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The Idaho Fiscal Impact Model

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THE IDAHO FISCAL IMPACT MODEL

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1. THE PROBLEM

Local public officials are responsible for providing a level of public services that 1) reflects the tastes and preferences of the electorate, 2) meet the requirements of federal and state government, and 3) complements the growth in population and the changes in the economy. These responsibilities suggest a planning perspective by local officials for public service. However, local officials more often find themselves reacting to public and private policy decisions.

In Idaho, two interrelated forces are affecting public services policy decisions. First, the state and federal governments are in the process of renegotiating the social contract regarding the environment. This process includes policies that affect timber harvests, grazing fees, wilderness designations, endanger species protection including the wolf and the shockeye salmon. Since two-thirds of the land in Idaho is owned by state and federal government these policies have a significant impact on local communities including their local governments. For example, county and school officials are affected by the US Forest Service decisions on timber production.

The private industry sectors in Idaho is in the process of restructuring away from natural resource based industries and toward high technology manufactoring and services. As the national economy restructures away for the defence industries, Idaho has experiences an increasing number of Californians who are looking for jobs in the growing economy of Idaho. For example, county and school officials are affected by private industries decisions on the opening or closing of a mine.

Regardless of whether from changes in the community is for federal or state policy or from private industry decisions, the effect on the relationships between population, property values, expenditures, local revenues, and non-local aid for public services is complex. The Idaho Fiscal Impact Projections (IDFIP) Model was developed as a tool to help county and school officials anticipate the full impact of demographic, economic, and policy changes on their ability to raise revenues and to provide services. The IDFIP model allows for an examination of the change in the revenue stream generated locally by property taxes and indirectly from non-local federal and state aid. It allows of the determination of road and bridge, school, and county flow of expenditures. The IDFIP model will also estimate the trends in demographics including population, employment, enrollment as well as income. This information can be presented for comparison between the baseline trends and the effect of an outside shock in one or more of the variables from 1990-1999. With this

information in hand, county and school officials are better equipped to make more fully informed decision.

The purpose of this paper is to provide a guide to the IDFIP model's development and operation. In addition, it explores the methodology of the model and presents the base line projections in the absence of sudden shifts in the economy, population, or tastes and preferences, or federal and state policy. The value of this model, however, is not only in its ability to provide base line information but also through shocks to system in the form of scenarios. This provides a way to compare the impact of the shock to the status quo base line trends. An example of such a with and without comparison is the analysis of impact of the opening of a mine. The concluding section discusses the insights the IDFIP Model can provide and how the model can be used.

2. THE METHODOLOGY OF THE FISCAL IMPACT MODEL

The IDFIP model has two distinct elements. The first element is a set of econometrically estimated coefficients that establish the relationships between population, property values, expenditures, local revenues, and non-local aid for public services (Johnson and Keeling, p. 19). The second element of the model is a spreadsheet that uses these coefficients and a county's base year data including projected growth in income and base employment to estimate the changes in dependent and independent variables from 1990 to 1999.

The econometric equations and coefficients are presented in this section. The coefficients for the IDFIP model are estimated using cross-sectional data, making them applicable across all county, school, and road & bridge districts in Idaho. The coefficients represent the mean response of the 44 counties between independent and dependent variables. The county data has been normalized by dividing all variables in the expenditure, revenue, non-local aid, and tax base equations data by the square root of population (J. Johnston, Econometric Methods, Ch. 8, 1984). Cross sectional models are considered more accurate for public finance extrapolations of this nature (Johnson, 1988a, p. 2).

In the spreadsheet, the boot strap projections are based on the previous year's estimates plus projected changes in the independent variables resulting from the assumptions in growth in income and employment (Johnson and Keeling, pp. 27-28). The base line projections for Custer and Lemhi county are presented in the conclusion section below.

The "boot strap" method of projection incorporates the error terms into predictions. The use of cross-sectional coefficients to make projections implies that the coefficients remain constant through time. This latter assumption limits the useful life of the model. The projections are made in terms of constant 1990 dollars (Johnson, 1986, pp. 5-6).

2.1 An Overview of the Public Finance Model

1. Demographics is a function of the labor force.

2. Tax base is a function of income.

3. Expenditure is a function of aid and income.

4. Non-local aid is a function of expenditures, property, state & federal programs.

5. Tax rate equals (expenditures - aid) / tax base

6. Tax revenues equals tax rate x tax base.

2.2 Demographics

1. Population = f(labor force)

2. Labor force = f(contiguous labor force, employment, number of businesses).

3. Net Commuters = f(contiguous labor force, number of businesses).

2.3 Tax Base

4. Real property tax base = f(income).

5. Personal property tax base = f(income).

6. Operating property tax revenues = f(income).

2.4 Expenditures and Aid

2.4.1 Education

7. Enrollment = f(income, net commuters).

8. Support units = f(kindergarten, elementary students, secondary students, enrollment per school).

9. Educational expenditures = f(total non-local aid, enrollment per school, income).

10. Total non-local aid state sources without capital = f(support units, market value of property).

2.4.2 Road and Bridge

11. Road & bridge expenditures = f(county area, income, public works aid).

12. Road & bridge aid = f(federal road & bridge aid, road & bridge expenditures, operating property base).

2.4.3 County Services

C.3.1. County Public Safety Expenditures and Aid

13. Public safety expenditures = f(town population, crimes, income, court aid, miles to MSMSA).

14. Non-local court aid = f(public safety expenditures, income, operating property base).

C.3.2. County Administrative Expenditures and Aid

15. Administrative public service expenditures = f(administrative aid, income).

16. Administrative aid = f(real property tax base, administrative expenditures, town population, income, PILT payments).

C.3.3. County Health and Welfare Expenditures and Aid

17. Welfare expenditures = f(income, non-white, unemployment, welfare aid).

18. Welfare aid = f(PILT payments, operating property base, real property base, welfare expenditures).

C.3.4. County Mental Health Expenditures

19. Health and mental health expenditure = f(income).

C.3.5. County Solid Waste Expenditures

20. Solid Waste expenditures = f(county area, real property, income).

In equations four through twenty, the dependent and independent variables are divided by the square root of population.

3. THE DATA

The data for the Idaho Fiscal Impact Projections Model are collected from data publications, data diskettes, and phone conversations. Data publications include the Census of Population and Housing, Financial Summaries of Idaho School Districts, and Tax Levies for School Purposes. Data diskettes, compiled by the Idaho Board of the County Commissioners and State of Idaho Department of Transportation, are used in conjunction with the data from the publications to develop the econometric estimates of the coefficients for the Fiscal Impact Model. Phone conversations with county officials yield input values to calibrate the models from 1990 to 1993.

The data discussed above is culminate into a fiscal impact model.

Table 1. A Summary of the Econometric Models and Equations

type	models	equations
Demographic[1]	**3**	**3**
Property tax base[2]	**3**	**3**
Education expenditures and aid	**1**	**4**
Road & bridge expenditures and aid	**1**	**2**
County expenditures and aid[3]	**5**	**8**
Total	**13**	**20**

1. population, labor force, & net commuters models
2. real, personal, & operating property tax base models
3. public safety, administration, health & welfare, mental health, & solid waste models

4. THE EMPIRICAL RESULTS

4.1 Demographics

Equation	Variable	Coef.	Signif.
1. Population =	Pop		
f(labor force)	lf	1.82	.01
Adjusted R^2 = .9914			
2. Labor force Þ	lf		
f(employment in 1990;	emp	1.04	.01
number of businesses;	bus	1.14	.05
contiguous labor force;	cntlf		
Adjusted R^2 = .9989			
3. Net Commuters =	net		
f(number of businesses;	bus	-0.34	.05
contiguous labor force;	cntlf		
Adjusted R^2 = .0937			

4.2 Property Tax Base and Revenues

Equation	Variable	Coef.	Signif.
4. Real Property tax base / sqrt pop	rpb		
f(income / square root of pop.;	inc	2.01	.01
F = 77.523			
5. Personal property tax base / sqrt pop	ppb		
f(income / square root of pop.;	inc	0.29	.01
intercept)		15,363,000	.01
F = 32.685			
6. Operating property tax base / sq root of pop	opb		
f(income / sq root of pop;	inc	0.14	.01
intercept)		13,087,000	.01
F = 48.697			

4.3 Education, Road & Bridge, and County Services

4.3.1 Education Enrollment, Support Units, Expenditures and Aid

Equation	Variable	Coef.	Signif.

7. Enrollment / sqrt pop. =	**enr**		
f(income / sqrt pop.;	**inc**	**0.00**	**.01**
net commuters / sqrt pop.)	**net**	**0.026**	**.01**

X^2 = 11.821

8. Support Units / sqrt pop. =	sup		
f(kinder. enrollment / sqrt pop.;	kind		
elementary enrollment / sqrt pop.;	elem	0.03	.01
secondary enrollment / sqrt pop.;	sec	0.08	.01
enrollment per school / sqrt pop.;	enrpsc	0.02	.01
intercept)	inter	1.60	.01
9. Education expenditures / sqrt pop.=	edexp		
f(total non-local aid / sqrt pop.;	edaid	0.05	.01
income / sqrt pop.;	inc	0.04	.01
enrollment / school / sqrt pop.)	enrpsc		
10. Education Aid / sqrt pop=	edstaid		
f(support units / sqrt pop.;	sup	47,478	.01
market value of property / sqrt pop.)	mv	-0.00	.01

4.3.2 Road & Bridge Expenditures and Aid

Equation	Variable	Coef.	Signif.
11. Road & bridge expenditures / sqrt pop=	pwe		
f(public works aid / sqrt pop;	pwa	0.44	.05
income / sqrt pop.;	inc	0.01	.01
county area / sqrt pop.)	mls		
X^2 = .01			
12. Road & bridge aid / sqrt pop=	pwa		
f(federal public works aid / sqrt pop.;	fpwa	0.97	.01
public works expenditures / sqrt pop.;	pwe	0.27	.01
operating property tax base / sqrt pop.;	opb		
intercept)	inter	292,140	.01

4.3.3 County Services Expenditures and Aid

C.3.1. County Public Safety Expenditures and Aid

Equation	Variable	Coef.	Signif.
13. Public safety expenditures / sqrt pop=	pse		
f(town pop.;	tnp	-92.54	.01
income / sqrt pop.;	inc	0.01	.01
crimes / sqrt pop.;	cr		
court aid / sqrt pop.;	ca		
miles to SMSA / sqrt pop.)	msmsa		
X^2 = 3.8852			
14. Court aid (non-local) / sqrt pop. =	ca		
f(income / sqrt pop.;	inc	0.01	.01
public safety expenditures / sqrt pop.;	pse		
operating property tax base / sqrt pop.)	otb		

C.3.2. County Administrative Expenditures and Aid

Equation	Variable	Coef.	Signif.
15. Admin. expenditures / sqrt pop.=	ae		
f(administration aid / sqrt pop.;	aa	1.13	.01
income / sqrt pop.)	inc		
X^2 = 24.003			
16. Administrative aid / sqrt pop=	aa		
f(administrative expenditure / sqrt pop.;	ae	0.70	.01
town pop.;	tnp	-48.42	.05
income / sqrt pop.;	inc	0.00	.05
real property base / sqrt pop.;	rpb		
PILT payments / sqrt pop.)	plt		

C.3.3. County Health & Welfare Expenditures and Aid

Equation	Variable	Coef.	Signif.
17. Health & welfare expend. / sqrt pop.=	wepc		
f(income / sqrt pop.;	inc	0.00	.01
health & welfare aid / sqrt pop.;	hwa	4.61	.01
unemployment rate;	unpct		
percent non-white)	nwpct		
X^2 = 40.636			
18. Health & welfare aid / sqrt pop.=	hwa		
f(health and welfare expend. / sqrt pop;	hwe	0.14	.01
PILT payments / sqrt pop.;	plt		
operating property tax base / sqrt pop;	opb		
real property / sqrt pop.)	rpb		

C.3.4. County Mental Health Expenditures

Equation	Variable	Coef.	Signif.
19. Mental health expend. / sqrt pop. =	mhe		
f(income / sqrt pop.;	inc	0.00	.01
F = 27.959			

C.3.5. County Solid Waste Expenditures

Equation	Variable	Coef.	Signif.
20. Solid waste expenditures / sqrt pop.=	swepc		
f(real property base / sqrt pop.;	rpb	0.00	.05
income / sqrt pop.;	inc	0.00	.05
county area / sqrt pop.)	mls		
F = 23.049			

5. FAQ'S ABOUT THE FISCAL IMPACT PROJECTIONS (FIP'S)

5.1 What information will the IDFIP Model provide?

The Idaho Fiscal Impact Projection (IDFIP) model provides estimates of population, public expenditures, local property tax base and revenues, and non-local aid for any county in Idaho from 1992 to 1999. The structure of the estimated equations is presented in full in the model section below.

IDFIP provides estimates of changes in population, local property tax base, public expenditures, and tax revenues for a change in federal aid, income, employment, the market value of the tax base, or enrollment. Thus, it is possible to look at the difference in these estimates with and without an outside shock to the trends in federal aid, income, employment, the tax base, and enrollment.

In a community, changes in jobs, income, the tax base, and the quantity and quality of public services are observable. However, it is difficult to combine these changes in a way to know whether the change in tax revenues generated is sufficient to cover the change in public expenditure. Determining this "bottom line" calculation to local governments is the role the IDFIP model is designed to perform. For example, the IDFIP model calculates total expenditures and total revenues. The difference between these is a measure of the ability of local governments to balance their budgets for a given economic change in the community.

The expenditures to revenues difference and the increase in expenditures due to changes in income reflect the tension that exists in providing public services to two types of voter-consumers in which some are price sensitive and others are quality sensitive. If the option of low taxes and high quality services does not exist, then public officials must choose between low taxes and low quality on the one hand and high taxes and high quality on the other (Hirschman, pp. 141-145). The expenditures to revenues ratio and the summary section of the model make this trade-off explicit.

5.2 How can IDFIP be used?

The IDFIP model begins with a set of base line or "without" projections. The base line projections provide information on

conditions expected to prevail if past demographic, economic, and fiscal trends continue into the future without major interruption. All subsequent shocks to the model are then compared to this "without" interrupted status quo representation of conditions (Johnson et al. 1989, p 36).

"The base line for a community requires a great deal of knowledge about the community's recent past, its present situation, and a feel for its future" (Johnson et al. 1989, p 36). The information on the recent past and the present for Custer and Lemhi counties came from Dr. Aaron Harp, who has studied these communities extensively (1993, pp 1-6).

The IDFIP model predicts most variables based on a few assumed variables with less than a dozen variables needed to establish a base line projection. The key variables can be categorized into (1) changes in employment, (2) changes in per capita income, (3) changes in property tax bases, and (4) changes in enrollment.

Base employment and income are clearly the most influential exogenous variables of the fiscal model. The strong influence of employment is because "... base employment is the driving exogenous force in the economic and demographic sections of the [fiscal] model. Changes in base employment determine the final level of total employment. The number of unemployed is also treated as an exogenous variable. Together, employment and unemployment determine labor force. Finally, population is a direct function of labor force (Johnson and Keeling, p. 21). These relationships are shown in the demographic equations of the model section below. The estimated coefficients of these relationships for Idaho are presented in the results section.

Therefore, the IDFIP is driven economically by an export base assumption of basic and non-basic employment. Export base theory suggests that total employment equals basic employment multiplied by the ratio of total to basic jobs created in a basic industry. Thus, total employment can be introduced directly from an input-output model or determined indirectly in the IDFIP model using a generic employment multiplier.

Income is an equally important driving force in the model. This variable plays a profound role in determining property bases and expenditures. The relationship between income and the revenues and

expenditures is displayed in the coefficients section below.

Intuitively, employment and income work together to increase revenues and expenditures. As more people become gainfully employed and their income per capita rises, they start increasing their private expenditure on property. In addition, they desire more public goods, demanding more public services, which increases public spending.

The baseline projections allow both income and employment to grow at a slow but constant growth rate. The base line projections are "average expenditures and revenue levels ... that might be expected in jurisdictions with the same features as the one in question" (Johnson, 1985, p. 2). Once the base line scenario is established, then it is possible to use the IDFIP model to compare and contrast various scenarios "with" interruptions in the status quo trends to the base line "without" these interruptions. Interruptions such as plant closing or opening are discussed below.

One generic type of "with" scenario is the "desirable future" scenario in which base line projections of important economic indicators are compared to those necessary to approach the state average. Then it would be possible to look at the expenditure to revenue ratio and summary section as the community approaches these state wide averages.

5.3 What types of questions can IDFIP answer legitimately?

The IDFIP can address three broad types of questions. First, the IDFIP model allows "analyses of a jurisdiction's efficiency, the level of demand for its services, and its accounting practices" (Johnson, 1985, p. 2). Second, the model can also be used for "what if" analysis such as the "desirable future" scenario described above (Johnson, 1986,

p. 1). Third, the IDFIP model is designed to compare the with and without impacts of changes such as forest revenue funds cuts, new industries, influxes of retirees, etc.

For example, the IDFIP model can project the impact of a plant closing or opening on real and personal property tax base, population, the net number of commuters, size of labor force, employment, tax revenues and the total fiscal cost to the county (Johnson and Kambhampaty, pp. 4-6).

The IDFIP model can also be used to project the contribution of an existing organization such as a hospital to the community. The IDFIP model is linked with an input-output model through their dependence on employment and income data (Kambhampaty, et

al. p. 4). The input-output model determines the impact of an organization on total output, total value added or personal income, and total employment. From this information it is possible to determine net public service benefits and property tax revenues.

The IDFIP model can be used to analyze the effect of an industry that represents a new sector to the economy on local governments ability to provide the needed direct and indirect public services. For example, the development of a retirement community creates added demands on local public services. Can the larger community respond adequately to these added demands for public service? Does the contribution of this new sector to the tax base more or less offset the additional services required (Johnson et al. 1989, p 46)?

Once the likely impact of a development project is determined through the use of the IDFIP model, then additional public policy

Questions arise that are not necessarily ones the IDFIP model can answer (Johnson et al. 1989, p 49). For example: 1. What are the goals of county residents? 2. How important are esthetics in their quality of life? 3. What changes are needed in the community? 4. What changes are the current residents willing to make? 5. What activities are current residents willing to participate in to make these changes? 6. What type of industry is welcomed to the county? 7. How much growth is acceptable? 8. Are residents willing to plan for and control growth?

5.4 What does IDFIP information mean to land managers?

Temporal information from the IDFIP relates to cash-flow and demands for public service benefits projections. This information helps identify and anticipate public finance problems associated with changes in public land use (Halstead and Johnson, p. 3). The IDFIP model is based on cross-sectional data across Idaho's counties, school districts, and road & bridge districts. Thus, it is a comparative equilibrium model in which "with" projections across time go immediately from one equilibrium state to another.

Spatial information from the IDFIP model refers to the political jurisdictions included for analysis. IDFIP provides revenue and expenditure information on the county, school, road and bridge services, each aggregated to the county level. These political jurisdictions represent three of the "big four" jurisdictions of schools, counties, cities, and road & bridge, ranked in decreasing order of property tax burden. City revenues

and expenditures are not included in the IDFIP model because cities are sufficiently different from the others to require a distinct modeling effort (Reiling and Johnson, p. 17).

Sectoral information relates to ability to accurately translate base employment information into total employment numbers with the appropriate employment multiplier, referred to as the marginal multiplier, for the sector under consideration. IDFIP uses a generic employment multiplier that can be set at the desired level. However, an accurate employment multiplier number is not generated by the IDFIP model. Therefore, more accurate total employment numbers are produced when IDFIP is used in concert with an input-output model specifically developed to measure the employment multiplier of the sector in the region under study.

Demographic information is needed in order to determine the local revenues generated and public service costs borne by a local government. The IDFIP model includes four types of demographic information: population, labor force, net commuters, and school enrollment.

Modeling information is needed to run the IDFIP model itself. The IDFIP model comes with a pre-installed set of coefficients that reflect Idaho institutions and relationships between the independent and dependent variables. These coefficients have been installed into Lotus 1-2-3 spreadsheets (Engel and Cooke, 1992a). Spreadsheets with base line projections for both Custer and Lemhi counties are provided. The Custer and Lemhi base line projections are presented in sub-section E of this paper. This manuscript and other documentation have been provided for understanding the model and running the spreadsheet (IMRI; also Engel and Cooke, 1992b). The spreadsheet has many built-in county graphs of demographic, expenditure, non-local aid, and tax base variables. (See section VI.)

6. ENTERING CHANGES IN FISCAL FACTORS

6.1 Locating the Fiscal Change Section

The Idaho Fiscal Impact Model is a single PC spreadsheet file and requires Lotus 123 version 3.x or compatible spreadsheet software. The spreadsheet for the Idaho Fiscal Impact Projections Model (IDFIP) is retrieved in the usual way. The Lotus command is: \file retrieve [name of county].wk3. If the screen portrays space A1, then the user is at the beginning of

the spreadsheet. By pressing the "Home" key the user may get to the top of the spreadsheet if he is not there. The change section is restricted to the area A4...T23.

In column A, section A4...A23, is a series of prompts, such as a change in base employment. Next to the series of prompts, in column C, is a highlighted area dated 1991. Any entry in column C will change the corresponding variable in that year, 1991. Thus, any changes in employment, income, enrollment or the tax base for 1991 are entered into the highlighted area of column C.

The user should notice that column D, dated 1992, is only partially highlighted. The change in the number of kindergartners, elementary students, high school students and overall enrollment is juxtaposed into column E. Thus, entries into the first highlighted area, column C, change 1991 values. The entries into the second highlighted area, which is column D for all but the enrollment values and column E for enrollment values change 1992 values, etc.

The reason for enrollment being juxtaposed is that enrollment may be shocked by increasing (decreasing) the entire enrollment figure or by increasing (decreasing) the number of kindergartners, elementary students, and secondary students. The user may want to increase enrollment if the distribution of students to kindergarten, elementary grades, and secondary grades remains constant. However, the distribution may change over time due to a change in the population structure. The user should input the change in either the enrollment cell block or the in each of the individual cell blocks for kindergartners and elementary and secondary students, but not both.

6.2 Entering Changes in Fiscal Factors

6.2.1 Changes in Employment

Changes in employment may be entered in three different ways: through the county base employment growth rate, a change in county base employment numbers, or the marginal multiplier. The county base employment growth rate is the growth rate in the number of persons working in mining, agriculture, manufacturing, and for the federal government. A normal rate of growth is usually in the neighborhood of 1.35%. This rate may be entered as a higher or lower rate depending on the nature of the natural resource industries, and whether the demand for their outputs is increasing or decreasing. The entry is made in the row labelled

"county base employment growth rate" in the year that the increase (decrease) takes place.

The change in county base employment is a flat increase (decrease) of x number of employees. If a basic industry, like a mine, closes, miners lose their jobs. The number of mining jobs lost is entered into the row labelled "change in county base employment."

The marginal employment multiplier is the ratio of total employment to basic employment. The multiplier takes into account that for a certain number of jobs gained in the mine there is a demand for an additional employee in the service sector, such as another waitress.

There is a different marginal multiplier associated with miners than with farmers or other basic industry employees. The marginal multiplier associated with miners can be determined by the CLEModel. As explained in the "CLEModel Users Manual," the exogenous change factor is sales not number of jobs. Thus, the user wants to divide total sales by the number of employees in mining to get the sales per employee.

Multiplying the sales per employee by the increase in the number of miners yields the exogenous change factor.

The exogenous change factor is input in the usual manner. The "CLEModel Users Manual" is a helpful reference guide in this task.

Once the calculations for the CLEModel have been made, the user knows the increase in the total number of employees in Custer or Lemhi county associated with an increase in miners. The summary sheet of the CLEModel gives the user the number of jobs gained in each of the seven communities in Custer and Lemhi county. The user then adds the change in the number of jobs in each community being considered.

The total number of jobs gained relative to the mining jobs gained is the marginal employment multiplier.

The marginal employment multiplier is entered into IDFIP model in the change section row labelled "marginal employment multiplier." A mine opening example and the associated changes in employment complete with calculation tables is given in the following chapter.

6.2.2 Changes in Number of Businesses

Changes in the number of businesses are entered much like changes in the county base employment. The opening of a mine or a grocery store is an increase of one business. The number one, in this case, is entered into the row labelled "Change in Number of Businesses," in the column of the year the business is started.

6.2.3 Changes in the Enrollment

Enrollment may be changed in two different ways. If enrollment in the kindergarten, elementary, and secondary schools, changes in the same proportion across all types of students, then enrollment may simply be increased (decreased) by the total number of students.

Enrollment does not always fluctuate in smooth patterns. Many times there is not an xx% change in high school students and elementary students. If the proportions of students change, then there may be some need to adjust the number of students in each of these sectors. For example there may be a "baby boom" which shifts the enrollment to a large number of K-6 students, while the high school student population remains relatively constant for the next few years and then increases as the "baby boom" students progress through the educational system. In this case, a change in enrollment should be entered as an increase in the number of kindergartners and elementary students to account for the shift in the student population. In later years a decrease in the primary grade students and an increase in the high school students may be input into the spreadsheet to account for the "baby boom" students going through the educational system.

6.2.4 Changes in Income

Real income may change because of a rise or fall in the natural growth rate or a change in present equivalent incomes. If there is a large influx of immigrants to the area that place demands on goods and services, the income growth rate may be fairly large. The real per capita income growth rate is entered as a percent. A small real per capita income growth rate may be one percent. This would mean that the average person in the community would be able to buy one percent more goods and services next year. A large growth rate would be seven percent. The average person would be able to buy a lot more goods and services in the following year, seven percent more.

Other shocks to the system may come from new employment opportunities. Using the previous example of a mine opening, one can look at the relative incomes of miners to the rest of the county. If the average miner receives a higher salary than other employees, then the user can adjust the county's income per capita for the presence of the new mining jobs.

A quick estimate of the new income per capita level is: (1) determine an approximate income per miner from the company's expected average salary, (2) multiply income per capita by the ratio of population to employees, (3) subtract (2) from (1), (4) multiply (3) by the number of miners, and (5) divide (4) by the population. The difference between the average miners salary and the county-wide average employee's salary is then captured into a county-wide figure. An example of this procedure is given in the next section.

6.2.5 Changes in the Property Tax Base

The property tax base equations are all functions of income, but there may be other reasons for an increase in the base. For example, many parts of Idaho have received recent in-migrations of retired people. These people are bidding up the price of homes and land in many areas. However, they may not be increasing the income per capita, because they do not move to Idaho until they are retired and living on their retirement benefits and social security.

The increase in property values that is not created by the increase in incomes is a shock to the system. This shock is entered as a dollar increase in the column for the year in which the in-migration takes place.

6.2.6 Changes for Forest Reserve Payments

The amount of compensation the federal government pays local governments for the use of federal lands is dependent on the entitlement acres (acres of federal land), the forest revenue share payments, and population. Entitlement acres could change if the federal government sells off a part of its total acreage. In the case that the property is sold to private interests, the real property tax base increases by the dollar value of acres sold, while the payments in lieu of taxes from the federal government decrease. Changes in entitlement acres are entered as changes in actual acres, in the row labelled "Change in Entitlement Acres."

The forest reserve funds may increase or decrease depending on the timber harvested, mining activity, recreational use, etc. If there is a great deal of timber harvested, recreational use, or other activities, there is a large dollar value of forest reserve funds. These funds are distributed to local school districts and road and bridge districts. The change is entered as a total dollar value of increase (decrease) in the row labelled "Change in Revenue Sharing."

Population changes are calculated in the spreadsheet through a series of internal calculations. Forest reserve funds may increase or decrease according to the population. The internal calculations for forest reserve funds bring into check the increase (decrease) in forest reserve funds and PILT funds that correspond to changes in the population. Therefore, the user does not have to make any entry for this type of change.

The increase in forest reserve funds, may decrease the payments in lieu of taxes (PILT). The spreadsheet calculates the decrease (increase) in PILT funds associated with forest reserve revenue increases (decreases) internally also. Again, no entries are made for this type of a change.

6.3 Inter Public Sector Changes Created by Single Factors

Many of the variables of interest are impacted by a single factor. An example of the inter public sector changes was mentioned in the previous subsection. The increase in forest reserve funds increased non-local aid to road and bridge districts and public school, while decreasing PILT funds. PILT funds go to the general maintenance and operation fund; thus, there is a decrease in the total county non-local aid.

Another type of inter public sector change is a change in an independent variable that impacts more than one sector, such as income per capita. As the average income of Custer or Lemhi county residents rises, there is a higher demand for goods and services, including public goods and services. People want more police protection, more environmentally friendly solid waste disposal, and better roads. A change in the income per capita changes all expenditures on public services.

Another major source of inter public sector change is an increase (decrease) in the market value of property. An increase in the market value of property will increase the base from which the county has the ability to tax. However, an increase in the market value of property also reduces the non-local aid that the school district is able to obtain from the state. The school

funding formula tries to equalize across property rich and property poor districts. As the district becomes more property rich, the district bears more of the financial burden of educating the children. Thus, an increase in the market value of property has a positive impact for the county and a less positive impact for the school district.

The Idaho Fiscal Impact Projections Model is designed to capture these interrelationships and give county officials the big picture of a specific shock. The user should now know where to locate the change section in the spreadsheet, what types of variables that he may shock, and how and when to shock these variables. In addition, the user should have a feel for the fact that interrelationships do exist amongst the variables, which means that there are many changes that may occur from a single change in the spreadsheet. Given this knowledge, the user's task is to develop the correct set of changes to input to fit his scenario for the future. The next section focuses on the role of side calculations to determine the actual figures to be input into the model.

7. MODELING THE OPENING OF A NEW MINE: THE ``SIDE CALCULATIONS''

For example, over 90% of the land in Custer and Lemhi counties is federally owned. The U.S. Forest Service (FS) and Bureau of Land Management (BLM) officials are responsible for managing these public lands consistent with the laws established by Congress and the President. The management decisions by local FS and BLM officials regarding the use of these public lands can have a profound effect on the revenue for and expenditures on local public services.

The effects of decisions on local public services are both direct and indirect. The direct fiscal effects are felt through revenue sharing and payments-in-lieu-of-taxes to local governments for county, school, and road & bridge services. The indirect fiscal effects on these local public services come about as a result of changes in the economy, the population, and the property tax base. Local officials have to react to the federal land management decisions to maintain public services with an uncertain revenue stream. Thus, both local and federal officials could benefit from a model that simulates the effects of federal land-management and other changes on local public revenues and services.

Lemhi County is currently anticipating the opening of Beartrack mine, a gold mine. The addition of this business creates many jobs in construction and mining, raises incomes, and

increases the property base. The question becomes how does the user determine the values to be entered for employment, income, and property base changes?

The first adjustment is the change in employees. The mining company anticipates hiring a large number of construction workers in 1994, in particular during the summer months. The company also plans on starting operation of the mine and increasing the operation to nearly full operation in the last month of 1994, thus hiring some miners.

Many of the miners and construction workers will not be hired for the entire year. Since the fiscal model requires the user to input full time equivalent employees. The user inputs the average number of miners and number of construction workers over the twelve month period, which is the full time equivalent employees.

The change in base employment for each year is then determined as the change in the number of full time equivalent employees. In 1994, 44 new mining and 119 new construction jobs combine for a total of 163 new basic industry jobs. Construction is only expected to last one year. Thus, the construction workers lose their jobs in 1995, but the mine is expected to be running at full capacity, so there are new mining jobs. With 94 new mining jobs and 119 construction jobs lost, there is a net decrease of 25 jobs. Table one on page 39 describes these adjustments.

In addition to basic employment positions, there are also residentiary or supporting service positions created. These two increases are the total employment increase. Export base theory suggests that total employment equals basic employment multiplied by the marginal employment multiplier, which is the ratio of total to basic jobs created in a basic industry.

The marginal employment multiplier in this case is introduced directly from the CLEModel. For example in 1994, the user would determine that the exogenous change associated with the increase of 44 miners is the number of miners times the sales per miner. On the page labelled Salmon of the CLEModel, the total sales exogenous is $3,607,480 for the 39.5 employees. Thus, the sales per employee is $91,329.

The sales per employee are multiplied by the total increase in the number of miners, 44. This equation yields an exogenous change of $4,018,459. The figure $4018.459 is input into the CLEModel in the change exogenous section. By recalculating the CLEModel, the user finds that for the 44 additional mining jobs, there are 64 new jobs in Lemhi county. The marginal employment

multiplier is the ratio of the total number of jobs created in Lemhi county, 64, to the 44 new mining jobs or 1.47.

The figure 1.47 is input into the IDFIP Model in the row labelled "Marginal Employment Multiplier." This multiplier figure reflects the additional jobs created by mine employees which are the bulk of the increase in employment.

These shocks to the system take care of the employment increase or decrease, but there is also a real income adjustment. The additional mining and construction jobs pay a higher wage than most of the positions available to current Lemhi County residents. The

difference between the mining and construction workers' salaries and the income per employee in the all other sectors is the salary difference that must be distributed throughout the county. The calculations for the income adjustment are given in table 2. The income difference per capita is then an input to the change section of the spreadsheet in the row labelled "Change in Present Equivalent Income."

7.1 Employment Adjustment

1. Construction and mine workers are hired at the mine in a synchronized fashion. As parts of the construction phase are completed, mining starts. Full employment at the mine is not expected until 1995. Miners that do not live in Lemhi County the full year do not make the demands on public services that a full year resident does. Thus, it is appropriate to only count full time equivalent employees (FTE). The following calculation is used to determine FTE's:

2. Construction jobs are anticipated to be greatest during the summer months of 1994, maximizing at about 300 positions, and to be phased out in 1995 as the mine comes into full operation. Like mining jobs, these workers must be adjusted to full time equivalent employees. The equation for the adjustment of construction workers to full time equivalent construction workers in 1994 is equivalent to those for the miners, while in 1995 all construction is complete, and there are no construction jobs.

3. The addition of (1) and (2) yields the total number of basic employment jobs in each year, which is the adjustment factor that must be put into the fiscal impact model, 163 new jobs in 1994 and -25 jobs in 1995.

7.2 Income Adjustment

1. Construction and mine workers, often have higher salaries than other persons employed in the county. Since income includes both earned and unearned income, plus other adjustments a figure of $38,191 per employee is used. This may be adjusted if the user feels it is an inaccurate reflection of reality.

2. The average current employee in Lemhi county has an income of $26,717. This figure is derived by taking the previous year's income per capita times the population per employee.

3. The difference per employee is then $11,474. The calculation is as follows:

4. The difference per employee must then be multiplied by the number of new workers, which in 1994 is 163. This calculation yields the total income difference for Lemhi county.

5. Dividing the total difference in income by the population yields the income per capita difference that is used as an input into the IDFIP model.

The third and final shock to the system is the shock to the property tax base. In this case real property is increased, but the user may distribute the property tax base increase across real and personal property as seen appropriate. The difference shows up in the graphs on real and personal property tax bases and revenues, but the final result in terms of total property tax base and total revenues is the same whether real or personal property bases are increased.

The mine anticipates that the taxes on the mining equipment and buildings increase school revenues by $390,000. Given that the tax rate for the Salmon school district is .0088, there is an additional $44,318,182 of property from the operation of the mine. The direct property tax impact with the opening of the mine is felt in 1994 and 1995, because of the lag between the time the mine starts construction and the time the property is added to the tax roles. Thus, the user may distribute the additional property across the two year period. The property is added to the base in equal amounts in year 1994 and 1995, though the assessor may choose to change this to fit his or her accounting practices and anticipations of when the property arrives in the county.

7.3 Real Property

The real property adjustment as described above is derived from the companies anticipated contribution to school property taxes. The following is the descriptive equation.

The user may choose to adjust any or all of these assumptions to better describe the mine opening situation. However, this example describes the different adjustments that may be made to view the fiscal impacts of the opening of a gold mine in Lemhi county. If these adjustments are viewed together, then the user can see the entire impact on all the fiscal sectors. The user not only anticipates the burden on the existing service system, but also the increase in the revenues from the increased property tax base. Graphs and a print out of the relevant portions of the spreadsheets for this scenario are available in the appendices.

Modeling the Impact of the Opening of a New Mine and the Re-Opening of an Existing Mine

Custer county is in the process of re-opening the Cyprus mine, now called the Thompson Creek mine, and opening the Hecla mine. The anticipated employment of theses two mines nearly offsets the employment loss associated with the shut-down of the Cyprus mine. The fiscal impacts associated with the operation of the two mines have employment, income, and property base increases.

The time path for hiring miners and construction workers will be different for the two mines, because the Thompson Creek mine, for the most part, is already constructed. Currently, there are 63 employees at the Thompson Creek mine and 43 employees at the Hecla mine. At full operation 150 miners are anticipated to work at each mine.

The Hecla mine, like the Beartrack mine, is being built, so there is a construction phase, taking a longer time to reach full operation. The Hecla mine is currently undergoing construction a process that continues throughout the summer. A construction force of 114 workers has started building the mine facilities with an additional 136 workers to join them for about three-quarters of the year. Since the construction is not to be completed until the end of the year, there is only a skeleton mining crew operating the mine. Thirty more full-time equivalent miners are anticipated to be hired. These miners come in the form of many new miners at the end of the summer, when the bulk

of the construction is completed. An additional 77 miners hired in 1995 bring the mine to full operation.

The Thompson Creek mine does not go through that construction phase, because the mine is being re-opened. There are 63 miners already working at the mine and the mine can reach full employment by the end of the year. However, not all of the employees are hired for the full year, only about three-quarters of the 150 employees are full-time equivalents. Thus, county officials expect fifty new full time equivalent employees in 1994 and the last 37 new employees in 1995.

In addition to the mining and construction job increase, Custer county is impacted by the gain of exploration jobs. With the Cyprus mine closing, exploration stopped. The opening of the Hecla mine and re-opening of Cyprus stimulates exploration back to its original level. There are 22 new exploration jobs in the Challis area and three new jobs in the Big Lost area in 1994.

The total basic employment shocks for the Custer county fiscal model are a large increase in 1994 employment and a slight decrease in 1995. In 1994, there are 105 new mining and exploration jobs and an additional 159 construction jobs. Thus, a total of 264 new employees are hired in 1994. New positions in 1995 shrink because the construction phase of the Hecla operation is over. The number of mining positions increases by 114, but there is a loss of 216 construction workers, calling for a net decrease of 102 employees.

7.4 Employment Adjustment

1. The opening of the Hecla mine and the re-opening of the Cyprus mine happen simultaneously. The mining and construction jobs associated with the events are determined as follows:

Hecla - miners

Hecla - construction workers

Cyprus-Miners

2. The addition of the construction and mining employment figures from (1) yields the total number of basic employment jobs in each year, which is the adjustment factor that must be used to shock the fiscal impact model.The total new full time equivalent employees are input into the row labelled "Change in County Base Employment."

The basic employment positions have an impact on the supporting services section. The marginal multiplier from the CLEModel is 1.38, a smaller marginal multiplier than the first scenario. Custer county is very dependent on its mining sector and has seen many boom and bust mining periods. The smaller marginal multiplier may reflect the communities realization that the economy goes through booms and busts.

The employment effect is only one the effects felt by the opening of a new mine. The income and property base effects must also be expressed. Although many employees in Custer county are miners, there is still a difference between the income per mining employee and the county-wide average income per employee. Thus, the average county-wide income per employee increases when the number of mining jobs increase. The income adjustment is the same for mine workers in Custer county as it was for mine workers in Lemhi county. The difference between the mining and construction workers salaries and the county-wide average income per employee is the per employee income difference. This difference is then multiplied by the expected number of full time equivalent mining and construction jobs to get the total income difference. The total income difference is then divided by population, which yields the income per capita increase. The income per capita increase is entered into the row marked "Changes in the Present Equivalent Income" in the year that the miners are hired, 1994.

7.5 Income Adjustment

1. The average income for a miner/construction worker in Custer county is guesstimated at $35,250. This figure may be adjusted if the user feels it is too high or low - it is simply a guess.

2. Multiplying the previous years income per capita, $12,269, by the population, 3791, and dividing by the number of employees, 1681 yields the average employee income of $27,669 for Custer county.

3. The difference in income generated by one of the new miners or construction workers and an average employee in Custer county is about $7,582. The calculation is as follows:

4. The total income difference is expressed as the income difference per employee times the number of new miner/construction workers.

5. Per capita this figure is:

The final shock to the system is the shock to the property tax base. Most of the property at a mine is personal property, machines and equipment. The property tax base at the Cyprus (Thompson Creek) mine may not change all that significantly. However, the property tax base at the Hecla mine increases substantially, when the equipment arrives and the mine starts operating. For most of 1994, very little actual mining is started; thus, only about $16,000,000 of a total of $66,000,000 worth of mining property is brought onto the tax rolls. The equipment, $50,000,000 worth, is assessed primarily in 1995. These two figures are entered into the change section row labelled "Change in Personal Property Tax Base." The amount to be entered for 1994 is $16,000,000 and for 1995 is $50,000,000.

Again, the user may choose to adjust any or all of these assumptions to better describe the situation of a re-opening of a mine and the opening of an additional mine. This example provides a starting point for looking at the various aspects of the fiscal effects of the shocks associated with mine situation. These adjustments, viewed together, give a broader scope of the entire picture. The increase in the population places a higher demand on public services, but there is the benefit of a larger tax base to support these activities. The graphs and spreadsheets for this scenario are found in the appendix to this publication.

8. VIEWING THE RESULTS

8.1 Locating the Graphs

The sections above describe how the user may determine the appropriate changes to make and inputs those changes into the appropriate cell blocks. Once these values are input into the spreadsheet, the user may determine the new trends by pressing the F9 function key.

These new trends are generated as numbers in the spreadsheet and as graphs that can be called up from the spreadsheet. The spreadsheet contains trends in terms of totals and totals per square root of population. The print-outs of the spreadsheets of the above scenarios may be found in the appendix of this publication. In addition, the advanced user may convert the square root of population figures to per capita figures by multiplying the figures by one over the square root of population:

Many users may only desire to look at the trends for the totals for non-local aid, revenues, and expenditures and the graphs. The graphs can be found in the spreadsheet by the following command code:\ graph name use. The user searches the graph base by pressing the right arrow key. Pressing enter on the desired graph calls up that graph. When the user desires to view a different graph, he may hit the escape key, which will get the user back to "name" in the command sequence stated above.

A sampling of the graphs is given in the appendix of this publication. The following is a complete listing of the graphs: population, town population, income per capita, total employment, base employment, residentiary employment, enrollment, total county expenditures, mental health expenditures, health and welfare expenditures, solid waste expenditures, public safety expenditures, administration expenditures, public works expenditures, court expenditures, police expenditures, total expenditures, total non-local aid, total county non-local aid, non-local educational aid, non-local public works aid, total property tax base, property tax rate, real property tax base, operating and personal tax base, total tax revenues, real property tax revenues, operating and personal property tax revenues, and expenditures to revenues. These graphs give the user an extensive study of the impacts created by the changes the user desires to input into the system.

8.2 Locating the Summary Section

The graphs summarize the relationship between the status quo or baseline and the trend that occurs when there are shocks to the system. However, there is no separation between increase in expenditures due to increases in income and wealth and increases in expenditures due to other forces, such as an increase in the non-local aid. The summary section looks precisely at this issue.

There are two sections of the spreadsheet which focus on the income and wealth issue. The first section, BA100....BM103, looks at the increase due to income and wealth, which are referred to as demand shifts, and the total increase in expenditures, labelled total change in consumption. The demand shifts value is the increase in public expenditures associated with the public's desire and ability to have more of all goods, public and private. This information tells the user how much of the increase in expenditures comes from the transition of the county to a population of wealthier voter-consumers. The table below displays the increases in Custer county expenditures with the mining scenario described in the previous section.

Table A1. Changes in Income and Wealth

Type of Shift	1993	1994	1995
		(dollars)	
Demand	102803.674	368636.17	- 51665.1
Total Change in Consumption	131773.123	461470.238	- 52536.04

The first section looks at all expenditures in a given year and compares this to the previous year. If nothing at all happens to the economy, then there is no increase due to non-local aid or income. Given a case where there is an increase in income or wealth only and no increase in any other function then the total change in consumption and the demand shift are equal.

However, it is highly unlikely that there is an economy that does not fluctuate in any manner. In the graphs, the basis of the comparison is a status quo baseline to a shocked system. This basis of comparison is between a system where there are no shocks, such as a mine opening, and a system where major changes are allowed.

The second summary section, section BA123...BM134, looks at how much of an impact the non-income or wealth shocks have on the cost of public services. Now the comparison is between the baseline, where the demographic, economic, and fiscal conditions in the past are expected to prevail in the future, and a shocked system. The comparison is without income and wealth changes, which takes away the element of peoples' desire to have more of

all goods and services, public and private, when their income and wealth rises.

In table seven on the following page each expenditure is listed separately. When the mining scenario is added there are big differences between the expenditures on many public services. Even if peoples real incomes stay the same there is a large difference between the value of the services provided. In this case, the income and property effects are taken away from the mining scenario leaving only the employment impact. Adding people that have equal incomes and bring in no wealth but are employed has a mixed bag of affects. Overall, it increases administrative, education, and health and welfare expenditures while decreasing expenditures on public works and public safety. Public works aid is dependent on population, which is impacted by employment; thus, it is not surprising that public works expenditures decrease.

Table A2. Changes in Costs of Services

Total Expenditures Differences	1993	1994	1995
		(dollars)	
Administrative	16840	85018	-18166
Public Safety	-2711	-12765	5256
Education	3906	6086	-5350
Mental Health	0	0	0
Public Works	-4706	-8996	4107
Health and Welfare	1862	9205	-2507
Solid Waste	0	0	0
Total	15192	78547	-16661

These two sections provide an opportunity for the user to fully understand the implications of the changes provided by the scenarios above. Not only does the spreadsheet give the user the new calculations of expenditures over time. The graphs clearly

demonstrate how that shocks to the economic system and demographic characteristics can make major changes from the status quo and are vitally important in determining actual expenditure and aid levels. The summary section reinforces the idea that shocks to the system play a major part in determining expenditure levels, but it brings in the additional element of separating out income and wealth effects from other factions. this separation is useful to public officials who are serving both price and quality sensitive voter-consumers.

9. THE CONCLUSIONS

Alternative methods of trending public finance variables over time could be useful for viewing the trends of some public expenditure figures. However, this spreadsheet model is one method of viewing the big picture of local public finance systems. The spreadsheet can be a tool for local public officials in the quest to provide the desired public services in light of the changes in the economy, population, and tastes and preferences of the public.

The publication at hand contains a guide to understanding the purpose of the model, the methods used in creating the model, how to locate the section to enter exogenous changes into the model and enter the same, what side calculations must be performed to determine the exogenous factors to input into the model, and where to locate the results. The attached appendices contribute to the overall understanding of the workings of the model by giving the user a substantial set of the results from examples defined in the text. The guide can prove useful in devising new scenarios for future use.

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APPENDIX A: GLOSSARY

Independent variables are variables that are predetermined, either their values are determined by past history of the system or they are set exogenously to the system in the current period. Looking at page 14 of this publication, the user may notice that there are 19 equations. The independent variables are right hand side variables in these equations that are determined by outside forces in the current period. Outside forces are those forces for which local government systems have no influence that trigger significant changes in the fiscal system. Some examples of independent variables are federal programs variables, income per capita, and employment.

Dependent variables are endogenously determined variables. Their current values are , in theory, explained by the functioning of the model. All of the left hand side variables on page 14 of this publication are dependent variables. Their current values are determined by the right hand side variables of the equations of the model. For example, solid waste expenditures is a function of income - the current value of solid waste expenditures depends on the current level of income per capita in the county.

Equilibrium state is a state in which there is no incentive to change. As on page 11, to "go immediately from one equilibrium state to another" refers to the fact that there is assumed to be no transition period. Any change in an exogenous variable has an immediate impact on all non- local aid, expenditure, revenue, and demographic variables.

Comparative Equilibrium Models are models which compare what is assumed to be equilibrium states of all counties in one period to trend ou into the future the expenditure, demographic, non-local aid, and revenues data of any one county.

APPENDIX B: THE DATA

The public demands increased public services provided by counties and would like them at the lowest possible cost, referring in this case to the tax burden. To aid local public finance decision making, Tom Johnson and his graduate students at Virginia Polytechnic Institute developed a microcomputer based fiscal impact model. The model provides decision makers a method to simulate the impacts of demographic, fiscal, and economic changes on education, demographic, and revenue and expenditure variables. Researchers at the University of Idaho's Agricultural Economics and Rural Sociology are adapting the Virginia model for Idaho counties.

The Idaho version of the Virginia Impact Projections (VIP) model uses a combination of data from primary and secondary sources. The objective of this publication is to familiarize the users with the data used in the model and aid in the data collection process. The first section contains the sources of the data and formulas used for deriving some of the data. The second section presents the data set. The model uses a complete set of data for the year 1990 from all counties in Idaho.

B.1 Variables

Demographic:

Population Within County
Employment in 1990
Base Employment
Residentiary Employment
Contiguous Labor Force
Number of Businesses
Net Commuters (Out commuters less In commuters)
Labor Force
Percent of Labor Force Unemployed
Nonwhite Percent
Income
Crimes

Education:

Enrollment in 1990-1991
Number of Kindergartners
Number of Elementary Students
Number of Secondary Students
Number of Kindergarten Schools
Number of Elementary Schools
Number of Secondary Schools
Total Education Expenditures
Total Non-Local Education Aid
Total Aid State Sources Without Capital Projects Funds
Support Units
Market Value of District Property
Population Within District
Number of Schools
Enrollment Per School
Income Within the District

Spatial

Miles to a Standard Metropolitan Statistical Area
Area of County in Square Miles
Town Percent

Expenditures, Revenues, and Tax Base:

Welfare Expenditures
Mental Health Expenditures
Other Expenditures
Total Public Safety Expenditures
Police Expenditures
Court Expenditures
Solid Waste Expenditures
Public Works Expenditures
Total County Expenditures
Operating Tax Base
Real Property Tax Base

Personal Property Tax Base
Real Property Revenues
Personal Property Revenues
Operating Property Revenues
Non-Local Court Aid
Non-Local Health and Welfare Aid
Non-Local Other Aid
Non-Local Public Works Aid
Federal Public Works Aid
Non-Local PILT Aid

B.2 Data Sources

Education

Enrollment In 1990-1991

Source: "Financial Summaries, Idaho School Districts." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho. Pg.8-9. Table Enrollment ADA-Units, column labelled "Best 28-week ADA."

Kindergarten Students

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, ID.

Elementary Students

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho.

Secondary Students

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho.

Number Of Schools For Kindergartners

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho.

Number Of Schools For Elementary Students

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho.

Number Of Schools For Secondary Students

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho.

Total Educational Expenditures

Source: "Financial Summaries, Idaho School Districts." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho. Individual District Tables, row labelled "Total Expenditures."

Formula: The sum of total instruction, total support services, total non-instruction, capital assets program, debt services programs for principal and interest.

Total Non-local Educational Aid

Source: "Financial Summaries, Idaho School Districts." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, ID. Individual District Tables, row labelled "Total Aid and Transfers In."

Formula: Sum of State Sources, Federal Sources, Other Sources, and Transfers in.

Total Aid State Sources Without Capital

Source: "Financial Summaries, Idaho School Districts." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, ID. Individual District Tables.

Formula: Total State Sources less Capital Projects funds.

Support Units

Source: "Financial Summaries, Idaho School Districts." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise Idaho. Pg. 8-9. Table Enrollment ADA-Units, column labelled "Best 28-week ADA."

Market Value Of Property

Source: "Tax Levies for School Purposes School Year 1991-1992." State Superintendent of Public Instruction, Department of Education 1991-1992, Boise, Idaho. Table "Tax Levies for School Purposes," given as the September market value.

Note: Market value of taxable property located within school district boundaries as measured in September 1991.

Population Within The District

Formula: Enrollment in 1990 * 5.0756. 5.0756 is the coefficient from the regression of the county population on the county school enrollment. The sources for these variables are listed below.

Sources: "Enrollment." U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table 142 in Social and Economic Characteristics. (The Sum of Public Elementary or High School students plus preprimary public school students.) "Population." U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table 1 in Summary Social, Economic, and Housing Characteristics.

Number Of Schools

Source: "Idaho Educational Directory." State Superintendent of Public Instruction, Department of Education 1990-1991, Boise, Idaho.

Enrollment Per School

Formula: Enrollment in 1990 divided by the number of schools in the district.

Income

Source: U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing. Table 9 in Summary Social, Economic, and Housing Characteristics.

Note: This variable was collected as county level data. To proportion this to the school district the income per capita was weighted by the proportion of expenditures contributed by the county. The formula used was the proportion of revenue from a particular county divided by the total revenue in a district. The market value of all taxable property located within the corresponding school district and county bounds as of September 1991 was calculated in work sheet A-2. These figures were multiplied by the total district levy or levies (which includes levies for M&O, Supplemental M&O, Emergency, Tort, Judgement COSSA or Tuition, Bond, and Plant). Source: "Tax Levies for School Purposes School Year 1991-1992." State Superintendent of Public Instruction, Department of Education 1991-1992, Boise, ID. Table "Tax Levies for School Purposes."

Demographics

Population Within The County

Source: "Total." U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table 1 in Summary Social, Economic and Housing Characteristics.

Employment In 1990

Source: "Total." U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table 146 in Social and Economic Characteristics.

Base Employment

Source: 1990 U.S. Department of Commerce News, Economics and Statistics Administration, Bureau of Census, Idaho Economic, Social, and Housing. Washington D.C.

Formula: Total employment in the following industries: agriculture, mining, manufacturing, and federal government.

Residentiary Employment

Source: 1990 U.S. Department of Commerce News, Economics and Statistics Administration, Bureau of Census, Idaho Economic, Social, and Housing. Washington D.C.

Formula: Residentiary employment is total employment less base employment.

Contiguous Labor Force

Source for Idaho: Idaho Department of Employment, "Idaho Employment." Research and Analysis Bureau, February 1991, Table 2, p.20.

Source for Surrounding States: U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table 216, row for labor force 16 years of age and older.

Formula: The sum of labor force members in contiguous counties, regardless of whether county is in Idaho or another state.

Number Of Businesses

Source: "Total Number of Establishments." U.S. Department of Commerce, Bureau of Census, County Business Patterns 1990, U.S. Government Printing Office, Washington D.C., Table 2.

Net Commuters

Formula: Net Commuters is equal to out commuters less in commuters.

In Commuters

Source: Unpublished data form the U.S. Department of Commerce, Bureau of Census, 1990 Census Commuting Patterns from the Idaho Department of Employment Research and Analysis Bureau June 1993.

Formula: This figure is the sum of workers residing in contiguous counties but working in the specified county, regardless of whether the county is in Idaho or any other state.

Out Commuters

Source: "Place of Work - State & County Level." U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table PO45, Washington, D.C.

Formula: Worked outside county of residence and worked outside state of residence equals out commuters.

Labor Force

Source: Idaho Department of Employment, "Idaho Employment." Research and Analysis Bureau, February 1991, Table 2, p.20.

General

Percent Of Labor Force Unemployed

Source: Idaho Department of Employment, "Idaho Employment," Research and Analysis Bureau. February 1991 Table 2, pg. 20.

Nonwhite Percent

Source: U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, CD Rom, Table PO12.

Welfare Expenditures

Source: State of Idaho, Division of Financial Management, Idaho Counties Expenses by Category in FY 1991, December 1992 (Summarized in FY 1994 Executive Budget). This variable includes indigent care only as welfare expenditure.

Mental Health Expenditures

Source: State of Idaho, Division of Financial management, Idaho Counties Expenses by Category in FY 1991, December 1992 (Summarized in FY 1994 Executive Budget). This variable is reported under the column health districts.

Other Expenditures

Source: State of Idaho, State Tax Commission, "Dollar Certification of Budget Request to Board of County Commissioners" (TCL- 2), FY 1991, Boise, ID.

Formula: Other Expenditures equals the total approved budget minus the unencumbered fund balance minus the sum of road and bridge, court, public safety, welfare, health, solid waste expenditures.

Total Public Safety Expenditures

Formula: Public safety expenditures plus court expenditures equals total public safety expenditures.

Police Expenditures

Source: State of Idaho, Division of Financial Management, Idaho Counties Expenses by category in FY 1991, December 1992 (Summarized in FY 1994 Executive Budget).

Formula: The figure includes jails, juvenile detention, personnel, and other.

Court Expenditures

Source: State of Idaho, Division of Financial Management, Idaho Counties Expenses by Category in FY 1991, December 1992. (Summarized in 1994 Executive Budget).

Formula: Court expenditures include district court, prosecuting attorney, public defender, and law library.

Solid Waste Expenditures

Source: State of Idaho, Division of Financial Management, Idaho Counties Expenses by Category in FY 1991, December 1992. (Summarized in FY 1994 Executive Budget).

Public Works Expenditures

Source: State of Idaho, Department of Transportation, "County Road Finance Report for FY 1991.

Formula: Public works expenditures are the total disbursements from the county and highway districts within the county. Highway districts in each county were determined through the state of Idaho Transportation Department Official Reported Motor Vehicle Registration Revenue and Mileage for the Distribution of State Highway User Revenue, Section 40-709 Idaho Code. When a district overlaps two counties the total expenditures are added to the district which is the predominant district.

Total County Expenditures

Formula: Sum of Welfare, Mental Health, Other, Public Safety, and Solid Waste Expenditures.

Income

Source: U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing. Table 9 in Summary Social, Economic, and Housing Characteristics.

Miles To Standard Metropolitan Statistical Area

Source: Idaho Official Highway map.

Formula: Mileage calculated from county seat to nearest SMSA (Spokane, Lewiston, Boise, Twin Falls, Pocatello, or Idaho Falls).

Area Of County In Square Miles

Source: "Idaho Statistical Abstracts." Prepared by S.M. Ghazanfar. University of Idaho Center for Business Development and Research, College of Business and Economics, Moscow, Idaho, 1980. Table I-1, Page 3.

Crimes

Source: "Crime in Idaho." Prepared by the Bureau of Criminal Identification, Uniform Crime Reporting Section, Department of Law Enforcement, 1990.

Formula: Crimes include homicide, forcible rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, and arson.

Town Percent

Source: U.S. Department of Commerce, Bureau of Census, 1990 Census of Population and Housing, Table 1 in Summary Social, Economic and Housing.

Note: Can get data from urbanized areas of less than 2500. Thus, can get a better measure of "urbanization" in Idaho.

Operating Property Tax Base

Source: State of Idaho, State Tax Commission, "1992 Property Tax Base" Boise, ID (on disk), and State of Idaho, State Tax Commission, "Dollar Certification of Budget Request to Board of County Commissioners" (TCL-2), FY 1991, Boise, ID.

Real Property Tax Base

Source: State of Idaho State Tax commission, "1992 Property Tax Base" Boise, ID (on disk).

Formula: Res. urban, res. rural, comm. urban, comm. rural, agricultural, timber, and mining.

Personal Property Tax Base

Source: State of Idaho, State Tax Commission, "1992 Property Tax Base" Boise, ID (on disk).

Real Property Revenues

Source: State of Idaho, State Tax Commission, "1992 Property Tax Base" Boise, ID (on disk).

Personal Property Revenues

Source: State of Idaho, State Tax Commission, "1992 Property Tax Base" Boise, ID (on disk).

Operating Property Revenues

Source: State of Idaho, State Tax Commission, "1992 Property Tax Base" Boise, ID (on disk).

Non-local Court Aid

Source: State of Idaho, State Tax Commission, "Dollar Certification of Budget Request to Board of County Commissioners" (TCL- 2), FY 1991.

Non-local Health And Welfare

Source: State of Idaho, State Tax Commission, "Dollar Certification of Budget Request to Board of County Commissioners" (TCL- 2), FY 1991.

Formula: Non-local charity or indigent aid plus non-local health district.

Non-local Other Aid

Source: State of Idaho, State Tax Commission, "Dollar Certification of Budget Request to Board of County Commissioners" (TCL- 2), FY 1991, Boise, ID.

Formula: State funds and other revenue and grants and matching (w/o Roads) less court aid and health and welfare aid.

Non-local Public Works Aid

Source: State of Idaho, Department of Transportation, "County Road Finance Report for FY 1991" (on disk).

Formula: Public Works is the combination of state inventory replacement sales tax, state sales tax (revenue share), state insurance refund, state other, state FAS exchange ITD, federal forest reserve, federal critical bridge, federal aid secondary, federal aid urban, and federal other from the county and highway department within the county's disbursement. The distribution of aid when a district overlaps counties is the same as the distribution of expenditures.

Federal Public Works Aid

Source: State of Idaho, Department of Transportation, "County Road Finance Report for FY1991" (on disk).

Formula: Federal aid for public works consists of forest reserve, critical bridge, federal secondary, federal urban, and federal other.

Non-local Pilt Aid

Source: State of Idaho, State Tax Commission, "Dollar Certification of Budget Request to Board of County Commissioners" (TCL- 2), FY 1991.

B.3 The Numbers

Table B1: Idaho County Data For 1990

County	Population	Employment	Contiguous Labor Force	Number of Businesses	Net Commuters
Ada	205775	104423	61922	6544	-4290
Adams	3254	1293	30251	70	98
Bannock	66026	29061	12041	1570	2609
Bear Lake	6084	2081	16772	109	535
Benewah	7937	3044	89851	220	-67
Bingham	37583	15003	90550	564	1902
Blaine	13552	7800	39112	946	-94
Boise	3509	1438	145807	71	150
Bonner	26622	10445	81850	858	592
Bonneville	72207	32016	29751	1937	785
Boundary	8332	3045	22237	252	50
Butte	2918	1198	24290	54	-118
Camas	727	326	24452	20	74
Canyon	90076	39181	152459	1859	4057
Caribou	6963	2625	78761	171	-486
Cassia	19532	7708	68450	543	-565
Clark	762	416	18607	11	34
Clearwater	8505	3061	18607	265	-8
Custer	4133	1861	55749	99	202
Elmore	21205	7373	162667	334	682
Franklin	9232	3375	43396	139	896
Fremont	10937	4317	39719	185	1086
Gem	11844	4757	179801	205	1537
Gooding	11633	5033	44137	266	588
Idaho	13783	5272	55891	359	346
Jefferson	16543	6589	54168	226	1590
Jerome	15138	6660	51885	297	1303
Kootenia	69795	30695	50195	2101	3654
Latah	30617	14060	35415	758	1336
Lemhi	6899	2776	27658	222	18
Lewis	3516	1315	27293	104	-174
Lincoln	3308	1587	21117	43	281
Madison	23674	8592	50222	417	-400

Minidoka	19361	8186	25193	317
773				
Nez Perce	33754	15295	33302	1084
-2133				
Oneida	3492	1327	57921	58
345				
Owyhee	8392	3602	224162	112
595				
Payette	16434	6802	149588	289
1610				
Power	7086	3029	50099	151
-653				
Shoshone	13931	5310	74551	364
-26				
Teton	3439	1596	54254	94
296				
Twin Falls	53580	24359	31897	1694
-663				
Valley	6109	2548	20676	315
77				
Washington	8550	3223	45849	195
264				

Table B2: Idaho County Data For 1990

County	Labor Force	Unemployment Percent	Non-White Percent	Health and Wel Mental Health Expenditures
Ada	116504	3.8	4.8	3671826 829191
Adams	1668	13.1	2.8	65777 7498
Bannock	30493	6.4	7.9	1310030 218986
Bear Lake	2283	5.9	2.5	88152 41200
Benewah	3535	10.7	9.3	80867 41200
Bingham	16564	6.8	16.5	522687 353206
Blaine	8805	3.7	4.0	244041 432185
Boise	1414	6.8	2.9	132311 0.0000
Bonner	12302	8.7	3.0	774018 183900
Bonneville	36965	4.6	6.4	1555344 317158
Boundary	4491	7.7	6.5	111674 39800
Butte	1645	5.0	4.1	35949 16881
Camas	396	10.1	1.1	8475 9132
Canyon	43467	7.5	15.1	1557249 291499
Caribou	3017	5.1	2.6	108000 65387
Cassia	7933	8.7	14.6	409541 83489
Clark	730	2.6	10.6	19717 5966
Clearwater	4177	12.6	4.4	148663 31942
Custer	2936	3.8	3.2	101729 21982
Elmore	8536	6.1	13.8	504974 81898
Franklin	3474	4.4	3.1	127000 52464
Fremont	4679	8.4	7.3	226410 49314
Gem	4993	7.7	7.1	278128 36022
Gooding	5286	4.3	8.6	427431 49356
Idaho	6443	7.9	3.5	456773 10182
Jefferson	6943	6.6	7.3	353391 71549
Jerome	6630	5.9	6.9	518859 60489
Kootenia	34827	7.1	3.1	1204480 239701
Latah	14821	3.9	4.5	968842 97597
Lemhi	3222	8.8	2.9	175939 35567
Lewis	2016	6.5	7.0	97959 0.000
Lincoln	1825	5.1	6.0	90953 15222
Madison	8495	5.4	5.0	295726 92474
Minidoka	10091	7.6	20.1	988085 26240
Nez Perce	16673	4.9	6.8	780579 187421
Oneida	1214	4.2	1.8	70445

19979				
Owyhee	3512	5.4	22.3	181255
31436				
Payette	8500	6.9	10.0	464662
50575				
Power	2682	10.6	16.2	130769
0.0000				
Shoshone	5185	10.1	4.2	460869
58219				
Teton	1635	5.7	8.3	66011
17734				
Twin Falls	26750	4.8	7.4	1725573
79936				
Valley	4033	8.0	3.1	242570
44015				
Washington	4215	7.8	12.7	245974
30671				

Table B3: Idaho County Data For 1990

County	Administrative Expenditures	Public Safety Expenditures	Police Expenditures	Court Expenditures	Solid Waste Expenditures
Ada	10161650	15679350	10957850	4721496	1642680
Adams	381080	338139	265930	72208	308855
Bannock	8773320	1870823	1267000	603823	494353
Bear Lake	611479	351713	275114	76598	222750
Benewah	1025429	489065	330551	158514	135300
Bingham	3458841	1754454	1196194	558260	417989
Blaine	2923413	2259141	867222	1391918	414175
Boise	1035891	328491	175833	152658	50920
Bonner	10156950	2018075	1440342	577732	719732
Bonneville	7906206	4106083	2832730	1273353	323001
Boundary	1690240	787078	505509	281569	215191
Butte	635544	189219	128505	60713	51756
Camas	468752	83899	69000	14899	00
Canyon	9401108	5609736	3219610	2390126	538754
Caribou	1740510	480026	341864	138161	85800
Cassia	2918712	1869438	1520912	348525	596329
Clark	287445	142481	119001	23479	84977
Clearwater	181279	855329	692624	162705	126250
Custer	619218	378947	284123	94824	78208
Elmore	3249538	890679	632262	258416	218755
Franklin	1493478	290152	183297	106855	67152
Fremont	888419	653188	481676	171511	91466
Gem	1354483	545273	368526	176747	84816
Gooding	1613602	636343	405781	230562	69123
Idaho	2720978	968313	635463	332850	311100
Jefferson	664638	1056022	445726	610296	303601
Jerome	1478484	684794	434168	250626	118271
Kootenia	9421928	4220088	2548080	1672008	1898642
Latah	2626902	1247990	894051	353939	271782
Lemhi	896518	360258	216208	144050	98502
Lewis	508264	349011	257601	91410	48878
Lincoln	629352	219603	144021	75581	39371
Madison	2214750	539364	445852	93511	83581
Minidoka	2372272	830828	526012	304816	102717
Nez Perce	4181507	2234713	1678343	556370	183816
Oneida	272296	287400	244048	43351	

60594				
Owyhee	1138928	611536	416839	194697
145863				
Payette	1481886	748495	510952	237542
202626				
Power	1243236	665389	537887	127501
193106				
Shoshone	3567780	1603527	1214235	389292
130380				
Teton	583844	218884	164921	53963
18365				
Twin Falls	4702021	2251075	1576036	675039
385369				
Valley	2513218	586014	379419	206595
109365				
Washington	1923354	311640	207632	104007
84305				

Table B4: Idaho County Data For 1990

County	Public Works Expenditures	County Expenditures	Income Per Capita	Miles to SMSA
Ada	21624890	31984690	14268	0
Adams	802311	1101351	13732	73.6
Bannock	2704622	12667510	10976	46.3
Bear Lake	716139	1315296	8989	90.5
Benewah	928320	1771862	9921	46.3
Bingham	3093819	6507177	9473	25.2
Blaine	963538	6272956	19979	92.6
Boise	1017010	1547614	11747	27.3
Bonner	2251907	13852680	10527	58.9
Bonneville	5000312	14207790	12123	0
Boundary	1599564	2843983	9054	86.3
Butte	514704	929351	10257	65.2
Camas	424830	570258	11373	77.8
Canyon	4787503	17398350	9916	31.5
Caribou	1453997	2479723	10808	67.3
Cassia	2473693	5877510	9725	107.3
Clark	371991	540588	10608	46.3
Clearwater	1166071	980905	11234	105.2
Custer	653822	1200086	11607	113.6
Elmore	2189384	4945844	9981	42.1
Franklin	773191	2030248	8532	92.6
Fremont	1348862	1908798	8674	37.8
Gem	944365	2298724	10450	21.0
Gooding	4269227	2795857	9624	82.1
Idaho	3999148	4467346	10527	128.4
Jefferson	1096396	2449201	9055	14.7
Jerome	1565723	2860897	9726	103.1
Kootenia	6933885	16984840	12330	37.8
Latah	2463841	5213113	10892	65.2
Lemhi	706029	1566784	10624	98.9
Lewis	1087559	1004113	9780	113.6
Lincoln	795507	994503	9338	98.9
Madison	1345667	3225897	7385	29.4
Minidoka	1769762	4320145	10110	105.2
Nez Perce	2454352	7568037	12476	84.2
Oneida	660761	710715	8824	84.2
Owyhee	1641791	2109019	9786	37.8
Payette	745833	2948245	9400	48.4
Power	1945150	2232502	9951	63.1
Shoshone	2460737	5820775	10373	71.5
Teton	503146	904838	8983	48.4
Twin Falls	5383183	9143974	11096	111.5
Valley	1475501	3495184	12344	61.0
Washington	1361837	2595945	9088	54.7

Table B5: Idaho County Data For 1990

County	Crimes	Town Population	Operating Property Base	Real Property Base	Personal Property Base
Ada	978460	146985	357732500	5394716000	635632300
Adams	4298	1365	23701610	87445060	24291100
Bannock	315868	58064	99189930	939035500	142607100
Bear Lake	13098	4011	43015870	122974600	8870809
Benewah	27501	3408	16686980	180700700	51671690
Bingham	83208	16884	65981990	550234600	169283300
Blaine	67299	9234	40726640	1849710000	48927050
Boise	8400	1054	12935360	171525200	24174380
Bonner	100045	8734	139270600	983123200	110089500
Bonneville	364789	51183	58195160	1387756000	216767800
Boundary	18896	2592	54262330	160145400	33365520
Butte	4301	1265	9177598	59269510	18134000
Camas	799	383	2512725	33157390	4857709
Canyon	543969	52809	98800190	1594196000	323334500
Caribou	10799	4477	50480980	249841400	131139000
Cassia	94593	9775	38084980	434470800	113366900
Clark	1899	438	11990530	36629440	16193700
Clearwater	23703	4289	15697480	213250900	32676260
Custer	7001	1740	5042795	151958400	72216760
Elmore	52991	15153	86327580	291657500	41080850
Franklin	22498	5207	31490420	157589000	18094390
Fremont	16996	5564	19310510	275627500	32358780
Gem	26696	4601	17751810	184144100	37993440
Gooding	19694	5579	48140380	195726200	37656080
Idaho	20495	5633	21258520	308106600	87468600
Jefferson	40298	5068	31295690	268044100	48390140
Jerome	52301	7254	63526060	258436200	49535160
Kootenia	334667	42131	157548100	2163889000	179326900
Latah	77399	22543	40812200	555065100	73175230
Lemhi	32977	2999	15847610	178039900	17413960
Lewis	7728	2457	6725931	122031300	20707860
Lincoln	3367	1772	35293510	56400980	13659280
Madison	80207	15577	20385260	325742200	53583560
Minidoka	51190	9549	29539250	280128800	89511000
Nez Perce	111590	29454	60753880	768420400	551595800
Oneida	3554	1968	9759963	81301770	

8529726				
Owyhee	20703	3091	33213290	166886500
42332970				
Payette	63303	9334	27119100	256099700
43517310				
Power	30597	4693	91643910	208322200
177345900				
Shoshone	58301	8402	46090280	271224800
39973920				
Teton	3500	1270	10306910	136497100
9361245				
Twin Falls	251075	36319	110125000	988877400
212009400				
Valley	29201	3196	26266260	560945500
53428640				
Washington	24299	5065	76142820	166286800
23803960				

Table B6: Idaho County Data For 1990

County	Court Aid	Health and Welfare Aid	Administrative Aid	Public Works Aid	Federal Public Works Aid
Ada	743990	266010	11646510	1064242	533630
Adams	0	9893	490851	621857	286181
Bannock	510428	168536	4546396	1869876	7433
Bear Lake	9999	24255	389518	530670	50703
Benewah	33514	46542	568328	501354	54831
Bingham	148767	307154	2310231	1845780	0
Blaine	70000	0	2529879	784264	40359
Boise	30000	0	607679	752869	390043
Bonner	163843	121064	8700373	1705889	645975
Bonneville	450000	215000	5377294	2062195	77799
Boundary	93110		818095	1200242	739741
Butte	16600	11400	477413	437247	19508
Camas	9110	5774	258395	354856	28236
Canyon	504862	0	7530139	404755	90393
Caribou	42600	119800	517000	999831	259819
Cassia	98630	11000	3577719	248586	0
Clark	0	600	249050	445245	111225
Clearwater	0	0	0	1141744	536725
Custer	24000	0	585749	433054	61894
Elmore	97711	39521	3283751	396521	1703
Franklin	20000	0	720396	573945	61672
Fremont	62000	23200	741250	967263	244370
Gem	37397	10910	851809	477155	12013
Gooding	44694	52000	1268953	3293412	22575
Idaho	71470	37845	3143011	2765602	25600
Jefferson	62239	96830	903530	898535	611
Jerome	80000	0	1161654	118820	0
Kootenia	404873	74882	6305447	574327	0
Latah	115000	82850	1950963	366275	55604
Lemhi	51733	84000	723200	722068	234082
Lewis	13000	500	357026	33117	0
Lincoln	40547	11789	541111	81038	269
Madison	60000	21500	1106647	749869	12952
Minidoka	61213	17244	1636402	151327	0
Nez Perce	170440	209900	2761595	1205346	3679
Oneida	0	0	0	524419	

7560				
Owyhee	39000	21000	972050	901409
6542				
Payette	95674	116804	974411	409577
0				
Power	35970	79200	868395	150301
52160				
Shoshone	70400	127245	3084695	2756259
2075081				
Teton	0	3650	430615	516296
27494				
Twin Falls	176930	297546	3910461	257842
0				
Valley	49975	23898	1706977	1563249
984070				
Washington	26390	24915	848289	613591
60116				

Table B7a: Idaho School District Data For 1990

County	Enrollment	Kindergarten	Elementary	Secondary	Expenditures
Boise	22147.8	1884.4	11240.6	9264.0	85479650
Meridian	14399.6	1202.1	7108.1	5917.6	51416920
Kuna	2017.7	0000	1178.0	908.0	6632460
Meadows Val	206.5	0000	134.0	83.0	1019896
Council	367.6	30.5	183.4	179.0	1705545
Marsh Val	1564.6	128.5	771.4	751.0	5991859
Pocatello	13213.3	1118.1	6708.8	5571.0	43250390
Bear Lake	1654.7	145.7	849.6	656.6	5841320
St Maries	1252.7	96.3	585.3	601.3	4884491
Snake River	2308.9	185.8	1172.1	997.0	7788025
Blackfoot	4271.5	401.5	2232.1	1854.3	14220820
Aberdeen	800.8	67.5	405.3	336.1	3080312
Firth	1006.0	75.6	151.3	271.0	3508495
Shelley	2330.4	187.7	1163.2	982.0	12375960
Blaine Co.	2247.4	194.4	1327.9	743.6	10539410
Garden Val	236.9	16.0	96.0	136.0	1107105
Basin	203.4	22.4	134.6	44.8	916035
Horseshoe	242.4	20.6	124.0	41.3	1544317
Bonner Co.	5022.8	400.4	2604.5	2222.0	17284360
Idaho Falls	9812.3	767.2	4603.7	4352.0	47096720
Swan Valley	96.5	8.5	51.3	17.1	743812
Bonneville	7251.3	793.3	3560.6	2955.0	26537080
Boundary	1616.6	0000	893.0	739.0	5559971
Arco	721.4	56.1	364.8	346.0	2742290
Camas Co.	178.0	12.2	73.3	87.4	861747
Nampa	7403.5	799.0	3465.0	2875.0	24156340
Caldwell	4199.2	549.5	1993.5	1733.0	15555480
Wilder	469.0	42.8	257.1	186.0	1986112
Middleton	1656.2	119.3	801.3	814.3	5455777
Notus	338.9	26.7	160.6	149.5	1310581
Melba	562.0	41.2	247.7	237.0	2135996
Parma	833.8	95.0	742.3	338.6	3249981
Canyon	2335.9	183.7	1102.2	1078.0	7976321
Grace	709.3	36.1	369.8	297.0	2498158
North Gem	229.4	18.2	109.7	129.0	1075872
Soda Sp	1271.6	107.5	635.5	483.0	4365324
Cassia	5034.0	405.9	2625.3	2062.6	17120410
Clark	159.1	16.4	98.5	59.0	881998
Orofino	1646.7	123.5	777.4	774.0	6465873

Table B7b: Idaho School District Data For 1990

County	Enrollment	Kindergarten	Elementary	Secondary	Expenditures
Challis	660.7	53.9	311.5	307.5	3030453
Mackay	315.9	25.8	155.1	153.0	1372050
Prairie	10.7	1.5	9.3	3.1	29460
Glenns Fe	598.7	53.5	321.4	250.0	3489799
Mountain Hm	3503.5	353.4	1884.6	1447.8	13034490
Preston	2083.4	172.2	1033.7	945.0	6461935
West Side	573.1	47.2	283.7	232.0	2133525
Fremont	2726.5	185.1	1365.8	1151.0	9635561
Emmett	2319.7	196.4	1151.2	963.3	6986258
Gooding	1049.8	88.6	567.8	417.5	3608045
Wendell	884.2	78.5	471.4	379.0	2994456
Hagerman	345.2	29.5	177.4	236.0	1173196
Bliss	186.2	13.9	83.5	83.5	887998
Grangeville	1921.6	161.0	949.9	883.0	7683102
Cottonwood	484.4	35.0	214.5	230.5	1934840
Jefferson	3710.4	231.7	1954.8	1646.5	10918910
Ririe	660.2	50.8	305.1	296.0	2286650
W. Jefferso n	745.9	65.5	393.1	311.3	3029769
Jerome	2697.3	229.5	1366.5	1101.0	8330705
Valley	590.2	43.7	277.2	259.0	2119845
Couer D' A	16742.3	538.6	3223.0	2778.3	22476620
Lakeland	2411.1	185.6	1118.3	1067.0	10017240
Post Falls	3079.6	167.5	1605.4	1327.0	9558349
Kootenia	256.1	21.8	131.1	125.0	1416503
Plummer/Wor	471.0	41.3	240.0	227.6	2702804
Moscow	2590.0	195.8	1264.1	1172.0	1622524
Genessee	283.0	24.0	144.0	135.0	1303480
Kendrick	310.1	20.2	121.7	165.0	1480460
Whitepine	626.3	51.2	307.7	247.0	2950077
Potlatch	575.8	53.2	289.4	328.2	2536748
Salmon	1235.3	98.2	606.7	570.0	4188761
So. Lemhi	120.9	9.7	58.4	43.8	767339
Nez Perce	180.1	000	87.0	64.0	1018677
Kamiah	603.2	47.0	282.0	259.0	2180254
Highland	299.9	23.4	140.5	135.0	1396238
Shoshone	386.3	31.5	189.4	156.0	1538719
Dietrich	164.9	11.6	69.6	69.6	732865
Richfield	191.6	14.6	88.1	88.1	903811
Madison	4357.3	204.6	2270.3	1861.0	14003600

Table B7c: Idaho School District Data For 1990

County	Enrollment	Kindergarten	Elementary	Secondary	Expenditures
Sugar-Salem	1469.4	117.0	755.0	628.0	4971517
Minidoka	4985.9	993.5	2601.5	2091.0	16402600
Lewiston	4373.9	352.2	2113.7	2084.0	17390160
Lapwai	536.6	45.2	271.7	247.0	2887851
Culdesac	159.4	12.3	73.8	73.8	883588
Tammany	321.2	34.6	208.0	69.3	1228393
Oneida	977.6	81.7	490.2	445.0	3461241
Marsing	630.9	48.4	308.1	284.5	2428946
Pleasant	32.3	00	16.5	5.5	222281
Brun/Gr. Vw	538.8	44.2	265.7	166.0	2650818
Homedale	978.3	78.2	469.7	463.0	3251815
Payette	1624.2	142.6	765.3	624.0	6012966
New Plymouth	778.5	62.0	372.0	368.0	2922001
Fruitland	1070.4	90.8	490.7	502.4	3905520
Amer Falls	1549.9	106.5	710.0	644.5	6440496
Rockland	181.6	13.0	78.4	78.4	975010
Arbon	21.7	2.8	17.1	00000	165043
Kellogg	1669.4	109.1	735.5	916.3	7156426
Mullan	218.1	15.7	94.2	111.0	1374462
Wallace	836.5	126.9	383.4	356.6	4530186
Avery	42.4	6.8	41.3	13.7	451778
Teton	883.0	69.1	408.1	355.6	3195129
Twin Falls	6427.7	559.0	3262.0	2924.0	20646150
Buhl	1487.3	126.6	743.0	662.3	5078230
Filer	1095.1	87.3	535.6	478.0	5543210
Kimberly	1034.8	86.1	516.8	411.0	3562718
Hansen	333.3	24.0	144.0	148.0	1244296
Three Creek	15.1	1.0	6.0	2.0	72928
Castleford	307.2	19.4	116.6	143.8	1331145
Murtaugh	292.2	25.1	136.2	131.5	1112080
McCall-Donn	1019.5	82.6	495.7	411.6	4428538
Cascade	307.0	24.2	145.7	153.0	1516312
Weiser	1513.0	124.2	732.7	671.0	5055250
Cambridge	279.6	20.2	121.7	134.0	1182729
Midvale	98.0	8.2	49.7	48.0	676787

Table B8a: Idaho School District Data For 1990

County	Total Educ. Aid	Total Aid SS W/O Capital	Support Units	Market Value of Property	District Population
Boise	47797950	39611210	1060.4	4728933000	112413
Meridian	45175430	29253200	689.8	1485052000	73087
Kuna	4994898	4408621	98.8	146907500	10241
Meadows Val	703831	576415	16.0	59946850	1048
Council	1375296	1050223	24.0	62704150	1865
Marsh Val	4256843	3886801	89.3	161704000	7941
Pocatello	31375580	27311780	631.7	1014689000	67065
Bear Lake	4337575	3726020	89.3	170336400	8399
St Maries	3618226	3081312	68.5	173397300	6358
Snake River	5735776	5047108	111.8	155573100	11719
Blackfoot	11608100	9646633	208.4	307792500	21680
Aberdeen	2094732	1784684	43.4	120960400	4064
Firth	2562772	2310306	53.8	78975750	5106
Shelley	6159393	5037794	111.4	138121600	11828
Blaine Co.	2414766	1871405	119.4	1951776000	11407
Garden Val	713132	584539	17.2	77955070	1202
Basin	484006	355648	11.2	72695540	1032
Horseshoe	822998	685367	16.6	43340470	1230
Bonner	11459570	9278014	258.3	1176739000	25493
Idaho Falls	37500710	20512480	474.5	1078112000	49803
Swan Val	455168	256187	5.5	28571870	490
Bonneville	28625590	15524310	344.6	4614391000	36804
Boundary	4743186	3611971	84.7	255856600	8205
Arco	2142229	1874425	43.7	102968900	3661
Camas	643267	550822	14.1	40090380	903
Nampa	19395280	16143220	367.1	717850300	37577
Caldwell	10536700	8624690	198.0	405230700	21313
Wilder	1646164	1227766	29.5	54402270	2380
Middleton	4396411	3909779	87.1	110137800	8406
Notus	1058983	898886	21.1	30201770	1720
Melba	1570630	1400967	33.7	69148990	2852
Parma	5062059	1903285	45.6	91361170	4232
Canyon	8017830	4478847	113.4	4137955000	11856
Grace	2075911	1763316	42.4	75753150	3600
North Gem	619438	578015	17.1	51256760	1164
Soda Spr	2540719	2312793	63.0	295099300	6454
Cassia	12224320	10637260	253.6	521393900	25550
Clark	638604	509445	14.1	60618590	807
Orofino	4802908	3986297	93.9	227376600	8358

Table B8b: Idaho School District Data For 1990

County	Total Educ. Aid	Total Aid SS W/O Capital	Support Units	Market Value of Property	District Population
Challis	1592882	1364700	41.0	202202600	3353
Mackay	1105886	945346	21.4	33637920	1603
Prairie	47830	39502	1.3	4749118	54
Glenns Fe	2915782	1357106	35.1	1152351000	3038
Mountain Hm	10493900	7418213	167.3	3034568000	17782
Preston	4912801	4414148	100.8	1481415000	10574
West Side	1591284	1430334	33.8	51199870	2909
Fremont	7217839	6138768	142.4	2971164000	13838
Emmett	5402736	4627323	112.6	2325781000	11774
Gooding	2798142	2371132	55.5	1259852000	5328
Wendell	2420213	2084639	47.4	95478220	4488
Hagerman	968878	849121	21.5	61608670	1752
Bliss	675775	590290	14.0	31485590	945
Grange	6717209	4641288	114.4	3094681000	9753
Cottonwood	1684516	1273010	30.3	64500430	2458
Jefferson	9178255	7773987	176.6	2230022000	18832
Ririe	2186492	1764429	40.1	49049880	3351
W Jefferson	2213264	1840263	44.1	97694880	3786
Jerome	6560866	5498424	129.4	2592452000	13690
Valley	1720485	1462539	35.8	84940530	2995
Coeur D Al	13877250	12222340	330.1	14361510000	34221
Lakeland	7344599	4700285	119.0	3571810000	12238
Post Falls	7164268	6304065	150.2	3464965000	15630
Kootenia	820681	667304	17.9	88981580	1300
Plummer/Wor	1960935	1376998	37.3	1534395000	2390
Moscow	6555205	5214833	125.4	3937308000	13146
Genesee	787355	692376	18.6	76544460	1436
Kendrick	1014122	875260	21.3	53054070	1574
Whitepine	2256524	2035374	34.4	1001970000	3179
Potlatch	1721318	1376602	44.6	87243840	2922
Salmon	3104545	2572335	64.2	1713100000	6270
So. Lemhi	629025	576732	14.0	28917230	613
Nez Perce	569211	498432	14.3	65606050	914
Kamiah	2009806	1537761	35.5	56387340	3061
Highland	944821	854600	20.6	74633280	1522
Shoshone	1177824	987899	24.8	52707090	1960
Dietrich	674282	584888	14.2	17828990	837
Richfield	733971	615166	14.6	23019800	972
Madison	10626160	9102638	210.2	3068743000	22116

Table B8c: Idaho School District Data For 1990

County	Total Educ. Aid	Total Aid SS W/O Capital	Support Units	Market Value of Property	District Population
Sugar-Salem	601464	107212	77.1	94741260	7458
Minidoka	12363070	10544320	237.2	437544400	25306
Lewiston	8375959	7407149	211.0	1101799000	22200
Lapwai	4110917	1018793	32.1	58107340	2723
Culdesac	619411	547956	13.4	29180880	809
Tammany	716400	619031	16.2	51100120	1630
Oneida	2556566	2236144	54.1	101309800	4962
Marsing	2018383	1597460	37.8	49978180	3202
Pleasant Val	118860	111542	1.4	26257400	164
Brun Gr.Vw	1817973	1461160	30.4	104541000	2735
Homedale	2973536	2220928	51.7	72926920	4965
Payette	8372364	3723156	85.7	132543600	8243
New Plymouth	2264478	1833497	42.4	71946260	3951
Fruitland	2554663	2261721	55.8	121448300	5433
Amer Falls	3455509	2857128	81.1	457146300	7867
Rockland	672742	594786	14.1	23091060	921
Arbon	54420	50215	1.8	17626890	110
Kellogg	5464467	3223192	91.5	203278900	8473
Mullan	821369	647553	15.6	36641270	1107
Wallace	2980606	2256564	46.8	112499200	4246
Avery	144546	112613	4.6	49828580	215
Teton	2412090	1960070	49.5	143160700	4481
Twin Falls	15273910	12878600	311.4	720080900	32624
Buhl	3660434	3198792	76.6	186950200	7549
Filer	2977130	2504693	58.8	115806400	5558
Kimberely	5193837	2380308	54.9	70898180	5252
Hansen	953759	830760	22.0	49286000	1692
Three Creek	47660	47660	1.3	7026115	76
Castleford	991101	825284	20.2	45068940	1559
Murtaugh	882630	769394	18.6	42284750	1483
McCall-Donn	1896886	1389193	54.2	502405900	5174
Cascade	791275	456291	19.8	154848500	1558
Weiser	3921603	3220504	78.5	157203500	7679
Cambridge	895981	735955	19.4	61866590	1419
Midvale	484201	399044	12.2	54798270	497

Table B9a: Idaho School District Data For 1990

County	Number of Schools	Enrollment/ School	Income Per Capita
Boise	37	598.5	14268
Meridian	19	757.8	14243
Kuna	5	403.5	13328
Meadows Val	2	103.2	13732
Council	2	183.8	13732
Marsh Val	6	260.7	10976
Pocatello	21	629.2	10976
Bear Lake	6	275.7	8989
St Maries	4	313.1	9930
Snake Riv	7	329.8	9474
Blackfoot	10	427.1	9474
Aberdeen	2	400.4	9474
Firth	3	335.3	9474
Shelley	4	582.6	9917
Blaine	6	374.5	19979
Garden Val	3	78.9	11747
Basin	1	203.4	11747
Horseshoe	1	242.4	11747
Bonner	15	334.8	10527
Idaho Fls	17	577.1	12123
Swan Val	1	96.5	12123
Bonneville	12	604.2	12116
Boundary	5	323.3	9054
Arco	4	180.3	10278
Camas	2	89.0	11373
Nampa	12	616.9	9916
Caldwell	6	699.8	9916
Wilder	2	234.5	9916
Middleton	4	414.0	9916
Notus	2	169.4	9916
Melba	2	281.0	10673
Parma	4	208.4	9916
Canyon	4	583.9	9916
Grace	4	177.3	10474
North Gem	2	114.7	10515
Soda Spr	5	254.3	10790
Cassia	15	335.6	9724
Clark	2	79.5	10608
Orofino	10	164.6	11270

Table B9b: Idaho School District Data For 1990

County	Number of Schools	Enrollment/ School	Income Per Capita
Challis	5	132.1	11569
Mackay	2	157.9	11477
Prairie	1	10.7	9981
Glenns Fe	2	299.3	9979
Mountain Hm	8	437.9	9981
Preston	3	694.4	8534
West Side	2	286.5	8560
Fremont	8	340.8	8657
Emmett	7	331.3	11746
Gooding	3	349.9	9615
Wendell	2	442.1	9625
Hagerman	2	172.6	9727
Bliss	1	186.2	9669
Grangeville	9	213.5	10564
Cottonwood	3	161.4	10525
Jefferson	8	463.8	9042
Ririe	2	330.1	10701
W Jefferson	3	248.6	9055
Jerome	5	539.4	9724
Valley	3	196.7	9726
Couer D' Al	11	612.9	12330
Lakeland	6	401.8	12330
Post Falls	5	615.9	12330
Kootenai	2	128.0	12308
Plummer/Wor	4	117.7	11027
Moscow	7	370.0	10892
Genesee	2	141.5	11337
Kendrick	2	155.0	11362
Whitepine	2	313.1	10981
Potlatch	4	143.9	10892
Salmon	4	308.8	10624
So Lemhi	2	60.4	10624
Nez Perce	2	90.0	10444
Kamiah	2	301.6	10245
Highland	2	149.9	10255
Shoshone	2	193.1	9354
Dietrich	1	164.9	9339
Richfield	1	191.6	9339
Madison	10	435.7	7385

Table B9c: Idaho School District Data For 1990

County	Number of Schools	Enrollment/ School	Income Per Capita
Sugar-Salem	4	367.3	7642
Minidoka	9	553.9	10512
Lewiston	10	437.3	12476
Lapwai	3	178.8	12476
Culdesac	1	159.4	12403
Tammany	1	321.2	12476
Oneida	3	325.8	8824
Marsing	3	210.3	9802
Pleasant Val	1	32.3	9786
Brun/Gr. VW	3	179.6	11062
Homedale	2	489.1	9819
Payette	4	406.0	9393
New Plymouth	2	389.2	9400
Fruitland	3	356.8	9400
Amer Falls	3	516.6	9948
Rockland	1	181.6	9951
Arbon	1	21.7	9951
Kellogg	5	333.8	10614
Mullan	2	109.0	10373
Wallace	4	209.1	10373
Avery	2	21.2	10373
Teton	4	220.7	8983
Twin Fls	9	714.1	11096
Buhl	3	495.7	11004
Filer	4	273.7	11096
Kimberly	3	344.9	11096
Hansen	3	111.1	11096
Three Crk	1	15.1	9996
Castleford	2	153.6	11061
Murtaugh	3	97.4	10813
McCall-Donn	4	254.8	12347
Cascade	2	153.5	12344
Weiser	4	378.2	9088
Cambridge	2	139.8	9781
Midvale	2	49.0	9088