



September 22, 2025





The TXOGA Chartbook is an essential resource for our members and those interested in understanding the data reflecting ongoing developments within the economy and the oil and gas sectors, both internationally and domestically, including specific trends in Texas.

Key points – Week of September 22, 2025

- **U.S. economic signals softened.** Industrial production edged up 0.1% month-over-month (m/m) in August, but investment fell 0.4% year-over-year (y/y) in Q2, highlighting macro uncertainty. The ADS Index points to weak momentum and little Q3 growth. Consumer sentiment slid further in September despite record stock market highs, suggesting slower household spending ahead. Labor markets remained tepid, with payrolls up just 22,000 and unemployment rising to 4.3%. High-yield borrowing costs climbed to 11.7%, lifting the low-credit-quality premium to 7.6%. Amid sluggish employment and persistent price inflation (CPI up 2.9% y/y), the Fed cut the Fed Funds rate by 25 basis points on September 17.
- **Oil market fundamentals tightened.** WTI crude fell 0.4% w/w to \$62.44 per barrel as of September 19, reflecting offsetting pressures from macroeconomic concerns, geopolitical uncertainties, and U.S. dollar depreciation. For the week ended September 12, EIA data showed petroleum demand rising 0.9 million barrels per day (mb/d) to 20.6 mb/d, net exports increasing 2.3 mb/d to 3.7 mb/d, and crude inventories falling 9.3 million barrels.

Chart of the Week highlights a structural shift in U.S. refinery operations: crude inputs averaged 16.3 mb/d (+1.2% y/y) year-to-date through September 12; NGL production hit a record 7.6 mb/d; heavy crude imports dropped to historic lows; and refiners' inputs reached their lightest average density in May, reflecting greater reliance on domestic light sweet crude.

- **Natural gas markets eased.** Henry Hub prices fell 2.3% w/w to \$2.87 per million Btu for the week ended September 19, pressured by strong storage builds. Working gas inventories increased 2.7% w/w to 3.43 trillion cubic feet as of September 12, within the 5-year range. U.S. natural gas net exports rose 26.4% y/y to 15.8 billion cubic feet per day (bcf/d) in August, while consumption seasonally declined 3.3% y/y to 84.9 bcf/d. Price momentum fell mid-week before turning positive at week's end.



Chart of the Week: As U.S. refinery production has continued to grow, heavy crude imports dropped to historic lows – and utilization of light crude reached a new high



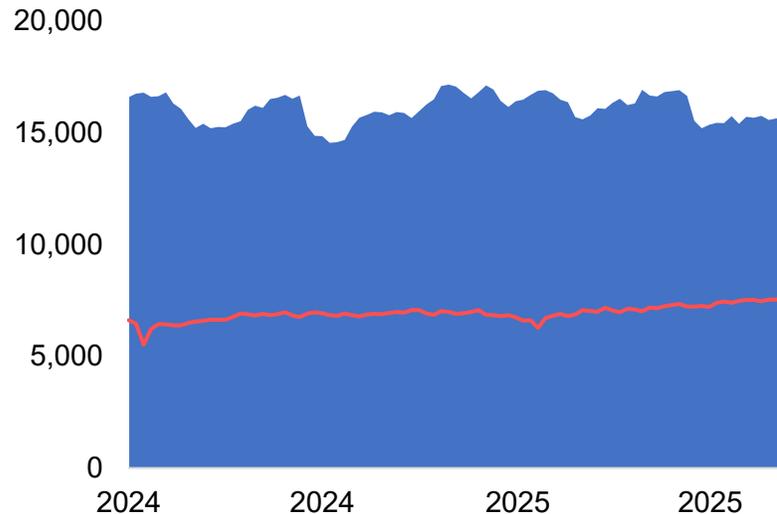
- **Refinery crude oil inputs** averaged 16.3 mb/d year-to-date through Sept. 12, 2025, up 1.2% y/y
- **NGL production** reached a record 7.6 mb/d on Sept. 12, 2025

- **Heavy crude oil imports** averaged 2.7 mb/d in the first half of 2025, down 20.5% y/y

- **Crude oil density**, measured by API Gravity (higher = lighter), reached its lightest average in May 2025, reflecting increased use of domestic light sweet crude oil

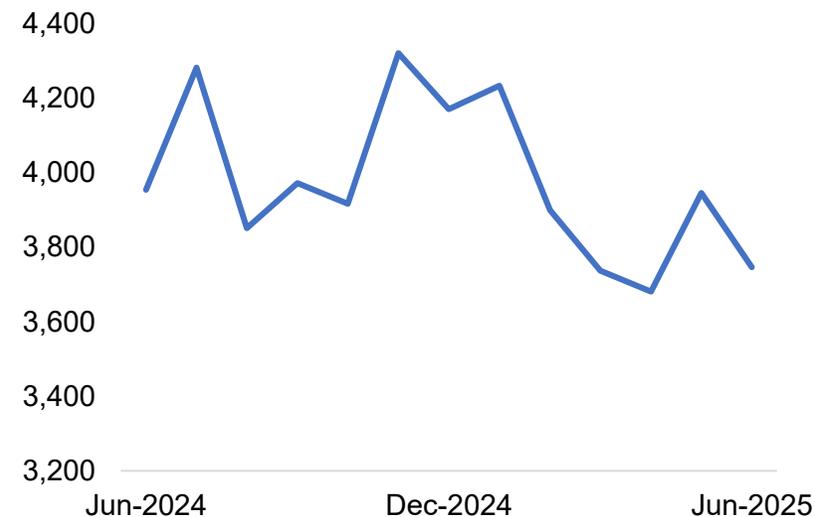
U.S. refinery crude oil inputs and NGL production

Thousand barrels per day (kb/d)



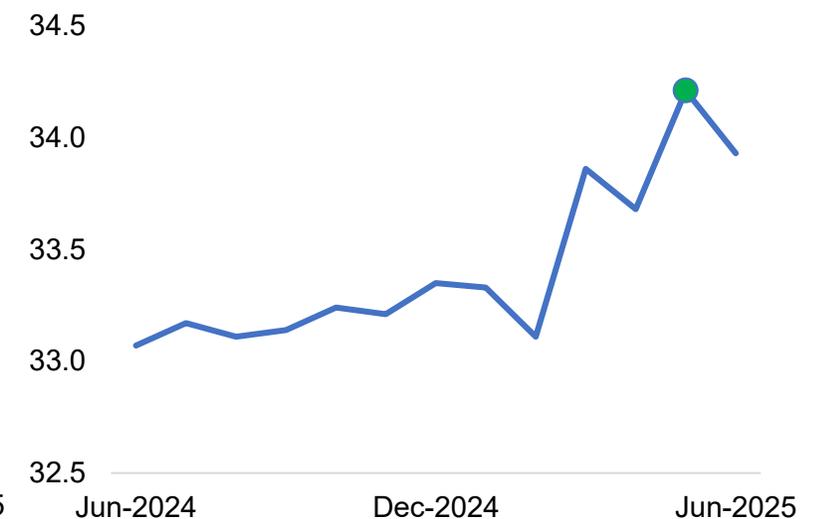
U.S. imports of heavy crude oil

Thousand barrels per day (kb/d)

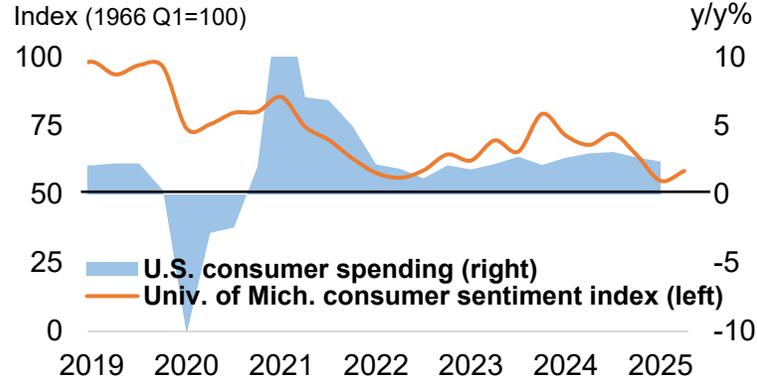


U.S. API gravity (weighted average) of crude oil input to refineries

Degrees

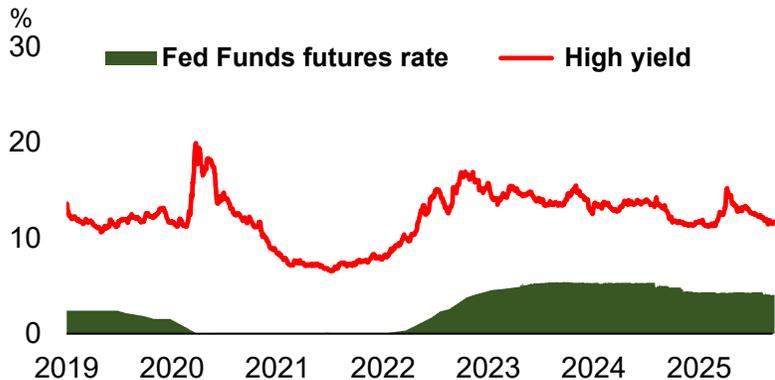


Consumer sentiment vs. spending



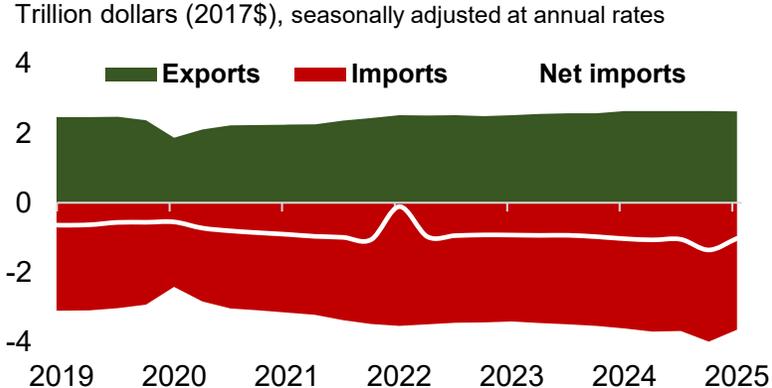
Consumer sentiment—a leading indicator of household spending—fell 5.5% month-over-month (m/m) in the University of Michigan's preliminary September reading, signaling a potential moderation in Q3 2025 spending growth. According to the BEA's estimate of Q2 2025 GDP, consumer spending rose 2.4% year-over-year (y/y), down 0.3 percentage points from Q1.

Fed Funds rate and CCC and lower corporate bond yields



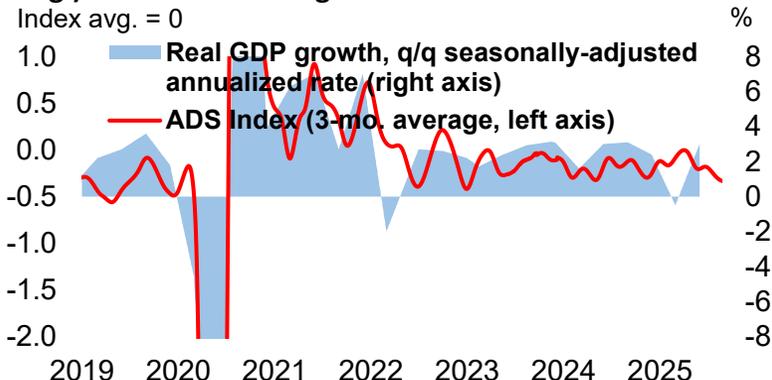
The bond premium for low-credit-quality issuers increased. High-yield (HY) borrowing costs increased by 10 basis points w/w to 11.7% for the week ended Sept. 19, while 30-day Fed Funds futures held near 4.1%. The low-credit-quality premium rose to 7.6%.

Real net exports of goods and services



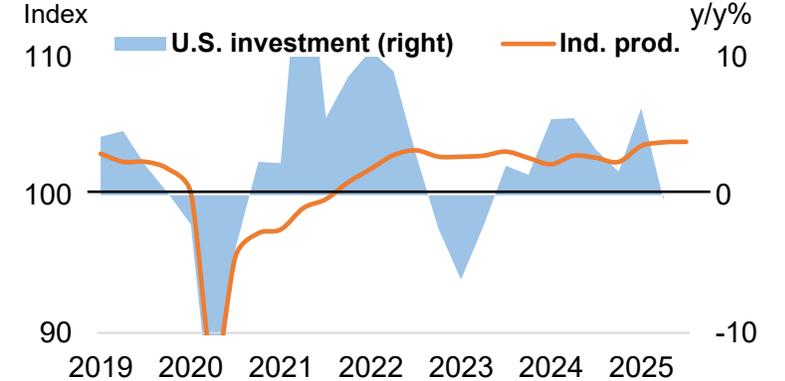
The BEA's initial Q2 2025 GDP report showed the U.S. trade deficit narrowed to an annualized \$1.0 trillion (SAAR), down from a record \$1.4 trillion in Q1, as imports declined more than exports. On a nominal basis, the petroleum trade surplus rose by an upward-revised \$9.9 billion to \$72.2 billion—more than double its level from a year ago.

Aruoba-Diebold-Scotti Business Conditions Index (qtr. avg.) vs. U.S. real GDP growth



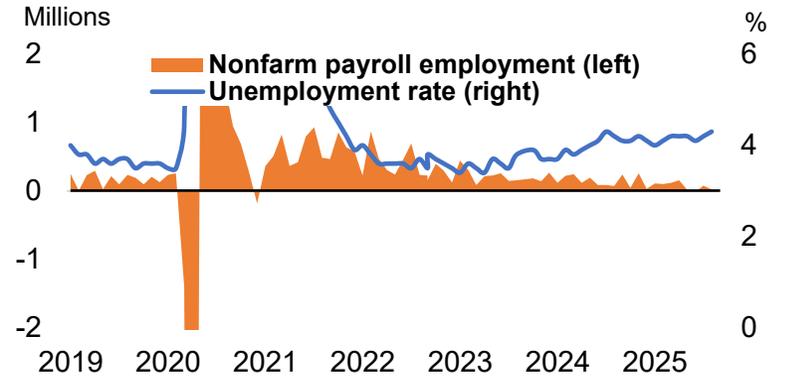
ADS Index suggests Q3 slowing. While real GDP growth posted a mixed rebound in Q2 2025, the ADS Business Conditions Index from the Philadelphia Fed—an early signal of economic momentum—currently points to weak growth in Q3 2025.

Industrial production and investment growth



Macro uncertainties stalled investment in Q2 2025. According to the GDP report, economy-wide investment declined 0.4% y/y in BEA's August revision, diverging from industrial production, which typically leads investment trends. Industrial production rose 0.1% m/m in August, corresponding with capacity utilization of 77.4%, per the Federal Reserve Board.

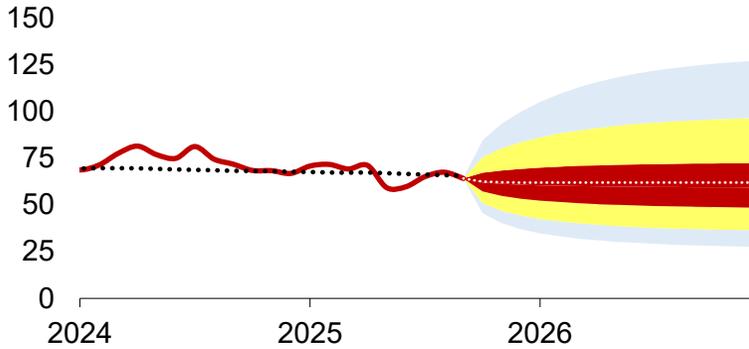
Nonfarm payroll employment & unemployment rate



Labor market conditions weakened further. Employment is a lagging indicator of GDP growth. Nonfarm payrolls rose by 22,000 in August. The U.S. unemployment rate rose by 0.1 percentage points to 4.3% according to the BLS.

WTI crude oil price mean reversion analysis

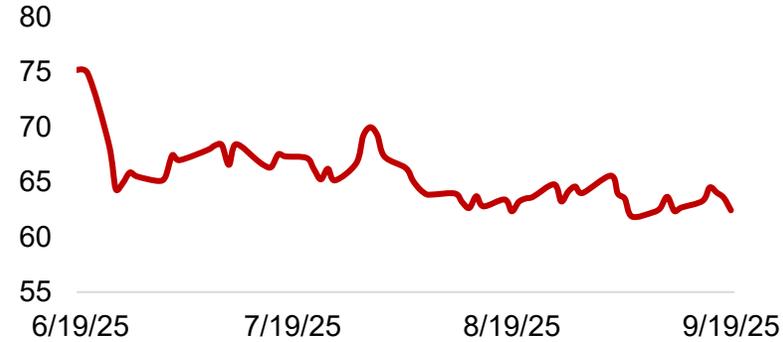
Dollars per barrel (2025\$)



Near-term futures prices have aligned with their historical mean reversion threshold. The futures strip remains in backwardation (i.e., futures prices are below spot prices).

WTI crude prompt month futures prices

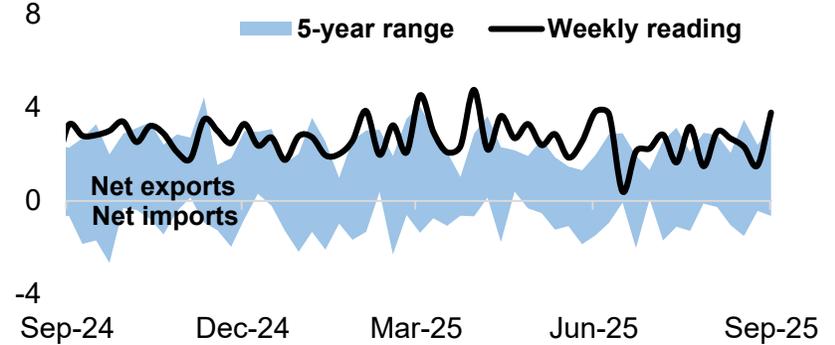
Dollars per barrel



WTI crude oil prices fell 0.4% w/w to \$62.44/bbl as of September 19, reflecting offsetting pressures from macroeconomic concerns, geopolitical uncertainties, and U.S. dollar depreciation.

U.S. petroleum net exports (imports)

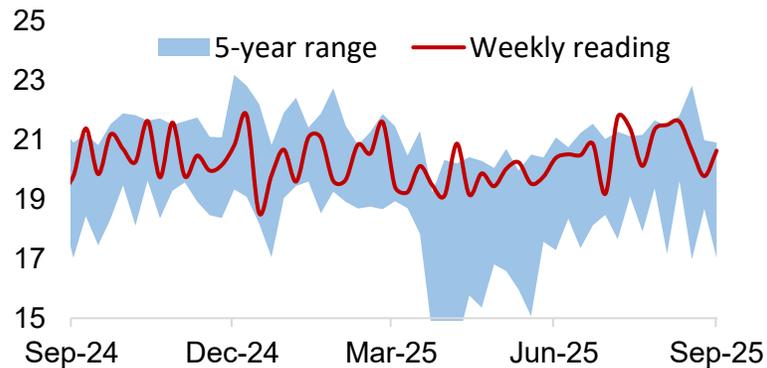
Million barrels per day, mb/d



Petroleum net exports rose to 3.7 mb/d for the week ended September 12, an increase of 2.3 mb/d from the prior week.

U.S. petroleum demand

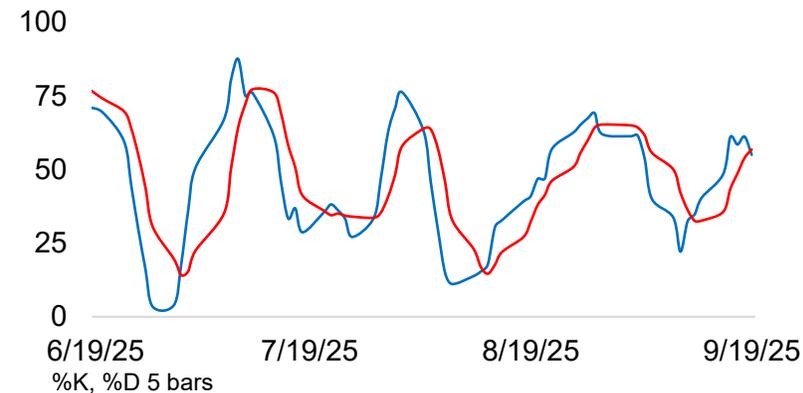
Million barrels per day (mb/d)



Petroleum demand increased. U.S. petroleum demand as of September 12, as measured by deliveries, increased by 0.9 mb/d from the prior week to 20.6 mb/d.

WTI crude prompt month futures slow stochastic

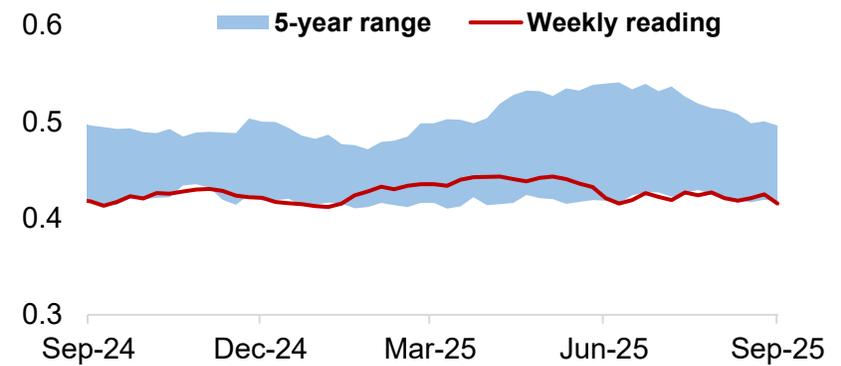
Index level



Price momentum gained mid-week before flattening at week's end on September 19.

U.S. ending stocks of crude oil (excluding the SPR)

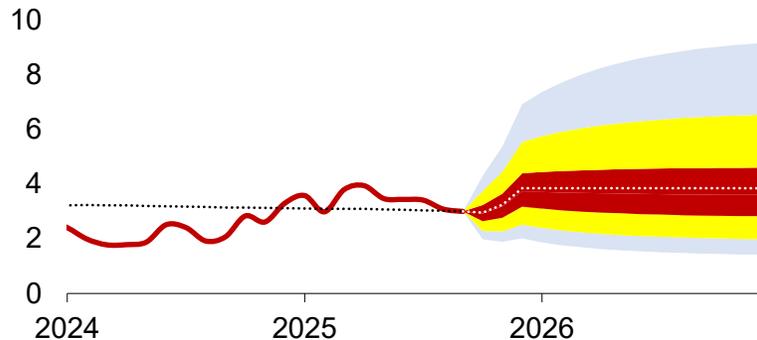
Billion barrels



Inventories increased. U.S. ending stocks of crude oil excluding the Strategic Petroleum Reserve (SPR) decreased by 9.3 million barrels (mb) for the week ended September 12 – and remained at the bottom of the 5-year range.

Natural gas price mean reversion analysis

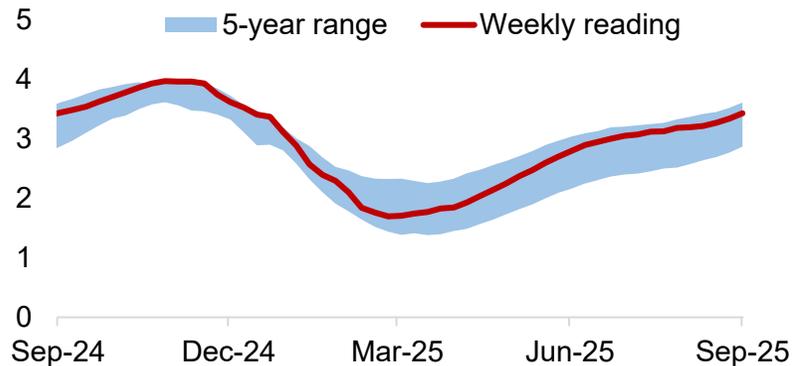
Dollars per mmBtu (2025\$)



Near-term futures prices have aligned with their historical mean reversion threshold. The futures curve is in contango, with spot prices below forward prices. Historical confidence intervals suggest greater potential for upside price movement than downside risk.

U.S. weekly working gas storage

Trillion cubic feet (tcf)



Working natural gas storage increased. Underground storage rose by 2.7% w/w to 3.43 trillion cubic feet (tcf) as of September 12.

Natural gas prompt month futures prices

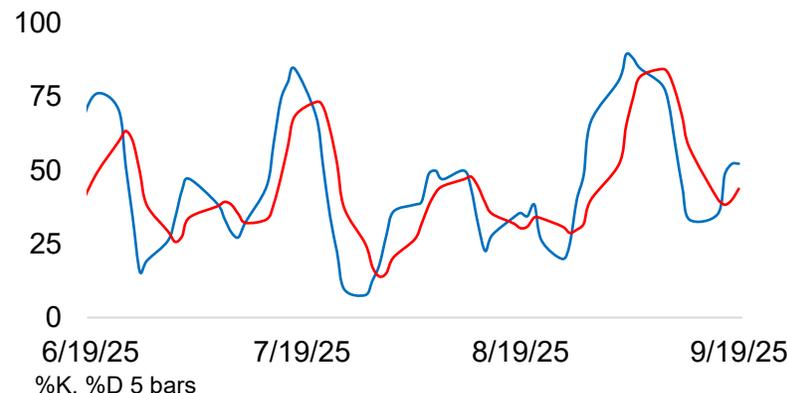
Dollars per million Btu



Henry Hub natural gas prices fell 2.3% w/w to \$2.87 per million Btu for the week ended September 19, reflecting strong working gas storage.

Natural gas futures slow stochastic

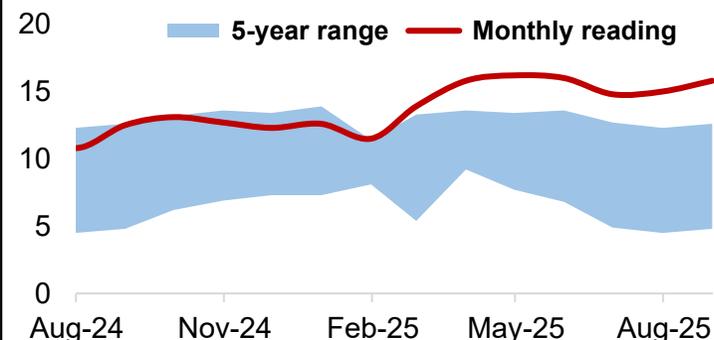
Index level



Natural gas price momentum fell mid-week and then turned positive for the week ended September 19.

U.S. natural gas net exports

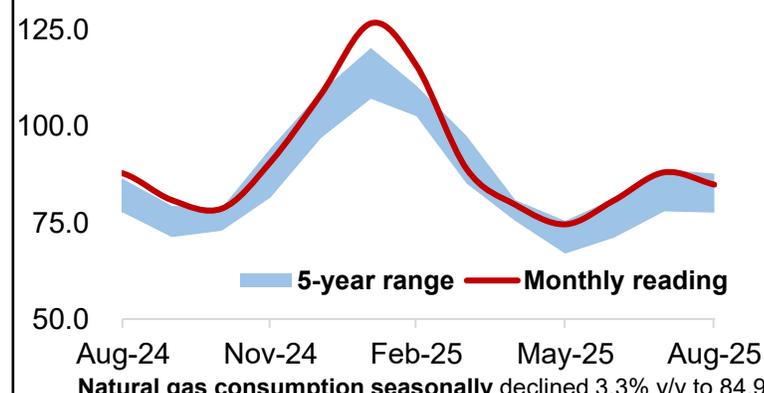
Billion cubic feet per day, bcf/d



According to the EIA estimates, U.S. natural gas net exports increased 26.4% y/y to 15.8 bcf/d in August.

U.S. natural gas consumption

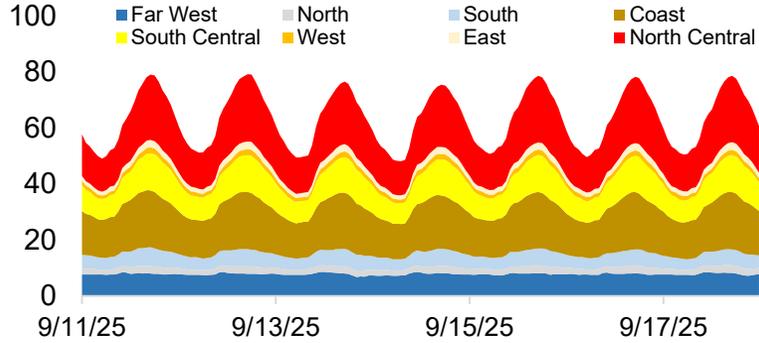
Billion cubic feet per day, bcf/d



Natural gas consumption seasonally declined 3.3% y/y to 84.9 bcf/d in August, according to EIA estimates.

ERCOT electricity load by region

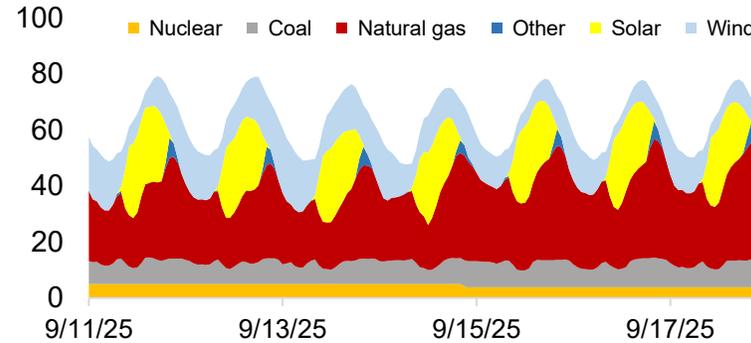
Thousand megawatt-hours (kMWh)



For Sep. 11-17, ERCOT's average hourly electricity load was 63.4 kMWh, up 4.7% w/w, while the maximum hourly load of 79.3 kMWh fell by 1.1% w/w. Variability was the highest in the North Central and South Central regions.

ERCOT hourly electricity generation by source

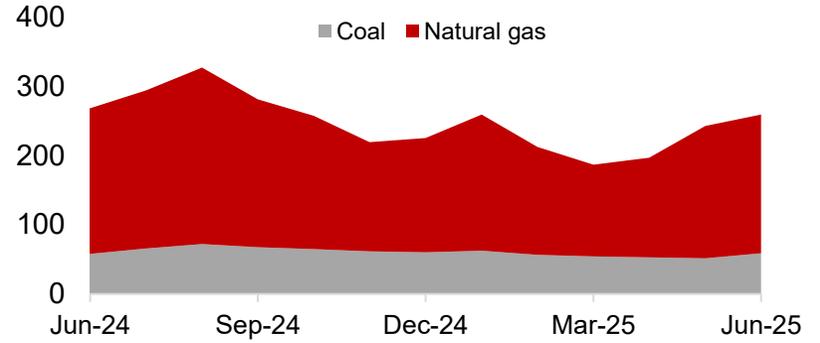
Thousand megawatt-hours (kMWh)



Thermal and other dispatchable resources supplied as much as 82.6% of ERCOT's electricity. From Sep. 11-17, hourly generation ranged between 48–79 kMWh, with a standard deviation of 9.9 kMWh. On the night of Sep. , dispatchable sources met 82.6% of load—including 61.8% from natural gas.

Texas electricity plant receipts of natural gas and coal

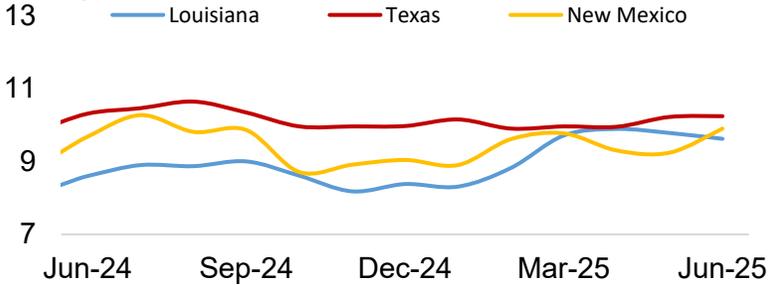
Trillion Btu



Natural gas receipts rose seasonally but remained below last year's level in June. Texas electricity plant receipts of natural gas increased 4.7% m/m but were 5.0% lower than in June 2024. Coal receipts climbed 14.1% m/m and 1.7% y/y.

Electricity prices – average across all end-use sectors

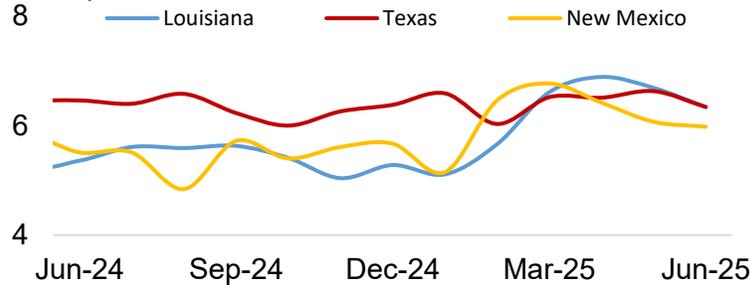
Cents per kilowatt-hour



Texas electricity prices were steady in June 2025. The state average edged up 0.2% m/m but was down 0.7% y/y to 10.24 cents per kWh, compared with 9.62 in Louisiana and 9.90 in New Mexico.

Industrial electricity prices

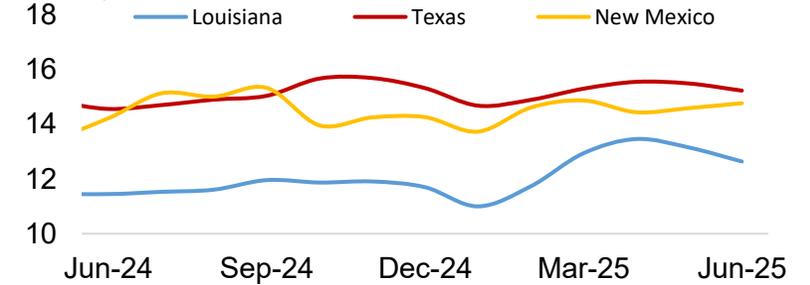
Cents per kilowatt-hour



Texas' industrial electricity prices fell by 4.4% m/m and 1.9% y/y to 5.98 cents per kWh in June, while those in neighboring Louisiana and New Mexico remained on par or lower than prices in Texas. Notably, Louisiana's average industrial electricity price escalated by 18.3% y/y in June and by 8.0% y/y over the first half of 2025.

Residential electricity prices

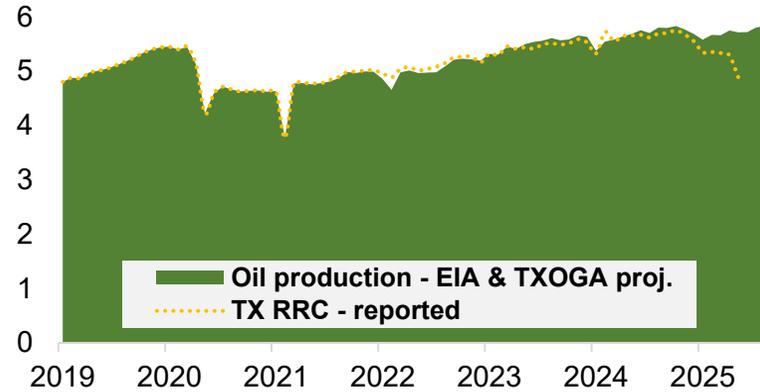
Cents per kilowatt-hour



Texas' residential electricity prices fell 1.7% m/m in June but were still up 4.6% y/y at 15.23 cents per kWh — above rates in Louisiana (12.64) and New Mexico (14.77).

Texas crude oil production, Jan. 2019 – August 2025

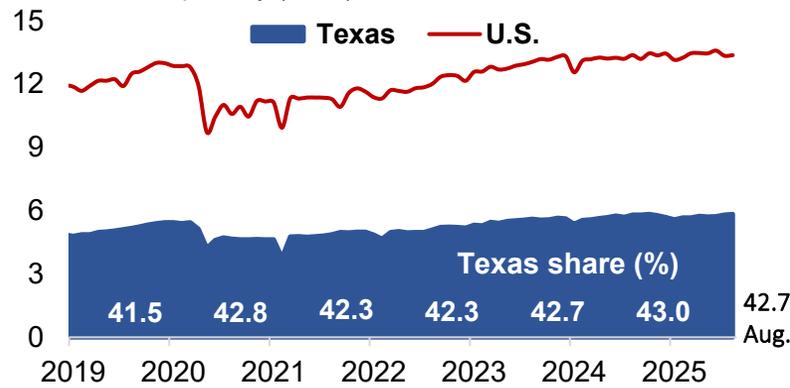
Million barrels per day (mb/d)



Record-high estimated oil production. Texas' oil production averaged 5.72 mb/d in June, according to the EIA. TXOGA estimates that production eclipsed 5.8 mb/d in July and August -- and likely reached a new record high.

U.S. and Texas crude oil production, Jan. 2019 – August 2025

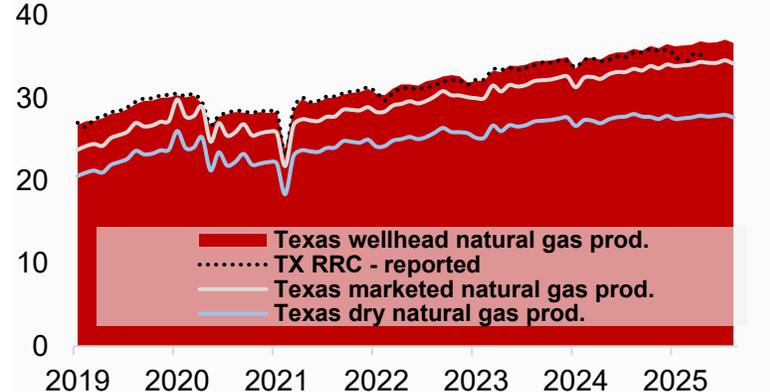
Million barrels per day (mb/d)



In the first eight months of 2025, Texas accounted for 42.7% of total U.S. crude oil production.

Texas natural gas production, Jan. 2019 – August 2025

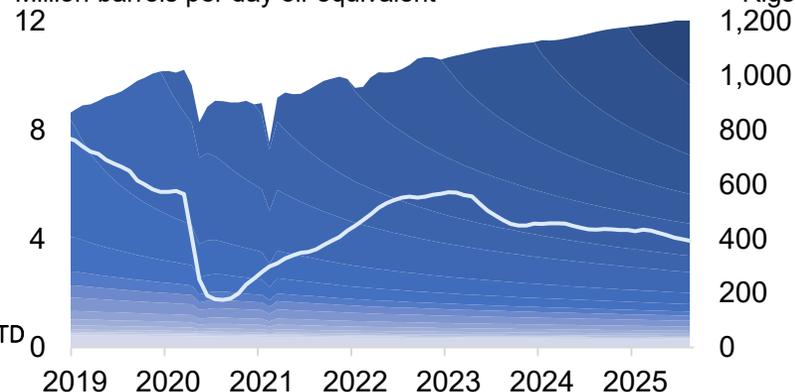
Billion cubic feet per day (bcf/d)



Natural gas production increased. Texas produced 36.8 bcf/d of natural gas gross withdrawals and 34.3 bcf/d of marketed production in June, per EIA. TXOGA estimates that Texas' marketed production slipped to 34.2 bcf/d in August.

Texas shale basin wellhead oil & natural gas production

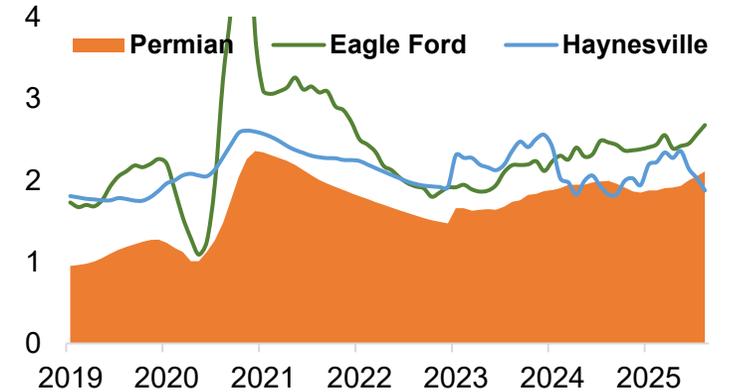
Million barrels per day oil-equivalent



EIA estimates show oil and natural gas production growth across Texas shale basins in August 2025, including the Permian (+3.4% y/y), Eagle Ford (+1.0% y/y), and Haynesville (+10.3% y/y).

Texas rig productivity by basin – new monthly prod. per rig

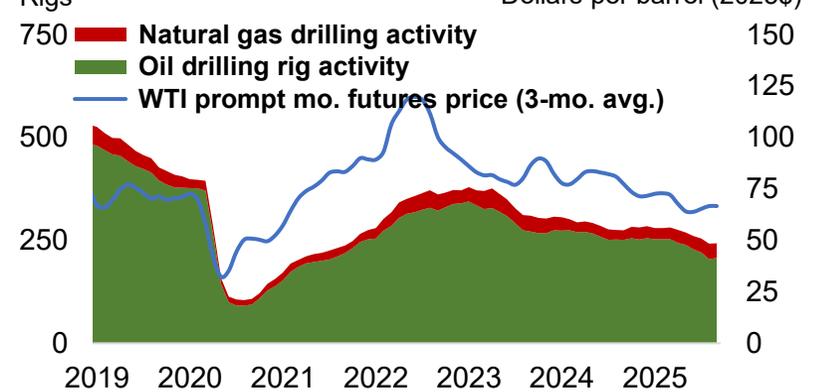
Thousand barrels per day oil-equivalent, kb/doe



Rig productivity rose in August. EIA estimates of rig productivity for August 2025 rose by 5.8% y/y in the Permian Basin, 8.6% y/y in the Eagle Ford, and 2.7% y/y in the Haynesville.

Texas drilling activity and WTI crude oil futures prices

Rigs (left axis), Dollars per barrel (2025\$) (right axis)

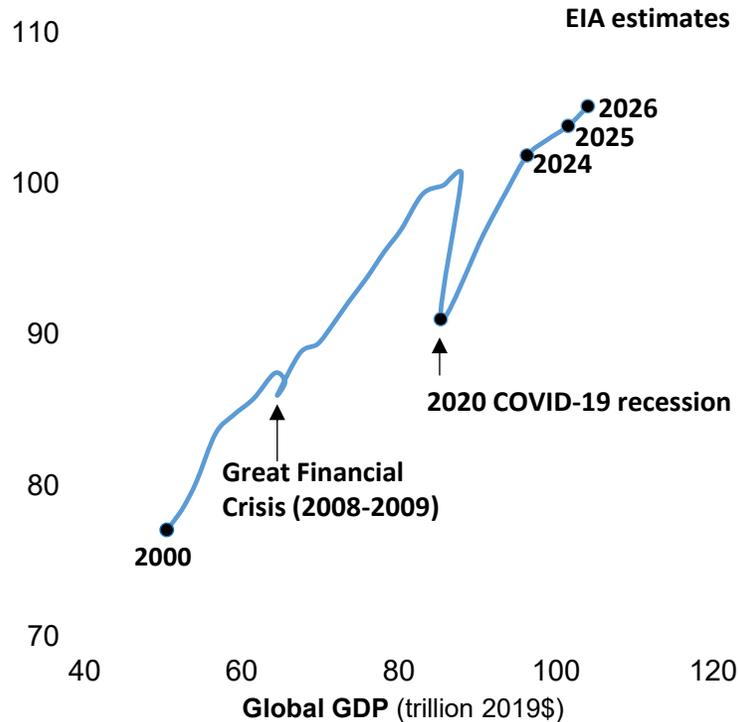


As of September 12, Texas' total rigs decreased, according to Baker Hughes, with 207 oil-directed rigs (down 1 rig w/w) and 35 natural gas-directed rigs (down 1 rig w/w).

- In its September update, EIA raised its global oil demand estimates, still expecting a third consecutive record, but at higher levels: 102.9 mb/d in 2024 (+0.2 mb/d revision from the prior report), 103.8 mb/d in 2025 (+0.1 mb/d), and 105.1 mb/d in 2026 (+0.2 mb/d)
- EIA held its 2025 global supply growth steady but lifted its 2026 outlook by 0.2 mb/d, driven by higher non-OPEC supply
- Brent crude oil prices are now projected to average \$68 per barrel in 2025 and \$51 in 2026—compared with about \$66 currently

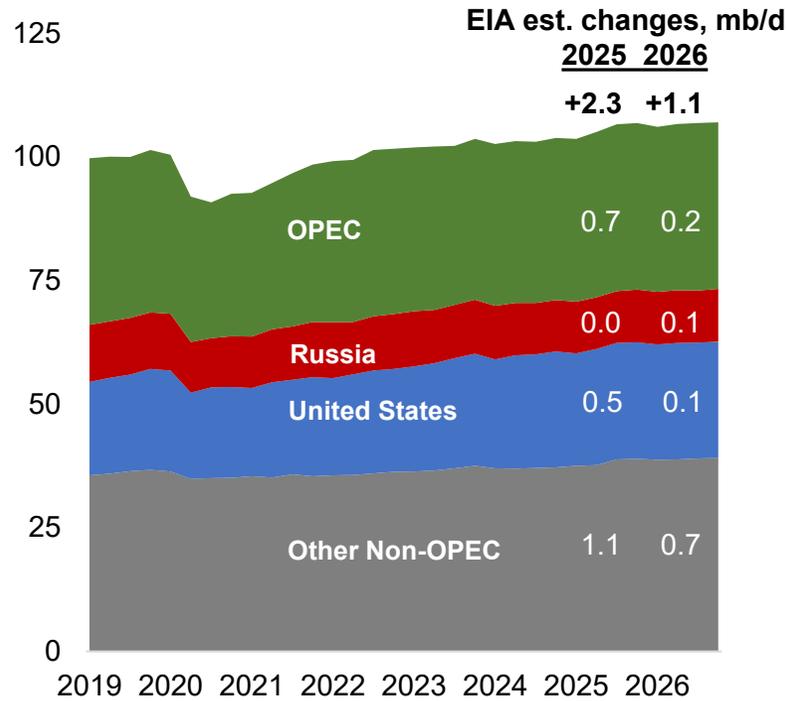
Global oil demand vs. GDP

Global oil demand (million barrels per day, mb/d)



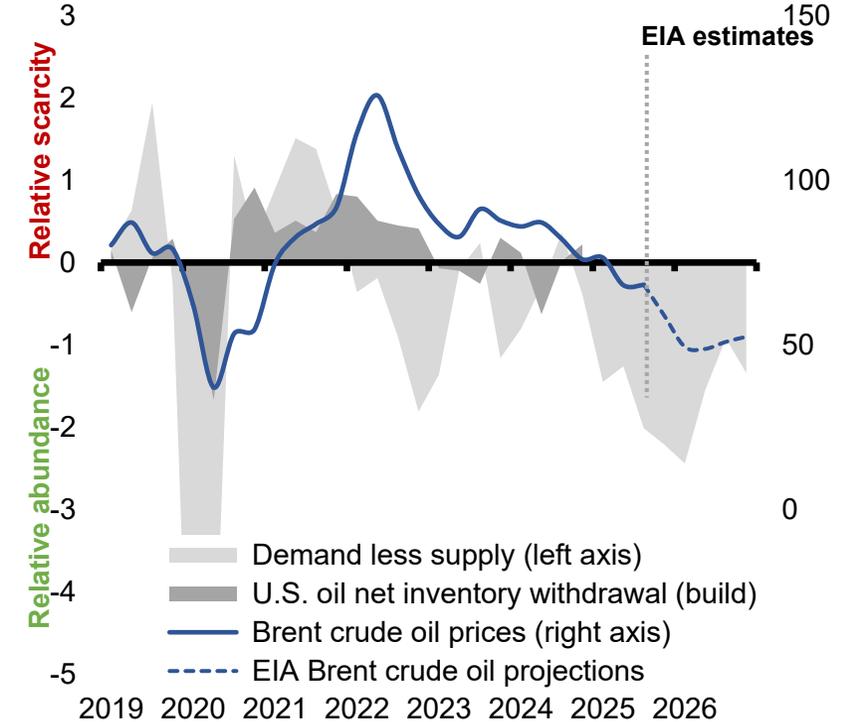
Oil production by country/region

Million barrels per day, mb/d



Global demand/supply & Brent prices

Million barrels per day (mb/d)





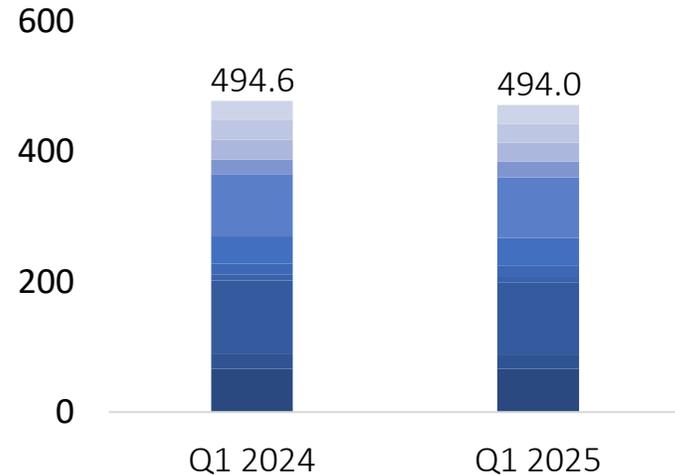
Texas Oil & Gas Jobs Dipped, Wages Reached Record High in Q1 2025



- Texas oil and natural gas industry employment slipped by 0.1% year-over-year (y/y) in Q1 2025 to 493,958 jobs, while industry wages edged up 0.2% y/y to \$20.9 billion—the highest on record.
- Although overall employment held steady, several industry segments posted notable changes. Petroleum refinery employment rose 10.8% y/y to 51,732 jobs; petrochemical manufacturing expanded 4.0% y/y to 18,279 jobs; nitrogenous fertilizer manufacturing jumped 15.6% y/y to 578 jobs; and industrial sand mining fell 26.4% y/y to 3,789 jobs, according to data from the U.S. Census Bureau and the Texas Workforce Commission.

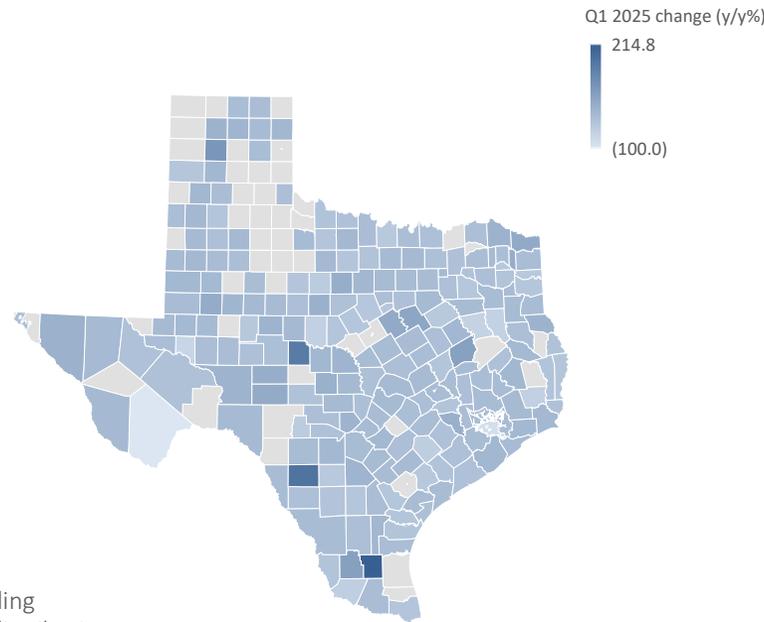
Texas oil and natural gas industry direct employment fell by +0.1% y/y in Q1 2025

Thousand Jobs



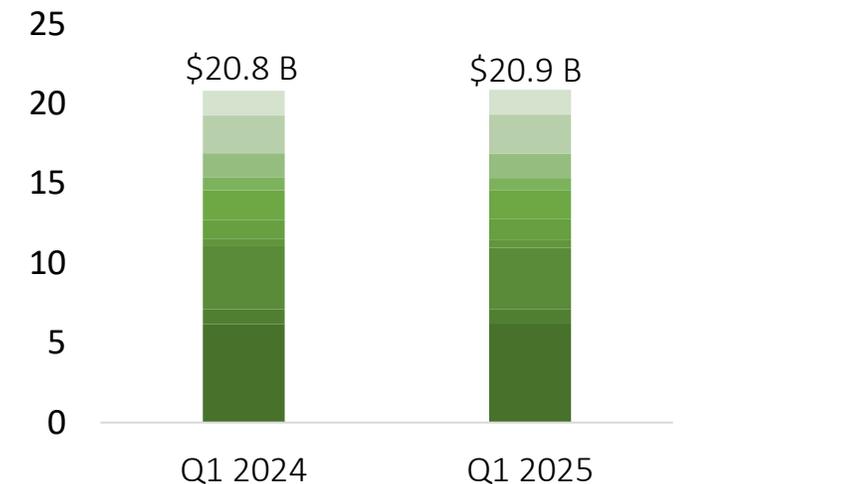
- Oil & gas extraction
- Support activities for o&g ops.
- Petroleum refineries
- Gas stations & fuel dealers
- All other*
- Pipeline construction
- Oil & gas drilling
- Natural gas distribution
- Petrochemical mfg.
- Pipeline transportation
- Oil & gas field mach. and eq. mfg.

* Other industry segments include petroleum and pet. product wholesalers, lubricant mfg., asphalt mfg., industrial sand mining, nitrogenous fertilizer mfg., basic organic chem. mfg., plastics and resin mfg.



Texas oil and natural gas industry direct wages rose by +0.2% y/y in Q1 2025

Billion dollars



- Pipeline construction
- All other*
- Gas stations & fuel dealers
- Petroleum refineries
- Support activities for o&g ops.
- Oil & gas extraction
- Oil & gas field mach. and eq. mfg.
- Pipeline transportation
- Petrochemical mfg.
- Natural gas distribution
- Oil & gas drilling



R. Dean Foreman, Ph.D.
dforeman@txoga.org