THE IMPACT OF CONSTRUCTION ON THE WISCONSIN ECONOMY

2022 Study

AGC WISCONSIN
Associated General Contractors

Conducted by:

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

The Construction industry in the state of Wisconsin helps drive economic growth and provides many jobs throughout the state. The industry directly produced nearly $9.7 billion in real GDP in Q2 2022, accounting for 3.1% of total state GDP. Employment in the industry increased 5.9% to 133,600 in September 2022, accounting for 4.5% of total employment in the state, and average annual wages in the industry (including sole proprietors) were $70,416 in 2021, compared to the state average of $57,041 for all industries and the national construction industry average of $70,618.

While the Construction industry witnessed employment declines over the course of the pandemic in 2020, industry employment fully recovered in 2022, and has been climbing above its pre-pandemic peak since November 2021. In addition, during the pandemic, real industry GDP declined for the first time in nine years in 2020 (-2.5%), but increased over the course of 2021, with industry GDP nearly recovering to pre-pandemic levels and up 2% by year-end 2021. Construction real GDP declined over the first half of 2022, falling to $9.6 billion by Q2 2022, 5.7% down from the prior quarter and 10.5% down year-over-year. This marks the lowest observed construction industry GDP value since 2014. Nominal Construction GDP also fell in Q2 2022 from the prior quarter, albeit at a lower rate (-0.3%).

The labor and capital intensiveness of construction projects translate to local expenditures, primarily on employment, as well as on design, engineering, and other local goods and services. As such, spending permeates into other sectors in the economy, producing a multiplied economic impact throughout the state's economy. The economic impact of Wisconsin's Construction industry totaled an estimated $53 billion in economic output and contributed $28.5 billion to the state's GDP. The industry also directly employed and supported an estimated 339,670 jobs over the year and contributed $21.4 billion in labor income.

TABLE 1: ECONOMIC IMPACT ON THE STATE OF WISCONSIN, 2022

Impact	Employment	Labor Income (in Millions)	Value Added (in Millions)	Output (in Millions)
Direct Effect	193,691	$13,639	$15,051	$28,834
Indirect Effect	50,591	$2,967	$5,197	$9,546
Induced Effect	95,388	$4,789	$8,218	$14,638
Total Effect	**339,670**	**$21,395**	**$28,467**	**$53,018**

The economic impact of the Construction industry has the following multiplier effects within the state of Wisconsin:

- Every $1 spent directly within the Construction industry produces an overall economic impact of approximately $1.84.
- Every $1 million spent within the Construction industry supports approximately 12 jobs on average over the year across the state economy. Approximately seven of these jobs are within the Construction industry and five are within other sectors of the economy.
- Every $1 million spent within the Construction industry generates over $742,000 in labor income throughout the state. Approximately $63,000 in labor income is generated per job created.
- Construction activity has economic impact throughout the entire state of Wisconsin. As of 2020, every county in the state contributed to the total state construction GDP. In 2021, the total value of construction in Wisconsin was approximately $13.3 billion, according to ConstructConnect. In addition, in 2022, ConstructConnect tracked 87 major construction projects across 18 counties in the state.

PROJECT OVERVIEW

The Business Research Division at the University of Colorado's Leeds School of Business conducted a study of the economic benefits of the construction industry on the state of Wisconsin in 2020. This study updates the 2020 report, estimating direct industry sales, employment, wages, and locations of activity in the state. Input-output analysis is used to illustrate the supply chain impacts of the industry and demonstrate the scope and reach of the industry within Wisconsin.

The purpose of this study is to provide nonbiased, third-party research to the Associated General Contractors (AGC) of Wisconsin Industry Advancement Program and its constituents, including governments, residents, and businesses, about the economic contributions of the construction industry to the state of Wisconsin. This study updates a prior economic study that was conducted in 2010.[1]

The construction industry helps drive Wisconsin's economy. The industry plays a role in providing jobs, wages, and contributing to Wisconsin's gross domestic product. The labor and capital intensiveness of construction projects translate to local expenditures, primarily on labor, as well as on design, engineering, and other local goods and services. As such, spending permeates into other sectors in the economy, producing a multiplied economic impact throughout the state's economy, as a driver of additional downstream economic activity that is not specifically quantified in this report.

METHODOLOGY

This study was conducted in cooperation with the Associated General Contractors (AGC) of Wisconsin Industry Advancement Program. Data were collected from secondary sources including the Bureau of Labor Statistics (BLS), the Bureau of Economic Analysis (BEA), and AGC Wisconsin supplied ConstructConnect data on the historical value of construction by type. Employment and wage data from the Bureau of Economic Analysis were used for modeling. Data were reorganized by function and applied to a 546-sector IMPLAN input-output model. This 2019 model quantified the economic impacts of the construction industry on the state of Wisconsin. It is important to note that while IMPLAN has 2020 data available for economic modeling, this study uses 2019 data as the 2020 data is likely skewed by the effects of the pandemic.

Direct industry employment, wages, and expenditures were the basis for economic impact estimates and for subsequent multiplier analysis to illustrate ripple effects of industry spending within the Wisconsin economy.

Multipliers refer to the interindustry relationships within a study area in terms of input-output (I-O) economic impacts.[2] Multipliers are useful for analyzing project decisions to understand the incremental impacts that such activities have on the local economy. IMPLAN multipliers are static and thus do not consider large-scale disruptive impacts on the economic fabric without calculating specific infrastructure changes. This study uses IMPLAN multipliers aggregated specifically for the state of Wisconsin.

[1]The Impact of Construction on the Wisconsin Economy. December 31, 2010. C3 Statistical Solutions, Inc.
[2]Bureau of Economic Analysis, Regional Multipliers, https://apps.bea.gov/scb/pdf/regional/perinc/meth/rims2.pdf, retrieved October 31, 2022.

For example, a construction project uses inputs from many other industries that are purchased from suppliers within Wisconsin. These suppliers also use inputs to create their products and are purchased from other firms in other sectors. Additionally, the incomes of workers along the supply chain generates other spending on goods and services within the economy. Each of these steps along the supply chain creates additional spending, income, and employment. To estimate the overall impact of the Construction industry on Wisconsin's economy, these "ripple effects" are accounted for in the model.

For the purpose of this study, all multipliers are comprised of direct, indirect, and induced effects. *Direct* refers to direct spending or employment in the Construction industry or firm. *Indirect* is the upstream spending or employment in related industries impacted by spending or employment in the Construction industry or firm.

Induced refers to changes in household expenditures impacted by spending or employment in the Construction industry or firm.

DEFINITIONS

Gross Domestic Product (GDP): A measure of economic activity, GDP is the total value added by resident producers of final goods and services.

Gross Output (Output): The total value of production is gross output. Unlike GDP, gross output includes intermediate goods and services.

Value Added: The contribution of an industry or region to total GDP, value added equals gross output, net of intermediate input costs.

Economic Benefits: The dollars generated and distributed throughout the economy due to the existence of an establishment. The sources of impacts that sum to economic benefits include capital expenditures, operating expenditures, off-site employee effects, secondary effects, and visitor impacts.

ECONOMIC OVERVIEW

The following section provides an overview of the economic activity in the Construction industry, through evaluating economic output, employment, and wages, to assess the role of Construction in the Wisconsin economy. Data were collected from multiple sources, including the Bureau of Economic Analysis (BEA), the Bureau of Labor Statistics (BLS), the U.S. Census Bureau, IMPLAN, and ConstructConnect for the state of Wisconsin.

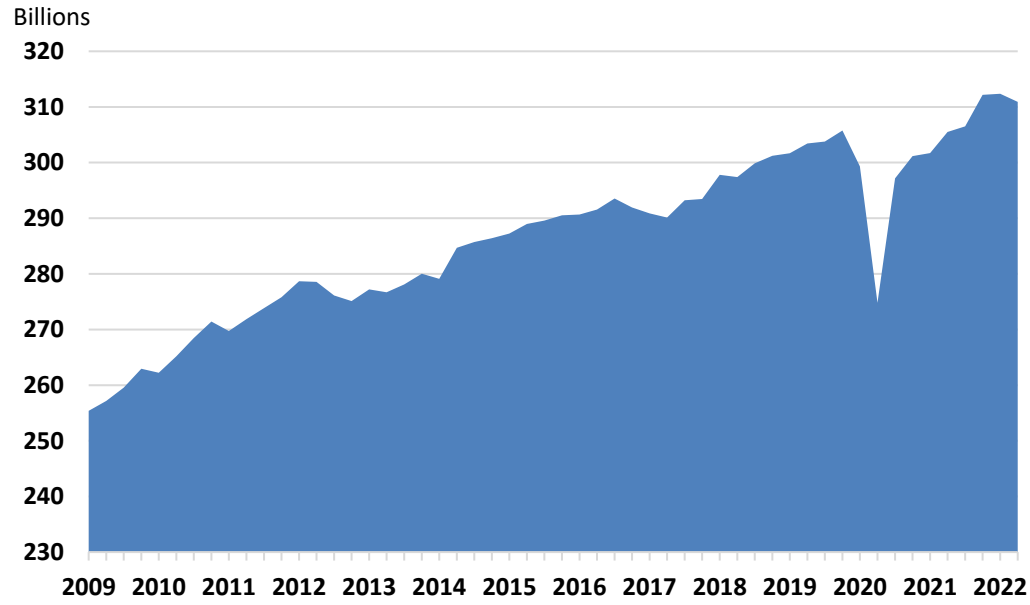
Wisconsin

The state of Wisconsin has performed relatively well over the last decade in a number of economic indicators. GDP and employment were at record highs before the pandemic, and both have been on a steady uptrend since the Great Recession. However, GDP growth and employment growth in the state have been below the national average in recent years, and employment growth was stalling even before the COVID-19 pandemic shook the economy. The pandemic adversely affected the state economy in 2020, with the state experiencing its largest quarterly GDP contraction and its largest monthly employment contraction in history. While total employment in Wisconsin has not fully recovered to its pre-pandemic peak as of September 2022, it has charted a strong recovery, and annual GDP fully rebounded as of 2021.

Nominal GDP for the state of Wisconsin grew 9.3% in Q2 2022 year-over-year to nearly $399 billion, according to the BEA. Compared with Q2 2020, at the height of the pandemic, real GDP in Wisconsin has increased by 13.1%. In terms of real GDP, Wisconsin has the 21st-largest economy in the nation, behind Minnesota and ahead of Missouri. Annual GDP growth rates in the Construction sector have varied over the last 10 years, with the sector observing a high of 4.4% growth in 2012 and a low of -10.2% in 2009 during the Great Recession. From 2011 to 2021, state real GDP expanded 12.3%, and has observed a 10-year CAGR of 1.2%; slightly lower than the 10-year CAGR of 2.1% observed nationally. GDP growth came to a halt, however, in 2020 due to the COVID-19 pandemic, with real GDP contracting 8.2% at a seasonally adjusted annual rate (SAAR) in Q1 and 28.9% in Q2, slightly worse than the national contraction (-4.6% and -29.9%, respectively) (Figure 2).[3] This contraction was the worst in state history, much higher than the 8.8% contraction in Q4 2008 during the Great Recession. Annual state real GDP rebounded over the course of 2021, increasing to $306 billion, up 4.6% from 2020, and 0.9% from 2019. In 2021, the following industries recorded the largest GDP growth: Accommodation and Food Services (24.8%), Arts, Entertainment, and Recreation (24.6%), and Manufacturing (9.3%).

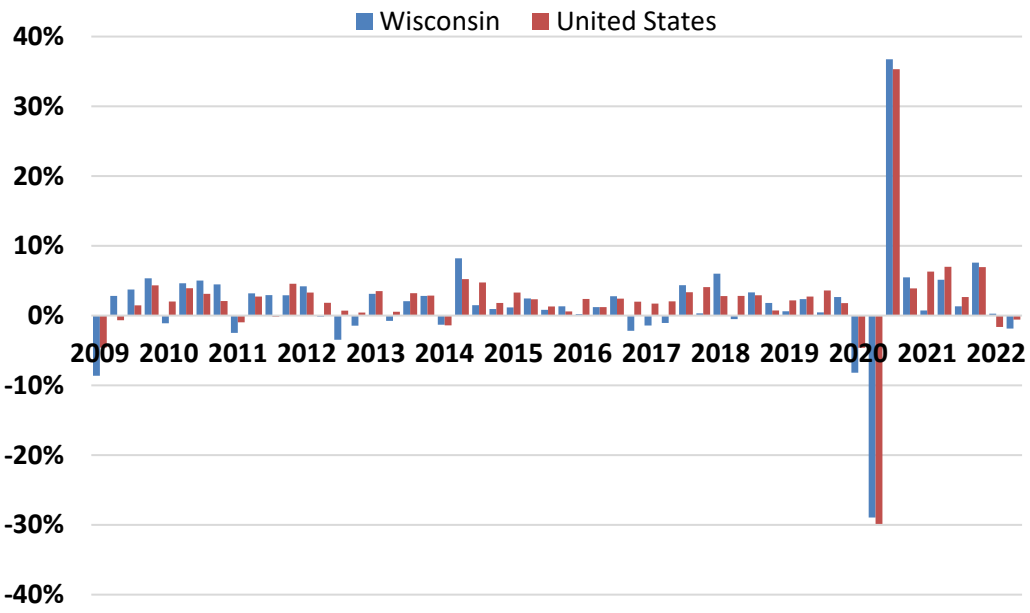
[3] The seasonally adjusted annual rate (SAAR) is a rate that is adjusted to take into account seasonal fluctuations and is expressed as an annual total.

FIGURE 1: WISCONSIN QUARTERLY REAL GDP, BILLIONS ($)



Source: Bureau of Economic Analysis.

FIGURE 2: WISCONSIN REAL GDP GROWTH, QUARTERLY, PERCENT CHANGE (SAAR)

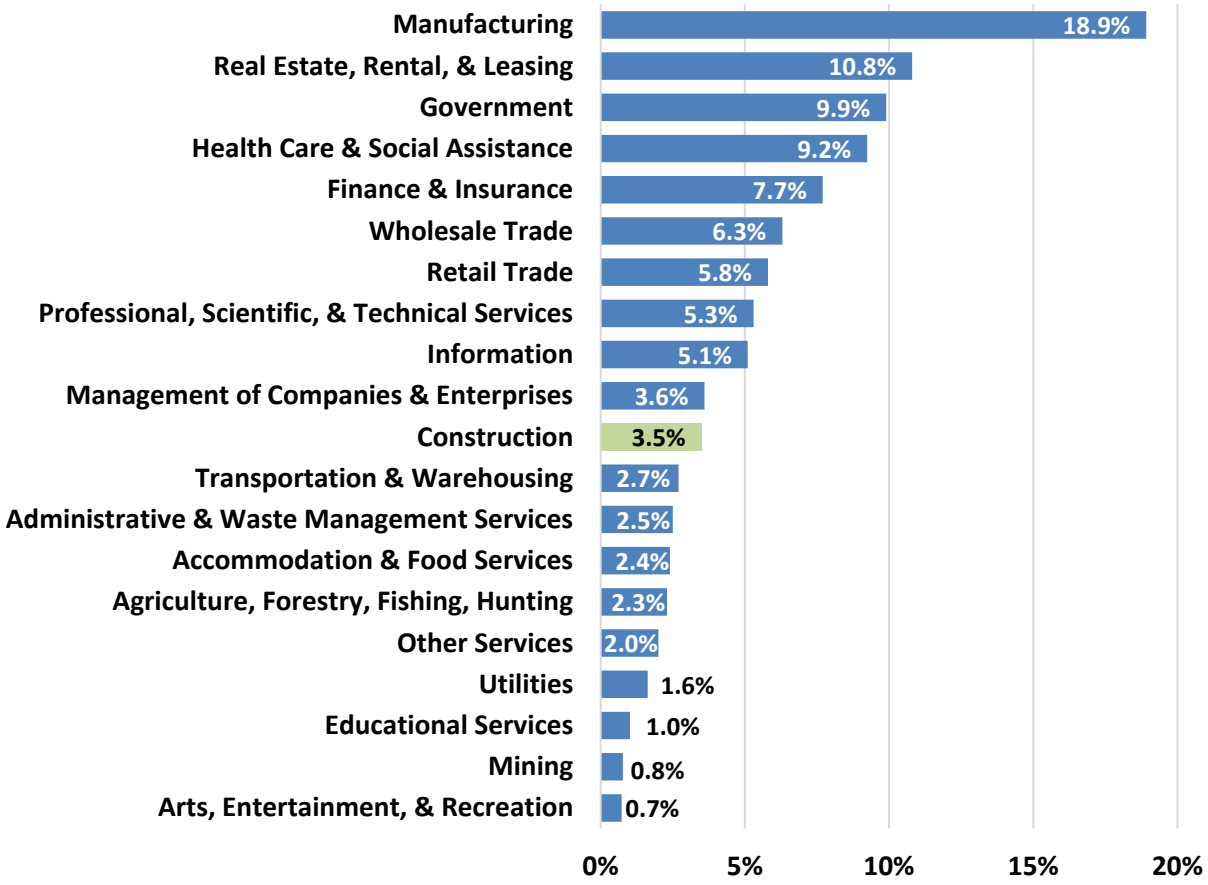


Source: Bureau of Economic

The largest sector in terms of real GDP in Wisconsin is Manufacturing, accounting for 18.9% of overall 2021 state output, followed by Real Estate, Rental, and Leasing (10.8%), Government (9.9%), and Health Care and Social Assistance (9.2%) (

Figure 3). These four largest sectors accounted for almost half (48.9%) of total output and 40.4% of total employment in the state.

FIGURE 3: WISCONSIN INDUSTRY SHARE OF REAL GDP, 2021



Source: Bureau of Economic Analysis.

Total employment in the state was 3.67 million in 2021[4], comprised of just under 3 million wage and salary employees (80.4%) and nearly 720,000 proprietors (19.6%), according to the BEA (Table 2). Total employment grew 2.4% in 2021, with proprietor employment growth and wage and salary employment maintaining the same pace of 2.4% each. Average wages of wage and salary employees in the state were $57,041, lower than the national average of $67,698. Employment data from the BEA allows for the analysis of salary employment plus employment of the self-employed. The BEA estimates of employment differ from the BLS in that the BEA accounts for employment not covered by the state UI and the UCFE programs.[5] Unemployment Insurance (UI) is a federal-state program that provides unemployment benefits to eligible workers who are unemployed through no fault of their own and meet other eligibility requirements of State law. Unemployment Compensation for Federal Employees (UCFE) is a program that provides unemployment compensation specifically for federal employees who

[4] Most recent data available.
[5] https://www.bea.gov/help/faq/104.

lost their employment through no fault of their own. Additionally, the BEA includes estimates for some non-profit and government employees, as well as employment for farms, farm labor contractors, private households, and other proprietors, where the BLS does not.

TABLE 2: WISCONSIN EMPLOYMENT, 2021

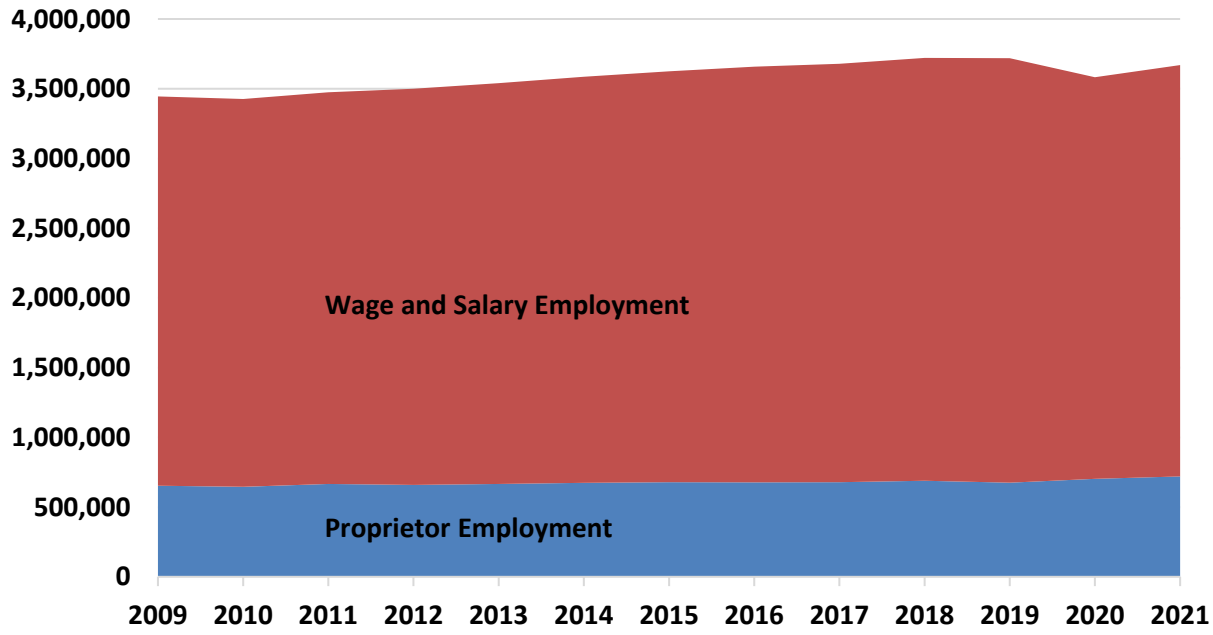
NAICS	Industry	Total Employment	% of Total Employment	Wage and Salary Employment	Average Wages	Proprietors Employment
11	Agriculture, Forestry, Fishing, Hunting	16,412	0.4%	6,458	$48,665	9,954
21	Mining	5,057	0.1%	2,832	$76,815	2,225
22	Utilities	8,752	0.2%	8,305	$116,139	447
23	Construction	193,691	5.3%	129,608	$70,416	64,083
31-33	Manufacturing	482,994	13.2%	468,021	$66,516	14,973
42	Wholesale Trade	131,546	3.6%	122,076	$82,308	9,470
44-45	Retail Trade	367,677	10.0%	297,325	$34,035	70,352
48-49	Transportation and Warehousing	157,358	4.3%	112,739	$51,982	44,619
51	Information	52,186	1.4%	44,993	$95,592	7,193
52	Finance and Insurance	195,898	5.3%	131,101	$92,484	64,797
53	Real Estate and Rental and Leasing	142,594	3.9%	27,434	$53,369	115,160
54	Professional and Technical Services	181,904	5.0%	120,011	$86,747	61,893
55	Management Of Companies and Enterprises	67,868	1.8%	64,217	$116,870	3,651
56	Administrative and Waste Services	169,539	4.6%	136,061	$41,089	33,478
61	Educational Services	69,032	1.9%	57,478	$44,779	11,554
62	Health Care and Social Assistance	433,102	11.8%	400,598	$57,219	32,504
71	Arts, Entertainment and Recreation	70,071	1.9%	37,637	$38,619	32,434
72	Accommodation and Food Services	236,651	6.4%	213,714	$22,551	22,937
81	Other Services	180,280	4.9%	120,921	$41,535	59,359
Gov't	Government	422,382	11.5%	422,382	$50,726	-
Farm	Farm Employment	84,146	2.3%	25,307	$32,900	58,839
Total	**All**	**3,669,140**	**100%**	**2,949,218**	**$57,041**	**719,922**

Note: Totals may not sum due to rounding.
Source: Bureau of Economic Analysis.

In terms of total employment (wage and salary employees and sole proprietors), the Manufacturing sector was the largest in the state in 2021, with 13.2% of employment, followed by Healthcare and Social Assistance (11.8%), and Government (11.5%) (Table 2). The Construction sector was the 7th-largest sector, with 193,691 employees, or 5.3% of state employment. The Management of Companies and Enterprises sector had the highest average annual wages in 2021 with $116,870, followed by Utilities ($116,139), and Information ($95,592). However, these top paying industries only account for 3.5% of state employment. Construction industry wages were above average and the 8th-highest in the state at $70,416. The Real Estate and Rental and Leasing sector had the largest share of proprietor employment with 16%, followed by Retail Trade (9.8%), and Finance and Insurance (9%). The Construction industry had the 4th-largest share of proprietor employment (8.9%) in the state.

Total employment in the state was at record levels in 2019 and has been on an upward trend since the lows of the Great Recession in 2010; however, this was before the COVID-19 pandemic (Figure 4). The state lost 170,824 jobs in 2020, a decline of 4.6% year-over-year, but recovered approximately 86,500 jobs in 2021. Employment has grown at a 5-year compound annualized growth rate (CAGR) of 0.1% and a 10-year CAGR of 0.5%.

FIGURE 4: WISCONSIN TOTAL EMPLOYMENT, 2009 – 2021



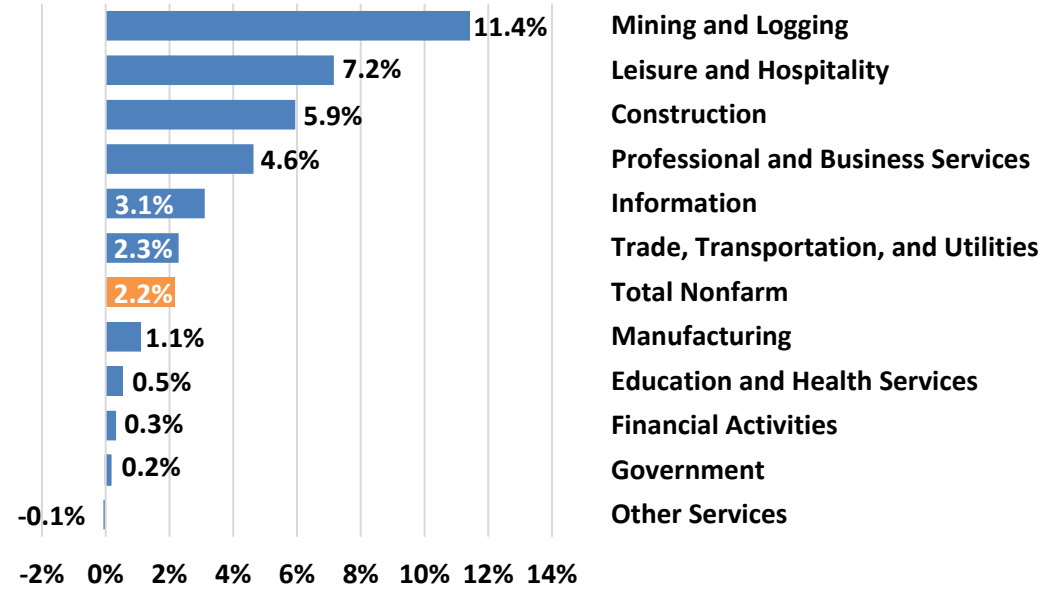
Source: Bureau of Economic Analysis.

To get a more recent picture of the employment situation in Wisconsin, nonfarm employment from the BLS can be used. Nonfarm employment in the state of Wisconsin totaled 2.95 million as of September 2022, according to the BLS.[6] Employment has bounced back from lows experienced during the COVID-19 pandemic, and is still continuously improving, with total employment for Wisconsin up 2.2% year-over-year in September 2022, compared to an increase of 3.9% nationwide. The employment change by MSA can be found in the Appendix, Figure 16.

The Mining and Logging industry observed the largest year-over-year employment increase in September, up 11.4%, followed by Leisure and Hospitality (7.2%), and Construction (5.9%) (Figure 5). The Other Services industry was the only industry to observe a negative, albeit minimal, year-over-year decline (-0.1%) in September.

[6] Nonfarm employment is published by the Bureau of Labor Statistics, Current Employment Statistics (CES) program which covers workers on payrolls and excludes some government workers, private households, proprietors, and non-profit employees.

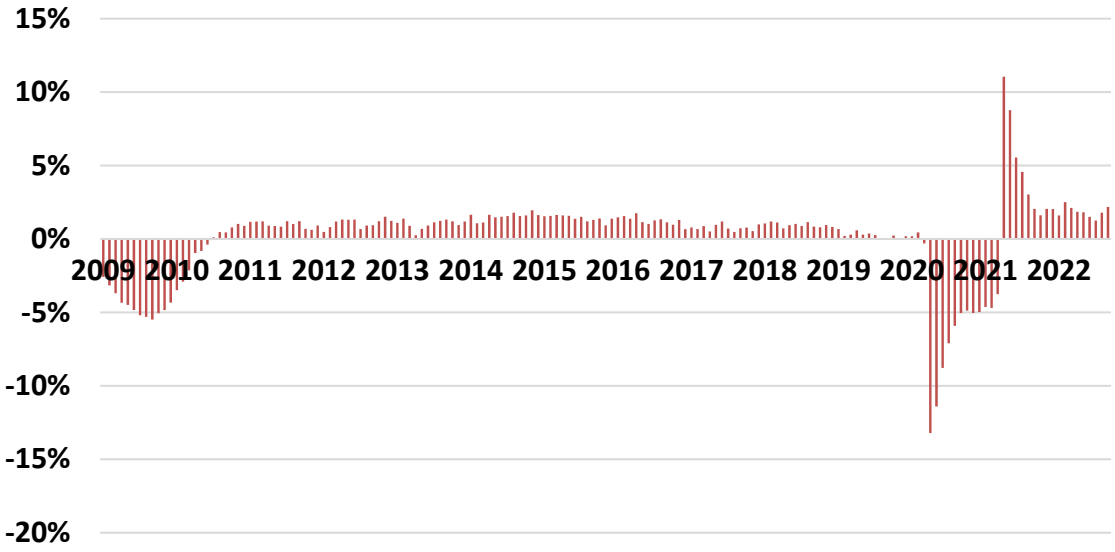
FIGURE 5: WISCONSIN YEAR-OVER-YEAR EMPLOYMENT GROWTH BY SECTOR, SEPTEMBER 2022



Source: Bureau of Labor Statistics, CES.

Prior to the pandemic in 2020, job growth in Wisconsin was relatively steady from 2013 through 2019, with average year-over-year job growth of 1% (Figure 6). However, employment declined over the course of the pandemic in 2020, with a year-over year job loss of 5.5% in 2020 (compared to 5.8% for the nation.) Employment in Wisconsin started to rebound in latter half of 2020 and witnessed a year-over-year job growth of 2.1% in 2021. Employment has been generally trending upward in 2022, with total nonfarm employment growing to 2.9 million as of September 2022, just slightly below its pre-pandemic peak.

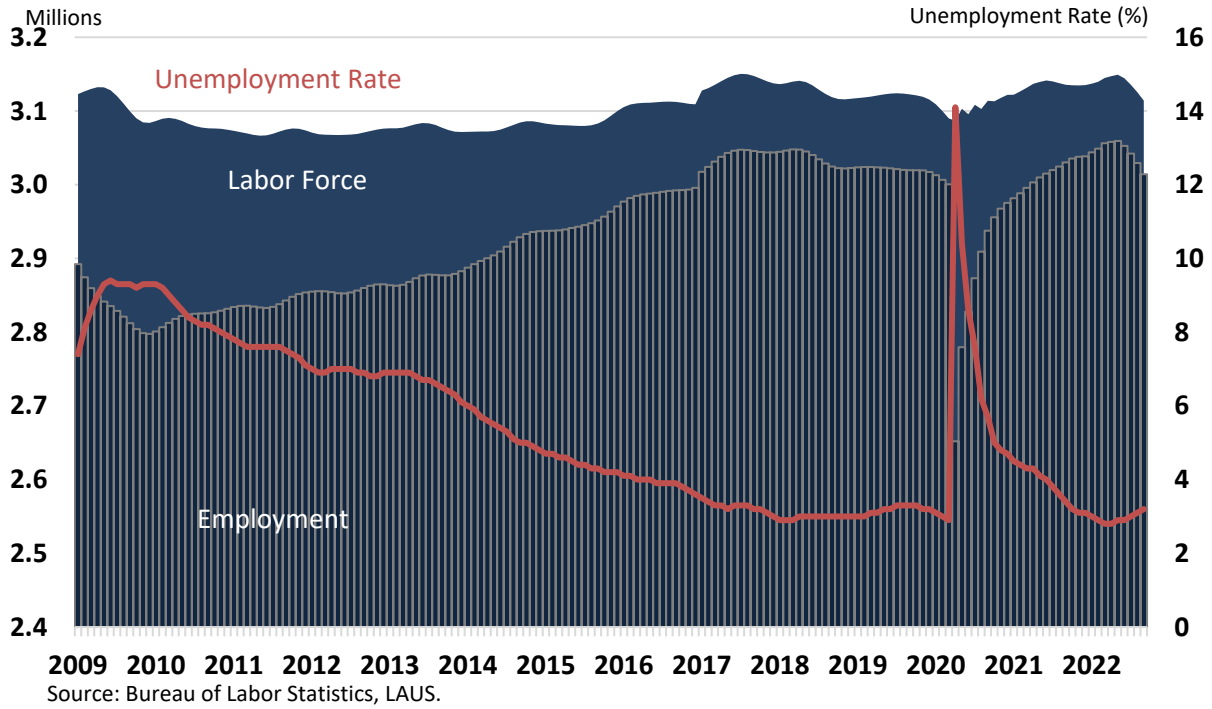
FIGURE 6: WISCONSIN YEAR-OVER-YEAR EMPLOYMENT GROWTH, MONTHLY, 2009 – 2022



Source: Bureau of Labor Statistics, CES.

The unemployment rate in the state of Wisconsin gradually fell from a high of 9.3% in 2010 to a low of 2.9% in 2018, according to the Bureau of Labor Statistics (Figure 7). In April 2020, the unemployment rate reached a historical high of 14.1%, before declining to 4.7% in December 2020. The unemployment rate continued declining through 2021, before increasing in July 2022. As of September 2022, the unemployment rate was 3.2% in the state of Wisconsin, the 19th-lowest unemployment rate in the nation as of September. Unemployment rates by MSA can be found in the Appendix, Figure 17.

FIGURE 7: WISCONSIN LABOR FORCE AND UNEMPLOYMENT, 2009 – 2022



Source: Bureau of Labor Statistics, LAUS.

Wisconsin's Construction Sector

The Construction industry in the state of Wisconsin contributed to 3.5% of state GDP ($10.6 billion) and 5.3% of state employment in 2021. While the industry has observed steady growth in employment and real GDP after the Great Recession, the industry has yet to return to levels seen before 2008. As a result of the COVID-19 pandemic, industry real GDP declined for the first time in nine years in 2020, with real GDP falling by 2.5% year-over-year. Construction GDP increased over the course of 2021, with industry GDP nearly recovering to pre-pandemic levels and up 2% by year-end 2021. Construction real GDP declined over the first half of 2022, falling to $9.6 billion by Q2 2022, 5.7% down from the prior quarter and 10.5% down year-over-year. This marks the lowest observed construction industry GDP value since 2014. Nominal Construction GDP also fell in Q2 2022 from the prior quarter, albeit at a lower rate (-0.3%).

Construction industry real GDP increased 2% in 2021 year-over-year, accounting for 3.5% of state output, a slightly larger proportion of GDP compared to the nation (3.4%). Annual GDP growth rates in the Construction sector have varied over the last 10 years, with the sector observing a high of 4.4% growth in 2012 and a low of -10.2% in 2009 during the Great Recession (Figure 9). In 2019, prior to the pandemic in 2020, national annual Construction industry GDP growth fell to 1.4%, the lowest rate since 2011. Wisconsin Construction industry GDP followed a similar trend, albeit at a more moderate pace, with annual growth falling to 0.6%, its lowest rate since 2011.

Historically, the Construction industry has observed large downturns during recessions. However, the Construction industry appears to have generally withstood impacts from the pandemic induced recession. Nationally, job openings in the Construction industry are relatively high – 437,000 in August 2022 – compared to job openings under 100,000 for the majority of months over the years 2012 to 2017, signaling the continuance of construction projects.

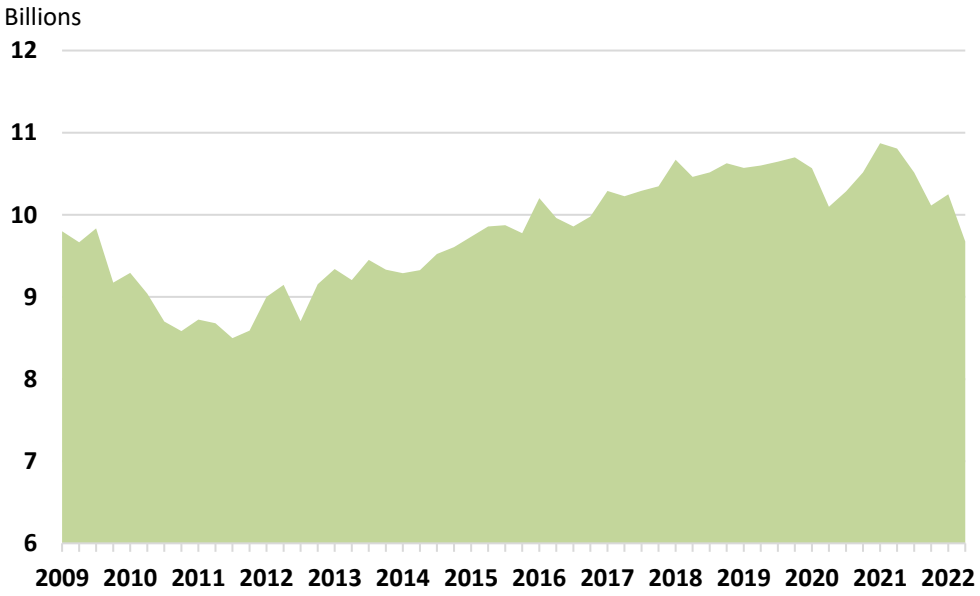
Home prices in Wisconsin have increased every quarter since Q2 2014, and increased 18.7% year-over-year in Q2 2022, slightly below the nation (20.9%), but above the average of neighboring states (16.4%).[7] Total residential building permits in Wisconsin increased nearly 20% in 2021 year-over-year to 25,444, the highest total since 2006 (Figure 13). Building permit activity increased in 2020, growing by 21.4% year-over-year, and growth continued over the course of 2021, with Wisconsin adding an additional 4,200 residential permits over that time period. The rapid growth witnessed in 2020 and 2021 has decelerated in 2022. As of September 2022, the state tracked 16,135 residential permits, 13.1% lower than the same period of the prior year.

While the total value of construction in Wisconsin decreased 4% year-over-year in 2021 to $13.3 billion, according to data from ConstructConnect, it is on pace to grow in 2022. As of July 2022, the total value of construction in Wisconsin was approximately $8.4 million, up 0.6% from July 2021 year-to-date. In addition, the 2021 Infrastructure Investment and Jobs Act is expected to generate $5.2 billion to

[7] Neighboring states include Minnesota, Michigan, Iowa, and Illinois.

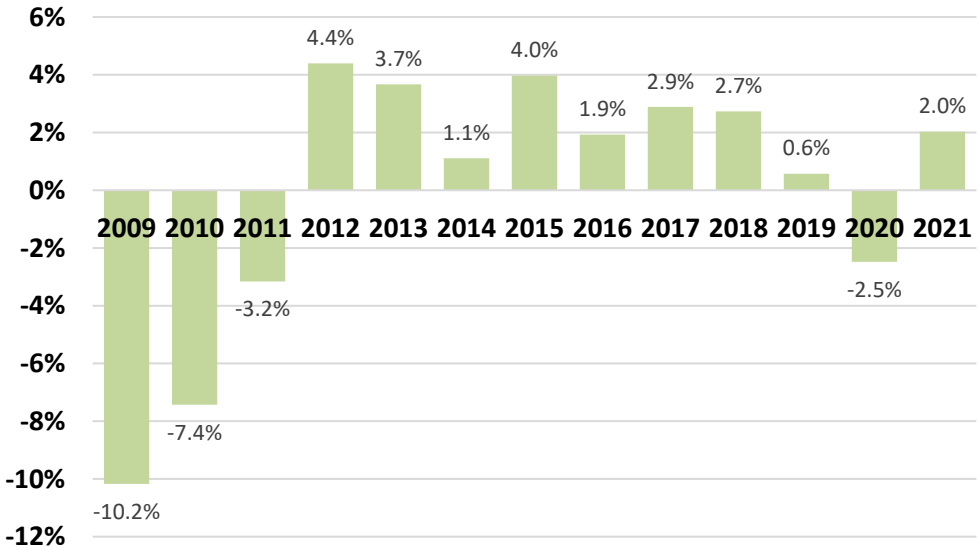
Wisconsin for federal-aid highway apportioned programs, and $225 million for bridge replacement and repairs over a five-year period.[8] This large-scale funding will likely have positive impacts on the Construction industry in Wisconsin.

FIGURE 8: WISCONSIN CONSTRUCTION INDUSTRY REAL GDP, BILLIONS ($)



Source: Bureau of Economic Analysis (Quarterly)

FIGURE 9: WISCONSIN CONSTRUCTION INDUSTRY REAL GDP ANNUAL GROWTH



Source: Bureau of Economic Analysis.

[8] https://www.whitehouse.gov/wp-content/uploads/2021/08/WISCONSIN_Infrastructure-Investment-and-Jobs-Act-State-Fact-Sheet.pdf

Employment data from the BEA shows that total employment in the Construction industry was 193,691 in 2021, comprised of 129,608 wage and salary employees (66.9%) and 64,083 sole proprietors (33.1%) (Table 3). [9] The Construction industry was the 7th-largest industry in the state in terms of employment in 2021, comprising 5.3% of total employment. Employment in the industry grew 3.1% in 2021, with proprietor employment growth outpacing that of wage and salary employment growth, 4.6% to 2.3%, respectively. Average annual wages in the construction industry were $70,416, above the state average and the 8th-highest paying industry in the state.

TABLE 3: WISCONSIN WAGE AND SALARY AND PROPRIETOR EMPLOYMENT

	2017	2018	2019	2020	2021
Total Construction employment					
Construction	178,182	183,672	184,876	187,931	193,691
Construction of buildings	41,124	42,954	43,002	43,513	44,704
Heavy and civil engineering construction	16,640	17,044	17,000	17,274	18,260
Specialty trade contractors	120,418	123,674	124,874	127,144	130,727
Wage and salary employment					
Construction	120,532	125,393	127,674	126,686	129,608
Construction of buildings	28,283	29,656	30,271	29,669	30,048
Heavy and civil engineering construction	14,500	14,953	15,224	15,441	16,495
Specialty trade contractors	77,749	80,784	82,179	81,576	83,065
Proprietor employment					
Construction	57,650	58,279	57,202	61,245	64,083
Construction of buildings	12,841	13,298	12,731	13,844	14,656
Heavy and civil engineering construction	2,140	2,091	1,776	1,833	1,765
Specialty trade contractors	42,669	42,890	42,695	45,568	47,662

Source: Bureau of Economic Analysis.

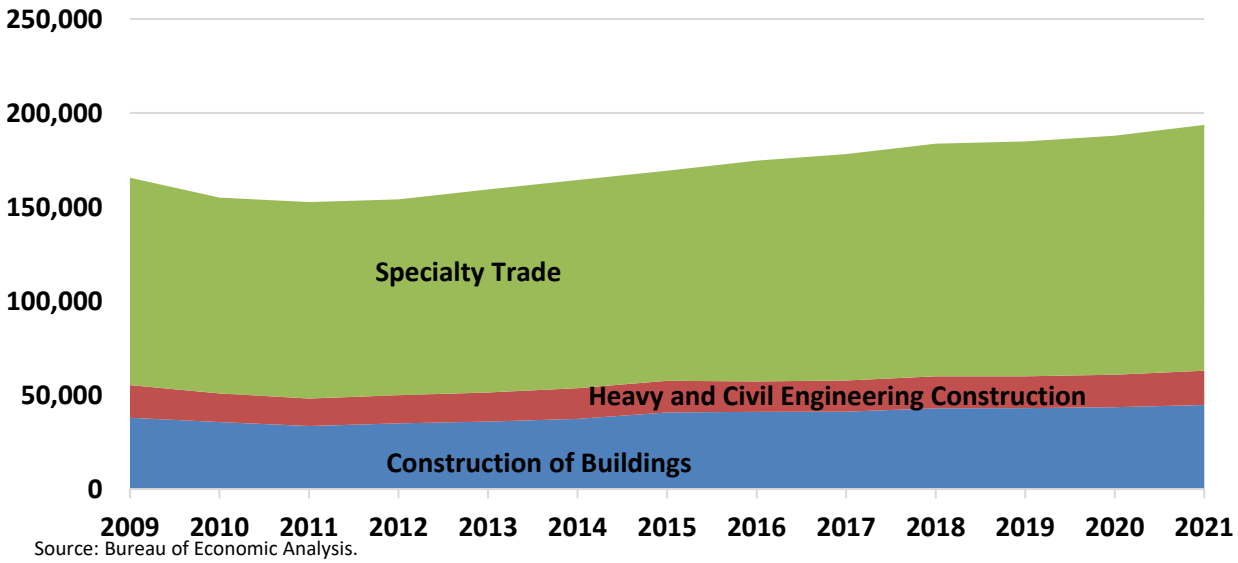
Within the construction industry, Specialty Trade Contractors make up the majority of employment (67.5%), followed by Construction of Buildings (23.1%), and Heavy Civil Engineering Construction (9.4%). Employment in the Heavy Civil Engineering Construction increased 5.7% year-over-year in 2021, while Specialty Trade Contractors increased 2.8%, and Construction of Buildings subsector increased 2.7%, according to the BEA. The Heavy and Civil Engineering subsector consists mainly of wage and salary employees (90.3%), while salary employment in the Construction of Buildings and Specialty Trade Contractors subsectors is 67.2% and 63.5%, respectively. Approximately 57% of construction employment in the state was concentrated in eight counties in 2021[10]: Waukesha (13.9%), Dane (12.5%), Milwaukee (8.9%), Outagamie (6.5%), Brown (5.5%), Winnebago (4.5%), Rock (2.6%), and Racine (2.5%) (Table 8 in the Appendix).

Total construction employment in the state has been on an upward trend since the lows in 2011 from Great Recession (Figure 10). The industry has since observed ten consecutive years of healthy job

[9] Most recent data available.
[10] Most recent data available.

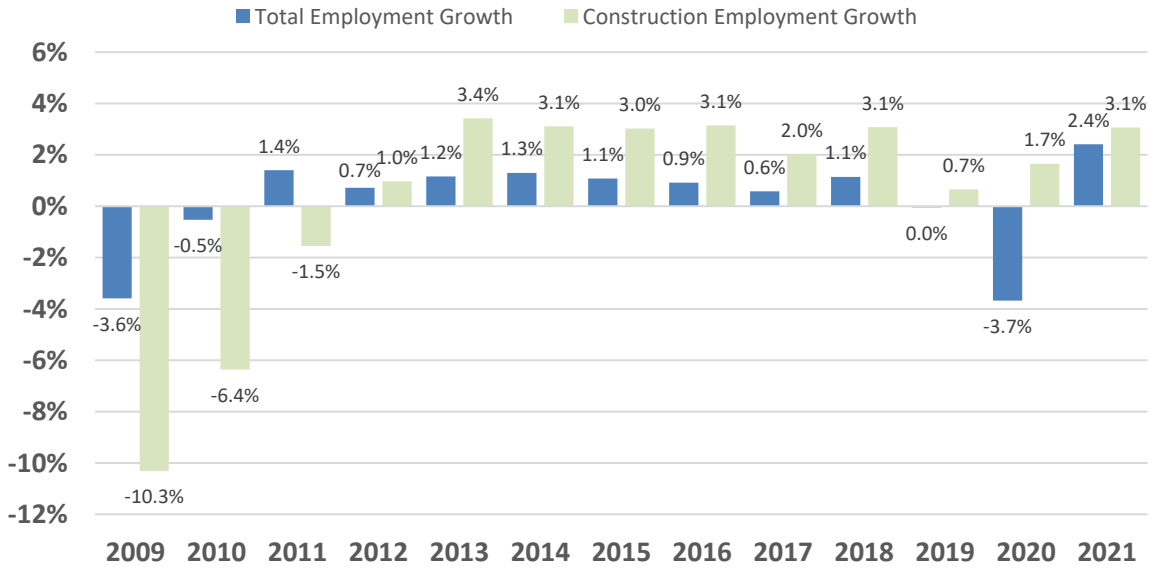
growth, with six of those years observing growth of more than 3% (Figure 11). The industry has outperformed the state every year since 2012 (2012-2019 average employment growth was 2.4% for the Construction industry compared to 0.6% for the state). Total Construction industry employment in 2021 has grown at a 5-year CAGR of 2.1% and a 10-year CAGR of 2.4%. Proprietor employment in the Construction industry has increased in recent years, reaching 64,083 in 2021, up 4.6% year-over-year, and up 11.2% from 2011. Proprietor employment as a share of total employment in the industry has generally decreased over the past decade, but has recently increased, jumping from 30.9% in 2019 to 33.1% in 2021.

FIGURE 10: WISCONSIN CONSTRUCTION INDUSTRY EMPLOYMENT, 2009 – 2021



Source: Bureau of Economic Analysis.

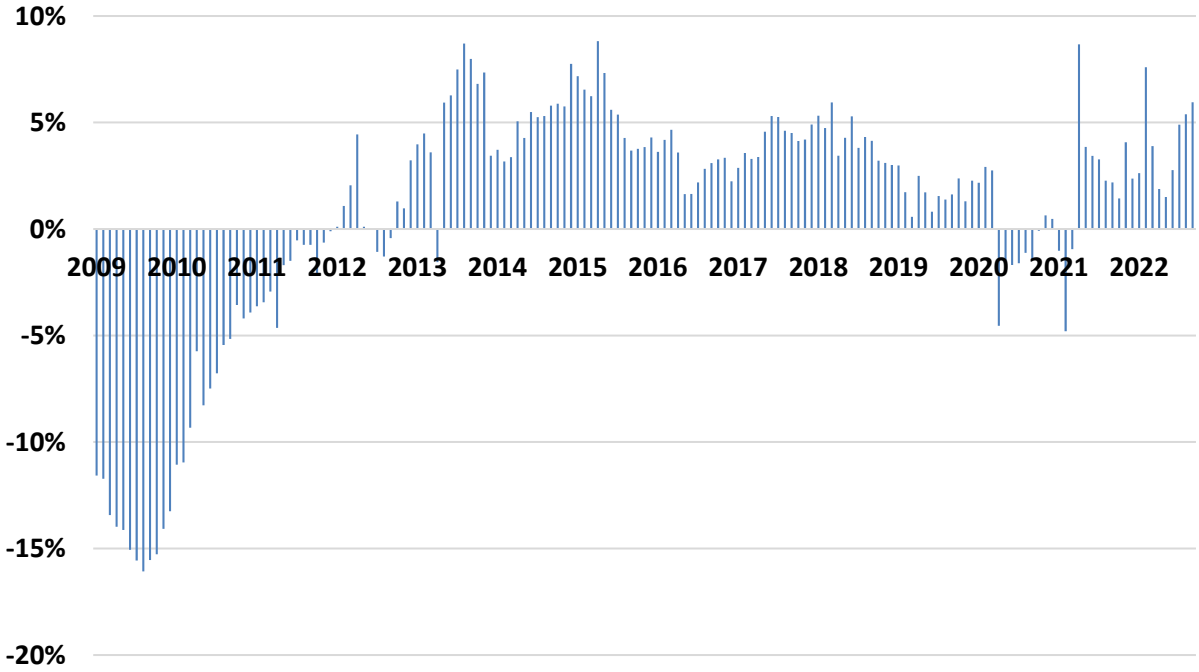
FIGURE 11: WISCONSIN TOTAL EMPLOYMENT VS CONSTRUCTION EMPLOYMENT YEAR-OVER-YEAR GROWTH, 2009 - 2021



Source: Bureau of Economic Analysis.

Employment in the construction industry totaled 133,600 in September 2022 (seasonally adjusted), an increase of 5.9% year-over-year (7,500 jobs), according to the BLS (Figure 12).

FIGURE 12: WISCONSIN CONSTRUCTION INDUSTRY YEAR-OVER-YEAR EMPLOYMENT GROWTH, MONTHLY, 2009 – 2022



Source: Bureau of Labor Statistics, CES.

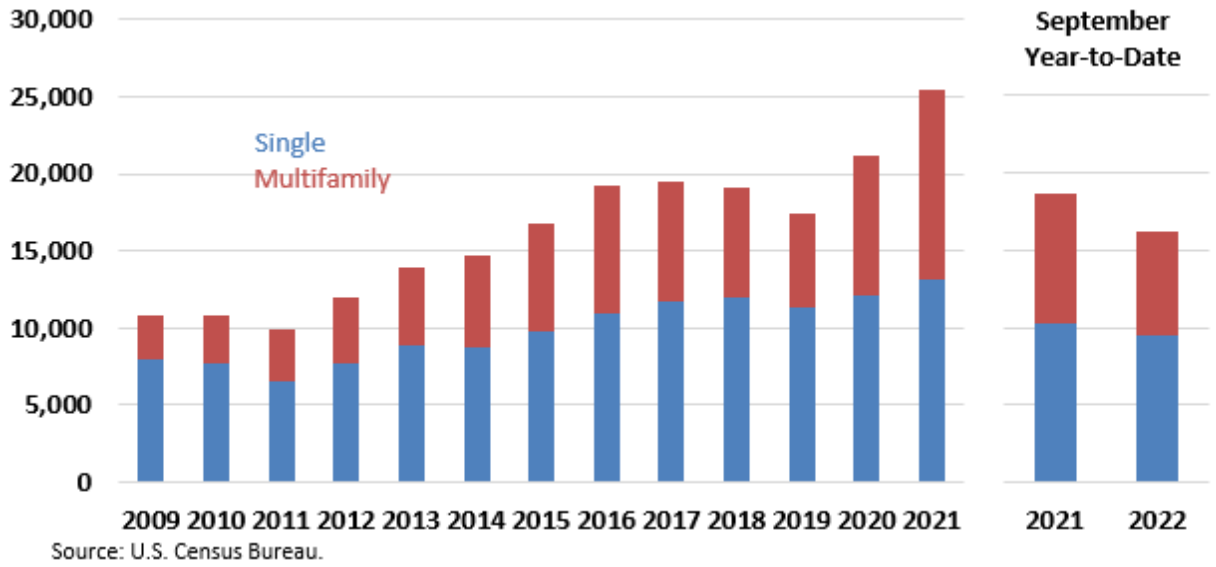
Employment in the Building Equipment Contractors (a subsector of Specialty Trade Contractors) increased 9.9% year-over-year in September 2022, while Heavy and Civil Engineering Construction increased 5.1%, according to non-seasonally adjusted data from the BLS.

The Construction industry contains a vast number of different occupations. IMPLAN provides estimates of wage and salary employment data by occupation for 2019 using four data sources: BLS Occupational Employment Survey (OES), BLS Employment Projections, Census Bureau American Community Survey (ACS), and O*NET from the U.S. Department of Labor, Employment, and Training Administration. [11] In 2019, the largest occupation in Wisconsin's Construction industry was Construction and Extraction with 62% of industry employment in the state, followed by Office and Administrative Support (9.2%), and Installation, Maintenance, and Repair (8.6%). Broken down into a more aggregated level, the largest occupation was Construction Trades Workers (50.8%), followed by Other Installation, Maintenance, and Repair (6.5%), Supervisors of Construction and Extraction Workers (6.4%).

[11] https://implanhelp.zendesk.com/hc/en-us/articles/360051197853-Occupation-Data-Details.

Total residential building permits in Wisconsin increased nearly 20% in 2021 year-over-year to 25,444, the highest total since 2006 (Figure 13). Approximately 51.9% were single family permits, while 48.1% were multifamily. Growth in residential building permits increased for six consecutive years from 2012 to 2017, before falling in 2018 and 2019. Building permit activity increased in 2020, growing by 21.4% year-over-year, and growth continued over the course of 2021, with Wisconsin adding an additional 4,200 residential permits over that time period. The rapid growth witnessed in 2020 and 2021 has decelerated in 2022. As of September 2022, the state tracked 16,135 residential permits, 13.1% lower than the same period of the prior year.

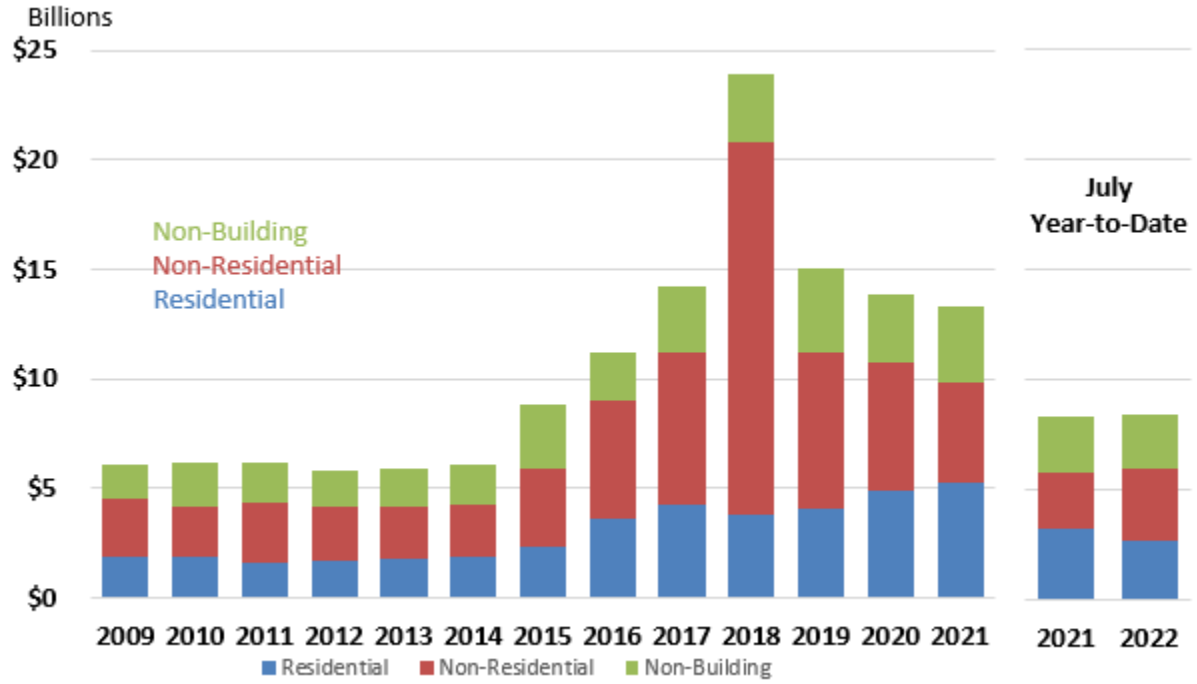
FIGURE 13: WISCONSIN RESIDENTIAL BUILDING PERMITS



Source: U.S. Census Bureau.

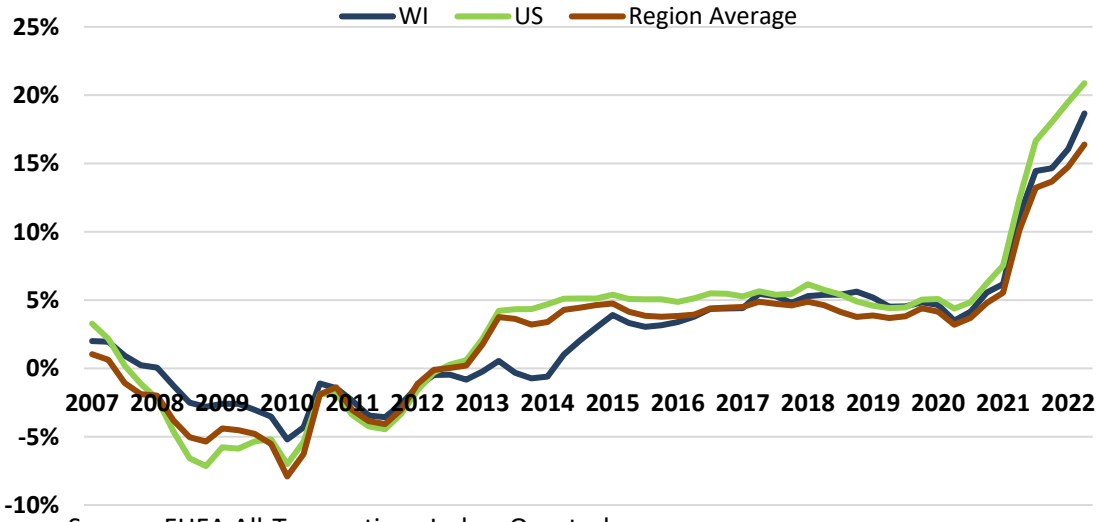
The total value of construction in Wisconsin was approximately $13.3 billion in 2021, a decrease of 4% year-over-year, according to data from ConstructConnect (Figure 14). After witnessing a strong year in 2018 related to a major Manufacturing project, construction activity has decreased in recent years. Compared to 2017, the total value of construction in 2021 is just 6.4% lower. The value of residential construction, including single-family and multifamily, increased 7.5% year-over-year in 2021, non-building increased 11.2%, and non-residential declined 21.8%. The three counties employing the most construction workers in 2019 (Waukesha, Dane, and Milwaukee) accounted for a combined 37.7% of the total value of construction in the state in 2019. In addition, these three counties accounted for a combined 36% of total State Construction nominal GDP in 2020. As of July 2022, the total value of construction in Wisconsin was approximately $8.4 million, up 0.6% from July 2021 year-to-date.

FIGURE 14: WISCONSIN VALUE OF CONSTRUCTION, BILLIONS



Home prices in Wisconsin increased 18.7% year-over-year in Q2 2022, compared to 20.9% for the nation, and an average of 16.4% for neighboring states,[12] according to the FHFA All-Transactions Index (Figure 15). Housing prices in Wisconsin have increased every quarter since Q2 2014, and have observed a 5-year CAGR of 8.5% and a 10-year CAGR of 5.6%, compared to 9.4% and 7.2% for the nation, respectively.

FIGURE 15: WISCONSIN FHFA HOME PRICE GROWTH, QUARTERLY, YEAR-OVER-YEAR CHANGE



Source: FHFA All-Transactions Index, Quarterly.

[12] Neighboring states include Minnesota, Michigan, Iowa, and Illinois.

ECONOMIC IMPACT

The economic impact of the construction industry is driven from direct expenditures on operations and labor for construction projects throughout the state. The following economic impacts are summarized for the state of Wisconsin for 2022.

Impact on the state of Wisconsin

In 2022, the economic impact of the Construction industry totaled an estimated $53 billion within the state of Wisconsin. This is composed of $28.8 billion in direct spending, $9.5 billion in indirect impact stemming from the supply chain, and $14.6 billion in induced impact related to spending by households that are impacted by operations. Every $1 spent directly within the Construction industry produces an overall economic impact of approximately $1.84 in the state.

Construction industry activity directly employed 193,161 workers and supported an additional 145,979 (for a total of 339,670 jobs over the year) and generated $21.4 billion in labor income in the state. Every $1 million spent within the Construction industry supports approximately 12 jobs on average over the year across the state economy. Approximately seven of these jobs are within the Construction industry and five are within other sectors of the economy. Additionally, every $1 million spent within the Construction industry generates over $742,000 in labor income throughout the state. Approximately $63,000 in labor income is generated per job created.

TABLE 4: ECONOMIC IMPACT ON WISCONSIN, 2022

Impact	Employment	Labor Income (in Millions)	Value Added (in Millions)	Output (in Millions)
Direct Effect	193,691	$13,639	$15,051	$28,834
Indirect Effect	50,591	$2,967	$5,197	$9,546
Induced Effect	95,388	$4,789	$8,218	$14,638
Total Effect	**339,670**	**$21,395**	**$28,467**	**$53,018**

Detailed Economic Impact

The sectoral distribution of the economic impact from IMPLAN allows for the observation of how the Construction industry impacts different industries in Wisconsin's economy. The $28.8 billion in direct output from the Construction industry ripples through the state economy and impacts every sector (

Table 5). The Real Estate and Rental and Leasing sector observes the largest overall impact on total output ($3.3 billion), followed by Retail Trade ($2.9 billion), and Health Care and Social Assistance ($2.6 billion), while the majority of this impact is due to household spending from employee wages (induced impact). In terms of supply chain impacts triggered by spending in the Construction industry (indirect impact), the Manufacturing sector is most impacted ($1.9 billion), followed by Retail Trade ($1.6 billion), and Wholesale Trade ($1.4 billion).

TABLE 5: DETAILED OUTPUT IMPACTS

NAICS	Industry	Direct	Indirect	Induced	Total
Total	**All**	**$28,833,519,992**	**$9,546,455,261**	**$14,638,045,258**	**$53,018,020,510**
11	Agriculture, Forestry, Fishing, Hunting	-	$22,490,053	$85,542,617	$108,032,670
21	Mining	-	$187,037,823	$12,949,310	$199,987,134
22	Utilities	-	$158,386,612	$283,054,423	$441,441,035
23	Construction	$28,833,519,992	$52,328,801	$143,960,967	$29,029,809,760
31-33	Manufacturing	-	$1,966,527,440	$542,175,218	$2,508,702,657
42	Wholesale Trade	-	$1,356,698,966	$656,453,764	$2,013,152,729
44-45	Retail Trade	-	$1,601,793,305	$1,315,332,110	$2,917,125,414
48-49	Transportation and Warehousing	-	$658,750,197	$381,615,870	$1,040,366,067
51	Information	-	$322,893,024	$629,186,587	$952,079,611
52	Finance and Insurance	-	$430,450,431	$1,799,109,017	$2,229,559,448
53	Real Estate and Rental and Leasing	-	$790,201,302	$2,505,875,235	$3,296,076,537
54	Professional and Technical Services	-	$927,288,678	$679,618,193	$1,606,906,871
55	Management Of Companies and Enterprises	-	$291,077,437	$245,691,587	$536,769,024
56	Administrative and Waste Services	-	$418,790,637	$436,439,596	$855,230,233
61	Educational Services	-	$9,078,812	$192,081,286	$201,160,098
62	Health Care and Social Assistance	-	$59,722	$2,661,856,568	$2,661,916,290
71	Arts, Entertainment and Recreation	-	$18,000,851	$204,171,828	$222,172,679
72	Accommodation and Food Services	-	$60,897,684	$770,746,374	$831,644,059
81	Other Services	-	$210,200,235	$890,221,040	$1,100,421,275
Gov't	Government	-	$63,503,253	$201,963,668	$265,466,921

Examining the overall sectoral employment impacts provides another perspective on the contribution of the Construction industry to the state's economy (

Table 6). The employment effects of the Construction industry are also realized across the state economy, but differ to the output impacts mainly due to differences in labor productivity across sectors.

The Retail Trade sector observes the largest overall impact on total employment (29,930 jobs), followed by Health Care and Social Assistance (21,177), and Accommodation and Food Services (12,286). The Retail Trade and Accommodation and Food Services sectors pay below average wages, while the Health Care and Social Assistance sector pays above average. Again, the majority of this impact is due to household spending from employee wages (induced impact). In terms of jobs supported due to the supply chain (indirect impact), the Retail Trade sector is most impacted (15,175 jobs), followed by Manufacturing (5,768), and Professional and Technical Services (5,588).

TABLE 6: DETAILED EMPLOYMENT IMPACTS

NAICS	Industry	Direct	Indirect	Induced	Total
Total	**All**	**193,691**	**50,591**	**95,388**	**339,670**
11	Agriculture, Forestry, Fishing, Hunting	-	249	712	960
21	Mining	-	324	26	350
22	Utilities	-	116	207	322
23	Construction	193,691	332	912	194,935
31-33	Manufacturing	-	5,768	1,125	6,894
42	Wholesale Trade	-	4,537	2,195	6,733
44-45	Retail Trade	-	15,175	14,755	29,930
48-49	Transportation and Warehousing	-	4,552	3,257	7,809
51	Information	-	675	1,489	2,164
52	Finance and Insurance	-	1,513	6,072	7,585
53	Real Estate and Rental and Leasing	-	2,393	5,617	8,010
54	Professional and Technical Services	-	5,588	4,095	9,683
55	Management Of Companies and Enterprises	-	1,208	1,020	2,228
56	Administrative and Waste Services	-	4,616	4,910	9,526
61	Educational Services	-	115	2,427	2,541
62	Health Care and Social Assistance	-	0	21,176	21,177
71	Arts, Entertainment and Recreation	-	277	3,099	3,375
72	Accommodation and Food Services	-	899	11,387	12,286
81	Other Services	-	1,964	9,984	11,949
Gov't	Government	-	290	922	1,212

Examining the value added created due to the Construction industry also provides a look into the large impact the sector has on the state (

Table 7). The largest impacted sectors in terms of value added are similar to those discussed prior.

The Real Estate and Rental and Leasing sector observes the largest overall value added impact ($2.2 billion), followed by Retail Trade ($1.7 billion), and Health Care and Social Assistance ($1.6 billion). Again, the majority of this impact is due to household spending from employee wages (induced impact). In terms of value added due to purchases along the construction supply chain (indirect impact), the Retail Trade sector is most impacted ($1 billion), followed by Manufacturing ($800 million), and Wholesale Trade ($734 million).

TABLE 7: DETAILED VALUE ADDED IMPACTS

NAICS	Industry	Direct	Indirect	Induced	Total
Total	**All**	**$15,051,000,000**	**$5,197,321,719**	**$8,218,366,650**	**$28,466,688,368**
11	Agriculture, Forestry, Fishing, Hunting	-	$13,992,420	$35,560,534	$49,552,954
21	Mining	-	$125,231,545	$5,236,635	$130,468,180
22	Utilities	-	$71,303,387	$127,427,052	$198,730,438
23	Construction	$15,051,000,000	$28,932,154	$79,594,807	$15,159,526,961
31-33	Manufacturing	-	$800,248,605	$149,612,726	$949,861,331
42	Wholesale Trade	-	$734,136,160	$355,219,881	$1,089,356,041
44-45	Retail Trade	-	$1,009,549,299	$731,719,152	$1,741,268,450
48-49	Transportation and Warehousing	-	$351,427,099	$213,449,304	$564,876,403
51	Information	-	$154,933,384	$335,869,699	$490,803,083
52	Finance and Insurance	-	$206,974,549	$828,247,002	$1,035,221,551
53	Real Estate and Rental and Leasing	-	$518,670,990	$1,685,239,542	$2,203,910,533
54	Professional and Technical Services	-	$553,787,342	$405,875,713	$959,663,055
55	Management Of Companies and Enterprises	-	$177,639,303	$149,941,139	$327,580,442
56	Administrative and Waste Services	-	$236,127,215	$246,663,324	$482,790,539
61	Educational Services	-	$6,237,025	$131,957,344	$138,194,369
62	Health Care and Social Assistance	-	$43,433	$1,631,142,177	$1,631,185,610
71	Arts, Entertainment and Recreation	-	$10,233,635	$109,932,015	$120,165,650
72	Accommodation and Food Services	-	$31,357,379	$396,575,026	$427,932,406
81	Other Services	-	$133,600,016	$494,723,655	$628,323,671
Gov't	Government	-	$32,896,778	$104,379,923	$137,276,701

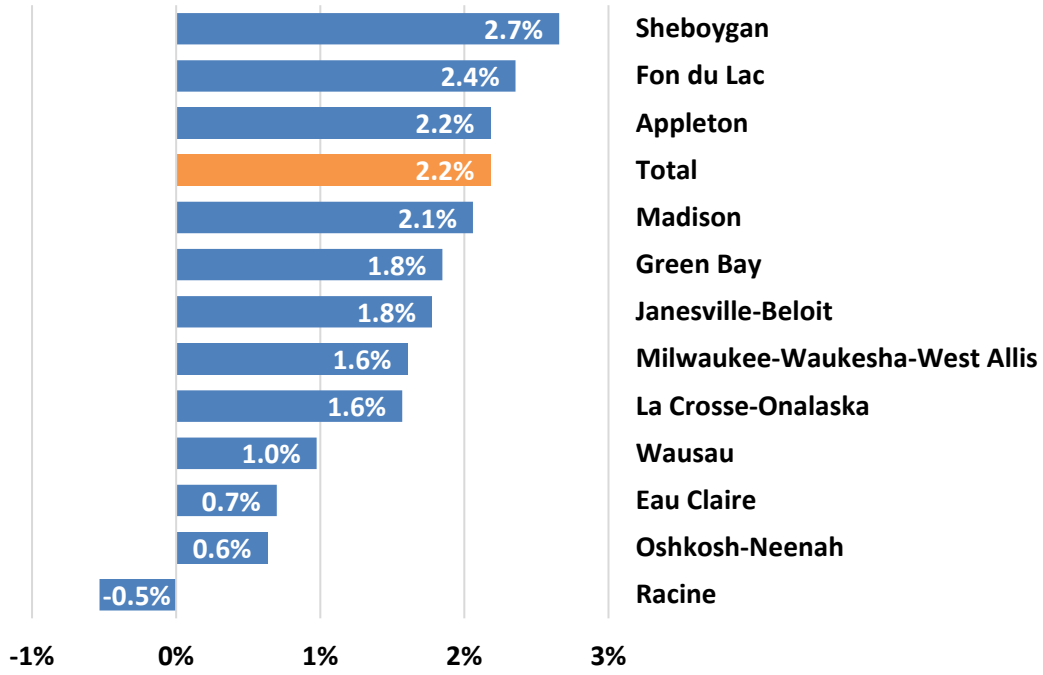
CONCLUSION

The construction industry within the state of Wisconsin provides numerous jobs, abundant wages, and contributes significantly to the state's gross domestic product. Aside from the direct effects of the industry, the labor and capital intensiveness of construction projects translate to local expenditures, primarily on labor, as well as on design, engineering, and other local goods and services. As such, spending permeates into other sectors in the economy, producing a multiplied economic impact throughout the state's economy. The impact of the Construction industry on the state of Wisconsin totaled $53 billion in 2021. The industry also supported an average of 339,670 jobs over the year, generated $21.4 billion in labor income, and contributed over $28.5 billion in GDP to the state economy.

APPENDIX

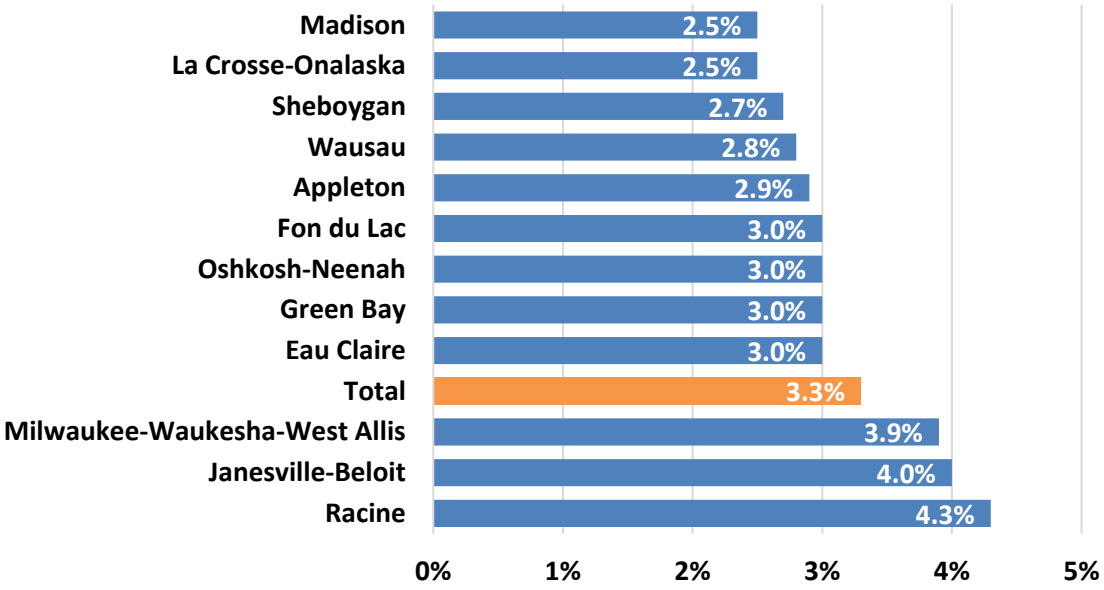
The largest Metropolitan Statistical Area (MSA) within Wisconsin is Milwaukee-Waukesha-West Allis (28.7% of state nonfarm employment), followed by Madison (13.9%), and Green Bay (6%). All but one MSA in the state recorded job gains year-over-year in September 2022, with three MSAs observing larger employment gains than the state overall (Figure 16). The Racine MSA had the highest unemployment rate in the state in August 2022 at 4.3%, followed by Janesville-Beloit (4.0%), and the Milwaukee-Waukesha-West Allis MSA (3.9%) (Figure 17). Madison and La Cross-Onalaska had the lowest (both 2.5%), followed by Sheboygan (2.7%) and Wausau (2.8%).

FIGURE 16: WISCONSIN YEAR-OVER-YEAR EMPLOYMENT GROWTH BY MSA, SEPTEMBER 2022



Source: Bureau of Labor Statistics, CES.

FIGURE 17: WISCONSIN UNEMPLOYMENT RATES BY MSA, AUGUST 2022



Source: Bureau of Labor Statistics, LAUS (Not Seasonally Adjusted).

TABLE 8: WISCONSIN CONSTRUCTION EMPLOYMENT BY COUNTY, 2020 (BEA)

County	Employment	Employment Share
Waukesha, WI	21,728	11.9%
Dane, WI	20,060	10.9%
Milwaukee, WI	16,304	8.9%
Outagamie, WI	9,994	5.5%
Brown, WI	9,578	5.2%
Winnebago, WI	7,016	3.8%
Rock, WI	4,778	2.6%
Racine, WI	4,621	2.5%
Washington, WI	4,193	2.3%
Marathon, WI	4,102	2.2%
Fond du Lac, WI	3,980	2.2%
La Crosse, WI	3,640	2.0%
Sheboygan, WI	3,312	1.8%
Kenosha, WI	3,221	1.8%
Dodge, WI	3,217	1.8%
St. Croix, WI	3,062	1.7%
Sauk, WI	3,018	1.6%
Walworth, WI	3,009	1.6%
Eau Claire, WI	2,943	1.6%
Jefferson, WI	2,543	1.4%
Chippewa, WI	2,527	1.4%
Wood, WI	2,497	1.4%
Ozaukee, WI	2,139	1.2%
Manitowoc, WI	2,042	1.1%
Columbia, WI	1,791	1.0%
Portage, WI	1,739	0.9%
Oneida, WI	1,656	0.9%
Grant, WI	1,492	0.8%
Polk, WI	1,420	0.8%
Vilas, WI	1,400	0.8%
Barron, WI	1,370	0.7%
Door, WI	1,326	0.7%
Dunn, WI	1,299	0.7%
Waupaca, WI	1,293	0.7%
Clark, WI	1,206	0.7%
Monroe, WI	1,197	0.7%
Douglas, WI	1,188	0.6%
Calumet, WI	1,131	0.6%
Marinette, WI	1,122	0.6%

Iowa, WI	1,104	0.6%
Green, WI	1,076	0.6%
Pierce, WI	992	0.5%
Oconto, WI	984	0.5%
Shawano, WI	971	0.5%
Vernon, WI	947	0.5%
Trempealeau, WI	815	0.4%
Sawyer, WI	799	0.4%
Lincoln, WI	785	0.4%
Jackson, WI	777	0.4%
Bayfield, WI	699	0.4%
Kewaunee, WI	658	0.4%
Washburn, WI	648	0.4%
Green Lake, WI	619	0.3%
Ashland, WI	612	0.3%
Waushara, WI	603	0.3%
Lafayette, WI	567	0.3%
Juneau, WI	558	0.3%
Taylor, WI	555	0.3%
Burnett, WI	508	0.3%
Langlade, WI	486	0.3%
Richland, WI	478	0.3%
Adams, WI	430	0.2%
Buffalo, WI	375	0.2%
Rusk, WI	360	0.2%
Pepin, WI	352	0.2%
Price, WI	351	0.2%
Crawford, WI	332	0.2%
Marquette, WI	293	0.2%
Iron, WI	254	0.1%
Forest, WI	211	0.1%

Source: Bureau of Economic Analysis.

QCEW Data

Total average employment for the state in 2021 was almost 2.8 million across 179,366 firms, according to the BLS Quarterly Census of Employment and Wages (

Table 9: Wisconsin Firms, Employment, and Wages, 2021

NAICS	Industry	Firms	Employment	Average Annual Wages	Employment LQ
11	Agriculture, Forestry, Fishing, Hunting	2,703	28,117	$40,173	1.16
21	Mining	170	2,822	$74,465	0.28
22	Utilities	292	8,284	$111,041	0.78
23	Construction	14,869	126,592	$69,258	0.88
31-33	Manufacturing	9,078	465,956	$64,393	1.95
42	Wholesale Trade	12,435	121,375	$80,077	1.10
44-45	Retail Trade	17,200	294,488	$32,667	0.99
48-49	Transportation and Warehousing	5,752	108,379	$49,101	0.94
51	Information	2,631	44,941	$93,202	0.82
52	Finance and Insurance	9,579	123,997	$90,271	1.04
53	Real Estate and Rental and Leasing	5,344	26,564	$52,007	0.62
54	Professional and Technical Services	17,720	119,032	$85,184	0.62
55	Mgmt. Of Companies and Enterprises	1,554	63,950	$113,021	1.41
56	Administrative and Waste Services	9,011	135,433	$39,395	0.77
61	Educational Services	1,739	36,255	$58,838	0.66
62	Health Care and Social Assistance	31,868	394,434	$55,575	1.02
71	Arts, Entertainment and Recreation	2,600	37,098	$34,656	0.97
72	Accommodation and Food Services	14,159	212,292	$19,008	0.90
81	Other Services	13,104	75,931	$37,591	0.94
Gov't	Government	7,558	367,040	$54,366	0.90
Total	**All**	**179,366**	**2,792,980**	**$56,335**	**1.00**

Source: Bureau of Labor Statistics (QCEW).

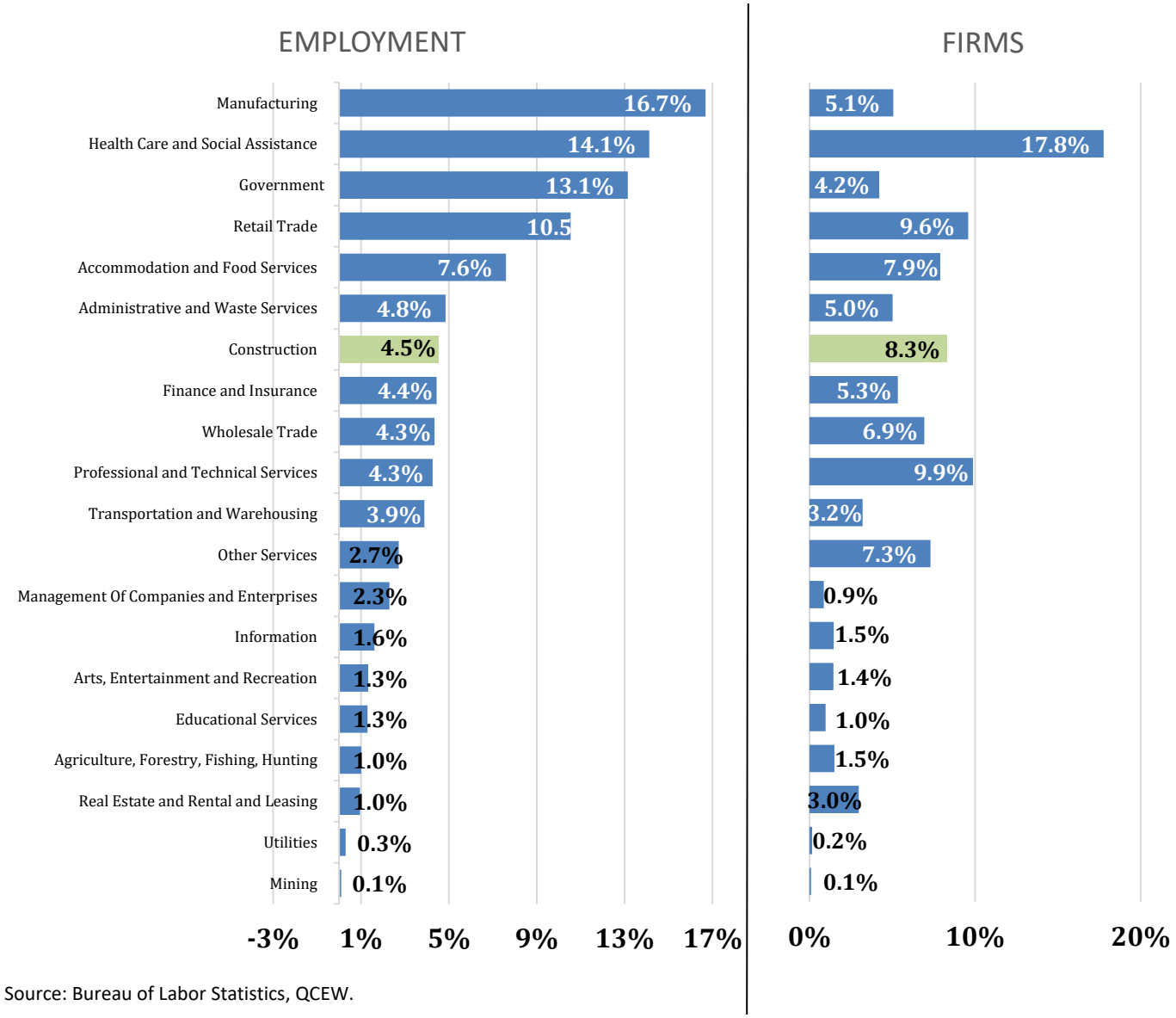
). The largest industry in the state in 2021 was Manufacturing with 16.7% of state employment, followed by Health Care and Social Assistance (14.1%), and Government (13.1%) (
Figure 18). Average annual wages for the state were $56,335, with the Management of Companies and Enterprises ($113,021) and the Utilities ($111,041) industries paying the highest wages. The state had six industries with a higher concentration of employment than the nation as measured by location quotient (LQ): Manufacturing (1.95), Management of Companies and Enterprises (1.41), Agriculture (1.16), Wholesale Trade (1.10), Finance and Insurance (1.04), and Health Care and Social Assistance (1.02). The Construction industry employed 126,592 people across 14,869 firms with average wages of $69,258 in 2021.

TABLE 9: WISCONSIN FIRMS, EMPLOYMENT, AND WAGES, 2021

NAICS	Industry	Firms	Employment	Average Annual Wages	Employment LQ
11	Agriculture, Forestry, Fishing, Hunting	2,703	28,117	$40,173	1.16
21	Mining	170	2,822	$74,465	0.28
22	Utilities	292	8,284	$111,041	0.78
23	Construction	14,869	126,592	$69,258	0.88
31-33	Manufacturing	9,078	465,956	$64,393	1.95
42	Wholesale Trade	12,435	121,375	$80,077	1.10
44-45	Retail Trade	17,200	294,488	$32,667	0.99
48-49	Transportation and Warehousing	5,752	108,379	$49,101	0.94
51	Information	2,631	44,941	$93,202	0.82
52	Finance and Insurance	9,579	123,997	$90,271	1.04
53	Real Estate and Rental and Leasing	5,344	26,564	$52,007	0.62
54	Professional and Technical Services	17,720	119,032	$85,184	0.62
55	Mgmt. Of Companies and Enterprises	1,554	63,950	$113,021	1.41
56	Administrative and Waste Services	9,011	135,433	$39,395	0.77
61	Educational Services	1,739	36,255	$58,838	0.66
62	Health Care and Social Assistance	31,868	394,434	$55,575	1.02
71	Arts, Entertainment and Recreation	2,600	37,098	$34,656	0.97
72	Accommodation and Food Services	14,159	212,292	$19,008	0.90
81	Other Services	13,104	75,931	$37,591	0.94
Gov't	Government	7,558	367,040	$54,366	0.90
Total	**All**	**179,366**	**2,792,980**	**$56,335**	**1.00**

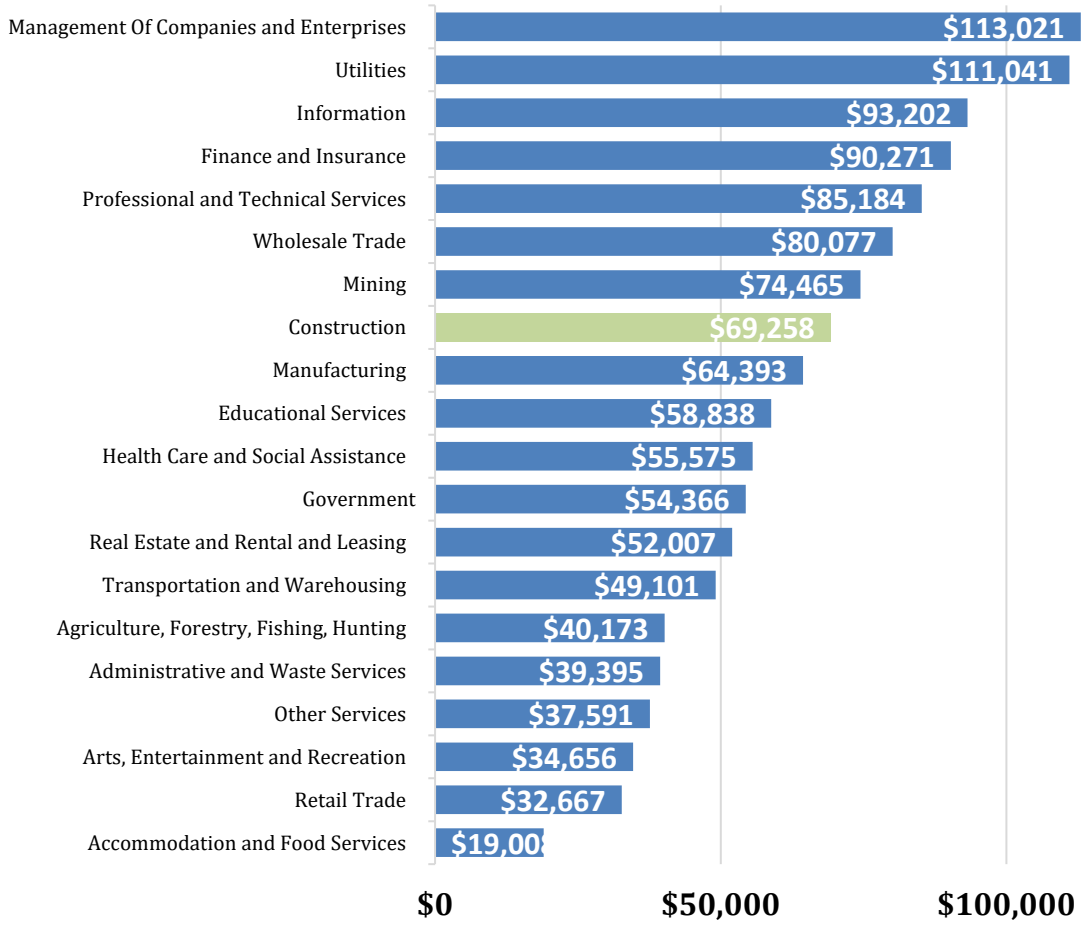
Source: Bureau of Labor Statistics (QCEW).

FIGURE 18: WISCONSIN EMPLOYMENT AND FIRMS SHARE, 2021



Source: Bureau of Labor Statistics, QCEW.

FIGURE 19: WISCONSIN AVERAGE ANNUAL WAGES BY INDUSTRY, 2021



Source: Bureau of Labor Statistics, QCEW.

The Construction industry was the 7th-largest employer in the state in 2021, had the 4th-largest share of firms (14,869), and paid the 8th-highest average annual wages ($69,258), according to the BLS. The number of firms in the Construction industry increased 0.7% in 2021 to 14,869, and firm growth has exhibited a 5-year CAGR of 1.6% from 2016 to 2021. Wage growth in the Construction industry has been steady, with average annual wages increasing 4.3% in 2021 year-over-year and exhibiting a 3.3% 5-year CAGR. Average annual wages in the Construction industry are nearly 23% above the state average. The Construction industry had a location quotient of 0.88 in 2021 – a slightly lower concentration of construction employment than the nation. A location quotient is a useful tool for analyzing the relative concentration of employment in one area to the same industry in the nation. A location quotient of 1.0 indicates the study area has the same concentration of industry employment as the nation. A location quotient of >1.0 indicates the study area has a greater concentration of industry employment compared to the nation, and a location quotient of <1.0 indicates the area has a smaller industry concentration than the nation. A full breakdown of Construction firms, employment and wages can be found in Table 10 and Table 11.

TABLE 10: WISCONSIN CONTRUCTION INDUSTRY EMPLOYMENT, FIRMS, AND WAGES (QCEW)

Year	Employment	Firms	Wages	Average Annual Wages
2011	92,501	14,285	$4,643,292,000	$50,197
2012	93,167	14,057	$4,822,093,000	$51,758
2013	98,087	13,849	$5,237,852,000	$53,400
2014	102,612	13,144	$5,686,490,000	$55,417
2015	109,201	13,766	$6,250,780,000	$57,241
2016	112,279	13,731	$6,598,064,000	$58,765
2017	117,226	14,158	$7,049,533,000	$60,136
2018	122,396	14,814	$7,596,280,000	$62,063
2019	124,384	14,823	$7,944,870,000	$63,874
2020	123,846	14,760	$8,226,173,000	$66,423
2021	126,592	14,869	$8,767,548,000	$69,258

Source: Bureau of Labor Statistics, QCEW.

TABLE 11: WISCONSIN CONSTRUCTION INDUSTRY BREAKDOWN, 2021 (QCEW; EXCLUDES PROPIETOR ACTIVITY)

Construction Sector	Employment	Firms	Wages
Total	**126,592**	**14,869**	**$8,767,548,000**
Construction of Buildings	29,269	3,941	$2,038,058,000
Residential Building Construction	13,963	3,233	$755,297,000
Nonresidential Building Construction	15,306	708	$1,282,761,000
Industrial Building Construction	1,708	67	$161,201,000
Commercial Building Construction	13,598	641	$1,121,560,000
Heavy and Civil Engineering Construction	16,033	823	$1,448,722,000
Utility System Construction	9,241	498	$791,352,000
Water and Sewer System Construction	2,889	255	$232,333,000
Oil and Gas Pipeline Construction	1,132	46	$117,783,000
Power and Communication System Construction	5,220	197	$441,236,000
Highway, Street, and Bridge Construction	5,368	149	$517,813,000
Other Heavy Construction	1,048	117	$101,642,000
Specialty Trade Contractors	81,291	10,106	$5,280,768,000
Building Foundation and Exterior Contractors	14,617	2,202	$858,521,000
Building Equipment Contractors	41,745	3,790	$2,918,394,000
Building Finishing Contractors	13,731	2,493	$724,026,000
Other Specialty Trade Contractors	11,198	1,621	$779,827,000

Note: Data excludes proprietor employment activity.
Source: Bureau of Labor Statistics, QCEW.

TABLE 12: WISCONSIN CONSTRUCTION INDUSTRY EMPLOYMENT, FIRMS, AND WAGES BY COUNTY, 2021 (QCEW)

County	Employment	Employment Share	Firms	Wages
Statewide	**126,592**	**100%**	**14,869**	**$8,767,548,000**
Adams County	124	0.1%	36	$4,893,000
Ashland County	384	0.3%	53	$21,442,000
Barron County	648	0.5%	135	$33,680,000
Bayfield County	316	0.2%	60	$34,616,000
Brown County	7,025	5.5%	654	$464,368,000
Buffalo County	140	0.1%	37	$6,206,000
Burnett County	130	0.1%	42	$6,078,000
Calumet County	687	0.5%	90	$40,624,000
Chippewa County	1,600	1.3%	197	$101,596,000
Columbia County	966	0.8%	187	$55,873,000
Crawford County	92	0.1%	41	$3,443,000
Dane County	15,856	12.5%	1,261	$1,165,457,000
Dau Claire County	2,096	1.7%	207	$126,560,000
Dodge County	2,347	1.9%	209	$192,010,000
Door County	686	0.5%	118	$43,082,000
Douglas County	873	0.7%	112	$61,820,000
Dunn County	729	0.6%	94	$47,290,000
Florence County	17	0.0%	10	$680,000
Fond Du Lac County	2,959	2.3%	258	$214,232,000
Forest County	74	0.1%	20	$2,621,000
Grant County	716	0.6%	142	$36,275,000
Green County	488	0.4%	120	$25,747,000
Green Lake County	253	0.2%	47	$18,592,000
Iowa County	609	0.5%	79	$36,539,000
Iron County	166	0.1%	30	$7,732,000
Jackson County	473	0.4%	27	$41,674,000
Jefferson County	1,791	1.4%	259	$106,939,000
Juneau County	285	0.2%	47	$13,659,000
Kenosha County	1,962	1.5%	306	$133,865,000
Kewaunee County	402	0.3%	69	$22,788,000
La Crosse County	2,588	2.0%	298	$168,208,000
Lafayette County	227	0.2%	43	$13,005,000
Langlade County	225	0.2%	50	$10,430,000
Lincoln County	395	0.3%	73	$20,564,000
Manitowoc County	1,295	1.0%	179	$78,649,000
Marathon County	2,479	2.0%	323	$160,826,000
Marinette County	632	0.5%	103	$33,255,000
Marquette County	56	0.0%	24	$2,624,000

Milwaukee County	11,290	8.9%	1,163	$826,714,000
Monroe County	681	0.5%	105	$40,809,000
Oconto County	452	0.4%	105	$22,318,000
Oneida County	819	0.6%	186	$45,274,000
Outagamie County	8,244	6.5%	641	$616,424,000
Ozaukee County	1,380	1.1%	253	$83,401,000
Pepin County	181	0.1%	27	$13,487,000
Pierce County	499	0.4%	107	$28,647,000
Polk County	579	0.5%	133	$32,098,000
Portage County	1,042	0.8%	158	$58,557,000
Price County	118	0.1%	29	$5,899,000
Racine County	3,132	2.5%	430	$206,047,000
Richland County	183	0.1%	39	$8,185,000
Rock County	3,266	2.6%	363	$230,636,000
Rusk County	125	0.1%	30	$7,159,000
Sauk County	1,830	1.4%	218	$122,192,000
Sawyer County	314	0.2%	78	$13,890,000
Shawano County	422	0.3%	96	$21,752,000
Sheboygan County	2,385	1.9%	261	$149,419,000
St. Croix County	1,727	1.4%	289	$108,646,000
Taylor County	221	0.2%	44	$14,327,000
Trempealeau County	339	0.3%	81	$17,310,000
Vernon County	388	0.3%	79	$19,508,000
Vilas County	606	0.5%	156	$34,929,000
Walworth County	1,705	1.3%	337	$95,838,000
Washburn County	186	0.1%	70	$7,908,000
Washington County	2,632	2.1%	473	$162,417,000
Waukesha County	17,580	13.9%	1,424	$1,378,511,000
Waupaca County	588	0.5%	132	$30,265,000
Waushara County	194	0.2%	50	$7,963,000
Winnebago County	5,733	4.5%	338	$439,202,000
Wood County	1,649	1.3%	176	$97,924,000

Source: Bureau of Labor Statistics (QCEW).