

Economic Contributions of the Mining/Oil/Gas Industry in Caldwell, Gonzales, and Guadalupe Counties, 2009

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Caldwell, Gonzales, and Guadalupe Counties in central Texas are widely regarded as an agricultural region, although metals-based manufacturing and food processing are also important to the area economy. The mining, oil, and natural gas sector is also active in the region, with most activity in the sector being on the oil and gas front. The Bureau of Economic Analysis estimates that the oil and gas industry employed 1,256 employees in 2009, the latest data available.

Economic activity by the oil industry (direct effect) ripples through the regional economy as firms purchase inputs (indirect effect) and pay employees who also make regional purchases (induced effect). Of course, money also leaks from the economy as firms and households purchase goods and services from other parts of the state, nation, and world. The total effects are the sum of direct, indirect and induced for each of the outcomes: employment, labor income, total value added (contribution to gross regional product) and output (gross sales). Value added and labor income are components of output.

Table 1 shows the economic contributions of the oil and gas industry. The industry contributed an estimated \$371.1 million in output, including \$287.7 million in direct output, as well as 1,970.5 full- and part-time jobs in 2009. The region gained \$182.9 million in value added or “GDP”, including \$114.3 million in labor income.

Table 1. Economic Contribution of Mining/Oil/Gas in Caldwell, Gonzales, and Guadalupe Counties, 2009.

Impact Type	Output	Value Added	Labor Income	Employment
Direct Effect	\$287,705,500	\$133,350,000	\$87,462,400	1,257.0
Indirect Effect	\$38,754,700	\$22,093,000	\$13,271,600	274.9
Induced Effect	\$44,602,100	\$27,502,200	\$13,591,000	438.5
Total Effect	\$371,062,200	\$182,945,200	\$114,325,000	1,970.5

Table 2. Economic Contribution of Mining/Oil/Gas with 10 Percent Employment Growth, based on 2009 estimates.

Impact Type	Output	Value Added	Labor Income	Employment
Direct Effect	\$316,344,800	\$146,638,300	\$96,164,800	1,382.0
Indirect Effect	\$42,608,000	\$24,290,200	\$14,590,900	302.3
Induced Effect	\$49,039,400	\$30,238,300	\$14,943,100	482.2
Total Effect	\$407,992,200	\$201,166,800	\$125,698,700	2,166.4



The oil and gas industry is expected to continue to grow in the coming years. If industry employment expanded by 10 percent to 1,382 workers, direct industry output would be expected to grow to more than \$316.3 million (Table 2). Throughout the economy, this would result in \$18.2 million in additional value added (or GDP) and \$11.4 million in additional labor income.

This activity is not just a benefit to the oil well drilling, extraction, and support activities (such as exploration, fracking and repair). As oilfield companies and workers purchase inputs and spend wages in the local economy, other industries are impacted as well. Engineering services, accounting services, and technical consulting benefit from oil and gas activity of course. However, food service and retail establishments and construction firms are also major beneficiaries of mining activity. For example, an estimated 87.5 food service jobs (full- and part-time) are associated with the oil and gas industry.

The economic activity associated with the oil and gas industry in Caldwell, Gonzales, and Guadalupe Counties also generates an estimated \$14.3 million state and local taxes (Table 3). Strategic investments in regional schools, infrastructure, and resources will help ensure ongoing benefit to local communities.

Table 3. State and Local Tax Collections Associated with the Mining/Oil/Gas Industry in Caldwell, Gonzales, and Guadalupe Counties, 2009.

Description	Tax
Employee Compensation	\$73,600
Indirect Business Tax	\$12,781,200
Households	\$868,900
Corporations	\$568,200
Total	\$14,291,900

Although only Gonzales County is part of the expanding Eagle Ford Shale, the shale influences the economies of nearby counties. For example, activity related to drilling and extraction in the 20-county Eagle Ford region is associated with an additional \$1.8 million in output and 5.8 jobs in Caldwell County alone. There is no direct effect in Caldwell County because the direct drilling and extraction take place in the Eagle Ford. However, businesses and employees purchases goods and services from Caldwell County businesses. For example, some Caldwell County residents may work in the Eagle Ford oil fields or some service businesses may contract work in the shale.

Table 4. Economic Contribution of the Eagle Ford Shale on Caldwell County, 2009.

Impact Type	Output	Value Added	Labor Income	Employment
Direct Effect	\$0	\$0	\$0	0.0
Indirect Effect	\$1,609,500	\$1,019,500	\$213,600	4.5
Induced Effect	\$157,100	\$88,600	\$42,500	1.4
Total Effect	\$1,766,500	\$1,108,100	\$256,000	5.8

The oil and natural gas industry has a long history in Texas. The industry has helped to counter the recent nationwide recession and is expected to remain strong for the next decade. Although oil and natural gas production are not the primary drivers of the Caldwell, Gonzales, and Guadalupe County economies, the local oil and gas industry remains an important contributor to the regional economy. Furthermore, the development of the Eagle Ford Shale has contributed to economic growth in the region as well.

References:

- Bureau of Economic Analysis. 2011. "Total Employment by Industry, 2009." Washington, DC, April. www.bea.gov/regional/reis/.
- Minnesota IMPLAN Group, Inc. 2010. IMPLAN System [data and software], 502 2nd Street, Suite 301, Hudson, WI 54016. www.implan.com.