



# US Chartbook v0.0

## **Notes:**

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## **Proposed Contents:**

- Overall Economic Activity
- Households
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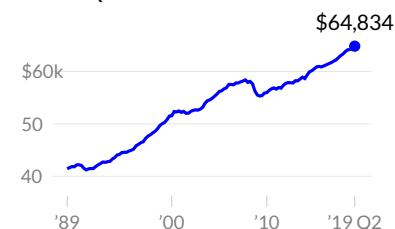
# Overall Economic Activity

This analysis of the United States economy begins with the most popular measure of economic activity, Gross Domestic Product (GDP). According to the Bureau of Economic Analysis, GDP—the seasonally-adjusted annualized value of goods and services produced in the US—was \$21,339 billion in the second quarter of 2019, compared to an inflation-adjusted equivalent of \$10,209 billion in the first quarter of 1989.

The US population is growing by about sixth-tenths of a percent per year. GDP per capita (see —), adjusted for inflation to 2019 Q2 dollars, has increased to \$64,834 in 2019 Q2 from \$41,425 in 1989 Q1.

## GDP per capita

in 2019 Q2 dollars



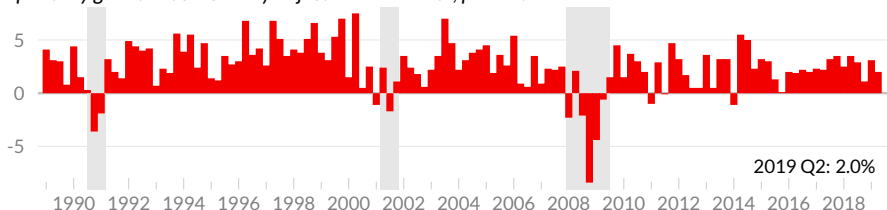
Source: Bureau of Economic Analysis

## Economic Growth

GDP (see ■) increased at an annual rate of 2.0 percent during the second quarter of 2019, compared to an increase of 3.1 percent in the first quarter of 2019. Quarterly growth has averaged 2.5 percent over the past three years, 2.2 percent over the past 10 years, and 2.5 percent over the past 30 years.

### Real Gross Domestic Product Growth

quarterly growth at seasonally adjusted annual rate, percent



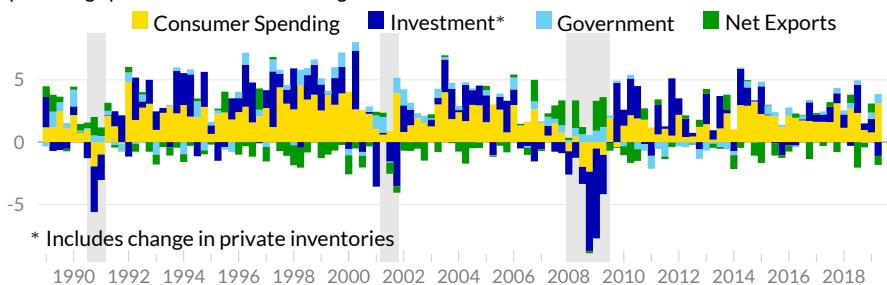
Source: Bureau of Economic Analysis

## Components of Growth

The **expenditure approach** compiles GDP from the sum of spending on domestic goods and services. Major spending categories are consumer spending (see ■), private investment (gross spending on capital goods) and changes in private inventories (see ■), government spending and investment (see ■), and net exports (see ■) which is measured as foreign spending on US goods and services less US spending on goods and services produced by the rest of the world.

### Real GDP Growth by Expenditure Type

percentage point contribution to GDP growth

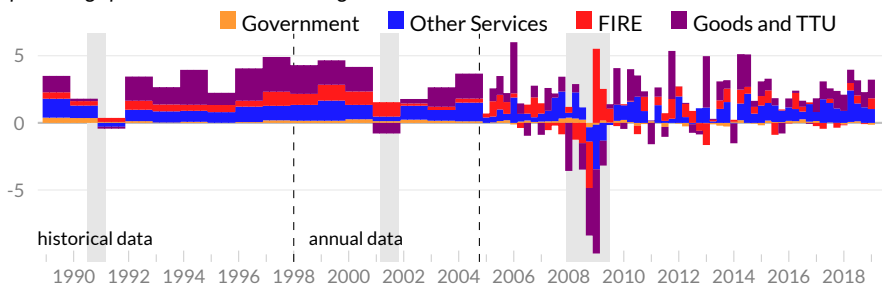


Source: Bureau of Economic Analysis

The **production approach** calculates GDP as the sum of gross value added–output minus inputs–in each sector. This identifies contributions from: goods-producing sectors combined with trade, transportation, and utilities (see ■), finance, insurance, and real estate (see ■), other service-providing sectors (see ■), and government (see ■).

### Real GDP Growth by Industry Group

percentage point contribution to GDP growth

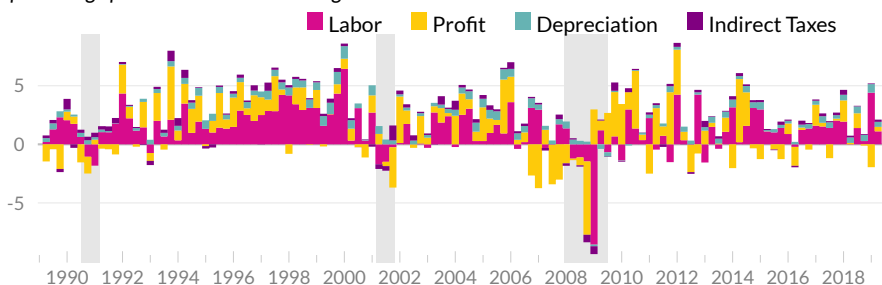


Source: Bureau of Economic Analysis

The **income approach** calculates GDP as the sum of market income to persons (in exchange for labor (see ■) or from returns on capital (see ■)), indirect taxes such as sales taxes or tariffs (see ■), and depreciation (see ■).

### Real Gross Domestic Income Growth

percentage point contribution to GDI growth

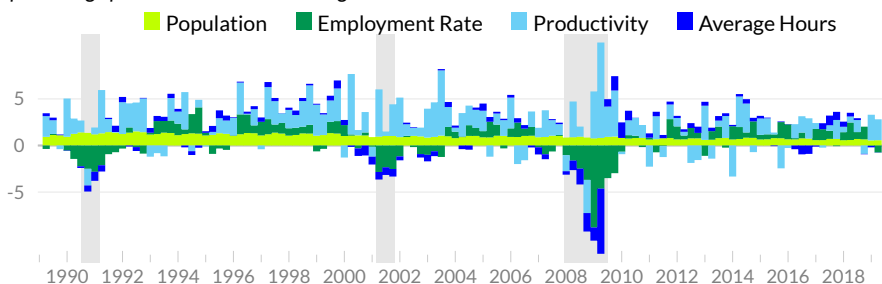


Source: Bureau of Economic Analysis

Changes to GDP can be assigned to changes in **household inputs**: population (see ■), employment rates (see ■), average hours worked (see ■), and total economy productivity (see ■).

### Real GDP Growth by Inputs

percentage point contribution to GDP growth



Source: Author's Calculations

## Components of Economic Growth

percentage point contribution to real GDP/GDI growth

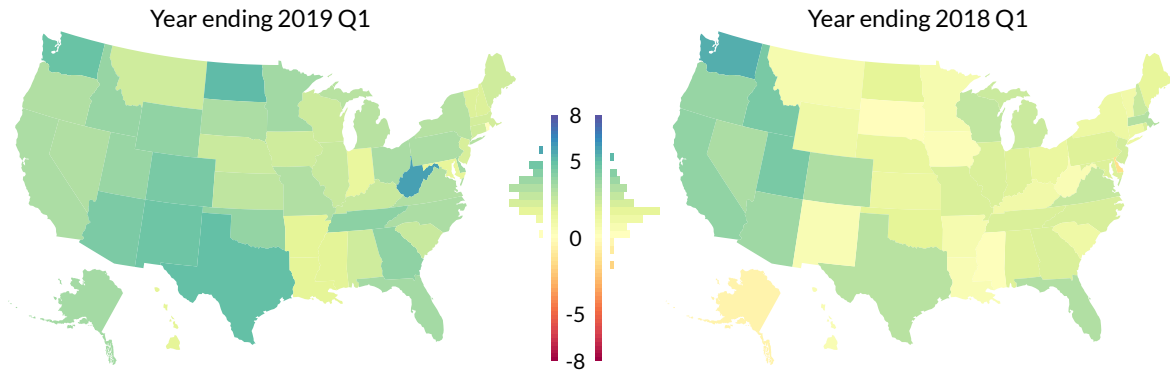
*moving averages*

	2019 Q2	'19 Q1	'18 Q4	'18 Q3	'18 Q2	3- year	10- year	30- year
<span style="color: red;">■</span> <b>Gross Domestic Product</b>	2.0	3.1	1.1	2.9	3.5	2.5	2.2	2.5
<span style="color: yellow;">■</span> Consumer Spending	3.10	0.78	0.97	2.34	2.70	1.88	1.58	1.81
Durable Goods	0.87	0.02	0.09	0.25	0.56	0.44	0.42	0.42
Non-durable Goods	0.91	0.30	0.24	0.50	0.57	0.40	0.30	0.33
Services	1.32	0.46	0.65	1.59	1.57	1.03	0.85	1.06
<span style="color: blue;">■</span> Gross Investment	-1.11	1.09	0.53	2.27	-0.30	0.62	0.87	0.59
Residential	-0.09	0.60	0.64	0.29	1.04	0.60	0.58	0.54
Non-residential	-0.11	-0.04	-0.18	-0.16	-0.15	-0.01	0.11	0.03
Change in inventories	-0.91	0.53	0.07	2.14	-1.20	0.04	0.17	0.03
<span style="color: lightblue;">■</span> Government	0.77	0.50	-0.07	0.36	0.44	0.25	0.00	0.24
Federal	0.52	0.14	0.07	0.19	0.25	0.14	0.01	0.07
State and Local	0.25	0.36	-0.14	0.17	0.19	0.12	-0.00	0.17
<span style="color: green;">■</span> Net Exports	-0.72	0.73	-0.35	-2.05	0.67	-0.25	-0.20	-0.15
Exports	-0.71	0.49	0.18	-0.78	0.71	0.27	0.48	0.51
Imports	-0.01	0.23	-0.53	-1.27	-0.04	-0.52	-0.67	-0.66
<span style="color: purple;">■</span> Goods and TTU	-	1.39	1.13	1.13	0.99	0.89	0.57	0.91
Manufacturing	-	0.51	0.32	0.31	0.26	0.32	0.15	0.33
Construction	-	0.00	-0.09	0.12	0.11	0.07	-0.00	-0.01
Retail Trade	-	0.63	-0.14	0.34	-0.06	0.24	0.13	0.20
<span style="color: red;">■</span> FIRE	-	0.80	-0.07	0.59	0.55	0.21	0.48	0.47
<span style="color: blue;">■</span> Other Services	-	1.03	1.16	1.33	2.35	1.19	0.86	0.89
Education & Healthcare	-	0.51	0.16	0.24	0.34	0.24	0.18	0.19
Professional & Business	-	0.27	0.48	0.59	0.96	0.48	0.33	0.34
Information	-	0.25	0.47	0.41	0.70	0.41	0.29	0.26
<span style="color: orange;">■</span> Government	-	-0.14	-0.02	0.12	0.07	0.06	0.00	0.10
<span style="color: limegreen;">■</span> Population	0.57	0.55	0.66	0.70	0.59	0.64	0.72	0.98
<span style="color: green;">■</span> Employment Rate	-0.75	-0.05	1.36	0.74	1.88	0.61	0.30	0.02
<span style="color: blue;">■</span> Average Hours	-0.02	-0.15	-0.04	0.20	0.40	0.09	0.14	0.02
<span style="color: lightblue;">■</span> Productivity	2.24	2.75	-0.90	1.29	0.64	1.16	1.10	1.48
<b>Gross Domestic Income</b>	2.1	3.2	0.8	3.3	0.7	2.0	2.4	2.5
<span style="color: magenta;">■</span> Labor	1.11	4.41	0.28	1.39	-0.03	1.38	1.18	1.29
<span style="color: yellow;">■</span> Profit	0.38	-1.95	-0.11	1.26	0.12	0.06	0.79	0.63
<span style="color: teal;">■</span> Depreciation	0.43	0.73	0.53	0.59	0.47	0.44	0.31	0.42
<span style="color: purple;">■</span> Indirect Taxes	0.19	0.06	0.07	0.05	0.15	0.15	0.15	0.17

Source: Bureau of Economic Analysis and Author's Calculations

## Real GDP Growth by State

percentage point change in real GDP



Source: Bureau of Economic Analysis

For the year ending 2019 Q1, one state (West Virginia) had real GDP growth of more than five percent, 40 states had real GDP growth between two and five percent, 10 states had less than two percent GDP growth, and no states had negative GDP growth.

## Real GDP Growth by State

quarterly growth at seasonally adjusted annualized rate

total growth, 2019 Q1

	2019 Q1	'18 Q4	'18 Q3	'18 Q2	'18 Q1	1-year	3-year	10-year
<b>United States</b>	2.2	4.2	3.4	2.2	3.1	3.2	8.3	23.4
<b>Pacific</b>	1.7	6.4	2.0	2.3	2.8	3.3	11.8	31.5
Washington	7.2	7.2	5.4	3.1	3.1	4.7	16.2	38.1
California	0.9	6.6	1.2	2.2	2.7	3.2	11.4	32.1
Oregon	2.0	3.6	4.2	1.3	3.1	3.1	12.1	27.7
Hawaii	0.0	2.4	1.6	1.1	1.2	1.6	4.7	16.1
Alaska	-5.7	1.7	2.9	4.9	3.9	3.4	0.2	-2.9
<b>West South Central</b>	2.4	4.1	2.5	5.6	4.7	4.2	6.7	26.7
Texas	2.4	4.5	3.3	6.6	5.1	4.9	8.3	34.0
Oklahoma	0.8	5.4	0.2	5.5	3.9	3.7	1.4	18.7
Arkansas	1.0	1.7	0.6	1.5	2.5	1.6	3.0	12.2
Louisiana	4.3	1.4	-0.1	1.3	3.8	1.6	2.0	-1.5
<b>Middle Atlantic</b>	1.2	4.1	2.8	1.2	3.1	2.8	6.9	20.2
New York	0.5	4.7	3.0	0.2	3.8	2.9	7.8	26.7
Pennsylvania	0.7	4.0	3.2	2.5	2.9	3.2	6.3	18.5
New Jersey	3.6	2.4	1.8	1.8	1.8	2.0	5.3	7.9
<b>Mountain</b>	2.7	4.0	4.8	3.3	3.8	4.0	10.0	20.0
Utah	5.9	3.7	4.7	1.8	4.2	3.6	12.2	32.8
Colorado	0.3	5.9	4.1	3.8	3.6	4.4	10.8	29.9
Idaho	2.0	5.6	3.6	2.7	2.7	3.6	12.5	21.6

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	2019 Q1	'18 Q4	'18 Q3	'18 Q2	'18 Q1	1-year	3-year	10-year
continued from previous page . . .								
Arizona	5.2	2.6	7.4	3.5	3.8	4.3	12.4	18.9
Montana	-0.4	3.2	1.4	1.3	3.2	2.2	2.4	15.0
Nevada	6.4	2.5	2.7	2.8	4.0	3.0	9.0	11.0
New Mexico	-1.1	4.3	5.5	4.1	4.6	4.6	4.7	7.6
Wyoming	-6.2	3.0	2.8	6.0	3.3	3.8	-0.2	-13.3
<b>South Atlantic</b>	2.0	3.2	4.7	1.7	2.7	3.1	8.4	18.6
Georgia	-0.5	2.6	7.6	2.1	3.1	3.8	10.6	24.2
South Carolina	1.4	2.5	3.2	1.6	2.5	2.4	7.6	21.2
Florida	4.1	1.4	7.2	2.0	2.9	3.4	10.3	20.8
Maryland	0.4	3.7	-0.9	1.2	1.8	1.5	6.9	18.5
District of Columbia	3.7	1.4	6.3	0.1	1.4	2.3	7.2	17.6
North Carolina	2.0	7.7	0.5	1.9	2.8	3.2	7.9	15.1
Virginia	2.9	2.9	4.9	1.5	2.7	3.0	6.4	14.7
Delaware	-1.2	0.8	9.0	0.0	3.9	3.4	0.6	13.8
West Virginia	-2.0	6.8	9.3	1.8	5.2	5.7	6.1	6.5
<b>West North Central</b>	0.9	6.4	1.5	1.4	2.7	3.0	4.7	17.0
North Dakota	0.5	9.6	3.2	3.5	3.9	5.0	-0.9	52.0
Nebraska	0.7	4.7	-0.8	2.2	3.4	2.4	3.5	25.8
South Dakota	4.6	2.4	4.5	2.1	3.6	3.1	1.2	22.7
Minnesota	0.1	7.6	2.5	1.1	2.6	3.4	7.5	20.4
Iowa	1.4	6.5	-0.2	0.3	2.3	2.2	2.1	19.7
Kansas	0.6	5.4	1.2	0.9	3.1	2.6	5.7	14.7
Missouri	1.4	6.2	1.8	1.8	2.3	3.0	4.6	5.0
<b>East North Central</b>	2.8	1.8	3.9	1.5	3.0	2.5	5.9	16.4
Ohio	0.2	3.1	4.9	1.4	3.5	3.2	5.8	18.8
Michigan	2.3	3.8	3.3	1.8	2.6	2.9	7.5	18.4
Wisconsin	4.9	1.6	2.4	2.1	2.9	2.3	6.4	17.3
Indiana	4.0	-0.4	1.9	0.9	2.9	1.3	6.5	14.8
Illinois	4.0	0.6	5.0	1.3	2.9	2.4	4.5	13.6
<b>New England</b>	3.6	0.6	3.3	1.7	2.5	2.0	5.2	15.1
Massachusetts	4.7	2.2	1.8	1.8	2.7	2.1	7.2	25.4
New Hampshire	6.4	-0.7	3.9	1.7	2.6	1.9	5.7	20.7
Vermont	0.9	4.0	-1.1	1.9	2.5	1.8	5.0	11.9
Maine	2.0	2.5	3.1	0.7	2.6	2.2	6.1	8.6
Rhode Island	1.3	3.2	-5.7	1.0	2.2	0.1	0.9	7.7
Connecticut	1.7	-3.6	9.0	1.8	2.2	2.2	1.8	-0.1
<b>East South Central</b>	0.3	4.5	3.0	1.6	2.4	2.9	6.3	14.4
Tennessee	0.6	6.6	5.2	1.6	2.4	3.9	8.9	23.6
Kentucky	-1.8	4.5	0.9	1.8	2.5	2.4	4.1	12.8
Alabama	1.2	2.2	1.8	2.1	2.7	2.2	5.8	10.6
Mississippi	1.3	2.2	2.0	0.5	1.9	1.7	2.8	0.0

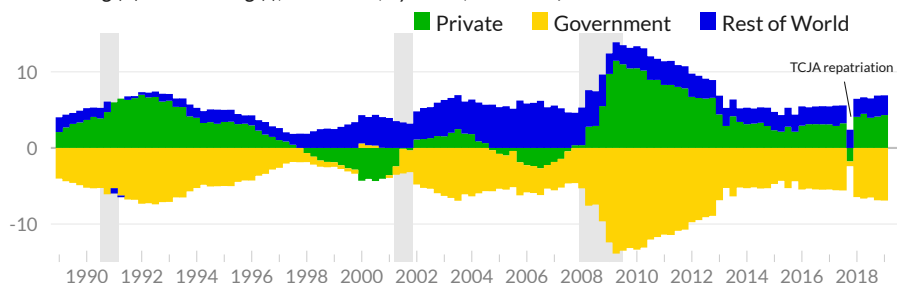
Source: Bureau of Economic Analysis

# Financial Accounts

A high-level overview of US financial activities can be provided by dividing the world economy into three sectors: the US private sector (see ■), the US government (see ■), and the rest of the world (see ■), then examining the net lending and borrowing between the groups, which must sum to zero at an aggregate level. That is, if one sector is running a deficit, another sector must be running a surplus.

## Sectoral Financial Balance

net lending (+) or borrowing (-), NIPA basis, by sector, as share of GDP



Source: Bureau of Economic Analysis

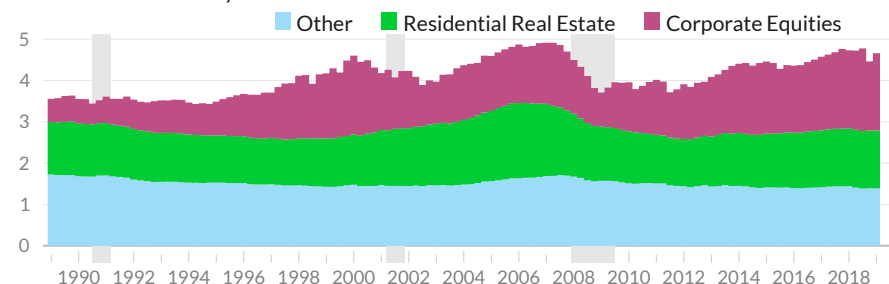
In 2019 Q1, the US private sector was a net lender (running a surplus) of the equivalent of 4.3 percent of GDP, compared to 2.3 percent in 2015 Q1. The rest of the world was a net lender to the US, to the equivalent of 2.6 percent of GDP in 2019 Q1 compared to 2.4 percent in 2015 Q1. Balancing these transactions, the government (federal, state, and local combined) was a net borrower (running a deficit) of the equivalent of -6.9 percent of GDP, compared to -4.7 percent in 2015. .

## Wealth

**Total US wealth** is the tangible assets of all non-corporate sectors of the US, plus the market value of domestic corporate equities, less US financial obligations to the rest of the world. The ratio of US total wealth, excluding public lands, to GDP increased to 4.66 in 2019 Q1 from 3.56 in 1989 Q1. The same ratio for the market value of corporate equities (see ■) increased to a 1.87 multiple of GDP in 2019 Q1 from 0.56 in 1989 Q1. The market value of residential real estate (see ■) increased to 1.4 times GDP from 1.27 in 1989. The other category (see ■), which includes tangible assets other than residential real estate less US financial obligations to the rest of the world, decreased to 1.39 from 1.72 in 1989.

## Total US Wealth to GDP Ratio

total US wealth divided by GDP



Source: Federal Reserve

# Households

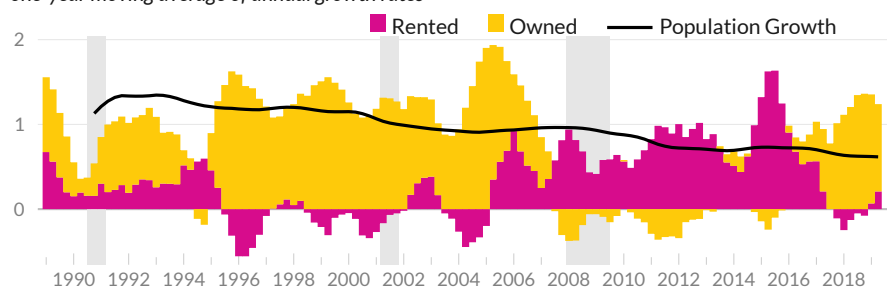
Households are housing units occupied by people. This section covers the household sector of the economy loosely defined, and touches on demographics, personal income and outlays, residential fixed investment, household balance sheets, home ownership, housing prices, and housing construction and permitting.

## Household formation

The rate of household formation since 1989 can offer a high-level overview of some major demographic and economic developments.

### Household Formation by Type

*one-year moving average of annual growth rates*



Source: Census Bureau

### Overview

Demographics (population, ages, marriage, children, etc.)

Personal Income

PCE

Residential fixed investment

Household balance sheets

Housing prices

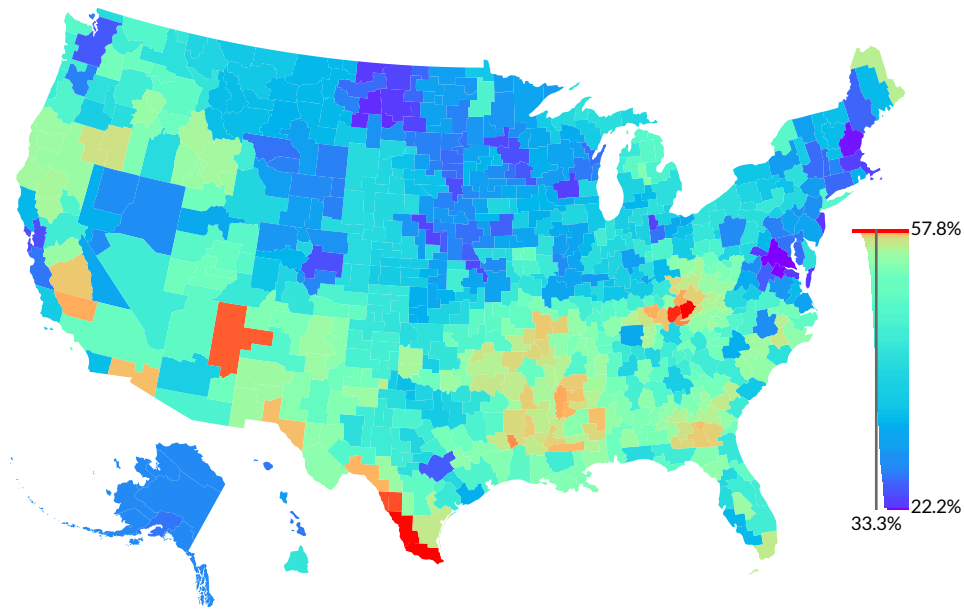
Housing permits



# Poverty

## Share of local population in bottom third of housing-adjusted income, 2017

Share of commuting zone householders with after-housing-expense annual income below \$13,060



Source: American Community Survey