Regional Economic Research Institute

INDUSTRY DIVERSIFICATION REPORT
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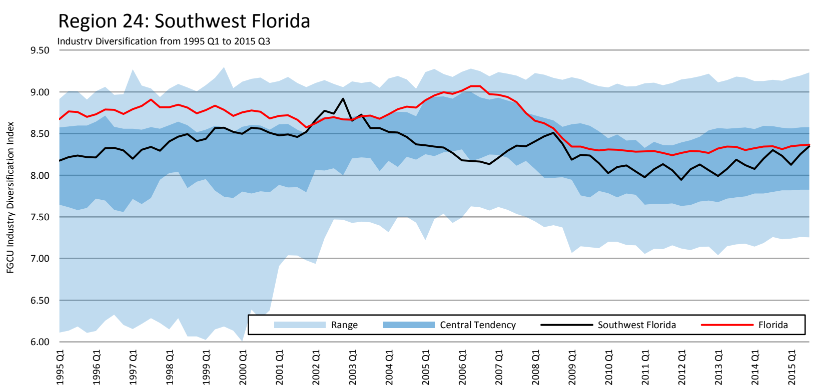
- **Industry diversification for the Southwest Florida region increased to 8.348 for the 3rd quarter of 2015. This resulted in Southwest Florida jumping to 10th out of all 24 workforce regions.**
- **Industry diversification for the state of Florida remained stagnant, remaining at 8.500 for the 3rd quarter of 2015. This resulted in Florida dropping to 29th out of all 50 states.**
- **While the Southeast region of the United States remains as one of the least concentrated regions in the country, Florida has yet to catch up.**

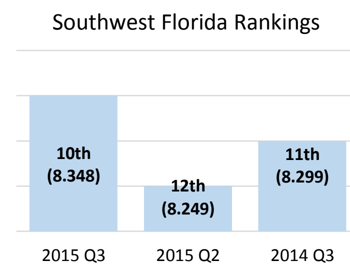
Southwest Florida

The *FGCU Industry Diversification Index* for the Southwest Florida workforce region—comprising Charlotte, Collier, Glades, Hendry, and Lee counties—rose in the third quarter of 2015, indicating an increase in workforce diversification for that time period. The workforce region's *IDI* was measured at 8.348, which was higher than the 2nd quarter of 2015 (measured at 8.249). It was also higher than the 3rd quarter of 2014 (measured at 8.299). Southwest Florida also ranked as the 10th most diversified workforce region in the state, out of 24 total regions. The Index can register between 0 and 10, with 0 being the least diversified, and 10 being the most diversified.

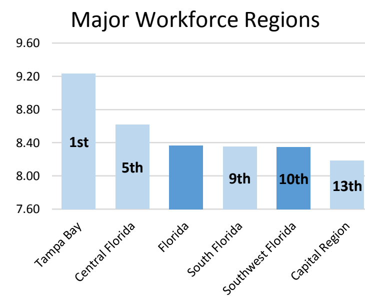


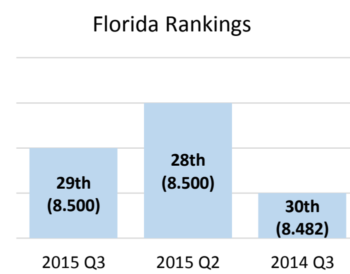
Source: FGCU Industry Diversification Index calculated by the RERI, using data obtained from the Quarterly Census of Employment and Wages.

Industry diversification measures for Southwest Florida typically reflect the region's seasonality, resulting on higher Index measures during quarters spanning April through September, and lower Index measures during quarters spanning October through March. During those times of the year during which the region is characterized by an influx of tourists and seasonal residents, industry concentration tends to increase as the leisure and hospitality, retail, and other service sectors expand to meet seasonal demand. However, as those industries cut back during the late spring and summer months, the region's workforce tends to become diversified when those sectors cut back operations.



Note: FGCU Industry Diversification index in parenthesis.





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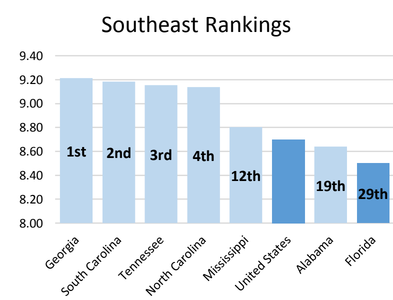
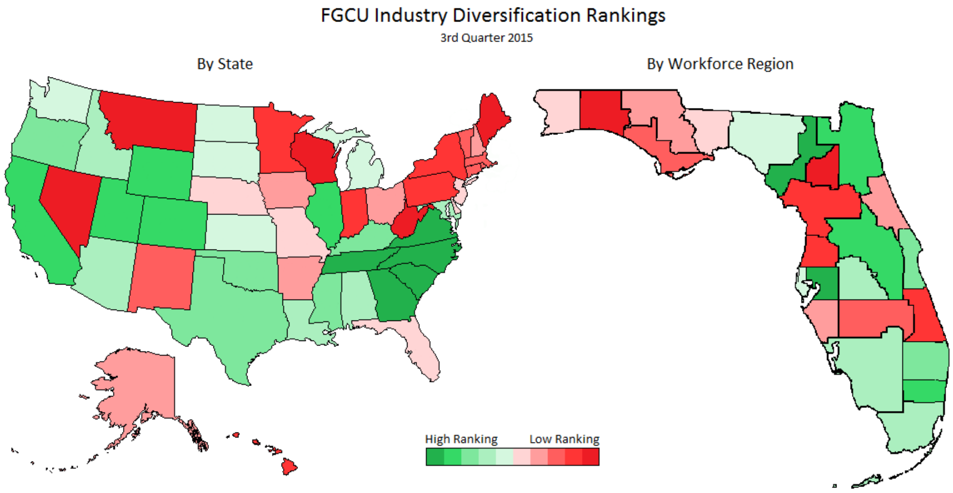


Florida



While the state of Florida's workforce experienced no change in industry diversification in the 3rd quarter of 2015, it dropped in the United States rankings. Florida's *IDI* was measured at 8.500, which was identical to the 2nd quarter of 2015, although an increase from the 3rd quarter of 2014 (measured at 8.482). Florida also ranked as the 29th most diverse state workforce in the country, behind New Jersey (8.514) and ahead of Delaware (8.469). This ranking registered a decline from the 2nd quarter of 2015 (28th) but an increase from the 3rd quarter of 2014 (30th). The state of Florida continues to rank in the bottom of the Southeast Region of the United States, where 5 of the 7 states are more economically diversified than the U.S. average.

The complete rankings for the *FGCU Industry Diversification Index*, including data for each of the 50 states and for the 24 workforce regions within Florida, as well as the ability to track industry diversification over time, will soon be made available on the RERI's web site.

What is the FGCU Industry Diversification Index?

Beginning in the first quarter of 2016, the Regional Economic Research Institute designed the *FGCU Industry Diversification Index*. The goal of the *IDI* is to measure industry diversification and, by extension, that of the workforce, in each of Florida's 24 workforce regions, the state of Florida, and the remaining 49 states. The index measure is computed quarterly, soon after the release of workforce data from the Florida Department of Economic Opportunity's Quarterly Census of Employment and Wages. It spans from 0 to 10, with 0 signifying no diversification (or an economy characterized by a single industry), and 10 signifying perfect diversification (no concentration).

Why is industry diversification important?

A diversified economy provides many advantages to both producers and consumers who comprise it. In particular, states and regions with diversified economies can weather business cycle downturns and unanticipated supply and demand shocks more easily. An example often cited in the economics literature is that of Texas, which, following the decline in oil prices in 1986, fell into a deep, state-wide recession that underscored the need for economic diversification. Since then, Texas' economy has undergone significant sectoral shifts making it less dependent on the oil industry, which nonetheless remains an important contributor to gross state product. For more information, see Yücel, Mine K., and Thies, Jackson, "Oil and Gas Rises Again in a Diversified Texas," *Southwest Economy* (Dallas: Federal Reserve Bank of Dallas, 2011, pp. 10-13).

Arguably, industry diversification is as much an issue for the Florida economy as it was in Texas 30 years ago. Florida's comparative advantages as an economic region make it especially amenable to industries serving the retirement and tourist sectors. However, dependence on these sectors can cause it to overheat during periods of business cycle boom and overcorrect during times of business cycle bust.

Industry diversification also suggests (i) more employment options for workers and (ii) available types of skilled labor for employers.

How is the FGCU Industry Diversification Index calculated?

The index is calculated each quarter using employment data collected from the Quarterly Census of Employment and Wages. The employment data is used to calculate the share of employment from each of the 21 2-digit NAICS industry sectors. The top 5 shares from each region and state are used to calculate the *FGCU Industry Diversification Index*, using the following formula:

$$FGCU\ Industry\ Diversification\ Index = -10 * \left[1 - \left(1 + \frac{1}{N} - \left(\frac{2}{N^2 \bar{a}}\right)\left(\sum_{i=1}^{N} i a_{(i)}\right)\right)\right]$$

Where $a_{(i)}$ represents the i^{th} largest industry share for the region/state, N represents the number of industries used to calculate the index (in this case, $N = 5$), and $\bar{a}$ represents the average of the industry shares. The *FGCU Industry Diversification Index* is designed to take a value between 0 and 10, where the former would indicate a completely specialized economy and the latter would indicate an economy that is not concentrated in a particular industry. Furthermore, the higher a state or region is ranked in terms of the *FGCU Industry Diversification Index*, the less specialized the state or region.

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