
Virginia	114.1	—	—	1,588.1	267.8	1,970.0	.3	7.6
Washington	103.4	301.6	407.7	9,067.9	1,804.6	11,685.2	1.7	26.8
West Virginia	93.1	—	—	954.3	.5	1,047.9	.2	6.8
Wisconsin	39.8	—	—	1,491.2	—	1,531.0	.2	4.3
Wyoming	—	17,533.3	865.4	9,274.9	2,310.6	29,984.2	4.3	47.9

[a]Rounds to zero.

SOURCE: ACIR staff calculation based on U.S. Department of Interior, Bureau of Land Management, *Public Land Statistics, 1975*. Washington, DC, U.S. Government Printing Office, 1975.

Table 51

FEDERAL COMPENSATION PROGRAMS FOR SELECTED PUBLIC LANDS

Program	Type of Compensation Program: Tax Equivalency	Type of Compensation Program: Receipt Sharing	Estimated 1978 Payment (in thousands)	Recipient	Eligible Property	Use
Totals	1	8				
Arizona and New Mexico Enabling Act, 1910		X	$150	States	Lands granted for the support of public schools which are located within National Forest	Public school operations
Bankhead-Jones Farm Tenant Act, 1937		X	313	Counties	Lands acquired under the 1937 legislation	Roads and public school operations
Federal Power Act, 1920		X	85	States	Occupancy and use of National Forests and public lands used by FPC licensees	General state operations
Mineral Leasing Act, 1920		X	177,821	States	Mineral bearing public domain lands	General operations
Mineral Leasing Act, 1947		X	a	Receipts are distributed on same basis as other receipts from lands affected by the lease	Mineral bearing public lands	Same as other receipts
National Forest Revenues Act, 1908		X	190,120	States	National Forests and grass lands	Roads and public school operations
Sale of Minerals from Federal lands, 1947		X	a	Counties	Disposal of materials on all public lands under the jurisdiction of the Departments of Agriculture and Interior except National Park Lands, National Monuments, Indian Lands, and land held in trust by the Indians	
Superior National Forest, 1948	X		259	Minnesota	Lands in the Superior National Forest, MN	General county operations
Taylor Grazing Act, 1934		X	2,046	States	Vacant, unappropriated and unreserved domain lands	Roads and public school operations

[a]No payments currently being made.

SOURCES: ACIR staff using: EBS, Revenue Sharing and Payments in Lieu of Taxes on Public Lands, Vol. II; *The Budget of the United States Government, FY 1978—Appendix;* and Payment in Lieu of Taxes Act, No. 94-1106, May 7, 1976.

Table 52

PUBLIC LAND COUNTIES BY PER ACRE FEDERAL COMPENSATION PAYMENTS BY REGION
(N = 1,529)

Region	No Public Land	Per Acre Payment, 1976				Total
		$.75 or Less	$.75-$1.50	$1.50-$2.25	$2.25 or More	
1	29	74	—	—	—	103
2	103	123	—	—	—	226
3	—	45	—	—	—	45
4	—	28	—	—	—	28
5	8	28	8	8	3	55
6	6	32	9	5	21	73
8	340	161	21	25	17	564
9	280	125	24	—	6	435
TOTAL	766	616	62	38	47	1,529

SOURCE: ACIR staff calculation based on data from Forest Service, USDA and Bureau of Land Management, U.S. Department of Interior.

Table 52. In all 86.9% (1,329/1,529) of the public land counties eligible for federal compensation under the pre-1976 regulations receive less than 75¢ per acre. Regions 8 (Rocky Mountain states) and 9 (southeastern states) have the highest number (501) of counties which receive relatively low (75¢ or less) per acre payments, while Region 6 (Oregon and Washington) has the greatest proportion—44.7% (21/47)—of highly compensated counties.

The distribution of counties by per acre federal compensation payment and by extensiveness of public lands are presented in *Table 53.* The rows are the per acre payment, ranging from none to the $2.25 or more category. The columns are extensiveness of public lands, ranging from none to 15.0% and above. Of the 3,105 counties, 50.8% (1,576/3,105) have no public lands within their boundaries. Of the remaining 1,529 counties, 50.1% (766/1,529) have some public lands *and* receive no payment; 40.3% (616/1,529) have some public land *and* receive a federal payment of 75¢ or less per acre; and 9.6% (147/1,529) have some public land and receive more than 75¢ per acre. Of all public land counties, 90.4% (1,382/1,529) receive 75¢ or less per acre. Regardless of the payment level, 53.8% (822/1,529) of the counties have 5% or less of the acres within their boundaries in federal holdings as compared with 30% (458/1,529) which have 15% and above federally owned acres.

Chart 2 looks at the distribution of all federal compensation payments. A *Lorenz Curve* for these federal payments (constructed in the same way as the one in *Chapter V*) is presented which measures the degree of inequality of the distribution of federal compensation payments. Recall that the greater the gap between the Lorenz Curve and the Line of Lorenz Equality, the greater is the inequality in the distribution. Prior to the legislative changes in 1976 (which will be discussed later in this chapter), the federal payments were unevenly distributed. For example, counties containing 20% of the federal land received less than 2% of the federal compensation money; 40% received 4%; and 80% received 25%. This inequality is not necessarily a problem, but rather a reflection of the structure of federal compensation formulas. The formulas return relatively more revenues to counties with productive public acres regardless of the actual fiscal impact of the public land. Whether the public land influences local government finances is the subject of the next section.

Table 53

PUBLIC LAND COUNTIES BY PER ACRE COMPENSATION PAYMENT IN 1976 AND THE EXTENSIVENESS OF PUBLIC LANDS
(N = 3,105)

Per Acre Compensation Payment Level, 1976	No Public Land	Extensiveness of Public Land, 1976 (Percent of County Area)					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
None	1,576	643	80	23	20	766	2,342
$ .75 and Less	—	137	66	42	371	616	616
$ .75-$1.50	—	17	7	11	27	62	62
$1.50-$2.25	—	12	4	6	16	38	38
$2.25 or More	—	13	7	3	24	47	47
TOTAL	1,576	822	164	85	458	1,529	3,105

SOURCE: ACIR staff calculation.

REVIEW OF THE METHOD FOR EVALUATING THE IMPACT OF PUBLIC LANDS ON LOCAL GOVERNMENTS

The impact of public lands (including National Forests) on local government finances is evaluated in this chapter by the same method followed in the previous chapter. Once again, the expectation is that the alleged "adverse fiscal effects" of public lands should manifest themselves in the *denied tax base effect* and/or the *imposed expenditure effect.* In the analysis, "local government finances" are defined as the sum of all local governments in a county area including county government.

The tests for adverse fiscal effects include an examination of revenue and expenditure variables stratified by the extensiveness of public land within the jurisdiction. If the denied tax base or the imposed expenditure effects influence local governments' fiscal decisions, the influence should increase as the extensiveness of public land increases.

In addition, the revenue and expenditure decisions of local governments with public land within their jurisdictions are compared to local governments which have less than 5% public land within their boundaries and less than 50,000 population. This amounts to 2,008 counties. This comparison serves to investigate whether comparable jurisdictions with little or no public land behave differently than jurisdictions with public land.

These tests on the fiscal data search for: (1) a clustering or grouping of the revenue and expenditure data as predicted by the denied tax base or imposed expenditure effects, (2) an association of the alleged adverse fiscal effects with the extensiveness of public land, and (3) a comparison of the fiscal characteristics of the public land counties with a control group of similar non-public land counties.

THE EVALUATION OF THE IMPACT OF PUBLIC LANDS ON LOCAL GOVERNMENT FINANCES

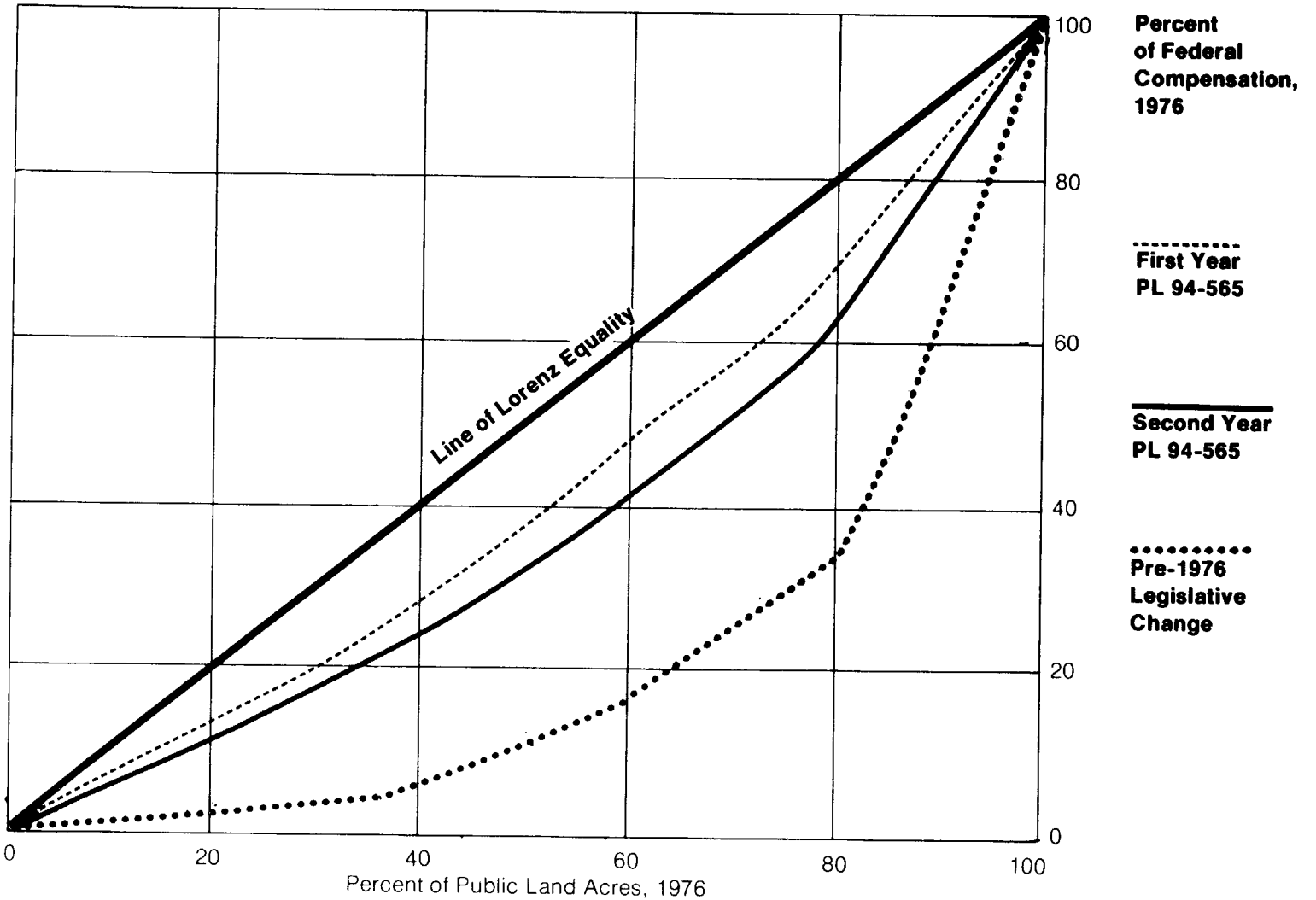
This section examines the case prior to 1976 for additional federal compensation for public land by asking the same three questions posed in *Chapter V:*

1. Does the extensiveness of public land within a jurisdiction influence the tax burden of the people who reside within that jurisdiction?

2. Does the extensiveness of public land within a jurisdiction influence the expenditures of the local government? Federal ownership may add to general operating expenditure because of spillover costs.

Chart 2

LORENZ CURVE OF FEDERAL COMPENSATION AND PUBLIC LAND, 1976



3. Do the federal and state intergovernmental transfers to local governments provide aid to public land counties so that they are able to cover any alleged imposed expenditures? Federal and state governments distribute considerable assistance to local units which may counter any negative fiscal consequences of federal ownership.

A Brief Analysis of State Impact

As in *Chapter V*, the analysis begins with the states. If the alleged fiscal burden attributed to federal ownership of land exists and is shifted to the states, it should reveal itself in a comprehensive measure of fiscal stress within the state-local finance system. *Table 54* uses the ACIR measure of fiscal stress to divide the states into four categories: those with relatively high and rising fiscal pressure; those with relatively high and falling fiscal pressure; those with relatively low and rising pressure; and those with relatively low and falling fiscal pressure.[4] Recall that states in the high and rising category can maintain the quantity and quality of public services only if they continue to bear a relatively high tax burden. States in the low and falling category can improve the quantity and quality of public services or maintain a low tax pressure position.

States with an asterisk have over 30% of their acres federally owned—Alaska (87.1%), Arizona (36.7%), California (40.5%), Colorado (35.3%), Idaho (61.6%), Nevada (77.3%), Oregon (50.9%), Utah (60.5%), and Wyoming (47.9%). If these state-local finance systems were experiencing the denied tax base and/or imposed expenditure effect, they should be found systematically in the high and rising category. This would occur because the states with a relatively great extent of public lands must not only raise revenues for public services from an allegedly denied tax base, but must also pay for the imposed spillover expenditures.

Table 54 does not support the expectation. Of the nine states, two—California and Nevada—are in the high and rising category; three—Arizona, Oregon and Wyoming—are in the high and falling category; three—Colorado, Idaho and Utah—are in the low and falling category; and one—Alaska—is in the low and rising category. Of the four states with 60% or more of their acres federally owned, only Nevada is in the high and rising category. The evidence shows that states with a relatively high share of public land exhibit diverse, not uniform, fiscal stress measures. From the perspective of state and local governments the facts dispute the claim that the degree of fiscal stress in a state-local finance system is directly associated with the extensiveness of public land within that state. The conclusion reached in *Chapter V* regarding National Forest land holds for other public land. If there is no problem in the state as a whole, any problem that exists among local governments could be solved by intrastate transfers.

Analysis of Local Impact

The alleged fiscal burdens also should be examined from the perspective of the local government, since there may be a federal obligation even if the state as a whole is not affected by federal ownership of land. The research presented here organized government finance information at the county level, summing up pertinent fiscal data from the county government and all other substate governments—municipalities, townships, special districts, and school districts. The same analyses were conducted for county governments alone. The three questions presented at the beginning of this section guided the research.

QUESTION ONE—REVENUES

The first question asked whether the extensiveness of public land within a jurisdiction creates the denied tax base or imposed expenditure effects.

Tables 55 to *60* present tax information for 3,105 counties (of which 1,529 have some public land) as it relates to the extensiveness of public land in each county. The analysis proceeds by looking at three measures of local revenue raising—property taxes, own source revenue, and tax effort. Each successive measure provides a more comprehensive description of the local jurisdiction's fiscal position.

Table 54

RELATIVE STATE-LOCAL FISCAL PRESSURE USING RESIDENT PERSONAL INCOME TO ESTIMATE FISCAL CAPACITY: 1964-75

(Indexed on Median)

High and Falling		High and Rising	
	[a] [b]		[a] [b]
Wisconsin	119/ 88	**Vermont**	132/181
Arizona*	114/ 75	**Massachusetts**	125/284
New Mexico	110/ 77	**California***	125/158
Louisiana	109/ 91	**Hawaii**	124/249
Wyoming*	108/ 73	**Minnesota**	121/115
Montana	106/ 27	**Maine**	111/144
Oregon*	103/ 90	**Nevada***	110/172
Washington	103/ 88	**Maryland**	105/245
Mississippi	102/ 67	**Rhode Island**	103/179
		West Virginia	102/129
		Michigan	102/115
		New Jersey	101/258
		Illinois	101/233
		Delaware	101/260
		Pennsylvania	100/207
Low and Falling		**Low and Rising**	
South Dakota	100/-87	**Kentucky**	95/168
Iowa	99/ -2	**Connecticut**	93/171
Colorado*	99/ -9	**Alaska***	93/279
Utah*	97/ 8	**Georgia**	93/121
North Dakota	96/-100	**New Hampshire**	92/152
Indiana	95/ 100	**District of Columbia**	92/213
Idaho*	94/-26	**Virginia**	91/213
Kansas	93/-44	**Missouri**	89/130
North Carolina	92/ 75	**Ohio**	85/104
Nebraska	91/ 74		
South Carolina	90/ 96		
Texas	87/ 44		
Oklahoma	87/-15		
Florida	86/-42		
Tennessee	86/ 37		
Alabama	84/ 46		
Arkansas	82/ 4		

[a] Tax pressure index for 1975.

[b] Index of change in tax pressure 1964-75.

* More than 30% of the acres in the state are public acres.

SOURCE: Advisory Commission on Intergovernmental Relations, *Measuring the Fiscal "Blood Pressure" of the States—1964-75*, M-111, Washington, DC, U.S. Government Printing Office, February 1977.

Recall that the revenue-raising decisions reflect the combined effect of federal land ownership and the federal compensation programs listed in *Table 51* as they existed until October 1976.

The analysis did not find the adverse fiscal consequences attributable to federal ownership. *Table 55* shows the distribution of counties by per capita property taxes and by extensiveness of public lands within a county. The rows are per capita property taxes, ranging from the $65 or less category to the $260 or more category. The mean per capita property tax increases slightly as extensiveness increases. In counties where public lands are most extensive (15% and above), the average is $192. The average is $149 for counties without public land.

Although the average per capita property tax is higher in public land than in nonpublic land counties, the pattern predicted by the denied tax base and imposed expenditure effects does not materialize. If local government in public land counties suffered from the denied tax base effect, they should cluster systematically in the upper right hand cell—low per capita property taxes *and* the most extensive public property—or the lower right hand cell—high per capita property taxes *and* the most extensive public property. If local governments exhibit the imposed expenditure effect, they should systematically group in the lower right hand cell—high per capita property taxes and the most extensive public land.

The evidence in *Table 55* does not support this prediction. Of the 1,529 public land counties, 19.8% (303/1,529) exhibit the characteristics of the denied tax base effect; and 16.4% (251/1,529) show the characteristics of the denied tax base or imposed expenditure effects. The claim of adverse fiscal consequences associated with public land ownership is contradicted by the 975 public land counties that fall outside the predicted pattern.

In addition, the table shows that a local government's per capita property taxes are not directly associated with the extensiveness of public land within the jurisdiction. The 1,529 public land counties are distributed throughout the table. For example, only 28.7% (87/303) of the relatively low per capita property tax ($65 or less) counties have a relatively high degree of public land. The remaining 71.3% of the counties have a relatively

Table 55

DISTRIBUTION OF SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA PROPERTY TAXES AND BY EXTENSIVENESS OF PUBLIC LANDS WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Property Tax Level	No Public Land	Extensiveness of Public Lands, 1975 (Percent of County Area)					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$ 65 or Less	355	143	54	19	87	303	658
$ 65-$130	442	234	55	26	93	413	850
$130-$195	328	174	28	11	92	305	633
$195-$260	271	144	18	4	91	257	528
$260 or More	180	127	9	25	95	251	436
TOTAL	1,576	822	164	85	458	1,529	3,105
Mean Per Capita Property Taxes	$149	150	130	156	192	161	154

SOURCE: ACIR staff calculation.

Table 56

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF PUBLIC LAND COUNTIES AND COMPARABLE PRIVATE LAND COUNTIES BY PER CAPITA PROPERTY TAXES

1972 Per Capita Property Tax Level	Public Land Counties (N = 1,529)	Comparable Private Land Counties (N = 1,873)
$ 65 and Less	19.8%	25.7%
$ 65-$130	27.0	27.0
$130-$195	19.9	18.9
$195-$260	16.8	16.7
$260 and More	16.5	11.7
TOTAL	100.0%	100.0%

SOURCE: ACIR staff calculation.

low per capita property tax for reasons other than federal land ownership. Yet another perspective is gained by noting the dispersion *across* property tax levels of the 458 counties with 15% and above public land although the predicted behavior asserts that counties should cluster in the high and low cells, the counties are almost evenly distributed among the five cells.

The difficulty of substantiating an adverse fiscal affect of public land is shown further in the comparison of public land counties and comparable private land counties with a population below 50,000 *(Table 56).* For purposes of this comparison, public land counties of less than 5% extensiveness and less than 50,000 population were used to develop the percentages shown under the heading "Comparative Private Land Counties." The distributions for the two sets of counties are very similar. Public land counties appear to have a greater percentage (16.5% vs. 11.7%) of local governments which raise $260 or more in per capita property taxes. This amounts to 74 additional counties.

Rather than rely exclusively on the property tax to demonstrate the absence of any adverse fiscal effects generated by federally owned land the investigation was carried to an analysis of per capita own source revenue. Once again, the pattern for own source revenues predicted by the denied tax base and/or imposed expenditure effects fails to emerge.

Table 57 presents the distribution of counties by per capita own source revenue and by extensiveness of public lands. The rows are per capita own source revenues, ranging from $90 and less to $360 and more. The columns are extensiveness of public land within a county. If federal ownership caused the denied tax base effect, jurisdictions should concentrate in the upper right-hand or lower right-hand cells. If federal ownership caused the imposed expenditure effect, jurisdictions should cluster in the lower right-hand cell. Of the 1,529 public land counties, 10.3% (158/1,529) reveal one manifestation of the denied tax base effect—low per capita own source revenues; another 17.4% (267/1,529) possess the characteristic of the other form of the denied tax base effect and the imposed expenditure effect; but 72.3% (1,104/1,529) do *not* exhibit the predicted fiscal consequences. Still, the mean per capita own source revenue level generally increases as the degree of public land increases and averages about 10% higher in public land counties than in other counties. Counties with 15% or more of their land federally owned average $286 per capita in own source revenue versus $228 for counties with no public land.

Additional study of the table shows that the alleged fiscal problem associated with the extent of public land is not confirmed. Public land counties are generally dispersed across per capita own source revenue levels. For example, 10.3% (158/1,529) raise $90 or less; 24.1% (358/1,529) raise $90-$180; 27.0% (414/1,529) raise $180-$270; 21.1% (322/1,529) raise $270-$360; and 17.4% (267/1,529) raise $360 or more. There would be more of a concentration in public land counties in either the lower or higher per capita own source revenue categories if adverse fiscal effects were systematically associated with public land.

Table 58 indicates how the distribution of public land counties across own source revenue levels compares with private land counties. There is little difference. Public land counties raise relatively the same levels of

Table 57

DISTRIBUTION OF SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA OWN SOURCE REVENUES AND BY EXTENSIVENESS OF PUBLIC LANDS WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Own Source Revenue Level	No Public Land	Extensiveness of Public Lands, 1975 (Percent of County Area) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$ 90 or Less	169	68	25	13	52	158	327
$ 90-$180	457	196	57	29	86	368	825
$180-$270	430	240	47	17	110	414	844
$270-$360	337	200	22	7	93	322	659
$360 or More	183	118	13	19	117	267	450
TOTAL	1,596	822	164	85	458	1,529	3,105
Mean Per Capita Own Source Revenues	$228	236	201	233	286	247	235

SOURCE: ACIR staff calculation.

own source revenues as comparable private land counties except for the highest cell. In that cell, 17.4% of the public land counties raise $360 or more while 12.1% of the comparable private counties are in the same category. Thus, 81 more public land counties than might be expected exhibit high per capita own source revenue.

Public land could also affect local tax effort—the ratio of total own source revenue to total personal income.

Table 59 examines the potential effect of public land on this measure. The rows are local tax effort, ranging from the 0-8% category to 17% and above. As usual, the columns are the extensiveness of public land within a county. If adverse fiscal consequences are associated with the extensiveness of public land, the public land counties should group within the upper and lower right hand cells. The upper right hand cell indicates one form of the denied tax base effect—low tax effort and high degree of public land; the lower right hand cell indicates another form of the denied tax base effect and the imposed expenditure effect—high tax effort and high degree of pub-

Table 58

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF PUBLIC LAND COUNTIES AND COMPARABLE PRIVATE LAND COUNTIES BY PER CAPITA OWN SOURCE REVENUES

1972 Per Capita Own Source Revenue Level	Public Land Counties (N = 1,529)	Comparable Private Land Counties (N = 1,873)
$ 90 or Less	10.3%	12.2%
$ 90-$180	24.1	29.7
$180-$270	27.1	26.3
$270-$360	21.1	19.7
$360 or More	17.4	12.1
TOTAL	100.0%	100.0%

SOURCE: ACIR staff calculation.

lic land. Only 41.2% (630/1,529) exhibit the predicted characteristics; 58.8% (899/1,529) do not. The mean local tax effort is, however, higher for counties with a high degree of public land: 14.4% vs. 11.9% for private land counties.

Table 60 shows the comparison of local tax effort in public land counties with the tax effort in comparable private land counties. If the tax exempt status of federally owned land causes adverse fiscal effects, the distributions should differ. They are similar except for the 17% and above category. At that level there are 19% of the public land counties and 18.5% of the comparable private land counties. Thus, eight more public land counties than might be expected exhibit high tax effort. The relationship between tax effort and per capita expenditures will reveal whether this difference is a problem or merely reflects a local taste for relatively more public services.

The data on local property tax, local own source revenues, and local tax effort reveal that the revenue levels in public land counties are similar to those in comparable private counties. The revenue information also showed that fiscal characteristics of public land counties were *not* directly related to the extensiveness level of public land within the county. The distribution of the specific revenue variables by the extensiveness of public land was generally scattered across the degree of extensiveness rather than grouped in the manner predicted if federal ownership caused a problem beyond the 1976 compensation payment level.

QUESTION TWO—EXPENDITURES

The second major analytical question deals with the relationship of public land extensiveness to local government per capita expenditures. As with revenue levels, the denied tax base and imposed expenditure effects would manifest themselves as extraordinarily low or high local per capita expenditure levels. If federal ownership caused the denied tax base effect, jurisdictions' per capita expenditures would be relatively low. The imposed expenditure effect would force up the local per capita expenditure levels.

Table 61 tabulates per capita local expenditures for all local governments by the extensiveness of public land. The rows are per capita expenditures, ranging from $250 or less to $400 or more. The columns are extensiveness of public land. There is a general dispersion of the public land counties in the table among per capita expenditure levels and extensiveness of public land rather than the systematic relationship predicted by the

Table 59

THE DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY LOCAL TAX EFFORT AND BY THE EXTENSIVENESS OF PUBLIC LAND WITHIN A COUNTY
(N = 3,105)

1972 Local Tax Effort Level	No Public Land	Extensiveness of Public Lands, 1975 (Percent of County Area) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
0 -8%	408	154	45	28	113	340	748
8%-11%	361	198	45	16	69	328	689
11%-14%	378	201	40	17	84	342	720
14%-17%	196	121	15	7	86	229	425
17% and Above	233	148	19	17	106	290	523
TOTAL	1,576	822	164	85	458	1,529	3,105
Mean Local Tax Effort	11.9%	12.6%	12.0%	12.5%	14.4%	13.0%	12.4%

SOURCE: ACIR staff calculation.

Table 60

PERCENTAGE OF PUBLIC LAND COUNTIES AND COMPARABLE PRIVATE LAND COUNTIES BY LOCAL TAX EFFORT

1972 Local Tax Effort Level	Public Land Counties (N = 1,529)	Comparable Private Land Counties (N = 1,873)
0-8%	22.2%	26.1%
8%-11%	21.4	20.1
11%-14%	22.4	22.0
14%-17%	15.0	13.3
17% and Above	19.0	18.5
TOTAL	100.0%	100.0%

SOURCE: ACIR staff calculation.

denied tax base and imposed expenditure effects theories.

Of the 1,529 public land counties, 22.8% (349/1,529) spend $250 or less per capita and 34.7% (530/1,529) spend $400 or more per capita. The mean per capita expenditure levels among the public land counties across degrees of extensiveness varies from $347 to $300 to $340 to $425. The counties with the most extensive public land also have the highest average per capita expenditure levels.

The next examination of the expenditure data is a comparison of the percentage distribution of public land counties and comparable private land counties by per capita expenditures. *Table 62* compares the distribution of public land counties and comparable private land counties. The distribution is similar across per capita expenditure levels. However, the $400 or more category shows 34.7% of the public land counties versus 25% of the comparable private counties. Thus, 149 more public land counties than might be expected exhibit high per capita expenditures.

The next table further examines the relationship between revenue and expenditure decisions and the extensiveness of public land within a jurisdiction. *Table 63* presents the

Table 61

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA EXPENDITURES AND BY THE EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY
(N = 3,105)

1972 Per Capita Expenditures Level	No Public Land	Extensiveness of Public Lands, 1975 (Percent of County Area) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$250 and Less	384	175	58	27	89	349	733
$250-$300	336	107	30	18	53	208	544
$300-$350	295	152	38	10	43	248	543
$350-$400	200	113	13	8	60	194	394
$400 or More	361	270	25	22	213	530	891
TOTAL	1,576	822	164	85	458	1,529	3,105
Mean Per Capita Expenditures	$335	347	300	340	425	364	346

SOURCE: ACIR staff calculation.

Table 62

PERCENTAGE OF PUBLIC LAND COUNTIES AND COMPARABLE PRIVATE LAND COUNTIES BY PER CAPITA EXPENDITURES

1972 Per Capita Expenditures Level	Public Land Counties (N = 1,529)	Comparable Private Land Counties (N = 1,873)
$250 or Less	22.8%	27.8%
$250-$300	13.6	18.8
$300-$350	16.2	16.9
$350-$400	12.7	11.5
$400 or More	34.7	25.0
TOTAL	100.0%	100.0%

SOURCE: ACIR staff calculation.

percentage distribution of per capita local expenditures by local tax effort for low (0-5%) and high (15% and above) degree of public land. The rows are local tax effort, ranging from 0-8% to 17% and above. The columns are per capita local expenditures, ranging from $250 or less to $400 or more. A comparison of the distribution of low extensiveness and high extensiveness counties across per capita expenditure levels indicates that local tax effort and per capita expenditures are directly related regardless of the extensiveness of public land. There is no evidence that the condition of high local tax effort and low per capita expenditures increases as the extensiveness of public land increases. Also, as the extensiveness of public land increases, the local tax effort and per capita local expenditures increase—that is, counties are distributed along a diagonal running from upper left to lower right, from low effort-low expenditure to high effort-high expenditure.

The analysis of all governments in the county and of county governments shows that the relationship that would be hypothesized if a problem existed between local revenues and local expenditures and the extensiveness of public land is not confirmed. Public land counties display varying revenue-expenditure combinations. Yet, 25% to 30% of the counties with the highest degree of public land exhibit denied tax base or imposed expenditure effects. The statistical relationship in these counties does not conclusively argue, however, that the extensiveness of federal ownership adversely influences the local fiscal picture.

QUESTION THREE—INTERGOVERNMENTAL REVENUE

Question three asks whether the intergovernmental aids that the public land counties receive offset adverse effects of federal land ownership. Federal and state aids seek to equalize the revenue base of local governments, as well as meet the need for certain public services. If the aid distribution accomplishes this dual goal, it may offset adverse fiscal effects of public land.

Tables 64 through 67 answer the above question. *Table 64* presents the distribution of counties by per capita federal and state aids and by extensiveness of public lands. The rows are per capita federal and state aids, ranging from $25 or less to $100 or more. The columns are the extensiveness of public lands. Of the 1,529 public land counties, 79.4% (1,214/1,529) receive $100 or more per capita. Only 2.5% (39/1,529) receive $25 or less per capita. When only the most extensive (15% and above) public land counties are considered, 91.3% (418/458) receive $100 or more per capita while 1.3% (6/458) receive $25 or less. In general, the public land counties are eligible for relatively high levels of intergovernmental aids.

Table 65 further demonstrates the greater federal and state aid received by public land as contrasted to private land counties. This table compares the percentage distribution of public land counties with comparable private land counties for per capita federal and state aids. Percentagewise, more of the public land counties (79.4% vs. 74.3%) receive federal and state aids of $100 or more. Of the 1,529 public land counties, seven more than might be expected receive greater federal and state aid per capita. At the same time, 26 fewer public land counties than might be expected receive $25 or less.

The overall effect of intergovernmental aids on local government finances is displayed

Table 63

PERCENTAGE DISTRIBUTION OF COUNTIES WITH LOW AND HIGH EXTENSIVENESS OF PUBLIC LAND BY PER CAPITA LOCAL EXPENDITURES AND BY LOCAL TAX EFFORT*

1972 Local Tax Effort Level	Per Capita Local Expenditures and Extensiveness of Federal Land											
	$250 or Less		$250-$300		$300-$350		$350-$400		$400 or More		Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
0-8%	13.5%	15.1%	4.6%	3.7%	.9%	.9%	.5%	.3%	—	1.7%	19.5%	21.7%
8%-11%	7.4	2.8	7.7	2.0	6.7	1.7	1.9	3.4	1.2	2.3	24.9	12.3
11%-14%	.9	.3	3.3	.9	6.2	4.0	6.2	5.4	6.8	8.0	23.4	18.5
14%-17%	.5	—	.6	.6	3.1	1.7	2.8	3.7	8.0	13.7	15.0	19.7
17% and Above	.5	—	.3	.6	2.0	.3	2.5	.9	11.9	26.2	17.2	27.9
TOTAL	22.8%	18.2%	16.6%	7.7%	18.9%	8.5%	13.8%	13.7%	28.0%	51.9%	100.0%	100.0%

*Low extensiveness = 0 to 5% public land of county area.
High extensiveness = 15% or above public land of county area.

N.B. This table is based on two subsets of public land counties. Subsequent to its preparation additional counties were identified as being in the high and low extensiveness categories.
The counties not included in this table would be distributed throughout the table, however, changing percentages shown by fractional rather than whole number amounts.

SOURCE: ACIR staff calculation.

Table 64

DISTRIBUTION OF ALL SUBSTATE GOVERNMENTS AGGREGATED AT THE COUNTY LEVEL BY PER CAPITA FEDERAL AND STATE AIDS AND BY EXTENSIVENESS OF PUBLIC LAND WITHIN A COUNTY

(N = 3,105)

1972 Per Capita Federal and State Aid Level	No Public Land	Extensiveness of Public Lands, 1975					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$25 or Less	76	25	7	1	6	39	115
$25-$50	47	21	—	4	6	31	78
$50-$75	112	50	11	2	19	82	194
$75-$100	242	113	30	11	9	163	405
$100 or More	1,099	613	116	67	418	1,214	2,313
TOTAL	1,576	822	164	85	458	1,529	3,105
Mean Per Capita Aids	$150	$156	$138	$159	$205	$169	$157

SOURCE: ACIR staff calculation.

Table 65

PERCENTAGE OF PUBLIC LAND COUNTIES AND COMPARABLE PRIVATE LAND COUNTIES BY PER CAPITA FEDERAL AND STATE AID LEVELS

1972 Per Capita Federal and State Aid Level	Public Land Counties (N = 1,529)	Comparable Private Land Counties (N = 1,873)
$25 or Less	2.5%	4.2%
$25-$50	2.0	2.1
$50-$75	5.4	5.8
$75-$100	10.7	13.6
$100 or More	79.4	74.3
TOTAL	100.0%	100.0%

SOURCE: ACIR staff calculation.

in *Table 66* which distributes counties by the ratio of own source revenues to expenditures and by the extensiveness of public lands. The rows are the ratio, ranging from .50 and less to .80 and more. The lower this ratio, the *less* a local government pays of its expenditures from own revenues *and* the *more* it receives in federal and state assistance. The columns are the extensiveness of public lands.

The table shows that 44.8% (205/458) of the counties with 15% or more public land area pay one-half or less of their expenditures; only 5.5% (25/458) pay 80% or more of their expenditures. *On average,* the counties with 10% or more public land contribute 49% to their total expenditures as compared to 55% for private land counties.

In *Table 67,* the counties in the low and high categories of extensiveness of public land by the ratio of own source revenue to total expenditures are further subdivided to show whether the effect of the public land on the ratio of own source revenue to total expenditure depends on the level of spending in the county. Thus, the level of per capita spending is added as a further dimension of analysis.

The public land counties are distributed across all per capita expenditure levels regardless of whether they contain minimal or extensive federal acreage. For example, 14.1% of the counties with a small proportion of public land and 16% of the counties with a high proportion have low per capita expenditures and pay a small percentage of the expenditures from own source revenue. As per capita expenditures rise, the local contribution remains relatively low. For the high spending counties, 9.1% of the low public land counties and 17.7% of the high public land counties meet one-half or less of their expenditures from own sources. *Table 67* shows that federal and state aids are not limited to low per capita expenditure counties. Apparently, higher intergovernmental aids on average go to public land counties than to nonpublic land counties.

This finding helps explain the earlier findings that the overall fiscal condition of public land counties is generally not worse than that of other counties.

THE FINDINGS SUMMARIZED

Does the extensiveness of public land within a jurisdiction influence the tax burden of the people who reside within that jurisdiction?

No! Per capita property taxes and own source revenues, as well as local tax effort, compare favorably with those of comparable private counties and do not exhibit the systematic grouping that would substantiate the denied tax base and imposed expenditure effects. While a significant minority of public land counties exhibit the characteristics that would be associated with a denied tax base effect, the analysis determined that the predicted effects are not confirmed. While some public land counties exhibit the predicted revenue characteristics, the percentage is no greater than the proportion of comparable private land counties exhibiting the same characteristics. Nor does the percentage vary by extensiveness of public land. Because the distribution of public land counties is not different, the conclusion is that factors other than the federal ownership of land explain the low revenue in some public land counties.

Does the extensiveness of public land within a jurisdiction influence the expenditures of the local government?

Table 66

PUBLIC LAND COUNTIES BY RATIO OF OWN SOURCE REVENUE TO EXPENDITURES AND BY EXTENSIVENESS OF PUBLIC LAND WITHIN A COUNTY

1972 Ratio of Own Source Revenue to Total Local Expenditure	No Public Land	Extensiveness of Public Lands (Percent of County Area)					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
.50 or Less	632	308	83	32	205	628	1,260
.50-.60	298	149	27	21	105	302	600
.60-.70	283	152	23	22	73	270	553
.70-.80	222	86	26	7	50	169	391
.80 or More	141	127	5	3	25	160	301
TOTAL	1,576	822	164	85	458	1,529	3,105
Mean Ratio	.55	.54	.52	.49	.49	.52	.54

SOURCE: ACIR staff calculation.

Table 67

HIGH AND LOW EXTENSIVENESS PUBLIC LAND COUNTIES BY RATIO OF OWN SOURCE REVENUES TO TOTAL LOCAL EXPENDITURES BY PER CAPITA EXPENDITURES*

Ratio of Own Source Revenues to Total Local Expenditures	Per Capita Local General Expenditures											
	$250 or Less		$250-$300		$300-$350		$350-$400		$400 and Above		Total	
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
.50 or Less	14.1%	16.0%	7.3%	4.6%	6.3%	2.8%	3.3%	5.1%	9.1%	17.7%	40.1%	46.2%
.50-.60	2.8	1.4	4.5	1.4	4.2	3.7	2.6	3.7	9.0	13.4	23.1	23.6
.60-.70	2.5	—	2.8	.6	2.6	1.1	4.6	2.8	5.7	12.3	18.3	16.8
.70-.80	1.2	.3	1.4	.6	3.3	.6	1.5	2.0	3.1	5.4	10.5	8.9
.80 or More	2.2	.6	.6	.6	2.5	.3	1.7	—	1.1	3.1	8.0	4.6
TOTAL	22.8%	18.2%	16.6%	7.7%	18.9%	8.5%	13.8%	13.7%	28.0%	51.9%	100.0%	100.0%

*Low extensiveness = 0 to 5% public land of county area.
High extensiveness = 15% or more public land of county area.

N.B. This table is based on two subsets of public land counties. Subsequent to its preparation additional counties were identified as being in the high and low extensiveness categories.
The counties not included in this table would be distributed throughout the table, however, changing percentages shown by fractional rather than whole number amounts.

SOURCE: ACIR staff calculation.

No! The analysis of per capita general expenditures reveals no systematic grouping as the denied tax base and imposed expenditure effects would require. Where high concentration public land counties did exhibit potential adverse fiscal effects, state and federal aids appeared to offset the fiscal consequences. The overall expenditure evidence does not support the contention that an imposed expenditure problem exists.

Do the federal and state intergovernmental transfers to local governments provide aid to public land counties so that they are able to pay any alleged imposed expenditures?

Yes! In the minority of public land counties which exhibit the denied tax base and imposed expenditure characteristics, federal and state intergovernmental aids to local governments are relatively higher. Federal and state aids to the public land counties are greater (on a per capita basis) than aid to nonpublic land counties. Since these aids are higher to public land counties and no fiscal problem is discernible, the evidence does not support the claim that an unreimbursed fiscal problem existed prior to 1976.

The answers to the above three questions indicate that there was no case for additional federal reimbursement to counties which contain public land.

A Note on the Public Land Hardship Counties

Throughout the analysis of the three questions, the lack of a systematic relationship between the extensiveness of public land and the various revenue and expenditure measures has been stressed. Each table revealed, nonetheless, a set of public land counties which appeared to satisfy the imposed expenditure effects.

In order to determine more confidently whether or not the counties with extensive public land are experiencing adverse fiscal effects, a special analysis has been made for counties which have more than 50% public land and for counties that have more than 15% public land (*Table 68 and 69*, respectively). These counties are examined with respect to the same revenue and expenditure characteristics indicative of potential fiscal hardship throughout this chapter. In this instance, however, the revenue and expenditure characteristics are combined to portray what may be termed a cumulative scale of fiscal adversity. At one extreme a county may be considered as suffering fiscal hardship if it is exerting a relatively high tax effort and burden yet had an average or below average per capita expenditure level. According to the conditions set forth in the tables this situation is met when a county is characterized by all three revenue features (high per capita property tax level, plus high per capita own source revenue, plus high tax effort) and has an average per capita expenditure level. When this test is applied to those counties which have over 50%

Table 68

ASSOCIATION OF REVENUE BURDEN AND LOW EXPENDITURE LEVEL WITH EXTENSIVENESS OF FEDERAL LAND BY COUNTY WITH 50% OR MORE FEDERAL LAND

(N = 207)

Revenue Features[1]	Per Capita Expenditure Level[2] Average	Above Average	High	Revenue Test Only
Most Stringent Revenue Test	0	0	24	34
Moderately Stringent Revenue Test	0	3	19	40
Least Stringent Revenue Test	0	6	19	43

[1]Most Stringent = Local tax effort—0.17 or more, per capita own source revenue—
$360 or more, per capita property taxes—$260 or more.
Moderately Stringent = Per capita own source revenue —$360 or more, per capita property taxes—$260 or more.
Least Stringent = Per capita property taxes—$260 or more.
[2]Average = Per capita expenditure—$338, the mean level among 2,008 comparable counties with public land less than 5% of land area.
Above Average = Per capita expenditures—$475, one standard deviation above the mean.
High = Per capita expenditure—$612, two standard deviations above the mean.
SOURCE: ACIR staff calculation.

Table 69

ASSOCIATION OF REVENUE BURDEN AND LOW EXPENDITURE LEVEL WITH EXTENSIVENESS OF FEDERAL LAND BY COUNTY WITH 15% OR MORE FEDERAL LAND

(N = 458)

Revenue Features[1]	Per Capita Expenditure Level[2] Average	Above Average	High	Revenue Test Only
Most Stringent Revenue Test	0	4	33	70
Moderately Stringent Revenue Test	0	7	39	84
Least Stringent Revenue Test	2	12	40	95

[1]Most Stringent = Local tax effort—0.17 or more, per capita own source revenue—$360 or more, per capita property taxes —$260 or more.
Moderately Stringent = Per capita own source revenue —$360 or more, per capita property taxes—$260 or more.
Least Stringent = Per capita property taxes—$260 or more.
[2]Average = Per capita expenditure—$338, the mean level among 2,008 comparable counties with public land less than 5% of land area.
Above Average = Per capita expenditures—$475, one standard deviation above the mean.
High = Per capita expenditure—$612, two standard deviations above the mean.
SOURCE: ACIR staff calculation.

of their land in federal ownership not one hardship case emerges as an example of fiscal hardship *(Table 69).*

It may be argued that the fiscal hardship test is too stringent. Even when the condition is relaxed, however, to only one revenue feature (high per capita property tax level) with no expenditure conditions only 95 of the counties which have 15% or more land in federal ownership qualify as hardship cases.

THE PAYMENT IN LIEU OF TAXES ACT OF 1976— A DISTRIBUTIONAL ANALYSIS

The purpose of this section is to analyze the distribution of federal compensation money under P.L. 94-565, *The Payment In Lieu of Taxes Act of 1976.* The act guarantees a minimum federal compensation payment of 75¢ per acre to each county government which has certain types of federal land within its boundaries. If the county already receives at least 65¢ or more per acre under other compensation programs, the payment is an additional 10¢ per acre. Both payments are subject to a limit determined by the population of the county.

Table 50 listed the public land included in the act. It amounts to approximately 90% of all public land. *Table 51* described the nine existing federal compensation programs included in the determination of the per acre payment. The estimated payments under these nine programs will amount to $370.8 million in FY 1978. This information has made it possible to simulate the distribution of the federal compensation funds under P.L. 94-565 using data for the 1976 fiscal year. The simulation included the legislated change (P.L. 94-588) in the Forest Service payment which was analyzed in *Chapter V.* It excluded *Mineral Leasing Act* money which goes to the states, *not* the counties. If the P.L. 94-565 change had been in effect for the 1976 fiscal year distribution, the P.L. 94-565 program would have cost approximately $90 million.

Table 70 presents the significant features of the second year simulation of P.L. 94-565 which covers public land counties. Alaska is not included in the analysis. Approximately 1,254 counties receive payment under the 75¢ provision in the program. These counties would receive $76.9 million for 216.5 million acres, or 36¢ per acre. Thus, these counties received on average 39¢ per acre prior to 1976.

An estimated 275 counties receive compensation under the 10¢ provision. This feature pays out $13.4 million on 157.5 million acres, or 9¢ an acre. This differs from the 10¢ amount because 17 counties are subject to the population limits. The estimated cost of P.L. 94-565 is approximately $90.3 million.

Tables 70 through 72 analyze the distribution of P.L. 94-565 funds in detail. As might be expected, the bulk of the actual 1976 compensation payment (92.6%—$135.8 million/ $146.6 million) and the simulated compensation (87.8%—$79.3 million/$90.3 million) goes to those 458 counties with 15% or more of their

area in public lands (*Table 70*). Also, these 458 counties receive 96.9% ($12.6 million/$13 million) of the 10¢ money. Counties with less than 15% receive the largest percentage increase in payments. For example, those counties with 5% or less public land receive a 162% increase ($2.2 million vs. $5.8 million). The 1,071 counties with less than 15% of public land would receive, on average, $1.23-$1.28 per acre payment under P.L. 94-565. This explains the increased degree of "Lorenz equality" depicted in *Chart 2.*

The actual 1976 payments were concentrated in Regions 5 (California) and 6 (Oregon and Washington)—75.5% ($110.7 million/$146.6 million) (*Table 71*). These two regions also had the first and second ranked per acre payment—Region 6: $1.85 and Region 5: $.78 per acre. Regions 2 (Colorado, Kansas, Nebraska, South Dakota and Wyoming) and 4 (Idaho, Nevada and Utah) had the low ranked per acre figures—$.05 and $.04, respectively. States in Region 2 receive large Mineral Leasing Payments which are not included in the simulation which focuses on county government payments only.

Counties in Regions 2, 3 and 4 receive the bulk of the simulated P.L. 94-565 payment—61.6% ($55.4 million/$90 million). Most of that money is paid under the 75¢ guarantee provision—90.3% ($50 million/$55.4 million). Region 6 which already receives substantial compensation payments is the only region which receives more under the 10¢ provision than under the 75¢ provision.

Table 72 shows the distribution of federal compensation payments among counties classified by the local per capita expenditures. Local governments which spend $400 or more per capita receive 70% ($102.2 million/$146.2 million) of the 1976 payment. Places which spend $300 or less received 8.8% ($12.8 million/$146.6 million).

P.L. 94-565 allocates most of its payment, 54.1% ($48.7 million/$90.1 million) to high spending jurisdictions. Only 5.6% ($5.1 million/$90.1 million) went to low spending jurisdictions. The $400 or more class receives 63.9% ($150.9 million/$236.8 million) of the total compensation package. After P.L. 94-565, the per acre payment range will vary from 62¢ to $1.00.

If the imposed expenditure effect is the dominant fiscal effect of public land, then P.L. 94-565 may distribute the money in the appropriate manner. But, the analysis sug-

Table 70

ACTUAL AND SIMULATED SECOND YEAR P.L. 94-565 FEDERAL COMPENSATION PAYMENTS TO COUNTIES CLASSIFIED BY EXTENSIVENESS OF PUBLIC LAND

(Millions of Dollars)

Counties Classified by Extensiveness of Public Land, 1976	Actual Receipt Sharing Payment, 1976		Simulated Second Year Payments In Lieu Act, 1976				Total Compensation		
	Total	Cents Per Acre	Total	75¢ Program	10¢ Program	Cents Per Acre	Total	Cents Per Acre	Percent Change
0-5%	$2.2	47	$3.6	$3.5	$.1	77	$5.8	1.23	162%
5%-10%	4.0	60	4.3	4.2	.1	64	8.3	1.24	107
10%-15%	4.6	75	3.1	2.9	.2	51	7.8	1.28	71
15% and Above	135.8	39	79.3	66.7	12.6	23	215.1	.62	59
TOTAL[a]	$146.6	40	$90.3	$77.3	$13.0	24	$236.9	.65	63%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 71

ACTUAL AND SIMULATED SECOND YEAR P.L. 94-565 FEDERAL COMPENSATION PAYMENTS BY REGION

(Millions of Dollars)

Regions	Actual Receipt Sharing Payment, 1976		Simulated Second Year Payments In Lieu Act, 1976				Total Compensation		
	Total	Cents Per Acre	Total	75¢ Program	10¢ Program	Cents Per Acre	Total	Cents Per Acre	Percent Change
1	$6.5	23	$8.7	$8.2	$.5	30	$15.2	53	130%
2	2.8	5	17.0	16.5	.5	32	19.8	37	640
3	5.0	10	17.0	16.1	.9	34	22.0	44	340
4	5.3	4	21.4	17.4	4.0	18	26.7	22	450
5	32.1	78	6.7	3.8	2.9	16	38.8	94	21
6	78.6	185	4.6	.8	3.8	10	83.2	195	5
8	12.5	66	8.3	7.7	.6	44	20.8	110	67
9	3.8	32	6.3	6.2	.1	53	10.1	85	166
TOTAL[a]	$146.6	40	$90.0	$76.7	$13.3	24	$236.6	64	60%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

Table 72

ACTUAL AND SIMULATED SECOND YEAR P.L. 94-565 FEDERAL COMPENSATION PAYMENTS TO COUNTIES CLASSIFIED BY PER CAPITA LOCAL EXPENDITURES

(Millions of Dollars)

Counties Classified by Per Capita Expenditures, 1972	Actual Receipt Sharing Payment, 1976		Simulated Second Year Payments In Lieu Act, 1976				Total Compensation		
	Total	Cents Per Acre	Total	75¢ Program	10¢ Program	Cents Per Acre	Total	Cents Per Acre	Percent Change
$250 or Less	$7.0	58	$5.1	$4.6	$.5	42	$12.1	100	72%
$250-$300	5.8	28	8.9	8.7	.2	42	14.7	70	150
$300-$350	6.3	26	13.7	12.7	1.0	57	20.0	83	219
$350-$400	24.9	47	13.6	11.9	1.7	26	38.5	73	55
$400 or More	102.2	42	48.7	39.1	9.6	20	150.9	62	48
TOTAL[a]	$146.2	42	$90.1	$77.0	$13.1	26	$236.3	68	62%

[a]Totals may vary slightly due to rounding.
SOURCE: ACIR staff calculation.

gests that the case for this program has not been substantiated on the basis that:

1. The alleged adverse fiscal effect generated by public land has not been substantiated.

2. Under P.L. 94-565 the payments are concentrated among those counties which already receive the bulk of the federal compensation money.

3. A major portion of the P.L. 94-565 compensation money goes to counties which already receive significant federal and state aids.

FOOTNOTES

[1]Approximately 92% of the 760 million public acres are included under the provisions of P.L. 94-565. For a complete listing of the eligible lands, see U.S. Congress, House of Representatives, *Payment in Lieu of Taxes Act*, H.R. 1106, 94th Cong., 2d sess., Washington, DC, U.S. Government Printing Office, 1976, pp. 9-11.

[2]U.S. Department of the Interior, Bureau of Land Management, *Public Land Statistics, 1974*, Washington, DC, U.S. Government Printing Office, 1974, pp. 14-31.

[3]Advisory Commission on Intergovernmental Relations, "Compensating Local Governments for Tax Exempt Federal and State Property," Washington, DC, ACIR, multilith, 1977.

[4]Advisory Commission on Intergovernmental Relations, *Measuring the Fiscal "Blood Pressure" of the States—1964-75*, Report M-111, Washington, DC, U.S. Government Printing Office, February 1977.

Chapter VII

Evaluation of Alternative Schemes for Federal Compensation for Federal Property

Six alternative bases for federal policy to compensate for the fiscal effect of federal land ownership were suggested in *Chapter III.* They are Fiscal Impact of Ownership, Imposed Expenditures, Tax Equivalency, Partnership, Flat Per Acre Payments, and Comparable Tax Burden. These alternatives can now be evaluated in the light of the empirical analysis of the fiscal effect of federal land ownership developed in *Chapters V* and *VI.*

FISCAL IMPACT OF FEDERAL OWNERSHIP

Rationale

Federal land imposes current costs on, and yields current benefits to, local jurisdictions. In addition, federal ownership prevents local governments from incurring the costs and enjoying the benefits of private ownership. The entire impact of federal ownership of federal land on a county is the difference between (1) the net positive or negative fiscal effect associated with the land in federal ownership, and (2) the net positive or negative fiscal effect that would have been associated with private ownership of the land. A payment could reimburse the jurisdiction for this difference.

Analysis

It is easy to describe the nature and type of effects of federal land ownership: spillover benefits and costs, and foregone benefits and costs. It is not so easy, however, to measure these effects. Two types of effects are especially difficult to measure. The value of the entire category of foregone effects is difficult to estimate because it involves speculating on what would happen as a consequence of private ownership of the federal land. Because most of the federal land is in the public domain—it always has been in federal ownership—estimating its value in private ownership would entail speculation to a significant degree.

The measurement of indirect effects represents the second difficult problem. For example, determining the additional road maintenance required because of the logging operation in a National Forest can be based on relatively straightforward observation and analysis. But there is no straightforward method to estimate the effect of the tourism associated with federal land, the tourism that creates commercial enterprises which in turn provide local benefits and costs.

A review of the evaluations that frequently are made of particular land use changes and development projects bears evidence to the difficulty of impact analysis. Two studies, one by the Real Estate Research Corporation (under contract to several federal agencies) and one by the Urban Institute, evaluated the existing fiscal impact literature and concluded that the analyses of fiscal impact often were too narrow and neglected vital secondary and distributional impacts.[1] Consequently, the studies often completely misjudged the

actual impact—even to the extent of predicting a significant net tax gain when a net tax loss would occur.

Although it is impossible to implement a payment system based on measuring the fiscal impact of federal ownership, the approach provides the most comprehensive view of the problem. It provides the complete context for the reimbursement problem which other approaches address in piecemeal fashion. Thus, the limitations of this approach should be fully understood.

An estimation of the overall local fiscal impact of the presence of federal land encounters five problems. *First,* to estimate whether and by how much a community would gain through land development requires that the alternative land use be known precisely. It is not enough to know that the land would or would not be developed; or even to know the general type of development that would occur. It is necessary to define the use at any given time precisely in order to estimate both the cost of public services and the revenue raised by the theoretical change in land use. For federal land this would require an exact specification of the use of one-third of the nation's land. This task is beyond the state of the art and administrative feasibility.

Second, extension of public services in some circumstances may make the existing infrastructure more efficient and reduce per unit public service costs. In other cases, the effect may be just the opposite. Measuring the fiscal effect of the development of federal land would require a judgment on the cost savings or increases of extending services.

Third, land development generates many secondary effects that have fiscal consequences. For example, if some of the federal land were developed under private ownership, the development could stimulate other commercial and residential investment with substantial benefits and costs. Whether the community would gain from the land development depends upon the rate of growth in tax base relative to the rate of growth in public services. There is no way, other than conjecture, to estimate this relative growth.

Fourth, the fiscal effect of any land use change on a particular local government depends, at least in part, on what it does to the localities' state and federal aid allocations. In some cases, a more intensive land use leads to additional aids. Conversely, equalizing (or wealth neutralizing) aid formulas reduce the amount of aid as additions are made to the tax base. The effect on state aids of private ownership of federal land would have to be estimated.

Fifth, the fiscal effect in one place may be offset by an opposite effect elsewhere. Much of the development process is competitive—gains generated from a land use change may occur in one part of the region but offsetting actual losses or loss potential gains may occur elsewhere. In the extreme case, this raises the possibility that even if the federal land were privately owned, the level of private investment in land, and thus its market value, may not increase, but only be redistributed.

To digress from the situation with land, the problems which preclude this approach for open land may not apply so severely to other public property situations. When large installations are constructed or substantial mining operations are undertaken, many of the problems described above disappear. Federal construction activity in urban communities frequently is quite analogous to private development in the same community. Primarily, this is because the impact occurs at a point in time. Just as "Environmental Impact Statements" are justified for substantial new or changed federal programs, a comprehensive fiscal impact could be determined and reimbursed for certain changes in public property ownership. For example, in the State of Washington, public utilities constructing large nuclear facilities are required to reimburse for the overall fiscal impact of the construction and of the new installations.

IMPOSED EXPENDITURES

Rationale

The federal responsibility could be discharged by replacing the present compensation programs with a reimbursement for additional expenditures imposed by the federal land. A reimbursement for the additional expenditures imposed by the federal land would at least neutralize the current adverse fiscal

effect of the federal land on the local community. By paying the imposed cost, the federal government would make the community whole—as if the National Forest were no longer part of the community's fiscal picture. The federal land would neither impose costs nor yield revenue. Admittedly, the foregone tax effect would not be compensated, but this approach argues there should be no responsibility to reimburse for this foregone loss—especially since most of the land was federally owned before the existence of the local communities. The loss of potential tax base may be offset by fewer people living in the area; thus the foregone effect includes both foregone benefits and foregone costs. One general inference from the analysis in *Chapters V* and *VI* is that the foregone effects have offset each other—the fiscal characteristics of federal land counties as a group are closely matched with the rural counties which do not contain federal land.

Ideally, a formula payment system would be devised which would use a measure of the additional cost actually imposed by the federal land. The empirical analysis in *Chapters V* and *VI* indicates the *general pattern* of imposed costs among federal land counties. The analysis, however, does not indicate the imposed cost impact in *each* county as would be necessary in a payment system. If per capita expenditures of most counties were close to the average, the difference in the average expenditure of all counties also would be the amount of imposed cost in each county. This is not the case, however; there is a wide range of per capita expenditures in both National Forest and other counties. Two alternative methods for developing the requisite information are available. Both admittedly are short of the ideal.

Plan A. A formula approximating the method used by several states and in Canada can attribute an imposed cost through indirect indicators. Several programs for publicly owned buildings apply a factor to the categories of the local budget that provide services to buildings. The factor may be square feet of building space (Virginia) or value (Wisconsin and the federal program in Canada). Such methods cannot assure that the figure computed actually measures the additional expenditures attributable to the public buildings but the calculation may make a fair approximation. A similar method could be developed for the federal land.

Based on the testimony of local officials over the years, the parts of the local budget most affected at least by the federal land are road maintenance and police. The impact is related to logging and recreational uses of the forests. The formula would estimate the vehicle miles driven in the county due to the forest as a percent of total mileage and applied the percent to the road maintenance category of the budget. Next, the formula would estimate the percent that the average daily population of forest users are of the local population and apply the percent to the police and sanitation parts of the budget. A significant data gathering task would be required to make the estimates. The task probably would be as difficult, and complex, as the implementation of a tax equivalency payment system.

Plan B. Under this alternative, a detailed evaluation would be made in order to ascertain more accurately the additional expenditures imposed by the federal land. The locality asserting imposed expenditures would itemize the basis for a proposed payment. The justification would be evaluated by a federal agency and a payment determined.

Argument for the Approach

A reimbursement for imposed expenditures would offset the adverse current impact (spillover effects) of the federal land. The benefits and costs that are foregone—namely, potential taxes and public service costs that would occur *if* the land were in private ownership rightfully, are omitted from this measure of federal responsibility. The net "burden," if any, of benefits foregone should create no federal obligation for payment—when generations of people freely chose to locate in a "federal land" community rather than elsewhere—even though at one time there may have been an adverse fiscal effect connected to foregone taxes. It can be argued that as a practical matter when imposed expenditures

are reimbursed, the county is treated as if it had a smaller boundary than the legal boundary; and since counties are of many sizes, the foregone effects should not constitute a rationale for further reimbursement.

Compensation on the basis of imposed expenditures breaks the link that currently exists between the level of payments to a county and the use of the National Forests. The present system creates a financial self-interest in the counties to favor the uses of the forests that yield high income. Thus, county officials and their spokesmen are encouraged to take political action which in some cases may conflict with the national interest regarding forest management.

While Plan A does not measure precisely the component of total expenditure that actually is due to the federal land, rough justice is served. Several states and Canada have adopted formulas which similarly estimate the cost of services imposed by the public property.

Plan B contrasts with Plan A in promising greater precision in measuring the effect of the federal land. Plan A probably would require less administrative expense but might result in compensating more governments because it would be based on an imprecise formula. Rather than spread the payments among many counties by using factors in a general formula, the case-by-case evaluation envisioned in Plan B would target the payments to the places that actually have incurred the imposed expenditures.

Argument Against the Approach

The tax base of every community contains parcels that yield more tax revenue than they demand in public services. A reimbursement for actual imposed expenditures denies the community access to a benefit it has come to expect: the net tax surplus from open space land. A reimbursement for foregone taxes (i.e., a tax equivalency) would provide localities this benefit.

From the local government point of view, an imposed expenditure approach based on Plan B would put a vast amount of power in the hands of a federal administrator. The federal administrator would have every incentive to curtail payments. The empirical investigation found that federal land does not generally impose significant spillover expenditures on local governments.

From the federal point of view, Plan A can be seriously faulted because of its imprecision. The formula method might be justified if federal land generally received normal public services, then it might be acceptable to use imposed expenditures that are roughly accurate. Federal agencies, however, provide most of the required public services to their property. Under the formula method the interpretation would probably have to be liberal enough to aid all counties with federal land rather than those suffering imposed expenditures.

The administration of Plan B, in particular, would suffer from the fact that there is no clear basis for judging the impact of federal land on local expenditures. While the formula method is inexact, Plan A promises little more in the way of precise measurement of impact. More importantly, federal officials would have to be armed with considerable discretion in determining the additional costs attributable to the use of federal land. At the same time, lack of any criteria for evaluating impact would leave local officials with excessive room to bargain over claims of imposed costs. The result could well aggravate intergovernmental fiscal relations.

The problem of determining the additional expenditures attributable to federal land would become more severe if expenditures indirectly imposed should be accounted for along with those directly imposed. For example, additional tourists in the community might require additional police services and the seasonal character of the employment may require somewhat higher than normal wages to be paid. These indirect costs would be exceedingly difficult to quantify. More likely, in the interest of practicality, an imposed expenditure program would not take account of these indirect effects. These effects, however, are not insignificant just because it is difficult to measure them. Consequently, a feasible imposed expenditure program could fail to provide compensation for some significant imposed expenditures.

TAX EQUIVALENCY

Rationale

Federal land ownership denies localities the opportunity to tax the land. The foregone taxes may be needed to pay the costs the forests impose and, more importantly, to assure a normal tax base for the county. Even if a tax equivalency does not approximate a fiscal burden associated with federal land ownership, it nevertheless is justified as a matter of principle—that the federal government as a landowner should subject itself to the same tax liability to which private citizen landowners are subjected.

A Plan

The tax equivalency amount could be determined by the federal government or, alternatively, by local officials.

Plan A—Federal Administration. Chapter IV developed a model for implementing a tax equivalency approach based on federal responsibility for determining a tax equivalency amount. Separate determination would be made of the yield and the ad valorem tax equivalency. The yield tax equivalency for forest land can fairly readily be ascertained based on the value of the timber harvested. With respect to the ad valorem tax equivalency, the federal government would have the task of estimating the value, especially to assure consistency in assessment. The estimated value of federal land in each county would be certified to that county.

The administrative costs of estimating value would be high. The Forest Service has the responsibility to estimate the value of the Boundary Water Canoe Area—part of the Superior National Forest in Minnesota. The assessment currently underway (in 1977) is estimated to cost 10¢ per acre. If this cost is applied to the federal land area of 407.6 million acres lying in the 49 states excluding Alaska, the cost would be $40.8 million. The average annual cost can be reduced by conducting a thorough valuation only every several years (in Minnesota the assessment is made decenially) and updating the assessment annually by a factor which accounts for the average change in the value of privately owned land.

The cost can be greatly reduced by employing the income capitalization method of valuation for the land for which the method is applicable. The method can be used, however, only for federal land which is commercial forest land—26% of the total (excluding Alaska).

Each county would adjust the certified value based on the local assessment ratio, and the preferential tax measures applicable to forest land. An applicable tax rate would be calculated; that is the tax rate that would have prevailed had the estimated value been part of the tax base and had the existing level of federal compensation been added to the levy. A tax equivalency would be estimated by multiplying the calculated tax rate by the adjusted value of federal land. The county would submit the tax equivalency estimate as a proposed payment along with information supporting the estimate to the federal government. The federal government would review the proposed amount and determine the payment.

Plan B—Local Administration. In the alternative, the federal government would submit to the procedures of local taxation. As with other property owners, the federal government would have the right to appeal local assessments to local and state boards of review and courts when the government concluded the local assessment was inaccurate.

The following discussion separately considers the major arguments for and against adopting tax equivalency as the standard for federal compensation; and the alternatives, in the case of forest land, of basing the tax equivalency on the bare land value of forest land or on the value of the entire forest.

Argument for the Approach

The belief that the federal government should pay an amount equal to the taxes foregone due to federal land ownership has a long history. Many studies of the effect of federal land are based on the assumption that lost taxes are *the* measure of federal fiscal responsibilities.

Tax equivalency would extend to federal

land the same treatment now applied in the taxation of private land. A fair tax distributes the tax liability proportionately on all taxable items—in this case, the same percent of market value or of timber harvest value. The federal land is like private forest land and accordingly should be taxed similarly. In the taxation of private land, the tax burden which results when equal treatment prevails is accepted as fair whether the liability exceeds or falls short of public service costs associated with the property. Equal treatment would not be extended to the federal government merely to implement an abstract principle, but rather to assure a fair tax burden on the local taxpayer. When the federal government accepts a tax-like obligation, the local jurisdiction is given a normal tax base—the jurisdiction's revenues are made equivalent to what they would be if the land were privately owned. With a normal tax base, it may be argued that the result is that the tax burden on each taxpayer is undisturbed by federal ownership. Equal treatment in taxation is of vital importance—citizens can claim equal treatment as a basic right.

If, on the other hand, a federal tax equivalency responsibility is rejected or diminished due to the benefits of federal ownership, the implication would be that firms which service their own needs rather than draw on public services should be relieved of some or all of their tax obligation. That would shift a portion of the local tax burden from business to residential taxpayers.

Local governments generally have less adequate fiscal resources than either the state or federal governments. Because of inherent local fiscal handicaps relative to the states and the federal government, the debate over approaches should be resolved in favor of more generous payments to local governments. Thus, the data which show that federal land counties do not experience greater tax burdens, should not be given undue weight in discussing the merits of this approach.

Argument Against the Approach

The idea that tax consistency requires publicly owned land to be assessed and taxed does not appear to be reasonable. Individual and corporate tax obligations are closely associated with the responsibilities and benefits of citizenship. The federal government in its land ownership status is unlike other property owners. Local citizens and businessmen have the opportunity to vote for local and state officials to whom they entrust the decision of balancing costs and benefits. If elected officials misjudge the desireable balance, the local citizen can vote against the responsible elected officials or move to another jurisdiction. Firms also can seek to influence the local budget to their benefit and can move or threaten to move, if the taxes and benefits are out of balance in their eyes. In this context, the property tax may be fair to local citizens based on the balance of benefits and tax burden, but not fair to the federal government.

The administrative problems in implementing a tax equivalency approach are great, and there are arguments against the principle as well. Unless a basic right is at stake, federal taxpayers should not be asked to sacrifice real tax dollars to pay for a hypothetical loss which causes no demonstrable harm. Except in the case of acquired land, no loss has occurred in the usual sense of "loss"—the community has not been deprived of a tax resource it once had. The payments therefore would subsidize local services to the extent that a tax equivalency payment would exceed any imposed local expenditures. Recall that the foregone benefit, tax equivalency, is but one of four types of effects of federal land ownership. This approach purposefully avoids accounting for the others, two of which, foregone costs and spillover benefits, minimize local government spending.

Advocates of the tax equivalency approach must confront the evidence indicating that counties with federal land already have a normal tax base. This study shows that several tax effort and expenditure problems that would be related to an abnormally low tax base are unsubstantiated. The empirical findings, moreover, are consistent with the historical context in which local communities were formed after federal ownership was a fact. Population and services in local communities should be expected to grow only to the extent they can be supported by the taxable

base. Over time, location decisions by people and firms seeking the most advantageous situation for themselves would be expected to even out local comparative advantages. Thus, it is not surprising that the empirical evidence indicates that federal ownership does not deny counties a normal tax base.

A tax equivalency approach might be justified if it was a good approximation of the imposed costs of federal land. The local property tax, however, is not designed simply to recover the costs imposed by the property. Open space land is especially likely to pay more in taxes than the land requires in local public servicing. In the case of the National Forests, where the Forest Service provides many of the required services for the property it manages, a tax equivalency approach would constitute a significant subsidy to local public services.

From the local government perspective, moving to tax equivalency would involve a serious disadvantage. Compared to payments under the current law, some areas could receive reductions in payments. This is because significant areas of privately owned land may produce less in taxes than 75¢ per acre or 25% of gross annual income (currently the two standards for federal compensation).

A tax equivalency program could ultimately lead to higher taxes on private forest land, especially in the states where the National Forest area is relatively extensive in comparison to private forest land. Many states have authorized special tax treatment for private forest land on the grounds that good timber management may be encouraged by keeping the tax burden low. But under a tax equivalency payment system, the chance to gain from a higher federal payment by enacting a high property tax may outweigh the advantage states now perceive in keeping the tax burden low on private forest land.

A TAX EQUIVALENCY BASED ON THE VALUE OF THE BARE LAND ONLY

This option is applicable only to federal forest land. The basic argument for restricting the basis of a tax equivalency to the value of bare land is that the only tax denied by federal ownership is the property tax on the bare land value of the timber land. States can tax the additional value of the timber itself through taxes on the private interest in the right to cut timber on public land. Perhaps a federal tax equivalency obligation should not extend beyond that amount of tax foregone which is solely due to federal ownership, even if the states choose not to tax the value of the private interest in timber cutting, for it would be a state choice to let the private interest go untaxed. The potential revenue gain for states that choose to impose a yield tax can be gauged by information on the tax on private land in states that use the yield tax. For example, Washington, like several states with extensive forest land, places two taxes on forest land. The property tax applies to the value the land would have if it were bare of trees. In addition, a yield tax is imposed on the value of the timber harvest. Based on 1976 data, only 11% of the total tax on timber land in Washington was from the property tax on land. The other 89% is attributable to the yield tax—the same tax that can be applied against the harvest from federal forests. Other states may not find their yield tax potential in relation to the tax on land as high as 89%; nevertheless, the tax appears to have significant revenue raising potential. Among timber producing states, California applies a tax on the value of the yield from federal forests.

The majority of states do not apply a separate yield tax to the timber harvest. Consequently, these states probably would have to change their method of taxing private forest land in order to tax the yield from federal forests. It is the local government, however, which loses the potential tax. While the state government *may* distribute the receipts of a state yield tax to local governments, it is not obligated to do so.

A TAX EQUIVALENCY BASED ON THE VALUE OF LAND AND TIMBER

If a tax equivalency were based on the value of land and timber, *and* if the states tax the private interest, a "double dip" situation would arise—the federal payment would compensate for taxes that are not foregone. When

states subject private forest land to a yield tax, they always *exempt* the value of timber from ad valorem taxation. An analysis of the incidence of the yield tax indicates that the federal government would bear the burden of such a tax in the form of lower prices paid for timber cutting contracts.

The federal government could avoid double dipping by deducting the amount of the state tax on federal timber harvest from the tax equivalency payment. If, however, the tax equivalency automatically accounts for the tax on the private interest in the manner described above, then the deduction would not be justified—the county would be denied some of the revenue to which it would be entitled under the tax eqivalency policy.

LOCAL DETERMINATION OF A TAX EQUIVALENCY

In the case of private property owners, local tax officials, not the property owners, determine the tax obligation. A full implementation of the tax equivalency concept, therefore, would call for local assessment of the federal property and local determination of a tax equivalency payment. Just like private property owners, the federal government as a landowner would have the right to appeal local assessments. The U.S. Postal Service, in some cases, pays taxes as part of its lease agreements. When the leased property is assessed at a higher ratio to market value than other property the Postal Service can and does appeal the assessments.

Valuation standards, assessment ratios, and preferential tax measures vary greatly among jurisdictions. A federal payment which matched as closely as possible the taxes that are due would incorporate all these factors. Local officials would be in the best position to know and apply the local tax practice. One result of local determination of a tax equivalency is that the administrative costs of valuation would largely fall on state and local governments.

FEDERAL DETERMINATION OF A TAX EQUIVALENCY

Federal administration of this approach would presumably result in accurate valuation of federal land in accordance with standardized appraisal procedures. Unwarranted benefits stemming from differences in the appraisal approach of the various local assessors would thereby be precluded.

Accurate determination of the value of federal land is an exceedingly difficult task. The task would be facilitated by federal administration because: (1) high level expertise is available and (2) the geographic area encompassed is large—making it easier to find sales of comparable land or to employ the less expensive income capitalization method of valuation. The need for a large geographic area is especially strong with regard to federal property, because the federal government often owns all the land of a certain type in a small geographic area. In fact, the federal government possesses nearly all the forest land in several entire states. After the determination of value by the federal government, it probably would be necessary to rely on local supplied data on assessment ratios, preferential tax practices, and tax rates in order to determine a tax equivalency.

The federal government would incur the administrative costs under this alternative. Note the example for the Boundary Water Canoe area cited earlier. The income capitalization method can be used at only a fraction of the cost, but it is applicable for only the 26% of the federal land (outside Alaska) that is commercial forest.

BENEFIT ADJUSTMENT

Rationale

A procedure to modify either the tax equivalency or imposed cost approach would deduct the benefits the locality receives due to federal ownership. The basic argument is that this procedure results in a better approximation of the fiscal impact of federal ownership.

A Plan

The previous studies of the consequences of federal land ownership generally agree that it is legitimate to account for benefits, but that it is extremely difficult if not impossible to measure them. The Public Land Law Re-

view Commission (PLLRC), had an extensive study made of the costs and benefits of federal land. Based on the study, the PLLRC concluded that measuring benefits is impossible and recommended that a figure between 10% and 40% be selected arbitrarily as a deduction from a tax equivalency to account for the benefits of federal land ownership.[2] The ACIR staff reviewed the possibility of benefit measurement and confirmed PLLRC's conclusion—the only feasible way to account for the benefits of federal ownership is by arbitrarily setting a percentage deduction from the imposed cost or tax equivalency amount.

Argument in Favor of Adopting a Benefit Adjustment

Federal land is intended to produce public benefits—for example, a stable supply of timber products, erosion prevention, improvement of water supplies, conservation of wildlife and recreation areas all can be cited as intended benefits. When the benefits are for everyone in general it is fair that everyone should pay. Public ownership, however, also results in localized benefits—benefits to the people living in the jurisdictions containing the federal land. For example, federal expenditures for roads and police protection serve the National Forests and the general users of the forests, but local residents may receive separate benefits of the type that local governments otherwise would provide. An unwarranted subsidy to local public services would occur if the federal government bore the complete burden without making an adjustment for the localized benefits received.

Argument Opposing a Benefit Adjustment

In general, property owners are subject to the local tax rate irrespective of any benefits to the local community that derive from use of private property. Federal property ought to be subject to the same rule—compensation payments should not be reduced by the estimated amount of alleged benefits derived from the public ownership.

The benefits that may derive from federal property are not as direct and tangible as its adverse effects. Unquestionably, there are local benefits associated with federal ownership but virtually no one asserts that they can be measured satisfactorily or even crudely approximated. Consequently, any percentage discount selected for a benefit adjustment would be wholly arbitrary and could perpetrate an injustice on those communities which do not actually derive benefits.

Most importantly, the empirical investigation described in *Chapters V* and *VI* did not substantiate that the local benefits of federal land exceed the level of benefits that would result from private ownership of the land. There was no showing that per capita revenues or expenditures in federal land counties were systematically lower than in non-federal land counties.

PARTNERSHIP: THE PROGRAM PRIOR TO 1976

Rationale

Federal ownership of property imposes costs on local governments and deprives them of a potential source of income, but these effects are not readily measured. Furthermore, the local governments' willing effort to coordinate their services with the needs of the federal government contributes to the productive use of the land. To help local governments overcome the adverse effects and to reward them for their assistance, they deserve a share of the receipts earned from the forests.

A Plan

This approach is exemplified by the part of the current program which provides a straightforward distribution of 25% of the receipts to the counties containing the National Forests. Alternative plans within this approach could be developed by varying the percentage shared.

Argument Supporting the Partnership Approach

The advocates of this approach feel that a share of the federal revenue is *owed* to the counties just as business partners are obli-

gated to share income. Both the federal and local governments must incur costs to make the federal land productive; therefore both should participate in the financial return.

The receipt sharing approach has the advantage of policy continuity. Unless the case for an alternative is convincing, the disruption of making a change should be avoided. When the actual fiscal impact of federal land ownership on each county is impossible to establish, it may be a reasonable procedure to adopt this administratively simple approach. No complicated estimations or expensive administrative procedures are required to implement this program.

Receipt sharing also creates incentives for local action that some believe are desireable. For example, a county may build county roads between a National Forest and a lumber mill to facilitate harvesting because the county will share in the additional financial return to the Forest Service.

Based on the empirical analysis in this study the receipt sharing approach at the pre-1976 level of payments fully compensated local governments for any adverse effects related to federal land ownership. The comparison of federal land counties with a large control group of rural counties with no federal land found the groups were closely matched in their fiscal characteristics. When the partnership approach serves the broad purpose of offsetting any adverse fiscal effect of federal land ownership the argument for its retention is strong.

Argument Opposing the Partnership Approach

The concept of partnership does not indicate the percentage of income that should be shared. Thus, any percentage is arbitrary and the debate over the proper level of payment remains unsettled.

If the business partner argument is valid, it should justify a low per acre payment as well as a high payment. It does not, however, as evidenced by the enactment of P.L. 94-565 in 1976, the *Payment in Lieu of Taxes Act,* which guarantees that the federal payments may not fall below a prescribed amount.

The incentives resulting from sharing receipts are bad rather than good. From the local viewpoint, the forest management practice which is best is the one that earns the greatest current cash income. The Forest Service, however, manages the forest to provide several kinds of benefits in the national interest only some of which are converted to cash income in the short run. Thus, the incentive associated with the partnership approach can set the counties' and the nation's goals in conflict. For example, when the national interest requires that all or part of a National Forest be converted to a wilderness area there is reduction in shared receipts to the counties. The partnership approach stands on weak legs when it creates a financial self interest for local governments to oppose national programs. It would be better intergovernmental policy to sever the connection between the payment system and counties' financial interests.

FLAT PER ACRE PAYMENT

Rationale

Public land ownership causes fiscal burdens but they cannot accurately be determined, so a simple procedure recommends itself. One very simple approach is to compensate counties according to the acres of federal land they have within their borders.

A Plan

The recent legislation, P.L. 94-565, enacted a variation of this approach by combining the previous approach (partnership) with this one. Rather than paying a set amount per acre, the payment under the new law supplements payments under previously existing laws to the extent required to assure that the total of old and new payments meet a prescribed minimum (75¢ per acre). The minimum is calculated as a two-step process. A county is guaranteed either (a) 75¢ per acre of federal land, or (b) 10¢ per acre if other payments to the county now exceed 65¢. A schedule of per capita limits may reduce the guaranteed 75¢ and the 10¢ supplement, except that counties with populations of 5,000 or less are subject to a limit of $250,000—i.e., a per capita limit of $50 for a county with a

population of 5,000. At the other end of the scale, the per capita limit is $20 for counties with population over 50,000. No county may receive over $1 million under the new law.

Argument for the Approach

Federal land imposes expenditures on local government whether or not the land generates income. A receipt sharing program thus may compensate for less of the imposed expenditures in some counties than in others and, prior to 1976, the receipts sharing program provided nothing at all for some counties. Since the actual burdens imposed by federal ownership cannot be ascertained, it is reasonable to focus on this possible undercompensation using an administratively simple method.

While the empirical investigation for this study failed to find any imposed expenditures not compensated for by the pre-1976 method and level of federal receipt sharing, the method of research could have overlooked a problem for some communities. It would seem likely that imposed expenditures occur in counties even where there is little or no federal compensation. The approximately $90 million paid under the minimum guarantee provision resolves any doubt on this question in favor of the local governments. By taking a more generous attitude, the Congress assures that the potential effect of imposed expenditures on any county's budget is at least partially ameliorated.

The same provision, moreover, may improve the *method* of distribution in another way. Approximately 80% of federal land counties will be aided under the 75¢ per acre provisions. This stabilizes payments to these counties—the size of the payment they receive no longer is subject to the fluctuations in income from the federal land.

Argument Against the Approach

The per acre guarantee which the 94th Congress enacted to supplement the receipt sharing payments has an arbitrary basis. Seventy-five cents per acre was not correlated with a fiscal burden; thus the program offers no yardstick by which Congress can judge whether further proposals to increase the payments are reasonable.

That portion of the 1976 federal legislation which placed a floor under payments to counties received the lion's share of the publicity. Little note was taken of that part of the statutory change which increased payments to counties already receiving the highest payment. Under the terms of this provision, the federal government pays an additional 10¢ per acre to approximately 275 counties receiving in excess of 65¢ per acre.

The fact that the payments were increased, irrespective of the method of distribution, stands out as cause for criticism. The analysis indicated that federal land counties exhibited virtually the same fiscal characteristics as similar non-federal land counties. Thus, a case did not exist for additional compensation for the effects of federal land ownership.

Inequities will continue to exist, moreover, because the new program supplements rather than supplants the previously existing programs. The compensation to about 20% of all federal land counties still will depend on receipt sharing, and the formulas for sharing receipts vary.

COMPARABLE TAX BURDEN

Rationale

Whereas the first two approaches (imposed expenditures and tax equivalency) would base the compensation on measures of specific aspects of the overall impact—to the exclusion of other impacts—this method would base compensation on an estimate of the overall impact. This approach theoretically could stand on its own and replace the existing program. Because the empirical analysis showed that tax burdens generally are comparable now, supplanting the current program with one based on this approach would in effect increase the administrative task required to make roughly the same payments as are now made. This approach, however, would be a relevant addition to the current program for the special cases of financial hardship where the current program may not meet the comparable tax burden text.

A Plan

The definition of hardship would be based on the method developed in this study to classify jurisdictions according to the tax effort required to provide normal public services.[3] A hardship situation would be defined as the condition that the county falls short (of the average) on per capita public service spending even though it makes extraordinary tax effort. The formula would determine the average tax effort (own source revenue/personal income) and expenditures of comparable counties. Comparable counties would be rural with land use similar to the federal land counties, but which would have little or no federal land. The size of the hardship supplement would be the amount necessary to normalize (in terms of the comparison group of counties) the hardship county's tax effort.

Argument for the Approach

This approach would compensate for a fiscal problem as it normally is defined, an abnormally high per capita tax burden without correspondingly high per capita public service spending. It would allow the federal government to respond directly to the exceptional cases of financial distress. There is no assurance under the other approaches that payments would offset hardship situations.

A simulation of the hardship test for this report indicates that few if any counties experience the hardship condition. The discussion in *Chapter V* on National Forest counties and in *Chapter VI* on all federal land counties showed that up to a handful of counties possibly met the hardship situation based on 1972 data.

The argument for this approach rests not merely on its capacity to identify hardship cases but also on its *capacity* to provide two improvements in federal compensation policy. Although the current program generally compensates for the fiscal effects of federal land, no compensation program covering 1,500 diverse counties can uniformly provide adequate compensation. The comparable county approach provides a method for installing a "safety valve" to assure that a generally adequate program does not allow severe, exceptional problems to go without remedy. The safety valve provision, secondly, can avert the need to provide a major increase in program funding if, in the future, cases of fiscal distress are found.

Although not foolproof, the measure used in this comparable counties approach, because it is comprehensive, is superior to making estimates of the fiscal impact of federal land using either local revenue foregone (tax equivalency approach) or imposed local costs (the imposed expenditure approach). Federal land can have multiple direct and indirect effects. The imposed expenditure and tax equivalency approaches each isolates a more or less apparent effect of the land as the basis for payments to the neglect of other potentially significant effects. But the effects, whatever they are, must finally be reflected in the counties' tax burden. The comparable tax burden —bottom line-approach—provides a more comprehensive measure of the effect of federal land.

Admittedly, some counties with federal land might incur financial distress as a result of other circumstances. This method would make payments to all counties with extensive federal land and which suffer hardship; it would infer by the comparison method that the problem is caused by federal ownership. *On average,* this may be a safe inference, but it is not necessarily accurate for each case. Thus, conceivably some counties would be compensated for a problem not caused by the federal land ownership. But all the approaches to compensating for the effect of federal land on local government finances imperfectly measure the problem for which they exist. The potential "error" in this approach—to make a payment even if a financial problem is not caused solely by federal land—may be excused if the federal government would wish to help alleviate such problems in any case.

Argument Against the Approach

Compensation under this approach could create some inequity between counties with federal land and other counties. Because this compensation method assumes that federal land counties would be like the *average* of the comparison counties, special aid to some

counties would more than restore them to the fiscal condition they otherwise would enjoy. This is because aid to the counties meeting the criteria would enable them to enjoy an average fiscal condition, while presumably they might have suffered distress even without federal land ownership. In this way, federal land ownership and the accompanying payment would create an inequity.

By making payments to counties for their fiscal distress under this approach the federal government would take on a responsibility that perhaps should be lodged with the state governments. If state governments have a responsibility to equalize financial resources among their local governments, this approach relieves them of the responsibility in the case of some counties.

FOOTNOTES

[1]Thomas Muller, *Fiscal Impact of Land Development*, Washington, DC, Urban Institute, 1976; and Real Estate Research Corporation (under federal contract), *The Cost of Sprawl*, Washington, DC, U.S. Government Printing Office, 1974.

[2]Public Land Law Review Commission, *One Third of the Nation's Land, A Report to the President and to the Congress by the Public Land Law Review Commission*, Washington, DC, U.S. Government Printing Office, 1970, p. 238.

[3]Advisory Commission on Intergovernmental Relations, *Fiscal Balance in the American Federal System:* Vol. 2, *Metropolitan Fiscal Disparities*, Report A-31, Washington, DC, U.S. Government Printing Office, October 1967, pp. 1-3.

Appendix A

Public Hearings

Advisory Commission on Intergovernmental Relations

Stapleton Plaza Hotel
Denver, Colorado
August 28, 1976

As part of the Commission's deliberation process, a public hearing was held in Denver, CO, August 28, 1976. Representatives of various groups were invited to appear before the Commission to present their views. A hearing committee was formed for this purpose consisting of John Altorfer, Mayor Harry Kinney, Judge Conrad Fowler, Mayor Jack Maltester, Robert Merriam, and Mr. Lloyd representing Gov. Bowen of Indiana.

Prior to the hearing, the staff distributed a brief paper outlining six major issues to which the participants were asked to direct their testimony. The staff paper is *Part I* of this appendix. *Part II* consists of the formal statements presented by the participants. The participants were: Ray Doerner, county commissioner, Douglas County, Roseberg, OR, Jim Evans, National Association of Counties, Dale Sowards, president of the Western Region of the National Association of Counties, Assemblyman Barry Keene of California, Nicholas Kirkmire, executive vice president, Timber Purchasers Association, John McComb, Sierra Club, Charles M. Stephenson, formerly economist for TVA. Also Thomas Nelson, deputy chief, U.S. Forest Service attended and contributed to the informal discussion.

In addition to the formal testimony, there also was discussion among the participants and the Commission members. *Part III* summarizes the major points made during the discussion.

Part I

Questions Regarding the National Forest Revenue Sharing Program

The following pages pose six questions the Commission's report will address. They are presented here, with a brief discussion to enable the participants at the August hearing in Denver to focus their testimony on these key issues.

1. *What should be the guiding philosophy regarding federal financial responsibility for any impact of federal land ownership on state and local government activity?*

Fiscal relations between governments in a federal system should be grounded on philosophy of assignment of responsibility. Even if the philosophy, or policy, cannot be implemented in pure form, programs to carry it out should be designed with an awareness of what the ideal would be.

Alternative philosophies for the assignment of responsibility in the case of National Forests may include:

A. Tax Equivalency Responsibility. Local governments have an inherent right to tax property and whenever that right cannot be exercised a tax loss occurs. Because the federal government denies local government the exercise of its taxing powers, the federal government should be held responsible for reimbursing localities for their loss of potential revenues.

B. Tax Equivalency Responsibility Adjusted for Unique Benefits Arising From Federal Ownership. It may be argued that property ownership carries with it the responsibility to pay taxes, regardless of any benefits the property owner provides to the community. This concept assumes that the benefits of ownership are not categorically different in the case of National Forests and federal ownership than the case of nongovernment ownership. Potential different benefits in the case of National Forests may arise as a result of the Forest Service's provision of regular public services such as fire and police protection, road maintenance, preservation of open space, and accessible recreation resources available at no charge or at less than full market prices.

C. Spillover Expenditure Reimbursement. Most of National Forests exist on federal land that never has been taxable and the Forest Service provides most of the public services required by the forest land. It can be argued therefore that federal land ownership of forests and grasslands has had no fiscal effect on the local community—just as if the federal land were another jurisdiction—except for any direct expenditures the local governments must incur. Accordingly, the federal government's responsibility could be confined to the reimbursement for expenditures

the local community bears because of the federal land, such as extra maintenance on roads leading to the National Forests.

D. Fiscal Adequacy Responsibility. Local governments' fiscal situation is to some degree dependent on state and federal decisions concerning revenue resources and program responsibilities. When the federal government influences local fiscal capacity as in owning tax-exempt National Forest land the federal government's responsibility should be to assure that the affected local fiscal resources are not inadequate because of the federal government's land ownership. To accomplish this it might be appropriate to establish a Commission for the purpose of determining appropriate federal-local support grants.

E. Federal Comity. Surely it is difficult to define and measure fiscal effects; yet federal ownership and presence gives residents and some localities the feeling that something is owed them by the federal government. In order to maintain harmony within our system of federalism, payments could be made in response to such feelings. Such gestures of goodwill and intergovernmental comity can be made either by sharing revenues earned on federal land or by making payments of a specified amount per acre of land in federal ownership.

2. *Are there other negative and positive financial effects on local governments of federal ownership of forest land?*

In addition to the local revenue presumed lost as a result of federal ownership, other effects not so directly measurable in financial terms may deserve consideration in developing a new payment system. For example, a National Forest may induce more vehicular traffic leading to higher road and police costs. Less direct adverse financial effects may include denying communities room to grow and the opportunity to plan and shape their growth.

Conversely, federal ownership also may provide benefits to local communities. Forest Service expenditures for public services on the federal land such as roads and fire protection save the local governments from making expenditures for those services. The National Forests provide open space preservation which to some communities means no additional effort and expense are needed for preferential taxation or land purchases to create preservation zones in order to maintain open space and control development.

3. *Should states authorize the taxation of private interests in National Forests and share the proceeds with localities?*

Contracts to cut timber in National Forests and recreational leases are examples of private property rights in federal lands. Such rights have a value that can be subject to ad valorem taxation. California, for example, placed a property tax on this value, called the "possessory interest," for some years. California now imposes a yield tax on the harvest of timber in National Forests. Such measures have been declared constitutional and presumably are feasible of administration. The opening of these relatively new sources of state-local revenue undercut the argument that federal ownership means revenue foregone.

4. *Should federal payments be made to state governments for use as they think best including, perhaps, distribution to localities?*

The Public Land Law Review Commission recommended this measure in its report. A role for the states can be justified on at least two grounds.

I. States generally have the responsibility for the fiscal adequacy of local governments. States create them, determine their boundaries, the extent of their responsibilities to provide public services, their tax base and the aids they receive from the states. Making the payments to the states and allowing them to determine how the funds are used is consistent with the state's responsibility for assuring balance between local fiscal resources and local operating responsibilities.

II. Existing state aid practices may, in fact, mean that the locality containing the federal property ultimately may not bear all the fiscal burden. State aid arrangements

vary at the present time. Some state school aid formulas guarantee an equal tax base for all districts thereby assuring that all localities in the state contribute in proportion to their local revenue raising capacity. Under some aid systems this means the area with National Forest property is reimbursed by other communities in the state for its smaller tax base. Each state could review its own intergovernmental fiscal arrangements to determine the proper allocation of the federal payment.

5. *What are the practical problems with the current program?*

The unpredictability and fluctuation of the payments are often named as problems. Negotiating the sharing of road construction and maintenance costs between counties and the Forest Service is another potential problem area.

6. *Does federal ownership of the National Forests constitute a different public policy issue than other federal or state tax exempt property ownership?*

Should ACIR's recommendations concerning the National Forests articulate policies that would also be applicable to other federal property ownership; to state property ownership; and to state laws exempting privately owned property from taxation? If not, on what basis could the National Forests be distinguished?

Should the Forest Service be given a wider discretion to negotiate with states and localities over questions of public service impact of National Forests?

Part II

Formal Testimony

Statement of

Dale Sowards

President
Western Region District
National Association of Counties

My name is Dale Sowards. I am on the executive board of Colorado counties and I am president of the Western Region District of NACo which includes 13 western states. I have been a county commissioner for 16 years and during that period I have seen a few changes as to the use of the forests and as to the impact it has had on our county. Colorado counties continues its many years of support to the payment in lieu of taxes concept with compensation to local entities with the presence of Federal lands.

The Evans Bill, H.R. 9719, which recently passed the U.S. House of Representatives by more than a two-thirds vote, is a giant step in the right direction. In Colorado there are approximately 24 million acres of Federal land which is 36% of the state's total land area. These lands are not subject to local property tax, the primary source of revenue to local government. Federal payments which are received bear little relationship to the direct and indirect burden placed on localities of these lands. For fiscal year 1976 the current major land payment act returned to Colorado counties $2.6 million. The General Assembly deposited $8 million of Federal land payments to Colorado in the public school fund for distribution to schools, and approximately $10 million to localities from the oil shale lease fund. According to Colorado Legislative Council research staff, if the average county mill levy were applied to the valuation of the Federal lands in Colorado local governments would have received in excess of $50 million. Since this gathering is apparently focused on Forest Service lands you may be interested to know that the revenue distributed to Colorado in fiscal year 1976 from Forest Service lands is $941,012 compared with $1,690,076 on BLM lands.

The Colorado General Assembly has been sufficiently concerned over the problem created by these public lands to appoint interim committees to search for solutions. Such a committee is currently launching its third year of deliberations on the subject. That committee also strongly urged the passage of H.R. 9719. All of Colorado Representatives in the U.S. House voted for the bill.

If I may, I would like to use my own county to bring just a few problems we have been facing down to earth. I think these will apply to many of the counties throughout the west. As one particular instance, we have a road that leaves a paved road and it runs for a distance of 26 miles up to an old mining community, with one silver mine still in operation. There is a great influx of tourists, there are some summer homes, and one log-

ging outfit uses this road. In the past, regulations were not so stringent, and we would maintain this road. We were able to backslope the banks, clean the bar pits out and get enough material to cover this road surface. For several years the water and the wind have taken off all the topsoil. All we have remaining are big rocks and charcoals. Tourists who come from the east are used to driving on paved roads. They start up this road and cannot drive over 10 or 15 miles an hour. They ruin their tires and knock out their transmissions. Immediately they come back to the county commissioners and blame us for the condition of this road. Well, according to the Forest Service policy we cannot construct gravel pits in the National Forest. The only way that we will be able to get material to this road is to haul it in from the valley, which would be a distance from 40 to 50 miles at the upper end, one way. Last year our payment from the Forest Service was $17,000 and it was split between roads and schools. Our total valuation of the county is only $13 million, so we do not have a very large tax base.

I would like to state here that we have a very good working relationship with the Forest Service. I do not believe there is a better one in the country. For anything that comes up, their supervisor and a ranger come in and we sit down and talk out these problems.

Another problem is garbage collection. There are camp grounds. The Forest Service gathers up the garbage and since there is no sanitary landfill in the forest, they bring it down to the county's sanitary landfill. We have had to purchase this land, construct the site, and we have to cover the garbage after it is deposited. There is no charge for this service. Also, they have liquid waste in tanks which they haul down. They approached us with the proposition of running it through the sewers which are owned by the city. The county has no control over them and they were not designed large enough to handle this excess amount of sewage. So what we have to do is bulldoze a pit, then they dump this liquid waste in the pit and we cover it over with dirt. We have never made a charge for that.

Another matter concerns police. Forest Service officials met with us concerning the considerable vandalism and robbery in the campgrounds in the forests. They would like our sheriff's deputys to patrol this road a couple of times a week. We made an agreement and for the month of June they paid us $509 or something—it was so much an hour. At the end of June the Forest Service said they were out of money. We have continued to patrol this road at our own expense for the remainder of this season, and we feel like we need some system where it will offset the costs that have come to the county. When you figure we have only a $13 million tax base there is not much money to operate on. I think you will find the same problem exists in many of our counties.

Colorado is such a popular outdoor winter and summer recreation area that even President Ford makes it his number one choice. Granted, visitors do spend money here which supports local business and provides employment. However, very little of it ever enters into the operation of the county government. A local community may have a sales tax but none of the money comes back to the county government.

However many visitors, and I include those that reside elsewhere in Colorado, require and demand local services. If they get lost, our county sheriff's department must search and rescue; if they become ill or injured we must provide ambulance and hospital service; some of them are thieves, and our sheriff is called. Many of them carelessly litter our public lands with their camping, sking, hiking and picnicking debris. In some areas we pick it up, in almost all areas we have to dispose of it. I might add, this is not a BLM meeting, but there was indiscriminate dumping on BLM lands. They would come to us and ask us if we would take our county bulldozers and bulldoze pits and clean up this debris that was dumped. We went in at no cost to the BLM, and covered up the debris that had been accumulated for years. In some areas both federal and state authorities have mandated some very stringent requirements about how we can do this. When you have humans you have human waste. We are required to provide the sewer treatment facilities to preserve the health and comfort of local residents and visitors.

I would just like to state in conclusion, 20 years ago you never heard of back packers, and 20 years ago if people had said that they would load plane after plane with skiers to fly out here for a weekend you would have thought they were crazy. Although the permanent residents in some small counties number 5-10,000 people during the week, on a weekend you will have maybe 10,000. Well this creates greater problems on the sheriff department, on the sewer systems. The State of Colorado says they are short on funds. They proposed to close Cumbers Pass, which is a major pass through the National Forest, because of shortage of maintenance funds. Well if this pass is closed and snowmobilers and skiers are snowed in they are going to turn to the county to have that road maintained. If they get stuck in the snow, they will want county equipment to pull them out. Some of our maintenance equipment is over 25 years old and must be replaced. When we bought them they cost us $18,000 now they are around $60,000. There is no way that we can continue to operate unless we have some relief.

Statement of

John McComb

Sierra Club

I will begin by responding to the last of these questions which was whether the federal ownership of the forest constituted different public policy issues than other federal or state tax exempt property ownership. In the context of the problems under discussion here today we perceive virtually no differences between National Forest lands and most other federally owned land. This is particularly true of the other major federal land managing agency—the Bureau of Land Management whose holdings are largely managed under the same concepts.

There may be some justification in treating separately those federally owned lands including portions of BLM lands which are largely withdrawn from production and which are committed to a more limited range of uses. In this category we might include the National Park system, the National Wildlife Refuge system, the National Wilderness Preservation system, and the military and energy research and development industries. Although we do not have any specific recommendations on how these lands should be treated, many have argued for a different treatment of them either for reasons that there are no revenues produced on them or that they present little or no burden to local government entities. Military reservations offer one of the clear examples of federal land that may not burden local governments. An extreme example might be those large desert areas which are used as bombing ranges which are totally closed to public entry. I cannot think at all how the existence, or the nonexistence, of those reserves within the boundaries of a government entity would make any difference in the level of tax-supported activities to schools, roads, police and fire protection.

The other extreme where there are very substantial benefits to local government entities might be illustrated by Corps of Engineers flood control projects. The total expense of the project is borne by federal taxpayers and the benefits accrue almost entirely to the local populous. Somewhere in between are areas such as parks and wilderness where there is a lively debate as to whether their existence is burden or benefit to local government. Even without trying to answer that question, some separate consideration may be merited by the fact that these reserves bring little or no money into the federal treasury and thus existing revenue sharing programs are largely not operable on them.

The Sierra Club's interest in the whole matter of revenue sharing and tax immunity is largely motivated by the fifth question, "what are the practical problems of the current program?" It is widely recognized that the current revenue sharing program is inequitable and unfair and we agree that some

entities get rich while others who are less fortunate are strapped for funds. It is not one of our primary interests, however, to treat or comment on all the fiscal equities in this country.

There is one aspect of the revenue sharing program that does have special interest to the Sierra Club. The special implications for the proper management of public lands. First, the implementation of good conservation and management practices has frequently resulted in a reduction in the level of commodity production on which revenue sharing receipts are based. Such productions are frequently opposed no matter how meritorious they are simply because they would produce a loss of revenue to local governments. Even when the production of a particular commodity is sound for environmental and other reasons, the political pressures created by the financial incentives of revenue sharing can be very significant.

Closely related to that is the fact that the real potential or imagined loss in revenue is frequently a prime reason behind the opposition of local government entities to conservation efforts such as proposals to withdraw lands for wilderness preservation. Although the last factor is a very real one, the Sierra Club has not yet come to grips with how to deal with it. While some sort of federal payment, which might be viewed as a bribe, may ameliorate that opposition, the cost of the payments may generate opposition to the withdrawal among other groups who were formally not concerned at all. It is potentially sort of a Hobson's choice.

Because of these and many other problems, the Public Land Law Review Commission recommended the current revenue sharing programs be replaced by a uniform system of payment in lieu of taxes. The Sierra Club generally agrees with that position that is exemplified by the following excerpt from the Sierra Club board of directors resolution adopted in 1971. That resolution states in part;

> "in place of the present system of revenue sharing on public lands which encourages undue emphasis on the production of commodities, the Sierra Club advocates a system of payments in lieu of taxes."

Much like ACIR, The Sierra Club is currently considering modifying and elaborating on that general policy direction, but we are caught up in the same time bind, that any additional information and recommendations may well come after Congress has acted on the current payments in lieu of taxes bill.

Unfortunately, this current payment in lieu of taxes bill and other recent enactments of Congress such as the *Coal Leasing Act Amendments* do little or nothing to correct the problems inherent in revenue sharing. Perhaps comprehensive reform is simply not politically realizable in view of the massive opposition which results from any suggestion to reduce revenues. I do not see how anyone who has followed the jury-rigged payments in lieu of taxes bill, H.R. 9719 now pending in Congress, could feel that it is anything more than an attempt to increase revenues without treating any of the basic inequities. Certainly the lopsided vote 270 to 125 by which the measure passed the House may be some indication of the kind of opposition that might be expected to reforms that resulted in reduced revenues.

In any event, if this bill is enacted into law it will blunt the drive for any future reforms. A number of models for such reforms have been suggested. We have not had the opportunity to examine all of the merits of these alternative proposals other than to note there are a number of different alternatives that would meet the objections which we have to the current revenue sharing program. Some such models include the tax equivalency payments. Another one would be payments based on benefits and burdens of Federal land ownership. I notice one of the county representatives characterized that as the welfare approach. It does not bother me that much. I am not sure that the federal Treasury is so inexhaustible or the federal taxpayer so maganimous that we can afford to ignore need which is essentially the same as benefits and burdens.

A third model might be payments made according to some formula that is not based

on commodity production. The key in our view is that any such system must replace, not just supplement, the current revenue sharing system. We believe that most of the discussion on tax immunity problems has placed too much emphasis on the burdens which are sometimes created by federal ownership of land while not giving adequate recognition to the benefits that the local government entities received. Such things as fire protection and road construction are often cited as examples. We would hope that the Commission would give more balanced consideration to the benefit side of that question.

On the question of taxation of private interests, it is worth noting that property taxes are not the only means of supporting government services. Although the Sierra Club has not specifically addressed the question of possessory interest or yield taxes, it seems obvious to me that in some form such taxes have the same shortcomings as revenue sharing. That is overemphasis on short-term commodity production at the expense of other equally important values or simply maintaining future productivity of that land.

Statement of

Nicholas Kirkmire

Executive Vice President
Federal Timber Purchasers Association

I am Nicholas Kirkmire, executive vice president of the Federal Timber Purchasers Association located here in Denver. Our association was organized in 1969 and is composed of forest products manufacturers dependent upon federally managed timberlands for a source of raw material. We are a member of the National Forest Products Association, headquartered in Washington, DC. NFPA is a federation of 26 regional and wood products associations and individual companies that represent timber growers and manufacturers and wholesalers of wood products throughout the country. Our industry is vitally concerned with timber management on all U.S. commercial forest lands. We are equally concerned with constructive policies and programs affecting timber growth and harvest on federal lands, on lands owned by the forest industry and on nonindustrial private lands.

In our testimony today, we have been asked to be responsive to six primary questions. We address those questions from our point of view in the comments which follow.

1. *What should be the guiding philosophy regarding federal financial responsibility for any impact of federal land ownership on state and local government activity?*

Our industry has long been concerned with the effects of the National Forest revenue sharing program. Our continuing policy with respect to lands which are in federal ownership has been that equitable payments should be made to state and local governments to recognize the burdens upon the local communities where these federal lands are located. These burdens include the costs of services and the values forgone by virtue of the fact that the lands are in federal ownership. A House committee has estimated, for example, that Colorado and its counties, which in fiscal 1975 received some $2.6 million in federal payments, would have received some $50 million had the land been privately owned and assessed at average 1974 county mill levies.

2. *Are there other negative and positive financial effects on local governments of federal ownership of forest land?*

The federal government owns over one fifth of all the land in the lower 48 contiguous states affecting about 1,000 counties in over 40 states. These local communities have to absorb the costs of services stemming from the presence of federal lands. Examples of these are the construction and maintenance of some access roads, needed facilities in the surrounding area and additional police protection. Because these are tax-exempt lands, the federal government should provide some payment to the affected communities to compensate them for their lost revenues. The dif-

ficult question is precisely how this can be done in an equitable and just manner.

The House recently passed H.R. 9719 introduced by Rep. Frank E. Evans (D.-CO) which provides for federal payments up to 75¢ per acre to counties containing public lands. Under this bill no county would receive less than an additional 10¢ per acre and upper limits would be placed on payments according to county population. Any system based upon a flat per acre payment raises serious questions of equity. The population factor will significantly reduce payments per acre to counties with large amounts of public land and a relatively small population.

In addition, such a system will not generate revenues comparable to those the localities would have received had the land been in nonfederal ownership, since neither land productivity nor income producing potential is the basis for payment.

Historically, the industry has supported the concept that payments to the counties from the sale of national forest timber be based on cash receipts to the government. However, the continued reduction over the past few years of the level of appropriated funds for necessary road construction and the concomitant increase in road construction financed by deduction in stumpage value, has caused a reassessment of this position. It is probable that the industry would now support a revision of the revenue sharing statute to provide that payments to counties be based on the value of the timber, including the necessary road construction.

3. *Should states authorize the taxation of private interests in National Forests and share the proceeds with localities?*

Several states have established systems to tax private interests in the federal lands. Such "possessory interest" taxation of grazing permits, timber under contract to private companies, special use homes, and other interests are an effective way to increase the local tax base associated with federal lands without raising the sovereignty issue.

The forest industry is most concerned about possessory interest or yield taxes on federal timber under contract to private firms. Although actual ownership of timber under a federal timber sale contract does not pass to the private firm until the timber is scaled and paid for, on March 14, 1974, the Ninth Circuit Court of Appeals affirmed the judgments of the United States District Court for the Northern Districts of California in *Georgia Pacific Corporation vs. County of Mendocino,* finding that "the states can tax private possessory interest in national forest standing timber."

The forest industry does not welcome the application of possessory interest or yield taxes on federal timber due to the inequities which are imposed upon purchasers of this timber. Theoretically, a possessory interest or yield tax is an indirect tax against the federal government since purchasers of federal timber will in theory reflect the anticipated tax in lower prices bid for timber. However, in practice this tax is usually borne in part by the timber purchaser due to inequities in government pricing of this timber and uncertainty over the specific tax burden that will be imposed.

With respect to possessory interest taxes, a purchaser may be taxed repeatedly before timber is harvested and any income is derived from it. The number of times a purchaser is taxed for the same timber will depend on the length of time that he holds this timber under contract before it is harvested.

With both possessory interest and yield taxes, there are real problems associated with valuation due to variations in the quality of the timber, its accessibility, differences in cost of operation, and rapidly changing markets for wood products. Past experience of the forest industry with possessory interest taxes and yield taxes has shown that it is difficult or impossible to determine precisely what the tax burden will be, making it very difficult to reflect this burden in the price bid for the timber. Thus, the purchaser is exposed to greater risk in those states having possessory interest and yield taxes than those states which do not have such taxes.

It is the position of the forest industry that the most equitable system would be for the federal government to make direct in lieu payments to local governments to reimburse them for loss caused by tax-exempt federal timber. Such direct in lieu payments could

be based upon an amount equivalent to a yield tax or could, as an alternative, be based on land productivity or value.

In California, forest land owned by the state is assessed an amount equivalent to local *ad valorem* taxes. This arrangement may have some application for federal in lieu payments and should be given further exploration.

4. *Should federal payments be made to state governments for use as they think best including, perhaps, distribution to localities?*

Traditionally, payments to counties have been used for building and maintaining roads and schools. The program should be up-dated to allow a broader use of the funds for public purposes. It should be left up to the individual localities as to where these payments are most needed and can be properly utilized.

5. *What are the practical problems with the current program?*

Unpredictability and fluctuation of payments is a problem with the current program that should be remedied. Our industry would support making payments to counties on a semiannual or quarterly basis rather than annually. This would improve local government fiscal planning and help to prevent overspending. Accompanying this payment system there should be a program to keep the counties periodically advised of the amount of revenue sharing payments to be expected. This would help to ensure more organized and efficient expenditure of funds.

The current method of revenue payments returned to the states and its political units is a result of economic activity on federal lands. The revenues produced from leases, permits, royalties, bonuses, etc., do not necessarily bear any relationship to the actual market value of the land from which such revenue is derived. In addition, the total revenue a particular unit of government may receive is not necessarily influenced by the total number of acres of federal land that may exist within its boundaries. In fact, in several instances there exists an inverse relationship between revenue obtained and the total amount of federal land.

6. *Does federal ownership of the National Forests constitute a different public policy issue than other federal or state tax-exempt property ownership?*

Public policy with respect to payment of in lieu taxes should not distinguish between productive federal lands utilized in part for commodity production and lands, such as National Parks, National Recreation Areas, and National Monuments, on which commodity production is not permitted. An equitable system for compensating localities for tax revenues foregone as a result of all such lands must be devised. Such a system should be based upon the value or productivity of reserved federal lands rather than a flat per acre assessment.

We hope that our thoughts on the issues faced by the Commission will be of value. We are continually perplexed by the philosophy which seems to prevail today at the federal level of government wherein the tremendous economic and social potential of the renewable resources on federal lands is largely ignored. This is repeatedly evidenced in the failure to adequately fund the renewable resource management activities of the agencies which manage the federal lands. When the cost to state and local governments of this failure is measured in terms of the employment, economic activity, and tax revenues which are necessarily forgone, the value of any increased in-lieu payments to state and local governments is insignificant by comparison. Likewise, the withdrawal of federal resource lands for limited, single use purposes has the same economic impact. These, in my opinion, are the real questions that we should be addressing, rather than that of should more money be given to the states and counties by virtue of the presence of federal lands.

Statement of

Charles M. Stephenson

Former Chief
Government Research Staff
Tennessee Valley Authority

I am Charles M. Stephenson, an economist, of Knoxville, TN. At the end of October 1975 I retired from the position of chief, Government Research Staff, Tennessee Valley Authority, after 41 years of TVA service.

I am pleased to offer my views today, not as a representative of such special interest groups as the counties, the states, timber operators, or stockmen and grazers; but rather as a professional economist qualified to point out some background information bearing upon the matters under consideration, and to call particular attention to certain factors relevant to the broad public interest.

My entire professional life has been concerned with the field of intergovernmental fiscal relations and state and local government organization, operations, and finances. I have been an active member of the Intergovernmental Fiscal Relations committee of the National Tax Association-Tax Institute of America for the last several years; and I am on the Editorial Advisory Board of the *National Tax Journal.*

During my early years in TVA, the 1930s, I assisted in the background research and the design of the TVA plan for payments in lieu of taxes. (Section 13 of the *Tennessee Valley Authority Act* as amended in 1940; 16 U.S.C. Sec. 8311.) Then, for 35 years, I had the general responsibility for the annual calculation and administration of TVA payments to eight states and some 150 local governments, involving the payment of a cumulative sum of nearly a third of a billion dollars up to the time of my TVA retirement. The total TVA payment for fiscal year 1976 alone was over $48 million.

Parenthetically, I point out that TVA has turned over to the U.S. Forest Service approximately 63,400 acres of land around the margins of TVA dam and reservoir projects. In the annual determination of minimum TVA tax replacement payments on such transferred lands, an offsetting credit is taken for the Forest Service shared revenue payments in respect to the same lands. Thus from experience I am well acquainted with the nature of the past payments on National Forest lands, particularly their wide fluctuation in average annual amount per acre for each separate National Forest area.

PREVIOUS TAX STUDIES

The classic study of the problem of tax treatment of forest lands is generally considered to be the *Fairchild Report* of the Forest Taxation Inquiry research project in 1935.[1] This report laid the groundwork for much of the scholarly discussion of the subject since that time.

When I was a young TVA staff member in the latter 1930s, I recall that there was launched the first comprehensive study of payments on account of federally owned lands of which I have any knowledge. In January 1939, President Franklin D. Roosevelt created the Federal Real Estate Board,[2] and its final report was issued in June 1943.[3] One of my older TVA colleagues served on an advisory panel during the course of that study, and we used to talk about the research work which was then being carried out.

The next major study of the problem of federal tax immunity and payments on federal property was undertaken by the Bureau of the Budget (now the Office of Management and Budget), after a federal-state-local conference on the subject in 1949. The bureau developed a comprehensive set of recommendations on the matter (with the aid of a research staff headed by I.M. Labovitz); and its report to the Congress, together with a draft bill, was presented August 16, 1951.[4]

In the middle 1950s, the Commission on Intergovernmental Relations (the Kestnbaum Commission, forerunner of ACIR) carried out its monumental investigation, which included a special study committee report on *Payments in Lieu of Taxes and Shared Revenues.*[5] No significant legislative action concerning Federal payments came from that effort; but the present Advisory Commission on Intergovernmental Relations was established in due course as a result of the Kestnbaum Commission's recommendations.

We come next to the most comprehensive study of all, that made by the Public Land Law Review Commission during the latter 1960s and leading to its landmark report in 1970, *One Third of the Nation's Land.*[6] The PLLRC tax and in lieu payment recommendations grew out of a four-volume research study prepared under contract for the commission, sometimes referred to as the EBS study report.[7]

Finally, there is the current ACIR study of the National Forest revenue sharing program, which was started late last year. This undertaking forms the basis for the public hearing today in Denver, and the overall study is expected to be completed in early 1977.

BASIS FOR PUBLIC POLICY DEVELOPMENT

The Good Book tells us that there is no new thing under the sun. As a sort of corollary to that view, I suggest that we should not presume, out of ignorance of what has gone before, to "reinvent the wheel."[8] I believe therefore that the problem under consideration here should be viewed in historical perspective. I think we can learn much that is helpful from the findings and conclusions of earlier studies of the problem of forest land taxation and tax treatment of federally owned land. And further, I believe that the solution we are now seeking can best be built upon the experience of the past.

ALTERNATIVE APPROACHES TO NATIONAL FOREST LAND PAYMENTS

Of course the policy issue we are concerned with here in regard to National Forest lands stems from the same situation which affects other extensive land areas in federal ownership; namely, the legal immunity of federal property from state and local taxation. And even though, historically, most of this land acreage was part of the public domain and has never been reflected on the property tax rolls, the usually advanced measure of federal obligation for payments on such lands is the revenue "loss" attributable to present tax exemption. That is, the federal government should somehow make up to the local (or state) governments for "what might have been" if the property were privately owned.

Broadly speaking, there are three different approaches to the determination of payments on account of forest lands in Federal ownership. These are:

1) a fixed rate per acre,
2) revenue sharing (the present type of formula), and
3) a local tax equivalent.

Per Acre Payments

Of those alternatives listed, it seems to me that the uniform rate per acre is least de-

sirable from the standpoint of equity and history. The principal arguments in favor of this policy are simplicity and ease of administration, and certainty and predictability of results. The latter would undoubtedly have revenue advantages in the eyes of the recipient governments; and one might even argue its merits in terms of easiness of budgetary planning on the part of the paying federal government.

However, I believe these arguments are far outweighed by the greater faults which can be set out against this policy. These disadvantages can be succinctly characterized as follows:

a) inequity,
b) windfall effects, and
c) capricious benefits to private property taxpayers if substantially increased federal payments lead to lower ad valorem tax rates.

We discuss these points briefly in turn.

INEQUITY

Whether one is considering National Forest lands alone or federal lands in general, there are wide variations in the character, value, and productivity of such lands. At the same time, there are great differences in the relationships between federally owned lands and the localities in which they are situated. We have in mind here such matters as integration with the local economy, needs for and costs of public services, available revenue sources for the support of local government, and the existing property tax base and tax burdens on private property. Although flat tax rates per acre of land were sometimes imposed by state and local governments in the early history of property tax utilization in the United States, such a simple and even spread of the tax burden among property owners has long since given way to more sophisticated plans reflecting other factors (such as value) in addition to mere units of land area. I believe that the last such flat-rate approach to taxation which was widely utilized in many states was the much-maligned per capita or poll tax—now generally abandoned to tax history.

The type of tax most deeply embedded by tradition and usage in the revenue system for the support of local government in the U.S. is the ad valorem property tax. For the nation as a whole in 1973-74, local property taxes represented 60.5% of total local general revenues from own sources. The highest local dependence upon the property tax was in the State of Maine, at 90.2% while Alabama ranked lowest at 21.7%.[9]

The 11 western states of the Rocky Mountains and Pacific Coast region contain about 84% of the National Forest lands in the continental U.S. (excluding Alaska and Hawaii). The local governments of these same states are about average in their dependence upon the property tax, ranging from a low of 44.1% in Nevada to a high of 74.7% in Montana as a proportion of total local general revenues.

We do not know the average annual amount of property or other taxes paid per acre of privately owned forest land (as indicated by the general picture set out below) in these western states. However, we would expect average farm real estate taxes, which probably include some woodlands in most states, to be higher than the per acre tax burden on strictly forest lands subject to taxation. Again, taking the 11 western states referred to above, we find that the average amount of state-local taxes levied on farm real estate was as follows in the year 1973.[10]

State	Average Amount Per Acre
New Mexico	$0.27
Montana	.78
Wyoming	.45
Colorado	.98
Utah	1.21
Nevada	.61
Arizona	1.65
California	9.85
Idaho	2.00
Oregon	1.98
Washington	3.12

It will be seen that California, where farming is highly productive and land values are also high, has an average property tax burden far out of line with the other states listed above. However, if we simply take the arithmetic mean of average farm taxes per acre in the other ten states, it comes out to

$1.31 per acre. (Although this is an unorthodox statistical calculation, we believe it may be meaningful for the purposes of this discussion.) These figures simply show the wide variations among states of the average burden of property taxes on *farm* real estate; and, at the same time, they point up the fiscal incompatibility of a flat-rate payment such as 75¢ per acre for tax-exempt open lands.

Thus, a system of payments in lieu of taxes on federal lands predicated upon a fixed rate per acre (even though modified by other factors as in the provisions of H.R. 9719, passed by the House on August 6, 1976, and now pending in the Senate) would not fit equitably with the existing revenue system bearing upon taxable lands and other forms of property subject to ad valorem taxation.

WINDFALL EFFECTS

I use the term "windfall" here with the full realization that one man's windfall may be another man's proper due-bill receipt. One's perception obviously depends on one's point of view.

We begin, however, with the observation that National Forest lands vary greatly in productive capacity and value. A 1975 compilation by the Forest Service shows that the top 20% of National Forest area accounted for more than 81% of total payments under the present revenue sharing formula. While the average per acre payment for all National Forest lands was $0.48, four-fifths of the lands yielded $0.34 per acre or less; the ninth decile of area (in productivity) paid an average of $0.85 per acre; and the top 10% of area paid $3.03 per acre.

Assuming that such mostly modest forest land payments have been taken into account in the development of the existing state-local revenue system and arrangements for the support of needed governmental services, any sudden shift to a higher effective rate per acre (e.g., the 75¢ per acre overall entitlement specified in H.R. 9719) is bound to produce some windfall effects vis-a-vis the present status quo. Whether such largesse is merited or not is a value judgment in these circumstances.

In trying to measure the fiscal impact of federal tax-exempt lands upon local government, one should consider not only economic benefits of the federal property in comparison with imposed public service costs, but also the existing system of intergovernmental revenues which usually reflects actual tax base, tax effort, and revenue needs to support adequate public services. Suddenly increased flat-rate payments on federal lands would tend to upset complex intergovernmental fiscal relationships, and the fallout of benefits would almost certainly be much greater for some units of local government than for others.

BENEFITS TO PRIVATE TAXPAYERS

The present picture concerning the taxation of privately owned forest property has been recently described as follows:

> One of the chief aims of the forestry lobby at state and local levels has been relief from alleged burdensome property taxes. This lobbying effort has met with notable success in that almost every state has modified its tax laws to give special consideration to forestry. Until recently, the most widely adopted alternative has been the substitution of a yield tax at time of timber harvest for the annual property tax on timber. Numerous exemptions, rebates, modified assessments and rates, and deferred payments also exist in state laws. The most recent trend in providing tax relief, particularly for land located near urban areas, has come in the form of "use value" taxation. Under "use value" legislation, taxes on forest (as well as farm) lands are reduced below that of other classes of real estate by basing property tax assessments on the productivity of land in its current use.[11]

In considering the problems before us today, we should bear in mind that the value of private property, in theory, reflects a capitalized stream of income—net of all costs, including taxes. Thus an increase in property taxes would be expected to be capitalized into lower property values; and conversely, a tax reduction would tend to raise the capitalized

value of a given piece of property. This principle of "tax capitalization" leads us to the possibility of special benefits to property owners who might have their tax burden reduced as a result of marked increase in federal payments to the governmental units in which the private property is situated.

To take an extreme example by way of illustration, the House Committee report on H.R. 9719 pointed out that Lincoln County, NV, which has 98% of its land base owned by the federal government, must derive its $100,000 budget for local expenditures from the other 2% of its land. On the other hand, it estimated that Lincoln County would receive $127,850 of federal in lieu tax payments a year under the 75¢ per acre formula provided in H.R. 9719.[12] Given these facts, it would be possible to eliminate the local property tax completely without reduction of overall revenues available for the support of governmental services in Lincoln County.

It should be clear that a big cut in local property tax rates would produce large gains for the present owners of taxable property within the affected jurisdiction. And the distribution of such benefits would tend to be somewhat capricious under any fixed rate per acre formula for payments on federal lands.

Revenue Sharing

I turn briefly now to the other two approaches to the problem of payments on federal property, which were listed earlier.

Revenue sharing, of course, has the longest history of usage, and covers the largest proportion of federally owned land subject to any sort of in lieu payment at present. Despite the shortcomings of this system and the criticisms raised by other spokesmen at this hearing, there is much to be said for the principle of revenue sharing just on the grounds of its longstanding integration with the existing system of intergovernmental fiscal relationships.

Without taking the time here to go into details, I point out that most of the past studies of the problem previously referred to—the Federal Real Estate Board study in the early 1940s; the BOB (Labovitz) and the Kestnbaum Commission studies in the 1950s—after careful consideration concluded that the principle of revenue sharing, possibly with some modifications for particular types of properties, should be retained for payments in lieu of taxes on the bulk of federally owned lands. I do not think these considered judgments should be lightly cast aside.

Local Tax Equivalents

The principal exception to the conclusions of past studies noted above was the Public Land Law Review Commission. That body stated flatly that "the existing revenue sharing programs do not meet a standard of equity and fair treatment either to state and local governments or to the Federal taxpayers." The PLLRC opted instead for a system of tax equivalent payments on federal property, adjusted to reflect special considerations pertaining to federal ownership, but generally integrated with the ad valorem tax system as the foundation for the support of local governmental services.

It should be noted that the earlier BOB study (Labovitz) also recommended tax equivalent type payments on certain federal properties serving broad national interests, while still retaining use of the revenue sharing arrangements already in effect.

Both the BOB and PLLRC studies assumed, of course, that workable procedures could be developed for the calculation of tax equivalent payments on the types of federal property to which they might be applied. I agree with this position. As a matter of fact, in the light of recent improvements in property tax administration in most of the states, it would be easier to institute a federal payments program of this kind now than it would have been when those agencies made their recommendations some years ago.

In devising a reasonable tax equivalent approach to the problem of payments on National Forest lands, I believe it would be desirable to tailor the plan in the light of varying state practices as applied to forest taxation. As indicated above, many states now impose a yield tax as a substitute for the annual ad valorem tax on timber lands. Also, there are many forms of forest tax exemptions, tax rebates, and modified assessments and rates for the benefit of forest land owners. It seems clear to me that the federal gov-

ernment, as forest land owner, should not be expected to make larger payments in lieu of taxes than the actual taxes payable by a comparable property holder.

CONCLUDING OBSERVATIONS

I commend the Forest Service and the ACIR for the National Forest revenue sharing study currently in progress, recognizing that any consideration of the problem of payments on federally owned forest lands cannot be entirely divorced from the larger situation concerning other types of federal property.

I earnestly hope that the Congress will not immediately enact the pending bill, H.R. 9719, without waiting for the findings and recommendations growing out of the present study. Since a law, once on the statute books, is difficult to change at best, it seems to me that all interested parties should await the completion of the ACIR study before pressing for final legislative action on the important matter of new payments on federal property.

FOOTNOTES

[1]Fred R. Fairchild, et. al., *Forest Taxation in the United States*, U.S. Department of Agriculture, Miscellaneous Publication No. 218, Washington, DC, U.S. Government Printing Office, 1935.

[2]"Federal Ownership of Real Estate and Its Bearing on State and Local Taxation," Message from the President of the United States, 76th Congress, 1st sess., House Document 111, Washington, DC, U.S. Government Printing Office, 1939. Executive Order 8034, January 14, 1939, established the Federal Real Estate Board.

[3]Federal Real Estate Board, Report to the President, "Federal Contributions to State and Local Governmental Units with Respect to Federally Owned Real Estate," 78th Congress, 1st sess., House Document 216, Washington, DC, U.S. Government Printing Office, 1943.

[4]U.S. Bureau of the Budget, Executive Communication No. 722, "Regarding Payments in Lieu of Taxes." Draft of bill and accompanying report submitted to the House of Representatives by F. J. Lawton, Director, August 16, 1951, Washington, DC, U.S. Government Printing Office, 1951.

[5]*Payments in Lieu of Taxes and Shared Revenues*, a study committee report submitted to the Commission on Intergovernmental Relations, Meyer Kestnbaum, Chairman, Washington, DC, U.S. Government Printing Office, 1955.

[6]Public Land Law Review Commission, *One Third of the Nation's Land, A Report to the President and to the Congress by the Public Land Law Review Commission*, Washington, DC, U.S. Government Printing Office, 1970.

[7]EBS Management Consultants, Inc., *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands*, Washington, DC, Public Land Law Review Commission, July 1968.

[8]See Marshall R. Colberg, "Must Economists Continue to Reinvent the Wheel? Slope and Elasticity in Tax Shifting," *National Tax Journal*, Vol. XXIX, No. 2, Columbus, OH, National Tax Association, June 1976, p. 227.

[9]ACIR staff compilation based on U.S. Bureau of the Census, Governments Division, *Governmental Finances in 1973-74*, Washington, DC, U.S. Government Printing Office, 1975.

[10]U.S. Department of Agriculture, Economic Research Service, *Farm Real Estate Taxes: Recent Trends and Developments*, RET-14, Washington, DC, U.S. Government Printing Office, March 1975, Table 3.

[11]E. C. Pasour, Jr., and D. L. Holley, "An Economic Analysis of the Case Against Ad Valorem Property Taxation in Forestry," *National Tax Journal*, Vol. XXIX, No. 2, Columbus, OH, National Tax Association, June 1976, p. 155.

[12]U.S. House of Representatives, Committee on Interior and Insular Affairs, *Payment in Lieu of Taxes Act*, to accompany H.R. 9719, 94th Congress, 2d sess., House Report 94-1106, Washington, DC, U.S. Government Printing Office, 1976, pp. 6, 8.

Statement of

Jim Evans

Legislative Representative
National Association of Counties

Following is a point-by-point response by the Montana Association of Counties to the assumptions made in the questionnaire utilized by the Advisory Commission on Intergovernmental Relations in its study of the payments in lieu of taxes issue.

NACo believes that the experience of the Montana Counties is representative of other counties nationwide.

It is clear from the experience of counties nationwide that there is *no financial benefit* to local government, or county government in particular, when compared to potential benefits if the same lands were held in private ownership.

On the contrary, there is a clear demonstration of financial burdens to county government. The phenomenal increased demand for local government services in the past 10-15 years has not escaped public land counties. The presence of the federal lands create county service needs for law enforcement, search and rescue, fire protection, road and bridge maintenance, indigent welfare, health and medical assistance, food stamps, etc., and these needs are accelerating.

When you throw in the burden of tax immunity, NACo believes the conclusion is inescapable that the federal government has a clear obligation to provide adequate compensation to local governments. Current federal programs to share timber, mineral, and grazing lease receipts are inadequate.

ACIR Assumption. "Potential different benefits in the case of National Forests may arise as a result of the Forest Service's provision of regular public services such as fire and police protection, road maintenance, preservation of open space, and accessible recreation resources available at no charge or at less than full market prices."

NACo Questions. In your state or county to what degree do private land owners provide their own fire and police (or security) protection, compared to the U.S. Forest Service? How about road maintenance on private property? Open space as part of zoning or land use plans on private property? Recreation accessability on similar private property at no charge or less than full market value?

Private landowners in rural Montana receive police protection through county sheriffs departments and through their own security protection of lands they own. Law enforcement on both private and National Forest land is conducted by deputy sheriffs. The Forest Service provides no such law enforcement on national forest land. Fire protection in rural areas is solely at the cost of local landowners through volunteer fire districts. The Forest Service does maintain adequate fire control on national forest lands, but often with volunteer assistance from landowners.

Road maintenance on private land is strictly conducted by the landowner, no matter how great the volume of recreational vehicles that may be seeking access to National Forest lands.

ACIR Assumption. "Most of National Forests exist on federal land that never has been taxable and the Forest Service provides most of the public services required by the forest land."

NACo Questions. Does the Forest Service in fact provide "most" of the public services required by the forest land? What about the "people" services related to tourists, employees, etc?

The Forest Service does provide a limited amount of public services on National Forest lands but these are limited to minor things such as campground maintenance, user fee collection, and refuse maintenance. The Forest Service does *not* provide "people services." County government must handle all emergencies involving personal injury, searching for lost hunters, hikers, etc.; law enforcement involving theft and personal injury, felonies, etc. County Welfare problems result from indigent and undesirable persons present in many National Forests. Much of this involves general assistance, medical help and food stamps. A great portion of many county road budgets are spent maintaining county roads and bridges which receive heavy use in gaining access to National Forest lands.

ACIR Assumption. "Federal ownership and presence gives residents and some localities the feeling that something is owed them by the Federal government."

NACo Questions. In your state or county what percent of the timber leasing or timber sale receipts derive from private taxpayers of your state or county? i.e., Who is paying the lease funds?

Conversely, what percent of these funds are actually returned to your state or county by the federal government? What percent is available to the county government? What percent is available for general purposes?

In Montana 100% of timber sale receipts are paid by private logging companies and the commercial wood products industry. These companies are *locally owned* and pay local property taxes.

Montana counties may only receive 15-20% of timber sale receipts. Counties should get 25% of net receipts, but costs for roads, trash disposal, etc., are first deducted from the gross. The Forest Service then deducts KV funds from the receipts, reducing the county return even more. A recent study at the University of Montana placed a valuation on Montana National Forests of $2.597 billion based upon an average annual yield of $77.9 million at 3%. The average "25% fund" payments to Montana counties is a mere $4.5 million which is ridiculously low on such a property valuation base—by any line of reasoning! Twenty five percent fund moneys are not available for general purposes of the county. County government is restricted to using the funds for roads and schools. Often the funds are not available for other needy programs.

ACIR Assumption. "A national forest may induce more vehicular traffic leading to higher road and police costs. Less direct adverse financial effects may include denying communities room to grow and the opportunity to plan and shape their growth."

NACo Questions. In your county can you estimate the increased tourist and other activity related to National Forests and other federal lands? What revenue does *your county* receive from tourist activities? How does this compare to local government services provided for tourists? Does your county have privately owned tourist attractions? Are they exempt from property taxation?

In recent years, national forests have caused an increased rate of tourist traffic in Montana counties. This growth of tourist traffic could possibly have doubled in the last three years. The county receives little in direct and indirect revenues from tourist activities. The trend in self-contained motor homes, campers, trailers, etc., results in tourists bringing all necessary food and equipment in from outside the county. Purchases for items other than gasoline are simply not

made, with no direct or indirect benefit to the county economy. The little revenue derived from tourists might be 1/10th of costs required to provide them with local government services. Few privately owned tourist attractions exist in Montana. Those that are present are subject to full property taxation.

ACIR Assumption. "Forest Service expenditures for public services on the federal land such as roads and fire protection save the local governments from making expenditures for those services. The National Forests provide open space preservation which to some communities means no additional effort and expense are needed for preferential taxation or land purchases to create preservation zones in order to maintain open space and control development."

NACo Questions. Does your county spend funds on road and fire protection on or through federal lands? Can you estimate how much? If there is a major forest fire does your county and/or local fire protection districts assist in the fire fighting? Do private timber owners provide any of their own fire protection?

Almost all Montana counties spend county funds for road maintenance within the National Forests. Estimates for road costs are difficult to make, however, some Montana counties having large expanses of National Forest land may spend up to 50% of their road budgets for maintenance within the forest boundaries.

Montana counties do not provide fire protection on federal lands, however, some BLM fire protection is derived through cooperative agreements with rural fire districts, volunteer fire associations, etc. Private timber owners pay a per acre fee to receive fire protection from state government or may contract with federal agencies.

NACo Questions. Does your county provide any parks and recreation facilities and services? Does the existence of federal land create any extra pressure for development on private agricultural or other land?

Many Montana counties maintain parks, campgrounds and related recreation facilities. Often these facilities are adjacent to National Forest lands. National Forest lands and BLM lands create a tremendous pressure in Montana for recreational use, especially for hunting, fishing and skiing. Montana receives more out-of-state hunters and fishermen each year than any other state in the U.S. As a result of this sportsman pressure a large demand exists for cabin sites and private acreage purchases by out-of-state interests. This private land purchase pressure is almost totally limited to private lands adjacent to federal lands. Almost all hunting and fishing in Montana is restricted on private lands causing considerable in-state and out-of-state pressure on federal lands. Therefore, extra pressure for development on private agricultural lands exists.

ACIR Assumption. "States generally have the responsibility for the fiscal adequacy of local governments. States create them, determine their boundaries, the extent of their responsibilities to provide public services, their tax base and the aids they receive from the states. Making the payments to the states and allowing them to determine how the funds are used is consistent with the state's responsibility for assuring balance between local fiscal resources and local operating responsibilities."

NACo Questions. What is the distribution of *Mineral Leasing Act* funds in your state? What percentage reaches county government?

Funds received under the *Mineral Leasing Act* totaled approximately $4.5 million for Montana last year. Approximately 50% of these funds go the the state superintendent of public instruction for deposit in the state permanent education trust fund. The other 50% is allocated to the state department of highways for use in its general operating budget. County government in Montana receives *no* percentage of these funds. Counties might receive some indirect benefit from the funds apportioned to the state highway department. This, however, is impossible to determine.

Statement of

Barry Keene

Assemblyman
California State Assembly

I am pleased to have the opportunity to present to this commission some hopefully useful views on the National Forest revenue sharing program.

The subject is of particular interest to me as a rural member of the California Legislature and as a member of the Western States Forestry Task Force. The legislative district I represent encompasses 1.7 million federally owned acres, or over 25% of the district's total land area. This includes not just National Forests, but land managed by the Bureau of Indian Affairs and the Bureau of Land Management.

In my remarks, I will address elements that I believe are essential to creating the "ideal" combination of revenue sources for those local jurisdictions where National Forest lands are located. I shall also attempt to answer the six questions proposed by your staff. These questions go beyond National Forest revenue sharing to the issue of in-lieu payments for *all* federally owned land. They also explore the ramifications of the relationship between *any* revenue sharing or payment system and state-imposed possessory interest and yield taxes.

Due to the constitutional constraints upon the taxing authority of local governments, there needs to be a *partnership* of federal, state and local governments that would produce an adequate and equitable level of local revenue.

Congress, for its part, must maintain a system of payments to counties that would compensate affected counties for the tax immunity enjoyed by federally owned lands. The present system is *neither* adequate *nor* equitable and needs extensive revision.

The states, for their part, must aggressively pursue the taxation of private interests operating in National Forests and be willing to share with local governments the proceeds they derive. They must also be encouraged to adopt a yield tax on the value of *all* harvested timber, in place of the property tax levied on privately owned timber, and in place of the present method of taxing the possessory interests in timber cutting contracts held by private parties operating on federal land.

At the conclusion of my remarks, I will come back to these state and local revenue sources and discuss how California has recently embarked on a forest tax policy which is of direct interest to these proceedings.

First, however, I would like to provide a brief overview of the circumstances that have led to the situation confronting county governments and, in particular, the five I happen to represent in the California State Assembly.

Until the year 1891, when the National

Forest system was established, relatively little land was under federal ownership. Since that time, however, federal ownership of land has gradually increased, until today, when 760 million of our nation's 2.2 billion acres of land are federally owned.

In time, the impact of the removal of these lands from the tax base prompted Congress to grant financial assistance to local governments. A percentage of all moneys collected from timber sales by the Forest Service was paid to the states for transfer to the affected counties to assist in the maintenance of public schools and roads.

The legislative history of the federal acts clearly indicates that these payments were intended as compensation, because the land involved would no longer be available for private ownership and property taxation.

Under present law, 25% of the revenue from timber sales goes to counties; 10% to the Forest Service, for road and trail construction; and 65%, with some exceptions, to the general fund.

I question whether circumstances today justify the continued use of this distribution formula.

In recent years, as most are aware, there has been a dramatic increase in the population of the western states. The vast influx of visitors to National Parks and Forests has resulted in many new problems—traffic congestion, pollution, social service costs, and crime—problems normally associated with urban centers. And, due to the distance of rural communities from these urban centers, the services now being demanded by rural residents and visitors are often more costly than equivalent services provided in other areas.

In 1970, the Public Land Law Review Commission recommended that a federal payment system be established that would *not* be tied to varying levels of revenues from federal lands. The commission determined that the present percentage-of-revenue system led to serious inequities and often totally inadequate payments, which seldom came even close to approaching tax equivalency for these lands.

Since then, six years have come and gone, and the federal system remains unchanged, in spite of the ever increasing evidence of the system's inadequacy and inequity. Our belief that a federal payments program is vital is as strong as our reservations regarding the present program. We are encouraged, to be sure, to see some stirrings in the Congress, to see that H.R. 9719 has passed the House, and that its companion measure, S. 3468, is awaiting a hearing in the Senate Interior and Insular Affairs Committee.

We are also pleased that this legislation reflects our view of the appropriate federal approach: namely, direct federal payments to local governments, as a function of the federal presence there instead of the present shared-revenue-where-revenue-exists approach.

There are five major deficiencies which we see in the existing system, and which we believe the system as proposed should rectify:

1. There is now no correlation between federal payments and services rendered by the local government, because payments are based on a percentage of the revenue which may be derived. Some payments undercompensate, while others overcompensate.

2. Pressures have been created to adopt management programs which produce revenue, even though those programs might have been in conflict with good conservation and forest management practices. And, not only in conflict with good forest management practices, but, in fact, environmentally detrimental in their impact.

3. While depletion of the timber resource generates income now, for the counties, it also eliminates the revenue base upon which payments to these counties have depended, and upon which they must rely to fund on-going programs in the future.

4. Revenue flow, in any one year, fluctuates widely among jurisdictions otherwise similarly situated. This happens because payments have been based on whether or not harvesting occurred in that year, not on the actual revenue needs of the jurisdiction.

5. There are factors at work beyond the control of county government which may be significantly altering their share of revenue, even when harvesting *does* occur. I refer to the mounting controversy over the potentially widespread and long-standing scheme by some timber companies to rig bids for purchasing timber in National Forests in California and other western states. Recent newspaper reports have suggested the revenue loss to federal and county governments may be in the vicinity of $100 million. I cite this example, not to point the finger at anyone, but simply to illustrate the possible direct impact of such activity on current federal revenue sharing payments.

If a new federal payments system is to be adopted, it is important that there be a guiding philosophy. My own is two-fold.

The first point is that local governments must not be harmed by the impact of federal land ownership. This holds true whether one is speaking of National Forests or federal lands in general. The tax immunity of such ownership exerts a strong influence on the fiscal status of affected local jurisdictions. It is the federal government's responsibility to make certain that the fiscal resources of these jurisdictions are not rendered inadequate due to the federal presence. Or, as the Public Land Law Review Commission stated in recommendation No. 101 of their 1970 landmark report:

> If the national interest dictates that lands should be retained in federal ownership, it is the obligation of the United States to make certain that the burden of that policy is spread among all the people of the United States, and is *not* borne only by those states and governments in whose areas the lands are located.

The second point is that the ownership of property carries with it the responsibility to pay taxes, no matter what benefits the property owner provides to the community. I know of no reason for distinguishing between private and federal benefits that might justify either reducing, or eliminating altogether, federal payments. After all, *both* privately owned and public-owned properties confer benefits to a greater or lesser degree on the surrounding community, either through added jobs (such as a lumber mill would provide), added sales tax revenues (such as a popular tourist attraction would provide), or added community services (such as an airport or bus station would provide). Yet, in each of these examples, a privately owned concern is taxed. It is often cited that National Forests provide their own fire protection. Yet, when a privately owned concern supplies its own supportive services, (such as an industrial plant which provides its own police and fire services), its property continues to be fully taxed. The same is true of most agricultural land uses, even though such use might at the same time, be preserving open space.

I am not advocating 100% tax equivalency. I realize that federal legislation, if it is to be enacted, will provide for less than full tax equivalency. If this reduction is to be justified as "an adjustment for unique benefits arising from federal ownership," as your staff outline puts it, then so be it. My purpose in stressing this point is to emphasize that for every unique benefit offered for tax-immune National Forest land, an equivalent benefit is likely to be found on fully taxable private land.

In accordance with the above philosophy, I would advocate the following policies be incorporated into a revised federal payments system:

1. The federal government should make annual payments to compensate local governments for the tax immunity of federally owned property.
2. Such payments should be made to counties on a basis proportionate to the federal presence there, such as a fixed dollar amount per acre of land. To base payments on a percentage of full tax equivalency would require costly and difficult appraisals of all federal property on which payments are to be made.
3. Payments should be made to county governments and to any other affected local

jurisdictions on the basis of actual need. Since the tax level represents the actual need for revenue, allocation based on the tax effort of each jurisdiction would seem appropriate.

4. There should be no constraints placed upon the uses made of such payments by local jurisdictions.

5. The payments should *not* be legally christened as payments in lieu of taxes. Such a designation could create a nationwide legal headache. Courts in many states have held that state taxation of private interests in National Forests, even with the concurrent presence of the 25% revenue sharing proceeds, does not constitute double taxation, largely because the current federal payments are *not* construed as payments in lieu of taxes. To designate the payments under a revised federal system in that manner could result in widespread questioning of the legality of state taxation of possessory interests on federal lands.

6. In response to question #6 of your staff outline, the issue concerning *which* federally owned lands should be required to make payments might be resolved in this way:
   a) if the federal property meets a primarily local need, as does a post office, then it should be exempt from such payments; and
   b) if the federal property is considered as serving national or broad regional needs, as do National Parks and Forests, wilderness areas, and lands administered by the Bureaus of Reclamation, Indian Affairs, or Land Management, then the federal government should reimburse local governments for the lost tax revenues.

As a matter of philosophy, I think this policy is equally applicable to *state*-owned public property. In fact, I have introduced legislation in the California Legislature that would provide such state in lieu payments to local governments. (To date, however, such measures have failed to pass.)

Having dealt with federal involvement, let us now consider where the states fit into the scheme of things.

As I stated earlier, I strongly advocate the aggressive utilization of state and local revenue sources. And, I *do not* believe that taxation of private interests in National Forests, including yield taxes, is inconsistent with a concurrent revision in the manner of funding and distribution of moneys under the National Forest revenue sharing program.

Neither do I believe these sources of state and local revenue undercut the argument that "federal ownership means revenue foregone."

These revenue sources do not tap the value of the federal *land* itself, for the land is not taxable.

These sources do not even produce revenue unless and until a private party engages a possessory interest in the federal land and even then tax revenue is produced only so long as the possessory interest remains in effect. This is also true, of a yield tax applied to harvesters of timber on federally owned lands.

In most instances, these properties are *not* a primary revenue source for local governments; they are supplemental in nature. The Public Land Law Review Commission recognized this in their 1970 report by stating:

> State and local governments should be encouraged to tax possessory interests of federal land users, such as lessees and permittees, and the improvements constructed by them. The commission believes that possessory interest taxation would afford state and local governments a significant opportunity to supplement conventional property tax income.

I will grant, however, that such tax sources have long been the subject of legal controversy.

The possessory interest tax, as it applies to the federal timber cutting rights of private parties, has been the subject of protracted litigation in the courts. But the courts have been consistent in their findings that such taxes may be legally imposed.

In the case of *Georgia Pacific Corporation vs. County of Mendocino*, in 1973, the

U.S. district court held that the federal payments were not in lieu of taxes, but rather were in the nature of a public grant from the federal government. The court stated:

> An examination of the legislative history cited to the court, and other statements found in the *Congressional Record,* does not indicate that, in enacting or reenacting Sec. 500, Congress intended to foreclose the taxation of possessory interests in National Forests. The court has found absolutely nothing which would so indicate.
>
> Nor is it entirely clear that Congress enacted Sec. 500 to provide a payment in lieu of taxes for any purpose. . . .

These findings are repeated in every court case that is pertinent.

Having discussed the legality of such state taxes, I would like now to set forth the four principal reasons why I think they should be levied.

1. State and local authorities are in the best position to gauge their annual revenue needs. They can adjust their respective tax rates as appropriate.
2. When state and local officials have control over a tax source, the community is assured of a more stable and continual flow of revenue than might be true if revenue flow is controlled either by the decisions of a private party in the marketplace, or by decisionmakers far away in Washington.
3. The taxation of those private interests is simply the fullest extension of previously established Constitutional limits, whether the tax takes the form of a property tax on possessory interests, or, in its place, a yield tax. Such taxation is simply the authorized expansion of the local taxable base to its fullest extent.
4. When taxation of private interests takes the form of a timber yield tax, positive incentives for sound forest management policies are part of the bargain, and the state and its residents can expect to reap additional benefits, as would the timber industry and its investors.

I would like to close with a final note having to do with the use of yield taxes on the harvest of timber in National Forests.

The California Legislature has recently enacted a yield tax, of which I was a principal co-author. It is considered "revolutionary" by some, not only because of its application to harvesters of timber on federally owned land, but because of its long-term, state-mandated land use controls on timberland, and its procedure for equalized revenue distribution based upon local agencies' need, rather than upon where the timber was harvested.

It was on the subject of timber on federal land that a good deal of controversy was generated. The California Legislature took the position it is important to have equal treatment for *all* timber and equal treatment for all timber harvesters, no matter which type of timber they might be harvesting. And, by expanding the taxable base by half again as much, it was possible to establish a lower overall tax rate.

But, the U.S. Forest Service opposed the act. It was one of the few parties to do so. The opposition stemmed from a fear of the effect the yield tax would have on National Forest revenues. Currently, the U.S. Forest Service calculates the market value of timber and sets a minimum bid price. It does this *after* subtracting costs to the harvester, including his tax costs, and, in this instance, the yield tax. The tax burden of the yield tax on the harvester of federal timber in California is 30%-50% greater than under the old tax on possessory interest. It is for this reason the U.S. Forest Service says the lower minimum bid prices will result in lower *actual* bids, which translates into reduced National Forest revenues.

I do not believe that necessarily follows. It seems to me that harvesters will continue to bid what they believe the timber to be worth. The evidence I have seen would suggest that bid prices are higher, when there is competition and lower when there is not. This is especially true, when the bidder is

speculating on the likelihood of a future rise in the value of the timber under bid.

Therefore, it would seem more accurate to say that it is the *marketplace* which is truly the determining factor in the level of revenues and the determinant of whether or not tax burdens are passed on to another party; not the type of local tax which is or is not employed.

This concludes my prepared remarks. For the record, I have included additional materials on California's new yield tax law and the legality of possessory interest taxation.

Thank you.

Statement of

Ray Doerner

County Commissioner
Douglas County, Oregon

My name is Ray Doerner. I am a county commissioner from Douglas County, Oregon. Over 50% of our 3+ million acres are owned by the federal government (nearly 1 million acres of National Forest and about 600,000 acres managed by the Bureau of Land Management). Almost all of the federal lands in my county are classified as commercial forest land and very little grazing. Needless to say, the forest products industry (public and private) is the mainstay of our local economy and we in local government are sensitive to issues that affect the multiple use management of those lands.

You will understand then, that my response to the questions posed by your staff will reflect the viewpoint of a county official from a county where the National Forest lands are highly productive and do produce substantial income. Accordingly, a different county-federal relationship exists in a county where the National Forests are less commodity oriented. Others on this panel are more qualified to discuss the subject as it relates to the much less productive grazing lands.

GUIDING PHILOSOPHY FOR FEDERAL RESPONSIBILITY

The ACIR staff paper asks, "What should be the guiding philosophy regarding federal financial responsibility for any impact of federal land ownership on state and local government activity?" It then sets forth several possible answers to its question, ranging from property tax equivalency (probably the most acceptable of the options presented) to a kind of paternalistic welfare approach (undoubtedly the least acceptable).

The paper fails to identify two additional options, either of which would be more acceptable than the most acceptable of those offered.

Partnership

Because the lands in question are often important and in some cases essential to the maintenance of healthy community economies, and because optimum utilization of the lands and their resources depends upon provision of state and local government facilities and services, the states and local governments may be considered "partners" with the federal government in planning and managing the federal lands. This would suggest that states and local governments should at least be reimbursed for their costs (including tax losses) on land which produces no economic returns from resource utilization, and with respect to productive lands, should in addition, receive shares of revenues which would be designed as an incentive to invest in facilities and programs which enhance resource utilization.

My county has spent millions of dollars developing a road system to accommodate the needs of the federal timber lands. We did this on the premise that we would share in the increased cash receipts and indirect benefits, i.e., employment, recreation, water, etc. I know that without this cooperative relationship (county-federal) the National Forests in my county would not be as productive and responsive to the nation's forest product needs as they are today.

Full Tax Equivalency

If partnership is rejected as a "guiding philosophy," the only fair alternative is to treat the federal lands as though they were in private ownership, for the purpose of determining the scope of the federal obligation. This would require consideration of the *total* impact of federal ownership, including the impact upon state government as well as the impact upon local government. This would suggest a system of payments in lieu of state income taxes and state business and occupation taxes which would be collected if the federal owners were subject to these taxes on the same basis as private owners. It would also require payment of *full* property tax equivalents to local governments as well as local government income and business taxes lost because of federal ownership.

That we continue to receive temporizing suggestions from federal sources (such as Alternatives a, b, c, d and e of the ACIR paper) is perhaps the result of failure to appreciate the significance of the historic change that has occurred in public lands policy. In the days when the federal government's policy was to dispose of the public domain to private owners, problems of intergovernmental relations with respect to public lands could be regarded as of minor importance because the federal ownership was seen as transitory. It is now public policy that, with minor exceptions, the federal lands are to be retained and managed in the public interest. This change in policy makes it mandatory that intergovernmental relations with respect to the lands be defined on an equitable basis.

Alternative "a," "tax equivalency," as suggested above, is only partly on target. It assumes that the federal obligation is toward local government only, and then only with respect to *property* taxes. If intergovernmental tax immunity is to serve as the context for this discussion, then fairness demands that the tax losses of states as well as local governments be considered, and that losses of forms of taxation other than the property taxes also be reimbursed.

Alternatives "b" and "c," which suggest that the federal obligation should be measured or adjusted with reference to presumed "benefits" and "burdens" associated with the federal ownership, overlap question number two of the paper, and will be addressed below.

Alternative "d" confuses the issue of payments in lieu of taxes on behalf of federal land ownership with the total problem of intergovernmental fiscal relations. The maintenance of adequate state and local government fiscal capacity is a big problem that cannot be dealt with solely in the context of federal land ownership, even where federal land ownership may be a significant single factor. States and local governments in public land areas participate in general revenue sharing, block and categorical grant programs, and various state-local fiscal arrangements and the question of their overall fiscal adequacy must be addressed in the context of the total intergovernmental fiscal system. To demonstrate that the fiscal needs of a county cannot be tied alone to federal land ownership please refer to *Exhibit A*. You will note that the costs of general county government have risen at a much faster rate than the receipts from the National Forests paid to the county.

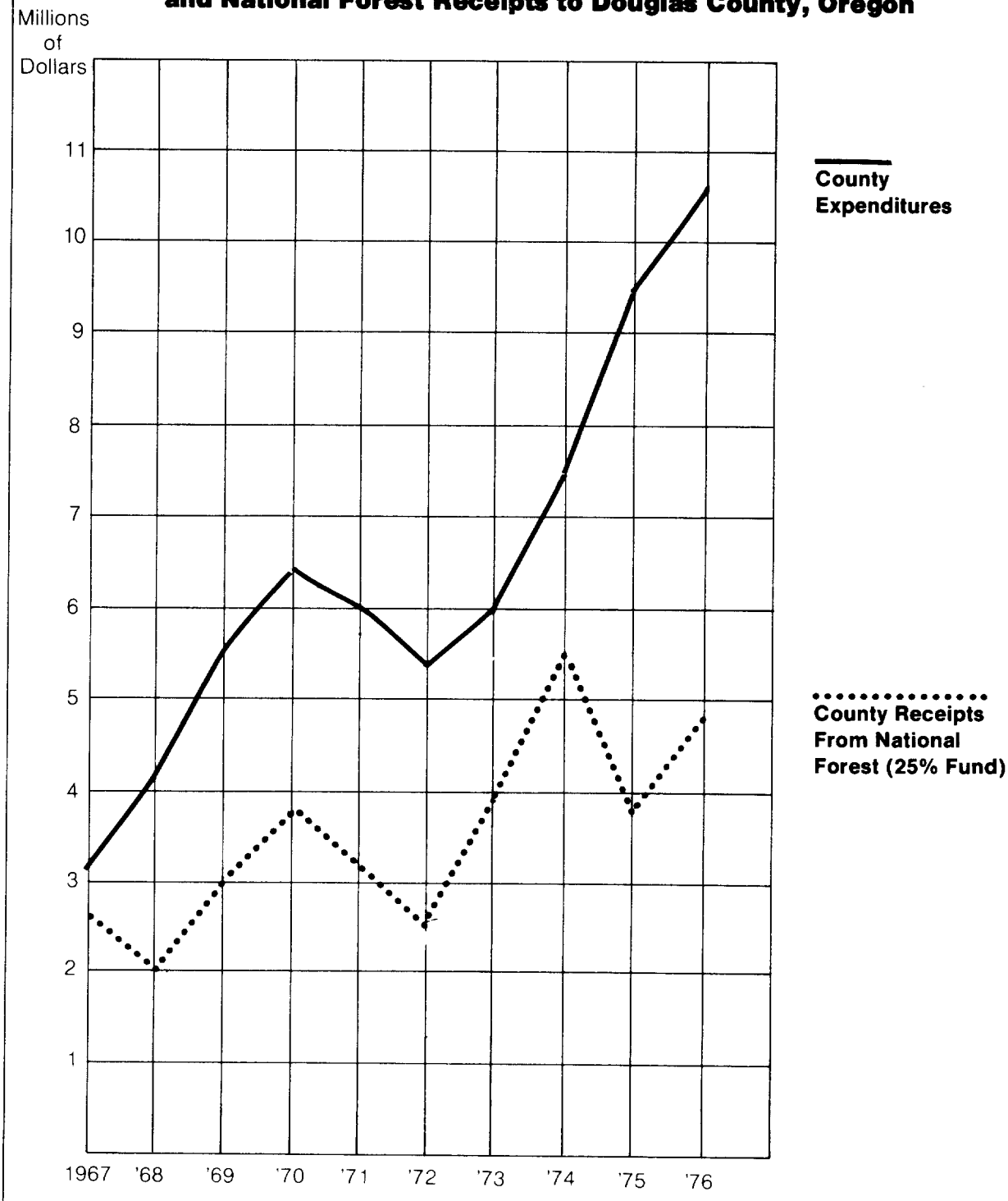
Alternative "e" assumes that the problem of federal land-related payments to states and local governments is a matter of feelings rather than facts. Such a position reflects an incredible ignorance of history, public land policy and governmental finance, and is not even worthy of extended comment.

THE "BURDEN-BENEFIT" THEORY OF FEDERAL LAND-RELATED PAYMENTS

One of the more persistent myths which recurs in the literature of this issue is that the

EXHIBIT "A"

Trends of County General Fund* Expenditures and National Forest Receipts to Douglas County, Oregon



*General Fund does not include Public Works or other special funds i.e., schools, library, fair, sewer, etc.

federal obligation should somehow be measured or adjusted in recognition of presumed "burdens" and/or "benefits" of federal ownership. Simply put, the answer to this particular assertion is that:

1) the problem arises from the doctrine of intergovernmental tax immunity first developed by John Marshal in *McCulloch v. Maryland,* which was decided in 1819, long before the advent of contemporary federal land policies;

2) any payment in lieu of taxes system designed to compensate for the decision to retain the public lands in permanent federal ownership should treat the federal lands "as if" privately owned; and

3) private owners do not receive any adjustment on their state or local government tax bills by virtue of "benefits" or "burdens" associated with the ownership and management of their lands, and the federal government should be treated in exactly the same way.

To illustrate the irrelevancy of the burden-benefit approach, consider the situation of one large private timberland owner in the State of Oregon. This particular firm has 281,159 acres in a unit located in three western Oregon counties. On these acres the firm has 1,715 miles of its own private roads—built and maintained without any participation from the county or the state. (Of course, it also uses county, city and state roads, streets and highways in conjunction with its operations.) The only fire protection services the unit receives from public sources is financed by a special assessment *over and above ad valorem taxes,* and the company's cost last year for fire protection (the assessment plus the cost of approximately seven full-time equivalent direct employees) was about $188,072. The firm supplements county police protection with its own security personnel, and the approximate cost of supplementary security last year was another $10,000.00.

Virtually all of this firm's land is open to the public year around (except fire bans) and the company estimates that there are about 5,000 user-days annually on this unit for such purposes as hunting, sightseeing, fishing and hiking. In addition, the company maintains one public park facility in the unit, and budgeted $2,870 for park maintenance last year. Many other public values are created as an incident to this company's land ownership and management, including the general aesthetic and scenic value of open space, the protection of public watershed values that comes with proper forest land management, and the protection of fish and wildlife resources. Many of these activities are required to comply with Oregon's *Forest Practices Act,* and other states have similar requirements.

In sum, in this particular holding, which is quite comparable in size and location to National Forest units in the same area, the company builds and maintains many of the roads required for its operations, pays the full cost of fire protection (over and above its ad valorem taxes) supplements other public services with its own expenditures for policing and park facilities, allows public recreational use of most of its lands at no charge, incurs special expenditures in connection with its timber management program to enhance public values such as watershed and wildlife protection, and *still* pays full ad valorem taxes on its land, standing timber, inventories, buildings and equipment.

Obviously, private owners of scattered small tracts of timber do not provide as full a range of public benefits as the large ownership cited, although they are subject to the *Forest Practices Act* and do contribute to aesthetic and recreational amenities. Nevertheless, it seems appropriate to compare the National Forest ownership not with the small scattered tract owners but rather with the private owners of large blocks of timber land, and the case cited above is typical of this class of ownership.

The conclusion seems inescapable that burdens and benefits should be ignored in federal land-related payments to states and local governments, just as they are ignored with respect to private lands. Taxation is simply not related to burdens and benefits in the private sector, and payments in lieu of taxes in the public sector should be handled the same way.

POSSESSORY INTEREST TAXATION

The third question in the ACIR staff paper asks, "Should states authorize the taxation of private interests in National Forests and share the proceeds with localities?" It's a fair question, and many local government officials would agree that the possessory interest in federal lands and resources should be taxable. Subjecting these values to taxation would probably require state legislation in Oregon. However, the ACIR should be reminded that even if all possessory interests in National Forest lands and resources were taxed, the additional taxes would represent only a small fraction of the potential if all National Forests were treated on a full tax equivalent basis. Most of the values of the National Forests are not "possessed" by private interests at any given time, and the *problem remains* of developing an equitable system of shared revenues or payments in lieu of taxes with respect to values remaining in federal ownership and possession. The failure of many states to allow possessory interest taxation does not, as alleged in the ACIR paper, "undercut" the argument in favor of an improved system, or if it does "undercut" it is only a barely perceptible slice.

ROLE OF THE STATES

In addressing the fourth question, "Should federal payments be made to the state governments for use as they think best including, perhaps, distribution to localities?" it is necessary to clarify, at the outset, that the states already do determine how National Forest revenues are to be distributed, within the federal statutory constraint that they be used "for the benefit of the public schools and public roads of the county or counties in which such national forest is located." Because of the role already prescribed for the states by the federal statute, a wide variety of formulas for distribution of National Forest revenues has been developed.

The ACIR's question goes beyond the present arrangement, however, by suggesting that states be given complete discretion on the use of National Forest revenues. While the paper makes a valid point in noting that some state school aid formulas may discriminate in favor of localities that receive National Forest payments, some kind of mandatory pass-through to local governments would remain essential if the "guiding philosophy" is to be one of reimbursing for tax losses. After all, there is nothing to prevent the states from revising their state school support formulas at the present time if they in fact discriminate against non-National Forest localities. Such adjustments would not be inconsistent with retaining the mandatory local government pass-through.

As a further observation, any equitable system of federal land-related revenue sharing or payments in lieu of taxes would compensate for tax losses to state governments, as suggested above. Any payments to states for lost income or business taxes, etc., should clearly be made without restriction as to use.

PRACTICAL PROBLEMS

The ACIR paper asks "What are the practical problems with the current program?" and mentions fluctuations of the payments and varying Forest Service-county arrangements for road construction and maintenance. While the first issue is relevant to the issue at hand the second reflects the irrelevant burden-benefit theory which has been discussed and hopefully discredited above. Payment fluctuation may be an issue in some areas, although in general the payments tend to fluctuate in accordance with the rise and fall of timber harvesting activities in the affected communities and it may be that this responsiveness is a strength rather than a weakness of the formula, since the need for public services in many of these small communities may also be cyclical in nature.

One additional practical problem which should be considered in any revision of the present statute is the need to provide for more frequent payment of the state and county share. The present federal statute requires that the payments be made "at the end of such year," and this has been interpreted to mean annual payments only. The states and counties are thus deprived of interest earnings on money to which they are entitled. Provision should be made for payment on a quarterly basis at least, and perhaps even monthly payments should be considered.

GENERALIZABILITY OF THE NATIONAL FOREST FORMULA

Several bases upon which to distinguish, at least in part, some or all of the National Forest lands from other federal lands can be identified. Among these bases are the historical circumstances by which federal ownership was acquired and the extent to which the lands produce revenue from resource utilization. With due regard to these and perhaps other relevant considerations, however, it seems clear that policies developed for the National Forests could be a model upon which to approach reconsideration of the many other federal land payments systems. This is not to suggest that a single formula could equitably apply to all categories of federal land, but only that more consistent policies could be developed in a way that would be sufficiently responsive to relevant differences.

Part III

Discussion

The discussion between the participants and the Commission members concerning the formal testimony is summarized here.

Doerner contended that counties have a good understanding of conservation and therefore the current revenue sharing program should not be criticized for the incentives implicit in the program; namely, that since payments to counties are related to the amount of timber production, counties have a vested interest in the Forest Service managing the forests to increase timber production. In fact, the payment method creates an incentive to counties to make the National Forests more productive, he argued; for example, by their road building patterns.

Doerner also observed that from the national perspective, expenditures for the National Forests should be seen as long-term investments. The current procedure of annual budgeting, in which the Forest Service must compete for funds, is not conducive to sound forest management practices.

Kinney remarked that the police, fire and road costs that the witnesses described as being related to federal ownership surely have no necessary relationship to the value of timber production in an area; therefore the current program is not likely to be equitable. He also observed that the payments are contrary to the national trend of leveling out financial resources.

During the discussion of the police protection costs that federal ownership may induce, *Nelson* noted that a separate federal program exists which reimburses counties for such costs, the Cooperative Law Enforcement Payment program.

Considerable attention was given to the question of increasing the timber harvests from the National Forests on a sustained yield basis. Several of the participants claimed that the forests could be managed to increase significantly the timber harvests. In response to several questions, *Nelson* answered that it was technically feasible to double the timber production from the National Forests. He explained the *Resources Planning Act* which establishes a substantial process for presenting Congress with analyses of alternative timber management policies.

Kirkmire emphasized the effect on the local economy of where timber production takes place. He criticized the government for emphasizing timber production in the far west while neglecting the Rocky Mountain states, which he said, have the potential to be as productive as the west. He blamed financing procedures for some of the problems. To make the Rocky Mountain areas more productive would require increased expenditures for years before there would be increased harvests. The feasible sale guide used by the Forest Service requires that the sale price at least

equals the costs to the government of selling. It prohibits harvesting much of the timber in the Rocky Mountains, thus precluding the planting of new more productive stands.

There also was further discussion concerning the yield tax in California that *Keene* had described in his testimony. The yield tax is applied as a percentage of the value of the timber harvest and includes taxing the harvest from the National Forests. The discussion focused on who ultimately benefits from, and who finally bears the burden of, the tax. It may be that the prices bid for timber are reduced by the amount of the tax thus reducing the federal government's net income by 75% of the tax amount and raising the counties' income by the same figure (the other 25% is the amount of reduced income that would have been distributed to counties). *Kirkmire* suggested, however, that the timber purchasers may bear some of the tax depending on competitive situations at the time.

There was some discussion concerning a full fledged tax equivalency program. *Stephenson* contended that true equity can be found only in such an approach. He acknowledged that others who reviewed this approach found the administrative difficulties to be great. But, he contended, such an approach is feasible especially considering the recent improvements in property tax administration among state and local governments.

Appendix B

A Comparison of Selected Features of the National Forest and the Public Land Counties and the Corresponding Control Groups

The comparative county approach used to analyze the fiscal impact of National Forest land *(Chapter V)* and public land *(Chapter VI)* relies upon the selection of a group of counties which are similar to the study group, but have little public land. In addition, counties selected for the control group were examined for: geographic location, population size, percent of population in urban areas, average family income, and total land in square miles. These factors, too, are traditionally associated with local fiscal behavior.

While many factors influence the fiscal behavior of local governments and these factors vary across the country, the large number of counties in the control group attempts to account for these differences. This explains why the control group must be selected on a nationwide rather than a statewide basis. In certain states, there are few comparable counties with little public land. Any comparison between public land counties in these states and the few counties available for the control group would be misleading.

NATIONAL FOREST CONTROL GROUP

Tables B1 and *B2* compare selected features of the National Forest counties and the two control groups used in *Chapter V. Table B1* presents the geographic distribution of the three groups. Recall from *Chapter V* that Region 1 includes Montana and North Dakota; Region 2—Colorado, Kansas, Nebraska, South Dakota, Wyoming; Region 3—Arizona and New Mexico; Region 4—Idaho, Nevada, and Utah; Region 5—California; Region 6—Oregon and Washington; Region 8—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia; and Region 9—Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, and Wisconsin.

The National forest counties are distributed among the regions so that the lowest percentage—5.2% of the counties (34)—are located in Region 3 and the highest percentage—35.8% (233)—are in Region 8. There is a geographic shift when the distribution of private commercial forest counties is compared to the distribution of National Forest counties. Region 3 still has the lowest percentage and Region 8 the highest. Region 9, however, has gained in significance (18.4% vs. 36.5%). This shift is even more dramatic when the geographic distribution of private, commer-

Table B1

PERCENTAGE DISTRIBUTION OF THREE SELECTED SAMPLES OF SUBSTATE FISCAL DATA ACROSS GEOGRAPHIC AREAS

Region	National Forest Counties (N = 652)	Commercial Forest Counties (N = 2,631)	Commercial Forest Counties Adjusted for Public Land (N = 1,505)
1	5.4%	3.4%	.3%
2	10.9	11.0	9.7
3	5.2	1.1	.7
4	9.5	2.4	.5
5	6.0	1.7	.1
6	8.8	2.5	.1
8	35.8	41.4	42.2
9	18.4	36.5	46.3
TOTAL	100.0%	100.0%	100.0%

[a]Counties have less than 10% of National Forest land *and* less than 10% of other (non-National Forest) public land.
SOURCE: ACIR staff calculation.

cial forest counties is adjusted for public land. Region 9 now has 46.3% of the counties.[1] This means that 54.2% of the National Forest counties are in Regions 8 and 9 while 77.9% of the private commercial forests and 88.5% of the private, commercial forest counties are in the same two regions.

Since western National Forest counties are being compared to eastern and southern private, commercial forest counties, there may be a legitimate concern that any imposed expenditure effect realized in a western National Forest county would not be discernible when it is compared to the private, commercial forests in the apparently higher tax eastern region. Two characteristics of eastern counties should serve to alleviate much of the concern. First, 54% of the private commercial forest land in the eastern region is located in states with below average per capita revenue levels.[2] Second, the increased share of southern states means an overall increase in the number of low revenue counties. Therefore, any imposed expenditure effects should reveal themselves when the National Forest counties are compared to the two control groups. In fact, the comparative approach has produced a list of counties which *may* exhibit imposed expenditure effects. These are discussed in *Chapters V and VI.*

Table B2 presents a comparison of selected variables from the three subsets of substate fiscal data cited in *Chapter V.* This includes the National Forest counties (NFC), private commercial forest counties (PCFC), and private commercial forest counties adjusted for public land (APCFC). The PCFC and APCFC subsets were selected to be similar to the NFC data with respect to percent of population in urban areas (NFC: 30.2%, PCFC: 33.5%, APCFC: 35.1%); average family income (NFC: $7,262, PCFC: $7,467, APCFC: $7,282); and population (NFC: 52,330, PCFC: 53,380, APCFC: 57,751.) The geographic and selected demographic variables must be similar for the comparative county approach to be effective. *Table B2* shows that the revenue, expenditures, and intergovernmental transfers are similar across the three subsets.

Table B2

A COMPARISON OF SELECTED VARIABLES FROM THREE SUBSETS OF SUBSTATE FISCAL DATA

Variables	National Forest Counties (N = 652)	Private Commercial Forest Counties (N = 2,631)	Commercial Forest Counties Adjusted for Public Land[a] (N = 1,505)
Extensiveness of Forest Land	21.0%	10.2%	9.2%
Per Capita Property Taxes	$155	$148	$150
Per Capita Own Source Revenues	$238	$228	$230
Local Tax Effort	12.5%	12.0%	12.1%
Per Capita Expenditures	$370	$344	$388
Per Capita Fire Protection Expenditures	$3.48	$3.54	$3.55
Per Capita Police Protection Expenditures	$12.22	$10.62	$10.47
Per Capita Highway Expenditures	$35.02	$30.94	$29.49
Per Capita Intergovernmental Transfers	$184	$162	$151
Own Source Revenues as a Percent of Expenditures	59.3%	51.2%	54.6%
Percent Population in Urban Areas	30.2%	33.5%	35.1%
Average Family Income	$7,262	$7,467	$7,282
Population	52,330	53,380	57,751
Total Land (Square Miles)	17,154	8,853	7,438

[a]Counties have less than 10% National Forest land *and* less than 10% other (non-National Forest land) public land.
SOURCE: ACIR staff calculation.

PUBLIC LAND CONTROL GROUP

Tables B3 and B4 present identical background information about the public land counties and the comparison group. The geographic distribution in *Table B3* shows that the lowest percentage of public land counties is in Region 3 (1.2% or 14 counties) and the highest percentage is in Region 8 (42.1% or 504 counties). The comparison group shows a similar geographic distribution although Region 9 increases its proportion from 21.0% to 32.3%. This shift does not appear to bias the results from the comparative approach.

Table B4 shows that the public land counties (PLC) and the comparison counties (CC) are similar with respect to percent of the population in urban areas (PLC: 34.0%; CC: 35.3%); and average family income (PLC: $7,395, CC: $7,298). The public land counties *on average* are more populated (64,020 vs. 48,046) and command a larger land area. In general, the public land counties tax and spend slightly more than the comparison group and receive high per capita intergovernmental revenues.

Table B3

PERCENTAGE DISTRIBUTION OF TWO SELECTED SAMPLES OF SUBSTATE FISCAL DATA ACROSS GEOGRAPHIC AREAS

Region	Public Land Counties (N = 1,529)	Counties With Population Below 50,000 Public Land Less Than 5% of Area (N=2,008)
1	8.6%	2.7%
2	13.8	12.7
3	1.2	1.4
4	2.4	2.7
5	4.7	.1
6	6.2	.6
8	42.1	47.5
9	21.0	32.3
TOTAL	100.0%	100.0%

SOURCE: ACIR staff calculation.

This information on the National Forest comparison group and the public land comparison group should assist any thorough evaluation of the comparative county approach and ultimately strengthen the analysis in *Chapters V* and *VI*.

Table B4

A COMPARISON OF SELECTED VARIABLES FROM TWO SUBSETS OF SUBSTATE FISCAL DATA

Variables	Public Land Counties (N = 1,529)	Counties With Population Below 50,000 Public Land Less Than 5% of Area (N=2,008)
Extensiveness of Public Land	14.6%	.3%
Per Capita Property Taxes	$161	$149
Per Capita Own Source Revenues	$247	$230
Local Tax Effort	13.0%	12.1%
Per Capita Expenditures	$364	$338
Per Capita Fire Protection Expenditures	$3.67	$3.59
Per Capita Police Protection Expenditures	$11.90	$10.44
Per Capita Highway Expenditures	$34.92	$30.00
Per Capita Intergovernmental Transfers	$169	$151
Own Source Revenues as a Percent of Expenditures	52.0%	54.4%
Percent Population in Urban Areas	34.0%	35.3%
Average Family Income	$7,395	$7,298
Population	64,020	48,046
Total Land (Square Miles)	12,812.9	7,275.3

SOURCE: ACIR staff calculation.

FOOTNOTES

[1]The Forest Service publishes basic information on the production of timber. See U.S. Department of Agriculture, Forest Service, *The Timber Outlook in the United States*, Washington, DC, U.S. Government Printing Office, 1974, pp. 1-15.

[2]U.S. Department of Commerce, Bureau of Census, *Statistical Abstract of the U.S., 1976*, Washington, DC, U.S. Government Printing Office, 1976, p. 267.

Appendix C

The Evaluation of the Impact of the National Forests on County Government Finances

This appendix examines the need, prior to 1976, for additional federal compensation for National Forest land by asking questions about revenues, expenditure, and intergovernmental aids. Since the conclusions of the county government analysis is similar to the analysis in *Chapters V* and *VI,* the appendix will present the question, the conclusion, and the county financial information.

First, does the extensiveness of National Forest land with a jurisdiction influence the tax burden of the people who reside within that jurisdiction? The federal ownership may deny the county the use of its potential tax base. The result is that the county government is unable to raise desired revenues or can only do so with a substantial tax effort.

Tables C1 through *C6* present fiscal data for county governments. *Tables C1 and C2* show the county per capita property tax information; *Tables C3 and C4* county per capita own source revenue levels; and *Tables C5* and *C6* county tax effort data. The examination of the data in these tables shows no pattern which satisfies the three statistical tests explained in the methodology section.

While no general pattern appeared which would substantiate the problem, it should be noted that the counties with the most extensive (15% and higher) National Forest land showed the predicted characteristics slightly out of proportion to what would be expected if there were no revenue problem associated with the National Forest land. These few counties do not substantiate a general problem, although this finding may indicate that the receipt sharing program gives inadequate reimbursement to some of the counties with the most extensive National Forest land.

Second, does the extensiveness of the National Forest land within a jurisdiction influence the expenditures of county government? Federal ownership of the National Forest may add to general operating expenditures or specific categories of expenditures because of spillover costs. Even if the total expenditure level is unaffected, the spillover costs of the National Forest could increase the relative budget share of particular expenditure items (e.g., law enforcement and highways) at the expense of other county services.

Tables C7 through *C11* present county government general and specific per capita expenditure data stratified by the extensiveness of National Forest land. *Tables C7* and *C8* show per capita general expenditures; *Table C9* presents per capita fire protection expenditures; *Table C10* per capita police protection expenditures; and *Table C11* per capita highway expenditures. The conclusions from the data analysis are consistent with those of *Chapter V.*

The analysis of per capita general expenditures, fire and police protection expenditures, and highway expenditures reveals no systematic grouping as the denied tax base

and imposed expenditure effects would require. Where high concentration National Forest counties did exhibit potential adverse fiscal effects of the National Forest, state and federal aids appeared to offset the fiscal consequences. The overall expenditure evidence does not support the contention that an imposed expenditure problem exists.

While no general pattern appeared which would substantiate the problem, it should be noted that the counties with the most extensive (15% and higher) National Forest land showed the predicted characteristics slightly out of proportion to what would be expected if there were no imposed expenditure problem associated with the National Forest land. These few counties do not substantiate a general problem, although this finding may indicate that the receipt sharing program gives inadequate reimbursement to some of the counties with the most extensive National Forest land.

Third, do the federal and state intergovernmental transfers to county governments provide aid to National Forest counties so that they are able to pay any alleged imposed expenditures? Federal and state governments distribute considerable assistance to counties which may counter any negative fiscal consequences of federal ownership.

Tables C12 through *C14* present county aid information stratified by the extensiveness of National Forest land. *Table C12* looks at per capita federal and state aids; *Table C13* per capita highway aids; and *Table C14* the ratio of own source revenues to expenditures.

Once again, the conclusion of the county government data analysis is similar to the conclusion reached in *Chapter V.* In the minority of National Forest counties which exhibit the denied tax base and imposed expenditure characteristics, federal and state intergovernmental aids to county governments are relatively higher. Federal and state aids to the National Forest counties are greater (on a per capita basis) than aid to other county governments. Since these aids are higher to National Forest counties and no fiscal problem is discernible, the evidence does not support the claim that an unreimbursed fiscal problem existed prior to 1976.

There are counties (with 15% or more National Forest land) which disproportionately show the predicted revenue and expenditure characteristics. Although the existing aid programs apparently respond to the problem in these counties, they are not sufficient to alleviate entirely the additional tax effort these counties make.

Table C1

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA PROPERTY TAXES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Property Tax Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$20 or Less	682	55	34	24	78	191	873
$20-$35	650	37	29	16	71	153	803
$35-$50	353	19	10	8	55	92	445
$50-$65	282	14	8	7	32	61	243
$65 or More	486	24	13	19	99	155	641
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Property Taxes	$45	$43	$38	$45	$60	$51	$46

SOURCE: ACIR staff calculation.

Table C2

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY PER CAPITA PROPERTY TAX LEVELS

1972 Per Capita Property Tax Level	National Forest Counties (N = 652)	Private Forest Counties With Public Land (N = 2,631)	Private Forest Counties Adjusted for Public Land (N = 1,505)
$20 or Less	29.3%	28.1%	28.0%
$20-$35	23.4	27.2	30.5
$35-$50	14.1	15.1	15.7
$50-$65	9.4	11.7	11.7
$65 or More	23.8	17.9	14.1
TOTAL	100.0%	100.0%	100.0%

SOURCE: ACIR staff calculation.

Table C3

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA OWN SOURCE REVENUE AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Own Source Revenue Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$30 or Less	577	39	34	18	60	151	728
$30-$55	622	40	24	15	67	146	768
$55-$80	451	28	10	15	80	133	584
$80-$105	318	13	12	10	33	68	386
$105 or More	485	29	14	16	95	154	639
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Own Source Revenues	$72	$72	$64	$77	$93	$81	$74

SOURCE: ACIR staff calculation.

Table C4

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY PER CAPITA OWN SOURCE REVENUE LEVELS

Per Capita Own Source Revenue Level	National Forest Counties (N = 652)	Private Forest Counties (N = 2,631)	Private Forest Counties Adjusted For Public Land (N = 1,505)
$30 or Less	23.2%	23.8%	23.5%
$30-$55	22.4	25.6	28.2
$55-$80	20.4	19.7	18.8
$80-$105	10.4	12.8	13.6
$105 or More	23.6	18.1	15.8
TOTAL	100.0%	100.0%	99.9%

SOURCE: ACIR staff calculations.

Table C5

DISTRIBUTION OF COUNTY GOVERNMENTS BY COUNTY TAX EFFORT AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

County Tax Effort Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
1.5% or Less	621	31	27	10	48	116	737
1.5%-2.7%	561	38	20	23	69	150	711
2.7%-4.2%	472	29	17	12	77	135	607
4.2%-5.7%	339	16	11	16	52	95	434
5.7% and Above	460	35	19	13	89	156	616
TOTAL	2,453	149	94	74	335	652	3,105
Mean Tax Effort	3.7%	4.0%	3.6%	4.1%	4.7%	4.3%	3.9%

SOURCE: ACIR staff calculation.

Table C6

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY LOCAL TAX EFFORT LEVELS

County Tax Effort Level	National Forest Counties (N = 652)	Private Forest Counties (N = 2,631)	Private Forest Counties Adjusted For Public Land (N = 1,505)
0-1.5%	17.8%	22.6%	23.8%
1.5%-2.7%	23.0	24.1	24.6
2.7%-4.2%	20.7	20.3	21.0
4.2%-5.7%	14.6	14.5	13.6
5.7% and Above	23.9	18.5	17.0
TOTAL	100.0%	100.0%	100.0%

SOURCE: ACIR staff calculation.

Table C7

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Expenditure Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$45 or Less	720	36	27	22	50	135	855
$45-$85	632	52	27	14	76	169	801
$85-$125	344	16	14	8	52	90	434
$125-$165	253	14	8	8	40	70	323
$165 or More	504	31	18	22	117	188	692
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Expenditure	$102	$99	$101	$118	$151	$127	$108

SOURCE: ACIR staff calculation.

Table C8

COMPARISON OF THE PERCENTAGE DISTRIBUTION OF NATIONAL FOREST COUNTIES AND PRIVATE FOREST COUNTIES BY PER CAPITA EXPENDITURES

1972 Per Capita Expenditure Level	National Forest Counties (N = 652)	Private Forest Counties With Public Land (N = 2,631)	Private Forest Counties Adjusted for Public Land (N = 1,505)
$45 or Less	20.7%	20.3%	28.6%
$45-$85	25.9	24.1	27.6
$85-$125	13.8	24.0	14.2
$125-$165	10.7	11.1	10.7
$165 or More	28.8	20.4	18.9
TOTAL	99.9%	99.9%	100.0%

SOURCE: ACIR staff calculation.

Table C9

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA FIRE PROTECTION EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Fire Protection Expenditure Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
None	1,653	100	59	47	209	415	2,068
$.20 or Less	343	18	9	7	41	75	418
$.20-$.45	133	10	7	8	30	55	188
$.45-$.70	97	5	8	5	14	32	129
$.70 or More	227	16	11	7	41	75	302
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Fire Protection Expenditure	$.33	$.26	$.48	$.21	$.37	$.34	$.33

SOURCE: ACIR staff calculation.

Table C10

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA POLICE PROTECTION EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Police Protection Expenditure Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$1.50 or Less	536	38	22	9	45	114	650
$1.50-$2.75	760	30	23	18	49	120	880
$2.75-$4.00	557	28	18	15	51	112	669
$4.00-$5.25	209	20	9	8	46	83	292
$5.25 or More	391	33	22	24	144	224	615
TOTAL	2,453	149	94	74	225	652	3,105
Mean Per Capita Police Protection Expenditure	$3.67	$3.55	$3.99	$4.98	$6.79	$5.45	$4.40

SOURCE: ACIR staff calculation.

Table C11

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA HIGHWAY EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Highway Expenditure Level	No National Forest Land	Extensiveness of National Forest Land (Percent) 0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
$4 or Less	493	30	19	14	54	117	610
$4-$14	603	39	23	27	53	142	745
$14-$24	584	37	26	13	77	153	737
$24-$34	273	23	9	7	40	79	352
$34 or More	500	20	17	13	111	161	661
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Highway Expenditure	$21.32	$18.49	$19.65	$18.90	$35.60	$27.36	$22.61

SOURCE: ACIR staff calculation.

Table C12

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA FEDERAL AND STATE AIDS AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

Per Capita Federal and State Aid Level	No National Forest Land	Extensiveness of National Forest Land (Percent)					
		5% and Less	5%-10%	10%-15%	15% and Above	Subtotal	Total
$8 and Less	582	23	13	15	44	95	677
$8-$20	473	37	18	18	49	122	595
$20-$32	407	40	18	9	52	119	526
$32-$44	321	23	18	13	35	89	410
$44 or More	670	26	27	19	155	227	897
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Federal and State Aids	$34.72	$31.54	$39.88	$39.24	$66.76	$51.80	$38.28

SOURCE: ACIR staff calculation.

Table C13

DISTRIBUTION OF COUNTY GOVERNMENTS BY PER CAPITA FEDERAL AND STATE HIGHWAY AIDS AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

1972 Per Capita Highway Aid Level	No National Forest Land	Extensiveness of National Forest Land (Percent)					
		0-5%	5%-10%	10%-15%	15% and Above	Subtotal	Total
None	294	24	12	11	51	98	392
$6 or Less	660	26	18	19	39	102	762
$6-$16	633	48	26	25	68	167	800
$16-$26	326	28	15	7	44	94	420
$26 or More	540	23	23	12	133	191	731
TOTAL	2,453	149	94	74	335	652	3,105
Mean Per Capita Highway Aids	$16.26	$15.20	$18.21	$13.82	$33.70	$25.03	$18.09

SOURCE: ACIR staff calculation.

Table C14

DISTRIBUTION OF COUNTY GOVERNMENTS BY THE RATIO OF OWN SOURCE REVENUES TO EXPENDITURES AND BY EXTENSIVENESS OF NATIONAL FOREST LAND WITHIN A COUNTY

Ratio of Own Source Revenues to Total Local Expenditures	No National Forest Land	Extensiveness of National Forest Land (Percent)					
		5% and Less	5%-10%	10%-15%	15% and Above	Subtotal	Total
.50 and Less	600	40	38	12	134	224	824
.50-.60	311	17	17	15	40	89	400
.60-.70	358	20	13	14	48	165	523
.70-.80	420	36	11	17	38	102	522
.80 or More	764	36	15	16	75	142	906
TOTAL	2,453	149	94	74	335	652	3,105
Mean Ratio of Own Source Revenues to Expenditures	.65	.63	.56	.66	.56	.58	.64

SOURCE: ACIR staff calculation.

Appendix D

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what is ACIR?

The Advisory Commission on Intergovernmental Relations (ACIR) was created by the Congress in 1959 to monitor the operation of the American federal system and to recommend improvements. ACIR is a permanent national bipartisan body representing the executive and legislative branches of Federal, state, and local government and the public.

The Commission is composed of 26 members—nine representing the Federal government, 14 representing state and local government, and three representing the public. The President appoints 20—three private citizens and three Federal executive officials directly and four governors, three state legislators, four mayors, and three elected county officials from slates nominated by the National Governors' Conference, the Council of State Governments, the National League of Cities/U.S. Conference of Mayors, and the National Association of Counties. The three Senators are chosen by the President of the Senate and the three Congressmen by the Speaker of the House.

Each Commission member serves a two year term and may be reappointed.

As a continuing body, the Commission approaches its work by addressing itself to specific issues and problems, the resolution of which would produce improved cooperation among the levels of government and more effective functioning of the federal system. In addition to dealing with the all important functional and structural relationships among the various governments, the Commission has also extensively studied critical stresses currently being placed on traditional governmental taxing practices. One of the long range efforts of the Commission has been to seek ways to improve Federal, state, and local governmental taxing practices and policies to achieve equitable allocation of resources, increased efficiency in collection and administration, and reduced compliance burdens upon the taxpayers.

Studies undertaken by the Commission have dealt with subjects as diverse as transportation and as specific as state taxation of out-of-state depositories; as wide ranging as substate regionalism to the more specialized issue of local revenue diversification. In selecting items for the work program, the Commission considers the relative importance and urgency of the problem, its manageability from the point of view of finances and staff available to ACIR and the extent to which the Commission can make a fruitful contribution toward the solution of the problem.

After selecting specific intergovernmental issues for investigation, ACIR follows a multistep procedure that assures review and comment by representatives of all points of view, all affected levels of government, technical experts, and interested groups. The Commission then debates each issue and formulates its policy position. Commission findings and recommendations are published and draft bills and executive orders developed to assist in implementing ACIR policies.