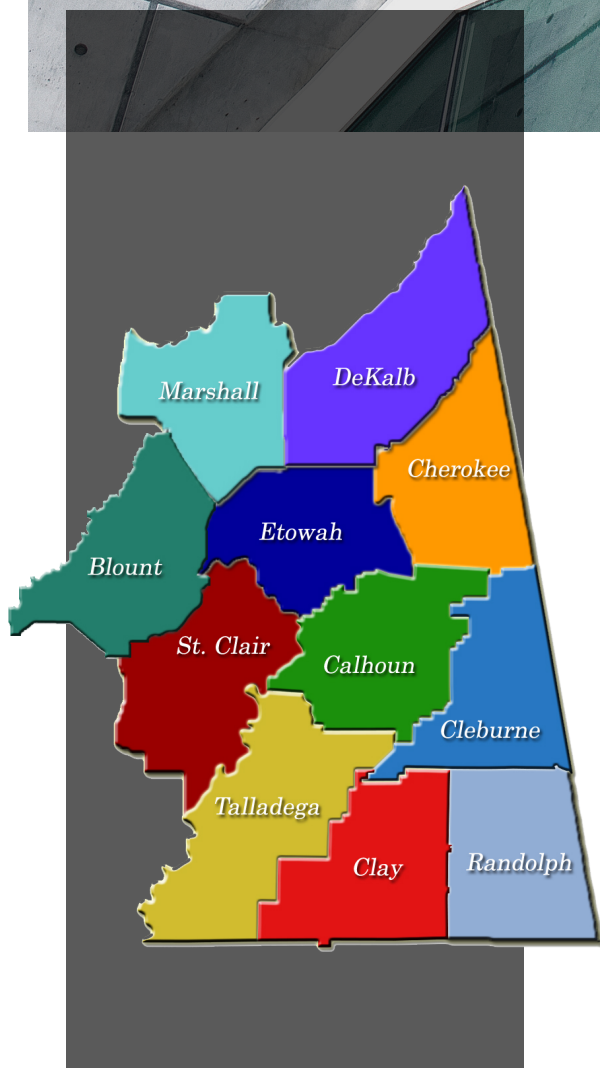


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ECONOMIC UPDATE

Jacksonville State University
Center for Economic Development and Business Research



Welcome to the Jacksonville State University Economic Update for February 2022

This issue considers economic diversity as a measure of how closely the local economy is tied to industry sectors. Specialization can be good from the perspective of competitive advantages and economies of scale (Skyles, 1950; Diamond and Simon, 1990)[1], but exposes local and regional economies to greater adverse effects during periods of recession.



[1] Skyles, J. 1950. Diversification of Industry. *The Economic Journal*, 60 (240): 697-714. Diamond, C.A. and Simon, C.J. 1990. Industrial Specialization and the Returns to Labor. *Journal of Labor Economics*, 8(2): 175-201.

Higher levels of economic diversity, with a variety of industries providing goods and services, reduce the risk of adverse effects from supply or demand shocks. Economic effects from reduced demand within many industries at the beginning of the COVID-19 pandemic and ongoing disruption in global supply chains are indicative of these risks that local economies may experience if a local or regional economy is dominated by a single or very few industry sectors.

With a more diverse economy to the extent that any one industry sector is affected by an economic shock, displaced workers have an opportunity to secure employment in other sectors as goods and services are produced in higher relative proportions, where the result is a slowing of economic leakages out of the local economy. Conversely, less economic diversity results in more economic challenges within a geographic area as less opportunity exists for remaining economic sectors to absorb the loss of commerce and jobs.

To present this model for the economic diversity of industries within the CEDBR coverage area, the Shannon-Weaver Index (SWI)[2] is utilized in calculating indices. While various metrics may be utilized, for this model the Shannon-Weaver Index is a measure of the extent to which the employment of a region is evenly distributed among its industries. It ranges in value from zero to one, with zero indicating minimum diversity and a value of one indicating maximum diversity.

For the coverage area, index values range from a low of 0.5570 for Clay County to a high of 0.7368 for St. Clair County, representing the county with the least economic diversity to the county with the most economic diversity, respectively. Listed in alphabetical order, illustration for each county in the coverage area is provided in Table 1: Shannon-Weaver Index of CEDBR Counties.

Table 1: Shannon-Weaver Index of CEDBR Counties

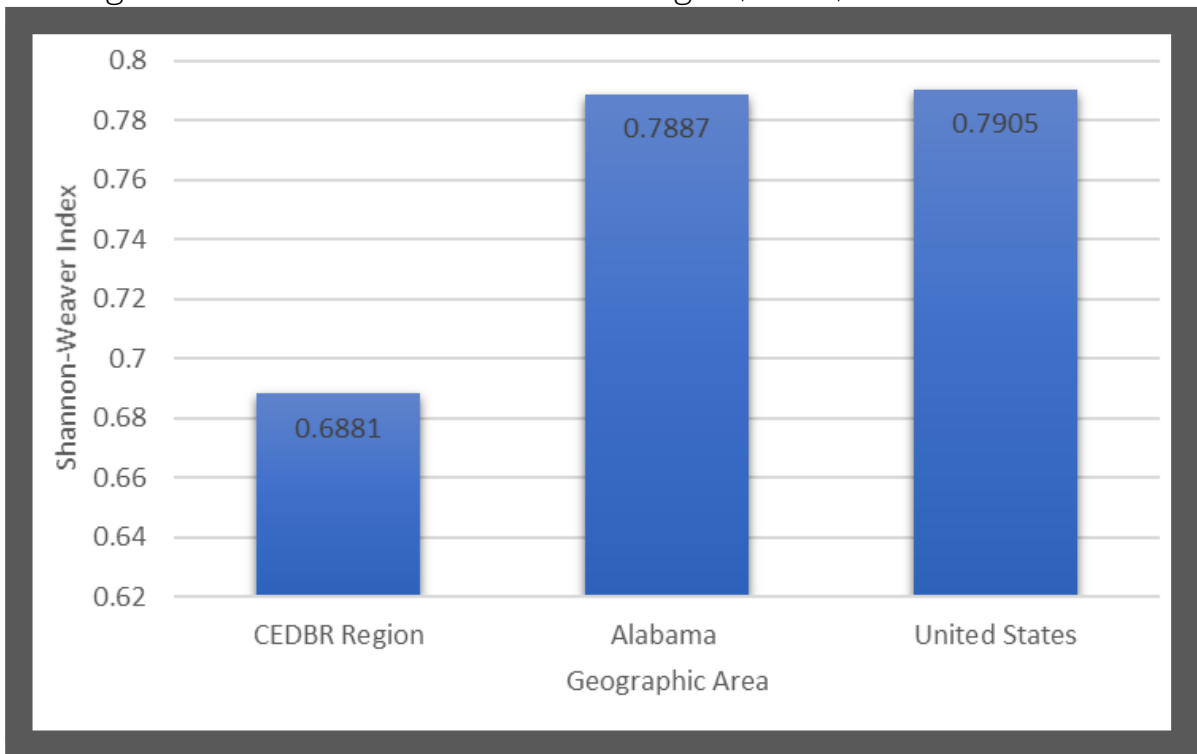
SWI	Description
0.68315	Blount County
0.71846	Calhoun County
0.69157	Cherokee County
0.55701	Clay County
0.66552	Cleburne County
0.72924	DeKalb County
0.70630	Etowah County
0.68998	Marshall County
0.69931	Randolph County
0.73678	St. Clair County
0.71124	Talladega County

Source: IMPLAN

[2] The measure is derived by IMPLAN. The Shannon-Weaver Index of Economic Diversity: An Overview and Descriptive Analysis. <https://support.implan.com/hc/en-us/articles/115009505687-The-Shannon-Weaver-Index-of-Economic-Diversity-An-Overview-and-Descriptive-Analysis>

Region data consist of an average of each CEDBR county data. Shannon-Weaver Index for the region is 0.6881. Compared to an index value of 0.7887 for Alabama and 0.7905 for the United States, the regional average is lower with less economic diversity but high enough to indicate economic diversity levels in several counties reduce the risk of economic shock to the region during times of economic peril. In relative terms employment across the state and nation is spread more evenly among various industries than the region area. Trends in industry development are a function of relative comparisons, especially to the extent that industry sectors are closely correlated. Figure 1: Shannon-Weaver Index of Region, State, and United States compares region values to measures of economic diversity in the state and nation.

Figure 1: Shannon-Weaver Index of Region, State, and United States



Source: IMPLAN

While the Shannon-Weaver Index is a valuable tool in identifying the risk of job loss and economic leakages from an economic shock, this measure only considers diversity in terms of employment by sector and does not provide correlation metrics that would assist policymakers and economic developers in weighing the risk of job loss for closely related sectors. These limitations are evidenced in employment trends during the COVID-19 pandemic. Hospitality and related sectors, for example, have been adversely impacted, especially during the initial phase, but sectors with higher use of technology prospered. Regardless, the index is an excellent instrument for developing general guidelines in assessing employment within the local area and region.

Thank you very much for your support of the JSU Economic Update. We look forward to providing additional, timely economic data to assist you with business and economic planning. Please contact us at JSU Center for Economic Development and Business Research whenever we may assist you.

Sincerely,



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Editor

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