

**The Economic Structure
of Boundary County, Idaho**

by

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EXECUTIVE SUMMARY

The following report summarizes the result of a study of the economic structure of Boundary County. Boundary County's economy is highly dependent upon the natural resource base of the region and the proximity to Canada. The economy has traditionally depended upon timber as a source of local income but the economy has diversified in recent years into tourism and retirement related income.

Economic indicators of Boundary County suggest a steady growth rate for the past twenty years. Real per capita personal income (inflation adjusted) in the county has grown since 1969 at a rate of 2.6 percent. Its rate of growth has been steady though lower than the State average. The county's reliance on earned income (labor and proprietary income) has steadily declined over the years from a high of 80 percent in 1969 to a low of 63 percent in 1991. Employment also has grown steadily and recently at a rate higher than the State.

Timber has been the major source of growth in income over the years with a 4 percent growth from 1969 to 1991. Growth in income from timber slowed in the 1980s to under 2 percent with trade and services personal income growth higher. In 1991 the gross county product (the value of goods and services produced in the region) totaled to over \$107 million. An economic base analysis shows that 38.8 percent of the gross regional income and 28 percent of the jobs in the county are related directly and indirectly to timber. Agriculture and nurseries account for 24.6 percent of gross regional income and 26 percent of total jobs. Trade and Services account for 12.4 percent of gross regional income and 16 percent of total jobs in the county. Government accounts for 13 percent of gross regional income and 19 percent of total jobs.

An economic base analysis of the Bonners Ferry zip code reflects the city's role as the largest trade center in the county and county seat. Timber accounts for 26.6 percent of gross regional income and 20 percent of total jobs. Agriculture and nurseries account for 27.1 percent of income and 31.6 percent of total total jobs. Trade and services account for 16 percent of total income and 23 percent of total jobs. Government captures 15.7 percent of gross regional income and 10 percent of total jobs. The relatively higher proportions in the Bonners Ferry zipcode relate to its role as the county seat, its location as a major through way for international traffic, and the agricultural lands that happen to be in the same zipcode.

INTRODUCTION

The following report summarizes the results of a study of the Boundary County, Idaho economic structure for 1991. This study was conducted by the Idaho Cooperative Extension

System at the request of the Boundary County Board of Commissioners. The purpose of this study is to develop a complete description of the Boundary County economy and address a set of real and potential policy impacts on the Boundary County economy. This study is comprised of two parts: Part I is a descriptive analysis of this County's economic base and an estimation of the relative importance of different sectoral aggregations of this economy. The criteria of choice in this analysis is total regional income, or value-added.

Part II of this report is an impact analysis of a set of real and potential policy changes on the resource base of this county. The policy changes evaluated are policies that are proposed by different levels of government in the area.

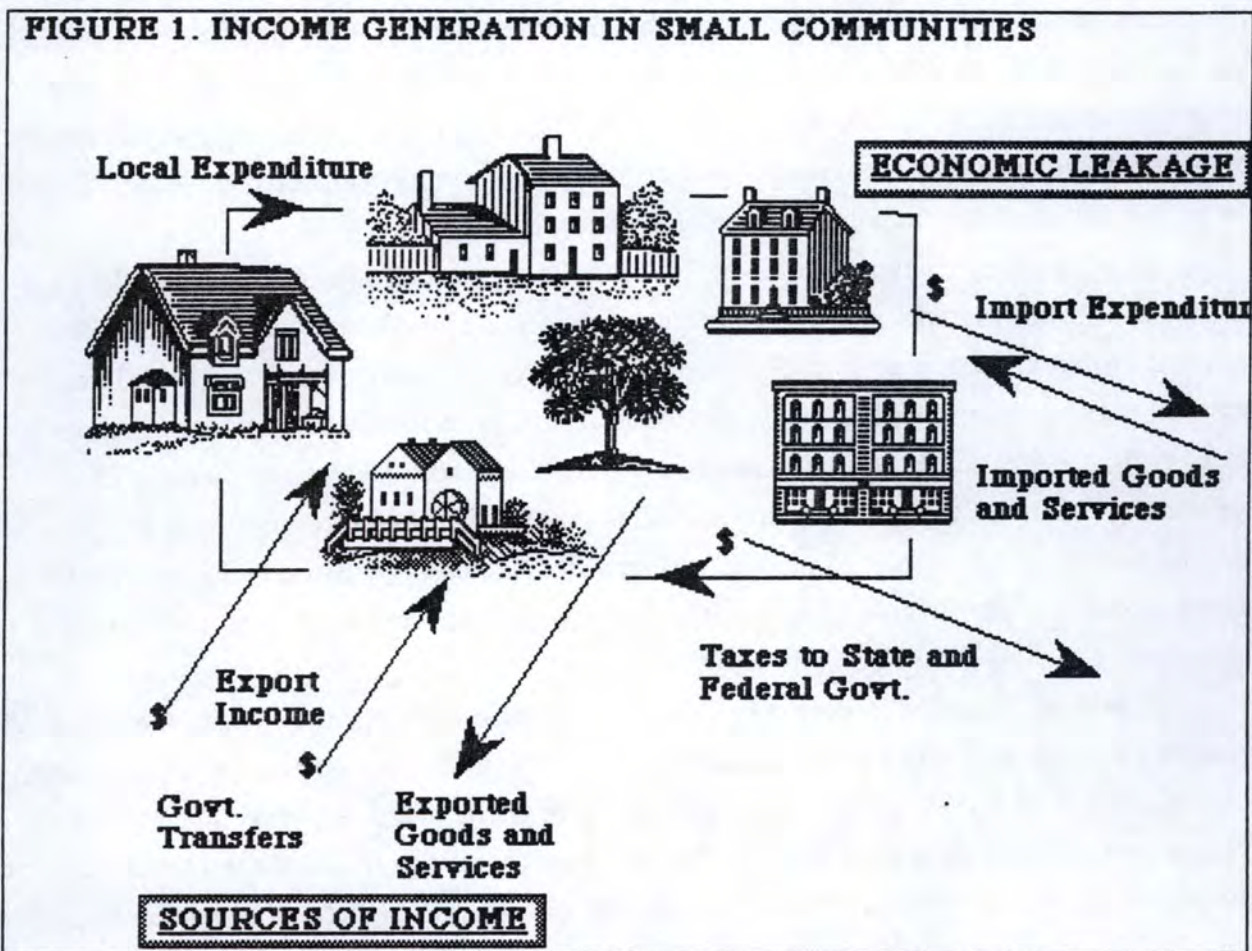
PART I. A DESCRIPTIVE ANALYSIS OF BOUNDARY COUNTY'S ECONOMIC BASE

Part I is divided into two sections, an analysis of the performance of the Boundary County Economy, and an analysis of the structure of the economy. The purpose of this format is twofold: First an evaluation of the performance of key economic indicators can provide some background and history into the evolving economic structure that exists in a region. Second, a detailed analysis of the economic structure of a region with an understanding of the evolving changes occurring in the economy can lead to a broader set potential opportunities for policymakers.

The wealth of a region can be defined as a function of its total resources and the ability of the region's communities to use them in a sustainable manner that provides a long term source of jobs and income growth . Wealth in a region comes from two sources: The ability of regional businesses to export goods and services produced or offered in the region to individuals outside the region, and transfers from institutions outside the region to institutions within the region. Goods can also be imported, re-processed with an added value, and then exported as a new product. Income then is derived in three manners, first by converting resources to saleable commodities for customers outside the region, second the ability to attract customers or new businesses into the region to purchase goods and services, and third, through government transfers. While the ability to measure and quantify potential economic wealth is largely limited, economists have been able to quantify the income generation in a region and to compare the income generated across different parts of region and economy.

A community economy can be seen as a leaky economic bucket. Dollars are earned (put in the bucket) through the export base of the community's economy and transfers from outside the region and then leave through the purchase of imports and remittances (leak out of the bucket).

Figure 1 is a stylized view of such an income flow for a small regional economy. Income is generated through the export base and exogenous transfers. Businesses that produce goods and services for export purchase inputs locally from what are called the non-basic sectors, and import what they cannot get locally. These non-basic sectors also purchase from other non-basic sectors and import what they cannot get locally. Finally, residents also contribute to this cycle of income flow in the same way that businesses do, buying locally and purchasing what cannot be bought locally from outside the region.



A. ECONOMIC PERFORMANCE OF THE BOUNDARY COUNTY ECONOMY

Boundary County's economic performance for the past twenty-three years has been for most indicators approximately as good as the rest of the State of Idaho. The Boundary County

population has been growing at an average annual rate of 2.1 percent per year for the last twenty years which is slightly higher than the State average of 1.8 percent, Table 1. The County has benefited from its proximity to the Spokane area economic growth, its proximity of a Port of Entry for Canada, and its vast Natural Resources. Its growth rate during the Seventies was substantially higher than during the eighties though when growth slowed dramatically.

Inflation adjusted personal income grew at a rate slightly faster than the population, 2.7 percent for the whole period up until the benchmark year of 1991, but unlike population, it grew faster in the eighties than in the previous decade. This trend seems to be the reverse of the growth pattern exhibited by the State as a whole. Real per capita personal income remained at about the same level throughout the seventies but increased slightly in the eighties. Non-earned income and transfer payments grew at a faster rate than wage income but proprietor and other labor income matched or exceeded either category. This trend suggests an increased importance of self-employment and non-covered employment. Per capita personal income grew throughout the period, but at a lower rate than the rest of the State, Figure 2.

Another change in the economy of Boundary County is a change in the relative shares of sources of personal income. Earnings by place of residence as a ratio of total personal income declined from over 80 percent in 1969 to just over 60 percent in 1991, Figure 3. The difference between earnings by place of residence and total personal income (less personal contributions to social insurance) are wage earnings outside the county, dividends, interest, rent, and transfer payments. This trend suggests two changes taking place in the local economy: First an increasing reliance on non-earned income, and second an increasing reliance on commuting for earned income. In other words, people in increasing proportions are traveling to work outside the county.

Almost all industries in Boundary County are in some way dependent upon their natural resource base, as a source of inputs or as an attraction for tourists. Industry earnings have shown positive real growth over the past twenty years but have grown at a rate slightly less than the state average. Nonfarm earnings grew at an average of 2.6 percent per year over the last twenty years but was substantially less than the state average of 3.1 percent. Growth was higher in the eighties than in the seventies but again at a level lower than the State average. Extractive based industries such as timber, farming, and public utilities have generally increased their share of personal income, but mostly because of manufacturing's contribution. Manufacturing in Boundary County consists mostly of timber related industries, Figure 4. While manufacturing earnings have exhibited wide swings in growth, it has generally exhibited positive growth. The same cannot be said for farming, transportation, and public utilities. Amenity based industries can be categorized as trade and service sectors. Job growth in these sectors have also increased but at a lower rate than the extractive industries. However, with less variation over the years, Figure 5.

Table 1. A Summary of Economic Trends for Boundary County and the State of Idaho, 1969-1991.

	Ave. Real Annual Growth (1987=1)						
	Benchmark	Boundary County			State of Idaho		
	Year	1969-	1981 -	1969-	1969-	1981 -	1969-
	1991	1980	1991	1991	1980	1991	1991
TOTAL PERSONAL INC.	102634	0.026	0.029	0.027	0.046	0.017	0.033
NONFARM PERS. INC.	98436	0.035	0.025	0.031	0.052	0.017	0.036
FARM INCOME	4198	0.111	0.483	0.280	0.011	0.062	0.034
PER CAPITA PERS. INC.	12281	0.000	0.016	0.007	0.019	0.009	0.015
EARN - PLACE OF WORK	67988	0.010	0.038	0.023	0.035	0.018	0.028
NET EARN. BY PLACE OF RESID.	65338	0.005	0.036	0.019	0.034	0.017	0.027
DIVIDS, INTRST, RENT	14740	0.077	0.009	0.046	0.080	0.008	0.047
TRANSFER PAYMENTS	22556	0.082	0.027	0.057	0.083	0.030	0.059
WAGES AND SALARIES	42343	0.026	0.017	0.022	0.041	0.013	0.028
OTHER LABOR INCOME	4533	0.096	0.035	0.068	0.104	0.020	0.066
PROPRIETORS' INCOME	21112	-0.020	0.113	0.040	0.006	0.050	0.026
FARM	3081	0.700	-0.875	-0.016	0.117	0.125	0.120
NONFARM	18031	0.004	0.074	0.036	0.020	0.040	0.029
TOTAL IND. EARNINGS							
FARM	4198	0.111	0.483	0.280	0.011	0.062	0.034
NONFARM	63790	0.022	0.031	0.026	0.043	0.017	0.031
PRIVATE	49215	0.016	0.037	0.026	0.044	0.016	0.031
AG. SERV., FOR., FISH	1336	0.010	0.674	0.276	0.033	0.078	0.053
MINING	104	-0.067	0.049	0.025	0.081	-0.051	0.021
CONSTRUCTION	3137	-0.013	0.028	0.006	0.050	0.009	0.032
MANUFACTURING	18147	0.056	0.031	0.044	0.043	0.023	0.034
WOOD PRODUCTS	17609	0.057	0.016	0.040	0.038	0.012	0.026
TRANS. & PUBL. UTIL.	6745	-0.049	0.096	0.017	0.042	-0.008	0.019
WHOLESALE TRADE	2263	0.215	0.001	0.118	0.057	0.004	0.033
RETAIL TRADE	7697	0.005	0.029	0.016	0.020	0.016	0.018
BLDG. & GARDEN	687	0.008	0.031	0.019	0.012	-0.011	0.001
GEN MERCHANDISE	707	-0.010	0.062	-0.005	-0.014	0.040	0.011
FOOD STORES	1847	0.050	0.062	0.051	0.050	0.017	0.035
AUTO DEAL. & SERV.	1980	-0.020	0.053	0.013	0.003	0.024	0.012
APPAREL AND ACCESS.	60	-0.112	0.099	0.052	0.026	-0.005	0.012
FURNIT & FURNISH	223	0.016	0.048	0.031	0.027	0.040	0.033
EATING AND DRINKING	1074	0.018	-0.006	0.007	0.042	0.018	0.031
MISC. RETAIL	1119	0.058	0.080	0.068	0.029	0.004	0.017
FIN., INSUR., REAL.E.	1230	0.021	-0.020	0.003	0.050	0.007	0.030
SERVICES	8556	0.033	0.067	0.048	0.054	0.035	0.045
GOVT & GOVT ENTR	14575	0.048	0.016	0.034	0.039	0.021	0.031
FEDERAL, CIVILIAN	4444	0.085	0.001	0.047	0.028	0.009	0.019
MILITARY	340	0.019	0.043	0.030	0.017	0.003	0.011
STATE AND LOCAL	9791	0.038	0.023	0.031	0.047	0.028	0.038

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, REAS

Figure 2. Real Per Capital Personal Income - State of Idaho and Boundary County, 1969 - 1991 (1987=100)

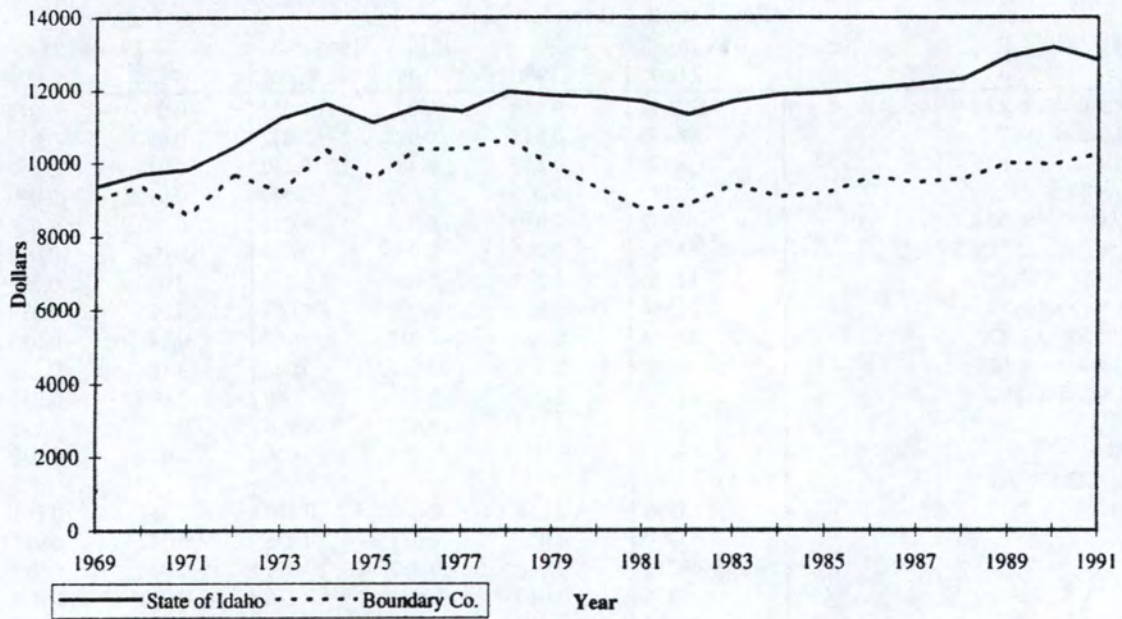


Figure 3. Percent of Earned Income by Place of Residence to Total Personal Income

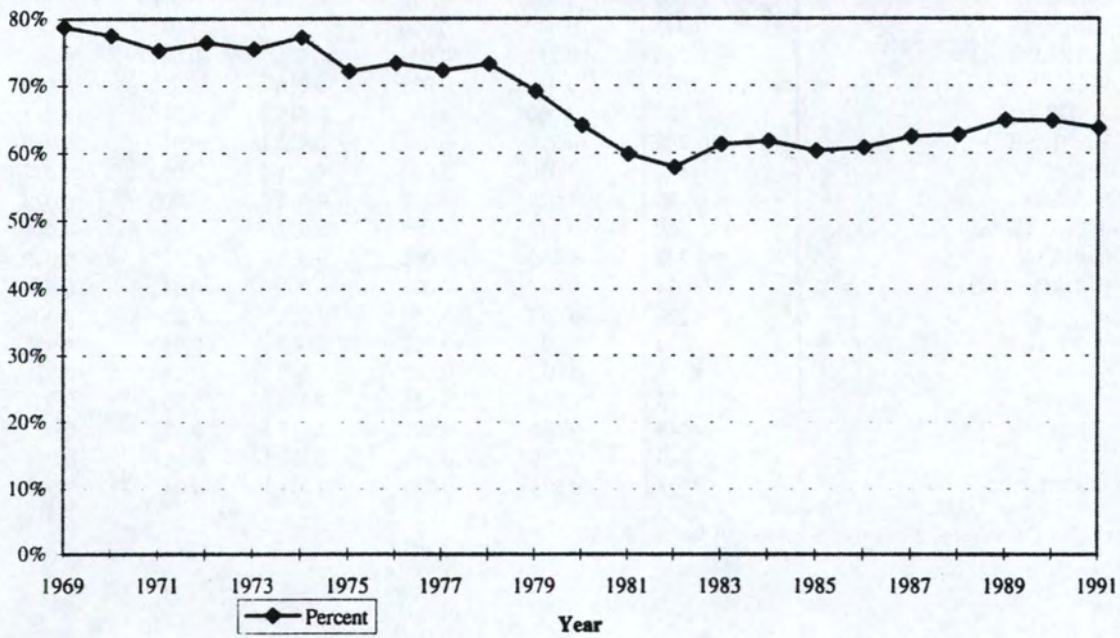


Figure 4. Extractive Industry Earnings in Boundary County, 1969 - 1991. (1987=100)

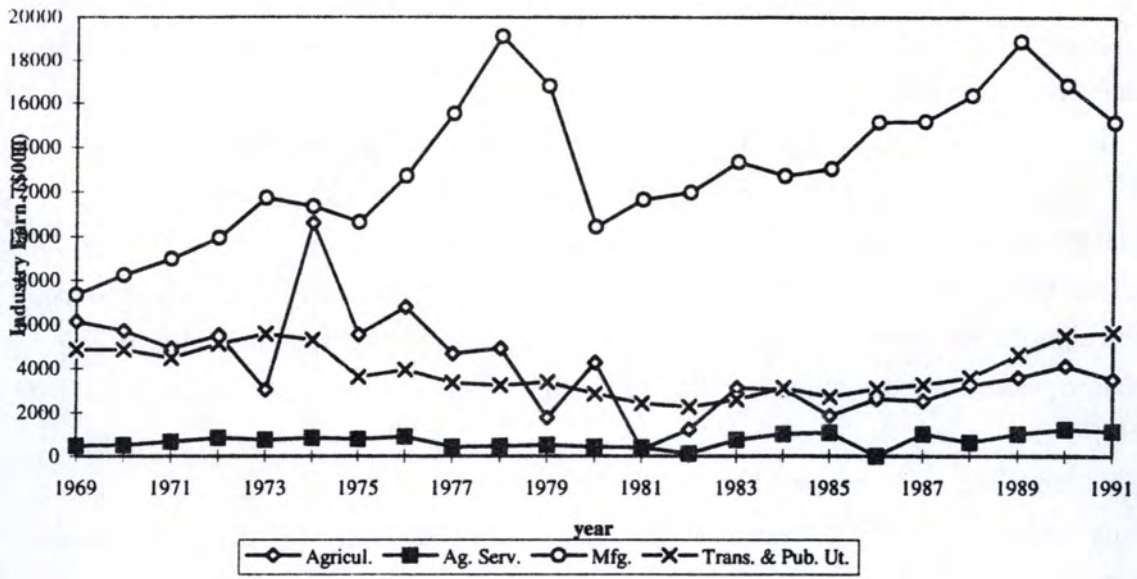
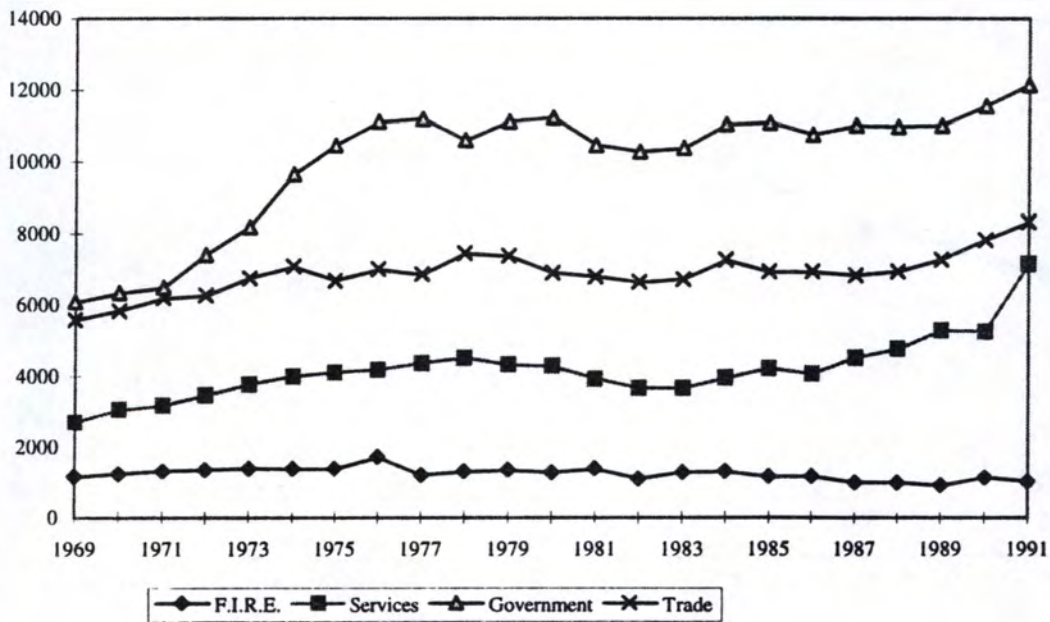


Figure 5. Amenty Industry and Government Earnings, Boundary Co., Idaho 1969 - 1991. (1987=100).



Employment Trends

Job generation in Boundary County has for the most part done quite well. Overall job growth has proceeded at a rate that matches or exceeds the State performance, and in the late eighties, the county exceeded the growth in the rest of the State, Figure 6. Manufacturing commanded the largest share of total employment in the county, and like personal income, substantial variation in employment occurred over the years but generally increased, Figure 7. The same pattern exists with retail trade. However, since industry earnings for retail trade declined during the eighties, the growth in employment came with lower wage and proprietor income. Farm income peaked in the eighties and then declined near the end of the decade and into 1990 and 1991.

The economic performance of Boundary County suggests that manufacturing or more specifically timber is not only an important part of the county economy, but that it is continuing to hold its dominant position. However, the growth of trade and services suggests a growing competition for use of the County's natural resource base.

Figure 6. Job Growth in Boundary County, Idaho.

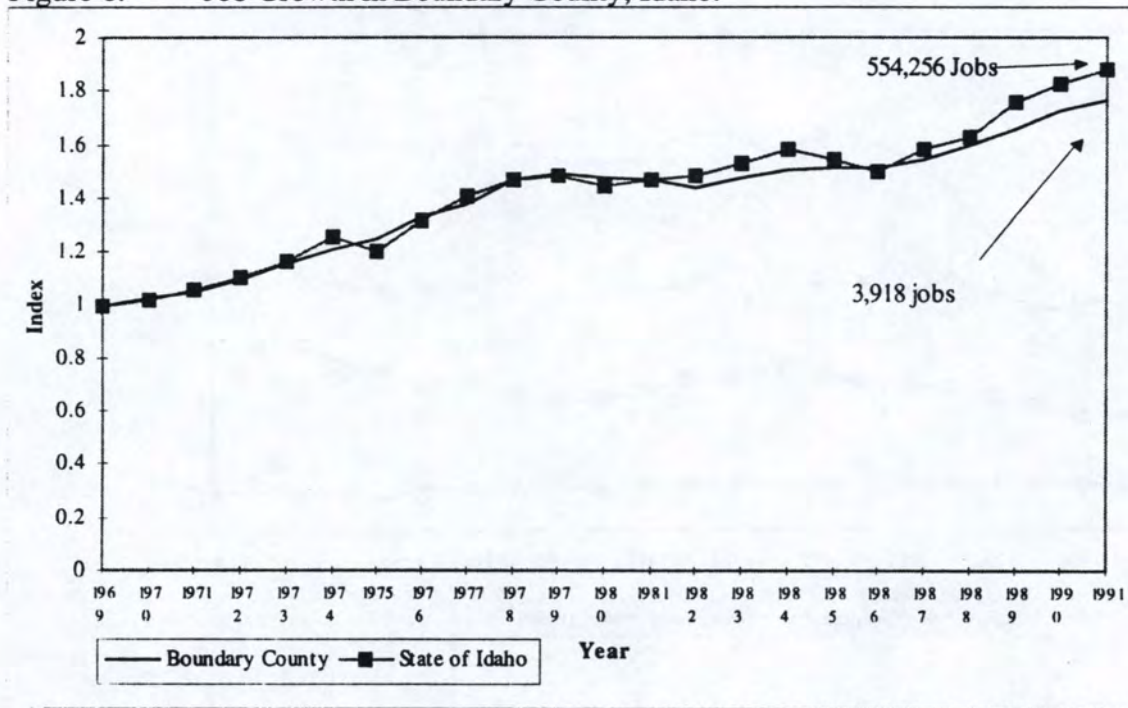
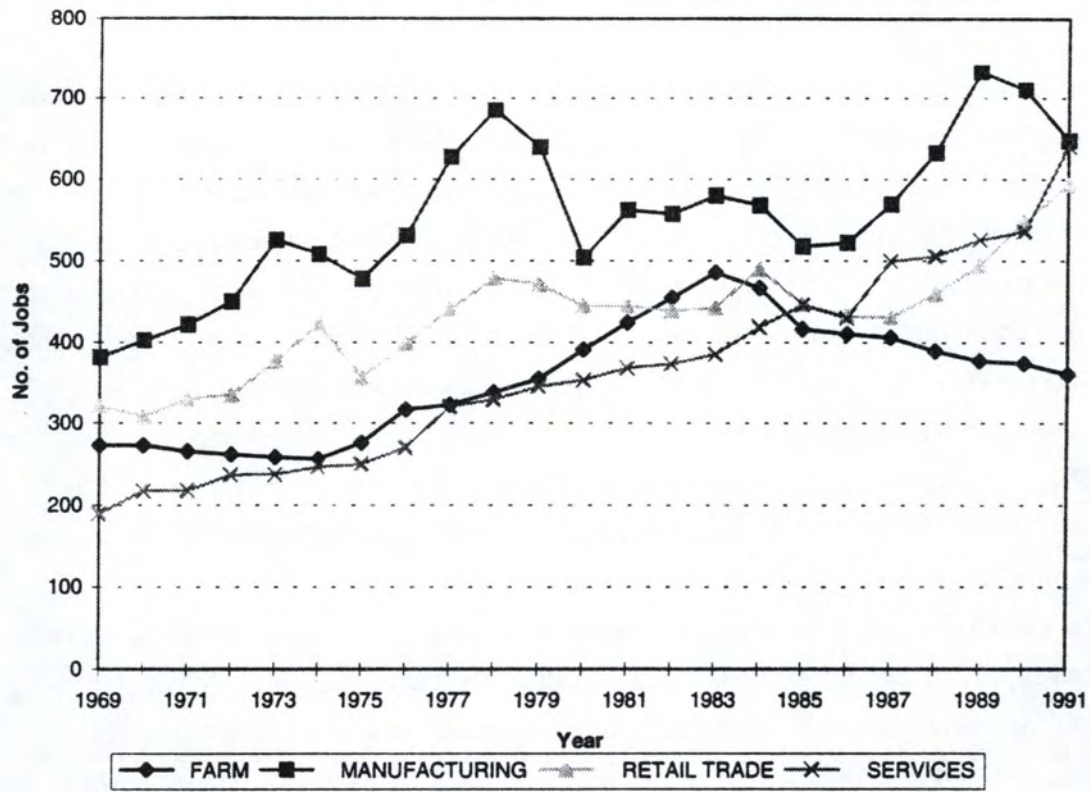


Figure 7. Employment in Selected Major Industries in Boundary County.



B. A DESCRIPTION OF THE ECONOMIC BASE OF BOUNDARY COUNTY AND BONNERS FERRY.

The concept of economic base defines the link between resources a community possesses and regional income generation, through flows of income from outside to inside the region. The economy can be divided into two parts, its economic base and its non-basic sectors. Any part of the economy that brings income from outside the region to inside is defined as its economic base. Examples of such are exports by industry, entertaining tourists, government expenditures and employment, and transfer income. The industry components of economic base are aggregated to major groupings by type of industry. Added to the industry classifications are government sectors and other sectors: exogenous state and federal government, and exogenous investment. These essentially represent expenditures and employment from income that is separate and ultimately from outside the region. Non-basic industries are those industries and portions of others that supply goods or services to basic industries or to residents.

The value of goods and services produced in the county can be measured both in terms of demand and supply: Demand, or gross county product, the value of goods sold net of intermediate purchases, imports and institutional sales (government sales and inventory reductions); and, Supply, the gross county income produced. This accounting framework is similar to what is reported for the nation in general when gross national product is tracked. Table 2 contains estimates of gross county product and gross county income for Boundary County. Of the contributions to gross product, exports rank the highest with \$118.7 million and personal consumption second with \$94 million across all income groups. However government in general outranks household consumption. Perhaps more significantly, imports are extremely high relative to exports. Imports are netted out of gross county product calculations, seen as a "leakage" from the local economy. For every dollar that is brought in through exports, 60 cents leaves the county as leakage for imports. This pattern of exports and imports is typical for resource dependent counties. On the income side industry earnings (employee compensation and proprietor income) represent 74 percent of value - added.

Table 2. Components of Gross County Product: Boundary County, Idaho, 1991.

Component	Contribution (\$MM)
Gross County Product	
Household Consump. (low)	\$39.71
Household Consump. (Med)	\$44.48
Household Consump. (High)	\$10.26
Total Household Consumption	\$94.45
Federal Government	\$84.73
State & Local Government	\$18.25
Investment	\$13.29
Exports	\$118.68
(minus) Imports	-\$213.26
(minus) Govt & Inventory Sales	-\$9.08
Total	\$107.06
Gross Regional Income	
Employee Compensation	\$58.64
Indirect Business Taxes	\$8.28
Proprietary Income	\$21.59
Other Property Type Income	\$18.55
Total Valued Added	\$107.06

An industry breakdown of gross county income and other economic measures underscore the importance of the traditional industries in the County, Table 3. Timber represents 26 percent of the total value-added generated and agriculture (including nursery and agr. services) another 13 percent. Trade and services together represent 30 percent of the gross county income generated. The contributions to gross regional income though summarized in Table 3 are direct contributions, not total. A portion of the each of the major sectors production can be more properly attributed to economic activity in another sector. For example, a logging firm may provide logs to local mill and act as a "non-basic" industry or sell logs to mills outside the county and act as a basic sector. In this example the income and employment of that portion of the

logging industry that sells to local mills is counted as an indirect impact to the saw mill sector, which is an export base. The rest of the logging sector is counted as part of the export base. From this example one can see the importance of what are called the "non-basic" sectors because of the substantial amount of direct employment this activity provides. It is the sorting out of this aspect of the county economy and an evaluation of the trade flows that the next section will explore.

Table 3. Final Demand, TIO, Regional Income, and Employment, Boundary County, Idaho

Industry	Final Demand (MM\$)	Total Ind. Output (MM\$)	Employ Income (MM\$)	Property Income (MM\$)	Tot. PoW ^a Income (MM\$)	Tot. Val. Added (MM\$)	Employ (Jobs)
AGRICULTURE	21.0177	22.5785	4.0393	6.9551	10.9946	11.6401	340
NURSERY	2.9801	3	2.9599	1.2337	4.1936	4.2048	250
Forestry Products	0.5318	0.532	0.0033	0.0362	0.0395	0.0799	3
Commercial Fishing	0.2772	0.2839	0.0101	0.0617	0.0717	0.0747	21
MINING	0.0483	0.0486	0.0097	0.0223	0.032	0.0362	1
CONSTRUCTION	19.9296	22.9257	3.4626	2.707	6.1697	6.2723	196
OTHER MFG	6.2407	6.5153	0.8255	0.6236	1.4491	1.5131	86
TIMBER & WOOD PROD.	54.4746	73.1024	13.7146	12.936	26.6507	27.559	561
Trans., Com., Pub., Util.	12.2495	18.5283	5.1401	2.7286	7.8688	8.4366	300
RETAIL & WHOLESALE	14.6519	17.7452	8.3487	2.4988	10.8476	13.6257	699
F.I.R.E.	11.1887	13.483	1.0543	7.3242	8.3785	11.2935	149
SERVICES	13.5591	15.8409	4.4449	1.9702	6.4149	6.6565	642
STATE & LOCL GOVT	10.5745	11.8239	9.7223	1.0259	10.7481	10.7486	578
FED. GOVT.	4.5337	4.6796	4.9044	0.0111	4.9155	4.9155	202
Total	172.2574	211.0873	58.6397	40.1344	98.7743	107.0565	4028

The Export Base of Boundary County

The economic base of Boundary County is aggregated into eight industry classifications and two institutional sectors: Exogenous government, and investment. Before discussing the results of the analysis, an explanation of exogenous government and investment is warranted. The idea behind export base measurements is that external demand related changes can affect local businesses, residential consumption patterns, a certain amount of state and local government spending, and to a certain degree investment decisions. In measuring the export base we estimate the degree of importance or influence that an industry has on other industries within the county, and with household consumption and local government. While a large degree of local government spending is certainly linked to economic conditions or changes that exist within a county, by no means all of it. Much of the State government spending is allocated through formulas that have nothing to do with the price of wheat or saw logs in the county. To assume otherwise is to misrepresent the sensitivity of an industry. As such we have tried to separate out the portion of state spending that is exogenous to local conditions. We assume 10

percent of non-education and 50 percent of education expenditures are not endogenous to local conditions. This portion then is combined with federal expenditures, none of which is endogenous to local conditions to form exogenous government.

Investment can be considered both endogenous or exogenous depending upon the size of the region and whether we are talking about a longterm affect. Investment decisions are based upon extremely long term price and interest expectations and speculations. Short term changes in exports do not effect these decisions to large degree. In this analysis investment is considered exogenous to local conditions because for the most part we are considering a short run analysis.

The structure of the economic base of Boundary County is presented in Figure 7. As expected, timber is the largest industry in the county, generating 38.7 percent of gross county income. Agriculture ranks second with over 19 percent and government is third with 17 percent. If you combine trade and services together as an amenity or location based industry, then amenities represent another 13 percent of the economy. A similar pattern exists for employment in the county, though the differences between sectors are not quite as significant Figure 8. Timber still ranks as the largest employer but amenity industries, agriculture, and government take a relatively larger share due to lower wage employment.

An analysis of the Bonners Ferry zip code region shows a similar type of structure. Timber comprises a slightly smaller portion of the Bonners Ferry economy (27 percent) because of the concentration of agriculture (24 percent) and government (19 percent). Labor intensive agriculture comprises an even higher percentage of employment in the Bonners Ferry zip code region than timber. Trade and services together also comprise a larger portion of the economy (24 percent.)

Figure 7. Economic Base of Boundary County, Idaho 1991, Gross Regional Income

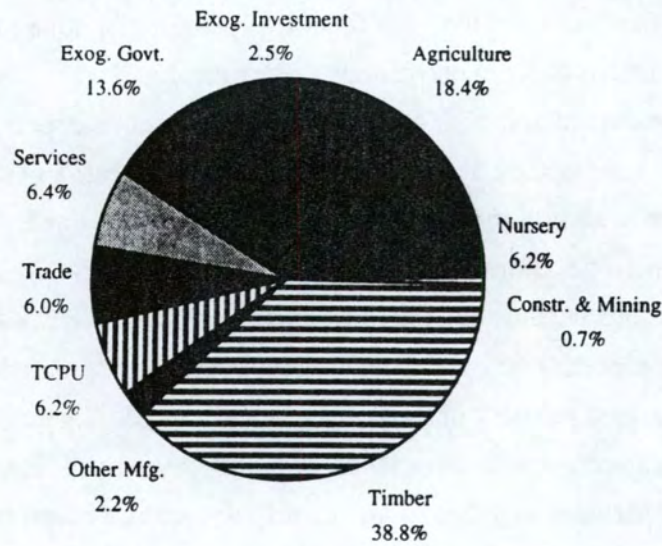


Figure 8. Economic Base of Boundary County, Idaho 1991, Employment.

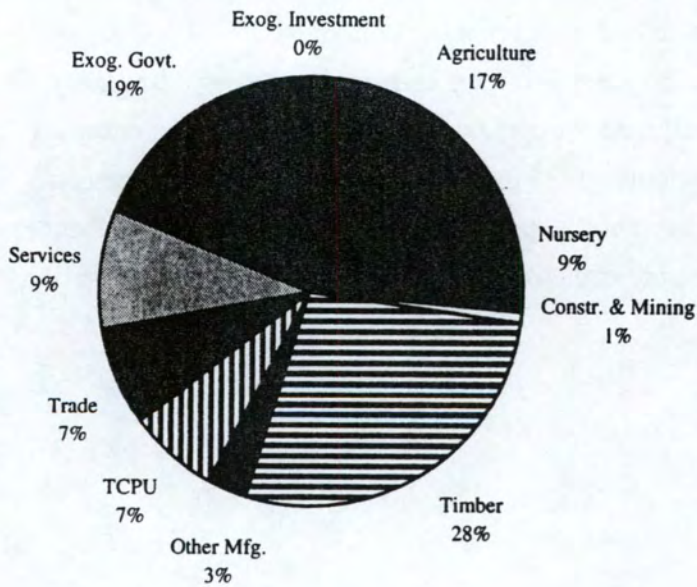


Figure 9. Bonners Ferry Zipcode Economic Base. Gross Regional Income

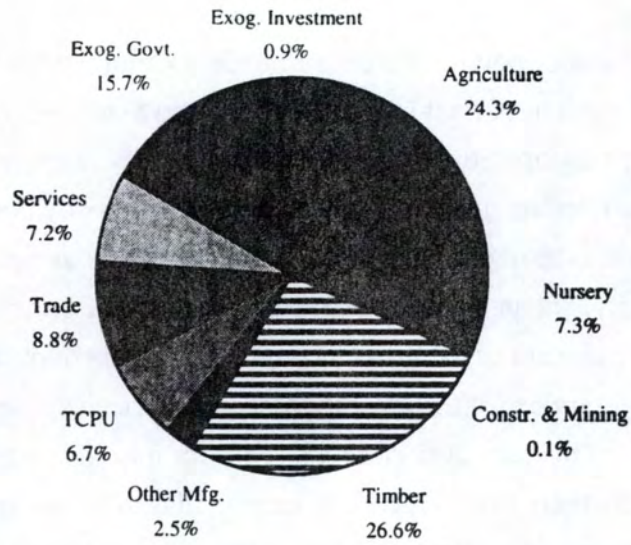
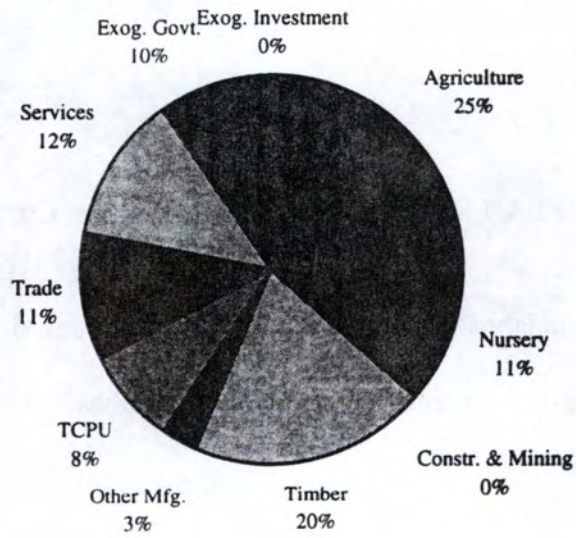


Figure 10. Bonners Ferry Zipcode Economic Base. Gross Regional Income



C. SUMMARY

Timber ranks as the most important sector in Boundary County with 39 percent of the gross county income and 30 percent of total jobs, derived directly and indirectly from associated industries. Sawmills and logging operations contribute substantially to exports within the region. Furthermore its performance over the preceding 23 years has been mostly positive relative to other sectors. This underscores the importance of the timber economy as not only an important source of income in the county, but an historically important source of growth. Agriculture and nurseries capture almost 24.5 percent of the gross income and 26 percent of the jobs generated in the county. Finally trade and services or the amenity based industries capture 12.4 percent of the gross income and 16 percent of the jobs, reflecting a more labor intensive employment structure.

The structure of the Bonners Ferry zipcode is very similar to the county. Likewise it depends greatly on timber, though government and agriculture are ranked slightly higher. Bonners Ferry is the county seat and therefore captures many of the government jobs and much of the income for the entire county. Furthermore, the zipcode boundary captures most of the agriculture that exists in the county. Trade and services capture 16 percent of the income and 20 percent of the jobs .

D. REFERENCES

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Part II. APPLICATIONS OF THE BOUNDARY COUNTY ECONOMIC IMPACT MODEL

The following set analyses were conducted as requested by the Boundary County Commission. The studies include both actual and hypothetical policy issues. The issues evaluated are (a) the economic impact of a reduction in saw logs, (b) the impact of an increase in retirees into the region, and (c) the economic impact of a discount food and merchandise store in the County.

A. IMPACT OF A 60 PERCENT REDUCTION IN TIMBER SUPPLY

The first scenario evaluated is a hypothetical 60 percent reduction in the supply of saw logs to the areas two mills resulting from an endangered species listing. The 60 percent reduction of supply in saw logs is not a firm figure. Moreover, it does not take into account alternative supplies of saw logs from outside the county as well as from non-federal lands. A reduction in the supply of saw logs could be compensated to a certain degree with purchases from longer distances and from state and private lands. In addition, mills may choose to produce higher valued wood products or more fully utilize "waste" products. The model does not account for this type of activity. As such this analysis must be considered purely hypothetical.

A 60 percent loss of timber available for harvest in Boundary County is assumed to create a 60 percent loss of all logging jobs. Although the jobs are referred to as lost, this does not mean that these labor resources are not used. The loggers may work outside the county and commute or find other occupations. By assumption, milling capacity also declines by 60 percent. With milling capacity reduced to 40 percent, the mill only needs 40 percent of the timber manufacturer employees to continue production.

According to base year data, the timber industry only employs 17 percent of the workforce. Thus, a 60 percent loss of timber industry creates a direct job loss for 237 persons, Table 4. However, the total job loss depends on how interrelated the timber industry is with other industries. The secondary impacts account for the decline in purchases of the industry, which decreases the sales for other industries, in turn decreasing the other industry's purchases. The impacts also reduce household respending. The interindustry and household respending together represent the secondary impacts of the 60 percent reduction in timber supply. The model

predicts a secondary impact of 252 more jobs lost, of which 65 are in the trade sector and 57 are in the service sector. This service industry impact is nearly half of the secondary employment impact, showing a high degree of interrelatedness between the service and timber industries and their employees. In fact the model predicts a total full-time and part-time employment loss of 490 jobs, nearly twice the direct job loss.

Earnings from the timber industry, 27 percent directly of total earnings in the county. A 60 percent reduction in saw logs has a direct impact of nearly \$12 million and generates another \$9 million in reductions from the loss of responding the county. The two industries which lose the most earnings from the secondary impacts are the timber industry and the service industry. The total earnings impact (direct and indirect) of the timber loss is nearly \$21 million under this scenario. Comparing this loss with the base year total earnings, the county loses over one fifth of the total earnings - a \$21 million loss on a \$107 million dollar base, Table 4 The other industries, in particular the service industry, sell products to the timber industry and their employees. Thus, when the timber industry declines, the earnings and employment in other industries decrease as well. As was discussed above, total employment and earnings decline. In addition, the proportion of earnings and employment in each industry changes. The model predicts a decline in the proportion of timber industry employment, from 17 percent to 9 percent and earnings from 27 percent to 15 percent.

B. RESIDENT INFLOW SCENARIO

The second scenario considers an inflow of 1,000 migrants into Boundary County. Recently, the county has experienced a net inflow of new residents. According to local public officials in Boundary County, two different types of people are migrating into the county. Half of the in-migrants have fewer financial resources. These people are reported to be living near the poverty level. By assumption, an average of 2.3 persons live in a household on an annual personal income of \$12,500. Most of these new residents choose housing accommodations in older homes, apartments, or subsidized housing units.

The second category of in-migrants are retired or semi-retired persons with more financial resources. The financial resources include savings, pensions, social security, or part-time or full-time jobs that they bring with them as they re-locate. These people transfer income into the county. By assumption two persons live in a household on an income of \$26,380 per

year. These migrants purchase a moderate home and lot, a total estimated real estate value of \$140,000. From the net inflow of 1,000 migrants, the model predicts an increase in employment of 133 jobs, Table 5. One hundred and twenty-two of the jobs created are in the service sector. Service industry jobs are created when new demands from migrants create a need for new services or more employees in existing services. Service industry jobs, however, tend to be low paying jobs. The model predicts a total earnings impact of only \$3.3 million, Table 5, of which most is service related.

Comparison of Scenarios A and B

The increases in employment and earning from the resident inflow do not compensate for the losses shown in the first scenario with a 60 percent reduction in timber supply. The earnings increased by only \$3.4 million, whereas the decline associated with the timber loss was nearly \$21 million. The employment comparison is similar. The timber loss scenario decreased the number of jobs by 490 workers, while only 138 workers were needed to service the new immigrants.

These scenarios are two potential future shocks. A number of assumptions could be made and the results reported. However, the researchers hope this will yield some insight into the interrelationships of the industries in the natural resource based economies and an understanding of how much growth is needed to replace jobs that are lost in timber.

However, this analysis only addresses two of many possible scenarios. It does not address a 10 percent loss in supply. Comparing a 10 percent loss in timber supply to an inflow of 1,000 migrants may produce quite similar results.

Table 4 Impacts of a 60 Percent Reduction in Timber Supply to
Boundary County
Gross Regional Income

	Direct Impact \$(MM)	Perc. of Base	Indirect Impact \$(MM)	Perc. of Base	Total Impact \$(MM)	Perc. of Base
AGRICULTURE	0.000	0.00	0.015	0.00	0.015	
NURSERY	0.000	0.00	0.008	0.00	0.008	0.00
FORESTRY PROD	0.000	0.00	0.000	0.00	0.000	0.00
COMMERC. FISH	0.000	0.00	0.001	0.01	0.001	0.01
MINING	0.000	0.00	0.000	0.00	0.000	0.00
CONSTRUCTION	0.000	0.00	0.189	0.03	0.189	0.03
OTHER MFG	0.000	0.00	0.061	0.04	0.061	0.04
TIMBER.	11.783	0.43	4.073	0.15	15.856	0.58
TCPU	0.000	0.00	0.932	0.11	0.932	0.11
TRADE	0.000	0.00	1.313	0.10	1.313	0.10
F.I.R.E.	0.000	0.00	1.238	0.11	1.238	0.11
SERVICES	0.000	0.00	0.571	0.09	0.571	0.09
STATE & LOCL GOVT	0.000	0.00	0.340	0.03	0.340	0.03
FED. GOVT.	0.000	0.00	0.053	0.01	0.053	0.01
Total	11.783	0.11	8.793	0.08	20.576	0.20

	Direct Impact Jobs	Perc. of Base	Indirect Impact Jobs	Perc. of Base	Total Impact Jobs	Perc. of Base
AGRICULTURE	0	0.00	1	0.00	1	0
NURSERY	0	0.00	0	0.00	0	0.000
FORESTRY PROD	0	0.00	0	0.00	0	0.00
COMMERC. FISH	0	0.00	0	0.01	0	0.01
MINING	0	0.00	0	0.00	0	0.00
CONSTRUCTION	0	0.00	6	0.03	6	0.03
OTHER MFG	0	0.00	4	0.04	4	0.04
TIMBER	237	0.42	71	0.13	308	0.55
TCPU	0	0.00	30	0.10	30	0.10
TRADE	0	0.00	65	0.10	65	0.10
F.I.R.E.	0	0.00	14	0.09	14	0.09
SERVICES	0	0.00	57	0.09	57	0.09
STATE & LOCL GOVT	0	0.00	3	0.01	3	0.01
FED. GOVT.	0	0.00	2	0.01	2	0.01
Total	237	0.06	252	0.07	490	0.13

Table 5. Impacts of a Population Increase to Boundary County.

Gross Regional Income

	Direct Impact \$(MM)	Perc. of Base	Indirect Impact (MM)	Perc. of Base	Total Impact \$(MM)	Percent of Base
AGRICULTURE	0.007	0.00	0.004	0.00	0.011	0.00
NURSERY	0.004	0.00	0.003	0.00	0.007	0.00
FORESTRY PROD	0.000	0.00	0.000	0.00	0.000	0.01
COMMERC. FISH	0.000	0.01	0.000	0.00	0.001	0.00
MINING	0.000	0.00	0.000	0.00	0.000	0.01
CONSTRUCTION	0.000	0.00	0.053	0.01	0.053	0.04
OTHER MFG	0.037	0.02	0.018	0.01	0.055	0.00
TIMBER	0.003	0.00	0.003	0.00	0.006	0.04
TCPU	0.180	0.02	0.130	0.02	0.310	0.07
TRADE	0.700	0.05	0.301	0.02	1.001	0.11
F.I.R.E.	0.837	0.07	0.372	0.03	1.209	0.08
SERVICES	0.355	0.05	0.162	0.02	0.516	0.01
STATE & LOCL GOVT	0.065	0.01	0.039	0.00	0.105	0.01
FED. GOVT.	0.022	0.00	0.013	0.00	0.034	0.03
Total	2.211	0.02	1.096	0.01	3.306	

Employment Impacts	Direct		Indirect		Total	
	Impact Jobs	Perc. of Base	Impact Jobs	Perc. of Base	Impact Jobs	Percent of Base
AGRICULTURE	0	0.00	0	0.00	0	0.00
NURSERY	0	0.00	0	0.00	0	0.00
FORESTRY PROD	0	0.00	0	0.00	0	0.01
COMMERC. FISH	0	0.00	0	0.00	0	0.00
MINING	0	0.00	0	0.00	0	0.01
CONSTRUCTION	0	0.00	2	0.01	2	0.04
OTHER MFG	2	0.03	1	0.01	4	0.00
TIMBER	0	0.00	0	0.00	0	0.03
TCPU	6	0.02	4	0.01	10	0.09
TRADE	38	0.06	16	0.03	54	0.07
F.I.R.E.	6	0.04	5	0.03	11	0.08
SERVICES	37	0.06	16	0.03	53	0.00
STATE & LOCL GOVT	1	0.00	0	0.00	1	0.01
FED. GOVT.	1	0.00	0	0.00	1	0.04
Total	92	0.02	46	0.01	138	

C. IMPACT OF A SUPERSTORE IN BONNERS FERRY TO THE BOUNDARY CO. ECONOMY

I. Introduction

The introduction of a national discount food and merchandise chain into a small economy is always a controversial idea, with impacts that can affect other existing stores in the community. The proposed introduction of a Tribal Superstore in Bonners Ferry, Idaho is no different. The impact of discount grocery and department stores can have both positive and negative effects in community and county. On the positive side such stores bring greater variety and lower prices, thereby keeping more spending by county residents in the county than before. As it pertains to Boundary County, lower prices mean county residents have less reason to travel to Bonner County and elsewhere to shop. For the same reason it also attracts more shoppers from Canada and other neighboring areas on this side of the border. On the negative side, the introduction of such stores can displace existing stores in the area. Established businesses likely will see this as a threat. Furthermore, discount chains may operate at a higher level of efficiency, with much higher sales to employee ratios relative to existing stores. Displacement of existing stores then may mean a small reduction in overall employment at the worst or a small increase in employment at best.

A range of economic impacts were analyzed using an input - output model of the county developed by the Cooperative Extension System at the University of Idaho. We focus only on the economic impacts and not on fiscal impacts. The range of impacts is designed to cover a most pessimistic scenario to a most optimistic scenario. Each scenario is further subdivided into a case where there is a net loss in employment or simply a transfer of existing employment to the new store. The extremes of the scenario impact range are considered the most unlikely, especially at the pessimistic end. They are included only because the information we received from County officials characterized the issue in these ways.

II. Scenario Description

Scenario 1. A Reduction in sales

The first scenario (Scenario I) assumes that the introduction of the superstore displaces existing businesses with an overall 1/3 reduction in sales and either a reduction in overall employment of 40 jobs or simply a transfer in employment from existing businesses to the new store. An impact of this sort is highly unlikely because there is no reason to assume that a store

that brings in lower priced goods and a higher variety of goods will do anything but increase demand from both local residents as well as from outside the county.

Scenario 2. No Change in overall Sales

This scenario assumes that any sales captured by the superstore comes from existing demand. There is either a net reduction 40 jobs due to the higher efficiency of the Superstore or simply a transfer of existing jobs from existing businesses to the Superstore. Like the first scenario though a zero net change in sales is unlikely if the Superstore actually does provide lower prices and a larger variety of goods.

Scenario 3. Increase in Sales from a Price Reduction.

This scenario assumes that the introduction of a Superstore lowers prices by 2 percent causing an increase in demand by local residents above and beyond existing demand resulting in fewer trips to purchase goods outside the County and from an increase non-residents purchases. We assume an elasticity of demand of 0.67.

Scenario 4. A Necessary Increase in Households

In this scenario we calculate approximately how many additional households we need to cover an increase in revenues of \$7.8 million from the Superstore. (This estimate given to us by County officials represent revenues gross of the cost of goods sold.) In the input-output model retail revenues are reported "net" of the cost of goods sold. We assume a margin of twenty percent. We assume an average annual expenditure per person of \$3,940 dollars. Of that approximately \$460 can be considered contributions to retail margins.

III. Results

Table 1. Summary of Total Impacts From an Introduction of a Superstore to Boundary County.

Impact Type and Component	A. Net Reduction in Employment (40 Jobs)	B. Net Transfer in Employment
1. Reduction in Sales		
- Total Output (Sales)	-\$1,898,500	-\$1,707,700
- Employee Compensation	-\$795,500	-\$743,100
- Personal Income	-\$1,112,200	-\$1,007,200
- Employment	55	38
2. No Change in Overall Sales		0
- Total Output (Sales)	-\$190,800	0
- Employee Compensation	-\$52,400	0
- Personal Income	-\$105,000	0
- Employment	45	0
3. Increase in Sales		
- Total Output (Sales)	-\$162,700	\$28,100
- Employee Compensation	-\$40,500	\$11,900
- Personal Income	-\$36,000	\$16,400
- Employment	-45	1
4. Necessary Increase in Pop.		
- Total Output (Sales)	<i>na</i>	\$2,132,700
- Employee Compensation	<i>na</i>	\$933,300
- Personal Income	<i>na</i>	\$1,259,400
- Employment	<i>na</i>	47
Additional Households	<i>na</i>	1,854

Source: IMPLAN, Boundary County Model, CES, University of Idaho

Potential impacts resulting from the introduction of the Superstore range from a negative \$1.8 million to over \$2.1 million in increase output. If the introduction simply means an overall reduction in sales and a net loss in jobs, then one can expect to see a total reduction from the ripple effect of \$1.8 million in sales, \$1.1 million in county personal income and 55 jobs. The negative effect is somewhat less when the net job loss is zero. As stated above though this scenario is highly unlikely for the simple reason that a Superstore is not going to be a disincentive for residents and non-residents to purchase locally. On the contrary, lower prices, and greater variety will encourage more residential spending and attract more non-residents.

The second scenario is more likely than the first, but still pessimistic. The introduction of a Superstore will simply displace existing demand, thereby resulting in no change in direct sales. If this displacement is accompanied with a net reduction in employment due to higher retail efficiency, then there will be an ultimate negative impact from lower household spending. If there is no change in overall employment though (scenario 2b), then the economic impact is zero.

The third and fourth possible scenarios both assume that the introduction of a Superstore will bring about price reductions and an expanded variety. We assume a 2 percent price decrease with an inelastic demand (-0.67). In this scenario the increased demand for groceries and merchandise comes from two sources: Capturing residential spending that leaves the county purchases in Sandpoint and beyond; and, increasing the demand from non-residential consumers. The third scenario calculates total impacts of a positive \$28,000 in sales with no net reduction in employment and a negative \$160,000 if a net reduction in 40 jobs occurs.

The final scenario simply assumes that the entire \$7.8 million in sales are generated from additional household demand. In this analysis the Superstore does not "displace" existing employment, but adds to it, accounting for the "na" in scenario 4, column A in Table 6. Total impacts are \$2.1 million in sales (accounting for the cost of goods sold.) We also estimated for this scenario the number of households needed cover this \$2.1 million. Using Bureau of Labor Statistics, Consumer Expenditure Survey, we estimate that the number of households required to carry this level of demand is 1,854. Some of these households can come from within the County, but most would have to be households attracted from outside the County.

IV. Conclusions

Discount chains always bring controversy where ever they go, and this one is no different. The direction of economic impacts though can either be positive of negative to the total economy of a county. As we stated above, the extremes of the range of impacts are highly unlikely especially at the pessimistic end. We believe that the true impacts will be somewhere between 3b and 4b, recognizing that attracting 1,850 new consumers will be difficult with low population densities in the surround regions. On the other hand it is quite conceivable that there will be some significant amount of increase in demand above the county's baseline level. This will produce an overall positive economic impact to the economy of Boundary County.

