

Economic Impact of Altus Economic Loop

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Executive Summary

- Altus Economic Loop is a 3-mile corridor containing 9 organizations critical to the Altus economy
- These 9 organizations along AEL employ 417 persons, pay over \$25.4 million, and produce over \$236.5 million in products (not including the value of the commodities themselves)
- AEL businesses stimulate an additional 359 jobs, \$12.8 million in payroll, and \$47.4 million in sales from supplier relationships within Jackson County
- Household consumption induced by payroll from AEL businesses and suppliers support an additional 103 jobs, \$3.2 million in payroll and production of \$12.6 million
- The sum of these impacts imply an employment multiplier of 2.12, a labor income multiplier of 1.63, and an output multiplier of 1.25

Estimating Economic Impact

An economic impact study estimates the change in economic activity within a specific region that is associated with a business or industry. For this particular study, the industries analyzed include six agricultural cooperatives, one wallboard manufacturer, one commodities brokerage firm, and operations/management associated with an irrigation district. Collectively, these businesses form the backbone of the region's economy and represent a 3-mile corridor identified for additional infrastructure investments. Such infrastructure improvements will enhance the economic climate of Altus, as well as directly benefit the 9 organizations. The geographic region is Jackson County, Oklahoma.

An input-output model estimates the economic impact of the firm or industry on the geographic region. One of the most widely used models is IMPLAN, a model created by the USDA Forest Service in the mid-1970s; for the purpose of this study, the impacts are estimated using IMPLAN's online platform and 2017 data (latest available at the time of analysis). IMPLAN uses purchases between industries and trade-flow data to determine how changes in one industry will affect the others within the region. It is helpful to think of these interactions as occurring in one of three iterations. The first iteration, called direct impacts, are the dollars spent by the analyzed industry in the study region. Direct effects include money spent for salaries, equipment, raw materials and operating expenses. When inputs are purchased from other firms in the region, indirect impacts occur. The indirect effects are the employment, labor income and output associated with the input purchases of these supplier firms. The last iteration of impacts are the induced impacts. The induced effects come from household spending induced by the labor income generated by the direct and indirect effects. When businesses creating the direct and indirect effects pay salaries and distribute profits within the study region, and households

receiving those funds spend some or all of them in the region, induced effects result. All three iterations of impacts typically occur within one year of the direct impact.

Concept of an Economic Multiplier

An economic multiplier, the ratio of the total impact to the direct impact, is a measure of how much economic activity is created by injecting a dollar (or creating one new job) into a study region. The concept often is misused by suggesting that there is a standard multiplier for all industries and regions; rather, multipliers are specific to each industry in a region.

The concept of the multiplier can be understood by thinking of rounds of spending. In round one, the industry spends a specific amount (i.e., the direct impact). In round two of spending, part of those funds from round one are spent in the study region and part is spent outside. There is a similar situation in round three, so one can see that the amount spent within the region becomes smaller in each round and eventually dwindles to near zero. Adding up all of the rounds of spending results in the total impact. For example, if 40% of revenue is spent within the region, and \$1 is spent initially, the second round effect is \$0.40, the third round effect is \$0.16, the fourth round effect is \$0.06 and we get an eventual total effect of \$1.66. The result is a multiplier of 1.66. The multiplier can be interpreted in this way: for every dollar expended by the industry, another \$0.66 is generated within the regional economy.

Altus' Economic Loop

Altus' Economic Loop (AEL) includes the following employers: Cotton Growers Cooperative, Plains Cotton Cooperative Association, Planters Cooperative Association, Producers Cooperative Oil Mill, Humphreys Cooperative Gin, the Farmers Cooperative Association of Eldorado, Quanah, Goodlett, and Martha, American Gypsum Company, Lugert-

Altus Irrigation District and Great Plains Commodities, LLC. These businesses and organizations generate significant economic activity in Jackson County, Oklahoma. In addition to employing over 410 persons and paying over \$13.4 million in salaries and wages, these organizations produce products sold throughout the world worth over \$236.5 million. These are what economists would call **direct impacts**, the characteristics of the industry in question. Table 1 provides the data used to estimate the economic impact of Altus' Economic Loop.

In addition to the direct impacts listed above, the AEL employers stimulate additional economic activity. For example, electricity purchased by these employers causes the utility company to incur expenses to produce additional electricity. These additional expenditures in the economy by the firms supplying the AEL employers are called **indirect impacts**. Indirect purchases generate an additional 359 jobs, nearly \$13 million in labor income, and add more than \$47 million of products to the Jackson County economy.

In addition to the **direct** and **indirect** impacts, labor employed by both the AEL employers and their suppliers purchase products to support their households. The household expenditures created from wages are known as the **induced impacts** associated with the AEL employment; the induced impacts are estimated to stimulate the production of an additional \$12 million of output in Jackson County and support an additional 103 jobs paying \$3.2 million.

The total impact of Altus Economic Loop is the sum of the direct, indirect and induced impacts, and is presented in Table 2. In total, AEL employment supports **875 jobs**, which provide more than **\$41.5 million in payroll**, and produce products worth over **\$296 million**. Another way of expressing this impact is to say that every AEL job supports an additional 1.1 jobs in the broader economy.

With a few additional assumptions, one can estimate the city and county sales tax collections generated from household expenditures of payroll associated with the analyzed industry. First, it is assumed that the ratio of estimated sales to total personal income (also known as the propensity to consume) accurately represents the consumption pattern of employees in the analyzed industry. Estimated sales are calculated from Oklahoma Tax Commission Ledger Reports for the fiscal year ending June 30, 2018, and the Bureau of Economic Analysis provides data on personal income. Second, all induced output is spent in Altus or Jackson County, respectively. Using these assumptions, Table 3 shows that the City of Altus and Jackson County receive \$125,735 and \$18,236, respectively, in annual sales tax collections (assuming employment levels remain constant) due to AEL.

Conclusions

The Altus Economic Loop is an important component of the Jackson County economy, making significant contributions in terms of employment, business activity and taxes; this report quantifies these contributions in terms of the direct, indirect and induced impacts associated with AEL. In addition to the impacts mentioned in this report, six of the nine businesses/organizations comprising the AEL are cooperatives – a business model which has been shown to both encourage reinvestment in the community and build social capital (i.e., create and support networks of individuals), providing additional benefits to Jackson County, Oklahoma. Based upon these results, one may be justified in improving the region's infrastructure to support these existing businesses/organizations and/or realize new economic activity.

Table 1: Data Provided for Altus Economic Loop

Employees	417
Total payroll ¹	\$13,437,664
Utilities ²	\$1,999,787
Taxes Paid ¹	\$451,200
Total Sales ³	\$236,529,506

¹ One company did not report data for this category; IMPLAN estimates used in the analysis.

² Two companies did not report data for this category; IMPLAN estimates used in the analysis.

³ Data was estimated using data about the company as a whole.

Table 2: Economic Impact Results

	Employment	Labor Income	Value Added	Output
Direct Effect	412.52	\$25,464,739.46	\$55,256,133.37	\$236,529,506.00
Indirect Effect	359.38	\$12,859,571.61	\$22,446,428.92	\$47,438,335.34
Induced Effect	103.48	\$3,238,033.49	\$6,707,023.17	\$12,651,843.14
Total Effect	875.38	\$41,562,344.56	\$84,409,585.46	\$296,619,684.48
Multiplier	2.12	1.63	1.53	1.25

Table 3: Estimated Sales Tax Revenue Due to AEL

	Sales Tax Collections	Sales Tax Rate	Propensity to Consume	Induced Output Subject to Tax	Tax Revenue
Altus	\$9,552,479	3.75%	26.50%	\$3,352,930	\$125,735
Jackson County	\$1,385,467	0.50%	28.83%	\$3,647,251	\$18,236