

Economic Impact of Mountain Home Air Force Base (MHAFB) in Elmore, Ada, Canyon, and Owyhee Counties, ID, for the year 2018

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The purpose of the study is to estimate the economic impact of Mountain Home Air Force Base (MHAFB) on the local economy. The Air Force spends millions to maintain and operate MHAFB but the impact of most of that spending occurs outside the local area. It occurs where the planes and equipment are designed and built. It occurs in those communities that supply the fuel and supplies. It occurs in those communities that house the bureaucracy that supervise MHAFB and all Air Force sites. To identify the impact of MHAFB on the local economy we are talking only about that portion of Air Force spending that occurs at the Base. These numbers were provided to us by MHAFB and are itemized in Tables 1 and 2. The information included employment data for military and civilian personnel directly employed at the Base and direct spending.

**Table 1. Local Direct Spending by MHAFB: 2018 (millions of \$)
Not Including Secondary Effects**

Salaries: Military and Civilian	\$221.2
Construction	\$13.2
Utilities	\$6.3
Educational Services	\$2.6
Other Services	\$1.1
Other Local Expenditures	\$3.1
Retail Portion of Non-Local Goods and Services	\$2.6
Local Travel Spending	\$3.3
Total Local Spending	\$253.4

**Table 2. Local Direct Employment at MHAFB: 2018
Not Including Secondary Effects**

Military Employment	3,746
Civilian Employment	785
Total Employment	4,531

Obviously, the biggest single expenditure is the salaries of the military and civilian personnel and that economic impact will be felt wherever that money is spent, i.e. throughout the entire local area. The other spending on construction and utilities etc. will directly impact the local suppliers and will also spread through the local economy like the impact of the spending of salaries.

It is necessary to identify the local geographic area in which the impact occurs. We have defined that area to be the four-county area adjacent to the Base, i.e. Elmore, Ada, Canyon, and Owyhee counties. Elmore County is obviously important because it is the physical location of the Base. Ada and Canyon Counties are important because they provide the retail core of the region. Ninety-two percent of the retail establishments in the four-county area are in Ada and Canyon counties and only 8% in Elmore and Owyhee counties. Therefore, much of the retail spending and much of the economic impact will occur in Ada and Canyon counties. Owyhee County is not an important part of the economic core, but its proximity to the Base makes it an obvious residence for some employees. Compared to Ada County the number of Owyhee County residents working on the base is small but the proportion will be higher in Owyhee County than Ada County. That is, Owyhee County is not as important to the Base as the Base is to Owyhee County.

Tables 1 and 2 show that in 2018, the Base had a military and civilian staff of 4,531 with an annual payroll of \$221.2 million. In addition, the Air Force spent \$32.3 million with local firms for construction, utilities, and the other categories listed in Table 2. These are the numbers required to estimate the economic impact of MHAFB. The economic tool we used is called Input-Output analysis and we used the program provided by IMPLAN¹. The results are summarized in Table 3.

Table 3. Estimates of Local Impact of MHAFB for 2018

Total Economic Impact	Local Employment	Local Labor Income	All Local Income Including Labor Income, Interest, Rent and Profit	Local Output
	6,420 jobs	\$300,700,000	\$524,700,000	\$760,600,000

- The operation of MHAFB supported the 4,531 military and civilian personnel and an additional² 1,889 workers in construction, retail, restaurants and bars in Elmore, Ada, Canyon, and Owyhee counties, for a total employment attributable to MHAFB of 6,420
- Local Labor Income attributable to the Base amounted to \$300.7 million
- All forms of local income attributable to the Base amounted to \$524.7 million
- Local production of goods and services attributable to the Base amounted to \$760.6 million

These numbers can be used to calculate the multipliers economists use to estimate the impact of any change in spending and employment.

As mentioned above, the 4,531 workers at the Base increased local employment by an additional 1,889 for a total of 6,240. Dividing the total increase in employment by employment on the Base, we calculate the number of positions in the local economy supported by each military and civilian position at the Base. It shows that each position at the Base supports itself and 0.42 others for an employment multiplier of 1.42

$$\frac{\text{Total Number of Jobs Created on Base and in the Local Economy}}{\text{Military \& Civilian Employees of MHAFB}} = \frac{6,420}{4,531} = 1.42$$

That is, every 100 positions at the Base supports 42 others for a total of 142 local positions. Using the same logic we calculate that each 100 positions at the Base will:

- Increase the Local Labor Income by \$8.0 million
- Increase all Local Income by \$14.0 million
- Increase the value of local production by \$20.3 million

Table 4. Employment Multipliers

For Every 100 Jobs At MHAFB	Local Employment	Local Labor Income	All Local Income Including Labor Income, Interest, Rent and Profit	Local Output
	142 jobs	\$8,000,000	\$14,000,000	\$20,300,000

We can also use military spending as the base on which to calculate what are called spending multipliers. In this case, total effects are divided by the initial total direct spending by MHAFB. We know that local spending by the Air Force was \$253.4 million. Using the estimates of the total impact reported in Table 3 we calculate that each million dollars spent locally by the Air Force would have the impact shown in Table 5.

Table 5. Spending Multipliers for All Local Military Spending

For every \$1 Million Spent by MHAFB	Local Employment	Local Labor Income	All Local Income Including Labor Income, Interest, Rent and Profit	Total Local Output
	25.3 jobs	\$1,200,000	\$2,100,000	\$3,000,000

That is, a \$1 million increase in spending at MHAFB will:

- Increase total employment by 25.3 jobs
- Increase labor income by \$1.2 million
- Increase all forms of income by \$2.1 million
- Increase the production of goods and services by \$3.0 million.

Notes:

(1) IMPLAN is the foremost software used to estimate regional economic impacts. It is the product of MIG Inc. of Huntersville, North Carolina.

(2) In the profession these additional effects are referred to as indirect and induced effects. Indirect effects are the result of the business-to-business transactions indirectly caused by the direct effects of increased spending. Induced effects are the results of increased household spending caused by the income generated by the direct and indirect effects. In this paper the indirect and induced effects calculated by IMPLAN and added together and referred to as "Indirect Effects".