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## PROGRESS REPORT

# The Economic Structure Of Benewah County, Idaho 1979

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This publication presents research results in terms of an input-output table which is a static picture of the Benewah County economy in 1979. These results represent an economic tool which can be used in the future to analyze the possible impacts of expected changes on the local economy. A second publication is being prepared to analyze the impacts of exogenous changes such as the railroad closure and the loss of allowable cut from National Forest lands on income and employment in Benewah County. In the meantime, this publication may be used by community leaders and economists to evaluate future changes as they may occur.

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### Summary of Results

During 1980 a study was made to determine the economic structure of Benewah County during 1979. The major results of this study by economic sector were as follows:

| <u>Sector</u> | <u>Name</u>           | <u>Gross Output</u> | <u>Value Added and Household Income</u> | <u>Output Multipliers</u> |
|---------------|-----------------------|---------------------|---|---------------------------|
| 1             | Crop Agriculture      | \$ 9,540,300        | \$ 1,815,600                            | \$1.63                    |
| 2             | Livestock Agriculture | 1,266,400           | 517,300                                 | 2.78                      |
| 3             | Construction          | 3,694,800           | 1,206,700                               | 2.16                      |
| 4             | Logging Contractors   | 39,490,000          | 7,424,100                               | 1.91                      |
| 5             | Lumber Manufacturing  | 62,260,800          | 17,401,900                              | 2.63                      |
| 6             | Transportation        | 3,530,600           | 1,453,900                               | 3.02                      |
| 7             | Comm./Pub.            | 1,068,700           | 426,500                                 | 2.36                      |
| 8             | Utilities             | 1,540,400           | 132,600                                 | 1.50                      |
| 9             | W & R Trade           | 23,208,700          | 3,827,100                               | 1.55                      |
| 10            | FIRE                  | 3,827,500           | 2,430,800                               | 2.77                      |
| 11            | P & B Services        | 4,708,500           | 2,471,400                               | 2.54                      |
| 12            | Med. Services         | 3,115,300           | 1,788,200                               | 2.52                      |
| 13            | Local Gov.            | 6,414,500           | 3,179,700                               | 3.03                      |
| 14            | State Gov.            | 4,962,500           | 4,436,000                               | 3.06                      |
| 15            | Fed. Gov.             | 4,259,500           | 2,468,500                               | 2.70                      |
| 16            | Households            | 35,272,400          | --                                      | 2.20                      |
|               | Total                 | \$208,160,900       | \$ 50,980,300                           |                           |

In 1979 Benewah County generated some \$208,160,900 in sector output, \$50,980,300 in income, and the expansion of final demand in each sector by \$1.00 would impact the total economy as shown in the right hand column above. The purpose of this publication is to provide a tool by which economists can evaluate the impacts of outside forces on the economy of Benewah County.



# The Economic Structure of Benewah County, Idaho, 1979

## Introduction

Benewah County, Idaho is typical of many small, resource economic based counties throughout Idaho. Such counties may be overwhelmed economically by exogenous changes over which they have little or no control. Some examples of such changes include the reduction of allowable cuts from National Forest land, reductions in grazing rights, the loss of a major industry such as a sawmill, or the loss of a major agricultural crop due to changes in environmental standards. Benewah County is located in the forested regions of northern Idaho and its local economy centers around logging and forest products manufacturing. Anything that threatens the viability of the forest industry would be felt throughout much of the local economy.

Recently Benewah County experienced the threat of an economic change that had the potential to greatly and adversely affect the economy. The local railroad that carried local lumber products to distant markets closed down, and the result of this action could have easily affected the competitiveness of locally produced forest products by increasing transportation costs. Benewah county was relatively helpless in being able to assess the impact of the loss of the railroad or any other change in economic conditions because of a lack of information about its own economic structure. The purpose of this study is to develop an economic input-output model of Benewah County in order to help evaluate the effects of exogenous economic changes on the local economy.



## Description of Benewah County

Benewah County is a small county by Idaho standards (see figure 1). In land area it is only 504,512 acres or 788 square miles. About 25 percent of the land area is in farms (128,777 acres) mostly on the western side of the county. The remainder of the county is heavily forested. Benewah County has developed an extensive forest industry which depends heavily upon logs supplied from Shoshone and Clearwater Counties. Most of the forest processing takes place in St. Maries and most forest products are shipped to other parts of the nation. These products move by water, rail and truck. The potential loss of the rail system was a threat to a major part of the county's economy.

Employment location quotients developed for Benewah County describe just how dependent the area is on the lumber and timber industry. Table 1 defines and summarizes employment location coefficients for various sectors of the Benewah County economy. Of the 9 employment location quotients in Table 1 only two are above one (the national average). Employment in public administration was slightly above one (1.34) because of national forest employees, while employment in lumber and timber manufacturing was 43 times the national average. In all other sectors of Table 1, the employment location quotients are less than one, attesting to the relative remoteness of the county and its dependence on forest industries and imports from the rest of the world. Anything that threatens the forest industry in Benewah County also threatens the economic stability of the county in terms of both employment and income.





Fig. 1. State of Idaho and Benewah County.

Table 1. Employment location coefficients for Benewah County, Idaho, 1977.

| <u>Economic Sector</u>                          | <u>Employment Location Quotient*</u> |
|---|--------------------------------------|
| Lumber and Timber Manufacturing                 | 43.00                                |
| Other Manufacturing                             | 0.04                                 |
| Mining  | 0.62                                 |
| Construction                                    | 0.34                                 |
| Transportation, Communication,<br>and Utilities | 0.86                                 |
| Retail Trade                                    | 0.77                                 |
| Finance, Insurance,<br>Real Estate              | 0.50                                 |
| Services  | 0.69                                 |
| Public Administration                           | 1.34                                 |

Source: Economic Development Plan for the Panhandle Area, 1980, Panhandle Area Council, pp. 59-60.

\*Employment Location Quotient =

$$\frac{\% \text{ employed in an Industry (locally)}}{\% \text{ employed in an Industry (nationally)}}$$



## Study Methodology

In order that a small resource based community be able to evaluate the impacts from external sources on its local economy some basic knowledge about the economy and the existing economic interrelationships is necessary. Input-output tables and analyses based on this technique provide a tool by which economic impacts may be evaluated. Because of the problems posed by an economy dependent upon a single resource and its products, an input-output type study was proposed and conducted for Benewah County, Idaho during 1980.

### Sector Delineation

The economy of Benewah County is relatively small employing some 2,330 persons in about 300 firms during 1979. Since the economy was small, dividing the economy in sectors could not be done in great detail without disclosure type problems relative to individual firms. As a result the decision was made to divide Benewah County into 16 economic sectors (Table 2). An effort was made to select the sectors in such a way that they represented the local economy. Manufacturing was divided into two parts, logging contractors and lumber manufacturing. This division does not always represent reality in that some logging contractors are a part of a larger lumber manufacturing firm. Stumpage is usually purchased by the mills who contract with loggers to harvest and haul timber products to local mills. For this reason, and other similar reasons, the input-output model reported in this study represents a somewhat unusual aggregation. Because of disclosure type problems regarding private information, some firms were combined into sectors in



Table 2. Sector delineation of Benewah, County, Idaho, 1979.\*

| <u>Sector<br/>Number</u> | <u>Description</u>   |
|--------------------------|--|
| 1                        | Crop Agriculture (wheat, barley, hay, peas, lentils, grass seed) |
| 2                        | Livestock Agriculture (mostly cattle)                            |
| 3                        | Construction   |
| 4                        | Logging Contractors  |
| 5                        | Lumber Manufacturing (lumber, shakes, plywood)                   |
| 6                        | Transportation (rail, truck, water)                              |
| 7                        | Communications and Publications                                  |
| 8                        | Utilities (electricity, telephone, gas, etc.)                    |
| 9                        | Wholesale and Retail Trade                                       |
| 10                       | Finance, Insurance, Real Estate (FIRE)                           |
| 11                       | Personal and Business Services                                   |
| 12                       | Medical Services   |
| 13                       | Local Government   |
| 14                       | State Government   |
| 15                       | Federal Government   |
| 16                       | Households (wages paid and consumption)                          |

\*Appendix table 2 gives specific definitions for each sector.



which they would not normally be classified. For example, other manufacturing and mining activities were combined with logging and lumber manufacturing to avoid disclosure problems.

### Survey Approach

Data used to construct the input-output table were obtained by personal interviews with firm managers in each sector. When appropriate, the population of each sector was divided into large and small firms (as determined by employment) so that each was represented. A minimum goal was to obtain data from firms that employed about two-thirds of the people in each sector. Cooperation varied widely by sector. Some firms could not cooperate while others would not cooperate. Nevertheless, some 72 firms of 80 selected for contact did cooperate and provide information. When a firm did not provide information, an alternate was selected from the remaining firms and was contacted. Data gathered by sector varied greatly--from 100 percent of all firms in one sector to only one firm in another sector. Since both purchases and sales data were collected from cooperators, missing information was estimated from cooperating firms. In summarizing the data two gross flows tables were estimated, first from sales data and then from purchases data. The results reported represent what was felt to be the best information from both sources. Appendix Table A contains the questionnaire used in conducting the survey.

### Supplementary Information

In addition to firm survey data, information published by the Idaho Department of Employment was also an important part of this study.



Information about number of firms by sector (Standard Industrial Classification Code) and each firm's employment was available directly from the Department of Employment and served as a basis for sampling firms in each sector. Published employment and wage data by sector provided a check on survey results and served as a basis to estimate sector output or sales. Sector outputs were estimated using survey results in terms of dollars of output per dollar of wages, and dollars of output per employee. Sector totals were estimated using department of employment wage and employment data and were then compared with each other. If a large discrepancy occurred between the two estimates the data were evaluated and what was felt to be the most accurate estimate was used. In other words, total output estimates based on output per dollar of wages and output per employee had to be consistent. For this to occur, survey results had to agree with Department of Employment wage and employment data. Total wages paid are the same as those reported by the Department of Employment. Agricultural employment and wage data were obtained from the 1978 Census of Agriculture and total wages paid represents the combination of Department of Employment data and 1978 Agricultural Census Data for Benewah County.

Wages paid per employee was yet another source of comparison between survey results and Department of Employment data in constructing the gross flows table.



## Economic Structure of Benewah County

### Sector Employment

Benewah County's economy is dominated by the forest industry, nearly one out of three workers (37%) is engaged in logging or forest products manufacturing. Table 3 shows that in 1979 some 299 workers were engaged in logging and 708 in lumber manufacturing. Later work with the gross flows table will show the degree of relationships between forest industries and the remainder of the economy. Much of the transportation, state government and federal government sectors are also involved in supporting forest resource work. Most other sectors support the basic forest sectors, either directly or indirectly; however, these linkages may not be obvious.

The agriculture sectors are an exception to the above since most of the crop agriculture is in the western portion of the county, and except for selling small amounts of stumpage to local sawmills has little in common with the forest industry. Other sectors with large numbers of employees are the wholesale and trade sector and the county government sector. Together these two sectors employed 26 percent of the labor force in the county.

The medical services sector in Benewah County is perhaps larger than normal for a county of 7,700 population. However, in many respects, St. Maries is the medical center for a rather remote area, and the medical sector serves not only Benewah County but parts of Shoshone, Kootenai and Latah Counties. Few, if any, sectors in the economy are not related to forest production either directly or indirectly.



Table 3. Employment and wages by sector, Benewah County, Idaho, 1979

| <u>Sector</u> | <u>Description</u>         | <u>Employment</u> | <u>Wages</u>     |
|---------------|----------------------------|-------------------|------------------|
| 1             | Crop Agriculture           | 261 (62)*         | \$ 629,700       |
| 2             | Livestock Agriculture**    | -                 | -                |
| 3             | Construction               | 62                | 848,700          |
| 4             | Logging Contractors        | 299               | 6,713,300        |
| 5             | Lumber Manufactures        | 708               | 11,985,200       |
| 6             | Transportation             | 76                | 1,453,900        |
| 7             | Communications/Publication | 32                | 324,800          |
| 8             | Utilities                  | 10                | 132,600          |
| 9             | W. & R. Trade              | 323               | 2,290,700        |
| 10            | F.I.R.E.                   | 59                | 1,569,700        |
| 11            | P. & B. Services & Misc.   | 172               | 1,451,400        |
| 12            | Medical Services           | 147               | 1,584,500        |
| 13            | Local Government           | 388               | 3,179,700        |
| 14            | State Government           | 52                | 1,639,700        |
| 15            | Federal Government         | <u>139</u>        | <u>2,468,500</u> |
|               | Totals                     | 2,728             | \$35,272,400     |
|               | Average                    |                   | \$ 12,929        |

Sources: Idaho Department of Employment and 1978 Census of Agriculture.

\*Based on 199 farms plus 62 employees.

\*\*Since many farms produce both crops and livestock the employment and wage have been combined for the sake of simplicity and a lack of information about employees in each of the two sectors.



### Sector Output

Together the logging contractors and lumber manufacturers produced products valued at \$101,750,800 in Benewah County (see Table 4). The gross output of the sixteen sectors (including households) was \$208,160,900. In terms of gross output the two forest sectors (4 and 5) produced 48.8 percent of all the output in the county. Referring to the wages column of Table 3, these same two sectors paid \$18,698,500 in wages or 53.0 percent of all wages paid in the county. In terms of direct economic impacts, the forest industry contributes about 50 percent of all economic activities. Any external shock that might be detrimental to these sectors could spell disaster for the county's economy.

The wholesale and retail trade and the agricultural sectors show the next largest gross outputs after the two forest based sectors. Several sectors have relatively low gross outputs and wages paid, however, they may play an integral role in terms of making the economy function. Two such sectors would be transportation and utilities.

Gross output for the government sectors was estimated to be the value or cost of operating that sector during the year, after intersector transfer payments had been deducted. A large part of most government activities represents wages and salaries paid for personal services. State government shows an unusually large gross output because it handled large timber sales from other counties, some of which were processed in Benewah County. Indeed, Benewah County is very heavily dependent upon natural resources for its economic livelihood.



Table 4. Sector outputs in Benewah County, 1979.

| <u>Sector</u> | <u>Description</u>          | <u>Gross Output or Sales</u> |
|---------------|-----------------------------|------------------------------|
| 1             | Crop Agriculture            | \$ 9,540,300                 |
| 2             | Livestock Agriculture       | 1,266,400                    |
| 3             | Construction                | 3,694,800                    |
| 4             | Logging Contractors         | 39,490,000                   |
| 5             | Lumber Manufactures         | 62,260,800                   |
| 6             | Transportation              | 3,530,600                    |
| 7             | Communications/Publications | 1,068,700                    |
| 8             | Utilities                   | 1,540,400                    |
| 9             | W. & R. Trade               | 23,208,700                   |
| 10            | F.I.R.E.                    | 3,827,500                    |
| 11            | P. & B. Services and Misc.  | 4,708,500                    |
| 12            | Medical Services            | 3,115,300                    |
| 13            | Local Government            | 6,414,500                    |
| 14            | State Government            | 4,962,500                    |
| 15            | Federal Government          | <u>4,259,500</u>             |
| 1-15          | Total                       | \$ 172,888,500               |
| 16            | Households (wages)          | <u>35,272,400</u>            |
| 1-16          | Total                       | \$ 208,160,900               |



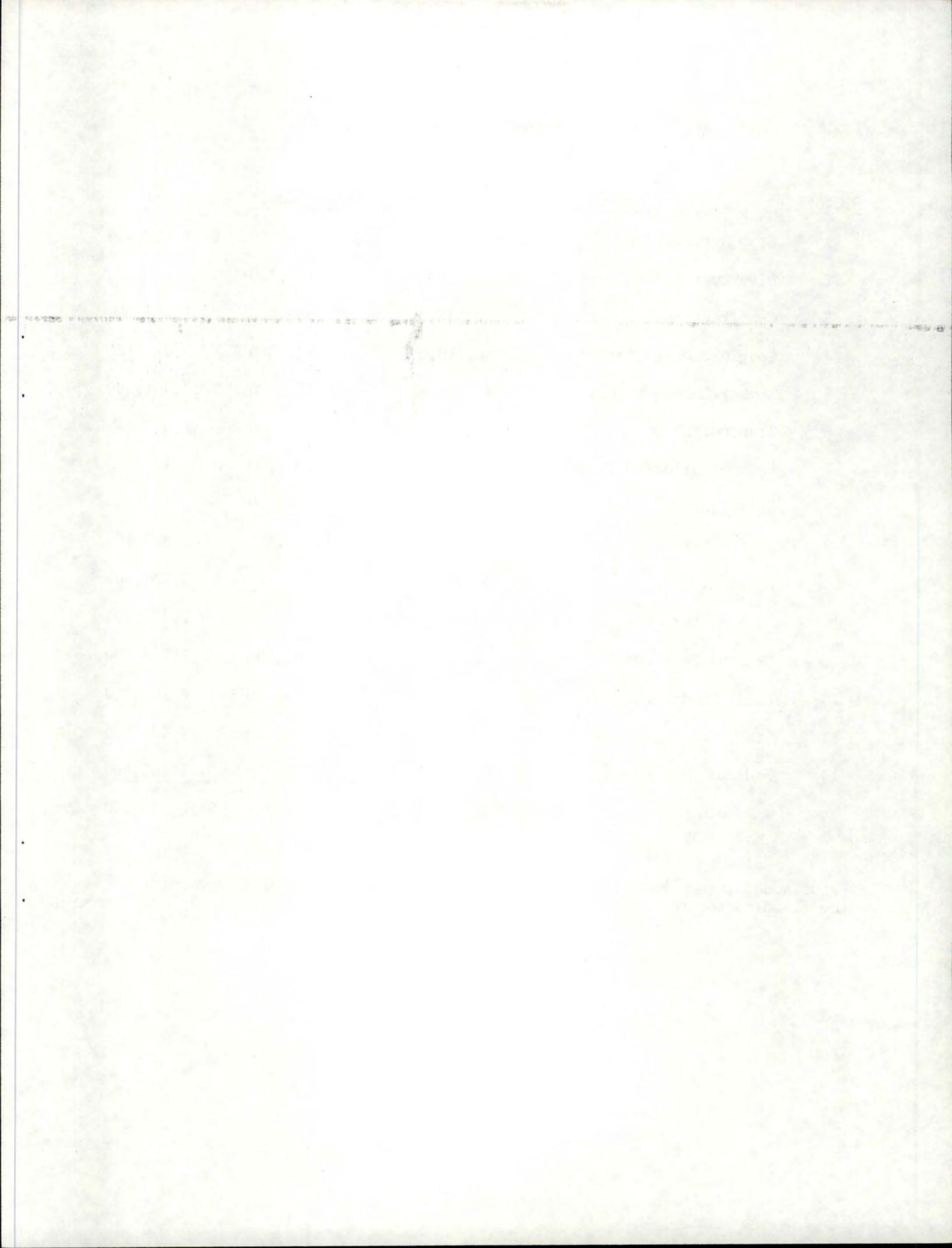




Table 5. Wages and value added income, Benewah County, 1979.

| <u>Sector</u> | <u>Description</u>         | <u>Wages</u>     | <u>Value Added*</u> | <u>Total</u>     |
|---------------|----------------------------|------------------|---------------------|------------------|
| 1             | Crop Agriculture           | \$ 629,700       | \$ 1,185,900        | \$ 1,815,600     |
| 2             | Livestock Agriculture      | 0                | 517,300             | 517,300          |
| 3             | Construction               | 848,700          | 358,000             | 1,206,700        |
| 4             | Logging Contractors        | 6,713,300        | 710,800             | 7,424,100        |
| 5             | Lumber Manufacturers       | 11,985,200       | 5,416,700           | 17,401,900       |
| 6             | Transportation             | 1,453,900        | 0                   | 1,453,900        |
| 7             | Communication/Publications | 324,800          | 101,700             | 426,500          |
| 8             | Utilities                  | 132,600          | 0                   | 132,600          |
| 9             | W. & R. Trade              | 2,290,700        | 1,536,400           | 3,827,100        |
| 10            | F.I.R.E.                   | 1,569,700        | 861,100             | 2,430,800        |
| 11            | P. & B. Services           | 1,451,400        | 1,020,000           | 2,471,400        |
| 12            | Medical Services           | 1,584,500        | 203,700             | 1,788,200        |
| 13            | Local Government           | 3,179,700        | 0                   | 3,179,700        |
| 14            | State Government           | 639,700          | 3,796,300           | 4,436,000        |
| 15            | Federal Government         | <u>2,468,500</u> | <u>0</u>            | <u>2,468,500</u> |
|               | Total                      | \$ 35,272,400    | \$ 15,707,900       | \$ 50,980,300    |

\*Value added income as used in this study represents returns to management and the fixed factors of production.



Table 6. Income-output ratios by sector, Benewah County, Idaho, 1979.

| <u>Sector</u> | <u>Description</u>          | <u>Income-output ratio</u> |
|---------------|-----------------------------|----------------------------|
| 1             | Crop Agriculture            | .19                        |
| 2             | Livestock Agriculture       | .41                        |
| 3             | Construction                | .33                        |
| 4             | Logging Contractors         | .19                        |
| 5             | Lumber Manufacturers        | .28                        |
| 6             | Transportation              | .41                        |
| 7             | Communications/Publications | .40                        |
| 8             | Utilities                   | .09                        |
| 9             | W. & R. Trade               | .16                        |
| 10            | F.I.R.E.                    | .65                        |
| 11            | P. & B. Services            | .52                        |
| 12            | Medical Services            | .57                        |
| 13            | Local Government            | .50                        |
| 14            | State Government            | .89                        |
| 15            | Federal Government          | .58                        |



### Sector Imports and Exports

Small rural counties are typically dependent upon the outside world for many of their inputs. In the ultimate extreme a county could import all its inputs while exporting all its products. In this case little or no relationships would exist between sectors. In 1979 Benewah County was found to import some \$80,625,800 worth of goods while exporting \$96,333,700 of its own products. For the 15 sectors of the economy the average import-output ratio was .392 and for the household sector the average import-output ratio was .363. Table 7 summarizes import and export ratios for Benewah County during 1979.

Many sectors exported nearly all their output from Benewah County. These included crop and livestock agriculture, lumber manufacturers, state government and federal government. Local government, of course, serves primarily the county, however, many of its services are not sold directly to county sectors. Instead they show up in terms of educated children and better bridges and roads, and are shown as exports to future consumption.

The most significant import and export ratios are related to the forest industries. Logging contractors buy many of their inputs (stumpage) from outside the county, while lumber manufacturers sell almost all (99 percent) of their lumber products outside the county. Clearly, the county's economy could be threatened by a lack of stumpage from other counties on the supply side, as well as depressed prices for timber products on the demand side. Either event could threaten the viability of the forest industry in Benewah County. Nevertheless, strong economic ties also exist between sectors as we shall see.



Table 7. Import and export ratios, Benewah County, Idaho, 1979.

| <u>Sector</u> | <u>Description</u>          | <u>Import Ratio</u> | <u>Export Ratio</u> |
|---------------|-----------------------------|---------------------|---------------------|
| 1             | Crop Agriculture            | .69                 | .97                 |
| 2             | Livestock Agriculture       | .20                 | .88                 |
| 3             | Construction                | .46                 | .07                 |
| 4             | Logging Contractors         | .56                 | .14                 |
| 5             | Lumber Manufacturers        | .22                 | .99                 |
| 6             | Transportation              | .02*                | 0*                  |
| 7             | Communications/Publications | .40                 | .38                 |
| 8             | Utilities                   | .79                 | 0                   |
| 9             | W. & R. Trade               | .74                 | .11                 |
| 10            | F.I.R.E.                    | .21                 | .27                 |
| 11            | P. & B. Services & Misc.    | .28                 | .36                 |
| 12            | Medical Services            | .32                 | .60                 |
| 13            | Local Government            | .11                 | .38**               |
| 14            | State Government            | .05                 | .95                 |
| 15            | Federal Government          | .19                 | .88                 |

\*Low ratios due to incomplete information on imports and exports.

\*\*Exported in the sense that products went to build roads and educate children for the future.



### Some Aggregate Measures

In total \$304,494,600 circulated throughout the Benewah County economy during 1979. Nearly one third of that total, \$101,750,800 was the result of logging and lumber manufacturing activities. Altogether, the 12 nongovernment and nonhousehold sectors (sectors 1-12) accounted for \$157,252,000 in total output. The income producing sectors accounted for \$50,980,300 (16.7 percent) in wages and value added. Of the total dollars in circulation some \$96,333,700 (or 31.6 percent) was exported while \$80,625,800 (26.5 percent) worth of goods were imported. Comparing various sector totals with total dollars in circulation gave the following results:

| <u>Portion of the economy</u> | <u>Proportion of total turnover</u> |
|-------------------------------|-------------------------------------|
| <u>Purchases</u>              |                                     |
| Sectors 1-12                  | \$ .52                              |
| Wages & value added income    | .17                                 |
| Government (sectors 13-15)    | .05                                 |
| Imports                       | <u>.26</u>                          |
|                               | 1.00                                |
| <u>Sales</u>                  | or                                  |
| Sector 1-15                   | .68                                 |
| Exports                       | <u>.32</u>                          |
|                               | 1.00                                |

The above aggregate relationships indicate that Benewah County is far from an independent community. Twenty-six percent of its total dollar turnover goes for imports, while 32 percent of its dollar turnover comes from exports. Without the timber from other counties and markets outside the county the economy of Benewah County would not exist in its present form.



## Economic Results and Impact Analysis

### Gross Flows Table

Table 8 presents the survey results in terms of economic activities that took place in Benewah County during 1979. Input-output tables account for sector sales across the rows and sector purchases down the columns. Consequently, interactions between sectors within the county are shown as well as purchases from outside the county (imports) and sales outside the county (exports). Table 8 is a static, one year accounting of the economic activity that took place in Benewah County during 1979.

While the logging contractors and lumber manufacturing sectors dominate the twelve non-governmental sectors, they are in no way independent of either the county economy itself or the rest of the world. Sectors 4 and 5 imported \$35,583,400 worth of stumpage and other inputs which accounted for 44 percent of all county imports. Of course, many of the other imports purchased by other county sectors probably also are used indirectly by these two sectors.

Table 8 shows that a total \$111,827,200 was traded between the sixteen sectors of the economy (Column BC total and row BC total). Interaction of county activities can be summarized from Table 8 as follows:

| <u>Area of activity</u> | <u>Total dollars</u> | <u>Percentage</u> |
|-------------------------|----------------------|-------------------|
| Sixteen sector total    | \$111,827,200        | 36.7              |
| Exports                 | 96,333,700           | 31.6              |
| Imports                 | 80,625,800           | 26.5              |
| <u>Value Added</u>      | <u>15,707,900</u>    | <u>5.2</u>        |
| Total activity          | \$304,494,600        | 100.0             |



Table 8  
Gross Flows Table



BENEWAH COUNTY: INPUT-OUTPUT GROSS FLOWS (COMPOSITE OF SALES & PURCHASES) --  
 USING 1979 DOE DATA (11-4-80)\*

BENEWAH COUNTY INPUT-OUTPUT TABLE, 1979 (IN THOUSANDS OF DOLLARS)

---SALES---

| SECTORS            | 1       | 2       | 3       | 4        | 5        |
|--------------------|---------|---------|---------|----------|----------|
| 1. CROP Ag.        | 0       | 61.0    | 0       | 0        | 36.3     |
| 2. LIVESTOCK Ag.   | 3.8     | 70.5    | 0       | 0        | 0        |
| 3. CONSTRUCTION    | 0       | 0       | 109.3   | 892.5    | 840.9    |
| 4. LOGGING CON.    | 0       | 0       | 0       | 7,692.7  | 25,651.4 |
| 5. LUMBER MANU.    | 12.4    | 12.4    | 31.2    | 7.9      | 137.0    |
| 6. TRANSPORTATION  | 0       | 0       | 1.5     | 473.9    | 3,007.2  |
| 7. COMM/PUB.       | 33.4    | 0       | 18.2    | 31.6     | 18.7     |
| 8. UTILITIES       | 20.0    | 0       | 21.1    | 23.7     | 311.3    |
| 9. W & R TRADE     | 995.6   | 132.2   | 348.4   | 781.9    | 803.2    |
| 10. FIRE           | 24.1    | 88.0    | 151.2   | 43.4     | 18.7     |
| 11. P & B SERVICES | 83.8    | 132.3   | 123.4   | 39.5     | 80.9     |
| 12. MED. SERVICES  | 3.8     | 0       | 0       | 3.9      | 0        |
| 13. LOCAL GOV.     | 0       | 0       | 0       | 27.6     | 37.4     |
| 14. STATE GOV.     | 0       | 0       | 0       | 0        | 37.4     |
| 15. FED. GOV.      | 1.1     | 2.1     | 1.2     | 0        | 342.4    |
| 16. HOUSEHOLDS     | 629.7   | 0       | 848.7   | 6,713.3  | 11,985.2 |
| BC TOTAL           | 1,807.7 | 498.5   | 1,654.2 | 16,731.9 | 43,303.0 |
| IMPORTS            | 6,546.7 | 250.6   | 1,632.6 | 22,047.3 | 13,536.1 |
| VALUE ADDED        | 1,185.9 | 517.3   | 358.0   | 710.8    | 5,416.7  |
| TOTAL OUTPUT       | 9,540.3 | 1,266.4 | 3,694.8 | 39,490.0 | 62,260.8 |

PURCHASES

\*DOE = DEPARTMENT OF EMPLOYMENT



| 6       | 7       | 8       | 9        | 10      | 11      | 12      |
|---------|---------|---------|----------|---------|---------|---------|
| 72.5    | 0       | 0       | 0        | 1.9     | 127.1   | 0       |
| 0       | 0       | 0       | 0        | 16.2    | 0       | 0       |
| 18.0    | 20.0    | 20.0    | 177.0    | 12.9    | 13.6    | 15.0    |
| 0       | 0       | 0       | 2.3      | 32.5    | 166.2   | 0       |
| 0.3     | 0       | 0       | 49.8     | 26.8    | 1.8     | 0       |
| 0       | 1.1     | 1.0     | 0        | 23.0    | 21.5    | 0.3     |
| 2.3     | 15.4    | 3.0     | 163.4    | 40.3    | 38.6    | 7.8     |
| 2.8     | 10.0    | 1.5     | 111.4    | 26.4    | 78.1    | 16.2    |
| 1,146.5 | 34.8    | 25.6    | 1,230.1  | 56.3    | 299.9   | 51.1    |
| 152.7   | 123.6   | 137.8   | 230.4    | 131.7   | 142.8   | 140.1   |
| 606.9   | 0.9     | 0       | 9.0      | 5.6     | 0.9     | 81.5    |
| 0       | 0       | 0       | 2.3      | 202.5   | 0       | 0       |
| 0.6     | 0.6     | 0.6     | 5.8      | 1.9     | 32.7    | 4.5     |
| 0       | 0       | 0       | 202.0    | 0       | 0       | 0       |
| 5.7     | 5.7     | 2.3     | 22.9     | 11.5    | 11.5    | 11.5    |
| 1,453.9 | 324.8   | 132.6   | 2,290.7  | 1,569.7 | 1,451.4 | 1,584.5 |
| 3,462.2 | 536.9   | 324.4   | 4,497.1  | 2,159.2 | 2,386.1 | 1,912.5 |
| 63.4    | 430.1   | 1,216.0 | 17,175.2 | 807.2   | 1,302.4 | 999.1   |
| 0       | 101.7   | 0       | 1,536.4  | 861.1   | 1,020.0 | 203.7   |
| 3,530.6 | 1,063.7 | 1,540.4 | 23,208.7 | 3,327.5 | 4,708.5 | 3,115.3 |



| 13      | 14      | 15      | 16       | BC TOTAL  | EXPORTS  | TOTAL OUTPUT |
|---------|---------|---------|----------|-----------|----------|--------------|
| 0       | 0       | 0       | 3.8      | 302.6     | 9,237.7  | 9,540.3      |
| 0       | 0       | 0       | 62.1     | 152.6     | 1,113.3  | 1,266.4      |
| 0       | 0       | 0       | 1,301.7  | 3,420.9   | 273.9    | 3,694.8      |
| 0       | 9.4     | 537.2   | 0        | 34,091.7  | 5,398.3  | 39,490.0     |
| 0       | 0       | 0       | 105.8    | 385.4     | 61,875.4 | 62,260.8     |
| 0.6     | 0.5     | 0       | 0        | 3,530.6   | 0        | 3,530.6      |
| 21.8    | 4.5     | 31.5    | 235.4    | 665.9     | 402.8    | 1,068.7      |
| 34.0    | 6.0     | 2.5     | 875.4    | 1,540.4   | 0        | 1,540.4      |
| 971.8   | 218.2   | 387.6   | 13,210.4 | 20,693.6  | 2,515.1  | 23,208.7     |
| 31.4    | 0       | 0       | 1,382.9  | 2,798.8   | 1,028.7  | 3,827.5      |
| 81.5    | 28.7    | 32.5    | 1,712.0  | 3,019.4   | 1,689.1  | 4,708.5      |
| 0       | 0       | 0       | 1,020.3  | 1,232.8   | 1,882.5  | 3,115.3      |
| 1,358.0 | 0.6     | 1.3     | 2,505.6  | 3,977.2   | 2,437.3  | 6,414.5      |
| 3.0     | 0       | 0       | 0        | 242.4     | 4,720.1  | 4,962.5      |
| 11.5    | 5.7     | 5.7     | 59.7     | 500.5     | 3,759.0  | 4,259.5      |
| 3,179.7 | 639.7   | 2,468.5 | 0        | 35,272.4  | 0        | 35,272.4     |
| 5,693.3 | 913.3   | 3,466.8 | 22,475.1 | 111,827.2 | 96,333.7 | 208,160.9    |
| 721.2   | 252.9   | 792.7   | 12,797.3 | 80,625.8  | 0        | 80,625.8     |
| 0       | 3,796.3 | 0       | 0        | 15,707.9  | 0        | 15,707.9     |
| 6,414.5 | 4,962.5 | 4,259.5 | 35,272.4 | 208,160.9 | 96,333.7 | 304,949.6    |



### Technical Coefficients

Table 9 presents technical coefficients for each sector. Technical coefficients are determined by dividing total purchases into respective sector purchases and read up or down the column. For example sector 3 (construction) purchased the following proportions of its input from the sectors named below:

| <u>Sector</u>           | <u>Proportion of total purchases</u> |
|-------------------------|--------------------------------------|
| 3. Construction         | .02958                               |
| 5. Lumber Manufacturing | .00844                               |
| 6. Transportation       | .00041                               |
| 7. Comm./Pub.           | .00493                               |
| 8. Utilities            | .00572                               |
| 9. W & R Trade          | .09429                               |
| 10. FIRE                | .04092                               |
| 11. P & B Services      | .03340                               |
| 12. Fed. Government     | .00032                               |
| 16. Households (wages)  | .22970                               |
| Imports                 | .45540                               |
| Value Added             | <u>.09689</u>                        |
| Total                   | 1.00000                              |

Technical coefficients represent average input requirements necessary to expand (or contract) the sector by \$1.00 of output. An expansion of the construction industry by \$1.00 would cause the sector to purchase \$.45 more goods within the economy which would in turn cause these other sectors to expand. These so-called secondary or indirect impacts are reflected throughout the economy. Generally, the larger and more numerous the linkages within the county, the greater will be the direct and indirect impacts of any expansion. Lumber manufacturing, transportation and local government had the highest intracounty technical coefficients.



## Inverse Matrix and Multipliers

What happens to the local economy if one sector expands or contracts? This question is often raised in times of crises--such as the threatened closure of the Milwaukee Road rail system. Input-output analysis allows economists to evaluate the impacts of structural changes in the economy. Table 10 presents a Leontief Inverse matrix which shows what the impact would be if final demand (exports) of one sector were to change by \$1.00. Column one of Table 10 shows the total impact of increasing the demand for crop agriculture by \$1.00. For example, this change would increase the sector itself to \$1.0007, the livestock sector by \$.0010, the construction sector by \$.0126, and so on. In total, a \$1.00 increase in final demand for crop agriculture would increase total economic activity by \$1.63 of which \$.28 would be income to workers and farmers (the sum of column one). Depending on the interdependencies between sectors within the county changes in output would impact other sectors in the economy differently. Table 10 shows these estimated interdependencies for Benewah County in 1979.

Table 11 lists the 16 sectors of Benewah County in terms of their total impact on the economy if the sector were to increase or decrease output by \$1.00. These results hold as long as the economy is not restricted to the point that local needs are no longer met. For example, the utilities sector is of little importance in terms of multiplier analyses (Tables 10 and 11), however, if no electrical power or water were available at all the entire economy might collapse. Table 11 shows state government to be the most important in terms of stimulating economic activity. This result must also be interpreted with caution since state government hires relatively few people and most of the economic activity is based on the harvest of forest products outside the county. Some of



Table 9. Technical Coefficients, Benewah County, Idaho, 1979.

| Sector             | 1       | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | 11      | 12      | 13      | 14      | 15      | 16      |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. Crop. Ag.       | 0       | .04817  | 0       | 0       | .00058  | .02053  | 0       | 0       | 0       | .00050  | .02699  | 0       | 0       | 0       | 0       | .00011  |
| 2. Livestock Ag.   | .00040  | .05567  | 0       | 0       | 0       | 0       | 0       | 0       | 0       | .00423  | 0       | 0       | 0       | 0       | 0       | .00176  |
| 3. Construction    | 0       | 0       | .02958  | .02260  | .01351  | .00510  | .01872  | .01298  | .00763  | .00337  | .00289  | .00481  | 0       | 0       | 0       | .03690  |
| 4. Logging Cont.   | 0       | 0       | 0       | .19480  | .41200  | 0       | 0       | 0       | .00010  | .00849  | .03530  | 0       | 0       | .00189  | .12611  | 0       |
| 5. Lumber Manu.    | .00130  | .00979  | .00844  | .00020  | .00220  | .00008  | 0       | 0       | .00215  | .00700  | .00038  | 0       | 0       | 0       | 0       | .00300  |
| 6. Transportation  | 0       | 0       | .00041  | .01200  | .04830  | 0       | .00103  | .00065  | 0       | .00601  | .00457  | .00010  | .00009  | .00010  | 0       | 0       |
| 7. Comm./Pub.      | .00350  | 0       | .00493  | .00080  | .00030  | .00065  | .01442  | .00195  | .00704  | .01053  | .00820  | .00250  | .00340  | .00091  | .00740  | .00667  |
| 8. Utilities       | .00210  | 0       | .00572  | .00060  | .00500  | .00079  | .00936  | .00097  | .00480  | .00690  | .01659  | .00520  | .00530  | .00121  | .00059  | .02482  |
| 9. W & R Trade     | .10435  | .10439  | .09429  | .01980  | .01290  | .32473  | .03256  | .01662  | .05300  | .01471  | .06369  | .01640  | .15150  | .04397  | .09100  | .37453  |
| 10. FIRE           | .00253  | .06949  | .04092  | .00110  | .00030  | .04326  | .11565  | .08946  | .00993  | .03441  | .03033  | .04497  | .00490  | 0       | 0       | .03920  |
| 11. P & B Services | .00878  | .10447  | .03340  | .00100  | .00130  | .17190  | .00084  | 0       | .00039  | .00146  | .00019  | .02616  | .01271  | .00578  | .00763  | .04854  |
| 12. Med. Services  | .00040  | 0       | 0       | .00010  | 0       | 0       | 0       | 0       | .00010  | .05291  | 0       | 0       | 0       | 0       | 0       | .02893  |
| 13. Local Gov.     | 0       | 0       | 0       | .00070  | .00060  | .00017  | .00056  | .00039  | .00025  | .00050  | .00694  | .00144  | .21171  | .00012  | .00030  | .07104  |
| 14. State Gov.     | 0       | 0       | 0       | 0       | .00060  | 0       | 0       | 0       | .00870  | 0       | 0       | 0       | .00047  | 0       | 0       | 0       |
| 15. Fed. Gov.      | .00012  | .00166  | .00032  | 0       | .00550  | .00162  | .00533  | .00149  | .00098  | .00300  | .00244  | .00369  | .00179  | .00115  | .00134  | .00169  |
| 16. Households     | .06600  | 0       | .22970  | .17000  | .19250  | .41180  | .30392  | .08608  | .09870  | .41011  | .30825  | .50863  | .49570  | .12891  | .57953  | 0       |
| BC Total           | .18948  | .39364  | .44771  | .42370  | .69559  | .98063  | .50239  | .21059  | .19377  | .56413  | .50676  | .61390  | .88757  | .18404  | .81390  | .63719  |
| Imports            | .68622  | .19788  | .45540  | .55830  | .21741  | .01937  | .40245  | .78941  | .74003  | .21089  | .27661  | .32071  | .11243  | .05096  | .18610  | .36281  |
| Value Added        | .12430  | .40848  | .09689  | .01800  | .08700  | 0       | .09516  | 0       | .06620  | .22498  | .21663  | .06539  | 0       | .76500  | 0       | 0       |
| Total              | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |



Table 10. Interdependency Coefficients, Benewah County, Idaho, 1979.

| Sector             | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1. Crop Ag.        | 1.0007 | .0554  | .0019  | .0010  | .0029  | .0265  | .0012  | .0005  | .0004  | .0025  | .0284  | .0021  | .0019  | .0020  | .0016  | .0020  |
| 2. Livestock Ag.   | .0010  | 1.0609 | .0013  | .0007  | .0012  | .0019  | .0019  | .0008  | .0006  | .0065  | .0017  | .0019  | .0018  | .0024  | .0017  | .0026  |
| 3. Construction    | .0126  | .0329  | 1.0537 | .0430  | .0493  | .0414  | .0472  | .0225  | .0190  | .0423  | .0360  | .0385  | .0377  | .0477  | .0380  | .0520  |
| 4. Logging Cont.   | .0029  | .0162  | .0098  | 1.2444 | .5176  | .0137  | .0065  | .0029  | .0031  | .0207  | .0494  | .0070  | .0064  | .0093  | .1619  | .0071  |
| 5. Lumber Manu.    | .0029  | .0148  | .0017  | .0021  | 1.0052 | .0050  | .0041  | .0018  | .0035  | .0116  | .0043  | .0041  | .0045  | .0053  | .0040  | .0057  |
| 6. Transportation  | .0004  | .0024  | .0019  | .0153  | .0552  | 1.0020 | .0025  | .0014  | .0005  | .0077  | .0061  | .0013  | .0011  | .0012  | .0027  | .0011  |
| 7. Comm./Pub.      | .0076  | .0113  | .0125  | .0052  | .0075  | .0142  | 1.0236 | .0055  | .0105  | .0216  | .0178  | .0124  | .0158  | .0141  | .0175  | .0140  |
| 8. Utilities       | .0107  | .0243  | .0222  | .0105  | .0214  | .0280  | .0289  | 1.0077 | .0124  | .0333  | .0386  | .0286  | .0325  | .0338  | .0242  | .0355  |
| 9. W & R Trade     | .2253  | .4367  | .3203  | .1696  | .2706  | .6784  | .3032  | .1047  | 1.1610 | .3918  | .3810  | .3469  | .5583  | .5140  | .4308  | .5139  |
| 10. FIRE           | .0197  | .1216  | .0752  | .0216  | .0350  | .0970  | .1586  | .1052  | .0260  | 1.0894 | .0751  | .0912  | .0564  | .0615  | .0456  | .0666  |
| 11. P & B Services | .0232  | .1498  | .0616  | .0217  | .0400  | .2128  | .0351  | .0114  | .0137  | .0511  | 1.0399 | .0673  | .0605  | .0642  | .0494  | .0642  |
| 12. Med. Services  | .0093  | .0273  | .0186  | .0105  | .0172  | .0270  | .0264  | .0113  | .0086  | .0830  | .0249  | 1.0272 | .0273  | .0354  | .0251  | .0389  |
| 13. Local Gov.     | .0246  | .0665  | .0463  | .0302  | .0493  | .0704  | .0574  | .0185  | .0225  | .0805  | .0745  | .0721  | 1.3448 | .1008  | .0716  | .1108  |
| 14. State Gov.     | .0020  | .0038  | .0028  | .0015  | .0030  | .0060  | .0027  | .0009  | .0101  | .0035  | .0034  | .0031  | .0055  | 1.0045 | .0038  | .0045  |
| 15. Federal Gov.   | .0010  | .0046  | .0022  | .0010  | .0072  | .0047  | .0076  | .0024  | .0019  | .0060  | .0047  | .0062  | .0050  | .0043  | 1.0037 | .0034  |
| 16. Households     | .2822  | .7521  | .5281  | .3344  | .5520  | .7876  | .6502  | .2063  | .2549  | .9161  | .7547  | .8063  | .8751  | 1.1574 | .8159  | 1.2745 |
| Total              | 1.6261 | 2.7806 | 2.1601 | 1.9127 | 2.6346 | 3.0166 | 2.3571 | 1.5038 | 1.5487 | 2.7676 | 2.5405 | 2.5162 | 3.0346 | 3.0579 | 2.6975 | 2.1968 |

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Table 11. Total output multipliers in decending order of magnitude, Benewah County, Idaho, 1979.

| <u>Rank</u> | <u>Sector</u>                   | <u>Multiplier</u> |
|-------------|---------------------------------|-------------------|
| 1           | State Government                | \$3.06            |
| 2           | Local Government                | 3.03              |
| 3           | Transportation                  | 3.02              |
| 4           | Livestock                       | 2.78              |
| 5           | Finance, Real Estate, Insurance | 2.77              |
| 6           | Federal Government              | 2.70              |
| 7           | Lumber Manufacturing            | 2.63              |
| 8           | Personal and Business Services  | 2.54              |
| 9           | Medical Services                | 2.52              |
| 10          | Communications and Publications | 2.36              |
| 11          | Households                      | 2.20              |
| 12          | Construction                    | 2.16              |
| 13          | Logging Contractors             | 1.91              |
| 14          | Crop Agriculture                | 1.63              |
| 15          | Wholesale & Retail Trade        | 1.55              |
| 16          | Utilities                       | 1.50              |



this output is harvested by people working in Benewah County for consumption by local sawmills. Also, much of the income generated by state government in Benewah County does not stay in the county but ends up as part of total state income. In brief, the results of this study need to be used by someone who is familiar with the economic structure of Benewah County and is aware of the assumptions underlying input-output analysis.

Table 12 shows the total impact on income should each sector expand output by \$1.00. The interesting part of this table is the indirect income impacts; transportation, livestock, FIRE, lumber manufacturing, and communications and publications all had indirect income impacts over \$0.25 when final demand increased by \$1.00, which indicates they are very important should they expand or contract production in terms of impacts on the other sectors in the county economy.

*Calculate  
- total  
- direct  
- indirect effect*



*note*

*income*

Table 12. Direct, indirect, and total <sup>income</sup> impact of increasing the output of each sector by \$1.00 in Benewah County, Idaho, 1979.

| <u>Sector</u>            | <u>Direct</u> | <u>Impacts<br/>Indirect</u> | <u>Total</u> |
|--------------------------|---------------|-----------------------------|--------------|
| 1. Crop Agriculture      | .19           | .09                         | .28          |
| 2. Livestock Agriculture | .41           | .34                         | .75          |
| 3. Construction          | .33           | .20                         | .53          |
| 4. Logging Contractors   | .19           | .14                         | .33          |
| 5. Lumber Manu.          | .28           | .27                         | .55          |
| 6. Transportation        | .41           | .38                         | .79          |
| 7. Comm./Pub.            | .40           | .25                         | .65          |
| 8. Utilities             | .09           | .12                         | .21          |
| 9. W. & R. Trade         | .16           | .09                         | .25          |
| 10. FIRE                 | .64           | .28                         | .92          |
| 11. P. & B. Services     | .52           | .23                         | .75          |
| 12. Med. Services        | .57           | .24                         | .81          |
| 13. Local Gov.           | .50           | .38                         | .88          |
| 14. State Gov.           | .89           | .27                         | 1.16         |
| 15. Fed. Gov.            | .58           | .24                         | .82          |
| 16. Household            | 1.00          | .27                         | 1.27         |



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Appendix 1

Input-Output Questionnaire

Firm Name: \_\_\_\_\_  
Interviewee: \_\_\_\_\_  
Sector: \_\_\_\_\_  
Date: \_\_\_\_\_  
Interviewer: \_\_\_\_\_

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and Applied Statistics  
College of Agriculture  
University of Idaho  
Moscow, Idaho



Purchases (\$ total purchases)

| Sector  | Total | Benewah<br>County | Imported | Comments |
|---|-------|-------------------|----------|----------|
| 1. Crop Agriculture                                 |       |                   |          |          |
| 2. Livestock Agriculture                            |       |                   |          |          |
| 3. Construction                                     |       |                   |          |          |
| 4. Logging Camps and Contractors,<br>Mining         |       |                   |          |          |
| 5. Sawmills and Planing Mills                       |       |                   |          |          |
| 6. Transportation                                   |       |                   |          |          |
| 7. Communications, Printing and<br>Publishing       |       |                   |          |          |
| 8. Utilities  |       |                   |          |          |
| 9. Wholesale and Retail Services                    |       |                   |          |          |
| 10. Finance, Insurance, and<br>Real Estate Services |       |                   |          |          |
| 11. Personal and Business Services                  |       |                   |          |          |
| 12. Health Services and Hospital                    |       |                   |          |          |
| 13. Local Government                                |       |                   |          |          |
| 14. State Government                                |       |                   |          |          |
| 15. Federal Government                              |       |                   |          |          |
| 16. Households                                      |       |                   |          |          |



Sales or Output (\$ total sales)

| Sector  | Total | Benewah<br>County | Exported | Comments |
|---|-------|-------------------|----------|----------|
| 1. Crop Agriculture                               |       |                   |          |          |
| 2. Livestock Agriculture                          |       |                   |          |          |
| 3. Construction                                   |       |                   |          |          |
| 4. Logging Camps and Contractors<br>and Mining    |       |                   |          |          |
| 5. Sawmills and Planing Mills                     |       |                   |          |          |
| 6. Transportation                                 |       |                   |          |          |
| 7. Communications, Printing and<br>Publishing     |       |                   |          |          |
| 8. Utilities                                      |       |                   |          |          |
| 9. Wholesale and Retail Services                  |       |                   |          |          |
| 10. Finance, Insurance and Real<br>Estate Service |       |                   |          |          |
| 11. Personal and Business Services                |       |                   |          |          |
| 12. Health Services and Hospital                  |       |                   |          |          |
| 13. Local Government                              |       |                   |          |          |
| 14. State Government                              |       |                   |          |          |
| 15. Federal Government                            |       |                   |          |          |
| 16. Households                                    |       |                   |          |          |



EXOGENOUS INFORMATION

1. What was the total employment of your firm in 1979?  
Full Time \_\_\_\_\_ employees  
Part Time \_\_\_\_\_ employees
2. What were your total payments to the Federal Government in 1979 including business taxes, excise taxes, and employer's share of social security? \_\_\_\_\_ dollars
3. What were your total payments to the State Government in 1979 including sales taxes, excise taxes, corporate and business taxes, unemployment compensation and other taxes? \_\_\_\_\_ dollars
4. What were your total payments to Local Governments in 1979 including city, county, and special districts (school, irrigation, etc)? \_\_\_\_\_ dollars
5. How did your inventory situation change in 1979?  
\_\_\_\_\_ <sup>+</sup>/<sub>-</sub> \$ increase or decrease
6. What was your capital depreciation allowance (expense) in 1979? \_\_\_\_\_ dollars
7. What were your total expenditures for capital items in 1979? \_\_\_\_\_ dollars



## Appendix 2

### Benewah County Sectors

1. Crop Agriculture Sector = establishments (farms, ranches, dairies, greenhouses, nurseries and orchards) primarily engaged in the production of crops, plants, vines and trees.
2. Livestock Agriculture Sector = establishments (farms, ranches, dairies, and hatcheries) primarily engaged in the production of or keeping, grazing or feeding of livestock for the sale of livestock or livestock products (including serum) for livestock increase or value increase. Livestock includes cattle, sheep, goats, hogs and poultry.
3. Construction Sector = establishments primarily engaged in general construction, non residential buildings, highways and streets, electrical work, steel erection, masonry, stone setting and other stone work, excavating and foundation work, plumbing, heating, air conditioning, and carpentry.
4. Logging Camps and Contractors and Mining Sector = establishments engaged in harvesting forest products and mining non metallic minerals.
5. Sawmills and Planning Mills = establishments primarily engaged in producing lumber, specialty products and wood preserving.
6. Transportation = establishments primarily engaged in trucking, busing and railroad transportation.
7. Communications, publishing and printing = establishments primarily engaged in providing telephone services, radio broadcasts, cable television, newspapers and other publications.
8. Utilities = establishments primarily engaged in providing electrical service and refuse systems.
9. Wholesale and Retail Trade Services = establishments primarily engaged in providing automotive parts and supplies, fresh fruits and vegetables, petroleum products, farm supplies, beer and ale, groceries and related products, hardware, building materials, paint, glass and wallpaper, general merchandise, groceries, new and used cars, motorcycles, clothing, appliances, drinking places, eating places, drugs and mail order services, flowers and jewelry.
10. Finance, Insurance and Real Estate = establishments primarily engaged in providing banking services, credit or loan services, title insurance, insurance, real estate sales, rental units, subdivisions and real estate development, hotels, motels and tourist courts.



11. Personal and Business Services = establishments primarily engaged in personal services, funerals, laundries, detective work, credit information, general repair, truck rental and leasing and bowling allies, legal services, child care, fraternal organizations, and bookkeeping services.
12. Medical Services = establishments and individuals primarily engaged in providing services associated with physicians, dentists, nursing care, out patient care and hospitalization.
13. Local Government Sector = units of local government involved in providing public schooling, city and county government, and soil conservation services.
14. State Government Sector = units of state government involved in operating liquor stores, state department of employment, law enforcement, health and welfare service, fish and game management, land management and highway repair and construction.
15. Federal Government Sector = units of the federal government involved in forest management, postal service, land mineral and wildlife conservation, and regulation of agricultural production.
16. Household Sector = family units living within Benewah County.





## SERVING THE STATE

**Teaching . . . Research . . . Service . . .** this is the three-fold charge of the College of Agriculture at your state Land-Grant institution, the University of Idaho. To fulfill this charge, the College extends its faculty and resources to all parts of the state.

**Service . . .** The Cooperative Extension Service has offices in 42 of Idaho's 44 counties under the leadership of men and women specially trained to work with agriculture, home economics and youth. The educational programs of these College of Agriculture faculty members are supported cooperatively by county, state and federal funding.

**Research . . .** Agricultural Research scientists are located at the campus in Moscow, at Research and Extension Centers near Aberdeen, Caldwell, Parma, Tetonian and Twin Falls and at the U. S. Sheep Experiment Station, Dubois and the USDA/ARS Soil and Water Laboratory at Kimberly. Their work includes research on every major agricultural program in Idaho and on economic activities that apply to the state as a whole.

**Teaching . . .** Centers of College of Agriculture teaching are the University classrooms and laboratories where agriculture students can earn bachelor of science degrees in any of 20 major fields, or work for master's and Ph.D. degrees in their specialties. And beyond these are the variety of workshops and training sessions developed throughout the state for adults and youth by College of Agriculture faculty.