

Economic Impact of a Diversified Small Farming Operation in Woodbury County  
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Iowans, in general, produce a surplus of major farm commodities—supplies in excess of regional or statewide demand. Much of what is produced on Iowa farms becomes inputs into other agricultural production or into the manufacturing and food processing sector, basic industries as well. Farms also serve local markets, but the overall diversity of agricultural production in Iowa has waned over the decades and local direct sales to households and institutions has waned as well over the years.

When agriculture is analyzed in the state, however, the gross marketings of conventional corn and soybean operations along with hog and cattle production strongly overshadow more diversified farms. In 2006 the state had about \$15.1 billion in gross agricultural sales. About \$8.3 billion came from animal production, and \$6.7 came from crops. Just 4 percent came from poultry production. Accordingly, analyses of Iowa production are heavily weighted on dominant crop and animal production.

This very short report looks at the localized economic impact of a small, diversified farm that produces eggs, broiler chickens, and beef; engages in some custom work; and realizes some feed sales. In all the operation posted \$153,500 in receipts, the vast majority of which were related to poultry and egg sales. An operation like this, like all farming operations, has sets of economic linkages with the regional economy. All farms must buy production inputs, and farmers are very likely to buy the majority of their inputs from surrounding regional suppliers. When farms buy inputs, they stimulate and sustain additional trade in the region. When farmers make a return on their operations, those returns are converted into household incomes and used to support families. When you add all of the relationships together, the farm's receipts—its demand from local suppliers, and the effects of household spending—you arrive at the potential economic impact of the operation.

This operation was assessed using an input-output model of the Woodbury County economy. The model was configured to reflect the type of production on this particular farm as opposed to the prototypical Woodbury County farm. The operation's \$153,500 in receipts were entered into the model by the appropriate category of activity (poultry and eggs, beef, feed, custom work, etc.) and the expected economic impacts were then compiled. The accompanying table gives information at the farm level (or the direct activity) and the total economic impacts considering all demands for inputs, along with all farm household and other household spending that would be sustained from the operation.

This farm had \$153,500 in gross receipts (output). Including that output and all other sales that were stimulated in the region in the purchase of inputs and that attributable to all household-level spending from the farm family and from the workers supplying the inputs, this resulted in \$212,090 in regional output (or gross sales). The model supposes that this diversified operation was able to generate \$40,812 in labor income for the operation, and considering the earnings of all suppliers and of all workers stimulated by household spending that amount grows to \$59,104. There is other income that is supposed at the farm level. That income is mostly payments to the landowner—that accrues to the landlord if the land is rented, or it accrues to the owner operator if that is the case. Additional other income is generated in other sectors of the economy bringing that total up to \$29,171. Total income from labor and from other sources that are attributable to this operation and its effects on the regional economy is \$88,275. Last we have jobs. This is a family farming operation where everyone contributes. I have counted the full-time, full-year equivalent as 1.5 jobs. In all 2.15 jobs in the regional economy are attributable to this operation, according to the model.

The table also contains multipliers. A multiplier is merely the ratio of total activity to the direct (the farm level) activity. For every \$1 worth of output at the farm level, there was \$.38 in output in the rest of the county economy for a total of \$1.38. For every \$1 in labor income, \$.45 in additional labor income is supported elsewhere. And for every job on the operation, 43/100<sup>th</sup> of a job is supported in the other sectors of the economy.

### Small Farm Regional Economic Impacts

|              | Farm Level<br>Only | Total Regional<br>Economy | Multiplier |
|--------------|--------------------|---------------------------|------------|
| Output       | 153,500            | 212,090                   | 1.38       |
| Labor income | 40,812             | 59,104                    | 1.45       |
| Other income | 17,895             | 29,171                    | 1.63       |
| Jobs         | 1.5                | 2.15                      | 1.43       |

**Interpretations and Cautions:** These multipliers are appropriate for a small diversified farming operation. They are not the appropriate multipliers for the conventional agriculture activity in the region. As agriculture in the region is at full production, we would consider this operation to be part of the region's overall rural productivity. It is therefore not an addition to the region's productivity, it is an existing element. If the operation folded, the land would be used in a productive fashion. If other operations emerged that were similar in configuration, those operations would replace other agricultural uses. In calculating net gains to the region or net losses we have to consider all of these factors before we could declare regional economic impacts. All that has been done in this analysis is to provide an analysis of this particular operation.

The readers are reminded that previous research conducted in Woodbury County by this author looking at the potential economic gains for organic conversion allowed us to identify instances where it is possible to project regional economic enhancement from a shift in production practices. That research carefully compared overall economic outcomes with conventional operations of the same size so that the difference in regional productivity could be measured. This study does not provide that type of head to head comparison.