

# **A Summary of The Economic Impact of ChattaCreek Meats Inc. in Carroll County**

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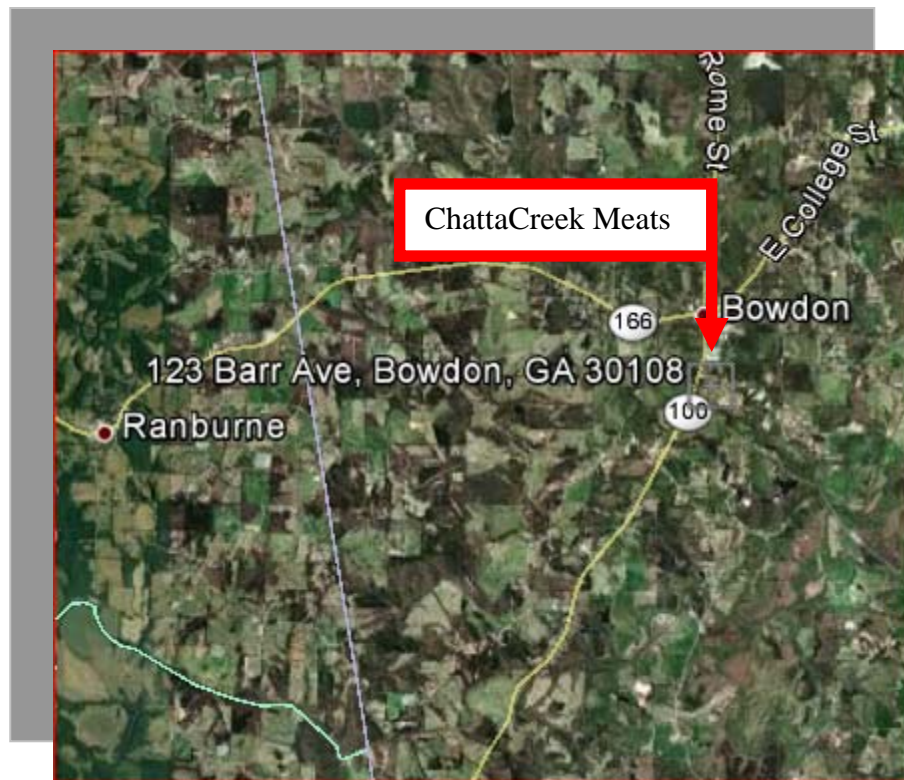


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<sup>1</sup> The information above is for affiliation purposes only. The analysis contained is not the position of the College of Business or the University of West Georgia.

## Introduction

The proposed ChattaCreek Meats Inc., a new multi-species processing plant in Bowdon, Georgia is designed to be a large-scale meat processing plant intended to serve Carroll County and other counties within a 100-mile radius of the plant in both Georgia and Alabama. The proposed development will consist of an approximately \$2.5 million facility that will be capable of processing a variety of different types of animals. The site is currently in the planning phase. Data for each of these components were provided to the researchers by ChattaCreek Meats Inc. The impact is assumed to occur in in two distinct stages, the construction phase and the operational phase of the development.



## Description of Methodology

Industry-standard input-output software and data developed by the Minnesota IMPLAN Group (MIG) is used to estimate the economic impact of the ChattaCreek Meats Inc. development on the economy of Carroll County. Input-output models use industry-level monetary transactions data to measure the degree to which industries and institutions in the economy interact with one another, and the extent to which changes in

final consumption ripple through the rest of the economy (see e.g., Miller and Blair, 1985).

Input-output models can be *descriptive* and *predictive*. Descriptive models estimate the degree to which different industries rely on one another. The relationships are tabulated in tables that summarize the flow of dollars and goods between industries and institutions. As an example of a descriptive model consider a baker, who in order to make  $x$  loaves of bread must buy  $y$  pounds of flour from a miller who in turn must buy  $z$  bushels of wheat from a farmer. The values  $x$ ,  $y$ , and  $z$  describe the relationships between the three industries, measured in units of output. The relationships can also be described in terms of value added (payments to workers, taxes, interests, profits, and other income) and employment.

The predictive models utilize the interdependence between industries to predict how changes in final consumption by households, industries, or governments affect other sectors of the economy. The extent to which an initial stimulus impacts all other parts of the economy is summarized with quantitative expressions called *multipliers* (see Leontief 1936). Multiplier effects can be divided into *direct*, *indirect*, and *induced* effects. The original change in final consumption is the actual *direct* effect. The *indirect* effects are the changes in all production processes in the economy needed to match the new consumption needs. Finally, the *induced* effects are the changes in household spending derived from the increases or decreases in households' incomes.

IMPLAN provides estimates of all effects in terms of output, wages, and number of jobs created or destroyed throughout the economy (employment). All dollar figures are in current dollars.

### **Construction Phase**

We assume that 100% of the construction work is performed locally. Site work is estimated to cost a total of \$3.5 million. See Table 1 below for more details.

**Table 1: Impacts of the Construction Phase**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
Direct Effect	26	\$1,140,275	\$3,500,000
Indirect Effect	4.7	\$176,670	\$519,188
Induced Effect	6.2	\$208,718	\$675,068
Total Effect	36.9	\$1,525,662	\$4,694,256

The construction phase of ChattaCreek Meats Inc. is expected to employ about 26 workers, and generate an additional 10.9 jobs within the county, representing a jobs multiplier of about 1.42. The initial expenditures on the building (\$3.5 million) will generate an additional \$1.2 million in total output in Carroll County, which translates into a multiplier of 1.34. This means for every local dollar spent in the construction phase another \$0.34 are generated in Carroll County expenditures.

### **Operational Phase**

Table 2 depicts the impacts accruing to Carroll County during the operational phase of ChattaCreek Meats.

**Table 2: Impacts of the Operational Phase**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Output</b>
Direct Effect	20.0	\$825,793	\$1,231,868
Indirect Effect	5.8	\$76,588	\$571,590
Induced Effect	0.4	\$12,103	\$39,071
Total Effect	26.2	\$ 914,484	\$1,842,529

Direct expenditures by ChattaCreek Meats in its first year of operation are expected to be \$1.23 million (see Table 2). Expenditures are used rather than sales to account for purchases made by ChattaCreek Meats that are expected to exceed the total value of sales of services or products. Based on these total direct expenditures of \$1.23 million, Carroll County will experience a total economic impact of \$1.84 million dollars of new economic activity, which represents an output multiplier of 1.50. It is estimated

that the new facility will employ approximately 20 workers, and this employment will generate another 6.2 employees within Carroll County.

The estimates for the operational phase are based on the assumption that the large-scale, multi-spices meat processing services are new to the region and do not offset other sales/purchases made in Carroll County. According to current data, ChattaCreek Meats Inc. represents the first business of its type in Carroll County, thus, any sales or services provided would be new to the county. Furthermore, ChattaCreek Meats Inc. is located near the western boundary of Carroll County, near the Alabama border. Its geographic location and the nature of the industry suggest that the majority of the customers are likely to come from outside Carroll County or outside the state.

### **Tax Revenues**

A development the size of ChattaCreek Meats Inc. will need the support of local governmental services, thus it is important to have an estimate of the potential tax revenue that such a development may generate (Table 3). The table below provides estimates of state and local (county) tax revenues.

**Table 3: Estimated Tax Revenues for the Operational Phase**

	<b>State and Local Sales Tax</b>	<b>Property Tax</b>	<b>Personal Income Tax</b>
<b>Operational Phase</b>	\$9,597	\$51,814 <sup>2</sup>	\$47,160

### **Remarks**

The extent to which these results accurately reflect the economic impacts from the ChattaCreek Meats Inc. development is based on the information provided. An assumption of our model is that all workers employed by firms within the ChattaCreek Meats Inc. development will come from Carroll County. As the share of workers from

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<sup>2</sup> This estimate of property tax does not include any county- or city-level property tax incentives.

Carroll County declines, the economic impact for Carroll declines, by shifting to the nearby counties. This may be an issue for our results given the proximity of the development to the Alabama border.

Finally, these estimates are made using the best data available; however, current economic conditions may adversely impact any new development, resulting than lower than expected sales or fewer than expected customers.

## **References**

Leontief, Wassily. (1936). "Quantitative Input-Output Relations in the Economic System of the United States." *The Review of Economics and Statistics*. 21, 105-125.

Miller, Ronald E. and Peter Blair. (1985). *Input-Output Analysis: Foundations and Extensions*. New Jersey: Prentice Hall.