



## Economic Pulse

### What Drives Coastal Bend Employment Growth?

by Jim Lee

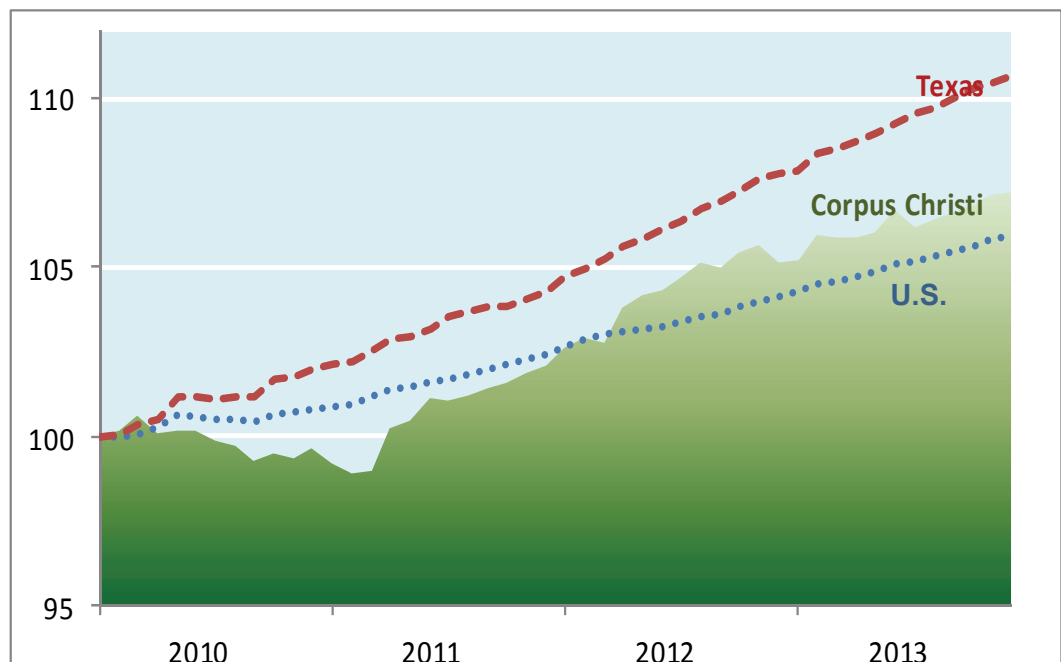
#### ABSTRACT:

Employment growth since 2010 has been quite uneven across industries in the Coastal Bend. Local industries that have expanded at a pace faster than the nation's are responsible for virtually all net job gains in the region. Industries that are directly or indirectly associated with oil and gas production have accounted for at least half of overall employment growth in the region.

It is well known that the Eagle Ford Shale has generated a profound impact on the economy of South Texas. Still how much the current shale oil boom has affected the regional economy remains largely a mystery. Above all, only three (Bee, Live Oak and McMullen) of the 30 counties atop the Eagle Ford formation belong to the Coastal Bend region. This article provides an update to previous issues of this *Economic Pulse* newsletter that describe the extent to which employment growth across the Coastal Bend have been tied to soaring regional shale oil and gas production in recent years.

One distinction of this study is the focus on actual or historical data instead of projections using economic models. The latter methodology, which is widely adopted in the absence of real-time data, provides essentially estimates for the "potential" impact of a new economic activity. Some prominent impact studies using this standard methodology have been produced by the University of Texas at San Antonio's Institute of Economic Development (2011-2014). There are, however, myriad reasons for the real world to be different from what those economic models predict.

#### *Employment Patterns (January 2010=100)*



<b>Employment in Growing Industries, 2010-2013</b>					
<b>Industry</b>			<b>Share of Employment Change</b>		
	<b>Job Change 2010-13</b>	<b>Regional / National</b>	<b>National</b>	<b>Industry</b>	<b>Regional</b>
<b>Mining</b>					
Oil and Gas Extraction	569	1.11	16%	50%	34%
Mining (except Oil and Gas)	54	1.13	26%	19%	54%
Support Activities for Mining	7,840	1.38	6%	42%	51%
<b>Manufacturing</b>					
Petroleum & Coal Products Manufacturing	279	1.05	65%	-20%	54%
Chemical Manufacturing	95	1.08	71%	-57%	86%
<i>Machinery Manufacturing</i>	414	1.43	11%	11%	78%
Transportation Equipment Manufacturing	364	1.27	15%	18%	67%
<b>Trade</b>					
<i>Merchant Wholesalers, Durable Goods</i>	987	1.17	27%	2%	71%
<i>Electronic Markets Agents/Brokers</i>	136	1.34	13%	13%	74%
<i>Motor Vehicle and Parts Dealers</i>	712	1.07	30%	32%	37%
<i>Building Material Stores</i>	308	1.04	44%	24%	31%
<b>Transportation</b>					
Water Transportation	47	1.25	15%	17%	64%
Truck Transportation	1,455	1.52	9%	12%	79%
Pipeline Transportation	132	1.39	14%	-5%	90%
<b>Services</b>					
<i>Financial Investment</i>	64	1.06	41%	17%	39%
Management of Companies	241	1.26	16%	16%	68%
Waste Management Service	289	1.27	16%	12%	72%
Accommodation	1,119	1.20	16%	26%	58%
<i>Food Services and Drinking Places</i>	4,000	1.03	34%	49%	17%
Repair and Maintenance	1,158	1.39	13%	4%	83%
<b>Total</b>	<b>20,263</b>		<b>18%</b>	<b>32%</b>	<b>50%</b>

As illustrated in an earlier issue of *Economic Pulse* (2012, No. 4), not all of the projected employment impacts on Corpus Christi were realized in 2011.

Historically, the Coastal Bend overall economy has been tied closely to the rest of the nation. Local income and employment declined dramatically between 2008 and 2009 when the U.S. fell into a recession. Since 2011, the Coastal Bend and much of Texas have experienced strong output and job

growth, while the nation has continued to struggle through the so-called jobless recovery.

The line plot in the preceding page compares the employment data for the Corpus Christi metro area with the patterns of the state and the nation. Those three employment paths have been rescaled so that the readings in January 2010 equal 100. During 2010, Corpus Christi's employment remained flat and its growth rate lagged behind those of the state and the nation. In

the following year, local employment revved up, with job growth reaching 3.6 percent in 2012 before tapering off to 2 percent by the end of 2013.

What has made the region's employment patterns so different from the rest of the nation's? Following the methodology in the 2012 study, this question can be addressed through a shift-share analysis, which shows how much of regional job growth is due to unique regional factors and how much is due to na-

## County Employment Growth, 2010-2013

County	County Employment Growth	Oil and Gas Extraction Industry				
		Industry Job Change	% of Local Job Growth	National Share	Industry Share	Local Share
Aransas	14%	166	21%	8%	39%	54%
Bee	11%	396	40%	5%	22%	73%
Brooks	13%	67	22%	15%	78%	6%
Duval	19%	71	12%	42%	208%	-151%
Jim Wells	23%	2,201	57%	6%	29%	66%
Kenedy	47%	144	77%	4%	21%	74%
Kleberg	7%	133	16%	9%	47%	44%
Live Oak	45%	987	73%	2%	7%	91%
McMullen	85%	117	55%	1%	3%	95%
Nueces	6%	3,146	33%	5%	26%	69%
Refugio	15%	169	50%	8%	38%	54%
San Patricio	14%	661	29%	3%	18%	79%

### Shift-Share Analysis

The table in the preceding page lists some statistics of the shift-share analysis for Coastal Bend employment between 2010 and 2013. The table lists only those industries that grew faster in the Coastal Bend than nationwide during that period. That list of 20 industries together added more than 20,000 jobs, accounting for nearly all job gains (99%) in the Coastal Bend. A number of industries, such as the government and education sectors, experienced a net loss during that period.

The column under the label “regional/national” lists the shift-share ratios, which equal a particular industry’s employment growth locally over its growth nationally. Most ratios are greater than one, meaning that employment in those industries have been expanding more rapidly in the Coastal Bend than in the nation. Except trade in electronics, all industries are either directly involved in oil and gas production and its supply chain, or are in support of such activities, such as waste management and accommodation.

The last three columns of the table divide the total regional employment growth into three factors: na-

tional, industry, and regional. For each industry, the percentages of those three factors sum up to one. Regional factors accounted for more than 80 percent of job growth in pipeline transportation and chemical manufacturing, while industrial trends alone called for a reduction in those industries’ workforce nationwide. The bottom row indicates that regional-specific factors contribute to half of the job growth in those thriving industries in the Coastal Bend, and industry and national factors together explain the other half.

Activities in the mining and transportation sectors include businesses directly involved in oil and gas production. If only these two sectors are considered instead of all sectors listed in the table, then regional factors such as activities related to the Eagle Ford explain more than 55 percent of employment growth in those regional industries.

### Oil & Gas Extraction Across Counties

Even though only three counties of the Coastal Bend are located within the Eagle Ford Shale play, almost all counties in the region have experienced surges in oil and gas employment. The above table

underscores the role of the oil and gas industry in the local economies. Between 2010 and 2013, overall employment growth varied widely across those counties, from 6 percent in Nueces County to 85 percent in McMullen. However, in terms of the number of jobs added to oil and gas extraction, Nueces—the most populated county—is the leader with over 3,000 positions. Oil and gas extraction also contributed to about one-third of all job gains in Nueces County.

Given the average of less than one percent of oil and gas employment share in the Coastal Bend, the contribution of this industry to the region’s employment growth was phenomenal. The last three columns show the shares of national, industry and local factors in the oil and gas industry’s employment growth. In all cases except for Brooks and Duval counties, the role of the Eagle Ford Shale can be appreciated.

**Note:** This article is an update to a recent newsletter (2012 No. 4) concerning regional employment growth. Other related articles of *Economic Pulse* include 2012 No. 3; and 2011 No. 4.



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