



# Center For Agribusiness & Economic Development

## Value Added of Processing Vegetables, Cotton and Peanuts in Georgia

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### INTRODUCTION

Producers in Georgia raise a variety of crops for human consumption. Georgia is a major producer of vegetables, cotton and peanuts in the United States. In most cases, further processing is necessary to transform raw commodities into a consumable form. This processing adds value to the commodity.

Attempting to quantify the actual value that is added to these raw commodities is difficult. Measuring the impact of processing on the Georgia economy is even tougher. Impact Analysis for Planning (IMPLAN) is an input-output modeling tool which is used in determining the economic impact of certain sectors and events. The data and information contained in IMPLAN can be used to help explain the importance of processing in Georgia.<sup>(2)</sup>

### VEGETABLES

There are two main sectors in IMPLAN which account for vegetable processing: canned fruits and vegetables, and frozen fruits, juices and vegetables. The multiplier for the canned fruits and vegetables (canning) sector is 1.911. This multiplier can be interpreted to state that for a \$1 increase in the canning of fruits and vegetables a \$1.91 total increase will occur in the Georgia economy. This \$1.91 measures only the increases in supplies demanded by the canning sector. To clarify, in order to produce another dollar worth of output, the canned sector will need to purchase more vegetables, fruits, cans, boxes for packaging, etc. The vegetable producer in turn will need to buy more seed, hire more labor and so forth. The multiplier does not measure changes in the economy due to the consumption of the canned goods. In other words, the multiplier will not show the effect of increased canning on grocery stores which market the canned goods.

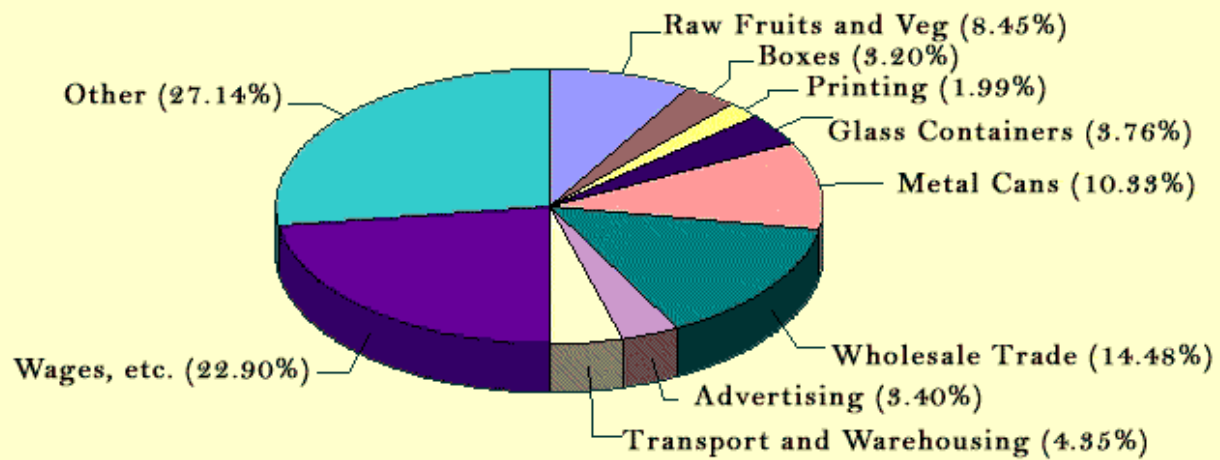
The multiplier for the frozen fruits and vegetables (frozen) sector is 1.87. This multiplier can be interpreted in the same manner. A \$1 increase in frozen output will equate to a \$1.87 impact on the state economy.

Multipliers are derived based on detailed data. These data are capable of showing how much of each input is required to produce one unit of output. According to IMPLAN, a dollar worth of canned output requires the purchase of approximately \$.08 of fruits and vegetables. For frozen fruits, juices and vegetables, a dollar of output requires about \$.15 of fruits and vegetables. Charts 1 and 2 show the breakdown of a dollar's worth of expenditures by the respective sectors.

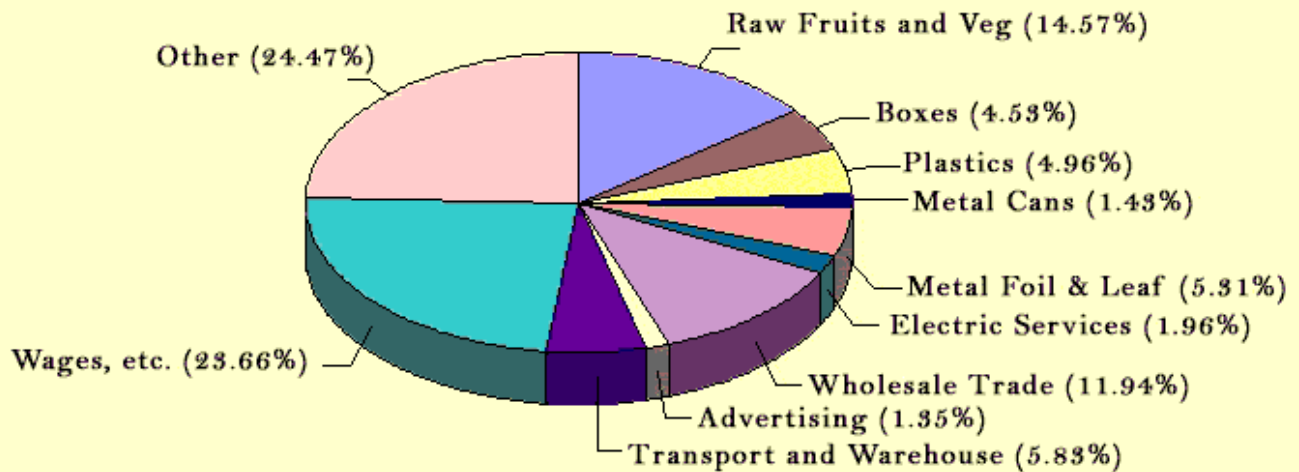
Capturing the value added to vegetables by further processing is not easy to accomplish. IMPLAN was not designed to directly provide this information, however, some conclusions can be drawn from the IMPLAN data. As shown earlier, the processing sector generates roughly an additional \$1.90 in the economy for every dollar increase in processing output. Of the \$1 increase in processing output, vegetable production is increased by about \$.10. Given this relationship, if processors were to demand an additional \$1 of raw vegetables, they would be producing about \$10 extra in output.

# Chart 1: Canned Fruits and Vegetables

## Breakdown of Expenditures



## Chart 2: Frozen Fruits, Juices & Veggies. Breakdown of Expenditures



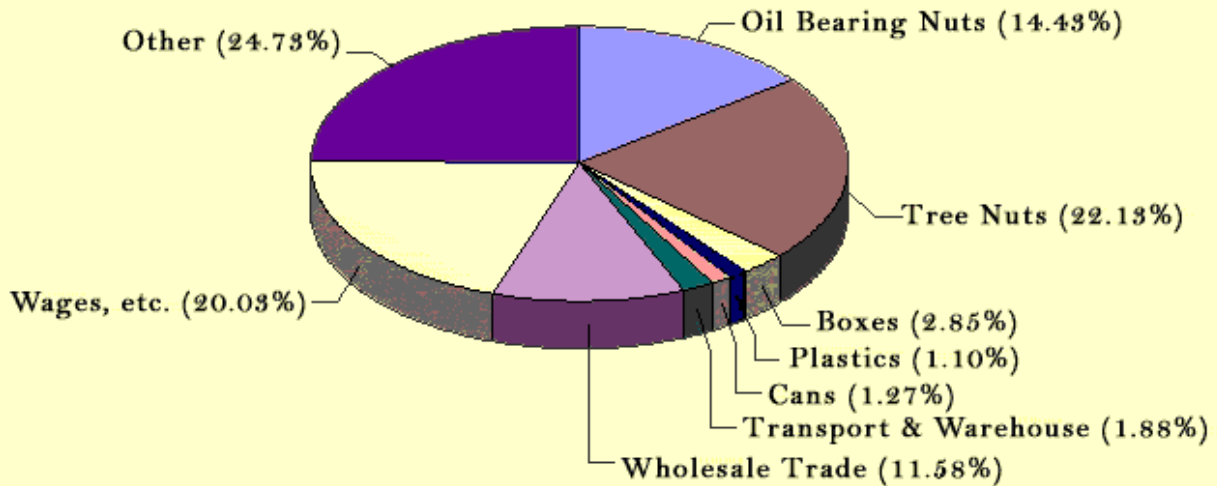
### PEANUTS

Peanuts grown in Georgia are mainly used in the production of nuts for consumption. Thus, the most appropriate processing sector in IMPLAN is salted and roasted nuts and seeds. The multiplier for this sector is 1.968. Thus, for every additional dollar of output by the roasted nuts and seeds sector, a \$1.97 is generated in the Georgia economy.

In order to produce another dollar of output, the nut processing sector will need to purchase a variety of inputs. Nut processors will spend approximately \$.14 of that dollar the purchase of nuts. The breakdown of this dollar is further shown in chart 3. Nut processors would need to be producing an additional \$7.15 in output in order to demand a dollar of raw nuts.

### Chart 3: Salted & Roasted Nuts & Seeds

Breakdown of Expenditures

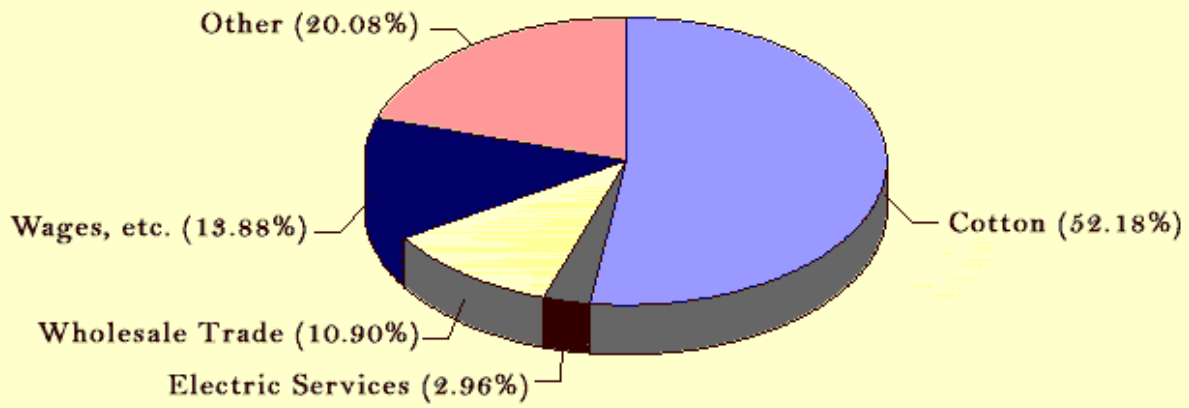


#### COTTON

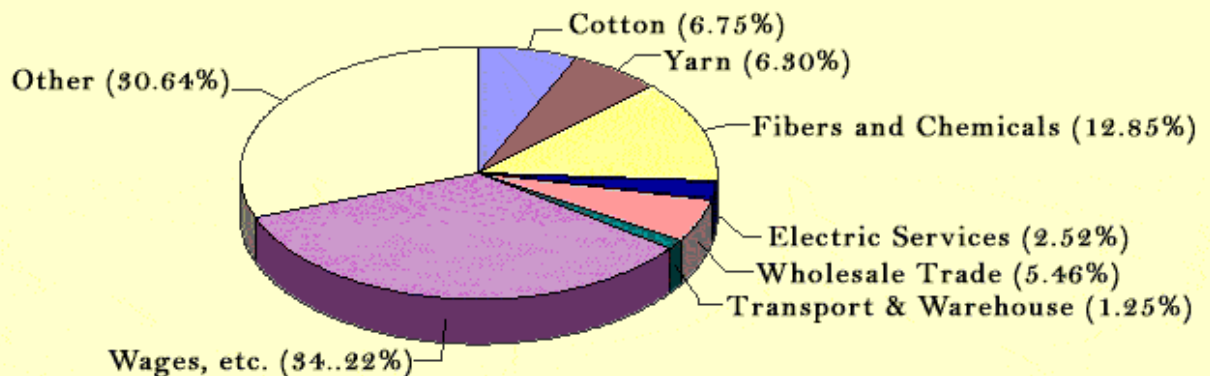
Cotton in Georgia has two main destinations. The seed can be utilized in cottonseed oil mills while the cotton lint is used in the production of fabrics. The cottonseed oil mills sector in IMPLAN accounts for the former and the broadwoven mills and finishing the later. The cottonseed multiplier is 1.62 stating that for an extra dollar of cottonseed oil output, a \$1.62 is created in the economy. Broadwoven mills have a multiplier of 1.71.

The cottonseed oil milling industry spends \$ .52 of every dollar's expenditure in the cotton sector. The broadwoven fabric mills use \$.07 of every dollar in cotton expenditures. Charts 4 and 5 show further breakdowns of these sector's expenditures. In the case that cottonseed oil mills should demand another \$1 of cottonseed, they would be producing roughly an additional \$2 in output. Meanwhile, broadwoven fabric mills would need to increase output by about \$14 to require an additional dollar of raw cotton.

## Chart 4: Cottonseed Oil Mills Breakdown of Expenditures



## Chart 5: Broadwoven Fabric Mills Breakdown of Expenditures



### CONCLUSION

In conclusion, processing does have an effect on the economy of Georgia. The processing plants themselves generate output and employment. Increasing the amount of output from processors will have a ripple effect through the economy creating more output. As part of this ripple effect, processors will require more of the raw commodity from producers. In a state such as Georgia, which has the capability to produce much of these raw commodities, the ripple effects will be stronger. Additional processing will stimulate further demand from producers, though quantifying the amount of this additional demand is difficult. This report attempted to provide rough estimates of these amounts.

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2. It is important to note that IMPLAN is subject to several important conditions and restrictions. The information provided here is meant to illuminate the current Georgia situation. While the information here is reliable, it should be interpreted with caution.