

Agriculture's Contribution to The Wisconsin Economy 2017 Bakeries and Related

There are some 206 bakeries and related businesses in Wisconsin employing some 10,700 people with some \$1.9 billion in sales and the typical employee earns about \$51,400 in wages, salaries and proprietor income. While this industry is composed of many related businesses, such as frozen baked goods and tortilla manufacturers, the industry is dominated by traditional bakeries. The latter accounts for 85% of employment and 68.7% of industry sales. The next largest is the production of dry pastas, mixes and dough with 640 jobs and \$373 million in sales.

Exactly one half of these business have fewer than ten employees, only 5.8% have more than 100 employees and only one business has more than 500 employees (Table 1). While there are numerous bakeries and related businesses are scattered across Wisconsin, the bulk are located in the more urban areas

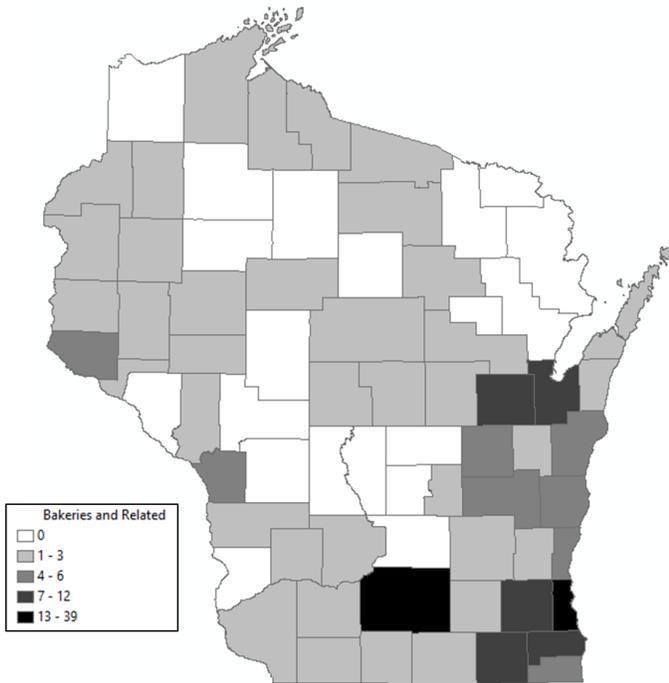
Table 1: Bakeries and Related by Size

(Number of Employees)	Firms	
1 to 4	71	34.5%
5 to 9	32	15.5%
10 to 19	41	19.9%
20 to 49	32	15.5%
50 to 99	18	8.7%
100 to 249	10	4.9%
250 to 499	1	0.5%
500 or more	1	0.5%

For this analysis bakeries and related include frozen baked goods, dry pasta and mixes, cookies and cracker firms and tortilla manufacturers.

such as Brown and Outagamie, Dane, and the larger Milwaukee region. When making location decisions these firms are looking at access to a qualified work force and transportation services which are more likely to be located in urban areas. In addition, because so many bakeries produce volume gaining products, it is more cost effective to locate closer to the end consumers, which again will tend to be located in more urban areas. This location pattern speaks to the fact that agriculture and the food industry more broadly is not just a rural industry. A significant amount of food processing is located in some of Wisconsin largest cities.

Map 1: Bakeries and Related Businesses



Bakeries and related industries contribute to the Wisconsin economy in three ways: the actual operation of the business itself (direct effect), the purchase on non-labor inputs (indirect effects) such as ingredients (flour, eggs, etc.), electricity and transportation services, and the payment of wages and salaries to labor (induced effects). The indirect and induced effects captures the ripple or multiplier effect. Adding these three elements together provides the total contribution of bakeries and related industries to the Wisconsin economy.

In total, bakeries and related industries contributes almost \$3.4 billion to industrial sales or revenues, 19,700 jobs, just over \$1 billion

in labor income (wages, salaries and proprietor income), and \$1.5 billion in total income (labor income plus all other source of income such as dividends, interest and rental income). For every \$100 in bakery and related industry sales an addition \$77 of industrial sales are generated elsewhere in the Wisconsin economy through the multiplier effect. For every 10 jobs in bakeries, and additional eight jobs are created elsewhere in the economy. For every \$100 in wages/salaries paid, and additional \$87 in labor income is generated. Much like other parts of the Wisconsin agricultural and food economy, bakeries and related industries make a substantial contribution to the larger Wisconsin economy.

Table 2: Economic Contribution of Bakeries and Related Industry (2017)

	Industry Sales (MM\$)	Employment	Labor Income (MM\$)	Total Income (MM\$)
Direct Effect	\$ 1,908.0	10,761	\$ 553.6	\$ 777.4
Indirect Effect	\$ 781.9	3,871	\$ 256.8	\$ 382.4
Induced Effect	\$ 685.1	5,035	\$ 225.0	\$ 397.9
Total Effect	\$ 3,375.0	\$ 19,667.7	\$ 1,035.4	\$ 1,557.8
Multiplier	1.769	1.828	1.870	2.004

For this analysis we use an input-output model of the Wisconsin economy. One can think of this model as a “spreadsheet of the economy” where buyers (demand) are across the columns of the spreadsheet and sellers (supply) are down the rows. Any individual cell of the spreadsheet captures the amount of money flowing from the seller to the buyer. Because supply must equal demand we can trace changes in one part of the economy (an interaction between supply and demand) throughout the whole of the economy. These changes are often referred to as the multiplier effects.

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