



Memorandum

Date: August 7, 2019

To: Tim Sowton, Vice President, Government Affairs & Public Policy

From: Sarah Mixon, Senior Analyst

Re: Economic Scope of Business Leaders for Michigan Companies, 2019

Business Leaders for Michigan (BLM) has retained Anderson Economic Group (AEG) to estimate the economic scope of the activities of BLM member organizations in Michigan. The following memorandum contains text and figures to be used by BLM. It also includes a detailed methodology and description of data sources. We have included a separate Excel file containing tables and further details about our results.

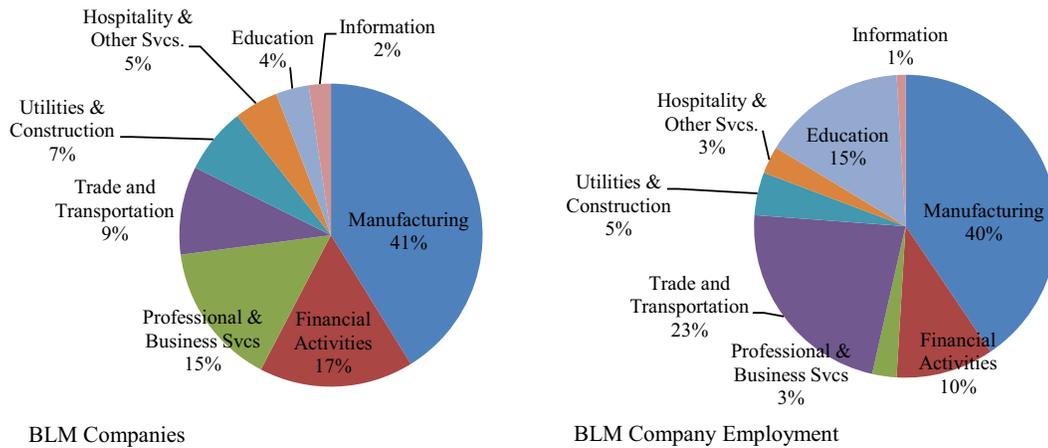
I. Who Are the Business Leaders for Michigan?

Business Leaders for Michigan currently has 85 member organizations. Three of these organizations are public universities and the rest are businesses operating in the private sector.

- The universities in BLM had over 140,000 students enrolled in the fall of 2017, accounting for 48% of the total enrollment in public universities in Michigan.
- Manufacturers account for the largest share of businesses and jobs among BLM companies, with 35 of 85 member firms belonging to the manufacturing sector. Combined, these manufacturers account for 40% of BLM member jobs.

See Figure 1 on page 2 for charts that show the industry composition of BLM member organizations by number of companies and by total number of employees in Michigan.

FIGURE 1. Industry Composition of Business Leaders for Michigan, by Number of Companies and Number of Employees in Michigan



Source: AEG analysis of Business Leaders for Michigan Survey.

II. Jobs at BLM Companies

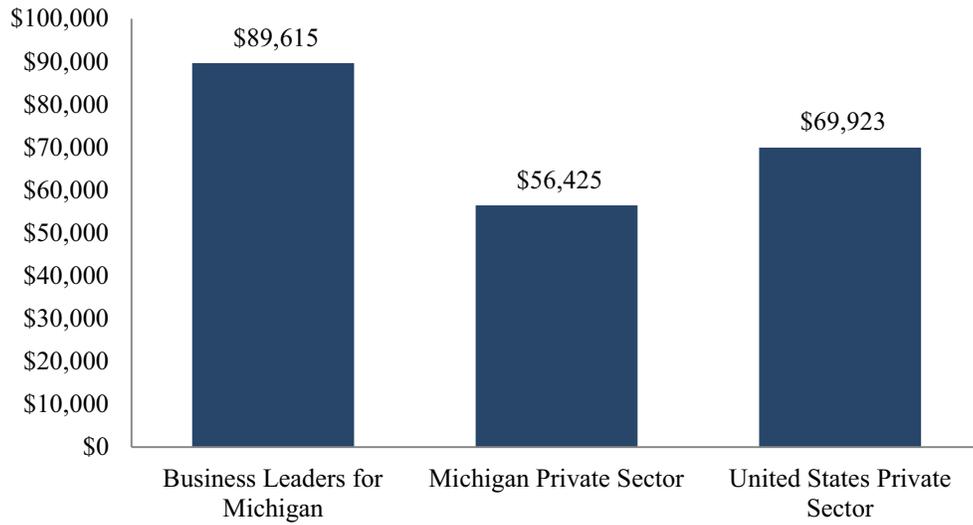
Business Leaders for Michigan members employ 465,837 people in Michigan, equivalent to 11% of the state’s workforce.¹ BLM companies have employees in almost every county in the state. See Exhibit 1 on page 4 for a map showing the locations of these employees.

Business Leaders for Michigan companies and universities provide well-paying jobs. Employee compensation at BLM organizations averages \$89,615 per year, comprised of an average salary of \$73,324 and benefits of \$16,291. This is 59% higher than the average compensation of private sector employees in Michigan, and 28% higher than the average compensation for private sector employees in the United States. Wages and salaries paid to BLM employees account for 16% of all private sector wages and salaries in Michigan while benefits paid to BLM employees account for almost 26% of all benefits paid to private sector employees in the state.² See Figure 2 on page 3 for compensation paid to employees of BLM companies compared to the average private sector employee in Michigan and the nation, respectively.

BLM firms also provided over 3,000 paid internships in Michigan in 2018.

1. We define the state’s workforce as the total wage and salary employment in private, non-farm industries in the state. This excludes sole proprietors.
 2. Benefits include employer share of health care premiums, disability and life insurance, and contributions to defined contribution or defined benefit pension funds.

FIGURE 2. Average Annual Compensation for BLM Companies, Michigan, and the Nation, 2018



Source: AEG analysis of Business Leaders for Michigan Survey, Bureau of Economic Analysis.

III. Economic Scope of BLM Companies in Michigan

The economic scope of BLM company operations extends beyond their own employees and compensation. As BLM members spend money at vendors throughout the state and hire local Michigan workers, they support industries statewide. We estimate that throughout Michigan, 1.1 million jobs (24% of private sector, non-farm wage and salary employment) and \$71 billion in earnings are supported by the economic activities of BLM member organizations.

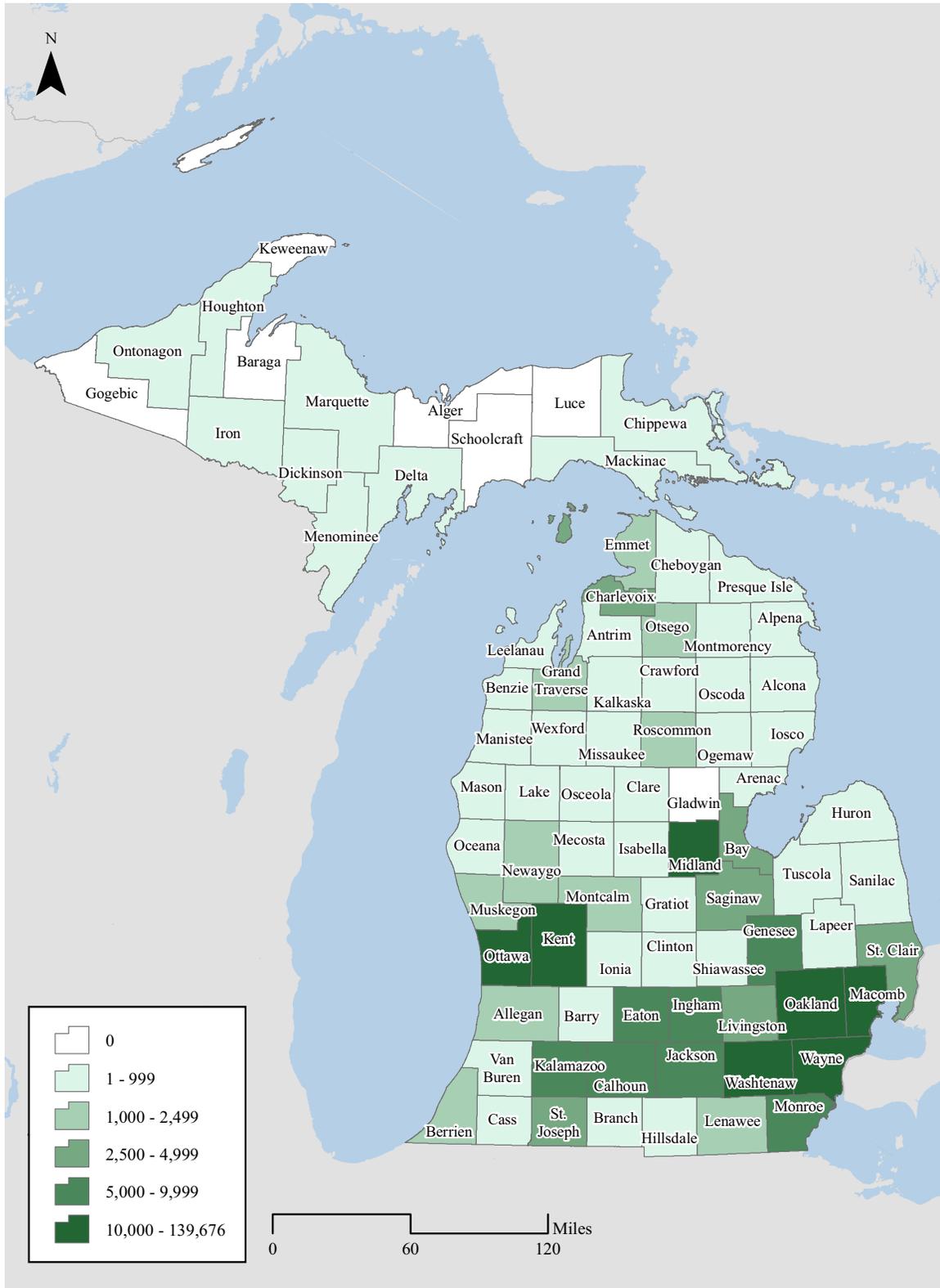
IV. Other Business Activity

In 2018, BLM companies spent \$82 billion in Michigan on goods and services, in addition to the \$42 billion spent on wages and benefits for their employees. Their nonpayroll expenditures are equivalent to 17% of the state's total economic activity (as measured by gross state product).

Also in 2018, BLM company employees paid over \$1 billion in state income taxes on wages from a BLM company. This represents 11% of total state income tax paid in that year. BLM companies had over \$1 trillion dollars in total revenue in 2018.

Employment among BLM companies that reported 2017 and 2018 numbers grew by 7%. These companies reported adding over 16,000 jobs. Responding companies also reported that, on average, 48% of nonpayroll expenditures were for materials, while 52% of nonpayroll expenditures were for services.

Exhibit 1. Number of Michigan Employees at BLM Companies by County, 2018



Source: AEG analysis of Business Leaders for Michigan Survey.

V. About Anderson Economic Group

Anderson Economic Group, LLC, is a boutique research and consulting firm, with offices in Chicago, Illinois, and East Lansing, Michigan. The experts at AEG specialize in economics, public policy, business valuation, and industry analyses. They have conducted nationally-recognized economic and fiscal impact studies for private, public, and non-profit clients across the United States, and have extensive experience in evaluating the economic impacts of business coalitions and higher education institutions. Our past clients include:

- Governments such as the states of Michigan, Kentucky, New Jersey, North Carolina, and Wisconsin; the cities of Cincinnati, Detroit, Fort Wayne, Trenton, and Norfolk; the counties of Oakland County, Michigan, and Collier County, Florida; and the Detroit-Wayne County Port Authority.
- Corporations such as GM, Ford, Delphi, Honda, Taubman Centers, the Detroit Lions, PC&E Generating, SBC, Gambrinus, Labatt USA, Inbev USA, Spartan Stores, Nestle, and automobile dealerships and dealership groups representing Toyota, Honda, Chrysler, Mercedes-Benz, and other brands.
- Nonprofit organizations such as the University Research Corridor, Michigan State University, Wayne State University, Van Andel Institute, the Michigan Manufacturers Association, the Pennsylvania Association of Realtors, United Ways of Michigan, Service Employees International Union, Automation Alley, and the Michigan Chamber of Commerce.

For more information about Anderson Economic Group, please visit our website at www.AndersonEconomicGroup.com.

VI. Methodology

The data presented in this report come from several sources. All BLM member organizations were sent a detailed survey, requesting information on industry, revenue, employment, wages, benefits, and nonpayroll expenses. 45 of 85 companies responded to the survey. Respondents represented 53% of total employment among BLM members, according to our estimates. We estimated missing data based on industry averages, annual reports of publicly-traded companies, responses of companies with similar characteristics, and survey responses from previous years. See “Estimation Methods” below for more information on how we estimated missing data.

To estimate the economic impact of BLM organizations, companies were split into sectors, and sector-specific RIMS II direct-effects multipliers, provided by the U.S. Bureau of Economic Analysis, were applied to jobs and wages for each company. These multipliers are specific to the State of Michigan. We reduced the multipliers to prevent double-counting indirectly generated employees. See “Reducing Multipliers” on page 6 for more information on how we reduced multipliers to avoid double-counting.

Estimation Methods

We estimated responses to questions that were left blank by BLM members using past data and industry averages. Although this methodology only provides a rough estimate for each response, we are confident that, in aggregate, our results closely resemble the true totals for companies in Business Leaders for Michigan. We estimated each category differently, as described below.

Employment. To estimate Michigan employment totals for 2018, we took employment responses from previous years—2016 or 2013— and inflated or deflated the totals as if each nonresponding firm had experienced employment growth consistent with their industry’s overall growth in Michigan. We used Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW) data to estimate industry growth. QCEW data are only available through 2017, so we assumed that industry growth from 2017 to 2018 was the same as industry growth between 2016 and 2017.

Survey respondents provided a breakdown of their employment by Michigan county. We estimated total employment by county for nonresponding firms by summing employment in each county from those who responded, and then inflating this amount for each county by the ratio of total estimated employment at BLM member companies to total employment at BLM member companies who provided employment by county.

Wages and Salaries. To estimate total payroll for BLM companies, we first estimated average earnings per employee and then multiplied this value by the number of employees at that company. We used the following methods to estimate average wages and salary per employee for companies that did not provide them for the year 2018.

- If the member firm provided a response in 2013 or 2016, we took the average wage per employee in that year and inflated or deflated the average wage as if each nonresponding firm experienced per-employee wage growth consistent with their industry’s overall wage growth in Michigan. We measured overall wage growth in Michigan using data from the Bureau of Labor Statistics’ Quarterly Census of Employment and Wages.
- If no data were available for 2013 or 2016, we estimated total wages by multiplying the nonresponding firm’s employment total by the average industry wage in Michigan based on the Quarterly Census of Employment and Wages.

Benefits. To estimate total benefits for BLM companies, we determined the average industry-wide ratio of benefits to wages and salaries, and then multiplied this ratio by the wages and salaries of each nonresponding firm. We used ratios from the Almanac of Business and Industrial Financial Ratios, 2014.

Nonpayroll Expenses. To estimate nonpayroll expenditures for nonresponding firms, we assumed that the firm’s previously-reported nonpayroll expenditures per employee stayed the same for 2018, only increasing by the rate of inflation. For firms that provided 2013 and 2016 responses, we took the average of the two responses in 2018 dollars. For firms that provided a response in only 2013 or only 2016, we used the respective amount in 2018 dollars. For firms that had no 2013 or 2016 response, we used the average amount of nonpayroll spending per employee among similar firms that responded in 2011, 2013, or 2016.

Sales. For all companies that did not provide sales data for 2018, we reviewed annual reports for the publicly traded companies. If the company was not publicly traded, we used industry trade publications, company websites, and estimates from D&B Hoovers.

Reducing Multipliers

Since Business Leaders for Michigan companies have such a large presence in Michigan, we altered our economic multipliers in order to avoid double-counting some economic impacts. Multipliers capture all indirect and induced impacts of a given company’s economic activity in the state. For example, multipliers not only capture the employment and earnings taking place at that

company, but also capture additional employment and earnings that occur at that company's vendors, as well as throughout the state as that company's employees spend their earnings at local businesses. Since many BLM member organizations have vendors that are also members of BLM, we have already accounted for some of this indirect activity by counting BLM's employment and earnings. We reduced multipliers in order to exclude this overlap.

For all non-manufacturing industries, we reduced the part of the multiplier that represents indirect and induced economic activity by 5%. In other words, if a multiplier is 2.5, the first 1.0 of that multiplier represents the direct impact, or employment occurring at the company in question. The additional 1.5 of that multiplier represents indirect and induced impacts. We reduced that 1.5 by 5%, and then added it to 1 to get a new adjusted multiplier of 2.425. We used a 5% reduction because we estimate that BLM companies account for approximately 5% of non-manufacturing activity in the state, implying that there is a 5% chance that a vendor to a non-manufacturing company will be a member of BLM.

For all manufacturing industries, we reduced the part of the multiplier that represents indirect and induced economic activity by 30%. According to the Bureau of Economic Analysis, just over 40% of manufacturing nonpayroll expenditures go to other manufacturing companies. Since manufacturing companies are highly clustered in Michigan, and many BLM members are part of the same manufacturing industries (particularly in chemical and auto manufacturing), we assume that 30% of nonpayroll expenditures from BLM manufacturing companies will go to other BLM companies.

Adjusting BEA Employment Data

In order to determine total private, non-farm benefits for Michigan employees, we subtracted private, non-farm wages from private, non-farm compensation to determine total benefits paid by employers. We then subtracted out the total amount of employer benefit payments to government programs like Medicare and Social Security.

State Income Tax

To calculate state income taxes paid by BLM employees, we estimated the effective personal income tax rate for Michigan and multiplied this amount by total BLM member wages. We estimated the state's effective tax rate using IRS statistics of income data for the year 2016—the most recent year for which data are available. We first determined the portion of total state income that is taxable by dividing the sum of Michigan taxable income and state and local taxes paid by total Michigan income. We then multiplied this amount by total BLM employee wages, and then by the Michigan personal income tax rate of 4.25 percent. The Michigan statewide income tax total is from the Michigan Comprehensive Annual Financial Report for the year ending September 30, 2018.