

City Sales as Indicated by Sales Tax

Crawford, MS

April 2020 - March 2021

extension.msstate.edu/economic-profiles



These profiles are designed to provide a sense of the changes in sales subject to sales and use tax in Mississippi counties and municipalities during the COVID 19 pandemic. In addition, we estimate the fiscal effects for state and local tax revenues, sales tax diversion effects for Mississippi municipalities, and the fiscal effects of federal tax revenues as a result of changes in sales subject to sales and use tax for two selected sectors.

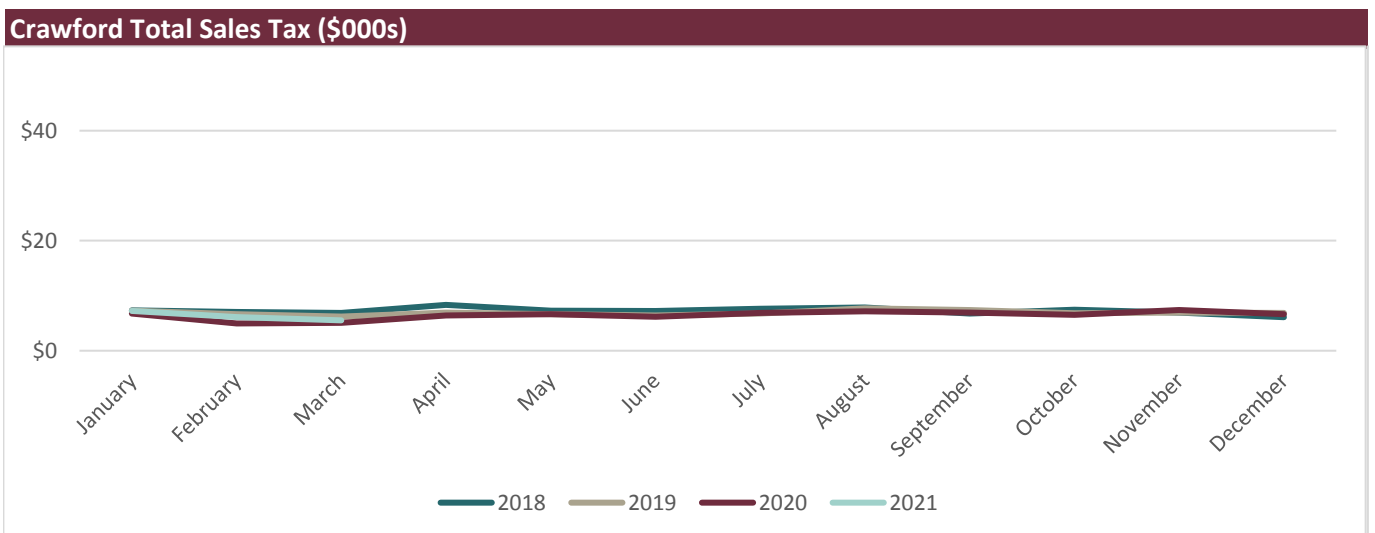
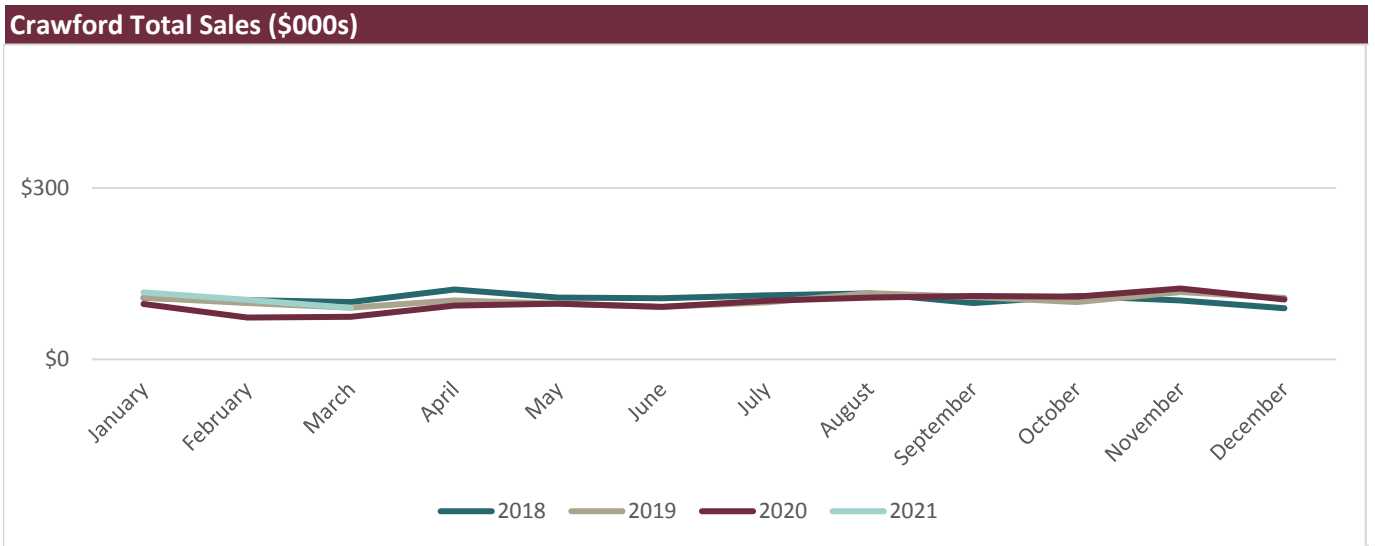
Data to estimate these changes in sales were obtained from the Mississippi Department of Revenue's Sales Indicated by Gross Sales Tax Collections, reported by County, City and Industry Group monthly statistics reports (<https://www.dor.ms.gov/Statistics/Pages/Monthly-Statistics.aspx>). It should be noted that these data have not been reconciled by the Department of Revenue, but are aggregated from reports submitted by organizations that collect sales tax from across the state on an "as is" basis. As such, the data contained in these monthly reports will likely not sum to the annual report provided by the Department of Revenue.

Even though these are not final data, we feel that the identification of trends in sales and the collection of sales could be valuable to the leaders of Mississippi's counties and municipalities. This Report uses data from April 2020 (the month that the majority of businesses were affected by the pandemic) through March 2021 (the most current data available).

These profiles are organized in the following manner:

- The first set of graphs and tables provide the levels of sales and sales tax collected for the total sales subject to sales tax, as well as the levels of sales and sales tax collected for the retail sector and the accommodation and food services sector. Statistics for these sectors were provided due to their importance to the level of sales tax collected and the level of sales tax diversions remitted to Mississippi municipalities.
- The economic impact of the change in sales in the combined retail sales and accommodation and food services sectors is then estimated to provide community leaders with an estimate of the "spillover costs" or, in some cases, "spillover benefits" that occur as a result of the pandemic.
 - The change in sales is estimated by subtracting the average sales of a particular month(s) for the past three years from the current month(s). For example, the estimate for the change in the level of sales in April 2020 is the sales for these sectors in April 2020 minus the average of sales for these sectors in April 2017, April 2018, and April 2019.
 - The change in sales estimates are used in county-specific IMPLAN® models (see the Data Key at the end of this publication for an explanation) to estimate direct, indirect, and induced spillover effects resulting from this shock to the economy. In addition, the state and local, as well as the federal, fiscal effects of the change in sales will be presented.
 - An estimate of the change in the level of diversions provided to Mississippi municipalities will also be presented as a part of the municipalities' profiles. These estimated diversions are calculated by multiplying the change in sales tax by 18.5 percent (the level of sales tax diversion provided to municipalities).

Total Sales as Indicated by Sales Tax (\$000s)					Total Sales Tax Collected (\$000s)				
Month	2018	2019	2020	2021	Month	2018	2019	2020	2021
January	\$108	\$108	\$97	\$117	January	\$7	\$7	\$7	\$7
February	\$104	\$99	\$73	\$104	February	\$7	\$7	\$5	\$6
March	\$100	\$91	\$75	\$90	March	\$7	\$6	\$5	\$6
April	\$122	\$103	\$94		April	\$8	\$7	\$6	
May	\$108	\$97	\$98		May	\$7	\$7	\$7	
June	\$107	\$92	\$92		June	\$7	\$6	\$6	
July	\$112	\$100	\$102		July	\$8	\$7	\$7	
August	\$116	\$116	\$108		August	\$8	\$8	\$7	
September	\$99	\$109	\$111		September	\$7	\$7	\$7	
October	\$111	\$100	\$110		October	\$7	\$7	\$7	
November	\$103	\$118	\$124		November	\$7	\$7	\$7	
December	\$89	\$108	\$105		December	\$6	\$7	\$7	



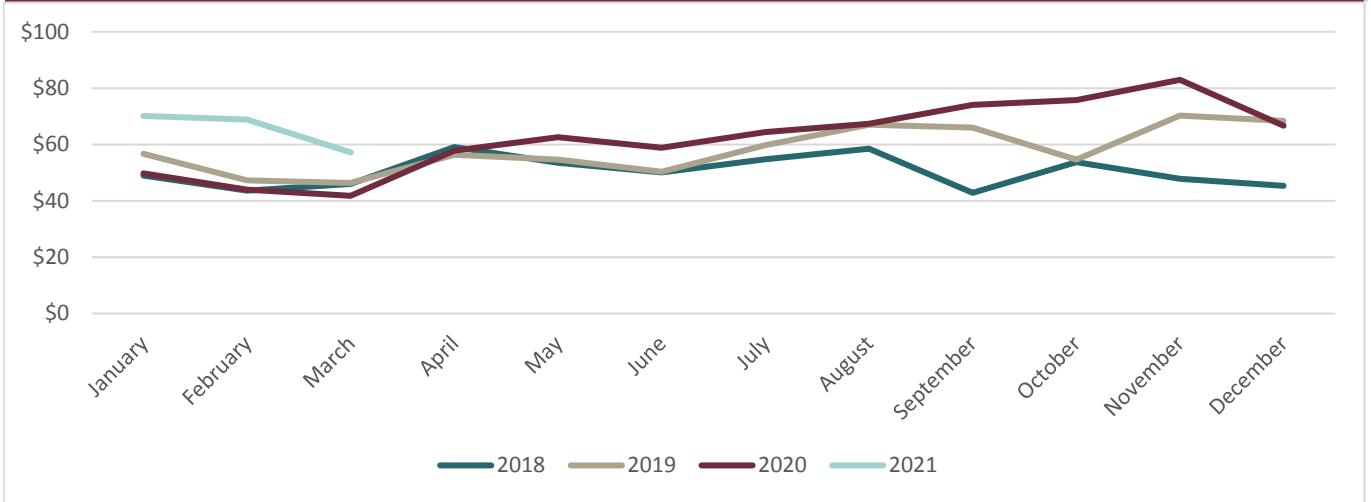
Retail Sector Sales as Indicated by Sales Tax (\$000s)

Month	2018	2019	2020	2021
January	\$49	\$57	\$50	\$70
February	\$44	\$47	\$44	\$69
March	\$46	\$46	\$42	\$57
April	\$59	\$56	\$58	
May	\$53	\$55	\$63	
June	\$50	\$50	\$59	
July	\$55	\$60	\$64	
August	\$58	\$67	\$67	
September	\$43	\$66	\$74	
October	\$54	\$55	\$76	
November	\$48	\$70	\$83	
December	\$45	\$68	\$67	

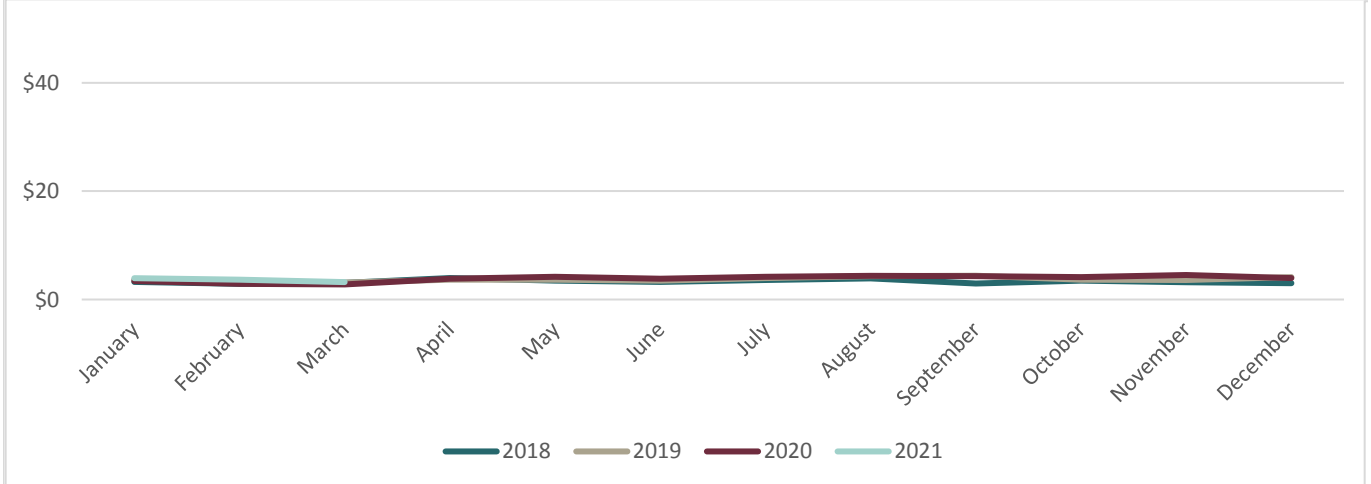
Retail Sector Sales Tax Collected (\$000s)

Month	2018	2019	2020	2021
January	\$3	\$4	\$3	\$4
February	\$3	\$3	\$3	\$4
March	\$3	\$3	\$3	\$3
April	\$4	\$4	\$4	
May	\$3	\$4	\$4	
June	\$3	\$4	\$4	
July	\$4	\$4	\$4	
August	\$4	\$4	\$4	
September	\$3	\$4	\$4	
October	\$4	\$4	\$4	
November	\$3	\$4	\$5	
December	\$3	\$4	\$4	

Crawford Retail Sector Sales (\$000s)



Crawford Retail Sector Sales Tax (\$000s)



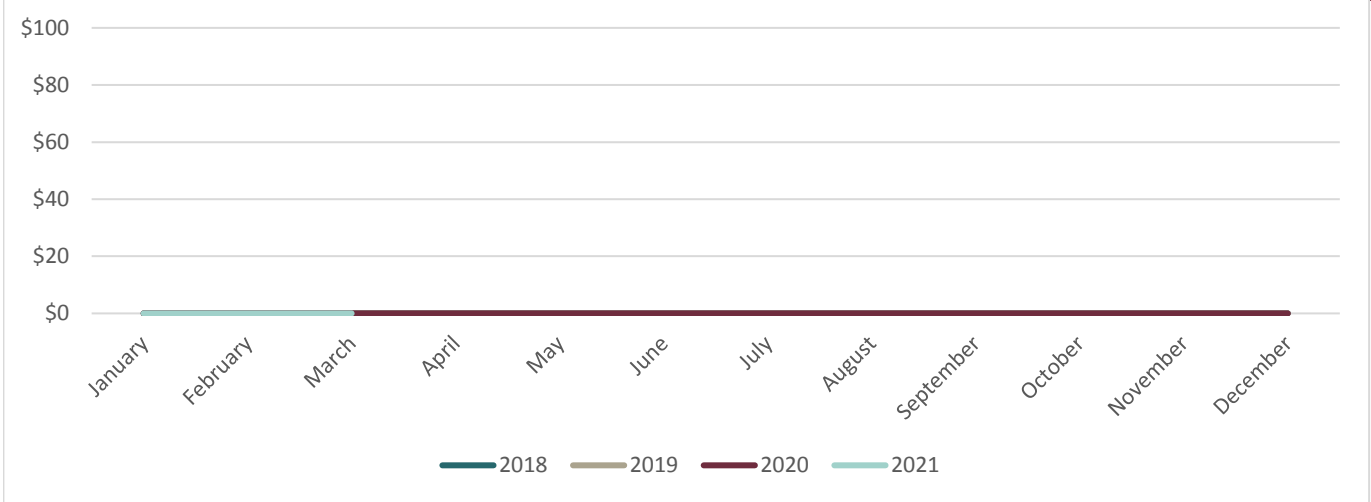
**Food Service and Accommodations Sector Sales
Subject to Sales Tax (\$000s)**

Month	2018	2019	2020	2021
January	\$0	\$0	\$0	\$0
February	\$0	\$0	\$0	\$0
March	\$0	\$0	\$0	\$0
April	\$0	\$0	\$0	\$0
May	\$0	\$0	\$0	\$0
June	\$0	\$0	\$0	\$0
July	\$0	\$0	\$0	\$0
August	\$0	\$0	\$0	\$0
September	\$0	\$0	\$0	\$0
October	\$0	\$0	\$0	\$0
November	\$0	\$0	\$0	\$0
December	\$0	\$0	\$0	\$0

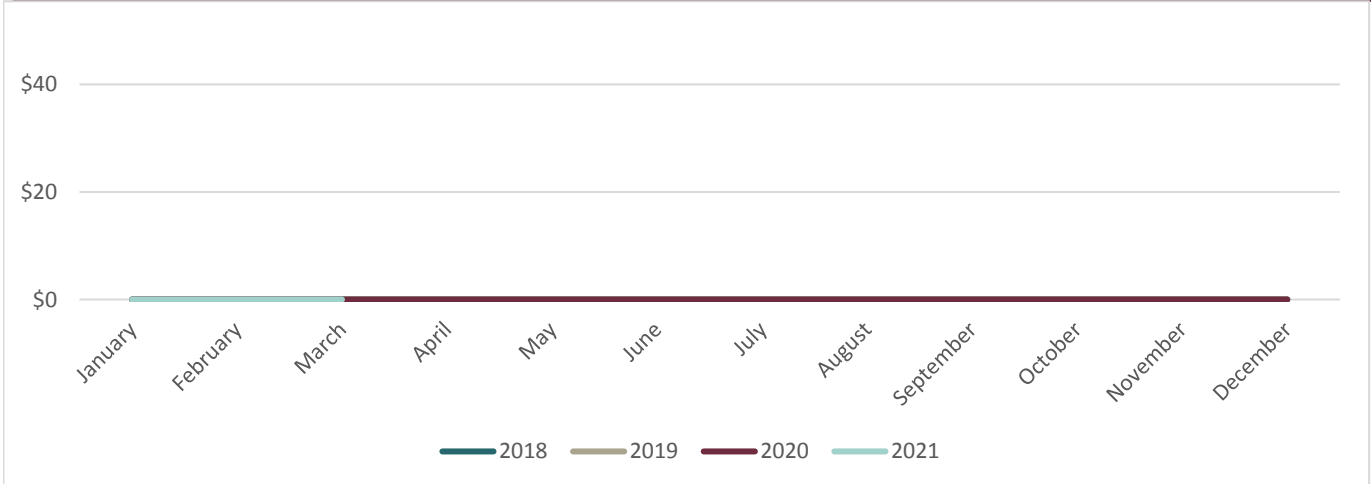
**Food Service and Accommodations Sector Sales
Tax Collected (\$000s)**

Month	2018	2019	2020	2021
January	\$0	\$0	\$0	\$0
February	\$0	\$0	\$0	\$0
March	\$0	\$0	\$0	\$0
April	\$0	\$0	\$0	\$0
May	\$0	\$0	\$0	\$0
June	\$0	\$0	\$0	\$0
July	\$0	\$0	\$0	\$0
August	\$0	\$0	\$0	\$0
September	\$0	\$0	\$0	\$0
October	\$0	\$0	\$0	\$0
November	\$0	\$0	\$0	\$0
December	\$0	\$0	\$0	\$0

Crawford Food Service and Accommodations Sector Sales (\$000s)



Crawford Food Service and Accommodations Sector Sales Tax (\$000s)



Sales Tax Diversions and Special Levies

Crawford Diversions

Month	2018	2019	2020	2021
January	\$1,458	\$1,502	\$1,364	\$1,511
February	\$1,392	\$1,349	\$1,052	\$1,270
March	\$1,352	\$1,270	\$1,060	\$1,203
April	\$1,614	\$1,413	\$1,350	
May	\$1,772	\$1,458	\$1,404	
June	\$1,512	\$1,303	\$1,250	
July	\$1,514	\$1,367	\$1,389	
August	\$1,604	\$1,534	\$1,453	
September	\$1,386	\$1,531	\$1,413	
October	\$1,621	\$1,382	\$1,357	
November	\$1,423	\$1,422	\$1,738	
December	\$1,243	\$1,377	\$1,324	

No Special Levy

Month	2018	2019	2020	2021
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

No Special Levy

Month	2018	2019	2020	2021
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

No Special Levy

Month	2018	2019	2020	2021
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

No Special Levy

Month	2018	2019	2020	2021
January				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

Estimated Change in Sales

	Sales Apr20 - Mar21	Average Sales* April - March	Change in Sales
Agriculture, Forestry, Fishing and Hunting	\$0	\$0	\$0
Mining, Quarrying, and Oil and Gas Extraction	\$0	\$0	\$0
Utilities	\$0	\$3,751	(\$3,751)
Construction	\$0	\$0	\$0
Manufacturing	\$0	\$0	\$0
Wholesale Trade	\$0	\$0	\$0
Retail Trade	\$806,564	\$644,675	\$161,889
Transportation and Warehousing	\$0	\$0	\$0
Information	\$436,555	\$605,282	(\$168,727)
Finance and Insurance	\$0	\$0	\$0
Real Estate and Rental and Leasing	\$0	\$0	\$0
Professional, Scientific, and Technical Services	\$0	\$0	\$0
Management of Companies and Enterprises	\$0	\$0	\$0
Admin/Support/Waste Mgt & Remediation Svcs	\$0	\$0	\$0
Educational Services	\$0	\$0	\$0
Health Care and Social Assistance	\$0	\$0	\$0
Arts, Entertainment, and Recreation	\$0	\$0	\$0
Accomodation and Food Services	\$0	\$0	\$0
Other Services (except Public Administration)	\$0	\$0	\$0
Public Administration	\$0	\$0	\$0
Change in Total of Sector Sales	\$1,243,119	\$1,253,708	(\$10,589)

*Average Sales is calculated as the sum of average monthly sales for the three previous years.

Economic Impact Summary from Change in Total of Sector Sales (IMPLAN)

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	(0.1)	(\$26,963)	\$14,540	(\$135,419)
Indirect Effect	(0.1)	(\$1,652)	(\$3,356)	(\$6,441)
Induced Effect	(0.0)	(\$178)	(\$280)	(\$554)
Total Effect	(0.2)	(\$28,793)	\$10,904	(\$142,413)

Estimated Change in Municipal Sales Tax Diversions (18.5%) **\$4,146**

See explanation of Municipal Sales Tax Diversions in the Data Key.

Estimated Change in State and Local Tax from Change in Total of Sector Sales (IMPLAN)

Description	Employment Compensation	Proprietor Income	Taxes on		
			Production and Imports	Households	Corporations
Dividends	\$0	\$0	\$0	\$0	(\$4)
Social Insurance	(\$2)	\$0	\$0	\$0	\$0
TOPI: Sales Tax	\$0	\$0	\$22,413	\$0	\$0
TOPI: Property Tax	\$0	\$0	\$11,900	\$0	\$0
TOPI: Other Tax	\$0	\$0	\$2,182	\$0	\$0
Corporate Profits Tax	\$0	\$0	\$0	\$0	(\$56)
Personal Taxes	\$0	\$0	\$0	(\$557)	\$0
Total State and Local Tax	(\$2)	\$0	\$36,495	(\$558)	(\$60)

Estimated Change in Federal Tax from Change in Total of Sector Sales (IMPLAN)

Description	Taxes on				
	Employment Compensation	Proprietor Income	Production and Imports	Households	Corporations
Social Insurance	(\$3,472)	(\$27)	\$0	\$0	\$0
TOPI: Taxes	\$0	\$0	\$7,139	\$0	\$0
Corporate Profits Tax	\$0	\$0	\$0	\$0	(\$124)
Personal Tax: Income Tax	\$0	\$0	\$0	(\$1,370)	\$0
Total Federal Tax	(\$3,473)	(\$27)	\$7,140	(\$1,370)	(\$124)

DATA Key

Total Sales as Indicated by Sales Tax

North American Industrial Classification Sectors (NAICS) sectors included in the "Total Sales as Indicated by Sales Tax" statistics include: Sector 11 – Agriculture, Forestry, Fishing and Hunting ; Sector 21 – Mining, Quarrying, and Oil and Gas Extraction ; Sector 22 – Utilities ; Sector 23 – Construction ; Sector 31-33 – Manufacturing ; Sector 42 – Wholesale Trade ; Sector 44-45 – Retail Trade ; Sector 48-49 – Transportation and Warehousing ; Sector 51 – Information ; Sector 52 – Finance and Insurance ; Sector 53 – Real Estate and Rental and Leasing ; Sector 54 – Professional, Scientific, and Technical Services ; Sector 55 – Management of Companies and Enterprises ; Sector 56 – Administrative and Support and Waste Management and Remediation Services ; Sector 61 – Educational Services ; Sector 62 – Health Care and Social Assistance ; Sector 71 – Arts, Entertainment, and Recreation ; Sector 72 – Accommodation and Food Services ; Sector 81 – Other Services (Except Public Administration) ; and Sector 92 – Public Administration .

Retail Sector Sales

Retail Sector Sales includes NAICS Sector 44-45 – Retail Trade.

Accommodation and Food Service Sector Sales

Accommodation and Food Services Sector Sales includes NAICS Sector 72 – Accommodation and Food Services.

Estimated Change in Sales

To determine the economic impact of changes in specific sector sales, the average monthly sales by sector (using sales from the thirty-six months prior to the study time frame) was subtracted from the sales for that sector in the study time frame. For this publication, each month's sector sales from April 2018 through March 2020 were averaged and subtracted from sector sales occurring in the April 2020 through March 2021 time period to obtain the Change in Sales estimate. The estimated changes in sales for all sectors were summed to obtain the estimate for the change in Total of Sector Sales.

Municipalities are assigned to the county in which the largest proportion of the municipality's population resides (e.g., while the city of Jackson lies in Hinds, Madison, and Rankin Counties, Jackson was "assigned" to Hinds County because the majority of its population resides in Hinds County).

If the change in sales is negative, this indicates that the sales for the specific geographic area fall below expected values when using the previous three years as a benchmark. If the change in sales is positive, then the sales for the specific geographic area is greater than what would have been expected when using the three previous years as a benchmark.

Estimated Change in Municipal Sales Tax Diversions

Municipalities receive 18.5 percent of sales tax collected within their boundaries from the Mississippi Department of Revenue that can be used in the general budget (counties are not eligible for this allocation). The estimated change in the municipal sales tax diversion is calculated as 18.5 percent of the change in Taxes on Production and Imports: Sales Tax estimated in the Estimated Change in State and Local Tax from Change in Total of Sector Sales table.

Economic Impact Summary from Change in Total of Sector Sales

The estimated changes in specific sectors (Retail Sector, Food Services Sector, and Accommodation Services Sector) was applied to a county-specific IMPLAN® input-output model to estimate the economic impacts and fiscal (tax) effects that result from the change in retail sales for the retail sector and accommodation and food services sector. The input-output model estimates direct, indirect, and induced effects for employment, labor income, total value added, and output. These terms are defined below:

Direct Effects — represent the initial change to industries considered relevant to the VA dataset. Industries used include *Retail – Miscellaneous store retailers* (IMPLAN® Sector 412), *Hotels and motels, including casino hotels* (IMPLAN® Sector 507), and *Limited-service restaurants* (IMPLAN® Sector 510).

Indirect Effects — represent changes in inter-industry transactions when supplying industries respond to demand changes from directly affected industries (the direct effects above).

Induced Effects — represent changes in local spending that result from income changes to employees in the directly and indirectly affected industry sectors.

Employment — annual average of monthly jobs in the industry. A job can be either part-time or full-time, and a person can hold more than one job (the employment or job count is not necessarily the same as the count of employed persons).

Labor Income — all forms of employment income, including employee compensation (wages and benefits) and proprietor income.

Value Added — represents the difference between an industry's total output and the cost of its intermediate inputs (gross outputs (sales or receipts plus other operating income plus inventory change) minus intermediate inputs (consumption of goods and services purchased from other industries or imported).

Output — represents the value of production by an industry in a calendar year.

It should be noted that if the total estimated change in sector sales is negative, then the economic impacts of this shock to the local economy will be negative as well.

Estimated Change in State and Local Tax from Change in Total of Sector Sales

Estimated Change in Federal Tax from Change in Total of Sector Sales

IMPLAN® provides estimates of the fiscal (tax) effects for state and local taxes as well as federal taxes that result from a shock to the local economy. Summaries of these fiscal effects are presented by tax type (*Dividends, Social Insurance, Taxes on Production and Imports (TOPI): Sales Tax, TOPI: Property Tax, TOPI: Other Tax, Corporate Profits Tax, and Personal Taxes by taxpayer (Employee Compensation, Proprietor Income, TOPI, Households, and Corporations)*).

Publication 3480- 142 (06-20)

By **Alan Barefield**, Extension Professor, Department of Agricultural Economics, **Emily V. Durr**, Student Assistant, Department of Agricultural Economics, **Thaddeus A. Webb**, Student Assistant, Department of Agricultural Economics, and **Adam R. Nathan**, Student Assistant, Department of Agricultural Economics.

Copyright 2021 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.

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, genetic information, status as a U.S. veteran, or any other status protected by applicable law is prohibited. Questions about equal opportunity programs or compliance should be directed to the Office of Compliance and Integrity, 56 Morgan Avenue, P.O. Box 6044, Mississippi State, MS 39762, (662) 325-5839.

Extension Service of Mississippi State University, cooperating with U.S. Department of Agriculture. Published in furtherance of Acts of Congress, May 8 and June 30, 1914. GARY B. JACKSON, Director.