

# THE *Tenth District* ECONOMIC DATABOOK

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



OCTOBER 22, 2018

FEDERAL RESERVE BANK of KANSAS CITY

## **SUMMARY OF CURRENT TENTH DISTRICT ECONOMIC CONDITIONS**

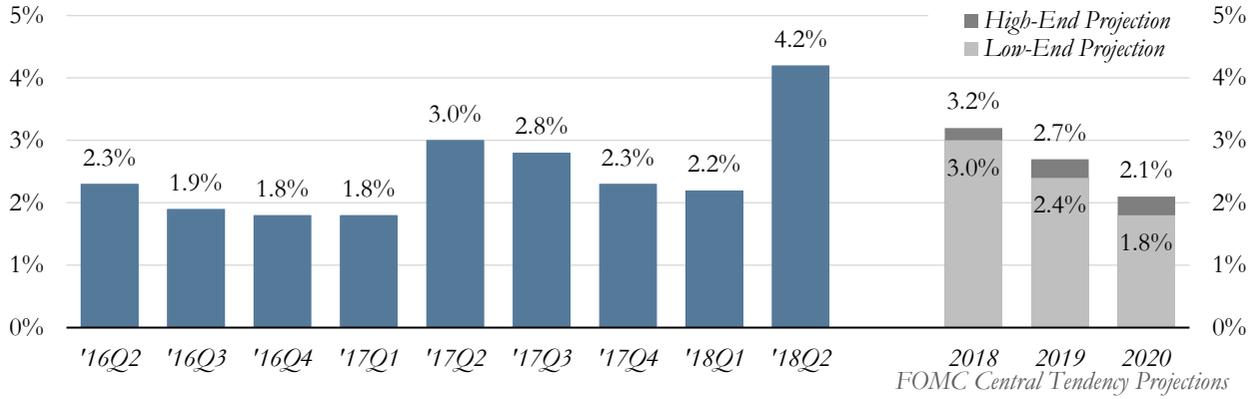
The unemployment rate was 3.3 percent across the Tenth District states in September, and total payroll employment grew 2.0 percent compared to the previous year. Employment growth was broad-based across industries, with the strongest percentage gains in the mining and logging and leisure and hospitality sectors. Tenth District nominal personal income grew 4.1 percent in the second quarter of 2018 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 September 2018, with a composite index of 56.4. Nonirrigated farmland values, as measured by the Federal Reserve Bank of Kansas City's Survey of Agricultural Credit Conditions, decreased 1.1 percent in the second 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.



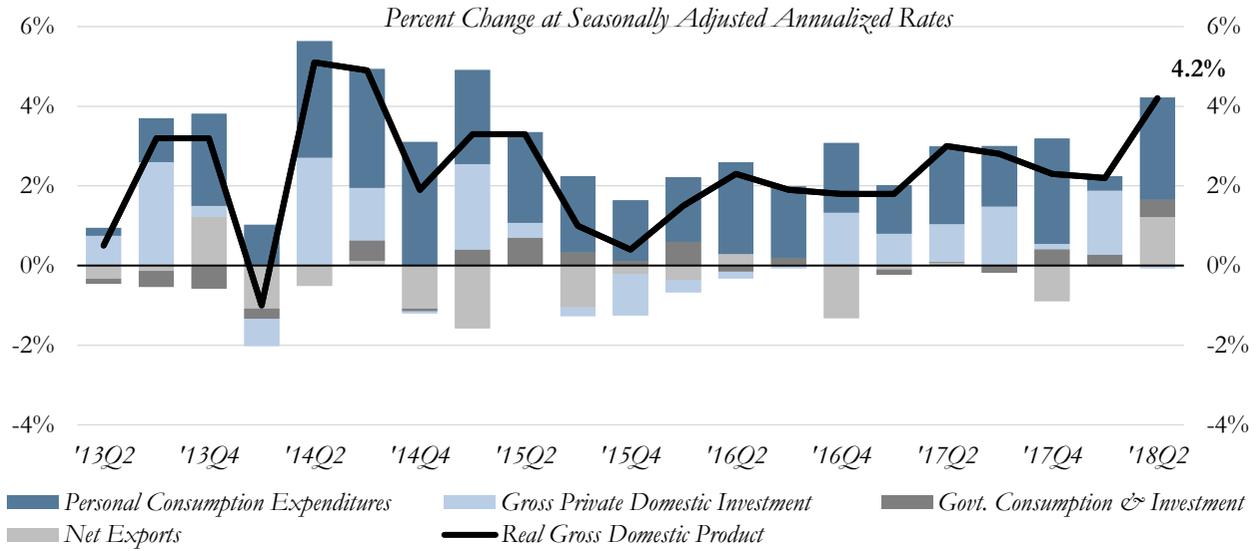
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and 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*



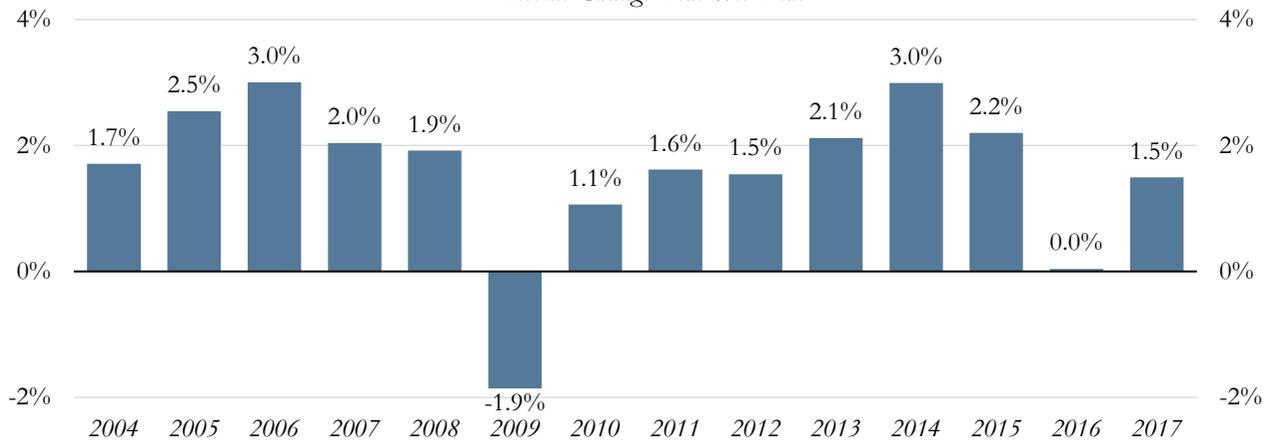
**Contributions to Real U.S. GDP**

*Percent Change at Seasonally Adjusted Annualized Rates*



**Tenth District Real Gross Domestic Product**

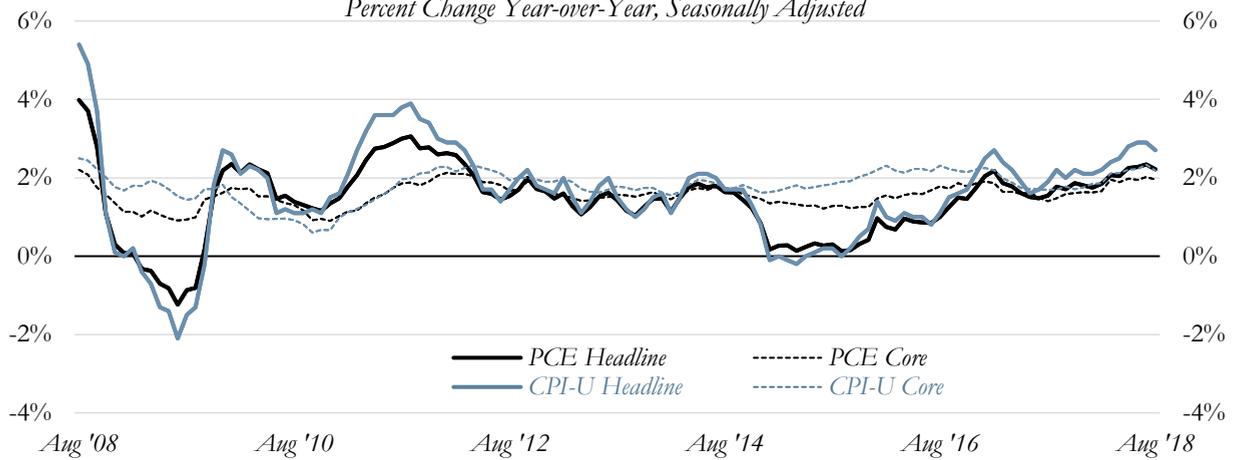
*Percent Change Year-over-Year*



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

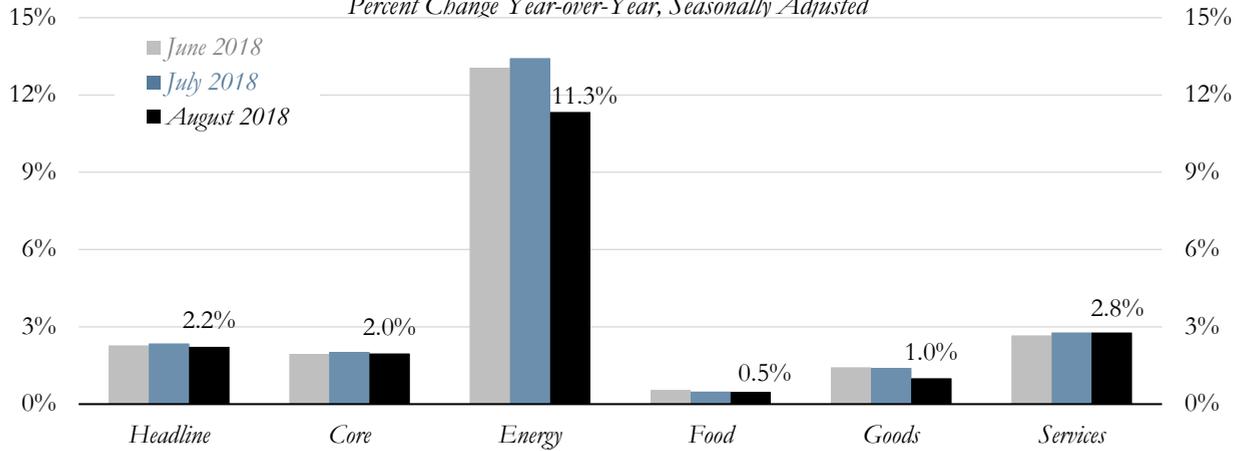
**PCE & CPI-U Inflation**

*Percent Change Year-over-Year, Seasonally Adjusted*



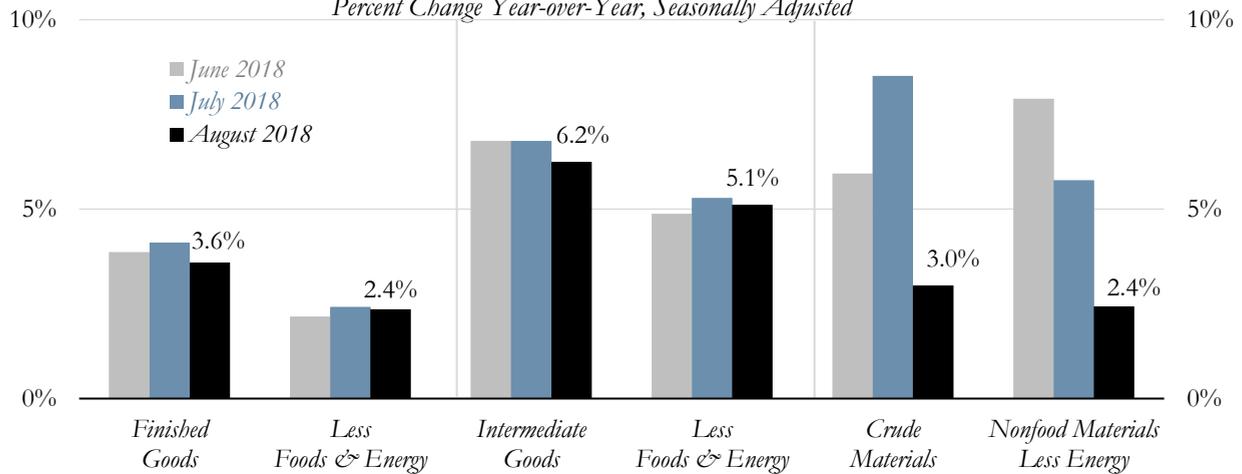
**PCE by Component**

*Percent Change Year-over-Year, Seasonally Adjusted*



**Producer Prices**

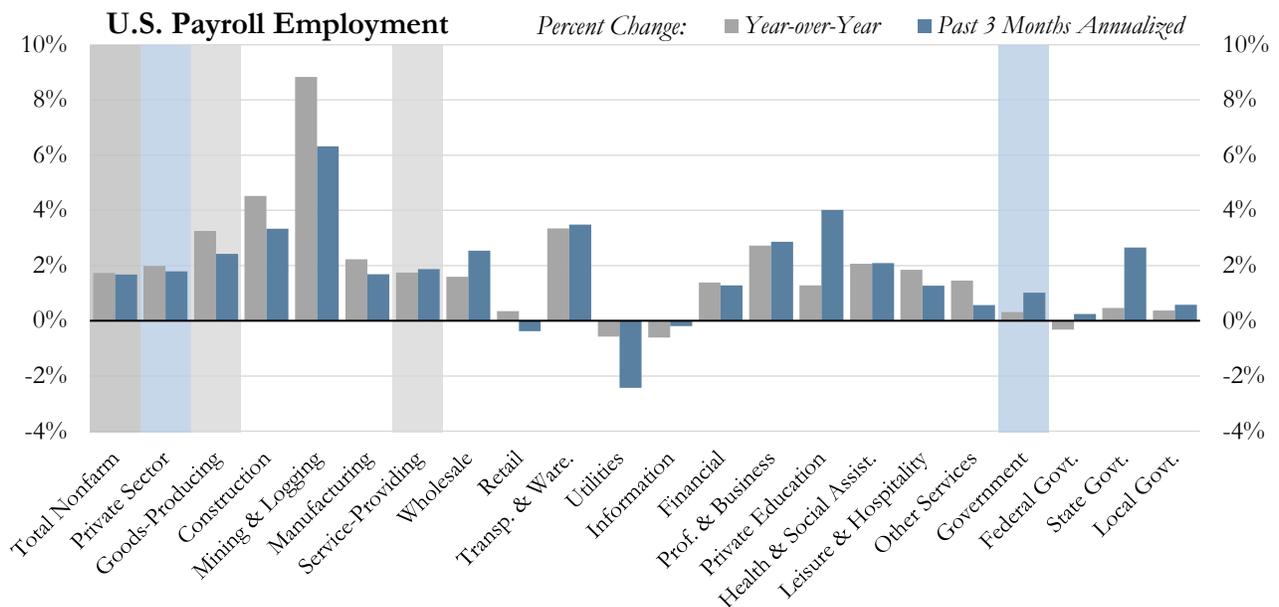
*Percent Change Year-over-Year, Seasonally Adjusted*



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

September 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>	149,500	2,537	100.0%
Private Sector	127,094	2,468	85.0%
<i>Goods-Producing</i>	20,784	654	13.9%
Construction	7,286	315	4.9%
Mining & Logging	751	61	0.5%
Manufacturing	12,747	278	8.5%
<i>Service-Providing</i>	106,366	1,823	71.2%
Wholesale Trade	6,010	94	4.0%
Retail Trade	15,909	56	10.7%
Transportation & Warehousing	5,376	174	3.6%
Utilities	551	-3	0.4%
Information	2,767	-17	1.9%
Financial Activities	8,603	118	5.8%
Professional & Business Services	21,130	560	14.1%
Educational Services	3,754	48	2.5%
Healthcare & Social Assistance	19,996	406	13.4%
Leisure & Hospitality	16,342	296	11.0%
Other Services	5,873	84	3.9%
Government	22,406	69	15.0%
Federal Government	2,794	-9	1.9%
State Government	5,164	24	3.4%
Local Government	14,448	54	9.7%

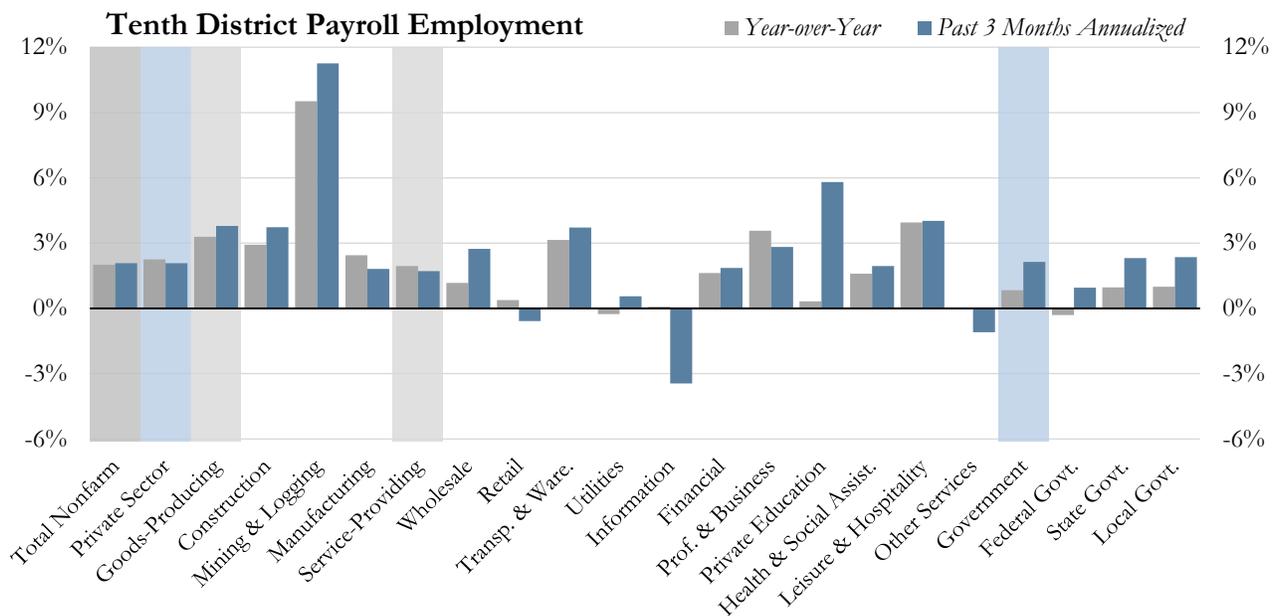


Source: Bureau of Labor Statistics/Haver Analytics

**September 2018 Tenth District Payroll Employment**

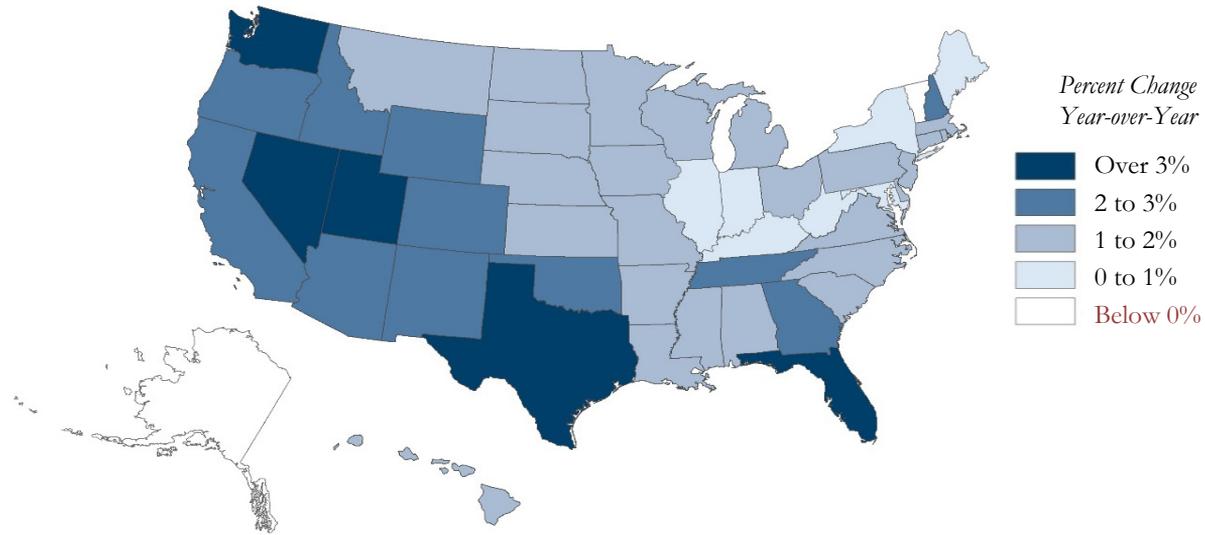
*Seasonally Adjusted*

	<i>Number of Jobs (Thousands)</i>	<i>Jobs Gained Year-over-Year (Thousands)</i>	<i>Share of Employment</i>
<b>Total Nonfarm</b>	10,957	215	100.0%
Private Sector	9,030	199	82.4%
<i>Goods-Producing</i>	1,556	50	14.2%
Construction	558	16	5.1%
Mining & Logging	140	12	1.3%
Manufacturing	856	20	7.8%
<i>Service-Providing</i>	7,475	142	68.3%
Wholesale Trade	422	5	3.8%
Retail Trade	1,145	4	10.5%
Transportation & Warehousing	388	12	3.5%
Utilities	39	-0	0.4%
Information	195	0	1.8%
Financial Activities	629	10	5.7%
Professional & Business Services	1,454	50	13.3%
Private Educational Services	154	0	1.4%
Healthcare & Social Assistance	1,424	22	13.0%
Leisure & Hospitality	1,203	46	11.0%
Other Services	423	-0	3.9%
Government	1,927	16	17.6%
Federal Government	235	-1	2.1%
State Government	480	5	4.4%
Local Government	1,212	12	11.1%



Source: Bureau of Labor Statistics/Haver Analytics

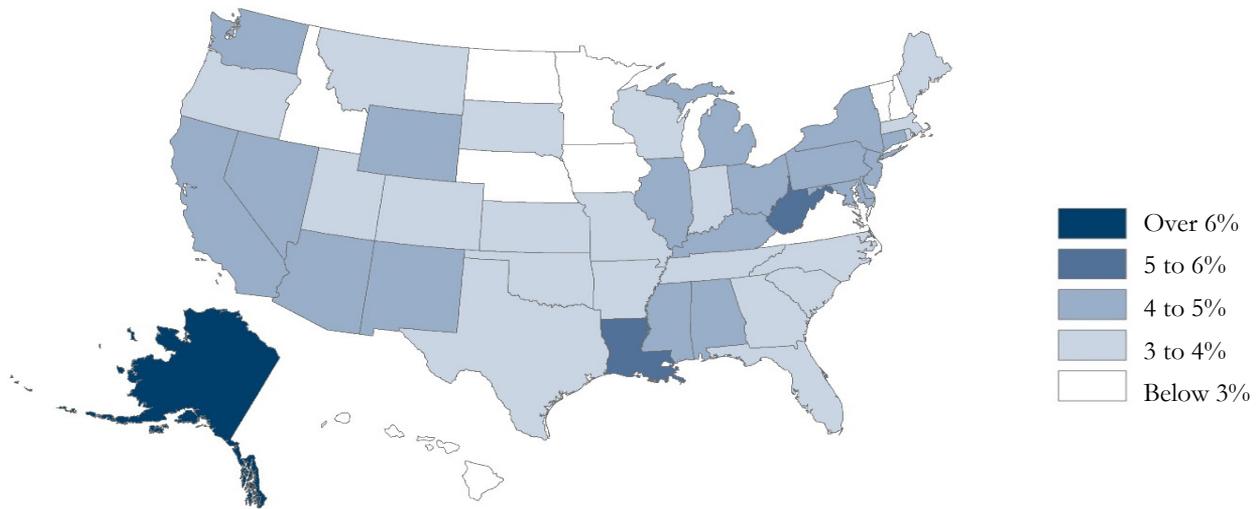
September 2018 Total Nonfarm Employment



		<i>Percent Change Year-over-Year</i>				<i>Percent Change Year-over-Year</i>	
<b>United States</b>		<b>1.7%</b>		25	Montana	1.6%	
<b>Tenth District</b>		<b>2.0</b>		26	Michigan	1.4	
1	Florida	4.8		27	South Dakota	1.4	
2	Utah	3.6		28	Wisconsin	1.4	
3	Texas	3.3		29	Rhode Island	1.4	
4	Nevada	3.2		30	New Jersey	1.4	
5	Washington	3.2		31	<b>Kansas</b>	1.4	
6	Arizona	2.9		32	<b>Missouri</b>	1.4	
7	<b>Colorado</b>	2.9		33	South Carolina	1.3	
8	Idaho	2.7		34	Pennsylvania	1.3	
9	<b>New Mexico</b>	2.6		35	Minnesota	1.3	
10	Georgia	2.5		36	Alabama	1.3	
11	Oregon	2.3		37	Connecticut	1.2	
12	<b>Wyoming</b>	2.2		38	Iowa	1.1	
13	New Hampshire	2.2		39	North Dakota	1.1	
14	Tennessee	2.1		40	Arkansas	1.1	
15	<b>Oklahoma</b>	2.0		41	Louisiana	1.0	
16	California	2.0		42	New York	1.0	
17	Ohio	1.9		43	Maryland	0.9	
18	North Carolina	1.9		44	Indiana	0.9	
19	Hawaii	1.8		45	Illinois	0.8	
20	Mississippi	1.8		46	West Virginia	0.8	
21	Delaware	1.8		47	Kentucky	0.8	
22	Massachusetts	1.8		48	Maine	0.7	
23	Virginia	1.7		49	Vermont	-0.6	
24	<b>Nebraska</b>	1.7		50	Alaska	-0.7	

Source: Bureau of Labor Statistics/Haver Analytics

**September 2018 Unemployment Rates**  
*Seasonally Adjusted*

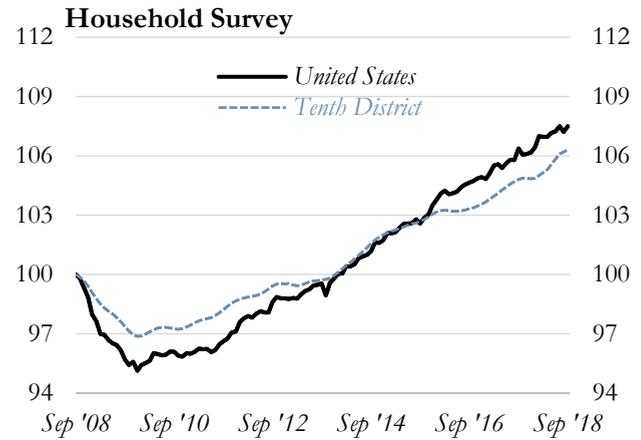
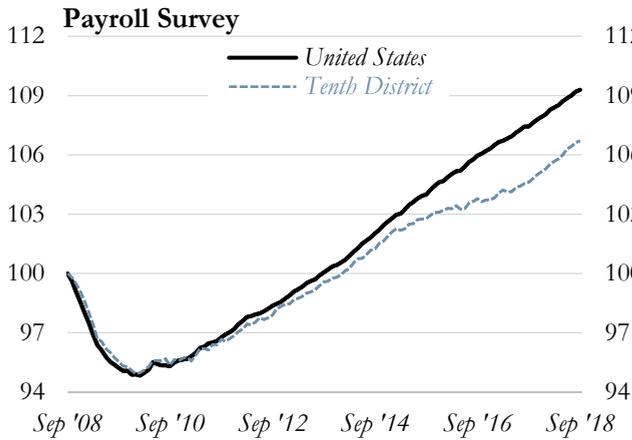


<i>Percent Unemployed</i>			<i>Percent Unemployed</i>		
<b>United States</b> 3.7%			23	Oregon	3.8
<b>Tenth District</b> 3.3			26	Georgia	3.7
1	Alaska	6.5	27	Montana	3.6
2	West Virginia	5.2	27	Massachusetts	3.6
3	Louisiana	5.0	27	Tennessee	3.6
4	Mississippi	4.8	30	<b>Oklahoma</b>	3.5
5	Arizona	4.7	30	Florida	3.5
6	<b>New Mexico</b>	4.6	30	Arkansas	3.5
6	Ohio	4.6	30	Indiana	3.5
8	Nevada	4.5	34	South Carolina	3.3
8	Kentucky	4.5	34	<b>Kansas</b>	3.3
10	Washington	4.4	34	Maine	3.3
11	Connecticut	4.2	37	<b>Missouri</b>	3.2
11	Maryland	4.2	37	Utah	3.2
11	New Jersey	4.2	39	<b>Colorado</b>	3.1
14	New York	4.1	40	South Dakota	3.0
14	California	4.1	40	Wisconsin	3.0
14	Pennsylvania	4.1	42	Virginia	2.9
14	Illinois	4.1	42	Vermont	2.9
14	Alabama	4.1	44	Minnesota	2.8
14	<b>Wyoming</b>	4.1	44	<b>Nebraska</b>	2.8
20	Michigan	4.0	46	Idaho	2.7
20	Delaware	4.0	46	New Hampshire	2.7
22	Rhode Island	3.9	46	North Dakota	2.7
23	North Carolina	3.8	49	Iowa	2.5
23	Texas	3.8	50	Hawaii	2.2

Source: Bureau of Labor Statistics/Haver Analytics

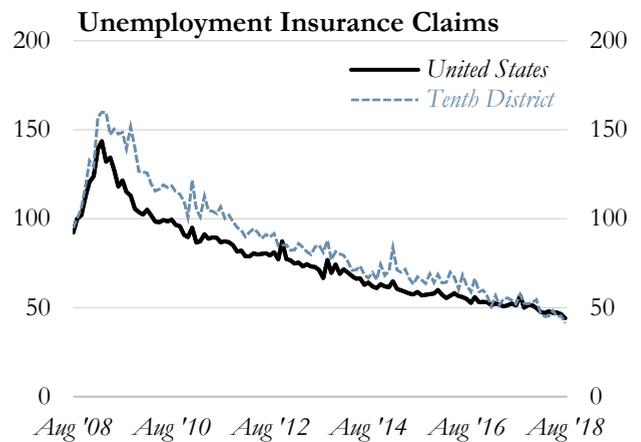
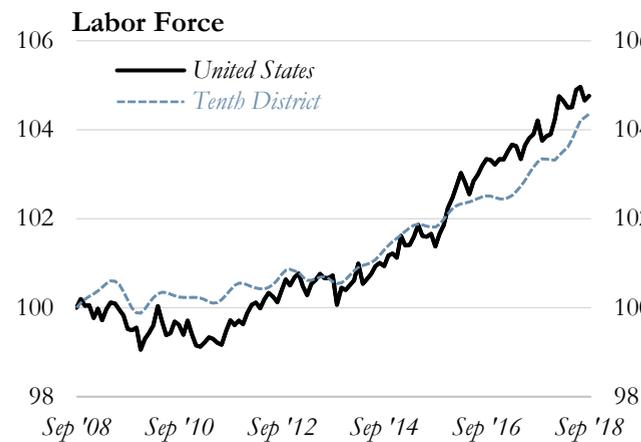
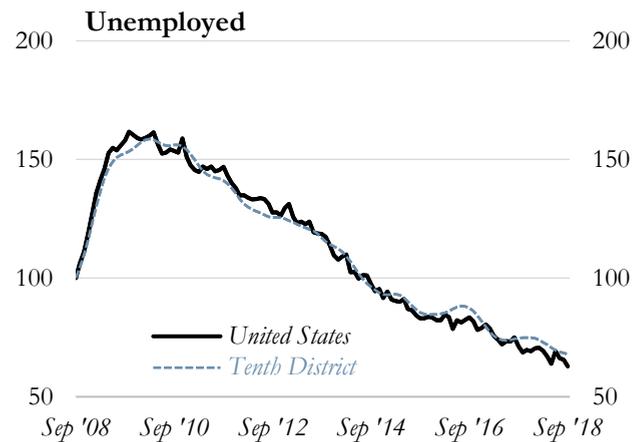
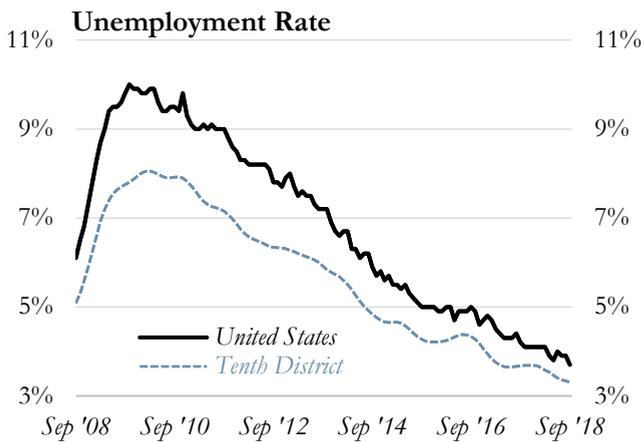
**Total Nonfarm Employment**

*Ten-Year Index of Growth, Seasonally Adjusted*



**Labor Force Dynamics**

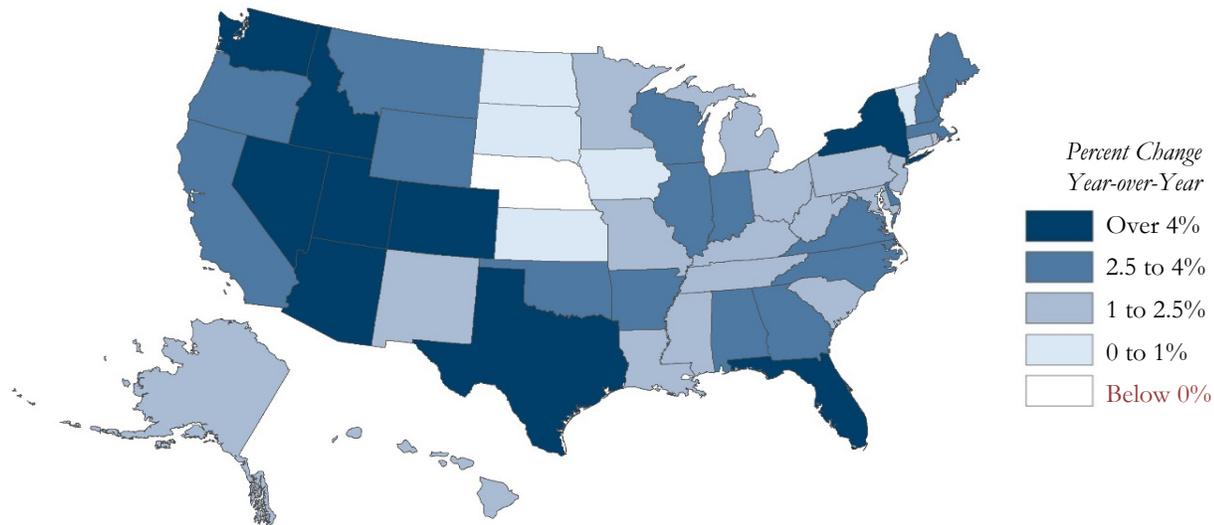
*Ten-Year Index of Growth, Seasonally Adjusted*



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

**2018Q2 Real Personal Income**

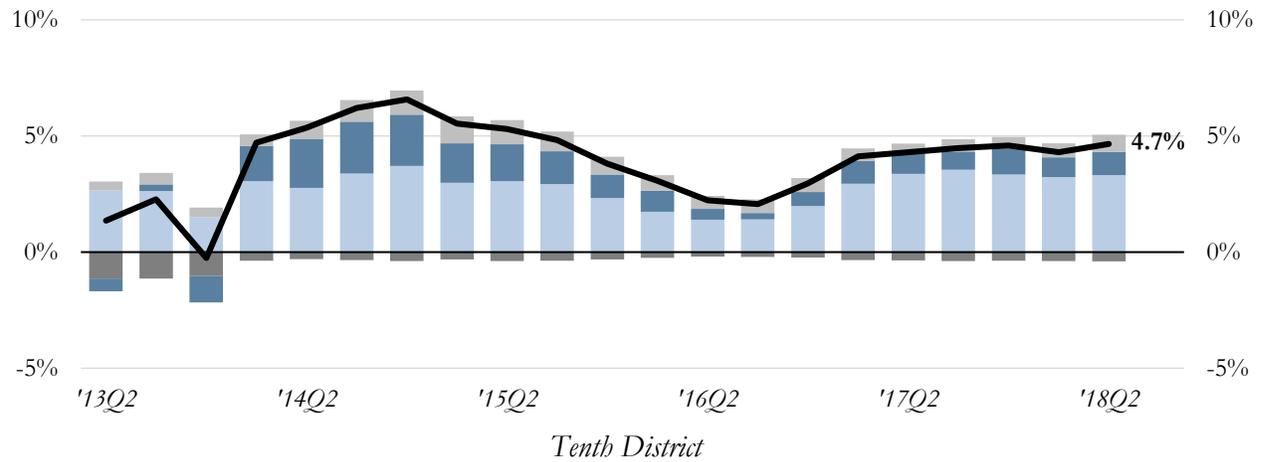
*Seasonally Adjusted*



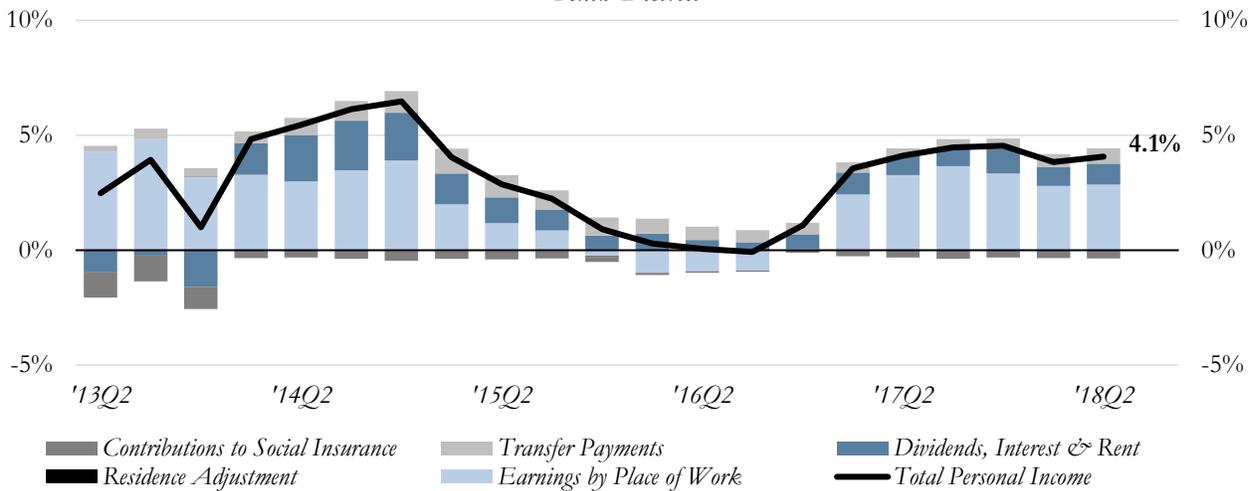
	<i>Percent Change Year-over-Year</i>	<i>Per Capita Personal Income</i>		<i>Percent Change Year-over-Year</i>	<i>Per Capita Personal Income</i>		
<b>United States</b>	<b>2.4%</b>	<b>\$53,342</b>	25	<b>Wyoming</b>	2.1%	\$60,044	
<b>Tenth District</b>	<b>1.9</b>	<b>45,809</b>	26	Indiana	2.0	46,610	
1	Utah	4.4	45,124	27	Tennessee	1.9	46,773
2	Washington	3.9	60,017	28	Mississippi	1.9	37,903
3	Nevada	3.5	47,596	29	Louisiana	1.8	45,245
4	<b>Colorado</b>	3.4	56,563	30	West Virginia	1.8	39,920
5	Texas	3.4	49,081	31	Michigan	1.8	47,696
6	Arizona	3.3	43,594	32	Rhode Island	1.8	54,438
7	Florida	3.3	49,236	33	Pennsylvania	1.7	54,952
8	New York	3.2	67,264	34	South Carolina	1.7	42,583
9	Idaho	3.0	42,935	35	Ohio	1.7	48,091
10	Montana	2.8	47,040	36	Kentucky	1.6	41,786
11	Illinois	2.6	56,600	37	New Jersey	1.6	66,490
12	New Hampshire	2.6	61,706	38	Maryland	1.4	62,535
13	Delaware	2.5	51,001	39	<b>Missouri</b>	1.4	46,316
14	Oregon	2.5	49,580	40	<b>New Mexico</b>	1.4	40,949
15	California	2.4	61,856	41	Minnesota	1.3	55,604
16	Maine	2.4	48,049	42	Connecticut	1.3	74,030
17	North Carolina	2.3	45,522	43	Alaska	1.1	58,854
18	Georgia	2.3	45,378	44	Hawaii	1.0	54,217
19	Massachusetts	2.3	69,935	45	Vermont	1.0	53,653
20	Wisconsin	2.2	50,651	46	North Dakota	0.9	54,206
21	Virginia	2.2	56,830	47	<b>Kansas</b>	0.7	49,738
22	Arkansas	2.1	42,490	48	South Dakota	0.5	49,627
23	Alabama	2.1	42,248	49	Iowa	0.3	48,050
24	<b>Oklahoma</b>	2.1	46,053	50	<b>Nebraska</b>	<b>-0.2</b>	51,486

Source: Bureau of Economic Analysis/Haver Analytics

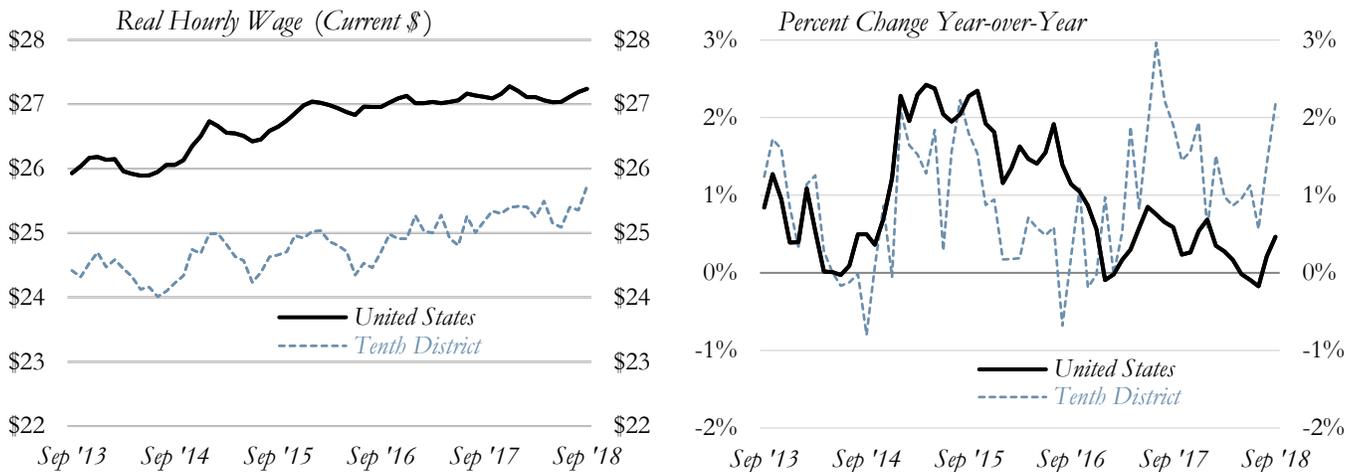
**Nominal Personal Income**  
*Contributions to Percent Change, Seasonally Adjusted*  
 United States



Tenth District

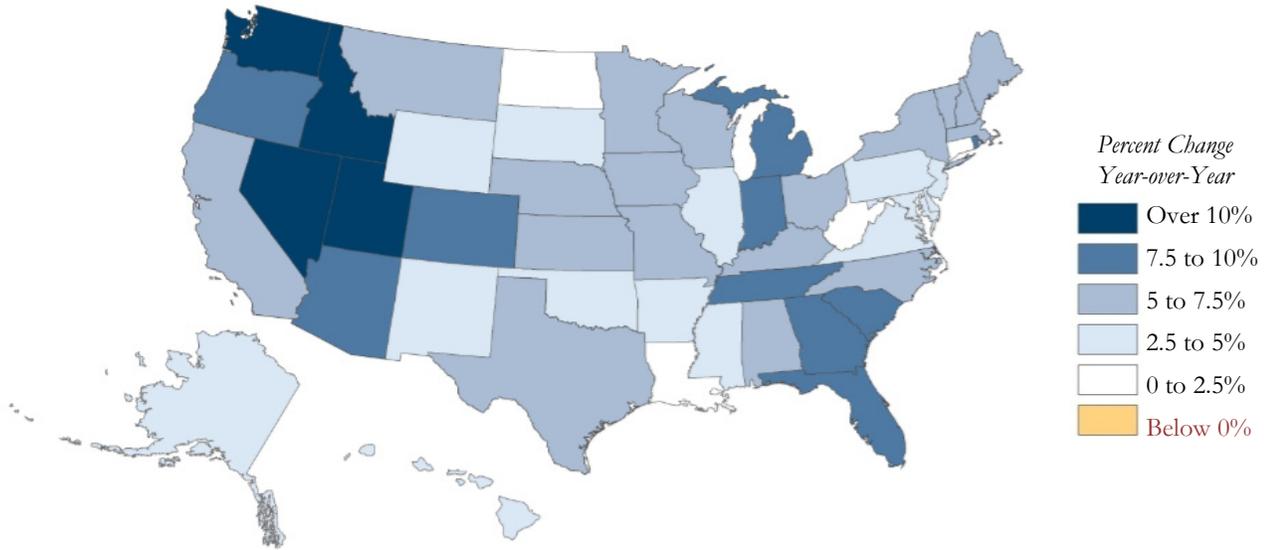


**Real Average Hourly Wage**  
*Seasonally Adjusted*



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

**2018Q2 FHFA Purchase-Only Home Price Index**  
*Seasonally Adjusted*



*Percent Change  
Year-over-Year*

- Over 10%
- 7.5 to 10%
- 5 to 7.5%
- 2.5 to 5%
- 0 to 2.5%
- Below 0%

*Percent Change  
Year-over-Year*

		<b>United States</b>	<b>6.5%</b>
1	Nevada		17.0
2	Idaho		13.0
3	Utah		11.3
4	Washington		11.0
5	<b>Colorado</b>		9.6
6	Florida		8.5
7	South Carolina		8.3
8	Indiana		8.3
9	Rhode Island		8.1
10	Georgia		8.0
11	Oregon		7.9
12	Arizona		7.8
13	Michigan		7.7
14	Tennessee		7.5
15	California		7.1
16	Wisconsin		7.1
17	<b>Nebraska</b>		6.9
18	New Hampshire		6.7
19	Maine		6.6
20	New York		6.5
21	Minnesota		6.3
22	North Carolina		6.2
23	Alabama		6.1
24	Montana		6.0

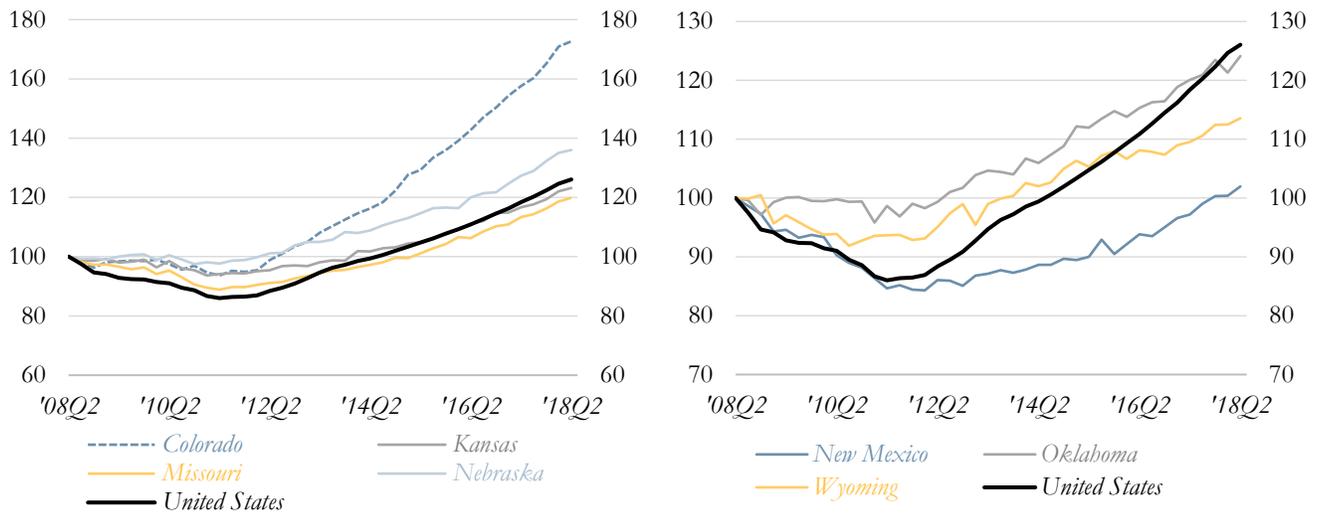
*Percent Change  
Year-over-Year*

25	Iowa	6.0%
26	Texas	5.9
27	Massachusetts	5.9
28	Ohio	5.8
29	<b>Missouri</b>	5.7
30	Vermont	5.6
31	<b>Kansas</b>	5.5
32	Kentucky	5.2
33	<b>New Mexico</b>	4.9
34	Pennsylvania	4.9
35	Hawaii	4.7
36	South Dakota	4.5
37	Delaware	4.3
38	Virginia	4.3
39	Illinois	4.1
40	New Jersey	4.1
41	Maryland	3.8
42	<b>Wyoming</b>	3.7
43	Arkansas	3.7
44	<b>Oklahoma</b>	3.4
45	Mississippi	3.2
46	Alaska	2.6
47	Connecticut	2.4
48	West Virginia	2.3
49	Louisiana	2.3
50	North Dakota	2.1

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

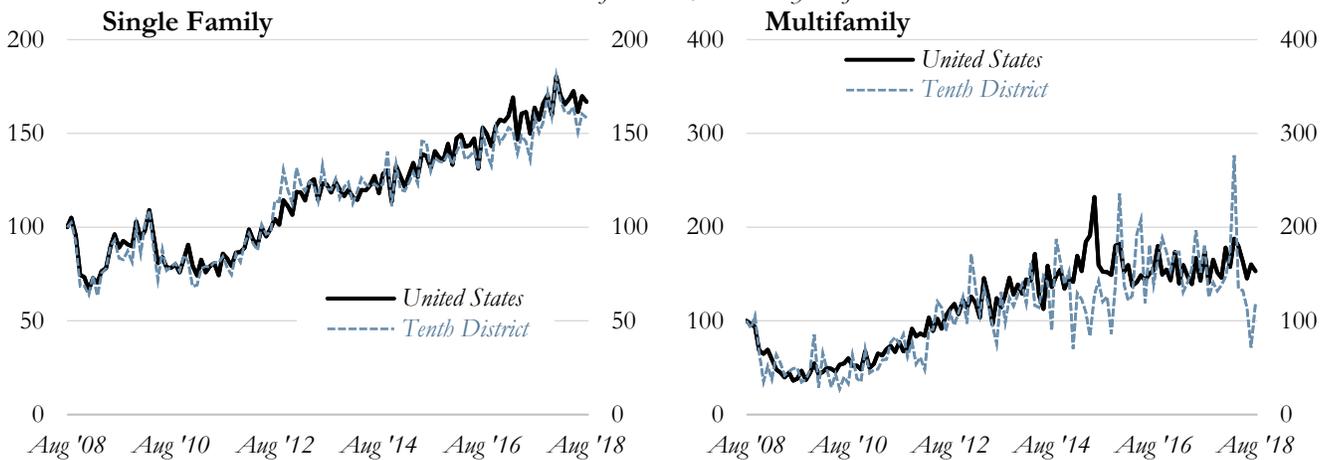
### FHFA Purchase-Only Home Price Index

Ten-Year Index of Growth, Seasonally Adjusted



### Housing Permits

Ten-Year Index of Growth, Seasonally Adjusted



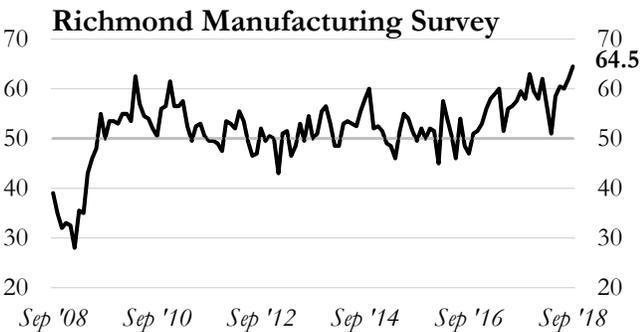
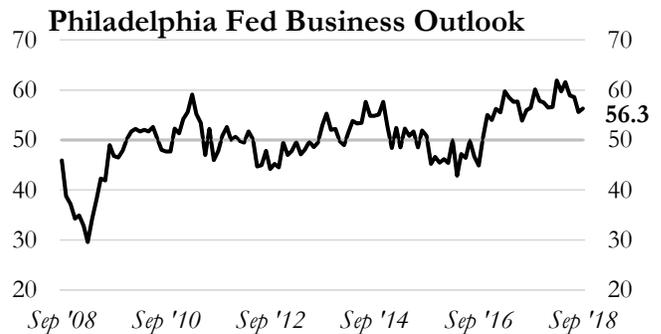
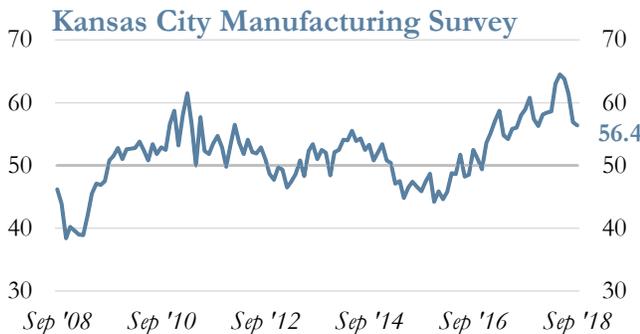
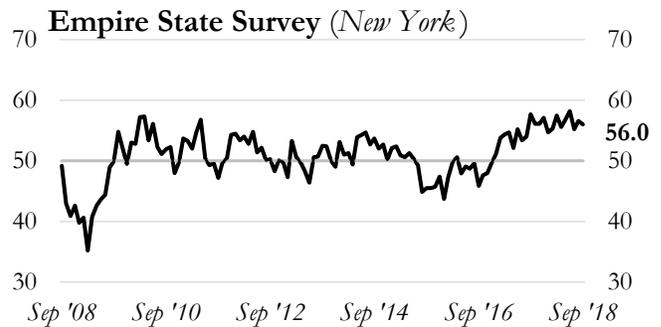
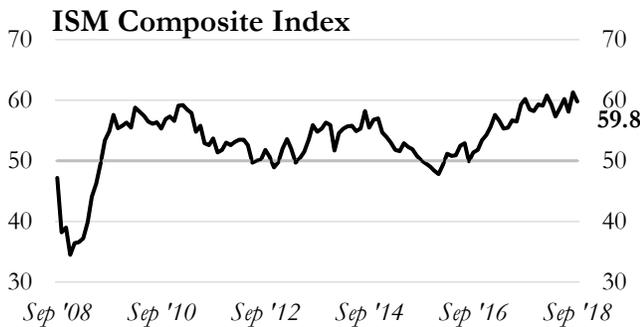
### Rental Vacancy Rates



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

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

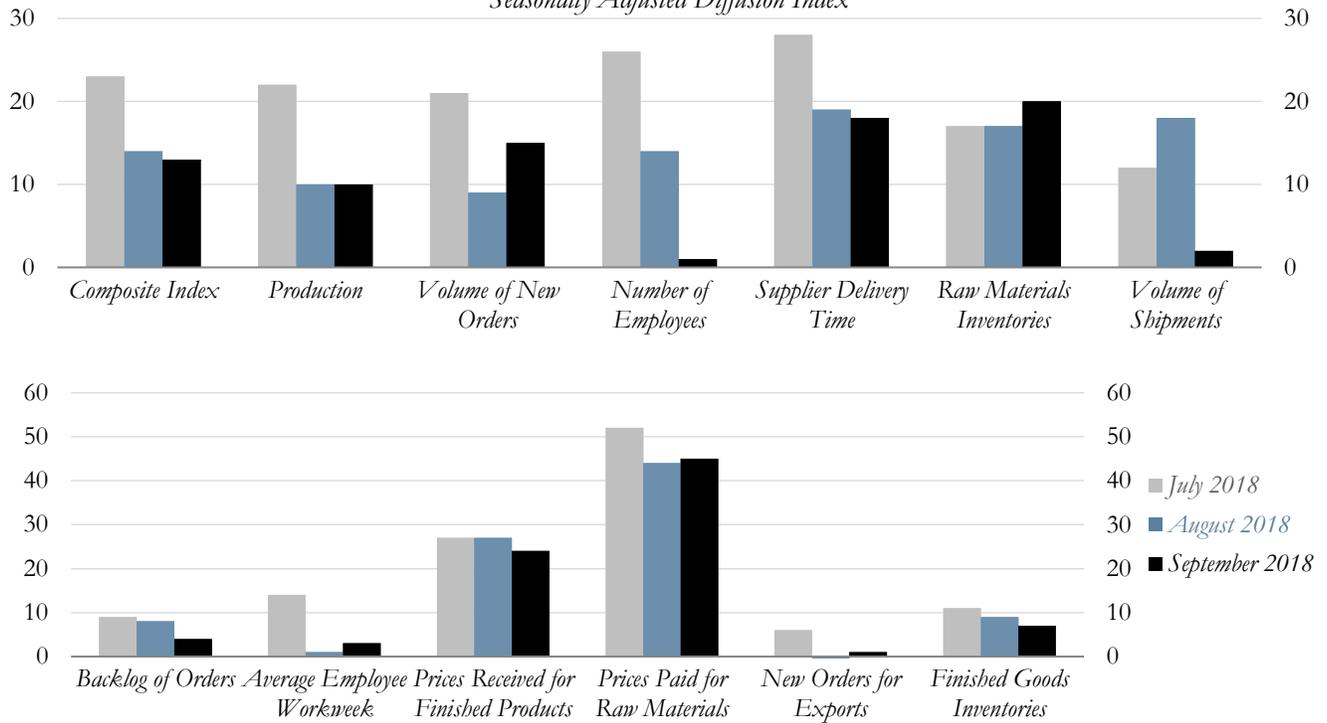
**Manufacturing Surveys**  
*Seasonally Adjusted*



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

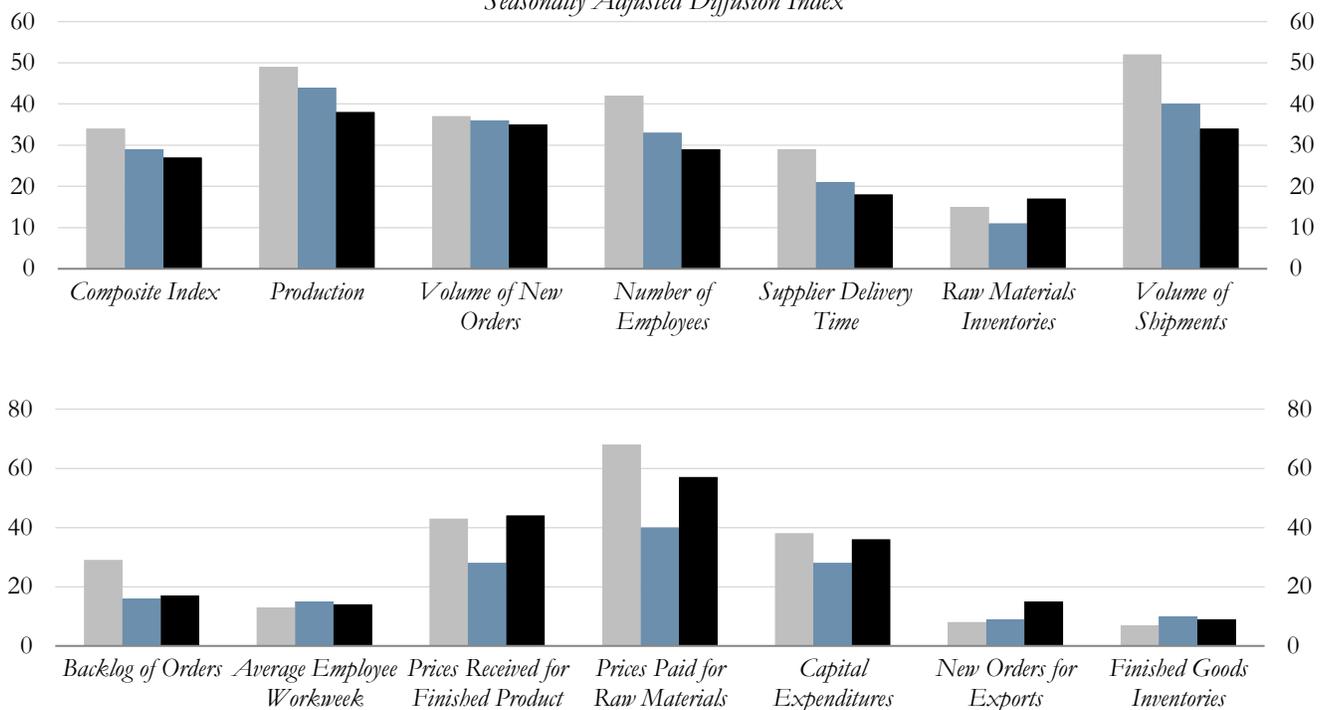
**Current Activity vs. a Month Ago**

*Seasonally Adjusted Diffusion Index*



**Expectations Six-Months Ahead**

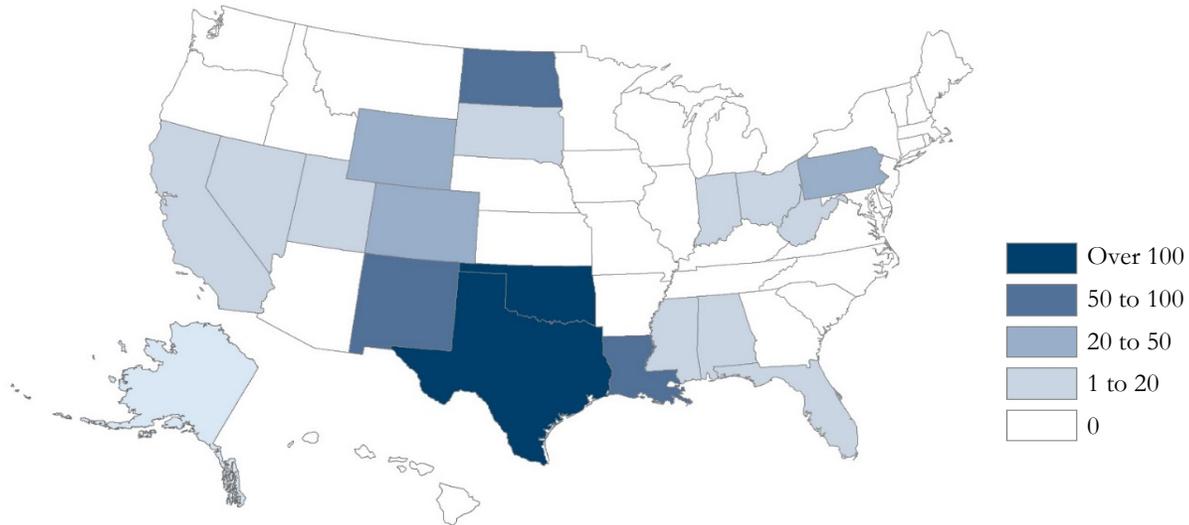
*Seasonally Adjusted Diffusion Index*



Note: Indices above zero indicate expansion.

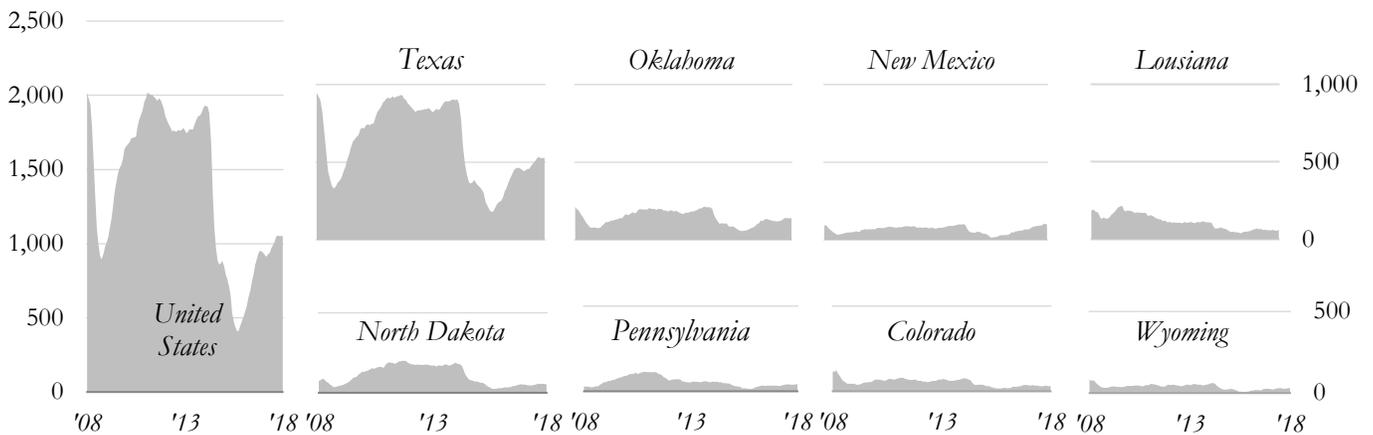
Source: Federal Reserve Bank of Kansas City/Haver Analytics

September 2018 Active Oil & Gas Drilling Rig Counts



	Average Rig Counts During the Month	Percent Change Year-over-Year	Current Share of Activity
<b>United States</b>	<b>1,053</b>	<b>14.2%</b>	
<b>Tenth District</b>	<b>299</b>	<b>17.3</b>	<b>28.4%</b>
<i>Top Producing States</i>			
Texas	528	16.6	50.1
<b>Oklahoma</b>	138	7.8	13.1
<b>New Mexico</b>	99	47.8	9.4
Louisiana	61	-6.2	5.8
North Dakota	53	3.9	5.0
Pennsylvania	43	30.3	4.1
<b>Colorado</b>	32	-8.6	3.0
<b>Wyoming</b>	30	20.0	2.8
Ohio	19	-34.5	1.8
California	15	-6.3	1.4

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

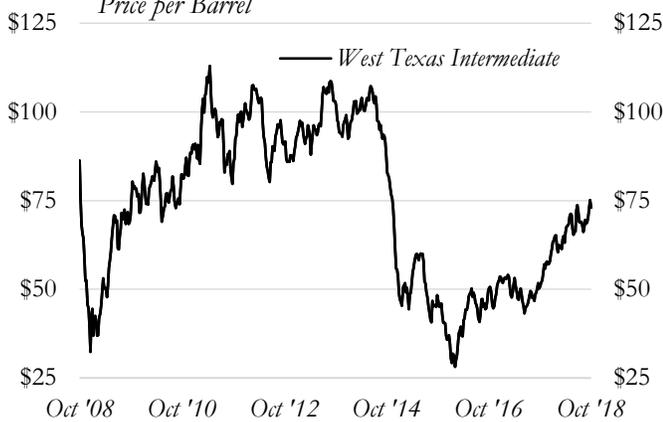


Source: Baker Hughes/Haver Analytics

**Spot Prices**

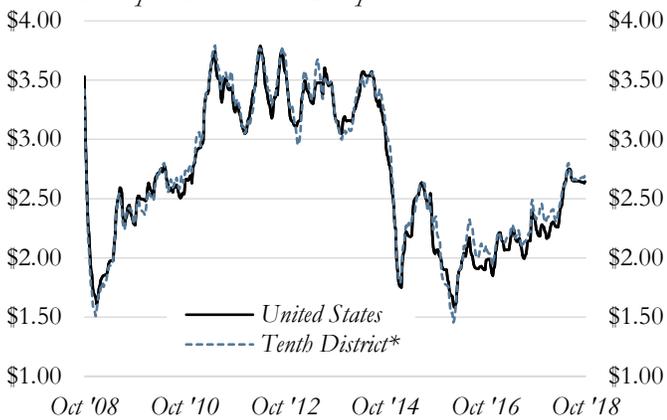
**Crude Oil**

*Price per Barrel*



**Gasoline**

*Price per Gallon at the Pump*



**Natural Gas**

*Price per Thousand Cubic Feet*

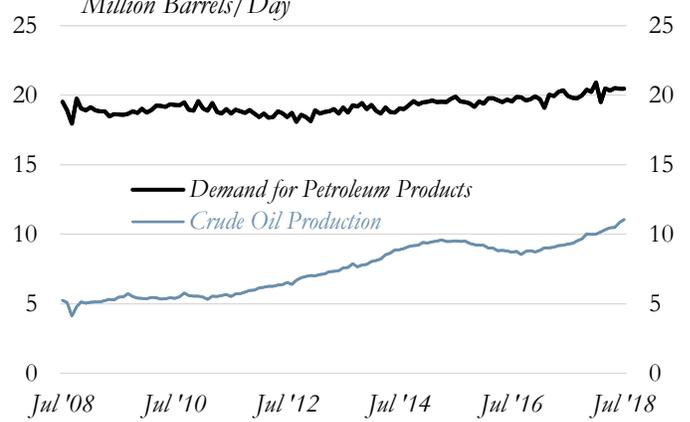


**U.S. Supply/Demand Dynamics**

*Seasonally Adjusted*

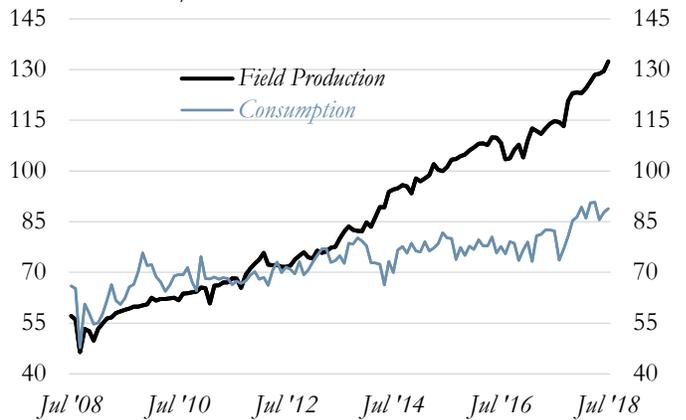
**Crude Oil**

*Million Barrels/Day*



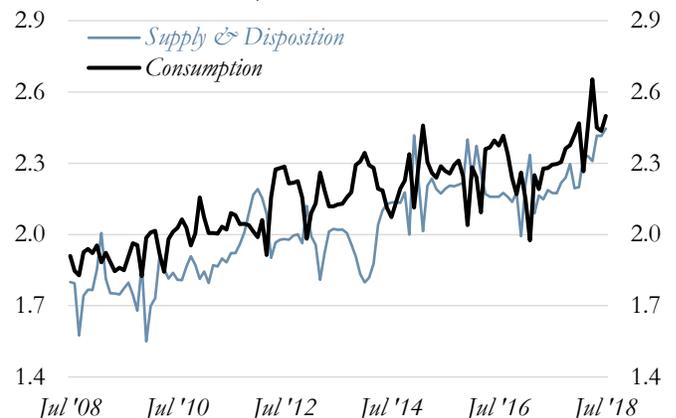
**Natural Gas Liquids**

*Million Barrels/Month*



**Natural Gas**

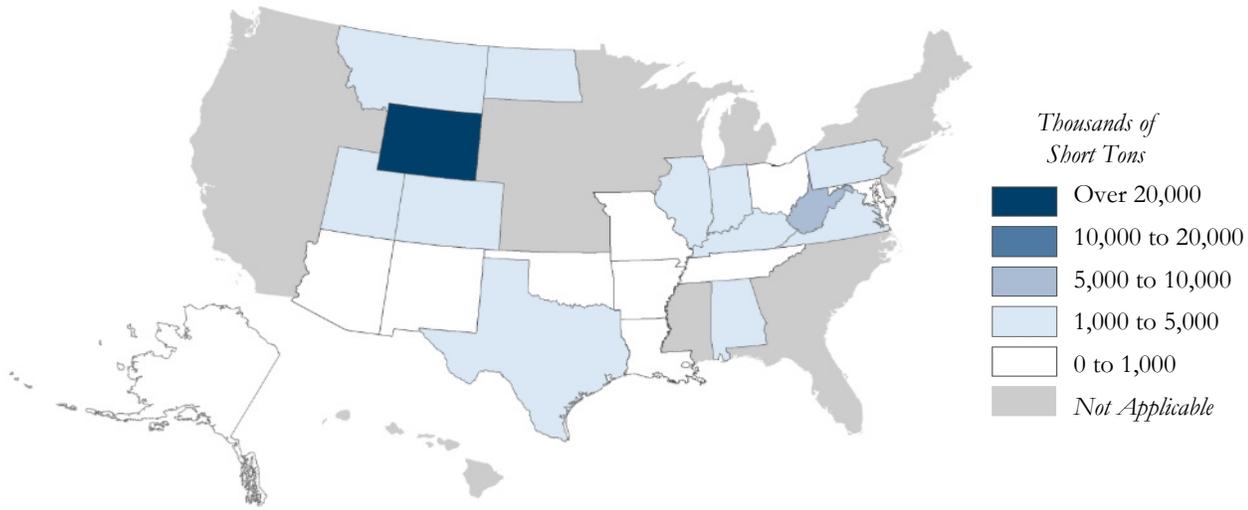
*Trillion Cubic Feet/Month*



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

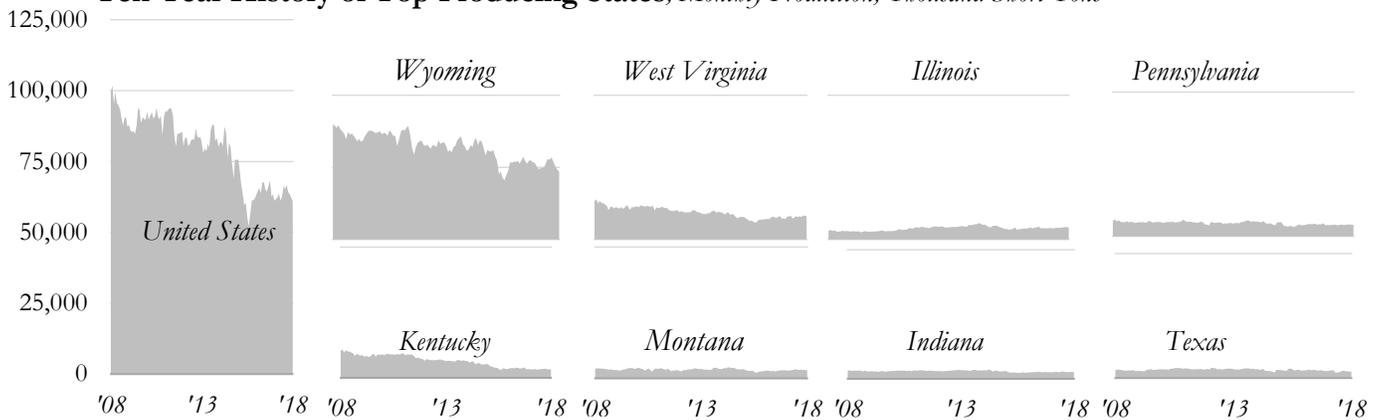
Source: Wall Street Journal, Oil & Gas Journal & Department of Energy, Energy Information Administration/Haver Analytics

**September 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>61,007.6</b>	<b>-0.2%</b>	
<b>Tenth District*</b>	<b>25,565.5</b>	<b>-6.9</b>	<b>41.9%</b>
<i>Top Producing States</i>			
<b>Wyoming</b>	23,431.6	-7.4	38.4
West Virginia	8,014.5	13.5	13.1
Illinois	4,201.6	7.9	6.9
Pennsylvania	3,998.7	3.8	6.6
Kentucky	3,232.7	-1.3	5.3
Montana	3,106.8	2.5	5.1
Indiana	2,652.6	5.3	4.3
Texas	2,553.3	-6.8	4.2
North Dakota	2,449.8	2.2	4.0
Utah	1,308.7	15.3	2.1

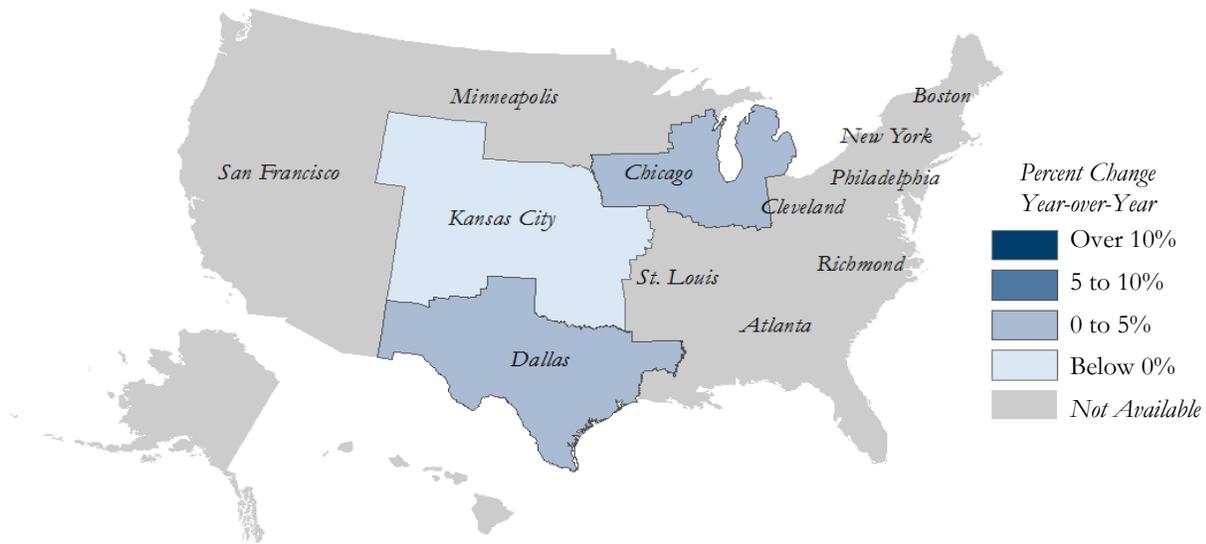
**Ten-Year History of Top Producing States, Monthly Production, Thousand Short Tons**



\*Includes all Tenth District states but Nebraska.

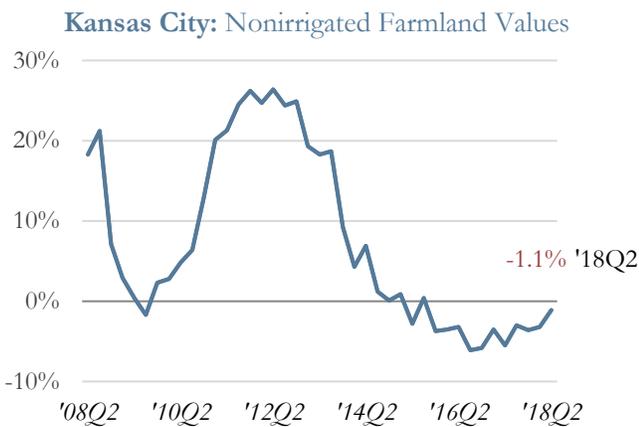
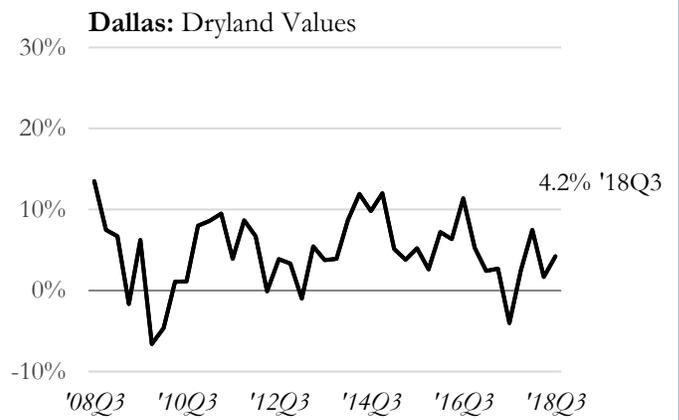
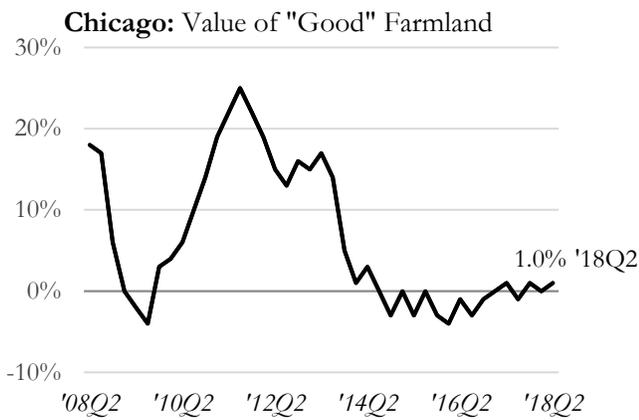
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

**Farm Land Values\***



**Farmland Values by Federal Reserve District**

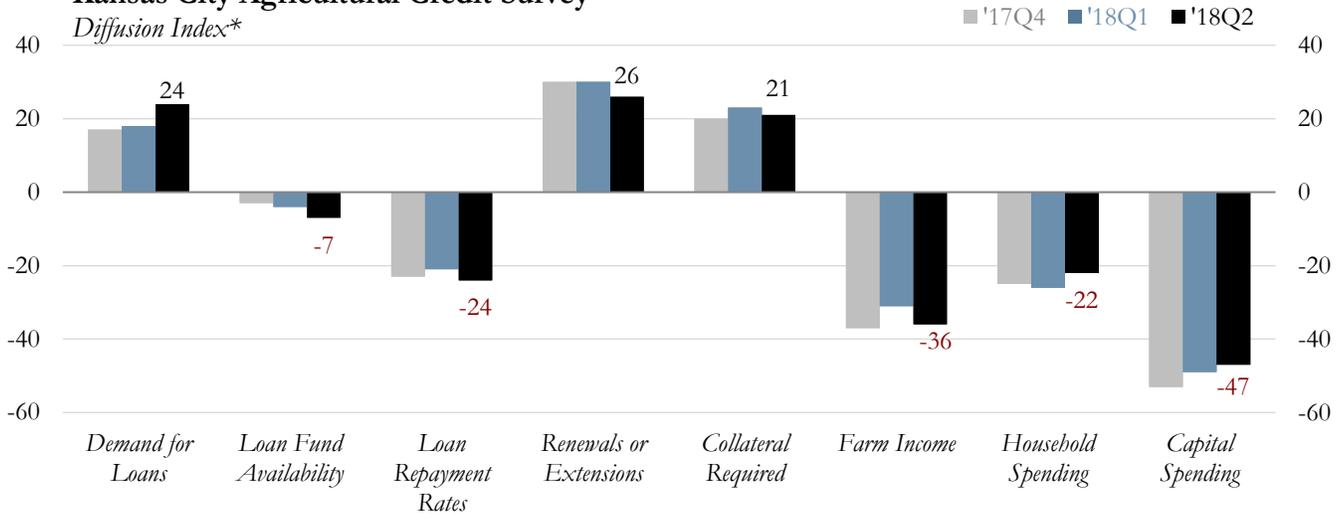
*Percent Change Year-over-Year*



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

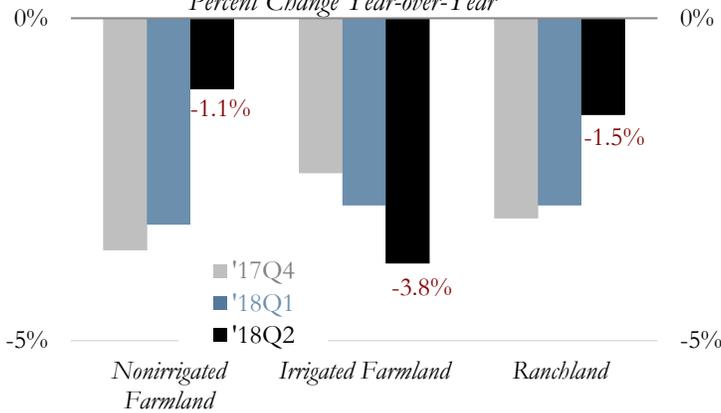
**Kansas City Agricultural Credit Survey**

*Diffusion Index\**

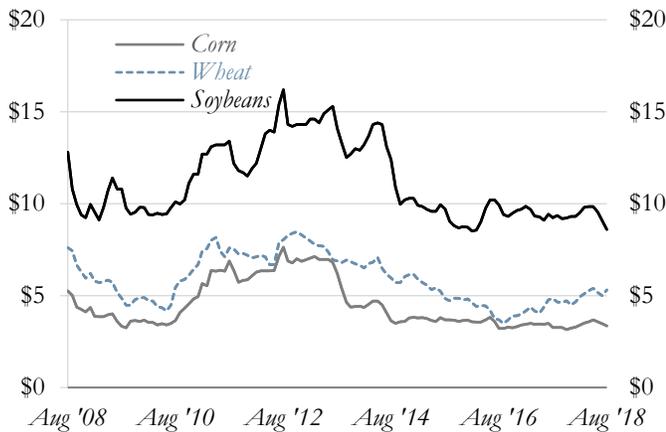


**Tenth District Farmland Values**

*Percent Change Year-over-Year*

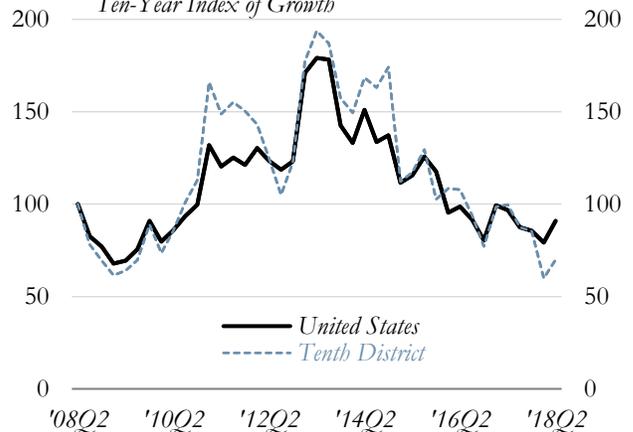


**Spot Prices**



**Farm Income**

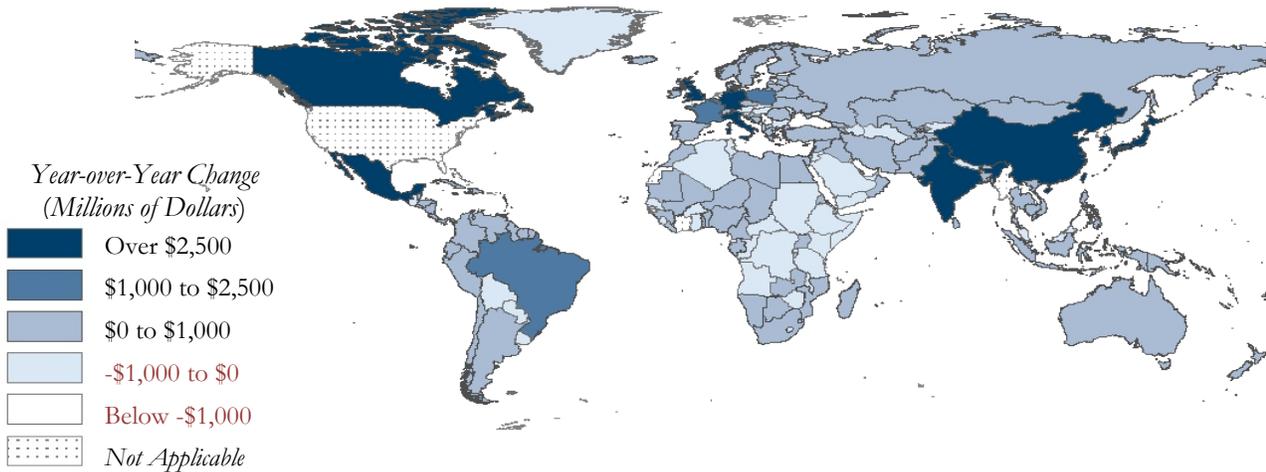
*Ten-Year Index of Growth*



\*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

**2018Q2 U.S. Exports**  
*Year-to-Date*



		<i>Exports Year-to-Date (Billions of Dollars)</i>	<i>Percent Change Year-to-Date</i>	<i>Share of Exports Year-to-Date</i>
	<b>United States</b>	<b>\$829.9</b>	<b>9.6%</b>	
<i>Top Export Markets</i>	Canada	151.9	8.9	18.3%
	Mexico	131.3	10.5	15.8%
	China*	97.5	5.0	11.8%
	Japan	35.7	8.9	4.3%
	United Kingdom	33.9	23.4	4.1%
	Germany	29.4	12.5	3.5%
	South Korea	27.1	10.7	3.3%
	Netherlands Antilles	24.2	14.4	2.9%
	France	18.1	10.8	2.2%
	Brazil	18.9	9.9	2.3%

**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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