Contribution of Agriculture to Wisconsin

Food Processing's Contribution to Wisconsin Total Income 2012

Agriculture has historically been considered a backbone of the Wisconsin economy. Over time, however, other components, such as the service producing sectors including tourism-recreation and business services to name a few, have grown more important. This raises the question, how much does agriculture contribute to the modern Wisconsin economy. Using data from 2012, the most current year available, we seek to provide insights into that fundamental question.

Using a input-output model of the Wisconsin economy and several sub-regions to capture the multiplier effects we find that food processing contributes $21.1 billion to total income, which is 7.7% of the state total. When compared to analysis by Deller and Williams (2009) which explored 2007 data, there has been a $5.6 billion (35.9%) increase. This increase is in nominal dollars and does not reflect the effects of inflation.

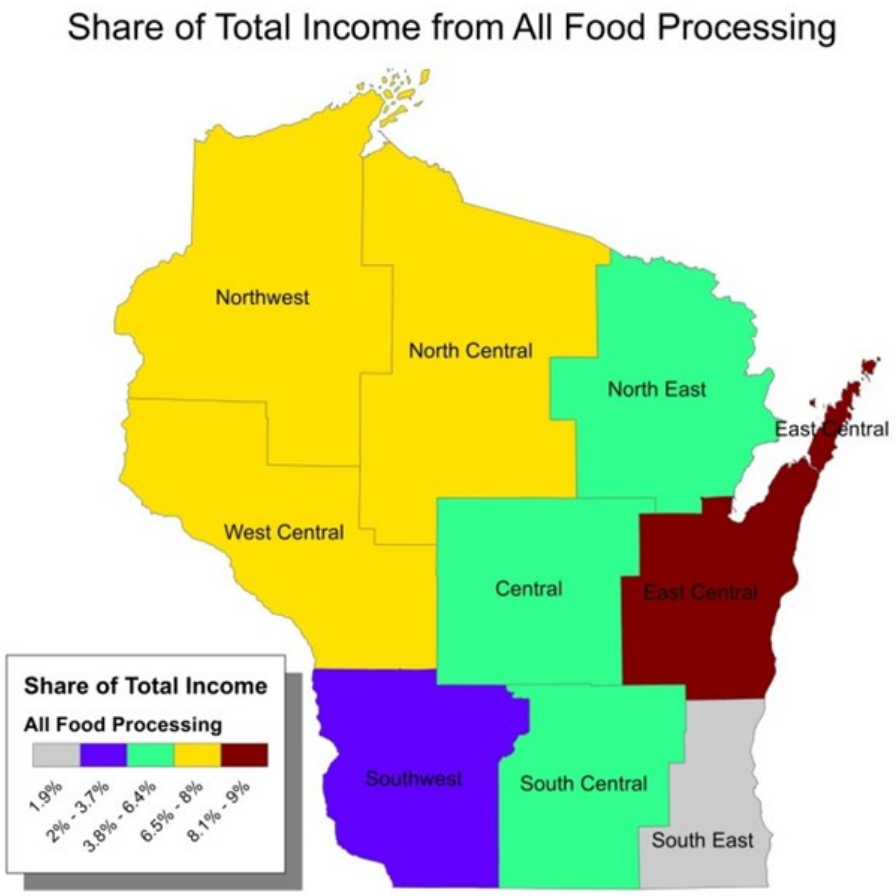
Looking across Wisconsin, a familiar patter is present in the contribution of food to the Wisconsin economy as measured by total income.

All Food Processing (2012) (MM$)

	Total Income	(%)
Wisconsin	$21,155.1	7.7%
North West	$750.4	8.0%
North Central	$1,071.9	7.8%
North East	$301.9	6.2%
West Central	$1,483.1	7.5%
Central	$806.4	6.4%
East Central	$4,671.5	9.0%
South West	$321.9	3.7%
South Central	$2,836.4	5.6%
South East	$3,689.4	1.9%

Total Income includes labor income (wages, salary and proprietor income) plus other sources of income such as dividends, interest and rent and some transfer payments such as social security. Within the framework of input-output modeling, total income is akin to gross domestic product.

East Central Wisconsin has the highest level of total income that can be traced to food processing at about $4.7 billion (or 9.0% of the regional total income). The South East region, which is dominated by the Milwaukee Metropolitan area, generates some $3.7 billion in total income, which is about 1.9% of the region's total. Taking these two results suggestion suggests that agriculture, and food processing in particular, is not just a rural based economic cluster. Because on-farm and food processing are two intertwined components of the agricultural cluster one must consider the industry as a whole which includes farm production, which tends to be in more rural areas, and food processing which is located in both rural and urban areas. Only in South West Wisconsin, where only 3.7% ($321.9 million) of regional total income comes from food processing, could food processing not be considered a major component of the economy.



Methods of Analysis

In this study we use an input-output model of the economy at the state level and the nine sub-regions of Wisconsin defined by National Agricultural Statistic Service (NASS). Input-output models can be viewed as a "spreadsheet" of the economy where buyers or demand move across the columns of the spreadsheet and sellers or supply move down the rows. An individual cell of the spreadsheet captures the dollar flow from sellers (supply) and buyers (demand). A key to the model is that the economy is in "equilibrium" or demand equals supply. In this framework we can trace how changes in one sector ripples throughout the entire economy. These ripples are widely known as the "multiplier effect". For this study these multipliers are custom to the region we are examining and reflect the economy in 2012.