

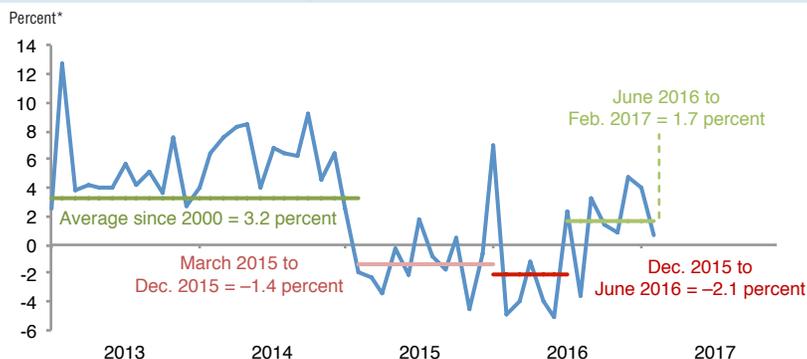
# Houston Economic Indicators

DALLAS FED

FEDERAL RESERVE BANK OF DALLAS • APRIL 3, 2017

**Summary** The oil and gas sector has turned positive, bringing Houston's goods-producing sector out of contraction and into growth. The business-cycle index—the broadest measure of the metro area's trajectory—is pointing to steadily improving but below-trend growth. Taken together, recent indicators continue to support a modestly positive outlook for Houston.

## Houston Business-Cycle Index



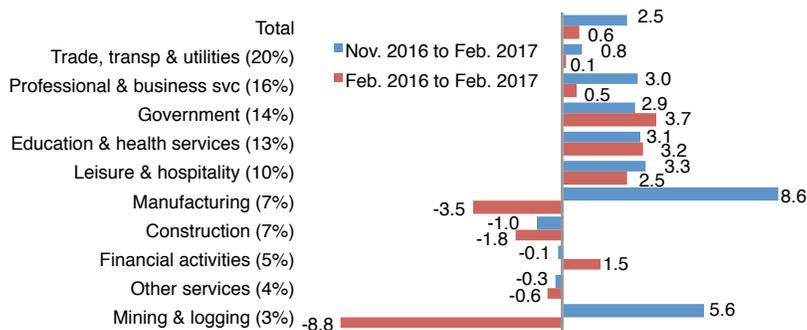
\* Annualized month-over-month growth rate.

SOURCE: Dallas Fed.

► The **Houston Business-Cycle Index** began contracting in March 2015 and was declining by an annualized 1.4 percent by December that year. In the first half of 2016, the index fell an annualized 2.1 percent as the impact of the oil bust propagated into the broader economy. Since June 2016, the index has grown an annualized 1.7 percent. While much of the data since mid-2016 remain subject to revision, the index suggests that Houston has exited the oil bust and is growing moderately.

## Employment

### Employment Growth



NOTES: Bars show the annualized percent change in the three-month moving average. Numbers in parentheses represent share of total jobs and may not sum to 100 due to rounding.

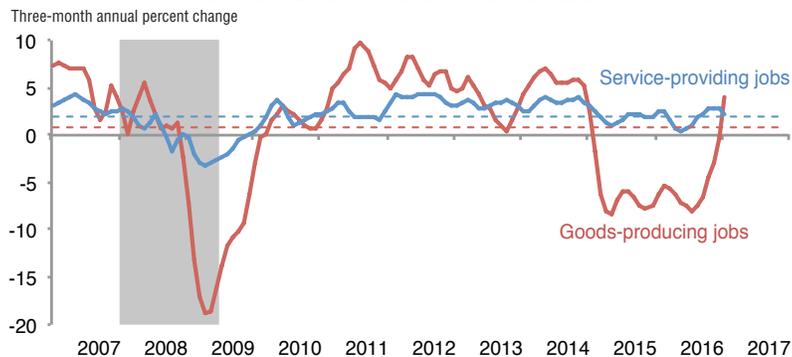
SOURCES: Bureau of Labor Statistics; seasonal and other adjustments by the Dallas Fed.

► Using a three-month moving average to smooth recent volatility, February nonfarm employment in **Houston** grew an annualized 2.5 percent (18,900 jobs) when compared with the three-month period ending in November. The largest gains came from manufacturing (4,500) and professional and business services (3,500). Government and education and health services both added 2,900 jobs. Job losses over that period came almost entirely from construction (-500).

► The three months ending in February 2017 saw job growth of 0.6 percent when compared with the same period a year prior.

► Houston's unemployment rate was 5.8 percent in February, up from a revised 5.5 percent in January. The area labor force grew at a strong annual rate of 4.9 percent in February. The February unemployment rate was 4.9 percent in Texas and 4.7 percent in the U.S.

### Goods and Services Job Growth



NOTES: Data are three-month centered moving averages. The grey bar indicates U.S. recession. Dashed lines are the average annual growth rate since January 2000.

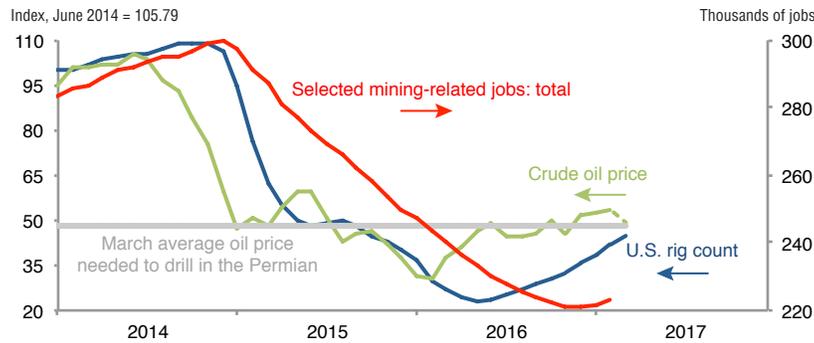
SOURCES: Bureau of Labor Statistics; adjustments by the Dallas Fed.

► After nearly two years of declines, goods-producing jobs surged near the start of 2017, growing 4.1 percent from November to February on a moving-average basis. This sector is the more cyclical part of Houston's economy and has had average annual growth of 0.8 percent since 2000.

► The local service sector, by comparison, is much more stable but is still volatile relative to other large metros. It slowed to a 2.2 percent annual growth rate between November 2016 and February 2017—close to its long-term growth rate of just under 2 percent.

## Oil and Gas

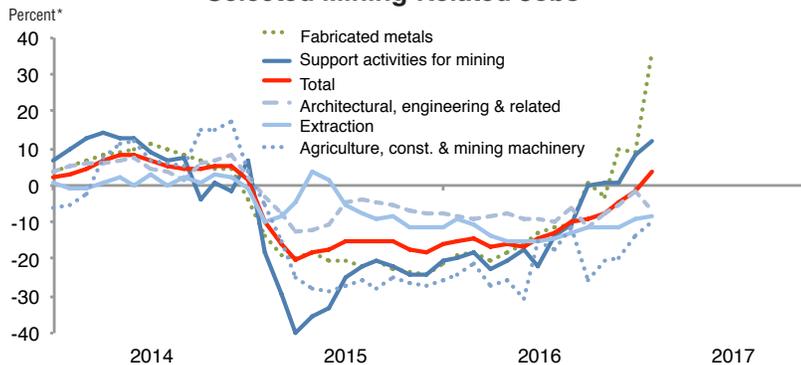
### U.S. Rig Count and Houston Energy Jobs



NOTE: Dashed lines are estimates based on data available through March 31.

SOURCES: Dallas Fed; Baker Hughes; Energy Information Administration; Bureau of Labor Statistics; seasonal and other adjustments by the Dallas Fed.

### Selected Mining-Related Jobs

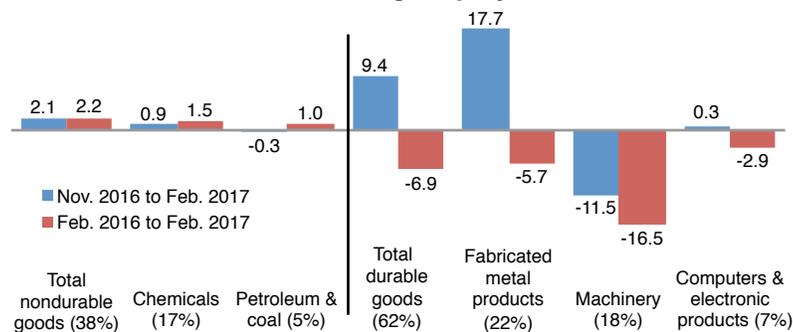


\*Three-month change, annualized.

NOTE: Architectural, engineering and related jobs also included in total.

SOURCES: Bureau of Labor Statistics; seasonal and other adjustments by the Dallas Fed.

### Manufacturing Employment



NOTES: Bars show the annualized percent change in the three-month moving average. Numbers in parentheses represent share of total manufacturing jobs and may not sum to 100 due to rounding.

SOURCES: Bureau of Labor Statistics; seasonal and other adjustments by the Dallas Fed.

### Fuel Prices



NOTES: Prices adjusted to real using Houston Consumer Price Index, February 2017 = 100. Gasoline price is for regular unleaded gasoline.

SOURCES: Energy Information Administration; Bureau of Labor Statistics.

▶ The U.S. rig count was 789 in March 2017, and the average West Texas Intermediate (WTI) oil price that month was \$49. With that backdrop, respondents to the Dallas Fed's [Energy Survey](#) indicated that the price they need to profitably drill a new well in the Permian Basin—the main area where drilling is recovering—has dropped. The price is down to \$48 from a year-ago average of \$51, with some able to profitably drill at less than \$30. There is typically a lag of about three months between changes in WTI and changes in the rig count. Survey results and recent data indicate that there should be price support for increased drilling activity—and related employment—over at least the next few months.

▶ In past oil recoveries, it took about a year for mining-related job growth in Houston to turn positive once the oil price hit bottom. WTI bottomed out at \$30 in February 2016, and while the data since September are subject to revision, February 2017 mining-related job growth ticked up (1,932). That increase was driven by the support activities for mining and fabricated metals sectors—the most cyclical parts of the energy business. The latter was also the driving force in recent manufacturing job growth.

▶ Using a three-month moving average to smooth recent volatility, Houston added an average of 3,090 durable-goods manufacturing jobs from November 2016 to February 2017. Fabricated metals contributed 1,926 of those jobs. Job losses were concentrated in machinery (1,222), which has been buffeted by the mining industry, a strong dollar, modest global demand growth and peaking demand from the petrochemical sector.

▶ Real retail prices of motor fuels on the Gulf Coast changed little from February to March. Retail gasoline (\$2.18) and on-highway diesel (\$2.52) are up 34 and 28 percent from their respective lows in February 2016. By contrast, WTI is up 62 percent over that time. Seasonally, fuel prices tend to be low this time of year with post-winter inventories typically high ahead of summer driving demand. Gulf Coast refinery utilization rates dropped seasonally to 85.8 percent in February.

NOTE: Data may not match previously published numbers due to revisions.

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