



# Economic Contribution of Small Businesses in Olmsted County

A REPORT OF THE ECONOMIC IMPACT ANALYSIS PROGRAM

Authored by Brigid Tuck and Jennifer Hawkins



In partnership with the Rochester Area Chamber of Commerce



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**April 2019**

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## EXECUTIVE SUMMARY: ECONOMIC CONTRIBUTION OF SMALL BUSINESSES IN OLMSTED COUNTY

Small businesses are an important element of the economy in both the city of Rochester and Olmsted County, Minnesota. When considering the Rochester area economy, many people think of large companies, such as the Mayo Clinic, IBM, or Charter Communications. However, businesses with fewer than 250 employees account for 99.8 percent of all establishments in the county.

The Rochester Area Chamber of Commerce recognizes the important role small businesses play in the local economy. It commissioned the University of Minnesota Extension to quantify the economic contribution of small businesses in the county and to illustrate how increases in purchasing from—and by—these businesses can affect the local economy. Using data from the County Business Patterns and IMPLAN, Extension estimated employment, output, labor income, and taxes generated by small businesses, as well as the impacts of increased local purchasing.

**Employment:** One in three Olmsted County employees work for a small business. In 2016, businesses in Olmsted County employed 95,917 people. An estimated 37,779 (39 percent) are at businesses with fewer than 100 employees. An estimated 48,243 (50 percent) are at businesses with fewer than 250 employees. The highest number of small business jobs are in retail trade, accommodation and food services, and health care industries. For several sectors, including other services (automobile repair and beauty salons, for example), wholesale trade, and accommodation and food services, eight of every 10 workers is employed by a small business.

**Output:** In 2016, businesses (including agriculture and government) in Olmsted County generated \$18.9 billion dollars in output. Businesses with fewer than 100 employees generated 27 percent of total output (\$5.0 billion). Businesses with fewer than 250 employees were responsible for 35 percent, or an estimated \$6.7 billion.

**Labor Income:** In 2016, businesses in Olmsted County spent \$7.5 billion on labor income. Small businesses with fewer than 100 employees in the county paid an estimated \$1.9 billion to their employees in 2016, or about 25 percent of the total. Businesses with fewer than 250 employees paid an estimated \$2.4 billion, or 32 percent of the total.

**Taxes:** Businesses with fewer than 100 employees paid an estimated \$271.4 million in state and local taxes in 2016. A major component (\$114.5 million) was state sales tax. They also paid an estimated \$74.0 million in local property taxes.

**Contribution of Expanding Small Businesses:** Increasing small business sales by 5 percent (\$251.9 million) would increase total economic activity in Olmsted County by an estimated \$359.6 million. It would add an estimated 2,800 jobs and \$129.6 million in labor income.

**Notes on the Analysis:** These results are estimates based on United States Census County Business Pattern data and IMPLAN. Unless noted, self-employed, government, and agriculture are not included in the dataset.

## INTRODUCTION

Small businesses are critical to the United States economy. While larger businesses often receive more attention and publicity, small businesses also create a significant share of economic activity. In 2016, 99 percent of United States businesses had 249 or fewer employees. Those businesses employed 69 percent of all U.S. workers. Small businesses are important and drive job creation, spark innovation, contribute to state and local government, and provide opportunities for many people—especially minorities and women—to achieve financial success (Exploring Business, 2010).<sup>1</sup>

Small businesses are also an important element of the economy in both the city of Rochester and Olmsted County, Minnesota. When mentioning Rochester, many people think of large companies, such as the Mayo Clinic, IBM, or Charter Communications. However, businesses with fewer than 250 employees account for 99.8 percent of all establishments in the county. These small businesses employ half of all workers. In some industries, such as construction, finance, and wholesale trade, small businesses account for all, or nearly all, of the jobs for that category in the county.

In the United States, **69** percent of workers are employed at small businesses.

The Rochester Area Chamber of Commerce recognizes the important role small businesses play in the local economy. It commissioned the University of Minnesota Extension to quantify the economic contribution of small businesses in the county and illustrate how an increase in purchasing from—and by—these businesses can affect the local economy.

## APPROACH

To quantify the current contribution of small businesses in Olmsted County, Extension used the United States Census County Business Pattern data.<sup>2</sup> The dataset includes the number of establishments by industry and employment size for Olmsted County. Based on employment ranges, and constrained by industry total employment, Extension estimated how many people small businesses employ in the county by industry. The number of employees was entered into the input-output model, IMPLAN.<sup>3</sup> The IMPLAN model produced an estimate of the total output (or sales) and labor income associated with these businesses. An estimate of the impact on taxes was also generated.

The county business pattern dataset is relatively comprehensive. However, data on self-employed individuals, agricultural production workers, and most government employees are not included. Therefore, limitations of this analysis include the exclusion of the self-employed, agriculture, and government.<sup>4</sup>

There is no one standard definition of a small business. This report contains statistics for two common categories of small businesses—those with fewer than 250 employees and those with

<sup>1</sup> Retrieved from <http://open.lib.umn.edu/exploringbusiness/chapter/5-2-the-importance-of-small-business-to-the-u-s-economy/>

<sup>2</sup> <https://www.census.gov/programs-surveys/cbp/>

<sup>3</sup> The industries in county business pattern data are broader than IMPLAN. Data from IMPLAN was used to distribute employment by the more detailed industry level.

<sup>4</sup> The United States Census Bureau's non-employer statistics indicate there are approximately 9,900 self-employed people working in Olmsted County. Thus, they account for roughly 9 percent of total employment.

fewer than 100. The primary focus of this analysis is on businesses with fewer than 100 employees.

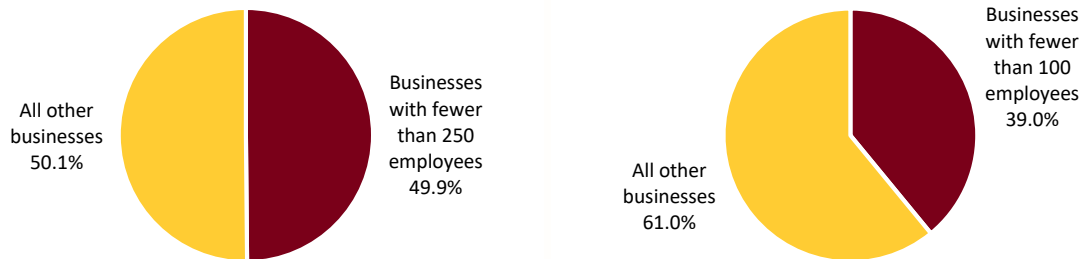
## ROLE OF SMALL BUSINESSES IN THE ECONOMY

Using county business pattern data and IMPLAN, Extension estimated employment, output, labor income, and taxes generated by small businesses.

### Small Business Employment

In 2016, businesses in Olmsted County employed 95,917 people. Small businesses employed a significant number of those workers. As illustrated in Figure 1, businesses with fewer than 250 employees employed about 50 percent of all workers (an estimated 48,243 people). Businesses with fewer than 100 employees employed 39 percent of all workers (an estimated 37,779 workers).<sup>5</sup>

**1 out of 3** workers in Olmsted County are employed by small business.



**Figure 1: Percent of all jobs at small businesses, Olmsted County, 2016**

Small businesses operate in a variety of industries in Olmsted County. Industries with the highest employment (total number of jobs) in 2016 included retail trade, accommodation and food services, and health care and social services industries (Figure 2).

Many people associate retail trade and food services with small businesses. These industries often evoke an image of a downtown area with small shops and restaurants. While health care and social service sectors may not immediately come to mind, organizations in this sector are often small businesses as well. Nursing homes, private dental practices, and mental health practices are good examples of small health care-related businesses.

<sup>5</sup> Employment includes full- and part-time employees (not FTE) who are on the payroll during the pay period including March 12. Employees on paid sick leave, vacation, and holidays are included.



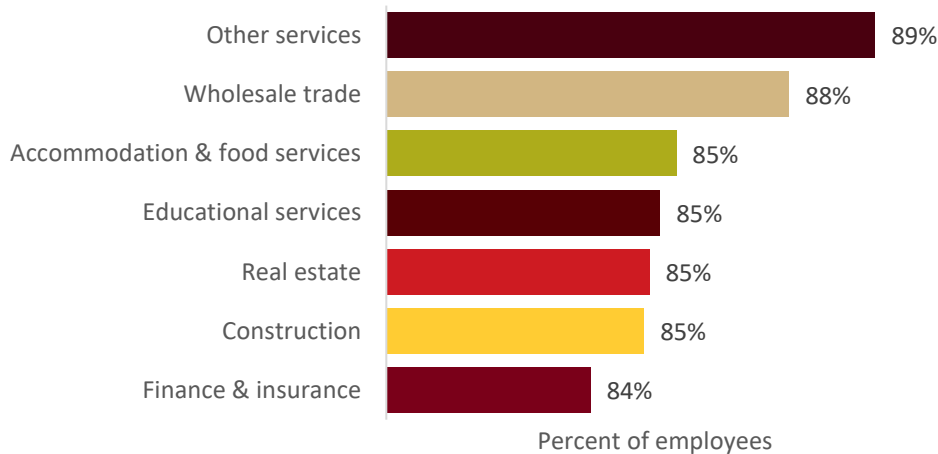


**Figure 2: Number of jobs at small businesses (fewer than 100 employees), Olmsted County, 2016**

While the above industries employ the highest number of small business employees, certain industries have a higher percentage of employees working for small businesses. These categories include other services (including automobile repair, equipment repair, beauty salons, and pet care), wholesale trade, and accommodation and food services (Figure 3).

**8 of every 10**

employees in other services, wholesale trade, and accommodation and food services in Olmsted County are employed by small business.



**Figure 3: Percent of employees by industry employed by small businesses (fewer than 100 employees), Olmsted County, 2016**



## Small Business Output

In 2016, businesses (including agriculture and government) in Olmsted County generated \$18.9 billion dollars in output.<sup>6</sup> Businesses with fewer than 250 employees were responsible for 35 percent, or an estimated \$6.7 billion, of that output. Businesses with fewer than 100 employees generated 27 percent of total output (Figure 4). Thus, small businesses generated \$5.0 billion of estimated output in 2016 in Olmsted County.

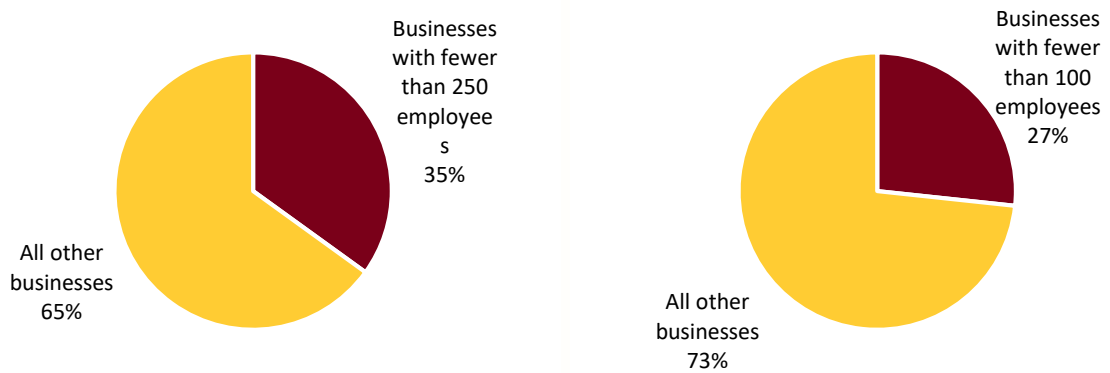


Figure 4: Percent of all output from small businesses, Olmsted County, 2016

While small businesses operate in all industries, those in certain industries create higher output. The industries with the highest small business output in Olmsted County include health care and social services, manufacturing, retail trade, accommodation and food services, and construction (Figure 5). For some industries, output is higher because there are relatively more establishments (retail trade, for example). For other industries, output is higher because output per worker is relatively higher. Manufacturing is a prime example. One manufacturer with 50 employees can generate relatively high sales volume.

In 2016, Olmsted County small businesses generated **\$5.0 billion in output.**

<sup>6</sup> “In IMPLAN, Total Industry Output (TIO) is the value of production by industry in a calendar year. It can also be described as annual revenues plus net inventory change. The output for the wholesale and retail sectors represents the wholesale or retail margin only; it does not represent revenues (sales).” Retrieved from <https://implanhelp.zendesk.com/hc/en-us/articles/115009505807-Output-Information>.



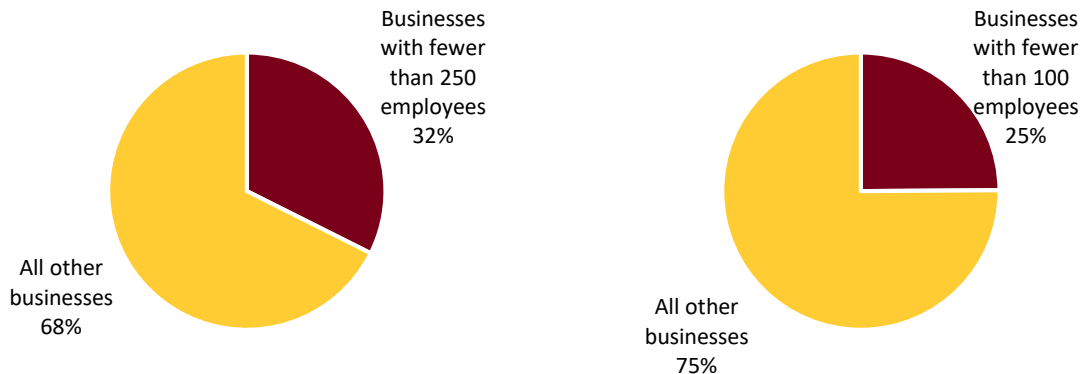


**Figure 5: Industries with the highest output from small businesses (fewer than 100 employees), Olmsted County, 2016**

### Small Business Labor Income

Labor income includes employee compensation (wages, salaries, and benefits) and proprietor income. In 2016, businesses in Olmsted County spent \$7.5 billion on labor income. Businesses with fewer than 250 employees accounted for 32 percent of the total, or an estimated \$2.4 billion. Businesses with fewer than 100 employees represented 25 percent of the total (Figure 6). Small businesses in Olmsted County paid an estimated \$1.9 billion to their employees in 2016.

In 2016, Olmsted County small businesses paid **\$1.9 billion** in compensation to their employees.



**Figure 6: Percent of all labor income from small businesses, Olmsted County, 2016**

### Small Business Taxes

Beyond employment and commercial activity, small businesses in Olmsted County also contributed to the tax base. Businesses with fewer than 100 employees paid an estimated

\$271.4 million in state and local taxes in 2016 (Table 1). A major component (\$114.5 million) was state sales tax. They also paid an estimated \$74.0 million in local property taxes.<sup>7</sup>

**Table 1: Estimated state and local taxes by size of business, Olmsted County, 2016**

Tax Category	Taxes paid by businesses with fewer than 250 employees	Taxes paid by businesses with fewer than 100 employees
Dividends	\$1,851,118	\$1,387,925
Social insurance	\$971,378	\$741,693
Sales tax	\$147,409,774	\$114,517,498
Property tax	\$95,261,608	\$73,999,609
Other taxes	\$28,202,194	\$21,852,113
Corporate profit tax	\$11,751,445	\$8,810,958
Income tax	\$65,040,433	\$50,050,993
<b>Total</b>	<b>\$350,487,950</b>	<b>\$271,360,789</b>

## EXPANDING THE ROLE OF SMALL BUSINESSES IN OLMSTED COUNTY'S ECONOMY

After quantifying the current contribution of small businesses, it is possible to calculate their potential economic contribution in the county. Economic contribution is comprised of direct, indirect, and induced effects.

This study looked at a 5 percent increase in sales (output). In this analysis, the direct effect is the projected increase in sales at small businesses. These direct effects were entered into the input-output model (IMPLAN) to trace the flow of goods and services in the economy. Once the flow is established, one can measure how a change in one portion of the economy (e.g., small businesses) will affect other parts of the economy. Indirect effects are those generated via business-to-business transactions. A small business spends more on electricity and legal services, for example, which then drives sales at other businesses. Induced effects are those generated via consumer-to-business transactions. A small business hires new employees that then purchase groceries and health care, for example.

In 2016, businesses with fewer than 250 employees generated an estimated \$6.7 billion in output in the county. A 5 percent increase in purchases (\$334.7 million) at businesses with

<sup>7</sup> In IMPLAN, taxes are classified as taxes on production and imports (TOPI). The underlying data source is the Census of Government Finances. In 2016, IMPLAN estimates total TOPI in Olmsted County of \$532.7 million.



fewer than 250 employees in Olmsted County would increase total economic activity by an estimated \$477.0 million (Table 2). This includes \$169.2 million in labor income. The increase would also support 3,590 jobs.

**Table 2: Estimated economic impact of a 5 percent increase in output by businesses with fewer than 250 employees, Olmsted County, 2016**

	Direct	Indirect	Induced	Total
Output (millions)	\$334.7	\$69.6	\$72.7	\$477.0
Employment	2,470	470	650	3,590
Labor Income (millions)	\$120.7	\$21.1	\$27.4	\$169.2

Estimates by University of Minnesota Extension

Business with fewer than 100 employees generated an estimated \$5.0 billion in output in 2016. Increasing their sales by 5 percent (\$251.9 million) would increase total economic activity in Olmsted County by an estimated \$359.6 million (Table 3). It would also add an estimated 2,800 jobs and \$129.6 million in labor income.

**Table 3: Estimated economic impact of a 5 percent increase in output by businesses with fewer than 100 employees, Olmsted County, 2016**

	Direct	Indirect	Induced	Total
Output (millions)	\$251.9	\$52.0	\$55.7	\$359.6
Employment	1,940	360	500	2,800
Labor Income (millions)	\$92.7	\$15.9	\$21.0	\$129.6

Estimates by University of Minnesota Extension

## NOTES ON THE ANALYSIS

This analysis estimates the number of employees by size. The county business pattern dataset provides the number of establishments by size category. For example, the dataset gives the number of construction companies with 10 to 19 employees. Extension then estimated the number of employees in this category by taking the mid-point of the data (14.5) and multiplying by the number of establishments. Estimates were then controlled to match the total number of jobs in the industry. If, for example, the estimated number of jobs by size category added up to 1,500, but the dataset indicated 1,550 jobs in that industry, the number of jobs in the size categories was increased. Thus, job numbers are estimates.

Once these estimates were established, the total number of jobs for businesses with fewer than 250 employees and 100 employees were entered into the IMPLAN model to get a measure of output, labor income, and taxes. The model estimates these based on ratios (the ratio of



employment to output, for example). This inherently assumes that small businesses have the same ratios as their larger companions.



## APPENDIX: DATA TABLES

**Table A1: Estimated jobs by industry and size of business, Olmsted County, 2016**

Industry	Jobs at all businesses	Jobs at businesses with fewer than 250 employees	Percent of jobs at businesses with fewer than 250 employees	Jobs at businesses with fewer than 100 employees	Percent of jobs at businesses with fewer than 100 employees
Mining	5	5	100.0%	5	100.0%
Utilities	154	162	100.0%	162	100.0%
Construction	2,990	2,969	100.0%	2,519	84.8%
Manufacturing	4,307	2,443	52.1%	1,570	33.5%
Wholesale trade	1,212	1,288	100.0%	1,128	87.5%
Retail trade	11,594	9,970	84.7%	6,770	57.5%
Transportation & warehousing	1,778	1,775	100.0%	1,355	76.3%
Information	1,786	1,436	79.3%	738	40.8%
Finance & insurance	1,703	1,731	100.0%	1,451	83.8%
Real estate	830	860	100.0%	730	84.9%
Professional, scientific & technical services	33,814	2,563	7.5%	2,314	6.8%
Management of companies	381	388	100.0%	238	61.3%
Administrative & support, waste & remediation services	2,863	2,235	78.8%	1,905	67.2%
Educational services	979	1,011	100.0%	861	85.1%
Health care & social services	19,904	8,364	42.0%	6,270	31.5%
Arts, entertainment, & recreation	1,019	799	72.7%	649	59.1%
Accommodation & food services	7,534	7,215	96.0%	6,415	85.4%
Other services	3,064	3,029	100.0%	2,699	89.1%
<b>Total</b>	<b>95,917</b>	<b>48,243</b>	<b>49.9%</b>	<b>37,779</b>	<b>39.0%</b>

**Table A2: Estimated output by industry and size of business, Olmsted County, 2016**

Industry	Output from businesses with fewer than 250 employees	Output from businesses with fewer than 100 employees
Mining	\$696,596	\$696,596
Utilities	\$110,870,144	\$110,870,144
Construction	\$477,150,710	\$404,830,802
Manufacturing	\$1,212,333,954	\$783,660,002
Wholesale trade	\$276,394,292	\$242,059,590
Retail trade	\$769,421,278	\$522,697,941
Transportation & warehousing	\$286,511,579	\$196,158,378
Information	\$451,660,259	\$232,227,141
Finance & insurance	\$290,433,690	\$243,631,749
Real estate	\$323,789,966	\$275,138,356
Professional, scientific & technical services	\$313,741,194	\$283,260,649
Management of companies	\$76,671,018	\$47,030,165
Administrative & support, waste & remediation services	\$161,087,703	\$137,282,258
Educational services	\$86,369,020	\$73,616,540
Health care & social services	\$1,167,142,016	\$874,783,095
Arts, entertainment, & recreation	\$47,661,304	\$38,713,260
Accommodation & food services	\$461,678,364	\$410,419,396
Other services	\$180,537,122	\$160,876,832
<b>Total</b>	<b>\$6,694,150,209</b>	<b>\$5,037,952,894</b>



**Table A3: Estimated labor income by industry and size of business, Olmsted County, 2016**

Industry	Labor income from businesses with fewer than 250 employees	Labor income from businesses with fewer than 100 employees
Mining	\$32,974	\$32,974
Utilities	\$19,503,202	\$19,503,202
Construction	\$176,945,492	\$150,126,541
Manufacturing	\$179,523,439	\$116,065,457
Wholesale trade	\$100,594,524	\$88,098,307
Retail trade	\$315,504,928	\$214,320,235
Transportation & warehousing	\$121,996,788	\$84,107,887
Information	\$73,450,477	\$37,802,313
Finance & insurance	\$75,123,449	\$63,042,099
Real estate	\$20,770,668	\$17,622,504
Professional, scientific & technical services	\$134,222,040	\$121,182,117
Management of companies	\$33,610,024	\$20,616,460
Administrative & support, waste & remediation services	\$78,123,265	\$66,583,493
Educational services	\$48,846,836	\$41,634,548
Health care & social services	\$757,816,475	\$567,984,028
Arts, entertainment, & recreation	\$11,651,257	\$9,463,886
Accommodation & food services	\$153,429,907	\$136,397,817
Other services	\$112,373,684	\$100,137,066
<b>Total</b>	<b>\$2,413,519,429</b>	<b>\$1,854,720,934</b>