2018 Florida Price Level Index

February 11, 2019

Jim Dewey Director of Economic Analysis Florida Polytechnic University

The Florida Price Level Index (FPLI) was established by the Legislature as the basis for the District Cost Differential in the Florida Education Finance Program. It represents the relative cost of hiring comparable personnel among Florida's school districts in a given year. The calculation uses wage data for hundreds of occupations across Florida's 67 counties collected by the Florida Department of Economic Opportunity's Bureau of Labor Market Statistics as part of the U.S. of Labor Statistics' Occupational Employment Statistics Survey.

The table below presents the 2018 FPLI, along with the 2017 and 2016 indices. The index is constructed so that the population-weighted average is 100. The median Floridian, ranked by 2018 county FPLI, lives in Hillsborough County, with an index value of 100.38. That is, less than half of Floridians live in counties with index values greater than 100.38, less than half in counties with index values less than 100.38, and the rest live in Hillsborough County. The 11 counties with index values over 100.38 account for 49.82 percent of the state's population and the 55 counties with index values below 100.38 account for 43.45 percent.

The map on the next page displays the distribution of the FPLI across Florida. As population density increases, workers face higher housing costs, longer commutes, or both, for which they are compensated by higher wages. Therefore, although many things affect counties' FPLI values, counties that are more urban tend to have higher values.

County	2018	2017	2016	County	2018	2017	2016	County	2018	2017	2016
Alachua	97.51	97.45	96.43	Hamilton	90.64	90.89	91.03	Okaloosa	99.25	99.34	98.69
Baker	96.91	96.79	96.94	Hardee	95.37	94.76	95.12	Okeechobee	97.53	96.98	97.29
Bay	96.53	96.77	95.93	Hendry	100.09	99.58	98.34	Orange	100.85	100.87	100.71
Bradford	96.28	96.22	96.37	Hernando	95.74	96.05	96.51	Osceola	98.53	98.53	98.38
Brevard	98.59	98.43	98.29	Highlands	94.5	94.18	93.01	Palm Beach	105.26	105.04	105.67
Broward	102.41	102.27	102.71	Hillsborough	100.38	100.66	101.14	Pasco	97.76	97.96	98.43
Calhoun	92.1	92.51	91.71	Holmes	92.74	92.78	92.16	Pinellas	99.61	99.82	100.33
Charlotte	98.53	98.23	97	Indian River	100.11	100.18	100.54	Polk	96.05	96.20	96.50
Citrus	93.67	93.77	93.45	Jackson	92.24	93.06	91.3	Putnam	95.07	95.06	95.21
Clay	98.84	98.83	98.98	Jefferson	94	94.35	93.51	Saint Johns	100.98	101.02	100.29
Collier	106.27	106.01	104.69	Lafayette	90.8	90.67	89.73	Saint Lucie	100.29	99.81	99.86
Columbia	93.82	94.26	93.35	Lake	97.52	97.38	97.23	Santa Rosa	96.92	96.95	96.79
Dade	101.63	101.79	102.33	Lee	102.59	102.23	100.95	Sarasota	100.94	100.39	100.16
De Soto	97.08	96.68	95.71	Leon	96.78	97.16	96.3	Seminole	99.30	99.44	99.28
Dixie	92.59	92.1	91.14	Levy	94.34	94.07	93.09	Sumter	96.49	96.03	95.07
Duval	101.16	101.18	101.34	Liberty	92.17	92.08	91.27	Suwannee	92.40	92.70	91.41
Escambia	96.92	97.29	96.6	Madison	91.44	91.86	90.33	Taylor	91.18	92.08	90.42
Flagler	94.69	94.67	93.92	Manatee	98.45	98.07	97.85	Union	95.06	95.15	95.30
Franklin	92.09	93.11	91.13	Marion	93.59	93.88	93.29	Volusia	95.73	95.72	95.57
Gadsden	94.28	94.6	93.76	Martin	102.2	101.83	101.89	Wakulla	94.39	94.66	93.82
Gilchrist	94.4	94.22	93.24	Monroe	106.39	105.47	103.33	Walton	98.01	98.06	96.47
Glades	98.61	97.87	96.87	Nassau	98.88	98.76	98.58	Washington	92.81	92.99	92.18
Gulf	93.11	93.22	92.41								

This report is available at https://floridapoly.edu/wp-content/uploads/2018fpli.pdf and https://www.fldoe.org/fefp/. The FPLI is the result of a collaboration between Florida Polytechnic University's Center for Applied Economic Analysis and the University of Florida's Bureau of Economic and Business Research.

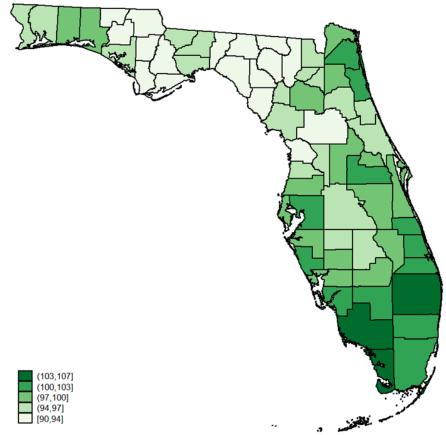
About the FPLI

The FPLI is a wage index comparing the cost of hiring a state average worker among Florida's 67 counties. The first step in calculating the FPLI is to make an initial estimate of relative wage differences between counties holding occupation constant. This means that, all else equal, a county's index is not impacted by having more or less workers in high wage occupations, but rather by having higher or lower wages within given occupations compared to the same occupations in other counties.

Wage differences related to labor market size as measured population or employment, due for example to associated differences in land costs or commute times, are more pronounced for occupations that tend to locate at denser locations within a given labor market. The initial estimation uses statistical procedures to account for this tendency. Two additional steps are then undertaken improve accuracy-statistical to smoothing and geographic smoothing.

One would expect counties that are very similar on other readily observable characteristics to have similar FPLI values, all else equal. However, prior to adoption of the current methodology, counties that appeared similar on readily observable characteristics sometimes substantially different FPLI values, even when the margin of error was high enough there was little reason to believe there was an actual Statistical difference. smoothing ensures counties that are otherwise similar have similar index values unless the margin of error of the initial estimate supports the conclusion that there is a real difference.

To implement statistical smoothing, the relationship between the initial index estimate and readily observable county characteristics,



such as the size and age distribution of the population and per capita income, is used to predict an index value for each county. This predicted value and the initial estimate are combined by taking a weighted average of the two according to their relative precision. To illustrate, if the variance of the predicted index is two-thirds the variance of the initial index estimate, the weight placed on the initial index in the weighted average, 0.4, is two-thirds the weight placed on the predicted index, 0.6.

Similarly, the law of one price implies wages in nearby counties cannot sustainably differ from one another by more than justified by the cost of commuting between them. However, prior to adoption of the current methodology, neighboring counties sometimes had implausibly different FPLI values. Geographic smoothing ensures differences between nearby counties do not exceed what is consistent with their geographic proximity.

Due to the lack of appropriate wage data when the FPLI was established, its calculation relied on a market-basket methodology prior to 2003. The relative cost of a market basket of goods and services purchased by consumers was taken to represent probable wage variation, which was not directly measured. However, other things being equal, places that are more productive, and thus more attractive to firms, will have higher wages and prices, while places that are more pleasant in which to live, and thus more attractive to workers, will have lower wages and higher prices. Consequently, the market-basket approach did not measure differences among school districts in the cost of hiring comparable personnel as well as the current comparable wage approach, which is based directly on observed wage data.