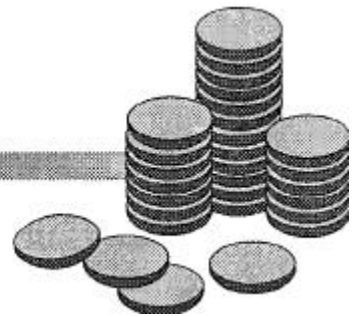


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The Economic Impact of the Wind River Reservation on Fremont County



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University of Wyoming and U.S. *Department of Agriculture* Cooperating
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The Economic Impact of the Wind River Indian Reservation on Fremont County

This report provides estimates of the economic impact of the Wind River Indian Reservation (WRIR) on the Fremont County economy. In the analysis, the economic impact of the WRIR was based on the revenue and expenditure flows associated with the following reservation related entities: 1) The Northern Arapahoe and Eastern Shoshone Tribal Governments, 2) The Bureau of Indian Affairs (BIA), 3) The Ethete, Fort Washakie, and Arapahoe School Districts, 4) The Indian Health Service, and 5) Indian Households in Fremont County. All of these entities bring substantial amounts of revenue into the Fremont County economy. The Fremont County Input/Output model was used to estimate the direct and indirect economic impacts of the WRIR on the county's economy. Summary tables for the economic impact of each entity can be found at the end of this report.

- It is estimated that the WRIR brought \$71.3 million into the Fremont County economy in 1996 (Figure 1). This amount includes \$20.4 million in Tribal Government Revenue, a BIA budget in Fremont County of \$4.4 million, State and Federal funding of \$16.6 million for the three school districts, an Indian Health Service budget in Fremont County of \$13.7 million, and net Indian Household income in Fremont County of \$16.1 million. The Indian Household amount represents income in addition to per capita payments from the Tribes and wages and salary payments from the Tribes, BIA, school districts, and Indian Health Service. This adjustment was made to avoid double counting.
- Approximately 76 percent of the \$71.3 million in WRIR revenue was spent directly in Fremont County as wage and salary payments, purchases from Fremont County businesses, and payments to Tribal members. It is estimated that the local spending of WRIR revenue generated \$128.4 million in total economic activity in the Fremont County economy in 1996 (Figure 2).
- Total county earnings from the revenues associated with the WRIR were estimated to be \$58.6 million in 1996 (Figure 3) and total employment was estimated to be 1,647 jobs (Figure 4). Average earnings per job ranged from \$13,190 for Tribal Government employment to \$37,433 for Indian Health Service employment.
- To put the economic impact of the WRIR in perspective, Figure 5 shows the estimated economic impact of the WRIR as a percentage of the total economy for the Fremont County. As Figure 5 indicates, the WRIR represented 8 percent of total county external sales, 8 percent of total county economic activity, 10 percent of total county earnings, and 9 percent of total county employment.

Figure 1.

External Sales Associated with Wind River Indian
Reservation

Indian Tribes	\$20,448,792
BIA	\$4,377,891
Public Schools	\$16,583,510
Indian Health	\$13,720,907
Indian Households	<u>\$16,145,041</u>
Total	\$71,276,041

Figure 2.

Economic Activity Associated with Wind River Indian
Reservation

Indian Tribes	\$46,020,818
BIA	\$6,825,357
Public Schools	\$26,073,678
Indian Health	\$21,680,372
Indian Households	\$27,782,695
Total	\$128,382,920

Figure 3.
Earnings Associated with Wind River Indian Reservation

Indian Tribes	\$15,811,758
BIA	\$3,805,415
Public Schools	\$12,245,688
Indian Health	\$7,835,848
Indian Households	\$18,865,957
Total	\$58,564,666

Figure 4.

Employment Associated with Wind River Indian
Reservation

Indian Tribes	518
BIA	140
Public Schools	559
Indian Health	270
Indian Households	160
Total	1,647

Figure 5.

Wind River Indian Reservation as a Percent of Fremont
County Total

External Sales	8.0%
Economic Activity	7.5%
Earnings	9.9%
Employment	8.9%

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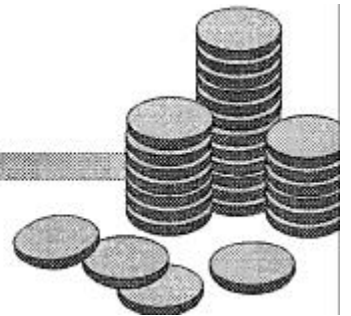
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Federal Lands Dependent Sectors in the Fremont County Economy

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Federal Lands Dependent Sectors in the Fremont County Economy

Federal land management agencies (primarily the U.S. Forest Service and the Bureau of Land Management) manage 3.2 million acres of land in Fremont County. This represents 54 percent of the total land area in the County. If tribal lands are excluded the percentage under Federal management is even higher. In addition, many sectors in the Fremont County economy are dependent on Federal lands for all or part of their economic activity. As a result, decisions regarding the management of Federal lands in the area can have significant effects on the Fremont County economy. This report summarizes the estimated economic and fiscal impacts of Federal lands on Fremont County in terms of the economic sectors which are dependent on Federal resources. While none of these sectors are totally dependent on Federal lands for all of their economic activity; some portion of each would be affected by changes in Federal land management policies.

The following sectors were considered to be Federal lands dependent in Fremont County: Range livestock, timber, oil & gas production, travel, Federal land management agencies (U.S. Forest Service and BLM), and retirement benefits. Range livestock, timber, and oil and gas production were included because part of the production for these sectors occurs on Federal lands. Travel was included because part of the visitor expenditures in the County are associated with outdoor recreation on Federal lands. The Federal land management agencies were included because economic activity in this sector is directly associated with the management of Federal lands. The retirement sector was included because one of the reasons that people retire in Fremont County is access to the amenities associated with Federal lands. The Fremont County Input/Output model was utilized to estimate the economic impact of each of these industries on the County's economy.

Details on the economic impact of each sector is presented in Table I at the end of this report.

This report summarizes the economic and fiscal impacts of Federal lands dependent sectors in Fremont County in terms of total impact, trends in the individual sectors, per unit impact, and impact per \$1.0 million of sales. The \$1.0 million of sales estimates were included to facilitate comparisons of the relative economic impacts between sectors.

Total Impact

- Through direct sales, Federal lands dependent sectors accounted for an estimated \$236.2 million in economic activity in the Fremont County economy in 1994 (Figure 1). Direct sales represent sales by the individual sectors, themselves. For range livestock, timber, and oil and gas production this represents the value of their production in the County. For travel this represents expenditures in the County by visitors. For Federal land management agencies this represents expenditures by these agencies in the County. For retirement this represents retirement benefits received by County residents. When the multiplier effect is considered, direct sales by Federal lands dependent sectors directly or indirectly generated an estimated \$369.2 million of total economic activity in the County. The total economic activity associated with

- Federal lands sectors supported an estimated 2,979 direct and indirect jobs in the County. The labor earnings associated with these jobs were estimated to be \$54.0 million. If non-labor earnings associated with retirement income are included, total earnings from Federal lands dependent sectors in Fremont amounted to an estimated \$111.0 million. From a fiscal standpoint, the total County assessed valuation from Federal lands dependent sectors was estimated to be \$135.6 million in 1994. Total sales and use tax collections associated with Federal lands dependent sectors' economic activity was estimated to be \$2.5 million in 1994. This amount represents total sales and use tax collections and not the amount received by Fremont County government. It is based on a four percent sales and use tax rate.
- Oil and gas production represented over 50 percent of direct sales by Federal lands dependent sectors in Fremont County (Figure 2). Following oil and gas production were retirement, range livestock, and travel, respectively.
- Oil and gas production represented 50 percent of the total economic activity generated by Federal lands dependent sectors in Fremont County (Figure 3). Following oil and gas production were retirement, range livestock, and travel, respectively.
- Oil and gas production represented 30 percent of direct and indirect employment by Federal lands dependent sectors in Fremont County (Figure 4). Following oil and gas production were range livestock, retirement, and travel, respectively. Range livestock, retirement, and travel were relatively more important in terms of employment because they are more labor intensive industries than oil and gas production.
- Oil and gas production represented 40 percent of direct and indirect labor earnings by Federal lands dependent sectors in Fremont County (Figure 5). Following oil and gas production were range livestock, retirement, and travel, respectively. Oil and gas production was more important in terms of labor earnings than employment because higher wages are paid in the oil and gas industry.
- If non-labor earnings are considered, retirement benefits directly or indirectly accounted for 60 percent of Federal lands dependent sectors total earnings (labor and non-labor) in Fremont County (Figure 6). Following retirement were oil and gas production, range livestock, and travel, respectively. Retirement benefits are more important in terms of total earnings because the direct sales for this sector are exclusively non-labor earnings.
- Oil and gas production directly or indirectly accounted for nearly 89 percent of Federal lands dependent sectors assessed valuation in Fremont County (Figure 7). The other Federal land sectors accounted for the remaining 1 percent. Oil and gas production was relatively more important in terms of assessed valuation since mineral production in Wyoming is valued at 100 percent of their market value less certain deductions.

- Three sectors (travel, retirement, and oil and gas production) accounted for over 80 percent of sales tax collections in Fremont County (Figure 8). Fremont County only receives part of these sales tax collections with the rest going to the state and city governments. Sales and use tax collections are based on a 4 percent sales and use tax rate.
- To put the economic impact of the Federal lands dependent sectors into perspective, Figure 9 compares their impact as a percentage of the totals for all sectors in the Fremont County economy. Total Federal lands related impacts ranged from 15 percent of total labor earnings to 26 percent of total direct sales. Of particular importance to County government is the estimated 60 percent of total County assessed valuation that is associated with the Federal lands sectors. In addition, Federal lands dependent sectors directly or indirectly accounted for 18 percent of County sales and use tax collections. These last two figure reflect the fiscal importance of Federal lands dependent sectors in Fremont County.
- With the exception of U.S. Forest Service and BLM expenditures, none of the sectors considered in this analysis are totally dependent on Federal lands for all of their production. However, only considering the direct production on Federal lands may be misleading because access to resources on Federal lands often affects how resources on private and state lands are utilized.

Trends in Federal Lands Dependent Sectors

This section of the report looks at the changes in the economic activity of the Federal lands dependent sectors over time in Fremont County. The time period considered was 1970 to 1994. All numbers have been adjusted to account for inflation. In order to compare the trends between sectors the amounts for each sector have been indexed with 1970 as the base year. Detail information on the trends of each sector are presented in Table 2 at the end of this report.

- Oil and gas earnings in Fremont County increased dramatically between 1970 and 1981 and then declined dramatically from 1981 to 1989 (Figure 10). Since 1989, they have remained fairly constant at the 1970 level.
- Retirement income in Fremont County has increased steadily from 1970 to 1990 (Figure 11). Retirement income has been increasing somewhat more rapidly in Fremont County since 1990.
- Livestock sales in Fremont County have fluctuated substantially between 1970 and 1994 due to price variations (Figure 12). In 1994, livestock sales in Fremont County were slightly lower than 1970 levels.
- Since travel expenditures were not available over time for Fremont County, lodging earnings were used as a proxy (Figure 13). After fluctuating from 1970 to 1980,

lodging earnings declined from 1980 to 1986. Since 1986 lodging earnings have been increasing with a substantial jump between 1993 and 1994.

- Lumber and wood products earnings in Fremont County peaked in 1978 (Figure 14). Since 1978, they have declined dramatically in the County. In 1994, lumber and wood products earnings were only 15 percent of the 1970 level and only 10 percent of the 1978 peak.
- Federal civilian employment earnings in Fremont County have increased fairly steadily from 1970 to 1994 (Figure 15).

Impact Per Unit of Sales

While the total economic and fiscal impact of Federal lands dependent sectors is of interest, a more important consideration may be the impact of changes in the economic activity for individual sectors on the Fremont County economy. Figure 16 summarizes the economic impact estimates for per unit changes in the economic activity of Federal lands dependent sectors. The impact is summaries for each sector in terms of direct sales, total impact, units required to support one local job, total earnings, total sales tax collections, assessed valuation, and earnings per job (Figure 16).

- The unit of economic activity for cattle and livestock production was an animal unit month (AUM) of grazing. The value of an AUM of grazing was based on a five year average for Wyoming.
- The unit of economic activity for oil production was a barrel of oil. The value of a barrel of oil was taken from Wyoming Geo-notes average prices for Wyoming.
- The unit of economic activity for gas production was a million cubic feet of gas (MMCF). The value of an MMCF was taken from Wyoming Geo-notes average prices for Wyoming.
- The unit of economic activity for travel was a traveler visitor day. The value of a traveler visitor day was taken from the Morey and Associates' report to the Wyoming Division of Tourism and represents average visitor expediters for Region 3 which includes Goshen, Platte, Niobrara, Converse, Natrona, and Fremont Counties.
- The unit of economic activity for Federal land management agencies was one employee. The value of an employee was based on expenditure data collected from the U.S. Forest Service and the BLM in Fremont County.
- The unit of economic activity for retirement income was a household. The value of a retirement household was based on the median income for Fremont County adjusted for inflation.

Due to the limited amount of timbering occurring in Fremont County in 1994 a per unit economic impact estimates were not calculated for lumber and wood products. Information from the U.S. Forest Service and the BLM indicated that there was \$200,00 of timber sales in the County in 1994.

Impact Per \$1,000,000 of Sales

In the previous section the economic and fiscal impacts of Federal lands dependent sectors on the Fremont County economy were estimated on a per unit of production basis. Because the impacts are expressed in physical units of production it is difficult to make comparisons between sectors. In this section, the relative impacts of the various Federal lands dependent sectors on the Fremont County economy are compared per \$1,000,000 of direct sales. The results are summarized in Figure 17.

- The total economic impact per \$ 1. 0 million of direct sales ranged from \$1.3 million for retirement income to \$2.1 million for cattle grazing. The size of the total economic impact for individual sectors depends on the amount of linkage between the Federal lands dependent sector and the rest of the Fremont County economy.
- The number of annual jobs per \$ 1. 0 million of direct sales ranged from 7 for oil and gas production to 38 for Federal land management agencies. The number of annual jobs for individual sectors depends on the labor intensiveness of the sector.

The total labor earnings per \$ 1. 0 million of direct sales ranged from \$168,528 for the retirement sector to \$993,666 for Federal land management agencies. The amount of labor earnings for individual sectors depends on how labor intensive the sector is and the wage rate associated with the employment generate by the sector.

- The total sales tax collections per \$1.0 million of direct sales ranged from \$6,867 for oil and gas production to \$44,977 for the travel sector. The amount of sales tax collections for individual sectors depends primarily on the amount of economic activity the Federal land management sector generates in the retail, eating/drinking, and lodging sectors. These are the sectors where most of the sales taxes are collected.
- The total assessed valuation per \$1.0 million of direct sales ranged from \$51,074 for the retirement sector to \$982,851 for the oil and gas sector. The amount of assessed valuation for individual sectors depends on the capital intensiveness of the Federal land management sector and the tax structure in Wyoming. The assessed for valuation for the retirement sector does not include the value of the residence if the retired household is a homeowner.
- The average earnings per job ranged from \$12,144 for the travel sector to \$26,192 for Federal land management agencies. Earnings per job represents the average for all jobs generated by the sector not just the jobs in the sector, itself

Figure 1.
Summary of Economic Impacts of Federal
Lands Sectors in Fremont County, 1994

Direct Sales	\$236,209,700
Economic Activity	\$369,190,110
Employment	2,979 Jobs
Labor Earnings	\$53,968,964
Total Earnings	\$110,993,964
Assessed Valuation	\$135,615,576
Sales & Use Tax	\$2,554,834