

# THE *Tenth District* ECONOMIC DATABOOK

*A summary of regional and national economic indicators  
for the Tenth District states*



MAY 21, 2018

FEDERAL RESERVE BANK of KANSAS CITY

## SUMMARY OF CURRENT TENTH DISTRICT ECONOMIC CONDITIONS

The unemployment rate was 3.5 percent across the Tenth District states in April, and total payroll employment grew 1.7 percent compared to the previous year. Employment growth was broad-based across industries, with the strongest percentage gains in the mining and logging and transportation and warehousing sectors. Tenth District nominal personal income grew 3.5 percent in the fourth quarter of 2017 compared to the previous year. In the energy sector, rig counts were well above year-ago levels. The Federal Reserve Bank of Kansas City's Manufacturing Survey indicated an increase in manufacturing activity in April 2018, with a composite index of 63.0. Nonirrigated farmland values, as measured by the Federal Reserve Bank of Kansas City's Survey of Agricultural Credit Conditions, decreased 3.2 percent in the first quarter of 2018 compared to the same period in 2017.

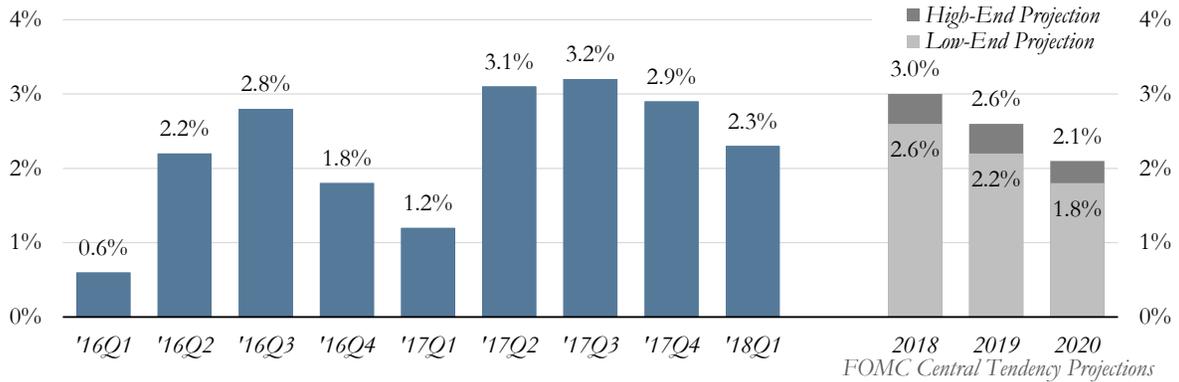
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: gross domestic product (GDP); inflation; employment; employment by industry; state unemployment; personal income; home prices; housing indicators; manufacturing activity; oil, gas and coal production; agriculture; and exports. These indicators can be found on the following pages.



The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming. There are three branches across the Tenth Federal Reserve District located in Denver, Oklahoma City, and Omaha.

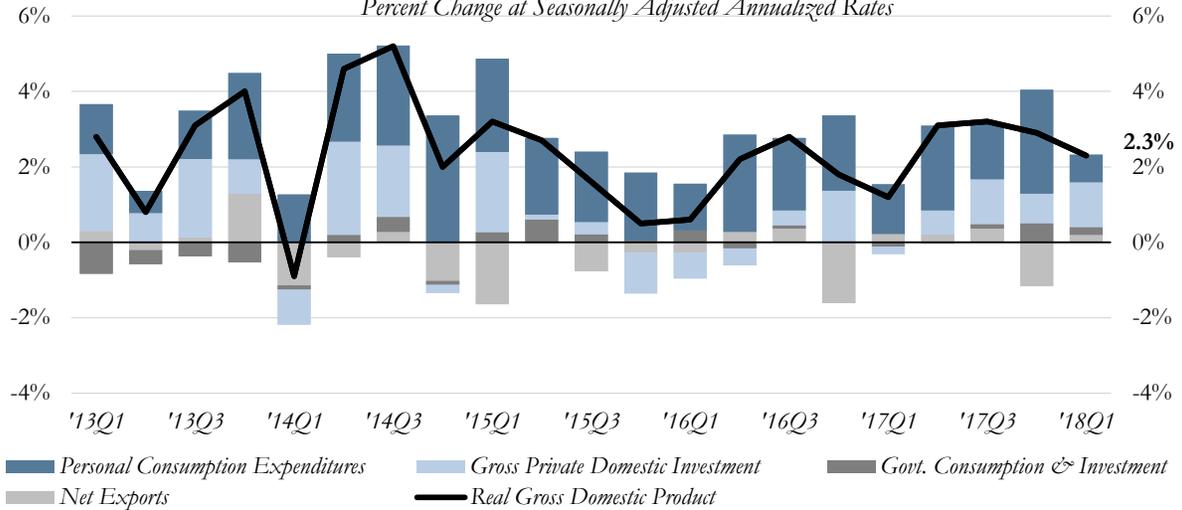
**U.S. Real Gross Domestic Product**

*Percent Change at Seasonally Adjusted Annualized Rates*



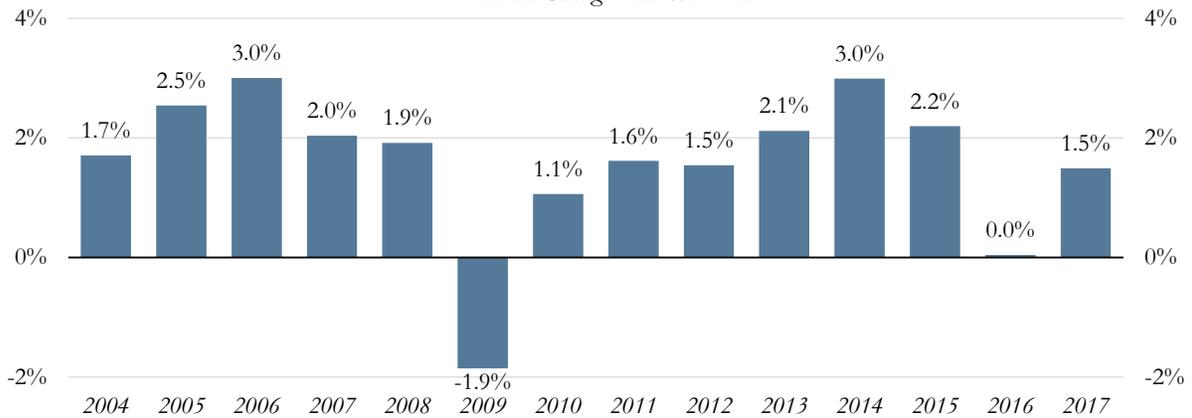
**Contributions to Real U.S. GDP**

*Percent Change at Seasonally Adjusted Annualized Rates*

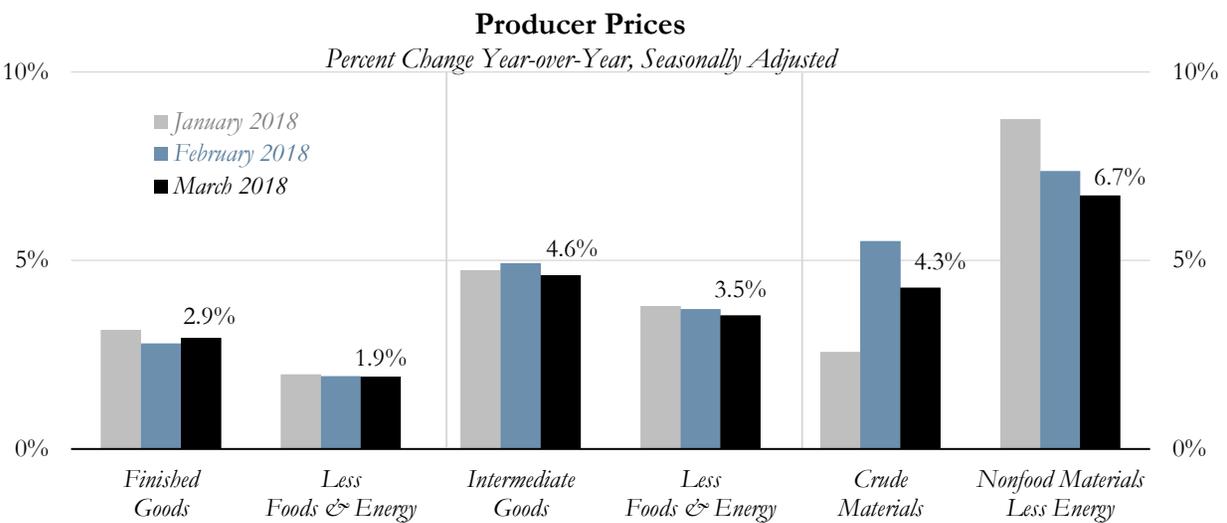
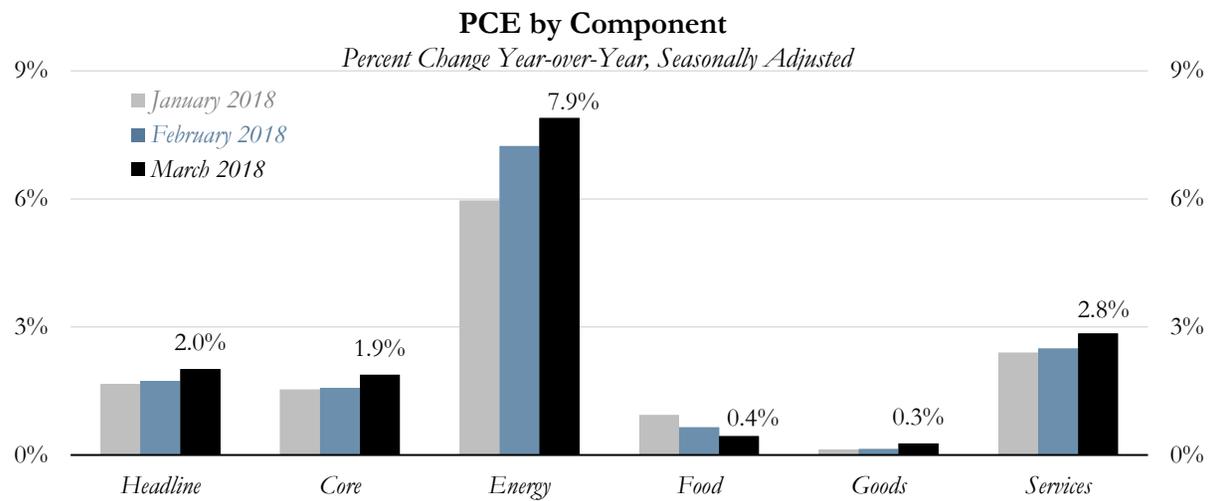
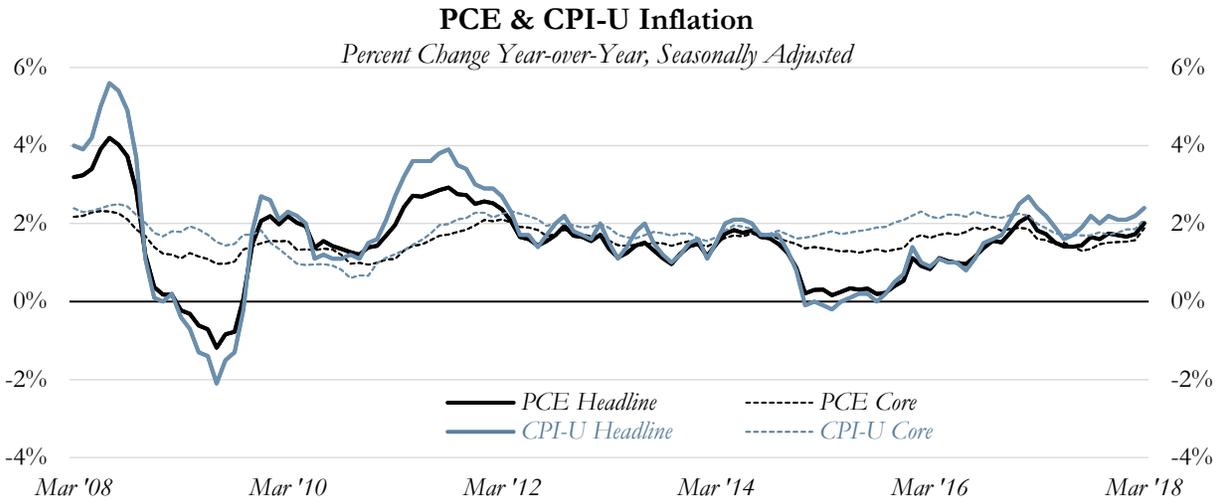


**Tenth District Real Gross Domestic Product**

*Percent Change Year-over-Year*



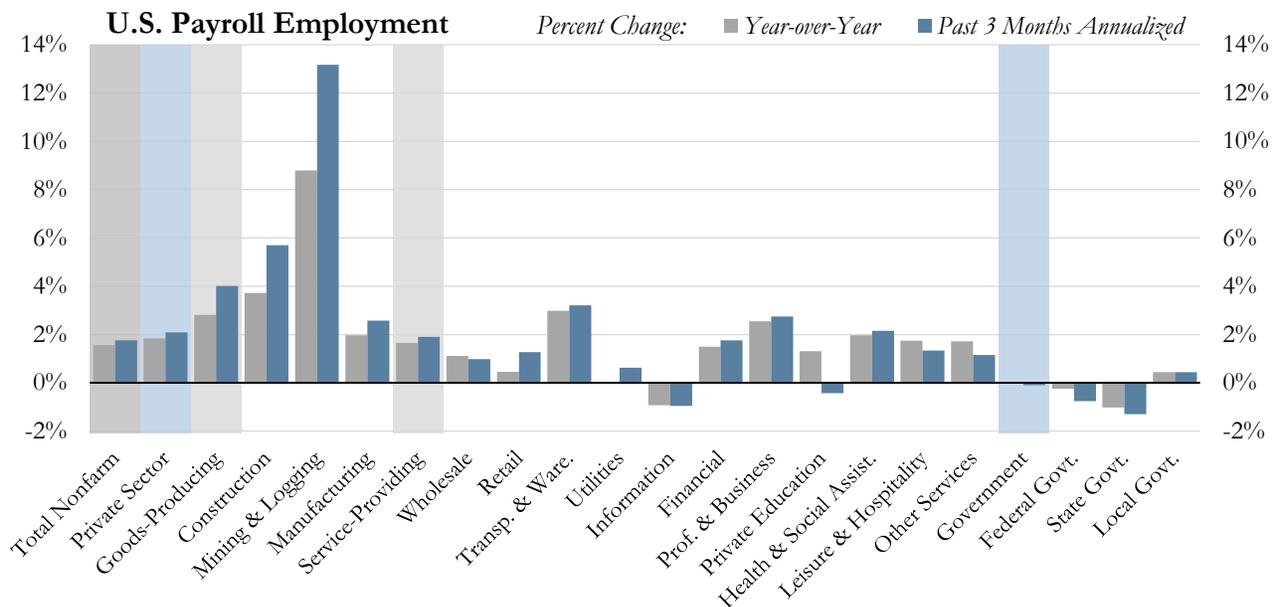
Source: Bureau of Economic Analysis, Federal Open Market Committee/Haver Analytics



Source: Bureau of Economic Analysis & Bureau of Labor Statistics/Haver Analytics

**April 2018 U.S. Payroll Employment**

	<i>Number of Jobs (Thousands)</i>	<i>Jobs Gained Year-over-Year (Thousands)</i>	<i>Share of Employment</i>
<b>Total Nonfarm</b>	148,424	2,280	100.0%
Private Sector	126,106	2,277	84.9%
<i>Goods-Producing</i>	20,559	561	13.8%
Construction	7,174	257	4.8%
Mining & Logging	730	59	0.5%
Manufacturing	12,655	245	8.5%
<i>Service-Providing</i>	105,550	1,713	71.1%
Wholesale Trade	5,953	65	4.0%
Retail Trade	15,927	72	10.7%
Transportation & Warehousing	5,285	153	3.6%
Utilities	555	-0	0.4%
Information	2,772	-26	1.9%
Financial Activities	8,549	126	5.8%
Professional & Business Services	20,869	518	14.0%
Educational Services	3,697	48	2.5%
Healthcare & Social Assistance	19,820	383	13.3%
Leisure & Hospitality	16,272	279	11.0%
Other Services	5,848	99	3.9%
Government	22,318	3	15.1%
Federal Government	2,794	-7	1.9%
State Government	5,104	-53	3.4%
Local Government	14,420	63	9.7%

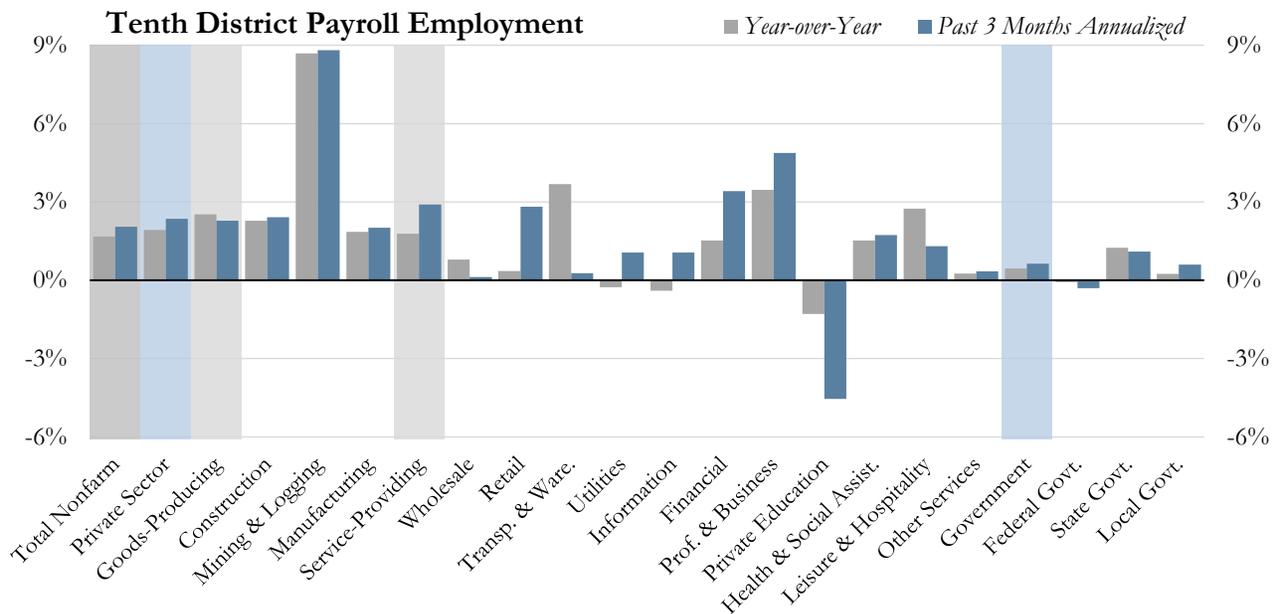


Source: Bureau of Labor Statistics/Haver Analytics

**April 2018 Tenth District Payroll Employment**

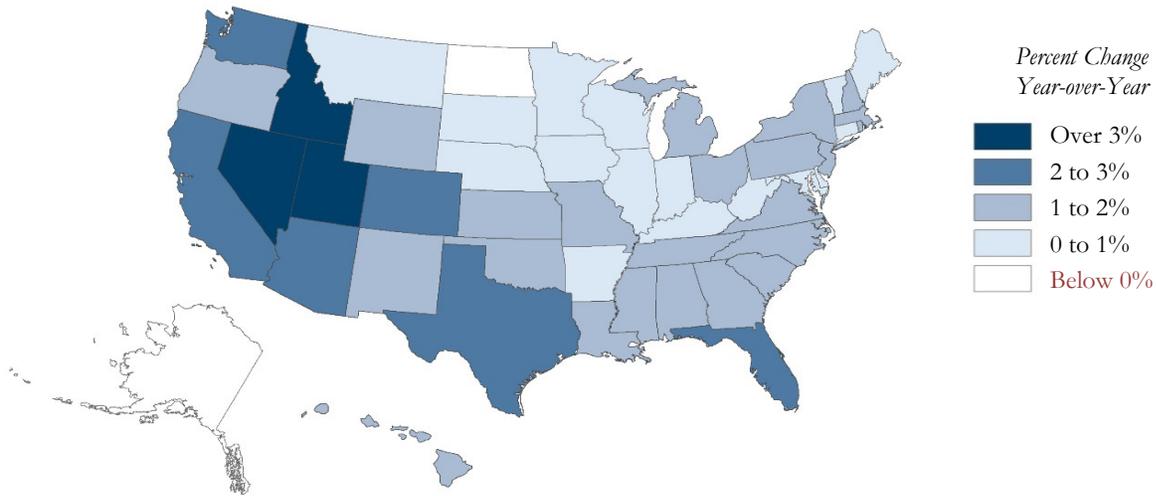
*Seasonally Adjusted*

	<i>Number of Jobs (Thousands)</i>	<i>Jobs Gained Year-over-Year (Thousands)</i>	<i>Share of Employment</i>
<b>Total Nonfarm</b>	10,870	178	100.0%
Private Sector	8,956	170	82.4%
<i>Goods-Producing</i>	1,528	38	14.1%
Construction	551	12	5.1%
Mining & Logging	134	11	1.2%
Manufacturing	846	15	7.8%
<i>Service-Providing</i>	7,423	130	68.4%
Wholesale Trade	418	3	3.9%
Retail Trade	1,148	4	10.6%
Transportation & Warehousing	382	14	3.5%
Utilities	40	-0	0.4%
Information	198	-1	1.8%
Financial Activities	625	9	5.7%
Professional & Business Services	1,441	48	13.2%
Private Educational Services	151	-2	1.4%
Healthcare & Social Assistance	1,415	21	13.0%
Leisure & Hospitality	1,182	32	10.9%
Other Services	424	1	3.9%
Government	1,914	9	17.6%
Federal Government	235	-0	2.2%
State Government	478	6	4.4%
Local Government	1,201	3	11.1%



Source: Bureau of Labor Statistics/Haver Analytics

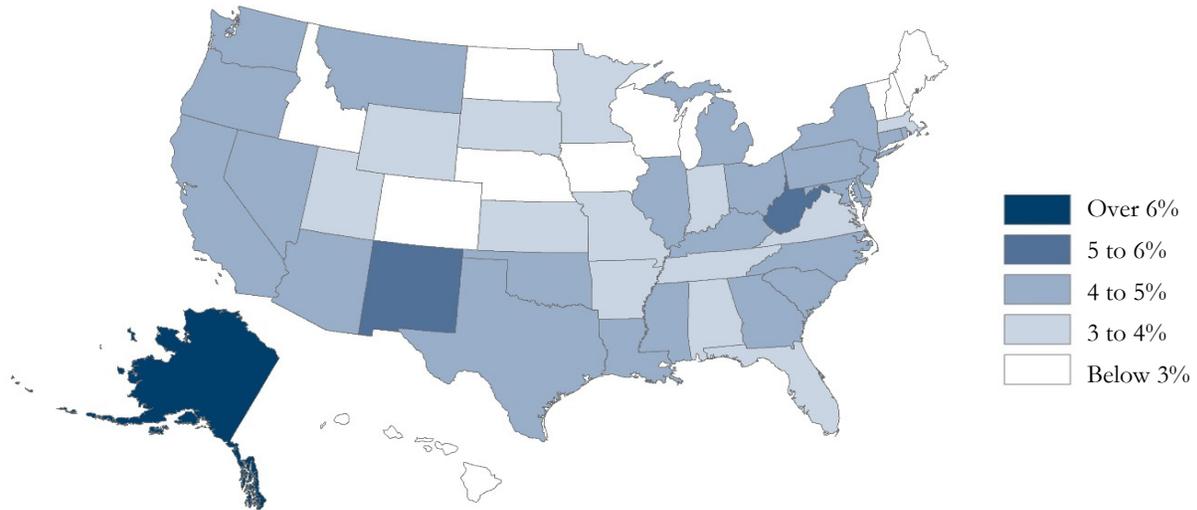
**April 2018 Total Nonfarm Employment**  
*Seasonally Adjusted*



		<i>Percent Change Year-over-Year</i>			<i>Percent Change Year-over-Year</i>
<b>United States</b>		<b>1.6%</b>	25	Mississippi	1.3%
<b>Tenth District</b>		<b>1.7</b>	26	New York	1.2
1	Nevada	3.4	27	Alabama	1.2
2	Idaho	3.3	28	<b>Missouri</b>	1.2
3	Utah	3.3	29	Virginia	1.2
4	Washington	2.8	30	Michigan	1.0
5	Texas	2.7	31	Ohio	1.0
6	<b>Colorado</b>	2.6	32	Louisiana	1.0
7	Arizona	2.2	33	Indiana	1.0
8	California	2.1	34	Wisconsin	0.9
9	Florida	2.1	35	Delaware	0.9
10	Oregon	2.0	36	Illinois	0.9
11	<b>Wyoming</b>	2.0	37	West Virginia	0.9
12	North Carolina	1.9	38	Maine	0.9
13	<b>Oklahoma</b>	1.8	39	<b>Nebraska</b>	0.8
14	South Carolina	1.7	40	Minnesota	0.8
15	Georgia	1.5	41	South Dakota	0.7
16	Tennessee	1.5	42	Iowa	0.7
17	Rhode Island	1.5	43	Montana	0.6
18	New Jersey	1.4	44	Connecticut	0.5
19	Pennsylvania	1.4	45	Kentucky	0.4
20	New Hampshire	1.4	46	Maryland	0.3
21	<b>Kansas</b>	1.4	47	Arkansas	0.2
22	<b>New Mexico</b>	1.3	48	Vermont	0.2
23	Massachusetts	1.3	49	Alaska	-0.2
24	Hawaii	1.3	50	North Dakota	-1.8

Source: Bureau of Labor Statistics/Haver Analytics

**April 2018 Unemployment Rates**  
*Seasonally Adjusted*

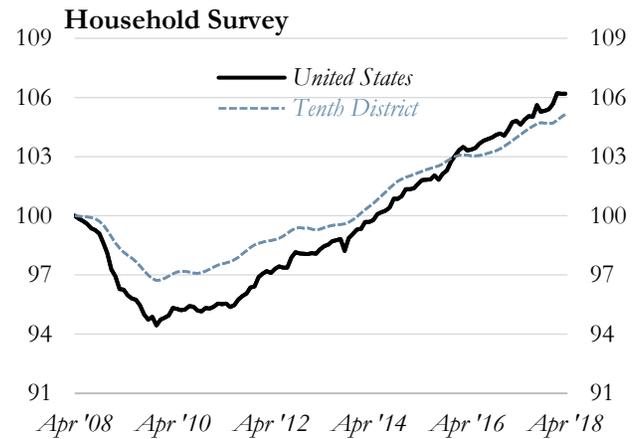
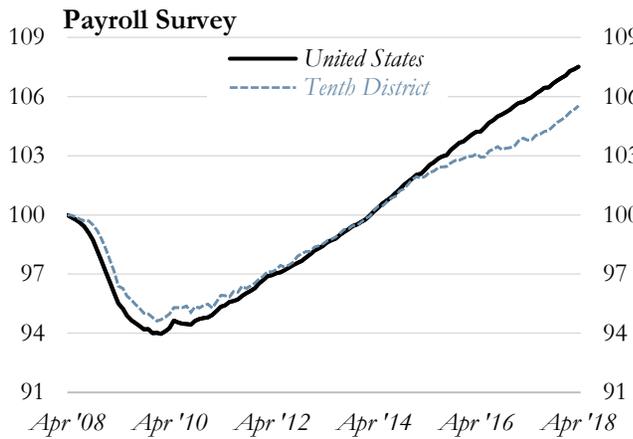


		<i>Percent Unemployed</i>			<i>Percent Unemployed</i>
<b>United States</b>		<b>3.9%</b>	25	Montana	4.0%
<b>Tenth District</b>		<b>3.5</b>	25	Kentucky	4.0
1	Alaska	7.3	25	<b>Oklahoma</b>	4.0
2	<b>New Mexico</b>	5.4	28	Florida	3.9
2	West Virginia	5.4	29	<b>Wyoming</b>	3.8
4	Nevada	4.9	29	Arkansas	3.8
4	Arizona	4.9	29	Alabama	3.8
6	Washington	4.8	32	<b>Missouri</b>	3.6
7	Pennsylvania	4.7	33	Massachusetts	3.5
7	Michigan	4.7	34	South Dakota	3.4
9	New York	4.6	34	<b>Kansas</b>	3.4
9	Mississippi	4.6	34	Tennessee	3.4
11	New Jersey	4.5	37	Virginia	3.3
11	Connecticut	4.5	38	Indiana	3.2
11	Rhode Island	4.5	38	Minnesota	3.2
11	Louisiana	4.5	40	Utah	3.1
15	Illinois	4.4	41	<b>Colorado</b>	2.9
15	North Carolina	4.4	41	Idaho	2.9
17	Ohio	4.3	43	Wisconsin	2.8
17	Georgia	4.3	43	Iowa	2.8
17	Maryland	4.3	43	Vermont	2.8
20	South Carolina	4.2	43	<b>Nebraska</b>	2.8
20	Delaware	4.2	47	Maine	2.7
20	California	4.2	48	New Hampshire	2.6
23	Oregon	4.1	48	North Dakota	2.6
23	Texas	4.1	50	Hawaii	2.0

Source: Bureau of Labor Statistics/Haver Analytics

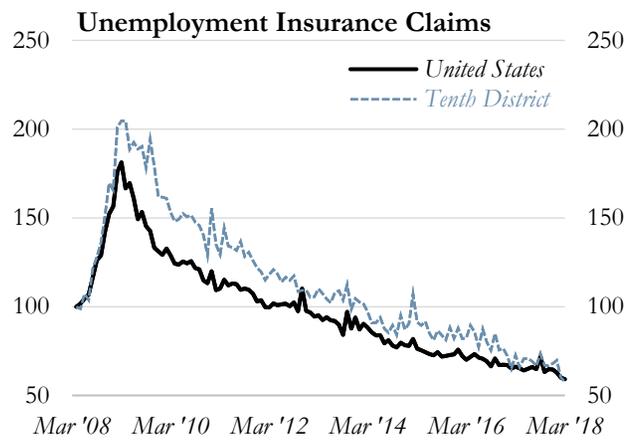
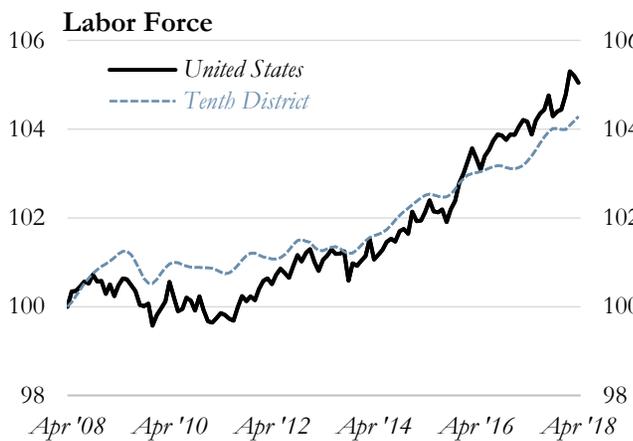
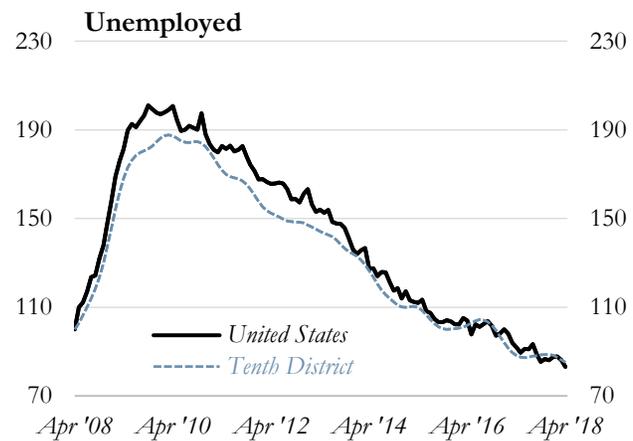
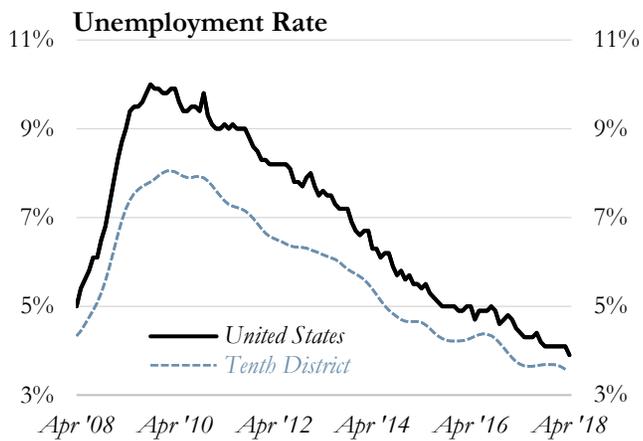
**Total Nonfarm Employment**

*Ten-Year Index of Growth, Seasonally Adjusted*



**Labor Force Dynamics**

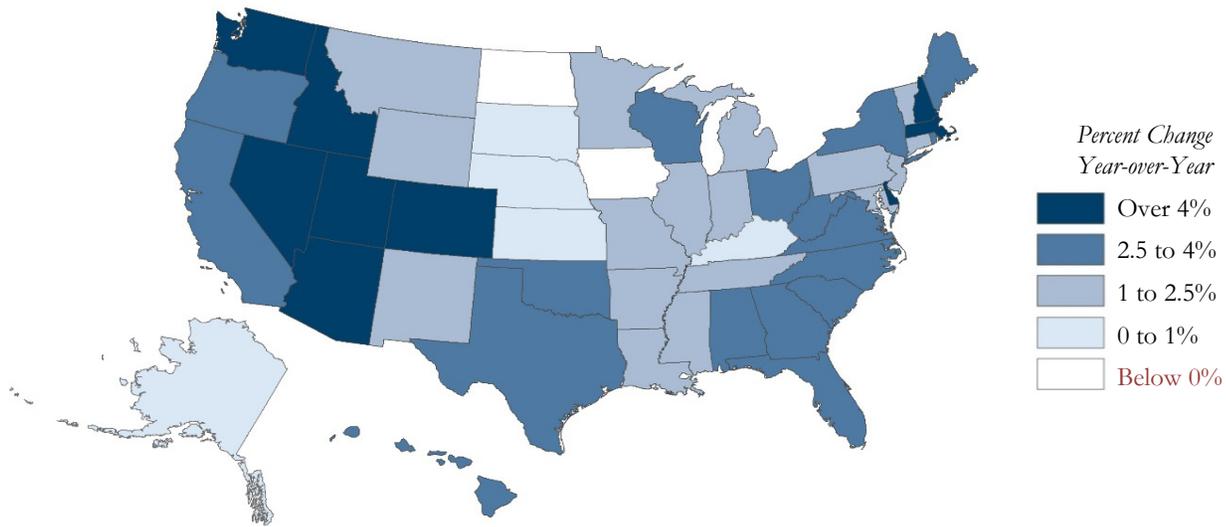
*Ten-Year Index of Growth, Seasonally Adjusted*



Source: Bureau of Labor Statistics & Department of Labor/Haver Analytics

**2017Q4 Real Personal Income**

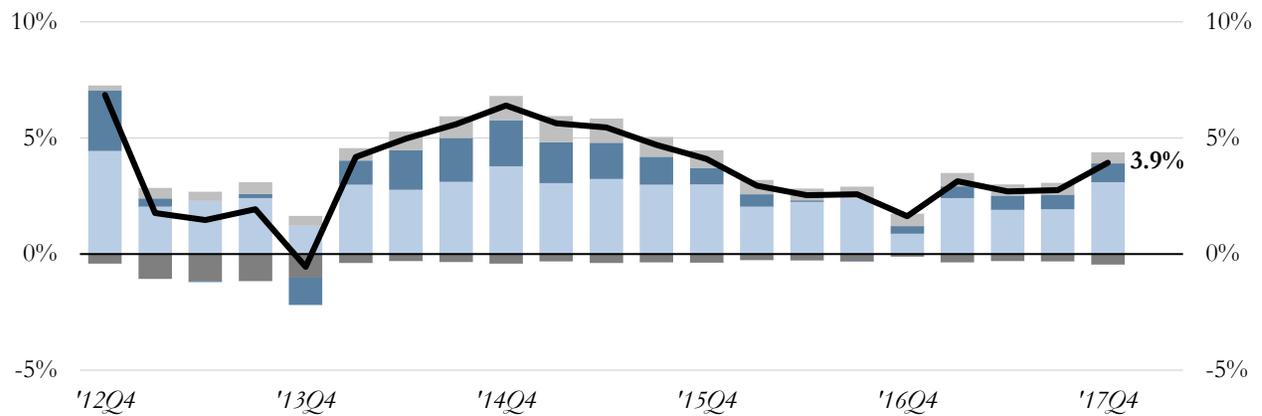
*Seasonally Adjusted*



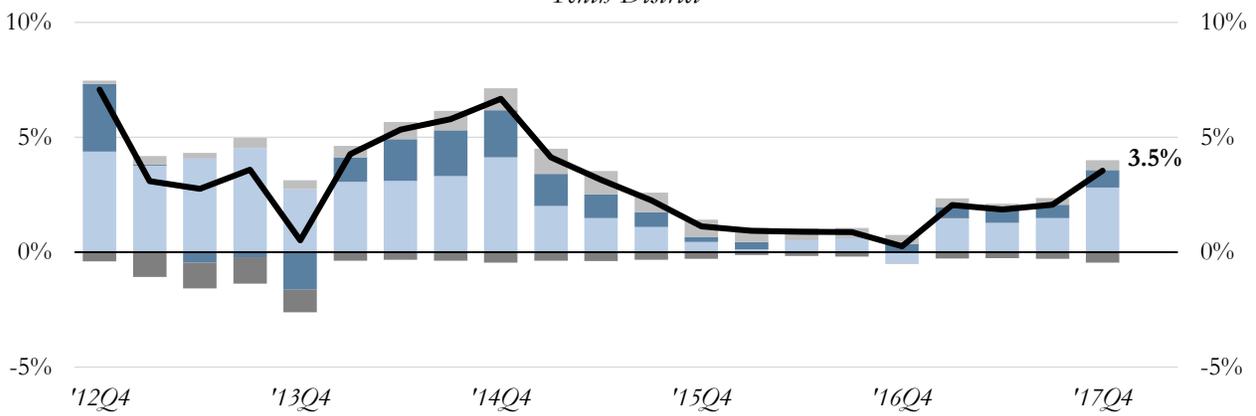
	<i>Percent Change Year-over-Year</i>	<i>Per Capita Personal Income</i>			<i>Percent Change Year-over-Year</i>	<i>Per Capita Personal Income</i>
<b>United States</b>	<b>2.2%</b>	<b>\$50,939</b>	25	Maine	2.1%	\$45,589
<b>Tenth District</b>	<b>1.8</b>	<b>41,828</b>	26	South Carolina	2.0	40,670
1 Nevada	4.6	45,225	27	Louisiana	2.0	43,917
2 New Hampshire	3.9	58,494	28	<b>Wyoming</b>	2.0	57,461
3 Arizona	3.9	42,207	29	Arkansas	1.8	41,064
4 Idaho	3.7	40,733	30	New Jersey	1.8	63,306
5 <b>Colorado</b>	3.6	54,202	31	Tennessee	1.8	44,689
6 Utah	3.4	42,561	32	Pennsylvania	1.8	52,811
7 Delaware	3.3	49,923	33	Vermont	1.7	51,653
8 Washington	3.3	56,961	34	Maryland	1.6	60,171
9 Massachusetts	3.1	66,811	35	Illinois	1.4	53,576
10 Rhode Island	2.9	52,375	36	Indiana	1.3	44,577
11 Texas	2.8	47,375	37	Connecticut	1.3	70,969
12 California	2.7	59,014	38	<b>New Mexico</b>	1.3	39,437
13 Georgia	2.7	43,708	39	<b>Missouri</b>	1.3	44,067
14 Florida	2.7	47,174	40	Montana	1.2	44,139
15 West Virginia	2.5	38,585	41	Mississippi	1.2	36,692
16 Wisconsin	2.4	48,506	42	Michigan	1.2	45,683
17 North Carolina	2.4	43,619	43	Minnesota	1.2	53,335
18 New York	2.3	61,767	44	Kentucky	0.7	39,774
19 Hawaii	2.2	52,675	45	<b>Nebraska</b>	0.4	50,564
20 Oregon	2.2	46,732	46	South Dakota	0.4	48,393
21 Alabama	2.2	40,374	47	<b>Kansas</b>	0.2	48,011
22 Ohio	2.1	46,251	48	Alaska	0.2	56,878
23 Virginia	2.1	54,828	49	Iowa	-1.0	46,058
24 <b>Oklahoma</b>	2.1	43,933	50	North Dakota	-2.1	54,458

Source: Bureau of Economic Analysis/Haver Analytics

**Nominal Personal Income**  
*Contributions to Percent Change, Seasonally Adjusted*  
 United States

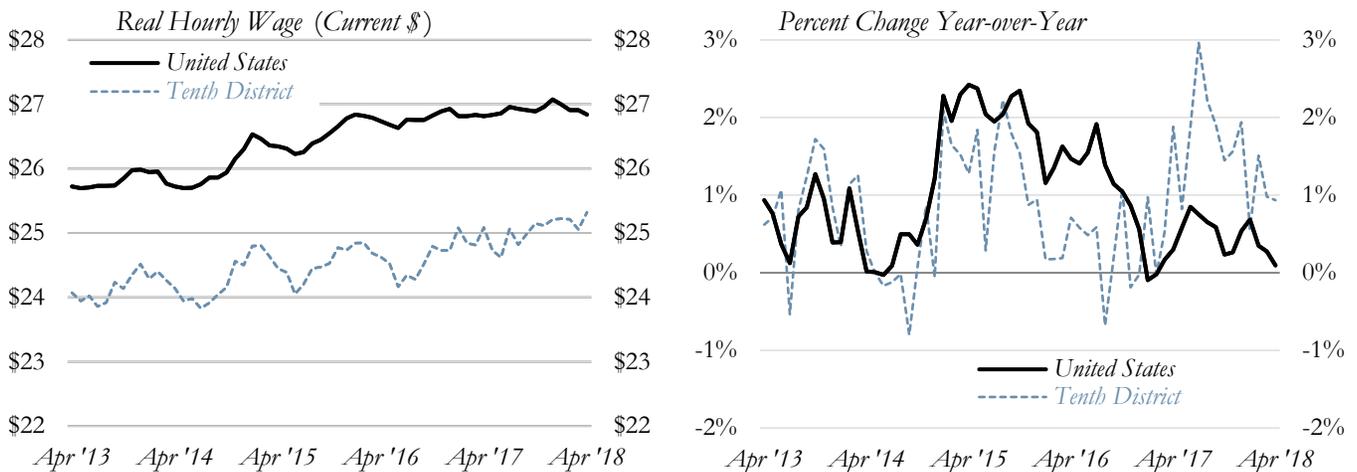


Tenth District



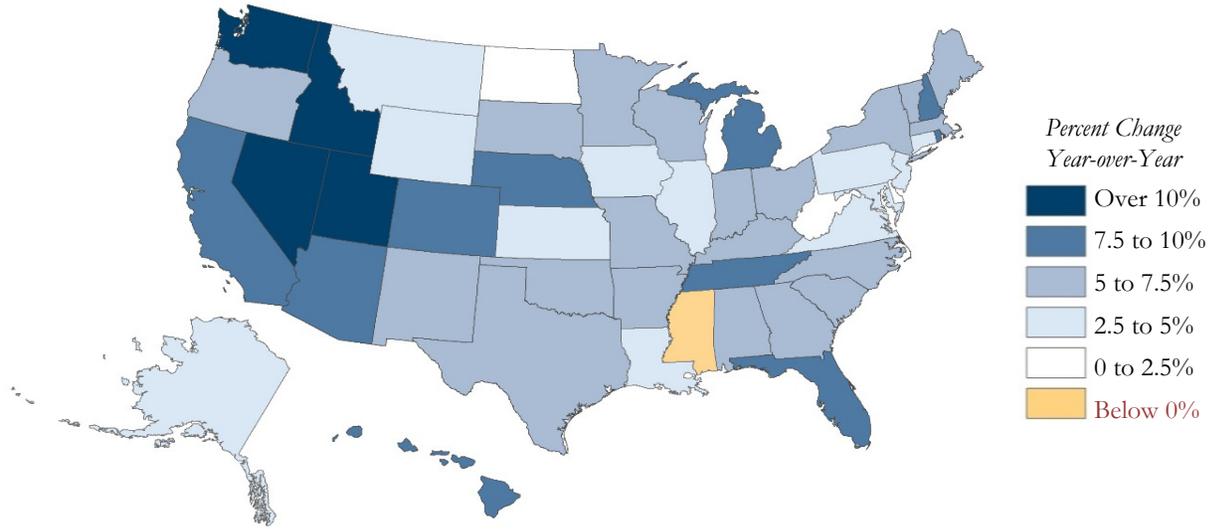
- Contributions to Social Insurance
- Residence Adjustment
- Transfer Payments
- Earnings by Place of Work
- Dividends, Interest & Rent
- Total Personal Income

**Real Average Hourly Wage**  
*Seasonally Adjusted*



Source: Bureau of Economic Analysis & Bureau of Labor Statistics/Haver Analytics

**2017Q4 FHFA Purchase-Only Home Price Index**  
*Seasonally Adjusted*

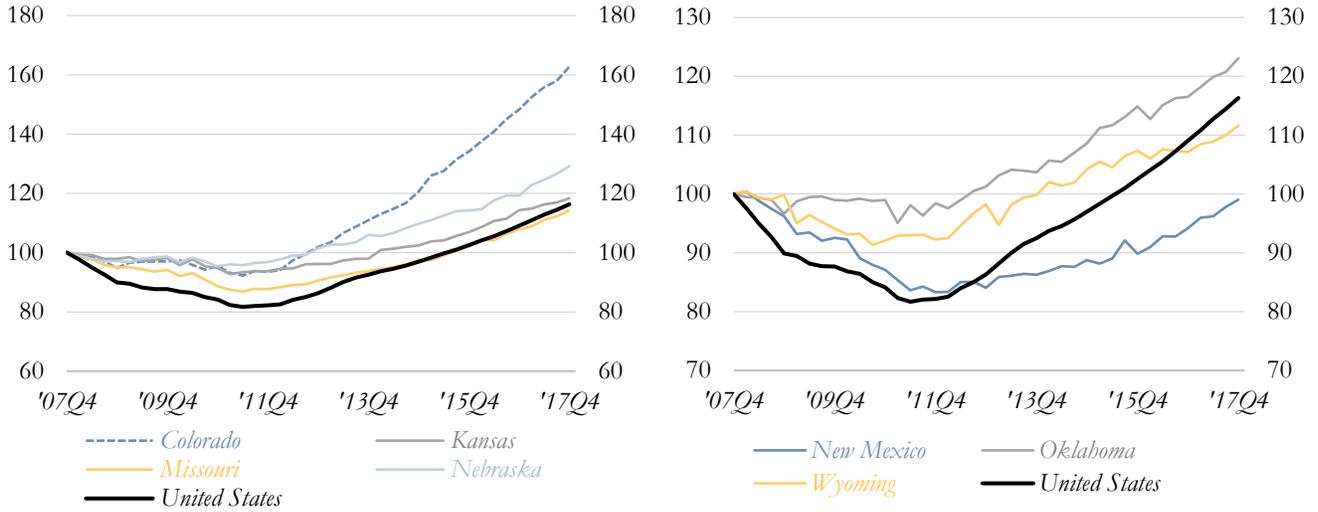


<i>Percent Change Year-over-Year</i>			<i>Percent Change Year-over-Year</i>		
	<b>United States</b>	<b>6.7%</b>			
1	Washington	12.0	25	Minnesota	6.2%
2	Idaho	11.5	26	Massachusetts	6.1
3	Nevada	11.5	27	New York	5.9
4	Utah	10.7	28	<b>Missouri</b>	5.9
5	<b>Colorado</b>	9.8	29	Alabama	5.6
6	Tennessee	9.4	30	<b>Oklahoma</b>	5.6
7	Hawaii	8.7	31	Wisconsin	5.6
8	Florida	8.7	32	Maine	5.5
9	Michigan	8.6	33	South Dakota	5.5
10	California	8.5	34	<b>New Mexico</b>	5.1
11	<b>Nebraska</b>	8.3	35	Pennsylvania	4.9
12	Arizona	8.3	36	Virginia	4.9
13	Rhode Island	8.1	37	New Jersey	4.6
14	New Hampshire	7.6	38	Iowa	4.4
15	Texas	7.3	39	<b>Wyoming</b>	4.1
16	Kentucky	7.2	40	Connecticut	3.7
17	Vermont	7.1	41	Alaska	3.6
18	Indiana	6.9	42	Maryland	3.5
19	Georgia	6.7	43	<b>Kansas</b>	3.5
20	North Carolina	6.7	44	Illinois	3.2
21	Oregon	6.5	45	Montana	3.0
22	South Carolina	6.5	46	Louisiana	2.7
23	Ohio	6.3	47	Delaware	2.0
24	Arkansas	6.3	48	North Dakota	1.8
			49	West Virginia	1.1
			50	Mississippi	-0.6

Source: Federal Housing Finance Agency (FHFA)/Haver Analytics

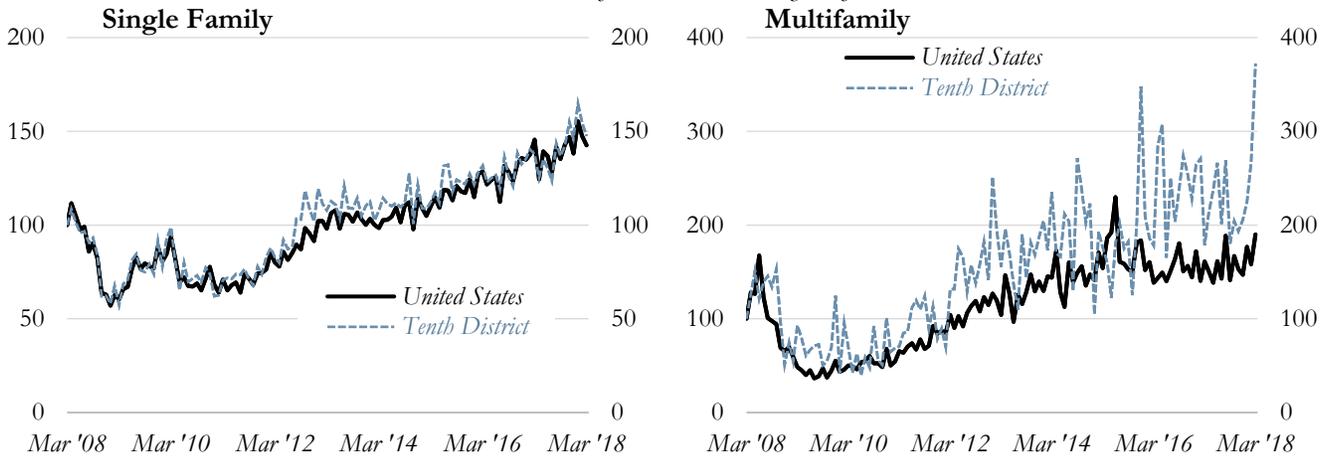
### FHFA Purchase-Only Home Price Index

Ten-Year Index of Growth, Seasonally Adjusted

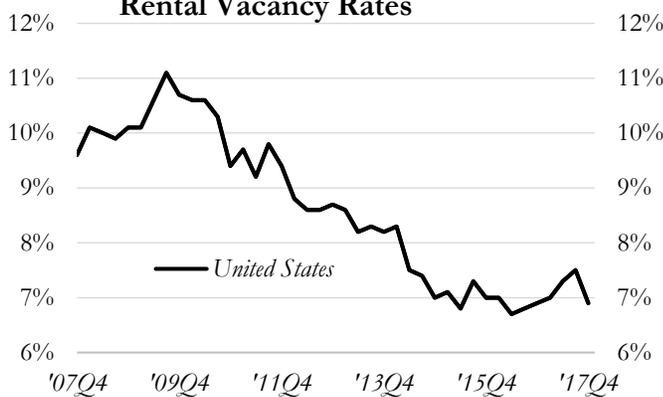


### Housing Permits

Ten-Year Index of Growth, Seasonally Adjusted



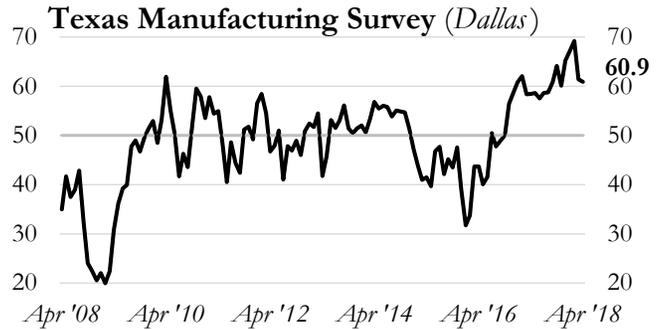
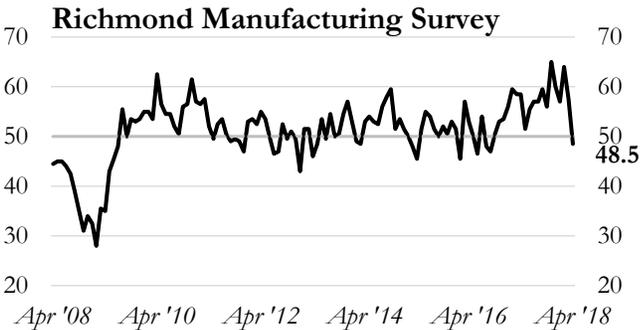
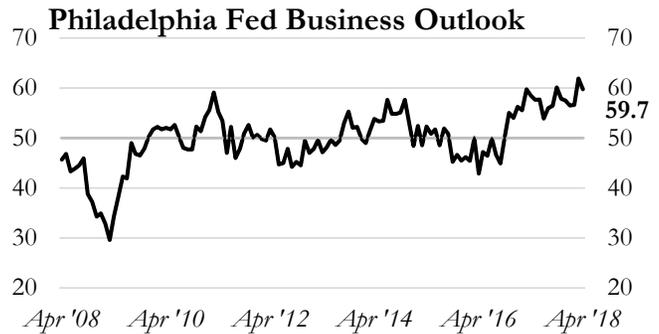
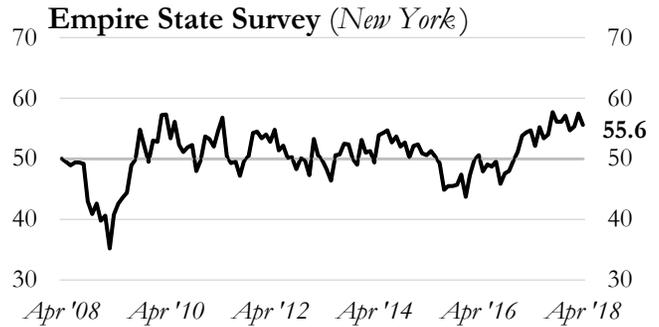
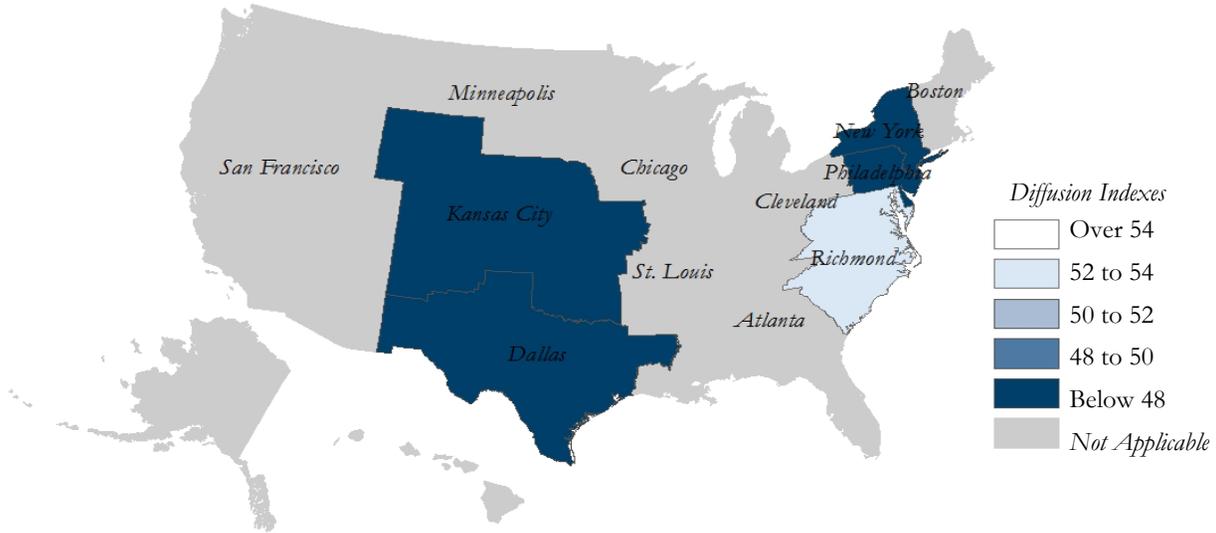
### Rental Vacancy Rates



Note: Rental Vacancy Rates are not available for the Tenth District.

Source: Federal Housing Finance Agency (FHFA) & Census Bureau/Haver Analytics

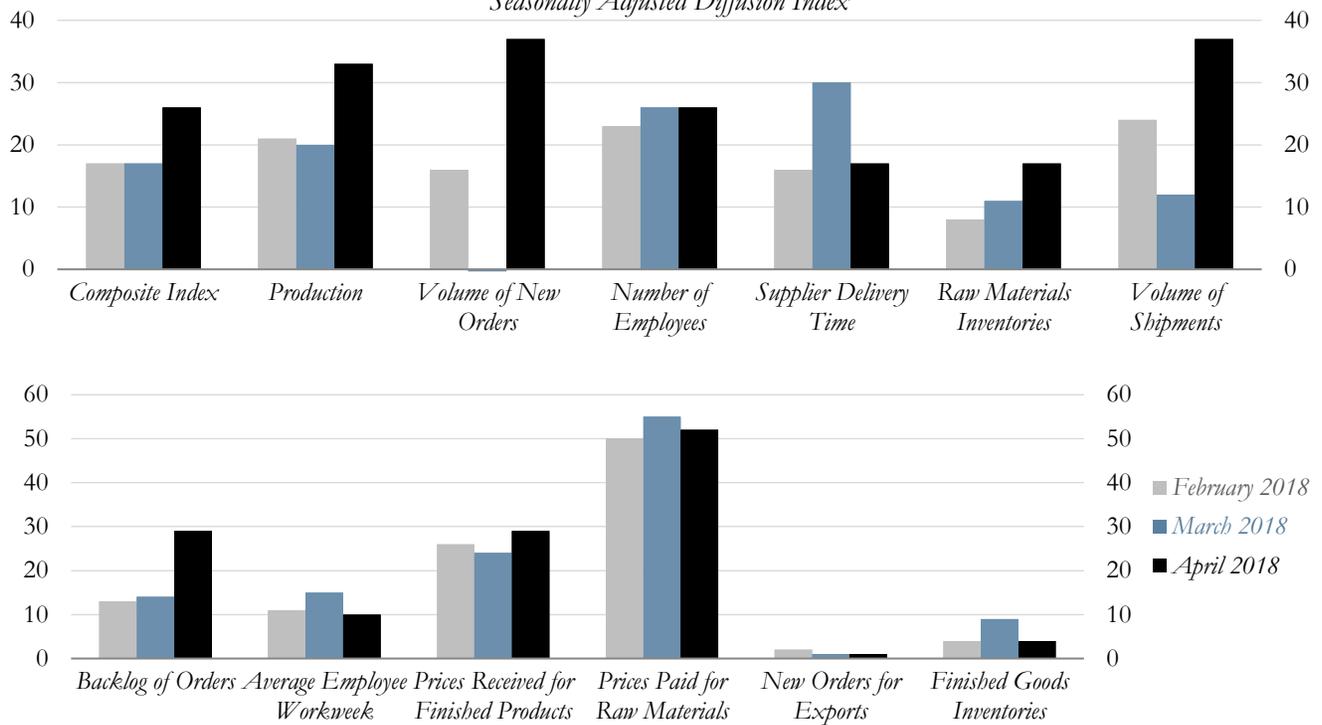
**Manufacturing Surveys**  
*Seasonally Adjusted*



Note: Indices are defined to be between 0 and 100; above 50 indicates growth and below 50 indicates contraction.  
Source: Institute for Supply Management (ISM) & Federal Reserve District Banks/Haver Analytics

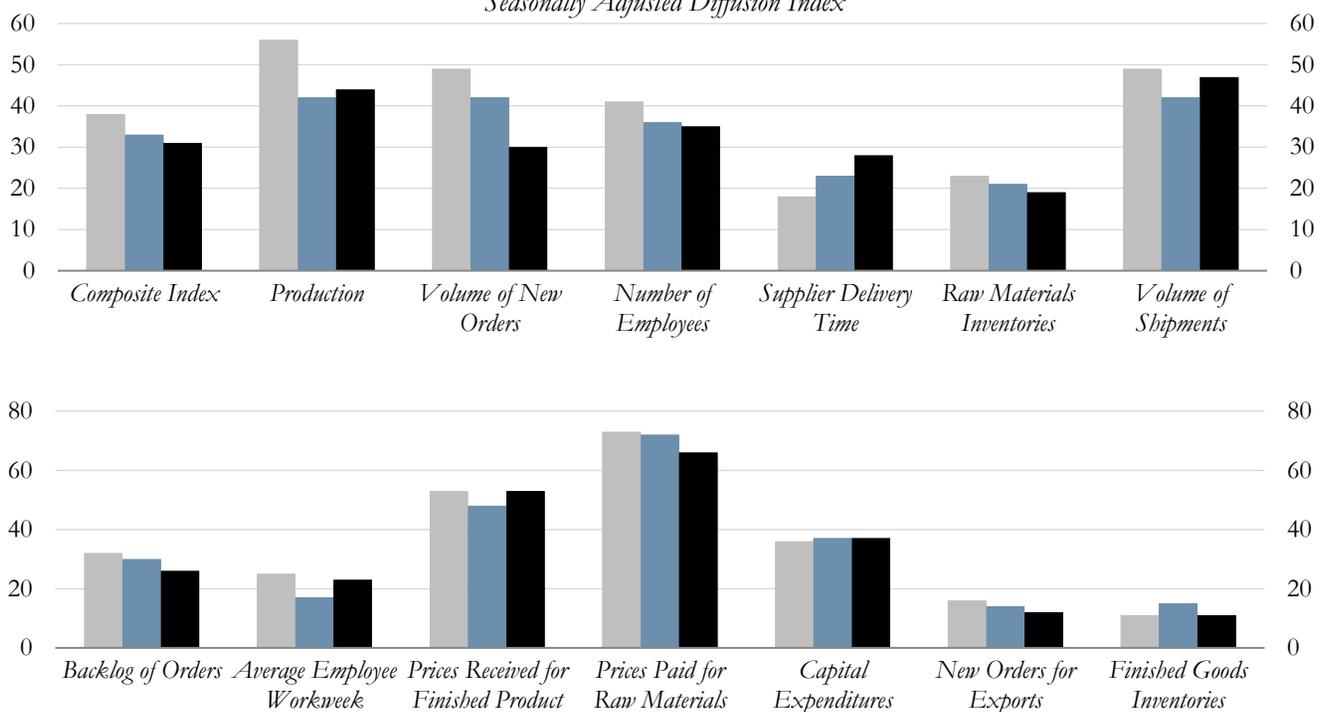
**Current Activity vs. a Month Ago**

*Seasonally Adjusted Diffusion Index*



**Expectations Six-Months Ahead**

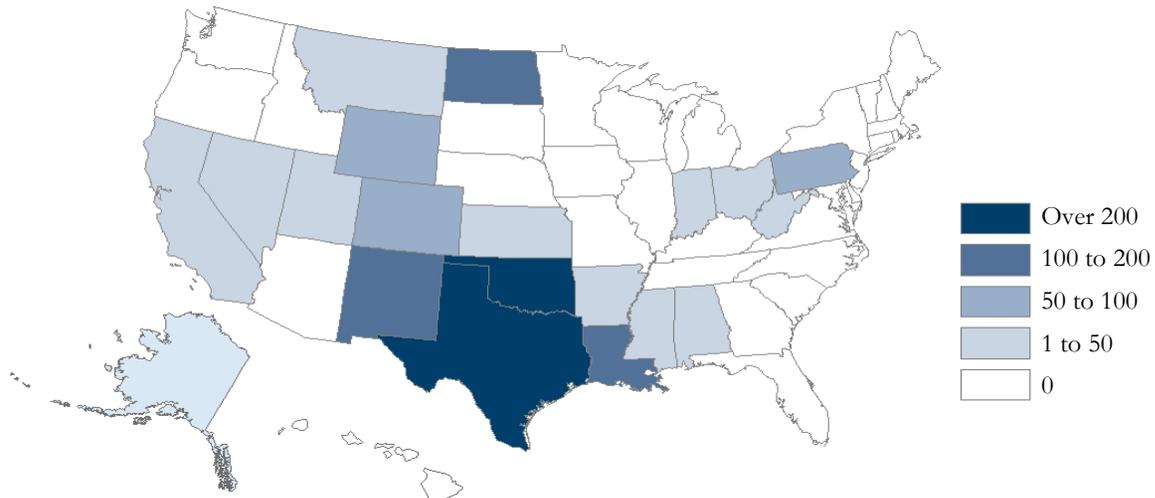
*Seasonally Adjusted Diffusion Index*



Note: Indices above zero indicate expansion.

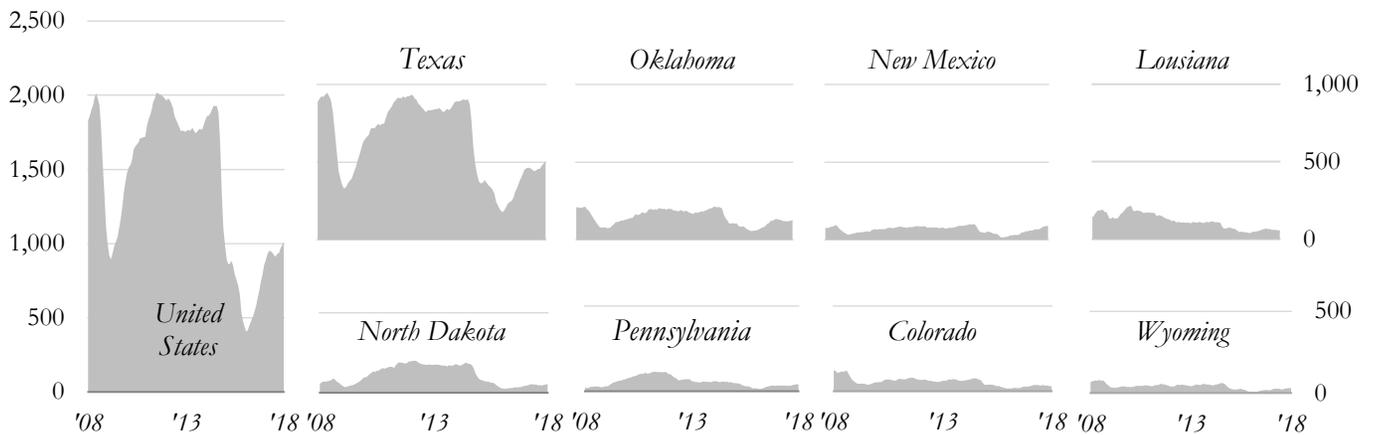
Source: Federal Reserve Bank of Kansas City/Haver Analytics

**April 2018 Active Oil & Gas Drilling Rig Counts**



	<i>Average Rig Counts During the Month</i>	<i>Percent Change Year-over-Year</i>	<i>Current Share of Activity</i>
<b>United States</b>	<b>1,011</b>	<b>13.2%</b>	
<b>Tenth District</b>	<b>278</b>	<b>21.4</b>	<b>27.5%</b>
<i>Top Producing States</i>			
Texas	505	18.8	50.0
<b>Oklahoma</b>	129	3.2	12.8
<b>New Mexico</b>	89	58.9	8.8
Louisiana	58	-1.7	5.7
North Dakota	54	25.6	5.3
Pennsylvania	40	17.6	4.0
<b>Colorado</b>	30	3.4	3.0
<b>Wyoming</b>	29	52.6	2.9
Ohio	23	4.5	2.3
West Virginia	16	33.3	1.6

**Ten-Year History of Most Active States**  
*Average Active Monthly Drilling Rig Counts*

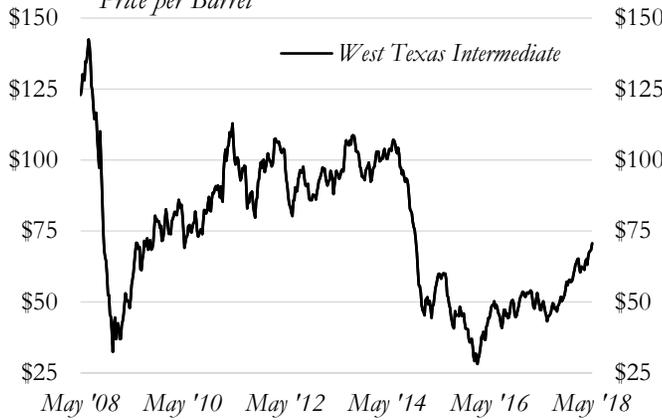


Source: Baker Hughes/Haver Analytics

**Spot Prices**

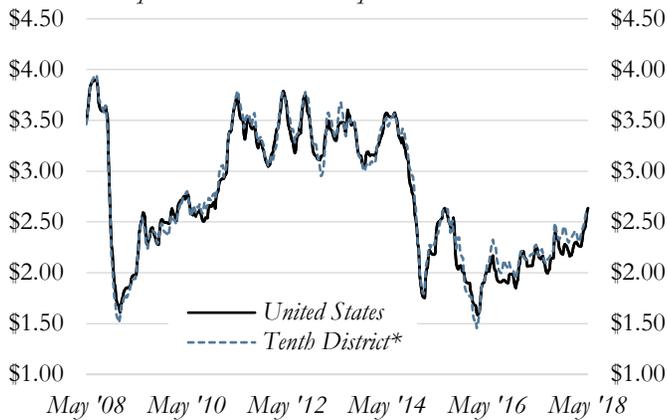
**Crude Oil**

*Price per Barrel*



**Gasoline**

*Price per Gallon at the Pump*



**Natural Gas**

*Price per Thousand Cubic Feet*

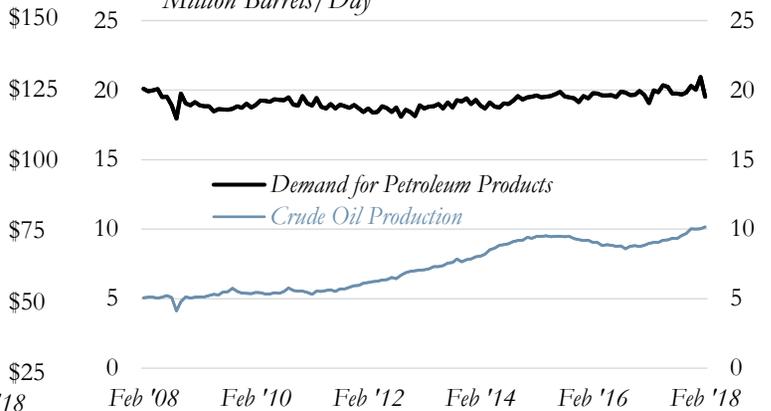


**U.S. Supply/Demand Dynamics**

*Seasonally Adjusted*

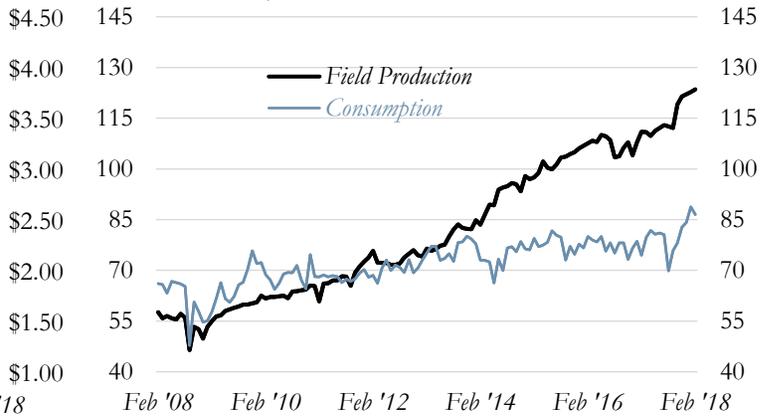
**Crude Oil**

*Million Barrels/Day*



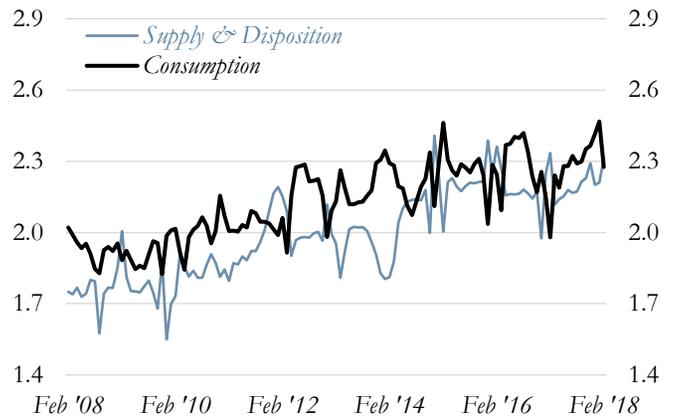
**Natural Gas Liquids**

*Million Barrels/Month*



**Natural Gas**

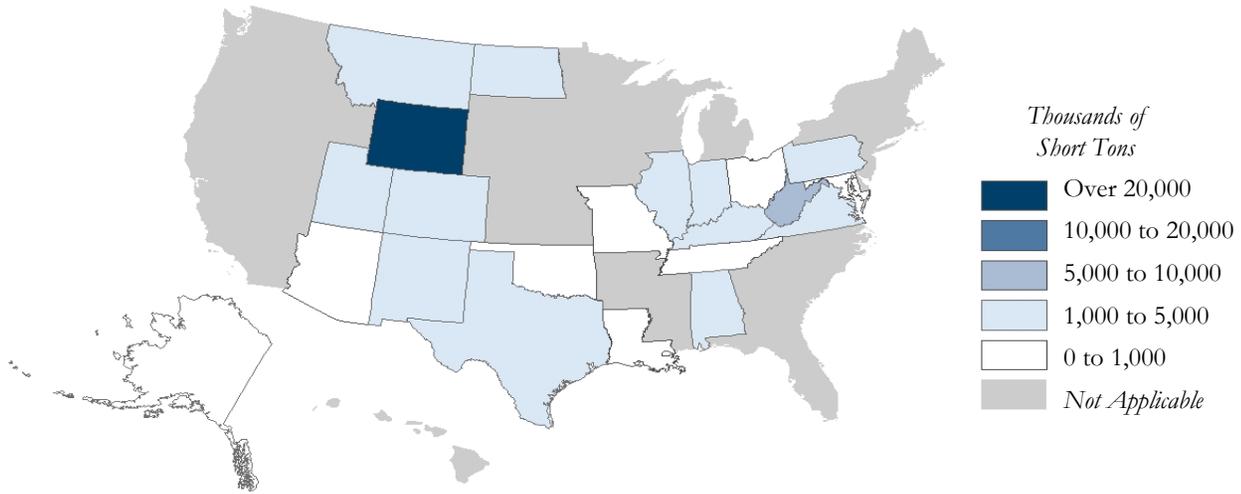
*Trillion Cubic Feet/Month*



\*Average price per gallon for major Tenth District metro areas.

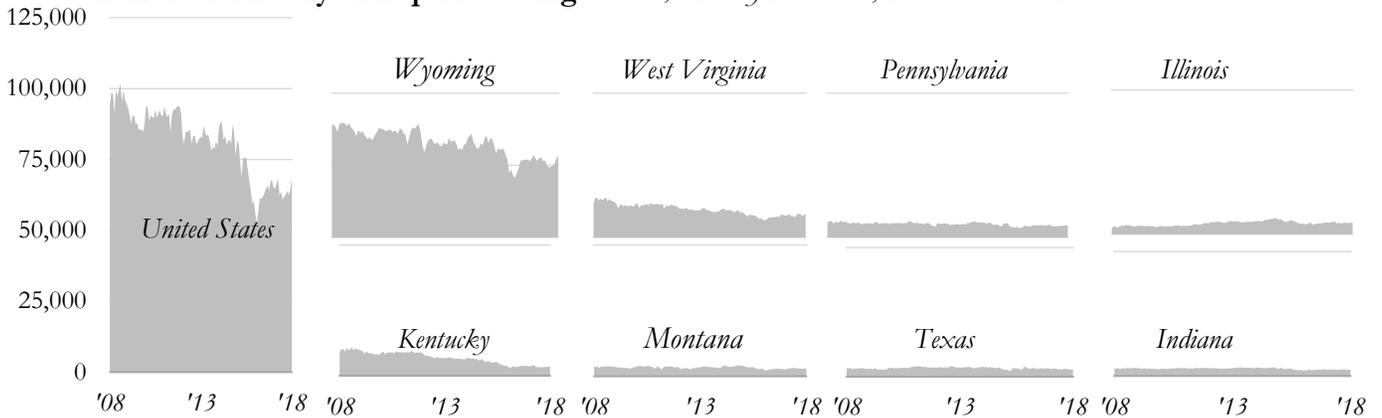
Source: Wall Street Journal, Oil & Gas Journal & Department of Energy, Energy Information Administration/Haver Analytics

**March 2018 Coal Production**  
*Seasonally Adjusted*



	<i>Monthly Production (Thousand Short Tons)</i>	<i>Percent Change Year-over-Year</i>	<i>Current Share of Production</i>
<b>United States</b>	<b>67,962.0</b>	<b>4.3%</b>	
<b>Tenth District*</b>	<b>31,431.9</b>	<b>4.9</b>	<b>46.2%</b>
<i>Top Producing States</i>			
<b>Wyoming</b>	28,479.4	4.2	41.9
West Virginia	8,126.8	7.3	12.0
Pennsylvania	4,305.4	6.7	6.3
Illinois	4,144.7	5.7	6.1
Kentucky	3,677.5	1.0	5.4
Montana	3,004.6	15.9	4.4
Texas	2,882.7	-3.9	4.2
Indiana	2,645.3	-0.1	3.9
North Dakota	2,319.0	-0.2	3.4
<b>Colorado</b>	1,662.2	24.2	2.4

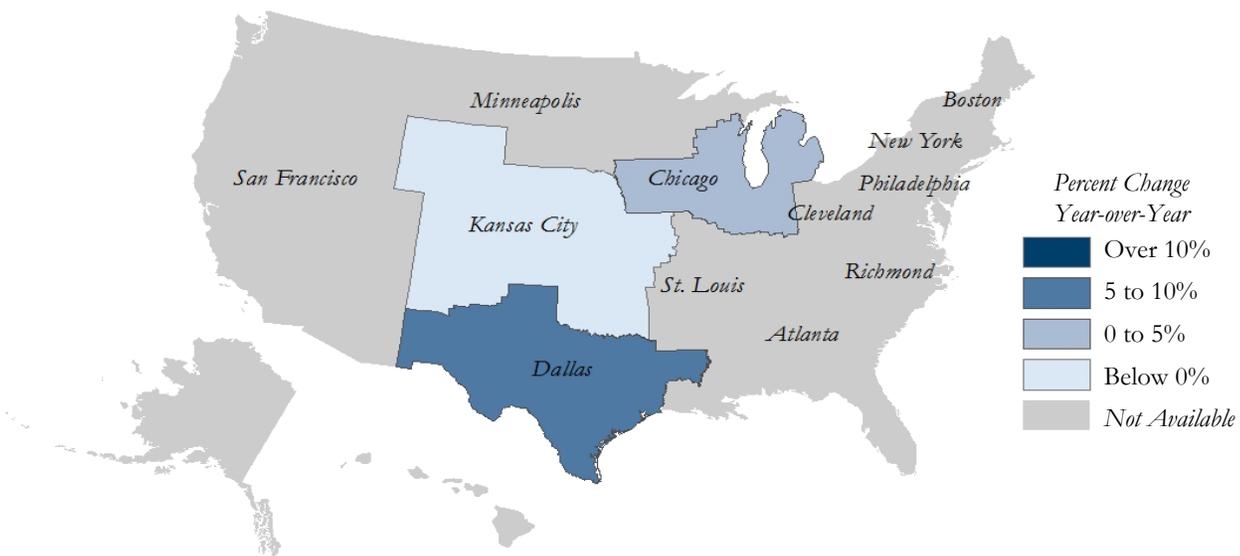
**Ten-Year History of Top Producing States, Monthly Production, Thousand Short Tons**



\*Includes all Tenth District states but Nebraska.

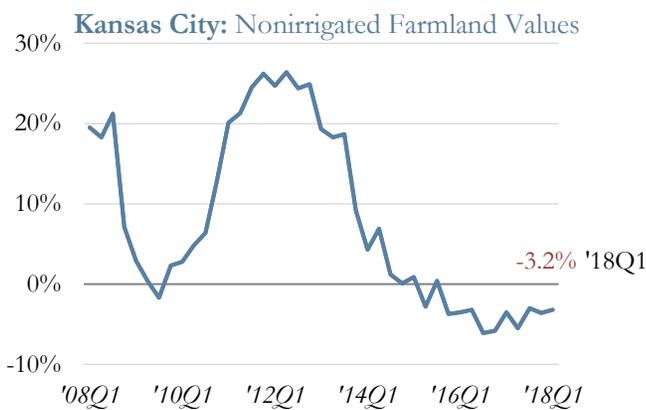
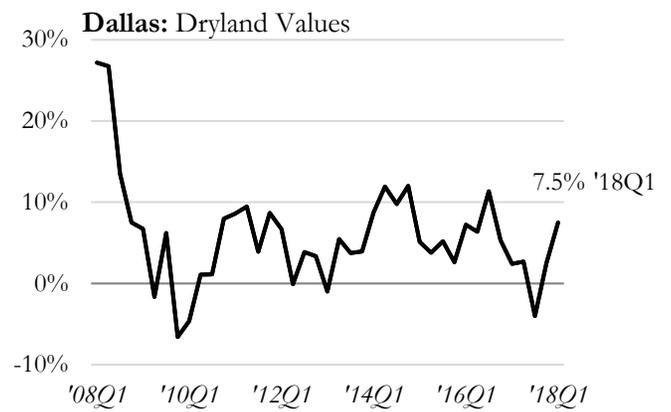
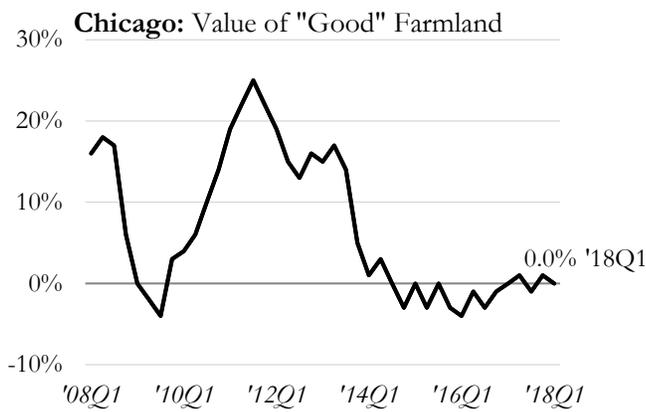
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

### Farm Land Values\*



### Farmland Values by Federal Reserve District

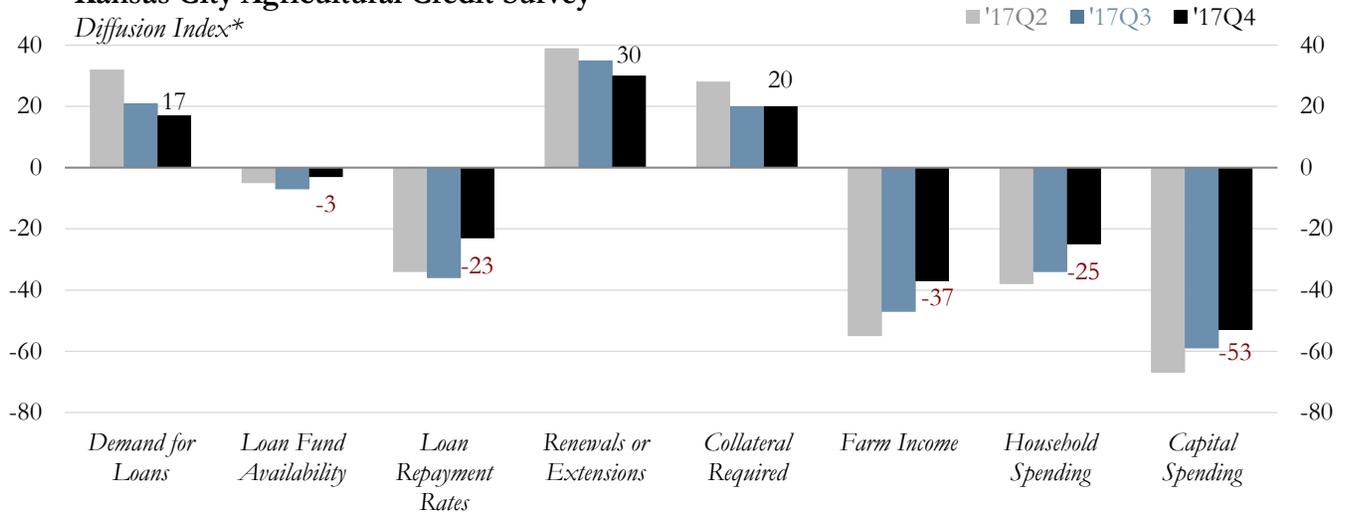
*Percent Change Year-over-Year*



\*Values shown for the most recent survey available for each district.  
Source: Federal Reserve District Banks/Haver Analytics

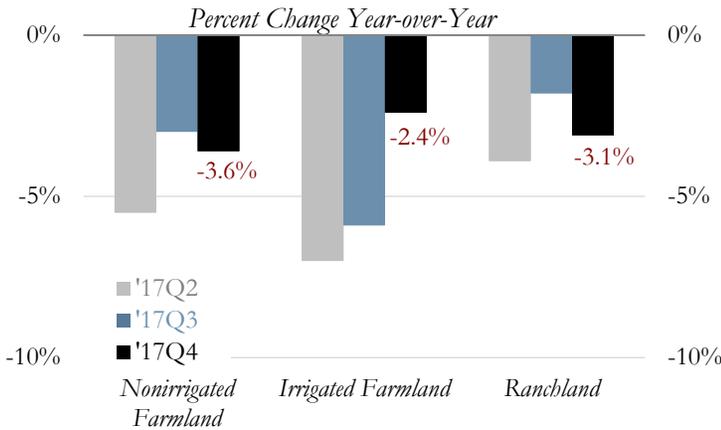
**Kansas City Agricultural Credit Survey**

*Diffusion Index\**

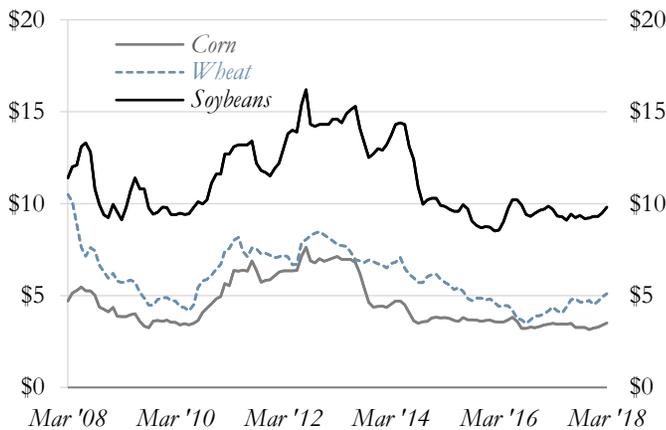


**Tenth District Farmland Values**

*Percent Change Year-over-Year*

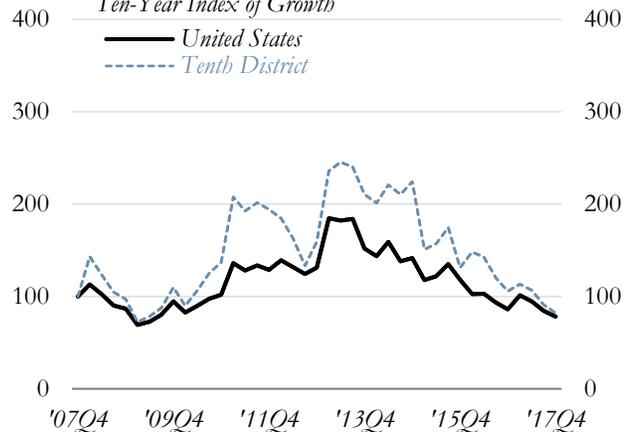


**Spot Prices**



**Farm Income**

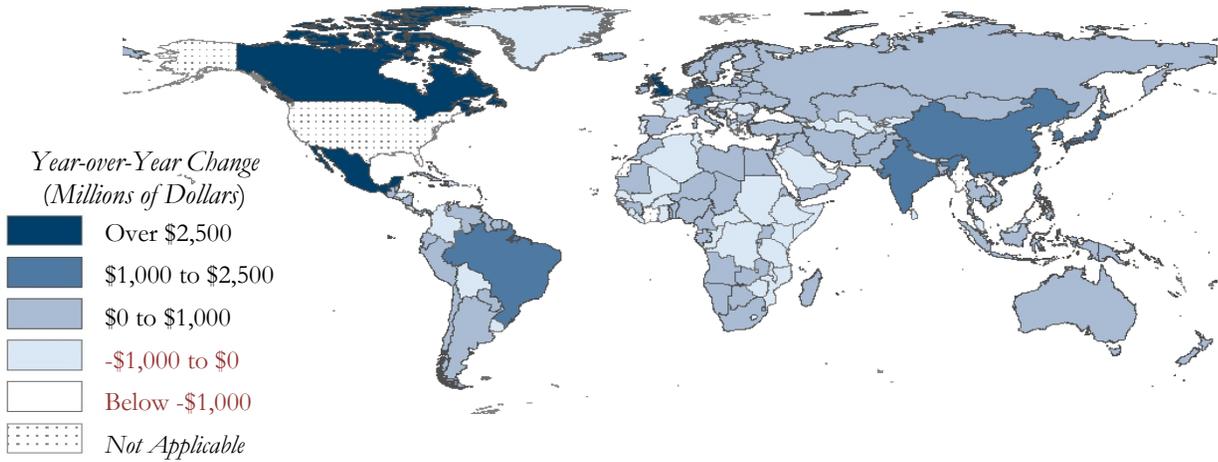
*Ten-Year Index of Growth*



\*Calculated as the percentage of total respondents reporting increases less those reporting declines.

Source: Wall Street Journal, Bureau of Economic Analysis & Federal Reserve Bank of Kansas City/Haver Analytics

**2017Q4 U.S. Exports**  
*Year-to-Date*



		<i>Exports Year-to-Date</i> <i>(Billions of Dollars)</i>	<i>Percent Change</i> <i>Year-to-Date</i>	<i>Share of Exports</i> <i>Year-to-Date</i>
	<b>United States</b>	<b>\$1,546,732.0</b>	<b>6.4%</b>	
<i>Top Export Markets</i>	Canada	282.5	6.2	18.3%
	Mexico	243.0	5.2	15.7%
	China*	196.6	10.9	12.7%
	Japan	67.7	7.0	4.4%
	United Kingdom	56.3	1.7	3.6%
	Germany	53.5	8.4	3.5%
	South Korea	48.3	14.2	3.1%
	Netherlands Antilles	42.2	4.6	2.7%
	Brazil	37.1	22.4	2.4%
	France	33.6	8.5	2.2%

**Ten-Year History of U.S. Top Export Countries**  
*Billions in Quarterly Exports*



Source: Census Bureau/Haver Analytics

\*Includes China, Hong Kong, Taiwan & Macao.

*Page 2:* Gross domestic product (GDP) is the most commonly used measure of aggregate U.S. economic activity. Real GDP is indexed for inflation to 2009 dollars using the personal consumption expenditure price index (PCEPI). Advance, second, and third GDP estimates are released during the first, second, and third month of the following quarter. Each release reflects more complete information. Federal Open Market Committee (FOMC) projections for GDP are released quarterly. Contributions to GDP show how each component of GDP contributes to GDP growth. Tenth District GDP is the year-over-year percent change for the sum of the Gross State Products from CO, KS, MO, NE, NM, OK and WY.

*Page 3:* Inflation is calculated as the year-over-year change in price indices. Headline inflation includes all price components, while core inflation excludes the more volatile components of food and energy. Producer prices reflect price changes in production components, while PCEPI and CPI-U (consumer price index for all urban consumers) estimates show changes in commodities sold to consumers.

*Pages 4, 5 and 6:* Nonfarm employment data from the Bureau of Labor Statistics Current Employment Survey are commonly called "Payroll" employment data. Estimates from this survey are revised throughout the year and a major revision or "benchmark" of the data occurs in March of each year.

*Page 7:* The "official" and most commonly reported unemployment rate is calculated as the number of unemployed workers divided by the total civilian labor force. These data are reported from the Bureau of Labor Statistics Current Population Survey, commonly called the "Household" survey.

*Page 8:* "Payroll" and "Household" surveys are released monthly, providing the most current estimates of employment published by the Bureau of Labor Statistics. Because methodologies differ between surveys, employment estimates also differ. For more information, visit: [http://www.bls.gov/web/empsit/ces\\_cps\\_trends.pdf](http://www.bls.gov/web/empsit/ces_cps_trends.pdf) Initial claims show monthly applications for initial claims for state unemployment insurance benefits.

*Pages 9 and 10:* Personal income provides a measure of all income received by residents of a given geographic area. Data shown on page 9 are in real terms (adjusted for inflation) and data on page 10 are shown in nominal terms (not adjusted for inflation). Transfer payments include social benefits such as unemployment insurance, Social Security, and Medicaid. Contributions to social insurance are subtracted from personal income. These contributions include taxes paid by businesses and employees that support social insurance programs such as unemployment insurance, Social Security, and Medicaid. The residence adjustment adds income received outside of a recipients state of residence and makes a corresponding subtraction from the area where this income was earned or received. Real average hourly wages are calculated as total earnings divided by total employment for a given geographic area. Data are adjusted for inflation using the CPI-U and are indexed to the most current month of data.

*Pages 11 and 12:* Home price indices estimate regional growth in home values based on repeat sales data for detached single family residential properties.

*Page 12:* Monthly single and multifamily housing permits data are not revised and therefore may not sum to published year-end totals.

*Page 13:* The ISM composite index, also commonly called the Purchasing Managers Index (PMI), represents a weighted average of diffusion indices for new orders, production, supplier deliveries, inventories, and employment. Federal Reserve district surveys differ slightly in methodologies for composite indices.

*Page 14:* Kansas City Manufacturing Survey diffusion indices are calculated as the percentage of total respondents reporting increases in activity less those reporting declines.

*Page 15:* The active rig count is the number of rigs actively exploring for or developing oil or natural gas. Rig counts provide an indicator of new drilling activity and potential for expanded crude oil or natural gas production.

*Page 16:* A spot price is the current market delivery price of a given commodity.

*Page 17:* Coal production is shown as production during a given month.

*Pages 18 and 19:* Farmland values surveyed differ across Federal Reserve districts.

*Page 20:* Exports measure the total physical movement of a given product from the United States to a foreign country.

#### **Data Revisions**

Most data are revised periodically to correct for errors and incorporate additional information as it becomes available. Data shown in this report are subject to change.

#### **Seasonal Adjustments**

Most data are seasonally adjusted to remove variance caused by seasonal fluctuations in economic activity. Data in this report show the seasonal adjustments of data publishers where available. In other cases, Census X-12 adjustments were applied.

### *Additional Resources Available*

- Agricultural Surveys
- Manufacturing Surveys
- Regional Economic Analysis
- Banker Resources
- Economic Indicators
- Economic Research
- Educational Tools
- Energy Survey
- Speeches

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