

GEOGRAPHIC UNITS USED FOR SOCIOECONOMIC IMPACT ANALYSIS IN THE GULF OF MEXICO REGION

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Research Questions

- 1) Do the geographic units being used by BOEMRE for planning purposes obscure or distort the potential socioeconomic impacts from offshore oil and gas activity in some of the regions or counties included in the geographic unit?
- 2) Are there alternative units or approaches that will reduce or prevent such problems?

Geographic Units

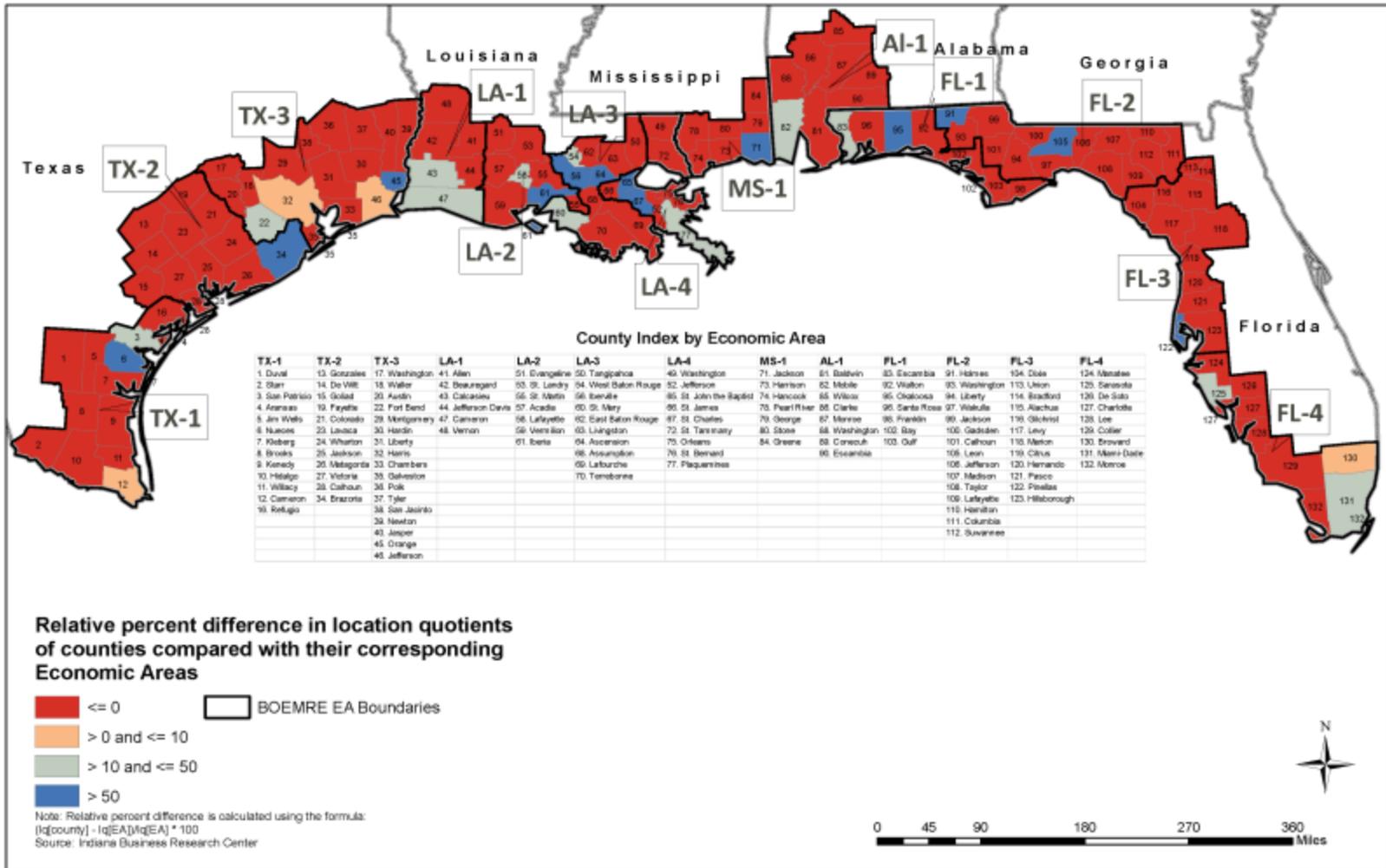
- The 132-county area identified as the potential affected area for federal offshore activities on the Gulf of Mexico is organized into
- 13 Economic Areas (EA) and subdivided further into
- 23 Labor Market Areas (LMA)

From the tip of Florida to the Texas/Mexico border through 5 states



Data

- Industrial Clusters (17) from IBRC supported by EDA
- NAICS employment data via WholeData 2001 to 2008 for oil and gas and associated categories, as well as Travel/Recreation



Relative percent difference in location quotients of counties and Economic Areas (2008 energy sector employment)

Some Findings

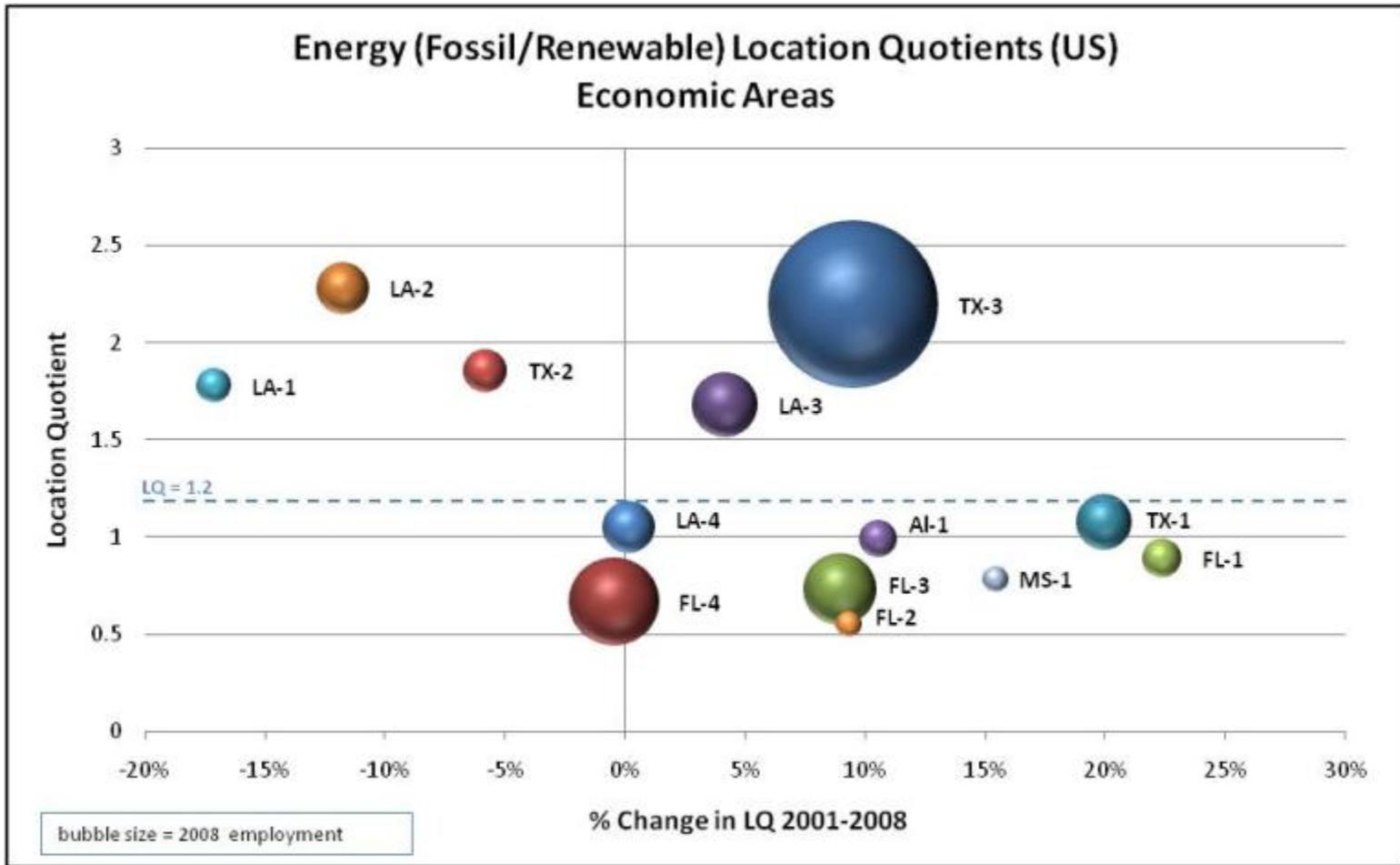
- Numerous instances of values calculated for 13 Economic Areas (EAs) obscuring or distorting dimensions of the cluster or industry observable at the level of the 23 Labor Market Areas or 132 counties.

Categories of Distortion

- “Cancelling Out” Some EAs/LMAs are composed of counties that are very different with very different proportions of oil and gas activity that EA-level measures tend to “cancel out.” EGs. TX-1: Corpus Christi/Brownsville, LA-3 Baton Rouge/Houma
- “Numerical Dominance” Some EAs/LMAs include counties that are so large relative to the others that even extreme concentrations or changes in smaller counties do not influence the unit totals. TX-3: Houston/Galveston, LA-1 Lake Charles (travel & recreation)

Categories of Distortion (cont.)

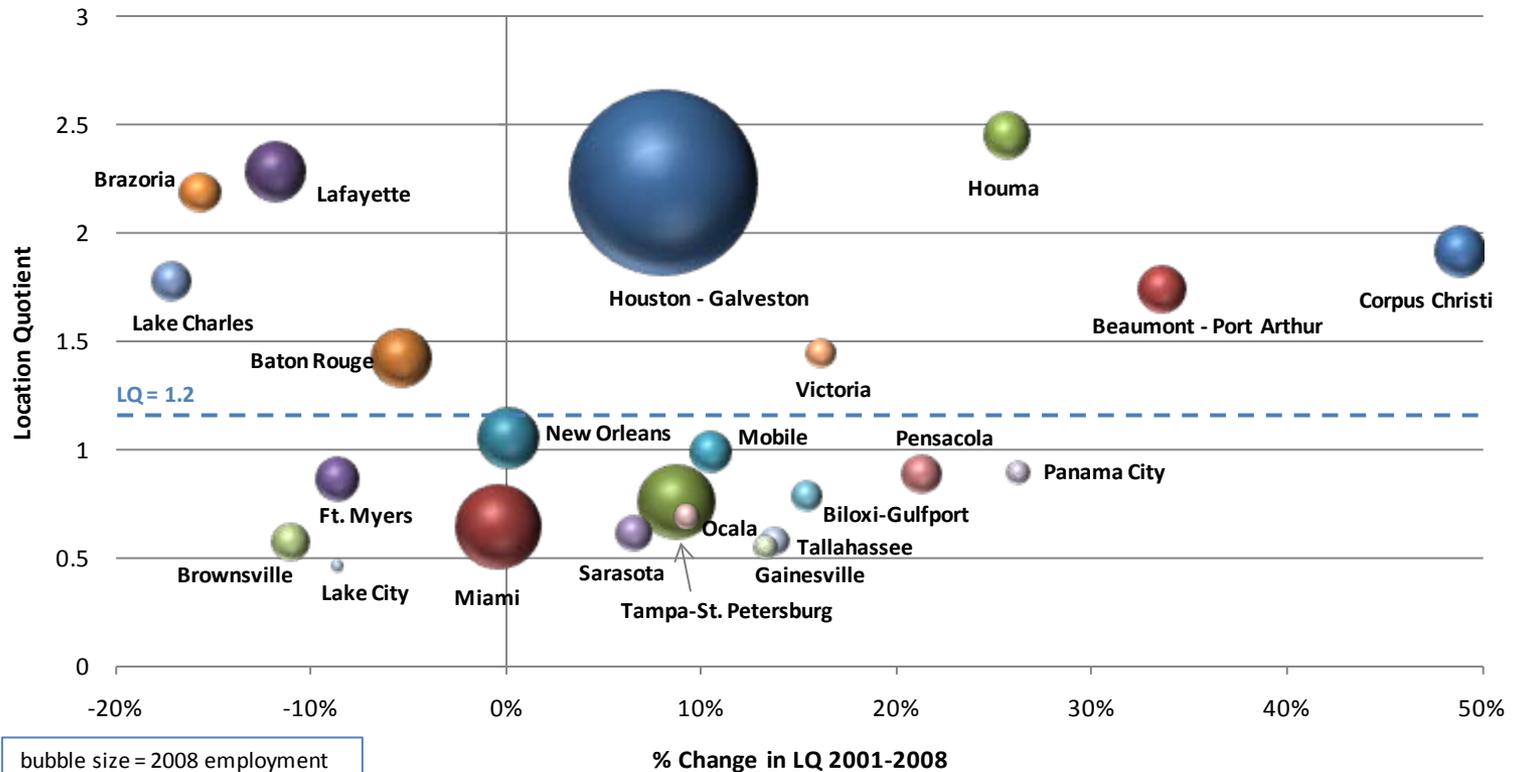
- “Meaningless Averages” Some counties in units are so different in relative importance and concentration that the average for the EA or LMA does not represent any of the members.
LA-4 New Orleans



Data source: Indiana Business
Research Center 2007

Economic Areas — Energy (Fossil/Renewable)

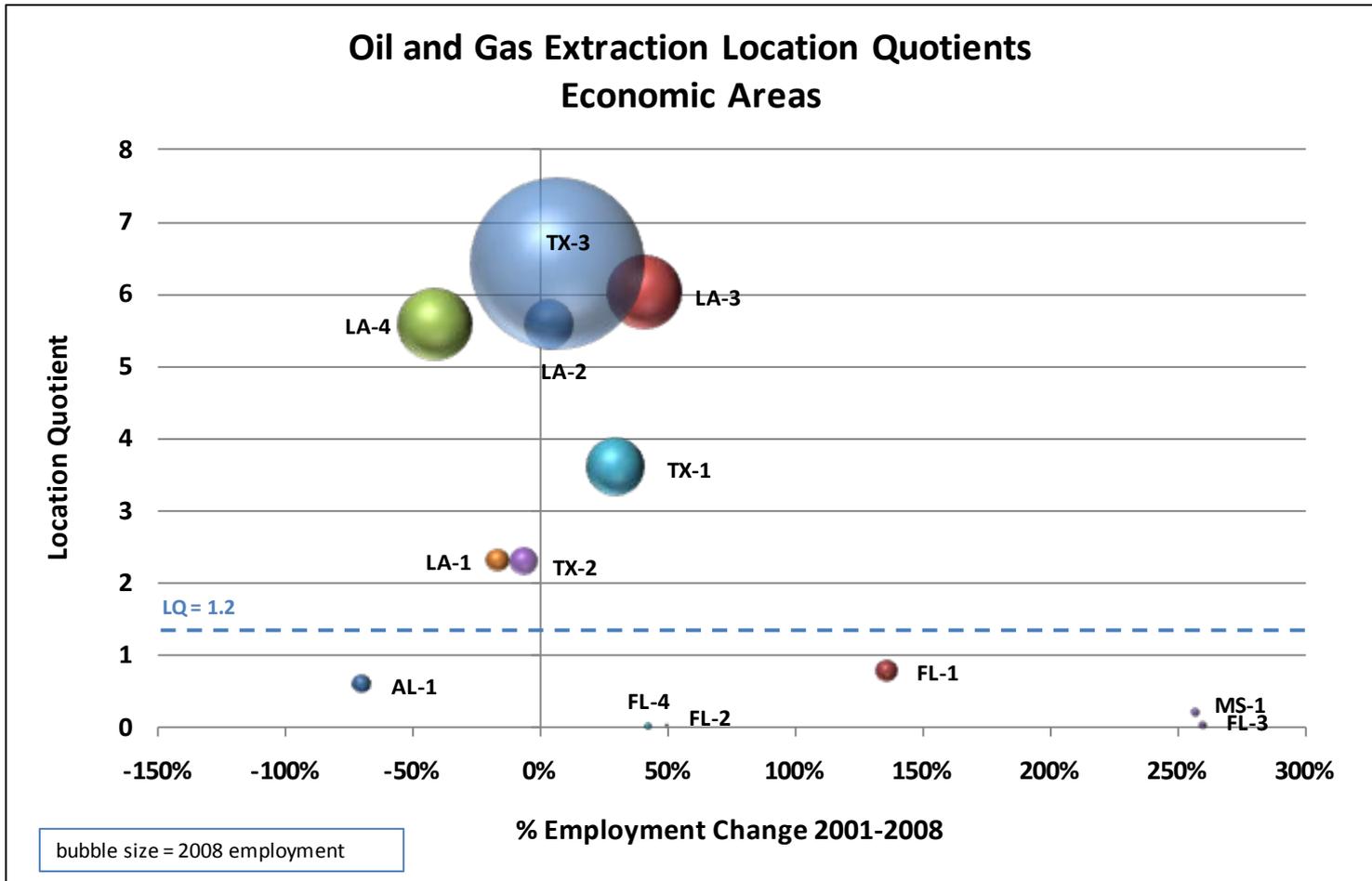
Energy & Fossil Fuel Location Quotients (US) Labor Market Areas



Data source: Indiana Business
Research Center 2007

Labor Market Areas — Energy (Fossil/Renewable)

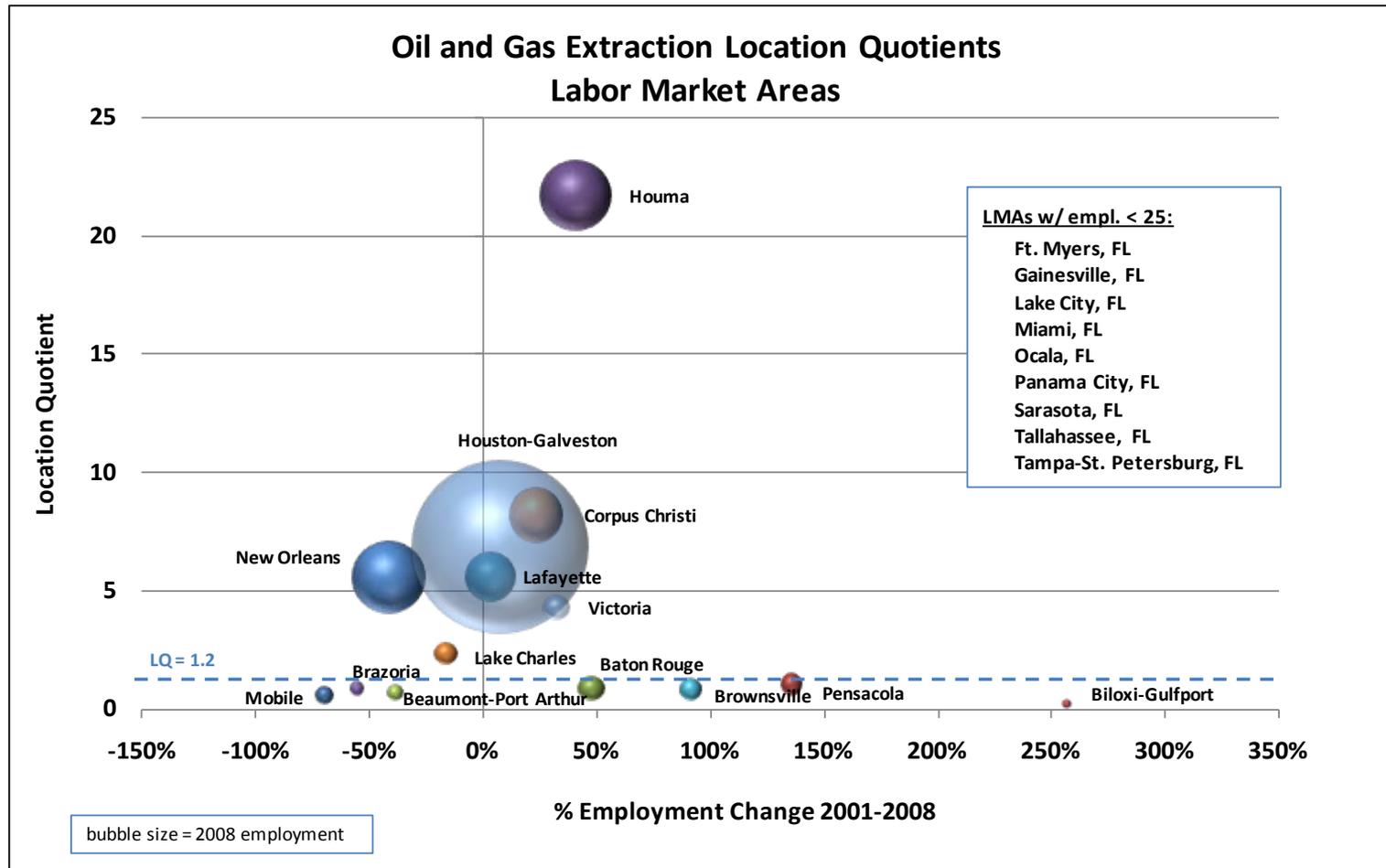




Data source: U.S. Census Bureau 2008



Economic Areas — Oil & Gas Extraction (NAICS 211)

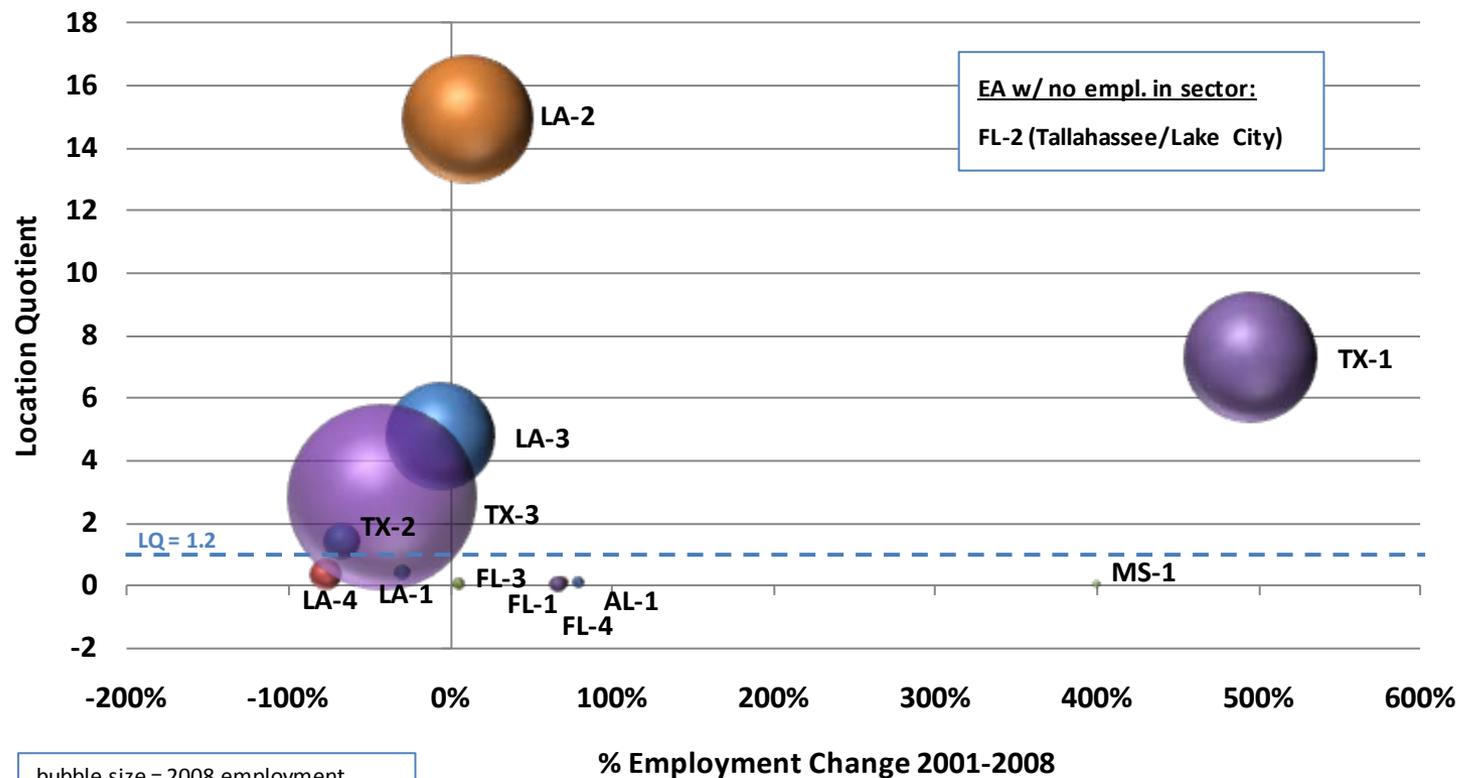


Data source: U.S. Census Bureau 2008



Labor Market Areas — Oil & Gas Extraction (NAICS 211)

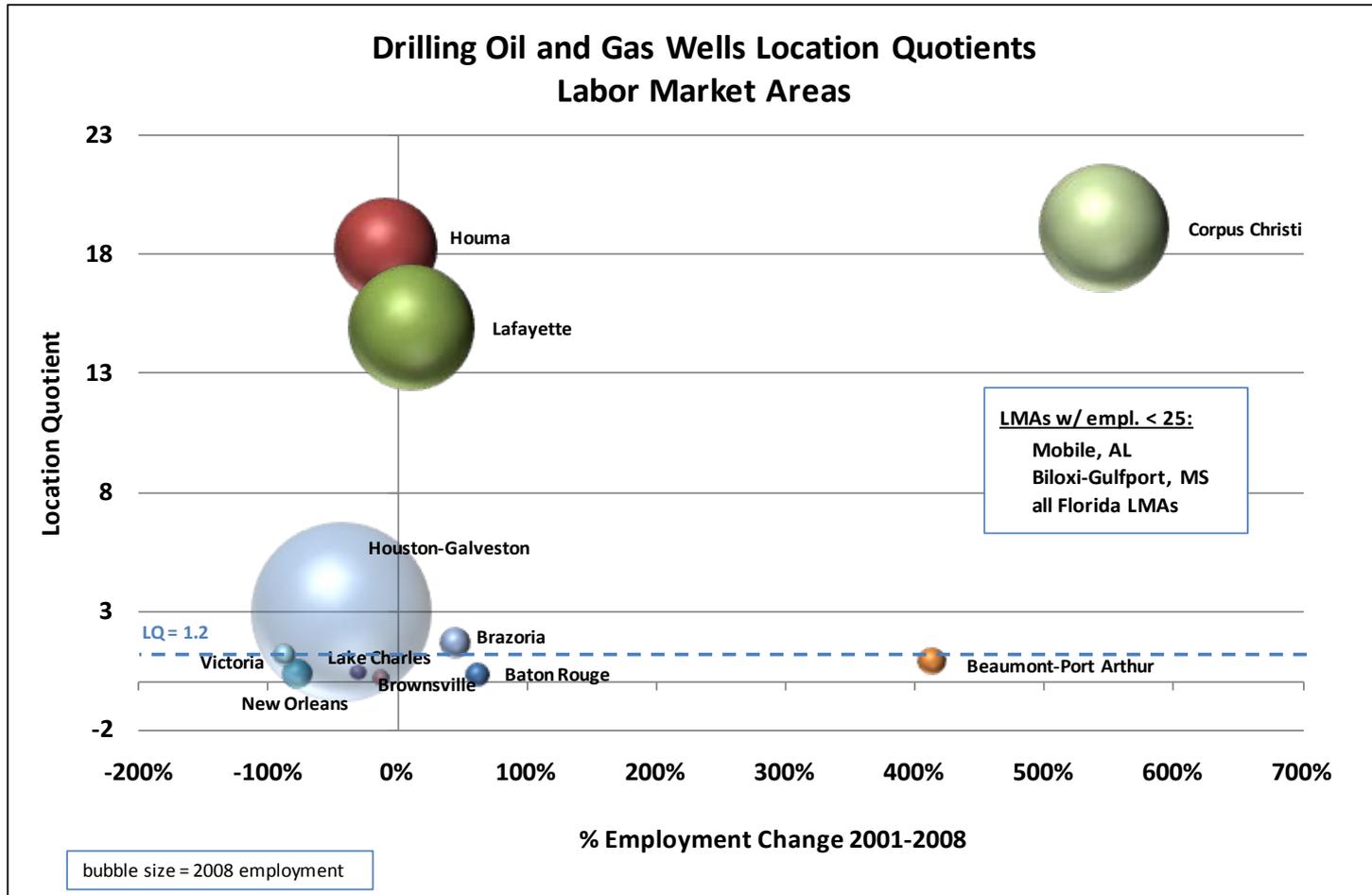
Drilling Oil and Gas Wells Location Quotients Economic Areas



Data source: U.S. Census Bureau 2008



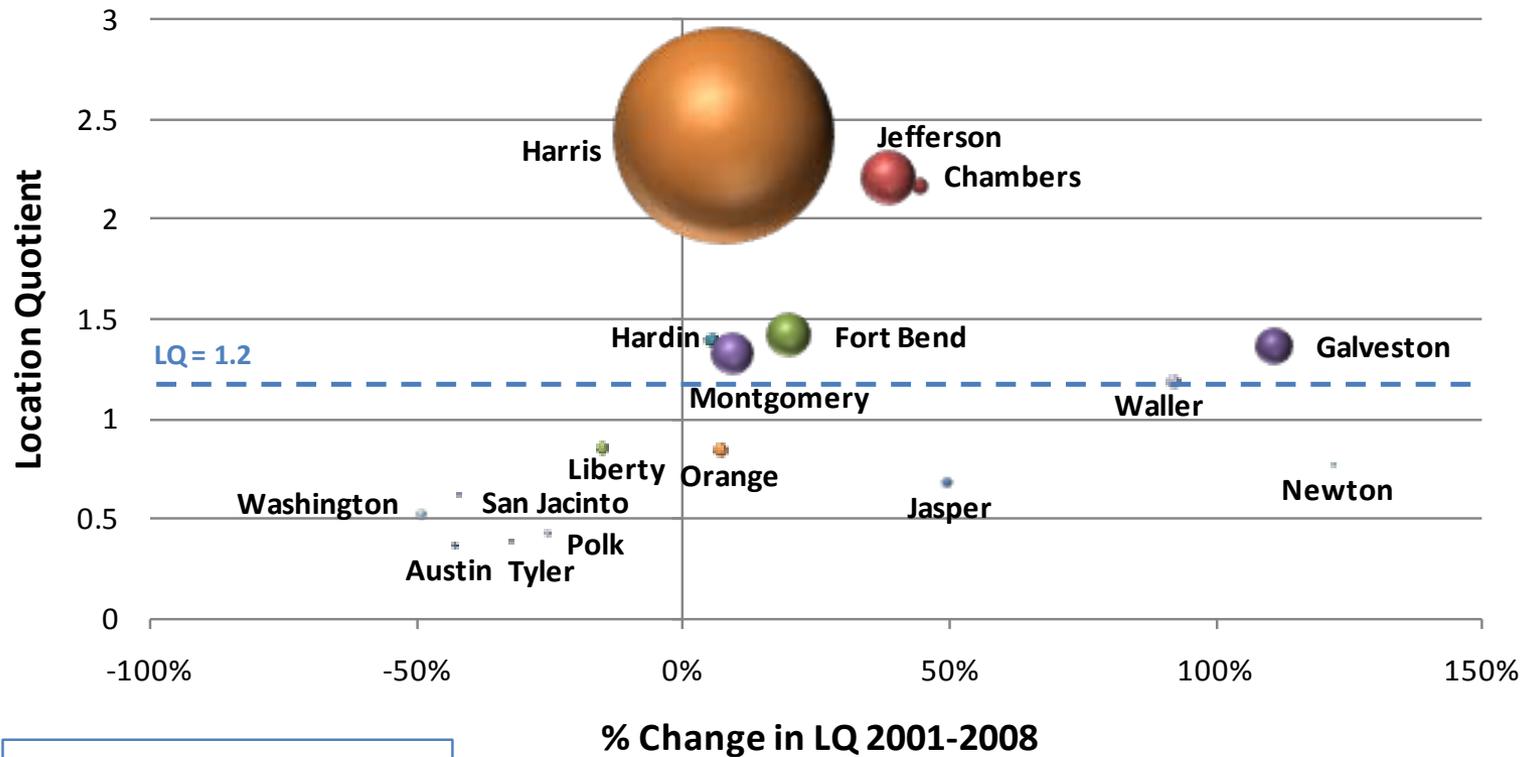
Economic Areas — Drilling Oil & Gas Wells (NAICS 213111)



Data source: U.S. Census Bureau 2008

Labor Market Areas — Drilling Oil & Gas Wells (NAICS 213111)

**Energy (Fossil/Renewable) Location Quotients (US)
Counties in Houston-Galv/Beaumont-Pt. Arthur EA**

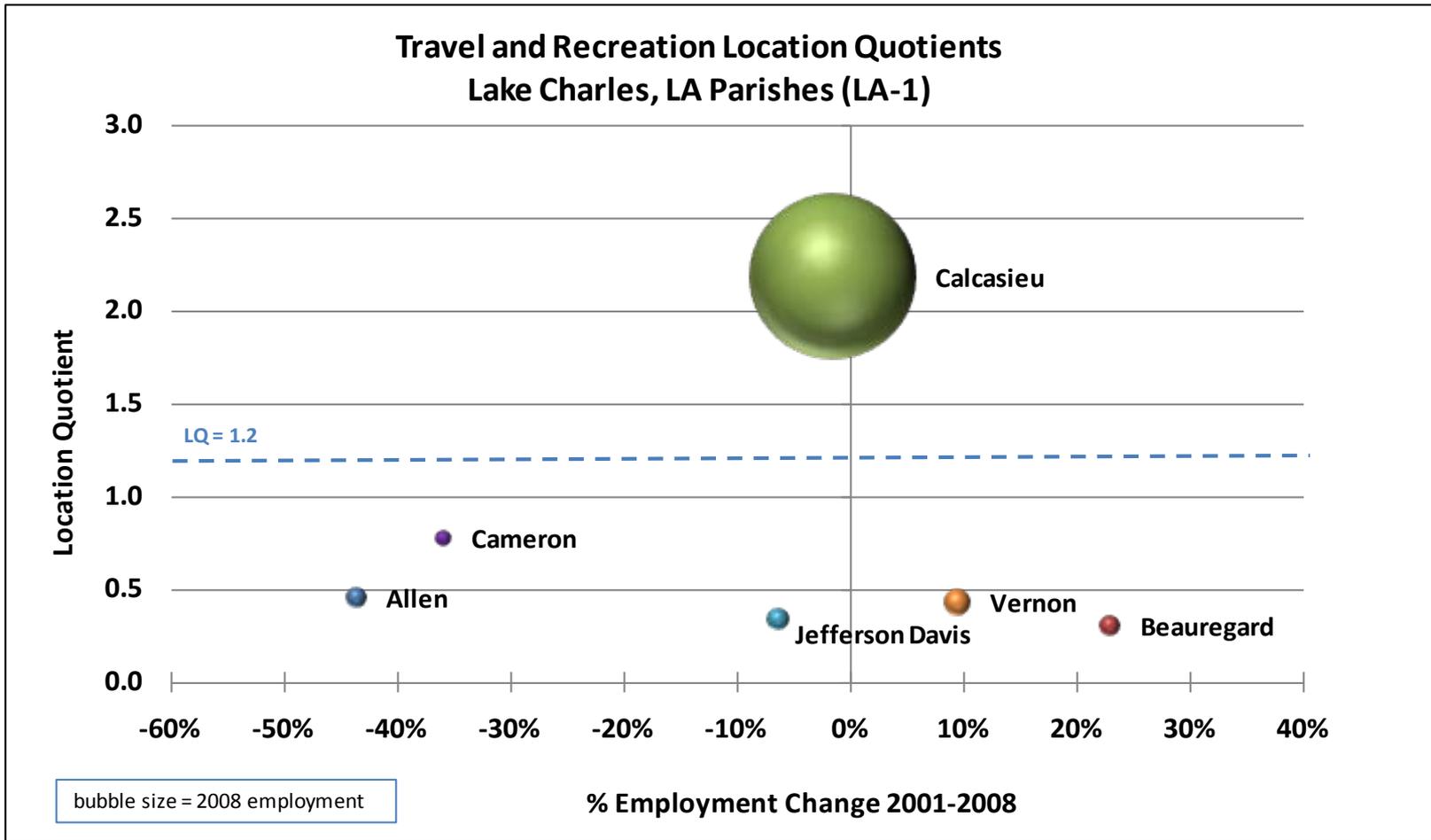


bubble size = 2008 employment

Data source: Indiana Business
Research Center 2007



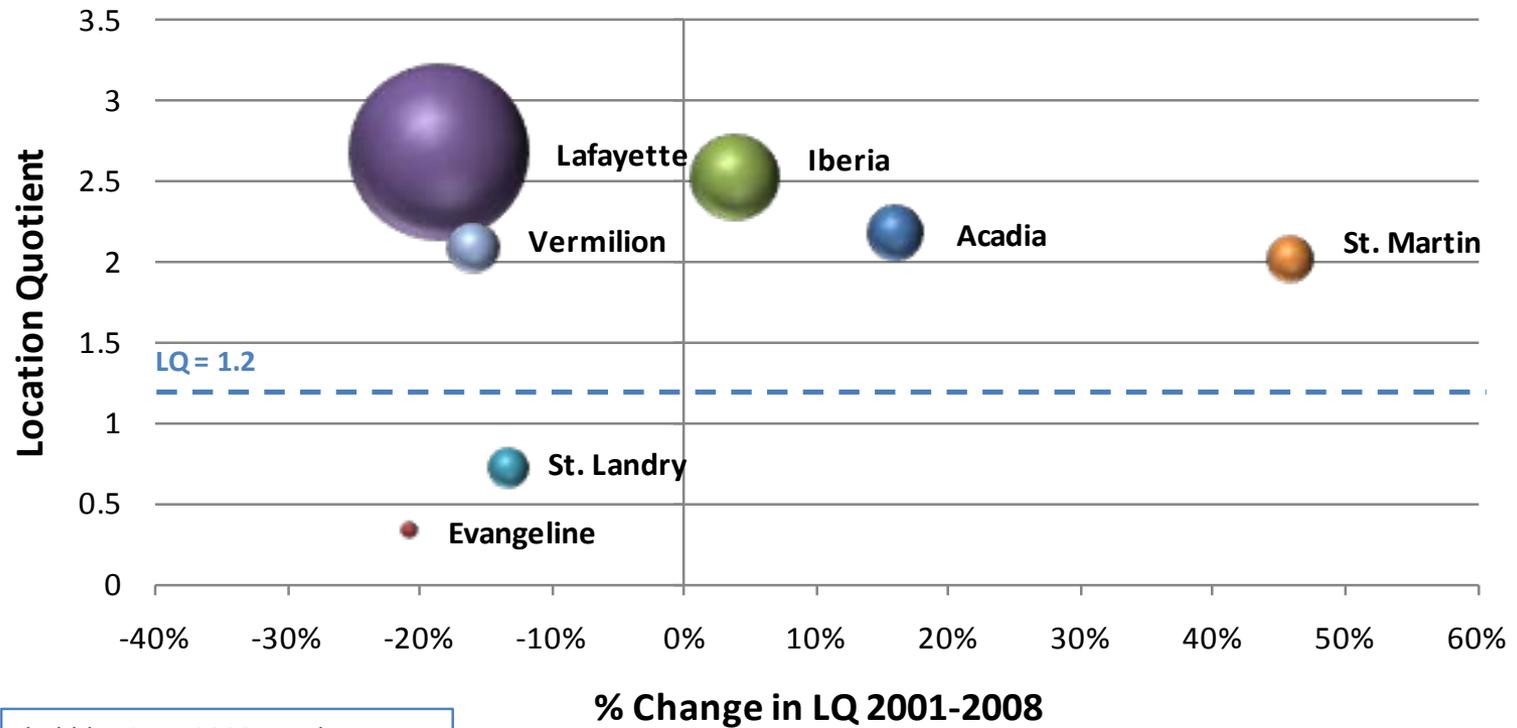
**Houston-Galveston/Beaumont-Port Arthur
Economic Area (TX-3)**



Data source: U.S. Census Bureau 2008

Lake Charles Economic Area (LA-1)

Energy (Fossil/Renewable) Location Quotients (US) Parishes in Lafayette EA



bubble size = 2008 employment

Data source: Indiana Business
Research Center 2007

Lafayette Economic Area (LA-2)



Summary Table -- 2008 Employment Location Quotient > 1.2 For NAICS Classifications by Geographic Unit [Preliminary--not for distribution]

EA/LMA/County	County Business Patterns								IBRC Cluster Data	
	Extraction 211	Drilling 213111	Support 213112	Field Mach. 333132	Oil & Gas ¹ (5 total)	Pipeline Trans. ² (4 total)	Shipbuilding 336611	Travel & Recr. ³ (9 total)	Energy Cluster	Trans & Logis. Cluster
AL-1	-	-	-	2.5	-	2.2	18.4	-	-	1.2
Mobile	-	-	-	2.5	-	2.2	18.4	-	-	1.2
Baldwin	-	-	-	-	-	-	-	1.3	-	-
Clarke	-	-	-	-	-	4.4	-	-	-	-
Conecuh	-	-	-	-	-	2.5	-	-	-	-
Escambia	-	2.3	10.3	-	5.0	-	-	1.7	-	-
Mobile	-	-	-	3.9	-	2.9	28.6	-	-	-
Monroe	-	-	-	-	-	-	-	-	-	-
Washington	2.7	-	-	-	-	4.2	-	-	-	-
Wilcox	-	-	-	-	-	8.9	-	-	-	-
FL-1	-	-	-	3.1	-	-	3.5	-	-	-
Panama City	-	-	-	12.9	1.4	-	13.6	1.6	-	-
Bay	-	-	-	13.8	1.5	-	14.5	1.6	-	-
Franklin	-	-	-	-	-	6.2	-	2.8	-	-
Gulf	-	-	-	-	-	-	3.9	-	1.3	-
Pensacola	-	-	-	-	-	-	-	-	-	-
Escambia	-	-	-	-	-	-	-	-	-	-
Okaloosa	-	-	-	-	-	-	-	-	-	-
Santa Rosa	9.1	-	-	-	2.4	-	-	-	-	-
Walton	-	-	-	-	-	2.4	3.1	-	-	-
FL-2	-	-	-	-	-	-	-	-	-	-
Lake City	-	-	-	-	-	1.8	-	-	-	-
Columbia	-	-	-	-	-	1.5	-	-	-	-
Hamilton	-	-	-	-	-	6.5	-	-	-	-
Lafayette	-	-	-	-	-	-	-	-	-	-
Madison	-	-	-	-	-	-	-	-	-	-
Suwannee	-	-	-	-	-	-	-	-	-	-
Taylor	-	-	-	-	-	1.9	-	-	-	-
Tallahassee	-	-	-	-	-	-	-	-	-	-
Calhoun	-	-	-	-	-	1.9	-	-	-	-
Gadsden	-	-	-	-	-	-	-	-	-	-
Holmes	-	-	-	-	-	9.1	-	-	-	-
Jackson	-	-	-	-	-	-	-	-	-	-
Jefferson	-	-	-	-	-	2.2	-	1.8	-	-
Leon	-	-	-	-	-	1.7	-	-	-	-
Liberty	-	-	-	-	-	-	-	-	-	-
Wakulla	-	-	-	-	-	2.3	-	1.2	-	-
Washington	-	-	-	-	-	11.5	-	1.5	-	-

EA/LMA/County	Extraction	Drilling	Support	Field Mach.	Oil & Gas ¹	Pipeline Trans. ²	Shipbuilding	Travel & Recr. ³	Energy Cluster	Trans & Logis. Cluster
	211	213111	213112	333132	(5 total)	(4 total)	336611	(9 total)		
LA-2	5.6	14.9	22.4	19.4	16.7	5.4	7.4	-	2.3	-
Lafayette	5.6	14.9	22.4	19.4	16.7	5.4	7.4	-	2.3	-
Acadia	5.3	10.8	26.7		15.2	43.5		-	2.2	1.3
Evangeline	2.3		-		-	-		-	-	
Iberia	1.4	18.4	14.7	16.4	12.2	-	13.8	-	2.5	1.2
Lafayette	7.6	17.6	29.1	27.5	21.9	1.9	9.1	-	2.7	-
St. Landry	1.7	5.9	-	6.1	2.5	4.4		-	-	-
St. Martin	5.8	19.2	18.1	16.4	14.9	4.7		-	2.0	-
Vermilion	4.4	1.5	26.1		12.7	17.6	5.1	-	2.1	-
LA-3	6.0	4.7	7.9	7.8	6.6	3.6	11.7	-	1.7	1.5
Baton Rouge	-	-	-	-	-	2.5	1.6	-	1.4	-
Ascension	5.6	-	2.9		2.6	7.4		-	1.9	-
East Baton Rouge	-	-	-		-	-		-	1.6	-
Iberville	3.1	6.6	-		2.1	2.6	7.8	-	-	1.9
Livingston	-	-	-		-	7.8		-	-	-
Tangipahoa		-	-		-	6.2		-	-	1.5
West Baton Rouge	5.6		11.2		6.2	2.9	44.5	-	1.4	2.7
Houma	21.7	18.2	29.5	31.7	24.8	6.7	42.5	-	2.4	3.5
Assumption	11.1	-	-		2.9	24.8		-	-	-
Lafourche	4.0	7.3	25.1		13.4	8.7	70.3	-	-	6.5
St. Mary	9.9	-	51.8	33.3	28.3	4.5	40.5	1.9	2.5	3.5
Terrebonne	38.3	34.9	21.8	50.3	30.5	5.8	30.5	-	3.6	1.8
LA-4	5.6	-	3.8	2.2	3.3	2.5	13.3	1.5	-	1.2
New Orleans	5.6	-	3.8	2.2	3.3	2.5	13.3	1.5	-	1.2
Jefferson	-	-	6.2	4.9	3.5	3.2	26.7	-	1.3	1.2
Orleans	11.8	-	-		3.3	-	3.7	3.2	-	-
Plaquemines	48.8		26.1	9.2	23.6	8.8	8.4	-	2.4	4.1
St. Bernard	9.4		-	3.0	3.0	5.9	3.3	-	-	2.0
St. Charles	-		1.5		-	5.2		-	1.9	2.2
St. James						3.5		-	-	1.5
St. John the Baptist			9.5		4.2	7.3	13.5	-	-	2.0
St. Tammany	1.9	-	-		-	1.3	4.9	-	-	-
Washington		-	-		-	4.5		-	-	-
MS-1	-	-	-	-	-	-	123.0	3.3	-	-
Biloxi-Gulfport	-	-	-	-	-	-	123.0	3.3	-	-
George								-	-	-
Greene			-		-	14.6			-	-
Hancock			-		-	-		5.4	-	-
Harrison			-		-	-	6.4	5.3	-	-
Jackson	-		-		-	1.3	375.5	-	-	-
Pearl River		-	-		-	-		-	-	-

References

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