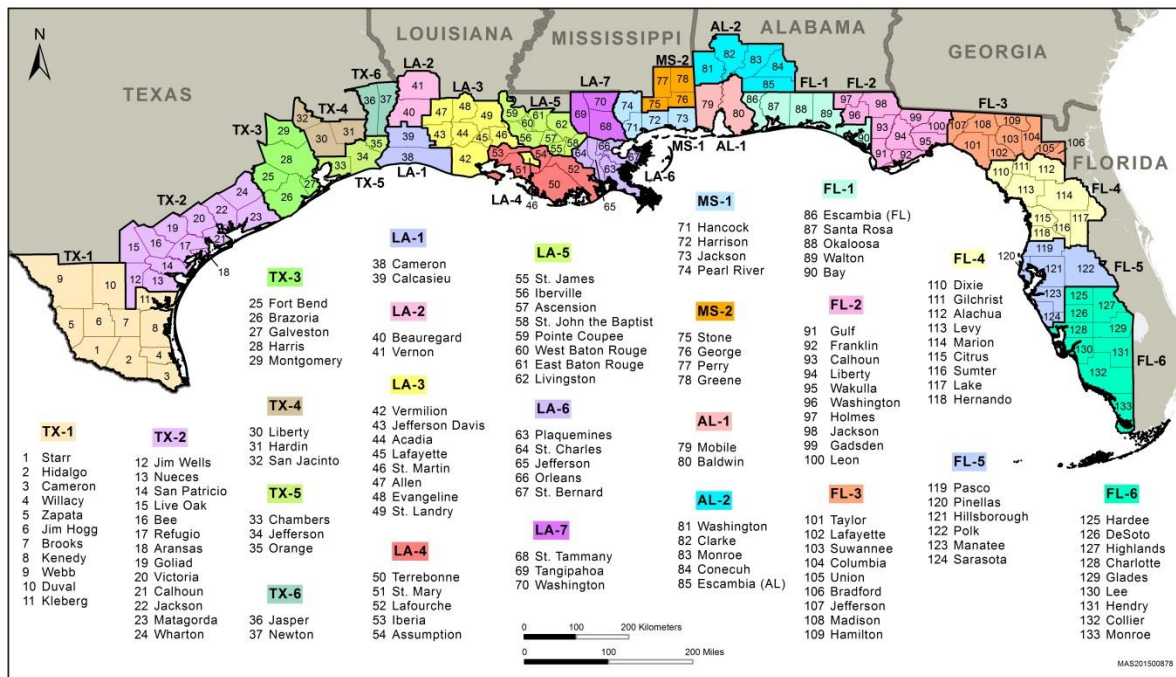


Finalizing and Describing New Economic Impact Areas for the Gulf of Mexico Region



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Authors

Drew A. Varnado
James M. Fannin

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Summary

Coastal regions provide economic support to the offshore oil and gas industry in terms of labor markets, physical inputs, infrastructure, distribution channels, and post-extraction product markets. However, these regions are vulnerable to normal oil and gas market volatility, natural disasters (such as hurricanes), and environmental challenges (such as oil spills). The Bureau of Ocean Energy Management (BOEM) has been interested in identifying the optimal definitions of the geographic areas that are measurably influenced by offshore energy extraction activities. This study finalizes a new set of Economic Impact Areas (EIAs) for the Gulf of Mexico region. This report first describes the methods used to develop the EIAs, then provides various summary statistics regarding the EIAs.

This study builds on the methods of Fannin et al. (2018), which used total trade region clusters, commuting (labor market) region clusters, and energy trade region clusters to aggregate counties and parishes into economically-linked EIAs. When two or more counties were located in the same regional cluster for both total trade and commuting, they were joined together in the same EIA. When groupings using total trade and commuting data were incongruent, the energy trade cluster was used as a tie-breaker to decide which of two adjacent regions a county or parish should be assigned.

However, because this approach did not perform well in goodness-of-fit testing, this study uses a Qualitative Comparative Analysis (QCA) as an improved approach for determining which EIAs to assign counties and parishes for which trade and commuting data were incongruent. The QCA analysis uses fuzzy-set theory to estimate the homogeneity of socioeconomic indicators when determining EIA definitions. The approach gives first priority in defining EIAs to the labor market and trade economic functions, and secondary priority to the homogeneity of overall socioeconomic conditions. This study also incorporated some BOEM planning and administrative needs, such as including additional Florida counties, and organizing EIAs by state. These processes aggregate 133 Gulf Coast counties and parishes into 23 EIAs.

This report also includes statistical comparisons of (1) the group of 133 counties and parishes included in the EIAs compared to the entire five-state Gulf Coast region and to the United States (super-regional), (2) each of the EIA regions as a whole as compared to each of the other EIA regions as a whole (inter-regional), and (3) the counties or parishes within each EIA compared to the other counties or parishes in that EIA (intra-regional).

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1. Overview of Bureau of Ocean Energy Management (BOEM) Economic Impact Area Procedures

Coastal regions provide economic support to the offshore oil and gas industry in terms of labor markets, physical inputs, infrastructure, distribution channels, and post-extraction product markets. However, these regions are vulnerable to normal oil and gas market volatility, natural disasters (such as hurricanes), and environmental challenges (such as oil spills). The Bureau of Ocean Energy Management (BOEM) has been interested in identifying the optimal definitions of the geographic areas that are measurably influenced by offshore energy extraction activities. This technical report finalizes new Economic Impact Areas (EIAs) for the Gulf of Mexico (Gulf) region. These EIAs will be used in economic models, such as MAG-PLAN GOM (Kaplan et al., 2016). These EIAs will also be used in broader analyses, such as in environmental impact statements prepared in accordance with the National Environmental Policy Act. The EIAs will allow BOEM to compare areas using a consistent structure that is based on analysis of trade, commuting, and demographic data.

This study builds on the methods of Fannin et al. (2018), who developed initial versions of EIAs by analyzing labor market, total trade, and oil and gas trade clusters. Chapter 1.1 describes these methods in detail. Fannin et al. (2018) provided clear dividing lines for some EIAs, but other EIA divisions were less clear. Some counties and parishes had connections to two different EIAs or were connected with one EIA by commuting and a different EIA by trade linkages. Incongruities of this nature identified several “fringe” counties and parishes that do not lie clearly in a single EIA.

This study applies fuzzy set theory using a Qualitative Comparative Analysis (QCA) as an improved approach for determining which EIAs to assign fringe counties. The details of the QCA analysis are described in Section 1.3. This study also includes Florida counties in the analysis for future planning purposes (as described in Section 1.2). Because BOEM often needs state-specific information, this study also develops EIAs that do not cross state boundaries. However, Fannin et al. (2018) provides information about some of the cross-state economic linkages among EIAs.

Figure 1 presents the final Gulf economic impact areas. 133 counties and parishes were aggregated into 23 EIAs. Each of the 23 EIA regions contain between two and thirteen counties and parishes from Texas, Louisiana, Mississippi, Alabama, and Florida. There is an average of 5.8 counties per EIA region. Louisiana contains seven regions; Texas and Florida each contain six regions; and Mississippi and Alabama each contain two EIA regions. At the county-parish level, there are 48 counties from Florida, 37 from Texas, 33 from Louisiana, eight from Mississippi, and seven from Alabama.

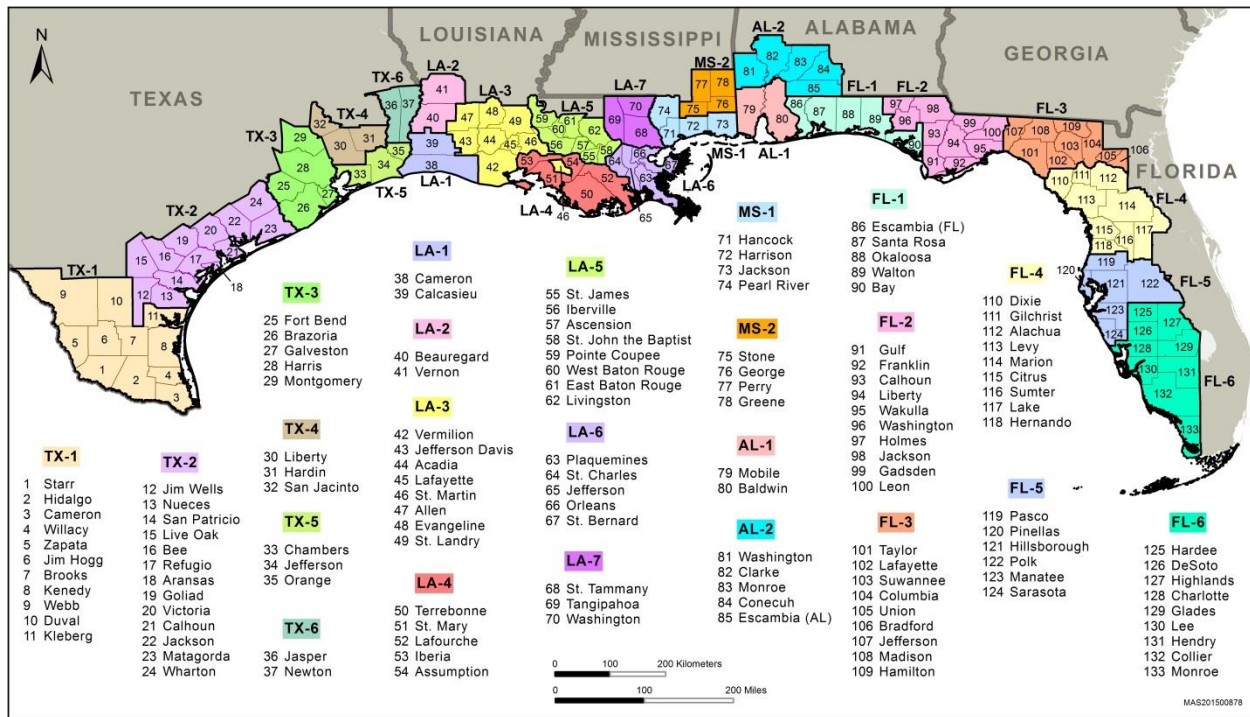


Figure 1. Counties and Parishes by Economic Impact Area

1.1 Cluster Analysis

Using aggregations of labor market areas, ICF Consulting, Inc. (2005) defined EIAs for the Gulf offshore oil and gas industry. This approach resulted in 13 regions from Texas to the Florida panhandle; the Atlantic peninsular counties of Florida were not included.

Fannin et al. (2018) assert that the labor market approach alone may be insufficient in identifying appropriate OCS regions of influence, and that estimates of socio-economic impacts of OCS industrial activity would benefit from the identification of alternative regional definitions. Fannin et al. (2018) employed a SAS clustering method similar to the approach of Tolbert and Sizer (1996). Using a Local Employment Dynamics (LED) dataset from the U.S. Census Bureau (2010), which contains estimates of county and sub-county commuting-to-work patterns, Fannin et al. (2018) replicated the typical labor market approach with updated data. This yielded 30 distinct commuting regions. Fannin et al. (2018) also used IMPLAN county trade data to create two additional regional classifications: one used all-industry county trade and the second used oil and gas industry county trade. The all-trade map contained 37 regions and the oil- and gas-trade map contained 39 regions.

Fannin et al. (2018) then analyzed the statistical performance of the three regional classifications. In particular, 21 regression models were run on each of the three alternative regional classifications. Each of the 21 regressions had the same independent variables: n-1 dummy variables for the n regions in that particular regional classification. However, each of the 21 regression equations had a different dependent variable. Five of the dependent variables were demographic: population, poverty rate, per capita income, educational attainment, and population density. The other 16 dependent variables were location quotients for OCS related industries, as identified by Fannin et al. (2018). These location quotients represent an industry's activity density in a particular region as compared to the region as a whole. The all-trade and commuting regional classifications showed better statistical fit than the oil- and gas-trade classification.

Therefore, the initial draft regions were based on the all-trade and commuting regional classification approaches. When counties or parishes were split into separate regions in the all-trade and commuting classifications, the authors considered the ICF Consulting, Inc. (2005) classifications, the oil-and gas-trade classification, and other factors.

1.2 Florida Counties

ICF Consulting, Inc. (2005) included counties along the west coast of Florida in its EIA definitions. However, Fannin et al. (2018) determined that 24 of the considered counties from the Florida peninsula should be excluded from the EIA regions based on location quotient results that suggested little measurable OCS oil and gas industrial activity. After conferring with BOEM, we included the Florida peninsular counties in the EIA definitions discussed in this report, in consideration of possible future OCS oil and gas or renewable energy activities in these counties. Including the Florida counties also gives BOEM a consistent method for aggregating counties for other types of analysis, such as analyzing the socioeconomic impacts of oil spills.

We re-applied the methods of Fannin et al. (2018) to the new set of Florida counties. However, to the extent that the economic structures of the Florida counties change in the future, the results of the regression equations will become less valid. Three alternative strategies were considered for the special inclusion of these counties: adding a single EIA containing all 24 counties; dividing the counties into two EIAs, or dividing the counties into three different EIAs. The all-trade classification and the commuting classification revealed that a three region EIA solution was most appropriate, so the 24 peninsular counties were divided into three new EIAs.

1.3 Qualitative Comparison Analysis

The blended cluster analysis in Fannin et al. (2018) allowed for delineation of EIAs based on commuting and trade patterns for most counties. However, the commuting and all-trade specifications disagreed on where 22 “fringe” counties should be placed. This report supplements Fannin et al. (2018) by performing a Qualitative Comparison Analysis (QCA) of demographic variables to determine in which EIAs these fringe counties were placed.

A QCA allows for varying types of data to be compiled into a single index so that qualitative data from geographies of different sizes and structures can be directly compared to one another. This makes QCA an ideal tool for using demographic data to place fringe counties into EIAs. Eight variables (in five categories) were identified for use in the QCA analysis:

- 1) Education: educational attainment (*EDUC*) (U.S. Census Bureau, 2015a)
- 2) Education: high school dropout rates (*DROPOUT*) (Alabama State Department of Education, Florida Department of Education, Louisiana Department of Education, Mississippi Department of Education, and Texas Education Agency)
- 3) Labor: labor force participation rate (*LFP*) (U.S. Census Bureau, 2015b)
- 4) Labor: average weekly wage per job (*WAGE/JOB*) (U.S. Bureau of Economic Analysis, 2015)
- 5) Race: percent minority population (*%MINPOP*) (U.S. Census Bureau, 2015c)
- 6) Health: mortality rate (*MORT*) (National Center for Health Statistics, 2015)
- 7) Health: obesity rate (*OBESE*) (Centers for Disease Control and Prevention, 2015)
- 8) Social capital: number civic organizations per establishment (*CIVEST*) (U.S. Census Bureau, 2015d)

These demographic categories and variables were chosen based on the economic wealth creation literature, such as Pender et al. (2012; 2014).

The QCA follows Rihoux and Ragin (2009). QCA begins with data normalization. That is, the data are scaled down to measures between zero and one. This is performed so that variables with higher values (e.g., *WAGE/JOB* [\$1,200]) do not automatically out weight smaller-valued variables (e.g., *DROPOUT* [1.2% or .012]) in any calculations or comparisons due strictly to the scales of the variables.

Following Ragin (1989) and Rihoux and Ragin (2009), we divide the range of each normalized variable into quintiles which are then ranked. A ranking of one designates that the observation is in the lowest quintile and a ranking of five designates the highest quintile. These quintiles further remove scale and magnitude from influence over the analysis, leaving only the qualitative aspects of the data and allowing variables to be compared directly to one another. Further, this ranking allows for calculating an index for each county or parish. These indices will be used for comparison of a fringe county to each of the EIA's to which the county has linkages.

As a demonstration, consider regions TX-3 and TX-4. In Fannin et al. (2018), Harris County was placed in region TX-3, but has trade linkages (and is contiguous) to region TX-4. We use QCA to decide whether Harris County should be included in region TX-3 or region TX-4. The raw data for this analysis are presented in Table 1.

Table 1. Example: Raw Data for QCA

| County | EIA | EDUC | DROP OUT | LFP | WAGE/ JOB | %MINPOP | MORT | OBESE | CIVEST |
|-------------|------|-------|-------------|-------|--------------|---------|-------|-------|--------|
| Brazoria | TX-3 | 0.347 | 0.016 | 0.496 | \$876 | 0.277 | 0.060 | 0.281 | 0.019 |
| Fort Bend | TX-3 | 0.471 | 0.015 | 0.530 | \$928 | 0.472 | 0.041 | 0.254 | 0.010 |
| Galveston | TX-3 | 0.354 | 0.017 | 0.514 | \$804 | 0.252 | 0.008 | 0.275 | 0.046 |
| Harris | TX-3 | 0.336 | 0.030 | 0.510 | \$1154 | 0.407 | 0.054 | 0.267 | 0.016 |
| Montgomery | TX-3 | 0.370 | 0.014 | 0.524 | \$868 | 0.144 | 0.062 | 0.250 | 0.013 |
| Chambers | TX-4 | 0.248 | 0.000 | 0.507 | \$959 | 0.195 | 0.024 | 0.281 | 0.000 |
| Liberty | TX-4 | 0.132 | 0.013 | 0.429 | \$744 | 0.212 | 0.092 | 0.283 | 0.039 |
| San Jacinto | TX-4 | 0.160 | 0.004 | 0.424 | \$636 | 0.159 | 0.111 | 0.276 | 0.056 |

Following Ragin (1989), the data are normalized. Fortunately, seven of the eight variables are percentages, which are already normalized. The only variable that needs modification is the average weekly wage. In this case, we normalize by

$$w_{p,norm} = \frac{w_p}{\max(w_1, w_2, \dots, w_n)},$$

which takes each county's observation as its wage's percentage of the highest average weekly wage in the dataset, \$1,266. Thus, each observation has a lower bound of zero and an upper bound of one. The results after normalization are in Table 2.

Table 2. Example: Normalized Data for QCA

| County | EIA | EDUC | DROP OUT | LFP | WAGE/ JOB | %MIN POP | MORT | OBESE | CIVEST |
|-------------|------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|
| Brazoria | TX-3 | 0.347 | 0.016 | 0.496 | 0.692 | 0.277 | 0.060 | 0.281 | 0.019 |
| Fort Bend | TX-3 | 0.471 | 0.015 | 0.530 | 0.733 | 0.472 | 0.041 | 0.254 | 0.010 |
| Galveston | TX-3 | 0.354 | 0.017 | 0.514 | 0.635 | 0.252 | 0.008 | 0.275 | 0.046 |
| Harris | TX-3 | 0.336 | 0.030 | 0.510 | 0.912 | 0.407 | 0.054 | 0.267 | 0.016 |
| Montgomery | TX-3 | 0.370 | 0.014 | 0.524 | 0.686 | 0.144 | 0.062 | 0.250 | 0.013 |
| Chambers | TX-4 | 0.248 | 0.000 | 0.507 | 0.758 | 0.195 | 0.024 | 0.281 | 0.000 |
| Liberty | TX-4 | 0.132 | 0.013 | 0.429 | 0.588 | 0.212 | 0.092 | 0.283 | 0.039 |
| San Jacinto | TX-4 | 0.160 | 0.004 | 0.424 | 0.502 | 0.159 | 0.111 | 0.276 | 0.056 |
| dataset min | | 0.090 | 0.000 | 0.310 | 0.400 | 0.030 | 0.010 | 0.230 | 0.000 |
| dataset max | | 0.510 | 0.220 | 0.650 | 1.000 | 0.660 | 0.420 | 0.390 | 0.270 |
| Q1 | | .009 -.176 | .000 -.043 | .310 -.381 | .400 -.517 | .030 -.157 | .001 -.090 | .230 -.263 | .000 -.053 |
| Q2 | | .176 -.260 | .043 -.086 | .381 -.448 | .517 -.637 | .157 -.282 | .090 -.173 | .263 -.295 | .050 -.107 |
| Q3 | | .260 -.344 | .086 -.129 | .448 -.516 | .637 -.758 | .282 -.407 | .173 -.256 | .295 -.328 | .107 -.161 |
| Q4 | | .344 -.427 | .129 -.173 | .516 -.583 | .758 -.879 | .407 -.532 | .256 -.339 | .328 -.360 | .161 -.214 |
| Q5 | | .427 -.511 | .172 -.216 | .583 -.651 | .879 -1.000 | .532 -.658 | .339 -.422 | .360 -.393 | .214 -.268 |

Also in Table 2 are the maximum and minimum values for the entire dataset for each variable. The range of each variable is divided into quintiles, whose ranges are included at the bottom of Table 2. These quintiles are used to rank the observation of each variable, and the rankings are presented in Table 3.

Table 3. Example: Rankings for QCA

| County | EIA | EDUC | DROP OUT | LFP | WAGE/ JOB | %MINPOP | MORT | OBESE | CIVEST |
|-------------|------|------|----------|-----|-----------|---------|------|-------|--------|
| Brazoria | TX-3 | 4 | 1 | 4 | 3 | 2 | 1 | 2 | 1 |
| Fort Bend | TX-3 | 5 | 1 | 4 | 3 | 4 | 1 | 1 | 1 |
| Galveston | TX-3 | 4 | 1 | 3 | 2 | 2 | 1 | 2 | 1 |
| Harris | TX-3 | 3 | 1 | 3 | 5 | 3 | 1 | 2 | 1 |
| Montgomery | TX-3 | 4 | 1 | 4 | 3 | 1 | 1 | 1 | 1 |
| Chambers | TX-4 | 2 | 1 | 3 | 3 | 2 | 1 | 2 | 1 |
| Liberty | TX-4 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 |
| San Jacinto | TX-4 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 |

One of the key advantages of this type of QCA analysis and the use of these fuzzy sets is that, after the normalization and ordinal rankings of observations, the QCA analysis is a set of simple average and difference calculations. Because this example analysis seeks to place Harris County in either TX-3 or TX-4, its ordinal observations are compared to the averages of those regions. It is important to note that the average of region three is calculated without the Harris County observations in order to avoid endogenous dependence. This analysis is in Table 4.

Table 4. Example: QCA Comparison

| | <i>EDUC</i> | <i>DROP OUT</i> | <i>LFP</i> | <i>WAGE/ JOB</i> | <i>%MINPOP</i> | <i>MORT</i> | <i>OBESE</i> | <i>CIVEST</i> | |
|----------------------------|-------------|---------------------|------------|----------------------|----------------|-------------|--------------|---------------|--------------|
| Harris County | 3.00 | 1.00 | 3.00 | 5.00 | 3.00 | 1.00 | 2.00 | 1.00 | |
| Region TX-3 average | 4.33 | 1.00 | 3.67 | 2.67 | 2.67 | 1.00 | 1.67 | 1.00 | |
| Region TX-4 average | 2.00 | 1.00 | 2.75 | 2.25 | 1.75 | 1.50 | 1.75 | 1.25 | |
| Differences | | | | | | | | | |
| Region TX-3 | 1.33 | 0.00 | 0.67 | -2.33 | -0.33 | 0.00 | -0.33 | 0.00 | |
| Region TX-4 | -1.00 | 0.00 | -0.25 | -2.75 | -1.25 | 0.50 | -0.25 | 0.25 | |
| Squared Differences | | | | | | | | | SUM |
| Region TX-3 | 1.7689 | 0.00 | 0.4489 | 5.4289 | 0.1089 | 0.00 | 0.1089 | 0.0000 | 7.86 |
| Region TX-4 | 1.0000 | 0.00 | 0.0625 | 7.5625 | 1.5625 | 0.25 | 0.0625 | 0.0625 | 10.56 |

The comparison is done through a sum-squared-difference analysis. The first step is to calculate the differences between Harris County and each of the regional averages (as done in the second section of Table 4). Then those differences are squared in the third section of Table 4 in order to eliminate any influence of negative numbers. Finally, those squared differences are added up to create an index for which a lower number reflects a closer relationship (shown in the bottom right corner of Table 4). In this case, Harris County is shown to have a closer demographic relationship with region TX-3 than with TX-4, according to these variables.

The results of the complete analysis of 133 counties originally divided into the 23 EIAs re-assigns five counties from their original EIA classification (See Table 5).

Table 5. QCA Movements by Iteration

| County | First Iteration | Second Iteration | Third Iteration |
|-----------------------------|------------------------|-------------------------|------------------------|
| Jim Wells County, TX | TX-1 to TX-2 | Confirmed TX-2 | Confirmed TX-2 |
| Chambers County, TX | TX-4 to TX-5 | Confirmed TX-5 | Confirmed TX-5 |
| Hardin County, TX | TX-5 to TX-4 | Confirmed TX-4 | Confirmed TX-4 |
| Jefferson County, TX | TX-5 to TX-4 | TX-4 to TX-5 | Confirmed TX-5 |
| Iberia Parish, LA | LA-3 to LA-4 | Confirmed LA-4 | Confirmed LA-4 |

To assure stability in the regions, the entire QCA analysis was run again with the new regions. This helped ensure regional stability in EIAs with multiple fringe counties. The second round of QCA calculations confirmed four of the five county moves. That is, Jim Wells County, Chambers County, Hardin County, and Iberia Parish remain more strongly linked with their new regions (with all changes implemented) than with their old regions.

However, Jefferson County moves back to its original group, TX-5. This second iteration move can be attributed to the new configuration of TX-4 and TX-5, which swapped counties in the first iteration. With the original makeup of the EIAs Jefferson County was more strongly linked with TX-4; however, after the first round of analysis, Jefferson County identifies more heavily with TX-5. Thus, the second iteration of the QCA has only one move: Jefferson County moved back to TX-5. All fringe counties that were included in the first iteration of the analysis were also included in the second iteration of the analysis. Further, a third iteration was run in order to confirm that the second iteration moves are stable and all EIAs are confirmed which implies no other moves. The QCA analysis completed on the original draft EIAs results in a set of final EIA regions listed in Table 6.

Table 6. Final EIA Regions

| | | | | | |
|-------------------------|------|---------------------------------|------|-------------------------|------|
| Baldwin County, AL | AL-1 | Charlotte County, FL | FL-6 | Hancock County, MS | MS-1 |
| Mobile County, AL | AL-1 | Collier County, FL | FL-6 | Harrison County, MS | MS-1 |
| | | DeSoto County, FL | FL-6 | Jackson County, MS | MS-1 |
| Clarke County, AL | AL-2 | Glades County, FL | FL-6 | Pearl River County, MS | MS-1 |
| Conecuh County, AL | AL-2 | Hardee County, FL | FL-6 | | |
| Escambia County, AL | AL-2 | Hendry County, FL | FL-6 | George County, MS | MS-2 |
| Monroe County, AL | AL-2 | Highlands County, FL | FL-6 | Greene County, MS | MS-2 |
| Washington County, AL | AL-2 | Lee County, FL | FL-6 | Perry County, MS | MS-2 |
| | | Monroe County, FL | FL-6 | Stone County, MS | MS-2 |
| Bay County, FL | FL-1 | | | | |
| Escambia County, FL | FL-1 | Calcasieu Parish, LA | LA-1 | Brooks County, TX | TX-1 |
| Okaloosa County, FL | FL-1 | Cameron Parish, LA | LA-1 | Cameron County, TX | TX-1 |
| Santa Rosa County, FL | FL-1 | | | Duval County, TX | TX-1 |
| Walton County, FL | FL-1 | Beauregard Parish, LA | LA-2 | Hidalgo County, TX | TX-1 |
| | | Vernon Parish, LA | LA-2 | Jim Hogg County, TX | TX-1 |
| Calhoun County, FL | FL-2 | | | Kenedy County, TX | TX-1 |
| Franklin County, FL | FL-2 | Acadia Parish, LA | LA-3 | Kleberg County, TX | TX-1 |
| Gadsden County, FL | FL-2 | Allen Parish, LA | LA-3 | Starr County, TX | TX-1 |
| Gulf County, FL | FL-2 | Evangeline Parish, LA | LA-3 | Webb County, TX | TX-1 |
| Holmes County, FL | FL-2 | Jefferson Davis Parish, LA | LA-3 | Willacy County, TX | TX-1 |
| Jackson County, FL | FL-2 | Lafayette Parish, LA | LA-3 | Zapata County, TX | TX-1 |
| Leon County, FL | FL-2 | St. Landry Parish, LA | LA-3 | | |
| Liberty County, FL | FL-2 | St. Martin Parish, LA | LA-3 | Aransas County, TX | TX-2 |
| Wakulla County, FL | FL-2 | Vermilion Parish, LA | LA-3 | Bee County, TX | TX-2 |
| Washington County, FL | FL-2 | | | Calhoun County, TX | TX-2 |
| | | Assumption Parish, LA | LA-4 | Goliad County, TX | TX-2 |
| Bradford County, FL | FL-3 | Iberia Parish, LA | LA-4 | Jackson County, TX | TX-2 |
| Columbia County, FL | FL-3 | Lafourche Parish, LA | LA-4 | Jim Wells County, TX | TX-2 |
| Hamilton County, FL | FL-3 | St. Mary Parish, LA | LA-4 | Live Oak County, TX | TX-2 |
| Jefferson County, FL | FL-3 | Terrebonne Parish, LA | LA-4 | Matagorda County, TX | TX-2 |
| Lafayette County, FL | FL-3 | | | Nueces County, TX | TX-2 |
| Madison County, FL | FL-3 | Ascension Parish, LA | LA-5 | Refugio County, TX | TX-2 |
| Suwannee County, FL | FL-3 | East Baton Rouge Parish, LA | LA-5 | San Patricio County, TX | TX-2 |
| Taylor County, FL | FL-3 | Iberville Parish, LA | LA-5 | Victoria County, TX | TX-2 |
| Union County, FL | FL-3 | Livingston Parish, LA | LA-5 | Wharton County, TX | TX-2 |
| | | Pointe Coupee Parish, LA | LA-5 | | |
| Alachua County, FL | FL-4 | St. James Parish, LA | LA-5 | Brazoria County, TX | TX-3 |
| Citrus County, FL | FL-4 | St. John the Baptist Parish, LA | LA-5 | Fort Bend County, TX | TX-3 |
| Dixie County, FL | FL-4 | West Baton Rouge Parish, LA | LA-5 | Galveston County, TX | TX-3 |
| Gilchrist County, FL | FL-4 | | | Harris County, TX | TX-3 |
| Hernando County, FL | FL-4 | Jefferson Parish, LA | LA-6 | Montgomery County, TX | TX-3 |
| Lake County, FL | FL-4 | Orleans Parish, LA | LA-6 | | |
| Levy County, FL | FL-4 | Plaquemines Parish, LA | LA-6 | Hardin County, TX | TX-4 |
| Marion County, FL | FL-4 | St. Bernard Parish, LA | LA-6 | Liberty County, TX | TX-4 |
| Sumter County, FL | FL-4 | St. Charles Parish, LA | LA-6 | San Jacinto County, TX | TX-4 |
| Hillsborough County, FL | FL-5 | St. Tammany Parish, LA | LA-7 | Chambers County, TX | TX-5 |
| Manatee County, FL | FL-5 | Tangipahoa Parish, LA | LA-7 | Jefferson County, TX | TX-5 |
| Pasco County, FL | FL-5 | Washington Parish, LA | LA-7 | Orange County, TX | TX-5 |
| Pinellas County, FL | FL-5 | | | | |
| Polk County, FL | FL-5 | | | Jasper County, TX | TX-6 |
| Sarasota County, FL | FL-5 | | | Newton County, TX | TX-6 |

2. Statistical Reports on EIA Regions

2.1 Introduction to Statistical Reports

This chapter presents various data about the EIAs described in Chapter 1. This data will help users of the EIAs better understand the economic structures of the EIAs. These statistical reports are divided into three sections: (1) comparisons of the aggregate EIA Region (composed of the 23 EIAs) to the five-state Gulf Coast region as well as to the U.S. (Section 2.2); (2) inter-regional comparisons of EIAs to one another and as part of the larger aggregate EIA region (Section 2.3); and (3) an intra-regional report for each of the 23 EIAs (Sections 2.3 to 2.26).

2.2 Comparison of all EIA Counties and Parishes as a Single Region to the Five-State Gulf Coast Region and the U.S.

This section presents comparisons of the EIA counties to the Five-State Gulf Coast Region and to the United States. Section 2.2.1 describes the methodologies used to develop measures of Gross Domestic Product (GDP) and place-of-work earnings for aggregations of North American Industry Classification System (NAICS) sectors that are particularly relevant to the offshore oil and gas industry. This section will then present data regarding GDP (2.2.2), place-of-work earnings (2.2.3), employment (2.2.4), personal income (2.2.5), and demographics (2.2.6).

2.2.1 Gross Domestic Product and Earnings by Place-of-Work Oil and Gas Industry Clusters

GDP and earnings by place-of-work are two of the primary economic indicators for showing place-based economic production of a region. Earnings include wages and salaries, supplements to wages and salaries, and proprietor income (these are place-of-work based measures, differing from personal income, which is a place-of-residence statistic that accounts for wages, salaries, and supplements). In addition to place-of-work earnings, the income approach to calculating GDP contains indirect business taxes as well as corporate and institutional profits.

Emsi (2015) provides county-level earnings data at the detailed (six-digit) industry specification. However, GDP estimates at the county level are only available at three-digit NAICS industry specifications; county-level GDP was estimated using the techniques described in Varnado and Fannin (2015). In order to optimize the data resources available, this study defines oil-and-gas-related activities differently for the two measures. Oil-and-gas-related industries for the GDP data are identified by NAICS codes 211 (Oil and Gas Extraction) and 213 (Support Activities for Mining). Oil- and gas-related industries for the earnings data are presented based on a more refined list of relevant sectors. Table 7 lists the oil and gas sectors included for the GDP and earnings data. All oil and gas industry data presented in this report aggregate onshore and offshore activities because the data sources used do not provide disaggregation based on the geographic source of the oil or gas.

Table 7. Oil and Gas Industry Compositions for GDP and Earnings by Place-of-Work

| Variable | Oil and Gas Industry Definitions | |
|----------|--|--|
| | 3-Digit NAICS | 6-digit NAICS |
| GDP | 211 - Oil and Gas Extraction | 211111 - Crude Petroleum and Natural Gas Extraction |
| | | 211112 - Natural Gas Liquid Extraction |
| | 213 - Support Activities for Mining | 213111 - Drilling Oil and Gas Wells |
| | | 213112 - Support Activities for Oil and Gas Operations |
| | | 213113 - Support Activities for Coal Mining |
| | | 213114 - Support Activities for Metal Mining |
| | | 213115 - Support Activities for Nonmetallic Minerals (except Fuels) Mining |
| Earnings | | 211111 - Crude Petroleum and Natural Gas Extraction |
| | | 211112 - Natural Gas Liquid Extraction |
| | | 213111 - Drilling Oil and Gas Wells |
| | | 213112 - Support Activities for Oil and Gas Operations |
| | | 221210 - Natural Gas Distribution |
| | | 237120 - Oil and Gas Pipeline and Related Structures |
| | Construction | |
| | | 324110 - Petroleum Refineries |
| | | 325100* - Basic Chemical Manufacturing |
| | | 333132 - Oil and Gas Field Machinery and Equipment Manufact. |
| | | 336610 - Ship and Boat Building |
| | | 424700* - Petroleum and Petroleum Products Manufacturing |
| | | 486110 - Pipeline Transportation of Crude Oil |
| | 486210 - Pipeline Transportation of Natural Gas | |
| | 486910 - Pipeline Transportation of Refined Petroleum Products | |

* - indicates an aggregated sector including all NAICS sectors under the 4-digit NAICS code

2.2.2 Gross Domestic Product

Table 8 presents GDP data for 2010–2013 for the U.S., the five-state Gulf Coast region, and the EIA counties. The U.S. produced \$16.7 trillion in GDP in 2013. Of the total U.S. GDP, the five-state Gulf Coast region produced 17.2%; the 133 EIA counties produced 6.6% of national GDP and 38.5% of the Gulf Coast region’s GDP in 2013.

Table 8. GDP by Geographic Region from 2010 to 2013

| (in billions of dollars) | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|--------------------------|-----------|---------------------------|-----------|--------------|-----------|--------------|
| Year | Total GDP | Total GDP | % of U.S. | Total GDP | % of U.S. | % of 5-State |
| 2010 | 14,964.4 | 2,480.4 | 16.6 | 953.8 | 6.4 | 38.5 |
| 2011 | 15,517.9 | 2,614.4 | 16.8 | 1,009.3 | 6.5 | 38.6 |
| 2012 | 16,163.2 | 2,774.5 | 17.2 | 1,067.4 | 6.6 | 38.5 |
| 2013 | 16,768.1 | 2,885.4 | 17.2 | 1,109.8 | 6.6 | 38.5 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Figure 2 shows the growth in GDP for the EIA counties, the five-state Gulf Coast region, and the U.S. from 2010 to 2013. From 2010 to 2012 GDP growth in the five-state Gulf Coast area and the EIA regions outpaced national GDP growth by at least 1.5% in each period. However, from 2012 to 2013 GDP growth at the three geographies converged near 4% with the Gulf Coast and EIA regions’ GDP only slightly outgrowing national GDP.

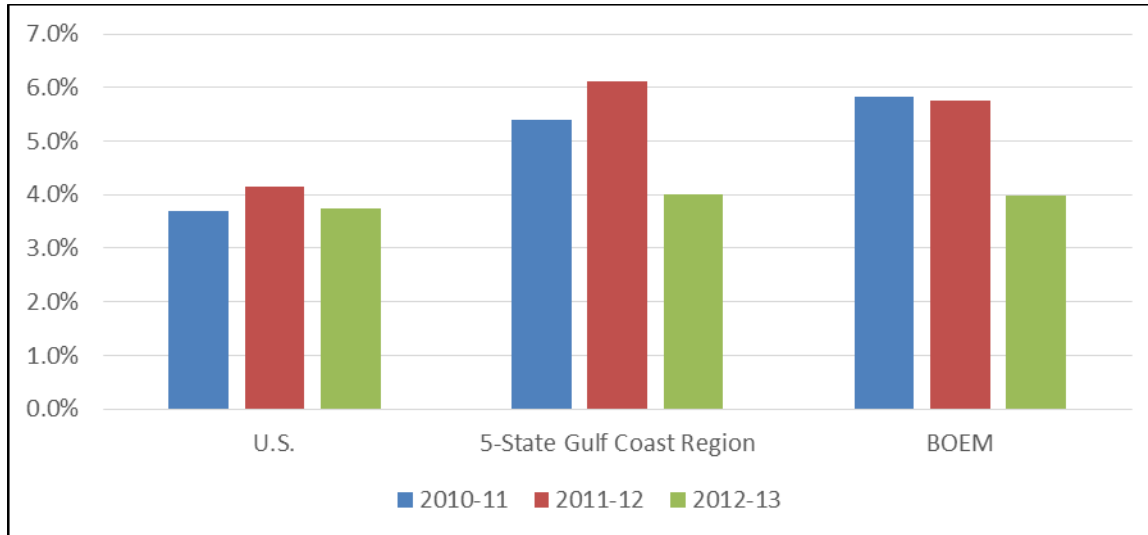


Figure 2. GDP Growth by Geographic Region from 2010 to 2013.

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 9 contains estimates of oil and gas GDP (using the sector definitions in Table 7). Varnado and Fannin (2015) developed these estimates using methods evaluated by Barreca, Fannin, and Detre (2012). These data are county-level GDP estimates by industry and have been aggregated to match the industry composition of the BEA state-level GDP by industry data and are driven by detailed industry earnings data.

Table 9. Oil and Gas GDP by Geographic Area from 2010 to 2012

| (in billions of dollars) | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|--------------------------|---------|---------------------------|-----------|--------------|-----------|--------------|
| Year | O&G GDP | O&G GDP | % of U.S. | O&G GDP | % of U.S. | % of 5-State |
| 2010 | 210.4 | 158.5 | 75.3 | 87.1 | 41.4 | 55.0 |
| 2011 | 260.7 | 199.7 | 76.6 | 112.4 | 43.1 | 56.3 |
| 2012 | 268.9 | 217.6 | 80.9 | 127.7 | 47.5 | 58.7 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The estimates in Table 9 show that the U.S. produced \$268.9 billion in GDP from oil- and gas- related industries in 2012 (GDP estimates for 2013 were unavailable due to unavailability of source data). Of the 2012 national oil and gas GDP, 80.9% came from the five-state Gulf Coast region directly and 47.5% from the 133 EIA counties. The aggregate EIA region produced 58.7% of the oil and gas GDP within the five-state Gulf Coast region.

Figure 3 shows the percentage of GDP produced within a region in oil- and gas- related industrial activity. The percentage of national GDP produced in oil- and gas-related industries remains relatively consistent at just below 2%. The EIA counties rely most heavily on oil and gas industrial activity with the percentage of total GDP produced in those industries ranging from 9.1% in 2010 to 12.0% in 2013. The Gulf Coast regional oil and gas production rose consistently over the time period, peaking at 7.8% of total GDP in 2012.

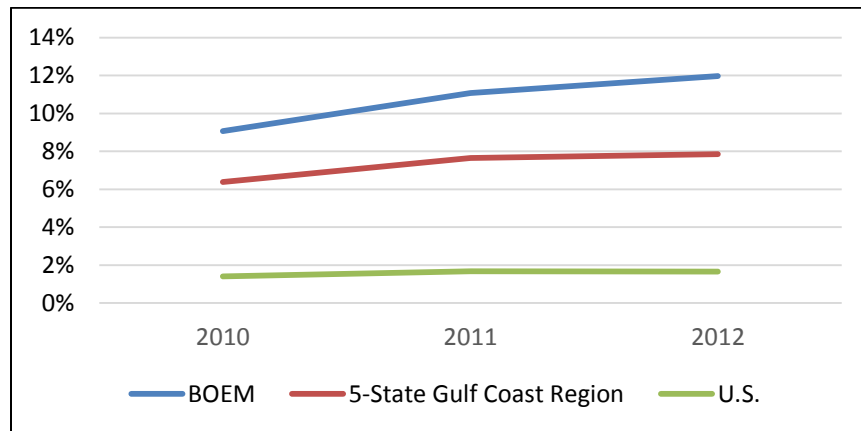


Figure 3. Percentage of Total GDP Produced in Oil and Gas Sectors

Source: Varnado and Fannin (2015) and Emsi (2015)

2.2.3 Earnings by Place-of-Work

In 2013, the U.S. produced \$8.8 trillion in total place-of-work earnings. Of those earnings, the five-state Gulf Coast Region produced 17.6%; the 133 EIA counties produced 6.7% of the national total and 38.0% of the five-state total. Place-of-work earnings data for 2010 to 2013 are presented in Table 10.

Table 10. Place-of-Work Earnings by Geographic Region from 2010 to 2013

| (in billions of dollars) | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|--------------------------|----------------|---------------------------|-----------|----------------|-----------|--------------|
| Year | Total Earnings | Total Earnings | % of U.S. | Total Earnings | % of U.S. | % of 5-State |
| 2010 | 7,962.4 | 1,362.2 | 17.1 | 515.9 | 6.5 | 37.9 |
| 2011 | 8,270.1 | 1,415.0 | 17.1 | 537.6 | 6.5 | 38.0 |
| 2012 | 8,607.8 | 1,504.7 | 17.5 | 570.1 | 6.6 | 37.9 |
| 2013 | 8,846.1 | 1,555.1 | 17.6 | 590.4 | 6.7 | 38.0 |

Source: Emsi (2015)

Figure 4 shows the growth in earnings by place-of-work for the EIA counties, the five-state Gulf Coast region, and U.S. from 2010 to 2013. All growth was positive and ranged from 2.8% to 6.3% annually, depending on the geographic region. Earnings in the EIA counties and five-state region grew at nearly the same rate in each of the time periods. However, earnings growth in the EIA counties and the five-state region were generally higher than national earnings growth.

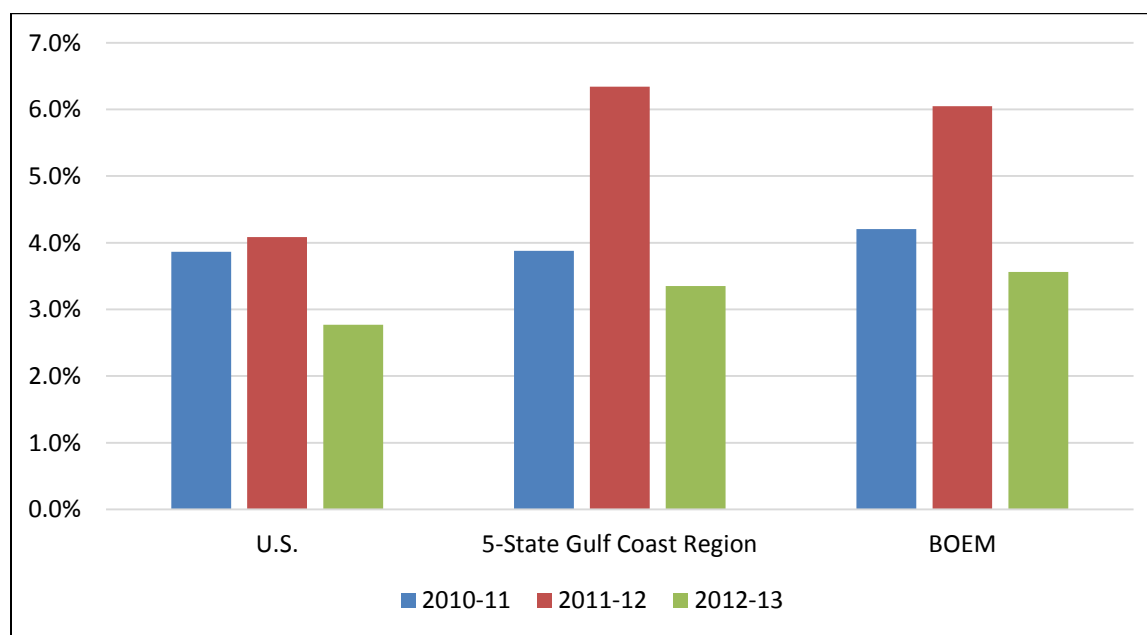


Figure 4. Place-of-Work Earnings Growth by Geographic Region from 2010 to 2013

Source: Emsi (2015)

Place-of-work earnings for the oil and gas industry are presented in Table 11 (see Table 7 for the oil and gas industry specifications for place-of-work earnings). In 2013, the U.S. produced a total of \$123.8 billion in earnings for oil- and gas-related industries, down from 2012. Of the national oil and gas earnings, 65.5% (or \$81.1 billion) of those earnings came from the five-state region while 44.3% (or \$54.8 billion) came from the EIA counties. Of the \$81.1 billion in oil and gas industry earnings produced in the five-state Gulf Coast region in 2013, 67.6% was produced in the EIA counties. The EIA counties

produce less than 7% of the total place-of-work earnings in the U.S. (all industries), but produced 44.3% of the national oil- and gas-related industry earnings by place-of-work in 2013.

Table 11. Oil and Gas Earnings by Place-of-Work by Geographic Region from 2010 to 2013

| (in billions of dollars) | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|--------------------------|--------------|---------------------------|-----------|--------------|-----------|--------------|
| Year | O&G Earnings | O&G Earnings | % of U.S. | O&G Earnings | % of U.S. | % of 5-State |
| 2010 | 112.7 | 69.3 | 61.5 | 44.6 | 39.6 | 64.4 |
| 2011 | 139.7 | 73.7 | 52.7 | 48.1 | 34.4 | 65.3 |
| 2012 | 143.4 | 78.8 | 54.9 | 52.9 | 36.9 | 67.1 |
| 2013 | 123.8 | 81.1 | 65.5 | 54.8 | 44.3 | 67.6 |

Source: Emsi (2015)

Figure 5 shows the percentage of total earnings by place-of-work earned in oil- and gas-related industries. The data show very little fluctuation: there is less than a 1% change over 4 years for any geographic region. The U.S. at-large relies on oil- and gas-related industries for an annual average of 1.5% of total place-of-work earnings. The five-state region relies more on the oil and gas industries with an annual average representing 5.2% of total earnings. However, the EIA counties rely on oil and gas industries for an average of 9.1% of their total earnings by place-of-work over the time period, considerably more than the five-state region or the nation.

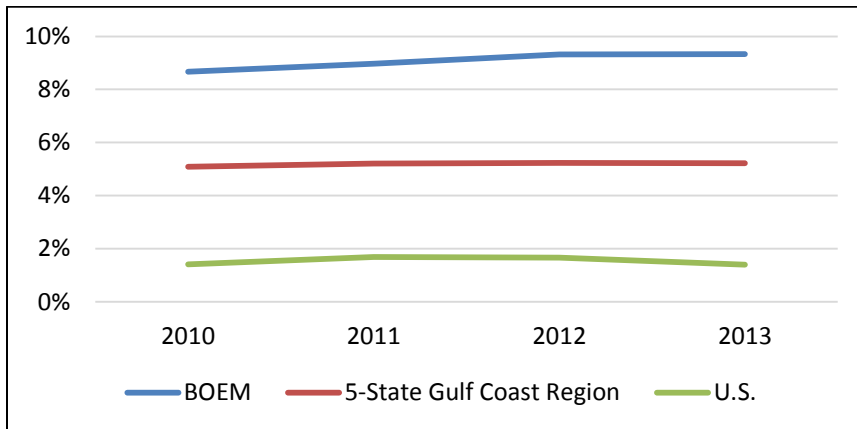


Figure 5. Percentage of Total Place-of-Work Earnings in Oil and Gas

Source: Emsi (2015)

2.2.4 Employment

The U.S. sourced 182.9 million jobs in 2013; 32.4 million (17.7%) and 11.9 million (6.5%) were sourced from the five-state Gulf Coast region and the EIA counties, respectively. Of the total number of jobs in the five-state region, 36.8% were sourced in the EIA counties. Table 12 compares total number of jobs among the U.S., five-state Gulf Coast region, and the EIA counties from 2010 to 2013.

Table 12. Total jobs by Geographic Region from 2010 to 2013

| Year | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|------|-------------|---------------------------|-----------|--------------|-----------|--------------|
| | Total Jobs | Total Jobs | % of U.S. | Total Jobs | % of U.S. | % of 5-State |
| 2010 | 172,995,820 | 30,224,194 | 17.5 | 11,108,323 | 6.4 | 36.8 |
| 2011 | 176,194,071 | 30,901,490 | 17.5 | 11,351,768 | 6.4 | 36.7 |
| 2012 | 179,424,096 | 31,565,638 | 17.6 | 11,594,694 | 6.5 | 36.7 |
| 2013 | 182,897,153 | 32,363,961 | 17.7 | 11,900,649 | 6.5 | 36.8 |

Source: Emsi (2015)

Figure 6 shows growth in employment for the EIA counties and the Gulf Coast region relative to the U.S. at large. The EIA counties and Gulf Coast region outpaced the national employment growth in each of the time periods, but all three geographies showed similar positive job growth. The difference between the growth rates of the EIA counties and the Gulf Coast region from year-to-year were small.

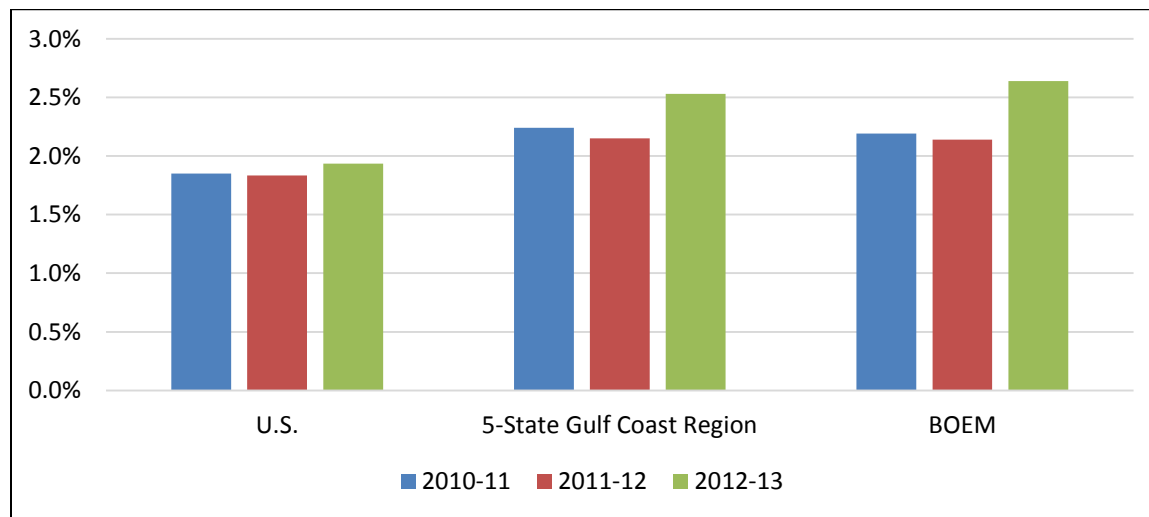


Figure 6. Total Jobs Growth by Geographic Region from 2010 to 2013

Source: Emsi (2015)

Table 13 shows the total jobs in oil- and gas-related industries by geography from 2010 to 2013 (see Table 7 for oil and gas industry specifications). In 2013 there were 1.7 million jobs in oil- and gas-related industries in the U.S. Of those jobs, 845,654 (or 48.7%) were from the Gulf Coast region and 450,066 (or 25.9%) were in the EIA counties. Approximately 53.2% of the total jobs in oil- and gas-related industries sourced from within the five-state Gulf Coast region were inside the EIA counties.

Table 13. Total Oil and Gas Jobs by Geographic Region from 2010 to 2013

| Year | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|------|-----------|---------------------------|-----------|--------------|-----------|--------------|
| | O&G Jobs | O&G Jobs | % of U.S. | O&G Jobs | % of U.S. | % of 5-State |
| 2010 | 1,598,162 | 759,525 | 47.5 | 395,590 | 24.8 | 52.1 |
| 2011 | 1,583,521 | 761,929 | 48.1 | 400,995 | 25.3 | 52.6 |
| 2012 | 1,694,930 | 822,396 | 48.5 | 433,251 | 25.6 | 52.7 |
| 2013 | 1,735,797 | 845,654 | 48.7 | 450,066 | 25.9 | 53.2 |

Source: Emsi (2015)

Figure 7 illustrates that the EIA counties have the highest percentage of total jobs in oil and gas industries. EIA counties depend on oil- and gas-related companies for 3.7% of total jobs average annually, which is more than the Gulf Coast region (2.4%). Both the Gulf Coast and EIA regions depend on oil and gas employment vastly more than the U.S., which only sources, on average, 0.9% of its total annual jobs in oil- and gas-related industries.

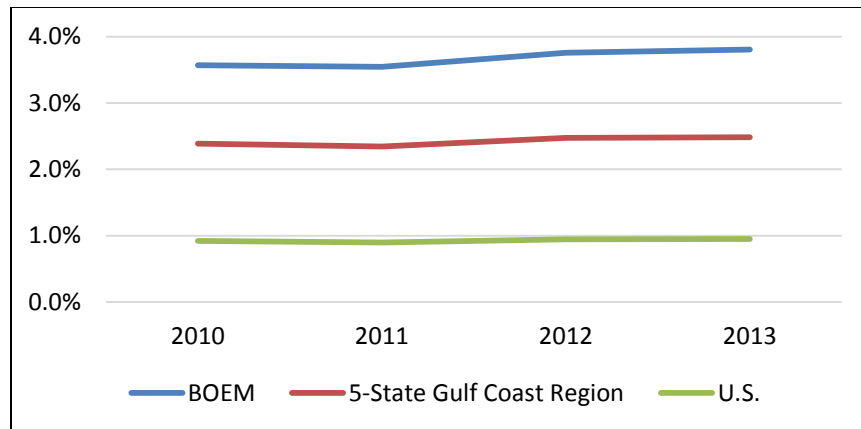


Figure 7. Percentage of Total Jobs in Oil and Gas Extraction Industries

Source: Emsi (2015)

2.2.5 Personal Income

The U.S. received a total of \$14.2 trillion in personal income in 2013. \$2.4 trillion (17.2%) was received in the five-state Gulf Coast region, while \$945.3 billion (6.7%) was received in the EIA counties. The EIA counties received 38.7% of the total personal income of the Gulf Coast region in 2013. Table 14 shows the personal income levels for each geographic area from 2010 to 2013.

Table 14. Total Personal Income by Geographic Region from 2010 to 2013

| (in billions of dollars) | U.S. | 5-State Gulf Coast Region | | EIA Counties | | |
|--------------------------|--------------|---------------------------|-----------|--------------|-----------|--------------|
| Year | Total Income | Total Income | % of U.S. | Total Income | % of U.S. | % of 5-State |
| 2010 | 12,429.0 | 2,109.0 | 17.0 | 817.9 | 6.6 | 38.8 |
| 2011 | 13,202.0 | 2,259.0 | 17.1 | 876.7 | 6.6 | 38.8 |
| 2012 | 13,887.0 | 2,380.6 | 17.1 | 920.8 | 6.6 | 38.7 |
| 2013 | 14,166.0 | 2,439.8 | 17.2 | 945.3 | 6.7 | 38.7 |

Source: Emsi (2015)

The growth rates in personal income by geographic area are presented in Figure 8. The three geographic regions had very similar growth rate paths, all of which consistently descended from 2010 to 2013. Though the five-state Gulf Coast and EIA regions showed higher personal income growth from 2010 to 2011 (nearly 1% higher than national growth), the rest of the data points were extremely similar across time and geography.

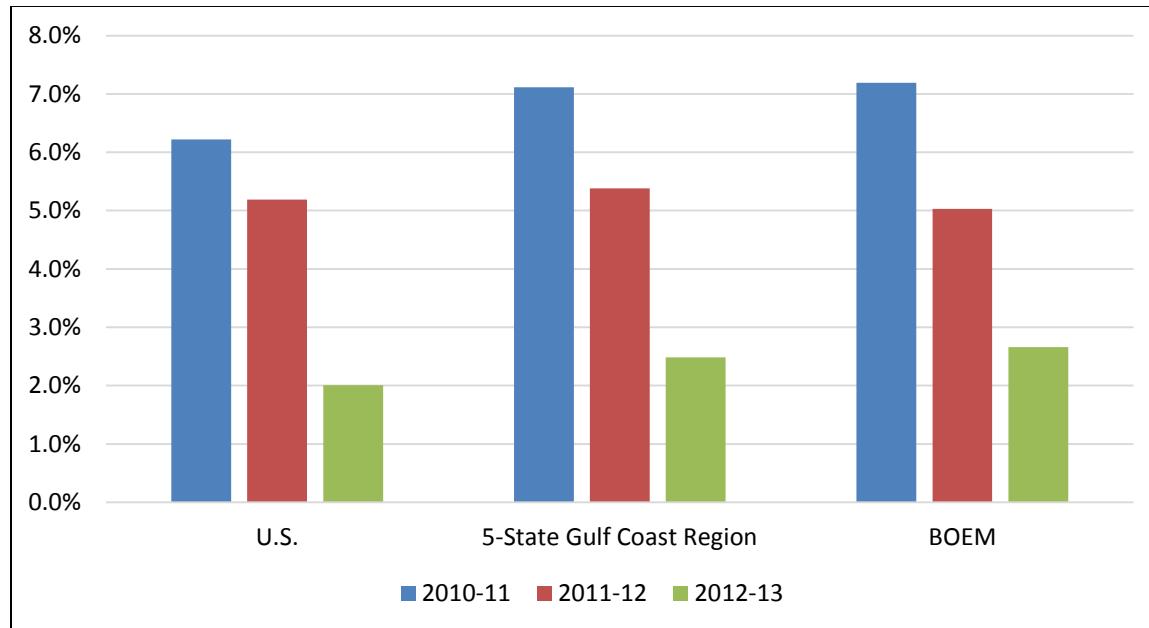


Figure 8. Personal Income Growth by Geographic Area from 2010 to 2013

Source: Emsi (2015)

Per capita income is another common measure of personal income. Though the Gulf Coast region had historical per capita income lower than the national average (which might be expected due to geographic location and relative economic trends), the growth paths were nearly identical. Figure 9 shows the growth for the Gulf Coast region against the national average from 2010 to 2013. Note also that the EIA per capita income growth started near \$32,500, but in 2013 the Gulf Coast region's per capita income outgrew the EIA region by approximately \$1,400.

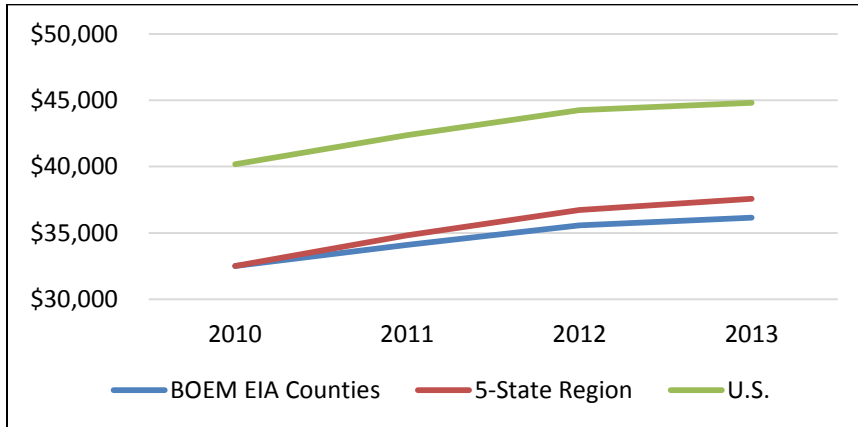


Figure 9. Per Capita Income by Geographic Region from 2010 to 2013
Source: Emsi (2015)

2.2.6 Demographics

The aggregate EIA region has a lower minority population percentage than either the Gulf Coast region or the nation. However, the trends for the EIA and Gulf Coast regions both decreased consistently while the national trend was positive and nearly linear, implying that the nation became slightly more racially diverse while the Gulf Coast became less diverse, as shown in Figure 10.

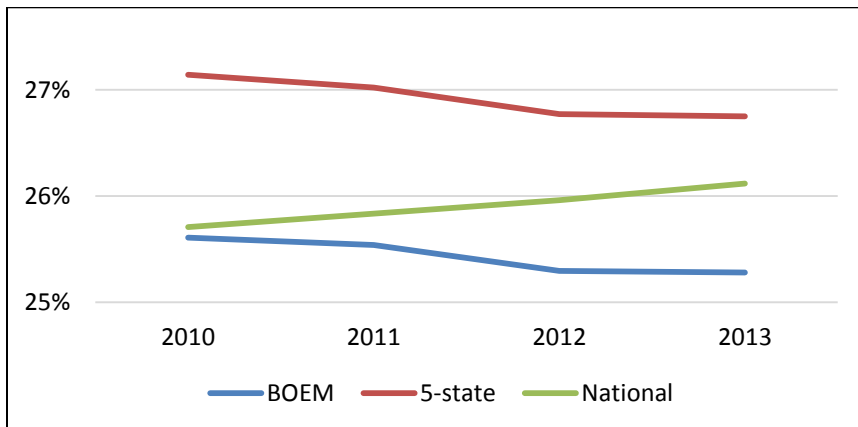


Figure 10. Percent Minority Population by Geographic Area
Source: U.S. Census Bureau (2015c)

The poverty rates for the Gulf Coast and EIA regions were very similar over the 2010 to 2013 period, as might be expected due to the EIA counties being a large subset of the five-state Gulf Coast region. The EIA region had slightly higher rates of poverty than the Gulf Coast region in each year. However, both of the geographies had poverty rates measurably higher than the U.S. as a whole. The data on poverty rates are from the U.S. Census Bureau (2015e) and are presented in Figure 11.

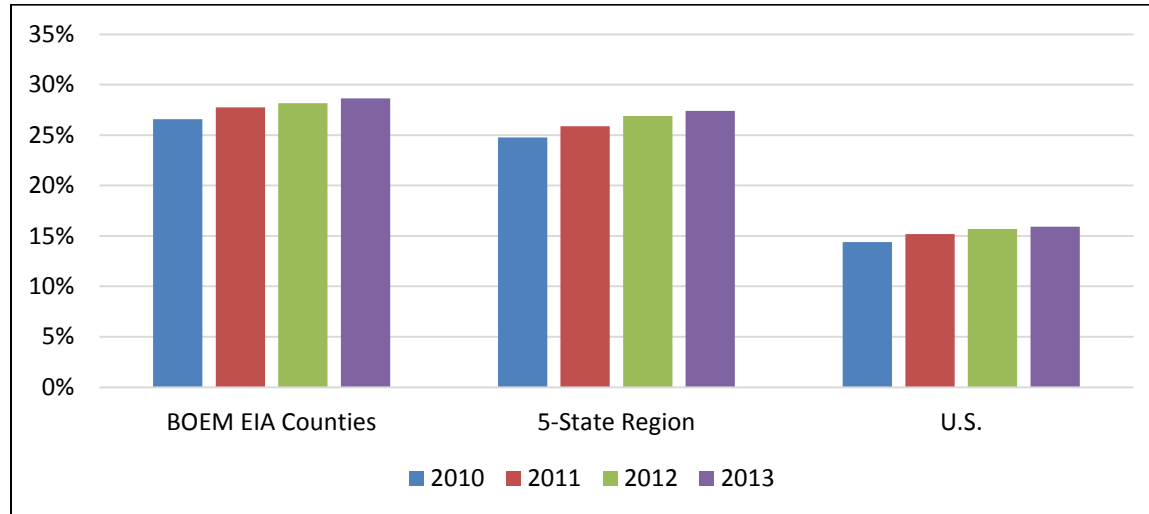


Figure 11. Percent of Population in Poverty by Geographic Region from 2010 to 2013

Source: U.S. Census Bureau (2015e)

2.3 Inter-Regional Comparison of the Economic Impact Areas (EIAs)

This section presents inter-regional comparisons of the EIAs. These data clarify the relative scales of the EIA economies and their relative structures. This section will present data about GDP (2.3.1), place-of-work earnings (2.3.2), employment (2.3.3), personal income (2.3.4), and demographics (2.3.5).

2.3.1 Gross Domestic Product

Gross Domestic Product estimates were developed using data from Emsi (2015) using the methods of Varnado and Fannin (2015). The aggregate EIA region produced a total GDP of \$1.1 trillion in 2013. Table 15 shows the EIAs' GDP from 2010 to 2013. In 2013, EIA region TX-3 produced 39.9% of the total GDP produced by the aggregate EIA region, by far the largest GDP produced by any EIA. TX-3 is the EIA centered on Houston, Texas, which is the largest economic hub in the U.S. South. The next largest GDP contribution was made by EIA FL-5 (14.8%). FL-5 contains the cities of Tampa and St. Petersburg and shares some area with the greater Orlando area (although it does not contain the city of Orlando). The high GDP in this EIA was likely due to its combination of metropolitan and metropolitan-adjacent areas.

Table 15. Total GDP by EIA from 2010 to 2013 (in dollars)

| EIA | 2010 | 2011 | 2012 | 2013 |
|------|----------------|----------------|----------------|----------------|
| AL-1 | 21,210,608,755 | 22,274,558,864 | 23,020,727,452 | 23,601,004,492 |
| AL-2 | 3,243,968,847 | 3,204,633,367 | 3,319,959,712 | 3,385,013,432 |
| FL-1 | 32,299,129,557 | 32,626,246,959 | 33,598,844,208 | 34,579,157,897 |
| FL-2 | 18,422,015,417 | 18,079,975,990 | 18,473,564,407 | 18,883,092,872 |
| FL-3 | 5,319,423,908 | 5,171,434,805 | 5,579,843,209 | 5,771,325,736 |

| EIA | 2010 | 2011 | 2012 | 2013 |
|--------------|------------------------|--------------------------|--------------------------|--------------------------|
| FL-4 | 34,586,491,984 | 34,954,499,998 | 36,460,519,182 | 37,871,377,040 |
| FL-5 | 150,563,052,059 | 152,827,132,741 | 158,340,108,737 | 164,591,796,196 |
| FL-6 | 43,999,698,256 | 44,577,450,339 | 46,750,505,120 | 49,308,069,494 |
| LA-1 | 10,197,291,065 | 10,728,279,621 | 11,304,564,389 | 11,459,481,452 |
| LA-2 | 3,639,242,051 | 3,786,626,353 | 3,780,113,883 | 3,587,759,660 |
| LA-3 | 27,312,549,177 | 28,819,049,599 | 30,244,296,135 | 30,720,062,013 |
| LA-4 | 20,094,892,302 | 20,688,129,987 | 22,376,327,194 | 23,419,803,698 |
| LA-5 | 47,214,242,546 | 49,127,937,065 | 51,971,111,024 | 53,472,914,908 |
| LA-6 | 58,734,941,675 | 60,743,002,263 | 61,416,895,836 | 61,221,554,354 |
| LA-7 | 15,493,296,665 | 16,242,157,643 | 16,658,166,518 | 16,816,578,063 |
| MS-1 | 16,443,999,121 | 16,246,355,599 | 16,457,802,082 | 17,067,352,656 |
| MS-2 | 1,121,679,813 | 1,155,394,590 | 1,280,166,830 | 1,325,823,634 |
| TX-1 | 39,343,989,215 | 42,162,675,702 | 44,770,885,603 | 46,529,656,327 |
| TX-2 | 30,123,324,679 | 32,750,632,016 | 35,361,946,801 | 36,906,351,685 |
| TX-3 | 352,320,629,126 | 388,957,959,905 | 420,157,375,275 | 442,904,339,313 |
| TX-4 | 3,346,719,971 | 3,640,968,765 | 3,999,074,793 | 4,112,334,631 |
| TX-5 | 17,559,937,609 | 19,181,851,623 | 20,342,902,579 | 20,591,324,768 |
| TX-6 | 1,252,962,041 | 1,350,237,059 | 1,718,844,586 | 1,713,567,111 |
| Total | 953,844,085,839 | 1,009,297,190,853 | 1,067,384,545,554 | 1,109,839,741,430 |

Source: Varnado and Fannin (2015) and Emsi (2015)

On the other end of the distribution, six different EIAs contributed less than one percent of the total GDP of the aggregate EIA region: AL-2, FL-3, LA-2, MS-2, TX-4, and TX-6. Of these, MS-2 contributed the least: 0.1% of the total GDP of the aggregate EIA region. EIA regions AL-2, LA-2, MS-2, TX-4, and TX-6 all contain a measurable number of on-shore counties that do not have coastline and contain no major metropolitan statistical areas (MSA) and generated lower levels of GDP in 2013. FL-3 has some coastline in Taylor and Jefferson counties, but these do not have extensive oil and gas activity and much of the region lies in the area between Tallahassee and Jacksonville, such that commuting from these EIA region counties to either MSA is prohibitive. In this situation, one might expect to see the larger, neighboring cities draw labor and economic activity away from the area covered by FL-3, and this could explain why FL-3 produced such a small share of total GDP of the aggregate EIA region. The 2013 distribution of total GDP among the EIAs is depicted in Figure 12.

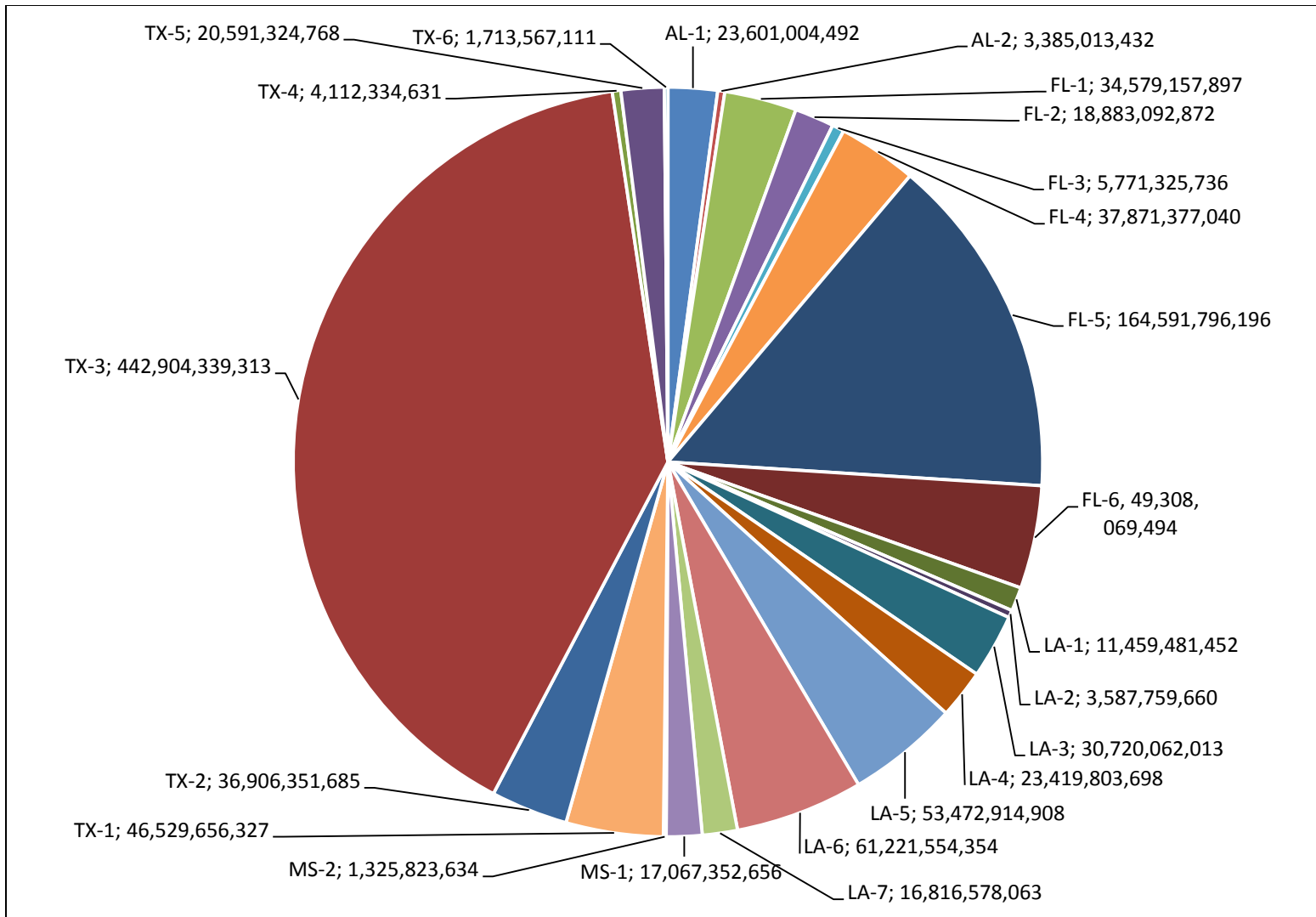


Figure 12. Total GDP by EIA for 2013 (in dollars)
 Source: Varnado and Fannin (2015) and Emsi (2015)

Table 16 presents data on the GDP produced in each EIA in oil- and gas-related industries (as designated by the GDP listings in Table 7) from 2010 to 2012. As discussed above, BEA has not released the industry detailed state-level estimates of GDP which drive these county-level estimates; thus the 2013 GDP cannot be estimated using Varnado and Fannin (2015) methods. Again, the city of Houston creates an outlier because TX-3 produces 71.3% of GDP in oil- and gas-related sectors; that is, there is more oil and gas GDP than the other 22 EIAs combined and more than all of the other individual EIA's total GDP except for FL-5.

Table 16. Oil and Gas GDP by EIA from 2010 to 2012 (in dollars)

| EIA | 2010 | 2011 | 2012 |
|--------------|-----------------------|------------------------|------------------------|
| AL-1 | 441,403,484 | 541,691,138 | 415,694,324 |
| AL-2 | 132,439,430 | 148,006,511 | 129,021,055 |
| FL-1 | 21,846,878 | 21,738,064 | 15,850,608 |
| FL-2 | 900,246 | 995,407 | 9,949,463 |
| FL-3 | 897,482 | 953,209 | 6,923,783 |
| FL-4 | 2,559,364 | 3,383,376 | 13,513,331 |
| FL-5 | 5,896,299 | 5,545,618 | 46,526,444 |
| FL-6 | 62,196,953 | 68,277,231 | 16,347,708 |
| LA-1 | 486,885,061 | 569,874,859 | 506,173,107 |
| LA-2 | 46,845,491 | 62,281,319 | 52,792,891 |
| LA-3 | 7,987,446,299 | 9,672,906,268 | 9,998,940,030 |
| LA-4 | 4,204,192,591 | 4,647,503,007 | 5,427,738,072 |
| LA-5 | 760,397,907 | 927,909,043 | 798,378,202 |
| LA-6 | 3,989,779,148 | 4,566,714,406 | 4,128,865,926 |
| LA-7 | 608,655,844 | 676,095,742 | 1,345,003,804 |
| MS-1 | 30,583,611 | 34,280,048 | 35,367,240 |
| MS-2 | 4,602,560 | 7,993,203 | 20,450,710 |
| TX-1 | 1,794,581,711 | 2,649,398,951 | 3,463,484,725 |
| TX-2 | 5,174,064,894 | 7,289,837,978 | 8,871,119,145 |
| TX-3 | 60,302,044,549 | 79,275,705,551 | 91,043,730,974 |
| TX-4 | 426,337,701 | 527,338,981 | 514,246,981 |
| TX-5 | 491,431,101 | 559,627,582 | 737,270,380 |
| TX-6 | 73,547,394 | 106,664,675 | 78,378,894 |
| Total | 87,049,535,998 | 112,364,722,168 | 127,675,767,797 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 17 shows the percentage of total oil and gas GDP produced in each EIA and the percentage of each EIA's total GDP produced in oil and gas industries from 2010 to 2012. In 2012, seven EIAs produced less than 1% of their total GDP in oil- and gas-related industries: all six of the Florida EIAs and MS-1. The Florida counties' economies were dominated by many other sectors so any coastal oil and gas operations were minimal relative to total GDP. MS-1 contains the Gulfport, MS MSA which has a large total economy but relatively little oil and gas activity. Five EIAs produced more than 10% of their total GDP in oil- and gas-related industries in 2012: LA-3, LA-4, TX-2, TX-3, and TX-4. All of these EIAs represent coastal regions that historically rely on offshore oil and gas activity for economic production.

Table 17. Percent of Total EIA Oil and Gas GDP and Percent of Total EIA GDP by EIA from 2010 to 2012

| EIA Region | 2010 | | 2011 | | 2012 | |
|--------------|-----------------------------|-----------------|-----------------------------|-----------------|-----------------------------|-----------------|
| | % Total EIA Oil and Gas GDP | % Total EIA GDP | % Total EIA Oil and Gas GDP | % Total EIA GDP | % Total EIA Oil and Gas GDP | % Total EIA GDP |
| AL-1 | 0.51 | 2.08 | 0.48 | 2.43 | 0.33 | 1.81 |
| AL-2 | 0.15 | 4.08 | 0.13 | 4.62 | 0.10 | 3.89 |
| FL-1 | 0.03 | 0.07 | 0.02 | 0.07 | 0.01 | 0.05 |
| FL-2 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.05 |
| FL-3 | 0.00 | 0.02 | 0.00 | 0.02 | 0.01 | 0.12 |
| FL-4 | 0.00 | 0.01 | 0.00 | 0.01 | 0.01 | 0.04 |
| FL-5 | 0.01 | 0.00 | 0.00 | 0.00 | 0.04 | 0.03 |
| FL-6 | 0.07 | 0.14 | 0.06 | 0.15 | 0.01 | 0.03 |
| LA-1 | 0.56 | 4.77 | 0.51 | 5.31 | 0.40 | 4.48 |
| LA-2 | 0.05 | 1.29 | 0.06 | 1.64 | 0.04 | 1.40 |
| LA-3 | 9.18 | 29.24 | 8.61 | 33.56 | 7.83 | 33.06 |
| LA-4 | 4.83 | 20.92 | 4.14 | 22.46 | 4.25 | 24.26 |
| LA-5 | 0.87 | 1.61 | 0.83 | 1.89 | 0.63 | 1.54 |
| LA-6 | 4.58 | 6.79 | 4.06 | 7.52 | 3.23 | 6.72 |
| LA-7 | 0.70 | 3.93 | 0.60 | 4.16 | 1.05 | 8.07 |
| MS-1 | 0.04 | 0.19 | 0.03 | 0.21 | 0.03 | 0.21 |
| MS-2 | 0.01 | 0.41 | 0.01 | 0.69 | 0.02 | 1.60 |
| TX-1 | 2.06 | 4.56 | 2.36 | 6.28 | 2.71 | 7.74 |
| TX-2 | 5.94 | 17.18 | 6.49 | 22.26 | 6.95 | 25.09 |
| TX-3 | 69.27 | 17.12 | 70.55 | 20.38 | 71.31 | 21.67 |
| TX-4 | 0.49 | 12.74 | 0.47 | 14.48 | 0.40 | 12.86 |
| TX-5 | 0.56 | 2.80 | 0.50 | 2.92 | 0.58 | 3.62 |
| TX-6 | 0.08 | 5.87 | 0.09 | 7.90 | 0.06 | 4.56 |
| Total | 100.00 | 9.13 | 100.00 | 11.13 | 100.00 | 11.96 |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.3.2 Earnings by Place-of-Work

Total earnings for the aggregate EIA region were \$590.4 billion in 2013, where the average EIA earned a total of \$25.6 billion. Approximately \$229.8 billion, or 38.9% of the aggregate EIA region's total earnings, came in TX-3, which again dominated the economic landscape of the Gulf Coast. TX-6 and MS-2 had total earnings less than \$1 billion, demonstrating the wide range of economic conditions across EIAs. The data on total place-of-work earnings by EIA from 2010 to 2013 are in Table 18. Figure 13 presents 2013 earnings data for each EIA.

Table 18. Total Earnings by EIA from 2010 to 2013 (in dollars)

| EIA | 2010 | 2011 | 2012 | 2013 |
|--------------|------------------------|------------------------|------------------------|------------------------|
| AL-1 | 12,404,951,325 | 12,955,243,527 | 13,393,092,679 | 13,692,233,407 |
| AL-2 | 1,897,223,984 | 1,863,866,573 | 1,931,499,698 | 1,963,831,413 |
| FL-1 | 18,356,588,265 | 18,778,416,227 | 19,728,190,102 | 20,169,043,514 |
| FL-2 | 10,469,797,690 | 10,406,140,643 | 10,847,099,032 | 11,013,973,300 |
| FL-3 | 3,023,192,136 | 2,976,479,501 | 3,276,309,354 | 3,366,250,857 |
| FL-4 | 19,656,566,651 | 20,118,469,366 | 21,408,476,112 | 22,089,301,704 |
| FL-5 | 85,569,611,085 | 87,961,435,252 | 92,972,357,816 | 96,001,733,456 |
| FL-6 | 25,006,381,155 | 25,657,070,452 | 27,450,433,910 | 28,760,000,524 |
| LA-1 | 4,898,475,259 | 5,027,375,947 | 5,330,807,513 | 5,490,050,181 |
| LA-2 | 1,748,183,614 | 1,774,449,858 | 1,782,559,575 | 1,718,836,987 |
| LA-3 | 13,120,136,078 | 13,504,886,327 | 14,262,072,870 | 14,717,479,382 |
| LA-4 | 9,652,988,440 | 9,694,658,487 | 10,551,834,554 | 11,220,044,996 |
| LA-5 | 22,680,317,499 | 23,021,828,088 | 24,507,621,842 | 25,617,999,155 |
| LA-6 | 28,214,518,621 | 28,464,760,362 | 28,961,898,798 | 29,330,245,609 |
| LA-7 | 7,442,518,794 | 7,611,232,699 | 7,855,364,982 | 8,056,547,569 |
| MS-1 | 9,268,883,216 | 9,195,055,421 | 9,382,512,319 | 9,590,465,569 |
| MS-2 | 632,250,045 | 653,926,182 | 729,816,836 | 745,005,167 |
| TX-1 | 21,430,761,483 | 22,281,107,231 | 23,454,150,560 | 24,146,372,308 |
| TX-2 | 16,408,244,287 | 17,307,258,889 | 18,525,084,174 | 19,152,398,248 |
| TX-3 | 191,909,857,613 | 205,547,059,541 | 220,108,094,934 | 229,843,371,264 |
| TX-4 | 1,822,966,071 | 1,924,090,777 | 2,094,997,699 | 2,134,079,013 |
| TX-5 | 9,564,938,433 | 10,136,759,250 | 10,657,048,514 | 10,685,782,647 |
| TX-6 | 682,491,308 | 713,540,500 | 900,452,139 | 889,248,551 |
| Total | 515,861,843,052 | 537,575,111,098 | 570,111,776,012 | 590,394,294,821 |

Source: Emsi (2015)

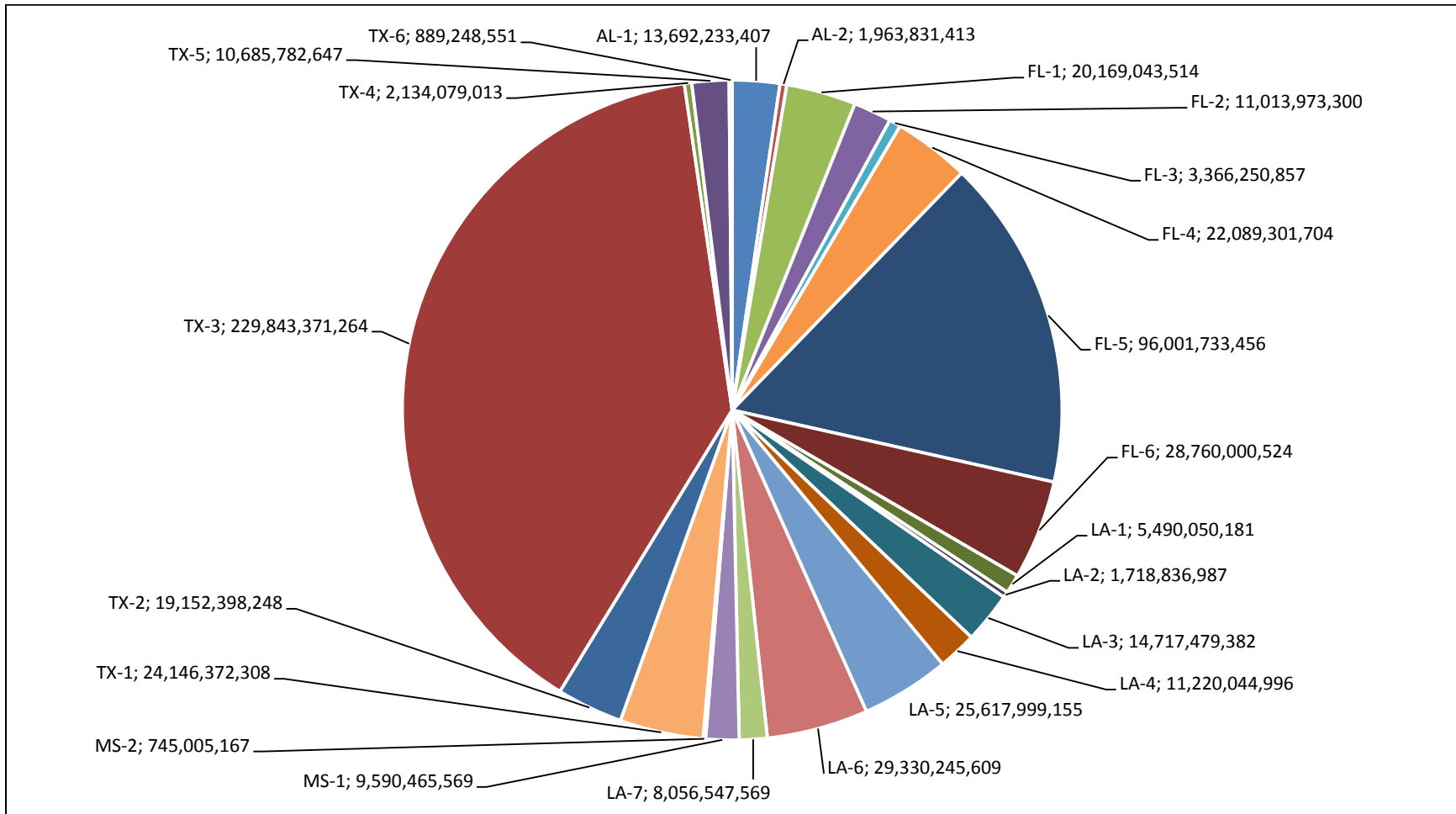


Figure 13. Total Earnings by EIA from 2013 (in dollars)

Source: Emsi (2015)

Table 19 shows the levels of place-of-work earnings in each EIA earned in the oil and gas industry cluster from Table 7. Table 20 shows the percent of total EIA oil and gas earnings produced in each EIA and the percent of each EIA's total earnings produced in the oil and gas industry cluster from 2010 to 2013.

Table 19. Oil and Gas Earnings by EIA from 2010 to 2013 (in dollars)

| EIA | 2010 | 2011 | 2012 | 2013 |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|
| AL-1 | 386,958,279 | 390,826,335 | 435,419,386 | 518,142,206 |
| AL-2 | 37,920,946 | 41,210,290 | 40,369,448 | 41,433,633 |
| FL-1 | 167,507,863 | 161,497,119 | 133,213,957 | 145,790,762 |
| FL-2 | 16,022,939 | 13,514,872 | 35,425,053 | 34,333,464 |
| FL-3 | 18,398,882 | 21,691,831 | 22,527,714 | 25,267,265 |
| FL-4 | 64,008,328 | 71,584,780 | 76,299,784 | 92,127,669 |
| FL-5 | 195,708,701 | 184,406,486 | 303,242,020 | 323,230,806 |
| FL-6 | 306,245,195 | 332,036,830 | 68,240,573 | 70,393,407 |
| LA-1 | 637,488,633 | 661,809,528 | 701,093,205 | 745,767,339 |
| LA-2 | 18,590,542 | 17,656,312 | 15,741,385 | 15,647,999 |
| LA-3 | 2,528,621,265 | 2,616,308,012 | 2,727,404,503 | 2,766,125,422 |
| LA-4 | 1,961,223,706 | 1,921,147,291 | 2,202,125,954 | 2,488,588,815 |
| LA-5 | 1,974,002,807 | 1,963,522,531 | 1,983,208,797 | 2,126,478,470 |
| LA-6 | 2,221,532,644 | 2,141,899,400 | 2,025,885,734 | 1,937,734,979 |
| LA-7 | 222,804,671 | 199,197,397 | 356,403,453 | 381,293,016 |
| MS-1 | 1,378,539,742 | 1,291,511,217 | 1,279,585,986 | 1,301,454,401 |
| MS-2 | 6,546,123 | 5,365,620 | 8,902,463 | 10,182,169 |
| TX-1 | 629,241,639 | 747,057,850 | 899,420,453 | 934,983,013 |
| TX-2 | 2,162,697,088 | 2,515,758,359 | 2,951,486,867 | 3,091,333,123 |
| TX-3 | 27,964,546,236 | 30,818,613,767 | 34,390,301,638 | 35,402,310,441 |
| TX-4 | 171,304,857 | 183,379,657 | 239,475,013 | 254,835,278 |
| TX-5 | 1,545,419,078 | 1,746,834,116 | 1,957,606,741 | 2,094,697,829 |
| TX-6 | 27,477,107 | 33,278,550 | 25,070,285 | 28,693,644 |
| Total | 44,642,807,271 | 48,080,108,150 | 52,878,450,410 | 54,830,845,151 |

Source: Emsi (2015)

Table 20. Percent of Total EIA Oil and Gas Earnings and Percent of Total EIA Earnings by EIA from 2010 to 2013

| EIA Region | 2010 | | 2011 | | 2012 | | 2013 | |
|------------|--------------------------------|----------------------|--------------------------------|----------------------|--------------------------------|----------------------|--------------------------------|----------------------|
| | % Total EIA Oil & Gas Earnings | % Total EIA Earnings | % Total EIA Oil & Gas Earnings | % Total EIA Earnings | % Total EIA Oil & Gas Earnings | % Total EIA Earnings | % Total EIA Oil & Gas Earnings | % Total EIA Earnings |
| AL-1 | 0.87 | 3.12 | 0.81 | 3.02 | 0.82 | 3.25 | 0.94 | 3.78 |
| AL-2 | 0.08 | 2.00 | 0.09 | 2.21 | 0.08 | 2.09 | 0.08 | 2.11 |
| FL-1 | 0.38 | 0.91 | 0.34 | 0.86 | 0.25 | 0.68 | 0.27 | 0.72 |
| FL-2 | 0.04 | 0.15 | 0.03 | 0.13 | 0.07 | 0.33 | 0.06 | 0.31 |
| FL-3 | 0.04 | 0.61 | 0.05 | 0.73 | 0.04 | 0.69 | 0.05 | 0.75 |
| FL-4 | 0.14 | 0.33 | 0.15 | 0.36 | 0.14 | 0.36 | 0.17 | 0.42 |
| FL-5 | 0.44 | 0.23 | 0.38 | 0.21 | 0.57 | 0.33 | 0.59 | 0.34 |
| FL-6 | 0.69 | 1.22 | 0.69 | 1.29 | 0.13 | 0.25 | 0.13 | 0.24 |
| LA-1 | 1.43 | 13.01 | 1.38 | 13.16 | 1.33 | 13.15 | 1.36 | 13.58 |
| LA-2 | 0.04 | 1.06 | 0.04 | 1.00 | 0.03 | 0.88 | 0.03 | 0.91 |

| EIA Region | 2010 | | 2011 | | 2012 | | 2013 | |
|--------------|--------------------------------|----------------------|--------------------------------|----------------------|--------------------------------|----------------------|--------------------------------|----------------------|
| | % Total EIA Oil & Gas Earnings | % Total EIA Earnings | % Total EIA Oil & Gas Earnings | % Total EIA Earnings | % Total EIA Oil & Gas Earnings | % Total EIA Earnings | % Total EIA Oil & Gas Earnings | % Total EIA Earnings |
| LA-3 | 5.66 | 19.27 | 5.44 | 19.37 | 5.16 | 19.12 | 5.04 | 18.79 |
| LA-4 | 4.39 | 20.32 | 4.00 | 19.82 | 4.16 | 20.87 | 4.54 | 22.18 |
| LA-5 | 4.42 | 8.70 | 4.08 | 8.53 | 3.75 | 8.09 | 3.88 | 8.30 |
| LA-6 | 4.98 | 7.87 | 4.45 | 7.52 | 3.83 | 7.00 | 3.53 | 6.61 |
| LA-7 | 0.50 | 2.99 | 0.41 | 2.62 | 0.67 | 4.54 | 0.70 | 4.73 |
| MS-1 | 3.09 | 14.87 | 2.69 | 14.05 | 2.42 | 13.64 | 2.37 | 13.57 |
| MS-2 | 0.01 | 1.04 | 0.01 | 0.82 | 0.02 | 1.22 | 0.02 | 1.37 |
| TX-1 | 1.41 | 2.94 | 1.55 | 3.35 | 1.70 | 3.83 | 1.71 | 3.87 |
| TX-2 | 4.84 | 13.18 | 5.23 | 14.54 | 5.58 | 15.93 | 5.64 | 16.14 |
| TX-3 | 62.64 | 14.57 | 64.10 | 14.99 | 65.04 | 15.62 | 64.57 | 15.40 |
| TX-4 | 0.38 | 9.40 | 0.38 | 9.53 | 0.45 | 11.43 | 0.46 | 11.94 |
| TX-5 | 3.46 | 16.16 | 3.63 | 17.23 | 3.70 | 18.37 | 3.82 | 19.60 |
| TX-6 | 0.06 | 4.03 | 0.07 | 4.66 | 0.05 | 2.78 | 0.05 | 3.23 |
| Total | 100.00 | 8.65 | 100.00 | 8.94 | 100.00 | 9.28 | 100.00 | 9.29 |

Source: Emsi (2015)

In 2013, TX-3 produced 64.6% of the total oil- and gas-related earnings in all EIAs, which mirrors the percentages in previous years. Again, the oil and gas earnings in TX-3 were larger than the total earnings (all sectors) of every other EIA region except for FL-5.

In 2013, eight different EIAs produced more than 10% of their total place-of-work earnings in the oil and gas industry cluster: LA-1, LA-3, LA-4, MS-1, TX-2, TX-3, TX-4, and TX-5. Most of these regions were well known to produce large quantities of oil- and gas-related outputs. However, MS-1 was an anomaly. It produced less than one percent of its GDP in oil and gas industries, but more than 10% of earnings. This was likely due to the differing industry clusters from Table 7. It is possible that much of the production in MS-1 was outside of the actual extraction of petroleum products and therefore not included in NAICS codes 211 and 213, but would be included in the NAICS industry cluster used for earnings that include sectors like pipeline transportation, petrochemical manufacturing, ship and boat building, and other industry activity related to oil and gas but not included in NAICS 211 or 213.

2.3.3 Employment

In 2013, the 23 EIAs were home to 11.9 million jobs, which results in an average of 511,323 jobs per EIA. Approximately 3.7 million of those jobs (or 30.9%) were sourced in TX-3. The next highest percentage of total jobs came in FL-5 (2.1 million or 17.8%). Five EIAs contained less than one percent of the total EIA jobs and are the least populous EIAs: AL-2, FL-3, LA-2, MS-2, TX-4, and TX-6. Table 21 shows the total jobs in each EIA from 2010 to 2013.

Table 21. Total Jobs by EIA from 2010 to 2013

| EIA | 2010 | 2011 | 2012 | 2013 |
|--------------|-------------------|-------------------|-------------------|-------------------|
| AL-1 | 312,958 | 316,659 | 321,098 | 326,763 |
| AL-2 | 48,923 | 48,735 | 48,675 | 48,825 |
| FL-1 | 456,208 | 466,162 | 469,361 | 479,293 |
| FL-2 | 259,410 | 260,676 | 260,723 | 264,005 |
| FL-3 | 85,682 | 86,630 | 86,409 | 87,305 |
| FL-4 | 546,373 | 557,732 | 562,731 | 573,325 |
| FL-5 | 1,995,088 | 2,028,752 | 2,057,406 | 2,112,708 |
| FL-6 | 646,551 | 668,782 | 685,376 | 708,789 |
| LA-1 | 109,446 | 110,372 | 112,825 | 114,923 |
| LA-2 | 40,426 | 40,929 | 40,627 | 39,348 |
| LA-3 | 301,297 | 305,810 | 313,869 | 320,063 |
| LA-4 | 201,186 | 202,210 | 207,326 | 212,242 |
| LA-5 | 491,622 | 496,225 | 504,709 | 518,042 |
| LA-6 | 555,872 | 561,516 | 567,638 | 576,703 |
| LA-7 | 189,135 | 192,507 | 191,293 | 193,189 |
| MS-1 | 216,490 | 215,080 | 215,480 | 218,060 |
| MS-2 | 20,532 | 20,869 | 21,037 | 21,506 |
| TX-1 | 652,916 | 670,074 | 690,951 | 709,981 |
| TX-2 | 392,041 | 402,748 | 412,109 | 421,068 |
| TX-3 | 3,315,344 | 3,422,005 | 3,544,551 | 3,674,531 |
| TX-4 | 55,084 | 56,409 | 57,173 | 57,532 |
| TX-5 | 194,836 | 199,461 | 201,403 | 200,593 |
| TX-6 | 20,902 | 21,424 | 21,924 | 21,855 |
| Total | 11,108,323 | 11,351,768 | 11,594,694 | 11,900,649 |

Source: Emsi (2015)

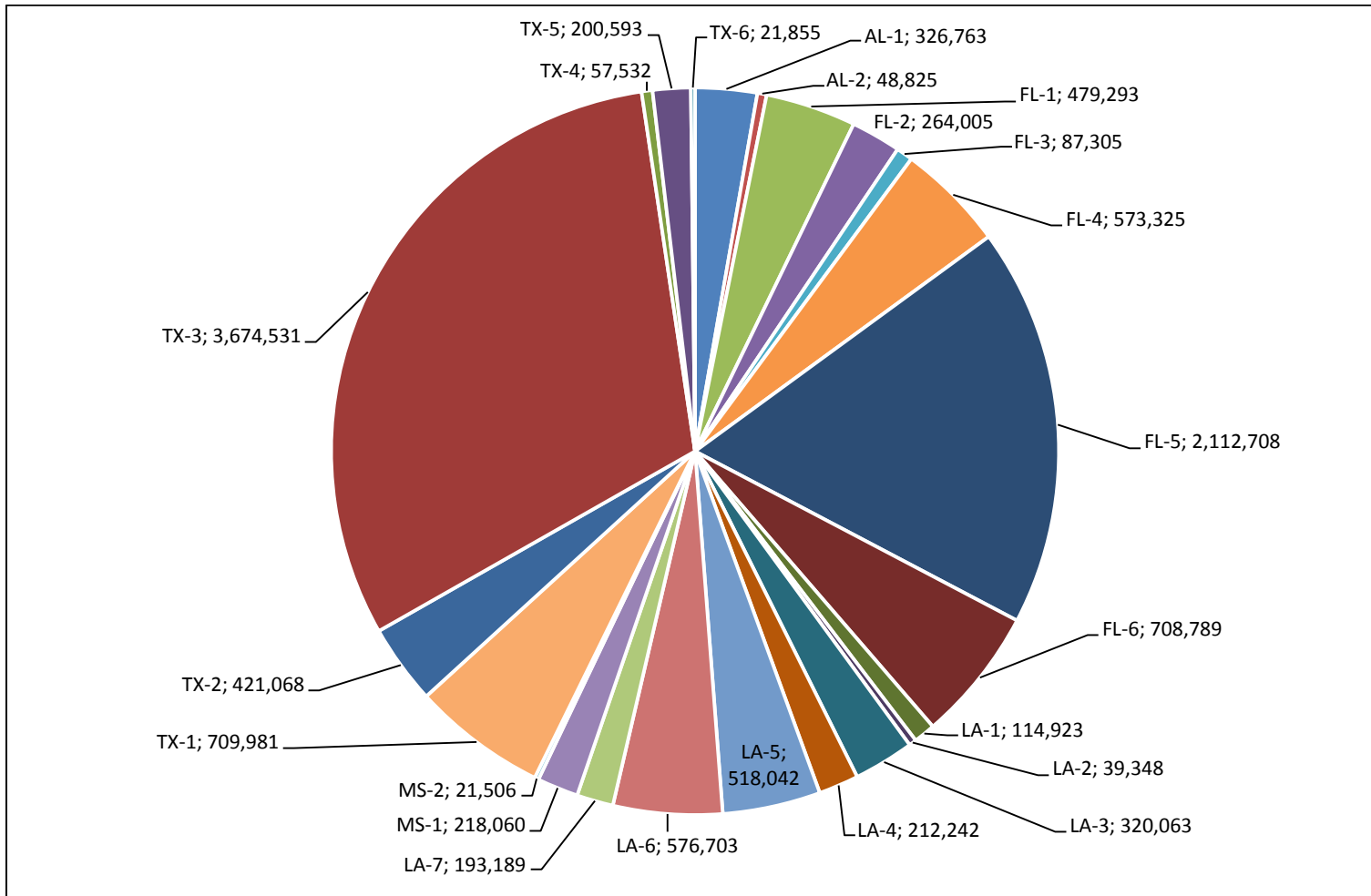


Figure 14. Total Jobs by EIA from 2013

Source: Emsi (2015)

The distribution of 2013 total jobs over the EIAs is presented in Figure 14.

Table 22. Oil and Gas Jobs by EIA from 2010 to 2013

| EIA | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| AL-1 | 5,761 | 5,826 | 6,883 | 7,717 |
| AL-2 | 610 | 596 | 713 | 767 |
| FL-1 | 4,753 | 4,079 | 4,090 | 4,222 |
| FL-2 | 341 | 278 | 295 | 276 |
| FL-3 | 444 | 456 | 173 | 223 |
| FL-4 | 1,613 | 1,270 | 1,321 | 1,454 |
| FL-5 | 3,699 | 3,286 | 3,865 | 4,371 |
| FL-6 | 11,066 | 9,209 | 8,017 | 7,851 |
| LA-1 | 5,832 | 5,906 | 5,969 | 6,104 |
| LA-2 | 277 | 242 | 282 | 260 |
| LA-3 | 28,652 | 29,440 | 31,571 | 32,106 |
| LA-4 | 24,456 | 24,311 | 26,536 | 28,202 |
| LA-5 | 18,548 | 18,240 | 18,319 | 19,504 |
| LA-6 | 20,736 | 18,743 | 17,145 | 15,214 |
| LA-7 | 2,648 | 2,307 | 3,128 | 3,384 |
| MS-1 | 16,610 | 14,949 | 14,361 | 14,572 |
| MS-2 | 131 | 103 | 73 | 80 |
| TX-1 | 9,922 | 10,465 | 12,446 | 13,711 |
| TX-2 | 28,046 | 30,256 | 36,015 | 37,600 |
| TX-3 | 195,351 | 202,882 | 221,353 | 230,210 |
| TX-4 | 2,567 | 2,627 | 3,523 | 3,751 |
| TX-5 | 12,972 | 14,990 | 16,566 | 17,828 |
| TX-6 | 556 | 537 | 607 | 661 |
| Total | 395,590 | 400,995 | 433,251 | 450,066 |

Source: Emsi (2015)

Table 22 shows the number of jobs in each EIA that is sourced in the six-digit oil and gas industry cluster used for the place-of-work earnings data from Table 7. TX-3 employers provided 51.2% of the total oil- and gas-related jobs in the EIA region in 2013. No other EIA provided more than 10%.

Only three EIAs produce more than 10% of their total jobs in oil- and gas-related industries: LA-3, LA-4, and TX-5. These regions are relatively smaller in terms of total economic activity but rely heavily on oil and gas activity. Seven EIAs source less than one percent of their total jobs in oil- and gas-related industries: FL-1, FL-2, FL-3, FL-4, FL-5, LA-2 and MS-2. All of these regions had relatively little oil and gas activity and would be expected to have smaller employment shares in those industries.

Table 23 shows the percentage of total EIA oil and gas jobs in each EIA and the percentage of each EIA's total jobs source in those industries from 2010 to 2013.

Table 23. Percent of Total EIA Oil and Jobs and Percent of Total EIA Jobs by EIA from 2010 to 2013

| EIA Region | 2010 | | 2011 | | 2012 | | 2013 | |
|--------------|----------------------------|------------------|----------------------------|------------------|----------------------------|------------------|----------------------------|------------------|
| | % Total EIA Oil & Gas Jobs | % Total EIA Jobs | % Total EIA Oil & Gas Jobs | % Total EIA Jobs | % Total EIA Oil & Gas Jobs | % Total EIA Jobs | % Total EIA Oil & Gas Jobs | % Total EIA Jobs |
| AL-1 | 1.46 | 1.84 | 1.45 | 1.84 | 1.59 | 2.14 | 1.71 | 2.36 |
| AL-2 | 0.15 | 1.25 | 0.15 | 1.22 | 0.16 | 1.47 | 0.17 | 1.57 |
| FL-1 | 1.20 | 1.04 | 1.02 | 0.88 | 0.94 | 0.87 | 0.94 | 0.88 |
| FL-2 | 0.09 | 0.13 | 0.07 | 0.11 | 0.07 | 0.11 | 0.06 | 0.10 |
| FL-3 | 0.11 | 0.52 | 0.11 | 0.53 | 0.04 | 0.20 | 0.05 | 0.26 |
| FL-4 | 0.41 | 0.30 | 0.32 | 0.23 | 0.30 | 0.23 | 0.32 | 0.25 |
| FL-5 | 0.93 | 0.19 | 0.82 | 0.16 | 0.89 | 0.19 | 0.97 | 0.21 |
| FL-6 | 2.80 | 1.71 | 2.30 | 1.38 | 1.85 | 1.17 | 1.74 | 1.11 |
| LA-1 | 1.47 | 5.33 | 1.47 | 5.35 | 1.38 | 5.29 | 1.36 | 5.31 |
| LA-2 | 0.07 | 0.69 | 0.06 | 0.59 | 0.07 | 0.70 | 0.06 | 0.66 |
| LA-3 | 7.24 | 9.51 | 7.34 | 9.63 | 7.29 | 10.06 | 7.13 | 10.03 |
| LA-4 | 6.18 | 12.16 | 6.06 | 12.02 | 6.12 | 12.80 | 6.27 | 13.29 |
| LA-5 | 4.69 | 3.77 | 4.55 | 3.68 | 4.23 | 3.63 | 4.33 | 3.76 |
| LA-6 | 5.24 | 3.73 | 4.67 | 3.34 | 3.96 | 3.02 | 3.38 | 2.64 |
| LA-7 | 0.67 | 1.40 | 0.58 | 1.20 | 0.72 | 1.63 | 0.75 | 1.75 |
| MS-1 | 4.20 | 7.67 | 3.73 | 6.95 | 3.31 | 6.66 | 3.24 | 6.68 |
| MS-2 | 0.03 | 0.64 | 0.03 | 0.49 | 0.02 | 0.35 | 0.02 | 0.37 |
| TX-1 | 2.51 | 1.52 | 2.61 | 1.56 | 2.87 | 1.80 | 3.05 | 1.93 |
| TX-2 | 7.09 | 7.15 | 7.55 | 7.51 | 8.31 | 8.74 | 8.35 | 8.93 |
| TX-3 | 49.38 | 5.89 | 50.59 | 5.93 | 51.09 | 6.24 | 51.15 | 6.27 |
| TX-4 | 0.65 | 4.66 | 0.66 | 4.66 | 0.81 | 6.16 | 0.83 | 6.52 |
| TX-5 | 3.28 | 6.66 | 3.74 | 7.52 | 3.82 | 8.23 | 3.96 | 8.89 |
| TX-6 | 0.14 | 2.66 | 0.13 | 2.51 | 0.14 | 2.77 | 0.15 | 3.02 |
| Total | 100.00 | 3.56 | 100.00 | 3.53 | 100.00 | 3.74 | 100.00 | 3.78 |

Source: Emsi (2015)

2.3.4 Personal Income

In 2013, personal income for the aggregate EIA region totaled \$945.3 billion; the average personal income per EIA was \$41.1 billion. Personal income grew at 2.59% from 2012 to 2013. TX-3, which includes the area around Houston, showed the highest 2013 total personal income of \$320.3 billion, and seven different EIAs had total personal income levels below \$10 billion: AL-2, FL-3, LA-1, LA-2, MS-2, TX-4 and TX-6. The detailed data are shown in Table 24.

Table 24. Total Personal Income by EIA from 2010 to 2013 (in dollars)

| EIA | 2010 | 2011 | 2012 | 2013 |
|--------------|------------------------|------------------------|------------------------|------------------------|
| AL-1 | 19,631,498,000 | 20,607,069,000 | 20,902,845,000 | 21,244,963,000 |
| AL-2 | 3,311,461,000 | 3,368,029,000 | 3,461,003,000 | 3,546,085,000 |
| FL-1 | 31,981,506,000 | 33,557,818,000 | 34,726,551,000 | 35,500,715,000 |
| FL-2 | 16,346,487,000 | 17,277,624,000 | 16,805,492,000 | 17,030,601,000 |
| FL-3 | 6,142,335,000 | 6,395,870,000 | 6,326,040,000 | 6,441,724,000 |
| FL-4 | 43,876,477,000 | 46,485,385,000 | 47,211,763,000 | 48,361,208,000 |
| FL-5 | 153,610,922,000 | 162,736,846,000 | 164,581,713,000 | 168,514,690,000 |
| FL-6 | 58,855,644,000 | 62,649,744,000 | 65,226,596,000 | 67,002,018,000 |
| LA-1 | 6,871,946,000 | 7,117,512,000 | 7,662,961,000 | 7,815,236,000 |
| LA-2 | 3,175,431,000 | 3,323,456,000 | 3,395,249,000 | 3,373,149,000 |
| LA-3 | 20,692,142,000 | 21,944,765,000 | 23,580,809,000 | 24,143,960,000 |
| LA-4 | 13,818,077,000 | 14,214,264,000 | 15,537,820,000 | 16,185,755,000 |
| LA-5 | 30,753,892,000 | 31,888,572,000 | 34,044,075,000 | 35,031,727,000 |
| LA-6 | 36,973,901,000 | 38,266,599,000 | 40,294,649,000 | 40,964,978,000 |
| LA-7 | 15,815,362,000 | 16,496,868,000 | 17,396,249,000 | 17,676,557,000 |
| MS-1 | 14,619,147,000 | 14,850,237,000 | 15,076,453,000 | 15,264,527,000 |
| MS-2 | 1,646,376,000 | 1,689,110,000 | 1,737,750,000 | 1,767,536,000 |
| TX-1 | 36,383,386,000 | 38,359,400,000 | 39,807,470,000 | 40,751,617,000 |
| TX-2 | 25,949,501,000 | 28,138,057,000 | 30,349,311,000 | 31,307,629,000 |
| TX-3 | 257,229,714,000 | 285,941,560,000 | 309,715,698,000 | 320,319,764,000 |
| TX-4 | 5,224,935,000 | 5,572,799,000 | 5,951,983,000 | 6,007,061,000 |
| TX-5 | 13,505,911,000 | 14,240,836,000 | 15,375,991,000 | 15,403,308,000 |
| TX-6 | 1,478,233,000 | 1,578,643,000 | 1,663,200,000 | 1,657,401,000 |
| Total | 817,894,284,000 | 876,701,063,000 | 920,831,671,000 | 945,312,209,000 |

Source: Emsi (2015)

Figure 15 shows the distribution of 2013 personal income by EIA. In 2013, TX-3 received 33.9% of the total personal income, and FL-5 received 17.8%. These economic centers were expected to dominate personal income due to the large percentage of earned income that contributes to total personal income highlighted by work-based economic metrics as discussed earlier in this report.

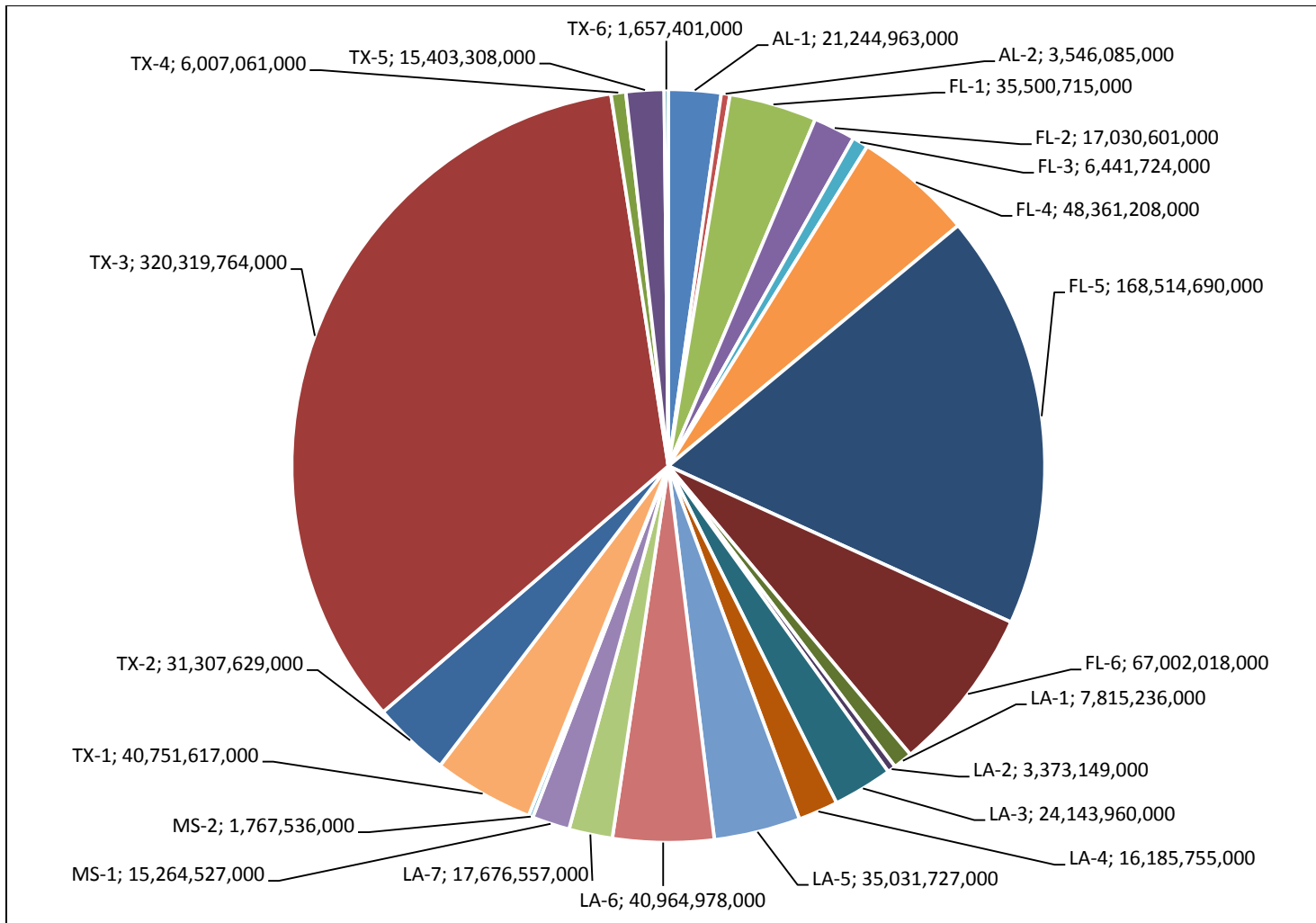


Figure 15. Personal Income by EIA from 2013 (in dollars)

Source: Emsi (2015)

Table 25. Per Capita Income by EIA from 2010 to 2013 (in dollars)

| EIA | 2010 | 2011 | 2012 | 2013 |
|------|--------|--------|--------|--------|
| AL-1 | 34,008 | 35,432 | 35,713 | 35,971 |
| AL-2 | 28,069 | 28,631 | 29,601 | 30,547 |
| FL-1 | 37,108 | 38,724 | 39,308 | 39,459 |
| FL-2 | 27,446 | 28,289 | 28,070 | 28,587 |
| FL-3 | 24,775 | 25,710 | 25,722 | 26,280 |
| FL-4 | 30,231 | 31,773 | 32,395 | 32,920 |
| FL-5 | 39,474 | 41,559 | 41,561 | 42,065 |
| FL-6 | 34,156 | 35,523 | 36,150 | 36,728 |
| LA-1 | 34,372 | 35,134 | 38,350 | 38,869 |
| LA-2 | 35,021 | 36,499 | 36,612 | 37,053 |
| LA-3 | 31,841 | 33,219 | 35,640 | 36,191 |
| LA-4 | 37,345 | 38,614 | 42,152 | 43,662 |
| LA-5 | 34,573 | 35,960 | 38,350 | 39,246 |
| LA-6 | 38,039 | 37,903 | 39,184 | 39,588 |
| LA-7 | 34,802 | 35,791 | 37,260 | 37,504 |
| MS-1 | 33,231 | 33,242 | 33,678 | 33,934 |
| MS-2 | 24,298 | 24,871 | 25,536 | 25,926 |
| TX-1 | 27,871 | 30,481 | 32,538 | 33,515 |
| TX-2 | 33,642 | 36,996 | 40,122 | 40,860 |
| TX-3 | 43,118 | 46,285 | 49,592 | 49,797 |
| TX-4 | 33,016 | 34,794 | 37,017 | 37,293 |
| TX-5 | 38,872 | 41,691 | 44,831 | 44,799 |
| TX-6 | 28,450 | 30,154 | 32,284 | 32,311 |

Source: Emsi (2015)

Total personal income does not take into account the size of the region (as measured by population). Table 25 shows the per capita income for each EIA from 2010 to 2013. The aggregate EIA region had a per capita income of \$36,146 in 2013. TX-3 had the highest per capita income of any EIA region at \$49,797 and MS-2 had a 2013 per capita income of \$25,926, the lowest among the EIAs. Figure 16 shows the 2013 personal income statistics by EIA.

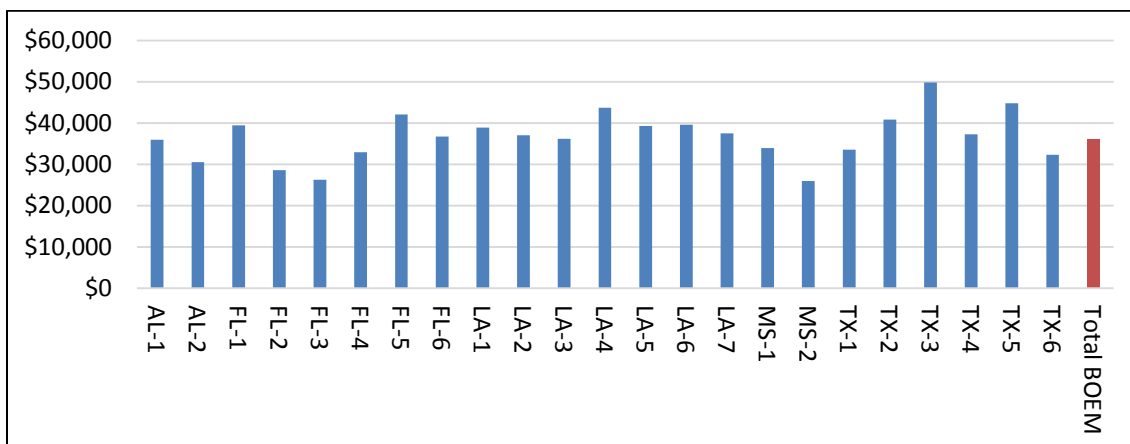


Figure 16. 2013 Per Capita Personal Income by EIA

Source: Emsi (2015)

2.3.5 Demographics

The aggregate EIA region's population consists of 20.8% minority population in 2013. The range of racial diversity stretches from TX-1 (3.3% minority) to LA-5 (39.9%) and AL-2 (41.9%). The rates for 2010 to 2012 show very little variation and were therefore excluded from Figure 17.

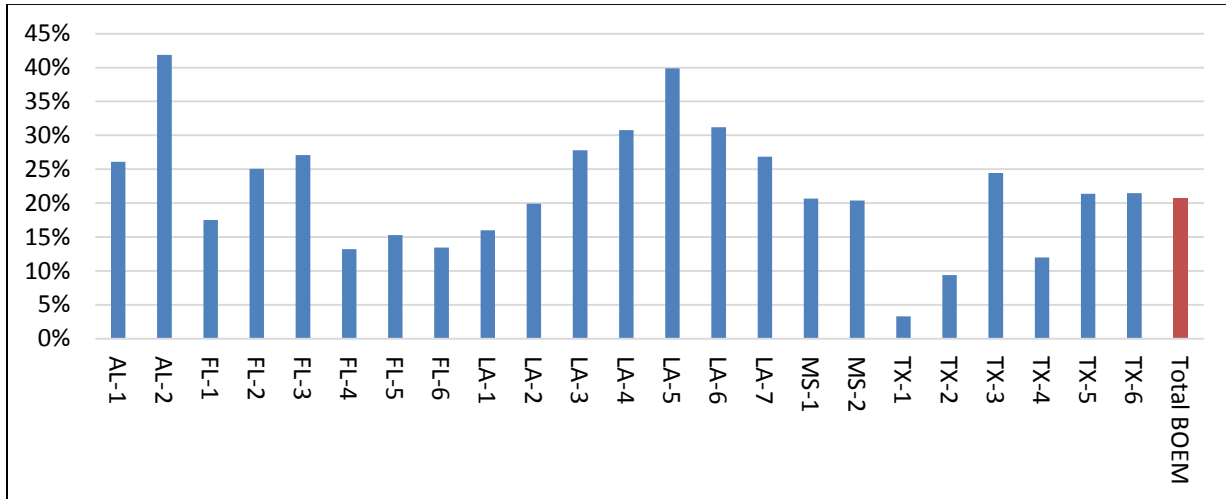


Figure 17. Minority Population Percentage for 2013 by EIA

Source: U.S. Census Bureau (2015c)

Poverty rates among EIAs range from 12.6% (TX-3) to 29.4% (TX-1). The average EIA poverty rate reached 19.5%. Again, the percentages for year 2010, 2011, and 2012 showed minimal variation among the EIAs and were excluded from Figure 18.

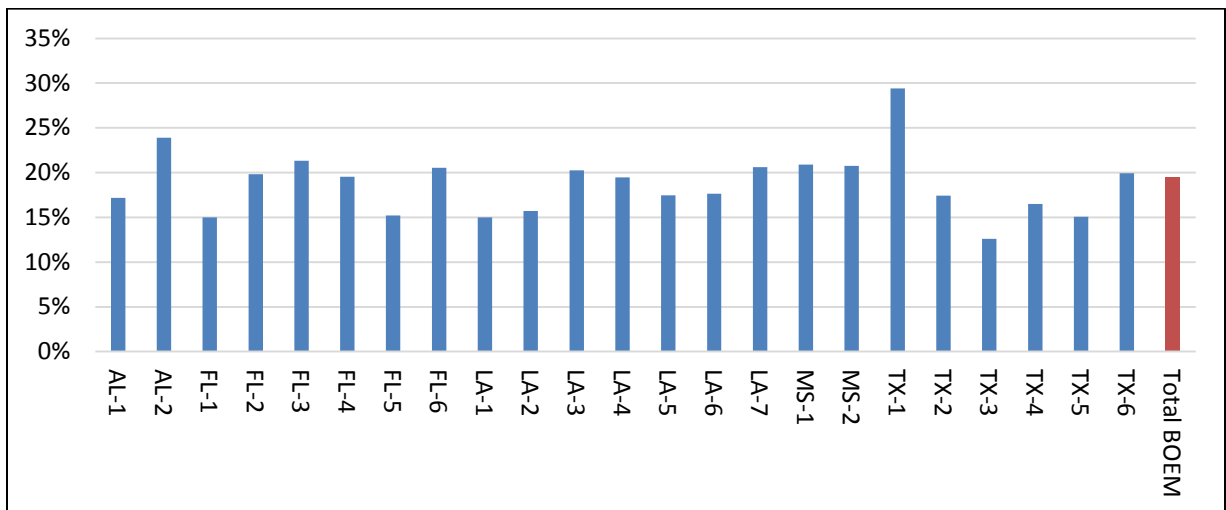


Figure 18. Poverty Rates for 2013 by EIA

Source: U.S. Census Bureau (2015e)

2.4 Intra-Regional Comparison of the Economic Impact Area (EIA) AL-1

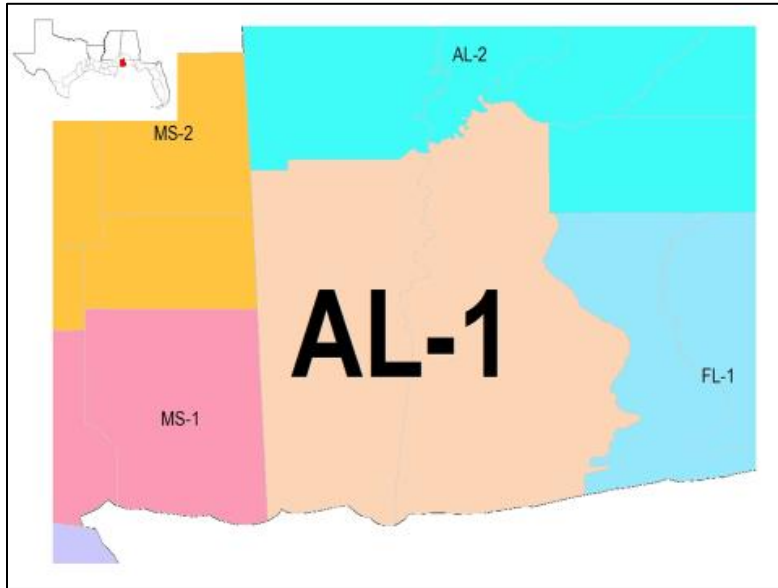


Figure 19. Map of EIA Region AL-1

EIA AL-1 comprises two counties in Alabama: Baldwin and Mobile. The AL-1 counties were home to 609,619 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 326,763 jobs, earned \$13.7 billion in total earnings (excluding corporate profits), \$23.6 billion in GDP, and \$21.2 billion in personal income in 2013.

2.4.1 Gross Domestic Product

Table 26 presents the total GDP estimates for each county in AL-1. Approximately 75.4% of the total AL-1 GDP came from Mobile County. Mobile County contains the Mobile MSA. Baldwin County sits within the Daphne-Fairhope-Foley MSA.

Table 26. Total GDP (in dollars) by AL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-----------------------|----------------|----------------|----------------|----------------|
| Baldwin County | 4,870,870,614 | 5,104,830,854 | 5,501,590,578 | 5,798,091,943 |
| Mobile County | 16,339,738,142 | 17,169,728,010 | 17,519,136,874 | 17,802,912,549 |
| Region AL-1 | 21,210,608,755 | 22,274,558,864 | 23,020,727,452 | 23,601,004,492 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Figure 20 shows the distribution of GDP over the AL-1 counties in 2013, which demonstrates the degree to which the economy of AL-1 was centered on Mobile County.

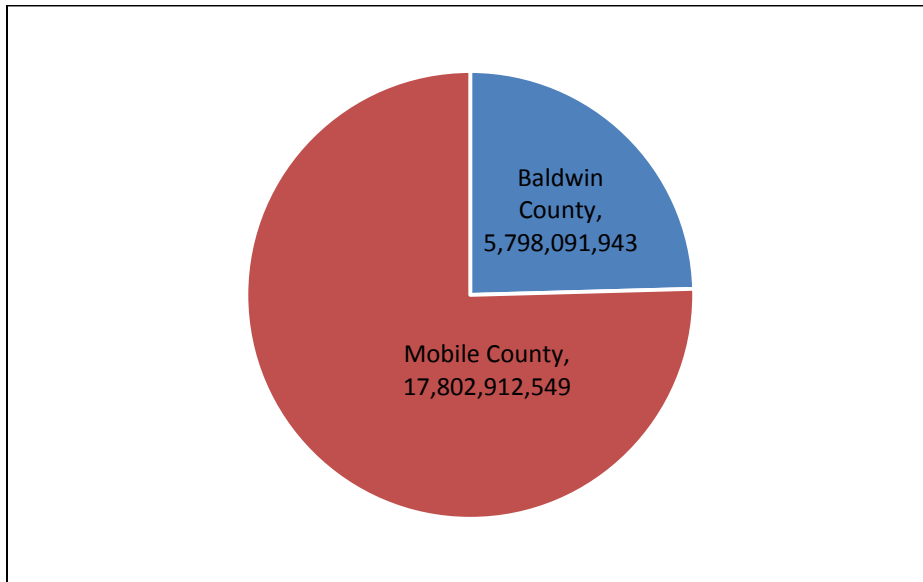


Figure 20. Total GDP (in dollars) by AL-1 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 27 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Mobile County produced 94.1% of the oil- and gas-related GDP in AL-1 in 2012. Baldwin County produced 24.6% of the total AL-1 GDP, but only 5.9% of its oil and gas GDP.

Table 27. GDP in Oil- and Gas-Related Industries (in dollars) by AL-1 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|----------------|-------------|-------------|-------------|
| Baldwin County | 72,581,513 | 78,882,544 | 24,377,261 |
| Mobile County | 368,821,971 | 462,808,593 | 391,317,063 |
| Region AL-1 | 441,403,484 | 541,691,138 | 415,694,324 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 28 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) and each county's percentage of AL-1 oil and gas GDP.

Table 28. Oil and Gas Contributions to GDP by AL-1 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|----------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Baldwin County | 1.5 | 1.5 | 0.4 | 16.4 | 14.6 | 5.9 |
| Mobile County | 2.3 | 2.7 | 2.2 | 83.6 | 85.4 | 94.1 |
| Region AL-1 | 2.1 | 2.4 | 1.8 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

Mobile County produced more than two percent of its GDP in oil- and gas-related industries annually, which is a higher percentage than Baldwin County. This finding, along with the relative size of the counties' economies shows that the oil and gas industry's concentration in Mobile County was even

greater than the general economic concentration. The AL-1 regional dependency on oil and gas industries hovered around two percent of total GDP from 2010 to 2012.

2.4.2 Earnings by Place-of-Work

The majority of total earnings in AL-1 were earned in Mobile County, accounting for 75.4% of the \$13.7 billion in place-of-work earnings produced by AL-1. These data are included in Table 29.

Table 29. Total Place-of-Work Earnings (in dollars) by EIA AL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|----------------|----------------|----------------|----------------|----------------|
| Baldwin County | 2,848,711,867 | 2,969,052,150 | 3,200,737,798 | 3,363,790,224 |
| Mobile County | 9,556,239,458 | 9,986,191,378 | 10,192,354,881 | 10,328,443,182 |
| Region AL-1 | 12,404,951,325 | 12,955,243,527 | 13,393,092,679 | 13,692,233,407 |

Source: Emsi (2015)

Figure 21 shows the distribution of total earnings over the AL-1 counties for 2013. These data further confirm the economic dependence of AL-1 on Mobile County.

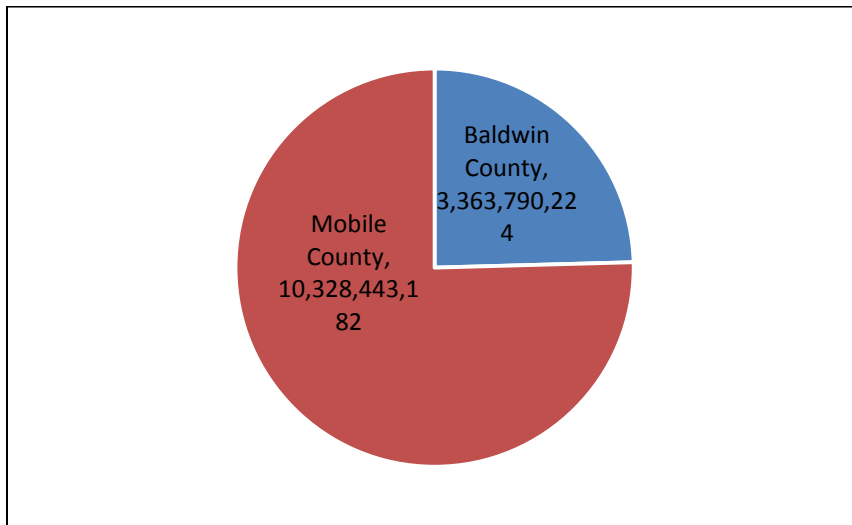


Figure 21. Total Place-of-Work Earnings (in dollars) by AL-1 County from 2013

Source: Emsi (2015)

Table 30 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Mobile County produced 99.0% of the \$518,142,206 in oil- and gas-related earnings in AL-1 in 2013.

Table 30. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by AL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|----------------|-------------|-------------|-------------|-------------|
| Baldwin County | 14,679,043 | 12,893,535 | 5,103,370 | 5,067,082 |
| Mobile County | 372,279,236 | 377,932,800 | 430,316,015 | 513,075,123 |
| Region AL-1 | 386,958,279 | 390,826,335 | 435,419,386 | 518,142,206 |

Source: Emsi (2015)

Table 31 shows the percentage of each county’s total earnings produced in oil- and gas-related industries. As expected, Mobile County produced a larger percentage of its total earnings in oil- and gas-related industries, in addition to accounting for more than 95% of AL-1 oil and gas earnings in AL-1 annually.

Table 31. Oil and Gas Contributions to Place-of-Work Earnings by AL-1 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|----------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Baldwin County | 0.5 | 0.4 | 0.2 | 0.2 | 3.8 | 3.3 | 1.2 | 1.0 |
| Mobile County | 3.9 | 3.8 | 4.2 | 5.0 | 96.2 | 96.7 | 98.8 | 99.0 |
| Region AL-1 | 3.1 | 3.0 | 3.3 | 3.8 | - | - | - | - |

Source: Emsi (2015)

2.4.3 Employment

In 2013, the AL-1 region produced 326,763 jobs, 232,234 of which were sourced in Mobile County. The total number of jobs in AL-1 rose each year from 2010 to 2013. Table 32 shows these data.

Table 32. Total Jobs by AL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|----------------|---------|---------|---------|---------|
| Baldwin County | 87,220 | 90,084 | 91,482 | 94,528 |
| Mobile County | 225,737 | 226,575 | 229,616 | 232,234 |
| Region AL-1 | 312,958 | 316,659 | 321,098 | 326,763 |

Source: Emsi (2015)

Figure 22 shows the distribution of total jobs over the AL-1 counties for 2013. Accordingly, Mobile County, which had the largest economic activity in terms of GDP and earnings also hosted the largest share of jobs in AL-1.

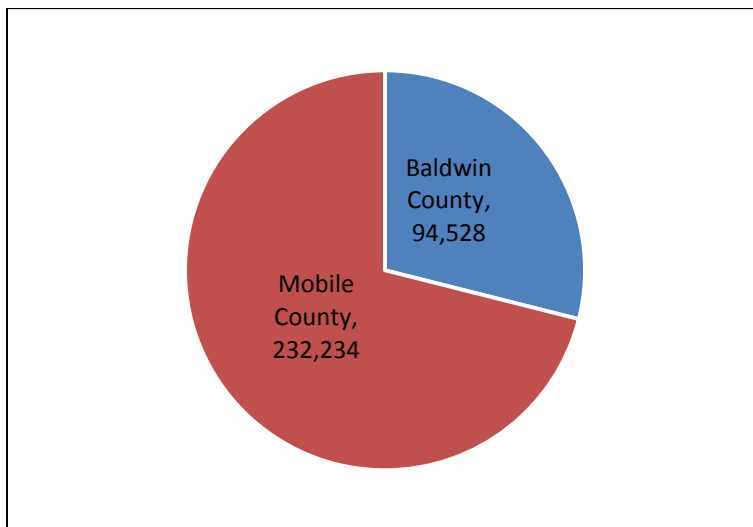


Figure 22. Total Jobs by AL-1 County from 2013

Source: Emsi (2015)

Table 33 shows the number of jobs in each AL-1 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7).

Table 33. Jobs in Oil- and Gas-Related Industries by AL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-----------------------|-------|-------|-------|-------|
| Baldwin County | 578 | 506 | 494 | 495 |
| Mobile County | 5,183 | 5,320 | 6,389 | 7,221 |
| Region AL-1 | 5,761 | 5,826 | 6,883 | 7,717 |

Source: Emsi (2015)

In 2013, 93.6% of the oil and gas industry jobs in AL-1 were in Mobile County. Further, from 2010 to 2013, the number of oil- and gas-related jobs fell by 14.3% in Baldwin County; Mobile County saw a 39.3% increase.

Table 34 shows the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. As expected, Mobile County sourced 3.1% of its 2013 jobs in oil- and gas-related fields, compared to 0.5% in Baldwin County. This difference, along with the relative economic size of the counties, contributed to Mobile County having more than 90% of the oil- and gas-related jobs in AL-1.

Table 34. Oil and Gas Contributions to Jobs by AL-1 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-----------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Baldwin County | 0.7 | 0.6 | 0.5 | 0.5 | 10.0 | 8.7 | 7.2 | 6.4 |
| Mobile County | 2.3 | 2.3 | 2.8 | 3.1 | 90.0 | 91.3 | 92.8 | 93.6 |
| Region AL-1 | 1.8 | 1.8 | 2.1 | 2.4 | - | - | - | - |

Source: Emsi (2015)

2.4.4 Personal Income

In 2013, the AL-1 counties received \$21.2 billion in personal income. Mobile County accounted for \$13.6 billion, or 64.0%. Table 35 presents these data.

Table 35. Personal Income (in dollars) by AL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-----------------------|----------------|----------------|----------------|----------------|
| Baldwin County | 6,681,893,000 | 7,134,507,000 | 7,407,124,000 | 7,645,538,000 |
| Mobile County | 12,949,605,000 | 13,472,562,000 | 13,495,721,000 | 13,599,425,000 |
| Region AL-1 | 19,631,498,000 | 20,607,069,000 | 20,902,845,000 | 21,244,963,000 |

Source: Emsi (2015)

Figure 23 shows the distribution of total personal income over the AL-1 counties from 2013. These data reinforce the dependence of AL-1's economy on Mobile County.

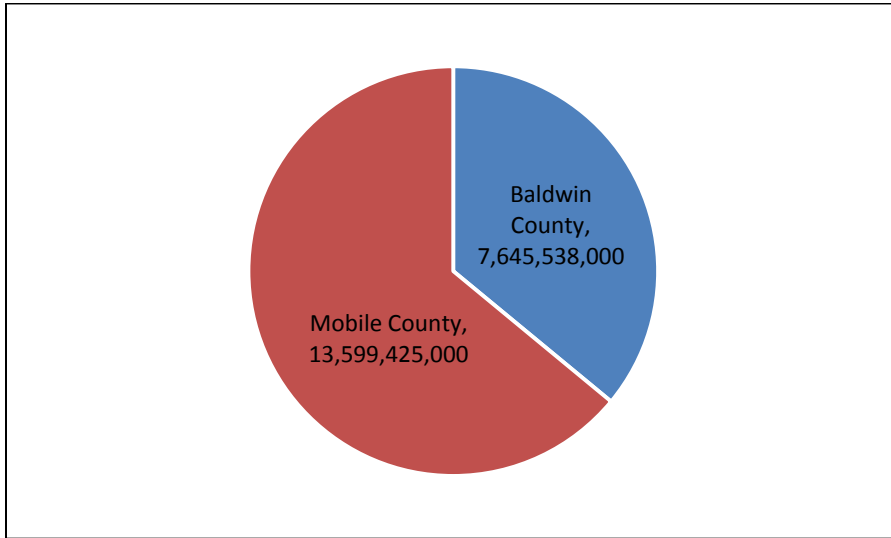


Figure 23 Total Personal Income (in dollars) by AL-1 County from 2013

Source: Emsi (2015)

Figure 24 shows the per capita income data 2013 for each county in AL-1. Baldwin County, which had relatively fewer people, jobs, and production, had the highest per capita income. Conversely, Mobile County, the larger county in AL-1, showed relatively lower levels of per capita income.

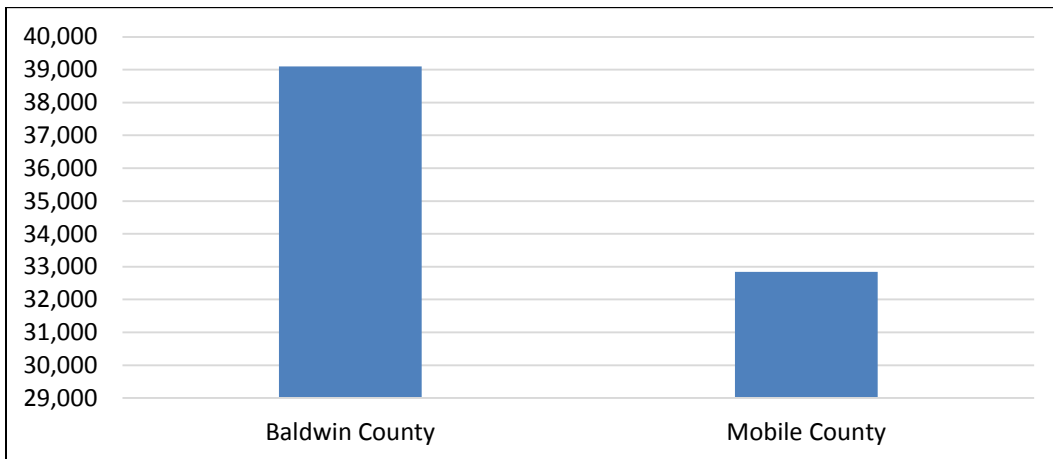


Figure 24. Per Capita Income (in dollars) by AL-1 County from 2013

Source: Emsi (2015)

2.4.5 Demographics

The 2013 demographic data are presented in Table 36. The AL-1 region had a regional poverty rate of 18.1% in 2013. Mobile County had a significantly higher rate of poverty than Baldwin County, which is similar to the per capita personal income comparison from Figure 24 above. In 2013, AL-1 had a population that was 32.0% minority, which was boosted by Mobile County being 39.8% minority.

Table 36. Demographic Data by AL-1 County from 2013

| EIA County | Poverty | Minority |
|----------------|---------|----------|
| Baldwin County | 13.2% | 14.3% |
| Mobile County | 20.2% | 39.8% |
| Region AL-1 | 18.1% | 32.0% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.5 Intra-Regional Comparison of the Economic Impact Area (EIA) AL-2

EIA AL-2 comprises five Alabama counties: Clarke, Conecuh, Escambia, Monroe, and Washington. The AL-2 counties were home to 115,190 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 48,825 jobs, earned \$2.0 billion in total earnings (excluding corporate profits), \$3.4 billion in GDP, and \$3.5 billion in personal income in 2013.

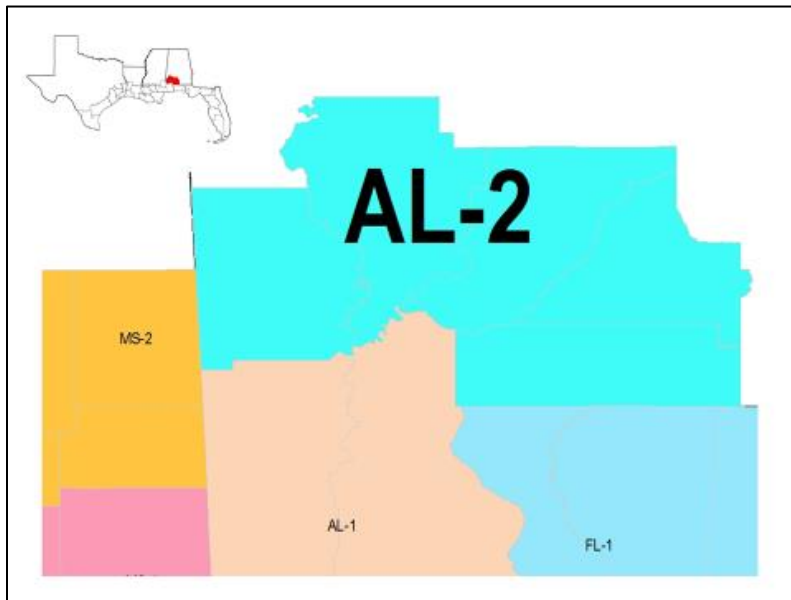


Figure 25. Map of EIA Region AL-2

2.5.1 Gross Domestic Product

Table 37 presents the total GDP estimates for each county in AL-2. 56.5% of the total AL-2 GDP came from Clarke and Escambia, and the economic production of AL-2 was balanced between each of the five counties. Conecuh and Escambia were the smallest and largest producers respectively.

Table 37. Total GDP (in dollars) by AL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------------|----------------------|----------------------|----------------------|
| Clarke | 723,034,984 | 736,146,642 | 777,369,675 | 814,703,899 |
| Conecuh | 278,158,200 | 282,856,757 | 316,491,461 | 335,695,988 |
| Escambia | 1,043,522,850 | 1,073,381,015 | 1,092,472,426 | 1,098,910,643 |
| Monroe | 652,413,744 | 628,695,732 | 635,082,756 | 636,485,474 |
| Washington | 546,839,069 | 483,553,221 | 498,543,394 | 499,217,428 |
| Region AL-2 | 3,243,968,847 | 3,204,633,367 | 3,319,959,712 | 3,385,013,432 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The distribution of GDP over the AL-2 counties in 2013 is shown in Figure 26, which demonstrates the degree to which the economy of AL-2 was economically balanced with each county contributing relatively sizeable production.

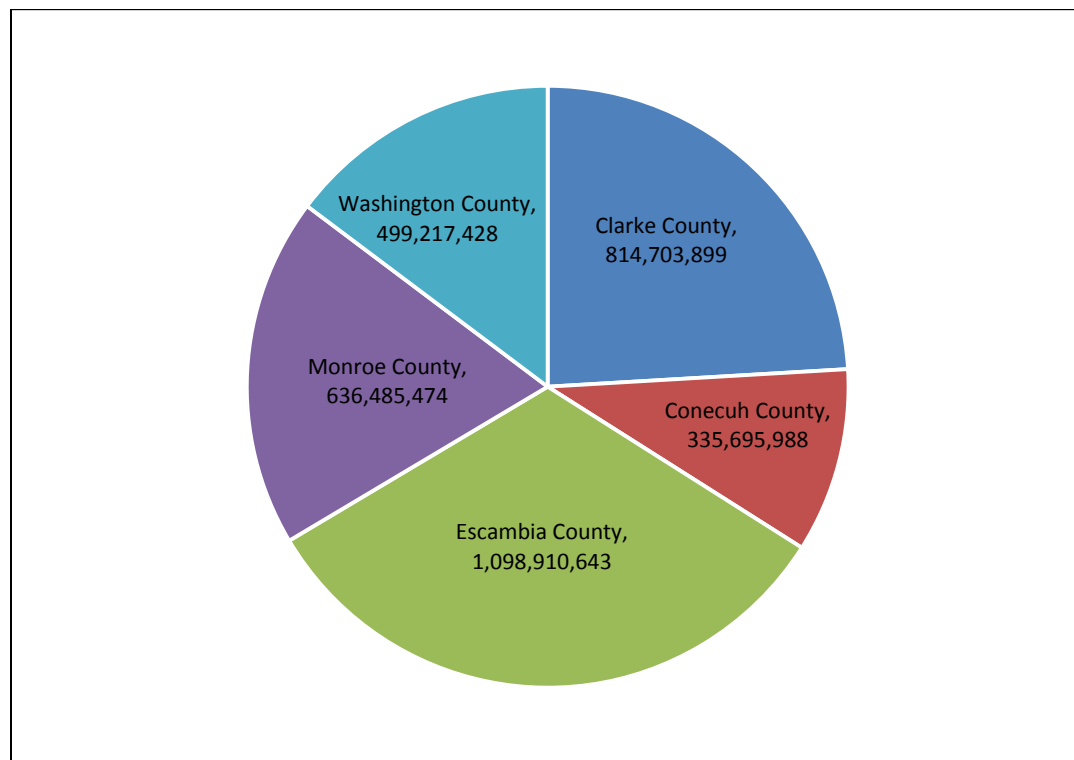


Figure 26. Total GDP (in dollars) by AL-2 County from 2013

Source: Varnado and Fannin (2015) and Esmi (2015)

Table 38 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Though the general economic production of AL-2 was balanced, the oil and gas industry production was less so. In 2012, Escambia accounted for 61.2% of the \$129,021,055 in oil and gas GDP in AL-2, and both Clarke and Monroe each contributed less than 10% of that total, and Conecuh and Washington each contributed less than 16% in 2012.

Table 38. GDP in Oil- and Gas-Related Industries (in dollars) by AL-2 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|-------------|-------------|-------------|
| Clarke | 1,133,059 | 2,902,336 | 8,342,368 |
| Conecuh | 5,699,844 | 4,741,425 | 17,298,134 |
| Escambia | 102,250,065 | 114,210,352 | 78,993,574 |
| Monroe | 5,393,781 | 7,882,261 | 3,935,080 |
| Washington | 17,962,681 | 18,270,137 | 20,451,900 |
| Region AL-2 | 132,439,430 | 148,006,511 | 129,021,055 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) and each county's percentage of AL-2 oil and gas GDP are illustrated in Table 39. Escambia sourced an annual average of 9.2% of its total GDP from oil- and gas-related industries, which is more than double the average annual percentage of any other county in AL-2 over the time period. This corroborates Escambia's economic dominance in oil- and gas-related activity in AL-2 shown by the county's high percentage of total EIA oil and gas GDP.

Table 39. Oil and Gas Contributions to GDP by AL-2 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Clarke | 0.2 | 0.4 | 1.1 | 0.9 | 2.0 | 6.5 |
| Conecuh | 2.0 | 1.7 | 5.5 | 4.3 | 3.2 | 13.4 |
| Escambia | 9.8 | 10.6 | 7.2 | 77.2 | 77.2 | 61.2 |
| Monroe | 0.8 | 1.3 | 0.6 | 4.1 | 5.3 | 3.0 |
| Washington | 3.3 | 3.8 | 4.1 | 13.6 | 12.3 | 15.9 |
| Region AL-2 | 4.1 | 4.6 | 3.9 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.5.2 Earnings by Place-of-Work

Though Escambia produced 32.5% of the total place-of-work earnings in AL-2, the remaining place-of-work earnings were somewhat evenly distributed across the other counties. Table 40 shows these data.

Table 40. Total Place-of-Work Earnings (in dollars) by EIA AL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Clarke | 422,864,515 | 428,154,788 | 452,261,299 | 472,654,287 |
| Conecuh | 162,679,863 | 164,514,063 | 184,129,693 | 194,755,601 |
| Escambia | 610,300,737 | 624,295,751 | 635,583,062 | 637,538,162 |
| Monroe | 381,561,927 | 365,659,601 | 369,481,035 | 369,260,032 |
| Washington | 319,816,942 | 281,242,370 | 290,044,608 | 289,623,331 |
| Region AL-2 | 1,897,223,984 | 1,863,866,573 | 1,931,499,698 | 1,963,831,413 |

Source: Emsi (2015)

Figure 27 illustrates the distribution of total earnings over the AL-2 counties for 2013. This data further confirms the relative economic balance of AL-2.

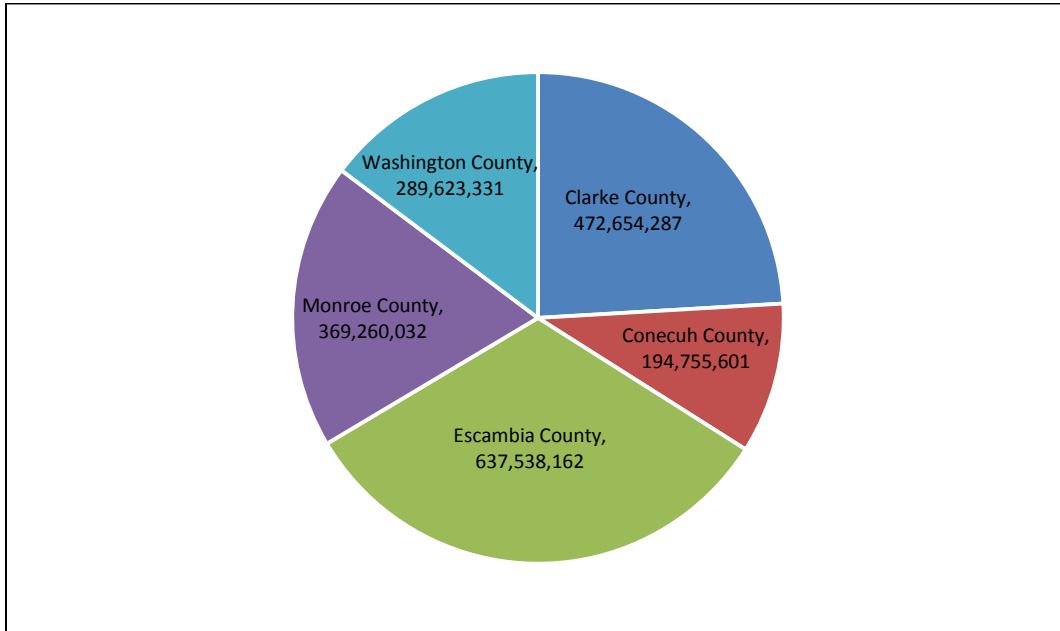


Figure 27. Total Place-of-Work Earnings (in dollars) by AL-2 County from 2013
Source: Emsi (2015)

Place-of-work earnings in oil- and gas-related industries from 2010 to 2013 appear in Table 41. Escambia and Washington combined produced 80.4% of AL-2's total oil- and gas-related earnings in 2013. Escambia alone accounted for \$21,595,863 of the total oil and gas earnings of \$41,433,633.

Table 41. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by AL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-------------------|-------------------|-------------------|-------------------|
| Clarke | 756,877 | 1,459,272 | 1,924,640 | 3,384,906 |
| Conecuh | 1,914,457 | 3,060,837 | 4,237,426 | 3,750,677 |
| Escambia | 27,280,412 | 23,154,258 | 19,152,644 | 21,595,863 |
| Monroe | 1,198,508 | 1,423,354 | 846,993 | 981,919 |
| Washington | 6,770,692 | 12,112,570 | 14,207,745 | 11,720,268 |
| Region AL-2 | 37,920,946 | 41,210,290 | 40,369,448 | 41,433,633 |

Source: Emsi (2015)

Table 42 shows the percentage of each county’s total earnings produced in oil- and gas-related industries. Escambia and Washington sourced relatively more of their place-of-work earnings from oil- and gas-related industries than do the other three counties. Predictably, these two counties produced the largest shares of the total oil and gas earnings in AL-2. Clarke, Conecuh, and Monroe contributed an annual average of 4.6%, 8.0%, and 2.8% of AL-2’s oil and gas earnings, respectively.

Table 42. Oil and Gas Contributions to Place-of-Work Earnings by AL-2 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Clarke | 0.2 | 0.3 | 0.4 | 0.7 | 2.0 | 3.5 | 4.8 | 8.2 |
| Conecuh | 1.2 | 1.9 | 2.3 | 1.9 | 5.0 | 7.4 | 10.5 | 9.1 |
| Escambia | 4.5 | 3.7 | 3.0 | 3.4 | 71.9 | 56.2 | 47.4 | 52.1 |
| Monroe | 0.3 | 0.4 | 0.2 | 0.3 | 3.2 | 3.5 | 2.1 | 2.4 |
| Washington | 2.1 | 4.3 | 4.9 | 4.0 | 17.9 | 29.4 | 35.2 | 28.3 |
| Region AL-2 | 2.0 | 2.2 | 2.1 | 2.1 | - | - | - | - |

Source: Emsi (2015)

2.5.3 Employment

In 2013, the AL-2 region produced 48,825 jobs. Escambia held the most jobs (34.0% in 2013) and Conecuh held the least (10.8%). These data are presented in Table 43.

Table 43. Total Jobs by AL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| Clarke | 11,943 | 11,978 | 11,776 | 11,899 |
| Conecuh | 4,921 | 4,969 | 5,008 | 5,261 |
| Escambia | 16,404 | 16,713 | 16,825 | 16,611 |
| Monroe | 9,523 | 9,533 | 9,387 | 9,310 |
| Washington | 6,131 | 5,542 | 5,679 | 5,744 |
| Region AL-2 | 48,923 | 48,735 | 48,675 | 48,825 |

Source: Emsi (2015)

Figure 28 shows the distribution of total jobs over the AL-2 counties for 2013. Though Escambia had the most jobs in AL-2, previous trends of relatively balanced distribution of GDP and place-of-work earnings is corroborated here by the jobs data.

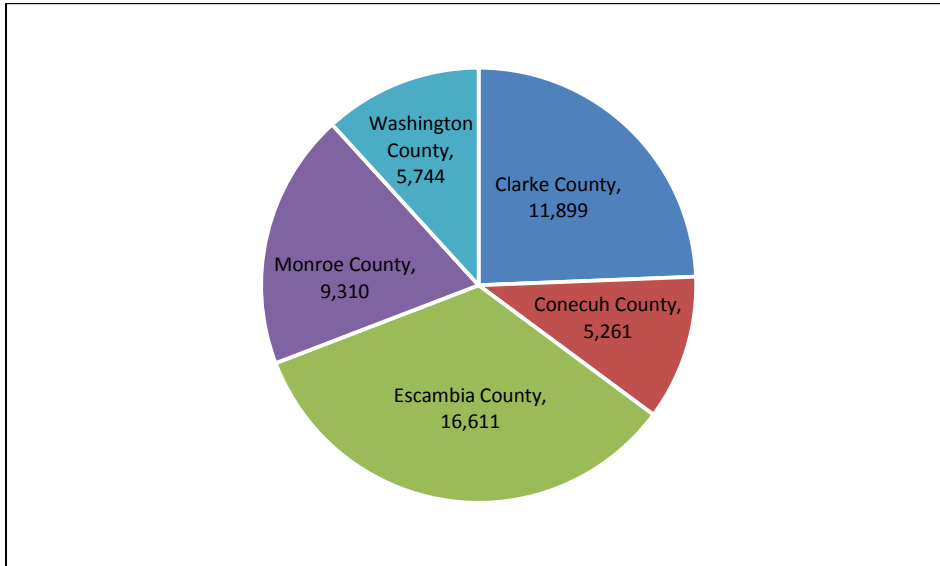


Figure 28. Total Jobs by AL-2 County from 2013

Source: Emsi (2015)

Table 44 shows the number of jobs in each AL-2 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). In 2013, Escambia produced 60.6% of the total number of oil and gas jobs in AL-2. Clarke and Washington sourced 12.2% and 19.5% of their jobs in oil- and gas-related industries, and Conecuh and Monroe each sourced less than 5%.

Table 44. Jobs in Oil- and Gas-Related Industries by AL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------|------|------|------|
| Clarke | 25 | 32 | 62 | 93 |
| Conecuh | 40 | 48 | 23 | 23 |
| Escambia | 421 | 377 | 450 | 464 |
| Monroe | 59 | 47 | 32 | 36 |
| Washington | 65 | 93 | 146 | 149 |
| Region AL-2 | 610 | 596 | 713 | 767 |

Source: Emsi (2015)

Table 45 shows the percentage of each county’s total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Escambia and Washington sourced an annual average of 2.8% and 2.6% of their jobs respectively in oil- and gas-related fields; Clarke, Conecuh, and Monroe each sourced less than 1%. Following previous trends, these data indicate that 80.1% of the total jobs in oil- and gas-related industries in AL-2 were sourced from Escambia and Washington.

Table 45. Oil and Gas Contributions to Jobs by AL-2 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Clarke | 0.2 | 0.3 | 0.5 | 0.8 | 4.1 | 5.4 | 8.7 | 12.2 |
| Conecuh | 0.8 | 1.0 | 0.5 | 0.4 | 6.6 | 8.1 | 3.3 | 3.0 |
| Escambia | 2.6 | 2.3 | 2.7 | 2.8 | 68.9 | 63.2 | 63.1 | 60.6 |
| Monroe | 0.6 | 0.5 | 0.3 | 0.4 | 9.7 | 7.9 | 4.5 | 4.8 |
| Washington | 1.1 | 1.7 | 2.6 | 2.6 | 10.7 | 15.5 | 20.4 | 19.5 |
| Region AL-2 | 1.2 | 1.2 | 1.5 | 1.6 | - | - | - | - |

Source: Emsi (2015)

2.5.4 Personal Income

In 2013, the AL-2 counties received \$3.5 billion in personal income. Escambia accounted for the largest share of income (33.9%); Conecuh accounted for the least (11.1%). These data are presented in Table 35.

Table 46. Personal Income (in dollars) by AL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Clarke | 770,144,000 | 766,660,000 | 768,097,000 | 793,935,000 |
| Conecuh | 368,851,000 | 371,935,000 | 378,719,000 | 394,372,000 |
| Escambia | 1,047,193,000 | 1,110,071,000 | 1,172,748,000 | 1,203,464,000 |
| Monroe | 641,925,000 | 637,260,000 | 653,227,000 | 661,378,000 |
| Washington | 483,348,000 | 482,103,000 | 488,212,000 | 492,936,000 |
| Region AL-2 | 3,311,461,000 | 3,368,029,000 | 3,461,003,000 | 3,546,085,000 |

Source: Emsi (2015)

Figures 29 and 30 show the distribution of total personal income and per capita income in 2013, respectively, for each county in AL-2 over the AL-2 counties from 2013.

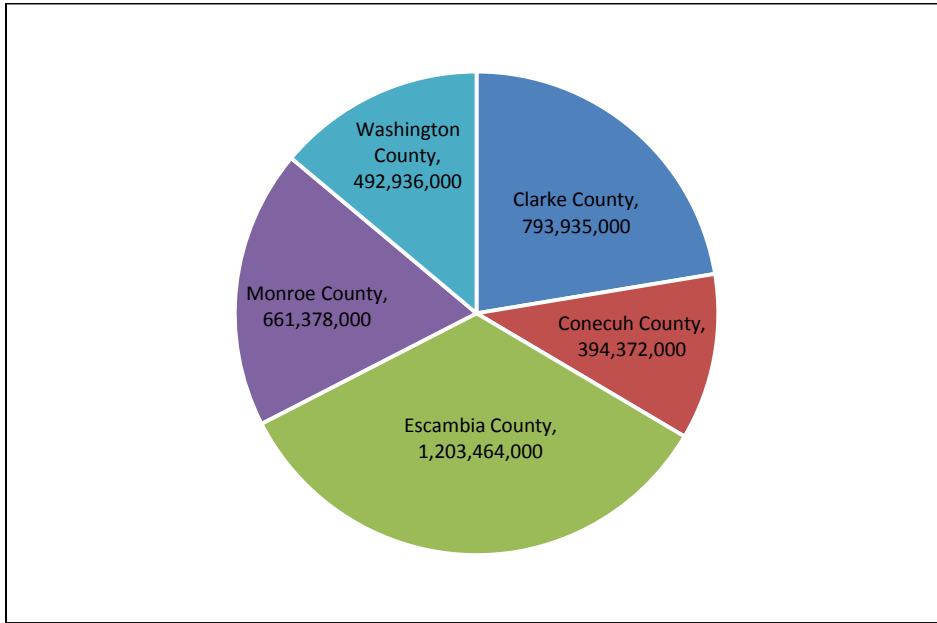


Figure 29. Total Personal Income (in dollars) by AL-2 County from 2013

Source: Emsi (2015)

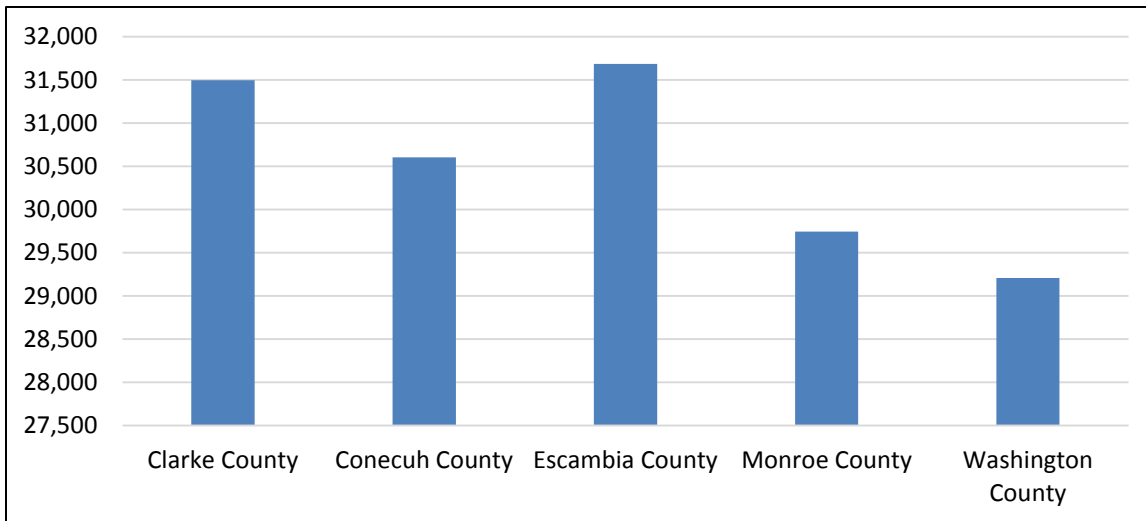


Figure 30. Per Capita Income (in dollars) by AL-2 County from 2013

Source: Emsi (2015)

Though Escambia and Clarke had the highest per-capita income in AL-2, the difference between the lowest and highest per capita income county in the region was under \$2,500.

2.5.5 Demographics

The 2013 demographic data are presented in Table 47. The AL-2 region had a regional poverty rate of 24.3% in 2013. Only Washington had a poverty rate lower than 20% in 2013; Monroe had the highest poverty rate (27.9%). In 2013, AL-2 contained a population that was 41.6% minority. Clarke, Conecuh, and Monroe all exceeded 40% minority population.

Table 47. Demographic Data by AL-2 County from 2013

| EIA County | Poverty | Minority |
|--------------------|--------------|--------------|
| Clarke | 24.5% | 45.5% |
| Conecuh | 25.5% | 48.7% |
| Escambia | 23.8% | 37.9% |
| Monroe | 27.9% | 44.9% |
| Washington | 19.4% | 34.5% |
| Region AL-2 | 24.3% | 41.6% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.6 Intra-Regional Comparison of the Economic Impact Area (EIA) FL-1

EIA FL-1 comprises five Florida counties : Bay, Escambia, Okaloosa, Santa Rosa, and Walton. The FL-1 counties were home to 895,518 people in 2013. The region generated 479,293 jobs, earned \$20.2 billion in total earnings (excluding corporate profits), \$34.6 billion in GDP, and \$35.5 billion in personal income in 2013.

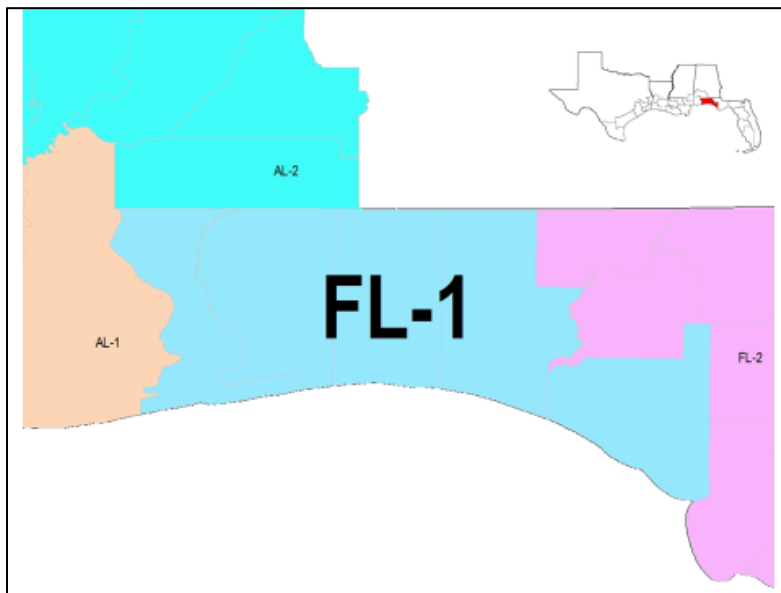


Figure 31. Map of EIA Region FL-1

2.6.1 Gross Domestic Product

Table 48 presents the total GDP estimates for each county in FL-1. Escambia was the largest producer in FL-1, followed by Bay and Okaloosa. Santa Rosa and Walton were relatively small compared to the other FL-1 counties. Escambia, Bay, and Okaloosa produced 36.9%, 20.2%, and 28.1% of FL-1's GDP, respectively. The distribution of GDP over the FL-1 counties in 2013 is illustrated in Figure 32.

Table 48. Total GDP (in dollars) by FL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Bay | 6,651,904,999 | 6,657,246,334 | 6,813,328,723 | 6,992,516,445 |
| Escambia | 12,294,576,434 | 12,370,653,437 | 12,461,723,118 | 12,747,080,941 |
| Okaloosa | 8,885,138,989 | 8,970,607,560 | 9,349,149,351 | 9,707,673,615 |
| Santa Rosa | 2,870,172,608 | 2,977,809,596 | 3,087,298,121 | 3,097,040,628 |
| Walton | 1,597,336,526 | 1,649,930,032 | 1,887,344,895 | 2,034,846,268 |
| Region FL-1 | 32,299,129,557 | 32,626,246,959 | 33,598,844,208 | 34,579,157,897 |

Source: Varnado and Fannin (2015) and Emsi (2015)

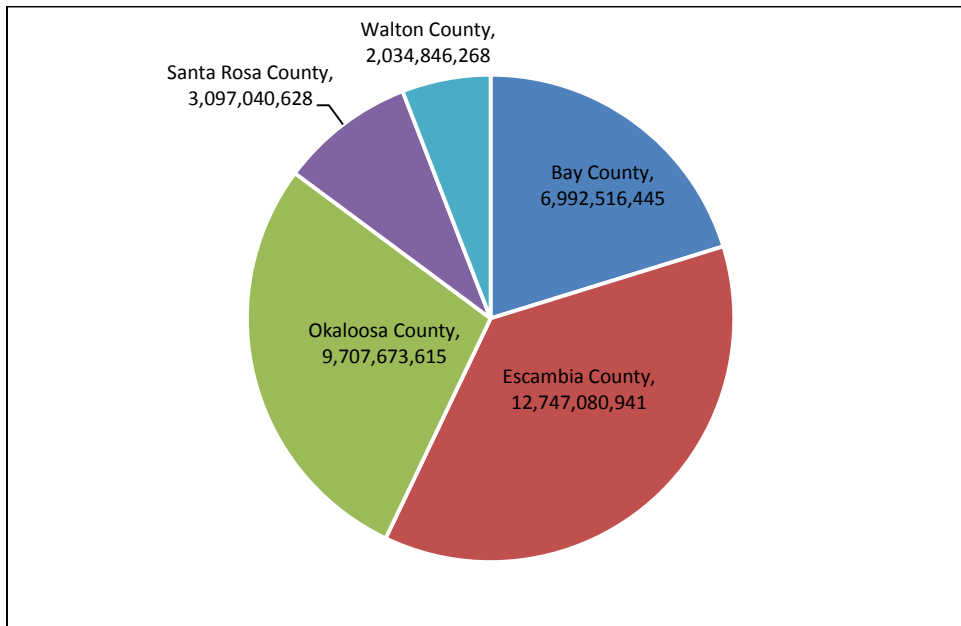


Figure 32. Total GDP (in dollars) by FL-1 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 49 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Bay produced the largest levels of GDP in oil- and gas-related industries, accounting for 48.8% of all oil- and gas-related GDP in FL-1 in 2012. Escambia, the largest economic center in FL-1, produced only 3.3% of the region's oil and gas GDP in 2012. However, there seemed to be some leakage of oil and gas production out of Escambia and Santa Rosa and into Bay and Okaloosa from 2010 to 2012.

Table 49. GDP in Oil- and Gas-Related Industries(in dollars) by FL-1 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|------------|------------|------------|
| Bay | 826,368 | 971,101 | 7,733,218 |
| Escambia | 10,550,325 | 8,743,759 | 525,753 |
| Okaloosa | 930,160 | 946,205 | 4,891,564 |
| Santa Rosa | 9,521,741 | 11,063,240 | 2,665,122 |
| Walton | 18,285 | 13,758 | 34,952 |
| Region FL-1 | 21,846,878 | 21,738,064 | 15,850,608 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 50 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of FL-1 oil and gas GDP.

Table 50. Oil and Gas Contributions to GDP by FL-1 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Bay | 0.0 | 0.0 | 0.1 | 3.8 | 4.5 | 48.8 |
| Escambia | 0.1 | 0.1 | 0.0 | 48.3 | 40.2 | 3.3 |
| Okaloosa | 0.0 | 0.0 | 0.1 | 4.3 | 4.4 | 30.9 |
| Santa Rosa | 0.3 | 0.4 | 0.1 | 43.6 | 50.9 | 16.8 |
| Walton | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 |
| Region FL-1 | 0.1 | 0.1 | 0.0 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

None of the FL-1 counties sourced more than 0.5% of their total GDP in oil- and gas-related fields in any year between 2010 and 2012, implying that this region was not particularly dependent on these industries. The percentages of total FL-1 oil and gas GDP in the right three columns of Table 50 corroborates the leakage of output from Escambia and Santa Rosa into Bay and Okaloosa.

2.6.2 Earnings by Place-of-Work

The majority of total earnings in FL-1 were earned in Bay, Escambia, and Okaloosa, accounting for 85.2% of total earnings in the region in 2013. Table 51 presents these data for all years. Figure 33 shows 2013 data. This confirms the economic dependence of FL-1 on Bay, Escambia, and Okaloosa counties.

Table 51. Total Place-of-Work Earnings (in dollars) by EIA FL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Bay | 3,780,482,104 | 3,831,655,622 | 4,000,573,456 | 4,078,536,813 |
| Escambia | 6,987,385,747 | 7,120,073,588 | 7,317,133,921 | 7,435,011,314 |
| Okaloosa | 5,049,697,634 | 5,163,137,604 | 5,489,527,989 | 5,662,211,097 |
| Santa Rosa | 1,631,207,328 | 1,713,912,977 | 1,812,764,863 | 1,806,416,090 |
| Walton | 907,815,453 | 949,636,436 | 1,108,189,872 | 1,186,868,201 |
| Region FL-1 | 18,356,588,265 | 18,778,416,227 | 19,728,190,102 | 20,169,043,514 |

Source: Emsi (2015)

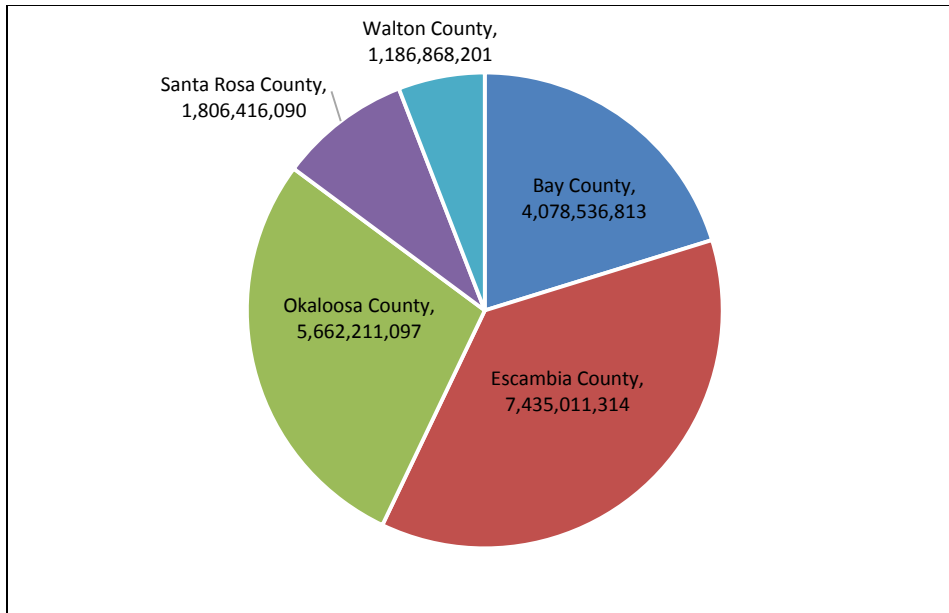


Figure 33. Total Place-of-Work Earnings (in dollars) by FL-1 County from 2013

Source: Emsi (2015)

Table 52 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013.

Table 52. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by FL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-------------|-------------|-------------|-------------|
| Bay | 55,656,941 | 52,953,130 | 94,028,670 | 104,480,842 |
| Escambia | 58,201,418 | 49,170,099 | 10,364,844 | 11,989,350 |
| Okaloosa | 5,179,399 | 4,915,050 | 15,716,898 | 14,952,970 |
| Santa Rosa | 44,489,425 | 50,510,448 | 9,623,118 | 11,595,091 |
| Walton | 3,980,680 | 3,948,393 | 3,480,427 | 2,772,509 |
| Region FL-1 | 167,507,863 | 161,497,119 | 133,213,957 | 145,790,762 |

Source: Emsi (2015)

Table 53 shows the percentage of each county's total earnings produced in oil- and gas-related industries, as well as the percentage of FL-1 oil and gas earnings. During 2010 and 2011, Santa Rosa sourced an average of 2.8% of its place-of-work earnings in oil- and gas-related industries, leading all FL-1 counties by a significant margin. However, in 2012 and 2013, Bay sourced an average of 2.5% of its jobs in these industries and no other county sourced more than 1% of total earnings in oil and gas industries. Further, in 2010 and 2011, the percentage of oil and gas earnings were distributed roughly equally between Bay, Escambia, and Santa Rosa counties. However, in 2012 and 2013, the regional oil and gas earnings of FL-1 shifted to be predominantly produced in Bay County. This corroborates some of the leakage in production seen in the GDP data.

Table 53. Oil and Gas Contributions to Place-of-Work Earnings by FL-1 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Bay County | 1.5 | 1.4 | 2.4 | 2.6 | 33.2 | 32.8 | 70.6 | 71.7 |
| Escambia County | 0.8 | 0.7 | 0.1 | 0.2 | 34.7 | 30.4 | 7.8 | 8.2 |
| Okaloosa County | 0.1 | 0.1 | 0.3 | 0.3 | 3.1 | 3.0 | 11.8 | 10.3 |
| Santa Rosa County | 2.7 | 2.9 | 0.5 | 0.6 | 26.6 | 31.3 | 7.2 | 8.0 |
| Walton County | 0.4 | 0.4 | 0.3 | 0.2 | 2.4 | 2.4 | 2.6 | 1.9 |
| Region FL-1 | 0.9 | 0.9 | 0.7 | 0.7 | - | - | - | - |

Source: Emsi (2015)

2.6.3 Employment

In 2013, the FL-1 region produced 479,293 jobs. These jobs were distributed somewhat evenly among the FL-1 counties. Escambia County accounted for the most jobs (36.2%) and Walton County the least (6.5%). These data are presented in Table 54 and illustrated in Figure 34 for 2013.

Table 54. Total Jobs by FL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------------|---------|---------|---------|---------|
| Bay County | 95,660 | 97,390 | 98,769 | 100,803 |
| Escambia County | 168,643 | 170,371 | 169,736 | 173,470 |
| Okaloosa County | 116,901 | 120,237 | 120,392 | 122,635 |
| Santa Rosa County | 47,966 | 49,937 | 50,867 | 51,009 |
| Walton County | 27,038 | 28,228 | 29,597 | 31,376 |
| Region FL-1 | 456,208 | 466,162 | 469,361 | 479,293 |

Source: Emsi (2015)

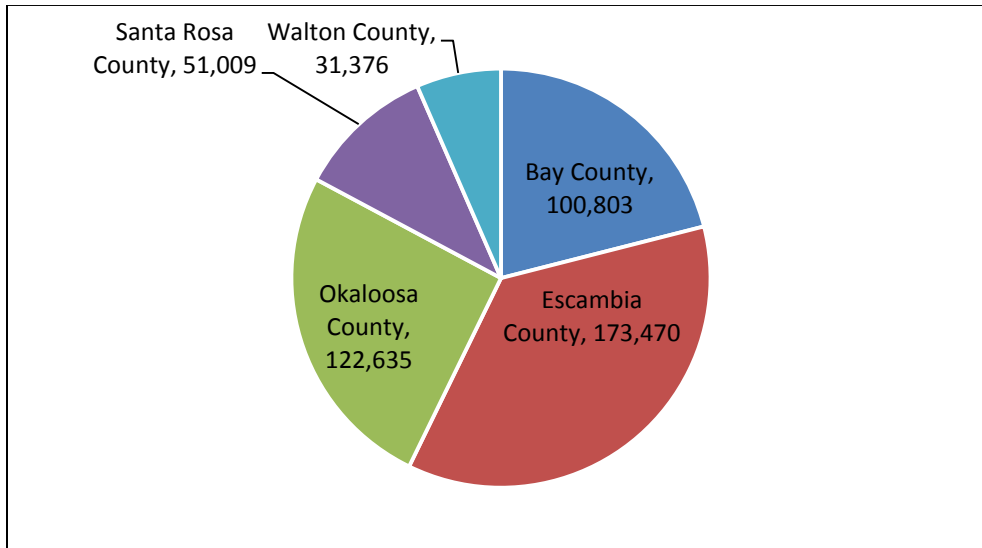


Figure 34. Total Jobs by FL-1 County from 2013

Source: Emsi (2015)

Table 55 shows the number of jobs in each FL-1 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7).

Table 55. Jobs in Oil- and Gas-Related Industries by FL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|--------------|--------------|--------------|--------------|
| Bay | 1,107 | 1,018 | 1,323 | 1,535 |
| Escambia | 1,804 | 1,509 | 1,335 | 1,276 |
| Okaloosa | 235 | 179 | 108 | 105 |
| Santa Rosa | 1,526 | 1,281 | 1,268 | 1,249 |
| Walton | 82 | 92 | 57 | 58 |
| Region FL-1 | 4,753 | 4,079 | 4,090 | 4,222 |

Source: Emsi (2015)

In 2013, the oil- and gas-related jobs were balanced among the three largest counties with the two smaller counties contributing far fewer jobs. The leakage of production and earnings from Escambia and Santa Rosa into Bay and Okaloosa County, as discussed above, is not visible here, suggesting a downturn in gross margin or corporate profits by business owners in Escambia and Santa Rosa.

Table 56 shows the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Santa Rosa sourced the highest percentage of its jobs in oil and gas industries, followed by Bay. The remaining counties sourced less than one percent of their jobs in these industries.

Table 56. Oil and Gas Contributions to Jobs by FL-1 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|--------------------|--|------------|------------|------------|--|----------|----------|----------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Bay | 1.2 | 1.0 | 1.3 | 1.5 | 23.3 | 25.0 | 32.3 | 36.4 |
| Escambia | 1.1 | 0.9 | 0.8 | 0.7 | 37.9 | 37.0 | 32.6 | 30.2 |
| Okaloosa | 0.2 | 0.1 | 0.1 | 0.1 | 4.9 | 4.4 | 2.6 | 2.5 |
| Santa Rosa | 3.2 | 2.6 | 2.5 | 2.4 | 32.1 | 31.4 | 31.0 | 29.6 |
| Walton | 0.3 | 0.3 | 0.2 | 0.2 | 1.7 | 2.3 | 1.4 | 1.4 |
| Region FL-1 | 1.0 | 0.9 | 0.9 | 0.9 | - | - | - | - |

Source: Emsi (2015)

2.6.4 Personal Income

In 2013, the FL-1 counties received \$35.5 billion in personal income. These data are included in Table 57.

Table 57. Personal Income (in dollars) by FL-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Bay | 6,300,289,000 | 6,511,621,000 | 6,510,623,000 | 6,634,581,000 |
| Escambia | 10,587,999,000 | 11,128,442,000 | 11,527,273,000 | 11,740,067,000 |
| Okaloosa | 7,841,153,000 | 8,154,015,000 | 8,542,061,000 | 8,775,211,000 |
| Santa Rosa | 5,402,876,000 | 5,729,757,000 | 5,953,288,000 | 6,079,598,000 |
| Walton | 1,849,189,000 | 2,033,983,000 | 2,193,306,000 | 2,271,258,000 |
| Region FL-1 | 31,981,506,000 | 33,557,818,000 | 34,726,551,000 | 35,500,715,000 |

Source: Emsi (2015)

Figure 35 shows the distribution of total personal income over the FL-1 counties from 2013. Figure 36 illustrates the per capita income data for each county in FL-1 for 2013. Okaloosa was somewhat of an outlier with an annual per capita income above \$45,000 and the other counties remained below \$39,000.

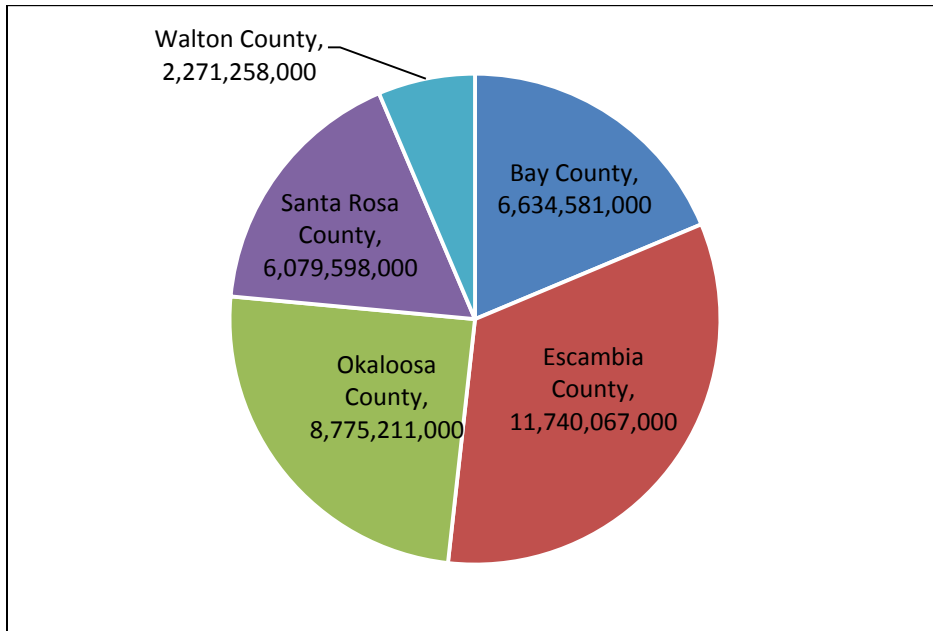


Figure 35. Total Personal Income (in dollars) by FL-1 County from 2013

Source: Emsi (2015)

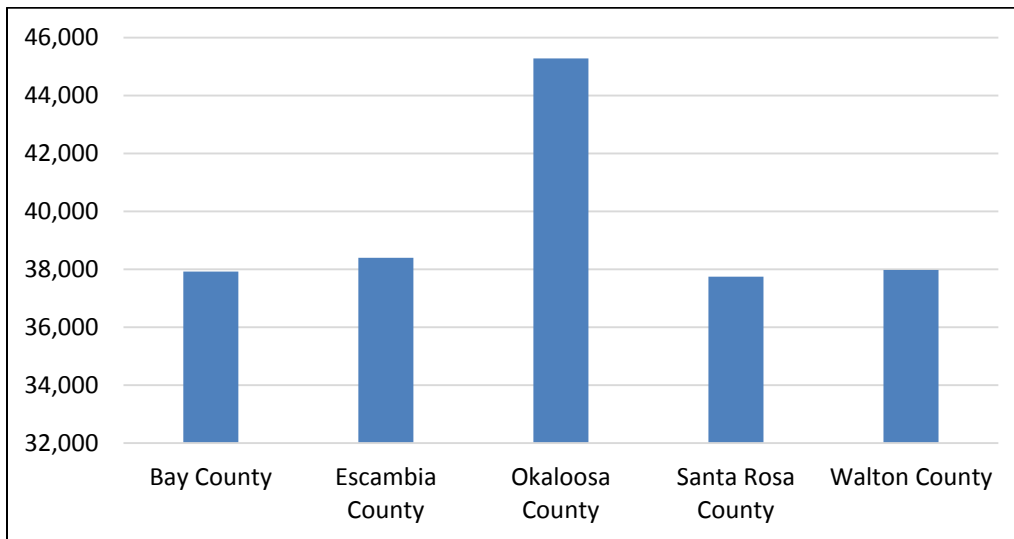


Figure 36. Per Capita Income (in dollars) by FL-1 County from 2013 Demographics

Source: Emsi (2015)

The 2013 demographic data are presented in Table 58. The FL-1 region had a regional poverty rate of 15.0% in 2013. Escambia had the highest poverty rate (18.0%) while Okaloosa had the lowest (12.1%).

Table 58. Demographic Data by FL-1 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Bay | 14.7% | 17.8% |
| Escambia | 18.0% | 31.1% |
| Okaloosa | 12.1% | 18.9% |
| Santa Rosa | 12.3% | 12.2% |
| Walton | 15.9% | 12.2% |
| Region FL-1 | 15.0% | 21.3% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

In 2013, FL-1 had a population that was 21.3% minority. Escambia was 31.1% minority in 2013 while the other four counties averaged between 12% and 19% minority.

2.7 Intra-Regional Comparison of the Economic Impact Area (EIA) FL-2

EIA FL-2 comprises 10 Florida counties: Calhoun, Franklin, Gadsden, Gulf, Holmes, Jackson, Leon, Liberty, Wakulla, and Washington. The FL-2 counties were home to 502,782 people in 2013. The region generated 264,005 jobs, earned \$11.0 billion in total earnings (excluding corporate profits), \$18.9 billion in GDP, and \$17.0 billion in personal income in 2013.

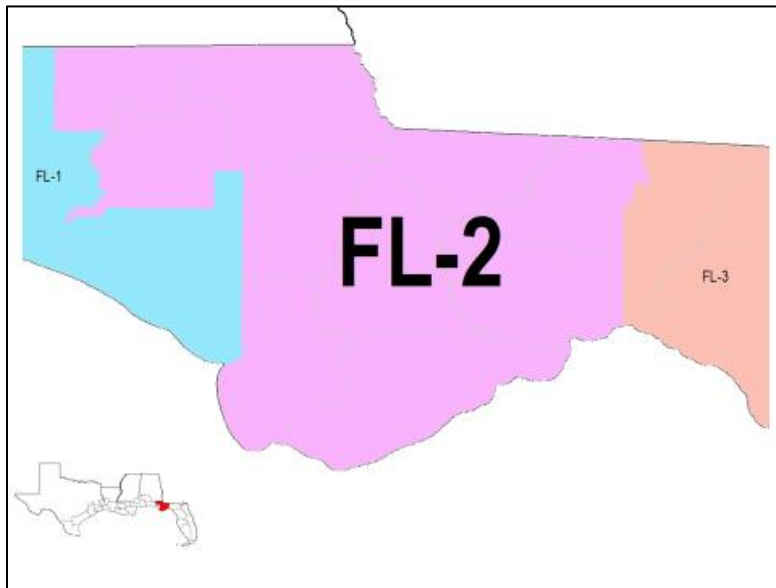


Figure 37. Map of EIA Region FL-2

2.7.1 Gross Domestic Product

Table 59 presents the total GDP estimates for each county in FL-2. Approximately 73.9% of the total FL-2 GDP came from Leon, the largest contributor from the Tallahassee MSA (Gadsden and Wakulla are also part of the Tallahassee MSA). None of the other FL-2 counties contributed more than 7% to the

EIA's total GDP. Calhoun, Franklin, Holmes, and Liberty each produced less than two percent of the region's total GDP.

Table 59. Total GDP (in dollars) by FL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Calhoun | 244,370,559 | 236,032,899 | 268,362,809 | 271,026,045 |
| Franklin | 277,370,894 | 278,491,931 | 331,790,526 | 346,790,905 |
| Gadsden | 1,073,778,475 | 1,064,932,897 | 1,068,797,440 | 1,081,260,974 |
| Gulf | 320,335,764 | 307,504,779 | 356,147,743 | 372,650,099 |
| Holmes | 322,137,292 | 314,879,822 | 361,816,043 | 366,717,014 |
| Jackson | 1,209,626,974 | 1,197,293,040 | 1,184,244,280 | 1,200,460,770 |
| Leon | 13,731,141,212 | 13,551,216,391 | 13,672,157,855 | 13,949,069,979 |
| Liberty | 235,848,532 | 164,568,848 | 215,025,637 | 242,383,181 |
| Wakulla | 512,273,337 | 467,268,736 | 506,313,315 | 532,077,428 |
| Washington | 495,132,378 | 497,786,647 | 508,908,759 | 520,656,478 |
| Region FL-2 | 18,422,015,417 | 18,079,975,990 | 18,473,564,407 | 18,883,092,872 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The distribution of GDP over the FL-2 counties in 2013 appears in Figure 38, demonstrating the degree to which the economy of FL-2 was centered on Leon.

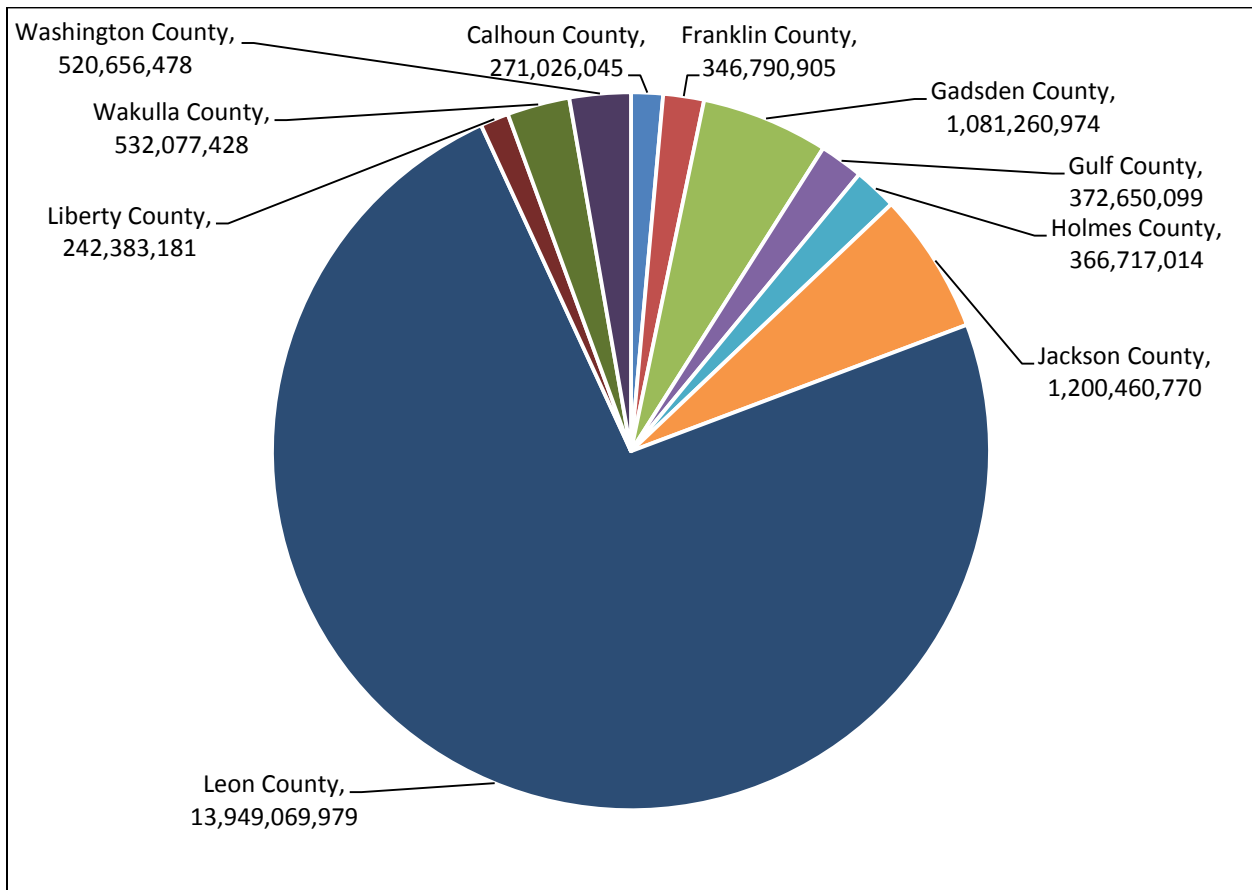


Figure 38. Total GDP (in dollars) by FL-2 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 60 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Although Leon produced more oil and gas GDP than any other FL-2 county (33.0%), the distribution was more even than that of total GDP with Calhoun, Jackson, and Wakulla all contributing significantly. Franklin and Liberty produce no oil- and gas-related GDP.

Table 60. GDP in Oil- and Gas-Related Industries (in dollars) by FL-2 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|---------|---------|-----------|
| Calhoun | 87,629 | 95,267 | 1,122,244 |
| Franklin | 0 | 0 | 0 |
| Gadsden | 44,054 | 46,233 | 554,684 |
| Gulf | 36,176 | 35,823 | 501,573 |
| Holmes | 28,721 | 59,929 | 140,570 |
| Jackson | 306,739 | 317,437 | 1,485,465 |
| Leon | 293,575 | 334,668 | 3,283,531 |
| Liberty | 0 | 0 | 0 |
| Wakulla | 37,305 | 38,817 | 1,988,269 |
| Washington | 66,048 | 67,233 | 873,127 |
| Region FL-2 | 900,246 | 995,407 | 9,949,463 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 61 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of FL-2 oil and gas GDP. None of the FL-2 counties sourced more than 0.5% of their total GDP in oil- and gas-related industries in any one year, indicating that the region in general was not dependent on these industries. What oil and gas GDP was produced in FL-2 came predominantly from Jackson and Leon, though contributions from Calhoun and Wakulla were growing.

Table 61. Oil and Gas Contributions to GDP by FL-2 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|-------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Calhoun | 0.0 | 0.0 | 0.4 | 9.7 | 9.6 | 11.3 |
| Franklin | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gadsden | 0.0 | 0.0 | 0.1 | 4.9 | 4.6 | 5.6 |
| Gulf | 0.0 | 0.0 | 0.1 | 4.0 | 3.6 | 5.0 |
| Holmes | 0.0 | 0.0 | 0.0 | 3.2 | 6.0 | 1.4 |
| Jackson | 0.0 | 0.0 | 0.1 | 34.1 | 31.9 | 14.9 |
| Leon | 0.0 | 0.0 | 0.0 | 32.6 | 33.6 | 33.0 |
| Liberty | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wakulla | 0.0 | 0.0 | 0.4 | 4.1 | 3.9 | 20.0 |
| Washington | 0.0 | 0.0 | 0.2 | 7.3 | 6.8 | 8.8 |
| Region FL-2 | 0.0 | 0.0 | 0.1 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.7.2 Earnings by Place-of-Work

The majority of total earnings in FL-2 were earned in Leon, accounting for 73.9% of the \$11.0 billion in place-of-work earnings produced by FL-2. These data are highlighted in Table 62.

Table 62. Total Place-of-Work Earnings (in dollars) by EIA FL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| Calhoun | 138,883,301 | 135,851,482 | 157,574,245 | 158,081,816 |
| Franklin | 157,638,406 | 160,289,273 | 194,817,016 | 202,273,314 |
| Gadsden | 610,261,317 | 612,934,525 | 627,564,417 | 630,668,904 |
| Gulf | 182,056,662 | 176,987,955 | 209,118,812 | 217,356,249 |
| Holmes | 183,080,526 | 181,232,747 | 212,447,060 | 213,895,649 |
| Jackson | 687,468,195 | 689,115,946 | 695,351,189 | 700,194,770 |
| Leon | 7,803,829,673 | 7,799,560,338 | 8,027,863,327 | 8,136,097,479 |
| Liberty | 134,039,971 | 94,719,516 | 126,256,326 | 141,375,245 |
| Wakulla | 291,140,686 | 268,941,961 | 297,291,337 | 310,345,695 |
| Washington | 281,398,952 | 286,506,899 | 298,815,301 | 303,684,179 |
| Region FL-2 | 10,469,797,690 | 10,406,140,643 | 10,847,099,032 | 11,013,973,300 |

Source: Emsi (2015)

Figure 39 shows the distribution of total earnings over the FL-2 counties for 2013. This data further confirms the economic dependence of FL-2 on Leon. Table 63 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Leon again dominated the economic production in FL-2.

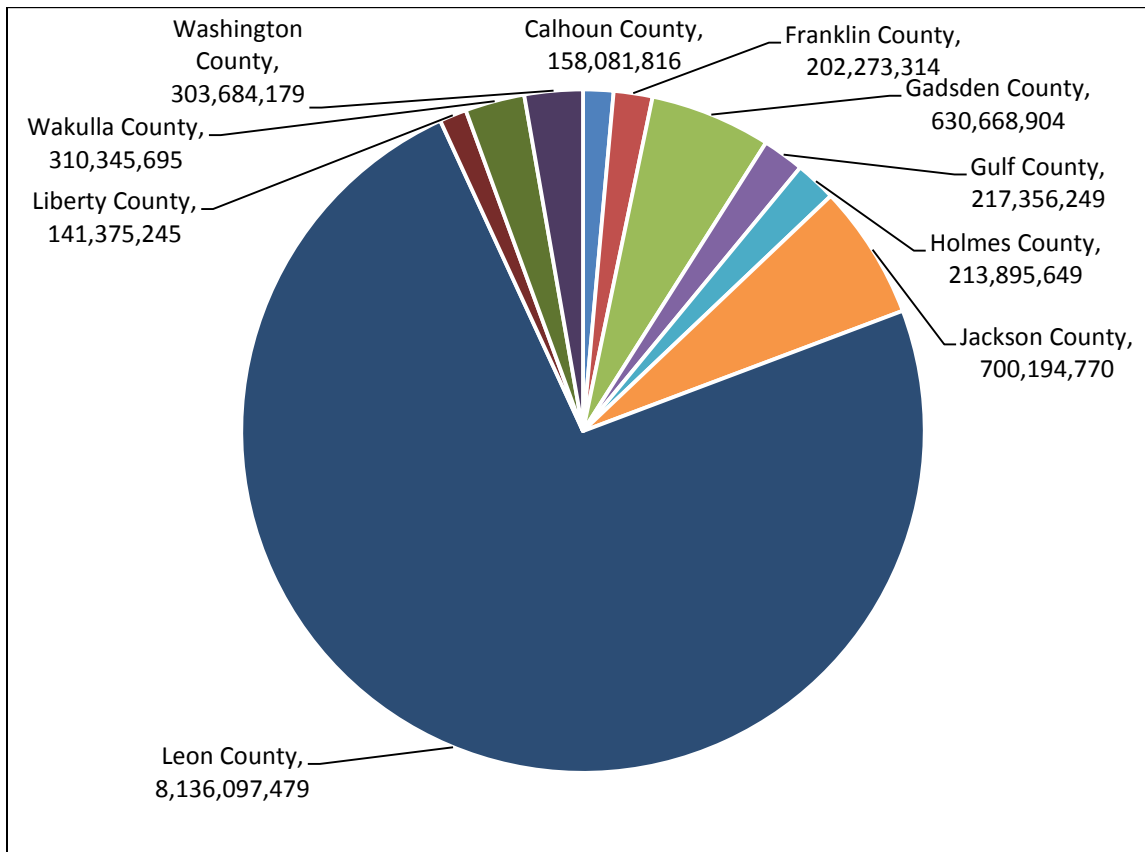


Figure 39. Total Place-of-Work Earnings (in dollars) by FL-2 County from 2013

Source: Emsi (2015)

Table 63. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by FL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------------|------------|------------|------------|
| Calhoun | 564,609 | 678,745 | 3,392,040 | 3,408,727 |
| Franklin | 0 | 0 | 0 | 0 |
| Gadsden | 2,990,370 | 393,134 | 1,678,765 | 1,533,595 |
| Gulf | 1,277,327 | 1,789,443 | 2,360,451 | 2,213,371 |
| Holmes | 597,771 | 406,830 | 48,395 | 52,684 |
| Jackson | 1,674,681 | 1,800,118 | 4,679,298 | 4,042,437 |
| Leon | 7,904,623 | 7,662,423 | 14,549,312 | 13,879,028 |
| Liberty | 0 | 0 | 0 | 0 |
| Wakulla | 170,730 | 173,183 | 5,754,886 | 6,365,055 |
| Washington | 842,828 | 610,998 | 2,961,906 | 2,838,566 |
| Region FL-2 | 16,022,939 | 13,514,872 | 35,425,053 | 34,333,464 |

Source: Emsi (2015)

Table 64 shows the percentage of each county's total earnings produced in oil- and gas-related industries.

Table 64. Oil and Gas Contributions to Place-of-Work Earnings by FL-2 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Calhoun | 0.4 | 0.5 | 2.2 | 2.2 | 3.5 | 5.0 | 9.6 | 9.9 |
| Franklin | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gadsden | 0.5 | 0.1 | 0.3 | 0.2 | 18.7 | 2.9 | 4.7 | 4.5 |
| Gulf | 0.7 | 1.0 | 1.1 | 1.0 | 8.0 | 13.2 | 6.7 | 6.4 |
| Holmes | 0.3 | 0.2 | 0.0 | 0.0 | 3.7 | 3.0 | 0.1 | 0.2 |
| Jackson | 0.2 | 0.3 | 0.7 | 0.6 | 10.5 | 13.3 | 13.2 | 11.8 |
| Leon | 0.1 | 0.1 | 0.2 | 0.2 | 49.3 | 56.7 | 41.1 | 40.4 |
| Liberty | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wakulla | 0.1 | 0.1 | 1.9 | 2.1 | 1.1 | 1.3 | 16.2 | 18.5 |
| Washington | 0.3 | 0.2 | 1.0 | 0.9 | 5.3 | 4.5 | 8.4 | 8.3 |
| Region FL-2 | 0.2 | 0.1 | 0.3 | 0.3 | - | - | - | - |

Source: Emsi (2015)

As with GDP, none of the FL-2 counties produced a significant amount of place-of-work earnings in oil- and gas-related industries. What was earned in these industries was produced largely in Leon.

2.7.3 Employment

In 2013, the FL-2 region produced 264,005 jobs. 68.6% of those jobs were sourced in Leon. No other county contributed more than 7.5% of the total jobs in the region. These data are shown in Table 65.

Table 65. Total Jobs by FL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Calhoun | 4,570 | 4,576 | 4,625 | 4,660 |
| Franklin | 5,597 | 5,833 | 6,042 | 6,188 |
| Gadsden | 18,979 | 18,745 | 18,831 | 19,081 |
| Gulf | 5,434 | 5,412 | 5,586 | 5,828 |
| Holmes | 6,932 | 7,098 | 6,870 | 6,934 |
| Jackson | 19,741 | 19,843 | 19,794 | 19,823 |
| Leon | 177,468 | 179,090 | 179,168 | 181,230 |
| Liberty | 3,436 | 2,702 | 2,816 | 3,053 |
| Wakulla | 8,799 | 8,720 | 8,570 | 8,810 |
| Washington | 8,454 | 8,657 | 8,422 | 8,398 |
| Region FL-2 | 259,410 | 260,676 | 260,723 | 264,005 |

Source: Emsi (2015)

Figure 40 shows the distribution of total jobs over the FL-2 counties for 2013. Accordingly, the county that had the largest economic activity (Leon) in terms of GDP and earnings also had the largest share of jobs in FL-2.

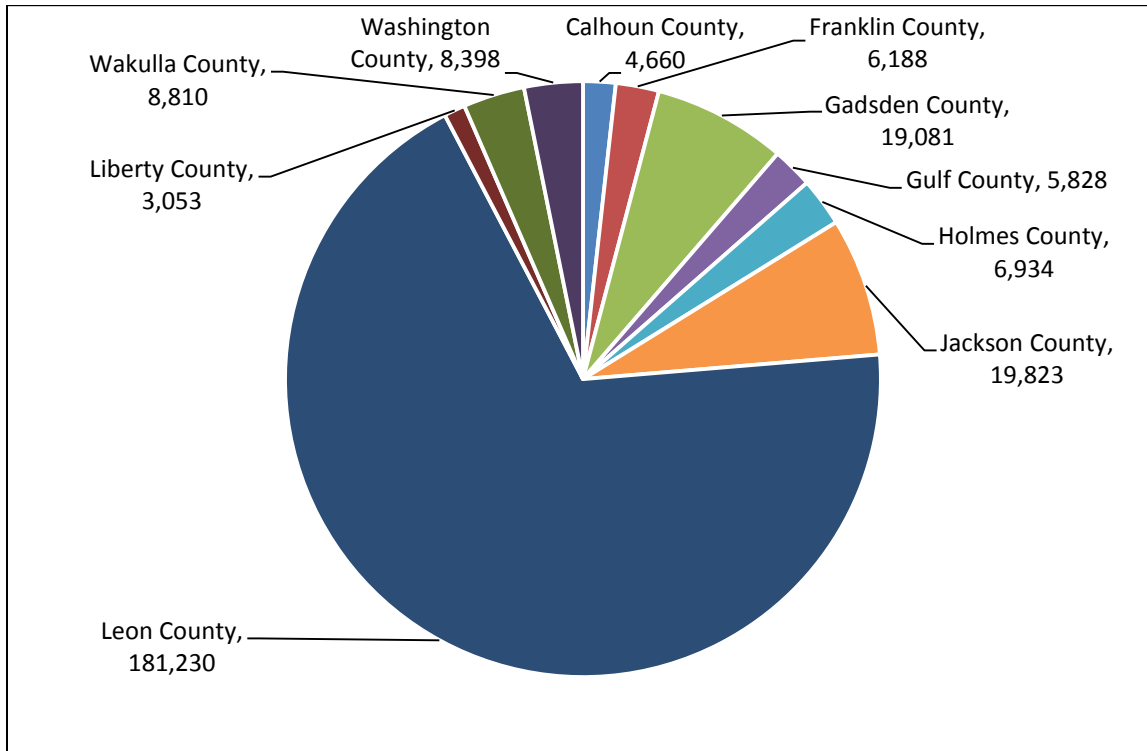


Figure 40. Total Jobs by FL-2 County from 2013

Source: Emsi (2015)

Table 66 shows the number of jobs in each FL-2 county that were sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7).

Table 66. Jobs in Oil- and Gas-Related Industries by FL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------|------|------|------|
| Calhoun | 26 | 21 | 23 | 26 |
| Franklin | 0 | 0 | 0 | 0 |
| Gadsden | 35 | 12 | 11 | 9 |
| Gulf | 26 | 21 | 22 | 24 |
| Holmes | 23 | 23 | 10 | 11 |
| Jackson | 67 | 66 | 34 | 28 |
| Leon | 130 | 109 | 136 | 114 |
| Liberty | 0 | 0 | 0 | 0 |
| Wakulla | 10 | 7 | 35 | 39 |
| Washington | 24 | 19 | 23 | 23 |
| Region FL-2 | 341 | 278 | 295 | 276 |

Source: Emsi (2015)

Table 67 shows the percentage of each county's total jobs sourced from oil- and gas-related industries from 2010 to 2013. As with previous variables, none of the FL-2 counties sourced any significant levels of jobs in oil- and gas-related industries, further corroborating the lack of oil and gas activity in this region relative to overall economic activity when compared to other EIA regions.

Table 67. Oil and Gas Contributions to Jobs by FL-2 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Calhoun | 0.6 | 0.5 | 0.5 | 0.6 | 7.5 | 7.7 | 7.9 | 9.5 |
| Franklin | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gadsden | 0.2 | 0.1 | 0.1 | 0.0 | 10.3 | 4.4 | 3.8 | 3.4 |
| Gulf | 0.5 | 0.4 | 0.4 | 0.4 | 7.6 | 7.5 | 7.4 | 8.8 |
| Holmes | 0.3 | 0.3 | 0.1 | 0.2 | 6.8 | 8.3 | 3.4 | 4.0 |
| Jackson | 0.3 | 0.3 | 0.2 | 0.1 | 19.6 | 23.6 | 11.4 | 10.3 |
| Leon | 0.1 | 0.1 | 0.1 | 0.1 | 38.1 | 39.0 | 46.1 | 41.5 |
| Liberty | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wakulla | 0.1 | 0.1 | 0.4 | 0.4 | 3.0 | 2.7 | 12.0 | 14.1 |
| Washington | 0.3 | 0.2 | 0.3 | 0.3 | 7.1 | 6.8 | 8.0 | 8.5 |
| Region FL-2 | 0.1 | 0.1 | 0.1 | 0.1 | - | - | - | - |

Source: Emsi (2015)

The largest share of oil and gas jobs in a FL-2 county belonged to Calhoun, which sourced 0.6% of its 2013 jobs in these industries. That share in Calhoun is double the oil and gas job share from any other FL-2 county.

2.7.4 Personal Income

In 2013, the FL-2 counties received \$17.0 billion in personal income. Leon accounted for 63.5% of that income, while no other county contributed more than 7.5% of the total income. These data appear in Table 68. Figure 41 shows the distribution of total personal income over the FL-2 counties from 2013. As expected, this data illustrate the dependence of FL-2 on Leon County.

Table 68. Personal Income (in dollars) by FL-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------------|----------------|----------------|----------------|----------------|
| Calhoun County | 328,377,000 | 337,458,000 | 339,335,000 | 344,788,000 |
| Franklin County | 324,539,000 | 332,794,000 | 342,556,000 | 351,435,000 |
| Gadsden County | 1,302,150,000 | 1,361,976,000 | 1,294,862,000 | 1,306,846,000 |
| Gulf County | 404,630,000 | 416,421,000 | 418,038,000 | 428,219,000 |
| Holmes County | 512,271,000 | 526,332,000 | 535,973,000 | 539,210,000 |
| Jackson County | 1,424,831,000 | 1,456,880,000 | 1,442,815,000 | 1,469,480,000 |
| Leon County | 10,330,064,000 | 11,090,419,000 | 10,679,668,000 | 10,807,304,000 |
| Liberty County | 205,621,000 | 205,036,000 | 205,297,000 | 209,245,000 |
| Wakulla County | 901,039,000 | 927,743,000 | 932,983,000 | 952,358,000 |
| Washington County | 612,965,000 | 622,565,000 | 613,965,000 | 621,716,000 |
| Region FL-2 | 16,346,487,000 | 17,277,624,000 | 16,805,492,000 | 17,030,601,000 |

Source: Emsi (2015)

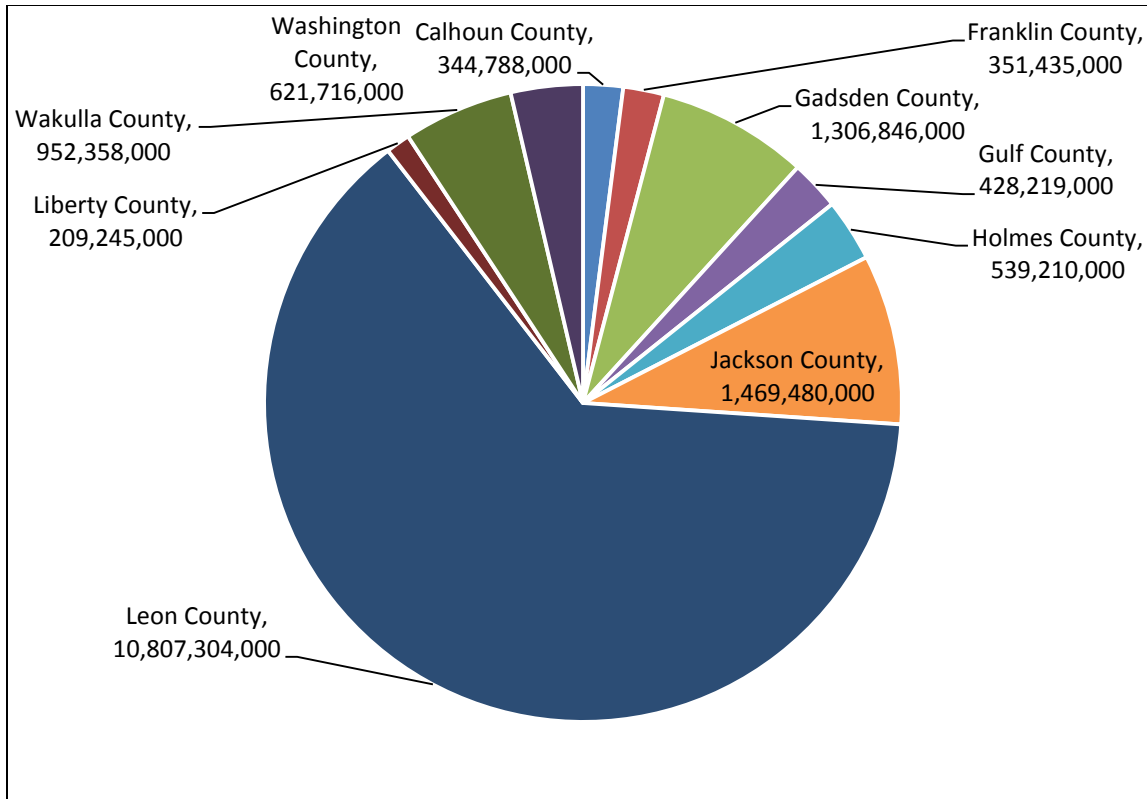


Figure 41. Total Personal Income (in dollars) by FL-2 County from 2013

Source: Emsi (2015)

Figure 42 shows the per capita income data 2013 for each county in FL-2. Unlike in other EIA regions, the largest economic county in FL-2 (Leon) also had the highest annual per capita income at \$38,345. Calhoun had the lowest per capita income (\$23,484).

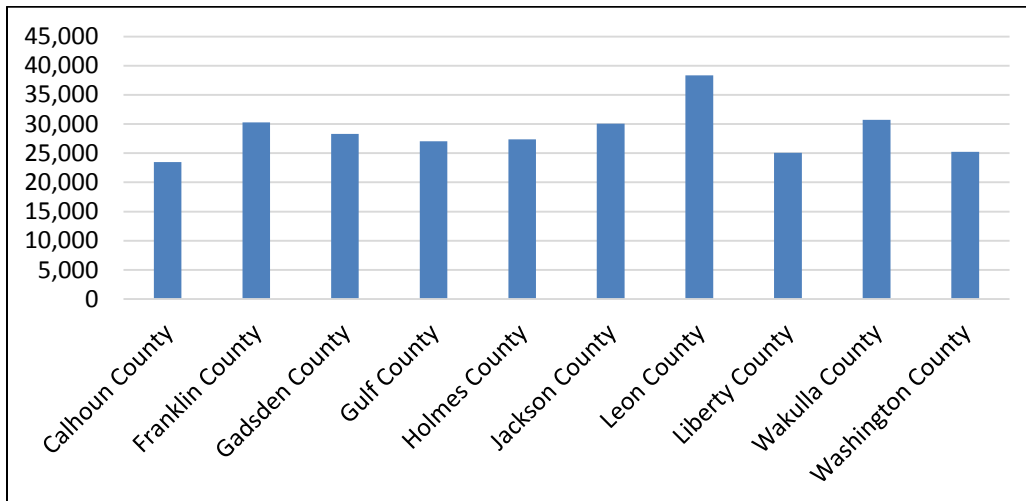


Figure 42. Per Capita Income (in dollars) by FL-2 County from 2013

Source: Emsi (2015)

2.7.5 Demographics

The 2013 demographic data are presented in Table 69. The FL-2 region had a regional poverty rate of 21.9% in 2013. Leon had the highest rate of poverty (25.0%) and Wakulla had the lowest (12.5%). In 2013, FL-2 had a population that was 34.1% minority. Gadsden had double the minority population percentage of any other FL-2 county (64.1%) and Holmes had the lowest (9.5%), illustrating the wide range of minority population concentration among FL-2 counties.

Table 69. Demographic Data by FL-2 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Calhoun | 19.2% | 19.2% |
| Franklin | 20.4% | 17.4% |
| Gadsden | 23.0% | 64.1% |
| Gulf | 16.4% | 21.9% |
| Holmes | 20.4% | 9.5% |
| Jackson | 15.9% | 30.9% |
| Leon | 25.0% | 37.0% |
| Liberty | 17.8% | 22.7% |
| Wakulla | 12.5% | 18.0% |
| Washington | 18.8% | 19.6% |
| Region FL-2 | 21.9% | 34.1% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.8 Intra-Regional Comparison of the Economic Impact Area (EIA) FL-3

EIA FL-3 comprises nine Florida counties: Bradford, Columbia, Hamilton, Jefferson, Lafayette, Madison, Suwannee, Taylor, and Union. The FL-3 counties were home to 232,244 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 87,305 jobs, earned \$3.4 billion in total earnings (excluding corporate profits), \$5.8 billion in GDP, and \$6.4 billion in personal income in 2013.

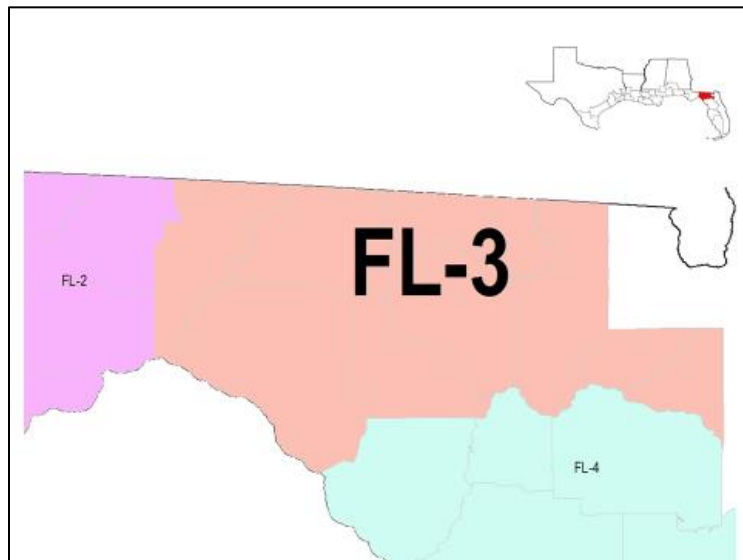


Figure 43. Map of EIA Region FL-3

2.8.1 Gross Domestic Product

Table 70 presents the total GDP estimates for each county in FL-3. 31.8% of the total FL-3 GDP came from Columbia. Bradford, Suwannee, and Taylor each contributed more than 10% of the total FL-3 GDP, and all other FL-3 counties each produced less than 8.5% of the total GDP. The distribution of GDP over the FL-3 counties in 2013 is shown in Figure 44, indicating that while Columbia made the largest contribution to GDP, the other counties made relatively even contributions to the remainder of the region's GDP.

Table 70. Total GDP (in dollars) by FL-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Bradford | 681,244,904 | 680,730,962 | 622,624,667 | 643,138,802 |
| Columbia | 1,842,091,211 | 1,745,279,554 | 1,784,152,248 | 1,836,782,513 |
| Hamilton | 344,862,464 | 330,018,248 | 366,855,545 | 365,827,797 |
| Jefferson | 236,000,251 | 233,018,632 | 243,514,901 | 251,384,936 |
| Lafayette | 133,560,287 | 134,545,314 | 201,995,512 | 204,960,045 |
| Madison | 356,816,410 | 348,055,366 | 399,565,942 | 415,213,418 |
| Suwannee | 836,651,453 | 844,372,318 | 871,709,116 | 907,891,414 |
| Taylor | 593,766,071 | 591,897,354 | 625,100,608 | 662,108,113 |
| Union | 294,430,856 | 263,517,057 | 464,324,670 | 484,018,697 |
| Region FL-3 | 5,319,423,908 | 5,171,434,805 | 5,579,843,209 | 5,771,325,736 |

Source: Varnado and Fannin (2015) and Emsi (2015)

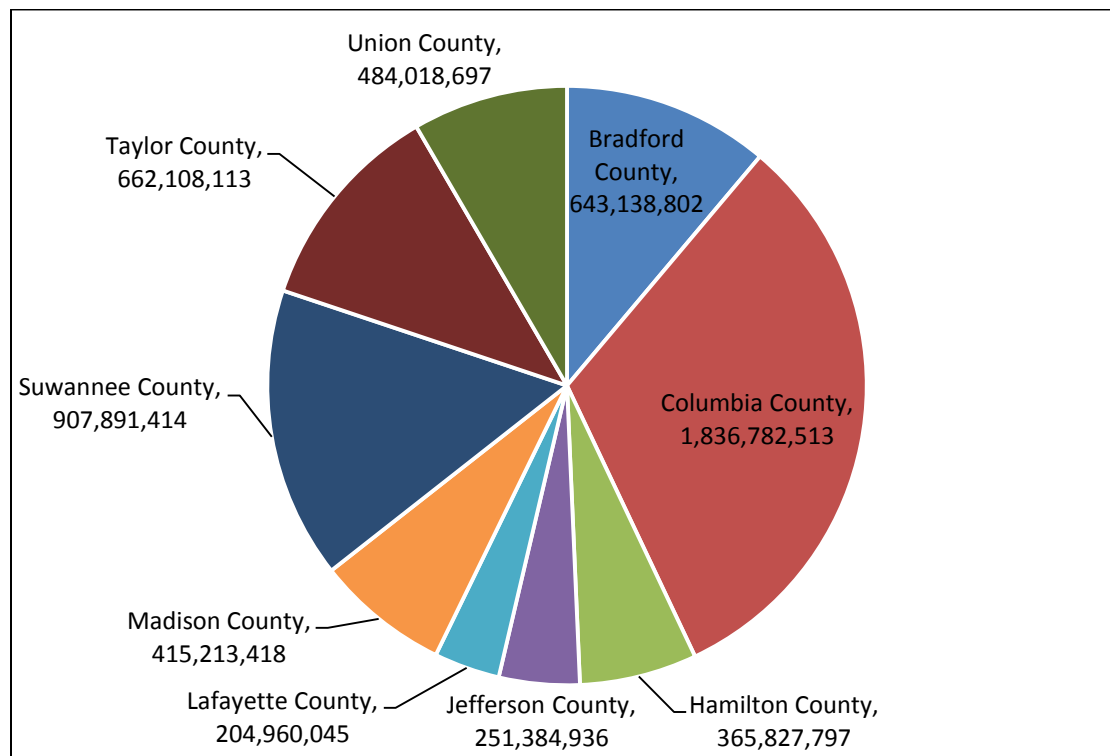


Figure 44. Total GDP (in dollars) by FL-3 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 71 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Similar to the distribution of total GDP in FL-3, the GDP in oil- and gas-related industries was balanced among the counties. Bradford, Jefferson, Lafayette, Taylor, and Union each contributed between 13.6% and 25.2% of the oil and gas GDP in FL-3. Columbia contributed 7.1%. The remaining counties did not contribute significantly to GDP.

Table 71. GDP in Oil- and Gas-Related Industries(in dollars) by FL-3 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|---------|---------|-----------|
| Bradford | 380,869 | 313,526 | 1,741,522 |
| Columbia | 52,152 | 56,243 | 490,024 |
| Hamilton | 1,955 | 0 | 0 |
| Jefferson | 80,411 | 83,077 | 941,047 |
| Lafayette | 111,837 | 122,682 | 1,343,047 |
| Madison | 96,681 | 191,397 | 41,214 |
| Suwannee | 2,868 | 3,517 | 0 |
| Taylor | 86,188 | 94,411 | 1,062,916 |
| Union | 84,521 | 88,357 | 1,304,013 |
| Region FL-3 | 897,482 | 953,209 | 6,923,783 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 72 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of FL-3 oil and gas GDP.

Table 72. Oil and Gas Contributions to GDP by FL-3 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Bradford | 0.1 | 0.0 | 0.3 | 42.4 | 32.9 | 25.2 |
| Columbia | 0.0 | 0.0 | 0.0 | 5.8 | 5.9 | 7.1 |
| Hamilton | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| Jefferson | 0.0 | 0.0 | 0.4 | 9.0 | 8.7 | 13.6 |
| Lafayette | 0.1 | 0.1 | 0.7 | 12.5 | 12.9 | 19.4 |
| Madison | 0.0 | 0.1 | 0.0 | 10.8 | 20.1 | 0.6 |
| Suwannee | 0.0 | 0.0 | 0.0 | 0.3 | 0.4 | 0.0 |
| Taylor | 0.0 | 0.0 | 0.2 | 9.6 | 9.9 | 15.4 |
| Union | 0.0 | 0.0 | 0.3 | 9.4 | 9.3 | 18.8 |
| Region FL-3 | 0.0 | 0.0 | 0.1 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

None of the FL-3 counties sourced more than 0.7% of their total GDP from oil- and gas-related industries. Of the existing oil and gas GDP in FL-3, Bradford contributed the most; Jefferson, Lafayette, Taylor, and Union contributed significantly. Again, Columbia produced a relatively small percentage and the other counties did not contribute significantly to GDP.

2.8.2 Earnings by Place-of-Work

The plurality of total earnings in FL-3 were earned in Columbia County (31.8%). Bradford, Suwanee, and Taylor were the only other FL-3 counties that produced more than 10% of the EIA's total earnings. These data are in Table 73. Figure 45 shows the distribution of total earnings over the FL-3 counties for 2013. This data further confirm the dominance of Columbia County with general economic balance across most of the remaining counties of FL-3.

Table 73. Total Place-of-Work Earnings (in dollars) by EIA FL-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------------|----------------------|----------------------|----------------------|
| Bradford | 387,172,422 | 391,802,629 | 365,585,724 | 375,124,649 |
| Columbia | 1,046,917,065 | 1,004,515,963 | 1,047,598,379 | 1,071,343,222 |
| Hamilton | 195,995,940 | 189,945,844 | 215,406,098 | 213,376,994 |
| Jefferson | 134,126,198 | 134,116,586 | 142,984,331 | 146,625,714 |
| Lafayette | 75,906,417 | 77,439,122 | 118,605,445 | 119,547,390 |
| Madison | 202,789,735 | 200,327,317 | 234,612,620 | 242,182,228 |
| Suwannee | 475,494,741 | 485,988,317 | 511,840,320 | 529,547,350 |
| Taylor | 337,455,512 | 340,673,412 | 367,039,519 | 386,188,911 |
| Union | 167,334,107 | 151,670,310 | 272,636,919 | 282,314,399 |
| Region FL-3 | 3,023,192,136 | 2,976,479,501 | 3,276,309,354 | 3,366,250,857 |

Source: Emsi (2015)

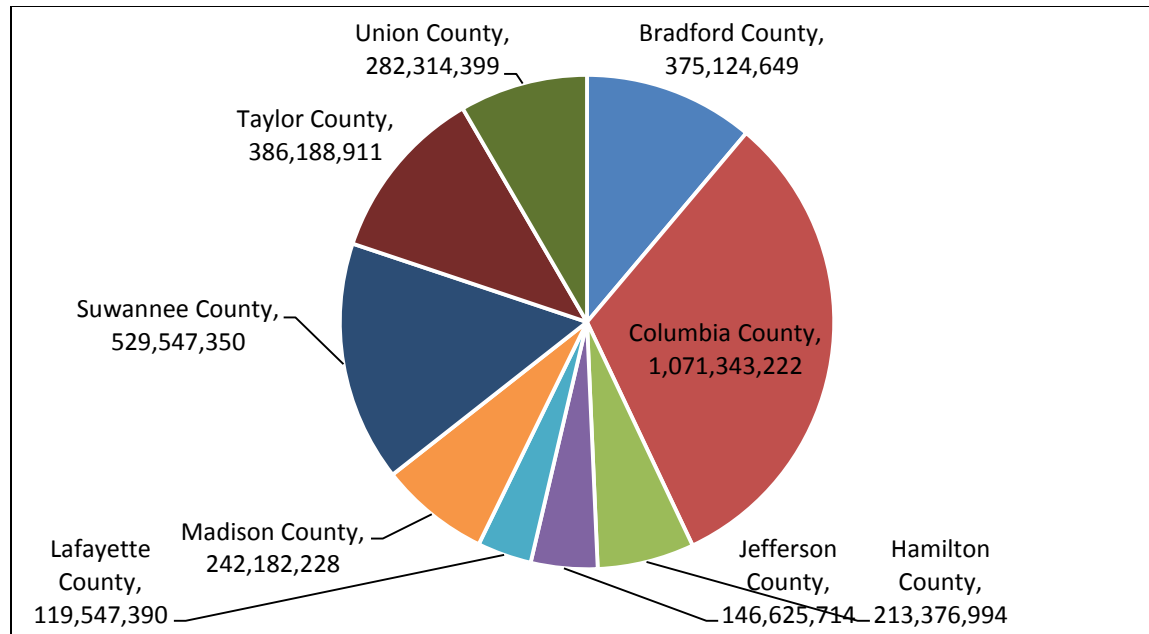


Figure 45. Total Place-of-Work Earnings (in dollars) by FL-3 County from 2013

Source: Emsi (2015)

Table 74 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Bradford and Lafayette each contributed more than 20% of the total oil and gas earnings in FL-3 (29.2% and 21.9% respectively); Hamilton did not contribute any earnings. Madison and Suwannee each contributed less than two percent to the EIA total.

Table 74. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by FL-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------------|------------|------------|------------|
| Bradford | 3,267,040 | 1,701,710 | 5,938,591 | 7,369,722 |
| Columbia | 238,682 | 802,946 | 1,789,232 | 1,847,845 |
| Hamilton | 8,949 | 0 | 0 | 0 |
| Jefferson | 482,742 | 671,252 | 2,877,831 | 2,878,955 |
| Lafayette | 677,263 | 941,686 | 4,423,068 | 5,545,726 |
| Madison | 255,147 | 87,800 | 33,450 | 36,594 |
| Suwannee | 704,329 | 609,651 | 193,564 | 315,962 |
| Taylor | 12,239,676 | 16,409,035 | 3,283,088 | 3,241,842 |
| Union | 525,056 | 467,751 | 3,988,891 | 4,030,619 |
| Region FL-3 | 18,398,882 | 21,691,831 | 22,527,714 | 25,267,265 |

Source: Emsi (2015)

Table 75 presents the percentage of each county's total earnings produced in oil- and gas-related industries. The table shows growing percentages of total earnings in Bradford, Jefferson, and Lafayette in oil- and gas-related industries. At the same time, Taylor underwent sizeable reductions in its oil and gas earnings share.

Table 75. Oil and Gas Contributions to Place-of-Work Earnings by FL-3 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Bradford | 0.8 | 0.4 | 1.6 | 2.0 | 17.8 | 7.8 | 26.4 | 29.2 |
| Columbia | 0.0 | 0.1 | 0.2 | 0.2 | 1.3 | 3.7 | 7.9 | 7.3 |
| Hamilton | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Jefferson | 0.4 | 0.5 | 2.0 | 2.0 | 2.6 | 3.1 | 12.8 | 11.4 |
| Lafayette | 0.9 | 1.2 | 3.7 | 4.6 | 3.7 | 4.3 | 19.6 | 21.9 |
| Madison | 0.1 | 0.0 | 0.0 | 0.0 | 1.4 | 0.4 | 0.1 | 0.1 |
| Suwannee | 0.1 | 0.1 | 0.0 | 0.1 | 3.8 | 2.8 | 0.9 | 1.3 |
| Taylor | 3.6 | 4.8 | 0.9 | 0.8 | 66.5 | 75.6 | 14.6 | 12.8 |
| Union | 0.3 | 0.3 | 1.5 | 1.4 | 2.9 | 2.2 | 17.7 | 16.0 |
| Region FL-3 | 0.6 | 0.7 | 0.7 | 0.8 | - | - | - | - |

Source: Emsi (2015)

2.8.3 Employment

In 2013, the FL-3 region produced 87,305 jobs. Approximately 31.3% of those jobs were in Columbia, and 18.5% in Suwannee. The rest of the counties ranged between 3.0% (Lafayette) and 11.6% (Bradford). These data are presented in Table 76.

Table 76. Total Jobs by FL-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Bradford | 10,368 | 10,688 | 10,118 | 10,144 |
| Columbia | 27,335 | 27,191 | 27,037 | 27,286 |
| Hamilton | 4,517 | 4,497 | 4,628 | 4,535 |
| Jefferson | 4,848 | 4,970 | 4,975 | 5,044 |
| Lafayette | 2,445 | 2,550 | 2,614 | 2,632 |
| Madison | 6,700 | 6,701 | 6,748 | 6,955 |
| Suwannee | 15,644 | 16,156 | 15,984 | 16,144 |
| Taylor | 8,452 | 8,518 | 8,745 | 8,977 |
| Union | 5,373 | 5,358 | 5,561 | 5,588 |
| Region FL-3 | 85,682 | 86,630 | 86,409 | 87,305 |

Source: Emsi (2015)

Figure 46 shows the distribution of total jobs over the FL-3 counties for 2013. As in the above table, Columbia had the largest share of jobs in FL-3, but the remaining jobs were distributed somewhat more evenly across the region.

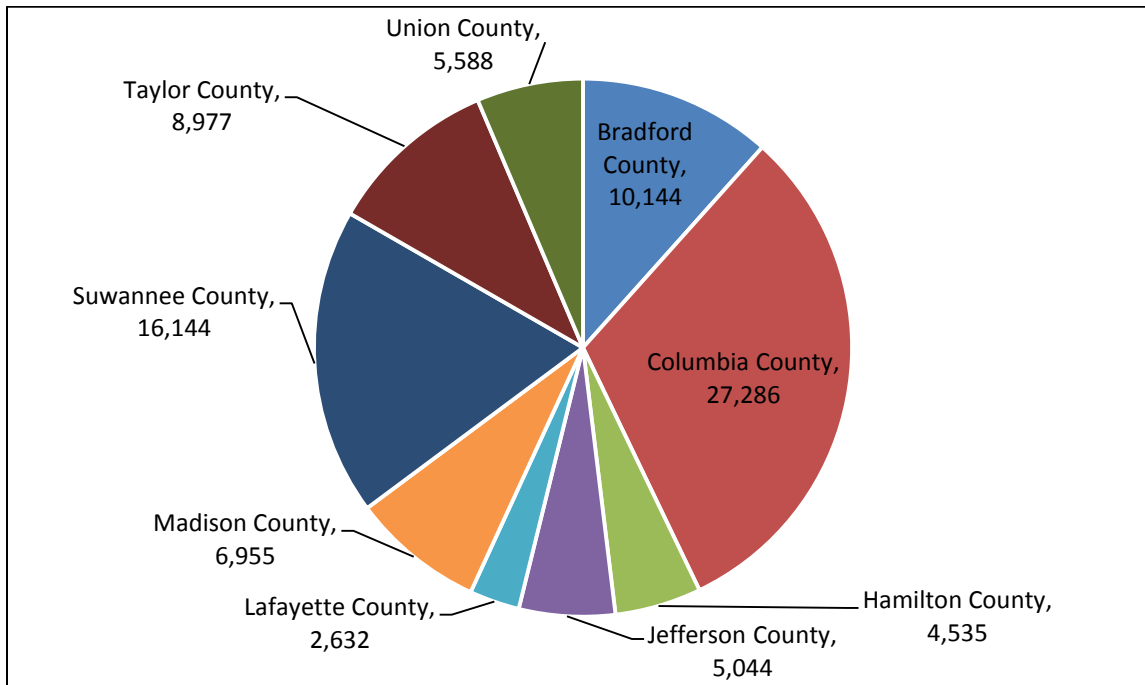


Figure 46. Total Jobs by FL-3 County from 2013

Source: Emsi (2015)

Table 77 shows the number of jobs in each FL-3 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). In 2013, there were only 223 total jobs in oil- and gas-related industries. No one county contributed more than 65. The total number of jobs in these industries showed significant negative growth from 2011 to 2012.

Table 77. Jobs in Oil- and Gas-Related Industries by FL-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------|------|------|------|
| Bradford | 83 | 46 | 38 | 65 |
| Columbia | 13 | 26 | 19 | 20 |
| Hamilton | 1 | 0 | 0 | 0 |
| Jefferson | 26 | 24 | 22 | 22 |
| Lafayette | 33 | 30 | 32 | 56 |
| Madison | 4 | 2 | 6 | 7 |
| Suwannee | 17 | 15 | 9 | 8 |
| Taylor | 238 | 295 | 19 | 19 |
| Union | 29 | 20 | 28 | 26 |
| Region FL-3 | 444 | 456 | 173 | 223 |

Source: Emsi (2015)

Table 78 shows the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Only Lafayette sourced more than one percent of its jobs annually in oil- and gas-related fields. No other county depended on these industries for a significant share of its jobs. Of the oil and gas jobs in FL-3, Bradford and Lafayette contributed the most in 2013, but the distribution of these jobs changed between 2011 and 2012 when Taylor witnessed a significant fall in its oil and gas job share.

Table 78. Oil and Gas Contributions to Jobs by FL-3 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Bradford | 0.8 | 0.4 | 0.4 | 0.6 | 18.7 | 10.0 | 21.8 | 29.2 |
| Columbia | 0.0 | 0.1 | 0.1 | 0.1 | 2.9 | 5.7 | 11.0 | 9.1 |
| Hamilton | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Jefferson | 0.5 | 0.5 | 0.4 | 0.4 | 5.8 | 5.2 | 12.9 | 9.8 |
| Lafayette | 1.4 | 1.2 | 1.2 | 2.1 | 7.5 | 6.5 | 18.7 | 25.1 |
| Madison | 0.1 | 0.0 | 0.1 | 0.1 | 1.0 | 0.5 | 3.5 | 3.0 |
| Suwannee | 0.1 | 0.1 | 0.1 | 0.0 | 3.9 | 3.2 | 4.9 | 3.6 |
| Taylor | 2.8 | 3.5 | 0.2 | 0.2 | 53.6 | 64.6 | 10.9 | 8.5 |
| Union | 0.5 | 0.4 | 0.5 | 0.5 | 6.5 | 4.3 | 16.3 | 11.8 |
| Region FL-3 | 0.5 | 0.5 | 0.2 | 0.3 | - | - | - | - |

Source: Emsi (2015)

2.8.4 Personal Income

In 2013, the FL-3 counties received \$6.4 billion in personal income. Again, the largest share of this income was contributed by Columbia. Bradford and Suwannee counties were the only other FL-3 counties that contributed more than 10% of the EIA total. These data are presented Table 79.

Table 79. Personal Income (in dollars) by FL-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Bradford | 829,084,000 | 864,574,000 | 860,676,000 | 863,258,000 |
| Columbia | 1,901,867,000 | 2,006,486,000 | 1,944,173,000 | 1,980,051,000 |
| Hamilton | 287,419,000 | 304,596,000 | 296,837,000 | 298,659,000 |
| Jefferson | 432,986,000 | 436,404,000 | 435,996,000 | 442,618,000 |
| Lafayette | 168,995,000 | 172,743,000 | 176,132,000 | 179,558,000 |
| Madison | 466,444,000 | 481,946,000 | 486,424,000 | 497,364,000 |
| Suwannee | 1,158,875,000 | 1,197,678,000 | 1,212,225,000 | 1,246,482,000 |
| Taylor | 595,186,000 | 624,891,000 | 608,541,000 | 626,161,000 |
| Union | 301,479,000 | 306,552,000 | 305,036,000 | 307,573,000 |
| Region FL-3 | 6,142,335,000 | 6,395,870,000 | 6,326,040,000 | 6,441,724,000 |

Source: Emsi (2015)

Figure 47 shows the distribution of total personal income over the FL-3 counties from 2013. As expected, these data illustrate Columbia's position as the economic leader of the region. Balanced contributions came from the rest of the FL-3 counties. Figure 48 shows the per capita income data from 2013 for each county in FL-3. Bradford and Jefferson were the only counties with per capita incomes greater than \$30,000 per year. Hamilton, Lafayette, and Union all hovered around the \$20,000 level.

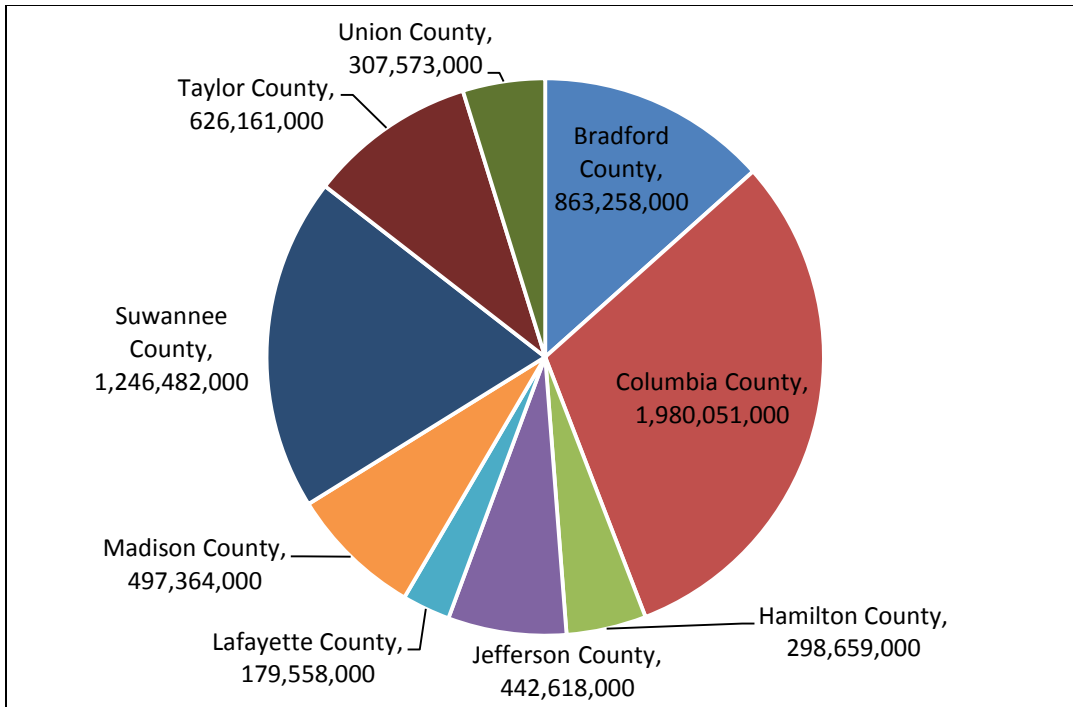


Figure 47. Total Personal Income (in dollars) by FL-3 County from 2013
 Source: Emsi (2015)

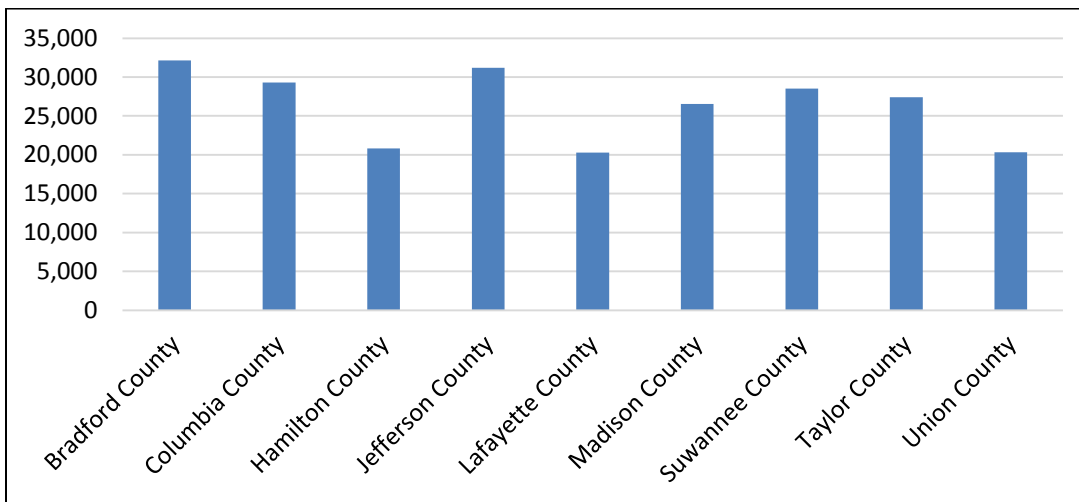


Figure 48. Per Capita Income (in dollars) by FL-3 County from 2013
 Source: Emsi (2015)

2.8.5 Demographics

The 2013 demographic data are presented in Table 80. The FL-3 region had a regional poverty rate of 18.7% in 2013. Hamilton had the highest poverty rate (24.2%); Bradford had the lowest (16.3%). Also in Table 80 are data on minority population. In 2013, FL-3 had a population that was 25.9% minority. Hamilton and Madison each had minority population percentages above 40%; Suwannee had the lowest percentage (17.5%).

Table 80. Demographic Data by FL-3 County from 2013

| EIA County | Poverty | Minority |
|--------------------|---------|----------|
| Bradford | 16.3% | 23.6% |
| Columbia | 18.1% | 22.1% |
| Hamilton | 24.2% | 40.2% |
| Jefferson | 16.8% | 39.6% |
| Lafayette | 19.9% | 22.6% |
| Madison | 21.0% | 42.4% |
| Suwannee | 20.1% | 17.5% |
| Taylor | 17.6% | 24.8% |
| Union | 16.8% | 25.0% |
| Region FL-3 | 18.7% | 25.9% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.9 Intra-Regional Comparison of the Economic Impact Area (EIA) FL-4

EIA FL-4 comprises nine Florida counties: Alachua, Citrus, Dixie, Gilchrist, Hernando, Lake, Levy, Marion, and Sumter. The FL-4 counties were home to 1,392,130 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 573,325 jobs, earned \$22.1 billion in total earnings (excluding corporate profits), \$37.9 billion in GDP, and \$48.4 billion in personal income in 2013.

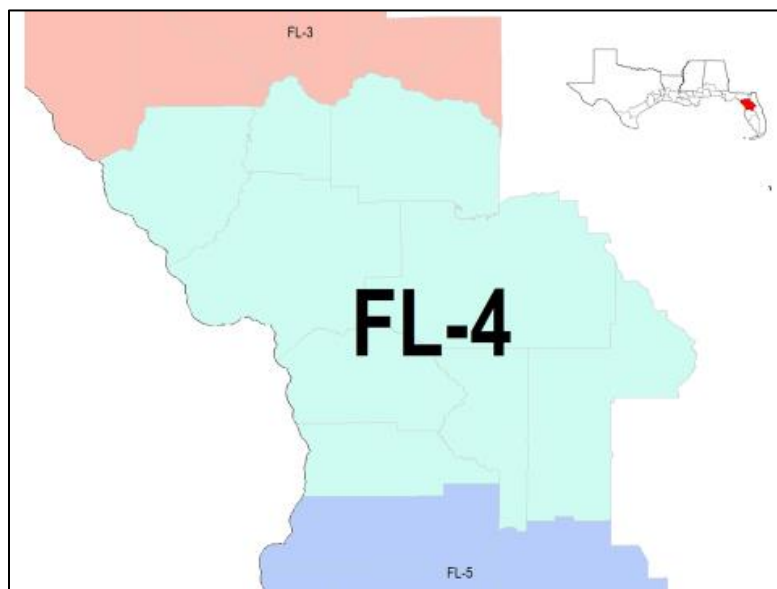


Figure 49. Map of EIA Region FL-4

Table 81 presents the total GDP estimates for each county in FL-4. 74.1% of the total FL-3 GDP came from Alachua, Lake, and Marion. Citrus, Hernando, and Sumter each produced between 5% and 10% of the EIA total GDP, and each of the remaining counties contributed less than two percent.

Table 81. Total GDP (in dollars) by FL-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| Alachua | 11,491,233,199 | 11,463,362,110 | 11,743,617,712 | 12,152,276,079 |
| Citrus | 2,940,430,213 | 2,885,646,583 | 2,947,512,870 | 2,960,559,110 |
| Dixie | 212,418,719 | 212,287,159 | 266,054,433 | 283,083,014 |
| Gilchrist | 281,882,469 | 282,745,558 | 299,272,463 | 308,499,242 |
| Hernando | 2,978,999,381 | 3,040,038,159 | 3,204,556,324 | 3,296,241,471 |
| Lake | 6,590,536,381 | 6,681,899,770 | 7,247,965,369 | 7,598,994,123 |
| Levy | 681,005,426 | 669,532,270 | 705,708,273 | 718,143,771 |
| Marion | 7,767,332,069 | 7,828,090,252 | 8,043,199,215 | 8,311,204,278 |
| Sumter | 1,642,654,127 | 1,890,898,138 | 2,002,632,523 | 2,242,375,951 |
| Region FL-4 | 34,586,491,984 | 34,954,499,998 | 36,460,519,182 | 37,871,377,040 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The distribution of GDP over the FL-4 counties in 2013 is shown in Figure 50. This demonstrates the degree to which the regional economy was centered on Alachua, Lake, and Marion. Table 82 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Approximately 53.9% of the oil and gas GDP produced in FL-4 came from Lake. Alachua produced another 20.2%, doubling the percentage contribution of any other FL-4 county.

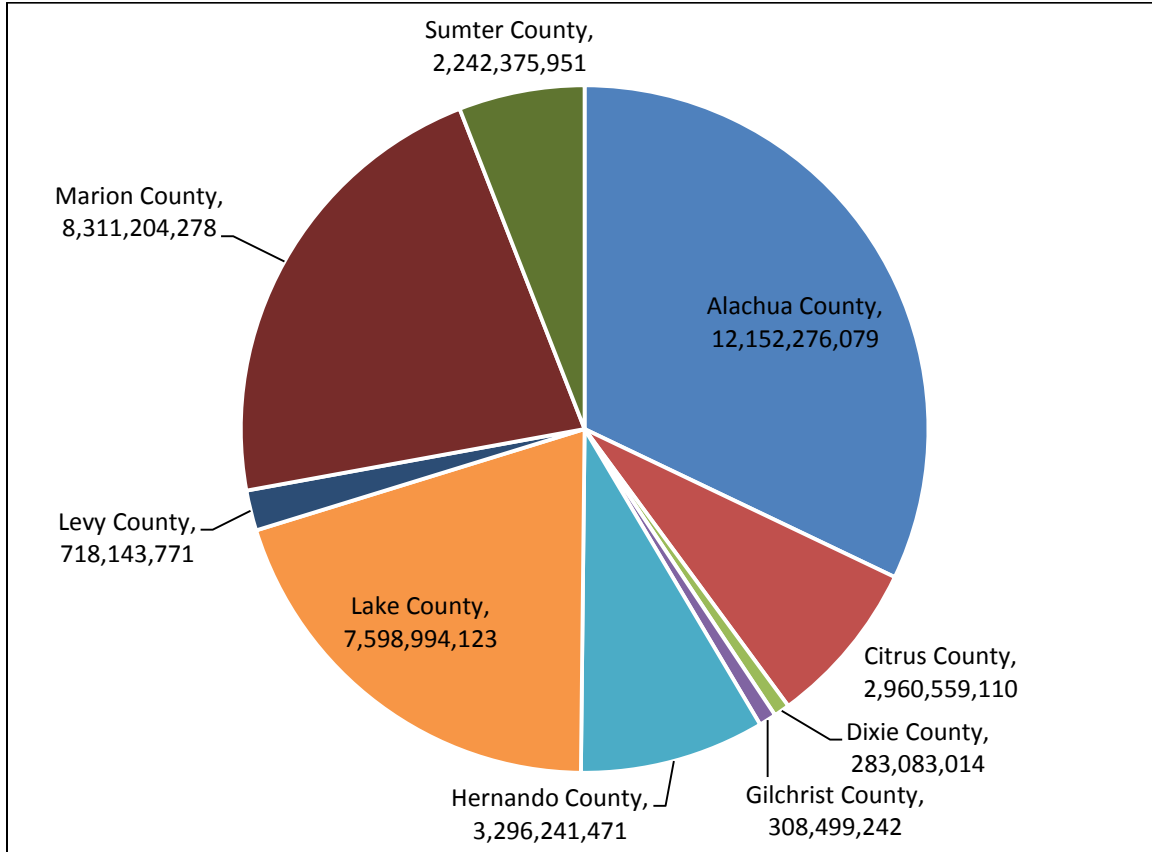


Figure 50. Total GDP (in dollars) by FL-4 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 82. GDP in Oil- and Gas-Related Industries (in dollars) by FL-4 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|-----------|-----------|------------|
| Alachua | 215,326 | 237,419 | 2,724,734 |
| Citrus | 9,788 | 8,481 | 63,881 |
| Dixie | 59,237 | 64,137 | 656,456 |
| Gilchrist | 68,215 | 72,838 | 707,489 |
| Hernando | 411,023 | 1,108,930 | 243,077 |
| Lake | 438,715 | 463,825 | 7,278,513 |
| Levy | 0 | 0 | 0 |
| Marion | 1,221,055 | 1,279,726 | 713,589 |
| Sumter | 136,005 | 148,021 | 1,125,591 |
| Region FL-4 | 2,559,364 | 3,383,376 | 13,513,331 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 83 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of FL-4 oil and gas GDP. None of the FL-4 counties sourced any significant amount of GDP from oil- and gas-related industries. In 2010 and 2011, Marion produced around 48% of the total oil and gas GDP in FL-4, but that percentage fell to 5.3% in 2012. Similar negative growth was present in Hernando. Lake tripled its contributions from 17% in 2010 to more than 53.9% in 2012. Alachua witnessed a similar growth path; however, it was much less pronounced.

Table 83. Oil and Gas Contributions to GDP by FL-4 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Alachua | 0.0 | 0.0 | 0.0 | 8.4 | 7.0 | 20.2 |
| Citrus | 0.0 | 0.0 | 0.0 | 0.4 | 0.3 | 0.5 |
| Dixie | 0.0 | 0.0 | 0.2 | 2.3 | 1.9 | 4.9 |
| Gilchrist | 0.0 | 0.0 | 0.2 | 2.7 | 2.2 | 5.2 |
| Hernando | 0.0 | 0.0 | 0.0 | 16.1 | 32.8 | 1.8 |
| Lake | 0.0 | 0.0 | 0.1 | 17.1 | 13.7 | 53.9 |
| Levy | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Marion | 0.0 | 0.0 | 0.0 | 47.7 | 37.8 | 5.3 |
| Sumter | 0.0 | 0.0 | 0.1 | 5.3 | 4.4 | 8.3 |
| Region FL-4 | 0.0 | 0.0 | 0.0 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.9.1 Earnings by Place-of-Work

The majority of total earnings in FL-4 were from Alachua, Lake and Marion counties, which account for 74.1% of the \$22.1 billion in place-of-work earnings produced by FL-4 in 2013. No other county contributed more than eight percent of the total in that year. These data are presented in Table 84. Figure 51 illustrates the distribution of total earnings over the FL-4 counties for 2013 further confirming the economic dependence of FL-4 on Alachua, Lake, and Marion counties.

Table 84. Total Place-of-Work Earnings (in dollars) by EIA FL-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Alachua | 6,530,821,090 | 6,597,871,503 | 6,895,484,894 | 7,088,078,483 |
| Citrus | 1,671,136,885 | 1,660,867,482 | 1,730,687,337 | 1,726,810,285 |
| Dixie | 120,724,088 | 122,184,345 | 156,218,839 | 165,114,305 |
| Gilchrist | 160,202,473 | 162,737,497 | 175,723,427 | 179,938,871 |
| Hernando | 1,693,056,928 | 1,749,729,350 | 1,881,615,211 | 1,922,604,300 |
| Lake | 3,745,604,431 | 3,845,845,194 | 4,255,778,495 | 4,432,278,068 |
| Levy | 387,036,319 | 385,357,091 | 414,369,818 | 418,872,924 |
| Marion | 4,414,413,598 | 4,505,548,468 | 4,722,714,929 | 4,847,690,081 |
| Sumter | 933,570,839 | 1,088,328,434 | 1,175,883,161 | 1,307,914,388 |
| Region FL-4 | 19,656,566,651 | 20,118,469,366 | 21,408,476,112 | 22,089,301,704 |

Source: Emsi (2015)

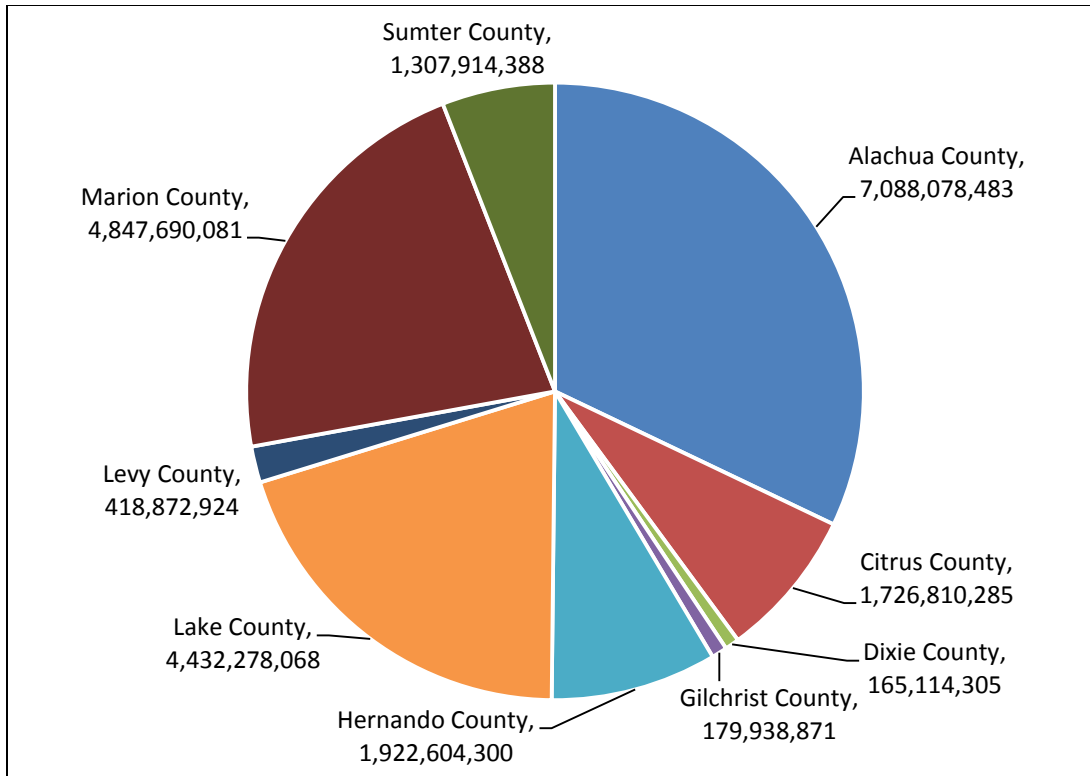


Figure 51. Total Place-of-Work Earnings (in dollars) by FL-4 County from 2013

Source: Emsi (2015)

Table 85 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Alachua produced 42.9% of the FL-4 2013 oil and gas earnings. Lake produced 26.0% while Levy contributed 14.1%. All other counties contributed less than six percent of the total oil and gas earnings in FL-4.

Table 85. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by FL-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------------|------------|------------|------------|
| Alachua | 32,558,596 | 37,851,616 | 27,009,249 | 39,530,255 |
| Citrus | 628,992 | 2,162,131 | 2,055,144 | 449,668 |
| Dixie | 271,107 | 286,148 | 2,207,611 | 2,556,218 |
| Gilchrist | 500,096 | 1,069,331 | 2,608,127 | 2,331,137 |
| Hernando | 1,602,395 | 4,088,758 | 739,986 | 210,913 |
| Lake | 7,496,621 | 7,069,798 | 23,297,678 | 23,941,502 |
| Levy | 11,185,046 | 9,406,417 | 10,168,241 | 12,991,675 |
| Marion | 8,822,555 | 8,655,177 | 3,930,776 | 4,861,084 |
| Sumter | 942,919 | 995,403 | 4,282,973 | 5,255,217 |
| Region FL-4 | 64,008,328 | 71,584,780 | 76,299,784 | 92,127,669 |

Source: Emsi (2015)

The percentage of each county's total earnings produced in oil- and gas-related industries are detailed in Table 86. Only Levy produced a significant amount of its earnings in oil- and gas-related industries in each year from 2010 to 2013. However, Dixie and Gilchrist saw positive growth over the time period, indicating possible expansion of oil and gas activity in those areas. Alachua consistently contributed the highest percentage to FL-4's oil and gas earnings, but growth in Lake and steady (but smaller)

contributions from Levy also played a roll. Marion was the only county to see substantial negative growth in contributions to FL-4 oil and gas earnings over the time period.

Table 86. Oil and Gas Contributions to Place-of-Work Earnings by FL-4 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Alachua | 0.5 | 0.6 | 0.4 | 0.6 | 50.9 | 52.9 | 35.4 | 42.9 |
| Citrus | 0.0 | 0.1 | 0.1 | 0.0 | 1.0 | 3.0 | 2.7 | 0.5 |
| Dixie | 0.2 | 0.2 | 1.4 | 1.5 | 0.4 | 0.4 | 2.9 | 2.8 |
| Gilchrist | 0.3 | 0.7 | 1.5 | 1.3 | 0.8 | 1.5 | 3.4 | 2.5 |
| Hernando | 0.1 | 0.2 | 0.0 | 0.0 | 2.5 | 5.7 | 1.0 | 0.2 |
| Lake | 0.2 | 0.2 | 0.5 | 0.5 | 11.7 | 9.9 | 30.5 | 26.0 |
| Levy | 2.9 | 2.4 | 2.5 | 3.1 | 17.5 | 13.1 | 13.3 | 14.1 |
| Marion | 0.2 | 0.2 | 0.1 | 0.1 | 13.8 | 12.1 | 5.2 | 5.3 |
| Sumter | 0.1 | 0.1 | 0.4 | 0.4 | 1.5 | 1.4 | 5.6 | 5.7 |
| Region FL-4 | 0.3 | 0.4 | 0.4 | 0.4 | - | - | - | - |

Source: Emsi (2015)

2.9.2 Employment

In 2013, the FL-4 region produced 573,325 jobs. Of those total jobs, 71.9% were sourced in Alachua, Lake, and Marion. Citrus and Hernando each contributed between eight and 10% of the total jobs. No other county contributed more than 5.5%. These data are highlighted in Table 87. Figure 52 shows the distribution of total jobs over the FL-4 counties for 2013. The counties that showed the largest economic activity in terms of GDP and earnings also sourced the largest shares of jobs in FL-4.

Table 87. Total Jobs by FL-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Alachua | 148,928 | 150,710 | 151,767 | 153,469 |
| Citrus | 49,070 | 49,072 | 48,161 | 48,019 |
| Dixie | 4,134 | 4,251 | 4,249 | 4,459 |
| Gilchrist | 5,434 | 5,613 | 5,520 | 5,598 |
| Hernando | 55,647 | 57,220 | 57,114 | 58,357 |
| Lake | 114,868 | 117,690 | 122,199 | 125,617 |
| Levy | 13,018 | 13,154 | 12,815 | 12,904 |
| Marion | 128,812 | 131,055 | 131,249 | 133,358 |
| Sumter | 26,463 | 28,967 | 29,658 | 31,542 |
| Region FL-4 | 546,373 | 557,732 | 562,731 | 573,325 |

Source: Emsi (2015)

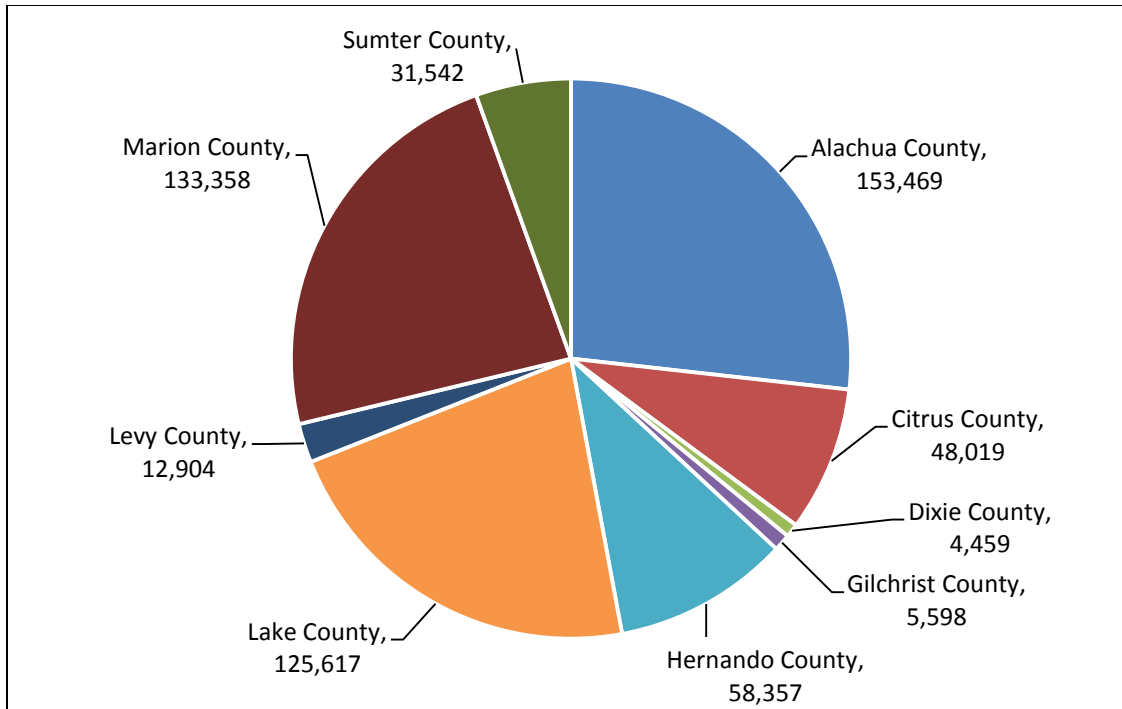


Figure 52. Total Jobs by FL-4 County from 2013

Source: Emsi (2015)

Table 88 shows the number of jobs in each FL-4 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). In 2013, 36.5% of the oil and gas jobs in FL-4 were sourced in Alachua. Lake, Levy, and Marion were the only other counties to contribute more than 10%.

Table 88. Jobs in Oil- and Gas-Related Industries by FL-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-------|-------|-------|-------|
| Alachua | 557 | 490 | 481 | 531 |
| Citrus | 16 | 28 | 50 | 33 |
| Dixie | 15 | 11 | 15 | 22 |
| Gilchrist | 21 | 25 | 22 | 22 |
| Hernando | 241 | 168 | 116 | 91 |
| Lake | 183 | 130 | 172 | 176 |
| Levy | 266 | 169 | 195 | 275 |
| Marion | 268 | 210 | 232 | 253 |
| Sumter | 46 | 39 | 39 | 53 |
| Region FL-4 | 1,613 | 1,270 | 1,321 | 1,454 |

Source: Emsi (2015)

Table 89 shows the percentage of each county's total jobs sourced from oil- and gas-related industries from 2010 to 2013. Levy, as with GDP and earnings, is the only county that showed consistent dependence on oil- and gas-related activity for jobs. All other counties sourced less than one percent of their total jobs in oil- and gas-related industries. Alachua produced the largest share of FL-4 oil and gas jobs while Hernando, Lake, Levy, and Marion all contributed measurable percentages.

Table 89. Oil and Gas Contributions to Jobs by FL-4 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Alachua | 0.4 | 0.3 | 0.3 | 0.3 | 34.5 | 38.6 | 36.4 | 36.5 |
| Citrus | 0.0 | 0.1 | 0.1 | 0.1 | 1.0 | 2.2 | 3.8 | 2.2 |
| Dixie | 0.4 | 0.3 | 0.4 | 0.5 | 0.9 | 0.9 | 1.2 | 1.5 |
| Gilchrist | 0.4 | 0.5 | 0.4 | 0.4 | 1.3 | 2.0 | 1.7 | 1.5 |
| Hernando | 0.4 | 0.3 | 0.2 | 0.2 | 15.0 | 13.3 | 8.8 | 6.3 |
| Lake | 0.2 | 0.1 | 0.1 | 0.1 | 11.4 | 10.2 | 13.0 | 12.1 |
| Levy | 2.0 | 1.3 | 1.5 | 2.1 | 16.5 | 13.3 | 14.7 | 18.9 |
| Marion | 0.2 | 0.2 | 0.2 | 0.2 | 16.6 | 16.5 | 17.5 | 17.4 |
| Sumter | 0.2 | 0.1 | 0.1 | 0.2 | 2.8 | 3.0 | 2.9 | 3.6 |
| Region FL-4 | 0.3 | 0.2 | 0.2 | 0.3 | - | - | - | - |

Source: Emsi (2015)

2.9.3 Personal Income

In 2013, the FL-4 counties received \$48.4 billion in personal income. The three largest counties, Alachua, Lake, and Marion, accounted for 66.2% of those earnings, and Dixie, Gilchrist, and Levy each contributed less than 2.5% in 2013. These data are presented in Table 90. Figure 53 shows the distribution of total personal income over the FL-4 counties from 2013. As expected, this data mirrors the distributions seen with other economic indicators for FL-4.

Table 90. Personal Income (in dollars) by FL-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Alachua | 8,897,601,000 | 9,383,955,000 | 9,469,597,000 | 9,688,255,000 |
| Citrus | 4,512,216,000 | 4,668,650,000 | 4,727,763,000 | 4,788,188,000 |
| Dixie | 341,640,000 | 353,923,000 | 361,036,000 | 371,933,000 |
| Gilchrist | 521,007,000 | 538,786,000 | 556,832,000 | 567,029,000 |
| Hernando | 5,253,388,000 | 5,397,191,000 | 5,364,356,000 | 5,481,211,000 |
| Lake | 9,713,640,000 | 10,085,753,000 | 10,447,383,000 | 10,714,138,000 |
| Levy | 1,093,657,000 | 1,124,987,000 | 1,123,667,000 | 1,149,763,000 |
| Marion | 10,705,882,000 | 11,577,412,000 | 11,404,455,000 | 11,617,618,000 |
| Sumter | 2,837,446,000 | 3,354,728,000 | 3,756,674,000 | 3,983,073,000 |
| Region FL-4 | 43,876,477,000 | 46,485,385,000 | 47,211,763,000 | 48,361,208,000 |

Source: Emsi (2015)

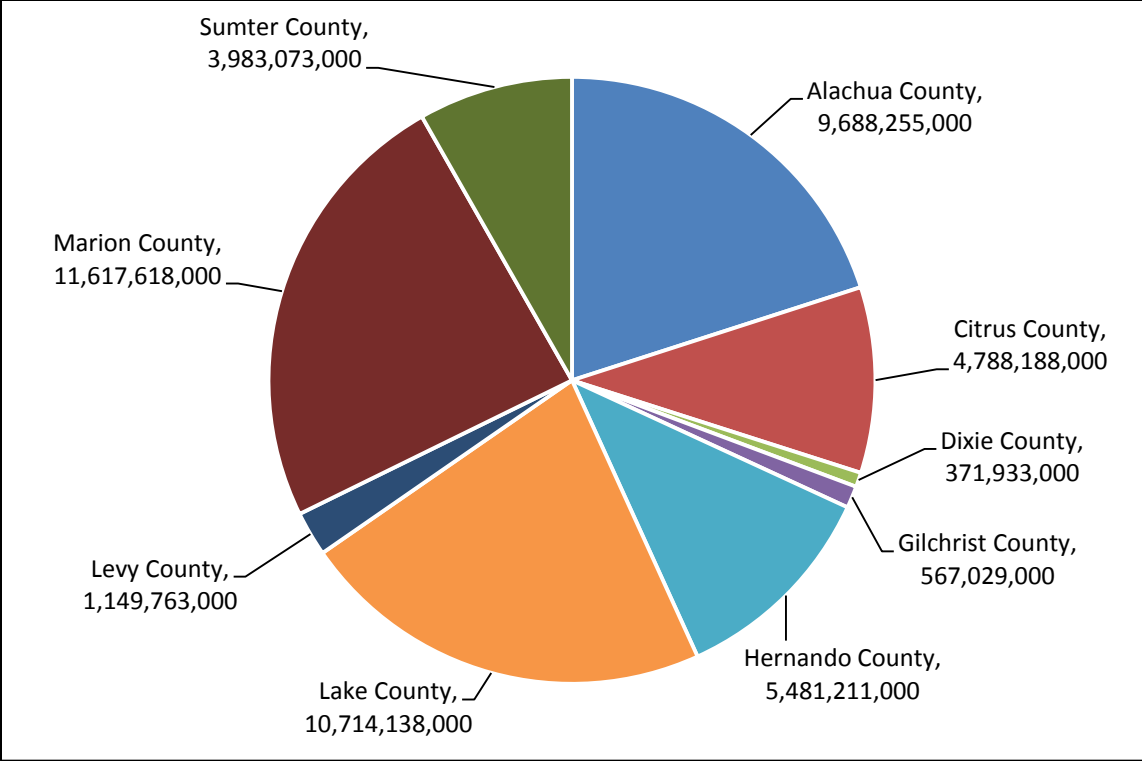


Figure 53. Total Personal Income (in dollars) by FL-4 County from 2013

Source: Emsi (2015)

Figure 54 shows the per capita income data 2013 for each county in FL-4. Alachua and Sumter each have per capita annual incomes exceeding \$35,000, and Dixie has the lowest per capita income (\$23,333).

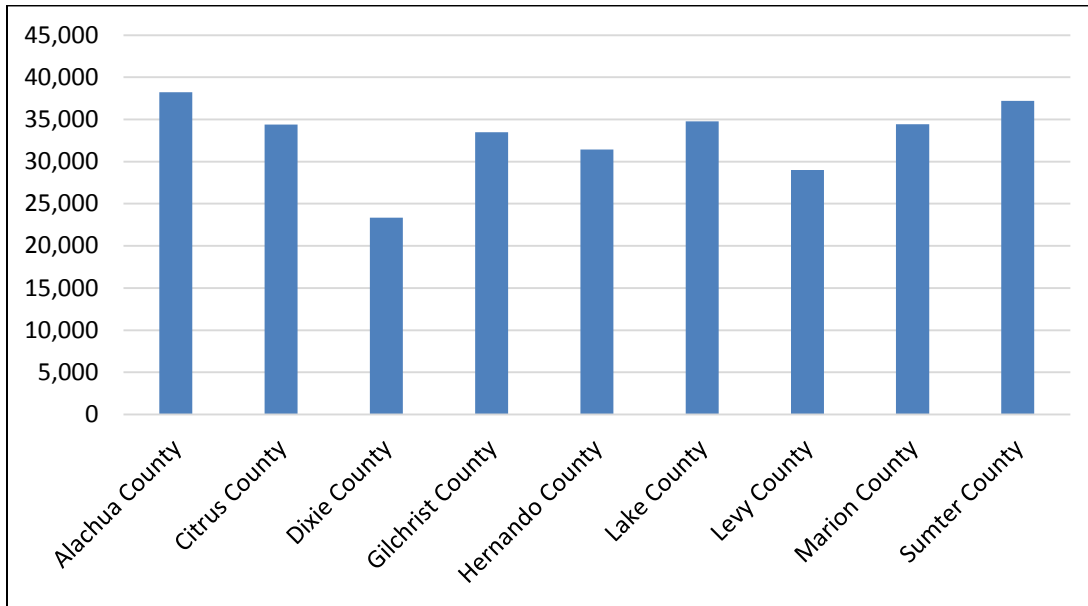


Figure 54. Per Capita Income (in dollars) by FL-4 County from 2013

Source: Emsi (2015)

2.9.4 Demographics

The 2013 demographic data are presented in Table 91. The FL-4 region has a regional poverty rate of 17.8% in 2013. Alachua, Dixie, and Levy are the only counties in FL-4 to have poverty rates over 20%, and Sumter has the lowest rate (11.8%).

Table 91. Demographic Data by FL-4 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Alachua | 24.0% | 30.4% |
| Citrus | 16.9% | 7.0% |
| Dixie | 24.2% | 11.2% |
| Gilchrist | 19.6% | 9.1% |
| Hernando | 14.9% | 10.5% |
| Lake | 13.4% | 18.0% |
| Levy | 26.5% | 14.5% |
| Marion | 19.1% | 19.0% |
| Sumter | 11.8% | 13.4% |
| Region FL-4 | 17.8% | 17.8% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

Table 91 also presents data on minority population. In 2013, FL-4 had a population that was 17.8% minority. Alachua had the highest minority population percentage with 30.4%. Conversely, Citrus had the lowest minority population percentage with 7.0%.

2.10 Intra-Regional Comparison of the Economic Impact Area (EIA) FL-5

EIA FL-5 comprises six Florida counties: Hillsborough, Manatee, Pasco, Pinellas, Polk, and Sarasota. The FL-5 counties were home to 4,051,672 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 2,112,708 jobs, earned \$96.0 billion in total earnings (excluding corporate profits), \$164.6 billion in GDP, and \$168.5 billion in personal income in 2013.

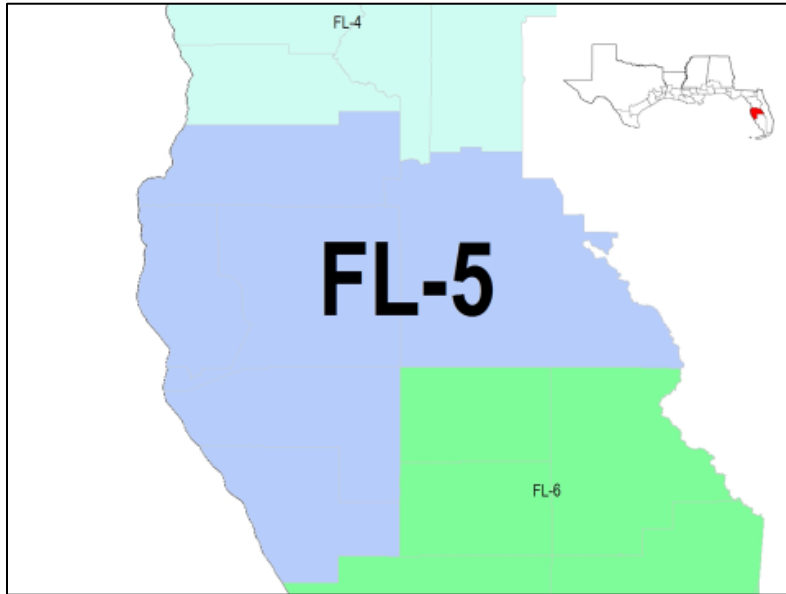


Figure 55. Map of EIA Region FL-5

2.10.1 Gross Domestic Product

Table 92 presents the total GDP estimates for each county in FL-5. Approximately 41.5% of the total GDP in FL-5 was produced in Hillsborough. Pinellas, Polk, and Sarasota counties collectively accounted for an additional 46.5%. The distribution of GDP over the FL-5 counties in 2013 is shown in Figure 56.

Table 92. Total GDP (in dollars) by FL-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|-----------------|-----------------|-----------------|-----------------|
| Hillsborough | 62,484,910,492 | 63,766,942,890 | 65,259,258,507 | 68,302,911,290 |
| Manatee | 9,961,259,869 | 10,022,112,270 | 10,421,597,589 | 10,831,466,848 |
| Pasco | 7,992,051,502 | 8,099,340,863 | 8,498,445,352 | 8,854,841,784 |
| Pinellas | 38,997,416,535 | 39,753,116,536 | 41,370,095,477 | 42,135,921,736 |
| Polk | 17,099,424,457 | 16,992,656,585 | 17,257,530,622 | 17,972,010,593 |
| Sarasota | 14,027,989,203 | 14,192,963,596 | 15,533,181,189 | 16,494,643,944 |
| Region FL-5 | 150,563,052,059 | 152,827,132,741 | 158,340,108,737 | 164,591,796,196 |

Source: Varnado and Fannin (2015) and Emsi (2015)

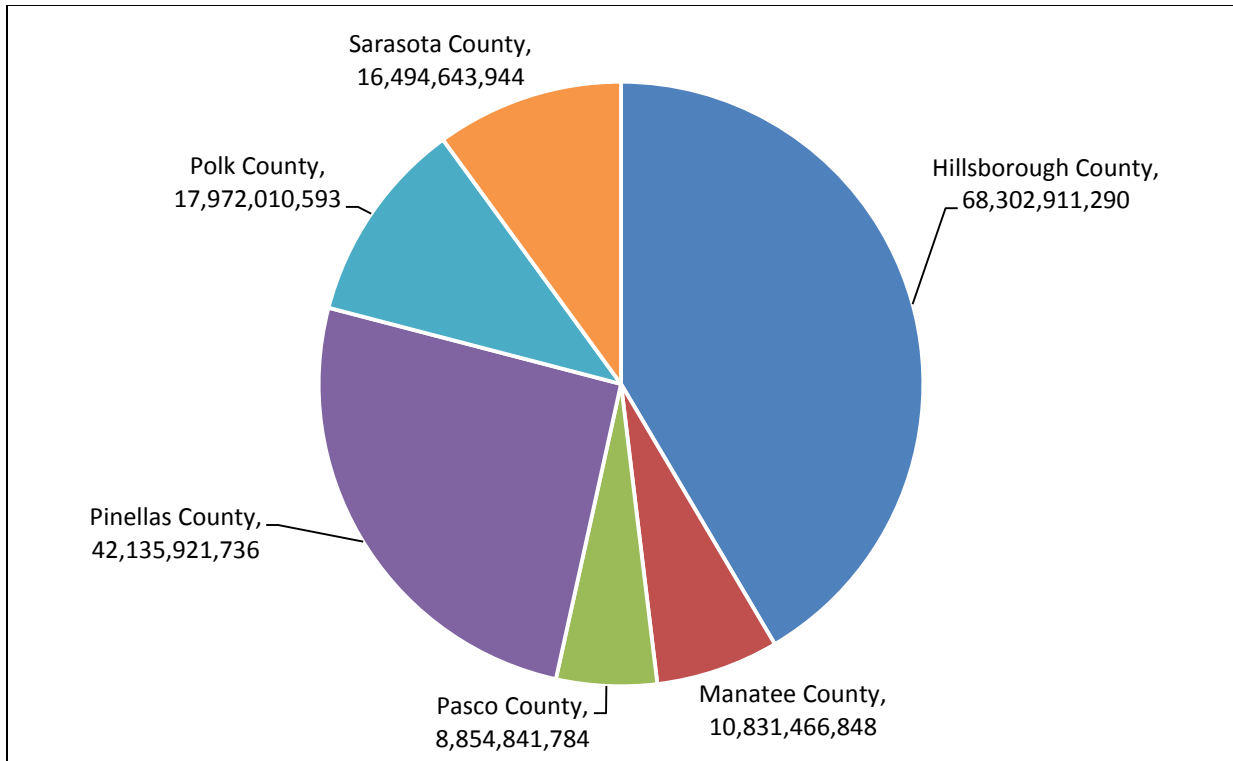


Figure 56. Total GDP (in dollars) by FL-5 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 93 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. The distribution of the oil and gas GDP in FL-5 was dominated by Hillsborough, Pinellas, and Sarasota counties, each contributing between 25.9% and 30.8%. Manatee contributed an additional 12.9% of oil and gas GDP, while Pasco and Polk each contributed less than two percent.

Table 93. GDP in Oil- and Gas-Related Industries (in dollars) by FL-5 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|--------------|-----------|-----------|------------|
| Hillsborough | 1,233,300 | 1,156,340 | 12,067,927 |
| Manatee | 940,726 | 1,010,156 | 5,985,983 |
| Pasco | 35,868 | 64,950 | 503,419 |
| Pinellas | 894,014 | 986,868 | 14,330,923 |
| Polk | 2,064,713 | 1,599,698 | 691,520 |
| Sarasota | 727,677 | 727,606 | 12,946,672 |
| Region FL-5 | 5,896,299 | 5,545,618 | 46,526,444 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 94 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of FL-5 oil and gas GDP. None of the FL-5 counties sourced any significant amount of total GDP in oil- and gas-related industries. Pinellas and Sarasota counties saw significant growth in contribution percentages to total EIA oil and gas GDP from 2011 to 2012, and Polk saw significant negative contribution growth. Other than these shifts, the distribution of oil and gas GDP remained somewhat constant in FL-5 over the time period.

Table 94. Oil and Gas Contributions to GDP by FL-5 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|--------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Hillsborough | 0.0 | 0.0 | 0.0 | 20.9 | 20.9 | 25.9 |
| Manatee | 0.0 | 0.0 | 0.1 | 16.0 | 18.2 | 12.9 |
| Pasco | 0.0 | 0.0 | 0.0 | 0.6 | 1.2 | 1.1 |
| Pinellas | 0.0 | 0.0 | 0.0 | 15.2 | 17.8 | 30.8 |
| Polk | 0.0 | 0.0 | 0.0 | 35.0 | 28.8 | 1.5 |
| Sarasota | 0.0 | 0.0 | 0.1 | 12.3 | 13.1 | 27.8 |
| Region FL-5 | 0.0 | 0.0 | 0.0 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.10.2 Earnings by Place-of-Work

The plurality of total earnings in FL-5 were earned in Hillsborough, which accounted for 41.5% of the \$96.0 billion in place-of-work earnings produced in the EIA. Pinellas contributed 25.6% of total EIA earnings, and Polk and Sarasota counties contributed 10.9% and 10.0% respectively. These data are shown in Table 95. Figure 57 illustrates the distribution of total earnings over the FL-5 counties for 2013.

Table 95. Total Place-of-Work Earnings (in dollars) by EIA FL-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| Hillsborough | 35,512,095,540 | 36,701,806,267 | 38,318,194,810 | 39,839,153,807 |
| Manatee | 5,661,290,212 | 5,768,343,381 | 6,119,236,041 | 6,317,687,864 |
| Pasco | 4,542,128,560 | 4,661,669,915 | 4,990,021,217 | 5,164,778,442 |
| Pinellas | 22,163,430,673 | 22,880,368,973 | 24,291,225,706 | 24,576,689,853 |
| Polk | 9,718,128,589 | 9,780,321,303 | 10,133,082,040 | 10,482,564,809 |
| Sarasota | 7,972,537,512 | 8,168,925,413 | 9,120,598,003 | 9,620,858,682 |
| Region FL-5 | 85,569,611,085 | 87,961,435,252 | 92,972,357,816 | 96,001,733,456 |

Source: Emsi (2015)

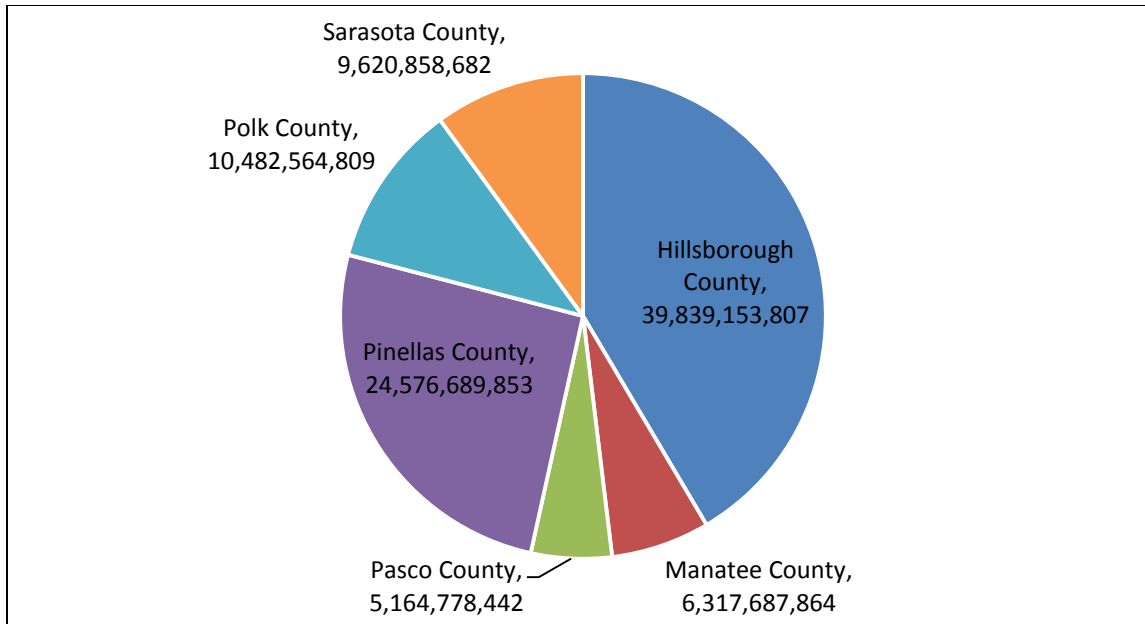


Figure 57. Total Place-of-Work Earnings (in dollars) by FL-5 County from 2013

Source: Emsi (2015)

Table 96 shows the place-of-work earnings in oil- and gas-related industries for FL-5 from 2010 to 2013. Approximately 63.2% of oil and gas earnings in FL-5 in 2013 were produced in Hillsborough and Pinellas. Further, Manatee and Sarasota were the only other counties to contribute more than 10% to the total EIA earnings.

Table 96. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by FL-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|-------------|-------------|-------------|-------------|
| Hillsborough | 101,745,785 | 88,470,162 | 106,210,146 | 125,975,951 |
| Manatee | 20,842,185 | 21,339,206 | 41,773,365 | 44,961,094 |
| Pasco | 3,146,010 | 3,471,633 | 3,277,461 | 4,591,408 |
| Pinellas | 36,275,301 | 34,858,810 | 73,075,963 | 78,253,485 |
| Polk | 22,272,394 | 26,130,857 | 23,758,108 | 21,751,670 |
| Sarasota | 11,427,026 | 10,135,818 | 55,146,977 | 47,697,198 |
| Region FL-5 | 195,708,701 | 184,406,486 | 303,242,020 | 323,230,806 |

Source: Emsi (2015)

Table 97 shows the percentage of each county's total earnings produced in oil- and gas-related industries. None of the FL-5 counties sourced a significant amount of their total earnings in oil- and gas-related industries, and what earnings did exist in these industries were produced predominantly and consistently by Hillsborough and Pinellas.

Table 97. Oil and Gas Contributions to Place-of-Work Earnings by FL-5 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|--------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Hillsborough | 0.3 | 0.2 | 0.3 | 0.3 | 52.0 | 48.0 | 35.0 | 39.0 |
| Manatee | 0.4 | 0.4 | 0.7 | 0.7 | 10.6 | 11.6 | 13.8 | 13.9 |
| Pasco | 0.1 | 0.1 | 0.1 | 0.1 | 1.6 | 1.9 | 1.1 | 1.4 |
| Pinellas | 0.2 | 0.2 | 0.3 | 0.3 | 18.5 | 18.9 | 24.1 | 24.2 |
| Polk | 0.2 | 0.3 | 0.2 | 0.2 | 11.4 | 14.2 | 7.8 | 6.7 |
| Sarasota | 0.1 | 0.1 | 0.6 | 0.5 | 5.8 | 5.5 | 18.2 | 14.8 |
| Region FL-5 | 0.2 | 0.2 | 0.3 | 0.3 | - | - | - | - |

Source: Emsi (2015)

2.10.3 Employment

In 2013, the FL-5 region produced 2,122,708 jobs. Hillsborough is the largest source of jobs in FL-5 (37.1%). Pinellas (25.4%), Polk (12.5%), and Sarasota County (14.8%) also contributed measurably to the total. These data are presented in Table 98. Figure 58 shows the distribution of total jobs over the FL-5 counties for 2013.

Table 98. Total Jobs by FL-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|-----------|-----------|-----------|-----------|
| Hillsborough | 732,476 | 747,831 | 760,690 | 782,978 |
| Manatee | 151,440 | 154,946 | 158,428 | 162,857 |
| Pasco | 132,895 | 136,096 | 137,652 | 139,776 |
| Pinellas | 518,844 | 521,625 | 525,393 | 536,484 |
| Polk | 252,386 | 255,164 | 257,062 | 263,490 |
| Sarasota | 207,047 | 213,091 | 218,182 | 227,123 |
| Region FL-5 | 1,995,088 | 2,028,752 | 2,057,406 | 2,112,708 |

Source: Emsi (2015)

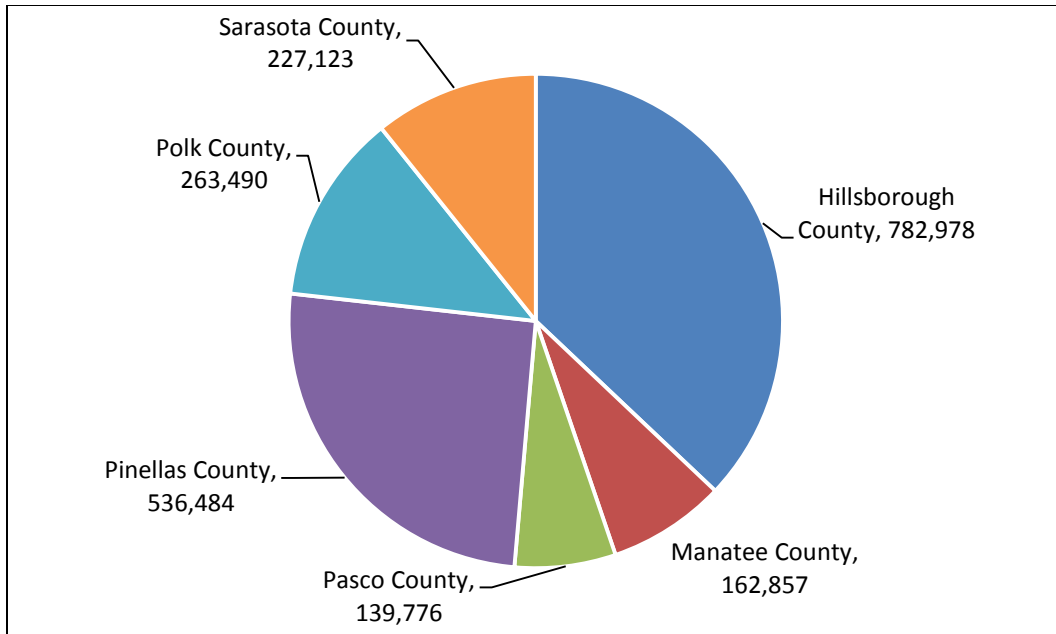


Figure 58. Total Jobs by FL-5 County from 2013

Source: Emsi (2015)

Table 99 shows the number of jobs in each FL-5 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). The majority (60.5%) of the oil and gas jobs in FL-5 were sourced from Hillsborough and Pinellas. Pasco contributed the fewest oil and gas jobs in FL-5.

Table 99. Jobs in Oil- and Gas-Related Industries by FL-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|--------------|--------------|--------------|--------------|
| Hillsborough | 1,544 | 1,310 | 1,301 | 1,612 |
| Manatee | 498 | 470 | 578 | 643 |
| Pasco | 47 | 52 | 61 | 78 |
| Pinellas | 831 | 813 | 958 | 1,034 |
| Polk | 520 | 410 | 584 | 601 |
| Sarasota | 258 | 231 | 384 | 403 |
| Region FL-5 | 3,699 | 3,286 | 3,865 | 4,371 |

Source: Emsi (2015)

Table 100 shows the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. None of the FL-5 counties sourced more than 0.4% of its total jobs in oil- and gas-related industries in any given year, indicating a lack of oil and gas activity relative to general economic activity. The general distribution of these oil and gas jobs was fairly consistent over the time period with Hillsborough contributing the most.

Table 100. Oil and Gas Contributions to Jobs by FL-5 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|--------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Hillsborough | 0.2 | 0.2 | 0.2 | 0.2 | 41.7 | 39.9 | 33.7 | 36.9 |
| Manatee | 0.3 | 0.3 | 0.4 | 0.4 | 13.5 | 14.3 | 15.0 | 14.7 |
| Pasco | 0.0 | 0.0 | 0.0 | 0.1 | 1.3 | 1.6 | 1.6 | 1.8 |
| Pinellas | 0.2 | 0.2 | 0.2 | 0.2 | 22.5 | 24.7 | 24.8 | 23.7 |
| Polk | 0.2 | 0.2 | 0.2 | 0.2 | 14.1 | 12.5 | 15.1 | 13.7 |
| Sarasota | 0.1 | 0.1 | 0.2 | 0.2 | 7.0 | 7.0 | 9.9 | 9.2 |
| Region FL-5 | 0.2 | 0.2 | 0.2 | 0.2 | - | - | - | - |

Source: Emsi (2015)

2.10.4 Personal Income

In 2013, the FL-5 counties received \$168.5 billion in personal income. As was the case with the other economic indicators, Hillsborough contributed the most to the EIA total, followed by Pinellas and then Sarasota and Polk counties. These data are shown in Table 101. Figure 59 illustrates the distribution of total personal income over the FL-5 counties from 2013.

Table 101. Personal Income (in dollars) by FL-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|-----------------|-----------------|-----------------|-----------------|
| Hillsborough | 47,463,342,000 | 49,479,668,000 | 51,453,557,000 | 52,541,062,000 |
| Manatee | 12,852,931,000 | 13,927,104,000 | 13,968,086,000 | 14,404,101,000 |
| Pasco | 14,405,709,000 | 15,157,188,000 | 15,209,746,000 | 15,679,803,000 |
| Pinellas | 39,590,203,000 | 42,066,426,000 | 41,504,810,000 | 42,340,365,000 |
| Polk | 19,849,350,000 | 21,281,337,000 | 20,729,110,000 | 21,427,256,000 |
| Sarasota | 19,449,387,000 | 20,825,123,000 | 21,716,404,000 | 22,122,103,000 |
| Region FL-5 | 153,610,922,000 | 162,736,846,000 | 164,581,713,000 | 168,514,690,000 |

Source: Emsi (2015)

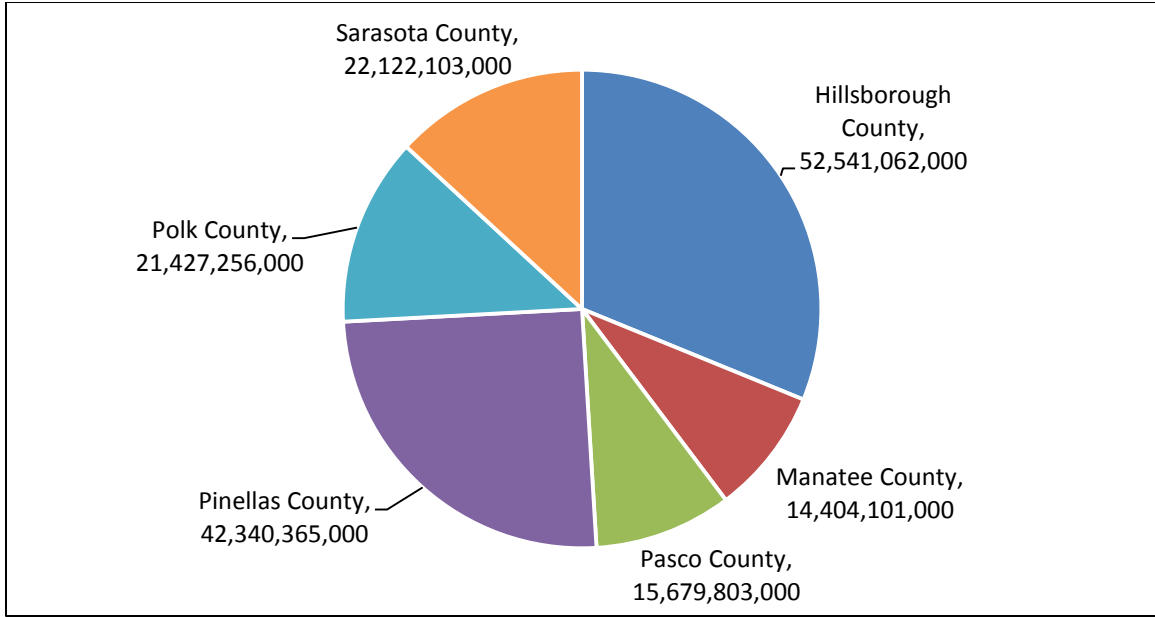


Figure 59. Total Personal Income (in dollars) by FL-5 County from 2013

Source: Emsi (2015)

Figure 60 shows the per capita income data in 2013 for each county in FL-5. Sarasota County had by far the highest per capita income (\$56,661) while Pasco had the lowest (\$32,975).

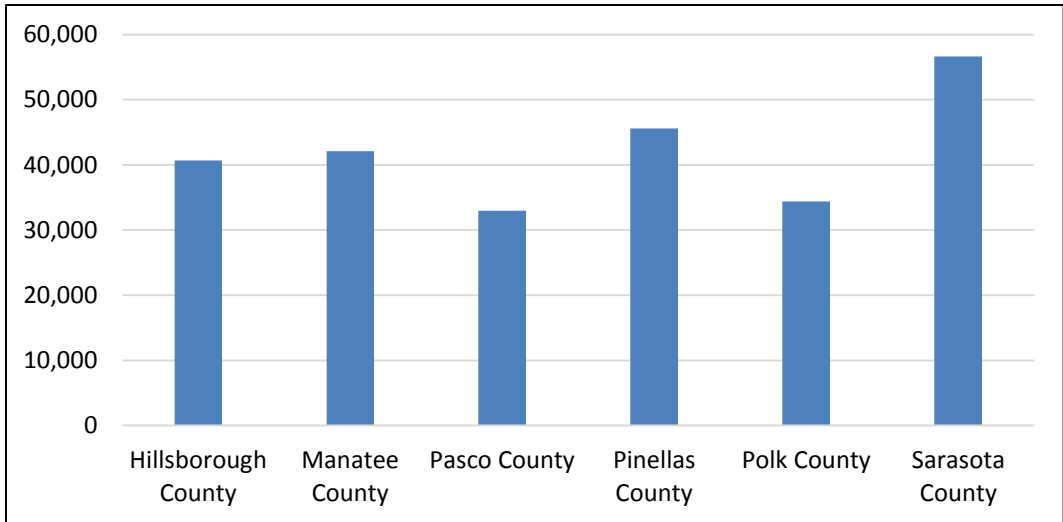


Figure 60. Per Capita Income (in dollars) by FL-5 County from 2013

Source: Emsi (2015)

2.10.5 Demographics

The 2013 demographic data are presented in Table 102. The FL-5 region had a regional poverty rate of 15.3% in 2013. The range of poverty rates was 12.9% to 17.2%. The minority population percentages had greater variability between the counties of the region: 9.8% in Sarasota County to 28.7% in Hillsborough.

Table 102. Demographic Data by FL-5 County from 2013

| EIA County | Poverty | Minority |
|--------------|---------|----------|
| Hillsborough | 16.5% | 28.7% |
| Manatee | 14.3% | 18.1% |
| Pasco | 15.0% | 11.8% |
| Pinellas | 13.9% | 17.9% |
| Polk | 17.2% | 24.8% |
| Sarasota | 12.9% | 9.8% |
| Region FL-5 | 15.3% | 20.9% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.11 Intra-Regional Comparison of the Economic Impact Area (EIA) FL-6

EIA FL-6 comprises nine Florida counties: Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Lee, and Monroe. The FL-6 counties were home to 1,452,312 people in 2013. The region generated 708,789 jobs, earned \$28.8 billion in total earnings (excluding corporate profits), \$49.3 billion in GDP, and \$67.0 billion in personal income in 2013.

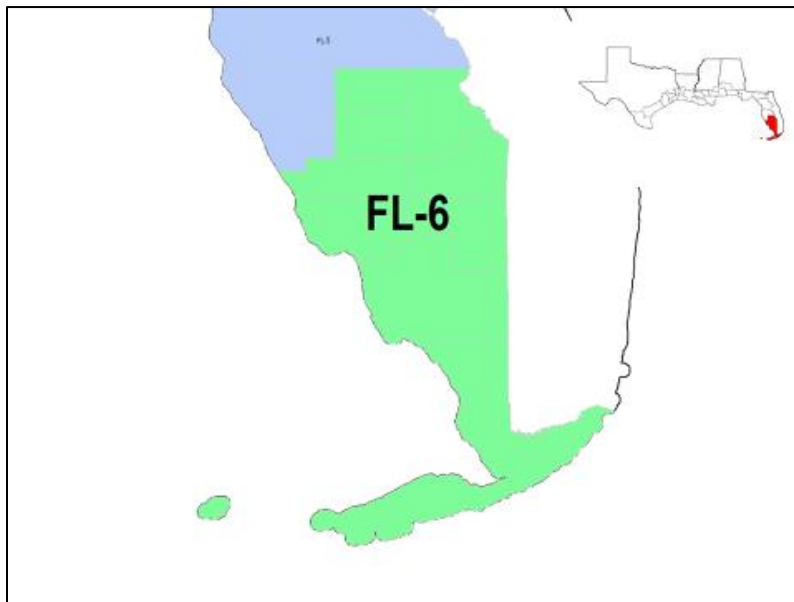


Figure 61. Map of EIA Region FL-6

2.11.1 Gross Domestic Product

Table 103 presents the total GDP estimates for each county in FL-6. 44.2% of the total 2013 GDP in the region was produced in Lee. Collier produced an additional 28.9%; no other county contributed more than 8.5% of the FL-6 total GDP. The distribution of GDP over the FL-6 counties in 2013 is shown in Figure 61, which demonstrates the degree to which the economy of FL-6 is centered on Collier and Lee.

Table 103. Total GDP (in dollars) by FL-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Charlotte | 3,504,624,493 | 3,580,947,343 | 3,906,956,284 | 4,111,560,793 |
| Collier | 12,354,342,654 | 12,598,347,745 | 13,272,897,811 | 14,240,495,731 |
| DeSoto | 717,184,090 | 725,612,951 | 736,126,619 | 763,375,458 |
| Glades | 201,472,470 | 204,771,460 | 275,746,594 | 280,159,213 |
| Hardee | 605,491,791 | 632,698,848 | 691,494,450 | 680,131,889 |
| Hendry | 982,253,393 | 972,025,541 | 1,100,049,644 | 1,157,395,053 |
| Highlands | 2,244,986,544 | 2,059,733,972 | 2,102,542,410 | 2,145,205,588 |
| Lee | 19,693,400,979 | 20,097,103,549 | 20,609,666,341 | 21,810,650,787 |
| Monroe | 3,695,941,841 | 3,706,208,931 | 4,055,024,968 | 4,119,094,983 |
| Region FL-6 | 43,999,698,256 | 44,577,450,339 | 46,750,505,120 | 49,308,069,494 |

Source: Varnado and Fannin (2015) and Emsi (2015)

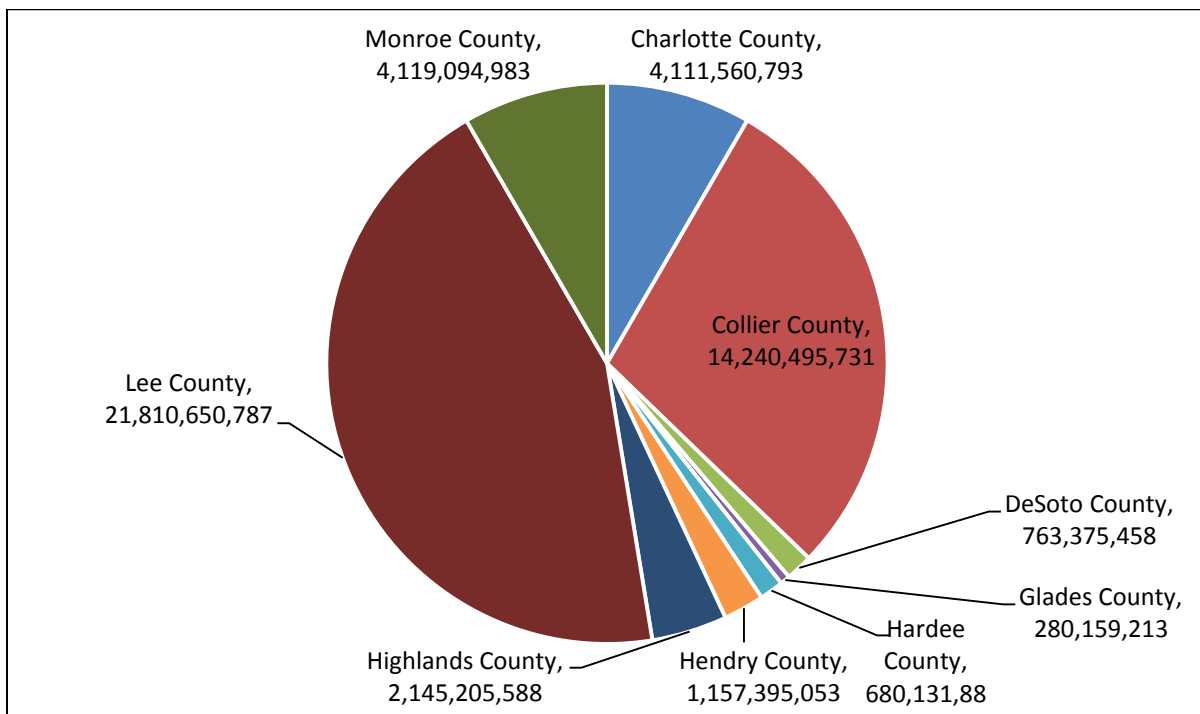


Figure 62. Total GDP (in dollars) by FL-6 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 104 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. While the general economic activity was dominated by the largest two counties, the distribution of the oil and gas GDP in FL-6 was much more balanced. Charlotte produced 35.2% of oil and gas GDP, but the rest of the counties were somewhat evenly distributed, except for DeSoto, which produced no oil and gas GDP in 2013.

Table 104. GDP in Oil- and Gas-Related Industries (in dollars) by FL-6 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|------------|------------|------------|
| Charlotte | 541,692 | 177,730 | 5,758,368 |
| Collier | 31,937,797 | 32,644,639 | 1,716,345 |
| DeSoto | 0 | 0 | 0 |
| Glades | 137,567 | 151,534 | 1,414,938 |
| Hardee | 83,830 | 93,181 | 2,098,198 |
| Hendry | 34,550 | 42,595 | 1,710,008 |
| Highlands | 1,754 | 23,808 | 0 |
| Lee | 29,258,681 | 34,982,377 | 2,003,231 |
| Monroe | 201,082 | 161,368 | 1,646,620 |
| Region FL-6 | 62,196,953 | 68,277,231 | 16,347,708 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 105 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of FL-6 oil and gas GDP. No FL-6 counties sourced significant amounts of GDP in oil and gas industries from 2010 to 2012. Collier and Lee contributed nearly all of the oil and gas GDP in 2010 and 2011. However, in 2012, the distribution shifted to a more balanced contribution across the counties.

Table 105. Oil and Gas Contributions to GDP by FL-6 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Charlotte | 0.0 | 0.0 | 0.1 | 0.9 | 0.3 | 35.2 |
| Collier | 0.3 | 0.3 | 0.0 | 51.3 | 47.8 | 10.5 |
| DeSoto | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Glades | 0.1 | 0.1 | 0.5 | 0.2 | 0.2 | 8.7 |
| Hardee | 0.0 | 0.0 | 0.3 | 0.1 | 0.1 | 12.8 |
| Hendry | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 10.5 |
| Highlands | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lee | 0.1 | 0.2 | 0.0 | 47.0 | 51.2 | 12.3 |
| Monroe | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 10.1 |
| Region FL-6 | 0.1 | 0.2 | 0.0 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.11.2 Earnings by Place-of-Work

The majority of total earnings in FL-6 were received in Collier and Lee, which accounted for 73.1% of the \$28.8 billion in place-of-work earnings produced in the EIA. DeSoto, Glades, Hardee, and Highlands each contributed less than five percent of the total. These data are in Table 106. Figure 63 illustrates the distribution of total earnings over the FL-6 counties for 2013, further confirming the economic dependence of FL-6 on Collier and Lee counties.

Table 106. Total Place-of-Work Earnings (in dollars) by EIA FL-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Charlotte | 1,991,785,838 | 2,061,055,928 | 2,294,042,492 | 2,398,156,970 |
| Collier | 7,021,352,727 | 7,251,125,697 | 7,793,430,321 | 8,306,077,867 |
| DeSoto | 407,597,766 | 417,634,980 | 432,230,519 | 445,255,286 |
| Glades | 114,502,999 | 117,858,597 | 161,909,773 | 163,408,935 |
| Hardee | 344,119,599 | 364,157,187 | 406,023,906 | 396,701,669 |
| Hendry | 558,244,799 | 559,460,615 | 645,914,733 | 675,075,757 |
| Highlands | 1,275,894,868 | 1,185,503,864 | 1,234,547,120 | 1,251,237,667 |
| Lee | 11,192,365,190 | 11,567,121,890 | 12,101,351,255 | 12,721,534,923 |
| Monroe | 2,100,517,368 | 2,133,151,693 | 2,380,983,790 | 2,402,551,450 |
| Region FL-6 | 25,006,381,155 | 25,657,070,452 | 27,450,433,910 | 28,760,000,524 |

Source: Emsi (2015)

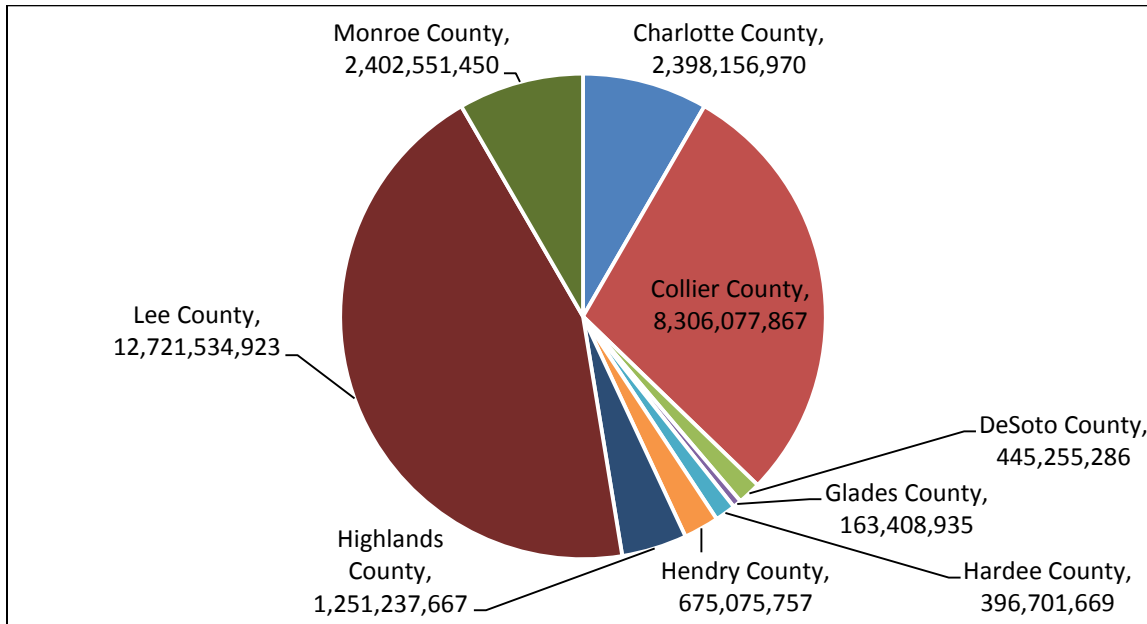


Figure 63. Total Place-of-Work Earnings (in dollars) by FL-6 County from 2013

Source: Emsi (2015)

Table 107 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Roughly half of the total oil and gas earnings in FL-6 were earned in Charlotte and Lee in 2013. Collier contributed 12.3% of the total, and all other counties contributed less than 10% each.

Table 107. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by FL-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-------------|-------------|------------|------------|
| Charlotte | 2,786,183 | 1,750,707 | 17,078,057 | 16,736,415 |
| Collier | 148,893,028 | 148,453,680 | 8,758,042 | 8,673,567 |
| DeSoto | 296,336 | 4,894,090 | 3,512,529 | 2,732,101 |
| Glades | 933,300 | 1,100,737 | 4,579,855 | 4,120,969 |
| Hardee | 608,084 | 586,197 | 6,186,099 | 6,918,387 |
| Hendry | 1,214,376 | 1,360,371 | 5,100,592 | 5,589,308 |
| Highlands | 876,216 | 3,427,860 | 1,753,845 | 1,818,693 |
| Lee | 145,796,276 | 166,479,136 | 15,061,417 | 18,589,080 |
| Monroe | 4,841,395 | 3,984,052 | 6,210,138 | 5,214,887 |
| Region FL-6 | 306,245,195 | 332,036,830 | 68,240,573 | 70,393,407 |

Source: Emsi (2015)

Table 108 shows the percentage of each county's total earnings produced in oil- and gas-related industries. In 2011, Collier sourced 2.1% of its earnings in oil- and gas-related industries and Lee sourced 1.4%. However, in 2012 and 2013, these counties saw those percentages decline to levels at the lower end of oil and gas county dependence. Conversely, Glades and Hardee witnessed previously insignificant oil and gas earnings shares increase markedly.

Table 108. Oil and Gas Contributions to Place-of-Work Earnings by FL-6 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Charlotte | 0.1 | 0.1 | 0.7 | 0.7 | 0.9 | 0.5 | 25.0 | 23.8 |
| Collier | 2.1 | 2.0 | 0.1 | 0.1 | 48.6 | 44.7 | 12.8 | 12.3 |
| DeSoto | 0.1 | 1.2 | 0.8 | 0.6 | 0.1 | 1.5 | 5.1 | 3.9 |
| Glades | 0.8 | 0.9 | 2.8 | 2.5 | 0.3 | 0.3 | 6.7 | 5.9 |
| Hardee | 0.2 | 0.2 | 1.5 | 1.7 | 0.2 | 0.2 | 9.1 | 9.8 |
| Hendry | 0.2 | 0.2 | 0.8 | 0.8 | 0.4 | 0.4 | 7.5 | 7.9 |
| Highlands | 0.1 | 0.3 | 0.1 | 0.1 | 0.3 | 1.0 | 2.6 | 2.6 |
| Lee | 1.3 | 1.4 | 0.1 | 0.1 | 47.6 | 50.1 | 22.1 | 26.4 |
| Monroe | 0.2 | 0.2 | 0.3 | 0.2 | 1.6 | 1.2 | 9.1 | 7.4 |
| Region FL-6 | 1.2 | 1.3 | 0.2 | 0.2 | - | - | - | - |

Source: Emsi (2015)

2.11.3 Employment

In 2013, the FL-6 region produced 708,789 jobs. Lee (43.8%) and Collier (26.7%) were the most populous counties in FL-6 and consistent with that population, were home to the most jobs in 2013. Total jobs by FL-6 county from 2010 to 2013 are shown in Table 109 And illustrated, for 2013, in Figure 64.

Table 109. Total Jobs by FL-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Charlotte | 62,543 | 64,734 | 66,039 | 67,881 |
| Collier | 170,709 | 177,481 | 182,772 | 189,435 |
| DeSoto | 11,705 | 11,967 | 11,376 | 11,683 |
| Glades | 4,142 | 4,291 | 4,322 | 4,366 |
| Hardee | 11,138 | 11,316 | 11,245 | 10,991 |
| Hendry | 15,800 | 16,583 | 16,991 | 17,655 |
| Highlands | 37,058 | 38,686 | 38,014 | 37,393 |
| Lee | 279,822 | 288,900 | 297,356 | 310,575 |
| Monroe | 53,634 | 54,825 | 57,259 | 58,809 |
| Region FL-6 | 646,551 | 668,782 | 685,376 | 708,789 |

Source: Emsi (2015)

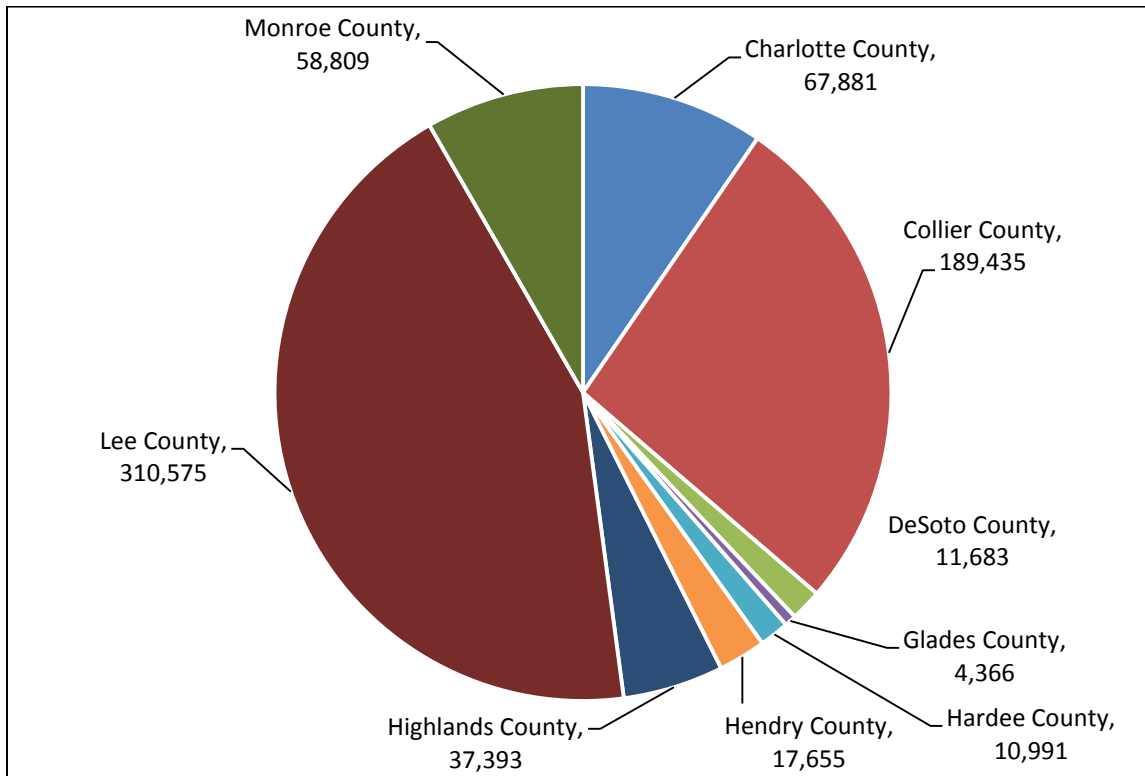


Figure 64. Total Jobs by FL-6 County from 2013

Source: Emsi (2015)

Table 110 shows the number of jobs in each FL-6 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). In each year, Collier and Lee contributed nearly all of the oil and gas industry jobs in FL-6.

Table 110. Jobs in Oil- and Gas-Related Industries by FL-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|-------|-------|-------|
| Charlotte | 156 | 140 | 114 | 116 |
| Collier | 5,397 | 4,478 | 4,019 | 3,800 |
| DeSoto | 21 | 79 | 50 | 34 |
| Glades | 42 | 36 | 37 | 34 |
| Hardee | 25 | 20 | 39 | 43 |
| Hendry | 37 | 35 | 20 | 22 |
| Highlands | 20 | 41 | 32 | 40 |
| Lee | 5,269 | 4,299 | 3,629 | 3,691 |
| Monroe | 99 | 80 | 76 | 72 |
| Region FL-6 | 11,066 | 9,209 | 8,017 | 7,851 |

Source: Emsi (2015)

The percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013 are detailed in Table 111. Collier sourced more than two percent of its jobs from oil and gas industries in each year from 2010 to 2013, and Lee and Glades sourced at least 1.2% and 0.8% annually. The other FL-6 counties did not source a significant share of total jobs in these industries. Collier and Lee contributed nearly all of the oil and gas jobs in FL-6.

Table 111. Oil and Gas Contributions to Jobs by FL-6 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Charlotte | 0.2 | 0.2 | 0.2 | 0.2 | 1.4 | 1.5 | 1.4 | 1.5 |
| Collier | 3.2 | 2.5 | 2.2 | 2.0 | 48.8 | 48.6 | 50.1 | 48.4 |
| DeSoto | 0.2 | 0.7 | 0.4 | 0.3 | 0.2 | 0.9 | 0.6 | 0.4 |
| Glades | 1.0 | 0.8 | 0.9 | 0.8 | 0.4 | 0.4 | 0.5 | 0.4 |
| Hardee | 0.2 | 0.2 | 0.3 | 0.4 | 0.2 | 0.2 | 0.5 | 0.5 |
| Hendry | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.4 | 0.3 | 0.3 |
| Highlands | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.4 | 0.5 |
| Lee | 1.9 | 1.5 | 1.2 | 1.2 | 47.6 | 46.7 | 45.3 | 47.0 |
| Monroe | 0.2 | 0.1 | 0.1 | 0.1 | 0.9 | 0.9 | 1.0 | 0.9 |
| Region FL-6 | 1.7 | 1.4 | 1.2 | 1.1 | - | - | - | - |

Source: Emsi (2015)

2.11.4 Personal Income

In 2013, the FL-6 counties received \$67.0 billion in personal income. Of that total, 75.1% of this income was contributed by Collier and Lee. Only Charlotte and Monroe contributed more than five percent, and neither more than 10%. These data are presented in Table 112. Figure 65 illustrates the distribution of total personal income over the FL-6 counties from 2013. As expected, this data underscore the dependence of FL-6 on its two largest economic counties: Collier and Lee.

Table 112. Personal Income (in dollars) by FL-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Charlotte | 5,495,680,000 | 5,834,439,000 | 6,001,768,000 | 6,192,079,000 |
| Collier | 18,231,042,000 | 19,658,733,000 | 21,628,329,000 | 22,033,344,000 |
| DeSoto | 841,587,000 | 881,964,000 | 811,153,000 | 851,318,000 |
| Glades | 292,617,000 | 310,895,000 | 313,137,000 | 325,900,000 |
| Hardee | 687,202,000 | 716,034,000 | 695,869,000 | 708,663,000 |
| Hendry | 1,089,446,000 | 1,105,457,000 | 1,098,564,000 | 1,160,588,000 |
| Highlands | 2,931,299,000 | 3,016,692,000 | 2,975,583,000 | 3,022,418,000 |
| Lee | 25,233,751,000 | 26,999,483,000 | 27,328,737,000 | 28,292,424,000 |
| Monroe | 4,053,020,000 | 4,126,047,000 | 4,373,456,000 | 4,415,284,000 |
| Region FL-6 | 58,855,644,000 | 62,649,744,000 | 65,226,596,000 | 67,002,018,000 |

Source: Emsi (2015)

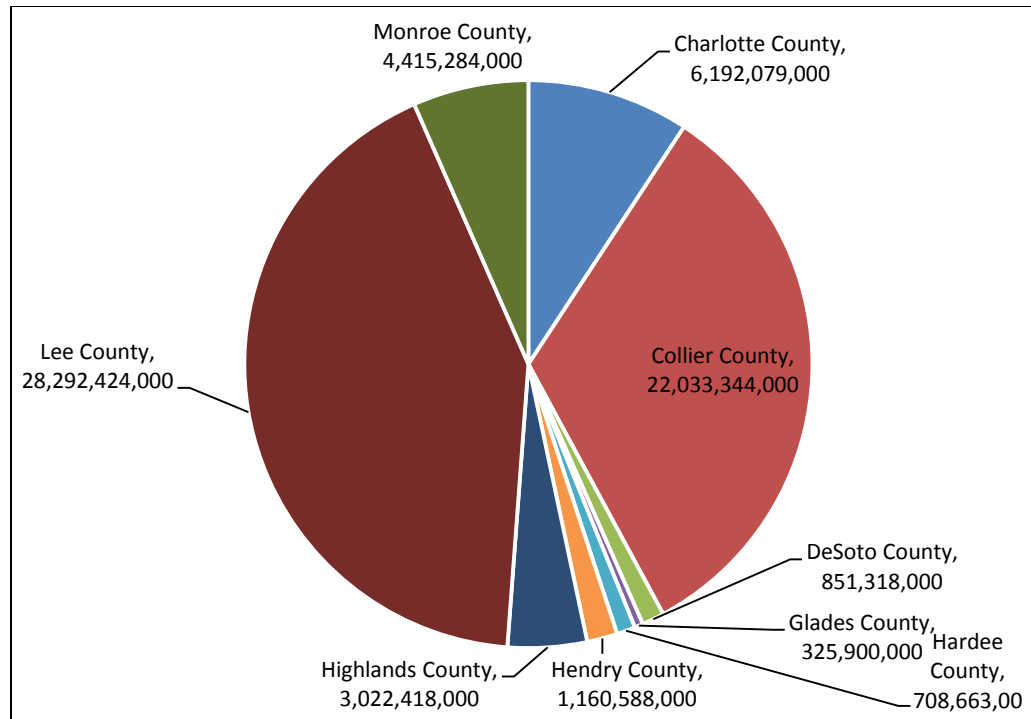


Figure 65. Total Personal Income (in dollars) by FL-6 County from 2013

Source: Emsi (2015)

Figure 66 shows the per capita income data 2013 for each county in FL-6. Collier and Monroe have the highest levels of per capita income (\$64,872 and \$57,829, respectively). DeSoto, Glades, and Hardee have the lowest levels (all under \$26,000).

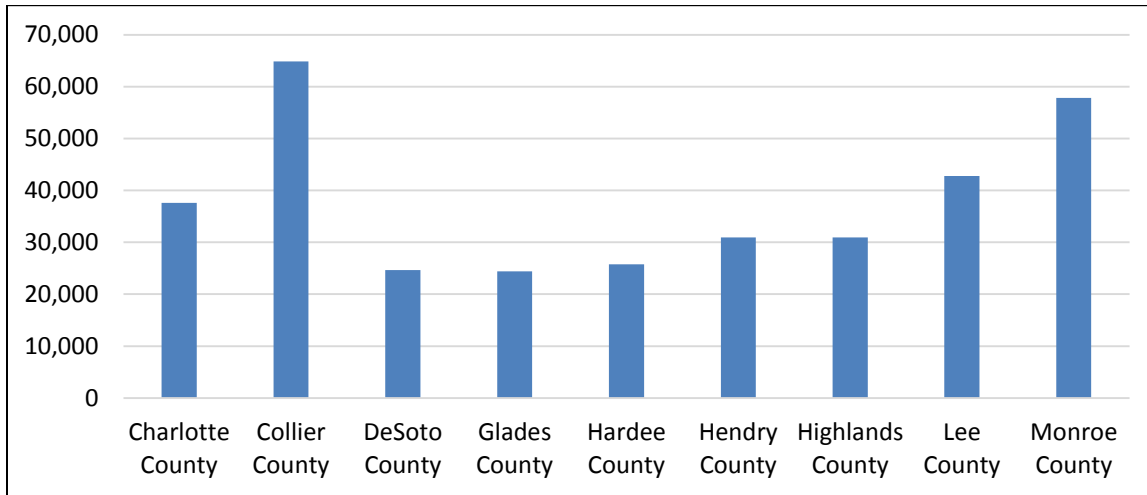


Figure 66. Per Capita Income (in dollars) by FL-6 County from 2013

Source: Emsi (2015)

2.11.5 Demographics

The 2013 demographic data are presented in Table 113. The FL-6 region had a regional poverty rate of 17.1% in 2013. DeSoto had the highest poverty rate (29.9%) and Monroe had the lowest (12.5%). Also, Table 113 includes data on minority population. In 2013, FL-6 had a population that was 17.2% minority. Hendry had the highest minority percentage (40.1%) and Charlotte had the lowest (10.0%).

Table 113. Demographic Data by FL-6 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Charlotte | 13.6% | 10.0% |
| Collier | 15.6% | 16.1% |
| DeSoto | 29.9% | 33.8% |
| Glades | 18.5% | 29.0% |
| Hardee | 28.3% | 27.8% |
| Hendry | 25.5% | 40.1% |
| Highlands | 20.4% | 19.0% |
| Lee | 16.9% | 17.0% |
| Monroe | 12.5% | 10.5% |
| Region FL-6 | 17.1% | 17.2% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.12 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-1

EIA LA-1 comprises two Louisiana parishes: Calcasieu and Cameron. The LA-1 parishes were home to 202,040 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 114,923 jobs, earned \$5.5 billion in total earnings (excluding corporate profits), \$11.5 billion in GDP, and \$7.8 billion in personal income in 2013.

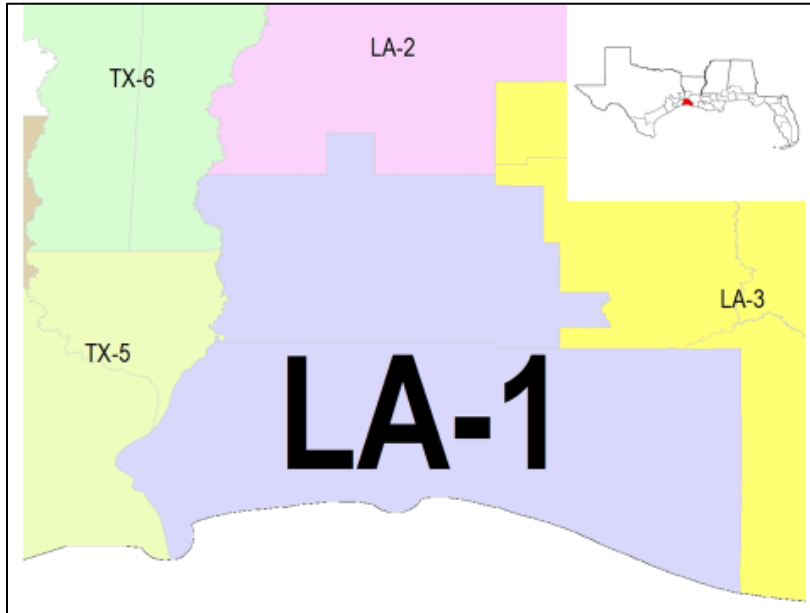


Figure 67. Map of EIA Region LA-1

2.12.1 Gross Domestic Product

Table 114 presents the total GDP estimates for each parish in LA-1. Approximately 95.1% of the total LA-1 GDP came from Calcasieu Parish. The distribution of GDP over the LA-1 parishes in 2013 is shown in Figure 68, which demonstrates the degree to which the economy of LA-1 was centered on Calcasieu.

Table 114. Total GDP (in dollars) by LA-1 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Calcasieu | 9,819,619,312 | 10,327,452,755 | 10,766,502,314 | 10,898,827,506 |
| Cameron | 377,671,752 | 400,826,866 | 538,062,074 | 560,653,946 |
| Region LA-1 | 10,197,291,065 | 10,728,279,621 | 11,304,564,389 | 11,459,481,452 |

Source: Varnado and Fannin (2015) and Emsi (2015)

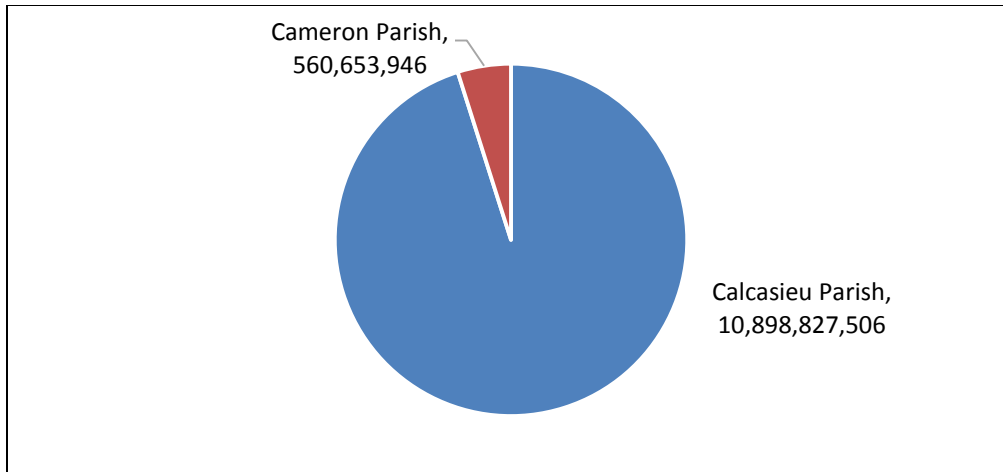


Figure 68. Total GDP (in dollars) by LA-1 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 115 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Though Cameron Parish produced a relatively small amount of the EIA’s total GDP, it produced 29.8% of LA-1’s oil and gas GDP in 2012.

Table 115. GDP in Oil- and Gas-Related Industries (in dollars) by LA-1 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|-------------|-------------|-------------|-------------|
| Calcasieu | 435,131,174 | 477,539,603 | 355,506,206 |
| Cameron | 51,753,887 | 92,335,256 | 150,666,901 |
| Region LA-1 | 486,885,061 | 569,874,859 | 506,173,107 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 116 shows the percentage of each parish’s GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each parish’s percentage of LA-1 oil and gas GDP. Though Calcasieu sourced about four percent of its GDP from oil- and gas-related industries, Cameron produced 13.7% of its GDP in oil- and gas-related industries in 2010 and that percentage rose to 28.0% in 2012. Although Cameron produces a larger percentage of its GDP in oil and gas industries, Calcasieu produced the majority of nominal oil and gas GDP in LA-1 in each year. However, Cameron’s percentage contribution rose steadily over the time period.

Table 116. Oil and Gas Contributions to GDP by LA-1 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Calcasieu | 4.4 | 4.6 | 3.3 | 89.4 | 83.8 | 70.2 |
| Cameron | 13.7 | 23.0 | 28.0 | 10.6 | 16.2 | 29.8 |
| Region LA-1 | 4.8 | 5.3 | 4.5 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.12.2 Earnings by Place-of-Work

The majority of total earnings in LA-1 were earned in Calcasieu (95.1% in 2013). These data are presented in Table 117. Figure 69 illustrates the distribution of total earnings over the LA-1 parishes for 2013. These data further confirm the economic dependence of LA-1 on Calcasieu Parish.

Table 117. Total Place-of-Work Earnings (in dollars) by EIA LA-1 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Calcasieu | 4,717,052,985 | 4,839,544,587 | 5,077,077,670 | 5,221,450,043 |
| Cameron | 181,422,274 | 187,831,359 | 253,729,843 | 268,600,138 |
| Region LA-1 | 4,898,475,259 | 5,027,375,947 | 5,330,807,513 | 5,490,050,181 |

Source: Emsi (2015)

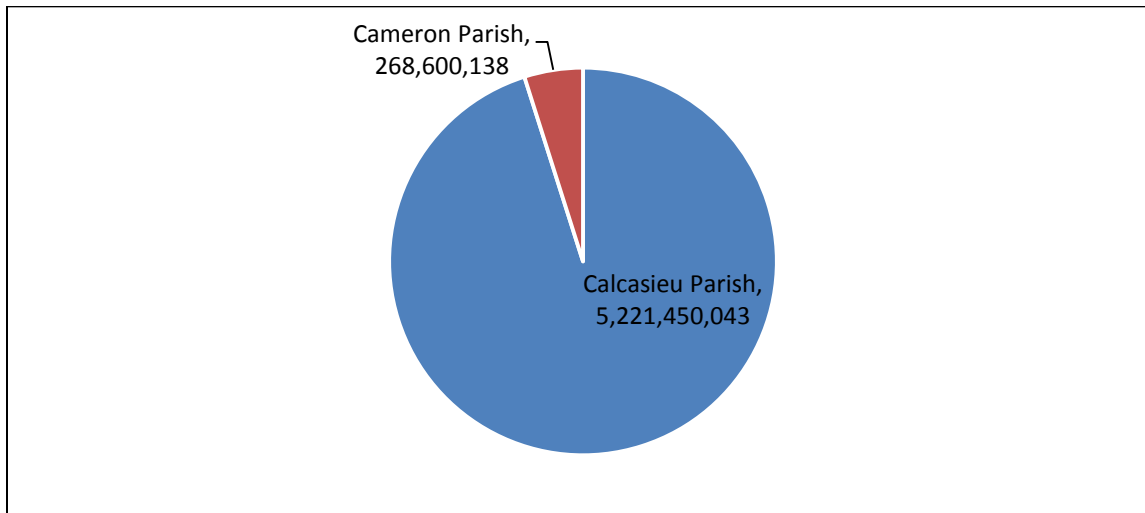


Figure 69. Total Place-of-Work Earnings (in dollars) by LA-1 Parish from 2013

Source: Emsi (2015)

Table 118 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Both Calcasieu and Cameron parishes saw steady increases in oil and gas earnings from 2010 to 2013, but Calcasieu still produced the vast majority of oil and gas earnings in LA-1 (89.7% in 2013).

Table 118. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-1 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|-------------|-------------|-------------|-------------|
| Calcasieu | 598,566,901 | 616,137,620 | 631,009,803 | 668,821,728 |
| Cameron | 38,921,732 | 45,671,909 | 70,083,402 | 76,945,611 |
| Region LA-1 | 637,488,633 | 661,809,528 | 701,093,205 | 745,767,339 |

Source: Emsi (2015)

Table 119 shows the percentage of each parish’s total earnings produced in oil- and gas-related industries. Both parishes drew significant portions of their place-of-work earnings from oil- and gas-related industries with annual averages of 8.3% for Calcasieu and 91.7% for Cameron. Nominally Calcasieu produced significantly more than Cameron in all years.

Table 119. Oil and Gas Contributions to Place-of-Work Earnings by LA-1 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Calcasieu | 12.7 | 12.7 | 12.4 | 12.8 | 93.9 | 93.1 | 90.0 | 89.7 |
| Cameron | 21.5 | 24.3 | 27.6 | 28.6 | 6.1 | 6.9 | 10.0 | 10.3 |
| Region LA-1 | 13.0 | 13.2 | 13.2 | 13.6 | - | - | - | - |

Source: Emsi (2015)

2.12.3 Employment

In 2013, the LA-1 region produced 114,923 jobs. Approximately 96.5% of those jobs were sourced in Calcasieu Parish. These data are presented in Table 120 and Figure 70 illustrates their distribution in 2013.

Table 120. Total Jobs by LA-1 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Calcasieu | 105,555 | 106,543 | 108,752 | 110,898 |
| Cameron | 3,891 | 3,829 | 4,073 | 4,025 |
| Region LA-1 | 109,446 | 110,372 | 112,825 | 114,923 |

Source: Emsi (2015)

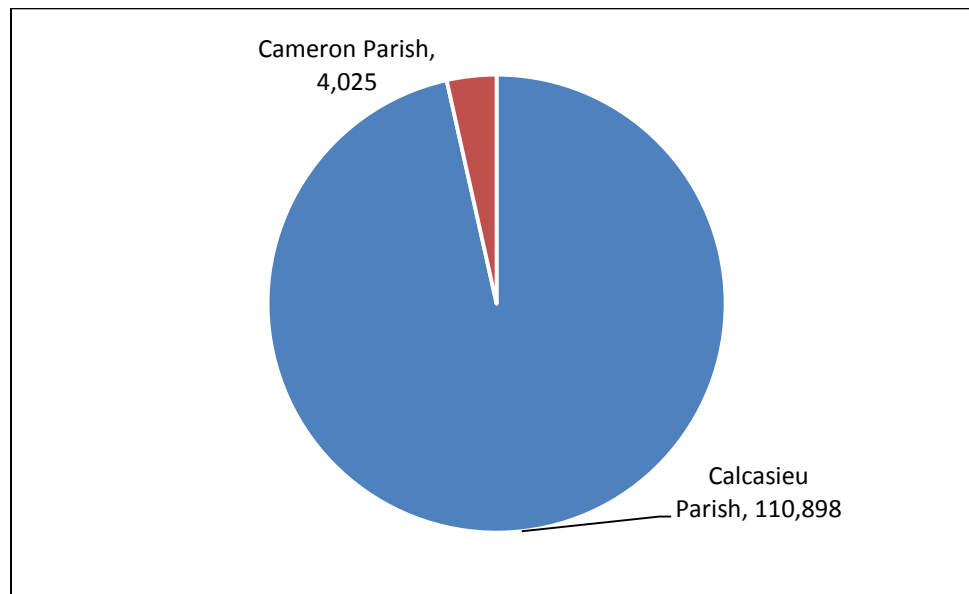


Figure 70. Total Jobs by LA-1 Parish from 2013

Source: Emsi (2015)

Table 121 shows the number of jobs in each LA-1 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Calcasieu Parish’s oil and gas jobs stayed relatively constant; Cameron Parish saw growth over the time period.

Table 121. Jobs in Oil- and Gas-Related Industries by LA-1 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|-------|-------|-------|-------|
| Calcasieu | 5,341 | 5,358 | 5,253 | 5,465 |
| Cameron | 491 | 547 | 716 | 639 |
| Region LA-1 | 5,832 | 5,906 | 5,969 | 6,104 |

Source: Emsi (2015)

Table 122 shows the percentage of each parish’s total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Calcasieu consistently sourced about five percent of its jobs in oil- and gas-related industries while Cameron sourced between 12.6% and 17.6%.

Table 122. Oil and Gas Contributions to Jobs by LA-1 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Calcasieu | 5.1 | 5.0 | 4.8 | 4.9 | 91.6 | 90.7 | 88.0 | 89.5 |
| Cameron | 12.6 | 14.3 | 17.6 | 15.9 | 8.4 | 9.3 | 12.0 | 10.5 |
| Region LA-1 | 5.3 | 5.4 | 5.3 | 5.3 | - | - | - | - |

Source: Emsi (2015)

2.12.4 Personal Income

In 2013, the LA-1 parishes received \$7.8 billion in personal income, 96.6% of which was received in Calcasieu. These data are presented in Table 123 and Figure 71 illustrates their distribution in 2013.

Table 123. Personal Income (in dollars) by LA-1 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Calcasieu | 6,637,284,000 | 6,883,281,000 | 7,404,048,000 | 7,551,752,000 |
| Cameron | 234,662,000 | 234,231,000 | 258,913,000 | 263,484,000 |
| Region LA-1 | 6,871,946,000 | 7,117,512,000 | 7,662,961,000 | 7,815,236,000 |

Source: Emsi (2015)

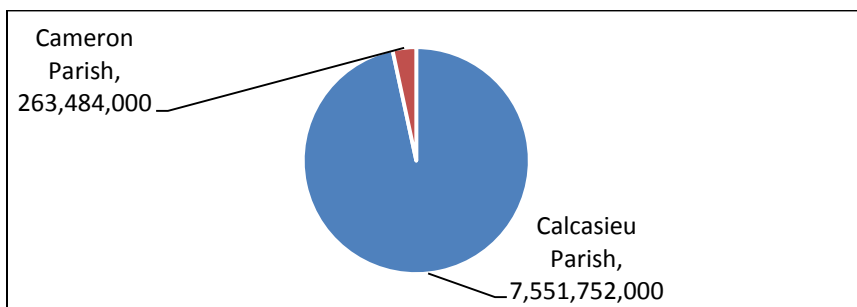


Figure 71. Total Personal Income (in dollars) by LA-1 Parish from 2013

Source: Emsi (2015)

Figure 72 shows the per capita income data for 2013 for each parish in LA-1. Cameron had a per capita income level of \$39,069 while Calcasieu’s level was \$38,688.

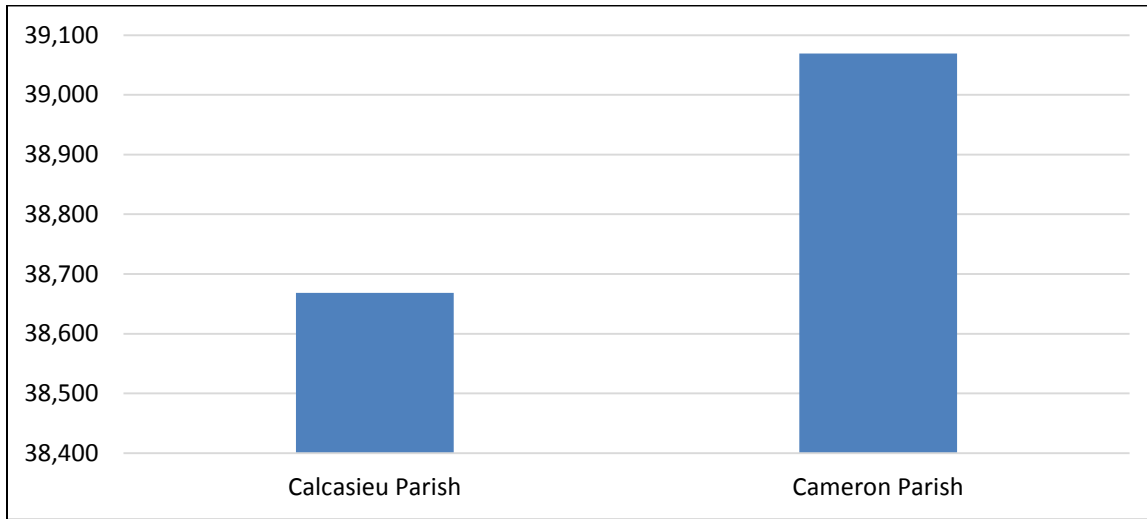


Figure 72. Per Capita Income (in dollars) by LA-1 Parish from 2013

Source: Emsi (2015)

2.12.5 Demographics

The 2013 demographic data are presented in Table 124. The LA-1 region had a regional poverty rate of 17.1% in 2013. Calcasieu Parish came in near the average (because of its overall size in the region) and Cameron Parish had a lower percentage. A larger disparity exists between the parishes in minority population rates. Cameron’s rate is only 4.3% and Calcasieu’s minority population percentage is 29.2%.

Table 124. Demographic Data by LA-1 Parish from 2013

| EIA Parish | Poverty | Minority |
|-------------|---------|----------|
| Calcasieu | 17.3% | 29.2% |
| Cameron | 13.0% | 4.3% |
| Region LA-1 | 17.1% | 28.3% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.13 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-2

EIA LA-2 comprises two Louisiana parishes : Beauregard and Vernon. The LA-2 parishes were home to 88,773 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 39,348 jobs, earned \$1.7 billion in total earnings (excluding corporate profits), \$3.6 billion in GDP, and \$3.4 billion in personal income in 2013.



Figure 73. Map of EIA Region LA-2

2.13.1 Gross Domestic Product

Table 125 presents the total GDP estimates for each parish in LA-2. Approximately 71.1% of that GDP was produced in Vernon. The distribution of GDP over the LA-2 parishes in 2013 is illustrated in Figure 74.

Table 125. Total GDP (in dollars) by LA-2 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Beauregard | 978,841,644 | 988,432,523 | 1,002,357,244 | 1,038,622,459 |
| Vernon | 2,660,400,407 | 2,798,193,831 | 2,777,756,639 | 2,549,137,200 |
| Region LA-2 | 3,639,242,051 | 3,786,626,353 | 3,780,113,883 | 3,587,759,660 |

Source: Varnado and Fannin (2015) and Emsi (2015)

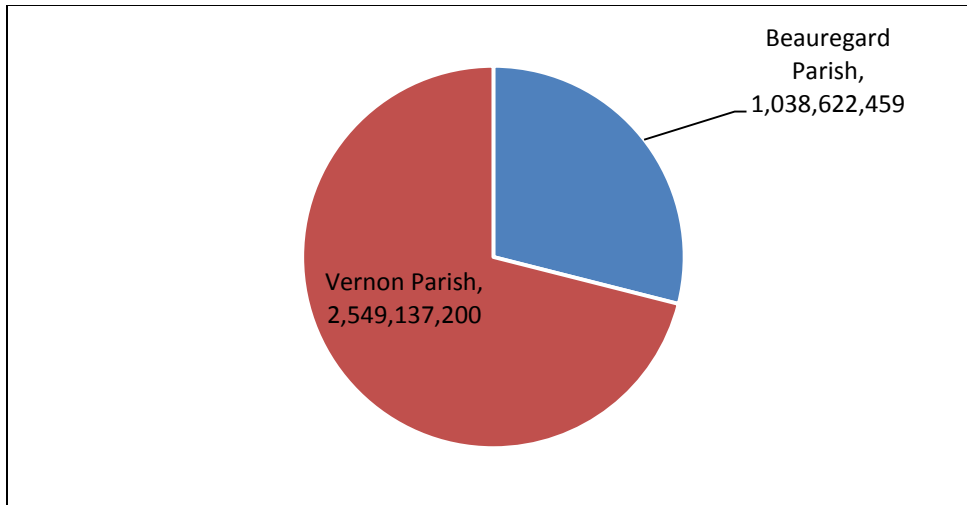


Figure 74. Total GDP by LA-2 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 126 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Beauregard produced more oil and gas GDP than Vernon in 2010 and 2011, but that changed in 2012.

Table 126. GDP in Oil- and Gas-Related Industries (in dollars) by LA-2 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|-------------|------------|------------|------------|
| Beauregard | 27,082,652 | 41,377,505 | 22,436,084 |
| Vernon | 19,762,839 | 20,903,814 | 30,356,807 |
| Region LA-2 | 46,845,491 | 62,281,319 | 52,792,891 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 127 shows the percentage of each parish's GDP produced in oil- and gas-related industries (as defined by Table 7) and percentage of LA-2 oil and gas GDP. Vernon sourced an annual average of 0.8% of its GDP in oil- and gas-related industries. Beauregard, on the other hand, sourced more than 2.5% of its annual GDP on average in those industries.

Table 127. Oil and Gas Contributions to GDP by LA-2 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Beauregard | 2.8 | 4.2 | 2.2 | 57.8 | 66.4 | 42.5 |
| Vernon | 0.7 | 0.7 | 1.1 | 42.2 | 33.6 | 57.5 |
| Region LA-2 | 1.3 | 1.6 | 1.4 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.13.2 Earnings by Place-of-Work

The majority of total earnings in LA-2 were earned in Vernon Parish (71.1%). These data are presented in Table 128 and Figure 75 shows their distribution for 2013.

Table 128. Total Place-of-Work Earnings (in dollars) by EIA LA-2 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Beauregard | 470,206,405 | 463,189,073 | 472,673,987 | 497,587,037 |
| Vernon | 1,277,977,209 | 1,311,260,785 | 1,309,885,587 | 1,221,249,950 |
| Region LA-2 | 1,748,183,614 | 1,774,449,858 | 1,782,559,575 | 1,718,836,987 |

Source: Emsi (2015)

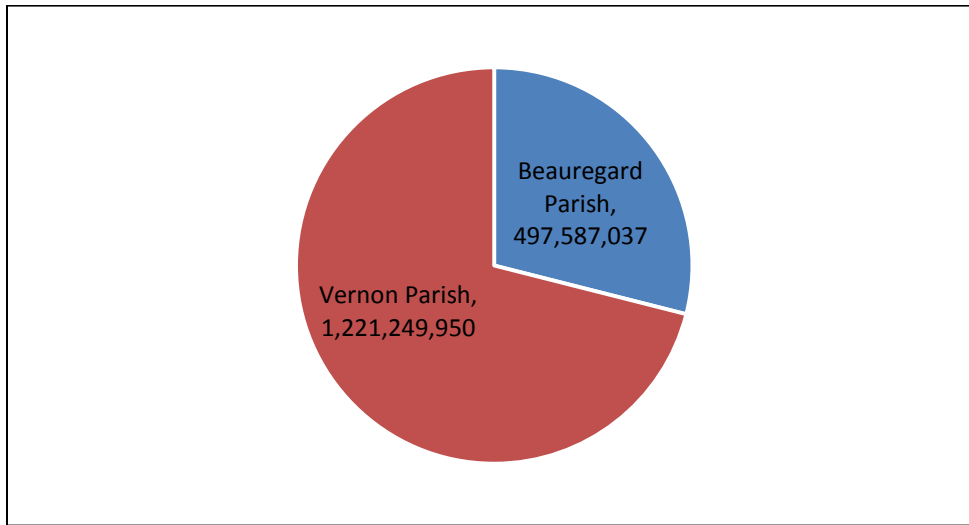


Figure 75. Total Place-of-Work Earnings (in dollars) by LA-2 Parish from 2013

Source: Emsi (2015)

Table 129 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. In 2010, Beauregard produced double the oil and gas earnings of Vernon. However that gap narrowed over the time period to where Vernon produced 44.2% of oil and gas earnings in 2013.

Table 129. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-2 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|------------|------------|------------|------------|
| Beauregard | 12,566,490 | 12,634,586 | 8,753,583 | 8,724,831 |
| Vernon | 6,024,052 | 5,021,726 | 6,987,802 | 6,923,168 |
| Region LA-2 | 18,590,542 | 17,656,312 | 15,741,385 | 15,647,999 |

Source: Emsi (2015)

Table 130 shows the percentage of each parish’s total earnings produced in oil- and gas-related industries. Beauregard consistently sourced a higher percentage of its earnings in oil- and gas-related industries than did Vernon. As previously stated, the distribution of the oil and gas earnings in LA-2 became more balanced over the time period.

Table 130. Oil and Gas Contributions to Place-of-Work Earnings by LA-2 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Beauregard | 2.7 | 2.7 | 1.9 | 1.8 | 67.6 | 71.6 | 55.6 | 55.8 |
| Vernon | 0.5 | 0.4 | 0.5 | 0.6 | 32.4 | 28.4 | 44.4 | 44.2 |
| Region LA-2 | 1.1 | 1.0 | 0.9 | 0.9 | - | - | - | - |

Source: Emsi (2015)

2.13.3 Employment

In 2013, the LA-2 region produced 39,348 jobs. Approximately 66.6% of those jobs were sourced in Vernon Parish. These data are presented in Table 131 and Figure 76 illustrates their distribution in 2013.

Table 131. Total Jobs by LA-2 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| Beauregard | 13,052 | 12,874 | 13,004 | 13,151 |
| Vernon | 27,373 | 28,055 | 27,624 | 26,196 |
| Region LA-2 | 40,426 | 40,929 | 40,627 | 39,348 |

Source: Emsi (2015)

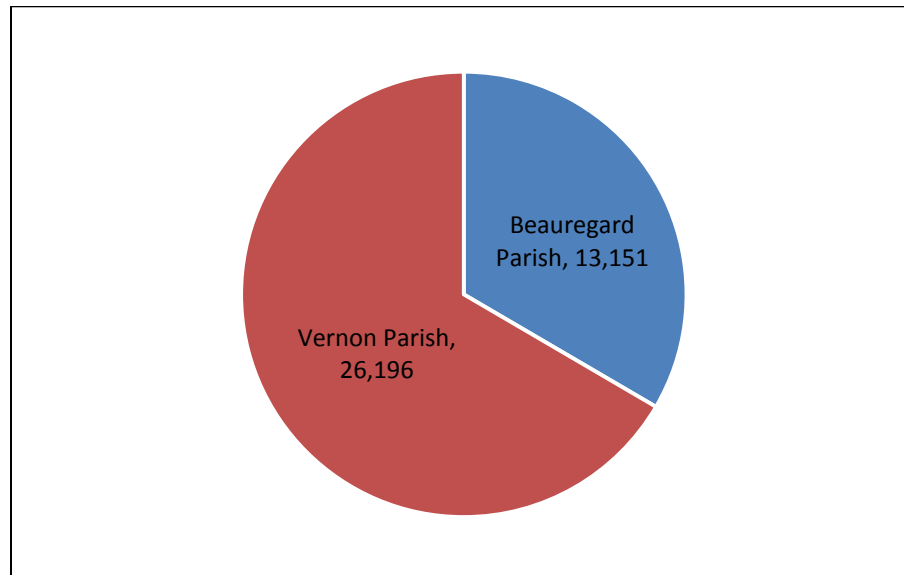


Figure 76. Total Jobs by LA-2 Parish from 2013

Source: Emsi (2015)

Table 132 shows the number of jobs in each LA-2 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). As with earnings, in 2010 Beauregard contributed the largest share of oil and gas jobs. By 2013 that dynamic shifted and Vernon provided more jobs in those industries.

Table 132. Jobs in Oil- and Gas-Related Industries by LA-2 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|------|------|------|------|
| Beauregard | 193 | 171 | 137 | 121 |
| Vernon | 85 | 71 | 145 | 139 |
| Region LA-2 | 277 | 242 | 282 | 260 |

Source: Emsi (2015)

Table 133 shows the percentage of each parish's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Beauregard consistently sourced approximately one percent of its jobs in oil- and gas-related industries, while Vernon sourced less than 0.5%. Again we see that Beauregard's contribution to the EIA total oil and gas jobs fell from about two-thirds to roughly half from 2010 to 2013.

Table 133. Oil and Gas Contributions to Jobs by LA-2 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Beauregard | 1.5 | 1.3 | 1.1 | 0.9 | 69.4 | 70.8 | 48.5 | 46.6 |
| Vernon | 0.3 | 0.3 | 0.5 | 0.5 | 30.6 | 29.2 | 51.5 | 53.4 |
| Region LA-2 | 0.7 | 0.6 | 0.7 | 0.7 | - | - | - | - |

Source: Emsi (2015)

2.13.4 Personal Income

In 2013, the LA-2 parishes received \$3.4 billion in personal income, 65.7% of which was received in Vernon Parish. These data are presented in Table 134 and Figure 77 illustrates their distribution for 2013.

Table 134. Personal Income (in dollars) by LA-2 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Beauregard | 1,047,746,000 | 1,085,834,000 | 1,132,989,000 | 1,155,557,000 |
| Vernon | 2,127,685,000 | 2,237,622,000 | 2,262,260,000 | 2,217,592,000 |
| Region LA-2 | 3,175,431,000 | 3,323,456,000 | 3,395,249,000 | 3,373,149,000 |

Source: Emsi (2015)

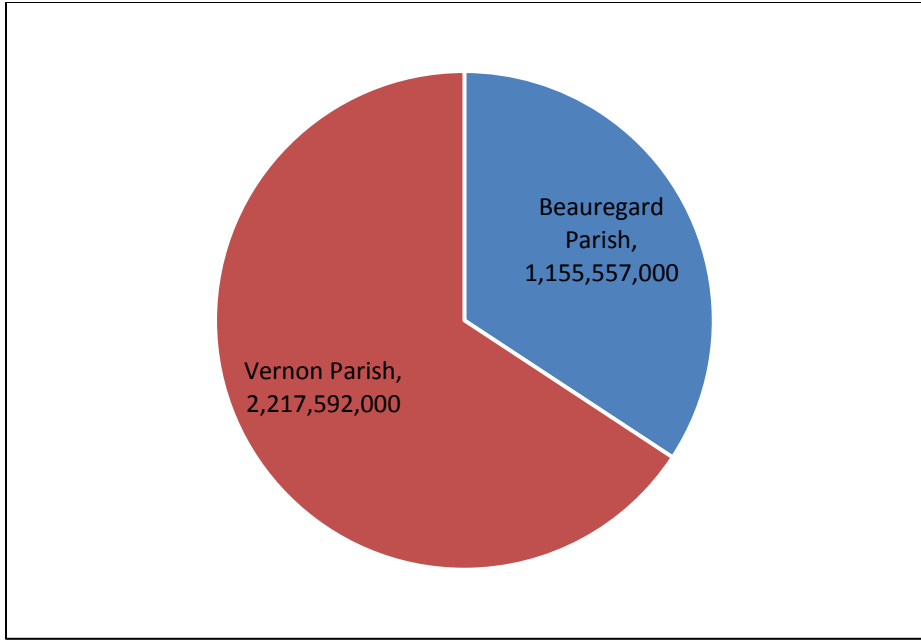


Figure 77. Total Personal Income (in dollars) by LA-2 Parish from 2013

Source: Emsi (2015)

Figure 78 illustrates the per capita income data 2013 for each parish in LA-2. Vernon generated a measurably higher per capita income level in 2013 (\$42,155) than did Beauregard (\$31,951).

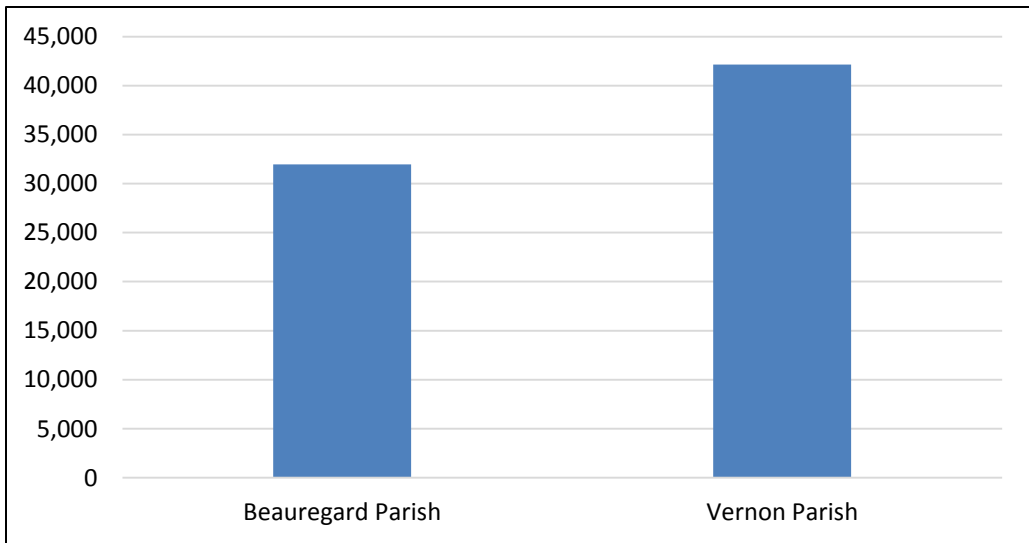


Figure 78. Per Capita Income (in dollars) by LA-2 Parish from 2013

Source: Emsi (2015)

2.13.5 Demographics

The 2013 demographic data are presented in Table 135. The regional poverty rate in 2013 was 13.9%. The regional minority population percentage was 21.7%. Both parishes had similar poverty rates while Vernon had a slightly higher percentage of its population as minorities in 2013. The data are presented in Table 135.

Table 135. Demographic Data by LA-2 Parish from 2013

| EIA Parish | Poverty | Minority |
|-------------|---------|----------|
| Beauregard | 15.2% | 17.8% |
| Vernon | 13.0% | 24.3% |
| Region LA-2 | 13.9% | 21.7% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.14 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-3

EIA LA-3 comprises eight Louisiana parishes: Acadia, Allen, Evangeline, Jefferson Davis, Lafayette, St. Landry, St. Martin, and Vermilion. The LA-3 parishes were home to 579,108 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 320,063 jobs, earned \$14.7 billion in total earnings (excluding corporate profits), \$30.7 billion in GDP, and \$24.1 billion in personal income in 2013.



Figure 79. Map of EIA Region LA-3

2.14.1 Gross Domestic Product

Table 136 presents the total GDP estimates for each parish in LA-3. Approximately, 64.4% of the total LA-3 GDP was produced in Lafayette Parish. No other parish contributed more than 10% in 2013. The distribution of GDP over the LA-3 parishes in 2013 is shown in Figure 80.

Table 136. Total GDP (in dollars) by LA-3 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-----------------|----------------|----------------|----------------|----------------|
| Acadia | 1,800,760,568 | 1,909,088,762 | 1,902,245,306 | 1,876,568,912 |
| Allen | 865,241,425 | 901,168,493 | 917,155,961 | 918,578,294 |
| Evangeline | 837,584,572 | 896,581,722 | 915,187,730 | 900,788,924 |
| Jefferson Davis | 897,479,863 | 930,524,154 | 984,486,425 | 1,004,170,244 |
| Lafayette | 17,486,287,163 | 18,535,850,681 | 19,557,533,804 | 19,789,366,111 |
| St. Landry | 2,512,408,076 | 2,590,941,266 | 2,642,601,678 | 2,667,622,679 |
| St. Martin | 1,259,940,674 | 1,309,482,223 | 1,453,210,265 | 1,757,685,386 |
| Vermilion | 1,652,846,835 | 1,745,412,298 | 1,871,874,966 | 1,805,281,463 |
| Region LA-3 | 27,312,549,177 | 28,819,049,599 | 30,244,296,135 | 30,720,062,013 |

Source: Varnado and Fannin (2015) and Emsi (2015)

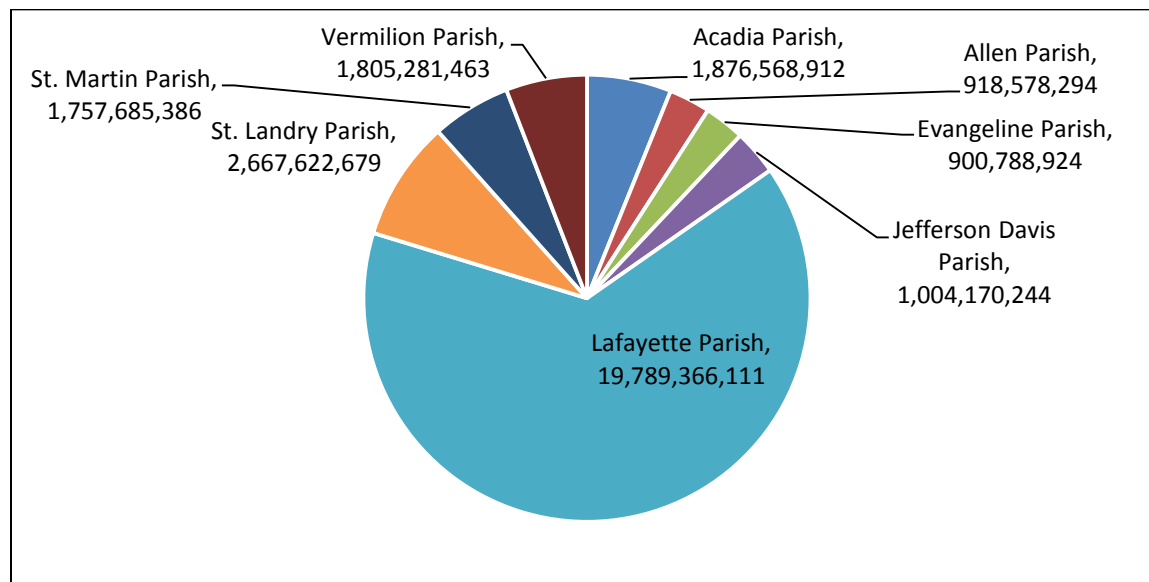


Figure 80. Total GDP (in dollars) by LA-3 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 137 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Lafayette Parish produced an even larger share of oil and gas GDP (84.6%) than it did of total GDP. No other parish produced more than 10% of the total EIA oil and gas GDP.

Table 137. GDP in Oil- and Gas-Related Industries (in dollars) by LA-3 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|-----------------|---------------|---------------|---------------|
| Acadia | 279,870,316 | 334,098,407 | 236,338,130 |
| Allen | 17,024,735 | 18,714,113 | 16,764,089 |
| Evangeline | 22,271,279 | 27,713,831 | 29,727,084 |
| Jefferson Davis | 105,797,056 | 136,111,515 | 151,850,500 |
| Lafayette | 6,755,484,964 | 8,094,658,209 | 8,454,564,543 |
| St. Landry | 156,903,625 | 161,428,584 | 195,508,320 |
| St. Martin | 172,138,081 | 220,577,363 | 235,565,917 |
| Vermilion | 477,956,243 | 679,604,246 | 678,621,448 |
| Region LA-3 | 7,987,446,299 | 9,672,906,268 | 9,998,940,030 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 138 shows the percentage of each parish's GDP produced in oil- and gas-related industries (as defined by Table 7) and each parish's percentage of LA-3 oil and gas GDP. LA-3 sourced an average of 32.0% of its GDP annually from oil- and gas-related industries. Lafayette Parish had the highest concentration of oil and gas GDP (43.2% in 2012) and produced the highest nominal levels of oil and gas GDP (84.6% in 2012) in LA-3. Acadia, Jefferson Davis, St. Martin, and Vermilion each sourced more than 10% of their parish's GDP in these industries, while no parish had an annual average of less than two percent.

Table 138. Oil and Gas Contributions to GDP by LA-3 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-----------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Acadia | 15.5 | 17.5 | 12.4 | 3.5 | 3.5 | 2.4 |
| Allen | 2.0 | 2.1 | 1.8 | 0.2 | 0.2 | 0.2 |
| Evangeline | 2.7 | 3.1 | 3.2 | 0.3 | 0.3 | 0.3 |
| Jefferson Davis | 11.8 | 14.6 | 15.4 | 1.3 | 1.4 | 1.5 |
| Lafayette | 38.6 | 43.7 | 43.2 | 84.6 | 83.7 | 84.6 |
| St. Landry | 6.2 | 6.2 | 7.4 | 2.0 | 1.7 | 2.0 |
| St. Martin | 13.7 | 16.8 | 16.2 | 2.2 | 2.3 | 2.4 |
| Vermilion | 28.9 | 38.9 | 36.3 | 6.0 | 7.0 | 6.8 |
| Region LA-3 | 29.2 | 33.6 | 33.1 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.14.2 Earnings by Place-of-Work

Approximately 64.4% of the \$14.7 billion in place-of-work earnings in LA-3 were produced in Lafayette Parish in 2013 with no other parish contributing more than 10%. These data are presented in Table 139 and Figure 81 illustrates their distribution in 2013.

Table 139. Total Place-of-Work Earnings (in dollars) by EIA LA-3 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-----------------|----------------|----------------|----------------|----------------|
| Acadia | 865,031,804 | 894,617,521 | 897,027,362 | 899,033,481 |
| Allen | 415,636,240 | 422,296,301 | 432,496,266 | 440,075,840 |
| Evangeline | 402,350,711 | 420,146,896 | 431,568,122 | 431,553,244 |
| Jefferson Davis | 431,122,626 | 436,052,649 | 464,246,781 | 481,081,544 |
| Lafayette | 8,399,892,137 | 8,686,079,517 | 9,222,597,578 | 9,480,761,712 |
| St. Landry | 1,206,886,096 | 1,214,140,222 | 1,246,151,590 | 1,278,014,405 |
| St. Martin | 605,238,017 | 613,636,078 | 685,279,320 | 842,078,327 |
| Vermilion | 793,978,447 | 817,917,142 | 882,705,851 | 864,880,829 |
| Region LA-3 | 13,120,136,078 | 13,504,886,327 | 14,262,072,870 | 14,717,479,382 |

Source: Emsi (2015)

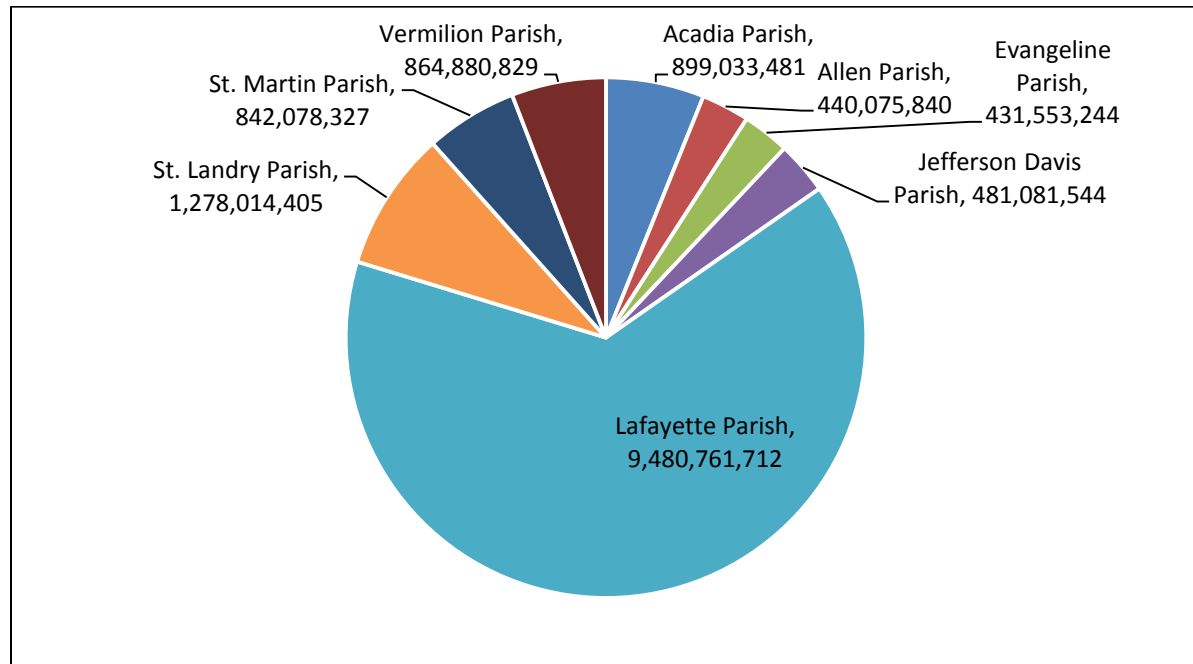


Figure 81. Total Place-of-Work Earnings (in dollars) by LA-3 Parish from 2013

Source: Emsi (2015)

Table 140 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Approximately 74.0% of the total oil and gas earnings in LA-3 in 2013 were earned in Lafayette Parish. St. Martin (7.4%), Vermilion (6.6%), Acadia (4.1%), St. Landry (3.5%), Evangeline (2.2%), and Jefferson Davis (1.9%) made sizeable contributions as well. Only Allen contributed less than one percent of total EIA oil- and gas-related earnings.

Table 140. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-3 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-----------------|---------------|---------------|---------------|---------------|
| Acadia | 126,386,921 | 138,555,526 | 117,155,563 | 112,388,949 |
| Allen | 14,660,091 | 13,434,024 | 14,072,481 | 13,439,443 |
| Evangeline | 51,844,251 | 55,487,641 | 60,025,834 | 59,558,461 |
| Jefferson Davis | 46,310,653 | 46,552,783 | 45,001,935 | 51,560,148 |
| Lafayette | 1,971,402,655 | 2,029,894,480 | 2,121,772,268 | 2,045,725,539 |
| St. Landry | 90,841,868 | 83,790,542 | 88,427,507 | 95,969,440 |
| St. Martin | 68,551,145 | 70,581,698 | 88,692,341 | 205,745,312 |
| Vermilion | 158,623,682 | 178,011,316 | 192,256,575 | 181,738,131 |
| Region LA-3 | 2,528,621,265 | 2,616,308,012 | 2,727,404,503 | 2,766,125,422 |

Source: Emsi (2015)

Table 141 details the percentage of each parish's total earnings produced in oil- and gas-related industries. The annual average percentage of parish earnings in oil and gas industries hovered around 19% for LA-3. In 2013, St. Martin produced the highest percentage of earnings in these industries (24.4%) while Allen produced the least (3.1%). These data remain relatively stable over the time period which could indicate a mature industry as opposed to newer industry development which one might expect to have more volatility.

Table 141. Oil and Gas Contributions to Place-of-Work Earnings by LA-3 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-----------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Acadia | 14.6 | 15.5 | 13.1 | 12.5 | 5.0 | 5.3 | 4.3 | 4.1 |
| Allen | 3.5 | 3.2 | 3.3 | 3.1 | 0.6 | 0.5 | 0.5 | 0.5 |
| Evangeline | 12.9 | 13.2 | 13.9 | 13.8 | 2.1 | 2.1 | 2.2 | 2.2 |
| Jefferson Davis | 10.7 | 10.7 | 9.7 | 10.7 | 1.8 | 1.8 | 1.6 | 1.9 |
| Lafayette | 23.5 | 23.4 | 23.0 | 21.6 | 78.0 | 77.6 | 77.8 | 74.0 |
| St. Landry | 7.5 | 6.9 | 7.1 | 7.5 | 3.6 | 3.2 | 3.2 | 3.5 |
| St. Martin | 11.3 | 11.5 | 12.9 | 24.4 | 2.7 | 2.7 | 3.3 | 7.4 |
| Vermilion | 20.0 | 21.8 | 21.8 | 21.0 | 6.3 | 6.8 | 7.0 | 6.6 |
| Region LA-3 | 19.3 | 19.4 | 19.1 | 18.8 | - | - | - | - |

Source: Emsi (2015)

2.14.3 Employment

In 2013, the LA-3 region produced 320,063 jobs. Approximately 57.5% of those jobs were sourced in Lafayette Parish, while only St. Landry (10.6%) contributed more than 10% of the total. These data are presented in Table 142 and Figure 82 illustrates their distribution in 2013.

Table 142. Total Jobs by LA-3 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| Acadia | 24,904 | 25,092 | 25,108 | 25,167 |
| Allen | 12,069 | 12,199 | 12,094 | 11,790 |
| Evangeline | 11,435 | 11,622 | 11,551 | 11,651 |
| Jefferson Davis | 11,816 | 11,916 | 12,214 | 12,457 |
| Lafayette | 169,500 | 173,138 | 179,728 | 184,045 |
| St. Landry | 33,786 | 33,650 | 33,598 | 34,049 |
| St. Martin | 17,475 | 17,749 | 18,761 | 20,321 |
| Vermilion | 20,312 | 20,443 | 20,815 | 20,584 |
| Region LA-3 | 301,297 | 305,810 | 313,869 | 320,063 |

Source: Emsi (2015)

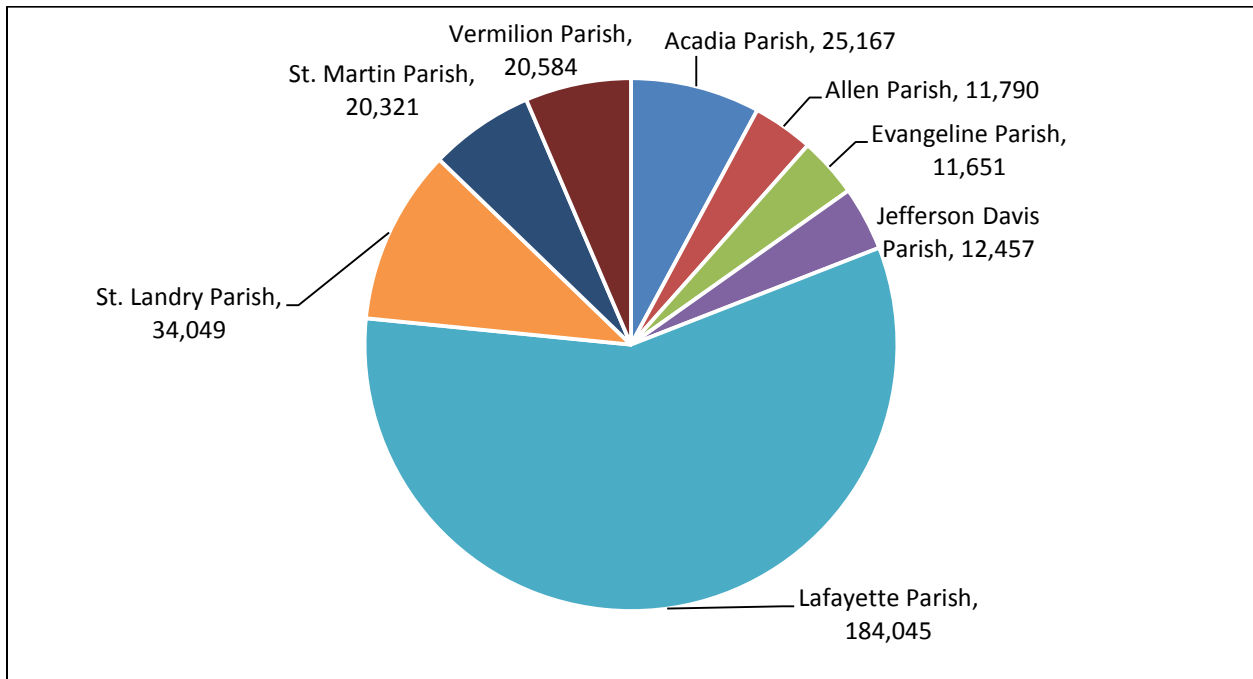


Figure 82. Total Jobs by LA-3 Parish from 2013

Source: Emsi (2015)

Table 143 shows the number of jobs in each LA-3 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Approximately, 71.6% of the oil and gas jobs in LA-3 in 2013 were sourced in Lafayette Parish. Only Acadia (5.2%), St. Martin (7.4%), and Vermilion (6.3%) contributed more than five percent of the LA-3 total jobs.

Table 143. Jobs in Oil- and Gas-Related Industries by LA-3 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Acadia | 1,659 | 1,594 | 1,737 | 1,663 |
| Allen | 212 | 163 | 172 | 168 |
| Evangeline | 767 | 853 | 906 | 902 |
| Jefferson Davis | 748 | 706 | 682 | 794 |
| Lafayette | 21,295 | 21,971 | 23,482 | 23,000 |
| St. Landry | 1,099 | 1,022 | 1,128 | 1,158 |
| St. Martin | 1,066 | 1,085 | 1,378 | 2,391 |
| Vermilion | 1,806 | 2,045 | 2,087 | 2,029 |
| Region LA-3 | 28,652 | 29,440 | 31,571 | 32,106 |

Source: Emsi (2015)

Table 144 shows the percentage of each parish's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. The regional average share of total jobs in oil and gas industries rose from 9.5% in 2010 to 10.0% in 2013. Lafayette Parish sourced more than 12% of its jobs in oil- and gas-related industries, the highest percentage in LA-3. Allen sourced an average of 1.5% annually, the lowest among LA-3 parishes.

Table 144. Oil and Gas Contributions to Jobs by LA-3 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|--------------------|--|------------|-------------|-------------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Acadia | 6.7 | 6.4 | 6.9 | 6.6 | 5.8 | 5.4 | 5.5 | 5.2 |
| Allen | 1.8 | 1.3 | 1.4 | 1.4 | 0.7 | 0.6 | 0.5 | 0.5 |
| Evangeline | 6.7 | 7.3 | 7.8 | 7.7 | 2.7 | 2.9 | 2.9 | 2.8 |
| Jefferson Davis | 6.3 | 5.9 | 5.6 | 6.4 | 2.6 | 2.4 | 2.2 | 2.5 |
| Lafayette | 12.6 | 12.7 | 13.1 | 12.5 | 74.3 | 74.6 | 74.4 | 71.6 |
| St. Landry | 3.3 | 3.0 | 3.4 | 3.4 | 3.8 | 3.5 | 3.6 | 3.6 |
| St. Martin | 6.1 | 6.1 | 7.3 | 11.8 | 3.7 | 3.7 | 4.4 | 7.4 |
| Vermilion | 8.9 | 10.0 | 10.0 | 9.9 | 6.3 | 6.9 | 6.6 | 6.3 |
| Region LA-3 | 9.5 | 9.6 | 10.1 | 10.0 | - | - | - | - |

Source: Emsi (2015)

2.14.4 Personal Income

In 2013, the LA-3 parishes received \$24.1 billion in personal income. Almost half (49.4%) of this income was received by Lafayette Parish, 13.0% in St. Landry Parish. All other parishes contributed less than 10%. These data are presented in Table 145 and Figure 83 illustrates their distribution in 2013.

Table 145. Personal Income (in dollars) by LA-3 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-----------------|----------------|----------------|----------------|----------------|
| Acadia | 1,981,320,000 | 2,129,540,000 | 2,290,860,000 | 2,353,861,000 |
| Allen | 611,305,000 | 617,322,000 | 647,558,000 | 654,045,000 |
| Evangeline | 961,216,000 | 986,860,000 | 1,040,053,000 | 1,053,435,000 |
| Jefferson Davis | 962,114,000 | 1,005,018,000 | 1,092,182,000 | 1,120,378,000 |
| Lafayette | 9,982,292,000 | 10,730,443,000 | 11,558,074,000 | 11,924,573,000 |
| St. Landry | 2,816,219,000 | 2,945,228,000 | 3,096,226,000 | 3,131,662,000 |
| St. Martin | 1,618,972,000 | 1,699,233,000 | 1,850,094,000 | 1,889,635,000 |
| Vermilion | 1,758,704,000 | 1,831,121,000 | 2,005,762,000 | 2,016,371,000 |
| Region LA-3 | 20,692,142,000 | 21,944,765,000 | 23,580,809,000 | 24,143,960,000 |

Source: Emsi (2015)

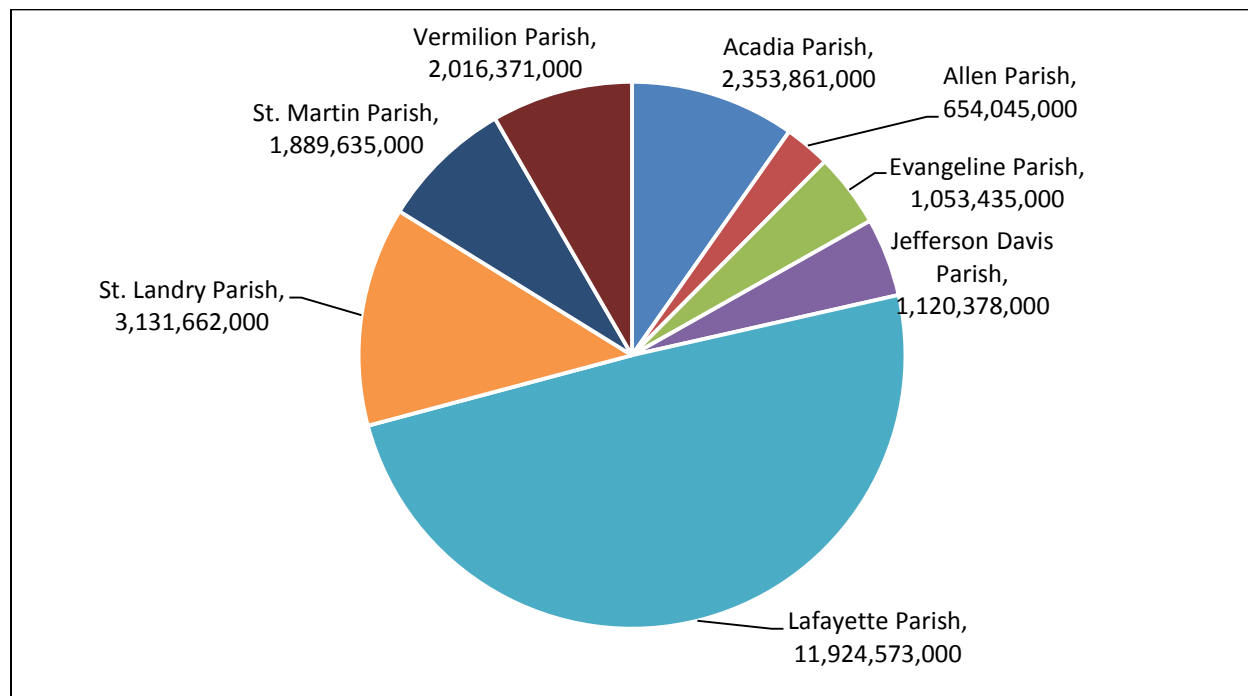


Figure 83. Total Personal Income (in dollars) by LA-3 Parish from 2013

Source: Emsi (2015)

Figure 84 shows the per capita income data in 2013 for each parish in LA-3. Lafayette Parish had the highest per capita income level (\$51,656) while Allen had the lowest (\$25,612).

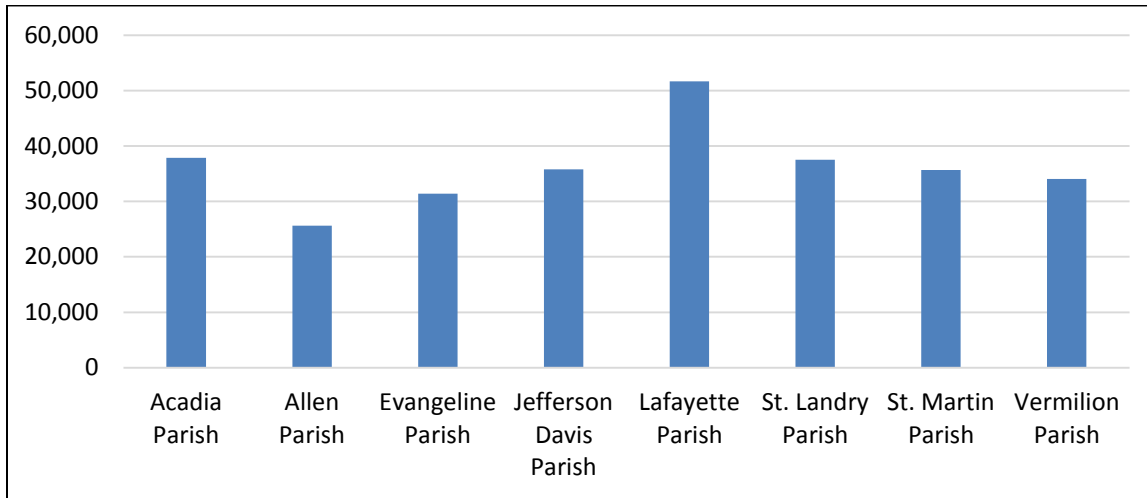


Figure 84. Per Capita Income (in dollars) by LA-3 Parish from 2013

Source: Emsi (2015)

2.14.5 Demographics

The 2013 demographic data are presented in Table 146. The LA-3 region had a regional poverty rate of 19.8% in 2013. St. Landry had the highest poverty rate (26.0%) and Allen had the lowest (17.0%). Also in Table 146 are data on minority population percentages. In 2013, LA-3 had a population that was 30.0% minority. St. Landry had the highest minority population percentage (44.1%) while Vermilion had the lowest (19.1%).

Table 146. Demographic Data by LA-3 Parish from 2013

| EIA Parish | Poverty | Minority |
|-----------------|---------|----------|
| Acadia | 20.7% | 20.5% |
| Allen | 17.0% | 28.4% |
| Evangeline | 21.9% | 31.0% |
| Jefferson Davis | 19.7% | 20.5% |
| Lafayette | 17.5% | 30.6% |
| St. Landry | 26.0% | 44.1% |
| St. Martin | 21.5% | 34.2% |
| Vermilion | 17.3% | 19.1% |
| Region LA-3 | 19.8% | 30.0% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.15 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-4

EIA LA-4 comprises five Louisiana parishes: Assumption, Iberia, Lafourche, St. Mary, and Terrebonne. The LA-4 parishes were home to 360,498 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 212,242 jobs, earned \$11.2 billion in total earnings (excluding corporate profits), \$23.4 billion in GDP, and \$16.2 billion in personal income in 2013.



Figure 85. Map of EIA Region LA-4

2.15.1 Gross Domestic Product

Table 147 presents the total GDP estimates for each parish in LA-4. The distribution of GDP among the parishes in LA-4 is not dominated by one or two parishes as many of the other EIAs but more evenly distributed. Terrebonne contributed 33.9% of total GDP in 2013, the highest among all parishes in LA-4.

Table 147. Total GDP (in dollars) by LA-4 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Assumption | 612,646,902 | 558,399,913 | 639,095,864 | 631,904,019 |
| Iberia | 3,775,503,536 | 4,081,403,582 | 4,491,782,655 | 4,517,794,700 |
| Lafourche | 5,700,176,396 | 5,802,483,088 | 6,210,111,977 | 6,674,728,610 |
| St. Mary | 3,319,075,989 | 3,424,336,471 | 3,643,150,256 | 3,656,290,419 |
| Terrebonne | 6,687,489,479 | 6,821,506,933 | 7,392,186,443 | 7,939,085,951 |
| Region LA-4 | 20,094,892,302 | 20,688,129,987 | 22,376,327,194 | 23,419,803,698 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The distribution of GDP over the LA-4 parishes in 2013 is shown in Figure 86, which demonstrates that, aside from Assumption, the parishes in LA-4 contributed somewhat evenly to total GDP in 2013.

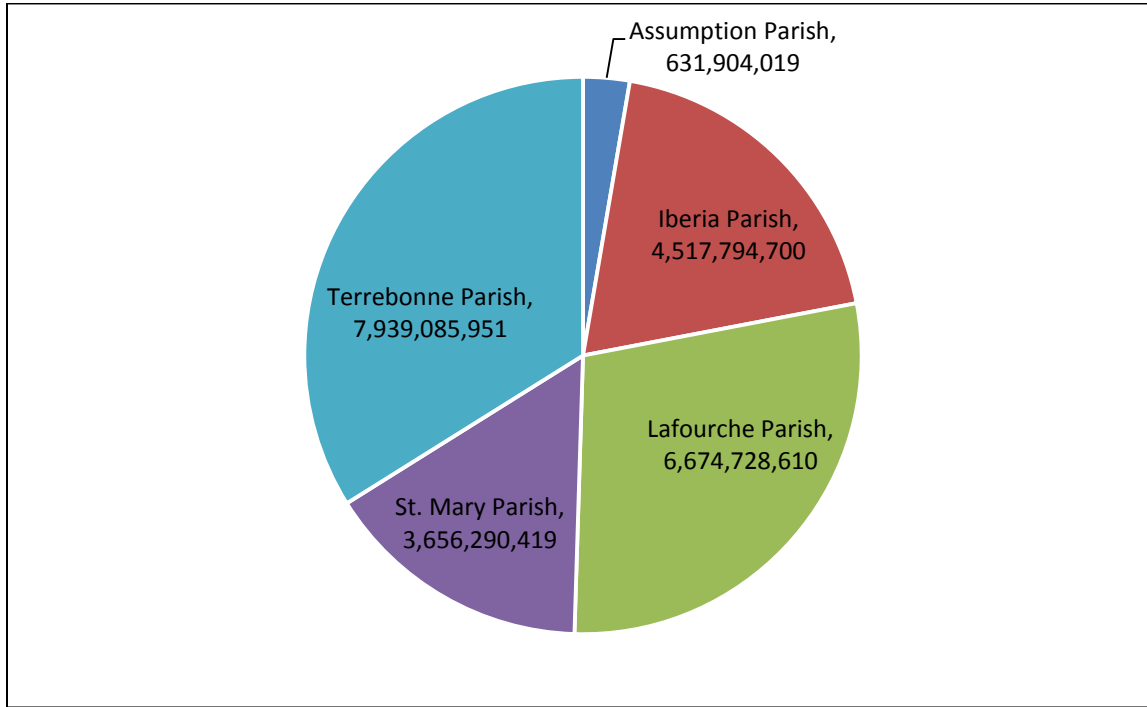


Figure 86. Total GDP (in dollars) by LA-4 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 148 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Terrebonne had the largest share of LA-4 oil and gas GDP (39.0%), but, aside from Assumption (0.5%), the rest of the parishes in LA-4 contributed significantly.

Table 148. GDP in Oil- and Gas-Related Industries (in dollars) by LA-4 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|-------------|---------------|---------------|---------------|
| Assumption | 16,495,863 | 21,590,033 | 27,013,587 |
| Iberia | 1,023,961,845 | 1,217,522,807 | 1,447,954,182 |
| Lafourche | 614,226,184 | 661,534,451 | 721,294,168 |
| St. Mary | 952,043,145 | 1,027,808,206 | 1,115,089,283 |
| Terrebonne | 1,597,465,555 | 1,719,047,509 | 2,116,386,851 |
| Region LA-4 | 4,204,192,591 | 4,647,503,007 | 5,427,738,072 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 149 shows the percentage of each parish's GDP produced in oil- and gas-related industries (as defined by Table 7) and each parish's percentage of LA-4's oil and gas GDP. All of the parishes in LA-4, except for Assumption, sourced more than 10% of their GDP from oil- and gas-related industries. Iberia, St. Mary, and Terrebonne each averaged more than 25% annually over the time period. The largest nominal amounts of oil and GDP come from Terrebonne, followed by Iberia and St. Mary, which are very similar, and Lafourche which hovers around 14%.

Table 149. Oil and Gas Contributions to GDP by LA-4 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Assumption | 2.7 | 3.9 | 4.2 | 0.4 | 0.5 | 0.5 |
| Iberia | 27.1 | 29.8 | 32.2 | 24.4 | 26.2 | 26.7 |
| Lafourche | 10.8 | 11.4 | 11.6 | 14.6 | 14.2 | 13.3 |
| St. Mary | 28.7 | 30.0 | 30.6 | 22.6 | 22.1 | 20.5 |
| Terrebonne | 23.9 | 25.2 | 28.6 | 38.0 | 37.0 | 39.0 |
| Region LA-4 | 20.9 | 22.5 | 24.3 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.15.2 Earnings by Place-of-Work

Earnings follow much the same distribution pattern as GDP. Terrebonne Parish produces the highest (\$3.8 billion) while Assumption Parish is the lowest of the five parish region (\$302 million). These data are presented in Table 150 and Figure 87 illustrates their distribution in 2013. This data further confirms the more even distribution of earnings among the parishes (with the exception of Assumption).

Table 150. Total Place-of-Work Earnings (in dollars) by EIA LA-4 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|----------------|----------------|
| Assumption | 294,297,345 | 261,671,618 | 301,373,579 | 302,734,883 |
| Iberia | 1,813,639,578 | 1,912,585,328 | 2,118,155,809 | 2,164,401,567 |
| Lafourche | 2,738,195,161 | 2,719,099,887 | 2,928,455,308 | 3,197,753,333 |
| St. Mary | 1,594,385,363 | 1,604,677,303 | 1,717,972,678 | 1,751,668,953 |
| Terrebonne | 3,212,470,993 | 3,196,624,350 | 3,485,877,180 | 3,803,486,261 |
| Region LA-4 | 9,652,988,440 | 9,694,658,487 | 10,551,834,554 | 11,220,044,996 |

Source: Emsi (2015)

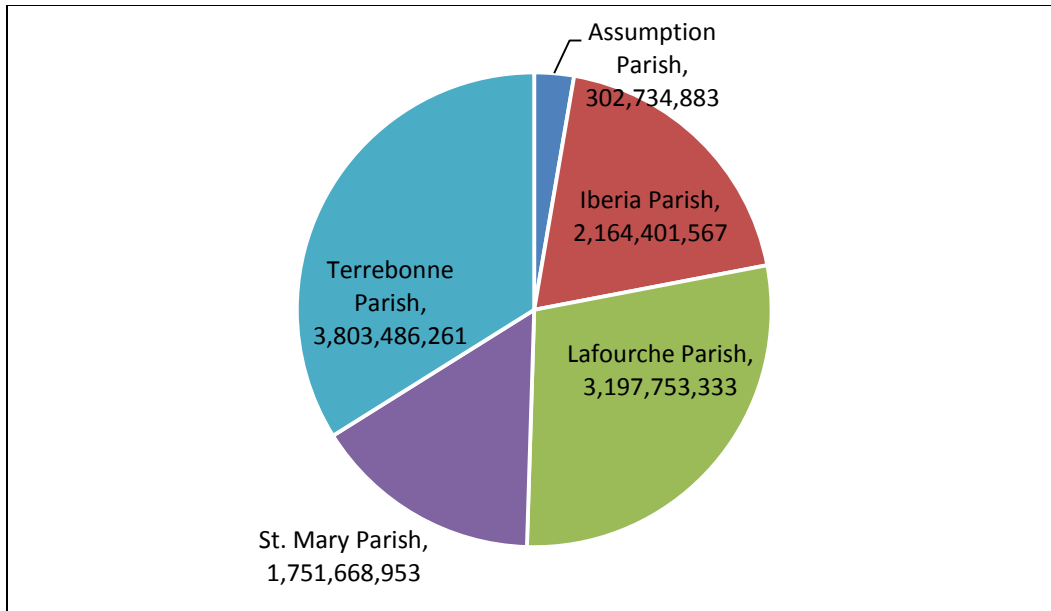


Figure 87. Total Place-of-Work Earnings (in dollars) by LA-4 Parish from 2013

Source: Emsi (2015)

Table 151 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Terrebonne Parish produced 43.2% of the oil and gas earnings in LA-4 while Lafourche Parish contributed 28.5%.

Table 151. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-4 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Assumption | 4,849,331 | 6,169,755 | 9,081,032 | 9,949,863 |
| Iberia | 407,022,114 | 427,903,323 | 493,930,312 | 539,647,617 |
| Lafourche | 299,483,710 | 292,491,954 | 317,388,696 | 353,974,131 |
| St. Mary | 441,870,155 | 416,010,152 | 458,485,490 | 510,052,711 |
| Terrebonne | 807,998,396 | 778,572,108 | 923,240,424 | 1,074,964,493 |
| Region LA-4 | 1,961,223,706 | 1,921,147,291 | 2,202,125,954 | 2,488,588,815 |

Source: Emsi (2015)

Table 152 shows the percentage of each parish's total earnings produced in oil- and gas-related industries. The regional average percentage of parish earnings in oil- and gas-related industries was 22.2% in 2013. Only Assumption had an oil and gas earnings share below 10%. Iberia, St. Mary, and Terrebonne each sourced more than 20% of their total earnings in these industries in each year. The distribution of regional oil and gas earnings among the LA-4 parishes mirrors the distributions of GDP and total earnings with Terrebonne contributing the most followed by Iberia and St. Mary.

Table 152. Oil and Gas Contributions to Place-of-Work Earnings by LA-4 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Assumption | 1.6 | 2.4 | 3.0 | 3.3 | 0.2 | 0.3 | 0.4 | 0.4 |
| Iberia | 22.4 | 22.4 | 23.3 | 24.9 | 20.8 | 22.3 | 22.4 | 21.7 |
| Lafourche | 10.9 | 10.8 | 10.8 | 11.1 | 15.3 | 15.2 | 14.4 | 14.2 |

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| St. Mary | 27.7 | 25.9 | 26.7 | 29.1 | 22.5 | 21.7 | 20.8 | 20.5 |
| Terrebonne | 25.2 | 24.4 | 26.5 | 28.3 | 41.2 | 40.5 | 41.9 | 43.2 |
| Region LA-4 | 20.3 | 19.8 | 20.9 | 22.2 | - | - | - | - |

Source: Emsi (2015)

2.15.3 Employment

In 2013, the LA-4 region produced 212,242 jobs. The distribution of these jobs corroborates the presented distributions of GDP and earnings. These data are presented in Table 153 and Figure 88 illustrates their distribution in 2013.

Table 153. Total Jobs by LA-4 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Assumption | 6,748 | 6,796 | 6,825 | 6,840 |
| Iberia | 40,830 | 41,576 | 43,858 | 44,400 |
| Lafourche | 56,828 | 57,562 | 58,169 | 60,630 |
| St. Mary | 32,388 | 33,001 | 33,280 | 33,243 |
| Terrebonne | 64,393 | 63,275 | 65,194 | 67,129 |
| Region LA-4 | 201,186 | 202,210 | 207,326 | 212,242 |

Source: Emsi (2015)

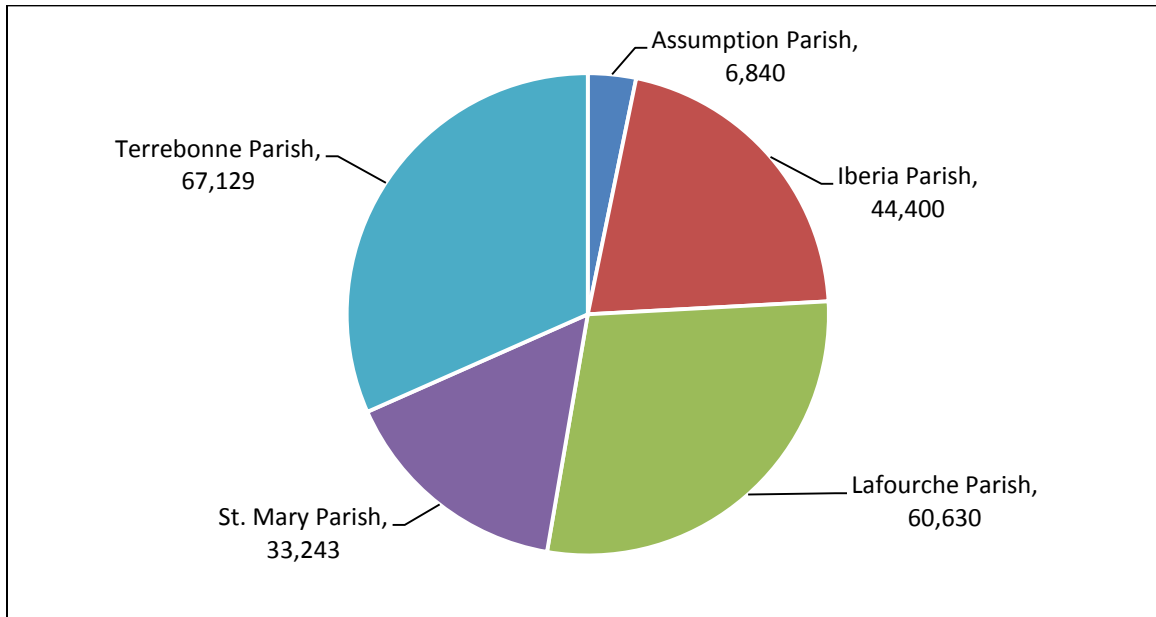


Figure 88. Total Jobs by LA-4 Parish from 2013

Source: Emsi (2015)

Table 154 shows the number of jobs in each LA-4 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Each parish in LA-4 saw growth in oil and gas jobs over the time period with Terrebonne consistently contributing the largest nominal amount and Assumption the least.

Table 154. Jobs in Oil- and Gas-Related Industries by LA-4 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|--------|--------|--------|--------|
| Assumption | 83 | 95 | 100 | 101 |
| Iberia | 5,520 | 5,583 | 6,325 | 6,556 |
| Lafourche | 3,767 | 3,867 | 3,989 | 4,222 |
| St. Mary | 5,227 | 5,149 | 5,423 | 5,650 |
| Terrebonne | 9,859 | 9,617 | 10,699 | 11,672 |
| Region LA-4 | 24,456 | 24,311 | 26,536 | 28,202 |

Source: Emsi (2015)

Table 155 shows the percentage of each parish's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. The EIA average share of oil and gas jobs in 2013 was 13.3%, led by St. Mary (17.0%) and Terrebonne (17.4%). However, all parishes sourced a substantial portion of their jobs from these industries, excluding Assumption. Roughly 40% of the total EIA oil and gas jobs came from Terrebonne in each year. Iberia, St. Mary, and Lafourche also contributed significantly to the region's oil and gas job total.

Table 155. Oil and Gas Contributions to Jobs by LA-4 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Assumption | 1.2 | 1.4 | 1.5 | 1.5 | 0.3 | 0.4 | 0.4 | 0.4 |
| Iberia | 13.5 | 13.4 | 14.4 | 14.8 | 22.6 | 23.0 | 23.8 | 23.2 |
| Lafourche | 6.6 | 6.7 | 6.9 | 7.0 | 15.4 | 15.9 | 15.0 | 15.0 |
| St. Mary | 16.1 | 15.6 | 16.3 | 17.0 | 21.4 | 21.2 | 20.4 | 20.0 |
| Terrebonne | 15.3 | 15.2 | 16.4 | 17.4 | 40.3 | 39.6 | 40.3 | 41.4 |
| Region LA-4 | 12.2 | 12.0 | 12.8 | 13.3 | - | - | - | - |

Source: Emsi (2015)

2.15.4 Personal Income

In 2013, the LA-4 parishes received \$16.2 billion in personal income. In a slight change of distribution, Lafourche had the highest level (31.1%), followed closely by Terrebonne (30.8%). These data are presented in Table 156 and Figure 89 illustrates their distribution in 2013.

Table 156. Personal Income (in dollars) by LA-4 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| Assumption | 794,681,000 | 828,513,000 | 902,393,000 | 940,252,000 |
| Iberia | 2,620,229,000 | 2,789,467,000 | 3,029,247,000 | 3,087,815,000 |
| Lafourche | 4,169,885,000 | 4,307,665,000 | 4,780,604,000 | 5,038,012,000 |
| St. Mary | 1,923,821,000 | 1,947,899,000 | 2,102,444,000 | 2,136,509,000 |
| Terrebonne | 4,309,461,000 | 4,340,720,000 | 4,723,132,000 | 4,983,167,000 |
| Region LA-4 | 13,818,077,000 | 14,214,264,000 | 15,537,820,000 | 16,185,755,000 |

Source: Emsi (2015)

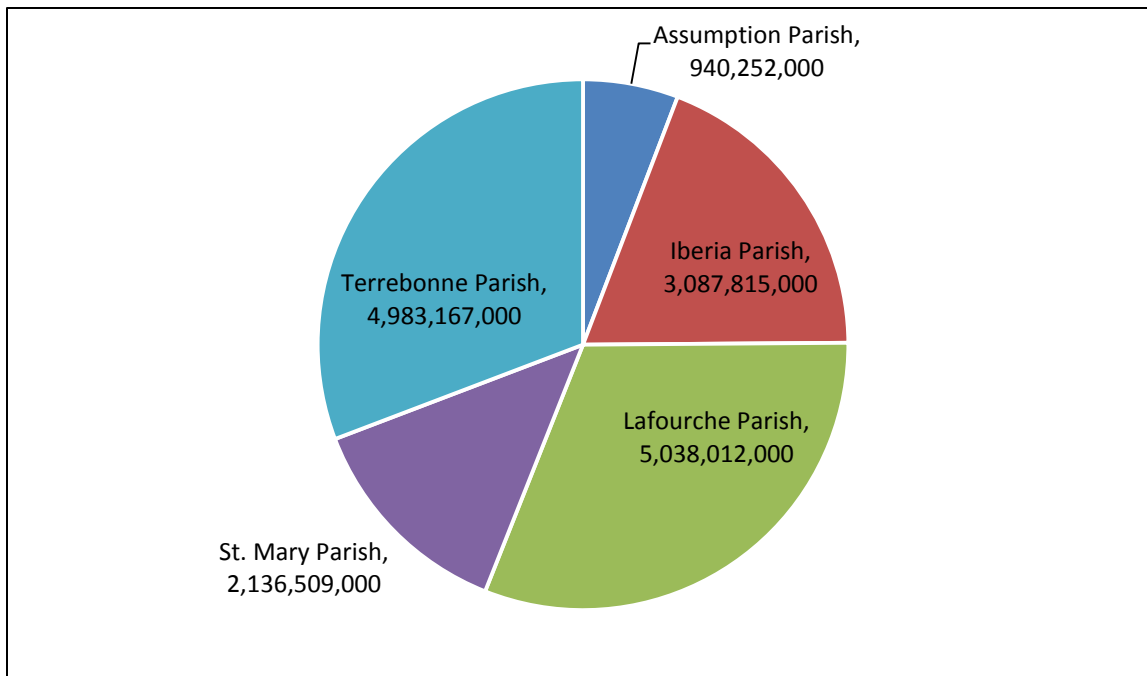


Figure 89. Total Personal Income (in dollars) by LA-4 Parish from 2013

Source: Emsi (2015)

Figure 90 shows the per capita income data 2013 for each parish in LA-4. Lafourche had the highest level of per capita income (\$51,863) and Assumption, Iberia, and St. Mary all received about \$40,000 per year in per capita income.

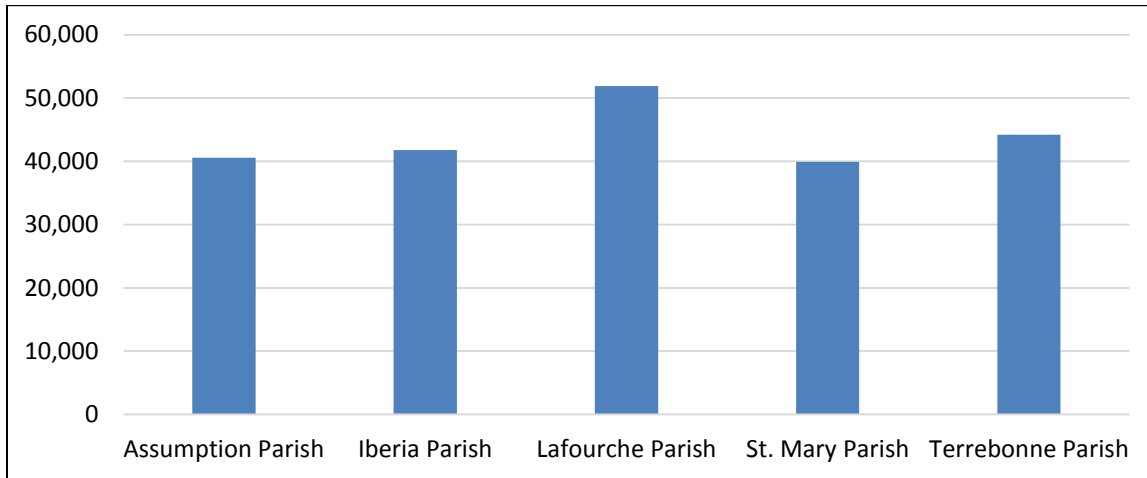


Figure 90. Per Capita Income (in dollars) by LA-4 Parish from 2013

Source: Emsi (2015)

2.15.1 Demographics

The 2013 demographic data are presented in Table 157. The LA-4 region had a regional poverty rate of 17.9% in 2013. Iberia and St. Mary had the highest levels of poverty (22.6% and 20.2% respectively) while Lafourche had the lowest (13.1%). Also in Table 157 are data on minority population percentages. In 2013, LA-4 had a population that was 30.8% minority. St. Mary had the highest percentage (40.7%) and Lafourche had the lowest (20.6%).

Table 157. Demographic Data by LA-4 Parish from 2013

| EIA Parish | Poverty | Minority |
|--------------------|---------|----------|
| Assumption | 16.5% | 33.2% |
| Iberia | 22.6% | 37.8% |
| Lafourche | 13.1% | 20.6% |
| St. Mary | 20.2% | 40.7% |
| Terrebonne | 18.1% | 29.7% |
| Region LA-4 | 17.9% | 30.8% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.16 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-5

EIA LA-5 comprises eight Louisiana parishes: Ascension, East Baton Rouge, Iberville, Livingston, Pointe Coupee, St. James, St. John the Baptist, and West Baton Rouge. The LA-5 parishes were home to 839,625 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 518,042 jobs, earned \$25.6 billion in total earnings (excluding corporate profits), \$53.5 billion in GDP, and \$35.0 billion in personal income in 2013.

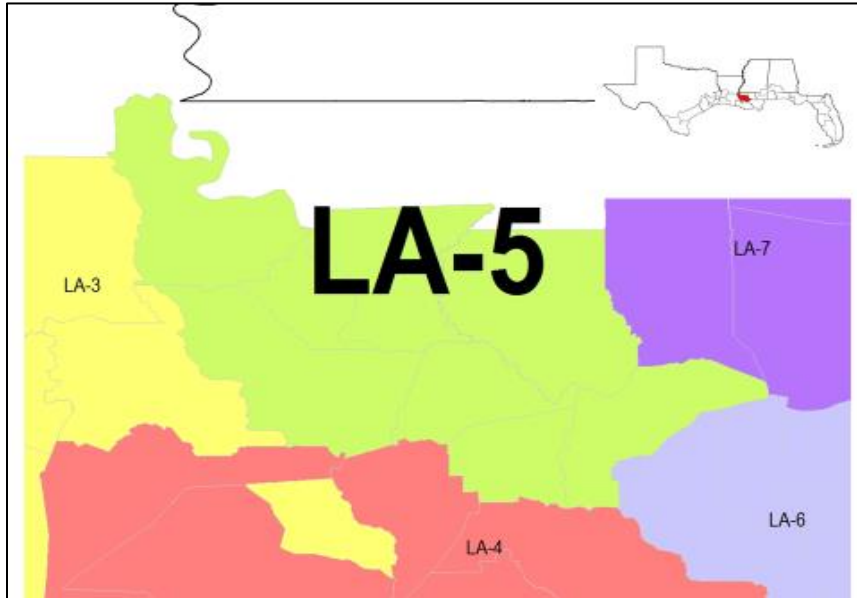


Figure 91. Map of EIA Region LA-5

2.16.1 Gross Domestic Product

Table 158 presents the total GDP estimates for each parish in LA-5. Approximately 65.3% of the 2013 economic production in LA-5 occurred in each Baton Rouge. Ascension contributed an additional 13.6% and no other parish contributed more than six percent of LA-5's total GDP. The distribution of GDP over the LA-5 parishes in 2013 is shown in Figure 92.

Table 158. Total GDP (in dollars) by LA-5 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|----------------------|----------------|----------------|----------------|----------------|
| Ascension | 5,714,540,138 | 6,112,251,260 | 6,758,179,798 | 7,267,427,062 |
| East Baton Rouge | 31,485,416,788 | 32,522,209,821 | 34,139,235,062 | 34,921,357,407 |
| Iberville | 2,112,604,377 | 2,262,655,233 | 2,227,735,936 | 2,250,093,101 |
| Livingston | 2,496,539,947 | 2,550,892,434 | 2,931,594,898 | 3,068,541,849 |
| Pointe Coupee | 677,789,833 | 708,072,511 | 739,748,510 | 662,778,019 |
| St. James | 1,273,389,350 | 1,315,086,405 | 1,416,687,884 | 1,491,977,031 |
| St. John the Baptist | 2,117,715,328 | 2,201,875,763 | 2,253,020,467 | 2,221,487,775 |
| West Baton Rouge | 1,336,246,786 | 1,454,893,638 | 1,504,908,470 | 1,589,252,664 |
| Region LA-5 | 47,214,242,546 | 49,127,937,065 | 51,971,111,024 | 53,472,914,908 |

Source: Varnado and Fannin (2015) and Emsi (2015)

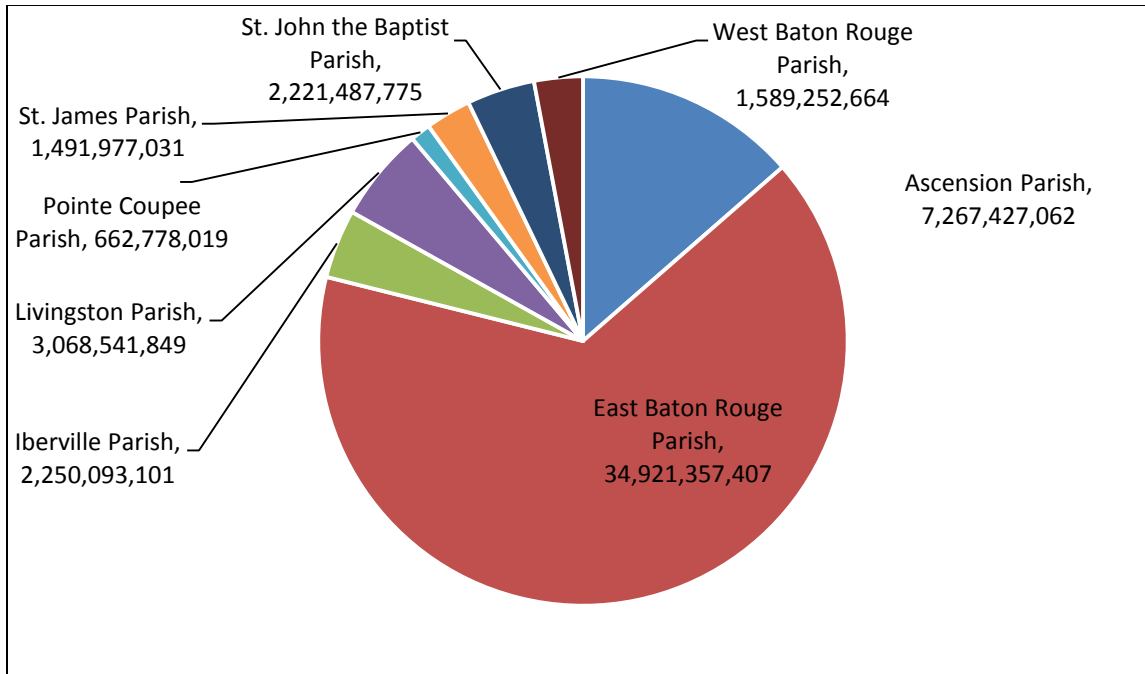


Figure 92. Total GDP (in dollars) by LA-5 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 159 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. The general trend among these parishes is that 2011 was the highest production year for oil- and gas-related industries. However, only St. James saw any significant increase from 2011 to 2012. St. James and St. John the Baptist were the only parishes not to see negative growth from 2011 to 2012.

Table 159. GDP in Oil- and Gas-Related Industries (in dollars) by LA-5 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|----------------------|-------------|-------------|-------------|
| Ascension | 121,770,402 | 132,693,779 | 101,492,070 |
| East Baton Rouge | 322,276,535 | 369,236,837 | 299,106,001 |
| Iberville | 105,987,733 | 143,044,241 | 116,254,776 |
| Livingston | 24,213,138 | 32,705,004 | 11,834,738 |
| Pointe Coupee | 66,554,907 | 72,328,800 | 50,350,335 |
| St. James | 3,126,939 | 4,261,638 | 40,520,964 |
| St. John the Baptist | 110,885,189 | 167,051,773 | 162,068,303 |
| West Baton Rouge | 5,583,064 | 6,586,970 | 16,751,016 |
| Region LA-5 | 760,397,907 | 927,909,043 | 798,378,202 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 160 shows the percentage of each parish's GDP produced in oil- and gas-related industries (as defined by Table 7) and each parish's percentage of LA-5 oil and gas GDP. Pointe Coupee had the highest concentration of total GDP in oil- and gas-related industries (with an annual average of 8.9% of its GDP produced in those sectors). However, LA-5 as a whole saw a lower oil and gas GDP dependency (1.5% in 2013) than some of the other Louisiana EIAs.

While East Baton Rouge contributed the largest shares of total GDP and oil and gas GDP, the distribution of the oil and gas production was spread more evenly among the other LA-5 parishes. In 2013 East Baton Rouge contributed 37.5%, St. John the Baptist 20.3%, Iberville 14.6%, and Ascension 12.7%. The remaining parishes accounted for just 15%.

Table 160. Oil and Gas Contributions to GDP by LA-5 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|----------------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Ascension | 2.1 | 2.2 | 1.5 | 16.0 | 14.3 | 12.7 |
| East Baton Rouge | 1.0 | 1.1 | 0.9 | 42.4 | 39.8 | 37.5 |
| Iberville | 5.0 | 6.3 | 5.2 | 13.9 | 15.4 | 14.6 |
| Livingston | 1.0 | 1.3 | 0.4 | 3.2 | 3.5 | 1.5 |
| Pointe Coupee | 9.8 | 10.2 | 6.8 | 8.8 | 7.8 | 6.3 |
| St. James | 0.2 | 0.3 | 2.9 | 0.4 | 0.5 | 5.1 |
| St. John the Baptist | 5.2 | 7.6 | 7.2 | 14.6 | 18.0 | 20.3 |
| West Baton Rouge | 0.4 | 0.5 | 1.1 | 0.7 | 0.7 | 2.1 |
| Region LA-5 | 1.6 | 1.9 | 1.5 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.16.2 Earnings by Place-of-Work

Roughly two-thirds of the \$25.6 billion in 2013 place-of-work earnings produced in LA-5 was produced in East Baton Rouge Parish. As with GDP, Ascension was the only other parish to contribute more than 10% of the EIA total. These data are presented in Table 161 and Figure 93 illustrates their distribution in 2013. These data further confirm the economic dependence of LA-5 on East Baton Rouge Parish.

Table 161. Total Place-of-Work Earnings (in dollars) by EIA LA-5 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|----------------------|----------------|----------------|----------------|----------------|
| Ascension | 2,745,095,075 | 2,864,260,259 | 3,186,903,485 | 3,481,705,470 |
| East Baton Rouge | 15,124,657,536 | 15,240,223,145 | 16,098,779,618 | 16,730,251,307 |
| Iberville | 1,014,832,293 | 1,060,302,201 | 1,050,516,505 | 1,077,982,812 |
| Livingston | 1,199,263,518 | 1,195,372,951 | 1,382,429,926 | 1,470,088,224 |
| Pointe Coupee | 325,590,072 | 331,809,650 | 348,837,582 | 317,526,111 |
| St. James | 611,698,361 | 616,262,252 | 668,056,738 | 714,781,799 |
| St. John the Baptist | 1,017,287,442 | 1,031,820,351 | 1,062,439,738 | 1,064,278,468 |
| West Baton Rouge | 641,893,203 | 681,777,278 | 709,658,250 | 761,384,964 |
| Region LA-5 | 22,680,317,499 | 23,021,828,088 | 24,507,621,842 | 25,617,999,155 |

Source: Emsi (2015)

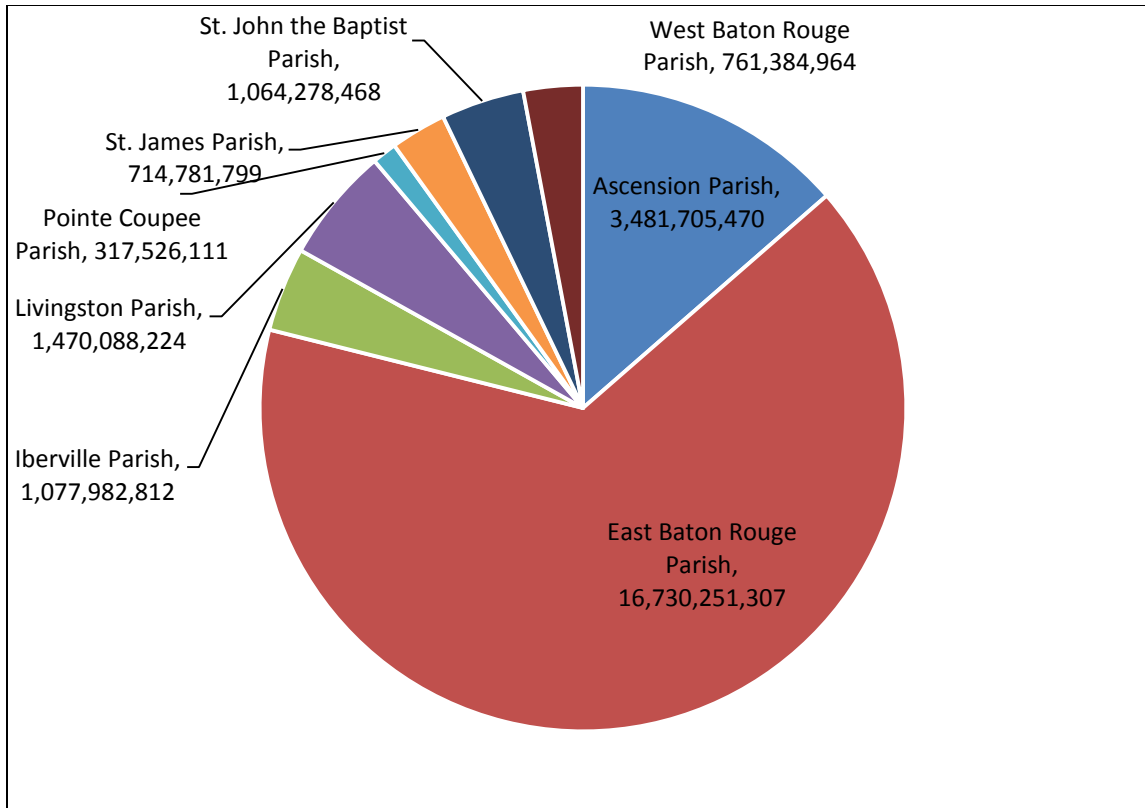


Figure 93. Total Place-of-Work Earnings (in dollars) by LA-5 Parish from 2013

Source: Emsi (2015)

Table 162 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The regional oil and gas earnings remained relatively constant during 2010, 2011, and 2012. Ascension, Livingston, St. James, and St. John the Baptist parishes' oil and gas activity did experience some growth during this period.

Table 162. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-5 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|----------------------|---------------|---------------|---------------|---------------|
| Ascension | 246,734,004 | 296,069,955 | 242,905,027 | 315,372,659 |
| East Baton Rouge | 993,748,257 | 959,337,897 | 1,025,032,135 | 1,050,155,124 |
| Iberville | 207,938,898 | 246,576,798 | 230,645,923 | 229,922,856 |
| Livingston | 20,038,814 | 19,669,944 | 21,474,646 | 38,142,301 |
| Pointe Coupee | 18,299,557 | 15,924,723 | 12,400,043 | 13,323,749 |
| St. James | 166,457,372 | 143,214,503 | 155,765,403 | 165,560,108 |
| St. John the Baptist | 239,328,140 | 192,507,814 | 195,913,756 | 212,977,689 |
| West Baton Rouge | 81,457,765 | 90,220,897 | 99,071,864 | 101,023,986 |
| Region LA-5 | 1,974,002,807 | 1,963,522,531 | 1,983,208,797 | 2,126,478,470 |

Source: Emsi (2015)

Table 163 shows the percentage of each parish’s total earnings produced in oil- and gas-related industries. Iberville, St. James, and St. John the Baptist all consistently drew around 20% of their total earnings from oil and gas industries. St. James had the highest level of earnings dependency. Only Livingston and Pointe Coupee consistently drew less than five percent of their earnings from oil- and gas-related activity.

East Baton Rouge provided roughly half of the nominal oil and gas earnings in LA-5 in each year. Ascension, Iberville, and St. John the Baptist all had annual average contributions above 10% while Livingston and Pointe Coupee contribute relatively little of the total LA-5 oil and gas earnings.

Table 163. Oil and Gas Contributions to Place-of-Work Earnings by LA-5 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|----------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Ascension | 9.0 | 10.3 | 7.6 | 9.1 | 12.5 | 15.1 | 12.2 | 14.8 |
| East Baton Rouge | 6.6 | 6.3 | 6.4 | 6.3 | 50.3 | 48.9 | 51.7 | 49.4 |
| Iberville | 20.5 | 23.3 | 22.0 | 21.3 | 10.5 | 12.6 | 11.6 | 10.8 |
| Livingston | 1.7 | 1.6 | 1.6 | 2.6 | 1.0 | 1.0 | 1.1 | 1.8 |
| Pointe Coupee | 5.6 | 4.8 | 3.6 | 4.2 | 0.9 | 0.8 | 0.6 | 0.6 |
| St. James | 27.2 | 23.2 | 23.3 | 23.2 | 8.4 | 7.3 | 7.9 | 7.8 |
| St. John the Baptist | 23.5 | 18.7 | 18.4 | 20.0 | 12.1 | 9.8 | 9.9 | 10.0 |
| West Baton | 12.7 | 13.2 | 14.0 | 13.3 | 4.1 | 4.6 | 5.0 | 4.8 |
| Region LA-5 | 8.7 | 8.5 | 8.1 | 8.3 | - | - | - | - |

Source: Emsi (2015)

2.16.3 Employment

In 2013, the LA-5 region produced a total of 518,042 jobs. Approximately 61.8% of those jobs were sourced in East Baton Rouge. Ascension also contributed above 10% of the regional total. These data are presented in Table 164 and Figure 94 illustrates their distribution in 2013.

Table 164. Total Jobs by LA-5 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|----------------------|---------|---------|---------|---------|
| Ascension | 74,185 | 77,989 | 79,553 | 84,311 |
| East Baton Rouge | 308,409 | 308,666 | 313,571 | 320,089 |
| Iberville | 17,223 | 17,177 | 17,086 | 17,418 |
| Livingston | 38,286 | 38,386 | 39,056 | 40,282 |
| Pointe Coupee | 8,795 | 8,870 | 9,106 | 8,957 |
| St. James | 9,863 | 9,950 | 10,576 | 10,886 |
| St. John the Baptist | 21,101 | 20,943 | 21,279 | 21,127 |
| West Baton Rouge | 13,760 | 14,244 | 14,481 | 14,971 |
| Region LA-5 | 491,622 | 496,225 | 504,709 | 518,042 |

Source: Emsi (2015)

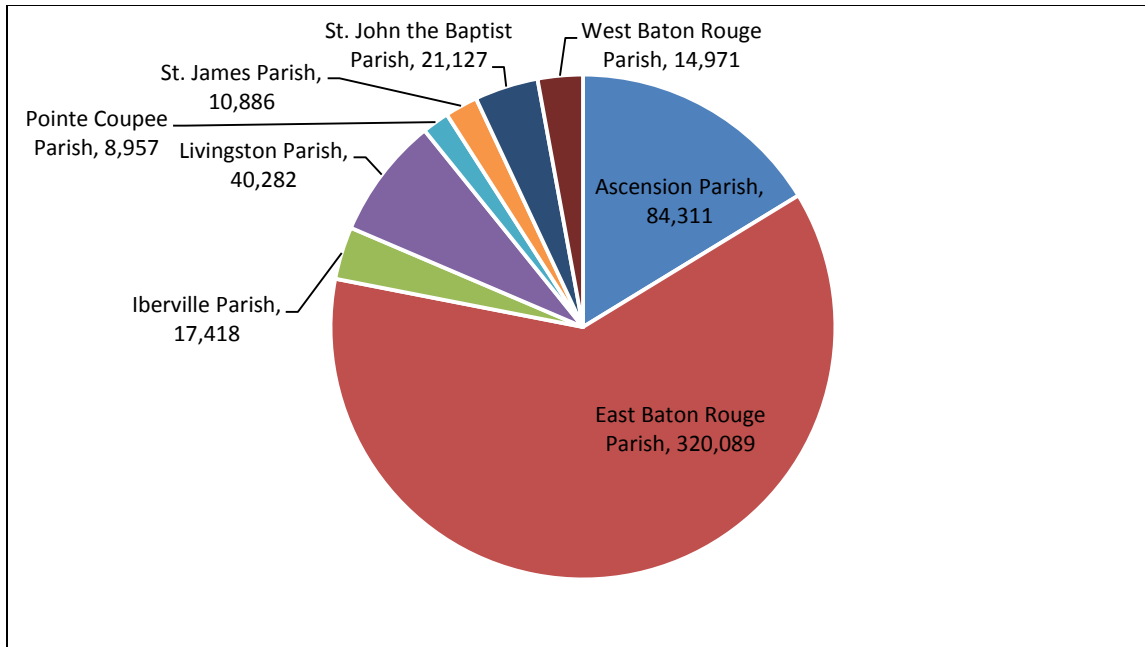


Figure 94. Total Jobs by LA-5 Parish from 2013

Source: Emsi (2015)

Table 165 shows the number of jobs in each LA-5 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). The relative distribution of oil- and gas-related industry jobs among the LA-5 parishes remained unchanged over the time period. East Baton Rouge contributed the largest share of these jobs, but Ascension, Iberville, St. James, and St. John the Baptist made substantial contributions, as well.

Table 165. Jobs in Oil- and Gas-Related Industries by LA-5 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|----------------------|--------|--------|--------|--------|
| Ascension | 2,419 | 2,717 | 2,208 | 2,795 |
| East Baton Rouge | 9,989 | 9,471 | 9,925 | 10,394 |
| Iberville | 1,934 | 2,182 | 2,302 | 2,121 |
| Livingston | 334 | 308 | 329 | 553 |
| Pointe Coupee | 243 | 209 | 195 | 193 |
| St. James | 994 | 932 | 917 | 966 |
| St. John the Baptist | 1,822 | 1,599 | 1,492 | 1,602 |
| West Baton Rouge | 814 | 821 | 950 | 881 |
| Region LA-5 | 18,548 | 18,240 | 18,319 | 19,504 |

Source: Emsi (2015)

Table 166 shows the percentage of each parish's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Iberville had the largest oil and gas share of jobs in each year, with an annual average of 12.2% of total jobs coming in those industries in 2013. The region as a whole was somewhat less dependent with only 3.8% job share in 2013. East Baton Rouge contributed more than half of the oil and gas jobs in LA-5. Among the remaining parishes only Ascension and Iberville contributed more than 10% annually. Pointe Coupee contributed the smallest percentage of oil and gas jobs with no more than 1.5% in any one year.

Table 166. Oil and Gas Contributions to Jobs by LA-5 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-----------------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Ascension | 3.3 | 3.5 | 2.8 | 3.3 | 13.0 | 14.9 | 12.1 | 14.3 |
| East Baton Rouge | 3.2 | 3.1 | 3.2 | 3.2 | 53.9 | 51.9 | 54.2 | 53.3 |
| Iberville | 11.2 | 12.7 | 13.5 | 12.2 | 10.4 | 12.0 | 12.6 | 10.9 |
| Livingston | 0.9 | 0.8 | 0.8 | 1.4 | 1.8 | 1.7 | 1.8 | 2.8 |
| Pointe Coupee | 2.8 | 2.4 | 2.1 | 2.2 | 1.3 | 1.1 | 1.1 | 1.0 |
| St. James | 10.1 | 9.4 | 8.7 | 8.9 | 5.4 | 5.1 | 5.0 | 5.0 |
| St. John the Baptist | 8.6 | 7.6 | 7.0 | 7.6 | 9.8 | 8.8 | 8.1 | 8.2 |
| West Baton Rouge | 5.9 | 5.8 | 6.6 | 5.9 | 4.4 | 4.5 | 5.2 | 4.5 |
| Region LA-5 | 3.8 | 3.7 | 3.6 | 3.8 | - | - | - | - |

Source: Emsi (2015)

2.16.4 Personal Income

In 2013, the LA-5 parishes received \$35.0 billion in personal income. Every parish in LA-5 saw growth in income over the time period and the largest amount of regional growth came from 2011 to 2012. These data are presented in Table 167 and Figure 95 illustrates their distribution in 2013. As expected, these data reinforce the dependence of LA-5 on East Baton Rouge. Approximately 55.7% of 2013 personal incomes received in LA-5 came from East Baton Rouge with an additional 28.8% coming from Ascension and Livingston combined. No other parish contributed more than five percent of regional personal earnings in 2013.

Table 167: Personal Income (in dollars) by LA-5 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-----------------------------|----------------|----------------|----------------|----------------|
| Ascension | 4,212,096,000 | 4,635,868,000 | 5,165,082,000 | 5,413,661,000 |
| East Baton Rouge | 17,660,971,000 | 18,004,796,000 | 19,047,316,000 | 19,518,293,000 |
| Iberville | 1,000,590,000 | 1,052,782,000 | 1,121,706,000 | 1,156,905,000 |
| Livingston | 3,952,307,000 | 4,166,404,000 | 4,475,045,000 | 4,647,839,000 |
| Pointe Coupee | 801,632,000 | 830,153,000 | 912,579,000 | 933,098,000 |
| St. James | 677,160,000 | 687,145,000 | 742,954,000 | 753,563,000 |
| St. John the Baptist | 1,599,818,000 | 1,611,336,000 | 1,624,111,000 | 1,614,308,000 |
| West Baton Rouge | 849,318,000 | 900,088,000 | 955,282,000 | 994,060,000 |
| Region LA-5 | 30,753,892,000 | 31,888,572,000 | 34,044,075,000 | 35,031,727,000 |

Source: Emsi (2015)

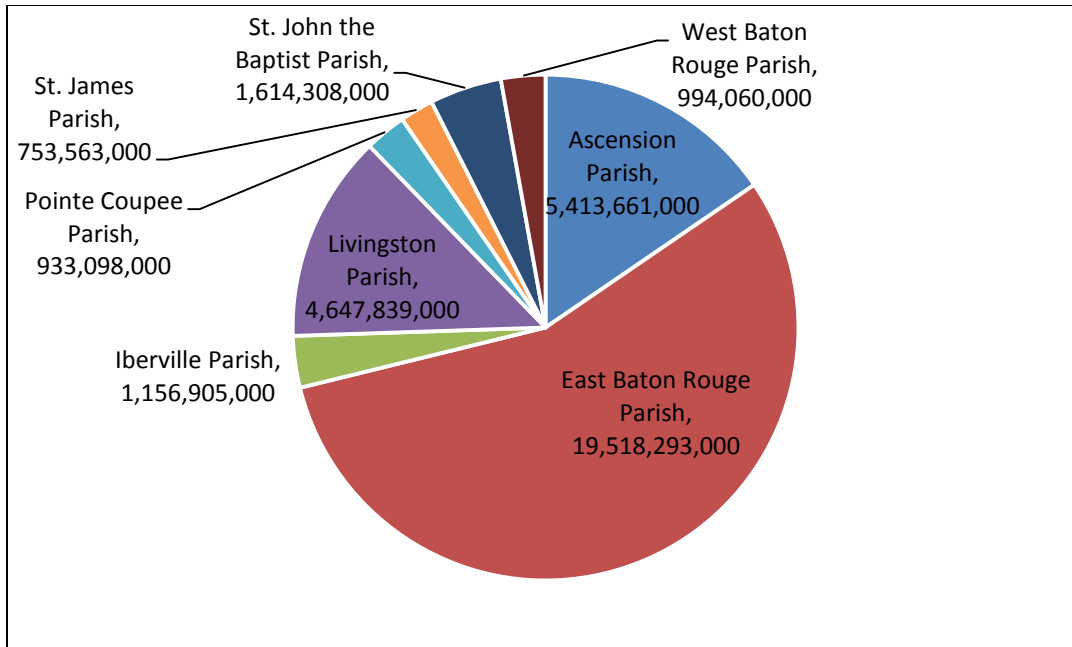


Figure 95. Total Personal Income (in dollars) by LA-5 Parish from 2013
 Source: Emsi (2015)

Figure 96 shows the per capita income data in 2013 for each parish in LA-5. Ascension had the largest per capita income level (\$47,325). At the same time, Iberville, Livingston, and St. James all had levels just below \$35,000.

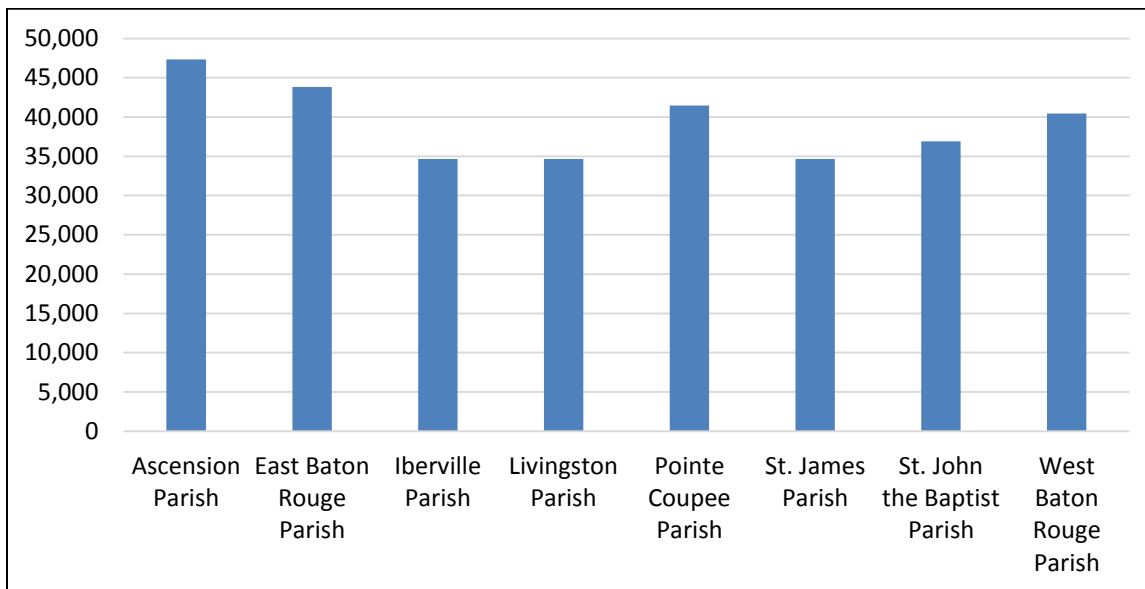


Figure 96. Per Capita Income (in dollars) by LA-5 Parish from 2013
 Source: Emsi (2015)

2.16.5 Demographics

The 2013 demographic data are presented in Table 168. The LA-5 region had a regional poverty rate of 15.8% in 2013. Iberville had the largest poverty rate (20.1%) and Livingston had the lowest (12.4%). Also in Table 168 are data on minority population percentages. In 2013, LA-5 had a population that was 41.0% minority. St. John the Baptist had the highest minority population percentage (57.5%); East Baton Rouge, Iberville, and St. James all had rates exceeding 50%. Livingston had only 8.1% minority population, the least by far of any parish in LA-5.

Table 168: Demographic Data by LA-5 Parish from 2013

| EIA Parish | Poverty | Minority |
|----------------------|---------|----------|
| Ascension | 12.7% | 26.7% |
| East Baton Rouge | 16.9% | 51.2% |
| Iberville | 20.1% | 51.2% |
| Livingston | 12.4% | 8.1% |
| Pointe Coupee | 17.4% | 38.6% |
| St. James | 16.0% | 52.0% |
| St. John the Baptist | 18.3% | 57.5% |
| West Baton Rouge | 14.7% | 40.0% |
| Region LA-5 | 15.8% | 41.0% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.17 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-6

EIA LA-6 comprises five parishes Louisiana: Jefferson, Orleans, Plaquemines, St. Bernard, and St. Charles. The LA-6 parishes were home to 933,131 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 576,703 jobs, earned \$29.3 billion in total earnings (excluding corporate profits), \$61.2 billion in GDP, and \$41.0 billion in personal income in 2013.

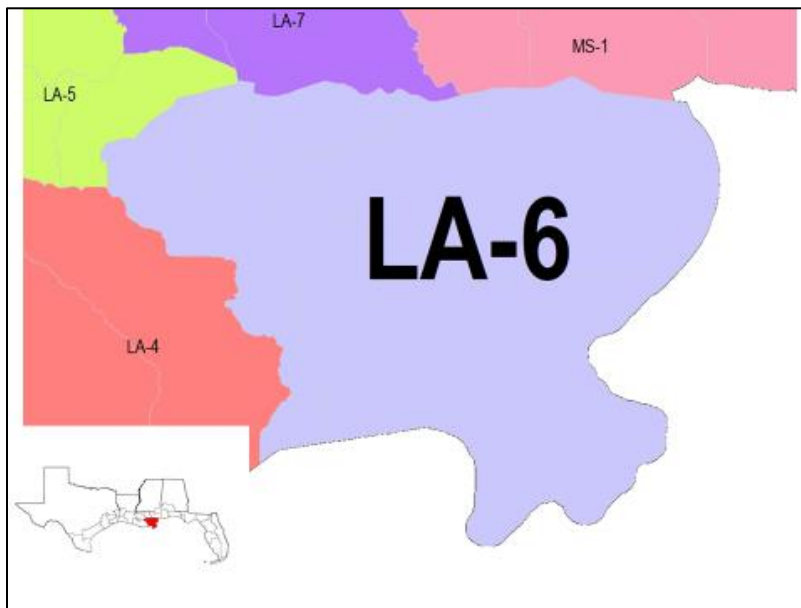


Figure 97. Map of EIA Region LA-6

2.17.1 Gross Domestic Product

Table 169 presents the total GDP estimates for each parish in LA-6. Jefferson and Orleans accounted for 85.4% of the total GDP produced in LA-6 in 2013; contributing roughly equal amounts to this total. This left less than 15% for the other three LA-6 parishes. The distribution of GDP over the LA-6 parishes in 2013 is shown in Figure 98, which demonstrates the degree to which the economy of LA-6 is centered on Jefferson and Orleans parishes.

Table 169. Total GDP (in dollars) by LA-6 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Jefferson | 25,405,115,475 | 26,285,091,871 | 26,271,400,655 | 25,843,019,239 |
| Orleans | 25,380,379,110 | 26,272,934,263 | 26,437,709,984 | 26,439,069,943 |
| Plaquemines | 2,504,634,374 | 2,514,630,691 | 2,693,477,458 | 2,714,944,830 |
| St. Bernard | 1,565,060,039 | 1,562,859,793 | 1,586,414,806 | 1,578,827,618 |
| St. Charles | 3,879,752,678 | 4,107,485,644 | 4,427,892,934 | 4,645,692,724 |
| Region LA-6 | 58,734,941,675 | 60,743,002,263 | 61,416,895,836 | 61,221,554,354 |

Source: Varnado and Fannin (2015) and Emsi (2015)

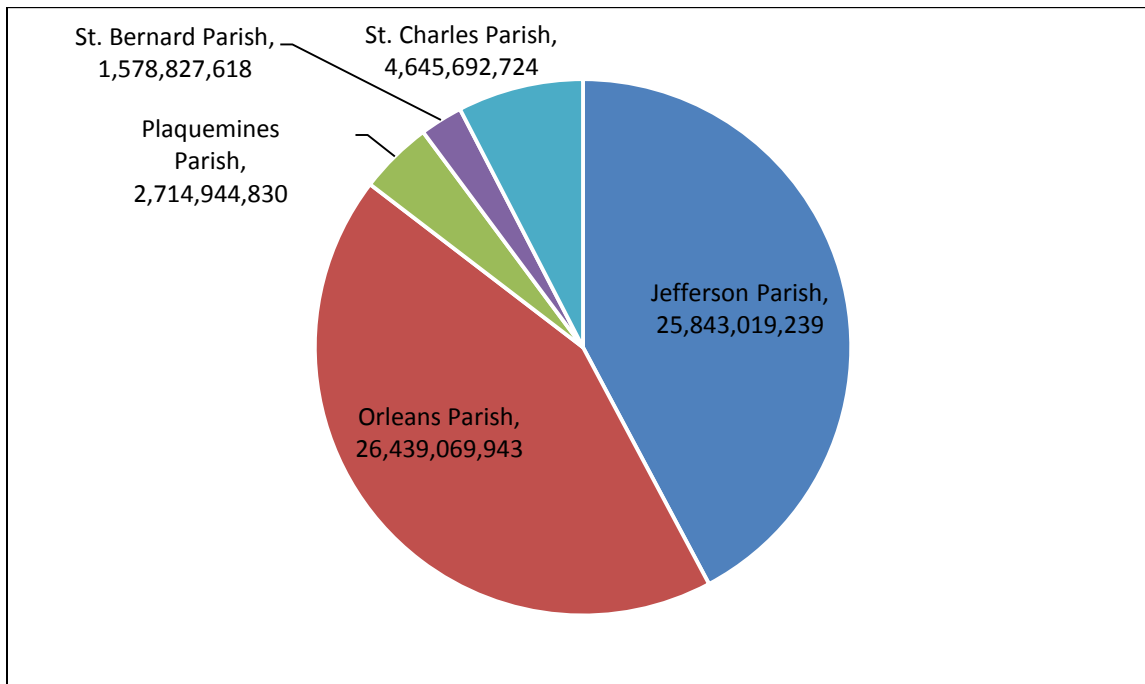


Figure 98. Total GDP (in dollars) by LA-6 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 170 shows levels of GDP in oil and gas related industries from 2010 to 2012.

Table 170. GDP in Oil- and Gas-Related Industries (in dollars) by LA-6 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|-------------|---------------|---------------|---------------|
| Jefferson | 1,180,700,115 | 1,259,856,110 | 1,103,962,617 |
| Orleans | 2,323,805,543 | 2,736,471,431 | 2,125,115,944 |
| Plaquemines | 438,443,083 | 525,736,166 | 850,989,522 |
| St. Bernard | 12,619,655 | 11,128,869 | 10,607,043 |
| St. Charles | 34,210,752 | 33,521,830 | 38,190,800 |
| Region LA-6 | 3,989,779,148 | 4,566,714,406 | 4,128,865,926 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 171 shows the percentage of each parish's GDP produced in oil and gas related industries (as defined by Table 7) and each parish's percentage of LA-6 oil and gas GDP. The region saw nearly 15% growth in oil and gas GDP from 2010 to 2011, but gave back almost all of that expansion from 2011 to 2012. Only the smaller St. Bernard and St. Charles parishes saw sustained increases over the time period.

Plaquemines saw the highest share of total GDP in oil- and gas-related industries rising from 17.5% in 2010 to 31.6% in 2012. LA-6's regional dependency on oil and gas industries for GDP spiked to 7.5% in 2011, but returned to 2010 levels the following year.

Though the general economic landscape is dominated by Jefferson and Orleans parishes, it was Orleans that contributed 51.5% of the 2013 oil and gas GDP in LA-6. Almost all of the rest of the GDP was split between Jefferson (26.7%) and Plaquemines (20.6%). St. Bernard and St. Charles contributed only 1.2% of oil and gas GDP combined. This trend was a product of growing oil and gas activity in Plaquemines that is evident in Tables 170 and 171.

Table 171. Oil and Gas Contributions to GDP by LA-6 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil & Gas | | | Percentage of Total EIA Oil & Gas GDP | | |
|-------------|---------------------------------------|------|------|---------------------------------------|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Jefferson | 4.6 | 4.8 | 4.2 | 29.6 | 27.6 | 26.7 |
| Orleans | 9.2 | 10.4 | 8.0 | 58.2 | 59.9 | 51.5 |
| Plaquemines | 17.5 | 20.9 | 31.6 | 11.0 | 11.5 | 20.6 |
| St. Bernard | 0.8 | 0.7 | 0.7 | 0.3 | 0.2 | 0.3 |
| St. Charles | 0.9 | 0.8 | 0.9 | 0.9 | 0.7 | 0.9 |
| Region LA-6 | 6.8 | 7.5 | 6.7 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.17.2 Earnings by Place-of-Work

Total place-of-work earnings for LA-6 grew steady each year from 2010 to 2013; none of the individual parishes exhibited decline during the period. These data are presented in Table 172 and their distribution for 2013 is illustrated in Figure 99. These data further confirm the economic dependence of LA-6 on Jefferson and Orleans parishes highlighted in the GDP section.

Table 172. Total Place-of-Work Earnings (in dollars) by EIA LA-6 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Jefferson | 12,203,861,674 | 12,317,449,143 | 12,388,604,743 | 12,380,967,938 |
| Orleans | 12,191,979,060 | 12,311,751,971 | 12,467,029,969 | 12,666,526,084 |
| Plaquemines | 1,203,151,840 | 1,178,380,346 | 1,270,142,694 | 1,300,685,674 |
| St. Bernard | 751,808,282 | 732,371,266 | 748,093,573 | 756,390,495 |
| St. Charles | 1,863,717,764 | 1,924,807,635 | 2,088,027,819 | 2,225,675,419 |
| Region LA-6 | 28,214,518,621 | 28,464,760,362 | 28,961,898,798 | 29,330,245,609 |

Source: Emsi (2015)

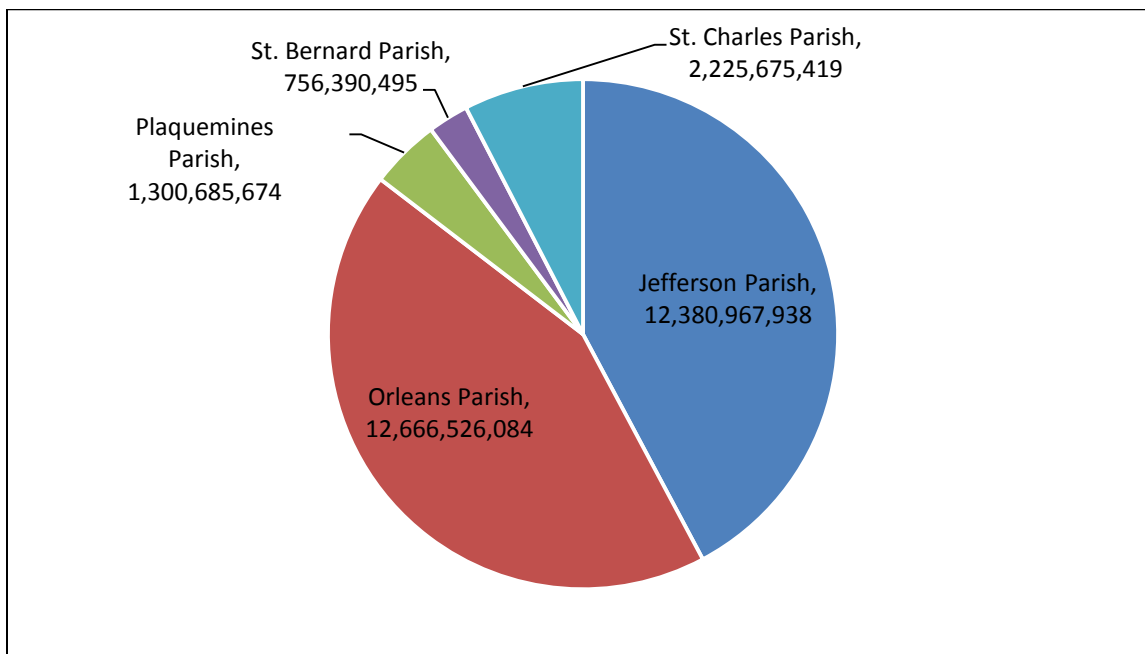


Figure 99. Total Place-of-Work Earnings (in dollars) by LA-6 Parish from 2013

Source: Emsi (2015)

Table 173 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Jefferson and Orleans parishes saw an overall decline in oil and gas earnings between 2010 and 2013 while Plaquemines and St. Charles saw substantial growth. Thus, the regional levels of oil and gas earnings in LA-6 fell during the period as the relative magnitude of the declines in Orleans and Jefferson outpaced the gains of the smaller parishes.

Table 173. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-6 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Jefferson | 769,782,898 | 728,792,109 | 640,255,158 | 521,212,702 |
| Orleans | 681,693,174 | 653,398,903 | 525,945,716 | 537,139,423 |
| Plaquemines | 277,399,734 | 252,578,111 | 327,925,172 | 333,818,078 |
| St. Bernard | 154,092,997 | 141,198,868 | 137,839,216 | 141,751,764 |
| St. Charles | 338,563,841 | 365,931,410 | 393,920,472 | 403,813,011 |
| Region LA-6 | 2,221,532,644 | 2,141,899,400 | 2,025,885,734 | 1,937,734,979 |

Source: Emsi (2015)

Table 174 details the percentage of each parish's total earnings produced in oil- and gas-related industries. The two largest parishes saw moderate reliance on oil and gas industries for place-of-work earnings averaging between four and six percent annually. These rates also fell year-by-year.

However, Plaquemines, St. Bernard, and St. Charles consistently relied on these industries for more than 18% of total earnings. Among these parishes, Plaquemines had the highest annual earnings share in those industries (25.0%).

Over the period, LA-6 saw contributions of total oil and gas earnings move from having two-thirds contributed by Jefferson and Orleans to a much more balanced distribution due to growth in Plaquemines and St. Charles.

Table 174. Oil and Gas Contributions to Place-of-Work Earnings by LA-6 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Jefferson | 6.3 | 5.9 | 5.2 | 4.2 | 34.7 | 34.0 | 31.6 | 26.9 |
| Orleans | 5.6 | 5.3 | 4.2 | 4.2 | 30.7 | 30.5 | 26.0 | 27.7 |
| Plaquemines | 23.1 | 21.4 | 25.8 | 25.7 | 12.5 | 11.8 | 16.2 | 17.2 |
| St. Bernard | 20.5 | 19.3 | 18.4 | 18.7 | 6.9 | 6.6 | 6.8 | 7.3 |
| St. Charles | 18.2 | 19.0 | 18.9 | 18.1 | 15.2 | 17.1 | 19.4 | 20.8 |
| Region LA-6 | 7.9 | 7.5 | 7. | 6.6 | - | - | - | - |

Source: Emsi (2015)

2.17.3 Employment

In 2013, the LA-6 region produced 576,703 jobs. Approximately 88.3% of these jobs were sourced in Jefferson and Orleans Parishes. This distribution remained somewhat constant over the time period. These data are presented in Table 175 and Figure 100 illustrates their distribution for 2013. This corroborates earlier data about the economic dominance of Jefferson and Orleans parishes within LA-6.

Table 175. Total Jobs by LA-6 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| Jefferson | 259,698 | 260,508 | 259,719 | 260,697 |
| Orleans | 231,898 | 236,109 | 242,516 | 248,597 |
| Plaquemines | 18,537 | 18,672 | 18,909 | 18,900 |
| St. Bernard | 16,197 | 16,340 | 15,922 | 16,297 |
| St. Charles | 29,542 | 29,888 | 30,572 | 32,211 |
| Region LA-6 | 555,872 | 561,516 | 567,638 | 576,703 |

Source: Emsi (2015)

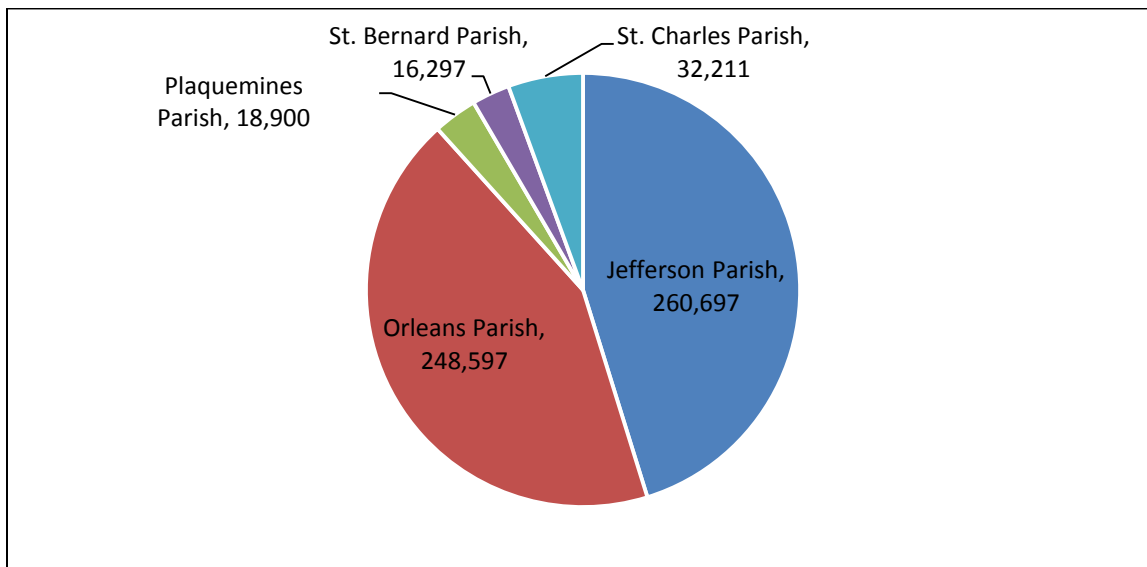


Figure 100. Total Jobs by LA-6 Parish from 2013

Source: Emsi (2015)

Table 176 shows the number of jobs in each LA-6 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Jefferson and Orleans saw marked decline in oil and gas jobs over the period, while the other parishes either held constant or grew slightly. The end result is that the region lost nearly a quarter of its oil and gas jobs over the time period.

Table 176. Jobs in Oil- and Gas-Related Industries by LA-6 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| Jefferson | 9,727 | 8,669 | 7,136 | 5,525 |
| Orleans | 4,895 | 4,212 | 3,722 | 3,648 |
| Plaquemines | 2,440 | 2,222 | 2,780 | 2,602 |
| St. Bernard | 987 | 860 | 846 | 822 |
| St. Charles | 2,687 | 2,780 | 2,661 | 2,617 |
| Region LA-6 | 20,736 | 18,743 | 17,145 | 15,214 |

Source: Emsi (2015)

Table 177 shows the percentage of each parish's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Plaquemines again is the most dependent parish in LA-6 on oil and gas activity; more than 10% of its jobs come from these industries annually. St. Charles is also heavily dependent on these industries. Orleans and Jefferson are considerably less dependent.

Table 177. Oil and Gas Contributions to Jobs by LA-6 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Jefferson | 3.7 | 3.3 | 2.7 | 2.1 | 46.9 | 46.3 | 41.6 | 36.3 |
| Orleans | 2.1 | 1.8 | 1.5 | 1.5 | 23.6 | 22.5 | 21.7 | 24.0 |
| Plaquemines | 13.2 | 11.9 | 14.7 | 13.8 | 11.8 | 11.9 | 16.2 | 17.1 |
| St. Bernard | 6.1 | 5.3 | 5.3 | 5.0 | 4.8 | 4.6 | 4.9 | 5.4 |
| St. Charles | 9.1 | 9.3 | 8.7 | 8.1 | 13.0 | 14.8 | 15.5 | 17.2 |
| Region LA-6 | 3.7 | 3.3 | 3.0 | 2.6 | - | - | - | - |

Source: Emsi (2015)

2.17.4 Personal Income

In 2013, the LA-6 parishes received \$41.0 billion in personal income. There was modest growth in regional personal income in each year with the largest growth occurring between 2011 and 2012. These data are presented in Table 178 and their distribution in 2013 is illustrated in Figure 101. All of the parishes witnessed steady positive growth in personal income over the time period.

Table 178. Personal Income (in dollars) by LA-6 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Jefferson | 18,573,460,000 | 18,934,406,000 | 19,757,360,000 | 19,969,663,000 |
| Orleans | 14,213,967,000 | 15,066,498,000 | 16,060,821,000 | 16,437,492,000 |
| Plaquemines | 923,000,000 | 926,201,000 | 973,210,000 | 977,748,000 |
| St. Bernard | 1,343,443,000 | 1,374,057,000 | 1,437,204,000 | 1,498,427,000 |
| St. Charles | 1,920,031,000 | 1,965,437,000 | 2,066,054,000 | 2,081,648,000 |
| Region LA-6 | 36,973,901,000 | 38,266,599,000 | 40,294,649,000 | 40,964,978,000 |

Source: Emsi (2015)

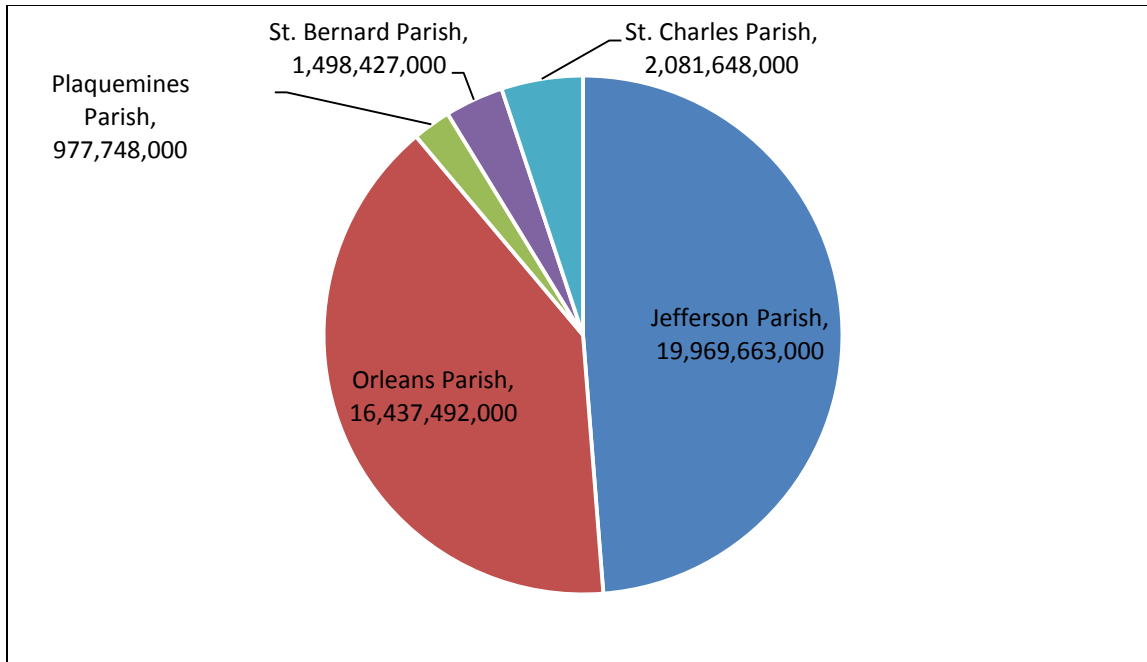


Figure 101. Total Personal Income (in dollars) by LA-6 Parish from 2013

Source: Emsi (2015)

Figure 102 shows the per capita income data in 2013 for each parish in LA-6. The two largest parishes also had the highest levels of per capita income Jefferson with \$45,932 and Orleans with \$43,403.

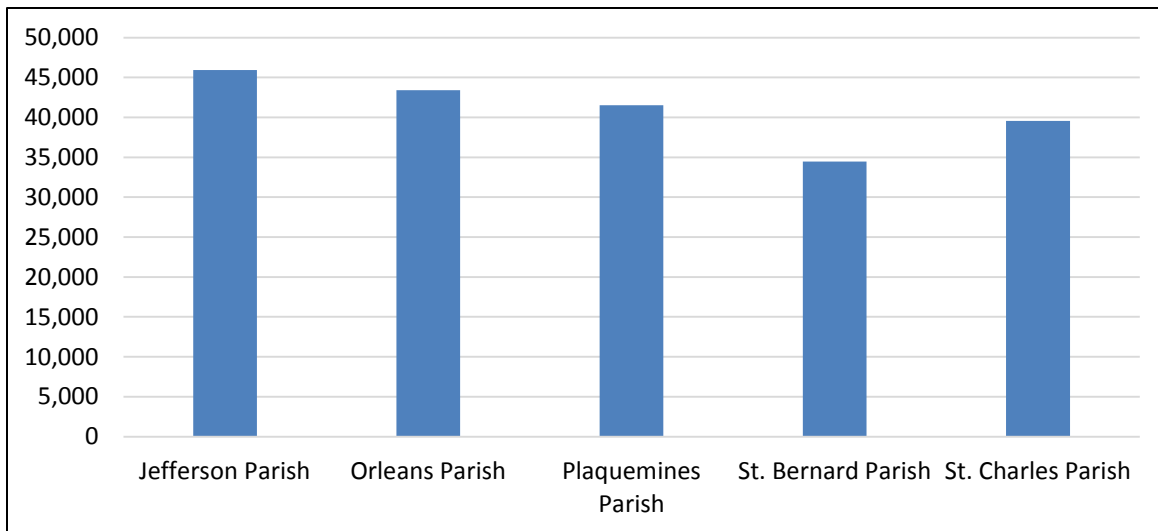


Figure 102. Per Capita Income (in dollars) by LA-6 Parish from 2013 Demographics

Source: Emsi (2015)

2.17.5 Demographics

The 2013 demographic data are presented in Table 179. The LA-6 region had a regional poverty rate of 19.9% in 2013. Orleans Parish (26.55%) was the only parish to have above the regional average poverty rate of 19.9%. The relative size of that parish, however, was enough to heavily influence the LA-6 average. Also in Table 179 are data on minority population percentages. In 2013, LA-6 had a population that was 47.7% minority. Orleans was more than two-thirds minority, and most of the other parishes were between 30% and 40% minority. Again, because of the relative size of Orleans, it was the only parish in LA-6 with a minority population percentage above the regional average.

Table 179. Demographic Data by LA-6 Parish from 2013

| EIA Parish | Poverty | Minority |
|-------------|---------|----------|
| Jefferson | 16.1% | 37.1% |
| Orleans | 26.5% | 67.0% |
| Plaquemines | 14.9% | 29.5% |
| St. Bernard | 18.1% | 26.0% |
| St. Charles | 12.5% | 30.8% |
| Region LA-6 | 19.9% | 47.7% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.18 Intra-Regional Comparison of the Economic Impact Area (EIA) LA-7

EIA LA-7 comprises three parishes Louisiana: St. Tammany, Tangipahoa, and Washington. The LA-7 parishes were home to 414,164 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 193,189 jobs, earned \$8.1 billion in total earnings (excluding corporate profits), \$16.8 billion in GDP, and \$17.7 billion in personal income in 2013.

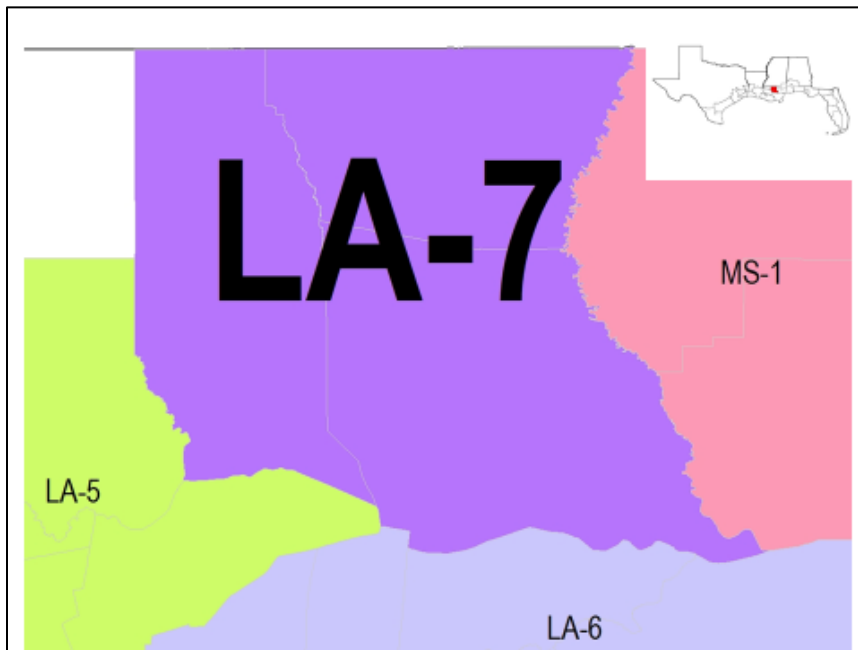


Figure 103. Map of EIA Region LA-7

2.18.1 Gross Domestic Product

Table 180 presents the total GDP estimates for each parish in LA-7. St. Tammany produced roughly two-thirds of the total GDP in LA-7; Tangipahoa produced the majority of the remainder. None of the parishes saw any substantial growth or decline in GDP over the period.

Table 180. Total GDP (in dollars) by LA-7 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| St. Tammany | 10,061,344,485 | 10,524,747,004 | 10,978,364,305 | 11,230,918,531 |
| Tangipahoa | 4,283,694,835 | 4,552,246,407 | 4,486,527,637 | 4,408,325,156 |
| Washington | 1,148,257,346 | 1,165,164,232 | 1,193,274,576 | 1,177,334,376 |
| Region LA-7 | 15,493,296,665 | 16,242,157,643 | 16,658,166,518 | 16,816,578,063 |

Source: Varnado and Fannin (2015) and Emsi (2015)

The distribution of GDP over the LA-7 parishes in 2013 is shown in Figure 104, which demonstrates the economic hierarchy of LA-7. There is a distinct hierarchy; St. Tammany generates the highest level of GDP in the region and Washington Parish the lowest GDP in LA-7.

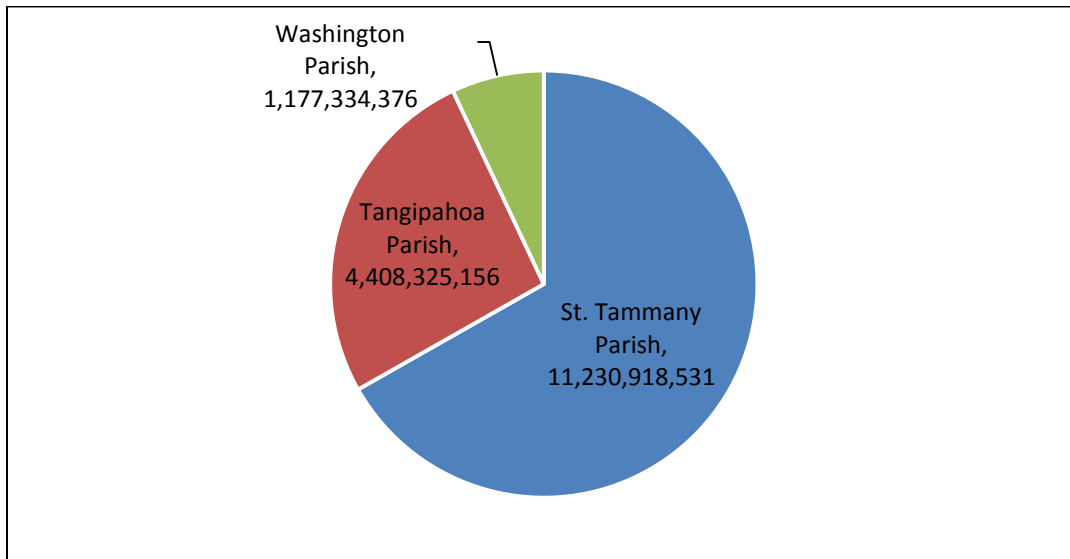


Figure 104. Total GDP (in dollars) by LA-7 Parish from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 181 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. The oil and gas GDP data show that St. Tammany contributes nearly all (96.4%) of the oil- and gas-related GDP in LA-7. Further, St. Tammany (and therefore LA-7) saw significant growth in oil and gas production from 2011 to 2012, nearly doubling output. Washington, on the other hand, saw its oil and gas production cut in half, though its effect on the regional data is negligible due to its size.

Table 181. GDP in Oil- and Gas-Related Industries (in dollars) by LA-7 Parish from 2010 to 2012

| EIA Parish | 2010 | 2011 | 2012 |
|-------------|-------------|-------------|---------------|
| St. Tammany | 555,359,828 | 622,049,595 | 1,296,026,686 |
| Tangipahoa | 44,852,225 | 45,726,705 | 45,367,535 |
| Washington | 8,443,791 | 8,319,442 | 3,609,584 |
| Region LA-7 | 608,655,844 | 676,095,742 | 1,345,003,804 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 182 shows the percentage of each parish's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each parish's percentage of LA-7 oil and gas GDP. St. Tammany showed the highest levels of oil and gas GDP dependency with that rate almost doubling to 11.8% in 2013 as the level of GDP in those sectors doubled (see Table 181). As St. Tammany's oil and gas output grew, the relative share of LA-7 oil and gas production in Tangipahoa fell, even as the nominal values remained somewhat constant.

Table 182. Oil and Gas Contributions to GDP by LA-7 Parish from 2010 to 2012

| EIA Parish | Percentage of Parish GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|-------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| St. Tammany | 5.5 | 5.9 | 11.8 | 91.2 | 92.0 | 96.4 |
| Tangipahoa | 1.0 | 1.0 | 1.0 | 7.4 | 6.8 | 3.4 |
| Washington | 0.7 | 0.7 | 0.3 | 1.4 | 1.2 | 0.3 |
| Region LA-7 | 3.9 | 4.2 | 8.1 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.18.2 Earnings by Place-of-Work

The economic hierarchy apparent in the GDP data is also present in the place-of-work earnings data. St. Tammany produced roughly two-thirds of the total earnings while Tangipahoa contributed an additional 26.2%. These data are presented in Table 183 and their distribution in 2013 is illustrated in Figure 105.

Table 183. Total Place-of-Work Earnings (in dollars) by EIA LA-7 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| St. Tammany | 4,833,170,566 | 4,931,998,587 | 5,176,983,819 | 5,380,549,423 |
| Tangipahoa | 2,057,759,559 | 2,133,226,845 | 2,115,677,740 | 2,111,956,498 |
| Washington | 551,588,668 | 546,007,267 | 562,703,423 | 564,041,648 |
| Region LA-7 | 7,442,518,794 | 7,611,232,699 | 7,855,364,982 | 8,056,547,569 |

Source: Emsi (2015)

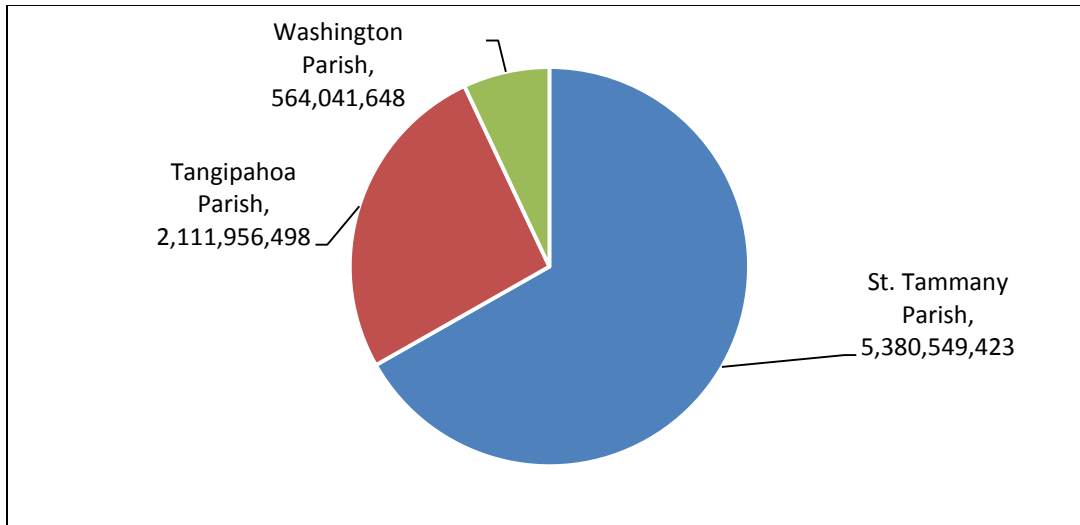


Figure 105. Total Place-of-Work Earnings (in dollars) by LA-7 Parish from 2013

Source: Emsi (2015)

Table 184 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The growth witnessed in oil and gas GDP in St. Tammany Parish from 2011 and 2012 is also witnessed in the earnings data as well. There is also additional growth from 2012 to 2013. Tangipahoa saw moderate declines in oil and gas earnings in each year, falling about 20% over the time period.

Table 184. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by LA-7 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|-------------|-------------|-------------|-------------|
| St. Tammany | 193,933,389 | 173,041,857 | 331,006,569 | 358,840,024 |
| Tangipahoa | 23,615,909 | 21,075,366 | 20,856,047 | 18,694,945 |
| Washington | 5,255,372 | 5,080,174 | 4,540,837 | 3,758,048 |
| Region LA-7 | 222,804,671 | 199,197,397 | 356,403,453 | 381,293,016 |

Source: Emsi (2015)

Table 185 shows the percentage of each parish's total earnings produced in oil- and gas-related industries. St. Tammany had the highest share of earnings in oil and gas industries climbing from between 3.5% in 2011 to 6.4% and 6.7% respectively in 2012 and 2013. Tangipahoa and Washington showed much lower oil and gas earnings shares that slightly declined over the time period.

Table 185. Oil and Gas Contributions to Place-of-Work Earnings by LA-7 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| St. Tammany | 4.0 | 3.5 | 6.4 | 6.7 | 87.0 | 86.9 | 92.9 | 94.1 |
| Tangipahoa | 1.1 | 1.0 | 1.0 | 0.9 | 10.6 | 10.6 | 5.9 | 4.9 |
| Washington | 1.0 | 0.9 | 0.8 | 0.7 | 2.4 | 2.6 | 1.3 | 1.0 |
| Region LA-7 | 3.0 | 2.6 | 4.5 | 4.7 | - | - | - | - |

Source: Emsi (2015)

2.18.3 Employment

In 2013, the LA-7 region produced 193,189 jobs. Approximately 91.8% of those jobs were sourced in St. Tammany and Tangipahoa. These data are presented in Table 186 and Figure 106 illustrates their distribution for 2013.

Table 186. Total Jobs by LA-7 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------|---------|---------|---------|
| St. Tammany | 116,357 | 119,311 | 118,893 | 120,964 |
| Tangipahoa | 56,517 | 57,045 | 56,708 | 56,462 |
| Washington | 16,261 | 16,151 | 15,691 | 15,763 |
| Region LA-7 | 189,135 | 192,507 | 191,293 | 193,189 |

Source: Emsi (2015)

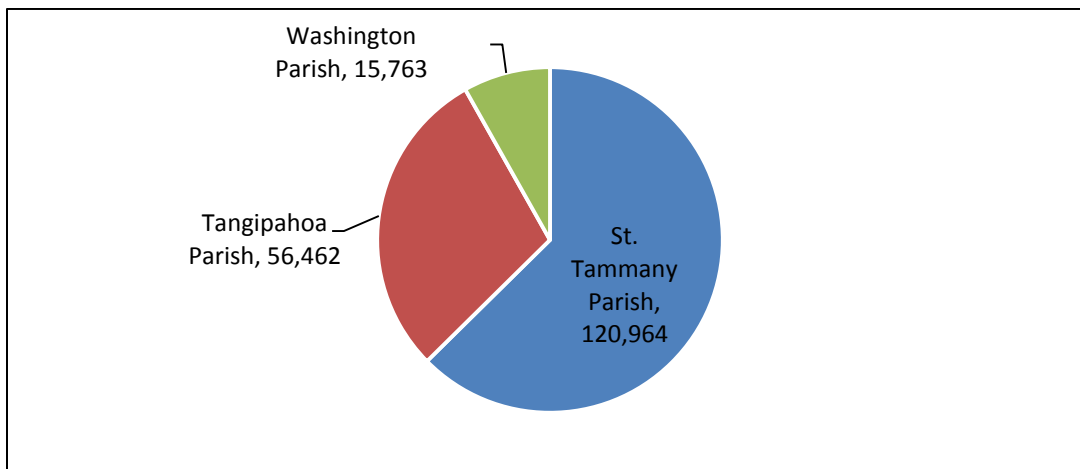


Figure 106. Total Jobs by LA-7 Parish from 2013

Source: Emsi (2015)

Table 187 shows the number of jobs in each LA-7 parish that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). St. Tammany saw a sustained increase in oil and gas jobs from 2011 to 2012, and the other two LA-7 parishes saw declines over the period. Due to the relative size of St. Tammany, the region's oil and gas jobs grew more than 21%.

Table 187. Jobs in Oil- and Gas-Related Industries by LA-7 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|--------------------|-------|-------|-------|-------|
| St. Tammany | 2,152 | 1,925 | 2,724 | 3,009 |
| Tangipahoa | 369 | 297 | 305 | 300 |
| Washington | 126 | 85 | 99 | 75 |
| Region LA-7 | 2,648 | 2,307 | 3,128 | 3,384 |

Source: Emsi (2015)

Table 188 shows the percentage of each parish’s total jobs that it sources from oil- and gas-related industries from 2010 to 2013. St. Tammany Parish grew in oil and gas job dependency over the time period. Both 2010 and 2011 were similar, followed by an increase in 2012. The other two parishes decreased their oil and gas dependence, this is also evident in the GDP and earnings data. As for percentages of LA-7 oil and gas jobs, the hierarchy apparent with previous indicators is here, as well, but even more exaggerated, with St. Tammany providing more than 81.3% of those jobs in 2010 and 88.9% by 2013.

Table 188. Oil and Gas Contributions to Jobs by LA-7 Parish from 2010 to 2013

| EIA Parish | Percentage of Parish Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| St. Tammany | 1.8 | 1.6 | 2.3 | 2.5 | 81.3 | 83.5 | 87.1 | 88.9 |
| Tangipahoa | 0.7 | 0.5 | 0.5 | 0.5 | 13.9 | 12.9 | 9.8 | 8.9 |
| Washington | 0.8 | 0.5 | 0.6 | 0.5 | 4.8 | 3.7 | 3.2 | 2.2 |
| Region LA-7 | 1.4 | 1.2 | 1.6 | 1.8 | - | - | - | - |

Source: Emsi (2015)

2.18.4 Personal Income

In 2013, the LA-7 parishes received \$17.7 billion in personal income. Each parish saw moderate growth in each year, providing a robust moderate growth path for the region as a whole. These data are presented in Table 189 and illustrated for 2013 in Figure 107. The economic hierarchy apparent in previous LA-7 data remains apparent here.

Table 189. Personal Income (in dollars) by LA-7 Parish from 2010 to 2013

| EIA Parish | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| St. Tammany | 10,758,941,000 | 11,258,539,000 | 11,984,128,000 | 12,196,197,000 |
| Tangipahoa | 3,772,260,000 | 3,929,409,000 | 4,069,650,000 | 4,117,989,000 |
| Washington | 1,284,161,000 | 1,308,920,000 | 1,342,471,000 | 1,362,371,000 |
| Region LA-7 | 15,815,362,000 | 16,496,868,000 | 17,396,249,000 | 17,676,557,000 |

Source: Emsi (2015)

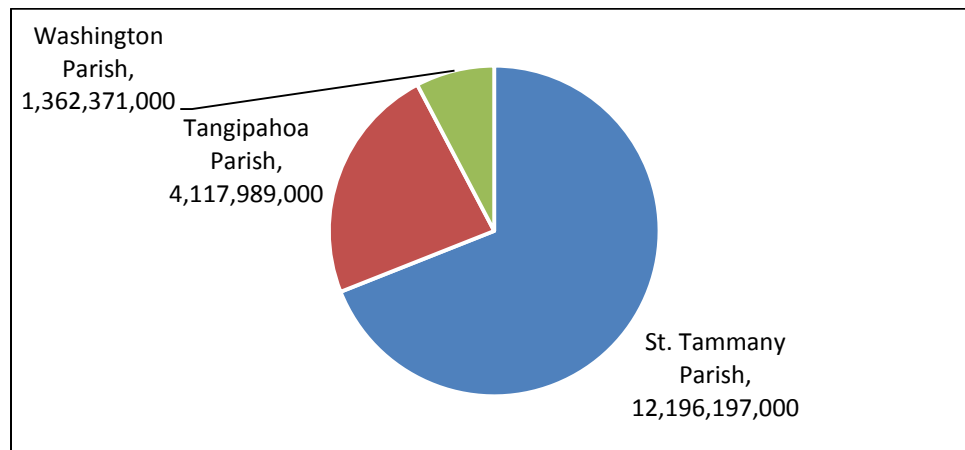


Figure 107. Total Personal Income (in dollars) by LA-7 Parish from 2013

Source: Emsi (2015)

Figure 108 shows the 2013 per capita income data for each parish in LA-7. St. Tammany had a considerably higher 2013 per capita income level of \$50,328 while Tangipahoa (\$32,836) and Washington (\$29,349) were much lower.

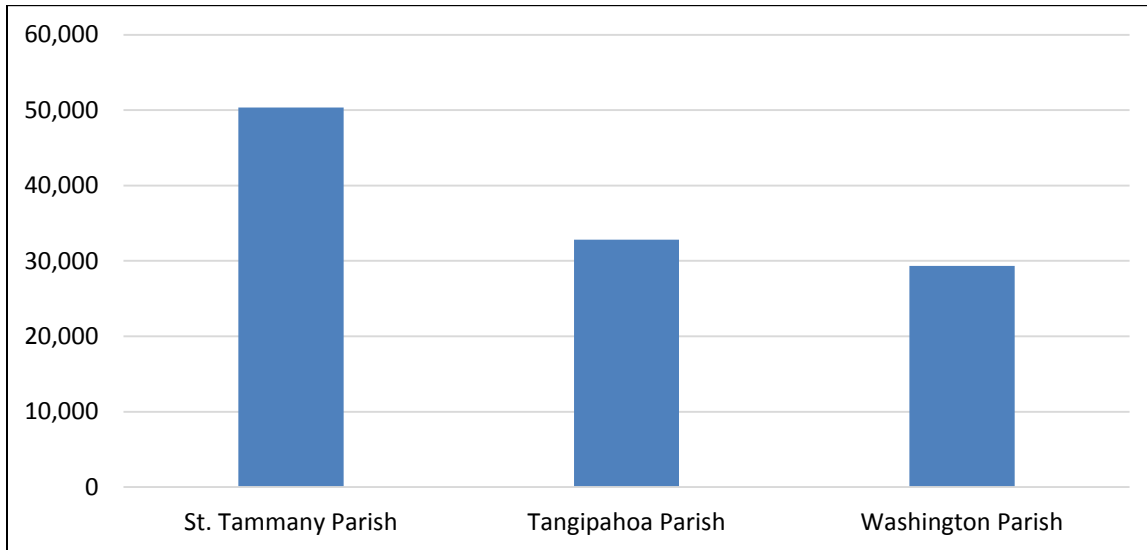


Figure 108. Per Capita Income (in dollars) by LA-7 Parish from 2013

Source: Emsi (2015)

2.18.5 Demographics

The 2013 demographic data are presented in Table 190. The LA-7 region had a regional poverty rate of 14.7% in 2013, driven by the 9.2% poverty rate in St. Tammany Parish. Tangipahoa and Washington parishes had much higher levels of poverty. The data are presented in Table 190 along with data on minority population percentages. In 2013, LA-7 had a population that was 23.6% minority. St. Tammany was only 16.4% minority and Tangipahoa and Washington parishes were exceeding 33% minority population in 2013.

Table 190. Demographic Data by LA-7 Parish from 2013

| EIA Parish | Poverty | Minority |
|--------------------|---------|----------|
| St. Tammany | 9.2% | 16.4% |
| Tangipahoa | 21.1% | 33.8% |
| Washington | 25.8% | 33.3% |
| Region LA-7 | 14.7% | 23.6% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.19 Intra-Regional Comparison of the Economic Impact Area (EIA) MS-1

EIA MS-1 includes four counties Mississippi: Hancock, Harrison, Jackson, and Pearl River. The MS-1 counties were home to 437,588 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 218,060 jobs, earned \$9.6 billion in total earnings (excluding corporate profits), \$17.1 billion in GDP, and \$15.3 billion in personal income in 2013.

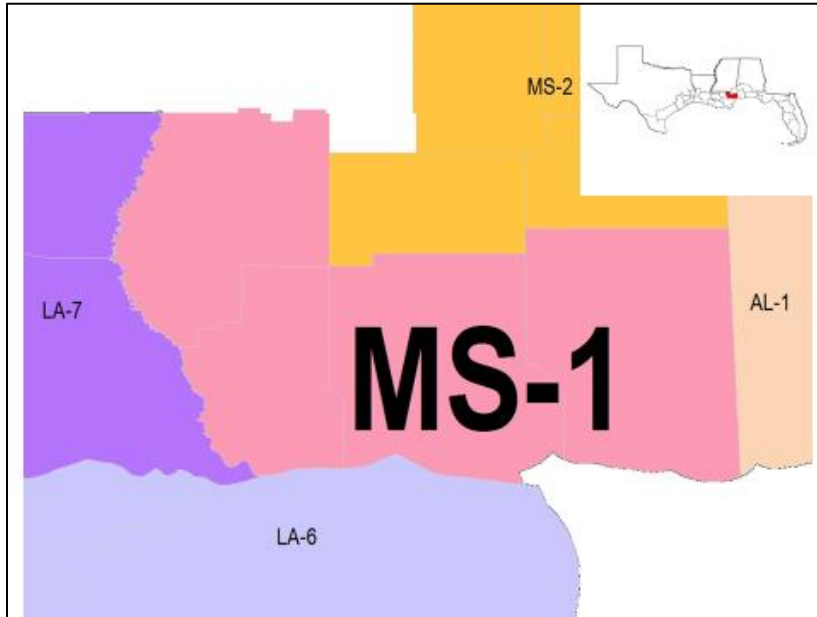


Figure 109. Map of EIA Region MS-1

2.19.1 Gross Domestic Product

Table 191 presents the total GDP estimates for each county in MS-1. Approximately 84.2% of the total GDP in MS-1 was produced in Harrison and Jackson counties, which are part of the Gulfport-Biloxi and Pascagoula MSAs (which together are part of the Gulfport-Biloxi-Pascagoula combined statistical area [CSA]). An additional 10.1% of the 2013 total MS-1 GDP came from Hancock County, which is part of the Gulfport-Biloxi MSA. Each county saw moderate growth from 2011 to 2012 but remained otherwise stable. The distribution of GDP over the MS-1 counties in 2013 is illustrated in Figure 110.

Table 191. Total GDP (in dollars) by MS-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Hancock | 1,715,370,169 | 1,703,489,440 | 1,727,734,341 | 1,723,825,555 |
| Harrison | 8,069,700,930 | 8,098,202,505 | 8,235,280,701 | 8,437,636,969 |
| Jackson | 5,758,247,879 | 5,516,598,268 | 5,545,527,782 | 5,932,156,708 |
| Pearl River | 900,680,143 | 928,065,386 | 949,259,259 | 973,733,424 |
| Region MS-1 | 16,443,999,121 | 16,246,355,599 | 16,457,802,082 | 17,067,352,656 |

Source: Varnado and Fannin (2015) and Emsi (2015)

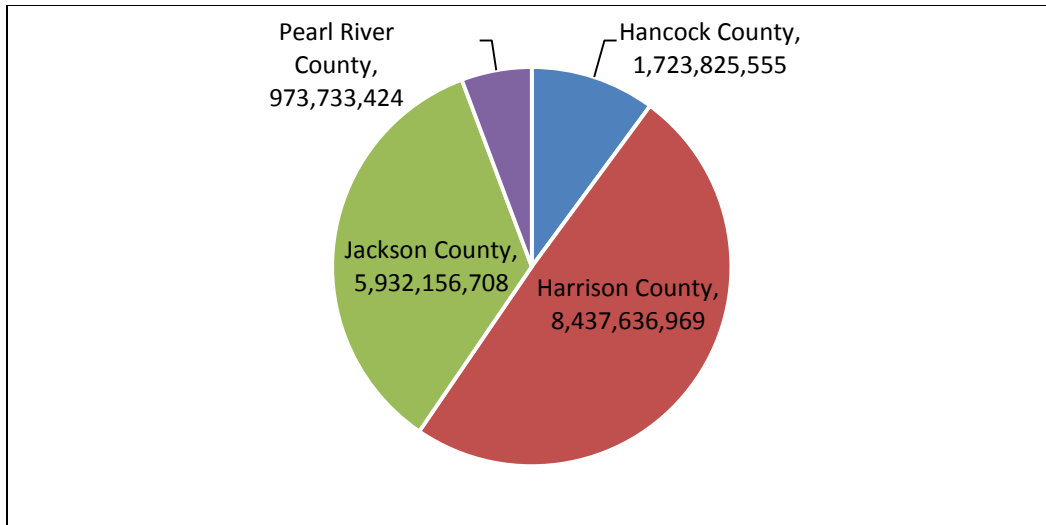


Figure 110. Total GDP (in dollars) by MS-1 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 192 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. In 2010 and 2011, the oil and gas production was almost entirely in Hancock and Jackson counties. By 2012, Jackson increased in total contribution as Hancock declined.

Table 192. GDP in Oil- and Gas-Related Industries (in dollars) by MS-1 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|------------|------------|------------|
| Hancock | 10,889,702 | 12,116,798 | 4,576,911 |
| Harrison | 1,774,886 | 1,081,131 | 8,629,900 |
| Jackson | 16,297,485 | 17,665,385 | 20,314,752 |
| Pearl River | 1,621,538 | 3,416,733 | 1,845,676 |
| Region MS-1 | 30,583,611 | 34,280,048 | 35,367,240 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 193 details the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of MS-1 oil and gas GDP. None of the MS-1 counties sourced a significant amount of their total GDP in oil- and gas-related industries. Of the oil and gas production in MS-1, Jackson contributed more than half of the total oil- and gas-related GDP in each year, with a marked increase between 2011 and 2012. Hancock contributed the majority of the remaining GDP in 2010 and 2011, but saw its production fall by nearly a third in 2012. Conversely, Harrison contributed relatively little in 2010 and 2011, but saw its production increase eight-fold from 2011 to 2012, contributing 24.4% of the 2013 GDP in oil- and gas-related industries. Pearl River saw a spike in oil and gas GDP when production doubled from 2010 to 2011, but production returned to its pre-spike levels in 2013 in which Pearl River contributed only 5.2% of the MS-1 regional oil and gas GDP.

Table 193. Oil and Gas Contributions to GDP by MS-1 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|-------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Hancock | 0.6 | 0.7 | 0.3 | 35.6 | 35.3 | 12.9 |
| Harrison | 0.0 | 0.0 | 0.1 | 5.8 | 3.2 | 24.4 |
| Jackson | 0.3 | 0.3 | 0.4 | 53.3 | 51.5 | 57.4 |
| Pearl River | 0.2 | 0.4 | 0.2 | 5.3 | 10.0 | 5.2 |

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|-------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Region MS-1 | 0.2 | 0.2 | 0.2 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.19.2 Earnings by Place-of-Work

More than 80% of the total earnings in MS-1 were produced in Harrison and Jackson counties. As with GDP, Hancock County contributed about 10% and Pearl River contributed just over five percent. These data are presented in Table 194 and Figure 111 illustrates their distribution in 2013.

Table 194. Total Place-of-Work Earnings (in dollars) by EIA MS-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Hancock | 966,891,670 | 964,134,985 | 984,972,881 | 968,649,911 |
| Harrison | 4,548,596,418 | 4,583,392,281 | 4,694,893,172 | 4,741,266,467 |
| Jackson | 3,245,714,545 | 3,122,264,960 | 3,161,478,213 | 3,333,390,117 |
| Pearl River | 507,680,583 | 525,263,196 | 541,168,052 | 547,159,074 |
| Region MS-1 | 9,268,883,216 | 9,195,055,421 | 9,382,512,319 | 9,590,465,569 |

Source: Emsi (2015)

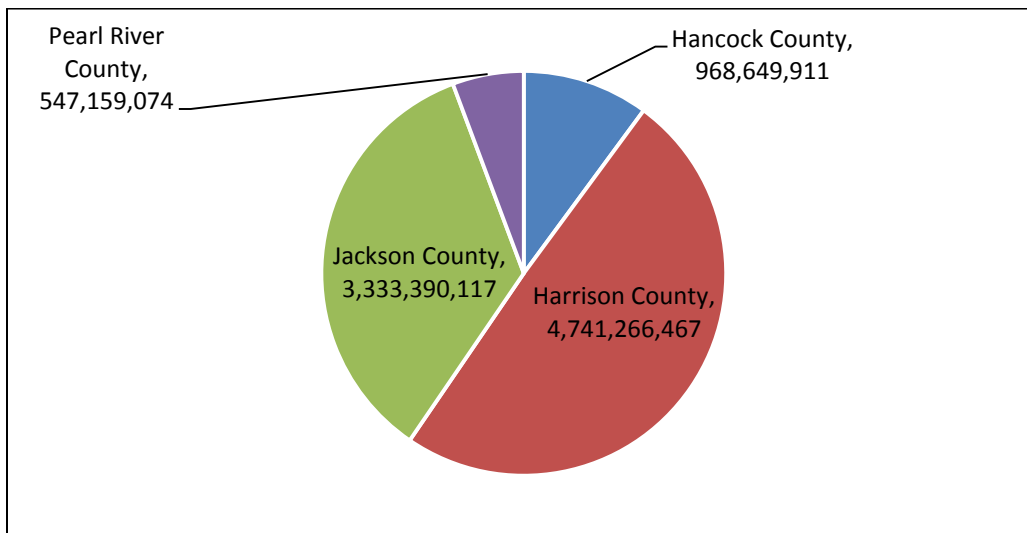


Figure 111. Total Place-of-Work Earnings (in dollars) by MS-1 County from 2013

Source: Emsi (2015)

Table 195 presents the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The overall regional oil and gas earnings contracted slightly from 2010 to 2011 and again from 2011 to 2012, but then expanded in 2013. The growth in 2013 did not return the regional earnings to their 2010 levels.

Table 195. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by MS-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Hancock | 9,911,108 | 9,023,072 | 6,987,628 | 12,153,577 |
| Harrison | 92,574,477 | 107,168,455 | 118,468,438 | 108,175,360 |
| Jackson | 1,265,654,402 | 1,163,230,582 | 1,141,493,003 | 1,162,487,436 |
| Pearl River | 10,399,755 | 12,089,109 | 12,636,917 | 18,638,028 |
| Region MS-1 | 1,378,539,742 | 1,291,511,217 | 1,279,585,986 | 1,301,454,401 |

Source: Emsi (2015)

Table 196 details the percentage of each county's total earnings produced in oil- and gas-related industries. Jackson showed a consistent dependence on oil and gas earnings to make up an annual average of 36.8% of its total earnings. The other counties in MS-1 relied on these industries for between 0.7% and 3.4% of their earnings totals throughout the time period. The regional average fell over the time period from 14.9% in 2010 to 13.6% in 2012 and 2013. Of the total oil and gas earnings in MS-1, Jackson consistently produced roughly 90%; the majority of the remaining earnings were produced in Harrison.

Table 196. Oil and Gas Contributions to Place-of-Work Earnings by MS-1 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Hancock | 1.0 | 0.9 | 0.7 | 1.3 | 0.7 | 0.7 | 0.5 | 0.9 |
| Harrison | 2.0 | 2.3 | 2.5 | 2.3 | 6.7 | 8.3 | 9.3 | 8.3 |
| Jackson | 39.0 | 37.3 | 36.1 | 34.9 | 91.8 | 90.1 | 89.2 | 89.3 |
| Pearl River | 2.0 | 2.3 | 2.3 | 3.4 | 0.8 | 0.9 | 1.0 | 1.4 |
| Region MS-1 | 14.9 | 14.0 | 13.6 | 13.6 | - | - | - | - |

Source: Emsi (2015)

2.19.3 Employment

In 2013, the MS-1 region produced 218,060 jobs. Approximately 53.4% of those jobs were sourced in Harrison County with another 28.8% in Jackson County. None of the MS-1 counties saw substantial movement in total jobs from year to year. These data are presented in Table 197 and their distribution in 2013 is illustrated in Figure 112.

Table 197. Total Jobs by MS-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Hancock | 21,744 | 21,855 | 21,403 | 21,368 |
| Harrison | 112,732 | 113,549 | 115,387 | 116,420 |
| Jackson | 64,466 | 61,665 | 61,259 | 62,795 |
| Pearl River | 17,549 | 18,011 | 17,431 | 17,478 |
| Region MS-1 | 216,490 | 215,080 | 215,480 | 218,060 |

Source: Emsi (2015)

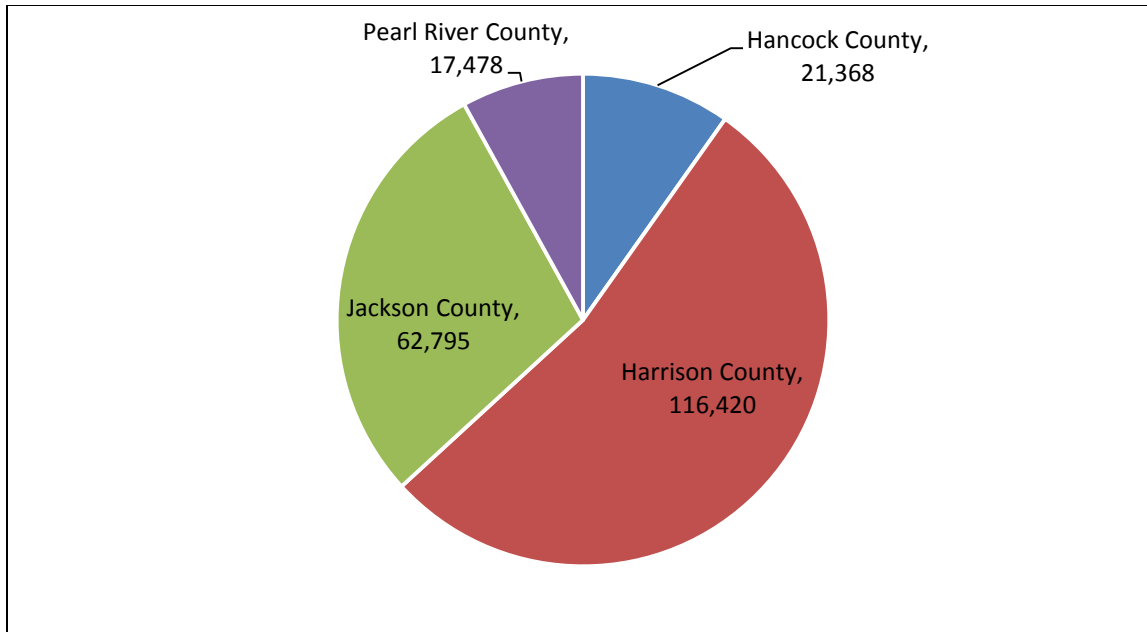


Figure 112. Total Jobs by MS-1 County from 2013

Source: Emsi (2015)

Table 198 presents the number of jobs in each MS-1 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Jackson, which was the largest contributor of oil and gas jobs in MS-1, saw declines over the time period. This drove a decline in MS-1 region oil and gas jobs to decline from 16,610 in 2010 to 14,572 in 2013, a decrease of 12.3%, despite growth in the other counties (most notably Harrison).the

Table 198. Jobs in Oil- and Gas-Related Industries by MS-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| Hancock | 180 | 149 | 131 | 188 |
| Harrison | 1,377 | 1,575 | 1,626 | 1,556 |
| Jackson | 14,923 | 13,122 | 12,435 | 12,624 |
| Pearl River | 130 | 103 | 171 | 204 |
| Region MS-1 | 16,610 | 14,949 | 14,361 | 14,572 |

Source: Emsi (2015)

Table 199 details the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Again Jackson shows a high level of dependence on oil- and gas-related industries for jobs, with more than 20% of its total jobs coming in those industries in each year. Harrison consistently sourced more than one percent of its jobs in oil and gas industries, but neither of the other two counties relied on oil and gas activity for a significant concentration of its jobs.

Table 199. Oil and Gas Contributions to Jobs by MS-1 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Hancock | 0.8 | 0.7 | 0.6 | 0.9 | 1.1 | 1.0 | 0.9 | 1.3 |
| Harrison | 1.2 | 1.4 | 1.4 | 1.3 | 8.3 | 10.5 | 11.3 | 10.7 |
| Jackson | 23.1 | 21.3 | 20.3 | 20.1 | 89.8 | 87.8 | 86.6 | 86.6 |
| Pearl River | 0.7 | 0.6 | 1.0 | 1.2 | 0.8 | 0.7 | 1.2 | 1.4 |
| Region MS-1 | 7.7 | 7.0 | 6.7 | 6.7 | - | - | - | - |

Source: Emsi (2015)

2.19.4 Personal Income

In 2013, the MS-1 counties received \$15.3 billion in personal income. Each county showed slight growth in income over the time period. This growth produced slight increases in regional totals in each year. These data are presented in Table 200 and their distribution for 2013 is illustrated in Figure 113.

Table 200. Personal Income (in dollars) by MS-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Hancock | 1,538,432,000 | 1,492,996,000 | 1,538,392,000 | 1,550,581,000 |
| Harrison | 6,676,996,000 | 6,822,508,000 | 6,963,589,000 | 7,012,629,000 |
| Jackson | 4,881,127,000 | 4,950,796,000 | 4,934,473,000 | 5,042,998,000 |
| Pearl River | 1,522,592,000 | 1,583,937,000 | 1,639,999,000 | 1,658,319,000 |
| Region MS-1 | 14,619,147,000 | 14,850,237,000 | 15,076,453,000 | 15,264,527,000 |

Source: Emsi (2015)

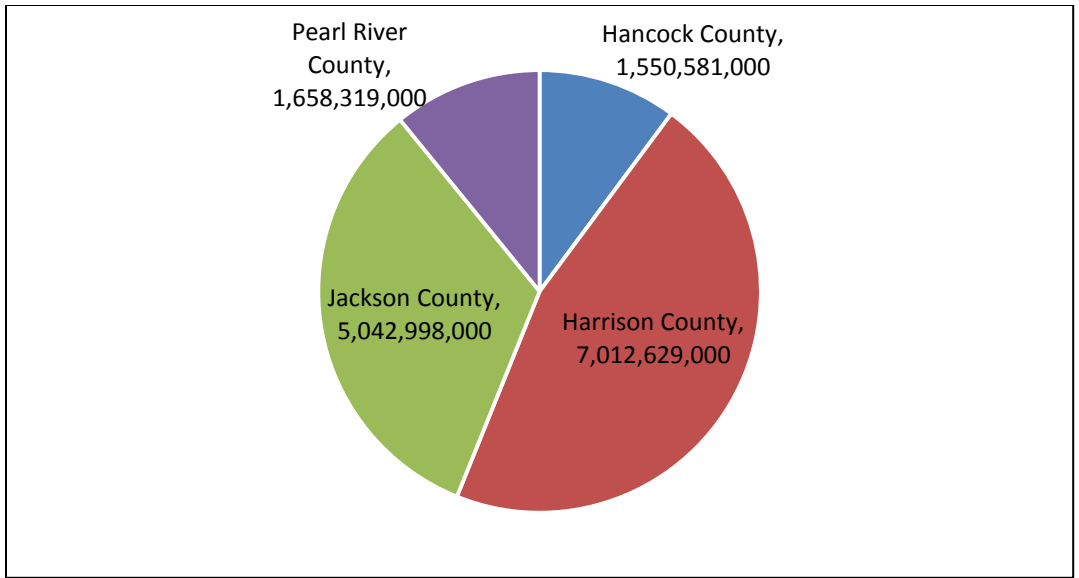


Figure 113. Total Personal Income (in dollars) by MS-1 County from 2013

Source: Emsi (2015)

Figure 114 shows the per capita income data 2013 for each county in MS-1. Harrison and Jackson had the highest per capita income levels (\$35,688 and \$35,906 respectively). Pearl River had the lowest (\$30,112).

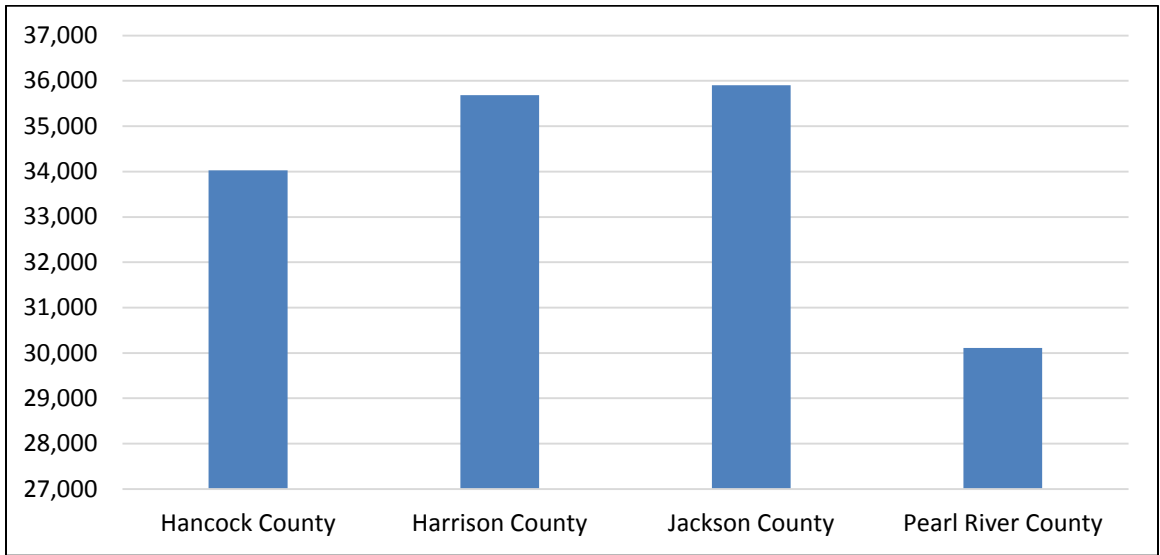


Figure 114. Per Capita Income (in dollars) by MS-1 County from 2013

Source: Emsi (2015)

2.19.2 Demographics

The 2013 demographic data are presented in Table 201. The MS-1 region had a regional poverty rate of 18.5% in 2013. There was relatively little disparity between the MS-1 counties in this regard because the range of observations was less than 5.0%. In terms of minority population percentages, the range was nearly 20% with Harrison and Jackson counties at 30.3% and 27.9% and Hancock County at 11.6%. The relative size of Harrison and Jackson counties raised the overall regional minority population percentage to 25.7%.

Table 201. Demographic Data by MS-1 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Hancock | 18.7% | 11.6% |
| Harrison | 19.1% | 30.3% |
| Jackson | 16.5% | 27.9% |
| Pearl River | 21.0% | 16.0% |
| Region MS-1 | 18.5% | 25.7% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.20 Intra-Regional Comparison of the Economic Impact Area (EIA) MS-2

EIA MS-2 comprises four counties in Mississippi: George, Greene, Perry, and Stone. The MS-2 counties were home to 67,550 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 21,506 jobs, earned \$745,005,167 in total earnings (excluding corporate profits), \$1.3 billion in GDP, and \$1.8 billion in personal income in 2013.

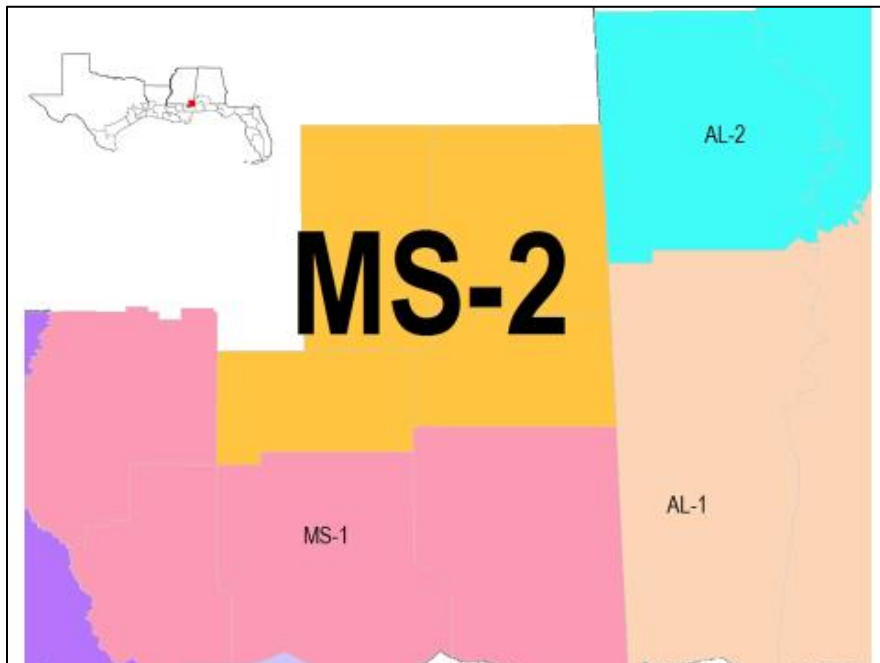


Figure 115. Map of EIA Region MS-2

2.20.1 Gross Domestic Product

Table 202 presents the total GDP estimates for each county in MS-2. Each county in the region saw steady, moderate growth in GDP over the time period resulting in steady, moderate growth in the overall region's total economic output. The distribution of GDP over the MS-2 counties in 2013 is shown in Figure 116.

Table 202. Total GDP (in dollars) by MS-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------------|----------------------|----------------------|----------------------|
| George | 367,722,177 | 387,240,789 | 431,171,572 | 451,160,353 |
| Greene | 208,234,344 | 225,085,682 | 263,772,622 | 271,200,440 |
| Perry | 204,291,351 | 205,558,630 | 250,757,180 | 259,016,532 |
| Stone | 341,431,941 | 337,509,489 | 334,465,456 | 344,446,310 |
| Region MS-2 | 1,121,679,813 | 1,155,394,590 | 1,280,166,830 | 1,325,823,634 |

Source: Varnado and Fannin (2015) and Emsi (2015)

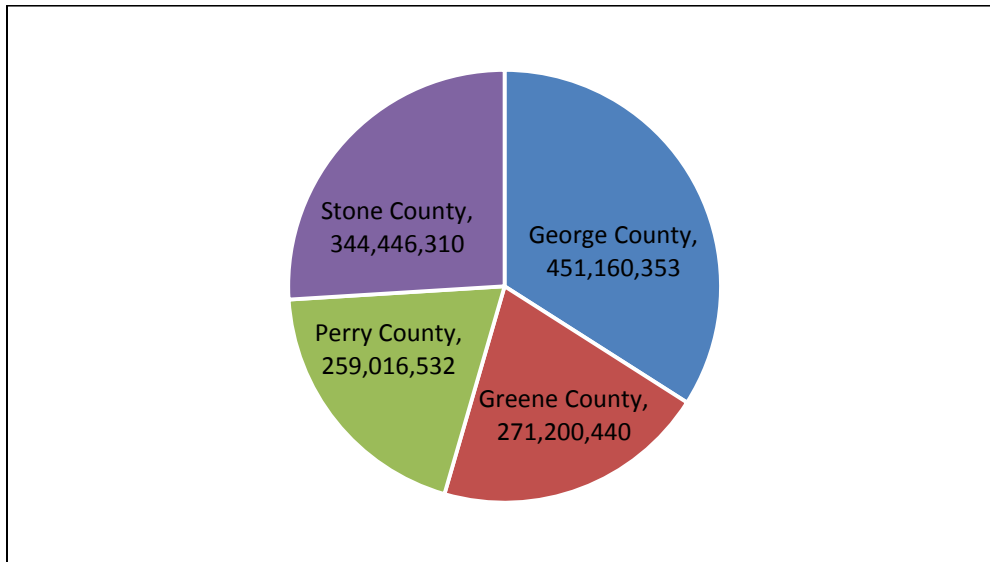


Figure 116. Total GDP (in dollars) by MS-2 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 203 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. The region saw substantial growth from 2010 to 2011 but saw its oil and gas GDP more than double from 2011 to 2012 on the back of a 62-fold increase in George County. While other counties saw some growth spikes from 2010 to 2011, those effects are dwarfed by the increase in George, where the increase from 2011 to 2012 that was larger than the total production in 2010 and 2011 combined.

Table 203. GDP in Oil- and Gas-Related Industries (in dollars) by MS-2 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|--------------------|-------------|-------------|-------------|
| George | 111,731 | 232,081 | 14,410,921 |
| Greene | 2,598,801 | 6,236,937 | 4,838,505 |
| Perry | 1,438,949 | 1,204,789 | 581,397 |
| Stone | 453,078 | 319,397 | 619,887 |
| Region MS-2 | 4,602,560 | 7,993,203 | 20,450,710 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 204 shows the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of MS-2 oil and gas GDP. Prior to the large growth in George's oil and gas production in 2012, only Greene sourced more than one percent of its total GDP in oil- and gas-related industries. In 2012, George sourced only 3.3% of its GDP in these industries while Greene's oil and gas dependency simultaneously fell. In terms of nominal contributions, Greene and Perry contributed the largest shares of oil and gas production in 2010 and 2011, but the extreme growth in George in 2012 dominated the industry in that year, leaving Greene with just 23.7% of the industry's production (down from 78.0% in 2011).

Table 204. Oil and Gas Contributions to GDP by MS-2 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|--------------------|--|-------------|-------------|--|-------------|-------------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| George | 0.0 | 0.1 | 3.3 | 2.4 | 2.9 | 70.5 |
| Greene | 1.2 | 2.8 | 1.8 | 56.5 | 78.0 | 23.7 |
| Perry | 0.7 | 0.6 | 0.2 | 31.3 | 15.1 | 2.8 |
| Stone | 0.1 | 0.1 | 0.2 | 9.8 | 4.0 | 3.0 |
| Region MS-2 | 0.4 | 0.7 | 1.6 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.20.2 Earnings by Place-of-Work

The MS-2 region place-of-work earnings grew at a consistent, moderate pace in each of the years in the time period. Stone was the only county to not see these growth trends, but its relatively small size could not prevent the overall region's earnings from growing over the period. These data are presented in Table 205 and their distribution for 2013 is illustrated in Figure 117. This demonstrates the overall balance of general economic activity between counties within MS-2.

Table 205. Total Place-of-Work Earnings (in dollars) by EIA MS-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|--------------------|--------------------|--------------------|--------------------|
| George | 207,271,594 | 219,169,185 | 245,808,800 | 253,515,464 |
| Greene | 117,374,113 | 127,393,206 | 150,375,479 | 152,392,614 |
| Perry | 115,151,592 | 116,341,353 | 142,955,439 | 145,546,247 |
| Stone | 192,452,746 | 191,022,438 | 190,677,118 | 193,550,842 |
| Region MS-2 | 632,250,045 | 653,926,182 | 729,816,836 | 745,005,167 |

Source: Emsi (2015)

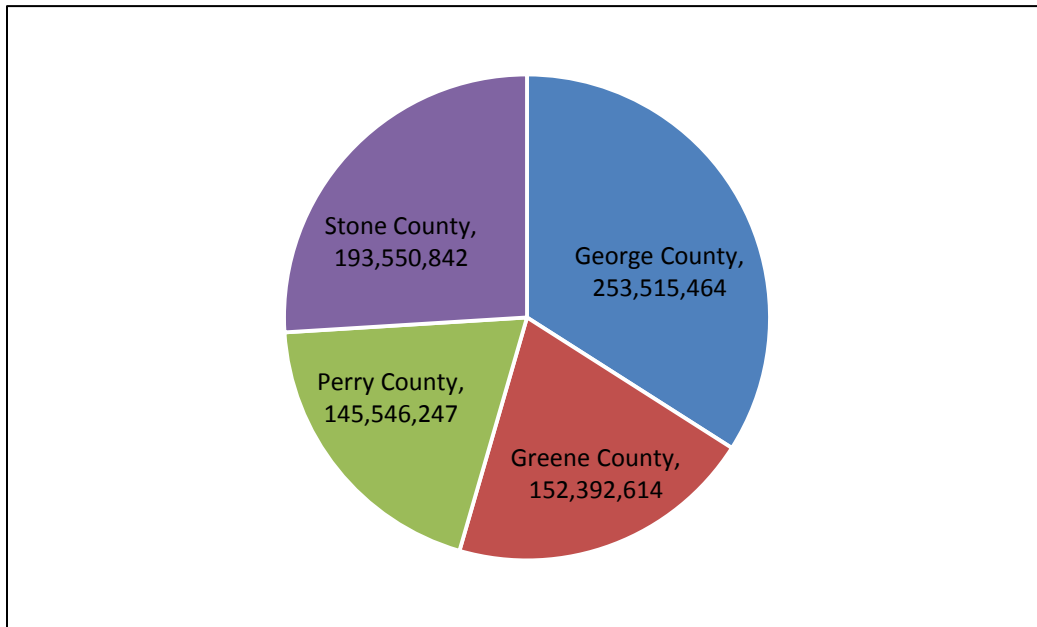


Figure 117. Total Place-of-Work Earnings (in dollars) by MS-2 County from 2013

Source: Emsi (2015)

Table 206 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Remarkably, the growth in output seen in the previous section in George County's oil and gas production is not apparent in the oil and gas earnings data at the same level. There is a nearly five-fold increase from 2011 to 2012, and that increase is then built upon in 2013, but the 62-fold increase in GDP is not apparent here indicating that the increase did not translate linearly to earnings increases. This could be a function of the relatively small nominal values in MS-2. Contractions in Greene and Stone offset the growth in George such that the regional oil and gas earnings did not even double from 2010 to 2013.

Table 206. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by MS-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-----------|-----------|-----------|------------|
| George | 1,254,347 | 731,847 | 5,275,312 | 6,284,019 |
| Greene | 3,375,652 | 2,609,192 | 1,707,460 | 1,642,283 |
| Perry | 854,647 | 560,126 | 693,150 | 1,290,116 |
| Stone | 1,061,477 | 1,464,454 | 1,226,541 | 965,751 |
| Region MS-2 | 6,546,123 | 5,365,620 | 8,902,463 | 10,182,169 |

Source: Emsi (2015)

Table 207 details the percentage of each county's total earnings produced in oil- and gas-related industries. As with GDP, only Greene sourced a significant amount of its earnings in oil- and gas-related industries in 2010 and 2011. The growth in George boosted its oil and gas earnings share in 2012 and 2013, spurring higher concentration in the region as a whole.

The nominal contributions also follow similar trends as MS-2 GDP distributions. In 2010 and 2011 most of MS-2's oil and gas earnings were produced in Greene, but that shifted to George in 2012 and 2013.

Table 207. Oil and Gas Contributions to Place-of-Work Earnings by MS-2 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| George | 0.6 | 0.3 | 2.1 | 2.5 | 19.2 | 13.6 | 59.3 | 61.7 |
| Greene | 2.9 | 2.0 | 1.1 | 1.1 | 51.6 | 48.6 | 19.2 | 16.1 |
| Perry | 0.7 | 0.5 | 0.5 | 0.9 | 13.1 | 10.4 | 7.8 | 12.7 |
| Stone | 0.6 | 0.8 | 0.6 | 0.5 | 16.2 | 27.3 | 13.8 | 9.5 |
| Region MS-2 | 1.0 | 0.8 | 1.2 | 1.4 | - | - | - | - |

Table 208. Oil and Gas Contributions to Place-of-Work Earnings by MS-2 County from 2010 to 2013

Source: Emsi (2015)

2.20.3 Employment

In 2013, the MS-2 region produced 21,506 jobs. Most of the counties in the region remained somewhat constant in terms of total jobs. George saw growth of about 500 jobs over the period, but the other counties remained relatively stable. These data are presented in Table 208 and their distribution in 2013 is illustrated in Figure 118.

Table 209. Total Jobs by MS-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| George | 6,938 | 7,163 | 7,350 | 7,497 |
| Greene | 4,058 | 4,160 | 4,173 | 4,365 |
| Perry | 3,725 | 3,748 | 3,809 | 3,856 |
| Stone | 5,811 | 5,798 | 5,706 | 5,788 |
| Region MS-2 | 20,532 | 20,869 | 21,037 | 21,506 |

Source: Emsi (2015)

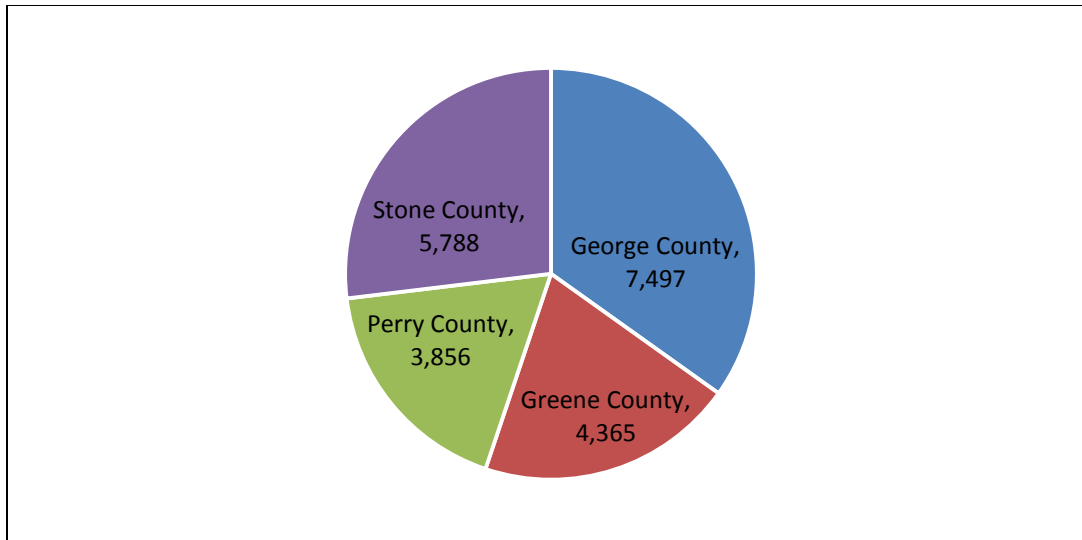


Figure 118. Total Jobs by MS-2 County from 2013

Source: Emsi (2015)

Table 209 shows the number of jobs in each MS-2 county that were sourced in oil and gas-related industries (as defined by the earnings industry cluster from Table 7). The number of total oil and gas industry jobs in the region fell consistently from 2010 to 2012 and then rose slightly in 2013. This trend holds for the individual counties in general. Overall, the region sourced fewer than 100 jobs in each of the 2012 and 2013 years.

Table 210. Jobs in Oil- and Gas-Related Industries by MS-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------|------|------|------|
| George | 14 | 14 | 7 | 14 |
| Greene | 79 | 53 | 36 | 33 |
| Perry | 26 | 25 | 19 | 25 |
| Stone | 12 | 11 | 11 | 8 |
| Region MS-2 | 131 | 103 | 73 | 80 |

Source: Emsi (2015)

Table 210 details the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. In 2010 and 2011, only Greene sourced more than 1% of its total jobs in oil and gas industries. However, in 2012 and 2013, none of the MS-2 counties sourced a significant number of oil and gas jobs.

Table 211. Oil and Gas Contributions to Jobs by MS-2 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| George | 0.2 | 0.2 | 0.1 | 0.2 | 10.8 | 13.3 | 9.6 | 17.2 |
| Greene | 1.9 | 1.3 | 0.9 | 0.8 | 59.9 | 51.6 | 50.2 | 41.3 |
| Perry | 0.7 | 0.7 | 0.5 | 0.7 | 20.2 | 24.7 | 25.5 | 31.8 |
| Stone | 0.2 | 0.2 | 0.2 | 0.1 | 9.1 | 10.4 | 14.7 | 9.7 |
| Region MS-2 | 0.6 | 0.5 | 0.3 | 0.4 | - | - | - | - |

Source: Emsi (2015)

2.20.4 Personal Income

In 2013, the MS-2 counties received \$1.8 billion in personal income. Each county saw steady, slight growth over the time period resulting in a similar growth path for the region at-large. These data are presented in Table 211 and their distribution in 2013 is illustrated in Figure 119.

Table 212. Personal Income (in dollars) by MS-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| George | 561,236,000 | 570,410,000 | 597,685,000 | 614,340,000 |
| Greene | 318,470,000 | 324,363,000 | 335,130,000 | 346,575,000 |
| Perry | 280,024,000 | 282,385,000 | 293,711,000 | 299,841,000 |
| Stone | 486,646,000 | 511,952,000 | 511,224,000 | 506,780,000 |
| Region MS-2 | 1,646,376,000 | 1,689,110,000 | 1,737,750,000 | 1,767,536,000 |

Source: Emsi (2015)

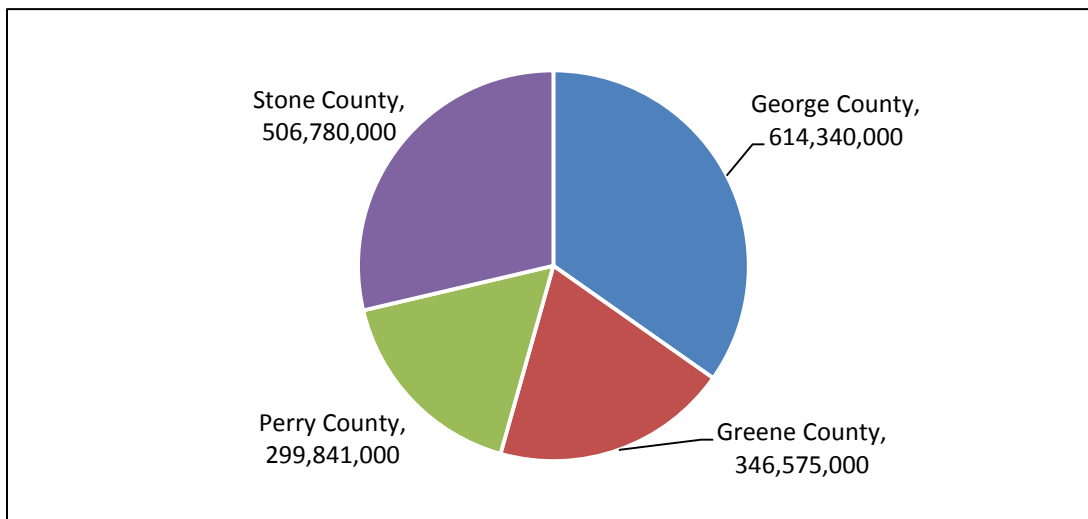


Figure 119. Total Personal Income (in dollars) by MS-2 County from 2013

Source: Emsi (2015)

Figure 120 presents the per capita income data 2013 for each county in MS-2. Stone, the smallest county, had the highest level of per capita income in 2013 (\$28,129) and Greene had the lowest (\$24,331).

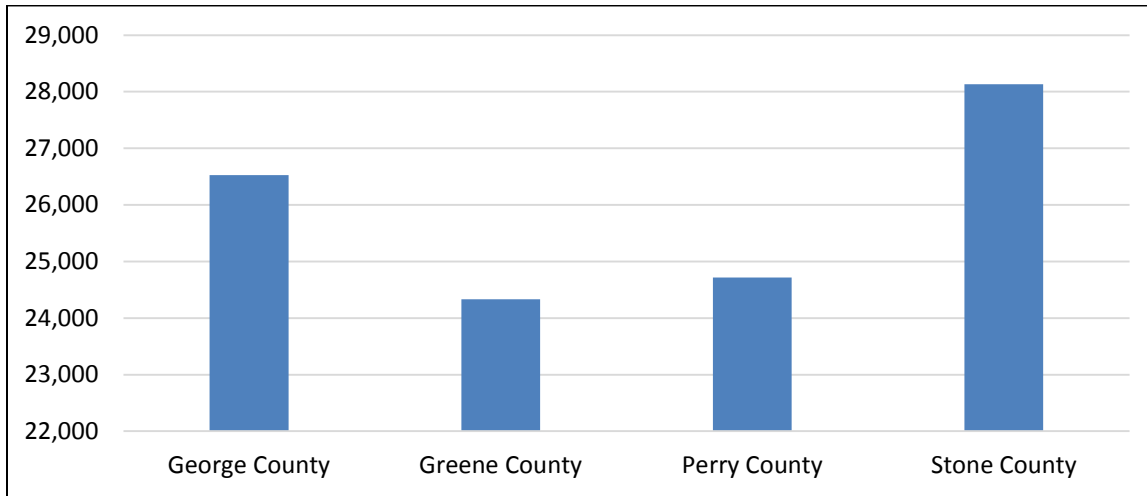


Figure 120. Per Capita Income (in dollars) by MS-2 County from 2013

Source: Emsi (2015)

2.20.5 Demographics

The 2013 demographic data are presented in Table 212. The MS-2 region had a regional poverty rate of 18.4% in 2013. The range of poverty rates among the counties is less than five percent implying that the counties are quite similar in terms of poverty. In 2013, the MS-2 region had a population that was 19.0% minority. Greene had the highest minority population percentage (27.5%) and Perry and Stone came in just above the regional average. George, on the other hand, had a significantly lower minority population percentage (10.2%).

Table 213. Demographic Data by MS-2 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| George | 16.8% | 10.2% |
| Greene | 18.8% | 27.5% |
| Perry | 21.5% | 21.8% |
| Stone | 18.0% | 21.4% |
| Region MS-2 | 18.4% | 19.0% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.21 Intra-Regional Comparison of the Economic Impact Area (EIA) TX-1

EIA TX-1 includes 11 Texas counties: Brooks, Cameron, Duval, Hidalgo, Jim Hogg, Kenedy, Kleberg, Starr, Webb, Willacy, and Zapata. The TX-1 counties were home to 1,650,676 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 709,981 jobs, earned \$24.1 billion in total earnings (excluding corporate profits), \$46.5 billion in GDP, and \$40.8 billion in personal income in 2013.

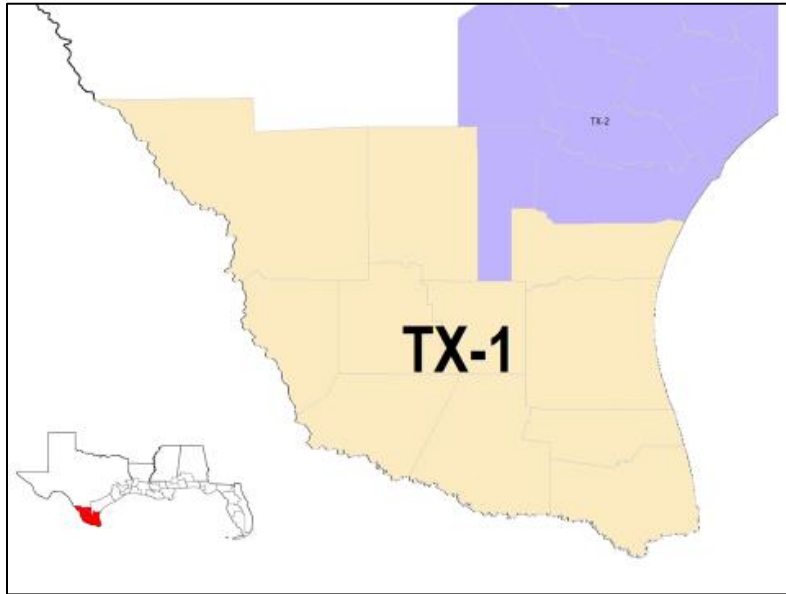


Figure 121. Map of EIA Region TX-1

2.21.1 Gross Domestic Product

Table 213 presents the total GDP estimates for each county in TX-1. Approximately 88.6% of the total TX-1 GDP comes from Cameron, Hidalgo, and Webb, which contain the Brownsville-Harlingen, McAllen-Edinburg-Mission, and the Laredo MSA respectively. Jim Hogg, Kenedy, and Willacy each produced less than one percent of TX-1's total GDP in 2013. Thus, the other eight counties in TX-1 combined compose less than 10% of its total GDP, revealing this region's economic focus in its three MSAs. The distribution of GDP over the TX-1 counties in 2013 is shown in Figure 122, which demonstrates the degree to which the economy of TX-1 was centered on Cameron, Hidalgo, and Webb.

Table 214. Total GDP (in dollars) by TX-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|------------|----------------|----------------|----------------|----------------|
| Brooks | 240,985,088 | 265,747,310 | 573,045,593 | 560,096,172 |
| Cameron | 10,456,736,249 | 10,838,449,579 | 11,078,027,988 | 11,431,616,196 |
| Duval | 343,045,775 | 407,799,796 | 482,956,090 | 533,167,972 |
| Hidalgo | 17,830,829,503 | 19,159,329,743 | 20,068,488,874 | 20,990,690,435 |
| Jim Hogg | 186,773,558 | 206,655,200 | 239,150,927 | 242,185,834 |
| Kenedy | 54,245,883 | 56,860,915 | 183,720,584 | 205,044,207 |
| Kleberg | 1,151,025,062 | 1,259,905,121 | 1,385,263,152 | 1,422,804,749 |
| Starr | 1,066,131,251 | 1,137,089,585 | 1,203,946,139 | 1,255,964,845 |
| Webb | 7,199,228,341 | 7,880,640,841 | 8,511,586,810 | 8,803,129,121 |
| Willacy | 387,775,048 | 428,269,968 | 399,786,676 | 412,721,934 |
| Zapata | 427,213,457 | 521,927,645 | 644,912,770 | 672,234,862 |

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| Regions TX-1 | 39,343,989,215 | 42,162,675,702 | 44,770,885,603 | 46,529,656,327 |

Source: Varnado and Fannin (2015) and Emsi (2015)

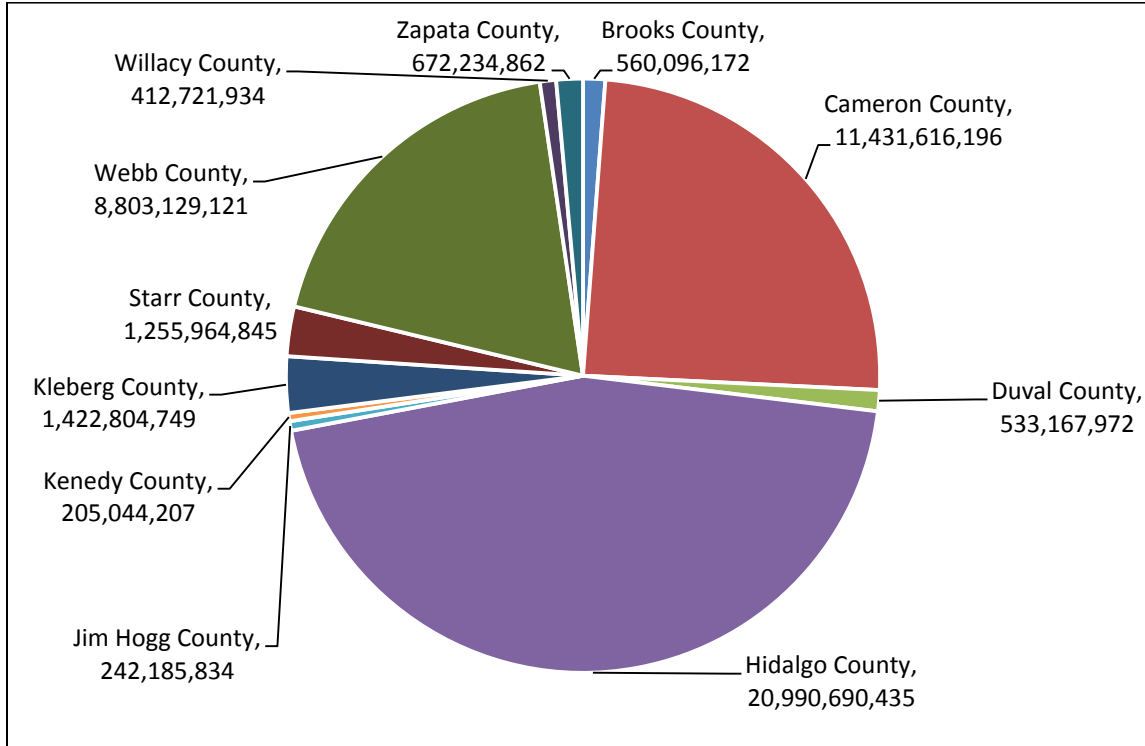


Figure 122. Total GDP (in dollars) by TX-1 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 214 presents levels of GDP in oil- and gas-related industries from 2010 to 2012. Hidalgo and Webb produce 31.0% and 31.1% of the oil- and gas-related GDP in TX-1. Although Cameron produced a large portion of overall TX-1 GDP (24.6%), it produced a relatively small percentage of TX-1's GDP in oil- and gas-related industries (1.1%). Conversely, Duval only produced 1.1% of TX-1's total GDP, but produced 6.5% of the TX-1's GDP in oil- and gas-related industries, which accounted for 46.7% of Duval's total GDP in 2013.

Table 215. GDP in Oil- and Gas-Related Industries (in dollars) by TX-1 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|------------|-------------|-------------|---------------|
| Brooks | 52,539,136 | 66,282,726 | 89,794,653 |
| Cameron | 40,957,823 | 43,169,657 | 36,665,941 |
| Duval | 141,810,057 | 185,192,889 | 225,340,784 |
| Hidalgo | 585,559,365 | 891,396,911 | 1,073,425,404 |
| Jim Hogg | 27,896,796 | 31,597,471 | 25,018,323 |
| Kenedy | 21,091,083 | 32,432,612 | 153,156,471 |
| Kleberg | 113,922,021 | 150,676,022 | 154,188,120 |
| Starr | 65,522,868 | 81,685,277 | 92,269,455 |
| Webb | 507,060,299 | 763,456,929 | 1,076,797,677 |

| EIA County | 2010 | 2011 | 2012 |
|--------------|---------------|---------------|---------------|
| Willacy | 2,989,732 | 8,750,954 | 11,582,528 |
| Zapata | 235,232,531 | 394,757,503 | 525,245,368 |
| Regions TX-1 | 1,794,581,711 | 2,649,398,951 | 3,463,484,725 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 215 details the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of TX-1 oil and gas GDP. Duval, Kenedy, and Zapata presented the highest levels of GDP dependence on oil- and gas-related industries, but Cameron, Hidalgo, and Willacy exhibited much lower dependence. The TX-1 regional dependency increased steadily from 4.6% to 7.7% of total GDP being earned in oil- and gas-related industries in 2010 and 2012 respectively.

Hidalgo, Webb, and Zapata all contributed more than 10% of the total EIA oil and gas GDP in each of the three years, and Brooks, Cameron, Jim Hogg, Kenedy, Starr, and Willacy each produced less than 5% of TX-1 oil and gas GDP in each year.

Table 216. Oil and Gas Contributions to GDP by TX-1 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|--------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Brooks | 21.8 | 24.9 | 15.7 | 2.9 | 2.5 | 2.6 |
| Cameron | 0.4 | 0.4 | 0.3 | 2.3 | 1.6 | 1.1 |
| Duval | 41.3 | 45.4 | 46.7 | 7.9 | 7.0 | 6.5 |
| Hidalgo | 3.3 | 4.7 | 5.3 | 32.6 | 33.6 | 31.0 |
| Jim Hogg | 14.9 | 15.3 | 10.5 | 1.6 | 1.2 | 0.7 |
| Kenedy | 38.9 | 57.0 | 83.4 | 1.2 | 1.2 | 4.4 |
| Kleberg | 9.9 | 12.0 | 11.1 | 6.3 | 5.7 | 4.5 |
| Starr | 6.1 | 7.2 | 7.7 | 3.7 | 3.1 | 2.7 |
| Webb | 7.0 | 9.7 | 12.7 | 28.3 | 28.8 | 31.1 |
| Willacy | 0.8 | 2.0 | 2.9 | 0.2 | 0.3 | 0.3 |
| Zapata | 55.1 | 75.6 | 81.4 | 13.1 | 14.9 | 15.2 |
| Regions TX-1 | 4.6 | 6.3 | 7.7 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.21.2 Earnings by Place-of-Work

The majority of total earnings in TX-1 were earned in Cameron, Hidalgo, and Webb, which accounted for 88.6% of the \$24.1 billion in place-of-work earnings produced by TX-1. Jim Hogg, Kenedy, and Willacy each accounted for less than 1% of total TX-1 earnings. These data are presented in Table 216 and their distribution for 2013 is illustrated in Figure 123. This data further confirms the economic dependence of TX-1 on Cameron, Hidalgo, and Webb counties.

Table 217. Total Place-of-Work Earnings (in dollars) by EIA TX-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|------------|---------------|----------------|----------------|----------------|
| Brooks | 131,265,132 | 140,435,687 | 300,201,737 | 290,659,587 |
| Cameron | 5,695,808,303 | 5,727,640,698 | 5,803,453,133 | 5,932,389,846 |
| Duval | 186,857,823 | 215,504,136 | 253,006,495 | 276,685,310 |
| Hidalgo | 9,712,493,871 | 10,124,857,433 | 10,513,291,243 | 10,893,031,805 |

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| Jim Hogg | 101,735,987 | 109,208,123 | 125,284,139 | 125,681,335 |
| Kenedy | 29,547,857 | 30,048,476 | 96,245,812 | 106,406,841 |
| Kleberg | 626,966,000 | 665,804,070 | 725,698,634 | 738,358,628 |
| Starr | 580,724,146 | 600,901,498 | 630,711,983 | 651,777,751 |
| Webb | 3,921,436,248 | 4,164,569,746 | 4,458,970,062 | 4,568,347,373 |
| Willacy | 211,221,961 | 226,321,715 | 209,436,484 | 214,180,337 |
| Zapata | 232,704,153 | 275,815,650 | 337,850,838 | 348,853,496 |
| Regions TX-1 | 21,430,761,483 | 22,281,107,231 | 23,454,150,560 | 24,146,372,308 |

Source: Emsi (2015)

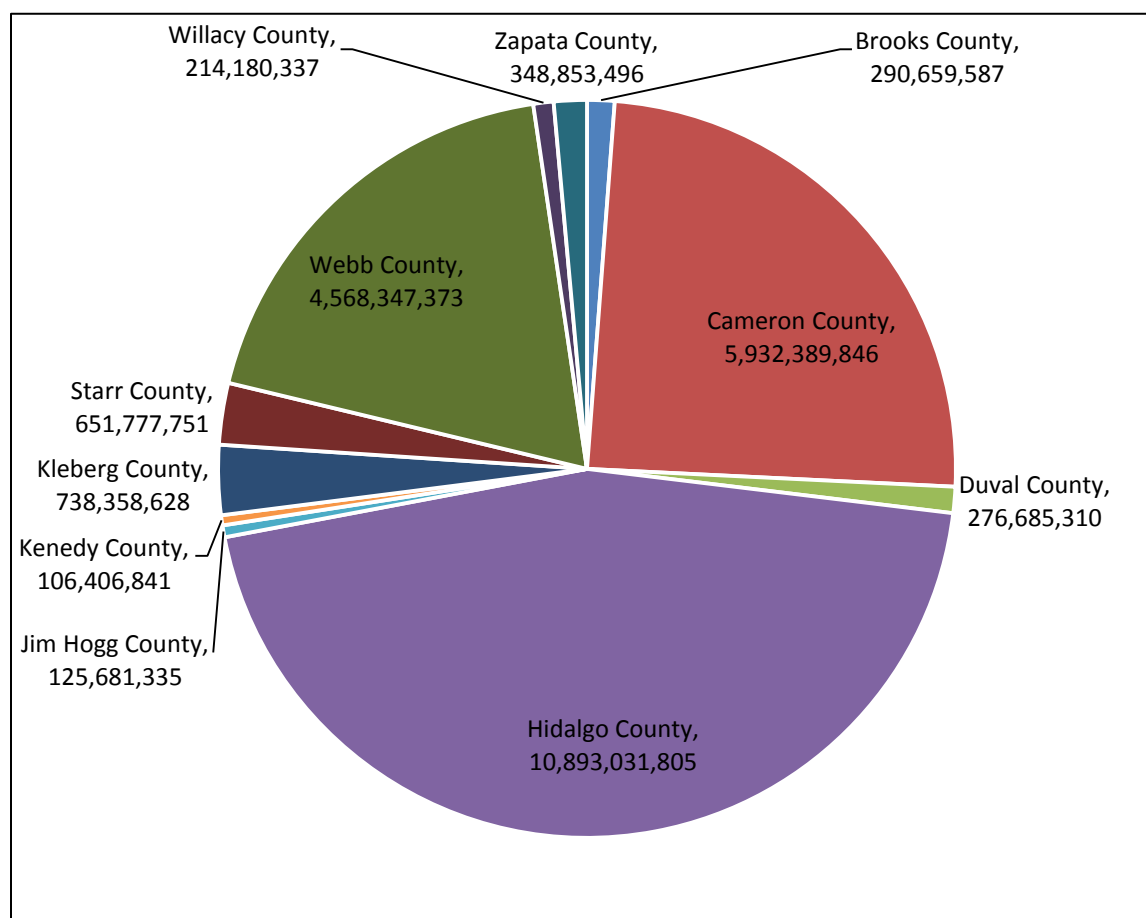


Figure 123. Total Place-of-Work Earnings (in dollars) by TX-1 County from 2013

Source: Emsi (2015)

Table 217 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Hidalgo and Webb each produced 27.8% of TX-1's total oil- and gas-related earnings in 2013, together accounting for \$519,696,488 of the total \$934,983,013 earned in TX-1. Zapata County produced 13.6% of TX-1's oil and gas earnings, which accounted for 36.4% of Zapata County's earnings from all industries. Jim Hogg and Willacy each contributed to less than 1% of the total EIA earnings.

Table 218. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by TX-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|-------------|-------------|-------------|-------------|
| Brooks | 16,145,884 | 17,272,158 | 21,461,055 | 23,333,974 |
| Cameron | 80,424,386 | 71,880,317 | 97,849,944 | 88,069,194 |
| Duval | 46,970,318 | 52,979,831 | 51,546,729 | 52,367,079 |
| Hidalgo | 175,819,069 | 221,597,354 | 250,262,639 | 259,595,532 |
| Jim Hogg | 7,855,919 | 7,724,865 | 5,956,908 | 5,282,861 |
| Kenedy | 16,774,777 | 21,387,660 | 34,650,149 | 41,361,214 |
| Kleberg | 36,093,619 | 41,972,722 | 43,941,721 | 47,439,088 |
| Starr | 19,451,382 | 20,508,181 | 21,858,054 | 23,346,106 |
| Webb | 153,196,444 | 194,230,144 | 251,358,117 | 260,373,956 |
| Willacy | 9,365,895 | 2,328,033 | 2,520,640 | 6,668,977 |
| Zapata | 67,143,946 | 95,176,586 | 118,014,496 | 127,145,033 |
| Regions TX-1 | 629,241,639 | 747,057,850 | 899,420,453 | 934,983,013 |

Source: Emsi (2015)

Table 218 details the percentage of each county's total earnings produced in oil- and gas-related industries. Kenedy, as mentioned previously, was heavily oil and gas dependent, and an annual average of 50.7% of its earnings were produced in those industries. Zapata and Duval also heavily depended on oil- and gas-related industries. The rest of the counties all obtained less than 10% of total earnings in oil- and gas-related industries in any given year. The region as a whole averaged 3.5% of total earnings in oil and gas industries annually.

Table 218 also shows the yearly distribution of earnings related to oil and gas activity among the counties in TX-1. Hidalgo and Webb accounted for roughly half of the total oil and gas earnings in TX-1. However, they produced relatively low proportions of their county earnings in those industries when compared to the concentrations in Kenedy, Zapata, and Duval.

Table 219. Oil and Gas Contributions to Place-of-Work Earnings by TX-1 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Brooks | 12.3 | 12.3 | 7.1 | 8.0 | 2.6 | 2.3 | 2.4 | 2.5 |
| Cameron | 1.4 | 1.3 | 1.7 | 1.5 | 12.8 | 9.6 | 10.9 | 9.4 |
| Duval | 25.1 | 24.6 | 20.4 | 18.9 | 7.5 | 7.1 | 5.7 | 5.6 |
| Hidalgo | 1.8 | 2.2 | 2.4 | 2.4 | 27.9 | 29.7 | 27.8 | 27.8 |
| Jim Hogg | 7.7 | 7.1 | 4.8 | 4.2 | 1.2 | 1.0 | 0.7 | 0.6 |
| Kenedy | 56.8 | 71.2 | 36.0 | 38.9 | 2.7 | 2.9 | 3.9 | 4.4 |
| Kleberg | 5.8 | 6.3 | 6.1 | 6.4 | 5.7 | 5.6 | 4.9 | 5.1 |
| Starr | 3.3 | 3.4 | 3.5 | 3.6 | 3.1 | 2.7 | 2.4 | 2.5 |
| Webb | 3.9 | 4.7 | 5.6 | 5.7 | 24.3 | 26.0 | 27.9 | 27.8 |
| Willacy | 4.4 | 1.0 | 1.2 | 3.1 | 1.5 | 0.3 | 0.3 | 0.7 |
| Zapata | 28.9 | 34.5 | 34.9 | 36.4 | 10.7 | 12.7 | 13.1 | 13.6 |
| Region TX-1 | 2.9 | 3.4 | 3.8 | 3.9 | - | - | - | - |

Source: Emsi (2015)

2.21.3 Employment

In 2013, the TX-1 region produced 709,981 jobs. Approximately 90.2% of those jobs were sourced in Cameron, Hidalgo, and Webb counties. No other county contributed more than 3.4% of the total jobs in the TX-1 region. These data are in Table 219 and Figure 124 shows their distribution for 2013. The figure highlights the counties with the largest economic activity in terms of GDP and earnings also host the largest shares of jobs in TX-1.

Table 220. Total Jobs by TX-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Brooks | 3,633 | 3,821 | 3,952 | 4,075 |
| Cameron | 168,711 | 171,567 | 177,780 | 182,277 |
| Duval | 5,505 | 5,749 | 6,106 | 6,380 |
| Hidalgo | 306,681 | 315,229 | 324,041 | 333,442 |
| Jim Hogg | 2,804 | 2,861 | 3,150 | 3,177 |
| Kenedy | 640 | 548 | 705 | 864 |
| Kleberg | 16,493 | 16,972 | 17,330 | 17,760 |
| Starr | 22,932 | 22,858 | 23,430 | 23,820 |
| Webb | 113,313 | 117,883 | 121,274 | 124,602 |
| Willacy | 6,503 | 6,305 | 6,340 | 6,453 |
| Zapata | 5,703 | 6,280 | 6,842 | 7,130 |
| Region TX-1 | 652,916 | 670,074 | 690,951 | 709,981 |

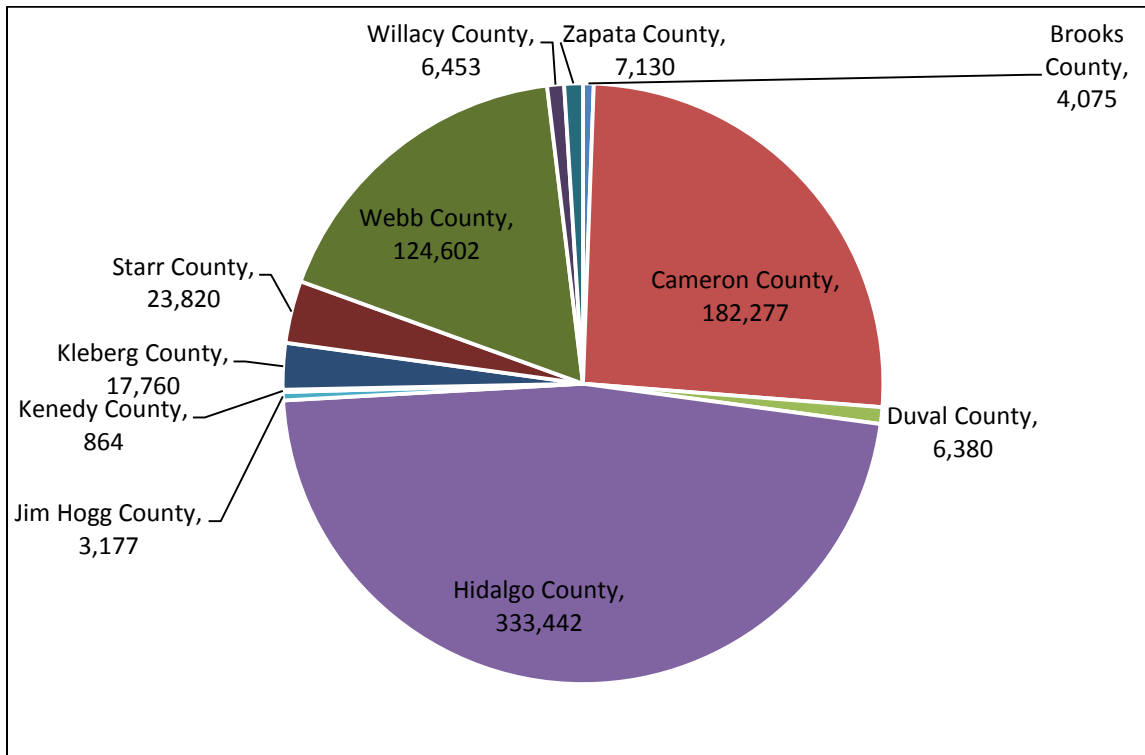


Figure 124. Total Jobs by TX-1 County from 2013

Source: Emsi (2015)

Table 220 shows the number of jobs in each TX-1 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). In 2013, four counties contributed more than 10% of the regional oil and gas jobs: Cameron (12.5%), Hidalgo (27.4%), Webb (26.1%), and Zapata (12.6%). Willacy was the only county to contribute less than 1% of regional oil and gas jobs.

Table 221. Jobs in Oil- and Gas-Related Industries by TX-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-------|--------|--------|--------|
| Brooks | 208 | 225 | 281 | 349 |
| Cameron | 1,775 | 1,402 | 1,769 | 1,720 |
| Duval | 922 | 960 | 895 | 902 |
| Hidalgo | 2,768 | 3,018 | 3,478 | 3,761 |
| Jim Hogg | 141 | 132 | 141 | 132 |
| Kenedy | 161 | 195 | 226 | 362 |
| Kleberg | 634 | 692 | 700 | 799 |
| Starr | 283 | 276 | 319 | 334 |
| Webb | 1,952 | 2,363 | 3,209 | 3,572 |
| Willacy | 209 | 36 | 39 | 48 |
| Zapata | 871 | 1,166 | 1,390 | 1,731 |
| Region TX-1 | 9,922 | 10,465 | 12,446 | 13,711 |

Source: Emsi (2015)

Table 221 details the percentage of each county's total jobs that it sources from oil and gas related industries from 2010 to 2013. Duval, Kenedy, and Zapata annually sourced more than 15% of their total number of jobs from oil- and gas-related industries. These counties represented small numbers of total jobs, which is seen in the TX-1 regional average labor market penetration which sourced 1.9% of total TX-1 jobs in oil- and gas-related industries.

As seen with GDP and earnings, while some of the smaller counties contributed large portions of their individual economies to the oil and gas industry, those contributions accounted for a relatively smaller amount of the total EIA oil and gas jobs; Cameron, Hidalgo, and Webb accounted for the largest shares.

Table 222. Oil and Gas Contributions to Jobs by TX-1 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Brooks | 5.7 | 5.9 | 7.1 | 8.6 | 2.1 | 2.2 | 2.3 | 2.5 |
| Cameron | 1.1 | 0.8 | 1.0 | 0.9 | 17.9 | 13.4 | 14.2 | 12.5 |
| Duval | 16.7 | 16.7 | 14.7 | 14.1 | 9.3 | 9.2 | 7.2 | 6.6 |
| Hidalgo | 0.9 | 1.0 | 1.1 | 1.1 | 27.9 | 28.8 | 27.9 | 27.4 |
| Jim Hogg | 5.0 | 4.6 | 4.5 | 4.2 | 1.4 | 1.3 | 1.1 | 1.0 |
| Kenedy | 25.1 | 35.6 | 32.1 | 41.9 | 1.6 | 1.9 | 1.8 | 2.6 |
| Kleberg | 3.8 | 4.1 | 4.0 | 4.5 | 6.4 | 6.6 | 5.6 | 5.8 |
| Starr | 1.2 | 1.2 | 1.4 | 1.4 | 2.8 | 2.6 | 2.6 | 2.4 |
| Webb | 1.7 | 2.0 | 2.6 | 2.9 | 19.7 | 22.6 | 25.8 | 26.1 |
| Willacy | 3.2 | 0.6 | 0.6 | 0.7 | 2.1 | 0.3 | 0.3 | 0.3 |
| Zapata | 15.3 | 18.6 | 20.3 | 24.3 | 8.8 | 11.1 | 11.2 | 12.6 |
| Region TX-1 | 1.5 | 1.6 | 1.8 | 1.9 | - | - | - | - |

Source: Emsi (2015)

2.21.4 Personal Income

In 2013, the TX-1 counties received \$40.8 billion in personal income. Hidalgo accounted for 46.2% of those earnings, and Cameron (25.4%) and Webb (17.5%) were the only other counties to earn more than 3.2% of the total TX-1 personal income. These data are presented in Table 222 and Figure 125 shows their distribution from 2013. As expected, this data reinforce the dependence of TX-1 on its largest three counties.

Table 223. Personal Income (in dollars) by TX-1 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Brooks | 207,683,000 | 228,616,000 | 237,833,000 | 238,846,000 |
| Cameron | 9,416,395,000 | 9,781,129,000 | 10,131,522,000 | 10,349,169,000 |
| Duval | 369,208,000 | 422,405,000 | 451,668,000 | 469,642,000 |
| Hidalgo | 16,965,278,000 | 17,789,208,000 | 18,341,843,000 | 18,827,748,000 |
| Jim Hogg | 172,743,000 | 191,120,000 | 202,043,000 | 206,005,000 |
| Kenedy | 18,140,000 | 22,489,000 | 25,836,000 | 26,986,000 |
| Kleberg | 1,026,884,000 | 1,118,128,000 | 1,179,555,000 | 1,198,464,000 |
| Starr | 1,185,372,000 | 1,234,714,000 | 1,254,054,000 | 1,289,490,000 |
| Webb | 6,120,518,000 | 6,598,888,000 | 6,966,936,000 | 7,114,194,000 |
| Willacy | 573,075,000 | 598,081,000 | 591,383,000 | 596,158,000 |
| Zapata | 328,090,000 | 374,622,000 | 424,797,000 | 434,915,000 |
| Region TX-1 | 36,383,386,000 | 38,359,400,000 | 39,807,470,000 | 40,751,617,000 |

Source: Emsi (2015)

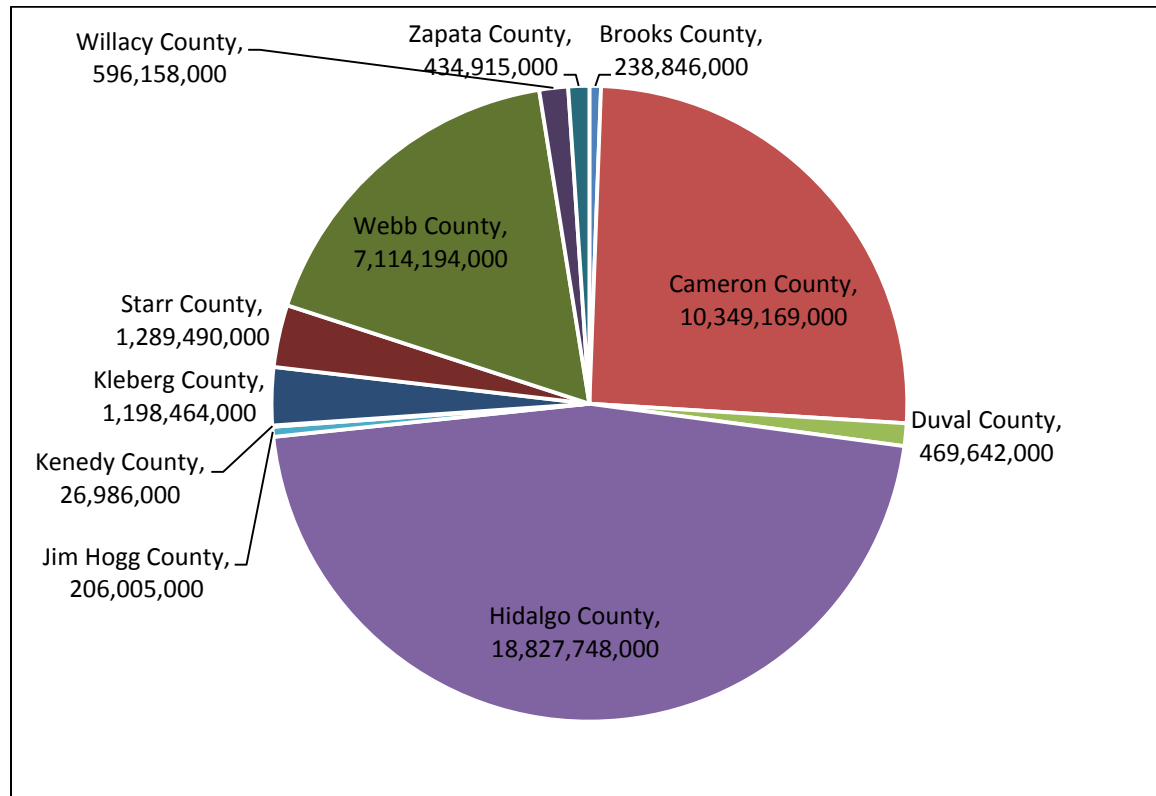


Figure 125. Total Personal Income (in dollars) by TX-1 County from 2013

Source: Emsi (2015)

Figure 126 shows the per capita income data in 2013 for each county in TX-1, and for the region as a whole. Kenedy, which has relatively few people, jobs, and production, boasts the highest per capita income. Conversely, Cameron, Hidalgo, and Webb, the largest and most productive counties in TX-1, show relatively lower levels of per capita income.

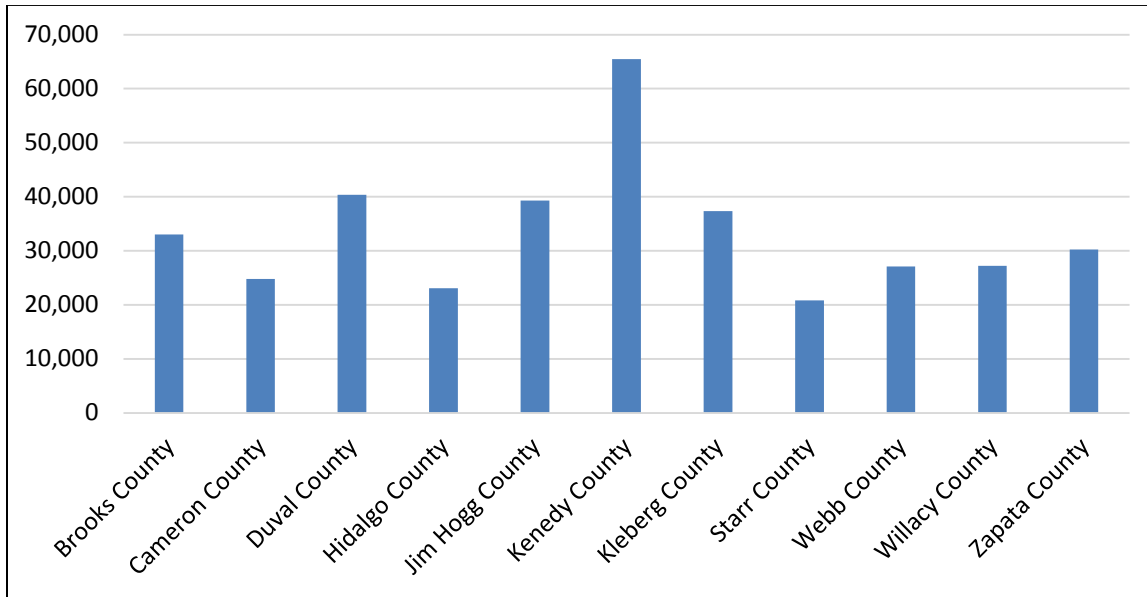


Figure 126. Per Capita Income (in dollars) by TX-1 County from 2013

Source: Emsi (2015)

2.21.5 Demographics

The 2013 demographic data are presented in Table 36. The TX-1 region had a regional poverty rate of 33.4% in 2013. Seven counties had poverty rates above 30%, led by Starr at 38.8%; only Kenedy was below 20%. The data are presented in Table 223 with data on minority population percentages. In 2013, TX-1 had a population that was 12.1% minority. Kleberg had the highest minority population percentage with 20.1%. Conversely, Starr and Zapata each had less 3.9% and 6.4% of their total populations composed by minorities..

Table 224. Demographic Data by TX-1 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Brooks | 32.6% | 10.4% |
| Cameron | 35.6% | 13.0% |
| Duval | 25.4% | 13.0% |
| Hidalgo | 33.3% | 12.0% |
| Jim Hogg | 24.7% | 12.1% |
| Kenedy | 12.5% | 12.5% |
| Kleberg | 23.2% | 20.1% |
| Starr | 38.8% | 3.9% |
| Webb | 31.3% | 12.0% |
| Willacy | 31.5% | 14.2% |
| Zapata | 32.3% | 6.4% |
| Region TX-1 | 33.4% | 12.1% |

Source: Emsi (2015)

2.22 Intra-Regional Comparison of the Economic Impact Area (EIA) TX-2

EIA TX-2 comprises 13 Texas counties: Aransas, Bee, Calhoun, Goliad, Jackson, Jim Wells, Live Oak, Matagorda, Nueces, Refugio, San Patricio, Victoria, and Wharton. The TX-2 counties were home to 747,949 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 421,068 jobs, earned \$19.2 billion in total earnings (excluding corporate profits), \$36.9 billion in GDP, and \$31.3 billion in personal income in 2013.

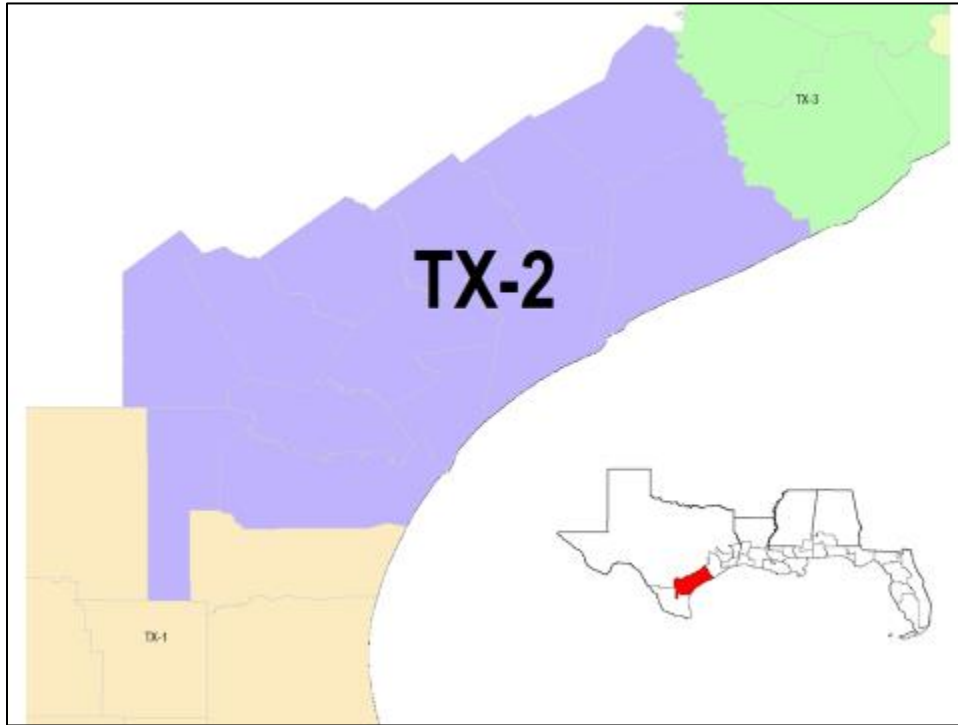


Figure 127. Map of EIA Region TX-2

2.22.1 Gross Domestic Product

Table 224 presents the total GDP estimates for each county in TX-2 and the distribution of GDP in 2013 is illustrated in Figure 128. Approximately 51.4% of the total GDP in TX-2 was produced in Nueces, which is the center of the Corpus Christi MSA. San Patricio and Aransas are also in the Corpus Christi MSA. The only other TX-2 county that contributed more than 10% to the regional GDP is Victoria (13.0%). The remaining GDP was distributed somewhat evenly over the rest of the TX-2 counties. The region as a whole saw moderate, consistent growth over the period, and this holds true for most of the counties.

Table 225. Total GDP (in dollars) by TX-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|------------|---------------|---------------|---------------|---------------|
| Aransas | 547,892,812 | 597,180,898 | 669,573,210 | 722,756,573 |
| Bee | 812,445,830 | 870,618,943 | 970,033,599 | 1,086,090,907 |
| Calhoun | 1,276,847,901 | 1,445,154,937 | 1,458,758,138 | 1,630,850,034 |
| Goliad | 163,093,695 | 187,436,881 | 187,477,147 | 201,879,763 |
| Jackson | 474,985,747 | 547,230,733 | 607,569,722 | 612,685,761 |
| Jim Wells | 1,695,616,178 | 2,172,661,658 | 2,536,206,644 | 2,483,933,985 |

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| Live Oak | 363,886,867 | 435,120,505 | 616,810,555 | 651,824,298 |
| Matagorda | 1,364,577,699 | 1,391,035,707 | 1,380,920,835 | 1,376,421,400 |
| Nueces | 16,178,963,629 | 17,136,384,316 | 18,218,167,183 | 18,965,725,301 |
| Refugio | 258,390,107 | 286,154,711 | 317,226,345 | 334,910,618 |
| San Patricio | 1,933,534,377 | 2,205,548,751 | 2,423,729,583 | 2,464,952,634 |
| Victoria | 3,748,563,179 | 4,050,947,494 | 4,441,525,789 | 4,786,728,169 |
| Wharton | 1,304,526,658 | 1,425,156,483 | 1,533,948,049 | 1,587,592,242 |
| Region TX-2 | 30,123,324,679 | 32,750,632,016 | 35,361,946,801 | 36,906,351,685 |

Source: Varnado and Fannin (2015) and Emsi (2015)

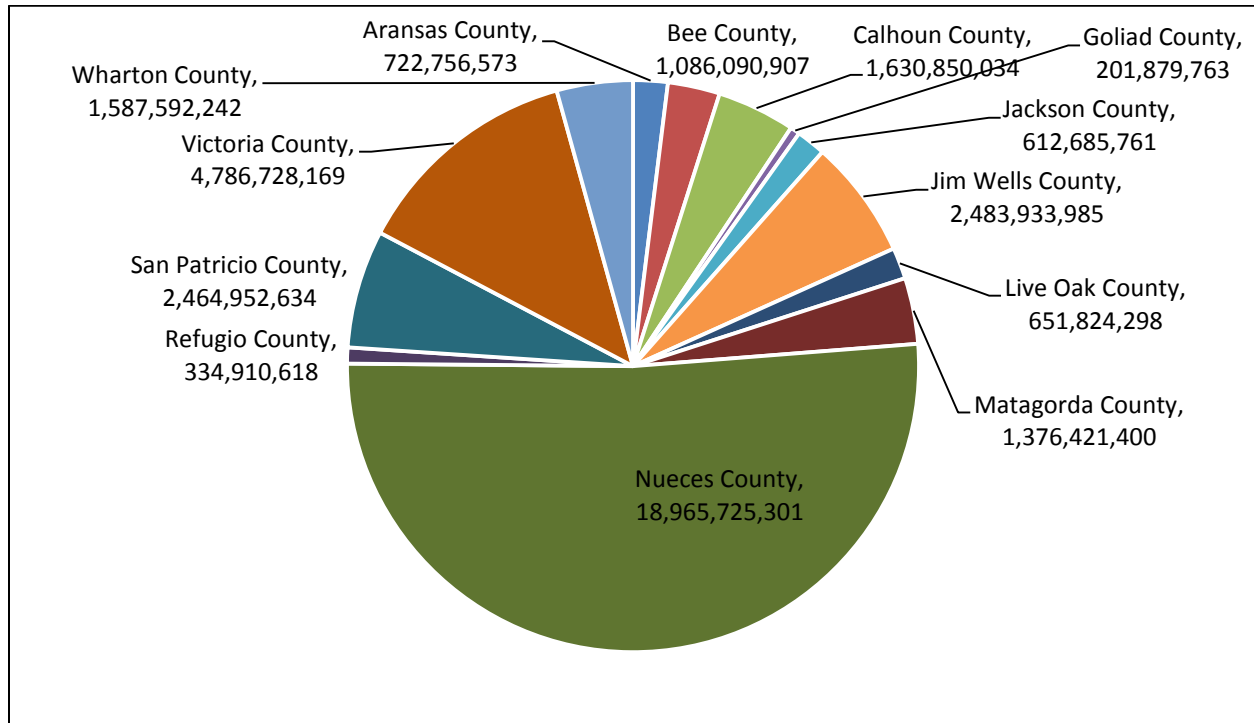


Figure 128. Total GDP (in dollars) by TX-2 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 225 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. The region saw consistent, substantial growth in oil and gas GDP over the period with almost a 45% increase from 2010 to 2011 and another, smaller increase into 2012. Calhoun was the only county to lose considerable amounts of oil and gas GDP over the period. The remaining counties saw consistent growth.

Table 226. GDP in Oil- and Gas-Related Industries (in dollars) by TX-2 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|------------|-------------|-------------|-------------|
| Aransas | 137,551,970 | 154,129,848 | 129,324,089 |
| Bee | 221,280,421 | 271,501,381 | 341,364,679 |
| Calhoun | 110,357,940 | 57,428,319 | 62,926,619 |
| Goliad | 31,997,578 | 36,322,860 | 30,736,659 |
| Jackson | 50,763,928 | 70,685,138 | 105,493,559 |

| EIA County | 2010 | 2011 | 2012 |
|--------------|---------------|---------------|---------------|
| Jim Wells | 1,012,552,557 | 1,699,640,841 | 2,352,962,292 |
| Live Oak | 125,995,932 | 202,422,283 | 409,904,401 |
| Matagorda | 63,500,209 | 100,316,190 | 132,529,185 |
| Nueces | 2,047,684,683 | 2,780,920,705 | 3,048,988,317 |
| Refugio | 185,538,009 | 229,517,126 | 241,521,793 |
| San Patricio | 233,601,231 | 295,113,058 | 444,063,406 |
| Victoria | 748,801,497 | 1,087,089,487 | 1,246,588,158 |
| Wharton | 204,438,938 | 304,750,742 | 324,715,988 |
| Region TX-2 | 5,174,064,894 | 7,289,837,978 | 8,871,119,145 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 226 details the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) and each county's percentage of TX-2 oil and gas GDP. The TX-2 region shows high oil and gas GDP shares with only Calhoun and Matagorda sourcing less than 10% of their total GDP in oil- and gas-related industries. Jim Wells, Live Oak and Refugio show extremely high oil and gas dependency. Aransas, Bee, Victoria, and Wharton all show oil and gas GDP making up 20% or more of their total GDP. The region as a whole sourced 17.2% of its GDP in those industries, but that number rose to 22.3% in 2011 and again to 25.1% in 2012 implying a high level of oil and gas dependency in the region. Nominally, Nueces produced roughly a third of the region's oil and gas GDP annually. Jim Wells and Victoria were also significant contributors to oil and gas GDP.

Table 227. Oil and Gas Contributions to GDP by TX-2 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|--------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Aransas | 25.1 | 25.8 | 19.3 | 2.7 | 2.1 | 1.5 |
| Bee | 27.2 | 31.2 | 35.2 | 4.3 | 3.7 | 3.8 |
| Calhoun | 8.6 | 4.0 | 4.3 | 2.1 | 0.8 | 0.7 |
| Goliad | 19.6 | 19.4 | 16.4 | 0.6 | 0.5 | 0.3 |
| Jackson | 10. | 12.9 | 17.4 | 1.0 | 1.0 | 1.2 |
| Jim Wells | 59.7 | 78.2 | 92.8 | 19.6 | 23.3 | 26.5 |
| Live Oak | 34.6 | 46.5 | 66.5 | 2.4 | 2.8 | 4.6 |
| Matagorda | 4.7 | 7.2 | 9.6 | 1.2 | 1.4 | 1.5 |
| Nueces | 12.7 | 16.2 | 16.7 | 39.6 | 38.1 | 34.4 |
| Refugio | 71.8 | 80.2 | 76.1 | 3.6 | 3.1 | 2.7 |
| San Patricio | 12.1 | 13.4 | 18.3 | 4.5 | 4.0 | 5.0 |
| Victoria | 20.0 | 26.8 | 28.1 | 14.5 | 14.9 | 14.1 |
| Wharton | 15.7 | 21.4 | 21.2 | 4.0 | 4.2 | 3.7 |
| Region TX-2 | 17.2 | 22.3 | 25.1 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.22.2 Earnings by Place-of-Work

Approximately 51.4% of total earnings in TX-2 were created in Nueces. Victoria produced 13.0% of the region's earnings, but the other counties contributed much smaller percentages in comparison. These data are presented in Table 227 and their distribution for 2013 is illustrated in Figure 129.

Table 228. Total Place-of-Work Earnings (in dollars) by EIA TX-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| Aransas | 298,438,476 | 315,583,663 | 350,769,717 | 375,071,528 |
| Bee | 442,541,113 | 460,083,562 | 508,172,080 | 563,622,375 |
| Calhoun | 695,501,991 | 763,700,396 | 764,200,496 | 846,322,866 |
| Goliad | 88,837,511 | 99,052,092 | 98,213,765 | 104,764,666 |
| Jackson | 258,725,830 | 289,187,212 | 318,287,913 | 317,950,737 |
| Jim Wells | 923,606,035 | 1,148,155,485 | 1,328,644,088 | 1,289,027,247 |
| Live Oak | 198,210,014 | 229,941,921 | 323,128,914 | 338,261,518 |
| Matagorda | 743,288,614 | 735,100,779 | 723,423,822 | 714,288,181 |
| Nueces | 8,812,718,728 | 9,055,820,347 | 9,543,962,115 | 9,842,184,541 |
| Refugio | 140,745,686 | 151,220,094 | 166,185,555 | 173,800,477 |
| San Patricio | 1,053,200,626 | 1,165,534,858 | 1,269,720,663 | 1,279,176,953 |
| Victoria | 2,041,850,991 | 2,140,746,383 | 2,326,784,766 | 2,484,052,744 |
| Wharton | 710,578,673 | 753,132,098 | 803,590,280 | 823,874,414 |
| Region TX-2 | 16,408,244,287 | 17,307,258,889 | 18,525,084,174 | 19,152,398,248 |

Source: Emsi (2015)

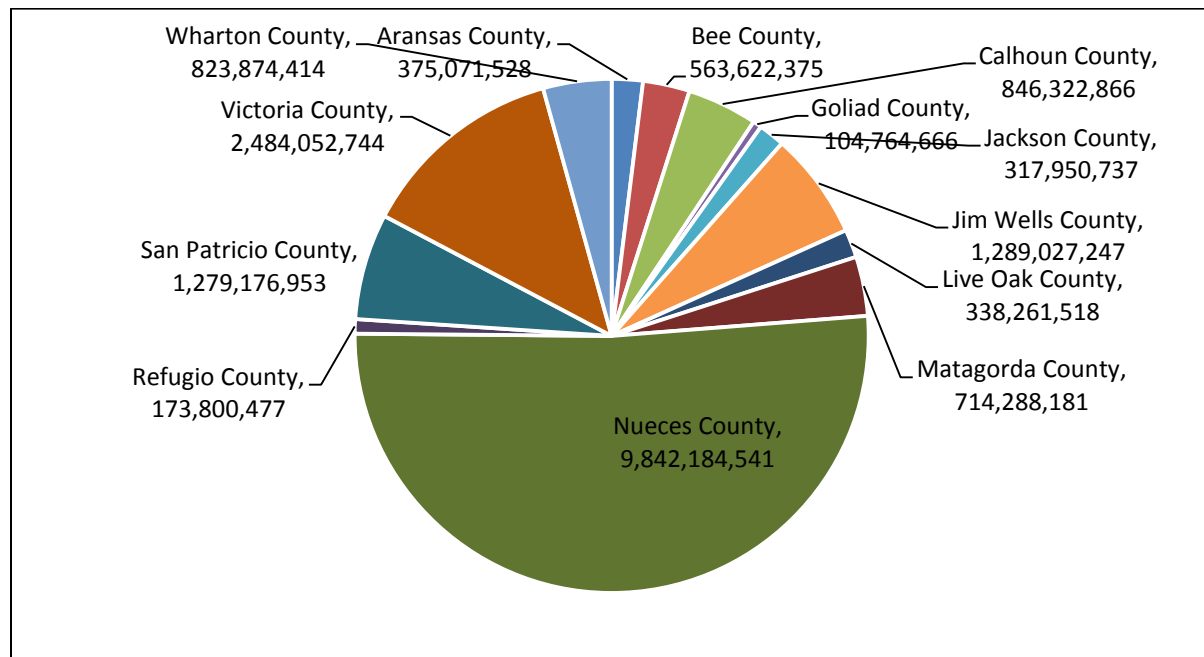


Figure 129. Total Place-of-Work Earnings (in dollars) by TX-2 County from 2013

Source: Emsi (2015)

Table 228 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The region as a whole saw steady, moderate growth in oil and gas earnings over the time period, but the individual counties saw their earnings rise and fall, and, in some cases, rise again through this short period. Approximately 74.4% of the oil and gas earnings in TX-2 were produced in Jim Wells, Nueces, and Victoria; Nueces alone accounted for 44.4% in 2013.

Table 229. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by TX-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|---------------|---------------|---------------|---------------|
| Aransas | 37,872,484 | 36,020,905 | 28,301,729 | 34,541,107 |
| Bee | 65,304,404 | 68,247,885 | 81,588,469 | 86,152,500 |
| Calhoun | 49,384,720 | 29,414,557 | 24,194,830 | 28,475,052 |
| Goliad | 9,250,122 | 9,447,555 | 8,710,916 | 11,626,484 |
| Jackson | 20,729,596 | 24,882,070 | 33,274,734 | 49,203,355 |
| Jim Wells | 310,380,800 | 441,235,945 | 563,836,985 | 539,765,495 |
| Live Oak | 54,541,886 | 71,855,561 | 123,057,847 | 128,425,408 |
| Matagorda | 65,617,260 | 72,561,772 | 84,234,927 | 61,211,635 |
| Nueces | 1,063,173,965 | 1,178,103,297 | 1,306,108,777 | 1,372,846,162 |
| Refugio | 52,579,874 | 56,356,928 | 59,876,790 | 58,746,156 |
| San Patricio | 111,204,911 | 146,944,145 | 219,983,616 | 230,584,140 |
| Victoria | 253,365,857 | 294,382,336 | 328,494,256 | 387,080,513 |
| Wharton | 69,291,210 | 86,305,403 | 89,822,991 | 102,675,115 |
| Region TX-2 | 2,162,697,088 | 2,515,758,359 | 2,951,486,867 | 3,091,333,123 |

Source: Emsi (2015)

Table 229 details the percentage of each county's total earnings produced in oil- and gas-related industries. As with GDP, TX-2 shows a high concentration of oil and gas contribution to place-of-work earnings. Only Calhoun and Matagorda sourced less than 10% of their earnings in oil- and gas-related industries, and even these two counties are considerably more oil and gas centric than counties in some of the other EIAs that reside on the eastern half of the Gulf Coast region. In terms of nominal contributions, Nueces consistently produced around 45% of the oil and gas earnings in TX-2. Jim Wells and Victoria also made sizeable contributions, but most of the other counties contributed relatively smaller amounts.

Table 230. Oil and Gas Contributions to Place-of-Work Earnings by TX-2 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|----------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Aransas | 12.7 | 11.4 | 8.1 | 9.2 | 1.8 | 1.4 | 1.0 | 1.1 |
| Bee | 14.8 | 14.8 | 16.1 | 15.3 | 3.0 | 2.7 | 2.8 | 2.8 |
| Calhoun | 7.1 | 3.9 | 3.2 | 3.4 | 2.3 | 1.2 | 0.8 | 0.9 |
| Goliad | 10.4 | 9.5 | 8.9 | 11.1 | 0.4 | 0.4 | 0.3 | 0.4 |
| Jackson | 8.0 | 8.6 | 10.5 | 15.5 | 1.0 | 1.0 | 1.1 | 1.6 |
| Jim Wells | 33.6 | 38.4 | 42.4 | 41.9 | 14.4 | 17.5 | 19.1 | 17.5 |
| Live Oak | 27.5 | 31.2 | 38.1 | 38.0 | 2.5 | 2.9 | 4.2 | 4.2 |
| Matagorda | 8.8 | 9.9 | 11.6 | 8.6 | 3.0 | 2.9 | 2.9 | 2.0 |
| Nueces | 12.1 | 13.0 | 13.7 | 13.9 | 49.2 | 46.8 | 44.3 | 44.4 |
| Refugio | 37.4 | 37.3 | 36.0 | 33.8 | 2.4 | 2.2 | 2.0 | 1.9 |
| San Patricio | 10.6 | 12.6 | 17.3 | 18.0 | 5.1 | 5.8 | 7.5 | 7.5 |
| Victoria | 12.4 | 13.8 | 14.1 | 15.6 | 11.7 | 11.7 | 11.1 | 12.5 |
| Wharton County | 9.8 | 11.5 | 11.2 | 12.5 | 3.2 | 3.4 | 3.0 | 3.3 |

| EIA County | Percentage of County Earnings in Oil & Gas | | | | Percentage of Total EIA Oil & Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Region TX-2 | 13.2 | 14.5 | 15.9 | 16.1 | - | - | - | - |

Source: Emsi (2015)

2.22.3 Employment

In 2013, the TX-2 region produced 421,068 jobs. Almost 49.9% of those jobs sourced from Nueces County. Only Victoria County (13.0%) contributed more than 10% of the total jobs in TX-2 from the remaining counties in the region. The region at-large saw steady, moderate job growth over the time period, and this pattern holds true for most of the individual counties as well. These data are presented in Table 230 and Figure 130 illustrates their distribution for 2013.

Table 231. Total Jobs by TX-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|---------|---------|---------|---------|
| Aransas | 10,251 | 10,356 | 10,983 | 11,546 |
| Bee | 12,519 | 12,796 | 13,403 | 14,047 |
| Calhoun | 12,731 | 13,291 | 12,939 | 13,978 |
| Goliad | 3,334 | 3,433 | 3,423 | 3,436 |
| Jackson | 7,319 | 7,698 | 8,007 | 7,962 |
| Jim Wells | 22,673 | 25,192 | 26,934 | 26,391 |
| Live Oak | 5,277 | 5,825 | 6,802 | 7,311 |
| Matagorda | 16,533 | 16,328 | 16,103 | 16,126 |
| Nueces | 200,230 | 203,812 | 205,409 | 210,220 |
| Refugio | 3,633 | 3,800 | 3,978 | 4,140 |
| San Patricio | 25,547 | 26,469 | 27,893 | 27,875 |
| Victoria | 50,189 | 51,480 | 53,455 | 54,865 |
| Wharton | 21,806 | 22,268 | 22,778 | 23,171 |
| Region TX-2 | 392,041 | 402,748 | 412,109 | 421,068 |

Source: Emsi (2015)

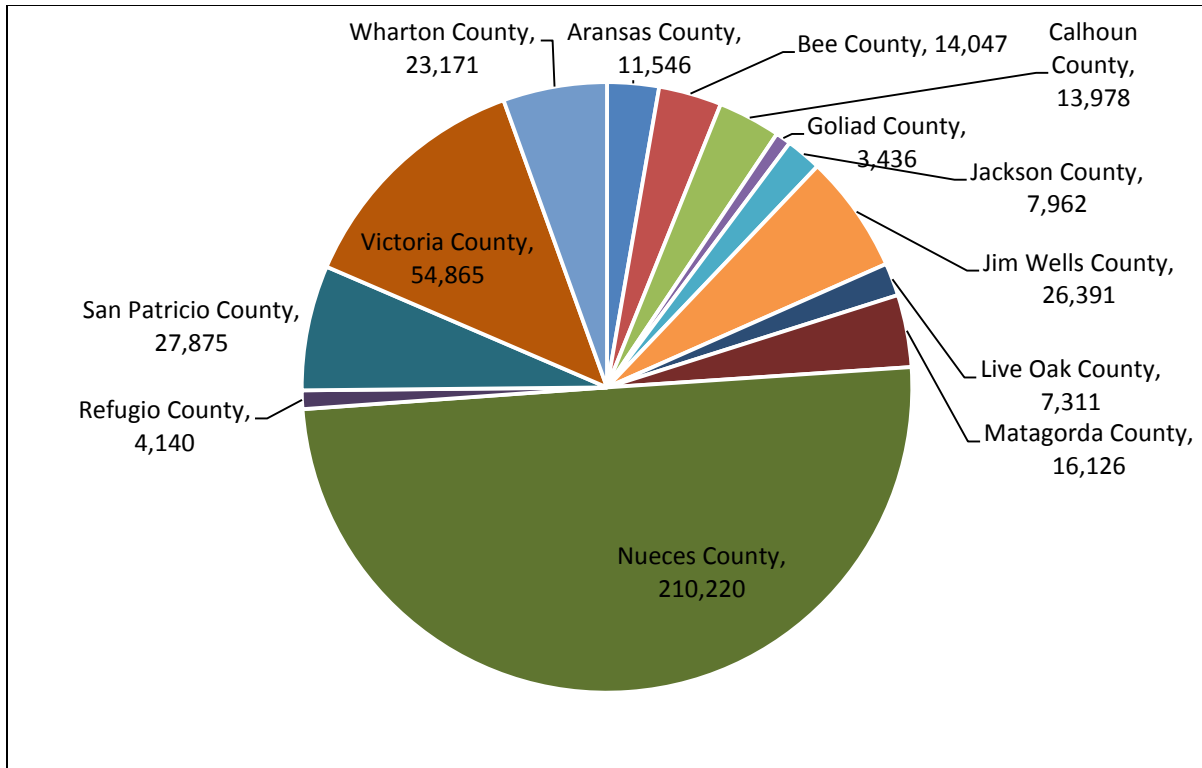


Figure 130. Total Jobs by TX-2 County from 2013

Source: Emsi (2015)

Table 231 shows the number of jobs in each TX-2 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). The TX-2 region saw moderate to high job growth in the oil and gas industries over the time period increasing by more than a third from 2010 to 2013. Though the individual counties showed slightly more variation than the regional average, the general pattern holds for the individual counties as well.

Table 232. Jobs in Oil- and Gas-Related Industries by TX-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|--------|--------|--------|--------|
| Aransas | 738 | 641 | 682 | 781 |
| Bee | 1,006 | 1,083 | 1,318 | 1,433 |
| Calhoun | 615 | 424 | 346 | 438 |
| Goliad | 172 | 151 | 204 | 247 |
| Jackson | 413 | 435 | 634 | 885 |
| Jim Wells | 3,873 | 5,086 | 6,400 | 6,214 |
| Live Oak | 922 | 1,159 | 1,869 | 2,103 |
| Matagorda | 818 | 838 | 1,029 | 943 |
| Nueces | 12,024 | 12,251 | 13,303 | 13,962 |
| Refugio | 571 | 662 | 791 | 790 |
| San Patricio | 1,634 | 1,924 | 3,007 | 2,807 |
| Victoria | 4,078 | 4,338 | 4,962 | 5,401 |
| Wharton | 1,179 | 1,264 | 1,471 | 1,594 |
| Region TX-2 | 28,046 | 30,256 | 36,015 | 37,600 |

Source: Emsi (2015)

Table 232 details the percentage of each county’s total jobs sourced from oil- and gas-related industries from 2010 to 2013. The TX-2 region showed moderate oil and gas shares of jobs compared to the GDP and earnings shares, steadily increasing from 7.2% in 2010 to 8.9% in 2013. However, this job proportion still showed higher oil and gas concentration than a majority of the other EIAs. Jim Wells, Live Oak, and Refugio each depended on oil- and gas-related industries for more than 15% of their jobs annually and only Calhoun consistently sourced less than five percent of its jobs in oil- and gas-related industries.

Jim Wells, Nueces, and Victoria produced an average of 69.8% of the oil and gas jobs in TX-2 annually. The other counties contributed relatively smaller amounts to the region’s total.

Table 233. Oil and Gas Contributions to Jobs by TX-2 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|--------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Aransas | 7.2 | 6.2 | 6.2 | 6.8 | 2.6 | 2.1 | 1.9 | 2.1 |
| Bee | 8.0 | 8.5 | 9.8 | 10.2 | 3.6 | 3.6 | 3.7 | 3.8 |
| Calhoun | 4.8 | 3.2 | 2.7 | 3.1 | 2.2 | 1.4 | 1.0 | 1.2 |
| Goliad | 5.2 | 4.4 | 6.0 | 7.2 | 0.6 | 0.5 | 0.6 | 0.7 |
| Jackson | 5.6 | 5.7 | 7.9 | 11.1 | 1.5 | 1.4 | 1.8 | 2.4 |
| Jim Wells | 17.1 | 20.2 | 23.8 | 23.5 | 13.8 | 16.8 | 17.8 | 16.5 |
| Live Oak | 17.5 | 19.9 | 27.5 | 28.8 | 3.3 | 3.8 | 5.2 | 5.6 |
| Matagorda | 4.9 | 5.1 | 6.4 | 5.8 | 2.9 | 2.8 | 2.9 | 2.5 |
| Nueces | 6.0 | 6.0 | 6.5 | 6.6 | 42.9 | 40.5 | 36.9 | 37.1 |
| Refugio | 15.7 | 17.4 | 19.9 | 19.1 | 2.0 | 2.2 | 2.2 | 2.1 |
| San Patricio | 6.4 | 7.3 | 10.8 | 10.1 | 5.8 | 6.4 | 8.3 | 7.5 |
| Victoria | 8.1 | 8.4 | 9.3 | 9.8 | 14.5 | 14.3 | 13.8 | 14.4 |
| Wharton | 5.4 | 5.7 | 6.5 | 6.9 | 4.2 | 4.2 | 4.1 | 4.2 |
| Region TX-2 | 7.2 | 7.5 | 8.7 | 8.9 | - | - | - | - |

Source: Emsi (2015)

2.22.4 Personal Income

In 2013, the TX-2 counties received \$31.3 billion in personal income. Nueces and Victoria accounted for 60.9% of the total personal income in TX-2 (47.4% in Nueces and 13.5% in Victoria), corroborating earlier data that implied these two counties were the economic center of TX-2. These data are presented in Table 233 and Figure 131 illustrates their distribution from 2013.

Table 234. Personal Income (in dollars) by TX-2 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|------------|----------------|----------------|----------------|----------------|
| Aransas | 933,207,000 | 991,759,000 | 1,115,978,000 | 1,146,565,000 |
| Bee | 821,427,000 | 898,898,000 | 968,845,000 | 1,021,201,000 |
| Calhoun | 667,152,000 | 735,324,000 | 767,732,000 | 781,914,000 |
| Goliad | 210,483,000 | 233,381,000 | 260,762,000 | 268,879,000 |
| Jackson | 441,823,000 | 470,092,000 | 524,687,000 | 541,854,000 |
| Jim Wells | 1,439,868,000 | 1,677,667,000 | 1,865,895,000 | 1,870,790,000 |
| Live Oak | 355,270,000 | 452,788,000 | 520,850,000 | 545,004,000 |
| Matagorda | 1,156,664,000 | 1,219,942,000 | 1,258,453,000 | 1,296,291,000 |
| Nueces | 12,528,416,000 | 13,488,031,000 | 14,366,370,000 | 14,841,683,000 |

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------|----------------|----------------|----------------|----------------|
| Refugio | 266,976,000 | 301,913,000 | 334,333,000 | 339,164,000 |
| San Patricio | 2,316,084,000 | 2,462,286,000 | 2,688,520,000 | 2,747,634,000 |
| Victoria | 3,416,574,000 | 3,718,773,000 | 4,032,762,000 | 4,234,963,000 |
| Wharton | 1,395,557,000 | 1,487,203,000 | 1,644,124,000 | 1,671,687,000 |
| Region TX-2 | 25,949,501,000 | 28,138,057,000 | 30,349,311,000 | 31,307,629,000 |

Source: Emsi (2015)

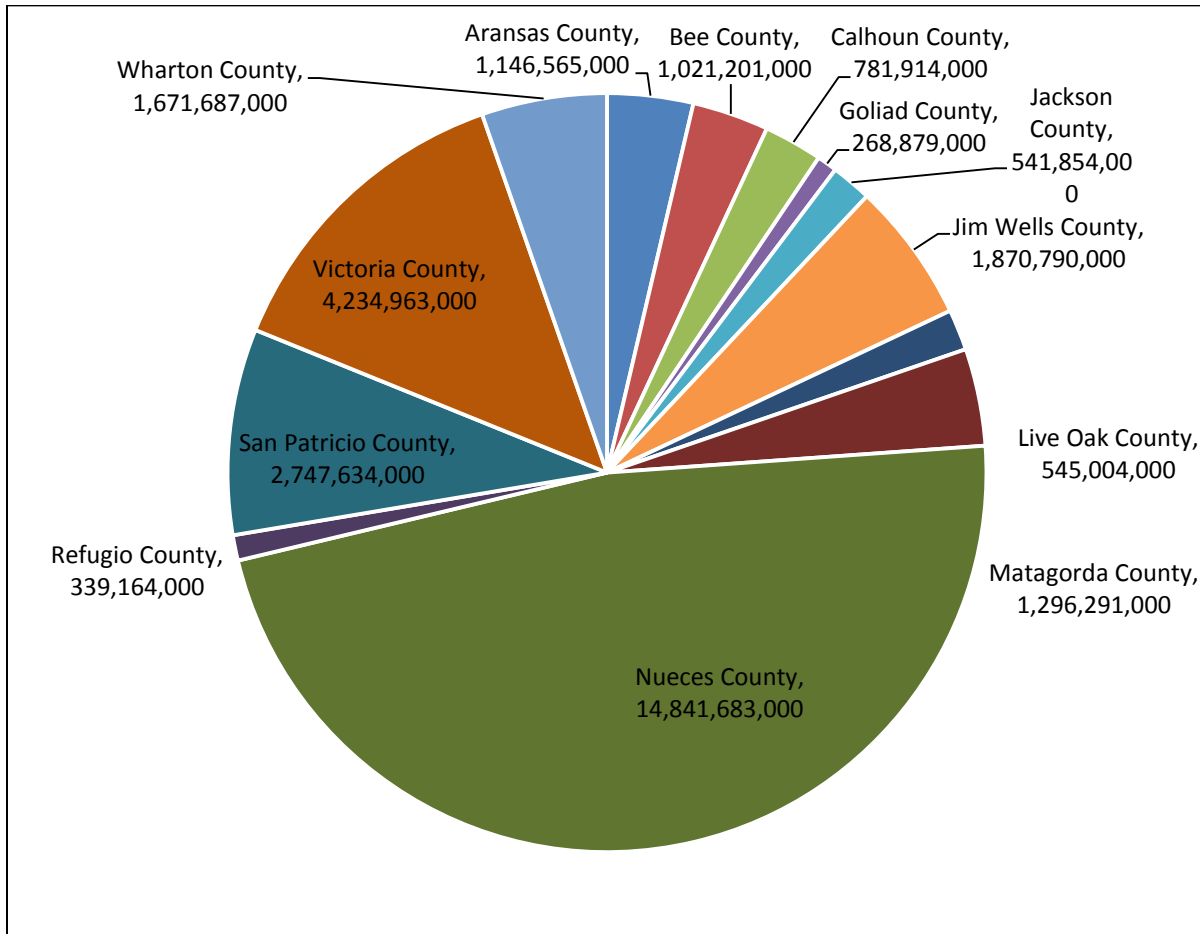


Figure 131. Total Personal Income (in dollars) by TX-2 County from 2013

Source: Emsi (2015)

Figure 132 shows the per capita income data 2013 for each county in TX-2. Aransas, Live Oak, Refugio, and Victoria all had per capita income levels above \$45,000 and Jim Wells was at \$44,885. These were the highest per capita income counties in TX-2. Bee had the lowest level of 2013 per capita income (\$31,135), almost a third less than the highest counties.

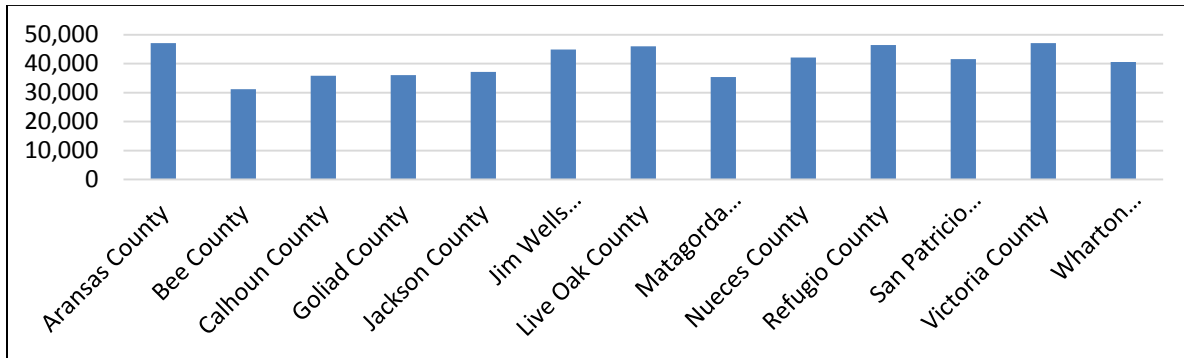


Figure 132. Per Capita Income (in dollars) by TX-2 County from 2013

Source: Emsi (2015)

2.22.5 Demographics

The 2013 demographic data are presented in Table 234. The TX-2 region had a regional poverty rate of 19.5% in 2013. The individual counties all center on this average number; Goliad had the lowest rate (15.3%) and Jim Wells had the highest (21.4%). In 2013, TX-2 had a population that was 18.9% minority. Matagorda and Wharton had the highest minority population percentage (28.8% and 27.8% respectively), and Live Oak had the lowest percentage (12.3%).

Table 235. Demographic Data by TX-2 County from 2013

| EIA County | Poverty | Minority |
|--------------|---------|----------|
| Aransas | 21.8% | 12.6% |
| Bee | 20.8% | 21.2% |
| Calhoun | 19.1% | 18.5% |
| Goliad | 15.3% | 16.3% |
| Jackson | 15.9% | 18.7% |
| Jim Wells | 21.4% | 12.8% |
| Live Oak | 16.8% | 12.3% |
| Matagorda | 19.6% | 28.8% |
| Nueces | 19.7% | 18.5% |
| Refugio | 17.4% | 19.5% |
| San Patricio | 20.7% | 14.1% |
| Victoria | 17.9% | 20.5% |
| Wharton | 19.0% | 27.8% |
| Region TX-2 | 19.5% | 18.9% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.23 Intra-Regional Comparison of the Economic Impact Area (EIA) TX-3

EIA TX-3 comprises five Texas counties: Brazoria, Fort Bend, Galveston, Harris, and Montgomery. The TX-3 counties were home to 6,125,379 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 3,674,531 jobs, earned \$229.8 billion in total earnings (excluding corporate profits), \$443.0 billion in GDP, and \$320.3 billion in personal income in 2013.

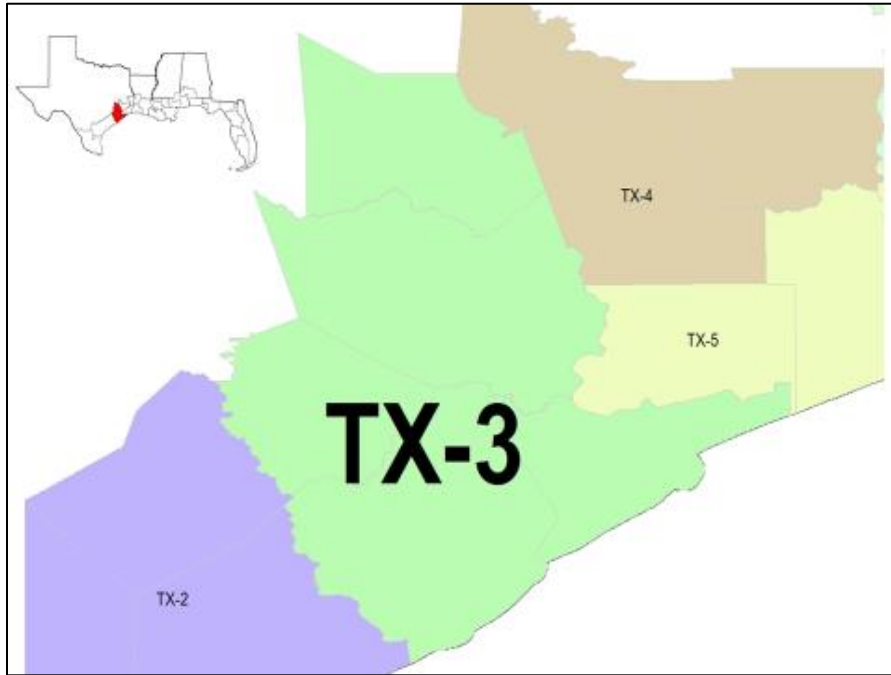


Figure 133. Map of EIA Region TX-3

2.23.1 Gross Domestic Product

Table 235 presents the total GDP estimates for each county in TX-3. Approximately 83.3% of this GDP was produced in Harris County, which is the economic center of Houston-Sugarland-Baytown MSA. No other county in TX-3 contributed more than 6.1% to the region's GDP. The distribution of GDP over the TX-3 counties in 2013 is shown in Figure 134, which demonstrates the degree to which the economy of TX-3 is centered on Harris County.

Table 236. Total GDP (in dollars) by TX-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-----------------|-----------------|-----------------|-----------------|
| Brazoria | 10,386,733,648 | 11,553,996,290 | 12,289,411,670 | 13,109,351,670 |
| Fort Bend | 18,882,230,316 | 20,845,790,333 | 24,257,332,268 | 26,933,841,981 |
| Galveston | 11,246,962,405 | 11,880,328,328 | 12,451,936,618 | 12,829,773,485 |
| Harris | 296,475,393,714 | 327,544,824,373 | 351,651,039,138 | 368,753,468,257 |
| Montgomery | 15,329,309,043 | 17,133,020,580 | 19,507,655,579 | 21,277,903,919 |
| Region TX-3 | 352,320,629,126 | 388,957,959,905 | 420,157,375,275 | 442,904,339,313 |

Source: Varnado and Fannin (2015) and Emsi (2015)

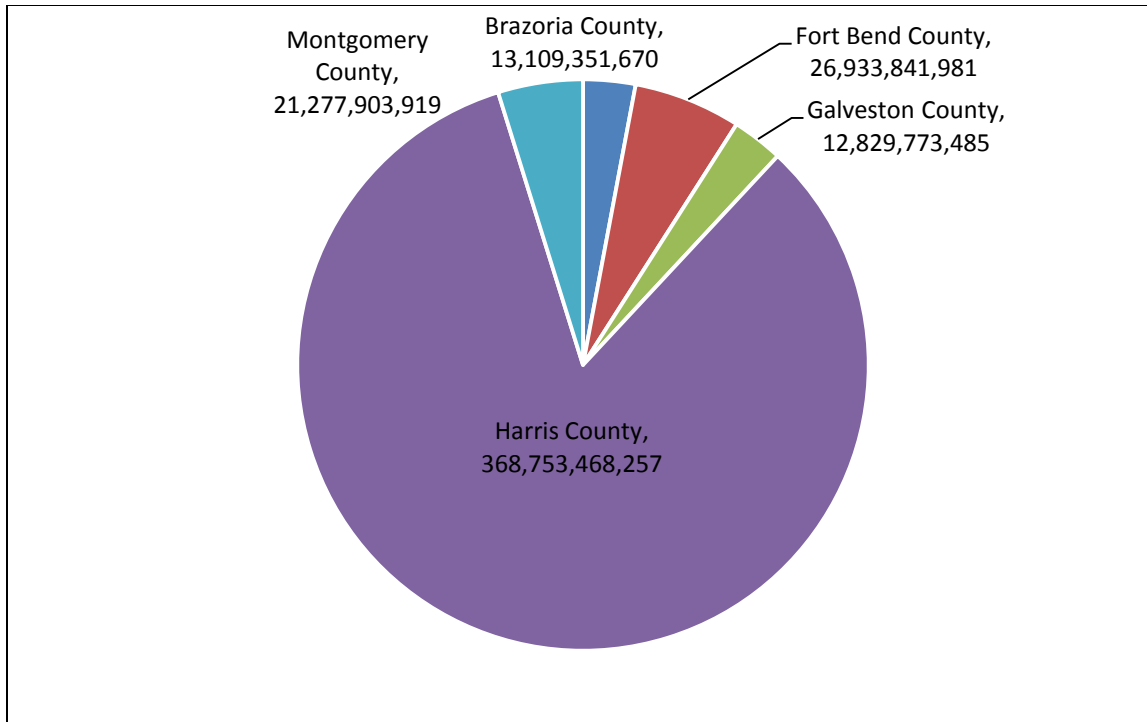


Figure 134. Total GDP (in dollars) by TX-3 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 236 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. Harris dominates the oil and gas GDP even more so than the overall GDP of the region, producing 83.3% of the region’s oil and gas total. The region also saw significant growth in oil and gas production in each year rising by roughly 50% from 2010 to 2012.

Table 237. GDP in Oil- and Gas-Related Industries (in dollars) by TX-3 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|--------------------|----------------|----------------|----------------|
| Brazoria | 558,057,973 | 765,618,158 | 952,384,066 |
| Fort Bend | 1,455,692,759 | 1,856,141,176 | 2,158,423,626 |
| Galveston | 361,864,815 | 432,634,698 | 539,654,275 |
| Harris | 56,069,635,321 | 73,750,937,993 | 84,291,772,008 |
| Montgomery | 1,856,793,681 | 2,470,373,525 | 3,101,496,999 |
| Region TX-3 | 60,302,044,549 | 79,275,705,551 | 91,043,730,974 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 237 details the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) and each county's percentage of TX-3 oil and gas GDP. Harris sourced an annual average of 21.8% of its GDP in oil- and gas-related industries, the most in TX-3. Galveston County had the least oil and gas GDP dependence but still sourced more than three percent of its total GDP in those industries. The region as a whole follows the path laid out by Harris due to its extremely large relative size. Predictably, Harris produced more than 92% of the region's oil and gas GDP in each year, dwarfing the size other TX-3 county's contributions.

Table 238. Oil and Gas Contributions to GDP by TX-3 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|--------------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Brazoria | 5.4 | 6.6 | 7.7 | 0.9 | 1.0 | 1.0 |
| Fort Bend | 7.7 | 8.9 | 8.9 | 2.4 | 2.3 | 2.4 |
| Galveston | 3.2 | 3.6 | 4.3 | 0.6 | 0.5 | 0.6 |
| Harris | 18.9 | 22.5 | 24.0 | 93.0 | 93.0 | 92.6 |
| Montgomery | 12.1 | 14.4 | 15.9 | 3.1 | 3.1 | 3.4 |
| Region TX-3 | 17.1 | 20.4 | 21.7 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.23.2 Earnings by Place-of-Work

The majority of total earnings in TX-3 also were produced in Harris County, which accounted for more than 80% of the \$229.8 billion in place-of-work earnings produced by TX-3. The region at-large showed consistent, moderate growth rates over the time period, but due to the large size of this EIA, those percentages translate to large nominal increases in place-of-work earnings from year-to-year. These data are presented in Table 238 and Figure 135 shows their distribution for 2013. This data further illustrates the economic dominance of Harris County in TX-3.

Table 239. Total Place-of-Work Earnings (in dollars) by EIA TX-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-----------------|-----------------|-----------------|-----------------|
| Brazoria | 5,657,677,725 | 6,105,775,452 | 6,438,061,426 | 6,803,043,717 |
| Fort Bend | 10,285,194,314 | 11,016,077,182 | 12,707,703,132 | 13,977,205,668 |
| Galveston | 6,126,246,309 | 6,278,227,485 | 6,523,203,468 | 6,657,957,777 |
| Harris | 161,490,829,346 | 173,092,936,661 | 184,219,639,738 | 191,363,084,049 |
| Montgomery | 8,349,909,919 | 9,054,042,761 | 10,219,487,171 | 11,042,080,052 |
| Region TX-3 | 191,909,857,613 | 205,547,059,541 | 220,108,094,934 | 229,843,371,264 |

Source: Emsi (2015)

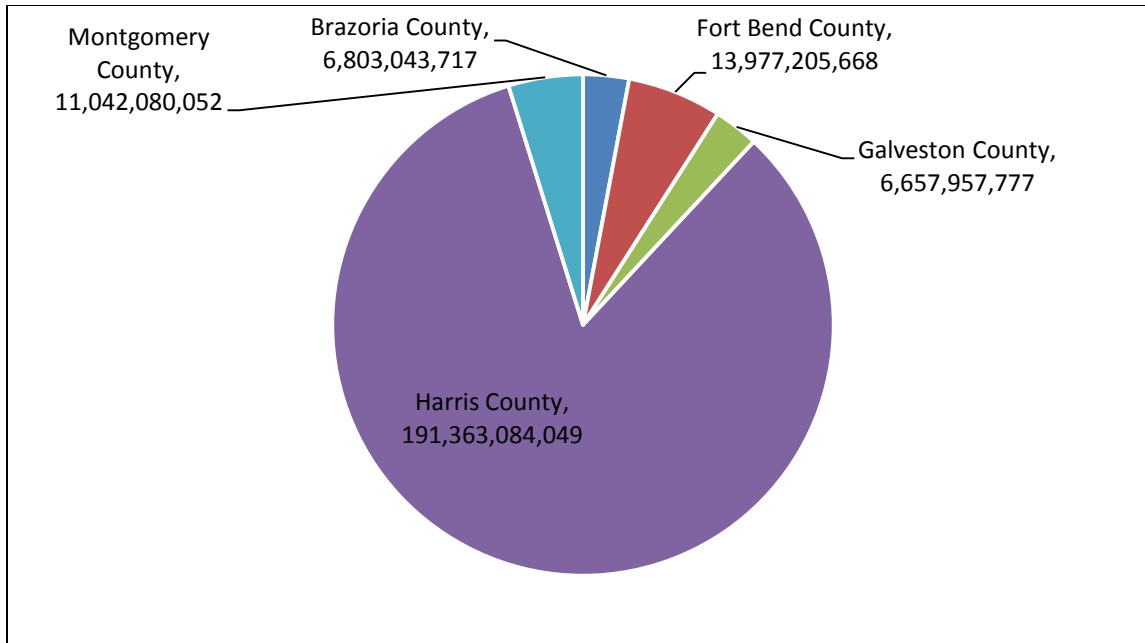


Figure 135. Total Place-of-Work Earnings (in dollars) by TX-3 County from 2013

Source: Emsi (2015)

Table 239 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. Harris County produced 87.1% of the region's oil and gas earnings in 2013 and spurred steady, moderate growth in the overall oil and gas earnings in TX-3. Brazoria and Montgomery contributed the next largest amounts, each with 3.8% of the regional total.

Table 240. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by TX-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Brazoria | 1,137,129,500 | 1,269,679,397 | 1,327,105,733 | 1,349,962,774 |
| Fort Bend | 648,053,601 | 710,811,372 | 808,534,755 | 1,068,469,529 |
| Galveston | 764,084,368 | 782,189,032 | 848,556,097 | 817,717,918 |
| Harris | 24,644,547,811 | 27,178,953,523 | 30,339,915,069 | 30,819,432,958 |
| Montgomery | 770,730,957 | 876,980,444 | 1,066,189,984 | 1,346,727,262 |
| Region TX-3 | 27,964,546,236 | 30,818,613,767 | 34,390,301,638 | 35,402,310,441 |

Source: Emsi (2015)

Table 240 details the percentage of each county’s total earnings produced in oil- and gas-related industries. Brazoria showed the highest level of oil and gas earnings share with about 20% of its earnings produced in those industries and Galveston had shares above 12% in each year. However, the regional averages were mostly influenced by the oil and gas shares in Harris which range from 15.3% in 2010 to 16.1% in 2013. Harris also produced over 80% of the annual oil and gas earnings in TX-3.

Table 241. Oil and Gas Contributions to Place-of-Work Earnings by TX-3 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Earnings | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Brazoria | 20.1 | 20.8 | 20.6 | 19.8 | 4.1 | 4.1 | 3.9 | 3.8 |
| Fort Bend | 6.3 | 6.5 | 6.4 | 7.6 | 2.3 | 2.3 | 2.4 | 3.0 |
| Galveston | 12.5 | 12.5 | 13.0 | 12.3 | 2.7 | 2.5 | 2.5 | 2.3 |
| Harris | 15.3 | 15.7 | 16.5 | 16.1 | 88.1 | 88.2 | 88.2 | 87.1 |
| Montgomery | 9.2 | 9.7 | 10.4 | 12.2 | 2.8 | 2.8 | 3.1 | 3.8 |
| Region TX-3 | 14.6 | 15.0 | 15.6 | 15.4 | - | - | - | - |

Source: Emsi (2015)

2.23.3 Employment

In 2013, the TX-3 region produced 3,674,531 jobs. Harris County, as expected, provided the largest share of jobs in TX-3 (78.5%). The region as a whole showed consistent moderate job growth over the period. Further, aside from Harris, this trend holds for the other TX-3 counties, as well. These data are presented in Table 241 and Figure 136 illustrates their distribution for 2013.

Table 242. Total Jobs by TX-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-----------|-----------|-----------|-----------|
| Brazoria | 129,348 | 133,770 | 136,915 | 141,099 |
| Fort Bend | 241,098 | 251,613 | 265,070 | 283,685 |
| Galveston | 136,504 | 139,447 | 140,313 | 144,597 |
| Harris | 2,616,864 | 2,696,793 | 2,792,927 | 2,885,530 |
| Montgomery | 191,531 | 200,382 | 209,326 | 219,621 |
| Region TX-3 | 3,315,344 | 3,422,005 | 3,544,551 | 3,674,531 |

Source: Emsi (2015)

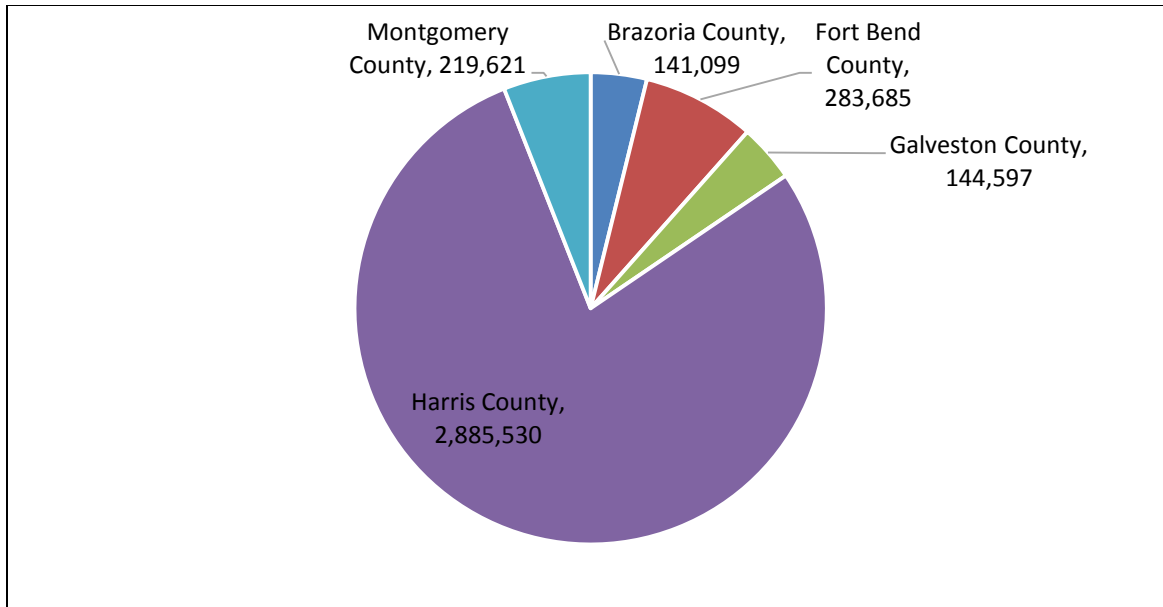


Figure 136. Total Jobs by TX-3 County from 2013

Source: Emsi (2015)

Table 242 presents the number of jobs in each TX-3 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Predictably, Harris had significantly more oil and gas jobs than the other TX-3 counties. Growth in Harris assured that the region had general oil and gas job increases in each year, but increases were also apparent in the other TX-3 counties, aside from Galveston.

Table 243. Jobs in Oil- and Gas-Related Industries by TX-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------|---------|---------|---------|
| Brazoria | 10,087 | 10,475 | 11,297 | 11,102 |
| Fort Bend | 7,355 | 7,169 | 8,657 | 9,939 |
| Galveston | 5,923 | 5,630 | 5,873 | 5,636 |
| Harris | 163,182 | 170,166 | 184,108 | 190,231 |
| Montgomery | 8,804 | 9,441 | 11,417 | 13,301 |
| Region TX-3 | 195,351 | 202,882 | 221,353 | 230,210 |

Source: Emsi (2015)

Table 243 shows the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Due to the large size and resulting diversity of the general economy of TX-3, the region is somewhat less dependent on oil- and gas-related industries for jobs with no county sourcing more than 10% of its jobs in oil and gas industries. The region did become slightly more dependent on oil and gas over the time period: rising from 5.9% of total jobs in those industries in 2010 to 6.3% in 2013.

As with other economic indicators, Harris County produced more than 80% of the total oil and gas jobs in TX-3. All counties in the region remained relatively stable in their contributions.

Table 244. Oil and Gas Contributions to Jobs by TX-3 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Brazoria | 7.8 | 7.8 | 8.3 | 7.9 | 5.2 | 5.2 | 5.1 | 4.8 |
| Fort Bend | 3.1 | 2.8 | 3.3 | 3.5 | 3.8 | 3.5 | 3.9 | 4.3 |
| Galveston | 4.3 | 4.0 | 4.2 | 3.9 | 3.0 | 2.8 | 2.7 | 2.4 |
| Harris | 6.2 | 6.3 | 6.6 | 6.6 | 83.5 | 83.9 | 83.2 | 82.6 |
| Montgomery | 4.6 | 4.7 | 5.5 | 6.1 | 4.5 | 4.7 | 5.2 | 5.8 |
| Region TX-3 | 5.9 | 5.9 | 6.2 | 6.3 | - | - | - | - |

Source: Emsi (2015)

2.23.4 Personal Income

In 2013, the TX-3 counties received \$320.3 billion in personal income. Harris contributed 71.9% of the total income in TX-3 with Fort Bend contributing an additional 10.9%. Personal income grew substantially from 2010 to 2013, largely spurred by growth in Harris. These data are presented in Table 244 and Figure 137 illustrates their distribution from 2013

Table 245. Personal Income (in dollars) by TX-3 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-----------------|-----------------|-----------------|-----------------|
| Brazoria | 11,540,896,000 | 12,498,700,000 | 13,499,677,000 | 13,788,051,000 |
| Fort Bend | 26,784,109,000 | 30,029,851,000 | 33,725,589,000 | 35,043,018,000 |
| Galveston | 12,183,240,000 | 13,050,694,000 | 14,166,833,000 | 14,475,816,000 |
| Harris | 185,874,932,000 | 207,146,801,000 | 222,536,511,000 | 230,462,963,000 |
| Montgomery | 20,846,537,000 | 23,215,514,000 | 25,787,088,000 | 26,549,916,000 |
| Region TX-3 | 257,229,714,000 | 285,941,560,000 | 309,715,698,000 | 320,319,764,000 |

Source: Emsi (2015)

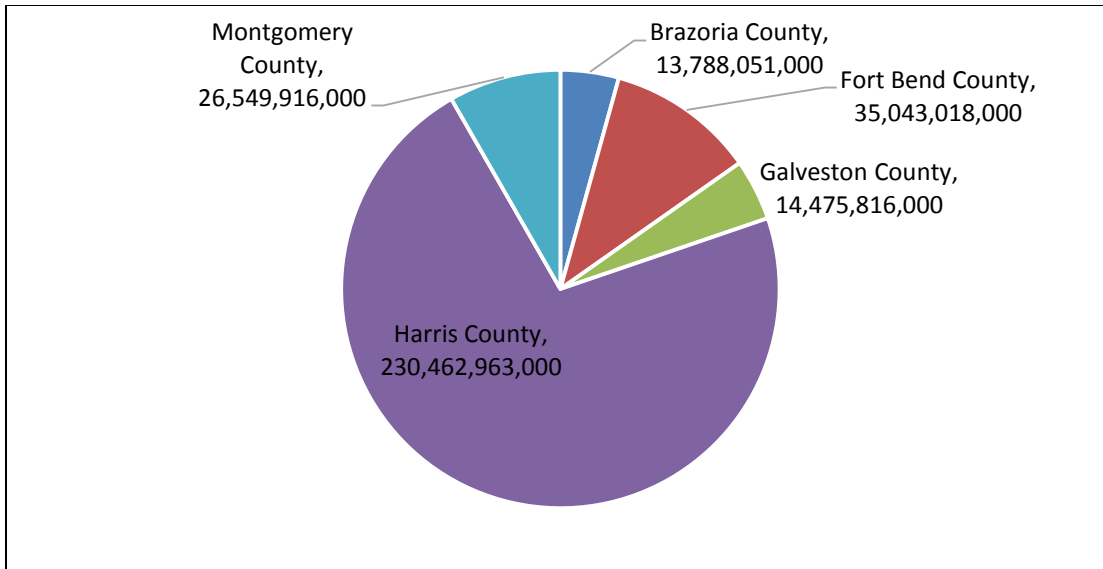


Figure 137. Total Personal Income (in dollars) by TX-3 County from 2013

Source: Emsi (2015)

Figure 138 shows the 2013 per capita income data for each county in TX-3. Fort Bend, Harris, and Montgomery had nearly identical per capita income levels that are just above \$53,000 per year. Brazoria had the lowest per capita income level (\$41,751), but it is still much higher than many of the counties in other EIAs along the Gulf Coast.

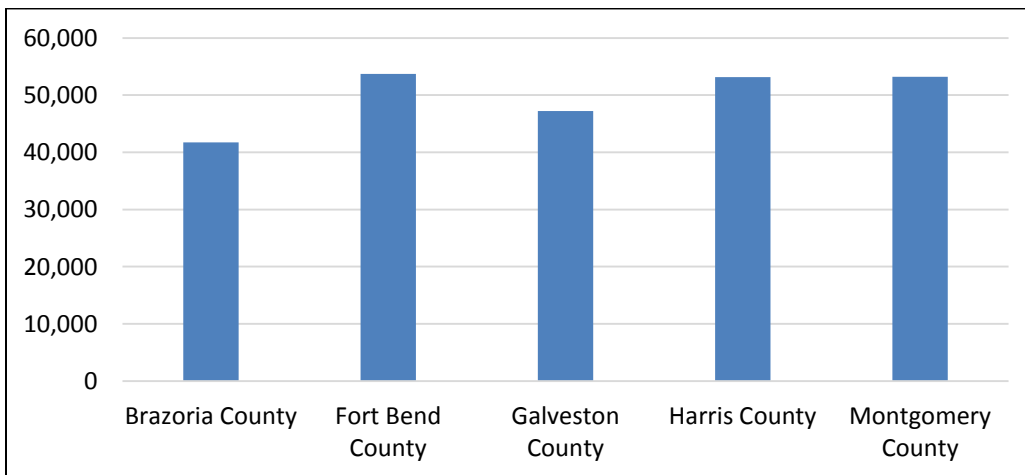


Figure 138. Per Capita Income (in dollars) by TX-3 County from 2013

Source: Emsi (2015)

2.23.5 Demographics

The 2013 demographic data are presented in Table 245. The TX-3 region had a regional poverty rate of 16.4% in 2013. Harris had the highest poverty rate in TX-3, with an 18.5% poverty population. Fort Bend had the lowest poverty rate (9.0%). In 2013, TX-3 had a population that was 40.3% minority. This high level of diversity is a result of very diverse populations in Fort Bend and Harris (both above 40% minority). Montgomery had the lowest minority percentage population (16.5%).

Table 246. Demographic Data by TX-3 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Brazoria | 11.8% | 29.9% |
| Fort Bend | 9.0% | 49.4% |
| Galveston | 12.9% | 27.5% |
| Harris | 18.5% | 43.4% |
| Montgomery | 11.5% | 16.5% |
| Region TX-3 | 16.4% | 40.3% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.24 Intra-Regional Comparison of the Economic Impact Area (EIA) TX-4

EIA TX-4 comprises three Texas counties: Hardin, Liberty, and San Jacinto. The TX-4 counties were home to 159,180 people in 2013 (U.S. Census Bureau, 2015-6) . The region generated 57,532 jobs, earned \$2.1 billion in total earnings (excluding corporate profits), \$4.1 billion in GDP, and \$6.0 billion in personal income in 2013.



Figure 139. Map of EIA Region TX-4

2.24.1 Gross Domestic Product

Table 246 presents the total GDP estimates for each county in TX-4. Approximately 50.2% of the 2013 total GDP in TX-4 was produced in Liberty and 41.6% was produced in Hardin. San Jacinto only produced 8.2%. The region as a whole saw steady, moderate to high growth over the time period with the same being true for each of the counties in TX-4. The distribution of GDP over the TX-4 counties in 2013 is illustrated in Figure 140.

Table 247. Total GDP (in dollars) by TX-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Hardin | 1,335,505,420 | 1,448,932,810 | 1,608,331,850 | 1,709,389,835 |
| Liberty | 1,755,905,344 | 1,910,035,206 | 2,052,948,992 | 2,064,783,110 |
| San Jacinto | 255,309,207 | 282,000,749 | 337,793,951 | 338,161,687 |
| Region TX-4 | 3,346,719,971 | 3,640,968,765 | 3,999,074,793 | 4,112,334,631 |

Source: Varnado and Fannin (2015) and Emsi (2015)

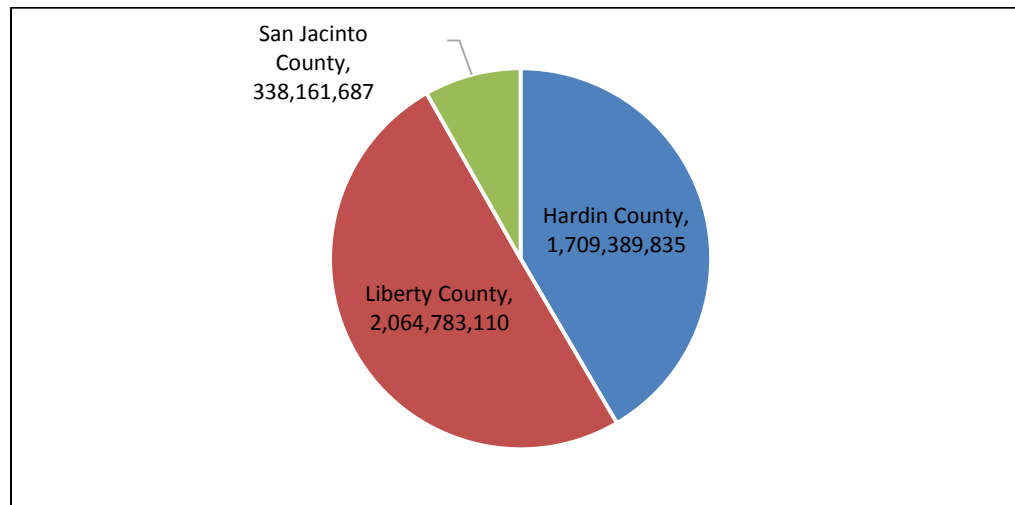


Figure 140. Total GDP (in dollars) by TX-4 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 247 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. From 2010 to 2011, growth in oil and gas production in Hardin and Liberty fueled a 23.7% increase in regional oil and gas GDP. However, from 2011 to 2012, contractions in Hardin and San Jacinto caused a slight regional contraction (2.5%).

Table 248. GDP in Oil- and Gas-Related Industries (in dollars) by TX-4 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|--------------------|-------------|-------------|-------------|
| Hardin | 196,100,690 | 227,704,878 | 215,725,158 |
| Liberty | 207,180,997 | 276,533,143 | 281,176,062 |
| San Jacinto | 23,056,013 | 23,100,960 | 17,345,761 |
| Region TX-4 | 426,337,701 | 527,338,981 | 514,246,981 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 28 details the percentage of each county’s GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county’s percentage of TX-4 oil and gas GDP. The distribution of oil and gas GDP very much mirrors the distribution of total regional GDP among the TX-4 counties. In particular, Liberty produces roughly half of the regional total oil and gas GDP. Hardin accounts for slightly less than that total, and San Jacinto produces three to five percent. Notably, Hardin and Liberty made almost identical contributions in 2010, but Liberty consistently boosted its production, resulting in larger percentages of the regional total each year.

Table 249. Oil and Gas Contributions to GDP by TX-4 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|--------------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Hardin | 14.7 | 15.7 | 13.4 | 46.0 | 43.2 | 41.9 |
| Liberty | 11.8 | 14.5 | 13.7 | 48.6 | 52.4 | 54.7 |
| San Jacinto | 9.0 | 8.2 | 5.1 | 5.4 | 4.4 | 3.4 |
| Region TX-4 | 12.7 | 14.5 | 12.9 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.24.2 Earnings by Place-of-Work

Place-of-work earnings in TX-4 follows the distribution witnessed in the GDP data. The regional earnings data show steady, moderate growth, which can be said generally about the individual counties as well. These data are presented in Table 249 and Figure 141 illustrates their distribution for 2013.

Table 250. Total Place-of-Work Earnings (in dollars) by EIA TX-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Hardin | 727,452,876 | 765,696,834 | 842,557,766 | 887,080,770 |
| Liberty | 956,445,683 | 1,009,369,034 | 1,075,479,614 | 1,071,510,637 |
| San Jacinto | 139,067,513 | 149,024,909 | 176,960,319 | 175,487,606 |
| Region TX-4 | 1,822,966,071 | 1,924,090,777 | 2,094,997,699 | 2,134,079,013 |

Source: Emsi (2015)

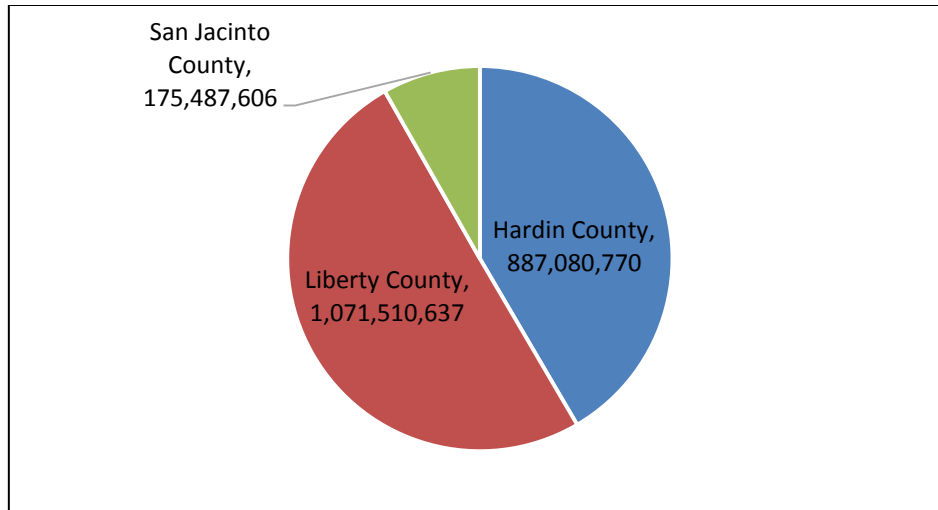


Figure 141. Total Place-of-Work Earnings (in dollars) by TX-4 County from 2013

Source: Emsi (2015)

Table 250 presents the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The regional oil and gas earnings saw steady, moderate to high growth with the largest growth between 2011 and 2012. This growth path can be applied to both Hardin and Liberty counties. San Jacinto saw a decline in each period, but their relative size compared to other counties in the region prevents it from affecting the regional trends.

Table 251. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by TX-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|-------------|-------------|-------------|-------------|
| Hardin | 86,064,804 | 90,404,269 | 136,279,949 | 151,879,897 |
| Liberty | 78,472,958 | 86,659,498 | 96,987,771 | 96,979,695 |
| San Jacinto | 6,767,095 | 6,315,890 | 6,207,293 | 5,975,686 |
| Region TX-4 | 171,304,857 | 183,379,657 | 239,475,013 | 254,835,278 |

Source: Emsi (2015)

Table 251 details the percentage of each county’s total earnings produced in oil- and gas-related industries. Hardin has the highest oil and gas shares of earnings, growing from 11.8% in 2010 to 17.1% (for an annual average of 14.2%) in 2013. Liberty and San Jacinto sourced an average of 8.7% and 4.0% respectively of their total earnings in oil- and gas-related industries. Liberty’s shares trended upward, as did Hardin’s. These growing shares outweighed the falling shares in San Jacinto to produce a steady upward trend in regional oil and gas earnings.

Hardin and Liberty contributed more than 95% of the region’s oil and gas earnings with the split ranging from roughly equal in 2011 to almost a 20% difference in 2013.

Table 252. Oil and Gas Contributions to Place-of-Work Earnings by TX-4 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Earnings | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Hardin | 11.8 | 11.8 | 16.2 | 17.1 | 50.2 | 49.3 | 56.9 | 59.6 |
| Liberty | 8.2 | 8.6 | 9.0 | 9.1 | 45.8 | 47.3 | 40.5 | 38.1 |
| San Jacinto | 4.9 | 4.2 | 3.5 | 3.4 | 4.0 | 3.4 | 2.6 | 2.3 |
| Region TX-4 | 9.4 | 9.5 | 11.4 | 11.9 | - | - | - | - |

Source: Emsi (2015)

2.24.3 Employment

In 2013, the TX-4 region produced 57,532 jobs. The region saw steady growth in total jobs caused mostly by job growth in Hardin County while Liberty and San Jacinto counties saw most of their growth occur from 2010 to 2011. This data is presented in Table 252 and its distribution for 2013 is illustrated in Figure 142.

Table 253. Total Jobs by TX-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|--------|--------|--------|--------|
| Hardin | 21,782 | 22,160 | 22,735 | 23,493 |
| Liberty | 27,789 | 28,553 | 28,859 | 28,415 |
| San Jacinto | 5,513 | 5,695 | 5,579 | 5,625 |
| Region TX-4 | 55,084 | 56,409 | 57,173 | 57,532 |

Source: Emsi (2015)

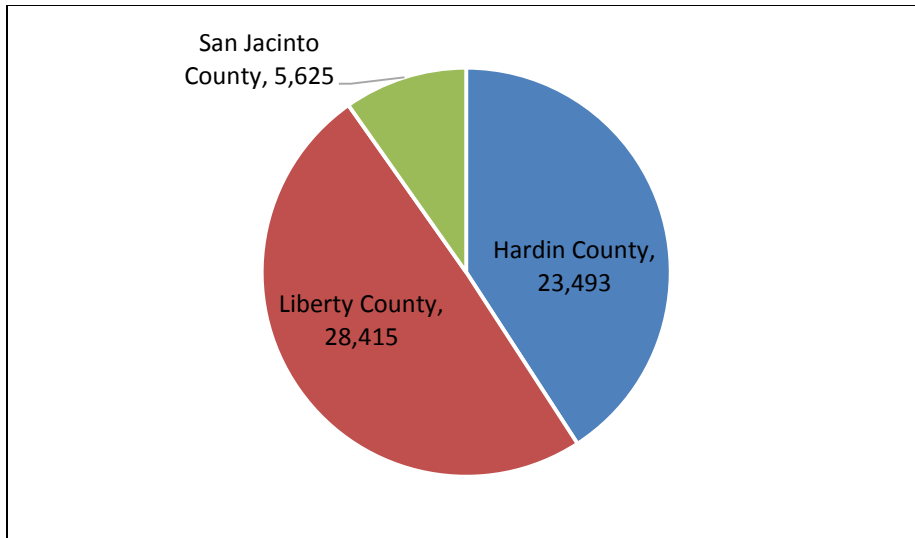


Figure 142. Total Jobs by TX-4 County from 2013

Source: Emsi (2015)

Table 253 shows the number of jobs in each TX-4 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). TX-4 saw slight growth in oil and gas jobs from 2010 to 2011 and from 2012 to 2013, but regionally (as well as in the individual counties) there was a spike in growth from 2011 to 2012 where jobs in oil- and gas-related industries grew by 34.1%.

Table 254. Jobs in Oil- and Gas-Related Industries by TX-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-------|-------|-------|-------|
| Hardin | 1,178 | 1,242 | 1,915 | 2,043 |
| Liberty | 1,254 | 1,266 | 1,464 | 1,537 |
| San Jacinto | 136 | 119 | 145 | 171 |
| Region TX-4 | 2,567 | 2,627 | 3,523 | 3,751 |

Source: Emsi (2015)

Table 254 details the percentage of each county’s total jobs sourced from oil- and gas-related industries from 2010 to 2013. The increase in nominal oil and gas jobs mimicked the oil and gas jobs share, which could imply that these jobs were new rather than a transfer of job concentrations between oil and gas and other industries. That is, not only did the nominal number of jobs in oil- and gas-related industries grow, but the jobs grew relative to all other types of jobs in the economy to occupy a larger share of the jobs in region TX-4. Again, the largest growth in Hardin and Liberty occurs between 2011 and 2012, and that growth was added to again into 2013. Also, as expected, Hardin and Liberty produced the vast majority of TX-4’s oil and gas jobs, which aligns with the data on GDP and earnings.

Table 255. Oil and Gas Contributions to Jobs by TX-4 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Hardin | 5.4 | 5.6 | 8.4 | 8.7 | 45.9 | 47.3 | 54.4 | 54.5 |
| Liberty | 4.5 | 4.4 | 5.1 | 5.4 | 48.8 | 48.2 | 41.5 | 41.0 |
| San Jacinto | 2.5 | 2.1 | 2.6 | 3.0 | 5.3 | 4.5 | 4.1 | 4.5 |
| Region TX-4 | 4.7 | 4.7 | 6.2 | 6.5 | - | - | - | - |

Source: Emsi (2015)

2.24.4 Personal Income

In 2013, the TX-4 counties received \$6.0 billion in personal income. The region saw slow, steady growth in personal income over the time period. Notably, the distribution witnessed in other economic indicators which weighted heavily towards Hardin and Liberty was more balanced in terms of personal income with San Jacinto earning 15.4% of the regional income. The relationship between Hardin and Liberty remained the same. These data are presented in Table 255 and Figure 143 illustrates their distribution from 2013.

Table 256. Personal Income (in dollars) by TX-4 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Hardin | 1,969,829,000 | 2,119,082,000 | 2,252,407,000 | 2,252,028,000 |
| Liberty | 2,446,339,000 | 2,597,775,000 | 2,778,585,000 | 2,830,077,000 |
| San Jacinto | 808,767,000 | 855,942,000 | 920,991,000 | 924,956,000 |
| Region TX-4 | 5,224,935,000 | 5,572,799,000 | 5,951,983,000 | 6,007,061,000 |

Source: Emsi (2015)

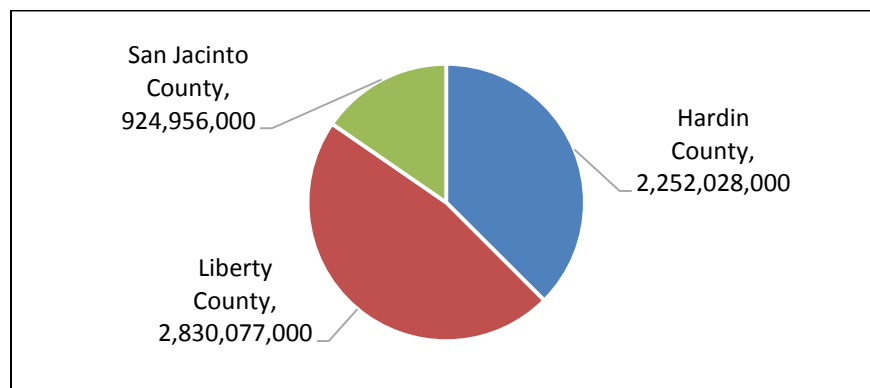


Figure 143. Total Personal Income (in dollars) by TX-4 County from 2013

Source: Emsi (2015)

Figure 144 shows the per capita income data 2013 for each county in TX-4. Hardin had the largest per capita income in 2013 (\$40,638) while San Jacinto had the lowest (\$34,441). Liberty fell almost half way between (\$36,799).

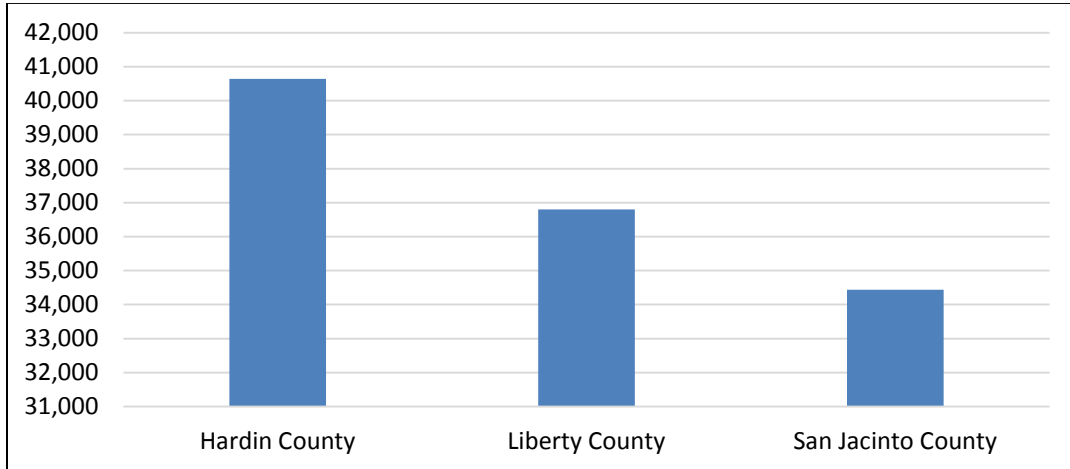


Figure 144. Per Capita Income (in dollars) by TX-4 County from 2013

Source: Emsi (2015)

2.24.5 Demographics

The 2013 demographic data are presented in Table 256. The TX-4 region had a regional poverty rate of 16.2% in 2013. San Jacinto had the highest poverty rate (19.0%) and Hardin had the lowest (12.9%). In 2013, TX-4 had a population that was 17.3% minority. Liberty had the highest minority population percentage with 22.8%. Conversely, Hardin had 9.4% of its total population composed of minorities in 2013.

Table 257. Demographic Data by TX-4 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Hardin | 12.9% | 9.4% |
| Liberty | 17.5% | 22.8% |
| San Jacinto | 19.0% | 17.8% |
| Region TX-4 | 16.2% | 17.3% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.25 Intra-Regional Comparison of the Economic Impact Area (EIA) TX-5

EIA TX-5 comprises three Texas counties : Chambers, Jefferson, and Orange. The TX-5 counties were home to 372,127 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 200,593 jobs, earned \$2.1 billion in total earnings (excluding corporate profits), \$20.6 billion in GDP, and \$15.4 billion in personal income in 2013.

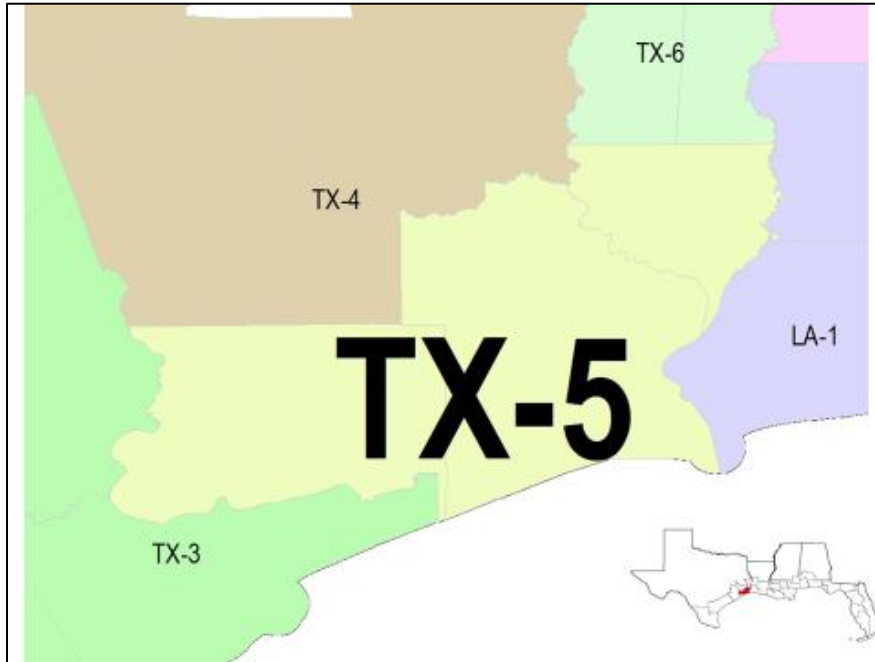


Figure 145. Map of EIA Region TX-5

2.25.1 Gross Domestic Product

Table 257 presents the total GDP estimates for each county in TX-5. 76.6% of the total GDP produced in TX-5 in 2013 was produced in Jefferson with 14.0% in Orange and the rest in Chambers. The region saw moderate growth from 2010 to 2012, but then growth slowed into 2013. This slowing of the growth in GDP was spurred by a slight contraction of production in Jefferson County during that time. The distribution of GDP over the TX-5 counties in 2013 is shown in Figure 146.

Table 258. Total GDP (in dollars) by TX-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|----------------|----------------|----------------|----------------|
| Chambers | 1,136,012,487 | 1,300,123,908 | 1,544,981,892 | 1,932,489,463 |
| Jefferson | 14,026,704,874 | 15,308,045,116 | 15,978,721,894 | 15,779,988,541 |
| Orange | 2,397,220,248 | 2,573,682,599 | 2,819,198,792 | 2,878,846,764 |
| Region TX-5 | 17,559,937,609 | 19,181,851,623 | 20,342,902,579 | 20,591,324,768 |

Source: Varnado and Fannin (2015) and Emsi (2015)

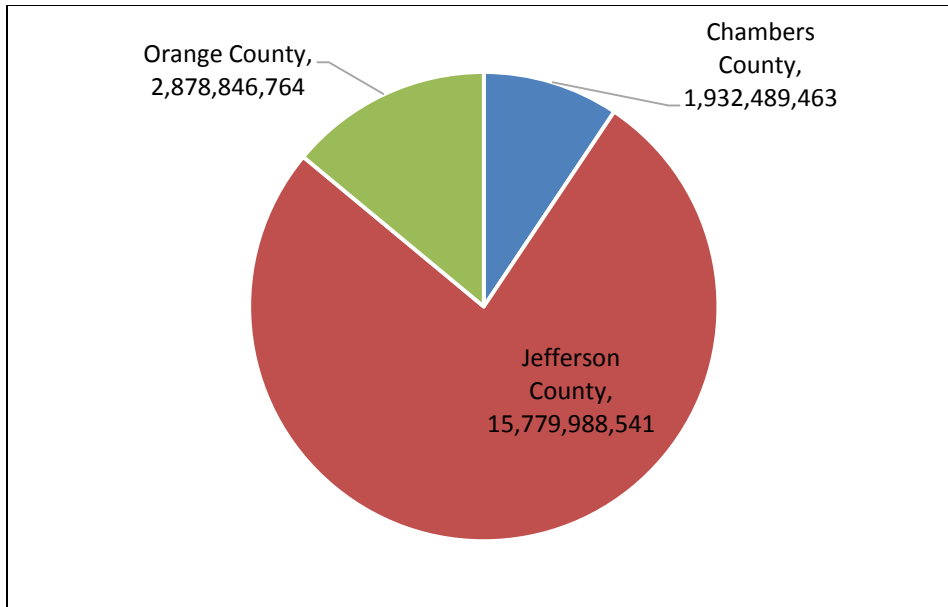


Figure 146. Total GDP (in dollars) by TX-5 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 258 shows levels of GDP in oil- and gas-related industries from 2010 to 2012. TX-5 saw moderate to high growth in oil and gas GDP over the time period which is largely due to high growth in Chambers County in all three periods and in Orange County from 2011 to 2012.

Table 259. GDP in Oil- and Gas-Related Industries (in dollars) by TX-5 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|-------------|-------------|-------------|
| Chambers | 146,945,945 | 228,561,208 | 310,856,692 |
| Jefferson | 234,042,108 | 250,873,768 | 253,574,482 |
| Orange | 110,443,047 | 80,192,606 | 172,839,205 |
| Region TX-5 | 491,431,101 | 559,627,582 | 737,270,380 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 259 details the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) as well as each county's percentage of TX-5 oil and gas GDP. Chambers was increasingly the most oil and gas dependent county in terms of production. The share of GDP earned in oil- and gas-related industries grew from 12.9% in 2010 to 20.1% in 2012. Orange also sourced a significant amount of its production in these industries, but Jefferson did not. However, due to the size of Jefferson's general economy, it produced the largest shares of regional oil and gas GDP in 2010 and 2011 despite having low oil and gas shares of GDP, until Chambers surpassed it in 2012.

Table 260. Oil and Gas Contributions to GDP by TX-5 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Chambers | 12.9 | 17.6 | 20.1 | 29.9 | 40.8 | 42.2 |
| Jefferson | 1.7 | 1.6 | 1.6 | 47.6 | 44.8 | 34.4 |
| Orange | 4.6 | 3.1 | 6.1 | 22.5 | 14.3 | 23.4 |

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|-------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Region TX-5 | 2.8 | 2.9 | 3.6 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.25.2 Earnings by Place-of-Work

Jefferson County produced 76.6% of the 2013 place-of-work earnings in TX-5. The region saw steady, slow to moderate growth in each of the time periods and all counties showed positive growth each and every year with the exception of Jefferson which saw a small decline between 2012 and 2013. These data are presented in Table 260 and Figure 147 illustrated their distribution for 2013.

Table 261. Total Place-of-Work Earnings (in dollars) by EIA TX-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|----------------|----------------|----------------|
| Chambers | 618,788,617 | 687,057,919 | 809,370,586 | 1,002,857,397 |
| Jefferson | 7,640,378,430 | 8,089,624,035 | 8,370,782,575 | 8,188,959,653 |
| Orange | 1,305,771,387 | 1,360,077,296 | 1,476,895,354 | 1,493,965,597 |
| Region TX-5 | 9,564,938,433 | 10,136,759,250 | 10,657,048,514 | 10,685,782,647 |

Source: Emsi (2015)

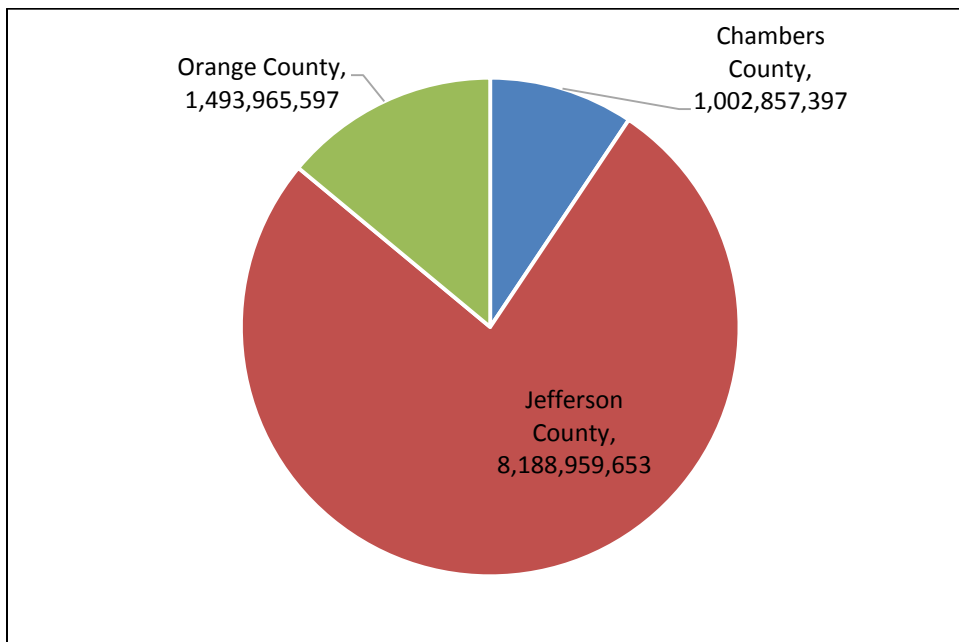


Figure 147. Total Place-of-Work Earnings (in dollars) by TX-5 County from 2013

Source: Emsi (2015)

Table 261 presents the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The region saw steady, moderate growth in each time period. Notably, Jefferson and Orange saw oil and gas earnings contract from 2012 to 2013, but growth in Chambers during that period spurred net regional growth.

Table 262. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by TX-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------------|---------------|---------------|---------------|
| Chambers | 148,817,254 | 188,022,988 | 212,680,523 | 397,139,522 |
| Jefferson | 1,334,924,792 | 1,475,096,091 | 1,605,231,167 | 1,577,902,406 |
| Orange | 61,677,031 | 83,715,037 | 139,695,050 | 119,655,901 |
| Region TX-5 | 1,545,419,078 | 1,746,834,116 | 1,957,606,741 | 2,094,697,829 |

Source: Emsi (2015)

Table 262 details the percentage of each county's total earnings produced in oil- and gas-related industries. Chambers and Jefferson saw high shares of oil and gas earnings. Chambers sourced just over 25% of its earnings in oil and gas industries in 2010, 2011, and 2012, but then that number grew to 39.6% in 2013. Jefferson's share of oil and gas earnings grew steadily from 17.5% in 2010 to 19.3% in 2013. Orange more than doubled its oil and gas share of earnings between 2010 and 2012 but then gave back 1.5% in 2013. As a result, the region average grew steadily from 16.2% to 19.6% over the four year period.

Further, the size of Jefferson County's economy outweighed Chambers' higher concentration to produce the vast majority of oil- and gas-related earnings in the region (75.3% in 2013). At the same time, Chambers' percentage contributions grew the most of any county in the region between 2010 and 2013.

Table 263. Oil and Gas Contributions to Place-of-Work Earnings by TX-5 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Earnings | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Chambers | 24.0 | 27.4 | 26.3 | 39.6 | 9.6 | 10.8 | 10.9 | 19.0 |
| Jefferson | 17.5 | 18.2 | 19.2 | 19.3 | 86.4 | 84.4 | 82.0 | 75.3 |
| Orange | 4.7 | 6.2 | 9.5 | 8.0 | 4.0 | 4.8 | 7.1 | 5.7 |
| Region TX-5 | 16.2 | 17.2 | 18.4 | 19.6 | - | - | - | - |

Source: Emsi (2015)

2.25.3 Employment

In 2013, the TX-5 region produced 200,593 jobs. Approximately 75.7% of TX-5 jobs were sourced in Jefferson County, 16.0% in Orange County, and 8.4% in Chambers County. These data are presented in Table 263 and Figure 148 illustrates their distribution for 2013.

Table 264. Total Jobs by TX-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|---------|---------|---------|---------|
| Chambers | 12,716 | 13,823 | 14,977 | 16,813 |
| Jefferson | 151,328 | 154,437 | 154,522 | 151,777 |
| Orange | 30,792 | 31,201 | 31,903 | 32,003 |
| Region TX-5 | 194,836 | 199,461 | 201,403 | 200,593 |

Source: Emsi (2015)

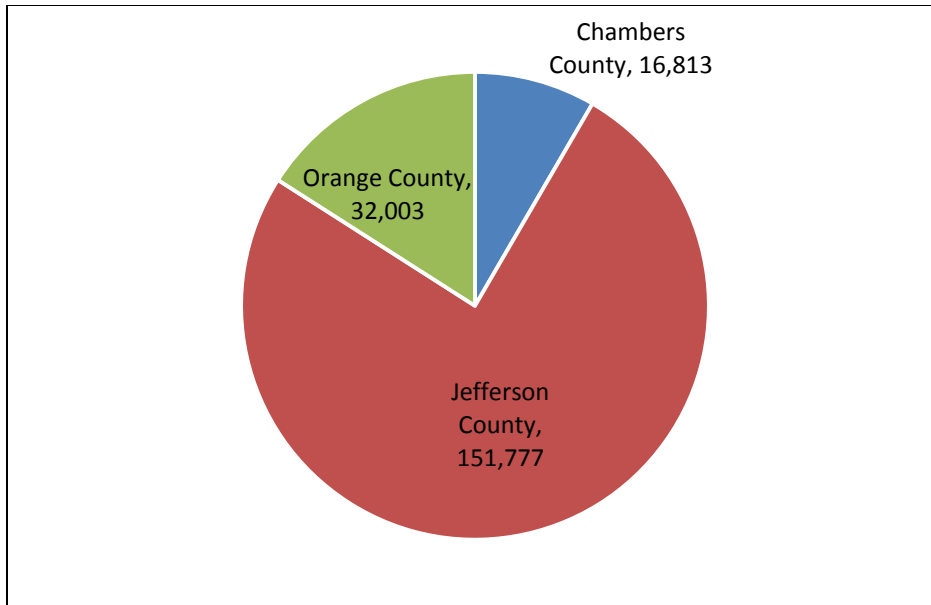


Figure 148. Total Jobs by TX-5 County from 2013

Source: Emsi (2015)

Table 264 presents the number of jobs in each TX-5 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Regional jobs sourced in oil- and gas-related industries grew each year resulting in a 37.4% increase from 2010 to 2013. Much of this growth was in Chambers which more than doubled its oil and gas jobs over the time period.

Table 265. Jobs in Oil- and Gas-Related Industries by TX-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| Chambers | 1,356 | 1,891 | 2,177 | 3,712 |
| Jefferson | 10,792 | 11,941 | 12,534 | 12,256 |
| Orange | 824 | 1,157 | 1,855 | 1,860 |
| Region TX-5 | 12,972 | 14,990 | 16,566 | 17,828 |

Source: Emsi (2015)

Table 265 details the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Chambers again presented the highest concentration of oil and gas jobs, growing from 10.7% to 22.1% from those industries over the time period. Jefferson sourced 8.1% of its total jobs in oil- and gas-related industries and Orange sourced a smaller percentage still. The overall concentration of oil and gas jobs in the region steadily increased from 6.7% in 2010 to 8.9% in 2013.

As seen with previous economic indicators, starting in 2010, Jefferson County produced more than 80% of all oil and gas jobs. However, the distribution steadily shifted over the time period and in 2013 Jefferson produced 68.7% while Chambers produced 20.8% and Orange County 10.4%.

Table 266. Oil and Gas Contributions to Jobs by TX-5 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|--------------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Chambers | 10.7 | 13.7 | 14.5 | 22.1 | 10.5 | 12.6 | 13.1 | 20.8 |
| Jefferson | 7.1 | 7.7 | 8.1 | 8.1 | 83.2 | 79.7 | 75.7 | 68.7 |
| Orange | 2.7 | 3.7 | 5.8 | 5.8 | 6.4 | 7.7 | 11.2 | 10.4 |
| Region TX-5 | 6.7 | 7.5 | 8.2 | 8.9 | - | - | - | - |

Source: Emsi (2015)

2.25.4 Personal Income

In 2013, the TX-5 counties received \$15.4 billion in personal income. In 2013, Jefferson contributed 65.5% of the personal income in the region. The overall region saw steady increases in personal income from 2010 to 2012, but slowed in 2013. These data are presented in Table 266 and Figure 14 illustrates their distribution from 2013.

Table 267. Personal Income (in dollars) by TX-5 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|--------------------|----------------|----------------|----------------|----------------|
| Chambers | 1,600,068,000 | 1,798,647,000 | 1,969,630,000 | 2,006,107,000 |
| Jefferson | 9,019,347,000 | 9,348,943,000 | 10,084,915,000 | 10,083,778,000 |
| Orange | 2,886,496,000 | 3,093,246,000 | 3,321,446,000 | 3,313,423,000 |
| Region TX-5 | 13,505,911,000 | 14,240,836,000 | 15,375,991,000 | 15,403,308,000 |

Source: Emsi (2015)

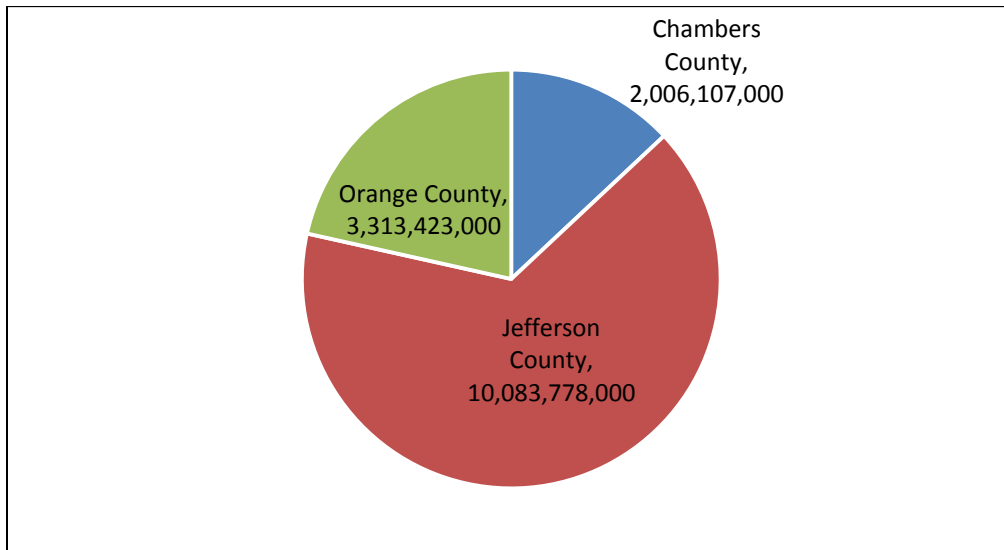


Figure 149. Total Personal Income (in dollars) by TX-5 County from 2013

Source: Emsi (2015)

Figure 150 presents the per capita income data in 2013 for each county in TX-5. Chambers had the highest per capita income at \$54,496 and Jefferson and Orange were nearly identical at just under \$40,000.

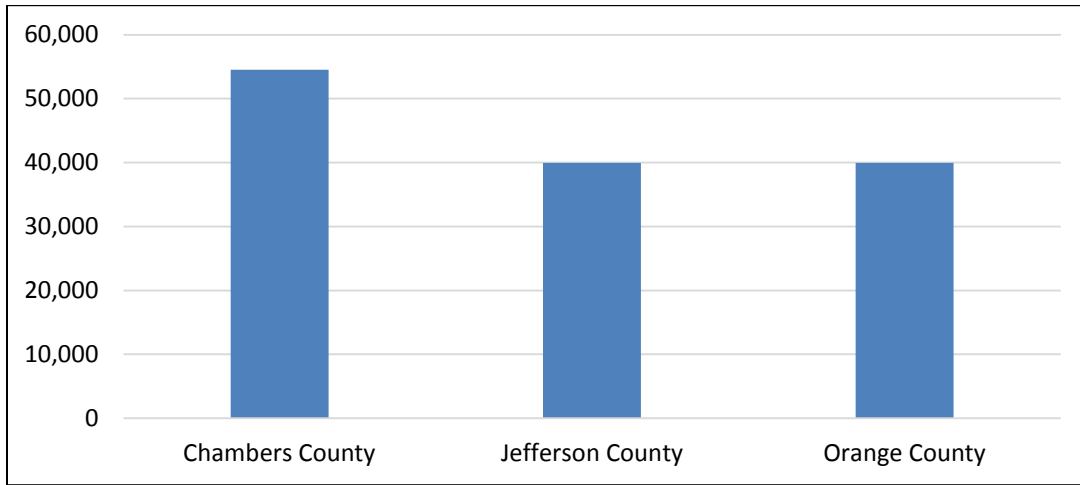


Figure 150. Per Capita Income (in dollars) by TX-5 County from 2013

Source: Emsi (2015)

2.25.5 Demographics

The 2013 demographic data are presented in Table 267. The TX-5 region had a regional poverty rate of 18.8% in 2013; Jefferson had the highest rate of 21.2% and Chambers had the lowest (10.6%). In 2013, TX-5 had a population that was 37.8% minority. This was driven by the 47.8% minority population in Jefferson. Orange had only a 13.9% minority population, but its relative size prevented it from measurably affecting the regional percentage.

Table 268. Demographic Data by TX-5 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Chambers | 10.6% | 21.4% |
| Jefferson | 21.2% | 47.8% |
| Orange | 14.9% | 13.9% |
| Region TX-5 | 18.8% | 37.8% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

2.26 Intra-Regional Comparison of the Economic Impact Area (EIA) TX-6

EIA TX-6 comprises two Texas counties: Jasper and Newton. The TX-6 counties were home to 49,789 people in 2013 (U.S. Census Bureau, 2015-6). The region generated 21,855 jobs, earned \$889,248,551 in total earnings (excluding corporate profits), \$1.7 billion in GDP, and \$1.7 billion in personal income in 2013.

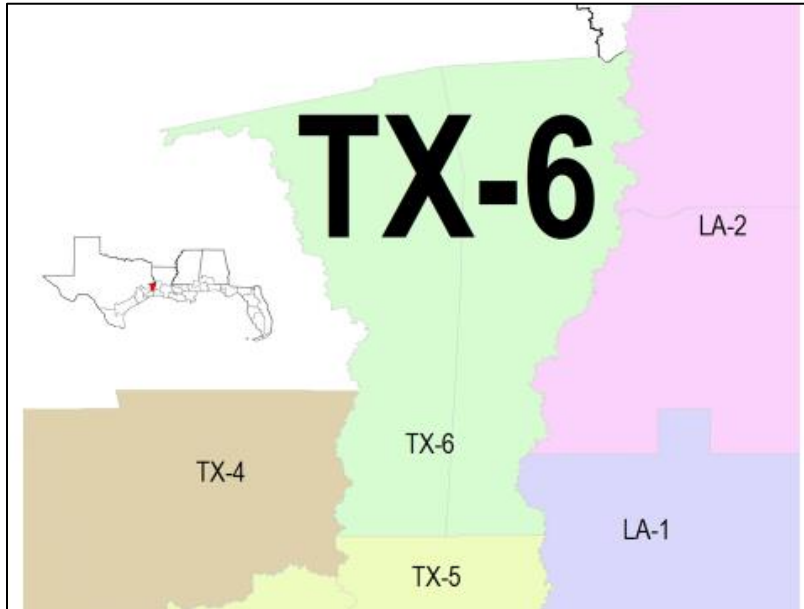


Figure 151. Map of EIA Region TX-6

2.26.1 Gross Domestic Product

Table 268 presents the total GDP estimates for each county in TX-6. The region saw slow growth in GDP from 2010 to 2011 and from 2012 to 2013, but from 2011 to 2012, the region saw a 27.3% increase. Jasper County produced 89.4% of the total GDP, and that spike in growth is largely due to growth in Jasper County. The distribution of GDP over the TX-6 counties in 2013 is illustrated in Figure 152.

Table 269. Total GDP (in dollars) by TX-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Jasper | 1,095,008,668 | 1,183,532,466 | 1,541,275,897 | 1,532,072,356 |
| Newton | 157,953,374 | 166,704,593 | 177,568,689 | 181,494,756 |
| Region TX-6 | 1,252,962,041 | 1,350,237,059 | 1,718,844,586 | 1,713,567,111 |

Source: Varnado and Fannin (2015) and Emsi (2015)

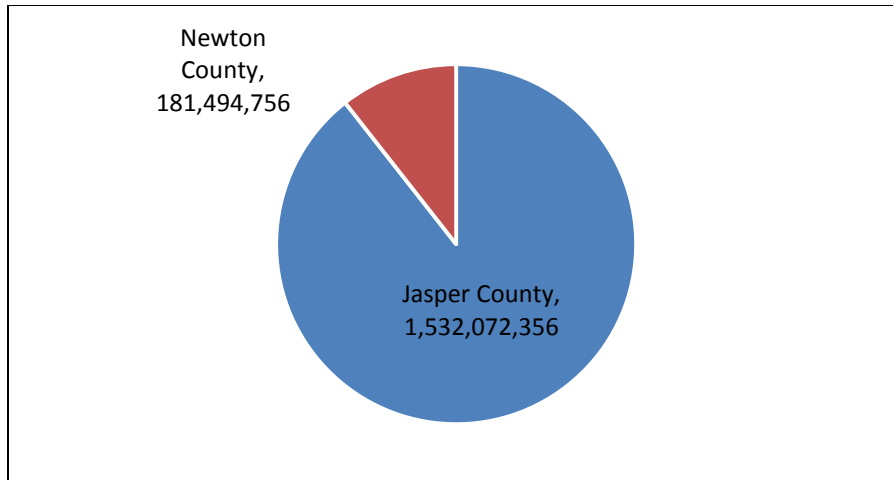


Figure 152. Total GDP (in dollars) by TX-6 County from 2013

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 269 presents levels of GDP in oil- and gas-related industries from 2010 to 2012. The regional oil- and gas-related GDP grew sharply from 2010 to 2011, but then fell in 2012 for a modest net gain over the period. This is driven by similar trends in Jasper County.

Table 270. GDP in Oil- and Gas-Related Industries (in dollars) by TX-6 County from 2010 to 2012

| EIA County | 2010 | 2011 | 2012 |
|-------------|------------|-------------|------------|
| Jasper | 65,425,035 | 97,946,352 | 67,252,060 |
| Newton | 8,122,359 | 8,718,323 | 11,126,835 |
| Region TX-6 | 73,547,394 | 106,664,675 | 78,378,894 |

Source: Varnado and Fannin (2015) and Emsi (2015)

Table 270 details the percentage of each county's GDP produced in oil- and gas-related industries (as defined by Table 7) and each county's percentage of TX-6 oil and gas GDP. Neither county produces more than 10% of its total GDP in oil- and gas-related industries, but they do have some industry concentration that follows the growth spike seen above.

Table 271. Oil and Gas Contributions to GDP by TX-6 County from 2010 to 2012

| EIA County | Percentage of County GDP in Oil and Gas | | | Percentage of Total EIA Oil and Gas GDP | | |
|-------------|---|------|------|---|------|------|
| | 2010 | 2011 | 2012 | 2010 | 2011 | 2012 |
| Jasper | 6.0 | 8.3 | 4.4 | 89.0 | 91.8 | 85.8 |
| Newton | 5.1 | 5.2 | 6.3 | 11.0 | 8.2 | 14.2 |
| Region TX-6 | 5.9 | 7.9 | 4.6 | - | - | - |

Source: Varnado and Fannin (2015) and Emsi (2015)

2.26.2 Earnings by Place-of-Work

The majority of total earnings in TX-6 were earned in Jasper County, which accounted for 82.0% of the place-of-work earnings produced in the region. The earnings data mirror the growth spike seen in GDP data including the high growth period from 2011 to 2012 and then a slight contraction into 2013. These data are presented in Table 271 and Figure 153 illustrates their distribution for 2013.

Table 272. Total Place-of-Work Earnings (in dollars) by EIA TX-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|-------------|-------------|-------------|-------------|
| Jasper | 596,453,742 | 625,444,504 | 807,429,124 | 795,062,599 |
| Newton | 86,037,566 | 88,095,996 | 93,023,015 | 94,185,951 |
| Region TX-6 | 682,491,308 | 713,540,500 | 900,452,139 | 889,248,551 |

Source: Emsi (2015)

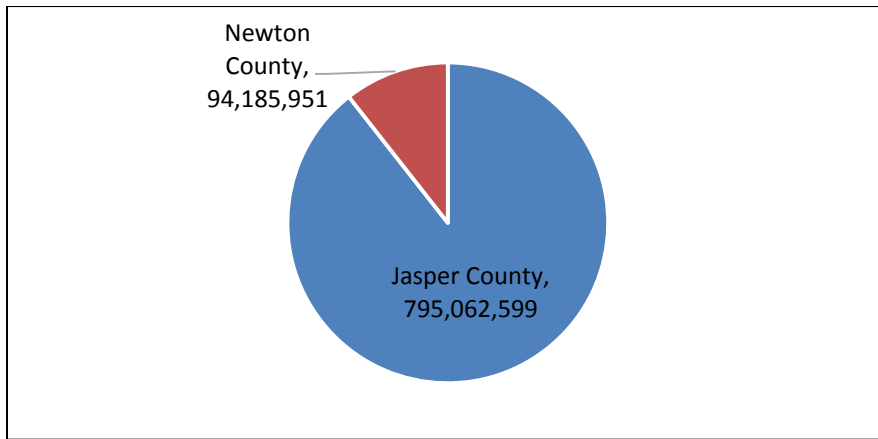


Figure 153. Total Place-of-Work Earnings (in dollars) by TX-6 County from 2013

Source: Emsi (2015)

Table 272 shows the place-of-work earnings in oil- and gas-related industries from 2010 to 2013. The regional oil and gas earnings numbers rose, then fell, and then rose again for a small net positive gain over the time period.

Table 273. Place-of-Work Earnings in Oil- and Gas-Related Industries (in dollars) by TX-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------------|------------|------------|------------|
| Jasper | 23,361,312 | 27,758,692 | 19,570,076 | 23,524,412 |
| Newton | 4,115,794 | 5,519,858 | 5,500,209 | 5,169,233 |
| Region TX-6 | 27,477,107 | 33,278,550 | 25,070,285 | 28,693,644 |

Source: Emsi (2015)

Table 273 details the percentage of each county’s total earnings produced in oil- and gas-related industries. Newton is slightly more oil and gas dependent than Jasper, but the relative size of the economies results in Jasper producing roughly 80% of the oil and gas earnings annually.

Table 274. Oil and Gas Contributions to Place-of-Work Earnings by TX-6 County from 2010 to 2013

| EIA County | Percentage of County Earnings in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Earnings | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Jasper | 3.9 | 4.4 | 2.4 | 3.0 | 85.0 | 83.4 | 78.1 | 82.0 |
| Newton | 4.8 | 6.3 | 5.9 | 5.5 | 15.0 | 16.6 | 21.9 | 18.0 |
| Region TX-6 | 4.0 | 4.7 | 2.8 | 3.2 | - | - | - | - |

Source: Emsi (2015)

2.26.3 Employment

In 2013, the TX-6 region produced 21,855 jobs. Approximately 84.1% of those jobs were sourced in Jasper County. The region saw overall growth between 2010 and 2013, as did the individual counties. These data are presented in Table 274 and Figure 154 illustrates their distribution for 2013.

Table 275. Total Jobs by TX-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|--------|--------|--------|--------|
| Jasper | 17,721 | 18,231 | 18,474 | 18,389 |
| Newton | 3,181 | 3,193 | 3,450 | 3,466 |
| Region TX-6 | 20,902 | 21,424 | 21,924 | 21,855 |

Source: Emsi (2015)

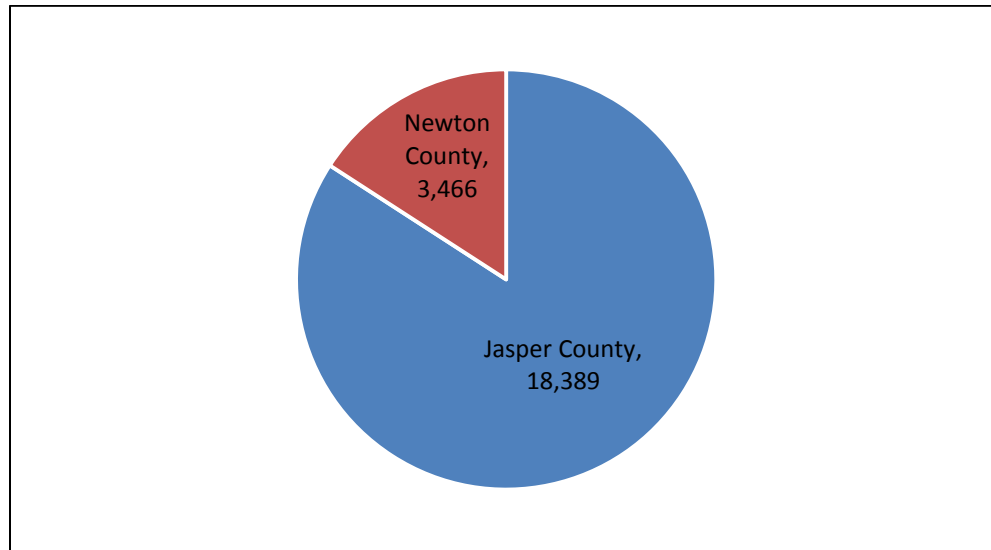


Figure 154. Total Jobs by TX-6 County from 2013

Source: Emsi (2015)

Table 275 shows the number of jobs in each TX-6 county that are sourced in oil- and gas-related industries (as defined by the earnings industry cluster from Table 7). Jasper sourced 81.2% of the oil and gas jobs in TX-6. Although there were fewer oil and gas jobs in 2011 than in 2010, there were increases in each of the following years.

Table 276. Jobs in Oil- and Gas-Related Industries by TX-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|------|------|------|------|
| Jasper | 472 | 433 | 482 | 536 |
| Newton | 84 | 105 | 125 | 125 |
| Region TX-6 | 556 | 537 | 607 | 661 |

Source: Emsi (2015)

Table 276 details the percentage of each county's total jobs that it sources from oil- and gas-related industries from 2010 to 2013. Both counties showed moderate oil and gas concentrations in their job markets with an upward trend. Newton was slightly more concentrated than Jasper. However, Jasper produced roughly 80% of the total oil and gas jobs in the region.

Table 277. Oil and Gas Contributions to Jobs by TX-6 County from 2010 to 2013

| EIA County | Percentage of County Jobs in Oil and Gas | | | | Percentage of Total EIA Oil and Gas Jobs | | | |
|-------------|--|------|------|------|--|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2010 | 2011 | 2012 | 2013 |
| Jasper | 2.7 | 2.4 | 2.6 | 2.9 | 84.9 | 80.5 | 79.4 | 81.2 |
| Newton | 2.6 | 3.3 | 3.6 | 3.6 | 15.1 | 19.5 | 20.6 | 18.8 |
| Region TX-6 | 2.7 | 2.5 | 2.8 | 3.0 | - | - | - | - |

Source: Emsi (2015)

2.26.4 Personal Income

In 2013, the TX-6 counties received \$1.7 billion in personal income in 2013. Jasper County contributed 74.4% of the regional personal income, and the region saw a moderate net increase in personal income over the four year period. These data are presented in Table 277 and Figure 155 illustrates their distribution from 2013.

Table 278. Personal Income (in dollars) by TX-6 County from 2010 to 2013

| EIA County | 2010 | 2011 | 2012 | 2013 |
|-------------|---------------|---------------|---------------|---------------|
| Jasper | 1,102,146,000 | 1,174,799,000 | 1,234,202,000 | 1,232,507,000 |
| Newton | 376,087,000 | 403,844,000 | 428,998,000 | 424,894,000 |
| Region TX-6 | 1,478,233,000 | 1,578,643,000 | 1,663,200,000 | 1,657,401,000 |

Source: Emsi (2015)

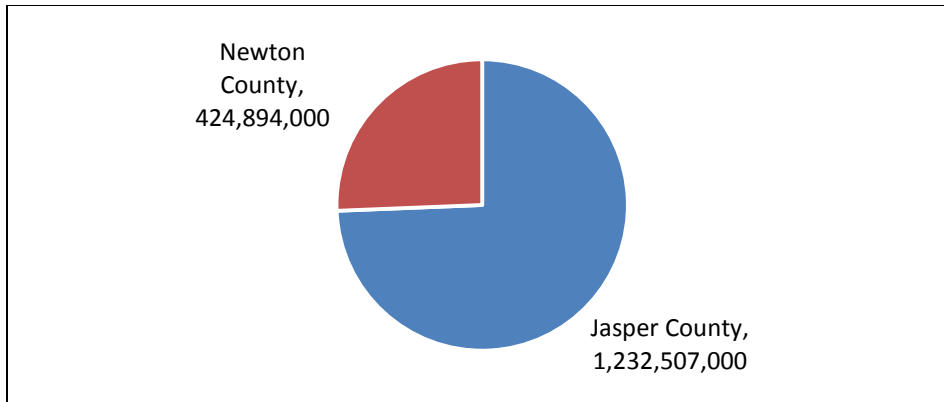


Figure 155. Total Personal Income by TX-6 County from 2013

Source: Emsi (2015)

Figure 156 presents the per capita income data 2013 for each county in TX-6. Jasper had the larger per capita income with \$34,573, about \$4,500 more than Newton.

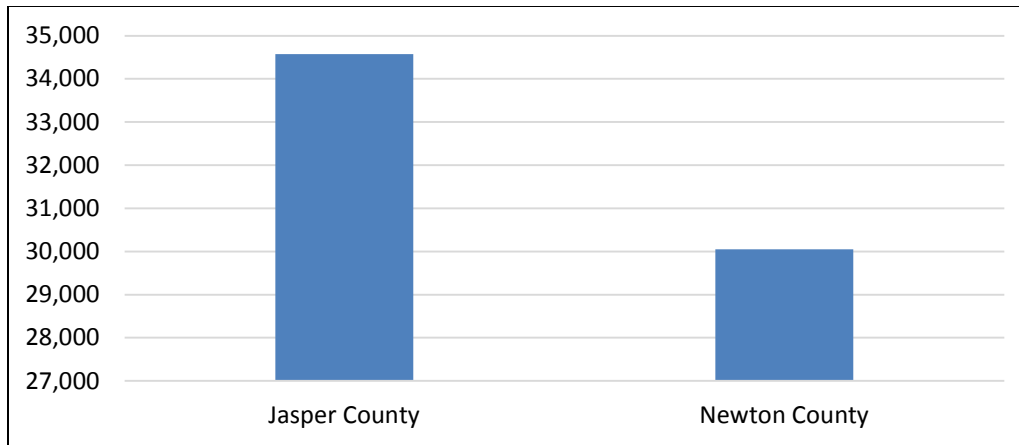


Figure 156. Per Capita Income (in dollars) by TX-6 County from 2013 Demographics

Source: Emsi (2015)

2.26.5 Demographics

The 2013 demographic data are presented in Table 278. The TX-6 region had a regional poverty rate of 19.8% in 2013. Newton County had a slightly higher poverty rate than Jasper County (22.1% compared to 18.9%). In 2013, TX-6 had a population that was 22.5% minority with both counties within one percent of the average.

Table 279. Demographic Data by TX-6 County from 2013

| EIA County | Poverty | Minority |
|-------------|---------|----------|
| Jasper | 18.9% | 22.3% |
| Newton | 22.1% | 23.1% |
| Region TX-6 | 19.8% | 22.5% |

Source: U.S. Census Bureau (2015c) and U.S. Census Bureau (2015e)

3. Conclusion

This research built on the work of Fannin et al. (2018) and identified 23 Economic Impact Areas (EIAs) covering 133 counties along the coastal region of the Gulf of Mexico that currently are or may in the future be influenced by Outer Continental Shelf energy activities. These regions contribute 6.6% of the GDP of the US economy, and approximately 38.5% of the GDP of the overall five-state Gulf region.

These regions were selected based on the underlying functional economic relationships between counties and parishes. The inter-connectedness of counties was initially assessed by Fannin et al. (2018) through a cluster analysis of both labor market commuting as well as trade of goods and services. Based on that analysis, an initial draft set of regions was identified. In this study, we conducted a Qualitative Comparison Analysis that evaluated the appropriate regions for counties that were located on the border between two draft regions based on economic and demographic characteristics. These two studies led to the delineation of 23 EIAs in the Gulf region.

There are some limitations to the research that should be recognized. First, this research began with a strategy of identifying optimal regional classification of coastal counties and regions. Our initial analysis suggested, particularly with trade of goods and services, that several counties on the borders between Texas and Louisiana and Louisiana and Mississippi could be considered a single EIA. However, the need from an administrative and policy perspective to focus on coastal region analysis by state resulted in the final set of regions consisting only of parishes and counties from a single state. Researchers less interested in the administrative or policy focus of regions may want to combine those EIAs contiguous at the border of these respective states, if more basic functional economic research is a priority. In particular, Fannin et al. (2018) found the following EIA pairs to be noticeably connected: 1) TX-6 and LA-2, 2) TX-5 and LA-1, and 3) LA-7 and MS-1.

Second, much of the analysis focused on looking at the most recent window of economic data from 2010 to 2013. This was an intentional decision so that this document would not become a historical analysis of the economics of regions but more of a present-day analysis of the multi-county and multi-parish regions identified. It should be noted that at the time of this writing, the authors recognize that structural change is presently occurring in the oil and gas industry at a national level as well as off the outer continental shelf due to the falling price of oil. Due to a lag time of between 12 and 24 months between the end of a calendar year and when regional economic data are released at the federal level, any downward trends in economic performance will not have made into this report.

Though this research may be used in a number of ways for federal administrative purposes, policy analysis, and academic research, the regions should not be considered a perfect fit for all types of coastal analyses. The regions created were developed from a combination of functional economic purposes as well as administrative purposes. In some cases, an individual's purposes may sufficiently deviate from the joint functional economic/administrative purpose of this designation, as discussed above. In those cases, scholars should consider creating their own custom regional classification.

These regions are generated based on relationships at a particular point in time. BOEM and others should consider the shelf life of these EIAs based on a combination of their economic, policy, and administrative relevance. Economic regions are always in flux going through a dynamic creative destruction progress with old industries declining and new industries growing. Other shocks, such as natural disasters, have a major impact on economic dynamics. These adjustments and differences in policy and administrative direction may necessitate the need to re-define EIAs in the future.

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