

THE *Tenth District* ECONOMIC DATABOOK

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



AUGUST 20, 2018

FEDERAL RESERVE BANK of KANSAS CITY

SUMMARY OF CURRENT TENTH DISTRICT ECONOMIC CONDITIONS

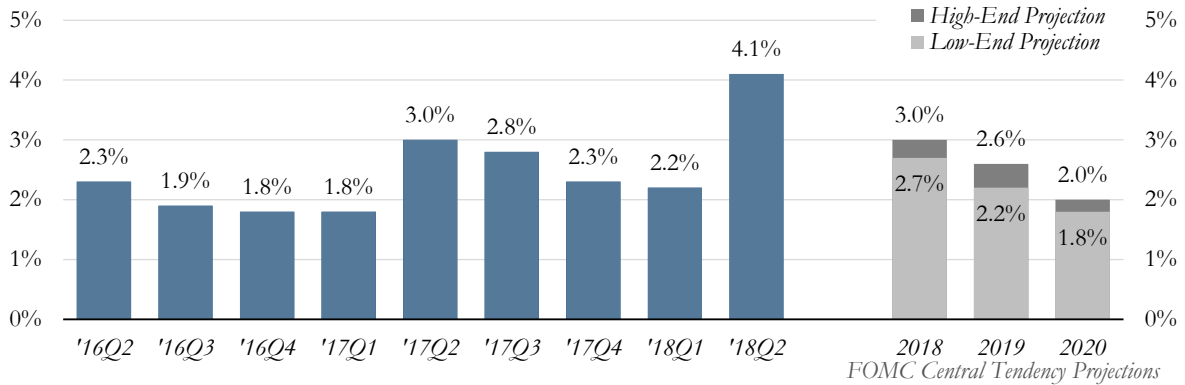
The unemployment rate was 3.4 percent across the Tenth District states in July, and total payroll employment grew 1.9 percent compared to the previous year. Employment growth was broad-based across industries, with the strongest percentage gains in the mining and logging and transportation and warehousing sectors. Tenth District nominal personal income grew 3.2 percent in the first 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 July 2018, with a composite index of 61.4. 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.



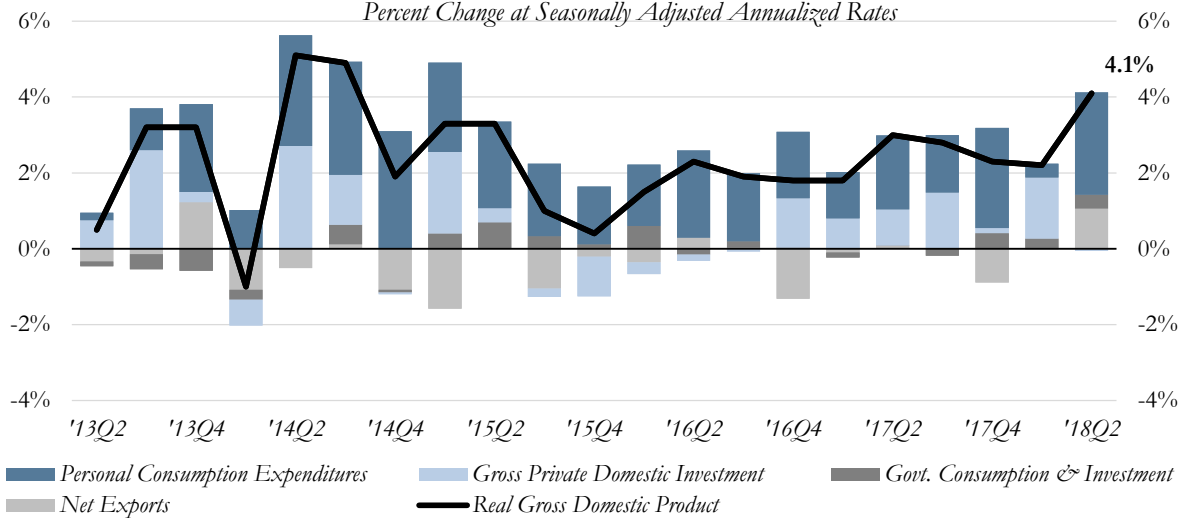
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and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

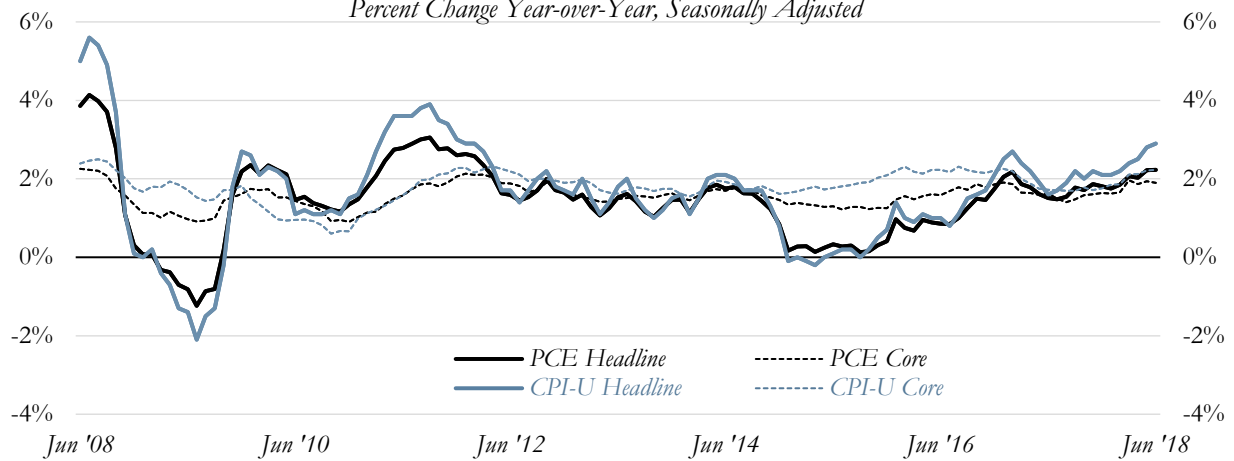
Percent Change Year-over-Year



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

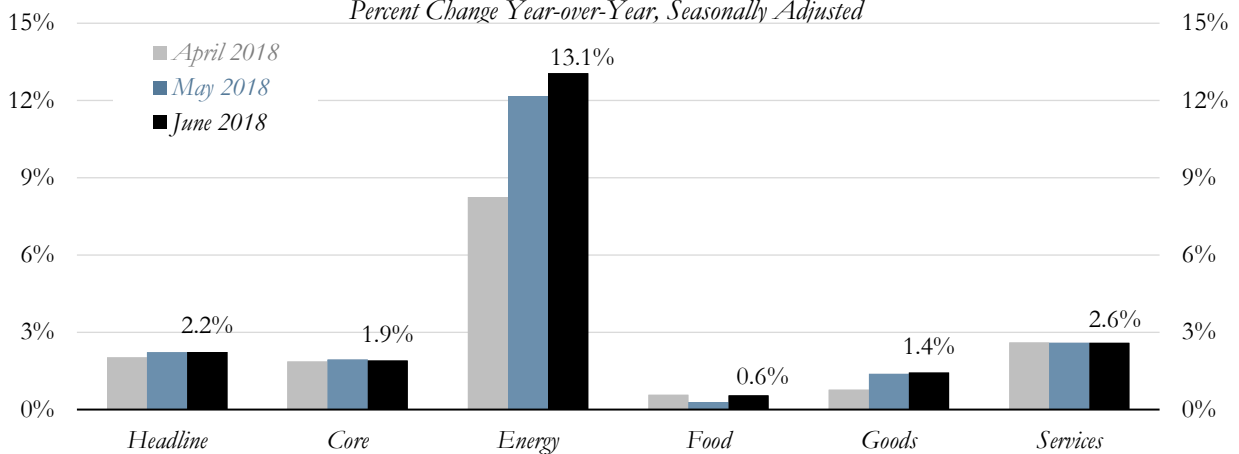
PCE & CPI-U Inflation

Percent Change Year-over-Year, Seasonally Adjusted



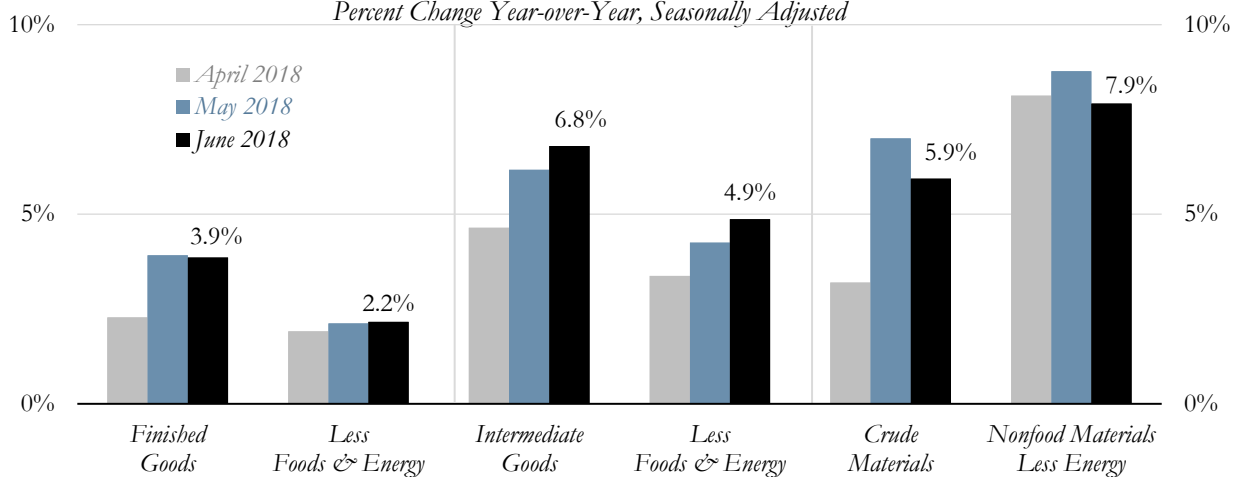
PCE by Component

Percent Change Year-over-Year, Seasonally Adjusted



Producer Prices

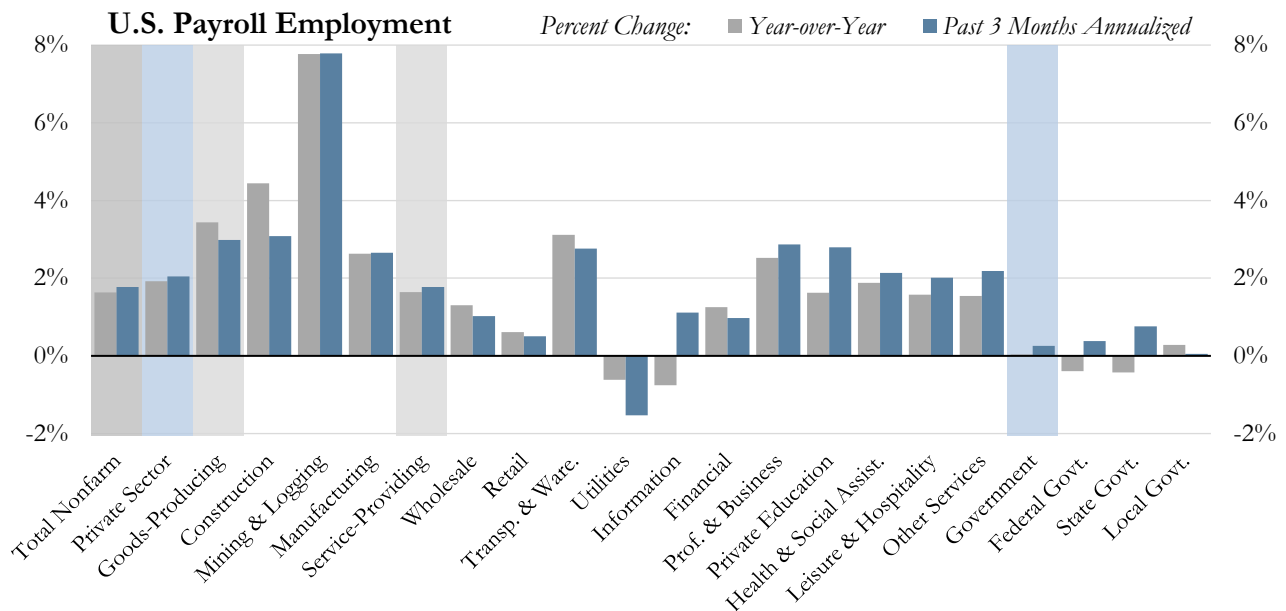
Percent Change Year-over-Year, Seasonally Adjusted



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

July 2018 U.S. Payroll Employment

	<i>Number of Jobs (Thousands)</i>	<i>Jobs Gained Year-over-Year (Thousands)</i>	<i>Share of Employment</i>
Total Nonfarm	149,128	2,400	100.0%
Private Sector	126,794	2,392	85.0%
<i>Goods-Producing</i>	20,728	688	13.9%
Construction	7,242	308	4.8%
Mining & Logging	735	53	0.5%
Manufacturing	12,751	327	8.5%
<i>Service-Providing</i>	106,057	1,716	71.1%
Wholesale Trade	5,982	77	4.0%
Retail Trade	15,944	96	10.7%
Transportation & Warehousing	5,325	161	3.6%
Utilities	551	-3	0.4%
Information	2,772	-21	1.9%
Financial Activities	8,568	106	5.8%
Professional & Business Services	21,019	518	14.1%
Educational Services	3,731	60	2.5%
Healthcare & Social Assistance	19,932	368	13.4%
Leisure & Hospitality	16,371	254	11.0%
Other Services	5,873	89	3.9%
Government	22,334	8	15.0%
Federal Government	2,796	-11	1.9%
State Government	5,126	-22	3.4%
Local Government	14,412	41	9.7%

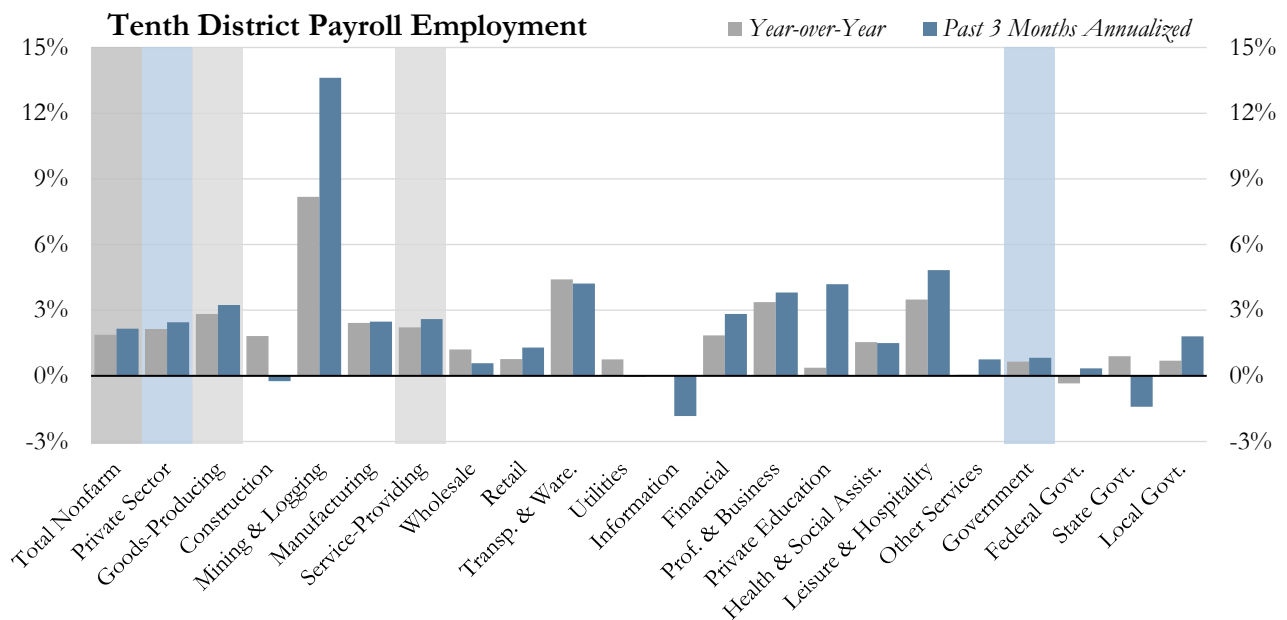


Source: Bureau of Labor Statistics/Haver Analytics

July 2018 Tenth District Payroll Employment

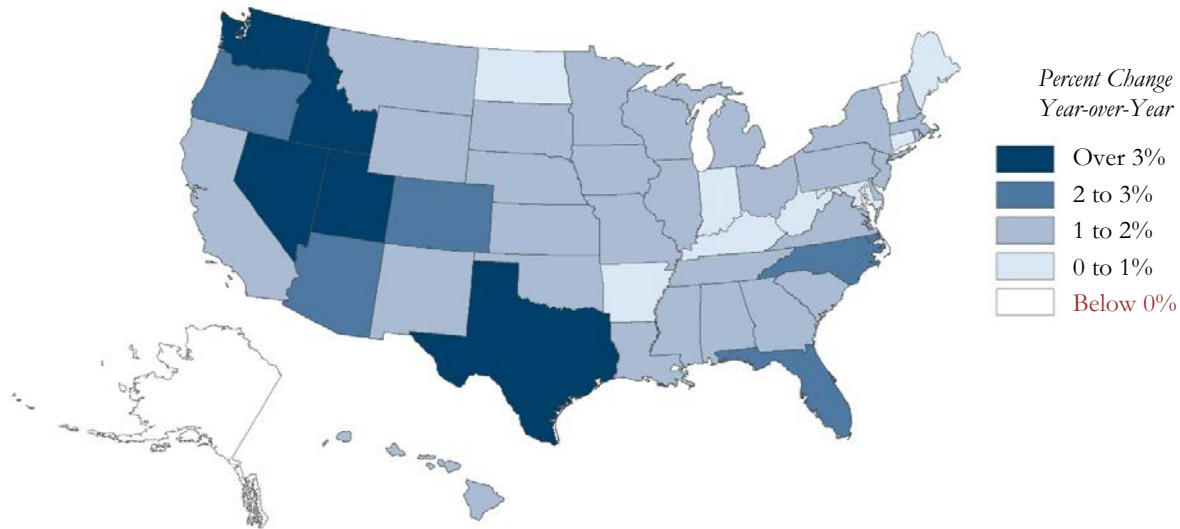
Seasonally Adjusted

	<i>Number of Jobs (Thousands)</i>	<i>Jobs Gained Year-over-Year (Thousands)</i>	<i>Share of Employment</i>
Total Nonfarm	10,924	202	100.0%
Private Sector	9,004	189	82.4%
<i>Goods-Producing</i>	1,544	42	14.1%
Construction	549	10	5.0%
Mining & Logging	138	10	1.3%
Manufacturing	855	20	7.8%
<i>Service-Providing</i>	7,472	161	68.5%
Wholesale Trade	421	5	3.8%
Retail Trade	1,149	9	10.5%
Transportation & Warehousing	388	16	3.5%
Utilities	40	0	0.4%
Information	196	0	1.8%
Financial Activities	629	11	5.8%
Professional & Business Services	1,449	47	13.3%
Private Educational Services	154	1	1.4%
Healthcare & Social Assistance	1,420	22	13.0%
Leisure & Hospitality	1,196	40	10.9%
Other Services	423	0	3.9%
Government	1,919	12	17.6%
Federal Government	236	-1	2.2%
State Government	475	4	4.4%
Local Government	1,208	8	11.0%



Source: Bureau of Labor Statistics/Haver Analytics

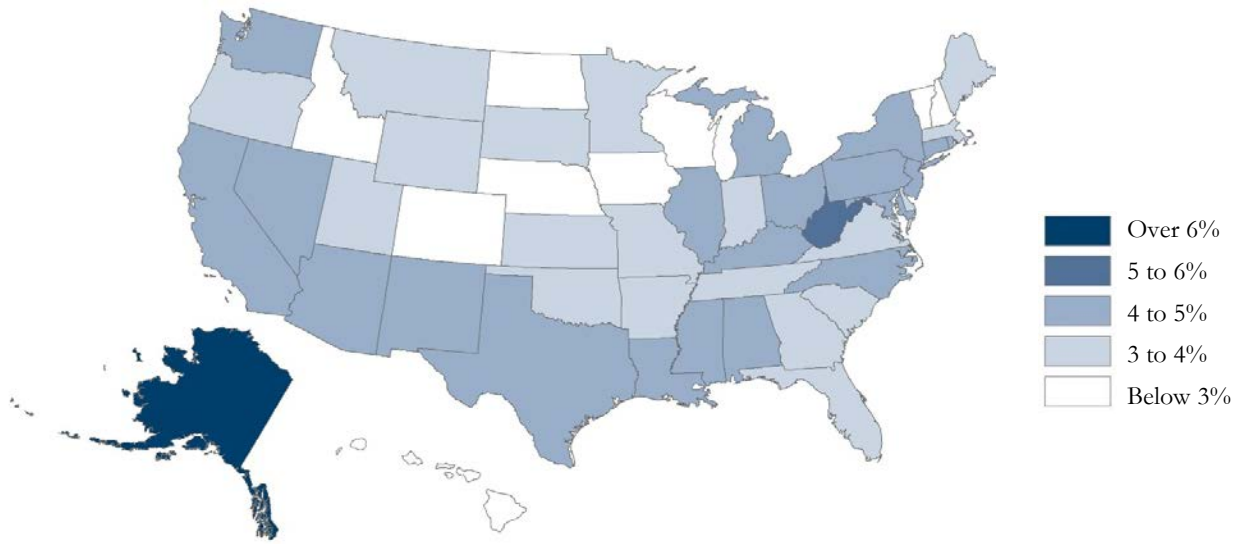
July 2018 Total Nonfarm Employment
Seasonally Adjusted



<i>Percent Change Year-over-Year</i>			<i>Percent Change Year-over-Year</i>		
	United States	1.6%	25	Virginia	1.6%
	Tenth District	1.9	26	Michigan	1.5
1	Utah	3.5	27	Ohio	1.5
2	Nevada	3.4	28	Minnesota	1.5
3	Idaho	3.4	29	Delaware	1.4
4	Texas	3.1	30	South Dakota	1.4
5	Washington	3.1	31	Wisconsin	1.3
6	Colorado	2.9	32	New York	1.2
7	Oregon	2.5	33	Missouri	1.2
8	Florida	2.5	34	Pennsylvania	1.2
9	North Carolina	2.4	35	Iowa	1.2
10	Arizona	2.2	36	Mississippi	1.2
11	California	2.0	37	Alabama	1.1
12	Wyoming	2.0	38	Illinois	1.1
13	Hawaii	1.9	39	Montana	1.1
14	New Hampshire	1.9	40	Louisiana	1.1
15	Tennessee	1.9	41	Connecticut	1.0
16	Georgia	1.9	42	West Virginia	1.0
17	Rhode Island	1.9	43	Maine	0.9
18	Massachusetts	1.8	44	Arkansas	0.9
19	New Jersey	1.8	45	Kentucky	0.8
20	Oklahoma	1.8	46	Indiana	0.6
21	Nebraska	1.7	47	Maryland	0.6
22	Kansas	1.7	48	North Dakota	0.6
23	South Carolina	1.7	49	Vermont	-0.3
24	New Mexico	1.6	50	Alaska	-0.6

Source: Bureau of Labor Statistics/Haver Analytics

July 2018 Unemployment Rates
Seasonally Adjusted

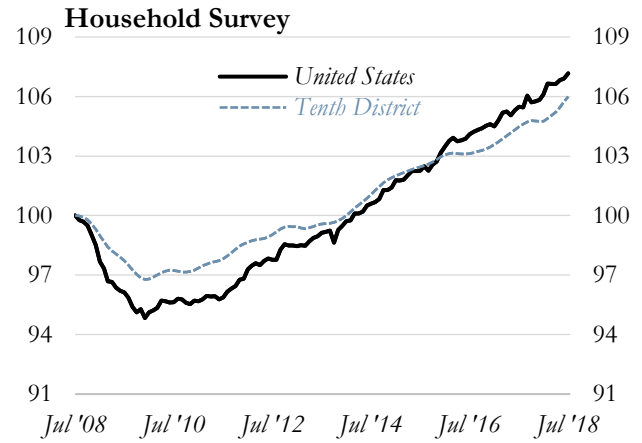
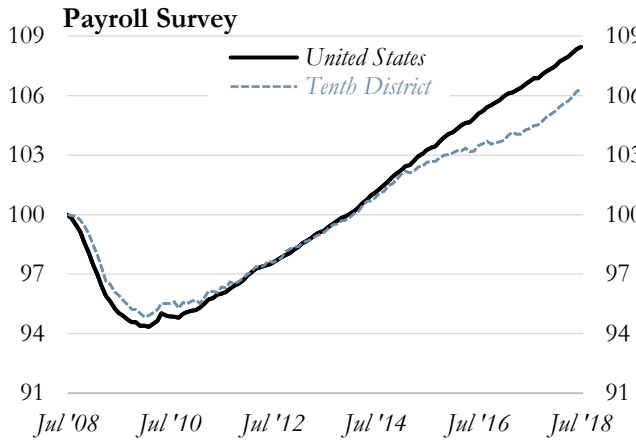


		<i>Percent Unemployed</i>			<i>Percent Unemployed</i>
United States		3.9%	23	Delaware	3.9%
Tenth District		3.4	26	Oklahoma	3.8
1	Alaska	6.9	26	Wyoming	3.8
2	West Virginia	5.4	28	Montana	3.7
3	Louisiana	4.9	28	Florida	3.7
4	Mississippi	4.8	28	Arkansas	3.7
5	New Mexico	4.7	31	South Carolina	3.6
6	Nevada	4.6	31	Massachusetts	3.6
6	Arizona	4.6	33	Tennessee	3.5
6	Washington	4.6	34	Missouri	3.4
6	Ohio	4.6	34	Kansas	3.4
10	Connecticut	4.4	34	Indiana	3.4
11	Michigan	4.3	37	South Dakota	3.1
11	New York	4.3	37	Virginia	3.1
11	Maryland	4.3	37	Utah	3.1
11	Kentucky	4.3	40	Minnesota	3.0
15	Pennsylvania	4.2	40	Maine	3.0
15	New Jersey	4.2	42	Idaho	2.9
15	Illinois	4.2	42	Wisconsin	2.9
15	California	4.2	42	Nebraska	2.9
19	Rhode Island	4.1	45	Vermont	2.8
19	North Carolina	4.1	45	Colorado	2.8
19	Alabama	4.1	47	New Hampshire	2.7
22	Texas	4.0	48	Iowa	2.6
23	Georgia	3.9	48	North Dakota	2.6
23	Oregon	3.9	50	Hawaii	2.1

Source: Bureau of Labor Statistics/Haver Analytics

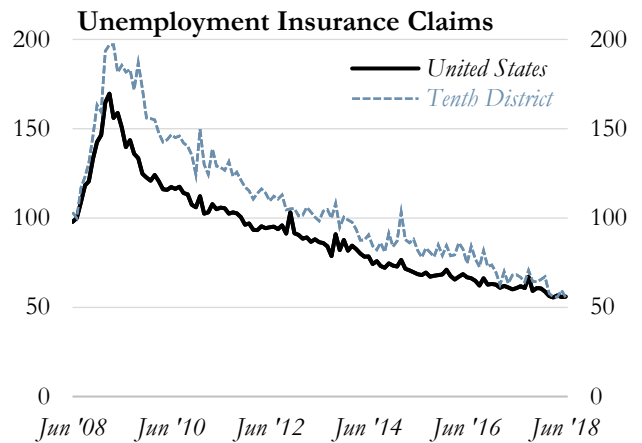
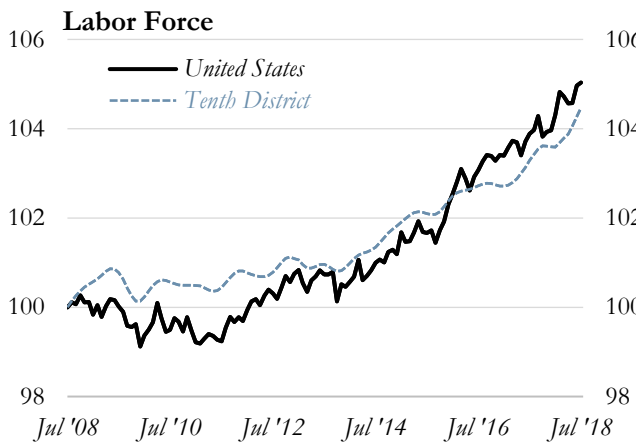
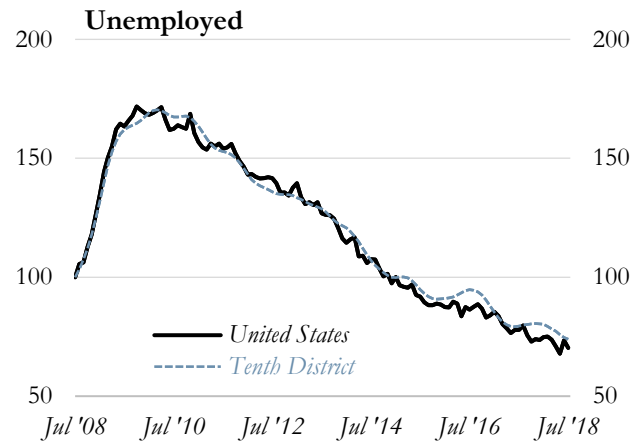
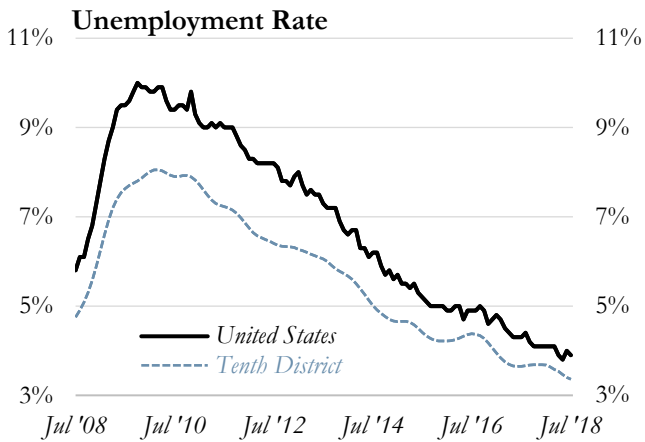
Total Nonfarm Employment

Ten-Year Index of Growth, Seasonally Adjusted



Labor Force Dynamics

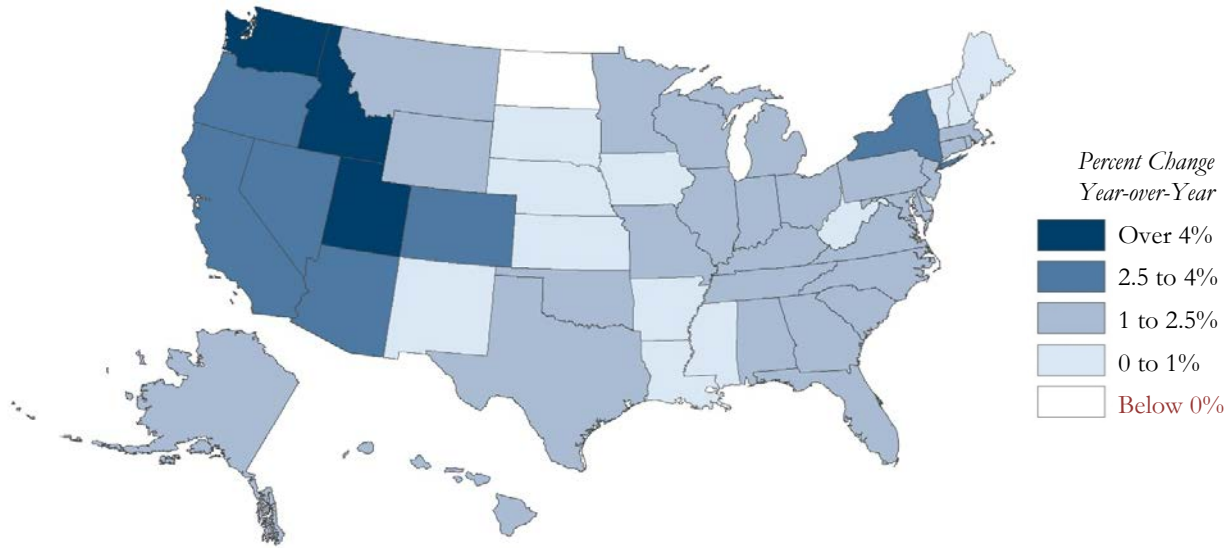
Ten-Year Index of Growth, Seasonally Adjusted



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

2018Q1 Real Personal Income

Seasonally Adjusted

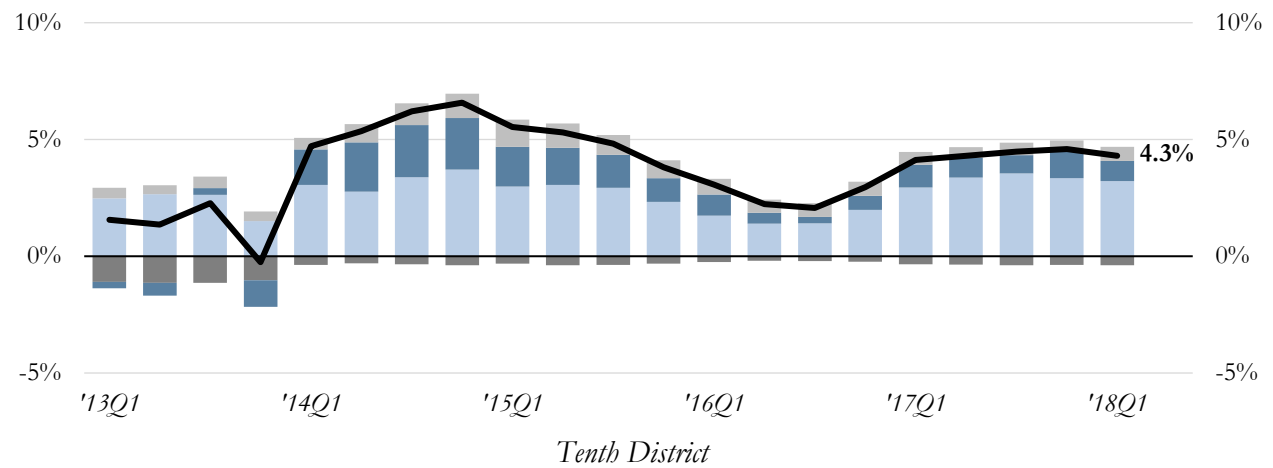


	<i>Percent Change Year-over-Year</i>	<i>Per Capita Personal Income</i>		<i>Percent Change Year-over-Year</i>	<i>Per Capita Personal Income</i>		
United States	2.4%	\$51,410	25	Massachusetts	1.3%	\$66,925	
Tenth District	1.4	41,867	26	Alabama	1.3	40,822	
1	Washington	4.2	58,000	27	Connecticut	1.3	71,588
2	Idaho	3.2	41,261	28	Michigan	1.3	46,271
3	Utah	3.1	42,940	29	Wyoming	1.2	58,237
4	Oregon	2.8	47,421	30	Oklahoma	1.2	44,147
5	New York	2.7	63,038	31	Wisconsin	1.2	48,631
6	California	2.7	59,689	32	Minnesota	1.2	54,075
7	Colorado	2.6	54,539	33	Ohio	1.1	46,389
8	Arizona	2.4	42,361	34	Hawaii	1.1	52,965
9	Nevada	2.2	45,040	35	Rhode Island	1.1	52,108
10	Florida	2.0	47,652	36	Alaska	1.1	57,269
11	Georgia	1.9	44,122	37	Illinois	1.0	53,899
12	Pennsylvania	1.9	53,260	38	Maine	0.9	45,849
13	North Carolina	1.9	44,116	39	West Virginia	0.7	38,740
14	Tennessee	1.9	45,098	40	New Hampshire	0.6	58,034
15	Indiana	1.8	45,245	41	Nebraska	0.4	50,995
16	Maryland	1.7	60,737	42	Kansas	0.4	48,341
17	Texas	1.6	47,591	43	Vermont	0.4	51,896
18	New Jersey	1.6	63,752	44	Arkansas	0.3	41,236
19	Virginia	1.6	55,304	45	New Mexico	0.2	39,567
20	Montana	1.5	44,663	46	Iowa	0.2	46,731
21	Kentucky	1.5	40,295	47	Louisiana	0.1	44,015
22	South Carolina	1.5	41,060	48	Mississippi	0.1	36,915
23	Delaware	1.5	49,921	49	South Dakota	0.1	48,689
24	Missouri	1.4	44,503	50	North Dakota	-0.7	54,998

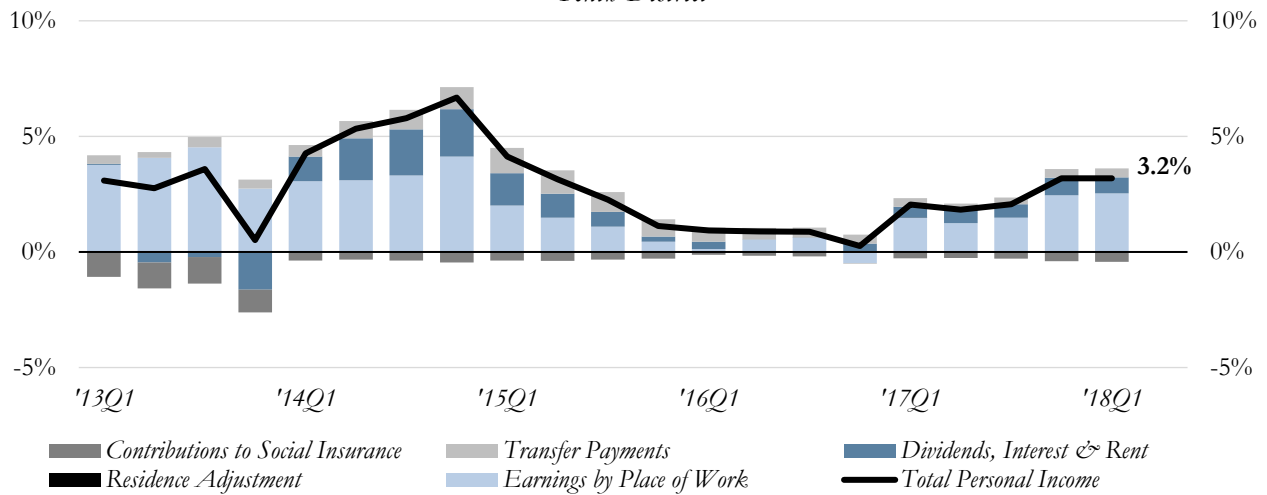
Source: Bureau of Economic Analysis/Haver Analytics

Nominal Personal Income

Contributions to Percent Change, Seasonally Adjusted
United States

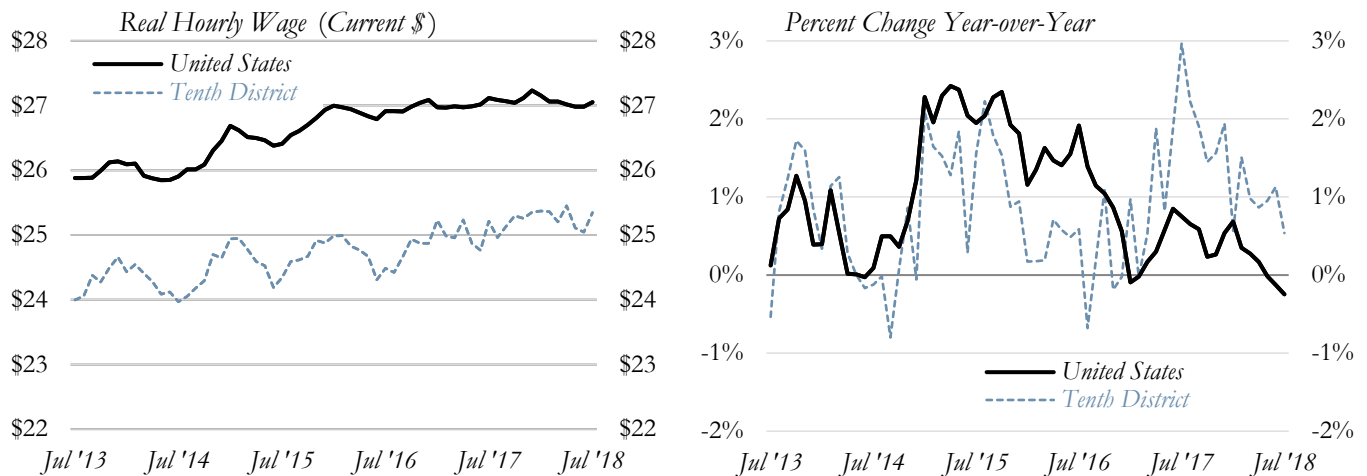


Tenth District



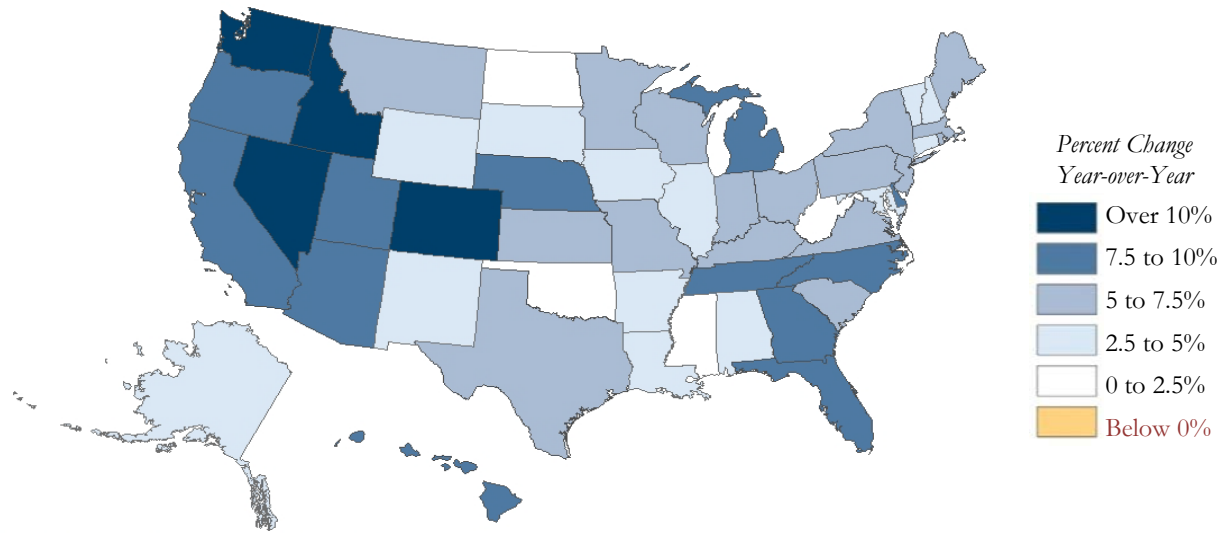
Real Average Hourly Wage

Seasonally Adjusted



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

2018Q1 FHFA Purchase-Only Home Price Index
Seasonally Adjusted

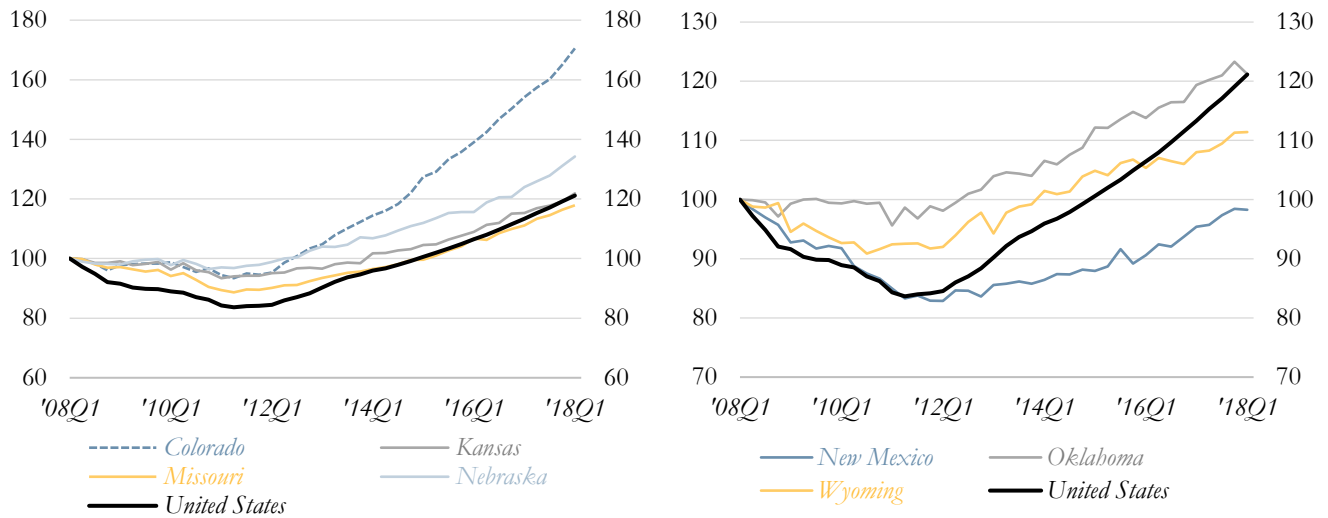


<i>Percent Change Year-over-Year</i>			<i>Percent Change Year-over-Year</i>		
	United States	6.9%			
1	Nevada	13.7	25	New York	6.2%
2	Washington	13.1	26	Missouri	6.1
3	Idaho	11.1	27	Minnesota	6.1
4	Colorado	10.6	28	Montana	6.1
5	Utah	9.9	29	Kansas	5.8
6	Oregon	9.6	30	Maine	5.3
7	Arizona	9.5	31	Pennsylvania	5.2
8	Hawaii	9.2	32	New Jersey	5.2
9	California	8.9	33	Virginia	5.2
10	North Carolina	8.4	34	Maryland	5.0
11	Florida	8.4	35	New Hampshire	4.6
12	Nebraska	8.3	36	Iowa	4.3
13	Michigan	7.8	37	Arkansas	3.7
14	Delaware	7.7	38	Connecticut	3.6
15	Tennessee	7.7	39	Louisiana	3.6
16	Georgia	7.7	40	Alabama	3.4
17	Indiana	7.5	41	Wyoming	3.2
18	Texas	7.4	42	South Dakota	3.1
19	South Carolina	7.4	43	New Mexico	3.0
20	Ohio	7.3	44	Illinois	2.8
21	Rhode Island	7.0	45	Alaska	2.7
22	Massachusetts	6.9	46	Vermont	2.6
23	Wisconsin	6.6	47	North Dakota	2.3
24	Kentucky	6.3	48	Mississippi	2.2
			49	Oklahoma	1.5
			50	West Virginia	0.9

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

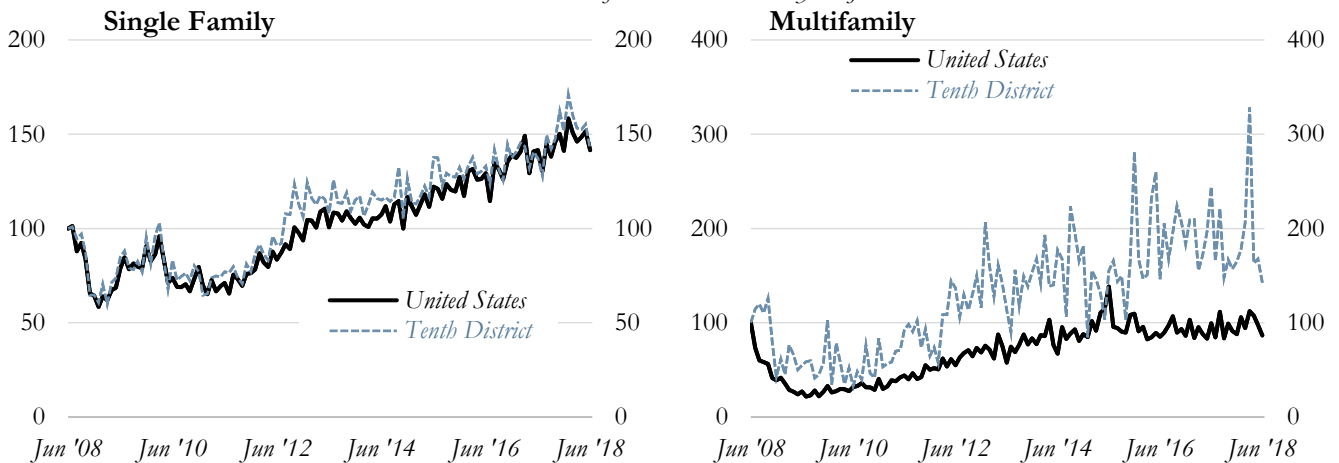
FHFA Purchase-Only Home Price Index

Ten-Year Index of Growth, Seasonally Adjusted

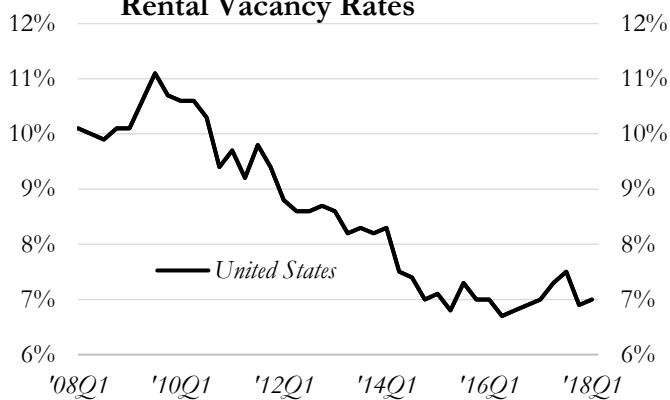


Housing Permits

Ten-Year Index of Growth, Seasonally Adjusted



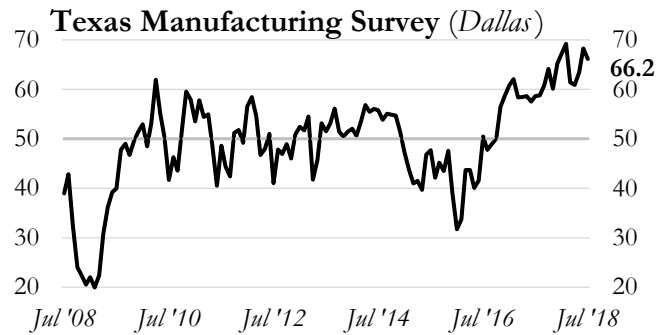
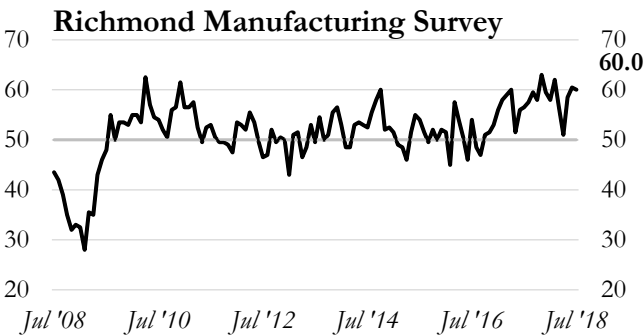
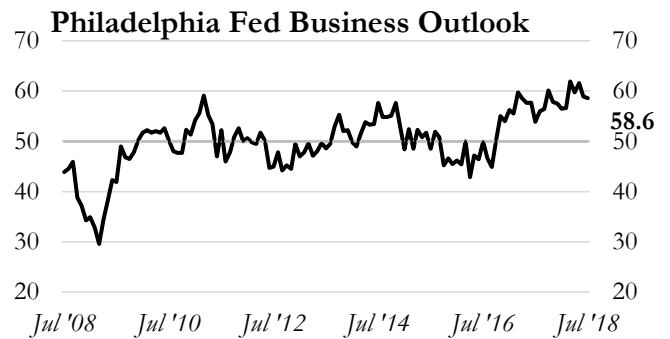
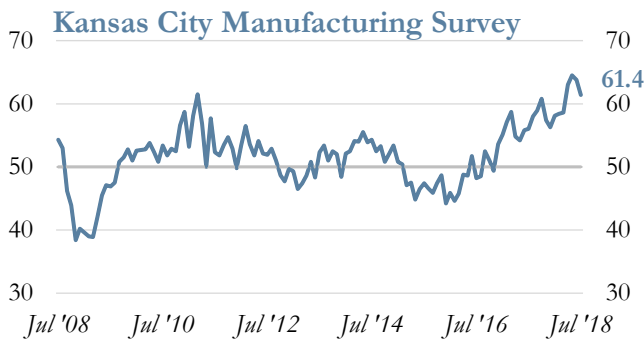
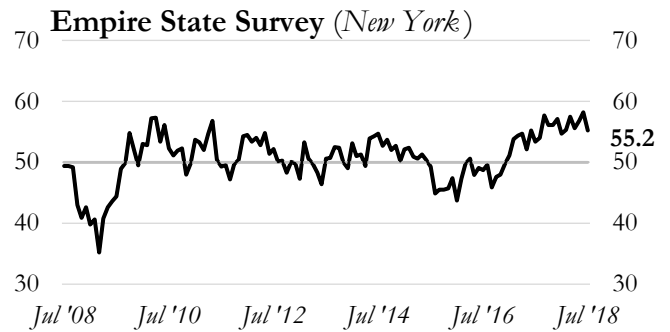
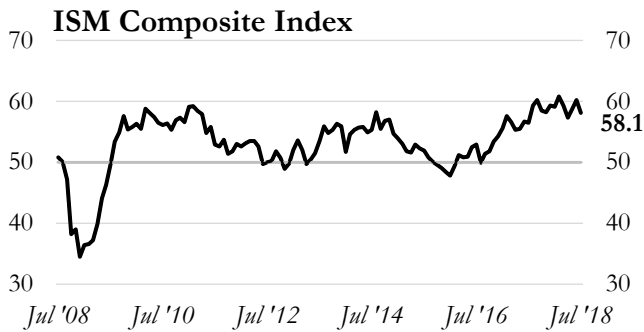
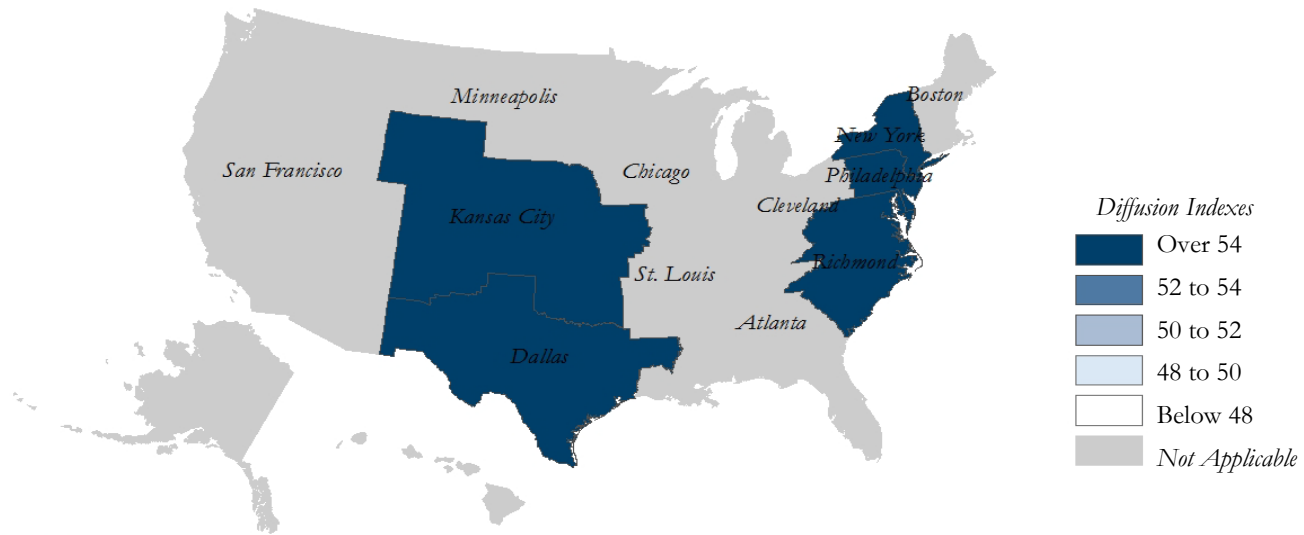
Rental Vacancy Rates



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

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

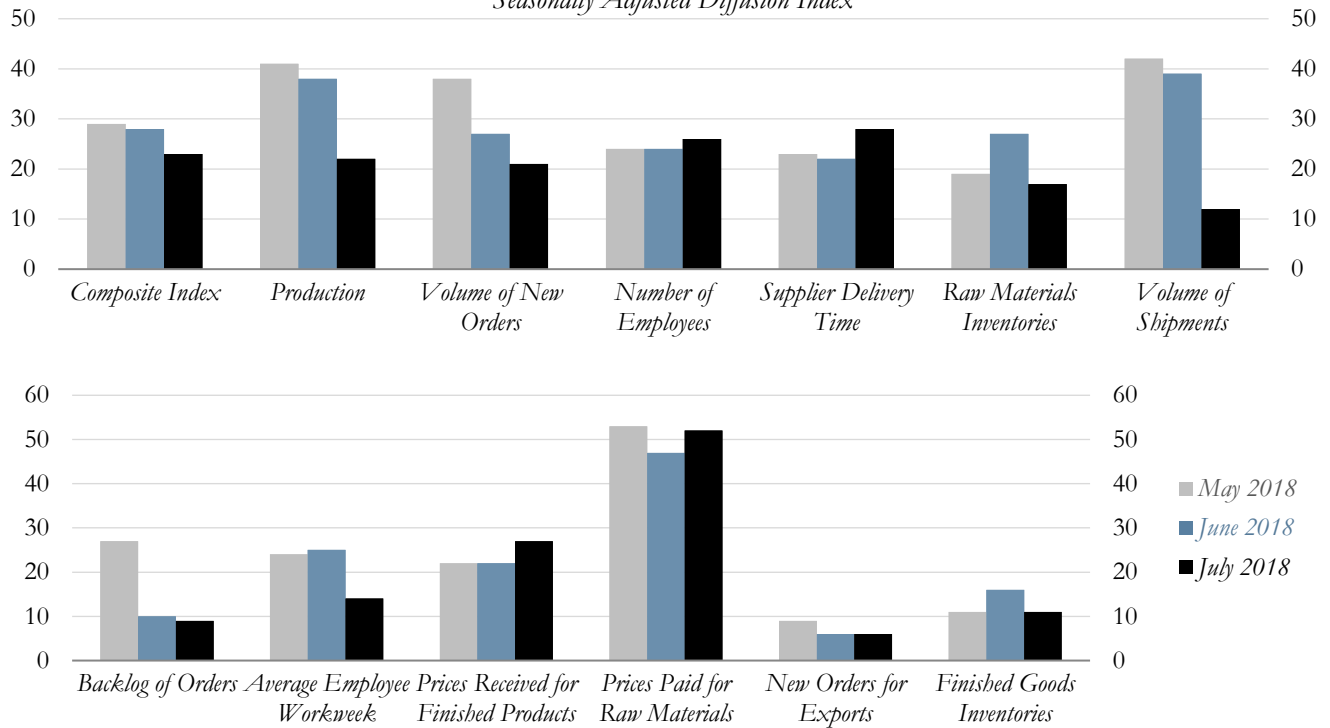
Manufacturing Surveys
Seasonally Adjusted



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

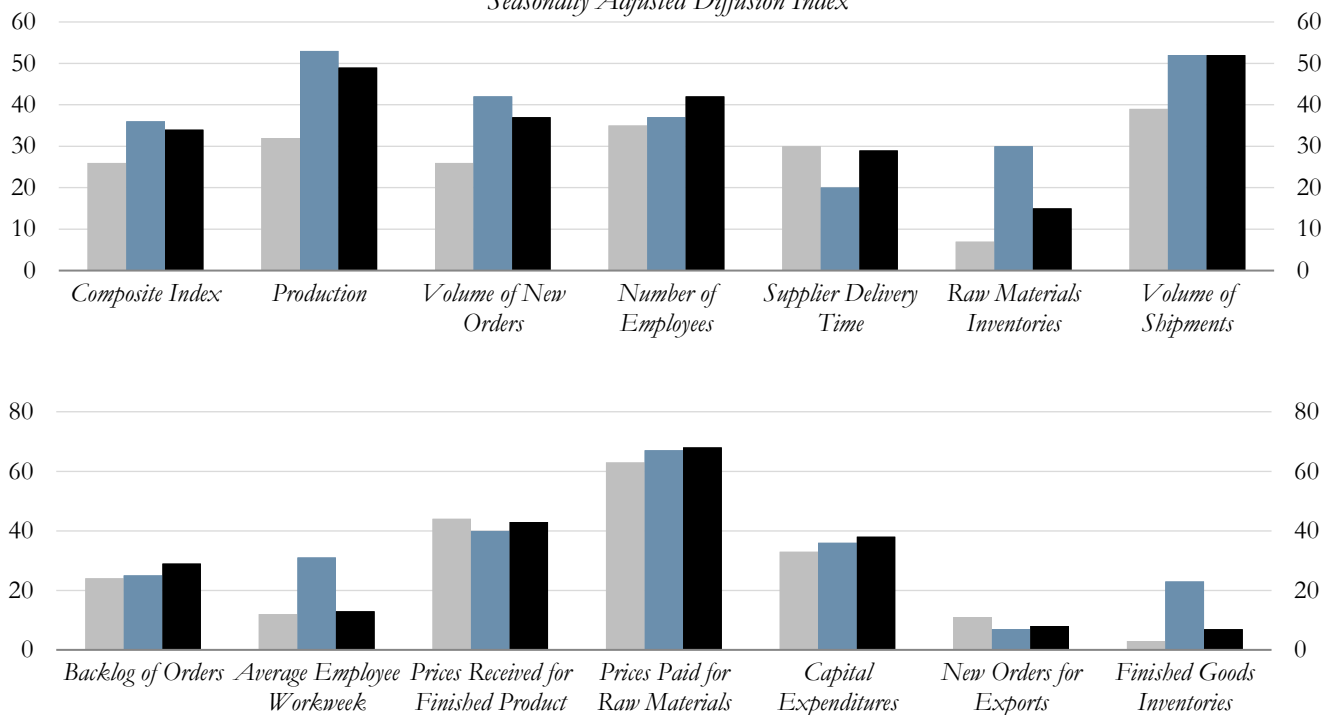
Current Activity vs. a Month Ago

Seasonally Adjusted Diffusion Index



Expectations Six-Months Ahead

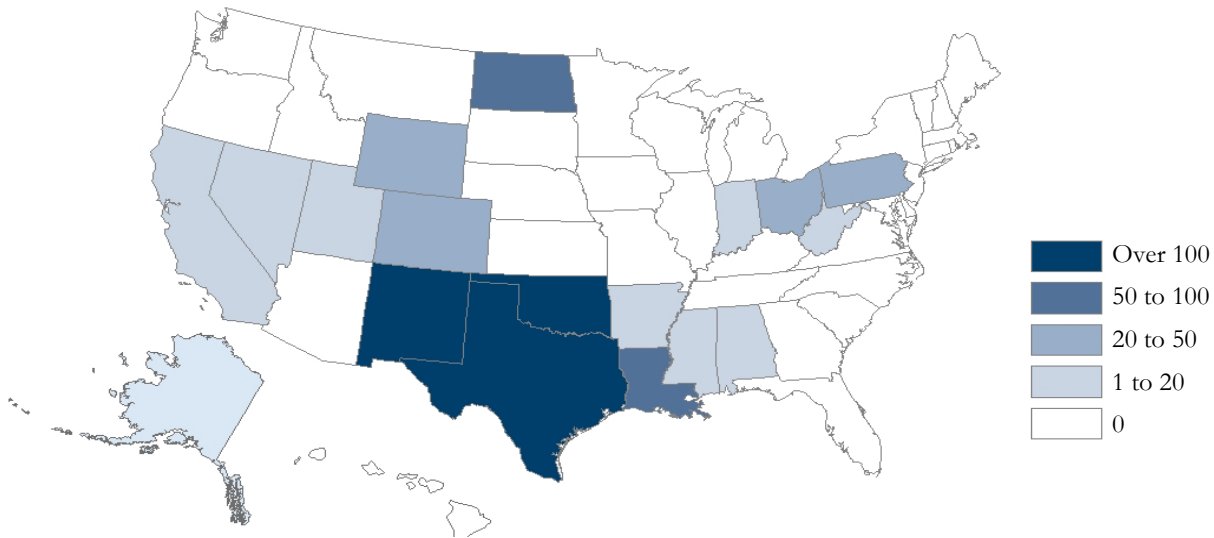
Seasonally Adjusted Diffusion Index



Note: Indices above zero indicate expansion.

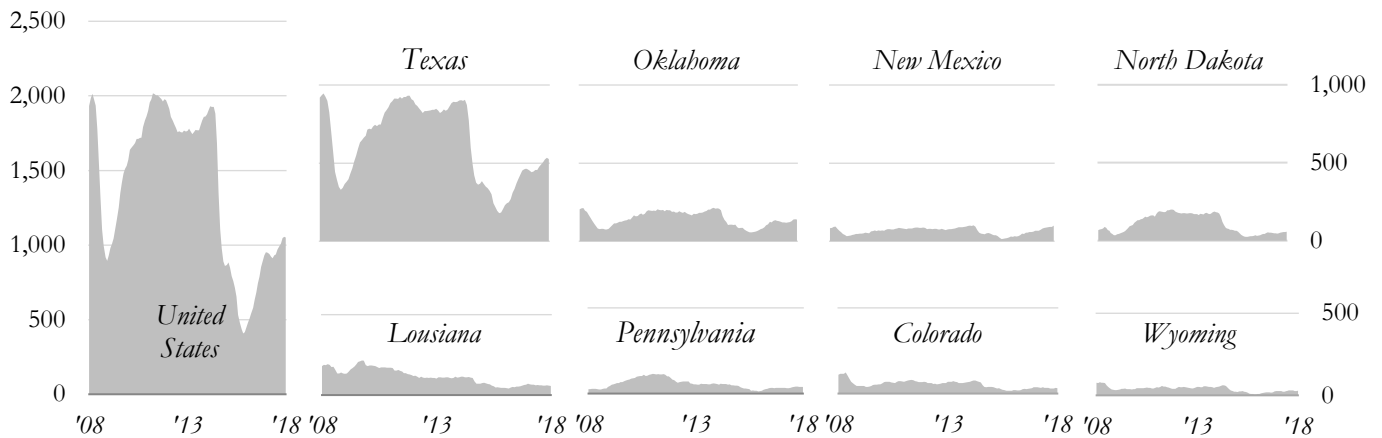
Source: Federal Reserve Bank of Kansas City/Haver Analytics

July 2018 Active Oil & Gas Drilling Rig Counts



	Average Rig Counts During the Month	Percent Change Year-over-Year	Current Share of Activity
United States	1,050	10.9%	
Tenth District	300	17.6	28.6%
<i>Top Producing States</i>			
Texas	525	13.1	50.0
Oklahoma	139	3.7	13.2
New Mexico	101	71.2	9.6
North Dakota	57	7.5	5.4
Louisiana	56	-20.0	5.3
Pennsylvania	38	11.8	3.6
Colorado	32	-13.5	3.0
Wyoming	28	12.0	2.7
Ohio	22	-18.5	2.1
West Virginia	17	30.8	1.6

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

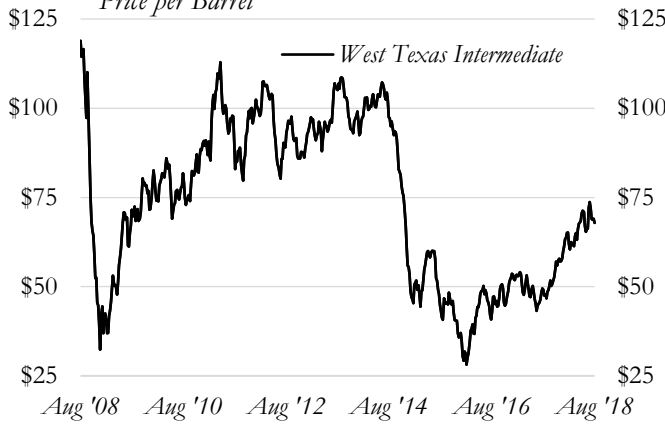


Source: Baker Hughes/Haver Analytics

Spot Prices

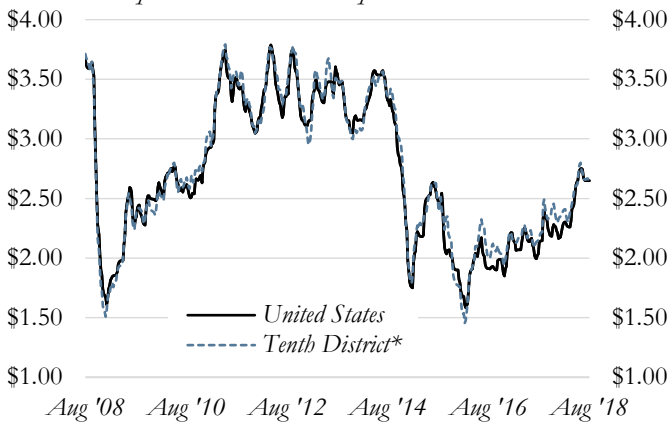
Crude Oil

Price per Barrel



Gasoline

Price per Gallon at the Pump



Natural Gas

Price per Thousand Cubic Feet

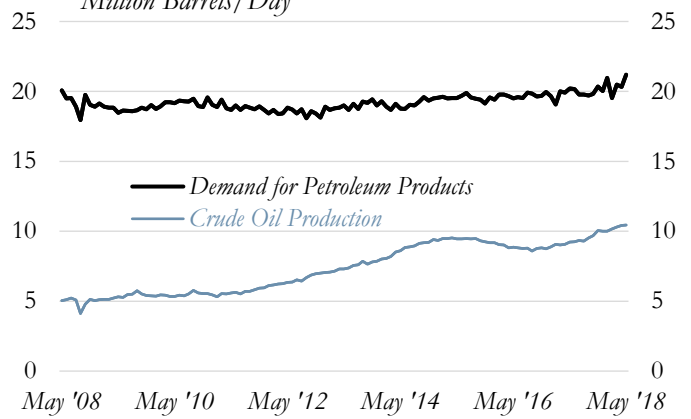


U.S. Supply/Demand Dynamics

Seasonally Adjusted

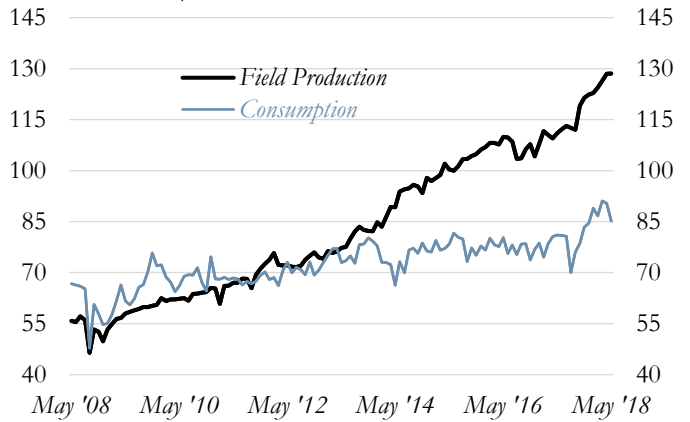
Crude Oil

Million Barrels/Day



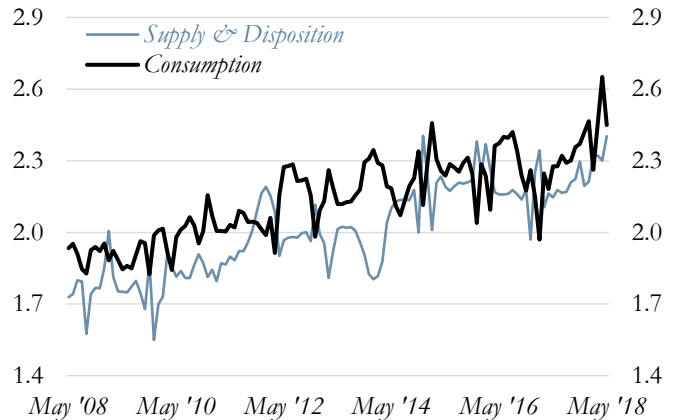
Natural Gas Liquids

Million Barrels/Month



Natural Gas

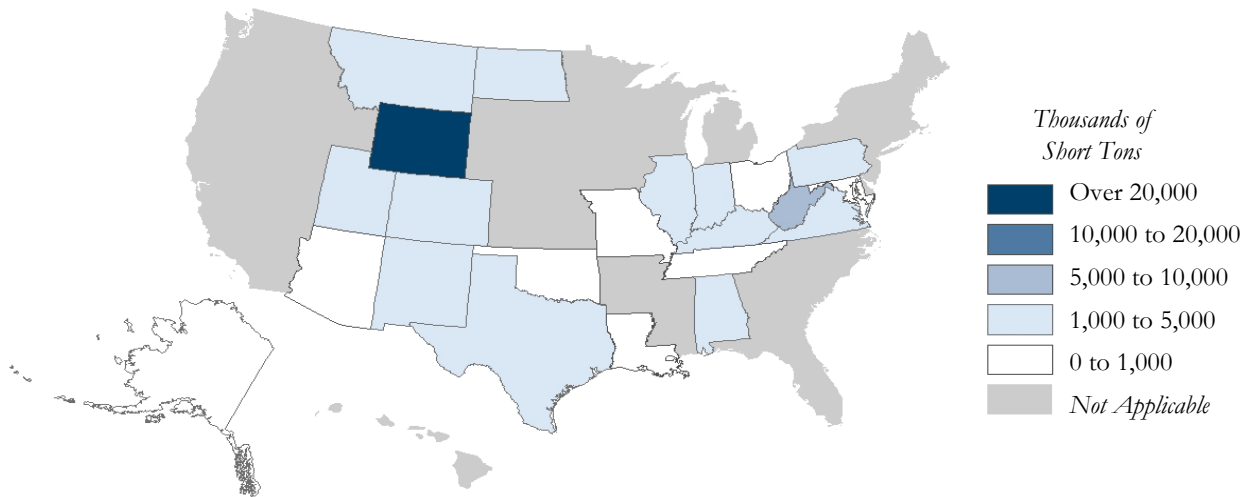
Trillion Cubic Feet/Month



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

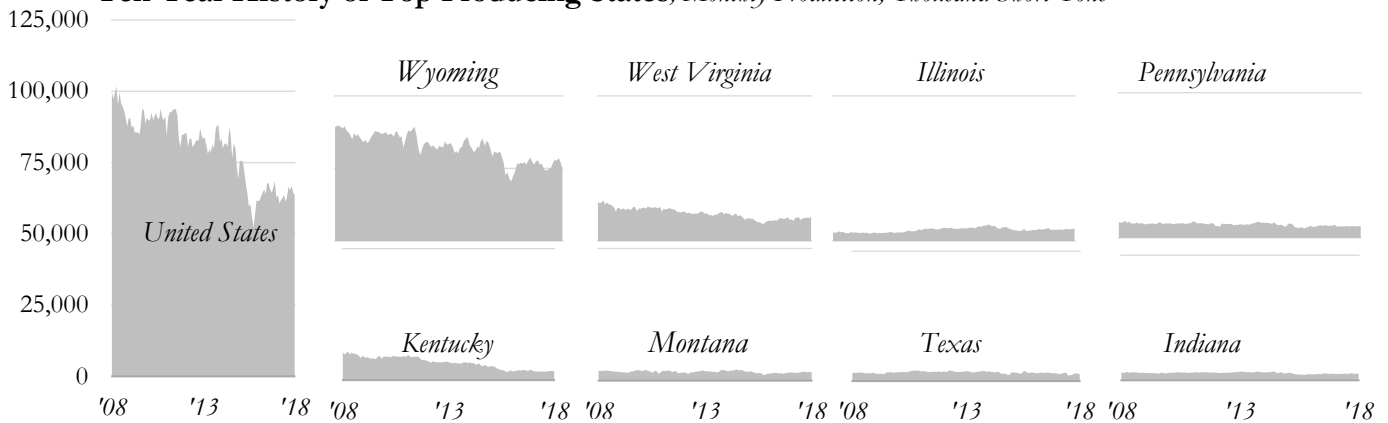
Source: Wall Street Journal, Oil & Gas Journal & Department of Energy, Energy Information Administration/Haver Analytics

July 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>
United States	63,634.3	1.4%	
Tenth District*	27,130.4	-5.3	42.6%
<i>Top Producing States</i>			
Wyoming	24,916.8	-5.9	39.2
West Virginia	8,316.0	15.0	13.1
Illinois	4,285.3	10.7	6.7
Pennsylvania	4,057.4	4.4	6.4
Kentucky	3,368.1	0.0	5.3
Montana	3,153.6	3.5	5.0
Texas	2,809.2	-4.5	4.4
Indiana	2,663.7	6.1	4.2
North Dakota	2,506.2	3.5	3.9
Utah	1,296.3	18.2	2.0

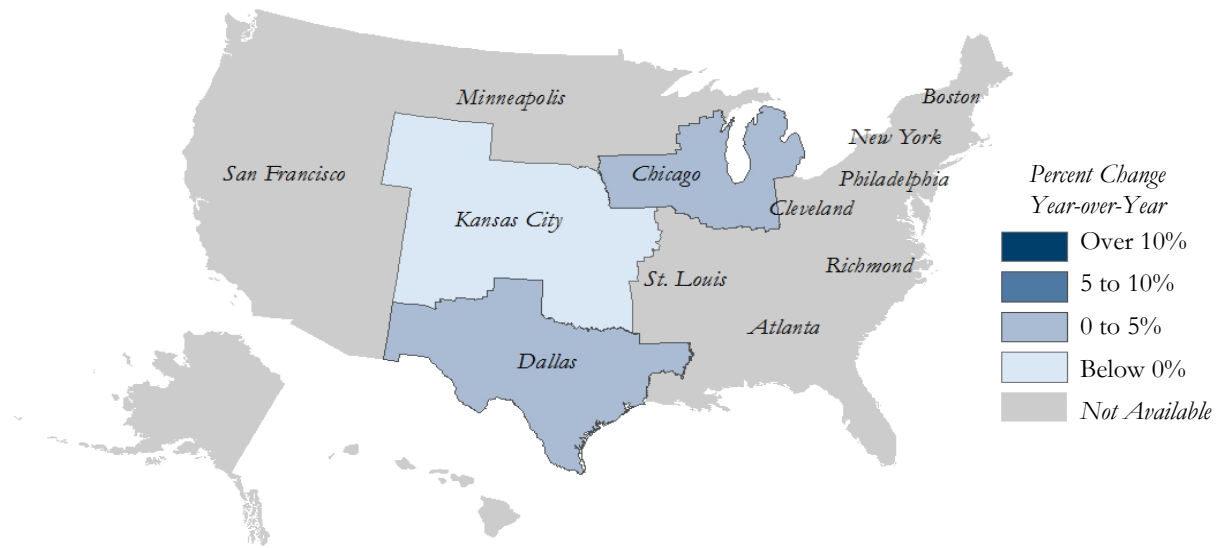
Ten-Year History of Top Producing States, Monthly Production, Thousand Short Tons



*Includes all Tenth District states but Nebraska.

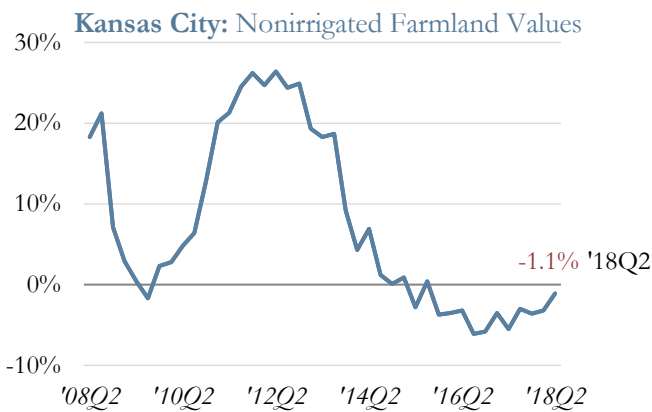
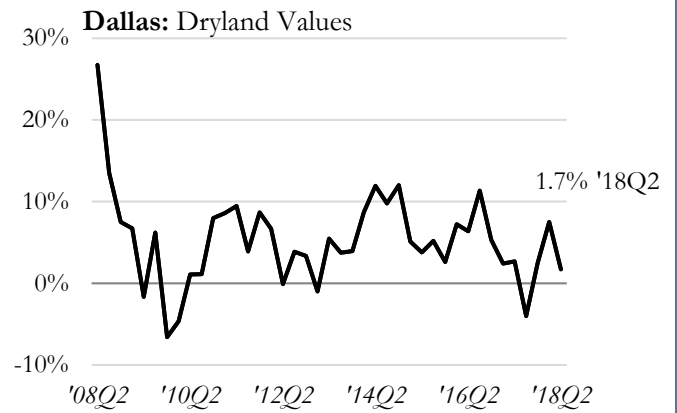
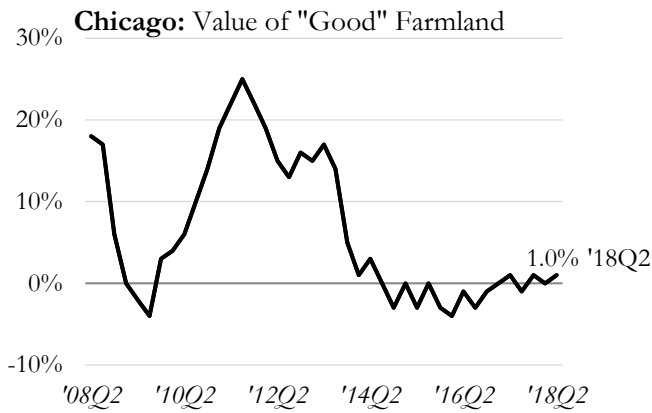
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Farm Land Values*



Farmland Values by Federal Reserve District

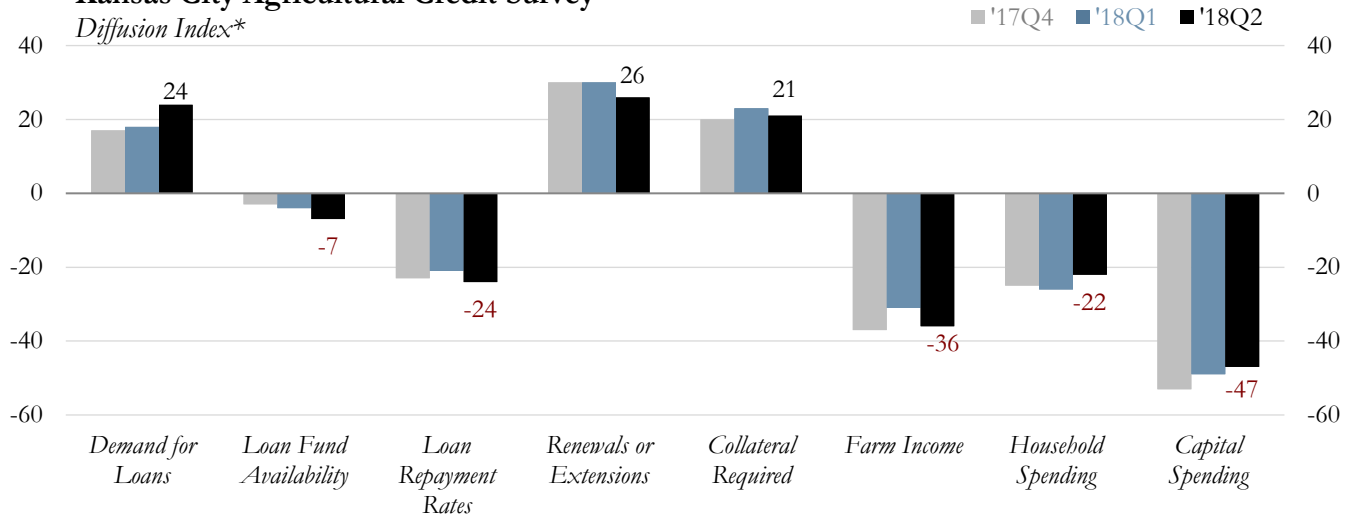
Percent Change Year-over-Year



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

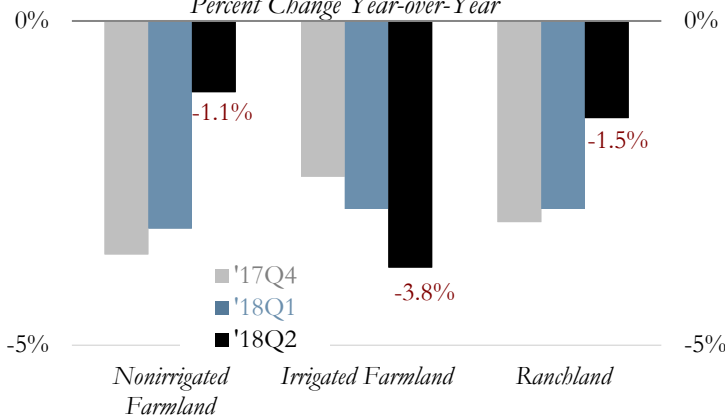
Kansas City Agricultural Credit Survey

*Diffusion Index**

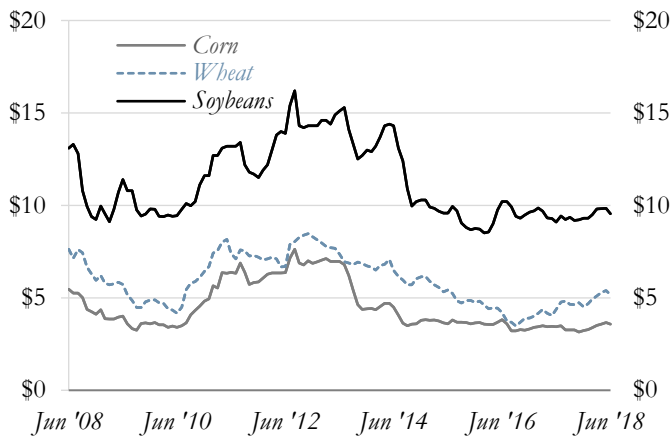


Tenth District Farmland Values

Percent Change Year-over-Year

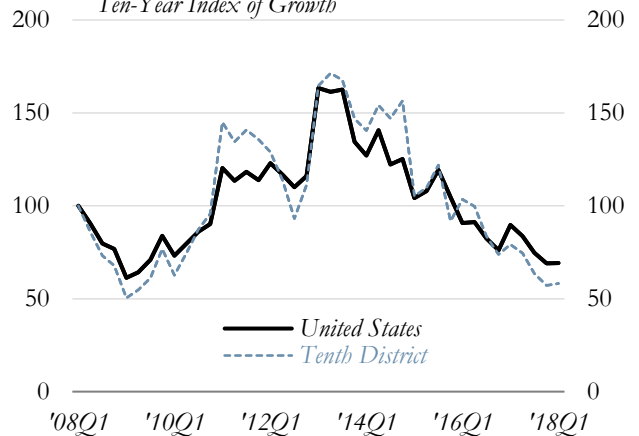


Spot Prices



Farm Income

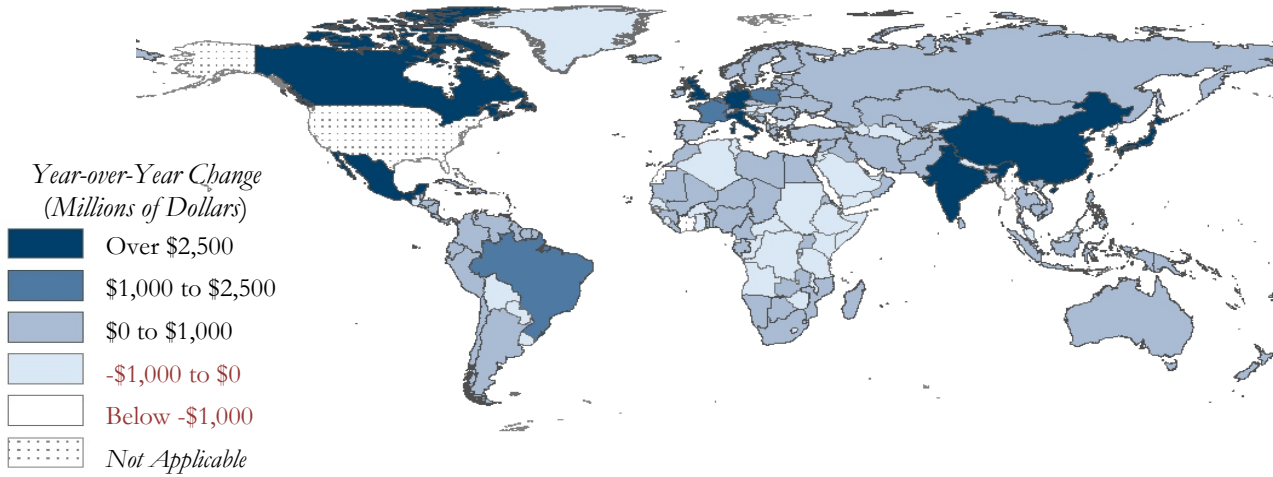
Ten-Year Index of Growth



*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>
	United States	\$829.9	9.6%	
<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 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
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