



February 2023

OSB Manufacturing in Macon, MS

Regional Labor Force Analysis



MISSISSIPPI STATE UNIVERSITY™
NATIONAL STRATEGIC PLANNING
& ANALYSIS RESEARCH CENTER

OSB MANUFACTURING IN MACON, MS

Regional Labor Force Analysis

February 2023

ABOUT MISSISSIPPI'S SLDS

Mississippi's State Longitudinal Data System (SLDS) is one of the most comprehensive systems in the country and includes administrative records from more than 25 education, workforce, and human service agencies in the state. The SLDS allows for the alignment of multiple sources of de-identified administrative data over time to evaluate educational or workforce strategies in terms of real outcomes, such as entrance into employment, wages, and skill gains.

ABOUT NSPARC

NSPARC is a university research center at Mississippi State University that provides tailored research, analysis, and software architecture services with an emphasis on workforce and economic development. We are a truly unique resource that connects the intellectual and scholarly vitality of a modern research university to organizations that need to gather, manage, and draw meaningful insights from data.

NSPARC is home to experts across disciplines including sociology, economics, statistics, geosciences, and computer science. We recognize the importance of multidisciplinary research and embrace an inclusive model of collaboration to provide strategic solutions for government, industry, and non-profit entities.

For more information, contact NSPARC at nsparc@nsparc.msstate.edu or 662-325-9242.

Copyright 2022 by Mississippi State University. All rights reserved. Produced by NSPARC.

Mississippi State University is an equal opportunity institution. Discrimination in university employment, programs, or activities based on race, color, ethnicity, sex, pregnancy, religion, national origin, disability, age, sexual orientation, gender identity, genetic information, status as a U.S. veteran, or any other status protected by applicable law is prohibited.

OSB MANUFACTURING IN MACON, MS

Regional Labor Force Analysis

OVERVIEW

This brief provides information pertaining to the availability of a workforce experienced in the field of OSB Manufacturing in Macon, MS, and the surrounding region. This report was requested by the North Mississippi Industrial Development Association (NMIDA).

Data are included on individuals who have experience in industry-relevant occupations, and who have actively searched for new employment during the past 12 months (“job seekers”). Data are also included on current employment levels and the average wages earned by individuals employed in relevant occupations. Finally, data are included on the number of graduates produced by public universities and community colleges who have completed degree programs that are related to the occupations.

The results of this analysis show that the 45-minute commuting region around Macon, MS, is home to 1,579 job seekers who have relevant work experience and who have actively sought employment in the last 12 months. Furthermore, 7,497 individuals in the region are currently employed in occupations relevant to the OSB-manufacturing industry. Finally, in Academic Year 2022, a total of 438 individuals graduated with degrees relevant to the industry, including 244 community college graduates and 194 university graduates.

METHODOLOGY

RELEVANT OCCUPATIONS AND EDUCATIONAL PROGRAMS

To identify the number of industry-relevant job seekers, employees, and graduates in the region, a profile of the OSB-manufacturing industry was created using occupational data, job skill and requirement data, and education-to-occupation linkage data.

This industry profile first identifies the core occupations which are critical to the industry’s operation. The core occupations were identified using Standard Occupational Classification (SOC) System Codes, the federal occupation classification standard used by the U.S. Bureau of Labor Statistics, along with industry employment data obtained from the agency’s Industry-Occupation Matrix. These national-level data are disaggregated and made available for specific counties through Lightcast’s (formerly Emsi) regional economic development model.

This list of occupations was then aligned with a list of desired job categories, provided by the NMIDA. The relevancy of each occupation was determined using skill and job responsibility data available through the Department of Labor’s O*NET OnLine web portal.

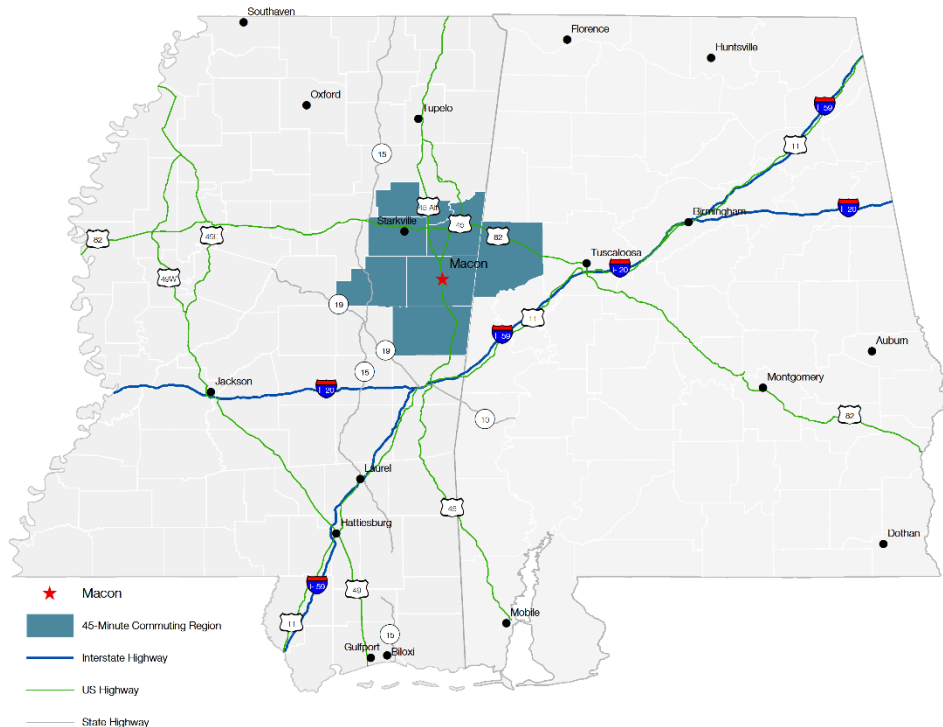
These job categories include: Electricians, Engineers, Managers, Mechanics, Operators, Other Production, and Other Salary.

Relevant instructional programs were then identified using Classification of Instructional Programs (CIP) codes, the national standard of academic program titles developed by the U.S. Department of Education. To identify the specific degree programs that are related to the requested occupational categories, the National Center for Education Statistics' (NCES) Education-to-Occupation crosswalk was utilized. If a single degree program was matched to multiple occupations, the description of the degree program was used in conjunction with the occupational descriptions to determine the most appropriate match. Matches to "Management" are generally excluded from this analysis, as an instructional program typically does not prepare an individual to enter management with no prior work experience.

GEOGRAPHY

The geography for this analysis includes the 45-minute commuting region surrounding Macon, MS, as well as for the entirety of Mississippi. This region includes the counties in which an individual can reside, while also being able to commute to a worksite in Macon within 45 minutes. The counties in this region were identified using *geographic information system* (GIS) mapping software in conjunction with speed-limit data on road networks. Figure 1 illustrates the 45-minute commuting region. These regions of analysis were specified by the NMIDA.

FIGURE 1: 45-MINUTE COMMUTING REGION



DATA AND INDICATORS

The following data were used measure the job seekers, employment, earnings, and graduates in the region. These data were obtained from Mississippi's State Longitudinal Data System (SLDS) and from public data sources.

Mississippi Works Job Seeker Data – Data on those looking for work come from the Mississippi Department of Employment Security's (MDES) state job board, Mississippi Works (www.mississippiworks.org). Mississippi Works allows job seekers to create profiles, search for job openings, and apply for employment. It provides real-time data that can be used to determine the number of people in a local area that are looking for work, as well as their place of residence, educational background, previous occupations, skills, and years of experience. This report only considers job seekers who have actively searched for employment within the past 12 months (February 2, 2022 through February 1, 2023), which includes approximately 283,000 unique users.

Mississippi Employment and Wage Estimates – Data on regional employment and wages are obtained from the BLS' Quarterly Census of Employment and Wages (QCEW) program, as well as the U.S. Department of Labor. These estimates statewide data are used to create regional estimates through Lightcast's regional economic development model using the last four quarters of available data. The regional employment and wage estimates presented in this report generated using data from 2021Q2, 2021Q4, 2022Q1, and 2022Q2.

Mississippi Community Colleges – Data on community college graduates are contributed to the SLDS by Mississippi's 15 community colleges and the Mississippi Community College Board (MCCB). These data include information on the enrollment, county of residence, academic major, and graduation of approximately 73,000 students each year.

Mississippi Public Universities – Data on 4-year public university graduates are contributed to the SLDS by Mississippi's eight public universities and the Institutions for Higher Learning (IHL). These data include information on the enrollment, county of residence, academic major, and graduation of approximately 81,000 students each year.

Using these categories of occupations and degrees, the following indicators were measured:

Employment Estimates – The estimated average annual number of jobs in occupations related to OSB manufacturing in Mississippi for Calendar Year 2023.

Hourly Earnings – The median hourly earnings of individuals employed in occupations related to OSB manufacturing.

Job Seekers – The number of job seekers with experience in occupations related to OSB manufacturing, who actively searched for employment in the past 12 months (February 2, 2022 through February 1, 2023).

Recent Graduates – The number of graduates from Mississippi Public Universities and Community Colleges who graduated from a program related to OSB manufacturing in Academic Year (AY) 2022. Education-to-Occupation relationships were identified using crosswalks generated by the National Center for Education Statistics (NCES).

RESULTS

Table 1 presents the number of individuals who searched for work on Mississippi Works in the past 12 months, who also have experience in occupations relevant to OSB manufacturing. The results show that 1,579 individuals had experience in relevant occupations, including 126 individuals with experiences as machinery operators and 844 in other relevant production occupations. Statewide, 19,210 individuals have recently searched for employment and have relevant work experience.

TABLE 1: ACTIVE JOB SEEKERS WITH EXPERIENCE RELEVANT TO OSB MANUFACTURING, MEASURED FEBRUARY 2022 – FEBRUARY 2023

Job Category	Active Job Seekers	
	45-Minute Region	Statewide
Electricians	39	599
Engineers	13	268
Managers	230	3,684
Mechanics	100	1,291
Operators	126	1,409
Other Production	844	8,695
Other Salary	227	3,264
Total	1,579	19,210

Sources: Mississippi State Longitudinal Data System (SLDS), 2023; Mississippi Department of Employment Security, 2023.



Table 2 presents the estimated number of individuals employed in the requested occupations, as well as average earnings. Results show 7,497 individuals are estimated to be employed in related occupations within 45-minutes of Macon, MS, and 134,759 are employed statewide. The largest employment category is *Mechanics*, with 2,077 currently employed individuals in the 45-minute region and over 30 thousand statewide. On average, workers in relevant occupations earn \$27 per hour. The highest earning job categories include managers and engineers, earning \$44 and \$40 per hour, while operators and production workers earn \$17 and \$14 per hour.

TABLE 2: CURRENT EMPLOYMENT AND EARNINGS IN OCCUPATIONS RELEVANT TO OSB MANUFACTURING, CALENDAR YEAR 2023

Job Category	Current Employment		Average Earnings	
	45-Minute Region	Statewide	45-Minute Region	Statewide
Electricians	355	8,023	\$25.74	\$26.76
Engineers	293	5,570	\$40.24	\$43.36
Managers	1,417	29,057	\$44.20	\$46.68
Mechanics	2,077	30,532	\$23.00	\$23.80
Operators	1,128	14,085	\$17.31	\$18.37
Other Production	787	15,652	\$14.48	\$15.24
Other Salary	1,440	31,840	\$24.51	\$25.89
Total	7,497	134,759	\$27.07	\$28.58

Source: Lightcast, 2023.

Tables 3 and 4 present the number of graduates from relevant programs through 2-year Community Colleges and 4-year Public Universities. Results show 244 individuals within the 45-minute region have recently earned community college degrees in relevant fields, and an additional 194 individuals have graduated from public universities through relevant programs. At the state level, over 3 thousand community college graduates and nearly 4 thousand public university graduates have completed relevant degree programs in Academic Year 2022.

As discussed previously in the methodology section, graduates from degrees matching the “Management” job category are not considered in this portion of the analysis, as additional on-the-job experience is typically required to secure these positions.

TABLE 3: COMMUNITY COLLEGE GRADUATES FROM DEGREE PROGRAMS RELEVANT TO OSB MANUFACTURING, ACADEMIC YEAR 2022

Job Category	Community College Graduates	
	45-Minute Region	Statewide
Electricians	58	315
Engineers	7	378
Mechanics	20	225
Operators	52	605
Other Production	23	670
Other Salary	84	1,230
Total	244	3,423

Sources: Mississippi State Longitudinal Data System (SLDS), 2023.

TABLE 4: UNIVERSITY GRADUATES FROM DEGREE PROGRAMS RELEVANT TO OSB MANUFACTURING, ACADEMIC YEAR 2022

Job Category	University Graduates	
	45-Minute Region	Statewide
Engineers	26	337
Other Salary	168	3,458
Total	194	3,795

Sources: Mississippi State Longitudinal Data System (SLDS), 2023.

APPENDIX

TABLE A-1: IDENTIFIED OCCUPATIONS, BY JOB CATEGORY

SOC Code	Occupation Title
<i>Electrician</i>	
47-2111	Electricians
47-3013	Helpers--Electricians
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
<i>Engineer</i>	
17-2112	Industrial Engineers
17-2071	Electrical Engineers
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2199	Engineers, All Other
<i>Manager</i>	
11-1021	General and Operations Managers
11-3051	Industrial Production Managers
11-3071	Transportation, Storage, and Distribution Managers
11-9041	Architectural and Engineering Managers
<i>Mechanic</i>	
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers
49-9041	Industrial Machinery Mechanics
49-9043	Maintenance Workers, Machinery
49-9044	Millwrights
49-9071	Maintenance and Repair Workers, General
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-9099	Installation, Maintenance, and Repair Workers, All Other
<i>Operator</i>	
51-1011	First-Line Supervisors of Production and Operating Workers
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
51-9191	Adhesive Bonding Machine Operators and Tenders
<i>Production Support</i>	
51-9198	Helpers--Production Workers
51-9199	Production Workers, All Other
53-7051	Industrial Truck and Tractor Operators
53-7063	Machine Feeders and Offbearers
<i>Relevant Business Professional and Support</i>	
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products
13-1071	Human Resources Specialists
13-1081	Logisticians
13-1199	Business Operations Specialists, All Other
13-2011	Accountants and Auditors
43-5061	Production, Planning, and Expediting Clerks
43-5071	Shipping, Receiving, and Inventory Clerks
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping



TABLE A-2: SELECTED EDUCATION DEGREE PROGRAM BY JOB CATEGORY

CIP Code	Program Title
<i>Electrician</i>	
460301	Electrical and Power Transmission Installation/Installer
460302	Electrician
<i>Engineer</i>	
140101	Engineering, General
143501	Industrial Engineering
149999	Engineering, Other
150612	Industrial Technology/Technician
150613	Manufacturing Engineering Technology/Technician
150699	Industrial Production Technologies/Technicians, Other
<i>Mechanic</i>	
470303	Industrial Mechanics and Maintenance Technology.
470605	Diesel Mechanics Technology/Technician.
<i>Operator</i>	
480501	Machine Tool Technology/Machinist
480508	Welding Technology/Welder
<i>Production Support</i>	
490205	Truck and Bus Driver/Commercial Vehicle Operator
<i>Relevant Business Professional and Support</i>	
520101	Business/Commerce, General
520201	Business Administration and Management, General
520301	Accounting and Related Services
520302	Accounting Technology/Technician and Bookkeeping
520399	Accounting and Related Services, Other
520401	Administrative Assistant and Secretarial Science, General
520601	Business/Managerial Economics
520801	Finance, General
520803	Banking and Financial Support Services
520901	Hospitality Administration/Management, General
521001	Human Resources Management/Personnel Administration, General
521201	Management Information Systems, General
521401	Marketing/Marketing Management, General
521499	Marketing, Other
521601	Taxation
521701	Insurance
522001	Construction Management
529999	Business, Management, Marketing, and Related Support Service

