Mississippi Forestry: Current State and Future Growth

Prepared by:

Conner Miller, Graduate Student
Dr. Shannon Campbell, Trent Lott Center Director
Dr. Chad Miller, Program Coordinator
Heather N. Brown, Research Analyst

THE UNIVERSITY OF SOUTHERN MISSISSIPPI
TRENT LOTT NATIONAL CENTER

NOVEMBER 2017

Executive Summary

Mississippi has access to huge timber resources, 65% of the state is covered by forest land. With such substantial lumber reserves, Mississippi has a large concentration of jobs in the forestry industry, more than double the national average when taking population into account. The majority of forestry industry jobs, however, are in the supply side of the industry, such as growing trees and logging, which do not produce value added goods. The state has a significantly lower concentration of jobs in the more advanced stages of the forestry industry. At the same time, Mississippi exports nearly 40% of its timber, supporting the value-added productions in neighboring states. This means that Mississippi is leaving a great deal of domestic value and production unrealized due to not having enough wood processors and wood product manufactures. While this is concerning, it also provides an opportunity for growth, as the state should be able to attract or develop such business with its abundance of inexpensive lumber. Potential new businesses could step in immediately and would likely not disrupt the current export market. The state's timber inventory grew so much during the downturn of the 2008 recession that even at a high lumber demand it would take 11 years, assuming no new growth, to extract the surplus. Any new businesses would have the added effect of not only producing more products in the state, but also helping to decrease the timber surplus, while allowing the currently low price of lumber to normalize. The Mississippi Forestry Commission has documented the large number of resource analysis requests from interested parties in many areas of the state, and yet these investors consistently seem to build elsewhere. Moving forward, the state must determine why it is missing out on these investments and what can be done to combat these issues. Mississippi has many natural advantages in the forestry industry, and it must be effectively managed for the state to continue its development.

The State of the Industry

The southeastern United States contains one of the largest timber reserves in the world, and is noted to have the largest sustainable wood supply amongst developed nations (Ratcliff, 2017). Mississippi is covered in woodlands, making up 65% of the state. Despite this massive supply, the state has fallen behind in many areas of the forestry industry including lumber production and wood product manufacturing. The University of Southern Mississippi's Trent Lott National Center for Economic Development and Entrepreneurship and the Mississippi Forestry Commission partnered to discuss the issues that could be the cause of the lack of development and how the state could take advantage of the period of economic expansion that the nation is entering.

Mississippi has continued to grow in the forestry products industry over the last five years (see Table 1), however, it has not kept up with the national growth and has been much slower to grow than many of its regional peers. Of the six southeastern states observed in this report: Alabama, Arkansas, Georgia, Louisiana, Mississippi and Tennessee, only Arkansas had less growth than Mississippi in the wood products industry. Mississippi's slow business growth is occurring despite having a high concentration of jobs in the industry for the state's population. This is evident by the Location Quotient (LQ) of 2.77. LQs are a measure of job concentration in an industry, in comparison to an area's population size. Anything over 1.25 is considered a significant concentration of jobs in a particular industry. Mississippi has the largest LQ in the forestry industry amongst the compared states, primarily due to the state's lower population numbers, as by pure numbers it ranks fourth out of the six states.

Table 1

Total Forestry Industry

Region	2016 Jobs	2011-2016 Job Change	2011-2016 % Change	# of Business Locations	Location Quotient
Mississippi	35,214	578	1.70%	1,446	2.77
Alabama	42,855	2,472	6.10%	2,098	1.99
Arkansas	28,306	-1,394	-4.70%	1,480	2.13
Georgia	64,019	5,150	8.70%	3,383	1.34
Louisiana	21,387	945	4.60%	1,399	1.00
Tennessee	44,787	1,512	3.50%	1,857	1.40
United States	1,577,821	73,627	4.90%	83,843	

Source: EMSI

With Mississippi's abundance of timber resources, it is disappointing for the state to be falling behind in this industry. Even more concerning was the discovery that much of the growth in the state has come from the supply side of the industry, the section with the lowest economic value (see Table 2).

Table 2

Supply Side Jobs, i.e. Logging

Region	2016 Jobs	2011-2016 Job Change	2011-2016 % Change	# of Business Locations	Location Quotient
Mississippi	4,443	287	6.90%	726	5.44
Alabama	5,265	51	1.00%	813	3.81
Arkansas	3,872	175	4.70%	680	4.53
Georgia	6,051	190	3.20%	897	1.97
Louisiana	3,420	-16	-0.50%	543	2.49
Tennessee	1,343	251	23.00%	212	0.65
United States	101,404	8,392	9.00%	15,558	

Source: EMSI

While the growth in jobs on the supply side is encouraging, that growth has not translated into production and manufacturing jobs, indicating that the state has struggled to recruit and retain companies that could take advantage of this supply. Mississippi lost jobs in the wood processing stage of the wood products industry over the last five years (see Table 3). While some of this loss could be due to higher technology based jobs leading to more efficient mills requiring less workers, it is concerning when other states are adding hundreds of jobs from the construction of new, and the expansion of current wood processing sites.

Table 3

Wood Processors, i.e. Mills

Region	2016 Jobs	2011-2016 Job Change	2011-2016 % Change	# of Business Locations	Location Quotient
Mississippi	6,532	-69	-1.00%	142	3.46
Alabama	14,154	-112	-0.80%	199	4.42
Arkansas	9,740	412	4.40%	182	4.92
Georgia	15,169	746	5.20%	284	2.13
Louisiana	5,852	241	4.30%	93	1.84
Tennessee	10,181	87	0.90%	235	2.14
United States	234,670	2,930	1.30%	6,504	

Source: EMSI

While Mississippi has continued to grow in secondary woodworking, it is growing much slower than its neighbors and peers, with the exception of Arkansas which has seen an exodus of jobs from the industry over the last five years (see Table 4). Even this marginal growth is not indicative of an overall healthy industry however, as it is buoyed almost exclusively by the furniture industry, which is booming (see Table 5).

Table 4

Secondary Woodworking, i.e. Furniture, Truss, Paper, etc.

Region	2016 Jobs	2011-2016 Job Change	2011-2016 % Change	# of Business Locations	Location Quotient
Mississippi	24,238	360	1.50%	578	2.42
Alabama	23,436	2,534	12.10%	1,086	1.38
Arkansas	14,694	-1,982	-11.90%	618	1.4
Georgia	42,799	4,214	10.90%	2,202	1.14
Louisiana	12,115	720	6.30%	763	0.72
Tennessee	33,262	1,173	3.70%	1,410	1.32
United States	1,241,746	62,304	5.30%	61,781	

Source: EMSI

Table 5

Secondary Woodworking, exclusively Furniture

Region	2011 Jobs	2016 Jobs	Change	% Change
Mississippi	15,196	16,022	826	5.4%
Arkansas	1,930	1,884	(46)	(2.4%)
Georgia	1,798	2,254	456	25.4%
Tennessee	4,524	5,168	644	14.2%
Alabama	2,166	1,561	(605)	(27.9%)
Louisiana	154	198	44	28.6%
United States	125,973	136,277	10,304	8.2%

Source: EMSI

While the percent change is not keeping up with the United States average, which is a sign of lost opportunity, the addition of over 800 jobs in the last five years is an unquestionable win for Mississippi. In this category the high percent change of the other states is mainly due to a smaller starting job number. As such, while it should be monitored, the job increase in furniture manufacturing is not a sign of Mississippi falling behind in the region at this point.

The furniture industry is certainly a bright spot in the state, however, the other areas of secondary wood production have not grown over the last five years. When taking into account every other aspect of secondary woodworking, excluding furniture manufacturing, the state has seen a 5.4 % loss over the last 5 years, once again only out performing Arkansas. (see Table 6). This industry includes home manufacturing, like trusses, paper production, and everything in between. The weakening of this sector is just another sign that the state is not maximizing its potential with its immense natural resources.

Table 6

Secondary Woodworking, excluding Furniture

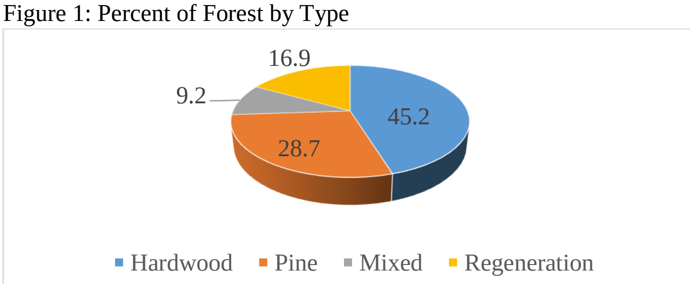
Region	2011 Jobs	2016 Jobs	Change	% Change
Mississippi	8,682	8,216	(466)	(5.4%)
Arkansas	14,746	12,810	(1,936)	(13.1%)
Georgia	36,787	40,545	3,758	10.2%
Tennessee	27,565	28,094	529	1.9%
Alabama	18,737	21,875	3,138	16.7%
Louisiana	11,241	11,917	676	6.0%
United States	1,053,469	1,105,469	52,000	4.9%

Source: EMSI

Mississippi's Timber Inventory and How it is used

As mentioned previously, 65% of Mississippi land contains forest, approximately 19.51 million acres of the state. Hardwood makes up the largest concentration of forest in the state at 45.2% of available lumber, but there is also a major supply of pine throughout the state (see Figure 1).

Figure 1: Percent of Forest by Type

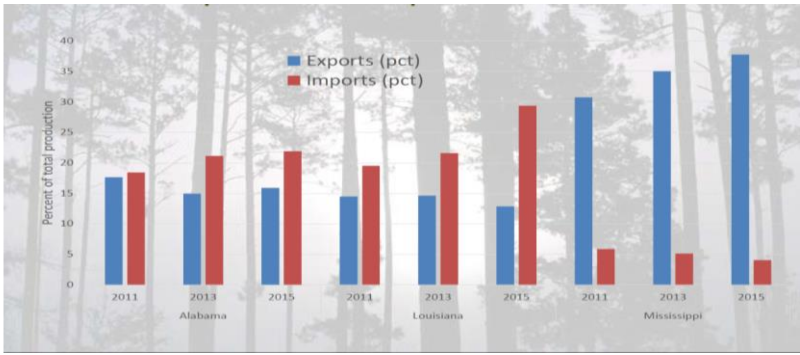


Source: Mississippi Forestry Commission, Dr. Mitchell

According to the Mississippi Forestry Commission, pine has grown significantly since 2005, with a growth to removal rate of 2.3. This means that for every 1 pine tree removed, 2.3 pine trees are grown to replace it. Mississippi's supply of pine is steadily increasing and presents an opportunity to increase jobs on the supply side of the state's forestry industry. In addition to the supply growing faster than it is harvested, the trees that are harvested are largely being exported out of state.

The lack of domestic usage of lumber is one of the problems that Dr. Brian Mitchell of the Mississippi Forestry Commission expressed during the webinar. The state of Mississippi exports significantly more of its cut timber to other states, than its neighbors Alabama or Louisiana (see Figure 2).

Figure 2: Percent of Production by Year and State for Import and Export Volumes



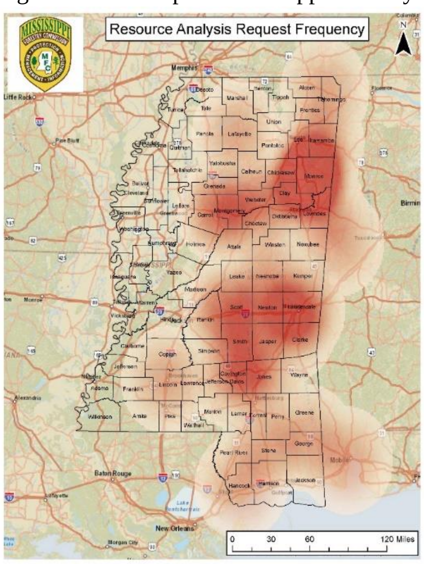
Source: Mississippi Forestry Commission, Dr. Mitchell

Mississippi is a major supplier of timber for its neighbors. Alabama and Louisiana export a fraction of their domestic supply of lumber, and unlike Mississippi, consistently import more than they export. This is a sign that they are taking advantage of Mississippi's surplus of inexpensive timber to enlarge their wood product industry in the processing and manufacturing sectors. One reason for the increased surplus of timber in Mississippi was the economic recession in 2008 and the slow recovery that has occurred since. The housing collapse that led to the recession brought the demand for lumber down dramatically, and decreased the price and the amount that was being harvested (Henderson, 2017). This, in turn, led to mills decreasing their production output, and while volume has increased in most mills across the state as the economy has recovered, some have still not returned to full capacity. Because of the lack of harvesting, the supply of the lumber continued to grow, in turn deflating the price of the wood. Currently the supply has grown so large that if the state was able to return to 2006 harvesting levels (high demand) it would take 11 years to harvest the additional growth and return to pre-recession levels, assuming no new growth was added. This will likely keep pricing low for some time to come.

Moving Forward

Increasing investment into the production and manufacturing side of the forestry industry will be key in solving both the surplus and heavy export issues. The desire to build in Mississippi seems to be there, as the Forestry Commission has had many information requests for large parts of the state, especially north and east of Jackson (see Figure 3).

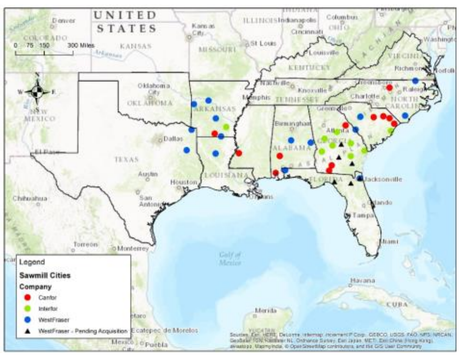
Figure 3: Heat map of Mississippi Forestry Commission Information Requests



Source: Mississippi Forestry Commission, Dr. Mitchell

Even with this desire, it has been difficult to attract outside investment to the state. Canada for example has invested in thirty-nine mills in the southeastern region of the United States in the form of sawmill purchases (see Figure 4). Of those thirty-nine mills, Mississippi has only been able to attract one such investment from Canada.

Figure 4: Canadian investment in mills



Source: Mississippi Forestry Commission, Dr. Mitchell

Finding the reason why Mississippi is not receiving the investments, despite the interests shown, would be a major step towards helping the state maximize its natural advantages. Towards this end, the Mississippi Forestry Association (MFA) and site location consultants could prove useful. The MFA is a member organization that seeks to unify all aspects of the forestry industry, from land owners to manufactures and all points in between. The association advocates on behalf of its members to "promote conservation, development, and wise use of forestland" (MFA, 2017). It can be a powerful ally when trying to sell a location to potential new businesses in the industry.

In addition to the MFA, site consultants can be useful when evaluating potential locations for all levels of the forestry industry. They work with companies trying to locate, and as such can give information on what winning locations offered to secure the investments. A few consultants who are known to have provided insight on wood product investments recently include: Didi Caldwell with Global Location Strategies; Jeff Forsythe with McCallum Sweeney Consulting; Daron Buelow Deloitte with Deloitte Consulting LLP; and Mike Mullis with J.M. Mullis Inc. Their expertise could prove crucial in taking Mississippi's potential and turning it into the next step along the path of development.

Conclusion

The state of Mississippi has an abundance of timber resources. Even so, the state has failed to maximize the benefit from these resources by not developing its lumber production and wood products manufacturing sectors. Instead, the state has become the supplier of timber for many of its neighbors, that timber then being turned into value added goods across state lines. While the supply side of the forestry industry is still important, it does not provide the same return on investment that the production of goods provides. This is especially true due to the immense surplus of standing timber that has grown since the recession of 2008. Adding domestic producers and manufactures of lumber would keep more of the development in state, and possibly accelerate the normalization of the timber inventory. Towards that end Mississippi should seek both domestic and foreign investment in the forestry industry. The expertise of professional site location consultants and the support of the Mississippi Forestry Association could be pivotal towards attracting this investment.

References

EMSI, http://www.economicmodeling.com/

Henderson, J. (2017). Timber Market Outlook [Powerpoint slides]. Retrieved from webinar

Mississippi Forestry Association, http://www.msforestry.net/

Mississippi Forestry Commission, http://www.mfc.ms.gov/

Mitchell, B. (2017). Mississippi's Forest Stocking [Powerpoint slides]. Retrieved from webinar

Ratcliff, T. (2017). Opportunities in the Forest Products Industry [Lecture]. Retrieved from webinar

Services Offered by The University of Southern Mississippi Trent Lott National Center for Economic Development and Entrepreneurship

In addition to providing graduate education in economic development through the Master of Science in Economic Development (MSED) program and the Graduate Certificate in Economic Development, the Trent Lott National Center partners with the MSED program to further the students experience by working with economic developers, communities, companies, and non-profit organizations through five main approaches:

1. University Economic Development researchers provide technical assistance in defining problems or opportunities; evaluating the effects of change; and providing recommendations for improvements.

2. Graduate students work on class projects involving research for an actual community or organization (e.g., retail pull factor analysis).

3. Each student is required to complete a thesis or capstone project. The capstone project involves completing an economic development research study (e.g., feasibility study).

4. Each student is required to complete an internship in an economic development organization.

5. Communities may have sponsored research projects and tap into the faculty expertise and university data sources (e.g., EMSI and REMI).

Examples of class projects involving research for Mississippi communities:

- Retail Analysis for the City of Greenwood
- Feasibility of a Livability Court for the City of Hattiesburg
- Economic Impacts of a Native American Casino in Jones County
- Ecotourism Development for Noxubee County
- Strategic Plans for Stone County, Sunflower County, Bolivar County, and the Hattiesburg Historic Downtown Development Association
- Community Study for the Hattiesburg Mid-Town District
- Entrepreneurial Development Plan for the Area Development Partnership
- Multimodal transportation research for Mississippi Port Directors
- Workforce Analyses for Mississippi Association of Local Workforce Areas

The University of Southern Mississippi also offers economic development training for working professionals and graduate students through its annual True South Basic Economic Development Course - an International Economic Development Council accredited introductory course. This course fulfills one of the prerequisites for those who wish to take the Certified Economic Developer (CEcD) exam.