October 2025

Institute for Energy Economics and Financial Analysis

More Oil, Fewer Jobs: Employment Declines in the U.S. Oil and Gas Sector

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Key Findings

The U.S. oil and gas industry employs 20% fewer workers today than it did a decade ago, with total employment in the sector falling from 1.26 million to 1 million.

In Texas, oil- and gas-producing regions have economically underperformed, threatening the financial health of regional banks serving the oil patch.

A decade of productivity gains means more oil with fewer workers. The number of jobs required to produce a barrel of oil has fallen by half over the last decade.

Amid steep layoffs and forecasts of prolonged low oil prices, the U.S. oil and gas industry could soon employ fewer people than it did before the onset of the shale revolution.

Executive Summary

According to Karr Ingham, president of the Texas Alliance of Energy Producers, the oil and gas industry has a jobs problem: "For the better part of 10 years now, it has become increasingly apparent that the industry simply needs fewer employees to produce ever-higher volumes of crude oil and natural gas."

His assertion is backed by U.S. Bureau of Labor Statistics data showing that the industry has shed 252,000 workers over the last 10 years. When multipliers are applied to the various industries that comprise oil and gas employment, roughly 2 million-plus indirect and induced jobs (employment created by personal spending of direct and indirect workers) nationwide have been lost due to shrinking oil and gas employment over the past decade.

The Federal Reserve Bank of Dallas has reported similar conclusions that support our thesis. In their recent report researchers for the Dallas Fed found oil and gas regions underperformed on employment and wage growth when compared to non-oil and gas regions.[1]

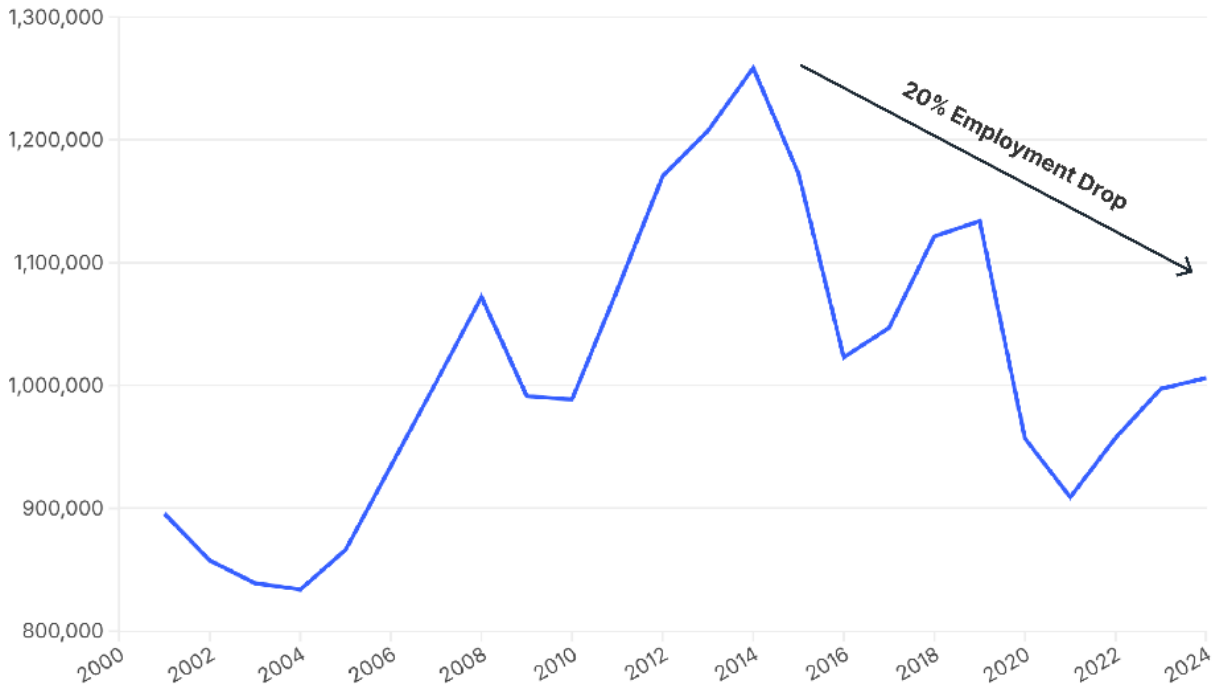
Job losses, **not** job growth, should be considered by policymakers deliberating decisions that would use public resources or tax incentives to promote oil and gas projects.

[1] Federal Reserve Bank of Dallas. Low oil prices, local impact: Do depressed energy markets affect banks? August 7, 2025.

Introduction

The benefits derived from oil and gas employment wages within the U.S. economy are decaying. During the last two market-driven cycles, the oil and gas industry has experienced lower peaks for employment levels compared to the preceding highs.

Figure 1: Direct U.S. Oil and Gas Employment, 2001-04 (Full-Time Job Equivalents)



Source: BLS data, modified TIPRO methodology (circa 2014) due to NAICS revisions.[2]

Oil and gas staffing peaked at 1.26 million (full-time job equivalents) in 2014, coinciding with sustained high crude oil prices and a boom in oil and gas employment during the early phases of the U.S. fracking boom. But a lower employment peak was reported in 2019 at 1.13 million, even though production levels were higher than in 2014. A similar pattern emerged in 2024, with oil and gas employment at 1 million juxtaposed against record-setting production. As seen in Figure 1, over the past decade, the U.S. oil and gas industry has experienced a 20% drop in employment.

[2] BLS data uses the 16 identified NAICS codes that now define U.S. oil and gas employment allowing for consistency with TIPRO's original 2014 methodology.

Modified TIPRO Methodology and Multipliers

In 2014, the Texas Independent Producers & Royalty Owners Association (TIPRO) issued a study tracking oil and gas employment, using 10 specific North American Industry Classification System (NAICS) codes to define the industry that were:

- 211111 – Crude Petroleum & Natural Gas Extraction
- 211112 – Natural Gas Liquid Extraction
- 213111 – Drilling Oil and Gas Wells
- 213112 Support Activities, Oil and Gas Operations
- 2212 - National Gas Distribution
- 32411 – Petroleum Refineries
- 32511 - Petrochemical Manufacturing
- 333132 Oil and Gas Field Machinery & Equipment
- 4247 – Petroleum Merchant Wholesalers
- 486 – Pipeline Transportation.[3]

TIPRO used those codes to define oil and gas employment with data matching these codes from the U.S. Bureau of Labor Statistics (BLS). We followed this methodology to collect data but note that changes have occurred in how some of the NAICS employment is classified. Specifically, the number of industries representing oil and gas employment expanded to 16 from the original 10 industries. The 16 industries corresponding to TIPRO's original methodology are represented by NAICS codes:

- 211120 – Crude Petroleum Extraction
- 211130 – Natural Gas 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
- 324191 - Petroleum Lubricating Oil and Grease Manufacturing
- 325110 - Petrochemical Manufacturing
- 325211 - Plastics Material and Resin Manufacturing
- 333132 - Oil and Gas Field Machinery and Equipment Manufacturing
- 424710 - Petroleum Bulk Stations and Terminals
- 424720 - Petroleum and Petro. Prod. Merch. Wholesalers (ex. Bulk Stations and Terminals)
- 486110 - Pipeline Transportation of Crude Oil
- 486210 - Pipeline Transportation of Natural Gas
- 486910 - Pipeline Transportation of Refined Petroleum Products.

[3] TIPRO. 2014 TIPRO Midyear Employment Report. October 2014.

An employment multiplier is used by economists to estimate the total labor impact across an economy due to jobs created initially by a single industry. Specifically, one initial job created by one industry times its employment multiplier results in the value of direct, indirect, and induced jobs generated by the original job. TIPRO's 2025 State of Energy Report provided employment multipliers for each industry NAICS code, and its computations concluded the oil and gas industry supported more than 22.6 million jobs last year across the U.S. economy. [4]

TIPRO's 2025 calculation includes employment from gas stations, convenience stores, and fuel dealers. To make a meaningful comparison to TIPRO's 2014 analysis (in which these groups were not included), we removed the three groups and their multipliers for indirect and induced employment. Removal of these groups results in an adjusted oil and gas employment of 18.9 million in 2024.

Figure 2 compares 2014 to 2024 with specific BLS employment levels from each sub-industry represented by NAICS codes that define the oil and gas industry along with the TIPRO multipliers used to derive the total direct, indirect and induced employment.

Figure 2: Oil and Gas Employment Over Past Decade With Multipliers

NAICS	Description	Direct Employment		Direct, Indirect & Induced Employment			
		2024	2014	Multipliers	2024	2014	Change in DIIE
211000	Oil & Gas Extraction		197,667	13.6x	-	2,683,069	
211120	Crude Petroleum Extraction	83,483		13.9x	1,162,863	-	(1,036,456)
211130	Natural Gas Extraction	37,826		12.8x	483,749	-	
213111	Drilling Oil and Gas Wells	43,696	98,208	6.0x	261,594	587,940	(326,346)
213112	Support Activities for Oil and Gas Operations	217,741	326,353	5.0x	1,096,871	1,644,005	(547,133)
221210	Natural Gas Distribution	116,560	110,994	10.1x	1,177,675	1,121,438	56,237
237120	Oil and Gas Pipeline and Related Structures Construction	143,707	136,261	4.8x	693,584	657,647	35,937
324110	Petroleum Refineries	63,429	69,261	116.3x	7,378,985	8,057,448	(678,463)
324191	Petroleum Lubricating Oil and Grease Manufacturing	11,004	10,928	22.6x	249,234	247,512	1,721
325110	Petrochemical Manufacturing	26,319	24,389	30.9x	812,479	752,899	59,580
325211	Plastics Material and Resin Manufacturing	61,055	56,370	23.3x	1,422,840	1,313,660	109,180
333132	Oil and Gas Field Machinery and Equipment Manufacturing	46,675	83,174	5.3x	247,124	440,370	(193,246)
424710	Petroleum Bulk Stations and Terminals	33,888	32,450	25.3x	858,662	822,226	36,436
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	67,153	66,190	30.2x	2,026,574	1,997,512	29,062
486110	Pipeline Transportation of Crude Oil	12,455	10,708	18.3x	227,655	195,723	31,932
486210	Pipeline Transportation of Natural Gas	35,212	28,242	20.6x	725,248	581,690	143,558
486910	Pipeline Transportation of Refined Petroleum Products	5,996	7,478	16.2x	97,073	121,066	(23,993)
	Total Employment	1,006,199	1,258,673		18,922,211	21,224,205	(2,301,994)

Source: BLS data, TIPRO methodology (circa 2025, excluding gas stations, convenience stores, and fuel dealers to remain consistent with 2014 TIPRO reporting).

Applying TIPRO's current multipliers to 2014 industry data generates an estimate of 21.2 million in overall employment, both direct and indirect, due to the oil and gas industry a decade ago. The

[4] TIPRO. 2025 State of Energy Report. March 2025.

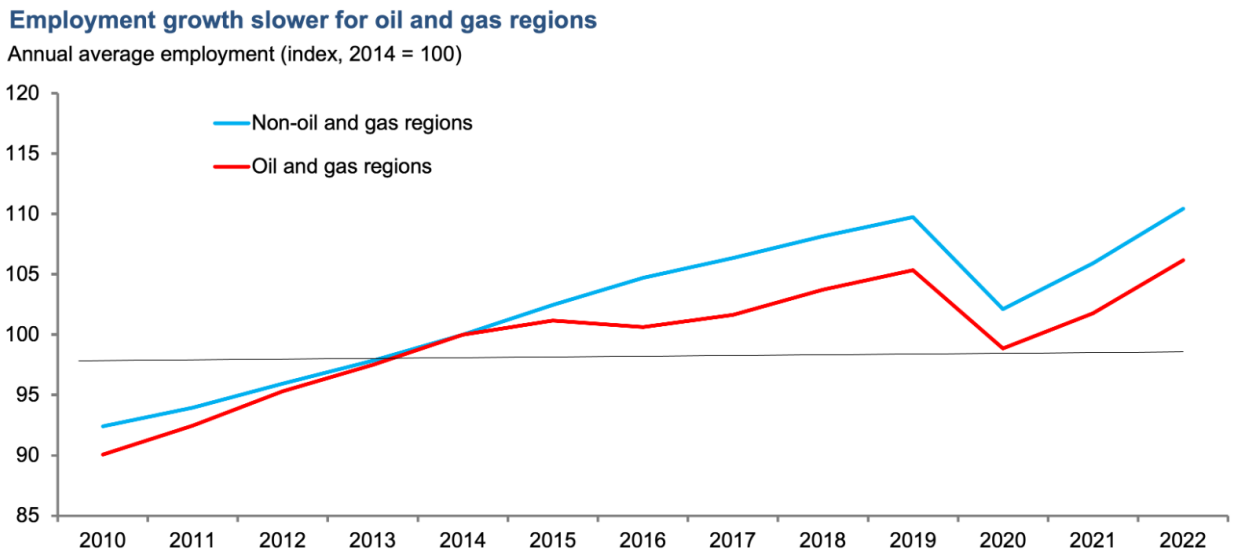
implications are staggering—a decrease 2.3 million workers, from 21.2 million jobs to 18.9 million, due to the multiplier effects of the declines in direct employment across the U.S. oil and gas industry.

Uneven Economic Outcomes Reflect Cyclical Oil Prices

The Federal Reserve Bank of Dallas (Dallas Fed) compared economic activity in oil and gas region with non-oil and gas regions in its report, *Low oil prices, local impact: Do depressed energy markets affect banks?*[5] The Dallas Fed defined oil and gas regions as those for which the Location Quotients (LQ) for oil and gas industries within commuting zones (i.e., geographical areas that act as functional local labor markets) were higher than the national average LQs.

As seen in Figures 3 and 4, total employment and wages for oil and gas regions experienced a turning point after 2014. Before 2014, both employment and wages were growing faster in oil and gas regions compared with the rest of the United States. But since 2014, regions with a strong oil and gas presence have been experiencing slower employment and wage growth than other regions.

Figure 3: Oil And Gas Regions' Employment Grows at Slower Pace

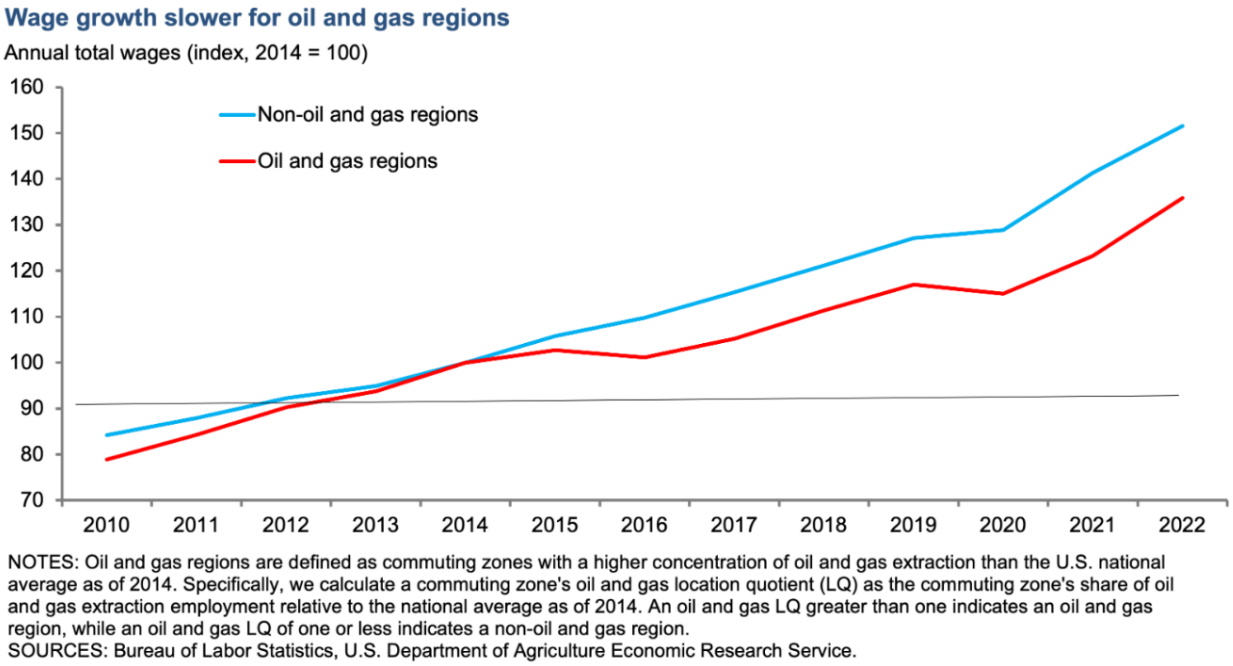


NOTES: Oil and gas regions are defined as commuting zones with a higher concentration of oil and gas extraction than the U.S. national average as of 2014. Specifically, we calculate a commuting zone's oil and gas location quotient (LQ) as the commuting zone's share of oil and gas extraction employment relative to the national average as of 2014. An oil and gas LQ greater than one indicates an oil and gas region, while an oil and gas LQ of one or less indicates a non-oil and gas region.
SOURCES: Bureau of Labor Statistics; U.S. Department of Agriculture Economic Research Service.

Source: Federal Reserve Bank of Dallas.

[5] Federal Reserve Bank of Dallas. Low oil prices, local impact: Do depressed energy markets affect banks? August 7, 2025.

Figure 4: Oil and Gas Regions' Wages Grow at Slower Pace



Source: Federal Reserve Bank of Dallas.

The Dallas Fed observed that the oil and gas declines have had an adverse impact on banks in such regions. Its 2025 analysis found banks operating in oil and gas communities during the post-2014 period have been performing unfavorably on several metrics—including bank deposit growth, loan loss provisions, loan delinquencies and bankruptcies. The Dallas Fed warned that a "prolonged period of low oil prices could present serious challenges for banks operating in oil and gas regions."

More Job Losses Anticipated Over Coming Year

The oil and gas market is now in the part of the cycle in which production (e.g., supply) outpaces demand. The situation has reached the point that prices have collapsed, and an industry-wide contraction may be imminent. Several recent and dramatic layoff announcements reinforce the possibility. If management's planned layoffs occur, then 2024 will likely mark the peak for the most recent market-driven cycle.

Layoffs to mitigate profit margin shrinkage are likely to have far-reaching effects as they are rolled out over this year and next. Both Chevron and Shell have announced plans to shed as much as 20% of their respective global workforces.[6,7] BP anticipates it will eliminate 6,200 company-wide positions

[6] Houston Public Media. Houston-based Chevron to lay off up to 20 percent of its global workforce, according to reports. February 13, 2025.
[7] Zack's Equity Research. Shell Plans a 20% Cut in Its Workforce to Focus on Profitability. September 10, 2024.

and that it will drop about 4,400 contracted positions.[8] Collectively, these three could reduce their staffing levels by nearly 39,000 posts before the end of 2026.

Several other major companies have announced similar staff reductions: APA (-300),[9] ConocoPhillips (-2950),[10] Lyondell (-345),[11] Chevron Phillips Chemical Company (-130),[12] NOV (-127),[13] Petronas (-5000),[14] PEMEX (-3051),[15] ExxonMobil (-397),[16,] and Gazprom (-1600)[17]. The total from these announcements is another 13,900 oil and gas workers expected to be lost in this downturn.

Oilfield service companies are letting folks go, too. The three largest oilfield service companies—Baker Hughes, Schlumberger, and Halliburton—have collectively incurred $400 million in severance charges during the first half of 2025, marking a 65% year-to-year increase in charges recorded to shed employees.[18] A conservative estimate for Baker Hughes, Schlumberger, and Halliburton staff reductions collectively would be a drop of 2,000 personnel in 2025. Another large oilfield service company, Weatherford International, dropped almost 9% of its workforce (~1,700 employees) in the first two quarters of this year.[19]

The 16 companies above could lay off 56,400 domestic and international employees before the end of 2026.

Employment reductions, capital budget cuts, and curtailing activity levels are coping mechanisms the oil and gas industry deploys during periods of weak oil and gas prices. We are currently amid such a slowdown for the industry. In the two years following industry's prior oil price slumps, direct employment declined between 8% and 20% for each of the slumps. If employment follows this pattern again in 2025 and 2026, employment would likely fall below 2006 levels—before the shale drilling revolution first took hold of industry practices.

[8] Houston Chronicle. BP layoffs expand by 32% as energy giant shifts focus to traditional oil. August 7, 2025.
[9] Global Data. US oil company APA cuts around 300 jobs globally. March 20, 2025.
[10] Houston Chronicle. Houston's ConocoPhillips may face layoffs after sweeping firings at Marathon Oil last year. April 25, 2025.
[11] Houston Public Media. LyondellBasell to lay off 300-plus employees in Houston as refinery closes. February 27, 2025.
[12] Bloomberg. CPChem Cuts 130 Jobs as 'First Step' in Cost-Cutting Campaign. August 13, 2025.
[13] Fayetteville Observer. NOV Warn Notification. May 7, 2025.
[14] NIKKEI Asia. Petronas' 10% layoffs reflect energy shift, domestic frictions. June 13, 2025.
[15] Mexico Business News. PEMEX cuts Threaten Specialized Technical Staff. August 13, 2025.
[16] Midland Reporter-Telegram. ExxonMobil to lay off Pioneer employees post-merger. November 14, 2024.
[17] Moscow Times. Gazprom Weighs Laying Off 1,600 Managers Amid Wartime Losses. January 13, 2025.
[18] U.S. Securities and Exchange Commission – Edgar. Company 10Q reports for Baker Hughes, Schlumberger, and Halliburton. Accessed August 2025.
[19] Company Press Release. Weatherford Announces Second Quarter 2025 Results. July 22, 2025.

Productivity's Inverse Relationship With Employment

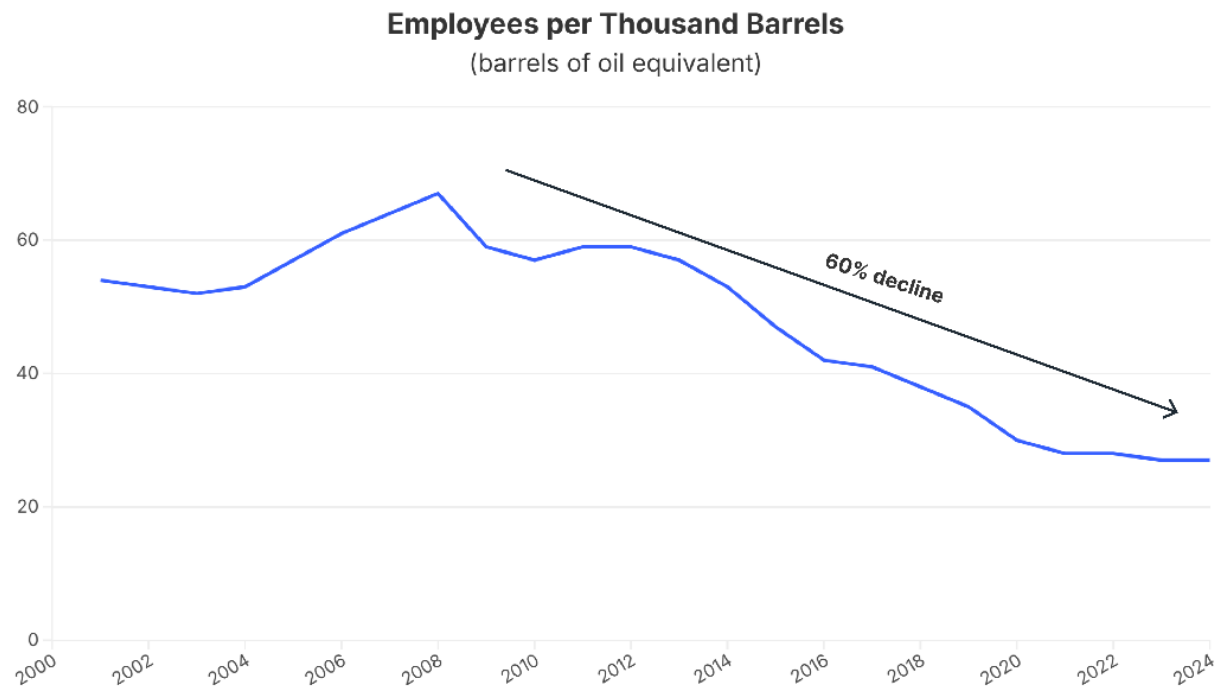
About 1 million, or 45%, of the total employment (i.e., direct, indirect, and induced employment) losses over the past decade were due to changes in oil and gas extraction employment. Innovation in well design and technological advances in equipment and processes have resulted in considerable efficiency gains across the oil and gas industry that are at the heart of long-term employment decay.

Annual total direct employment divided by total U.S. production (as measured by daily barrels of oil equivalent produced) illustrate how dramatically horizontal drilling and hydraulically fracturing have changed productivity over the decade. Between 2008 and 2024 the number of employees required to produce a barrel of oil equivalent declined 60 percent.

In 2004 the number of direct employees needed to produce 1,000 barrels of oil equivalent per day was 53 workers.[20] In 2014, as the shale revolution continued to develop and production boomed, the number of direct employees needed to produce one thousand barrels of oil equivalent per day remained at 53 workers.[21] But by 2024, once fracking dominated as the means of extraction, the number of employees need per thousand barrels of oil equivalent produced plunged to about one-half the amount at 27 employees.[22] Figure 5 illustrates the steady decline in oil and gas employment that coincides with greater efficiency.

[20] Calculation for 2004 was 834,000 employees ÷ 15.7 million barrels oil equivalent per day average x 1000.
[21] Calculation for 2014 was 1,259,000 employees ÷ 23.6 million barrels oil equivalent per day average x 1000.
[22] Calculation for 2024 was 1,006,000 employees ÷ 37.5 million barrels oil equivalent per day average x 1000.

Figure 5: Oil and Gas Employee Productivity



Source: U.S. Energy Information Administration, Bureau of Labor Statistics.

Conclusion

A stark pattern of declining employment in the oil and gas industry has taken shape over the last decade, appearing to have broader effects on regional economies. Although the industry is cyclical, the benefits during upturns and the losses during downturns are asymmetrical. Over time, it appears that employment losses are outweighing the employment gains, leading to long-term attrition and the attenuation of economic benefits derived from the industry's workforce. Policymakers would be well advised to consider the ramifications more thoroughly and adjust their economic models and employment for these implications.

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Trey Cowan is an oil and gas energy analyst focused on U.S. upstream and global energy markets with a keen interest in Texas activities. At IEEFA, Trey contributes research, commentary, and independent analyses assessing the energy industry's transition to cleaner, more affordable and sustainable solutions.

As a finance professional for over 20 years, he is skilled at presenting thought-provoking data in formats that are persuasive and easily grasped. His work and insights have been featured by Reuters, NPR, Forbes, and Investor's Business Daily as well as national, broadcast, and local news outlets.

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