



# Corpus Christi and Coastal Bend Economic Pulse

College of Business and EDA University Center  
Texas A&M University-Corpus Christi

2014 | No. 1

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## Vision 2020: How Big Will We Get?

*By Jim Lee*

Accurate forecasts of population growth are crucial for gauging future infrastructure and resource needs. The conventional methodology of relying on historical trends is no longer reliable for the Coastal Bend in the shadow of the Eagle Ford oil boom. This article compares a number of local population forecasts, including two new sets of projections based on current employment growth and migration patterns.

For decades a critical concern among local communities in South Texas was how to revitalize the regional economy. That, of course, has ended recently with the emergence of an oil boom. Today, local government officials and business leaders are preoccupied with ways to cope with the growing pains as spillover effects from surges in oil and gas drilling activity. Among all major shale oil and gas formations in the U.S., the Eagle Ford play stands out as the leader in well productivity growth. Such phenomenal growth has also heightened uncertainty about the extent to which current developments in the Coastal Bend region will continue in the future.

This article is the first of a series that focuses on the regional economic outlook in the shadow of the Eagle Ford oil boom. Today, the primary concern among local officials is how fast their communities will grow, which also affects their planning for future infrastructure and resource needs.

### Size Matters

Water availability has become a pressing issue for South Texas since its shale oil and gas production took off in 2010. The new hydraulic fracturing, or fracking, method of drilling consumes substantial water. The drought conditions in recent years have also added to the concern about the amount of fresh water supply in the future. Such a concern has been exacerbated by speculation about explosive future population growth within this region.

The Eagle Ford Shale oil boom has been widely referred to as a “game changer” for many local communities in the sense that their economic landscapes might be altered permanently. For this reason, the common practice of forecasting the future using simple extrapolation of historical trends would be deemed unreliable. For instance, the office of Texas State Demographer has constructed long-term population projections using a methodology that is based on historical birth, death and migration patterns. The projections include three alternative scenarios: a normal migration pattern (labeled as “0”), an aggressive migration pattern (labeled as “1”), and a conservative migration pattern (labeled as “0.5”). The conservative 0.5 scenario is commonly used by city planners.

### Vision 2020

**Table 1** lists a number of population projections for the Corpus Christi metro area through 2020. The first three rows show the average annual population growth rates based on Texas State Demographer’s numerical projections. The 0.5x migration scenario generates an annual growth rate of 0.77%, which is near the average of 0.74% during the 2001-2010 period. This local projection is only about half of the projected 1.4% for the state of Texas.

Beneath those “official” projections are estimates drawn from a recent Forbes magazine article, which discusses economic growth conditions of different regions in the United States. Corpus Christi was spotlighted as one of the energy hubs within the so-called Third Coast, which is poised to experience strong economic growth in the coming decade. Based on its 10-year-ahead population forecast for the entire Third Coast

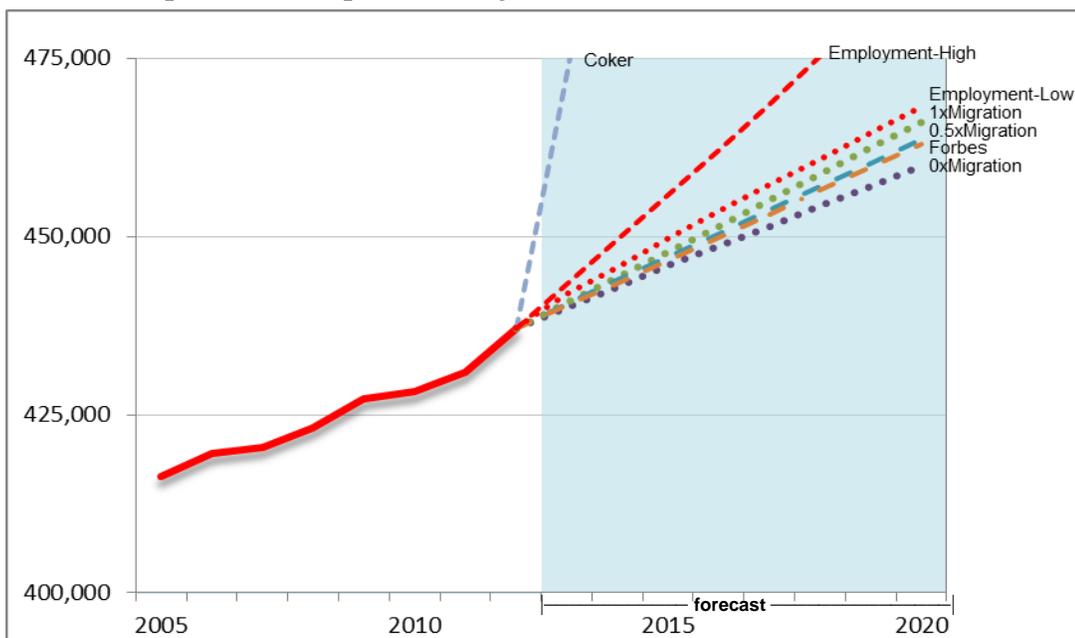
region, or much of the Gulf Coast, the implied annual growth rate at 0.72% still appears to be modest relative to other popular forecasts.

One forecast that has garnered much public attention is the 8% annual growth rate asserted by Ralph Coker, a columnist at the Corpus Christi Caller Times. He derived that estimate using the projected economic impact of 5% growth associated with the Eagle Ford activity, plus another 3% from the planned industrial construction projects at the Port of Corpus Christi district alone. Estimates of the regional economic impacts were drawn from a University of Texas at San Antonio study released in May 2012.

**Table 1: Alternative Corpus Christi Population Growth Forecasts**

	Average Annual % Change	Population 2020	Total % Change 2013-2020
0xMigration	0.62%	459,895	4.4%
0.5xMigration	0.77%	463,647	5.5%
1.0xMigration	0.84%	466,100	6.0%
Forbes	0.72%	463,037	9.0%
Coker	8.00%	809,058	251.8%
Employment-High	1.40%	488,532	11.8%
Employment-Low	0.86%	468,087	7.1%

**Chart 1: Corpus Christi Population Projections**



**Chart 1** shows the annual projections through 2020. Those disparate trajectories underscore the extent of uncertainty facing regional communities in South Texas. An accurate population forecast is crucial for gauging future water demand. The City of Corpus Christi has also reported future projections for water consumption. Based on its projections for residential usages by Corpus

Christi and other service areas, the total volume of residential water consumption is expected to increase by an average annual rate of 0.53% through 2020. This projection for residential water usages, which currently make up more than 75% of the City’s total water demand, is below most projections listed in **Table 1**. It is also modest in comparison with the nearly 12% annual increase for commercial/industrial demand due in part to the planned large-scale developments in the metro area.

**Shifting Trends**

Except for Coker’s, most projections draw on historical trends that may no longer be relevant for future forecasts. **Chart 2** on the next page illustrates this point by showing some historical statistics for population and demographical patterns. Regional population growth slowed down during the past two decades. Changes in a region’s population come from the number of births minus deaths (natural gains) and net migration into the region. Net migration is the number of residents moving into an area minus the number of residents moving out of that area. The slowdown in Corpus Christi’s population growth in the past two decades was due to the downtrends in both numbers of births and migrants. In fact, during the 2000-2009 period, nearly 19,000 more people moved out than into Corpus Christi. In 2012, this persistent trend of outmigration was reversed. Although it is too early to tell how long this new migration pattern will continue, such a shift has yet been reflected in most official forecasts for regional population.

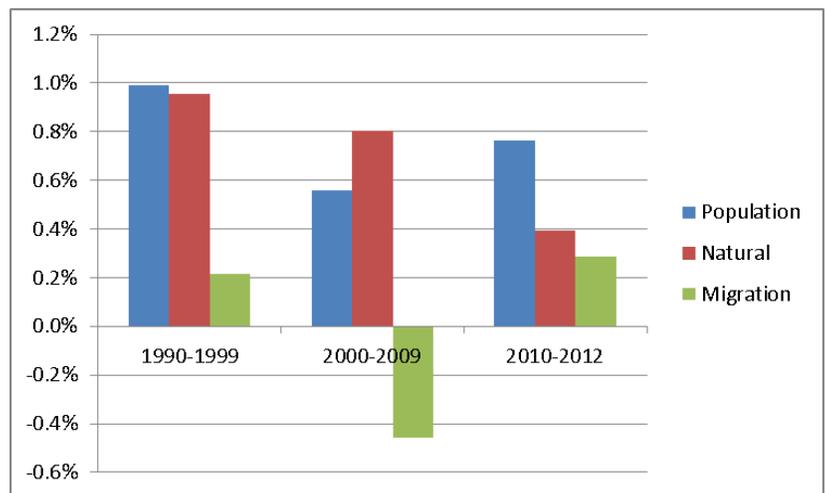
## Great Migration

Two factors can explain the observed migration patterns since 2012. First, the initial cohort of the Baby Boom generation, representing people born immediately after the end of World War II, has reached the retirement age of 65. Communities in the Gulf Coast region, including South Texas and Florida, have been widely regarded as favorite destinations for retirees.

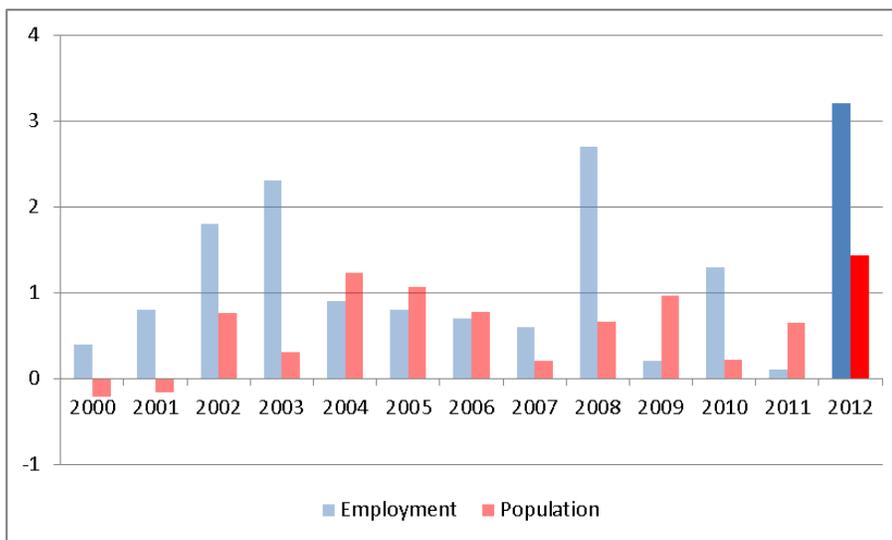
The second factor that might have led to the influx of residents is expansion in the local economy and its labor market. Coker made population projections using a one-to-one ratio for his projected output and employment growth. However, employment growth does not necessarily translate to population growth if new jobs can be filled by local residents who would otherwise be unemployed or out of the labor force. **Chart 3** below illustrates this point: employment and population growth rates tended to fluctuate in the same direction over time, but they did not move in lockstep. Population growth was on average about half of employment growth. Their gaps can be affected by myriad factors, including slacks in the regional labor market, changes in the labor force participation rate, and changes in commuting and migration patterns.

The patterns in **Chart 3**, nevertheless, do reinforce a close relationship between a region's employment and population trends over time. Between 2000 and 2011, Corpus Christi's employment grew at a pace of 1.1% per year on average, the same rate as that for Texas. Since then, the shale oil boom has boosted monthly employment to an average annualized growth rate of 2.8%. The regional labor force has also been growing at a solid pace of over 1.5%, more than double the historical average.

**Chart 2: Corpus Christi Population Growth and Composition**



**Chart 3: Corpus Christi Employment and Population Growth (%)**



growth at 1.4%, the highest since 1994. The number of births less deaths has declined modestly over the past two decades. Should the recent employment and migration conditions sustain perpetually, Corpus Christi's population could continue to expand at a 1.4% annual rate. The population forecasts based on this projected employment condition are labeled as "Employment – High" in **Table 1** and **Chart 1** above.

The vision of perpetual growth seems too optimistic. In addition to the TWC forecasts, early signs of slowing down in regional employment growth already emerged in mid-2013. If Murphy's Law holds, then population growth would eventually return to the historical norm, or the so-called Goldilocks state. The corresponding population forecasts, labeled as "Employment – Low" in **Table 1** and **Chart 1**, draw on the assumption of a constant decline in annual growth from 1.11% in 2013 to 0.77% by 2020.

## Employment Forecasts

In last October, Texas Workforce Commission published near-future forecasts for regional employment in Texas. **Table 2** highlights the expectation of continued growth for the state, the Coastal Bend region, as well as Corpus Christi. The Coastal Bend and its metro area are expected to add jobs at a rather steady pace of about 2% annually by the end of 2015.

The TWC's robust regional forecasts also point to continued population growth near the current pace. In 2012, the number of new residents relocated to the area accounted for 62% of Corpus Christi's population

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**Table 2: Employment Forecasts 2013-2015**

	2013-2014	2014-2015
Texas	2.3%	2.4%
Coastal Bend Region	1.8%	2.0%
Corpus Christi MSA	1.9%	2.0%

Source: Texas Workforce Commission

As shown in **Chart 1** on page 2, the range of employment-based forecasts for Corpus Christi's future population are comparable to Forbes Magazine's projections. Development plans for the community would seem more manageable under these forecasts than those rather speculative estimates.

**Note:** Detailed data are available online at [pulse.cob.tamucc.edu](http://pulse.cob.tamucc.edu).

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