# Ripple effect: Study reveals NYS apple industry's true economic impact 

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Economic development boards and policymakers often have to make tough decisions when trying to boost the economy of rural areas. Should they give the green light to, say, a manufacturing plant? Or would an agricultural operation, like a milk processing plant, better jump-start the local economy?

Precise answers are hard to come by. Traditional economic impact analyses often rely on secondary state and national data, which can give a distorted picture of how an agricultural industry will affect a local economy.

A Cornell team offers a way to get more accurate answers. Unveiling a new framework for economic impact analysis, and using New York state's apple industry as a case study, its research found the state's apple industry has a 21 percent larger economic impact than traditional models suggest.

The key? Locally sourced data, showing what farmers are spending their income on and where.
"If the analysis has implications for private or public local economic development initiatives, the more accurate the numbers, the better," said Todd Schmit, lead author of the study, which appeared Jan. 16 in the Journal of Agriculture, Food Systems, and Community
Development. "Collecting local data is really hard, it's costly, it's time consuming. The flip side is, in most cases, that's time and money well
spent."

The model can assess the economic impact of any agricultural sector, said Schmit, associate professor in the Charles H. Dyson School of Applied Economics and Management.

In a related report, the team found every $\$ 1$ of apples or apple products sold in New York state generates an additional 58 cents spent in related industries, such as support services and supplies. Every apple industry job generates an additional 0.48 jobs, and every $\$ 1$ of direct appleindustry gross domestic product generates an additional \$1.14 in GDP from related business activity in the state. In total, the apple industry supports more than $\$ 2$ billion in industry output and nearly 12,000 jobs.

In the study, the team analyzed the economic impact of the state's apple industry in two ways, using 2016 data, the most recent available.

The traditional method relies on national averages for the fruit farming industry as a whole, based on secondary state and federal data. That's the technique used by IMPLAN, a provider of economic impact data and analytical software, which policymakers often turn to when making economic development decisions.

Using that method, the team found New York's apple farming industry produced $\$ 317$ million in direct sales. Factoring in farmers' purchases such as electricity, insurance and fertilizer, that figure grew to \$473 million in total economic impact, according to the study.

In contrast, the Cornell technique used not only state and federal data but also information from New York apple farmers, collected by Cornell Cooperative Extension's Lake Ontario Fruit Team. They asked what farmers spent their income on - such as packaging, storage, labor and supplies - and whether they spent it locally, regionally or nationally.

The Cornell model found the total economic impact of the state's apple farming industry was $\$ 574$ million - 21 percent higher than the traditional methodology suggested.
"What matters is not only what you buy but whether what you're buying is local, and how many of the transactions are contained within your economy," Schmit said. "That's even tougher for a group like IMPLAN to figure out from state and federal sources."

Depending on the agricultural sector being assessed, the model may not show an increase in economic impact, as it did in the case study. But, Schmit said, it will offer a more accurate analysis. "When you're trying to extract a particular industry from an aggregate of multiple industries," he said, "I would expect you're going to get bigger differences."

More information: Todd Schmit et al, Improving Economic Contribution Analyses of Local Agricultural Systems: Lessons from a Study of the New York Apple Industry, Journal of Agriculture, Food Systems, and Community Development (2019). DOI:
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