

Utah State University

DigitalCommons@USU

All Graduate Theses and Dissertations

Graduate Studies

5-1998

The Economic Impact of Federal Land on Country Governments in Utah

Daniel C. Hope

Follow this and additional works at: <https://digitalcommons.usu.edu/etd>



Part of the [Economics Commons](#)

Recommended Citation

Hope, Daniel C., "The Economic Impact of Federal Land on Country Governments in Utah" (1998). *All Graduate Theses and Dissertations*. 3908.

<https://digitalcommons.usu.edu/etd/3908>

This Thesis is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact digitalcommons@usu.edu.



THE ECONOMIC IMPACT OF FEDERAL LAND
ON COUNTY GOVERNMENTS IN UTAH

by

Daniel C. Hope

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Agricultural Economics

Approved:

E. Bruce Godfrey
Major Professor

Chris Fawson
Committee Member

Darwin B. Nielsen
Committee Member

James P. Shaver
Dean of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah

1998

ABSTRACT

The Economic Impact of Federal Land
on County Governments in Utah

by

Daniel C. Hope, Master of Science

Utah State University, 1998

Major Professor: Dr. E. Bruce Godfrey
Department: Economics

County governments cannot assess property taxes on federal land, yet local governments are required to provide similar services as they do on all other areas of the county. Federal government payment programs have been implemented to compensate county governments for the expenditures incurred due to federal land.

In the mid-1960s, the Public Land Law Review Commission implemented and completed a study which analyzed whether selected individual states and counties were being compensated for the expenditures incurred on federal land. It also estimated tax revenues local governments would receive if federally owned acreage was privately owned. The study then compared these potential revenues with existing revenues from government payment programs.

The purpose of this study was to identify net revenues from county government expenditures and revenues due to federally owned land for the years 1975 through 1990.

Comparisons were also made between estimated tax revenues, if federal land acreage was privately owned, and federal land-related government payment programs. Two Utah counties, Box Elder and Kane, were selected for this study. County government audit reports and other county records, along with information and data obtained from county and federal government personnel, were obtained and analyzed. Comparisons were made between these findings and the Public Land Law Review Commission mid-1960s results and conclusions. The results are opposite between the two counties and from the Public Land Law Review Commission study.

(84 pages)

ACKNOWLEDGMENTS

I would like to sincerely thank my major professor, Dr. E. Bruce Godfrey, for all his help, patience, and long suffering throughout the duration of my master's degree program.

I also thank the rest of my committee members for their willingness to help me complete the program.

I would like to thank my wife's parents, Mr. and Mrs. Ferron Sonderegger, for the use of their computer and all the support and prayers on my behalf.

I would like to express thanks to my parents, Mr. and Mrs. Lennis Hope, along with my brother, sisters, and their families, for all their prayers and support my whole life and the love, concern, encouragement, and faith they have always extended and had in me.

I extend a special thanks to my three sons, Dallin, Joshua, and Jordan, for their patience and unconditional love. I apologize to them for the many hours spent away from home while working to complete this study. I thank them for their enduring faith and hope in me.

I would most of all like to extend my greatest thanks and appreciation to my wife, Holly, for her love and neverending faith in me. I thank her for all her support and encouragement. She has suffered greatly during the many hours I have been away. I would have never been able to complete my thesis and master's degree without her.

Daniel C. Hope

CONTENTS

	Page
ABSTRACT	ii
ACKNOWLEDGMENTS	iv
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER	
I. INTRODUCTION	1
Justification	2
Objectives	4
II. LITERATURE REVIEW	5
III. PROCEDURES	12
Box Elder County	14
Kane County	16
State of Utah	16
Federal Departments/Agencies	17
IV. METHODOLOGY AND RESULTS	20
Box Elder County	20
Kane County	32
Overall Comparison with PLLRC	42
Private vs. Federal Ownership	47
V. SUMMARY AND CONCLUSIONS	55
REFERENCES	57
APPENDICES	58
Appendix A. Box Elder Table	59

Appendix B. Kane County Table	66
Appendix C. Letter from U.S. Dept of the Interior	73
Appendix D. Letter from U.S. Dept of Agriculture	75

LIST OF TABLES

Table	Page
1 Box Elder County Revenues and Expenditures for 1983 and 1990, Including Expenditures Due to Federal Land and Net Revenues	21
2 Inflation Rates--Compounded Annual Rates of Change of Consumer Prices for all Urban Consumers	23
3 Kane County Revenues and Expenditures for 1983 and 1990, Including Expenditures due to Federal land and Net Revenues	33
4 Kane County Weed Control on Federal Land	36
5 Box Elder County Acreage Ownership	45
6 Kane County Acreage Ownership	46
7 Population of Utah Counties in 1990	46
8 Utah Farmland Assessment Act Land Classification Schedule, Taxable Value per Acre by Classification	49
9 Estimated Tax Revenue with Private Ownership, Using Utah Farmland Assessment Act Land Valuations	49
10 Box Elder County Federal Land Estimated Tax Assessments if Privately Owned	50
11 Kane County Federal Land Estimated Tax Assessments if Privately Owned ...	51
A.1 Box Elder County Revenues and Expenditures for 1975-1990, Including Expenditures Due to Federal Land and Net Revenues	61
B.1 Kane County Revenues and Expenditures for 1975-1990, Including Expenditures Due to Federal Land and Net Revenues	68

LIST OF FIGURES

Figure	Page
1 Box Elder County net revenues due to federal land	31
2 Kane County net revenues due to federal land	41

CHAPTER I

INTRODUCTION

Federal land ownership has existed almost since the United States of America became a union. Since then, the percentage of U.S. land under federal ownership has varied greatly. Some 233.4 million acres of land lying westward to the Mississippi River were ceded to the central government by seven of the original states. During the following years, the United States acquired an additional billion acres of public domain through purchase and treaty. The last acquisition was the purchase of Alaska from Russia in 1867. At one time or another, nearly two billion acres of land in 32 states have been part of the public domain. At the present time, approximately 30% of the land in the United States is owned by the federal government, but federal land ownership has been close to 80%. While this percentage has varied over time, the federal government remains the largest single landowner in the United States.

Almost two centuries ago, the federal government began the practice of sharing revenues from the sale of public lands with the states. A century later, revenue sharing with respect to the resources from the public lands was implemented. Other government acts followed, such as the Mineral Leasing Act, which provided for the sharing of revenues received from rents, royalties, and bonuses from mineral leases. The Taylor Grazing Act also followed, which required grazing fees for using public lands and the sharing of a part of the revenues obtained from these grazing fees with the states. These types of compensation are usually referred to as revenue sharing (RS).

During the 1800s, the national government's policy with respect to federal lands was largely one of transferring publicly owned land to private ownership. In the early 1900s, many federal programs involving land acquisition by the federal government began to expand. These acquired lands removed acres of taxable land from state and county tax rolls. Congress responded to this problem by the enactment of statutes that authorized payments to local taxing authorities. The payments were roughly measured by the lost taxes associated with the acquired lands. These compensation payments are, in general, referred to as payments in lieu of taxes (PILT). The purpose of sharing revenues and PILT was to compensate state and local governments for the lost tax revenues due to the presence of untaxable federal lands.

Justification

Unlike the early 1900s, the cost of providing state and municipal services is very great today. This is especially true of the vast spaces and sparsely populated western public land states, which received relatively few outside visitors during the early 1900s. But, with the greatly increased mobility of American and foreign people, a dramatic change has occurred. This has resulted in increased numbers of visitors to public land areas from all over the country and world. These visitors require, as a minimum, the same services that are furnished to local citizens and sometimes more. The natural and expected effects of these changes in technology and lifestyles are that state and local government expenditure levels and revenue requirements have increased. However, the presence of public land may create benefits as well as burdens affecting all levels of government.

There have been much controversy and many debates on how much, if any, state and local governments should be compensated for the burdens of administering services with respect to these public lands. Some examples of services performed include law enforcement, fire protection, and road maintenance. Debates have also been concerned with whether or not these public lands should be privately owned. In their 1970 extensive study of *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands*, the Public Land Law Review Commission (PLLRC) indicated in the Summary of Findings that: "In the aggregate, public land-related payments to state-local governments are financing an increasingly smaller share of the growing need for revenues by these units of government. The results are a sharp increase in public indebtedness and strong pressures for increased taxation from other non-land-related sources and demands for greatly increased assistance in services and grants from the Federal government" (PLLRC). The information and data for the above study were collected from various counties in California, Colorado, Minnesota, New Hampshire, Washington, and one or more counties in fourteen other states. Utah was among these other 14 states. Two counties in Utah, Box Elder and Kane, were selected for further study.

Over the last 22 years, only a few minor changes have been implemented with respect to RS and PILT statutes. The relevant questions are: (1) what are the differences in local government expenditures and revenues in relation to federal lands today, (2) how great are these differences, and (3) have county revenues, due to federal land, been declining over time? This study will focus on two counties in Utah and the economic effects of federal land ownership on these counties. It is expected that the results will aid

government officials and public land managers in a thorough evaluation of the feasibility of the present programs.

Objectives

The primary purpose of this study is to determine if the revenues received from federal land related government payments are compensating county governments for the expenditures incurred due to federal land within the county and compare these results with those found by the PLLRC.

The specific objectives of this study are to:

1. Estimate county government expenditures, due to federal lands, and revenues from federal programs, namely RS and PILT, in Box Elder and Kane Counties, Utah.
2. Identify any declines in net revenues from the estimates found in objective one and compare these estimates with the earlier studies conducted for the PLLRC in 1968.
3. Determine the revenues generated if the public lands in these Utah counties were privately owned and if these tax revenues would be greater than the revenues generated under the present system.

CHAPTER II

LITERATURE REVIEW

Land ownership has always been an important topic which invokes strong emotion and often heated discussions. Therefore, it is no wonder there has been an enormous amount of literature written dealing with federal land and the multitude of issues pertaining to it. There have been a large number of articles and books written on how federal land could and/or should be used. Proposals have varied from uses similar to how they are being used at the time of the respective writings to uses that are vastly different. The alternative of private ownership has also received considerable attention. Many articles have been written regarding the amount of revenue counties receive from federal payments due to federal land. For example, a good reference and often cited book on this topic is *Federal Lands, A Guide to Planning, Management, and State Revenues* by Fairfax and Yale. Some authors have written in general about the expenditures that counties incur on federal land, but there has been very little written on exactly how much of each county's expenses are due to federal land and how these expenditures match up with the revenues. Most of the literature identifies the revenues and suggests that revenues are insufficient to compensate for incurred expenditures. County government officials' complaints have been directed towards not being compensated for the expenditures due to federal land ownership and the foregone tax revenues of private ownership. Since this study is dealing specifically with compensation, only the literature that has dealt directly with this topic will be reviewed.

The main study and most extensive research that has been completed concerning the specific topic of compensation is the PLLRC report. This PLLRC study was "...concerned primarily with the unique impact that federal ownership of lands has on the financial policies of state and local governments. It therefore attempts to determine whether certain services and facilities are provided on federal lands which, by law or custom, would otherwise have to be provided by state and local governments. It will also show what the effect would be if these contributions were taken into account in determining the need for and measure of any kind of federal payments to state and local governments" (PLLRC, vol. I, p. 3).

The PLLRC study pursued six major objectives:

- a. Determine the influence and appraise the effects of public land ownership on the financial structure and taxing policies of state and local governmental units in areas where federal holdings make up a substantial part of the land in a particular jurisdiction.
- b. Determine the amount, extent, character and influence of federal-shared receipts and payments in lieu of taxes as a result of land ownership on the financial structure of state and local governmental units.
- c. Determine the amount, extent, character and influence of contributions in kind by the federal government, as a result of land ownership, on the financial structure of state and local governmental units.
- d. Examine and appraise the effects of revenue sharing on the management, public investments, and administration of federal lands.
- e. Compare the amount of receipts, distribution, timing and use resulting from present procedures of revenue sharing and payments in lieu of taxes, and contributions in kind with the same items for each of the comparable type, use, and value of land in private ownership.
- f. Outline alternative procedures for current revenue sharing, in lieu of tax payments and contributions in kind, and test the probable effect of each alternative on amounts of payments, distribution and timing of receipts, and use of, and management of resources. (PLLRC, vol. I, pp. 3-4)

The resource study portion of the PLLRC project was

...concerned with establishing by factual information the extent, size, and timing of revenue sharing and in lieu of tax payments which various federal agencies distribute to states and local governments. More specifically, the resource study identifies for each of the years 1957 to 1966 the amount of revenue sharing and in lieu tax payments made to states and counties according to the applicable program, the Federal agency administering the program, and the amount of relevant Federal land for each program, wherever such acreage is applicable. (PLLRC, vol. I, p. 5)

The case study portion of the PLLRC report covered five states, three of which are among the western states with large acreages of public land, along with 50 counties located in 19 states. Case studies were completed for each of the states and counties identified.

The case studies comprised the collection and analysis of data relating to (1) state and local governmental budgets; (2) receipts from PILT and RS at the county level including in kind benefits; (3) the costs to state and local governments of providing services to or in relation with public lands; (4) other Federal aid programs specifically related to public lands, such as the sliding scale provisions under the Highway Act; (5) comparisons in the treatment of public domain and acquired land; (6) the managerial functions of and resource program expenditures by the Federal land management agencies; (7) the difference between so-called sharing of net revenues versus gross receipts; (8) the difference in state and local government receipts from present PILT, RS and other Federal land related assistance programs and the taxes "lost" due to immunity of the lands to taxation by state and local governments; and (9) the impact of the present system on the economic efficiency of Federal public land management. (PLLRC, vol. I, p. 7)

Several conclusions in the PLLRC report's "Summary of Findings" are pertinent to the above discussion and overall focus of the analysis that follows this chapter.

While the overall effects from the public land-related payments are a considerable inequity as compared with state and local property taxes, the results for specific states and local governments are highly diverse. The state with the greatest amount of public lands are also the most adversely

affected. Situations exist in which Federal land-related payments and other benefits exceed potential property tax revenues, if the lands were taxed as though in private ownership, while in others substantial net burdens result...

The existing body of 50-odd statutes relating to the management, disposition, in lieu tax payments and revenue sharing of the public lands, lack uniformity and a consistent policy approach. In various aspects, the intent of Congress is not being accomplished...

What lands the Government owns, what they are worth on the open market and, sometimes, where they are, remain substantial questions. For better land use and management much more than now is readily known must be made available on a current basis. (PLLRC, vol. I, p. 8)

PILT and RS payments to the benefiting states increased steadily during the 10-year period. More importantly, state and local revenue needs in the same period increased almost twice as fast as the level of Federal land-related payments. Shared revenue payments are not related to the acreage or to the financial burdens caused by the presence of public lands. They represent solely a sharing of the proceeds from use of the lands under Federal management policies...

The current payment system is not related to the economic value of the public lands. Some areas received more in payments than they would have received in taxes, and other areas received less. (PLLRC, vol. I, p. 11)

State and local governments in the public land intense states have to pay more for government goods and services of the kinds and quality provided in other states...

There is little or no correlation between the property taxes levied in a state and the payments received from public lands in that state...

Localities far from public land intense areas may benefit through consumer demands caused by certain uses of public lands while the economy in public land intense areas is financially strained by expenses for fire protection, law enforcement and other costs because of the public land...

There exist wide ranging differences in the economic effect upon localities as a result of public lands. The effects tend to be increasingly adverse in public land intense states wherever the PILT and RS payments

are lowest and in such communities, the quantity and quality of public services also tend to be lower than in counties with less public land.

Payments to states and counties from public land-related programs in the case study universe do not keep pace with the increase in other state revenues and expenditures. PILT and RS payments in case counties have provided as little as 0.2% of the cost of education and highways and as much as 78.2% of these expenditures, evidencing the great disparity among counties...

Counties incur financial burdens for the provisions of public services on or related to public land and its uses which, in many cases, exceed or substantially diminish the revenues obtained from public lands. Incremental costs are typically incurred by counties for provision of law enforcement, fire protection and fighting, health and welfare services, highway construction and maintenance. (PLLRC, vol. I, p. 13)

Public land intense counties, for the most part, have adopted more conservative fiscal policies than the U.S. average; their incurrence of debt over the 10-year study period was substantially below the national average, and the quality and quantity of services they were able to provide were adversely affected. (PLLRC, vol. I, p. 14)

The PLLRC report also found:

For the 50 case counties as a whole, the revenue sharing and payment in lieu of tax programs in 1966 did not contribute much to meeting the total tax load upon residents of the counties. On the basis of total benefits (revenue sharing, free goods and services and joint use of facilities) received in 1966 from federal sources compared with the local financial burden, the counties fall into one of two groups: 33 receiving a net benefit in excess of their local expenses in connection with the Federal lands, and 17 counties whose Federal land-related expenses exceed Federal contributions. (PLLRC, vol. I, p. 96)

Another significant study relating to compensating local governments for federal land ownership was done in 1978 by the Advisory Commission on Intergovernmental Relations (ACIR). The purpose of that study was "...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" (ACIR, p. 2).

Although the ACIR study did not evaluate specific counties and try to match expenditure and revenues pertaining to federal land, the report did conclude

...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. (ACIR, pp. 5-6)

The two main studies by the PLLRC and ACIR described and quoted above are the only two significant studies that have specifically addressed the issue of county governments being compensated by the federal government for the incurred expenditures due to federal land. As explained above, the PLLRC report dealt more directly with this issue by calculating individual county expenditures on federal land and matching them with revenues received from federal land related payments. Therefore, the PLLRC report is

being used as the "springboard" and comparative work for this study and the following analysis.

CHAPTER III

PROCEDURES

As stated in the introduction, Box Elder County and Kane County, Utah, were among the counties analyzed in the PLLRC project. Therefore, all of the following analysis will also consider these same counties and will make comparisons with the PLLRC study. The research done for this study and the PLLRC report is basically the same because both attempted to extract out of the individual county records, and any other available information, each county's expenditures and revenues due to federal land. Once these categorical expenditures were identified, they were compared to the revenues from federal programs and resulting conclusions were drawn.

The information and data ideally needed for accurate comparisons and conclusions is the amount of expenditures actually incurred by each county department. Also ideally needed are the exact amount of revenues received from federal land related payments, including all payments received directly from the federal government and payments passed through the state government. To obtain the desired information, it would require county government officials and personnel to implement and maintain a very detailed and rigorous recordkeeping system, but county governments have not been required to do so. Therefore, the specific data needed does not exist in many cases. Thus, many of the results obtained required estimations to be made.

The PLLRC study identified and discussed all of the following items for each county in 1966: population and demographics, land acreage ownership by federal agency,

revenues and sources, expenditures incurred, property taxes with assessed values and rates, revenues from federal payments, indirect benefits, value of free goods and services, and federal facilities and services having joint use. "Direct burdens," due to services provided in relation to federal land, were identified and subtracted from the "total direct benefits" to obtain "resulting net direct benefits." Conclusions were then drawn from the results, which will be described below in connection with each county. Data for the PLLRC study were obtained from county audit reports, other county records, and state and federal department agencies and personnel (PLLRC, vol. IV, 1970).

This study is much more limited and narrower in scope than the PLLRC study. It does not consider all of the aspects the PLLRC study did and only considers two counties, but the basic and overall purpose is the same. In the above literature review chapter, nine items were identified as comprising the collection and analysis of data relating to the PLLRC report's case studies. They were:

- (1) state and local governmental budgets; (2) receipts from PILT and RS at the county level including in kind benefits; (3) the costs to state and local governments of providing services to or in relation with public lands; (4) other Federal aid programs specifically related to public lands, such as the sliding scale provisions under the Highway Act; (5) comparisons in the treatment of public domain and acquired land; (6) the managerial functions of and resource program expenditures by the Federal land management agencies; (7) the difference between so-called sharing of net revenues versus gross receipts; (8) the difference in state and local government receipts from present PILT, RS and other federal land related assistance programs and the taxes "lost" due to immunity of the lands to taxation by state and local governments; and (9) the impact of the present system on the economic efficiency of Federal public land management. (PLLRC, vol. I, p. 7)

Only three of the nine items, 5, 6, and 7, were not considered in this study. The reason for this deletion is the minimal relevancy of each item to the overall purpose and focus of this study, which is determining total county government compensation levels due to all federally owned land.

The following individuals and offices described below show how information and data were obtained for this study.¹

Box Elder County

The auditor/treasurer indicated there is no detailed recordkeeping maintained specific to federal land expenditures. She also provided various revenue breakdowns for the specific years needed and information from year-end reports, along with audit reports and names of various county officials to contact to obtain further needed information. She provided information regarding protective inspection, environmental protection, emergency services, communication services, and correction, which led to the determination that none, or insignificant amounts if any, were related to expenditures due to federal land. She instructed that all of the fire protection expenditures on federal land are not actually 100% reimbursed and half of the Forest Service payments go to the school districts.

The fire marshall provided a 1990's fire protection expense of \$3,272, due to federal land, and furnished information that 100% of expenditures on federal land for fire protection is reimbursed through agreements with the National Forest agencies.

¹Data obtained for this study were collected through personal correspondence between January 1991 and June 1992.

The sheriff provided a 1990's sheriff department expenditure of \$26,383.92, due to federal land, and indicated that 1979-1989 would be approximately the same as 1990, less inflation. He also indicated no information is available for the years prior to 1979.

The weed supervisor instructed that the federal government paid \$2,500 per year for weed control on BLM land in 1983-1985, and paid \$5,000 per year during 1986-1990. The county estimated actual expenditures incurred were three times the payments received. He also indicated there were no contracts before 1983.

The road supervisor indicated there is no information available as to the amount of road expense incurred on federal land and it is not known when crews are working on or off federal land. He could not provide information regarding class "B" road mileage on federal land.

The surveyor's office personnel were unable to provide information requested regarding acres of federal land within the county.

The county commissioner was unable to provide any information regarding revenues and expenditures due to federal land. He indicated other county officials were relied upon to manage such information and any requests should be directed to them.

The justice of the peace of the South Precinct indicated 0% of expenditures relating to that office were due to federal land.

The justice of the peace of the North Precinct also indicated 0% of expenditures relating to that office were due to federal land.

Personnel from the Davis & Bott accounting firm provided line numbers and information regarding questioned expenditures from the audit reports.

Kane County

The auditor/treasurer provided names and departments of county officials where needed information could be obtained. She also provided some of the missing data in the audit reports from general ledgers and other county records.

The sheriff provided estimations as to expenditures due to federal land with respect to each of the following total expenditure categories: Sheriff's Department, easily 78 to 82%; Fire Protection, 90%; Dispatch Service, 30 to 35%; Jailing, 30%.

The county extension agent provided a list of expenditures for weed control on federal land and reimbursements for 1984-1991, and indicated no service was provided prior to 1984.

The road supervisor estimated 80% of the county road expenditures were on federal land.

Personnel from the Justice Court office indicated that revenues and expenditures relating to federal land from that office were "probably revenue neutral."

The building inspector stated that there were no expenditures for inspecting buildings on federal land.

State of Utah

The support services coordinator from the Utah state auditor's office at the Utah state capitol building provided audit reports for both counties for all years requested. This enabled copies to be made of needed data. She was unable to provide any specific information regarding county expenditures due to federal land.

A member of the auditing personnel from the Utah state auditor's office at the Utah state capitol building indicated that their office had no information on requested data regarding: state grants, state shared revenue, state payments in lieu of taxes (Box Elder County); class "B" and "C" roads (Kane County); and state liquor fund allotment. He instructed that money does come from the federal government and through the state, but it comes from different agencies and through different departments; therefore, it is not known how much comes from federal payments. He indicated counties should know the answers to those questions.

The local government liaison from the Utah Department of Transportation instructed that all the money for "B" and "C" roads is generated by the state, primarily from taxes on gas and oil, and registration fees, with some of this being paid by nonresidents. The total amount of money spent is 75% for the state (UDOT) and 25% to the counties.

Federal Departments/Agencies

Personnel at the Migratory Bird Refuge (Box Elder County) of the Fish and Wildlife Service indicated that the Bird Refuge has not paid Box Elder County any money through revenue sharing.

A head personnel agent at the Migratory Bird Refuge instructed that the Fish and Wildlife Service has paid Box Elder County money and provided names and numbers in Denver to contact to get more information.

Personnel from the Fish and Wildlife Service, at the Federal Building in Salt Lake City, indicated no monies have been paid to the counties that they know about.

The senior realty specialist from the Fish and Wildlife Service, Mountain-Prairie Region in Denver, wrote a letter listing Fish and Wildlife Service payments to Box Elder County for 1975-1992 (Appendix C). She indicated there is no property interest in Kane County, and therefore no payments.

Personnel in the U.S. Forest Service at the Federal Building in Salt Lake City provided information regarding dollar amounts paid to both counties from 1982-1991, and names and numbers of personnel in the regional office to contact to obtain further information and data for earlier years.

The Director of Fiscal and Public Safety of the U.S. Forest Service, Intermountain Region in Ogden, Utah, wrote a letter listing Forest Service payments to Box Elder and Kane Counties for 1982-1991 (Appendix D).

The Forest Ranger from the Dixie National Forest (Kane County) provided information about a cooperative agreement with Kane County to patrol campgrounds and search and rescue. They are reimbursed for travel and time, approximately \$3,000-7,000 per year.

A head personnel agent from the Finance Department of the Bureau of Reclamation at the Federal Building in Salt Lake City instructed that the Bureau of Reclamation had made no payments to either county from 1983-1990. Information prior to 1983 was unavailable, but since his employment date in 1975, he has no recollection of any payments to either county.

Personnel from the Soil Conservation Service (SCS) at the Federal Building in Salt Lake City indicated the SCS does not own any land, and non-reimbursed costs because of SCS would be minimal.

Personnel from the Bureau of Land Management (BLM) at the Federal Building in Salt Lake City were unable to provide any information and suggested such requests be directed to the State Finance Office.

Personnel from the Department of Defense at the Federal Building in Salt Lake City had no recollection of any payments to either county due to land ownership.

Personnel from the Water Resource Division in Salt Lake City indicated the Water Resource Division owns no land in either county and no payments have been given.

All of the information obtained from the preceding individuals was used in making assumptions and estimations for this study. It also allowed for various calculations and conclusions that are described and reported in the following chapters.

CHAPTER IV

METHODOLOGY AND RESULTS

The audit reports acquired from Box Elder and Kane County offices were used to obtain the amount of revenues and expenditures in each county. Only those revenues and expenditures that pertained to federal land for the years 1975-1990 were included in this study. The data were entered in a computer spreadsheet program. The percentages or dollar amounts obtained from the respective county officials, and all other sources, were then included and applied to the respective expenditure entries, thus generating columns of expenditures due to federal land for each year. This made it possible to obtain total revenue due to federal land and total expenditures due to federal land for each year.

Box Elder County

Box Elder County is located in the northwest corner of the state, with a population of 36,485 in 1990. It consists of 4,294,400 total acres and 1,633,700 federal owned acres. A large portion of the Great Salt Lake is within the county boundaries. The Fish and Wildlife Service owns a 65,000-acre Migratory Bird Refuge. The majority of the federal acres is managed by the Bureau of Land Management. The largest town is Brigham City with a population of approximately 17,000. It is located on the far north end of the Wasatch Front and southeast edge of the county.

Table 1 lists all Box Elder County revenues and expenditures obtained and calculated for 1983 and 1990. This table, included for simplification, is an excerpt from a more detailed table found in the appendix (table A.1.), which contains the same

Table 1. Box Elder County Revenues and Expenditures for 1983 and 1990, Including Expenditures Due to Federal Land and Net Revenues

Revenue and Expenditure Entries	1983		1990	
	Total	Fed. Land (a)	Total	Fed. Land (a)
Revenues				
Payments in lieu of taxes	746,666	746,666	867,652	867,652
Federal grants	34,594	34,954	16,300	16,300
Federal revenue-other	23,737	23,737	8,098	8,098
Total (b)	804,997	804,997	892,050	892,050
Expenditures				
Sheriff	616,032	20,114	917,864	26,384
Fire	144,008	12,541	145,816	16,040
Weed control	109,664	5,000	111,142	10,000
Total (c)	839,704	37,655	1,174,852	52,424
Highways/roads				
General	1,193,890	477,566	1,623,455	649,382
Total including roads (d)	2,033,594	515,211	2,798,307	701,806
Protective inspection	535	0	1,031	0
Environmental protection	—	0	22,375	0
Communication services	126,689	0	213,731	0
Correction	153,255	0	261,632	0
Emergency Services	27,827	0	40,926	0
Grand total (e)	2,341,900	515,211	3,338,002	701,806
Inflation rate	0.032	1.032	0.054	1.054
Rev. minus Exp. [(b) - (c)]		767,342		839,627
Rev. minus Exp., including roads [(b) - (d)]		289,786		190,245
Rev. minus Exp., incl. roads & other [(b) - (e)]		289,786		190,245

Sources: Box Elder County Audit Reports, officials, and personnel.

- Notes: (a) Estimated county expenditures and net revenues due to federal land ownership.
 (b) Total revenue from federal payments due to federal land.
 (c) Total sheriff, fire, and weed control.
 (d) Total (c) plus general highways/roads.
 (e) Total (d) plus the next five line items.

information for all years, 1975-1990. Entries in table A.1. that have no amounts entered for 1983 and 1990 are deleted in table 1. Data included in these tables were obtained from Box Elder County audit reports, various county records, and individuals identified above in the procedures chapter. Refer to these two tables for all of the following discussions relating to Box Elder County.

Revenues

Payments in lieu of taxes were entered for each year beginning in 1977 (the year the payments started). The only year, of the sixteen years studied, where mineral leasing payments were found was 1975. Two line items were found for Forest Service-related payments in the county records, but no dollar amounts were actually discovered for any of the years 1975-1990. It was assumed that some or all of these payments are included in "federal grants." Due to the information received from the Forest Service and the county auditor/treasurer, as discussed in the procedures chapter, it is known that payments were made by the Forest Service, but only one half are received by the county government. This is the reasoning for the inclusion of "federal grants" for each year. "Federal revenue-other" was found for some years but not others. Fish and Wildlife Service payments were identified for 1989 and 1990. It was assumed that the Fish and Wildlife Service payments were recorded under "federal revenue-other" prior to 1989; therefore, both of these entries are included in revenues. The above revenues are summed to obtain a "total" amount of revenue from federal payments due to federal land ownership.

Expenditures

The sheriff, fire, and weed control amounts were taken from each year's audit reports. In the "amount due to fed. land" columns are the estimates or calculated portions of each dept./area expenditures due to federal land (table 1).

Sheriff. The portions of the sheriff's department expenditures were calculated by taking the value of \$26,383.92 for 1990, given by the sheriff, and working backwards to get the values for all previous years. This was accomplished by using the inflation rate for each year per sheriff's estimate that the previous years would be approximately the same as 1990, less inflation. Table 2 lists the inflation rates obtained for each year. These rates were entered in the respective columns in table 1 and table A.1. One plus the rate was entered in the "amount due to fed. land" columns to allow for calculation of the previous year's value. This was accomplished by taking the known year's amount and dividing by one plus the inflation rate. For example, taking the known value for 1990 (26,384) and dividing by one plus 1990s inflation rate, or 1.054, equals 25,032. This value of 25,032 is, therefore, the calculated amount for 1989. Thus, the calculation for

Table 2. Inflation Rates – Compounded Annual Rates of Change of Consumer Prices for all Urban Consumer Prices for all Urban Customers

Year	Rate %	Year	Rate %
1990	5.4	1982	6.2
1989	4.7	1981	10.3
1988	4.1	1980	13.5
1987	6.3	1979	11.3
1986	2.0	1978	7.6
1985	3.6	1977	6.5
1984	4.3	1976	5.8
1983	3.2	1975	9.1

Source: St. Louis Federal Reserve Bank.

1988 is $25,032/1.047 = 23,908$. This process was continued until all years were calculated. The above procedure was used instead of a percentage basis because an actual value was known and given for 1990, and the estimate of previous years being approximately the same, less inflation, was also established by the sheriff.

The weakness of these estimations is quite obvious in that actual expenditures may not necessarily be the same as 1990, less the inflation rate. For example, any particular year may have had relatively high expenditures due to a major search and rescue effort on federal land or a myriad of other incidents could have happened to make that years expenditures higher in relation to the others. When calculations are done by using inflation rates and backing out from 1990, any aberrations are not captured.

The PLLRC study, which only did specific compensation analysis for 1966, estimated \$6,000 for Box Elder County law enforcement. This was obtained from county officials. In order to have accurate data, it would be necessary for records to be kept on information, similar to 1990s, such as man-hours just on federal land for each year, along with any expenses for materials used and mileage while on federal land. This would be an ideal situation, but these records have not been maintained and are unavailable. Therefore, the method used does serve as good estimates and is considered to be close approximations. This consideration is strengthened by looking at this study's 1975 estimate of \$10,864, and the PLLRC study's 1966 estimate of \$6,000, and judging, in all likelihood, these expenditures would have increased by approximately \$4,864 during those nine years.

Fire. While collecting data from various Box Elder County records, in addition to the audit reports, values were obtained for the entries of Range Fires and Reimburse Fire Marshall. Only data for the years 1988 and 1990 were found. The reimbursements were subtracted from the expenditures, then divided by total fire department expenditures. Both years were between 10% and 12%. Therefore, 11% of total fire department expenditures was used as the estimated percentage not reimbursed to Box Elder County for fire protection on federal land. Assuming the other years would be similar to 1988 and 1990, 11% of the total fire department expenditures was used to calculate federal related portions of fire department expenditures. The 1990 amount of \$3,272, obtained from the county fire marshall, as described in the procedures chapter, was not used due to the discrepancies between what was found in the actual county records and the fire marshall's records. The discrepancies between the information received when communicating with the fire marshall and the county auditor/treasurer were additional reasons for this deletion. The fire marshall indicated that all of the county's expenditures for fire protection on federal land were reimbursed through agreements between national forests and counties. However, the auditor/treasurer indicated that all of those expenditures are not reimbursed. The county records supported this premise. Therefore, 11% of each year's total fire department expenditures was entered in each year's respective "amount due to fed. land" column.

The apparent weakness with this estimate is that in any one year there could have been a major forest fire, which created large county expenditures, or possibly no forest fires during a whole year. However, due to the discrepancies between sources of

information and lack of information, the 11% estimate is an average approximation. This postulation is strengthened by: (1) the existence of agreements between the national forests and counties, which does reimburse the counties for fire protection expenditures, at least a major portion of those expenditures, and (2) the county auditor/treasurer years of experience, which provided the insight of knowing fire protection expenditures on federal land did not get totally reimbursed.

The PLLRC study did not identify any costs relating specifically to fire protection. Therefore, comparisons are not possible.

If records were kept regarding the exact man-hours and expenses incurred on federal land along with exact reimbursements, accurate information would be obtainable. This effort is thwarted somewhat, though, by the fact that all the reimbursements are not necessarily received the same year as the expenses are incurred. As a result, it is difficult to match reimbursement funds with related expenditures. Nonetheless, the described estimation was used amid the listed limitations.

Weed Control. As reported in the procedures chapter, weed control expenditures, due to federal land, were obtained from information provided by the county weed supervisor. From 1983-1985, federal payments for weed control on BLM land totaled \$2,500 per year. From 1986-1990, the same federal payments were \$5,000 per year. Actual expenditures incurred by the county to provide this service were estimated at three times the above-mentioned federal payments (Box Elder County personnel). Therefore, the calculation for 1983-1985 is $(\$2,500 \times 3) - \$2,500 = \$5,000$ and for 1986-1990 is $(\$5,000 \times 3) - \$5,000 = \$10,000$. Thus, \$5,000 was entered for 1983-1985, and \$10,000

for 1986-1990. For the years 1975-1982, data were unavailable and, since total weed control expenditures were approximately 40% more during 1983-1990 than in 1975-1982, it was assumed that for the years prior to 1983, very little if any expenditures for weed control on federal land were incurred. Consequently, zeros were entered for those years in the "amount due to fed. land" columns. These estimates came directly from the county weed supervisor and therefore are considered quite accurate because exact reimbursements and approximate percentages were known. Unavailable data for the years prior to 1983 cause uncertainty and weaknesses in the data. But, due to the aspect of pre-1983 total weed control expenditures being much less than later years, a degree of confidence is obtained regarding little, if any, federal land weed control expenditures for 1975-1982. Another confidence builder in this assumption is the PLLRC study did not identify any expenditures due to weed control on federal land. In order to have access to more complete data, the same information would need to be recorded for the earlier years along with dollar amounts for the expenditures incurred for all years. Again, this type of recordkeeping has not been done and therefore the data are nonexistent.

After obtaining the above three values for sheriff, fire, and weed control expenditures, due to federal land, all three were summed for each year to obtain a "total" of the above three expenditures.

Roads. General highway and road expenditures were also taken from the audit reports. As reported above, no distinct data were obtained because records were not kept regarding when road maintenance and related expenditures were performed on federal land. Also, county personnel were not able to provide an estimate of how much of the

highway/road expenditures were due to federal land. Therefore, the estimate of 40% was used since approximately 40% of the county acres is federally owned. The percentages are again entered in the "amount due to fed. land" column for each year.

The 40% estimate, if in error, will err on the side of being too high because 40% of the total county's road mileage is probably not on federal land. Even if so, a majority of the roads on federal land would be used less and possibly require less maintenance. Using this high estimate, and therefore, attributing too much of the total highway/road expenditures to expenditure on federal land, tends only to strengthen the overall conclusion, to be discussed later, that Box Elder County is being overcompensated. If a lower percentage were found to be correct, then this overcompensation would just be larger.

The PLLRC report calculated \$51,750 for Box Elder County road maintenance on federal land in 1966. This was only 9% of total highway expenditures for that year. The implication here is the above 40% estimate is high, thus capturing all related expenditures and strengthening the conclusion.

Obviously, to gain more accurate data and have an ideal situation, detailed recordkeeping would need to be required as to when road crews were working on highways and roads that are on federal land, along with all other costs associated with building and maintaining the roads. The desired information and much needed recordkeeping is not required nor available. For this reason the above estimates are requisite and justified. The highways/roads portion was added to the above "total" to obtain the entry "total including roads."

Other miscellaneous line items were recorded from the audit reports which were thought might reflect costs incurred due to federal land. These were protective inspection, environmental protection, communication services, correction, and emergency services. As indicated in the procedures chapter, no portion of any of the five was identified as being expenditures on or caused by federal land. Therefore, no amounts were entered in the "amount due to fed. land" columns. All five were summed and added to the previous total, generating a "grand total" expenditure. The entry under "amount due to fed. land" column is the same as the previous total since no federal related values were entered for reasons just identified above.

Results

After all the above entries and calculations were completed, net revenue calculations were identified. The first net revenue entry is called "rev. minus exp." and is calculated by simply subtracting the expenditure "total" from the revenue "total." "Rev. minus exp. including roads" is calculated by subtracting "total including roads" from "total" revenue. "rev. minus exp. including roads & other" is calculated in the same manner by subtracting the "grand total" expenditure from "total" revenue. The last two net revenue calculations equal the same answer for the obvious reason that no federal related portions were entered for the last five miscellaneous expenditure entries.

Therefore, only the first two net revenues have significance and both indicate the same results. "Rev. minus exp." shows the amount of compensation received by Box Elder County was more than expenditures incurred on federal land. In 1983 and 1990, net revenues were \$767,342 and \$839,627, respectively (table 1). In 1975, net revenue was

only \$56,821, and was \$148,050 in 1976. During the period 1977-1990, net revenues were estimated to be between \$764,639 and \$863,392. The "rev. minus exp., including roads" entry also indicates significant net revenues for all years except 1975 and 1976 (the years prior to PILT payments), when the county was not compensated by the amount \$4,789 and \$89,199, respectively. This calculation included road expenditures and shows, for 1977-1990, the county was overcompensated. The excess was between \$190,245, in 1990, and \$513,854, in 1977 (table A.1).

When considering the results of the two different scenarios just explained, the "rev. minus exp., including roads" calculation is the closest estimation to the actual amounts. The county does incur expenditures on highways and roads on federal land. Therefore, the total expenditure calculation including these costs is the most accurate, although it has a high probability of being inflated. Figure 1 is a line graph of the data "rev. minus exp., including roads," from table A.1. These data indicated that Box Elder County has received more payments than expenditures associated with federal lands. However, the data in figure 1 show a downward trend or decrease in the amount of "overcompensation."

The PLLRC study derived a 1966 "total direct benefits" value of \$182,240 for Box Elder County. A value for "direct burden" of \$62,750 was then subtracted to arrive at a "resulting net direct benefits" of \$119,490 (PLLRC, vol. IV, p. c42-7). The "direct burden" amount is the summation of the two items explained above, which were "maintenance of roads" (\$51,750) and "law enforcement" (\$6,000), along with "operation

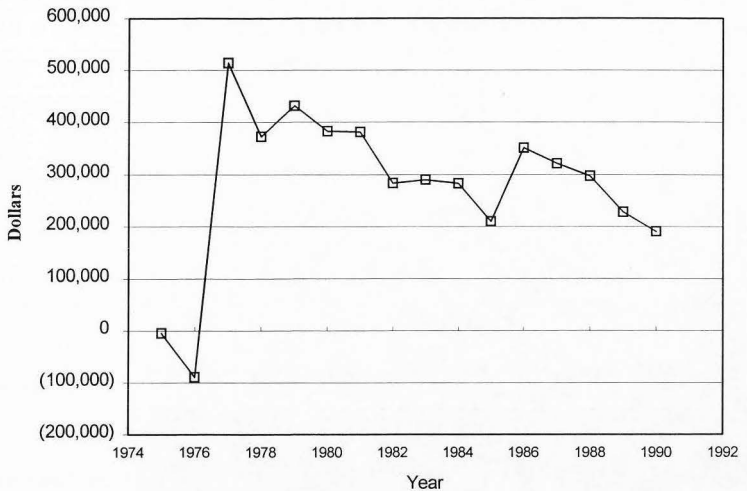


Figure 1. Box Elder County net revenues due to federal land

of county and city courts," was not identified as having any expenditures due to federal land, for this study, as was explained in the procedures chapter. The major portion of "total direct benefits" was from the Bureau of Public Roads (BPR) sliding scale highway aid payments. The PLLRC study identified that "these payments do not only vary by budget and program from year to year but they are also usable exclusively in Federally approved road construction programs. If the 1966 BPR payment were excluded from the county's benefits, the calculation would show a substantial net county burden, viz. about \$40,000 for the year." Also, "the present PILT and RS systems, including the provision to certain free goods and services, do not compensate for the loss of top revenues from federal lands" (PLLRC, vol. IV, pp. 42-7 and 8). Excluding the BPR payments, in the

above analysis, also makes better comparisons between the PLLRC study and this one, where no highway-related revenues have been included. Under this premise, the results for Box Elder County are opposite between this study and the PLLRC study, except for 1975 and 1976. The PLLRC concluded that for 1966, Box Elder County was undercompensated by \$40,000, while the estimates outlined above found that Box Elder County has been overcompensated for all years after the enactment and implementation of the 1976 PILT law.

Kane County

Kane County is located at the south end of the state, bordering Arizona on the south and Lake Powell on the east. Portions of several national parks are within the county. It consists of 2,627,000 total acres and 2,155,000 federal acres. This equates to 82% of the total county acres being federally owned. Sixty-nine percent of the federal acres are managed by the BLM. Total county population in 1990 was 5,169. Kanab is the largest town with a population of 3,289 and is located in the south central part of the county.

Table 3 lists all Kane County revenues and expenditures obtained and calculated for 1983 and 1990. This table, included for simplification, is an excerpt from a more detailed table found in the appendix (table B.1.), which contains the same information for all years, 1975-1990. Entries in table B.1., which have no amounts entered for 1983 and 1990, are deleted in table 3. Data included in these tables were obtained from Kane County audit reports, various county records, and individuals identified above in the

Table 3. Kane County Revenues and Expenditures for 1983 and 1990, Including Expenditures Due to Federal Land and Net Revenues

Revenue and Expenditure Entries	1983		1990	
	Total	Fed. Land (a)	Total	Fed. Land (a)
Revenues				
Payments in lieu of taxes	189,591	189,591	235,073	235,073
Forest reserve	—	0	13,356	13,356
Forest service law enforcement	—	0	13,840	13,840
Total (b)	189,591	189,591	262,269	262,269
Expenditures				
Sheriff	110,689	88,551	203,659	162,927
County jail	98,901	29,670	158,439	47,532
Fire	2,588	2,329	13,999	12,559
Weed control	5,812	0	20,583	(629)
Dispatch Service	—	0	63,328	18,998
Total (c)	217,990	120,551	460,008	241,427
Highways/roads				
General	1,532	1,226	1,767	1,414
Class "B" road	—	0	263,429	210,743
Collector road	—	0	—	0
Class "B" & "C" roads	265,100	212,080	—	0
Total, including roads (d)	484,622	33,856	725,204	453,584
Protective inspection	—	0	—	0
Other protection	—	0	—	0
Grand total (e)	484,622	333,856	725,204	453,584
Rev. minus Exp. [(b) - (c)]		69,040		20,842
Rev. minus Exp., including roads [(b) - (d)]		-144,265		-191,315
Rev. minus Exp., incl. roads & other [(b) - (e)]		-144,265		-191,315

Sources: Kane County Audit Reports, officials, and personnel.

Notes: (a) Estimated county expenditures and net revenues due to federal land ownership.
 (b) Total revenue from federal payments due to federal land.
 (c) Total sheriff, fire, and weed control.
 (d) Total (c) plus general highways/roads.
 (e) Total (d) plus the next five line items.

procedures chapter. Refer to these two tables for all of the following discussions relating to Kane County.

Revenues

Payments in lieu of taxes were again entered for each year beginning with 1977. Federal mineral leasing was only found for 1975-1977. Forest reserve and forest service law enforcement were also included for the years that information was available. Federal grants were assumed to include forest service payments, as was the case for Box Elder County. For the years that have federal grants recorded, there are no amounts recorded for Forest Service-related payments and vice versa. Therefore, the information on federal grants was also included for the years that were attainable. All the above were summed to obtain a "total" amount of revenue from federal payments due to federal land ownership.

Revenues from class "B" and "C" roads and class "B" roads were identified during data collection. All the revenue in these accounts is generated by the state (primarily from taxes on gas and oil, and registration fees), some of which would be paid by nonresidents. Therefore, these monies do not qualify to be considered in federal compensation calculations and were not entered in the calculations and tables.

Expenditures

The sheriff, fire, and weed control amounts were entered in the same manner as was done for Box Elder County, along with county jail and dispatch services. County jail expenditures were identified from 1983-1990, and dispatch service for only the years 1987-1990. The portions of the sheriff department expenditures were calculated by taking

80% of each year's total department expenditures. County jail, fire, and dispatch service were also calculated by taking the percentages 30, 90, and 30 of each, respectively. All these percentages were estimates given by personnel in the sheriff's office as indicated in the procedures chapter. Providing estimates using percentages creates innate weaknesses because increases or decreases in the separate total expenditures do not necessarily mean there were increases or decreases of expenditures due to federal land. On the other hand, it does not specifically capture and identify any significant increases or decreases in expenditures that were in fact due to federal land.

Law enforcement was the only expenditure, out of the four expenditures discussed above, identified in the PLLRC study. The amount determined for 1966 was \$2,500. This is approximately \$33,300 less than the \$35,807 estimate derived for 1975 in table B.1. This large jump in only nine years is not probable and weakens the accuracy of the percentage estimates, but due to the lack of information and recordkeeping, the provided estimated percentages are plausible and do serve as close approximations. Simple recordkeeping of when work and services were being provided on federal land would go a long way in alleviating the above weaknesses.

The portions of the weed control expenditures, entered in table B.1 and table 3, are exact costs to the county. These data were provided by the county extension agent as described in the procedures chapter and listed in table 4. The differences in the costs and amount received were entered in table B.1 and table 3 in the "amount due to fed. land" columns. The amount for 1990 is entered in parentheses, meaning a negative number, because the amount reimbursed was greater than that expended. That year's

reimbursement included some of the previous years money that should have already been reimbursed. No weed control service was provided prior to 1984, hence the zero entries for the years 1975-1983. The accuracy level of these expenditures is quite high since exact dollar amounts were recorded and given. Having no data for the period 1975-1983 generates doubt as to whether there were actual weed control expenditures for those

Table 4. Kane County Weed Control on Federal Land

Year	Cost	Amount Billed	Amount Received
1991	1,577.51	1,577.51	1,577.51
1990	870.66	1,500.00	1,500.00
1989	4,241.36	2,500.00	0.00
1988	2,570.40	1,000.00	1,000.00
1987	1,860.00	—	—
1986	1,465.80	—	—
1985	1,682.40	—	—
1984	1,230.60	—	—

Memorandum of Understanding applied in 1988 for the first time.

Source: Kane County personnel, extension agent.

years, but these doubts and questions are subsided to some degree when considering the PLLRC study did not identify any weed control expenditures either. The indication here is weed control expenditures due to federal land for the years preceding 1984 were minimal and the data given are correct. To increase certainty and obtain complete data, recordkeeping for the earlier years is needed. As stated previously, this was not done and therefore unavailable.

The last five expenditures discussed, i.e., sheriff's department, county jail, fire protection, dispatch service, and weed control, were summed to obtain a "total" of these expenditures (table 3 and table B.1).

There are four highway and road entries, which include "general," "class 'B' road," "collector road," and "class 'B' and 'C' roads." Only the general category was found for 1975 and 1976. "Class 'B' road" and "collector road," along with "general," were recorded for 1977-1982. For the years 1983-1986, only "general" and "class 'B' and 'C' roads" are recorded. "Class 'B' road" and "general" are the only two for 1987-1990. These differences are due to how the county audit reports disclosed them and, in part, due to the highway code and law changes which changed accounting methods for collector road to "class 'B' road" (Utah Code). All of the road expenditure entries were added together and included with the previous "total" to obtain "total including roads."

Kane County personnel, as with Box Elder County, were not able to provide an estimate of how much of the highways/roads expenditures were due to federal land, nor were there any kind of records found pertaining to such information. Therefore, a percentage estimate was again used, only this time 80% was appropriate because approximately 80% of Kane County is federally owned. There is a high probability of error in this estimation; however, this probability is lowered significantly when considering the high portion of federally owned land in the county and that most of the road mileage would be on federal land. Another aspect strengthening this percentage estimate is the breakdown of the total highways/roads expenditures as identified in the above explanation. Over 90% of the highways/roads expenditures are included in class "B" and collector

roads for all years except 1975 and 1976, where all highways/roads expenditures were included in the general category (table B.1). The class "B" and collector roads are county roads, which would be outside city limits and have a high probability of being on federal land.

In the PLLRC study, Kane County officials identified \$20,000 for maintenance of roads due to federal land in 1966. This was only 26% of total highway expenditures for the same year. There is a large variance in percentages between studies, but due to the above explanation, the 80% estimate does provide reasonable approximations.

The accuracy level needed to achieve a more ideal situation would only be possible if data had been recorded concerning time and expenditures spent on highways and roads on federal land. Specific recordkeeping has not been required and is therefore unavailable, thus requiring the percentage estimates identified above.

As with Box Elder County, other line items, specifically, protective inspection and other protection, were recorded from the audit reports which were thought to reflect costs incurred due to federal land. Only for the years 1976-1982 were amounts found for these two items. Again, as with Box Elder County, no portion of either one was identified as being expenditures on or caused by federal land. Both were summed and added to the previous total and entered as a "grand total" for expenditures. Since no amounts were entered in the "amount due to fed. land" columns, the totals in these columns are the same as the previous total.

Results

Revenue minus expenditure calculations was completed in a similar manner as was done for Box Elder County. These net revenue calculations were identified by subtracting each of the three different expenditure totals from "total" revenue. The last two net revenue calculations equal the same answer, as was the case for Box Elder County, for the obvious reason that no federal-related portions were entered for the last two miscellaneous expenditure entries. Therefore, only the first two net revenues have significance but they indicate opposite results.

"Rev. minus exp." shows the amount of compensation received by Kane County was more than expenditures incurred on federal land. In 1983 and 1990, net revenues were \$69,040 and \$20,842, respectively (table 3). In 1975 and 1976, before PILT started, Kane County was not compensated for all the costs incurred on federal land. The county spent \$9,056 in 1975 and \$11,021 in 1976 more than they received in federal payments related to federal land. But, from 1977-1990, Kane County was overcompensated except for 1989, where expenditures exceeded revenues by \$12,669 (table B.1). It is highly unlikely that this scenario represents the actual amounts since it does not take into consideration the costs incurred on highways and roads.

The net revenue, "rev. minus exp., including roads," results are opposite of those found in the previous scenario. The entry shows that in 1983 and 1990, the undercompensation is \$144,265 and \$191,315, respectively (table 3). The calculations show that for all years, 1975-1990, Kane County was significantly undercompensated, except for 1978, where revenues exceeded expenditures by \$1,521 (table B.1). If only the

revenues received from the federal government pertaining to federal land ownership are considered, this second scenario is likely to be closest to the actual amounts. The county definitely incurs road expenditures on federal land. Therefore, the estimated percentage of road costs is included in the totals. Another justification for the appropriateness of this scenario is it is the same scenario used previously with Box Elder County. The same entries are used to estimate compensation. Therefore, "apples to apples" comparisons between counties can be made. Thus, the net revenue item used as the overriding conclusion and premise of this study is "rev. minus exp., including roads" for both Kane and Box Elder Counties. Figure 2 is a line graph of this entry from table B.1. As with Box Elder County, the graph shows a downward trend in the undercompensation, meaning the undercompensation has increased.

The PLLRC study calculated a 1966 "total direct benefits" amount of \$222,623. The value for "direct burden" of \$24,000 was subtracted to get a "resulting net direct benefits" of \$198,623. The "direct burden" amount is the summation of the two items discussed earlier, which are "maintenance of roads" (\$20,000) and "law enforcement" (\$2,500), along with "hospital" for \$1,000 and "administrative service performed by county clerk/auditor" for \$500 (PLLRC, vol. IV, pp. c43-5 and 6). In the current study, as was the case for Box Elder County, these latter two expenditures were not identified as having any relation to expenditures on federal land, as discussed in the procedures chapter.

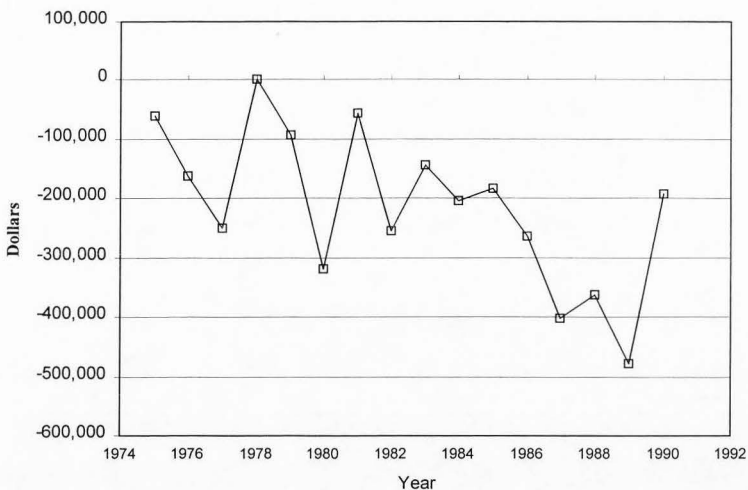


Figure 2. Kane County net revenues due to federal land

The PLLRC study reported, "The impact of the present system upon county finance is severe, primarily because only 10% of the RS payments from mineral leasing are rebated by the state to the county" (PLLRC, vol. IV, p. c43-6). Eighty-four percent of the "total direct benefits" is from "revenue sharing," of which 98% is payments from the Mineral Leasing Act. Therefore, if only the 10% of mineral leasing payments are included in "total direct benefits," the "resulting net direct benefit" would be \$32,561 instead of the above \$198,623.

The PLLRC report also indicated, "1966 was an atypical year in that no sliding scale benefits from BPR highway programs accrued to the county as they had in seven of the ten years studied" (PLLRC, vol. IV, p. c43-6). As stated above, highways/roads-

related revenues were also not included for the final analysis and conclusions for this study because of the previously stated reasons of the payment mostly coming from the state government. This again allows for both counties, along with both studies, to be on a comparable basis.

Conclusions regarding Kane County in the PLLRC study and this study are opposite. The PLLRC study determined Kane County was overcompensated by approximately \$32,560, in 1966. This study concludes Kane County was significantly undercompensated, for all years investigated, except for 1978. These findings appear to be improbable due to the inclusion of the PILT payments from 1977 to 1990. This discrepancy tends only to strengthen the argument that Kane County is not compensated for the incurred expenditures on federal land, along with the strong need for better recordkeeping by county government officials and personnel.

Overall Comparison with PLLRC

When comparing the overall results of the PLLRC study and this study, as to whether Kane and Box Elder Counties were being compensated for the expenditures incurred on federal land, it is evident that for both counties the results are opposite. The discrepancy is due in part to the implementation of the PILT Act of 1976, which took effect in 1977, and allowed for large payments to Box Elder County. The following quote gives a good explanation of how PILT are calculated.

Payments in lieu of taxes (PILTs) are receipts to county governments, which are determined by formula based on entitlement acreages, revenue sharing receipts, and population. PILTs are not based on tax equivalent payments - the amount of taxes the lands would have generated under private ownership.

There are four pieces of information needed to calculate the amount of PILT's counties will receive. This information is 1) entitlement acres, 2) prior year payments of certain non-PILT federal land payments to the counties, 3) the county population, and 4) the federal per capita payment schedule by size of county population. With this information, the PILT payments can be calculated in any given year.

1. Entitlement acres by county include:
 - a. BLM : Bureau of Land Management,
 - b. FS : Forest Service,
 - c. BR : Bureau of Reclamation,
 - d. NPS : National Parks Service,
 - e. ARMY: U.S. Army,
 - f. C of E : Corps of Engineers,
 - g. F & W : Fish and Wildlife Services
2. The prior year revenue sharing payments to counties including:
 - a. USFS: national forests revenues,
 - b. BLM: Mineral Leasing,
 - c. Other: small amount of funds from the Bankhead Jones Act and the National Wildlife Refuge Act.

Payments include county highway funds and BLM funds to counties under mineral leasing, but not grazing fees. It does not include USFS funds to schools or USFS funds to independent highway districts.

3. County population:

"determined on the same basis that the Secretary of Commerce determines resident population for general statistical purposes." "A unit of general local government may not be credited with a population of more than 50,000."
4. Payment by level of population schedule:
 - a. payments ranging from \$50.00 to \$20.00 per capita,
 - b. population categories ranged from 5,000 to 50,000.

With these four pieces of information, it is possible to calculate the PILT payments to the counties. The BLM correlates this information on the PILT calculation and sends payments directly to the counties involved.

The "PILT calculation" is, in fact, a set of three calculations and three decision rules. The first calculation is the "maximum population payment" based on the size of the population in the county and a sliding payment per capita schedule. The second calculation is the "alternative A" or maximum payment. This payment alternative is sometimes zero. The third calculation is the "alternative B" or minimum payment. This alternative is never zero, actual PILT payments are selected through a decision rule that chooses between alternative A and B payments.

The population payment is a preliminary calculation needed to determine the "Alternative A" payment. This population payment number is equal to the population of the county multiplied by the per capita

payment rate associated with that size population. For county populations ranging from below 5,000 to 50,000 and above there are 45 increments of 1000 population, each of which has a different rate per capita associated with it. By matching the rate for the population multiplied by the county population the result is the "population payment."

The alternative A "maximum payment" is determined through the synthesis of two sets of calculations. First, the population payment less the prior year's revenue sharing payments are calculated. The second calculation is the number of entitlement acres multiplied by \$0.75 less the prior year revenue sharing payments.

The decision rule for alternative A payment is as follows.

1. If the prior year's revenue sharing payments are greater than the population payment, then alternative A is zero.
2. If the population payment is less than the entitlement acres multiplied by \$0.75/acre, then alternative A equals the population payment minus the prior year's revenue sharing payments.
3. Other wise the alternative A equals the entitlement acres multiplied by \$0.75/acre minus the prior year's revenue sharing payments.

The alternative B "minimum payment" is calculated using a simpler procedure than alternative A. The final calculation is the entitlement acres multiplied by \$0.10/acre.

The decision rule for alternative B payment is as follows:

1. If the population payment is less than the entitlement acres multiplied by \$0.10/acre then alternative B equals the population payment.
2. Otherwise, alternative B equals the entitlement acres multiplied by \$0.10/acre.

The third and final decision rule for determining between alternative A and B, which sets the PILT payment to county governments, is as follows.

1. If the alternative A payment is greater than the alternative B payment, the PILT payment equals alternative A.
2. Otherwise, the PILT payment equals alternative B. (Cooke and Dailey, p. 8-11)

The PILT to Box Elder County were large enough to alleviate the previous undercompensation, indicated in the PLLRC study, but it is not the same for Kane County, which is undercompensated. The following explanation illustrates one aspect of this problem. Tables 5, 6, and 7 show Kane County has 1.3 times more federal acres than Box Elder County, while Box Elder County has seven times more people than Kane County.

However, Box Elder County has received an average of four times as many PILT as Kane County (tables A.1 and B.1). This demonstrates a problem with the PILT law, which uses the county population to calculate the payments. The fact that more people live in a county does not necessarily imply that there will be more expenditures on federal land. To illustrate this point further, in Utah, Box Elder County is one of the most populated counties with more than one million federal acres, and Kane County is one of the least populated counties having more than one million federal acres. A more accurate compensating criterion might be one regarding how many people visit/use the federal land, not population. For example, Kane County has more national park and recreational areas, which implies more people will visit/use the federal land than Box Elder County.

Table 5. Box Elder County Acreage Ownership

	Acres	Percentage
Ownership of County Area		
Total acres	4,294,400	100.00%
Acres in land	3,580,160	83.40%
Acres of water	714,240	16.60%
Federal	1,633,700	38.00%
State	199,880	4.60%
Private	1,741,266	40.50%
Ownership by Agencies		
Bureau of Land Management	818,459	
Forest Service	100,834	
Defense	208,315	
Fish & Wildlife Service	65,030	
Parks	2,203	
Other	16,066	

Source: Utah State University, Cooperative Extension Service.

Table 6. Kane County Acreage Ownership

Proprietor	Approx. Acreage
Bureau of Land Management	1,494,600
National recreation & wilderness	445,100
National Forest Service	127,600
Special federal withdrawal	69,250
National Park Service	18,450
Total federal lands	2,155,000
Privately owned lands	261,440
State lands	260,880
State parks	3,880
Total	2,627,200

Source: Doelling, Davis, and Brandt.

Table 7. Population of Utah Counties in 1990

County	1990	County	1990
Beaver	4,765	Piute	1,277
Box Elder	36,485	Rich	1,725
Cache	70,183	Salt Lake	725,956
Carbon	20,228	San Juan	12,621
Daggett	690	Sanpete	16,259
Davis	187,941	Sevier	15,431
Duchesne	12,645	Summit	15,518
Emery	10,332	Tooele	26,601
Garfield	3,980	Uintah	22,211
Grand	6,620	Utah	263,590
Iron	20,789	Wasatch	10,089
Juab	5,817	Washington	48,560
Kane	5,169	Wayne	2,177
Millard	11,333	Weber	158,330
Morgan	5,528		

Source: Utah Foundation.

Therefore, it seems illogical to have the calculation of PILT tied to the county population. This study's compensation analysis also illustrates this discrepancy in that Box Elder County is being overcompensated and Kane County is undercompensated. If the calculation of PILT took into consideration visitation and usage of the federal land, along with the present consideration of acreages, it appears logical that compensation would be more equitable among the counties and closer to the correct compensation amount.

Private versus Federal Ownership

Whenever the topic of federal land ownership is discussed, the question of private ownership is presented. The specific question is, would county governments receive more revenue from the federal land if it were privately owned? This revenue would be procured by tax assessments.

To determine tax revenues acquired from federal acreages if privately owned, it is necessary to consider the Utah Farmland Assessment Act (UFAA), also called the Greenbelt Act. The UFAA

allows qualifying agricultural property to be assessed and taxed based upon its productive capability instead of the prevailing marked value. Productive values are established by the Utah State Tax Commission with the assistance of a five-member Farmland Assessment Advisory Committee. Productive values apply statewide and are based upon income and expense factors associated with agriculture activities. These factors are expressed in terms of value per acre for specific land classifications. Land is classified according to its capability of producing crops or forage. Capability is dependent upon soil type, topography, availability of irrigation water, growing season, and other factors. The County Assessor classifies all agricultural land in the county based on SCS soil surveys and guidelines provided by the Tax Commission. The general classifications of agricultural land are irrigated, dryland, grazing land, orchard, and meadow." (Utah State Tax Commission, 1993)

Table 8 shows the land classification schedule with the taxable values per acre by classification. Considering most of the federal land in Box Elder and Kane Counties would fall under the UFAA and be in the "nonproductive" or "graze IV" to "graze I" classifications, the acres of federal land in each county would be valued at \$5 to \$50 per acre (table 8). Specifically, Box Elder County, with 1,633,700 federal acres, would receive approximately \$91,430 to \$914,300, and Kane County, with 2,155,000 federal acres, would receive \$113,622 to \$1,136,224. These values are calculated by using \$5/acre and \$50/acre, respectively, to obtain the land valuations, which are then multiplied by the respective tax rates. For example, using Box Elder County's federal acres and tax rate, $\$5 \times 1,633,700 \text{ acres} \times .011193 = \$91,430.02$. The tax rates used were .011193 for Box Elder County and .010545 for Kane County. These rates are for county outside and unincorporated districts, respectively, and were acquired from each county's assessor. Table 9 shows the estimated dollar amounts with respect to these specific UFAA classifications for both counties. Exact determination of expected revenues, if federal acres were privately owned, is not possible due to vast acreages of federal land and unavailable information regarding the number of acreages of different types of land and terrain.

The above amount estimated dollar amounts, that each county would receive in tax revenue if the federal land were privately owned, would be minimums since all federal land in each county is considered to only be in the "nonproductive" or "graze IV"

Table 8. Utah Farmland Assessment Act Land Classification Schedule, Taxable Value per Acre by Classification

Classification		A	B	C	D
I	Irrigated	595	530	470	405
II	Irrigated	375	420	370	315
III	Irrigated	325	295	265	235
IV	Irrigated	225	210	200	190
OI	Orchard	900	800	705	610
OII	Orchard	800	710	620	535
OIII	Orchard	700	635	570	505
OIV	Orchard	600	565	535	490
MIV	Meadow	190	175	160	145
II	Dryland	125	125	90	90
IV	Dryland	70	70	60	60
I	Graze	50	50	50	50
II	Graze	15	15	15	15
III	Graze	10	10	10	10
IV	Graze	5	5	5	5
	Nonproductive	5	5	5	5

Source: Utah State Tax Commission.

Table 9. Estimated Tax Revenue with Private Ownership, Using Utah Farmland Assessment Act Land Valuations

	\$/acre	Box Elder	Kane
Federal acres		1,633,700	2,155,000
Assumed tax rate		0.077793	0.010545
Est. taxes if land was:			
Graze I	50	\$914,300.21	\$1,136,223.75
Graze II	15	\$274,290.06	\$340,867.13
Graze III	10	\$182,860.04	\$227,244.75
Graze IV	5	\$91,430.02	\$113,622.38
Nonproductive	5	\$91,430.02	\$113,622.38
1990 Payments in lieu of taxes		\$867,652.00	\$235,073.00
1990 Total Revenue due to federal land		\$892,050.00	\$262,269.00

to "graze I" classifications. If the land were privately owned but used as it presently is, then most of the acres would be valued at \$5/acre - \$50/acre. If \$5/acre is used, both Box Elder and Kane Counties would definitely receive much less than the present system. In 1990, they would have received \$91,430 and \$113,622, respectively, compared to \$892,050 and \$262,269, that each actually received. If \$50/acre is used, Box Elder County would have received more in 1990, but only \$22,250 (\$914,300 minus \$892,050). Kane County would have received immensely more (\$1,136,224, or a difference of \$873,955) in 1990. Therefore, due to the \$5 - \$50/acre spread, it is obvious that the wide range of estimated amounts each county would receive makes it very difficult to secure comparisons as to whether each county would receive more or less if the federal acres were privately owned.

To facilitate making comparisons, estimates were made as to each agency's land value if privately owned. Tables 10 and 11 show both counties' federal acreage delineated by federal agency. Five or fifty dollars per acre was applied to each agency's

Table 10. Box Elder County Federal Land Estimated Tax Assessments if Privately Owned

Agency	Acres	\$/Acre Assessment	Total Value
Bureau of Land Management	818,459	5	4,092,295
Forest Service	100,854	50	5,042,700
Department of Defense	208,315	5	1,041,575
Fish & Wildlife Service	65,030	50	3,251,500
Park Service	2,203	50	110,150
Other	16,066	5	80,330
Extra ^a	422,773	5	2,113,865
Total	1,663,700		15,732,415
Est. tax revenue: 15,732,415 x .011193 = \$176,092.92			

Note: ^a Difference in the sum of all federal agencies acreage and total federal acres.

Table 11. Kane County Federal Land, Estimated Tax Assessments if Privately Owned

Agency	Acres	\$/Acre Assessment	Total Value
Bureau of Land Management	1,494,600	5	7,473,000
National Rec. & Wilderness Acres	445,100	50	22,255,000
Forest Service	127,600	50	6,380,000
Special federal withdrawals	69,250	5	346,250
National Park Service	18,450	50	922,500
Total	2,155,000		37,376,750

Est. tax revenue: $37,376,750 \times .010545 = 394,137.83$

acreage. Fifty dollars per acre was used for lands that were estimated to have timber sales and/or recreational opportunities and the like. All others were given \$5/acre.

The sum of the separate federal agencies acreages for Box Elder County does not equal the total federal acreage amount listed on the information given by the Utah State University, Cooperative Extension Service. Therefore, an "extra" category was added and given the amount of the discrepancy. Using the above criteria, the total valuation for Box Elder County would be \$15,732,415, and \$37,376,750 for Kane County. Applying the same respective tax rates as before yields \$176,092.92 for Box Elder County and \$394,137.83 for Kane County. These are the estimated amounts that each county would receive in tax revenue if the land was privately owned. If compared to 1990 payments received from federal programs, it is clear Box Elder County would receive much less under private ownership and Kane County would receive more. Specifically, Box Elder County would receive \$715,967 (\$892,050 - \$176,093) less and Kane County \$131,869 (\$394,138 - \$262,269) more. To assume that all these acreages would be in one of the

described five classifications is a very unlikely assumption, because there would be the potential for the mining of sundry minerals, timber harvesting, revenues from recreational activities, and various other latent entrepreneurial enterprises that would be available if the land were privately owned. Nonagricultural ventures such as these would eliminate acres from being considered under the Greenbelt Act and be assessed a much higher value. If the possibility of nonagricultural uses and therefore higher land valuations become reality, it is quite clear that both counties would definitely receive more revenue than with the present system. The following explanation illustrates this point. The \$1/acre amount that would equate the amount received under private ownership to total federal payments received in 1990 is calculated by using an algebraic formula. This is facilitated by letting the desired calculated dollar per acre amount replace the \$50/acre valuation and keep the \$5/acre valuation on the remaining acreages. The formula is of the form $Ax = P/R - C$ where A is the total acres assumed to be assessed a higher valuation than the \$50 valuation in the previous analysis. X is the unknown and equals the \$/acre valuation needed to obtain the same revenue as the present system in 1990. P equals the amount of total federal land related payments in 1990. R is the applicable tax rate and C is the total valuation of the acres valued at \$5/acre.

Applying this formula to both counties produces the \$/acre valuation required to obtain the same revenue from county tax assessments as that received from federal payments in 1990. Plugging in the numbers for Box Elder County gives $168,087 X = \$892,050/.011193 - \$7,328,065$. By combining terms and rearranging, $X = \$430.54/\text{acre}$. Doing the same for Kane County returns $591,150 X = \$262,269/.010545 - \$7,819,250$

with $X = \$28.85/\text{acre}$. The result of this analysis is the acres assessed $\$50/\text{acre}$ in the previous scenario would need to be assessed $\$430.54$ in Box Elder County and only $\$28.85$ in Kane County in order to equate total federal land-related payments with estimated revenue from taxes if privately owned. This illustrates that Kane County would receive more revenue with private ownership, and in Box Elder County the $\$50/\text{acre}$ acreage would need to be assessed a value greater than $\$430.54/\text{acre}$ in order to obtain more revenue with private ownership. The further implication here is Box Elder County is receiving more revenue with the present system than it would if the land were privately owned, under the assumption of $\$5/\text{acre}$ and $\$50/\text{acre}$ valuation, and Kane County is receiving less.

The PLLRC, in their 1970 study, also compared revenues from federal payments with revenues obtainable from taxes if the land were privately owned. Their conclusions, for 1966, were both counties would receive significantly more under private ownership. Specifically, Box Elder County would have received an increase of $\$57,133$ ($\$79,889 - \$22,756$) and Kane County an increase of $\$219,530$ ($\$276,093 - \$56,563$), (PLLRC, vol. I, p. 96, table cs-6). These PLLRC conclusions are opposite for Box Elder County in 1990 but similar for Kane County, if the $\$5$ - $\$50/\text{acre}$ valuation schedule is used as explained above. The discrepancy is due to the 1976 PILT act with payments starting in 1977 and Box Elder's population factor allowing for large PILT payments.

If the implication identified above, dealing with portions of the acreage being used for commercial, recreational, and other nonagricultural purposes, is considered and actually became reality, the results for Box Elder County, as well as Kane County, would

all be the same; that is, both counties would receive more revenues from taxing the land as privately owned.

CHAPTER V
SUMMARY AND CONCLUSIONS

The federal government owns approximately one-third of the nation's land. County governments provide many necessary services in relation to federal land within the county. Such services include law enforcement, fire protection, road maintenance, and many others. Federal land-related payment programs have been implemented for the purpose of compensating local governments for the expenditures incurred due to services provided on federal land. Determining whether these payments fully compensate county governments has been the topic of debate and the purpose of this study and the 1968 study for the PLLRC. Both studies analyzed two counties in Utah--Box Elder and Kane. The results of this study, which analyzed the data from 1975-1990, are that Box Elder County has been overcompensated each year since the enactment of the 1976 PILT law and Kane County has been undercompensated for all years except 1978. The PLLRC study results for 1966 were opposite for each county.

Since local governments cannot tax the land owned by the federal government, private ownership of these lands is often discussed and was analyzed in both studies. The results of the analysis done for this study showed that in 1990 Box Elder County would have procured less revenue if the federal land were privately owned and Kane County would have received more. The results of the PLLRC study were both counties would have obtained greater revenues from private ownership.

The overall conclusions of this study and the PLLRC study are basically the same; that is, federal payments due to federal land ownership do not equal federal land-related

expenditures incurred by county governments. Neither are these payments equitable between counties regarding the number of federal acres and usage of those acres. The RS and PILT statutes were passed for the purpose of compensating county governments for services provided on federal land and the untaxable acreages these lands create. Because of how these government payments are calculated by using the amount of revenues generated from harvested natural resources and also the number of federal acres and population in each county, there is no direct connection between expenditures incurred and government payments received. Any particular county may not necessarily incur greater expenditures just because there are more harvested natural resources or federal acres and/or more population and vice versa. Therefore, compensating payments would be more accurate and equitable if actual expenditures due to federal land were recorded and known.

Both studies conclude that county government recordkeeping with respect to expenditures pertaining to federal land is very minimal and inadequate to facilitate accurate calculations of those expenditures. The scarcity of detailed information creates inability to determine the amounts needed for accurate and equitable compensation. If county government officials are to make a case against being compensated by the federal government for incurred expenditures relating to federal land, they must maintain much better and more detailed records regarding such expenditures. Without such accurate information, undercompensation proposals cannot be presented without consisting of many estimations and limitations.

REFERENCES

- Advisory Commission on Intergovernmental Relations (ACIR). *The Adequacy of Federal Compensation to Local Governments for Tax Exempt Federal Lands*. Washington, DC: U. S. Government Printing Office, 1978.
- Box Elder County Audit Reports*. County Courthouse, Brigham City, UT. Various years.
- Cooke, S.C., and P.A. Dailey. *Federal Lands Payments to Idaho Counties, Description and Calculation*. Moscow, Idaho: University of Idaho, A. E. Research Series No. 93-2, March 1993.
- Doelling, H. H., F. D. Davis, and C. J. Brandt. "The Geology of Kane County, Utah." *Utah Geological and Mineral Survey*, Salt Lake City, Utah. 1989.
- Fairfax, S. K., and C. E. Yale. *Federal Lands, A Guide to Planning, Management, and State Revenues*. Washington, DC: Island Press, 1987.
- Kane County Audit Reports*. County Courthouse, Kanab, Utah. Various years.
- Public Land Law Review Commission (PLLRC). *Revenue Sharing and Payments in Lieu of Taxes on the Public Lands, Volumes I - IV*. Washington DC: EBS Management Consultants Incorporated, Rev. Nov. 1970.
- St. Louis Federal Reserve Bank. *Annual U.S. Economic Data*. St. Louis, MO: St. Louis Federal Reserve Bank. 1992.
- Utah Code, Volume 3B, 1989 Replacement*. Charlottesville, VA: The Michie Company Law Publishers, Annotated 1953.
- Utah Foundation. "Population of Utah by Counties." Compiled from the *U.S. Bureau of the Census*. April 1991. Information sheet provided by Kane County Auditor/Treasurer.
- Utah State Tax Commission. *The Utah Farmland Assessment Act*, pamphlet. Salt Lake City, UT: Property Tax Division, 1993.
- Utah State University, Cooperative Extension Service. "Box Elder County Agricultural Statistics." *Agriculture Newsletter* (1994).

APPENDICES

Appendix A. Box Elder Table

**Table A.1. Box Elder County Revenues and Expenditures for 1975-1990
Including Expenditures Due to Federal Land and Net Revenues**

Revenue and Expenditure Entries	1975		1976		1977	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	-		-		719,452	
Federal Mineral Leasing	5,292		-			
Forest Reserve	0		-			
Forest Service Law Enforc.	-		-			
Federal Grants	65,656		166,287		159,628	
Federal Revenue-other	-		-			
Fish and Wildlife Service	-		-			
Total (b)	70,948	70,948	166,287	166,287	879,080	879,080
Expenditures						
Sheriff	254,763	10,864	302,477	11,494	361,137	12,241
Fire	29,666	3,263	61,306	6,744	31,333	3,447
Weed Control	52,632	0	97,263	0	69,808	0
Total (c)	337,061	14,127	461,046	18,237	462,278	15,688
Highways/Roads						
General	154,026	61,610	593,122	237,249	873,846	349,538
Total including Roads (d)	491,087	75,737	1,054,168	255,486	1,336,124	365,226
Protective Inspection	433		449		460	
Environmental Protection	-		0		17,000	
Communication Services	65,865		0		81,362	
Correction	57,797		67,709		82,864	
Emergency Services	-		0		22,787	
Grand Total (e)	615,182	75,737	1,122,326	255,486	1,540,597	365,226
Inflation Rate	0.091	1.091	0.058	1.058	0.065	1.065
Rev. minus Exp. [(b) - (c)]		56,821		148,050		863,392
Rev. - Exp. including Roads [(b) - (d)]		-4,789		-89,199		513,854
Rev. - Exp. including Roads & other [(b) - (e)]		-4,789		-89,199		513,854

Sources: Box Elder County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, Fire, and Weed Control
- (d) Total (c) plus General Highways/Roads
- (e) Total (d) plus the next five line items

Table A.1. (Continued)

Revenue and Expenditure Entries	1978		1979		1980	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	595,446		806,051		751,316	
Federal Mineral Leasing						
Forest Reserve						
Forest Service Law Enforc.						
Federal Grants	250,051		52,665		43,333	
Federal Revenue-other						
Fish and Wildlife Service						
Total (b)	845,497	845,497	858,716	858,716	794,649	794,649
Expenditures						
Sheriff	396,647	13,171	438,006	14,660	483,270	16,639
Fire	157,424	17,317	35,595	3,915	47,957	5,275
Weed Control	74,154	0	72,300	0	78,931	0
Total (c)	628,225	30,488	545,901	18,575	610,158	21,914
Highways/Roads						
General	1,106,747	442,699	1,021,797	408,719	975,374	390,150
Total including Roads (d)	1,734,972	473,187	1,567,698	427,294	1,585,532	412,064
Protective Inspection	460		740		502	
Environmental Protection	17,000		17,000		18,284	
Communication Services	78,359		100,614		95,700	
Correction	86,009		109,421		107,403	
Emergency Services	19,769		57,392		58,971	
Grand Total (e)	1,936,569	473,187	1,852,865	427,294	1,866,392	412,064
Inflation Rate	0.076	1.076	0.113	1.113	0.135	1.135
Rev. minus Exp. [(b) - (c)]		815,009		840,141		772,735
Rev. - Exp. including Roads [(b) - (d)]		372,310		431,422		382,585
Rev. - Exp. including Roads & other [(b) - (e)]		372,310		431,422		382,585

Sources: Box Elder County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, Fire, and Weed Control
- (d) Total (c) plus General Highways/Roads
- (e) Total (d) plus the next five line items

Table A.1. (Continued)

Revenue and Expenditure Entries	1981		1982		1983	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	794,687		728,697		746,666	
Federal Mineral Leasing						
Forest Reserve						
Forest Service Law Enforc.						
Federal Grants	48,270		37,022		34,594	
Federal Revenue-other			28,324		23,737	
Fish and Wildlife Service						
Total (b)	842,957	842,957	794,043	794,043	804,997	804,997
Expenditures						
Sheriff	559,298	18,352	602,053	19,490	616,032	20,114
Fire	127,033	13,974	90,129	9,914	114,008	12,541
Weed Control	78,610	0	80,414	0	109,664	5,000
Total (c)	764,941	32,326	772,596	29,404	839,704	37,655
Highways/Roads						
General	1,073,687	429,475	1,203,490	481,396	1,193,890	477,556
Total including Roads (d)	1,838,628	461,801	1,976,086	510,800	2,033,594	515,211
Protective Inspection	570		572		535	
Environmental Protection	18,284		0		0	
Communication Services	106,143		123,925		126,689	
Correction	129,685		152,333		153,255	
Emergency Services	52,588		37,145		27,827	
Grand Total (e)	2,145,898	461,801	2,290,061	510,800	2,341,900	515,211
Inflation Rate	0.103	1.103	0.062	1.062	0.032	1.032
Rev. minus Exp. [(b) - (c)]		810,631		764,639		767,342
Rev. - Exp. including Roads [(b) - (d)]		381,156		283,243		289,786
Rev. - Exp. including Roads & other [(b) - (e)]		381,156		283,243		289,786

Sources: Box Elder County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, Fire, and Weed Control
- (d) Total (c) plus General Highways/Roads
- (e) Total (d) plus the next five line items

Table A.1. (Continued)

Revenue and Expenditure Entries	1984		1985		1986	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	790,236		800,716		820,583	
Federal Mineral Leasing Forest Reserve						
Forest Service Law Enforc.						
Federal Grants	42,213		33,197		14,278	
Federal Revenue-other	-		5,166		23,479	
Fish and Wildlife Service						
Total (b)	832,449	832,449	839,079	839,079	858,340	858,340
Expenditures						
Sheriff	655,073	20,979	792,812	21,734	810,961	22,169
Fire	61,553	6,771	93,449	10,279	94,059	10,346
Weed Control	113,405	5,000	131,947	5,000	113,341	10,000
Total (c)	830,031	32,750	1,018,208	37,013	1,018,361	42,515
Highways/Roads						
General	1,292,004	516,802	1,481,302	592,521	1,162,613	465,045
Total including Roads (d)	2,122,035	549,551	2,499,510	629,534	2,180,974	507,560
Protective Inspection	654		800		0	
Environmental Protection	-		-		-	
Communication Services	137,159		154,420		165,137	
Correction	168,598		184,573		212,695	
Emergency Services	32,844		32,405		35,030	
Grand Total (e)	2,461,290	549,551	2,871,708	629,534	2,593,836	507,560
Inflation Rate	0.043	1.043	0.036	1.036	0.02	1.02
Rev. minus Exp. [(b) - (c)]		799,699		802,066		815,825
Rev. - Exp. including Roads [(b) - (d)]		282,898		209,545		350,780
Rev. - Exp. including Roads & other [(b) - (e)]		282,898		209,545		350,780

Sources: Box Elder County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, Fire, and Weed Control
- (d) Total (c) plus General Highways/Roads
- (e) Total (d) plus the next five line items

Table A.1. (Continued)

Revenue and Expenditure Entries	1987		1988		1989	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	847,820		854,788		853,051	
Federal Mineral Leasing						
Forest Reserve						
Forest Service Law Enforc.						
Federal Grants	13,793		28,049		15,100	
Federal Revenue-other	22,797		16,298		11,996	
Fish and Wildlife Service						
Total (b)	884,410	884,410	899,135	899,135	880,147	880,147
Expenditures						
Sheriff	868,127	22,967	870,405	23,908	806,276	25,032
Fire	79,254	8,718	111,652	12,282	145,594	16,015
Weed Control	112,647	10,000	114,325	10,000	106,699	10,000
Total (c)	1,060,028	41,685	1,096,382	46,190	1,058,569	51,048
Highways/Roads						
General	1,304,049	521,620	1,390,067	556,027	1,503,681	601,472
Total including Roads (d)	2,364,077	563,304	2,486,449	602,217	2,562,250	652,520
Protective Inspection	845		871		1,935	
Environmental Protection	-		-		22,897	
Communication Services	178,133		173,417		182,054	
Correction	215,084		232,490		225,005	
Emergency Services	45,998		57,704		45,029	
Grand Total (e)	2,804,137	563,304	2,950,931	602,217	3,039,170	652,520
Inflation Rate	0.036	1.036	0.041	1.041	0.047	1.047
Rev. minus Exp. [(b) - (c)]		842,725		852,945		829,099
Rev. - Exp. including Roads [(b) - (d)]		321,106		296,918		227,627
Rev. - Exp. including Roads & other [(b) - (e)]		321,106		296,918		227,627

Sources: Box Elder County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, Fire, and Weed Control
- (d) Total (c) plus General Highways/Roads
- (e) Total (d) plus the next five line items

Table A.1. (Continued)

Revenue and Expenditure Entries	1990	
	TOTAL	FED. (a)
Revenue		
Payment in Lieu of Taxes	867,652	
Federal Mineral Leasing		
Forest Reserve		
Forest Service Law Enforc.		
Federal Grants	16,300	
Federal Revenue-other	8,098	
Fish and Wildlife Service		
Total (b)	892,050	892,050
Expenditures		
Sheriff	917,894	26,384
Fire	145,816	16,040
Weed Control	111,142	10,000
Total (c)	1,174,852	52,424
Highways/Roads		
General	1,623,455	649,382
Total including Roads (d)	2,798,307	701,806
Protective Inspection	1,031	
Environmental Protection	22,375	
Communication Services	213,731	
Correction	261,632	
Emergency Services	40,926	
Grand Total (e)	3,338,002	701,806
Inflation Rate	0.054	1.054
Rev. minus Exp. [(b) - (c)]		839,627
Rev. - Exp. including Roads [(b) - (d)]		190,245
Rev. - Exp. including Roads & other [(b) - (e)]		190,245

Sources: Box Elder County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land o
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, Fire, and Weed Control
- (d) Total (c) plus General Highways/Roads
- (e) Total (d) plus the next five line items

Appendix B. Kane County Table

**Table B.1. Kane County Revenues and Expenditures for 1975-1990
Including Expenditures due to Federal Land and Net Revenues**

Revenue and Expenditure Entries	1975		1976		1977	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	-	-	-	-	168,021	-
Federal Mineral Leasing	19,655	-	21,339	-	2,491	-
Forest Reserve	3,178	-	6,018	-	-	-
Forest Service Law Enforcement	4,598	-	-	-	3,500	-
Federal Grants	-	-	4,000	-	-	-
Total (b)	27,431	27,431	31,357	31,357	174,012	174,012
Expenditures						
Sheriff	44,758	35,807	48,391	38,713	67,955	54,364
County Jail	-	-	-	-	-	-
Fire	756	680	4,073	3,666	8,330	7,497
Weed Control	456	0	-	0	3,008	0
Dispatch Service	-	-	-	-	-	-
Total (c)	45,970	36,487	52,464	42,379	79,293	61,861
Highways/Roads						
General	65,291	52,233	108,775	151,020	9,578	7,662
Class "B" Road	-	-	-	-	149,990	119,992
Collector Road	-	-	-	-	292,838	234,270
Class "B" & "C" Roads	-	-	-	-	-	-
Total including Roads (d)	111,261	88,720	241,239	193,399	531,699	423,786
Protective Inspection	-	-	9,661	-	5,506	-
Other Protection	-	-	2,467	-	2,872	-
Grand Total (e)	111,261	88,720	253,367	193,399	540,077	423,786
Rev. minus Exp. [(b) - (c)]		-9,056		-11,021		112,151
Rev. - Exp. including Roads [(b) - (d)]		-61,289		-162,041		-249,774
Rev. - Exp. including Roads & other [(b) - (e)]		-61,289		-162,041		-249,774

Sources: Kane County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, County Jail, Fire, Weed Control, and Dispatch Service
- (d) Total (c) plus all four Road Expenditure line items
- (e) Total (d) plus Protective Inspection and Other Protection

Table B.1. (Continued)

Revenue and Expenditure Entries	1978		1979		1980	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	167,144		154,069		195,326	
Federal Mineral Leasing	-		-		-	
Forest Reserve	4,558		8,075		-	
Forest Service Law Enforcement	3,750		3,422		-	
Federal Grants	-		-		11,694	
Total (b)	175,452	175,452	165,566	165,566	207,020	207,020
Expenditures						
Sheriff	71,055	56,844	120,581	96,465	131,783	105,426
County Jail	-	-	-	-	-	-
Fire	4,126	3,713	4,302	3,872	3,671	3,304
Weed Control	4,032	0	2,944	0	4,646	0
Dispatch Service	-	-	-	-	-	-
Total (c)	79,213	60,557	127,827	100,337	140,100	108,730
Highways/Roads						
General	8,554	6,843	57,538	46,030	22,748	18,198
Class "B" Road	116,679	93,343	122,122	97,698	163,581	130,865
Collector Road	16,484	13,187	17,255	13,804	334,000	267,200
Class "B" & "C" Roads	-	-	-	-	-	-
Total including Roads (d)	220,930	173,931	324,742	257,869	660,429	524,994
Protective Inspection	5,918	-	16,080	-	-	-
Other Protection	3,838	-	317	-	20,736	-
Grand Total (e)	230,686	173,931	341,139	257,869	681,165	524,994
Rev. minus Exp. [(b) - (c)]		114,895		65,229		98,290
Rev. - Exp. including Roads [(b) - (d)]		1,521		-92,303		-317,974
Rev. - Exp. including Roads & other [(b) - (e)]		1,521		-92,303		-317,974

Sources: Kane County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, County Jail, Fire, Weed Control, and Dispatch Service
- (d) Total (c) plus all four Road Expenditure line items
- (e) Total (d) plus Protective Inspection and Other Protection

Table B.1. (Continued)

Revenue and Expenditure Entries	1981		1982		1983	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	201,200		184,903		189,591	
Federal Mineral Leasing	-		-		-	
Forest Reserve	-		-		-	
Forest Service Law Enforcement	-		-		-	
Federal Grants	18,007		12,107		-	
Total (b)	219,207	219,207	197,010	197,010	189,591	189,591
Expenditures						
Sheriff	136,106	108,885	174,612	139,690	110,689	88,551
County Jail	-	-	-	-	98,901	29,670
Fire	2,881	2,593	19,040	17,136	2,588	2,329
Weed Control	4,504	0	4,276	0	5,812	0
Dispatch Service	-	-	-	-	-	-
Total (c)	143,491	111,478	197,928	156,826	217,990	120,551
Highways/Roads						
General	637	510	185,212	148,170	1,532	1,226
Class "B" Road	154,974	123,979	165,291	132,233	-	0
Collector Road	50,527	40,422	18,912	15,130	-	0
Class "B" & "C" Roads	-	-	-	-	265,100	212,080
Total including Roads (d)	349,629	276,388	567,343	452,358	484,622	333,856
Protective Inspection	23,687	-	14,146	-	-	-
Other Protection	0	-	0	-	-	-
Grand Total (e)	373,316	276,388	581,489	452,358	484,622	333,856
Rev. minus Exp. [(b) - (c)]		107,729		40,184		69,040
Rev. - Exp. including Roads [(b) - (d)]		-57,181		-255,348		-144,265
Rev. - Exp. including Roads & other [(b) - (e)]		-57,181		-255,348		-144,265

Sources: Kane County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, County Jail, Fire, Weed Control, and Dispatch Service
- (d) Total (c) plus all four Road Expenditure line items
- (e) Total (d) plus Protective Inspection and Other Protection

Table B.1. (Continued)

Revenue and Expenditure Entries	1984		1985		1986	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	201,196		201,921		206,007	
Federal Mineral Leasing	-		-		-	
Forest Reserve	-		-		-	
Forest Service Law Enforcement	-		-		-	
Federal Grants	12,669		8,004		8,300	
Total (b)	213,865	213,865	209,925	209,925	214,307	214,307
Expenditures						
Sheriff	118,368	94,694	122,672	98,138	122,922	98,338
County Jail	117,126	35,138	120,034	36,010	119,631	35,889
Fire	5,043	4,539	5,074	4,567	5,920	5,328
Weed Control	7,233	1,231	12,121	1,682	14,344	1,766
Dispatch Service	-	-	-	-	-	-
Total (c)	247,770	135,602	259,901	140,397	262,817	141,321
Highways/Roads						
General	86,643	69,314	1,385	1,108	3,278	2,622
Class "B" Road	-	0	-	0	-	0
Collector Road	-	0	-	0	-	0
Class "B" & "C" Roads	266,239	212,991	314,608	251,686	416,951	333,561
Total including Roads (d)	600,652	417,907	575,894	393,191	683,046	477,504
Protective Inspection	-	-	-	-	-	-
Other Protection	-	-	-	-	-	-
Grand Total (e)	600,652	417,907	575,894	393,191	683,046	477,504
Rev. minus Exp. [(b) - (c)]		78,264		69,528		72,986
Rev. - Exp. including Roads [(b) - (d)]		-204,042		-183,266		-263,197
Rev. - Exp. including Roads & other [(b) - (e)]		-204,042		-183,266		-263,197

Sources: Kane County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, County Jail, Fire, Weed Control, and Dispatch Service
- (d) Total (c) plus all four Road Expenditure line items
- (e) Total (d) plus Protective Inspection and Other Protection

Table B.1. (Continued)

Revenue and Expenditure Entries	1987		1988		1989	
	TOTAL	FED. (a)	TOTAL	FED. (a)	TOTAL	FED. (a)
Revenues						
Payment in Lieu of Taxes	213,659		212,600		231,268	
Federal Mineral Leasing	-		-		-	
Forest Reserve	-		8,732		9,927	
Forest Service Law Enforcement	-		6,678		0	
Federal Grants	3,200		-		-	
Total (b)	216,859	216,859	228,010	228,010	241,195	241,195
Expenditures						
Sheriff	147,474	117,979	191,553	153,242	219,328	175,462
County Jail	105,815	31,745	111,559	33,468	138,450	41,535
Fire	5,576	5,018	1,903	1,713	17,950	16,155
Weed Control	13,633	1,860	15,053	1,570	19,831	4,241
Dispatch Service	18,888	5,666	49,147	14,744	54,902	16,471
Total (c)	291,386	162,269	369,215	204,737	450,461	253,864
Highways/Roads						
General	12,706	10,165	1,432	1,146	1,393	1,114
Class "B" Road	556,699	445,359	482,040	385,632	579,161	463,329
Collector Road	-	0	-	0	-	0
Class "B" & "C" Roads	-	0	-	0	-	0
Total including Roads (d)	860,791	617,793	852,687	591,515	1,031,015	718,308
Protective Inspection	-	-	-	-	-	-
Other Protection	-	-	-	-	-	-
Grand Total (e)	860,791	617,793	852,687	591,515	1,031,015	718,308
Rev. minus Exp. [(b) - (c)]		54,591		23,273		-12,669
Rev. - Exp. including Roads [(b) - (d)]		-400,934		-363,505		-477,113
Rev. - Exp. including Roads & other [(b) - (e)]		-400,934		-363,505		-477,113

Sources: Kane County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land ownership
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, County Jail, Fire, Weed Control, and Dispatch Service
- (d) Total (c) plus all four Road Expenditure line items
- (e) Total (d) plus Protective Inspection and Other Protection

Table B.1. (Continued)

Revenue and Expenditure Entries	1990	
	TOTAL	FED. (a)
Revenues		
Payment in Lieu of Taxes	235,073	
Federal Mineral Leasing	-	
Forest Reserve	13,356	
Forest Service Law Enforcement	13,840	
Federal Grants	-	
Total (b)	262,269	262,269
Expenditures		
Sheriff	203,659	162,927
County Jail	158,439	47,532
Fire	13,999	12,599
Weed Control	20,583	-629
Dispatch Service	63,328	18,998
Total (c)	460,008	241,427
Highways/Roads		
General	1,767	1,414
Class "B" Road	263,429	210,743
Collector Road	-	0
Class "B" & "C" Roads	-	0
Total including Roads (d)	725,204	453,584
Protective Inspection	-	-
Other Protection	-	-
Grand Total (e)	725,204	453,584
<hr/>		
Rev. minus Exp. [(b) - (c)]		20,842
<hr/>		
Rev. - Exp. including Roads [(b) - (d)]		-191,315
<hr/>		
Rev. - Exp. including Roads & other [(b) - (e)]		-191,315
<hr/>		

Sources: Kane County Audit Reports, Officials, and Personnel

Notes:

- (a) Estimated County Expenditures and Net Revenues due to federal land
- (b) Total Revenue from federal payments due to federal land
- (c) Total of Sheriff, County Jail, Fire, Weed Control, and Dispatch Serv
- (d) Total (c) plus all four Road Expenditure line items
- (e) Total (d) plus Protective Inspection and Other Protection

Appendix C. Letter from U.S. Dept. of the Interior



United States
Department of
Agriculture

Forest
Service

Intermountain
Region

324 25th Street
Ogden, UT 84401

Reply to: 6270

Date: FEB 08 1992

Mr. Daniel Hope
Utah State University
Department of Economics
Logan, UT 84322-3530

Dear Mr. Hope:


Listed below is the information you requested in your letter dated January 9, regarding monies paid to Box Elder and Kane counties by the U.S. Forest Service. Our office has information available for the years 1982-1991. Information for the years prior to 1982 may be obtained at the following address:

Forest Service
U.S. Department of Agriculture
Auditors Building
201 14th Street, S.W. at Independence Ave., S.W.
Washington, DC 20250

YEAR	BOX ELDER	KANE
1991	\$13,196.09	\$31,645.02
1990	19,250.54	32,633.26
1989	16,196.57	26,711.07
1988	12,696.61	19,853.80
1987	14,397.38	17,463.01
1986	10,924.97	16,599.56
1985	11,201.94	11,040.88
1984	11,139.23	12,797.48
1983	11,729.01	12,539.05
1982	9,737.38	8,423.61

If you have any questions, please call Ellen Munden at (801) 625-5343.

Sincerely,

for 
GILBERT J. ESPINOSA
Director
Fiscal and Public Safety



Caring for the Land and Serving People

FS-6100-28W-4-881

Appendix D. Letter From U.S. Dept. of Agriculture



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Mountain-Prairie Region

IN REPLY REFER TO

RW/RE
LA-Revenue Share
General
MAIL STOP 60135

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

JAN 07 1994

Dan Hope
597 Fairway Pl.
Preston, Idaho 83263

Dear Mr. Hope:

This letter is in response to your request for Revenue Share payments made by the U.S. Fish and Wildlife Service (Service) to Kane and Box Elder County, Utah from 1975 to 1992.

The Service has no property interest in Kane County and therefore no payments have been made. The payments for Box Elder County are as follows:

1975 - \$1,362	1984 - \$24,054
1976 - \$1,899	1985 - \$10,862
1977 - \$1,788	1986 - \$10,136
1978 - \$887	1987 - \$9,950
1979 - \$15,710	1988 - \$11,981
1980 - \$15,862	1989 - \$12,232
1981 - \$14,272	1990 - \$15,146
1982 - \$16,044	1991 - \$14,536
1983 - \$12,259	1992 - \$13,320

If you have any further questions, please contact Karla Norris, of this office, at (303) 236-8145 extension 661.

Sincerely,

Betty Adler
Betty Adler
Senior Realty Specialist