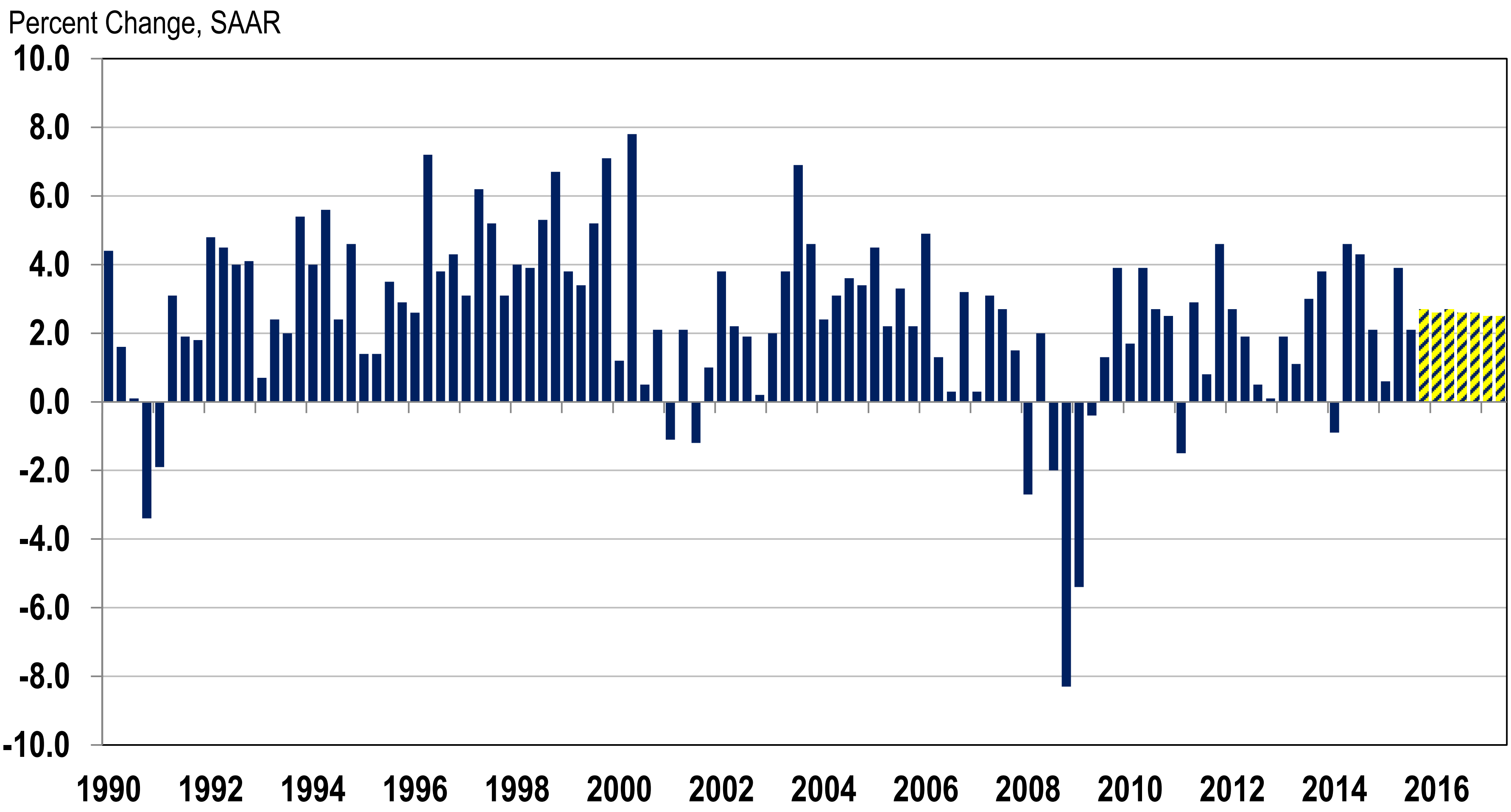
FIFTY-FIRST ANNUAL

COLORADO BUSINESS ECONOMIC OUTLOOK

2016

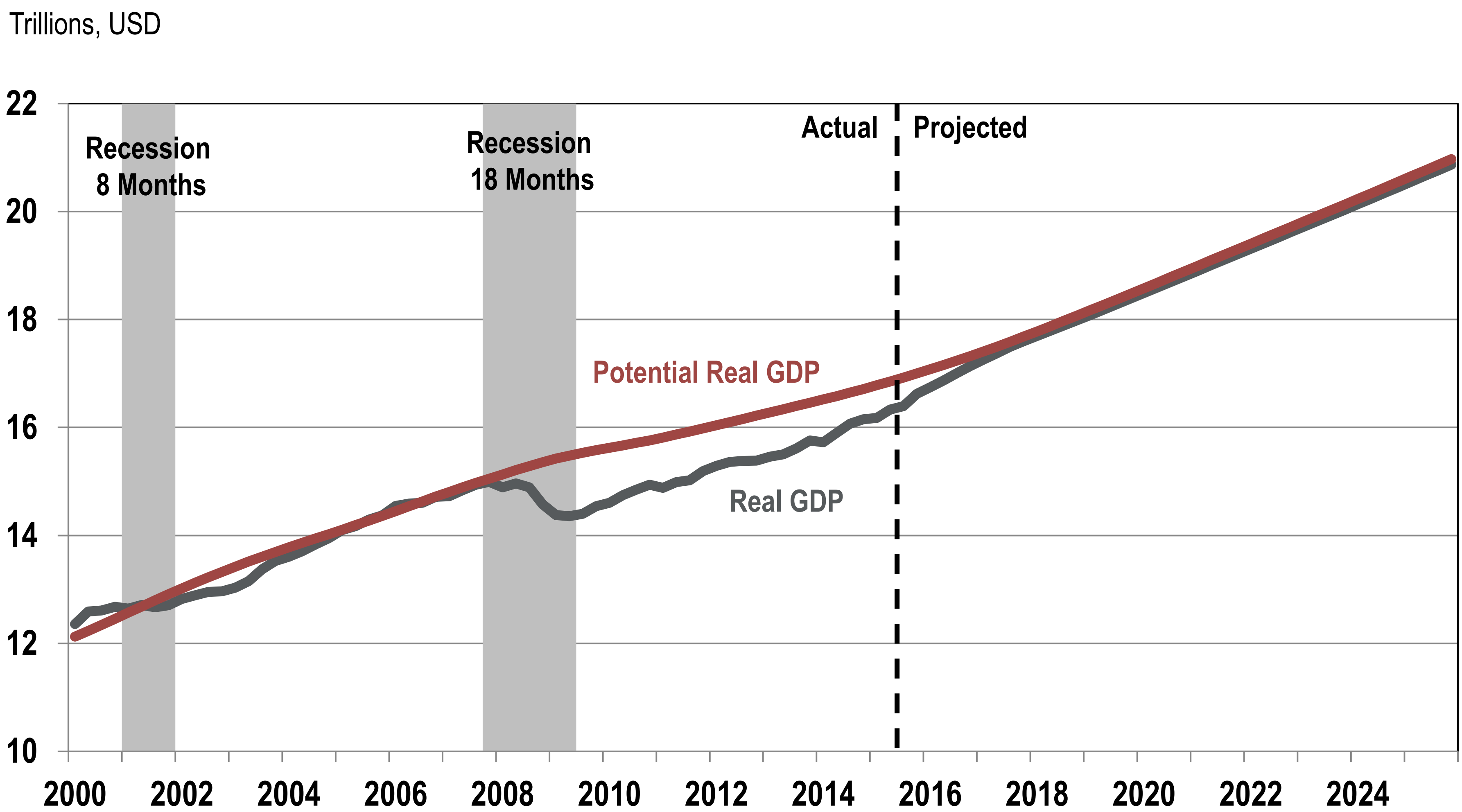
Real GDP Growth

Quarterly Real GDP



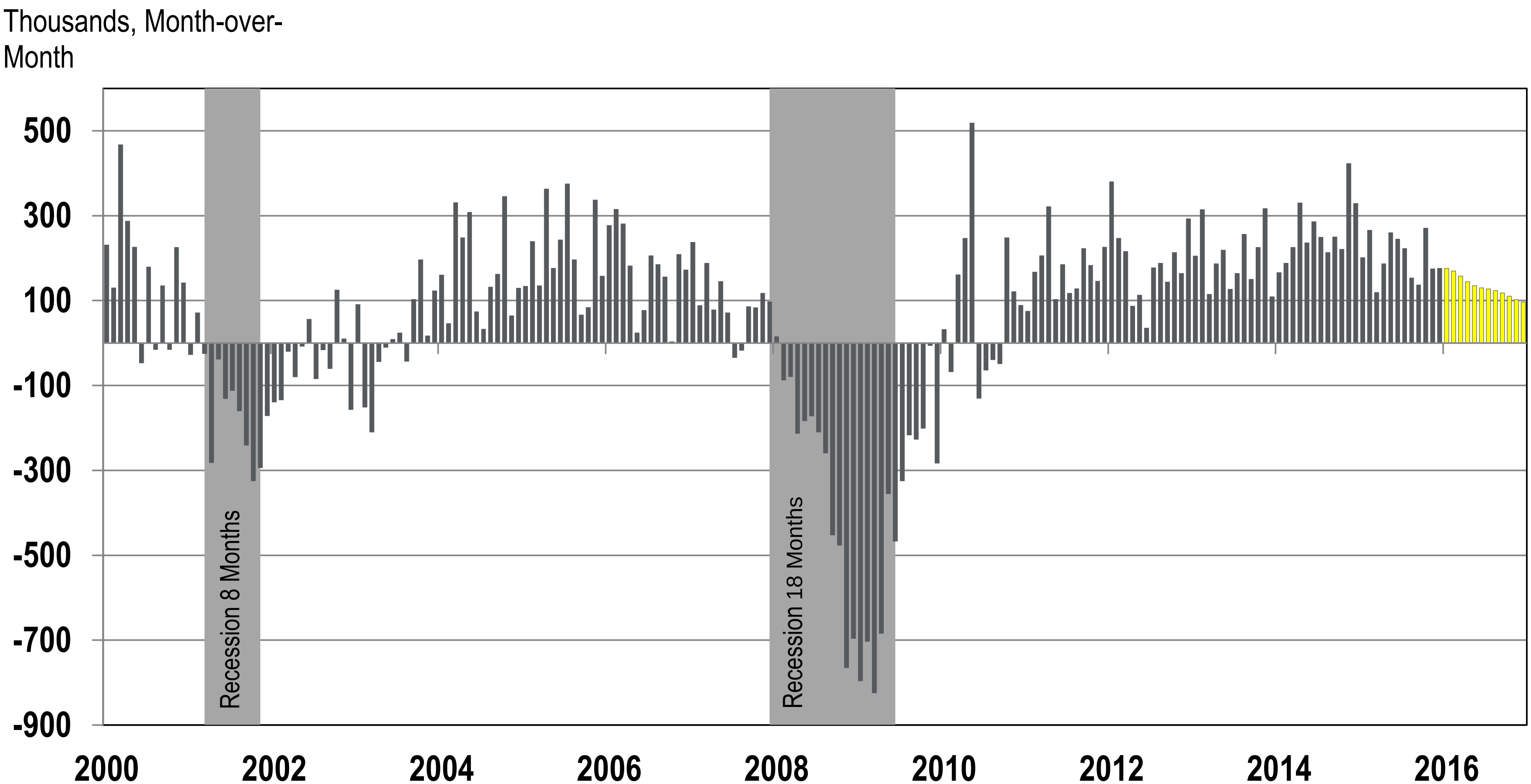
Sources: Bureau of Economic Analysis and Consensus Forecasts.

GDP and Potential GDP



Source: Congressional Budget Office, Budget and Economic Outlook, Fiscal Years 2015 to 2025.

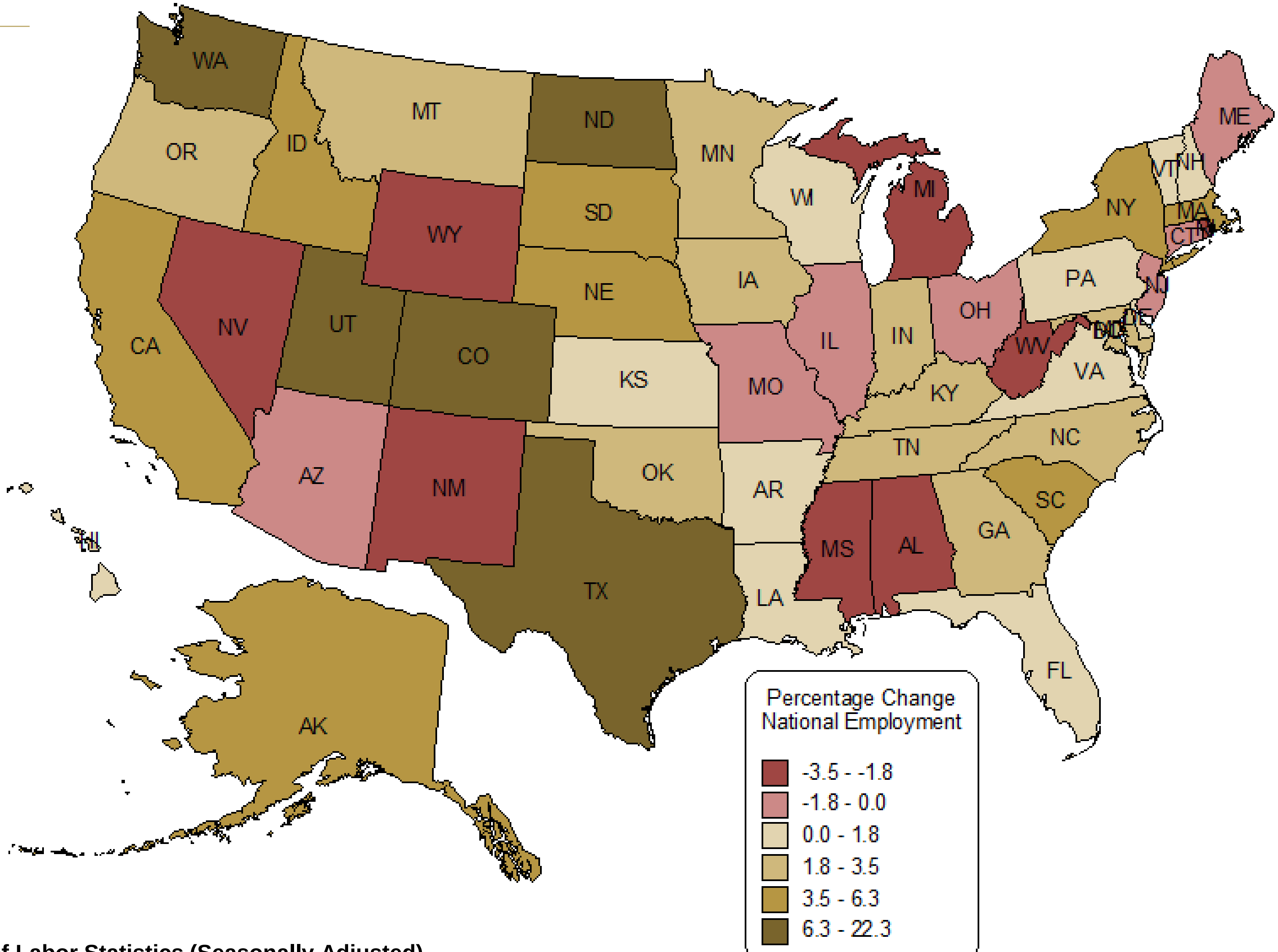
National Employment



Sources: Bureau of Labor Statistics (Seasonally Adjusted), National Bureau of Economic Research, and the Business Research Division.

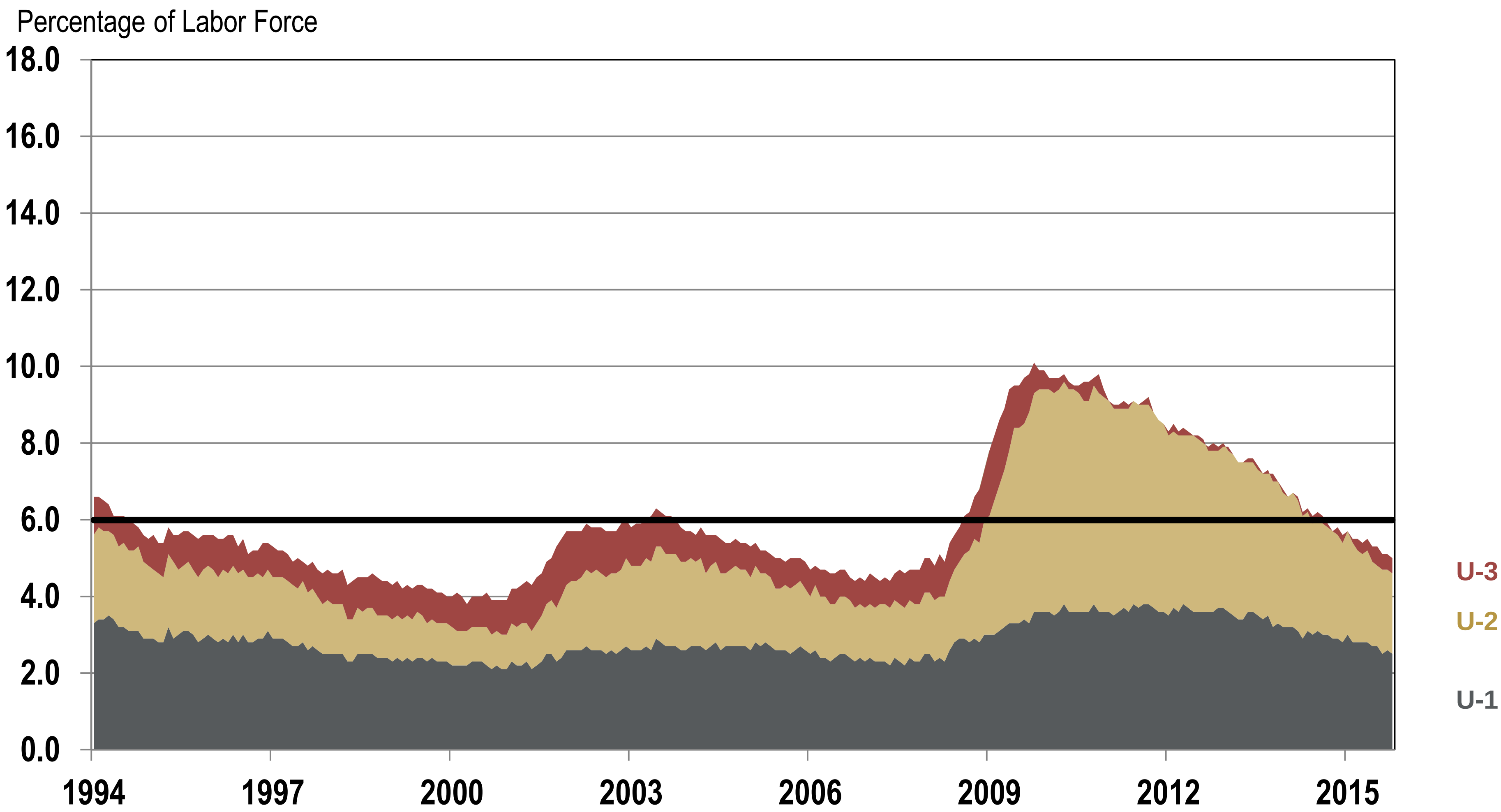
State Employment Growth

Pre-Recession Peak to October 2015



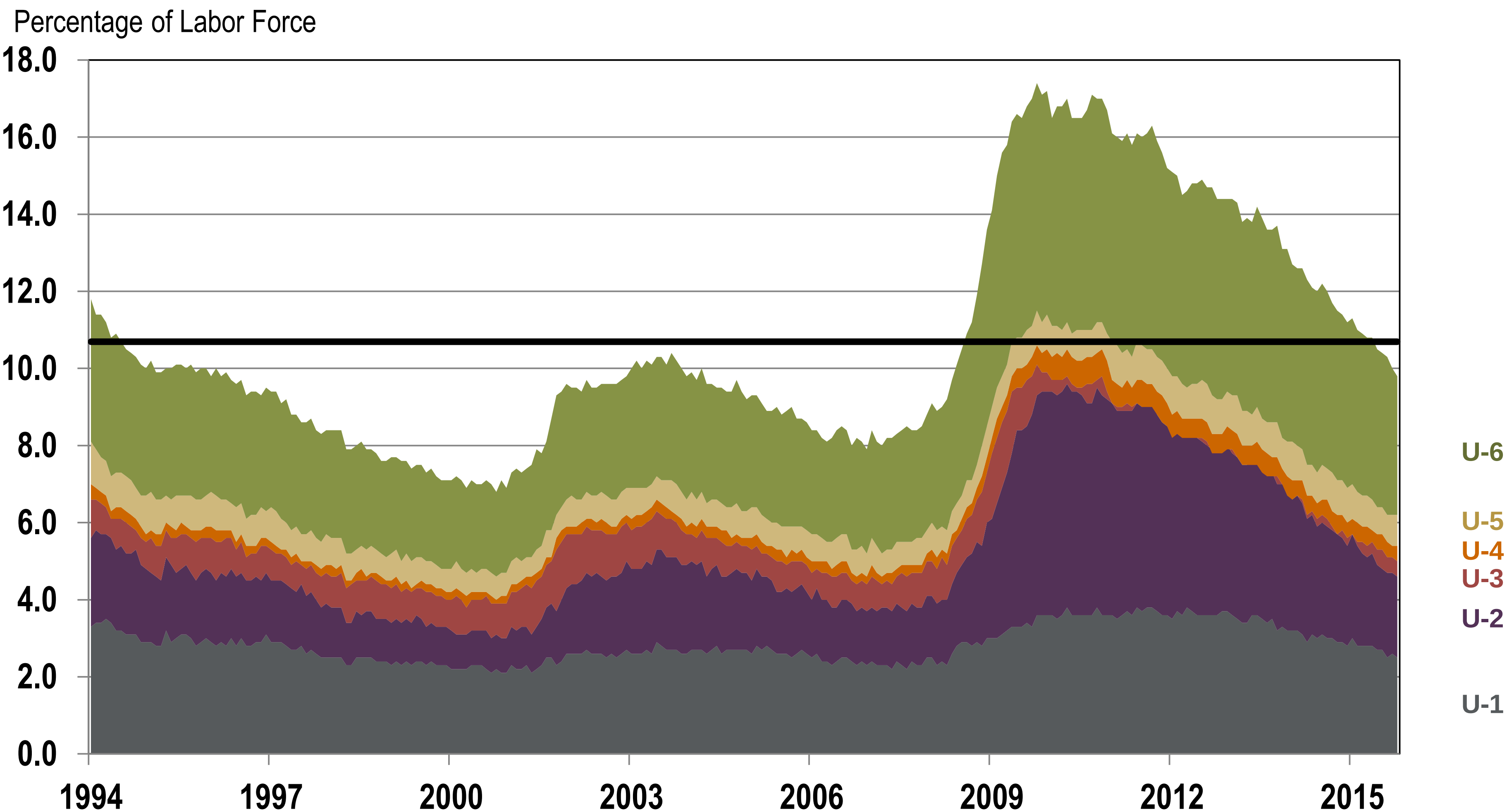
Sources: Bureau of Labor Statistics (Seasonally Adjusted).

National Unemployment



Source: Bureau of Labor Statistics (Seasonally Adjusted).

Labor Underutilization



Source: Bureau of Labor Statistics (Seasonally Adjusted).

Labor Slack

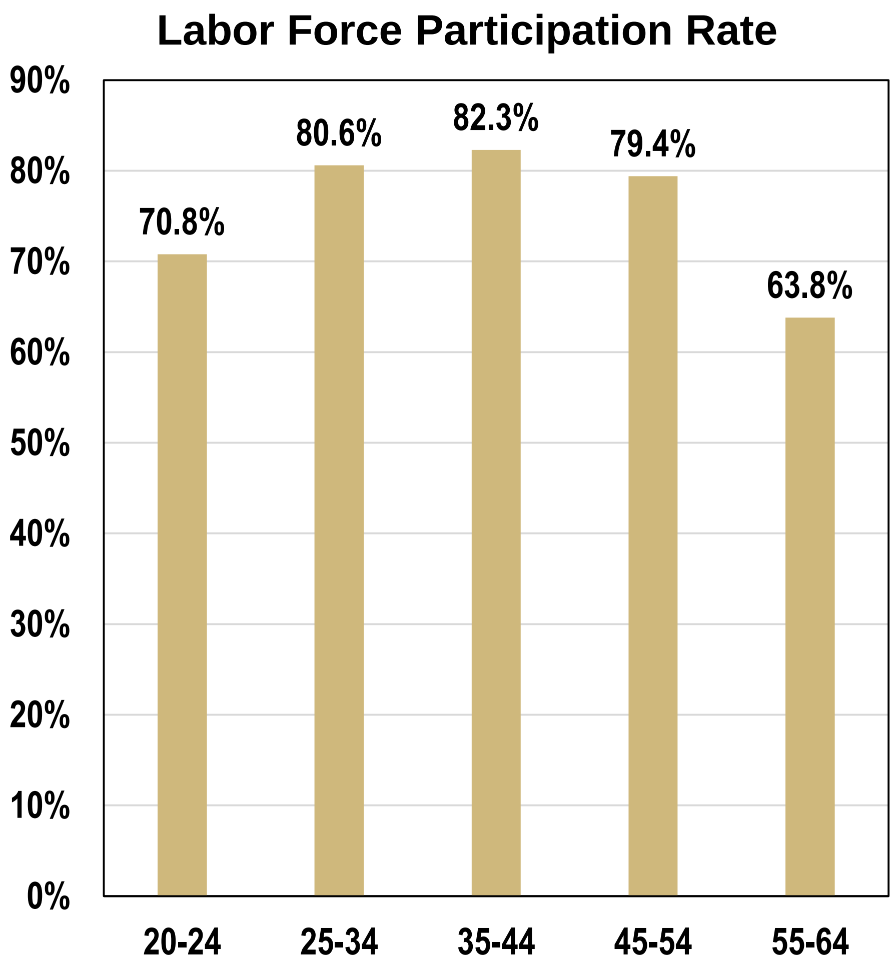
Number of Available People Per Job Opening

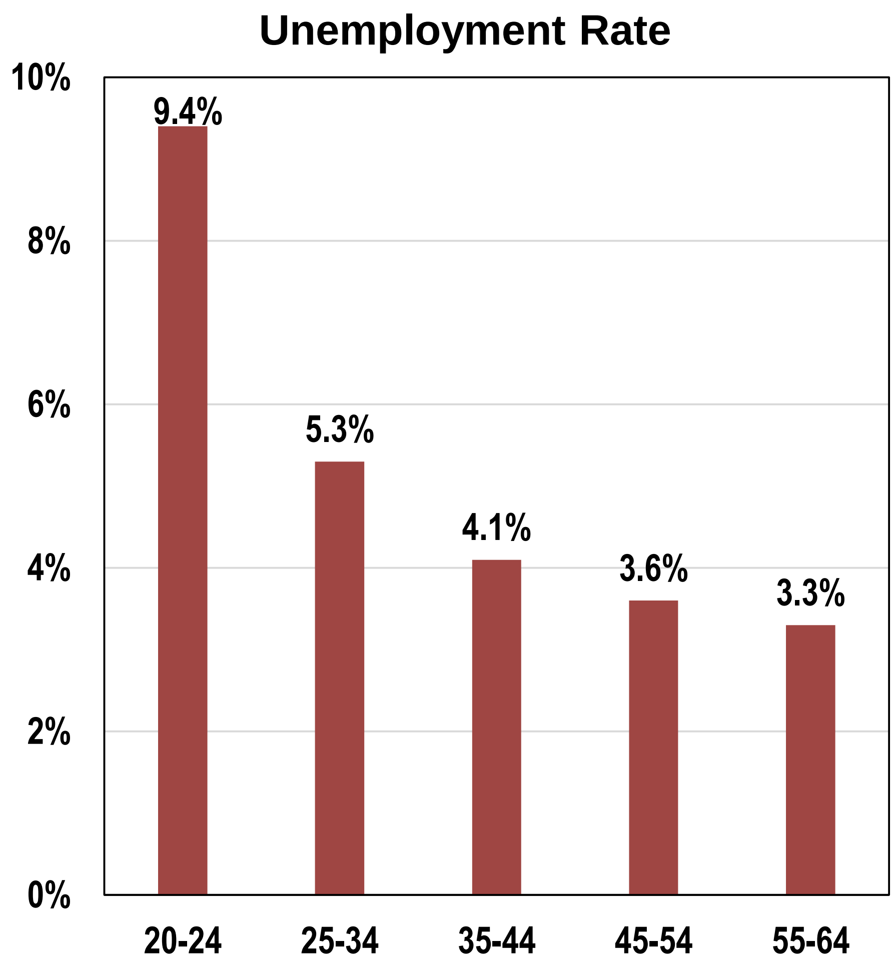
Ratio of people not in the labor force who want a job now and the total number of unemployed, divided by total number of job openings

Sources: BLS JOLTS, Labor Force, and Unemployment; Deutsche Bank Research.

Labor Force and Unemployment Rate

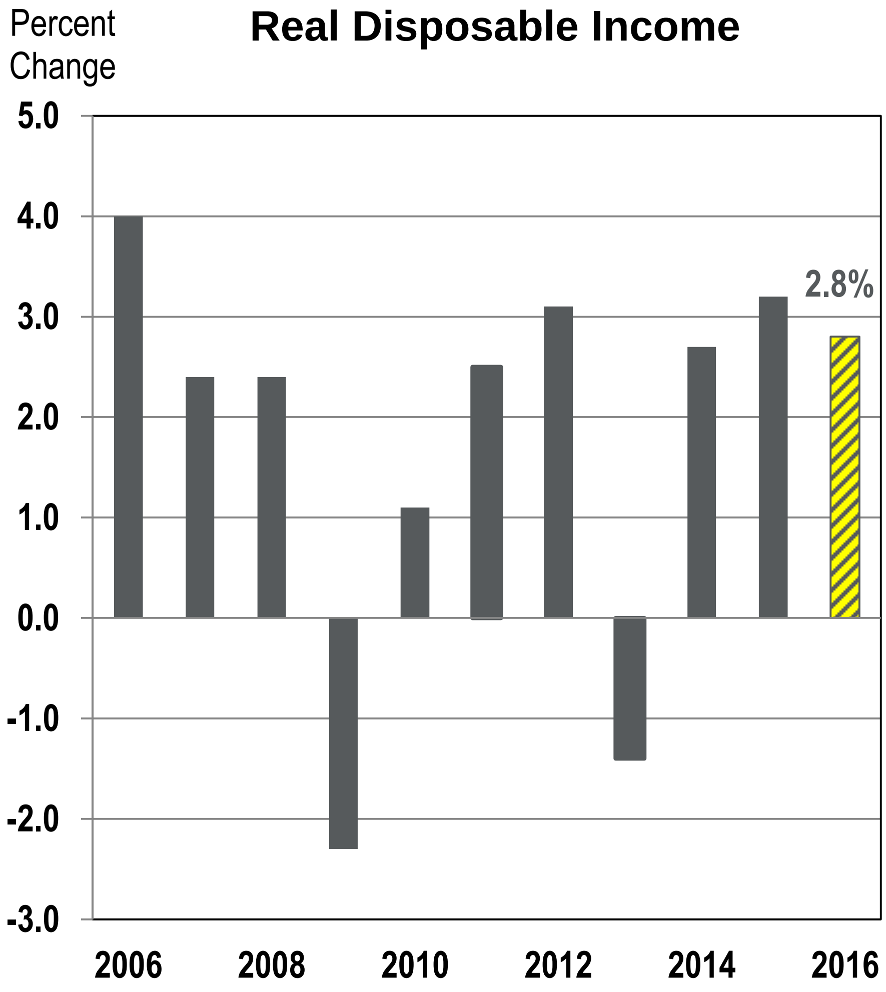
National, by Age Cohort, October 2015

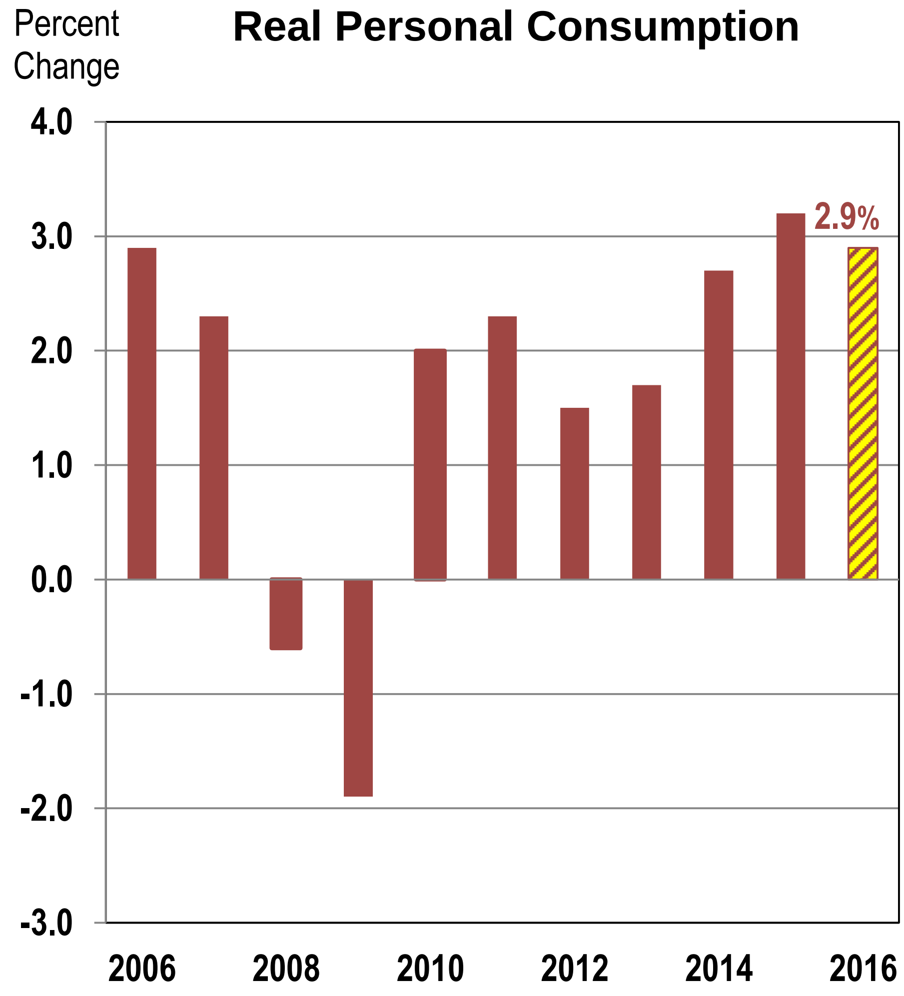




Sources: Bureau of Labor Statistics, all data seasonally adjusted except for ages 55-64.

U.S. Income and Consumption

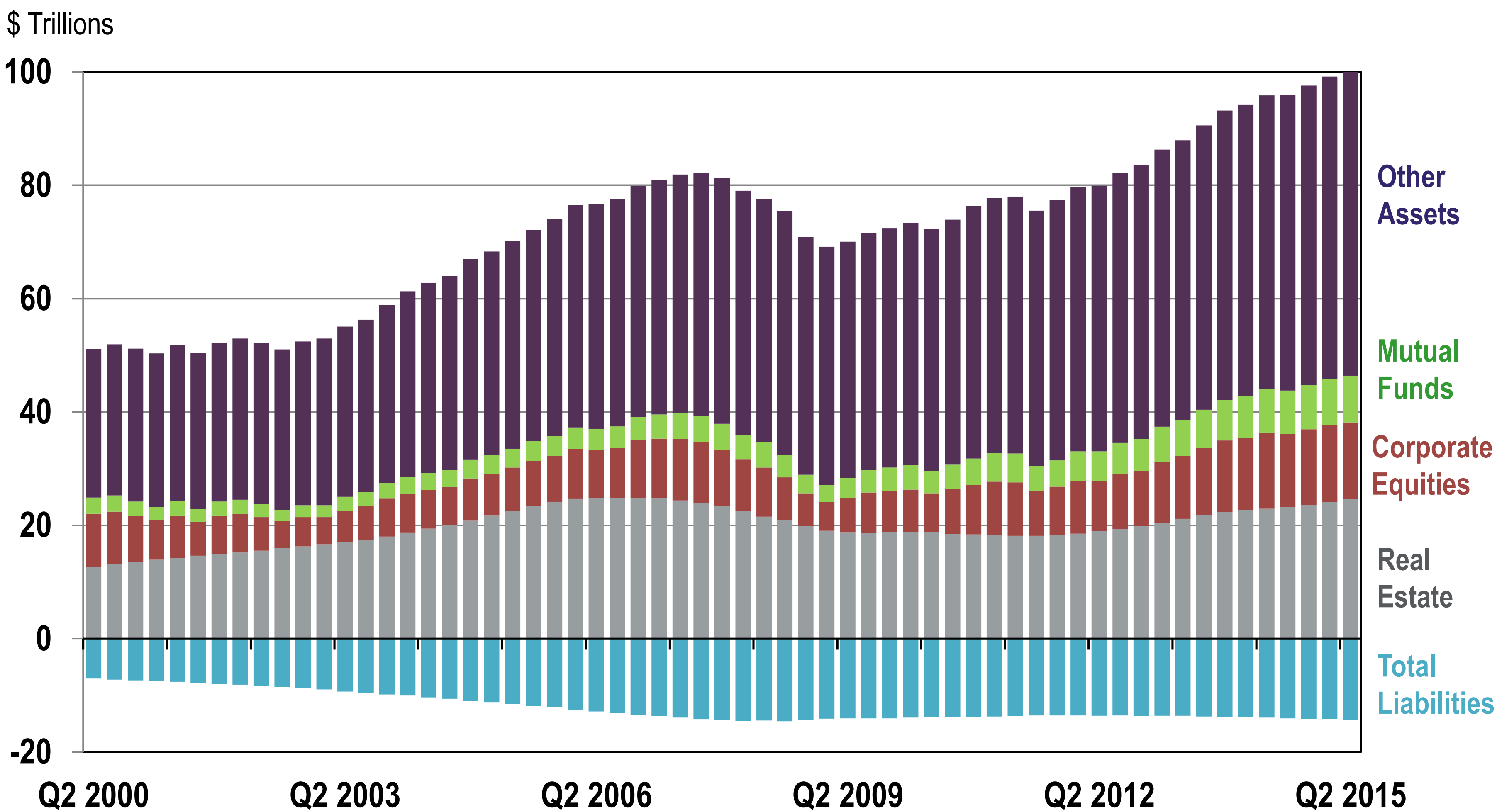




Sources: Consensus Forecasts.

Household Wealth

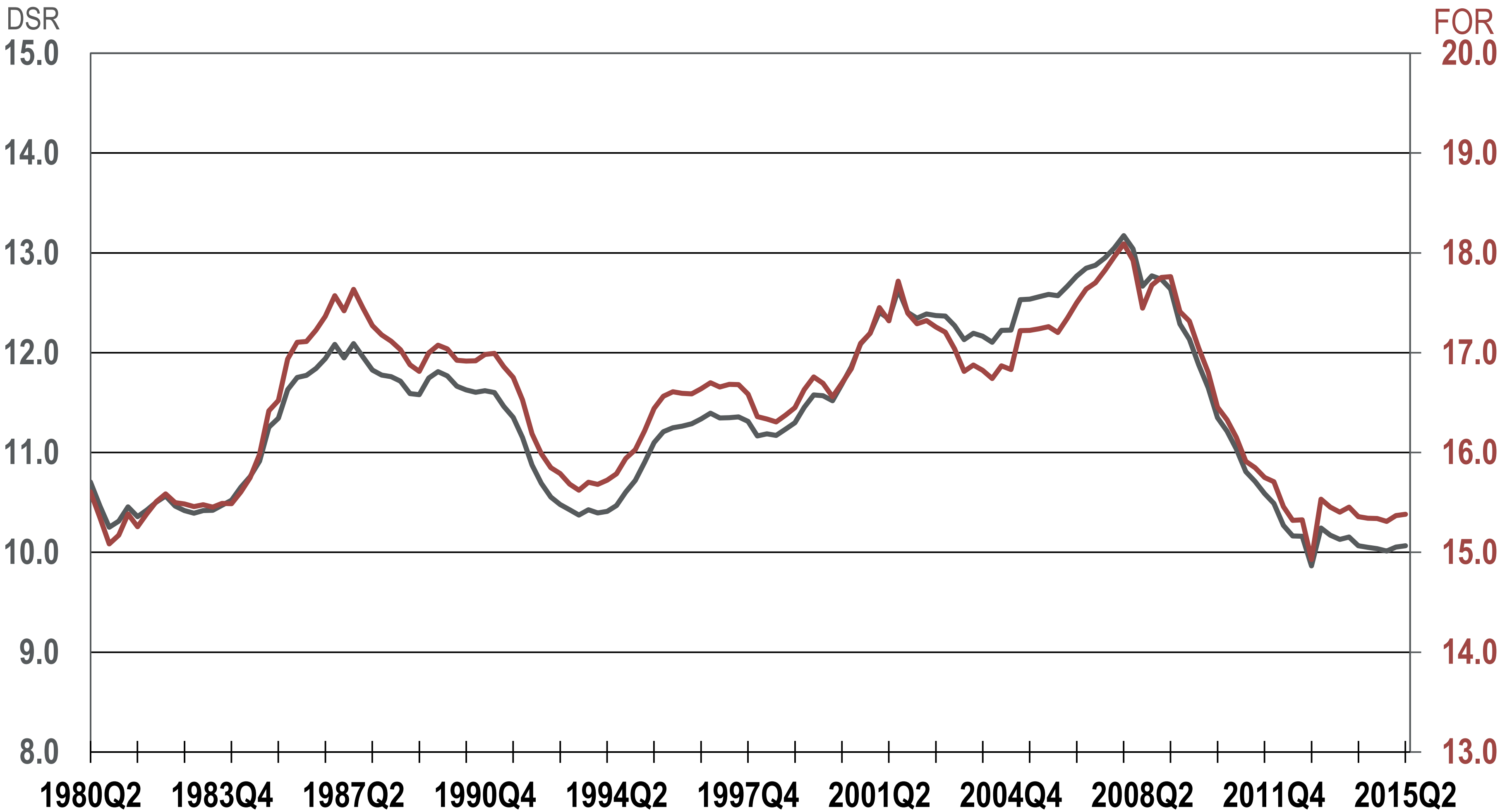
Q2 2000-Q2 2015



Source: Federal Reserve Board, Balance Sheet of Households and Nonprofit Organizations (B100) (Not Seasonally Adjusted).

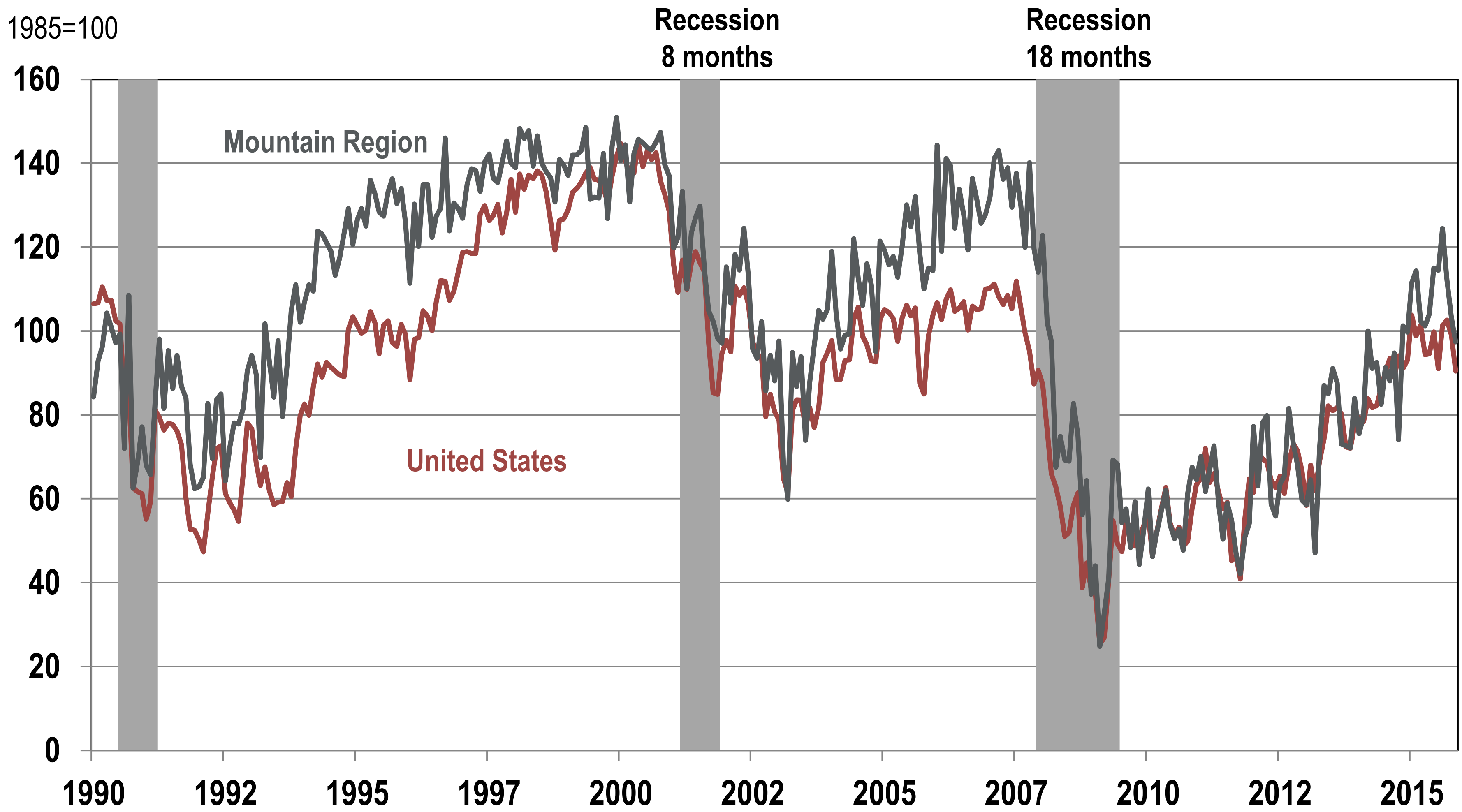
Household Debt Burden

Percent of Disposable Income



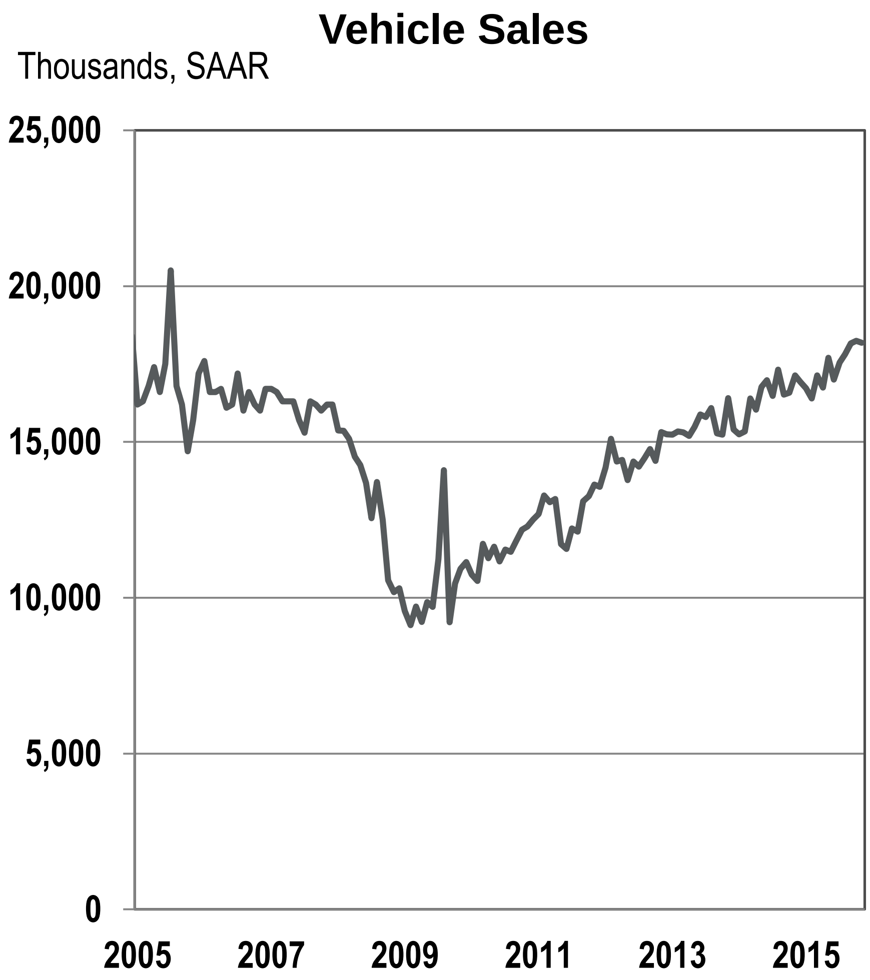
Source: Federal Reserve, Household Debt Service and Obligations Ratios.

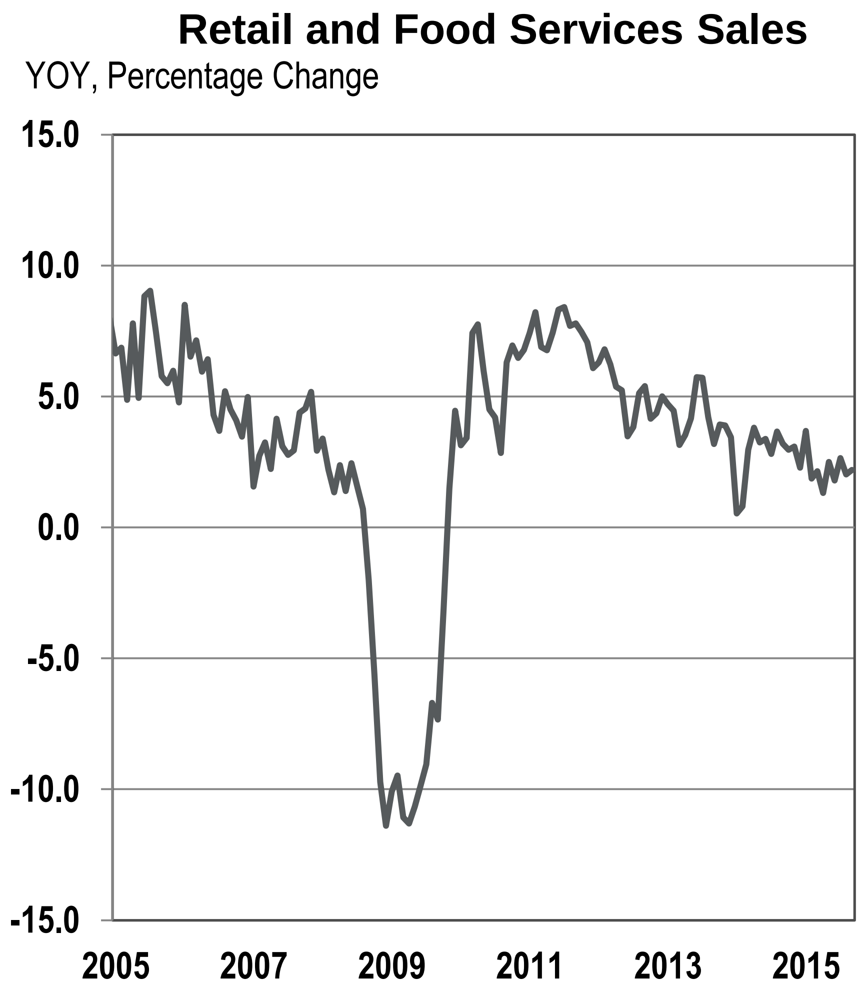
Index of Consumer Confidence



Sources: The Conference Board and National Bureau of Economic Research.

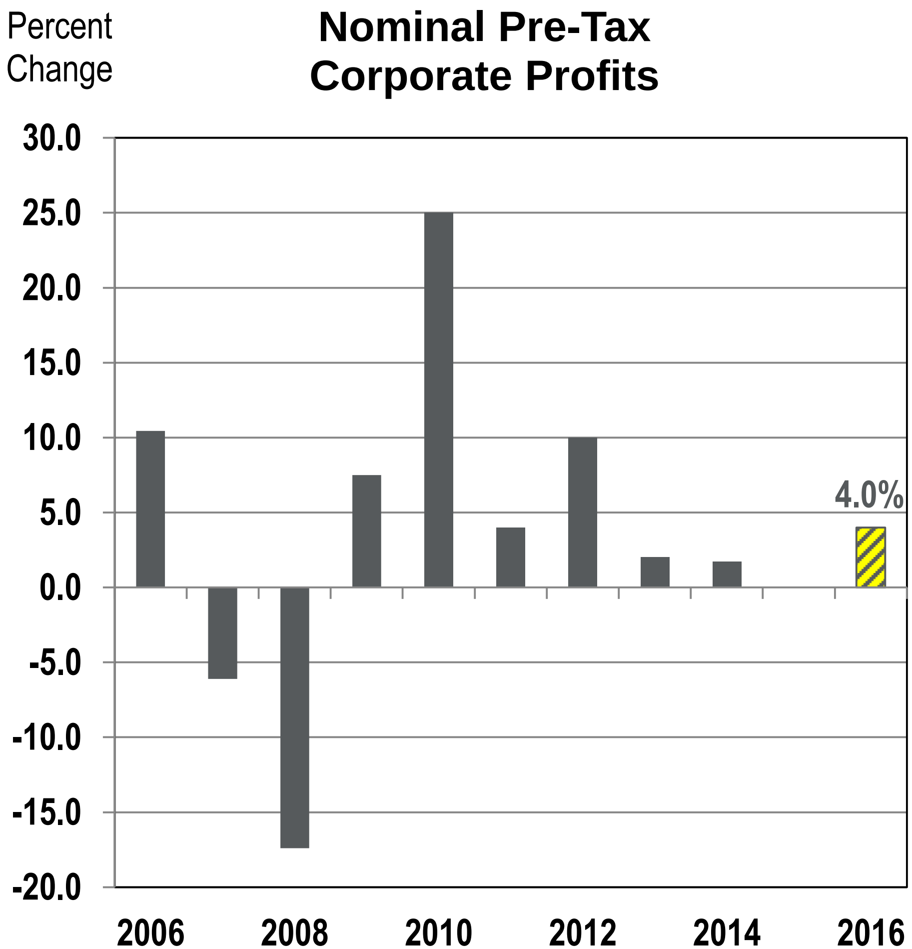
Vehicle Sales and Retail Sales

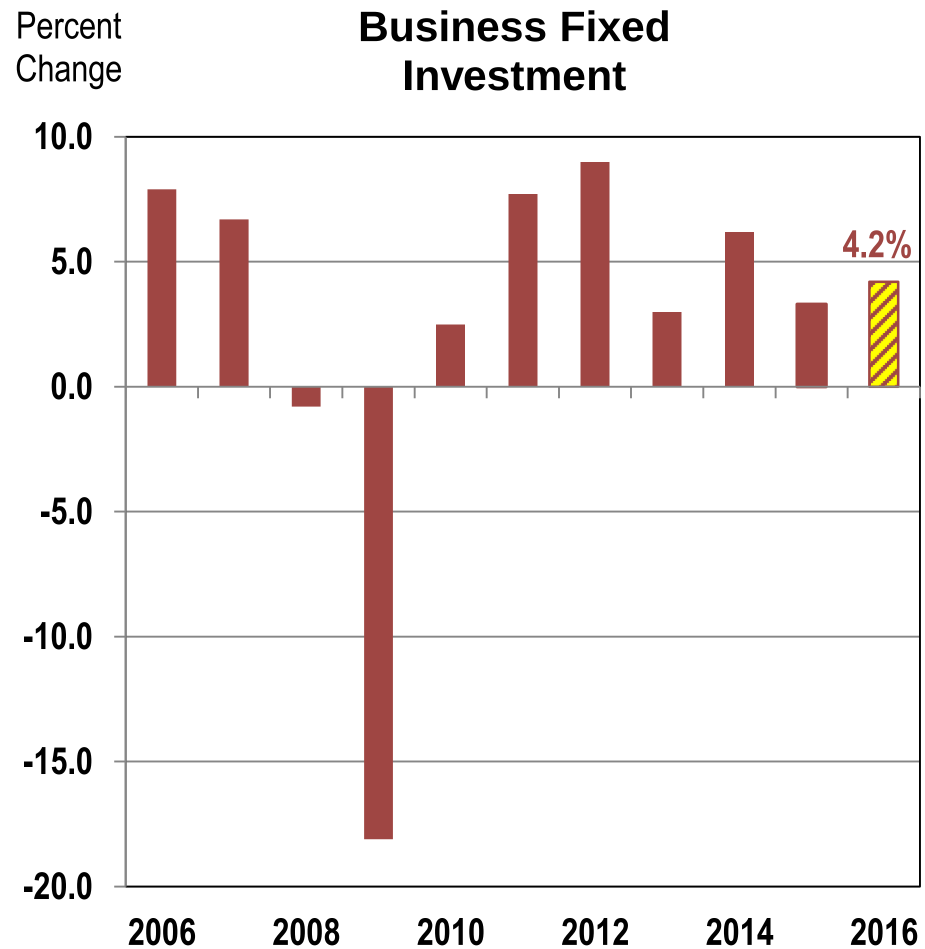




Sources: Seasonally Adjusted Annual Rate, Autodata Corp., Motor Intelligence, U.S. Census Bureau.

Nominal Corporate Profits and U.S. Business Fixed Investment



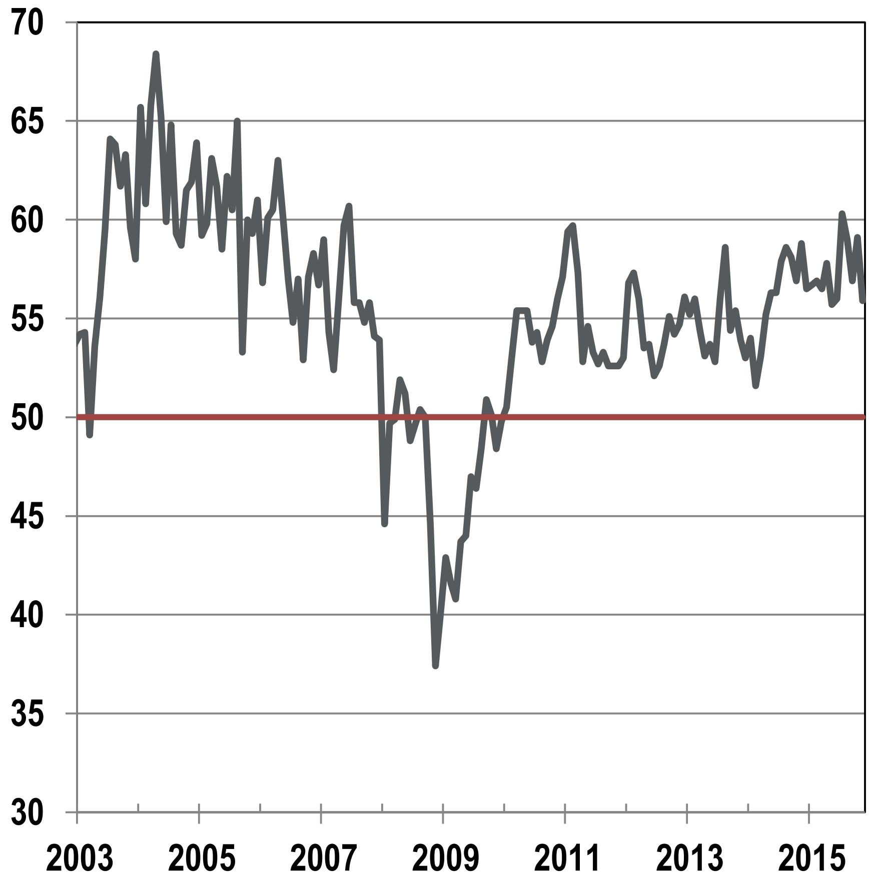


Sources: Bureau of Economic Analysis, Consensus Forecasts.

ISM Indices

ISM Manufacturing Index

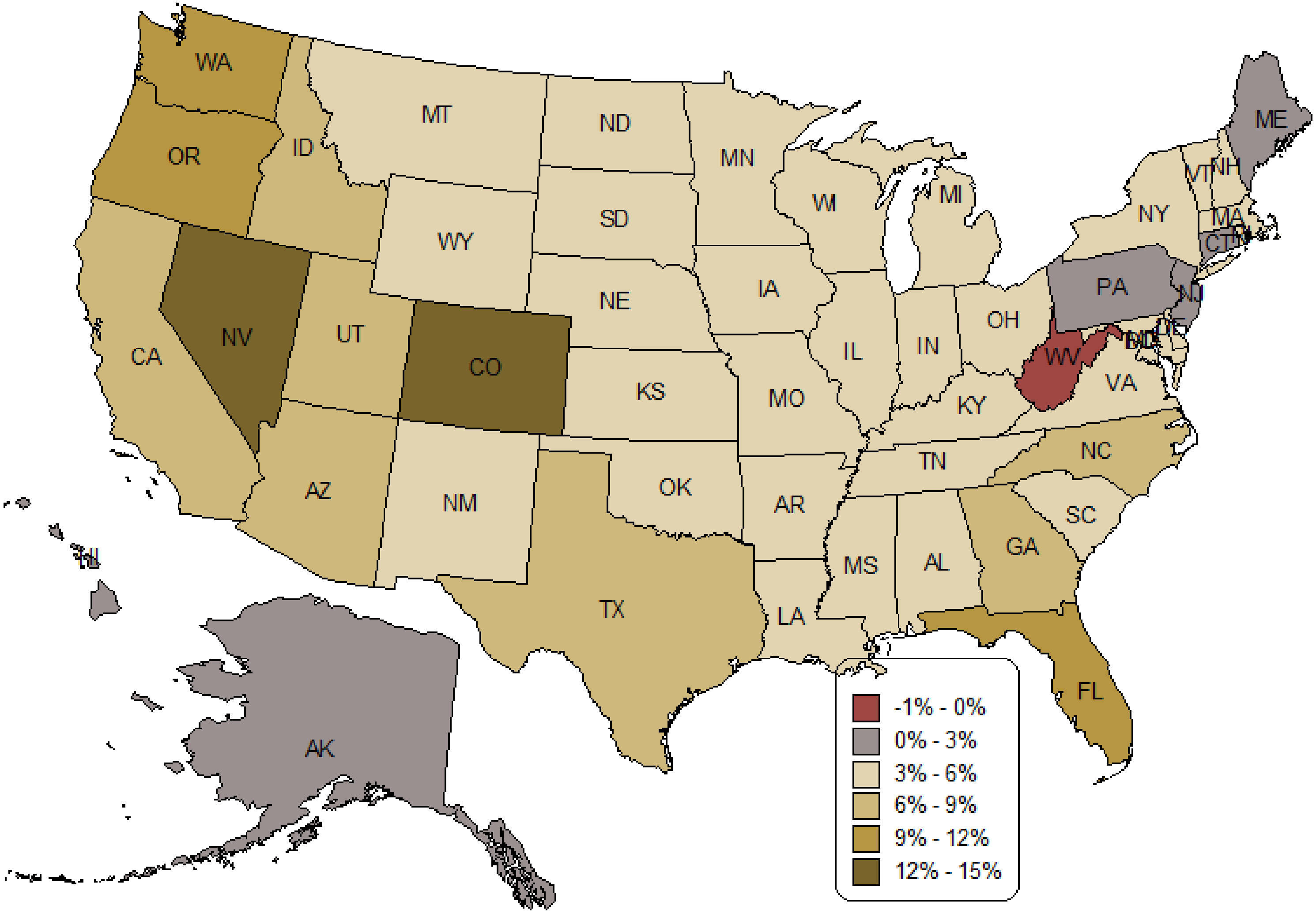
ISM Non-Manufacturing Index



Source: Institute for Supply Management (ISM).

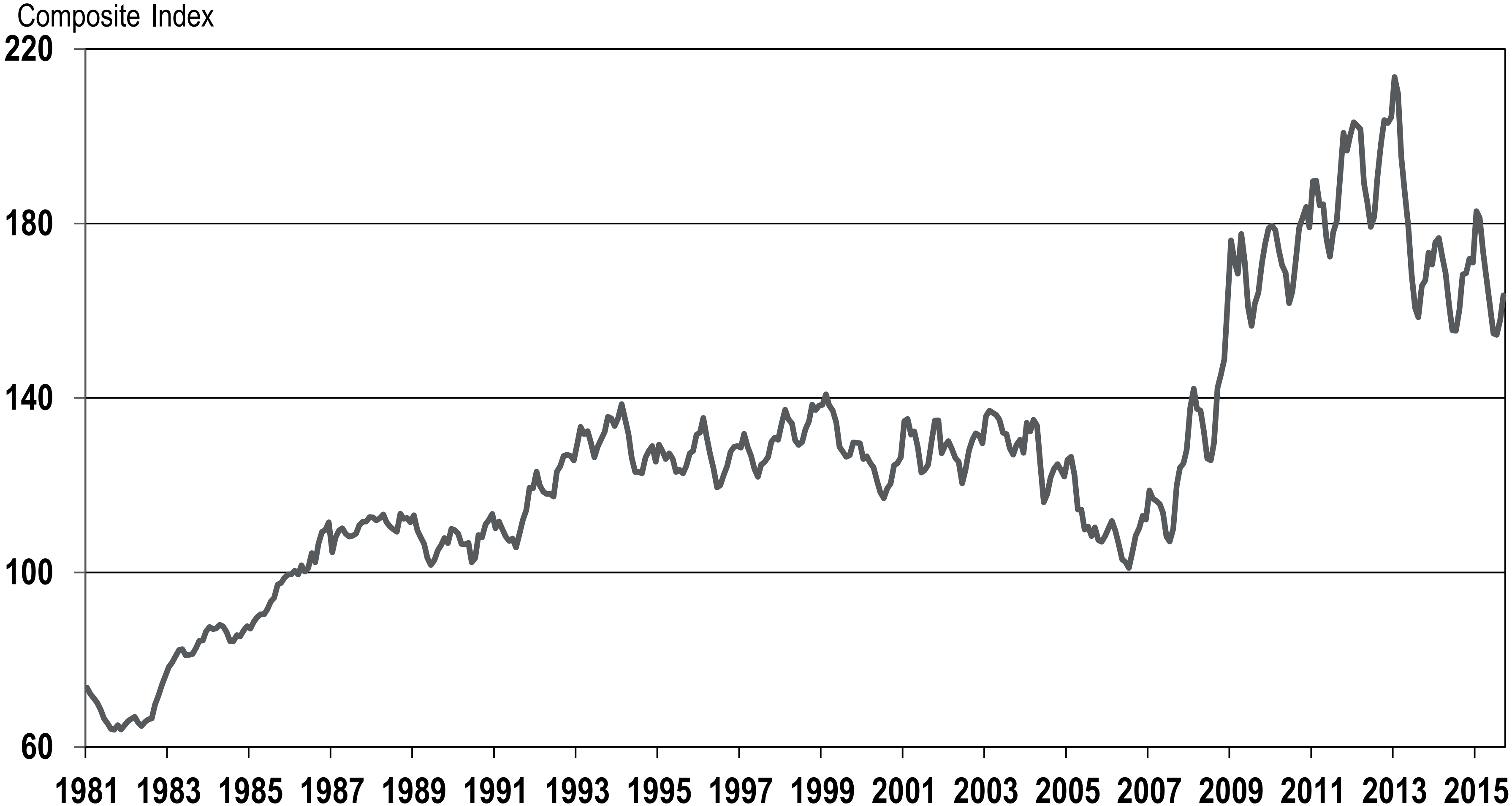
National FHFA Home Price Growth

Year over Year Q3 2015



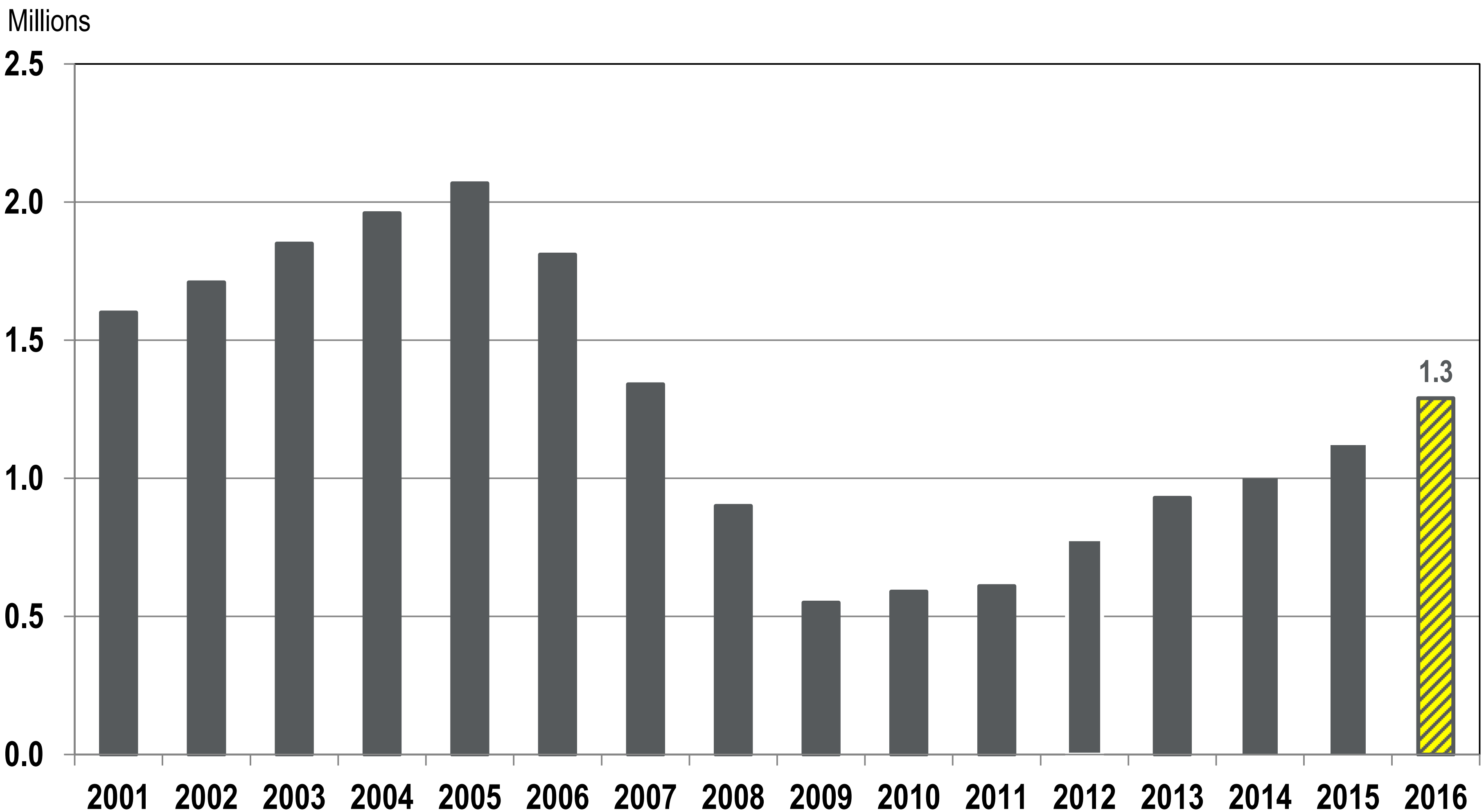
Source: **Federal Housing Finance Agency Home Price Index, All Transactions Index.**

Housing Affordability Index



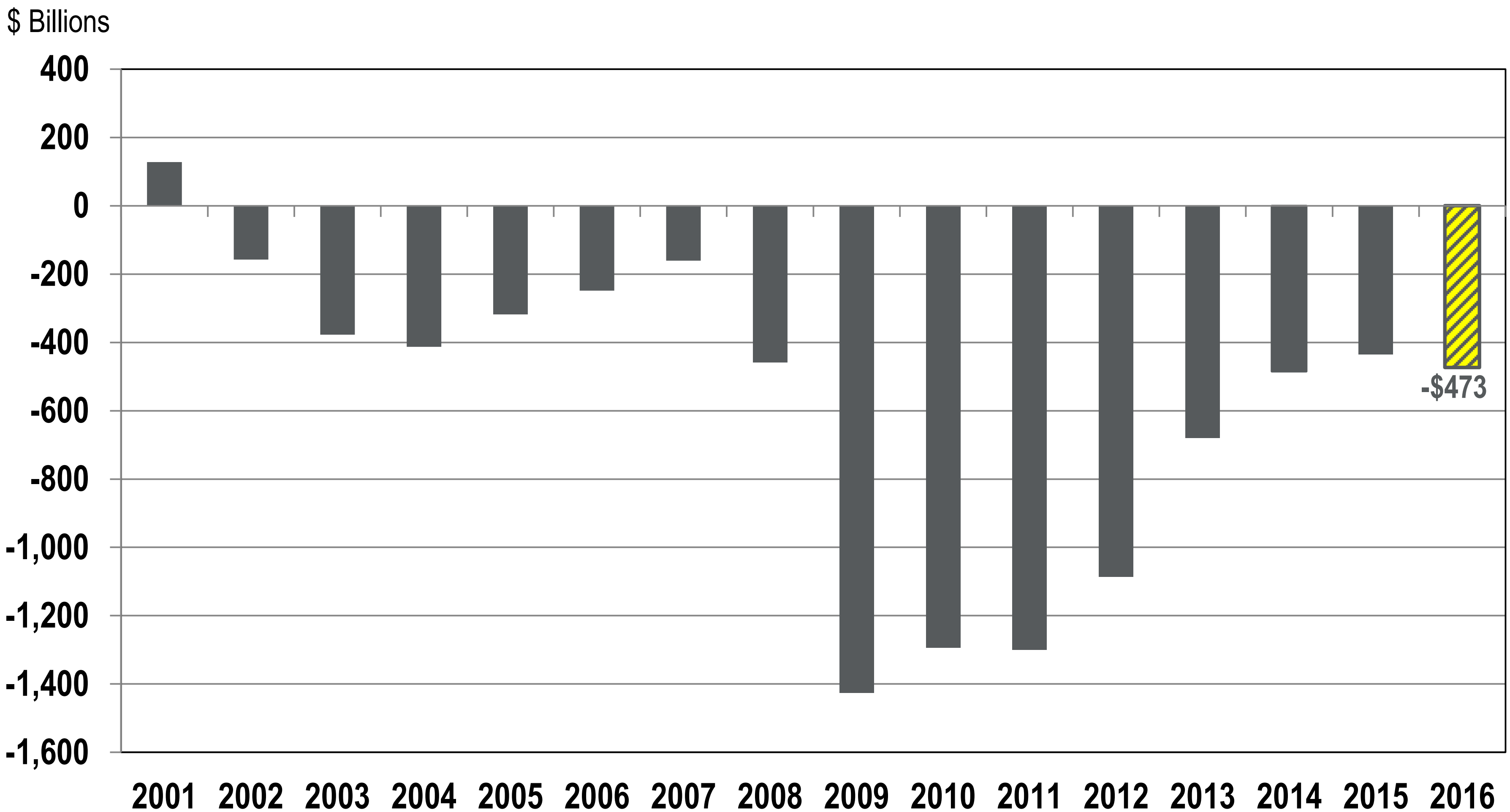
Source: National Association of Realtors.

National Housing Starts



Sources: U.S. Census Bureau and Consensus Forecasts.

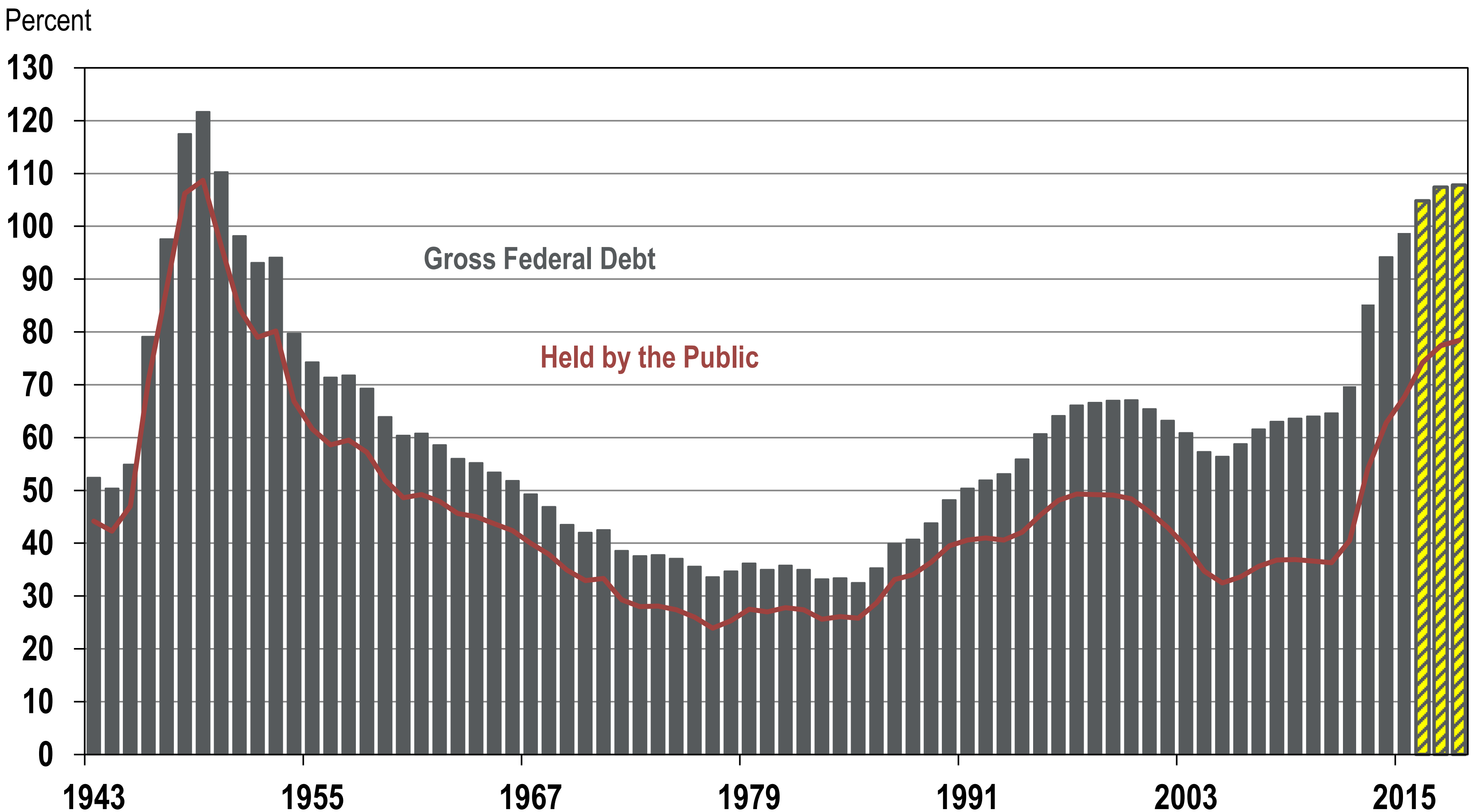
Federal Budget Balance



Sources: Bureau of Economic Analysis, NIPA Table 3.18B, Consensus Forecasts.

Federal Debt

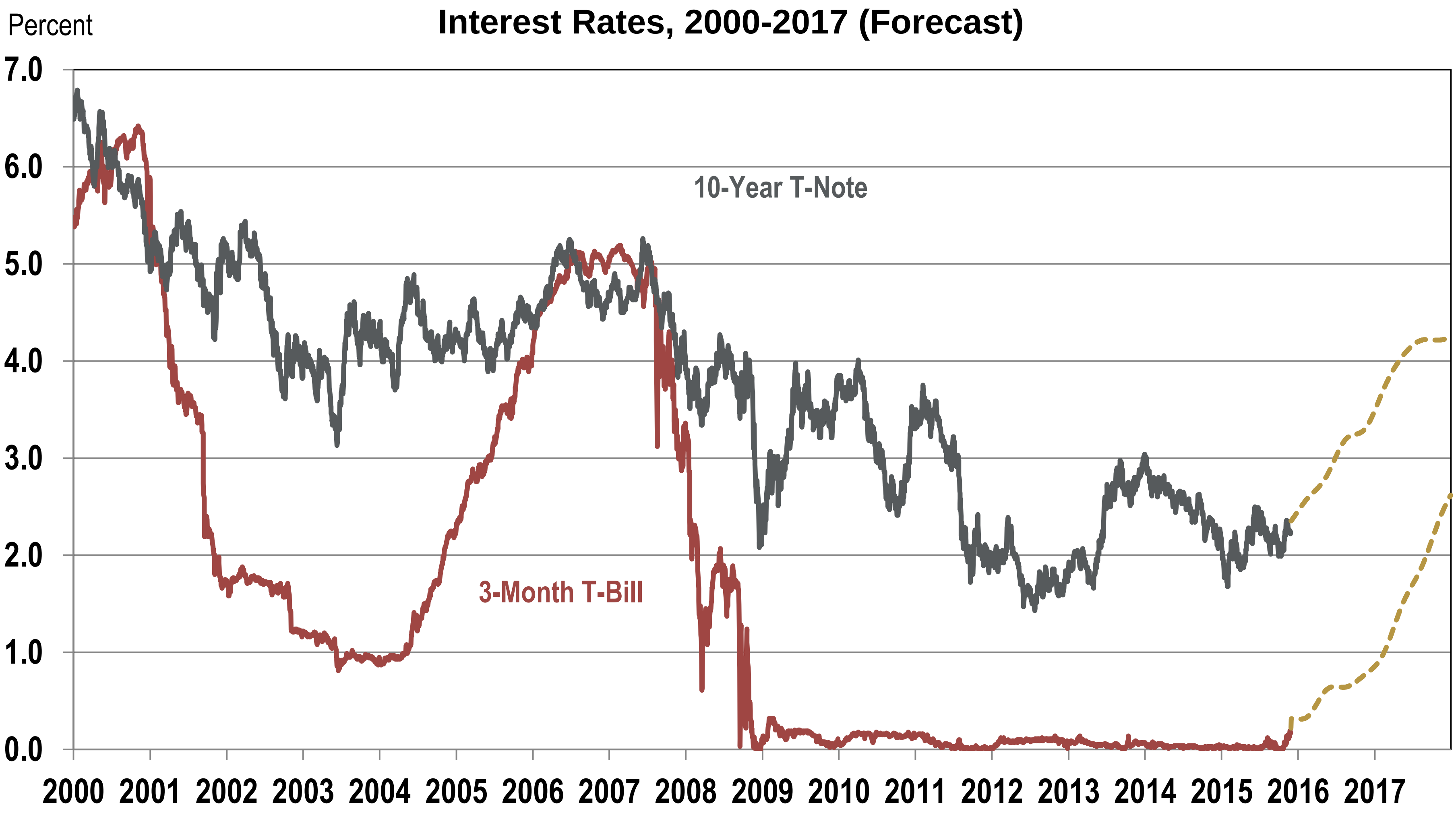
Percentage of GDP



Sources: Office of Management and Budget, Federal Debt at End of Year (Table 7.1).

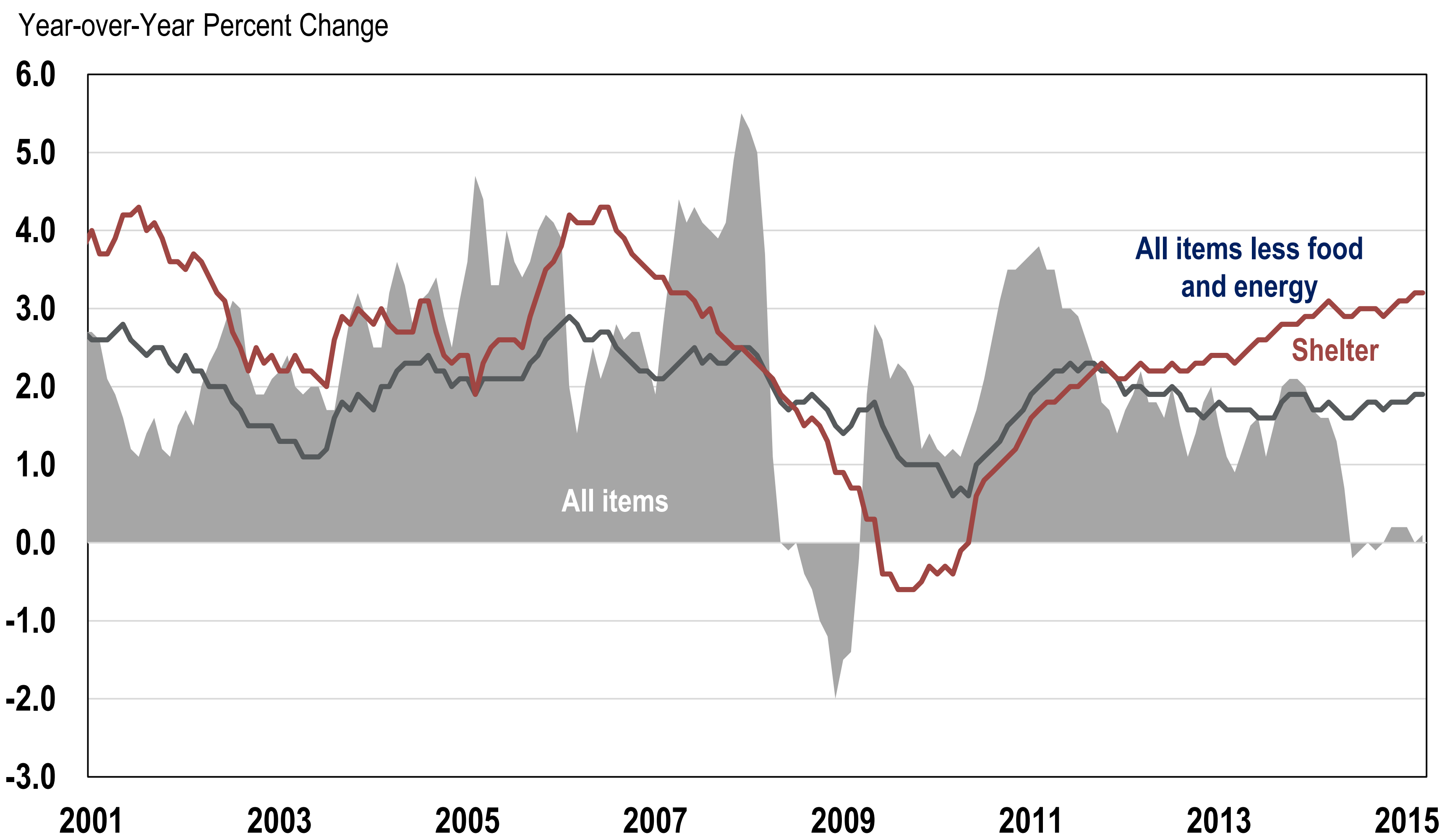
Money, Interest Rates, and Prices

Interest Rates



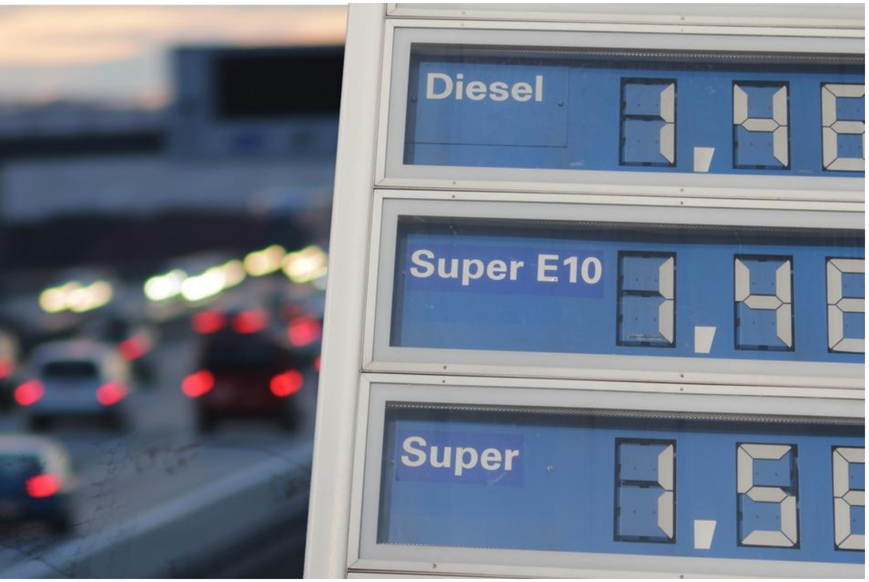
Sources: Federal Reserve and Moody's.

National Inflation

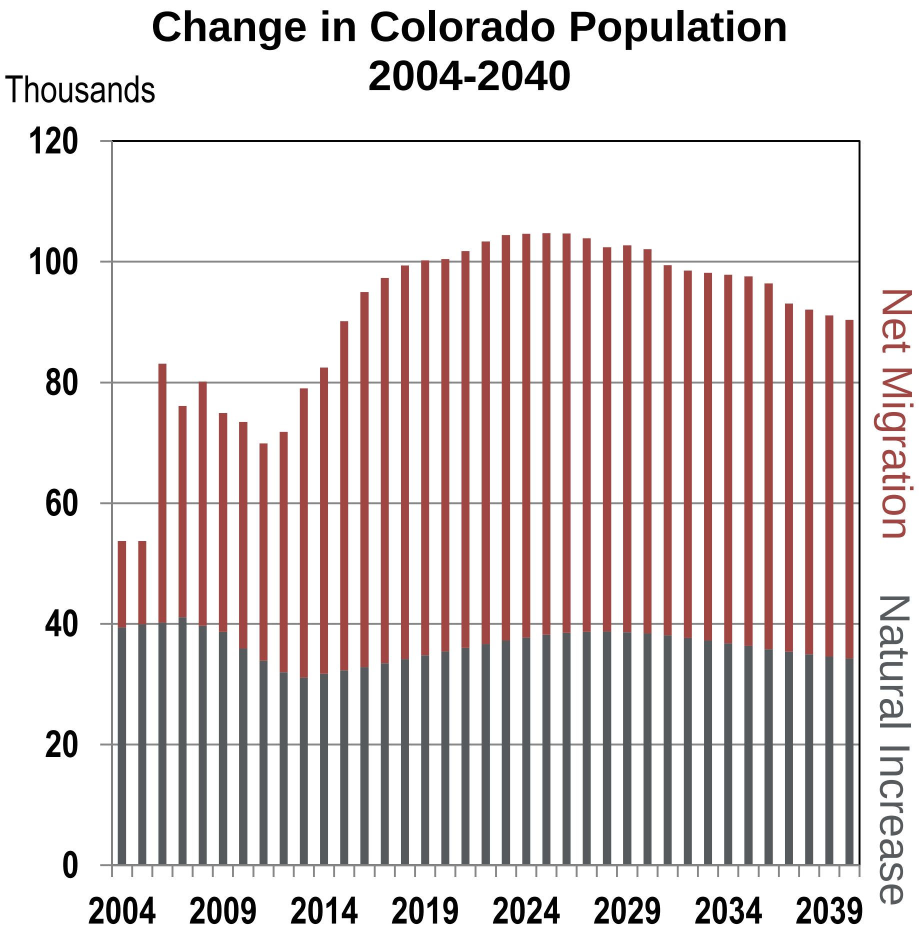


Source: Bureau of Labor Statistics (SA).

Colorado Population, Employment, and Prices



Change in Population



Source: Colorado Demography Office.

4th-fastest state for percentage growth

8th-fastest state for absolute growth

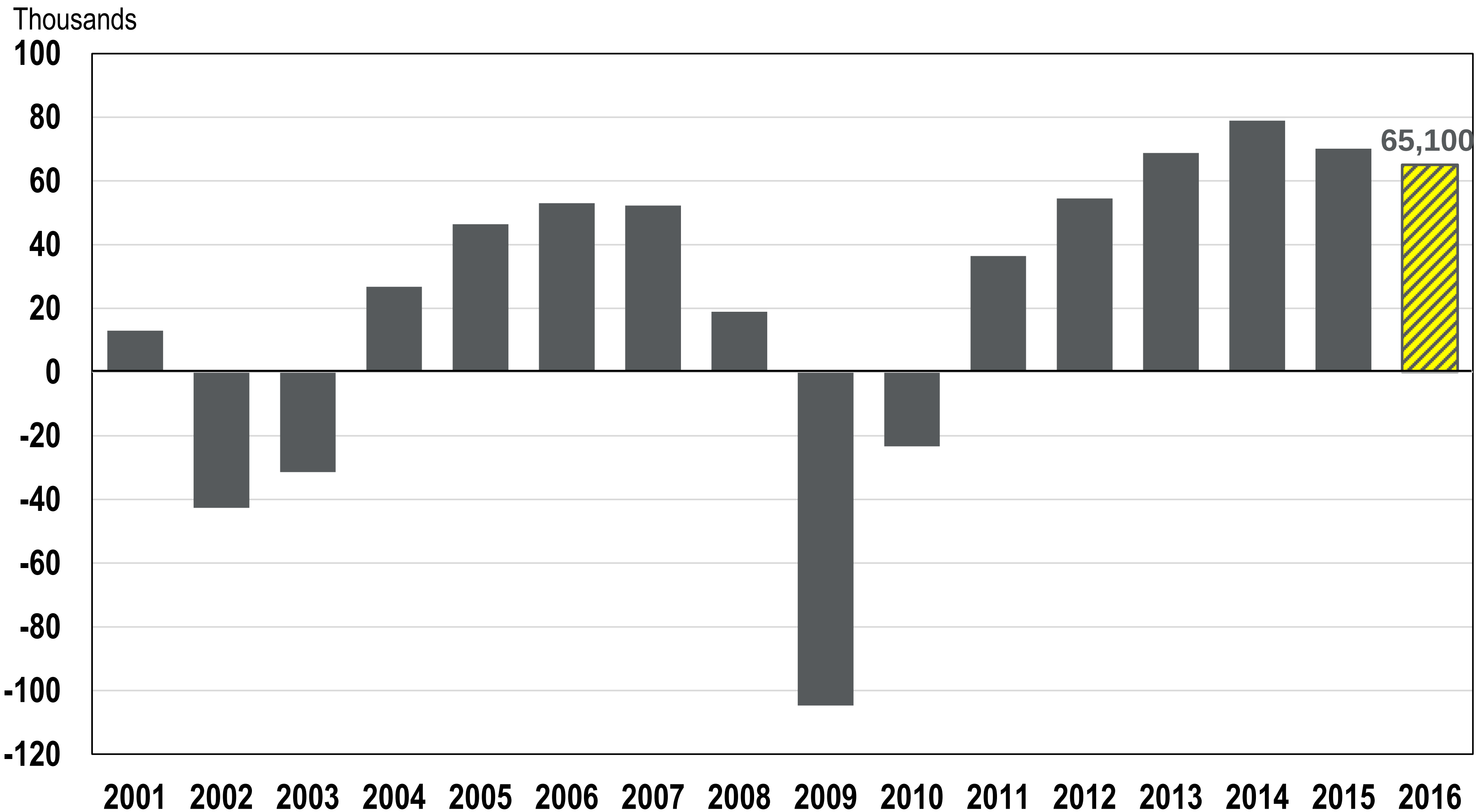
22nd-most populated state in nation

Continued net migration into the state

83% of population along Front Range

Colorado Employment Growth

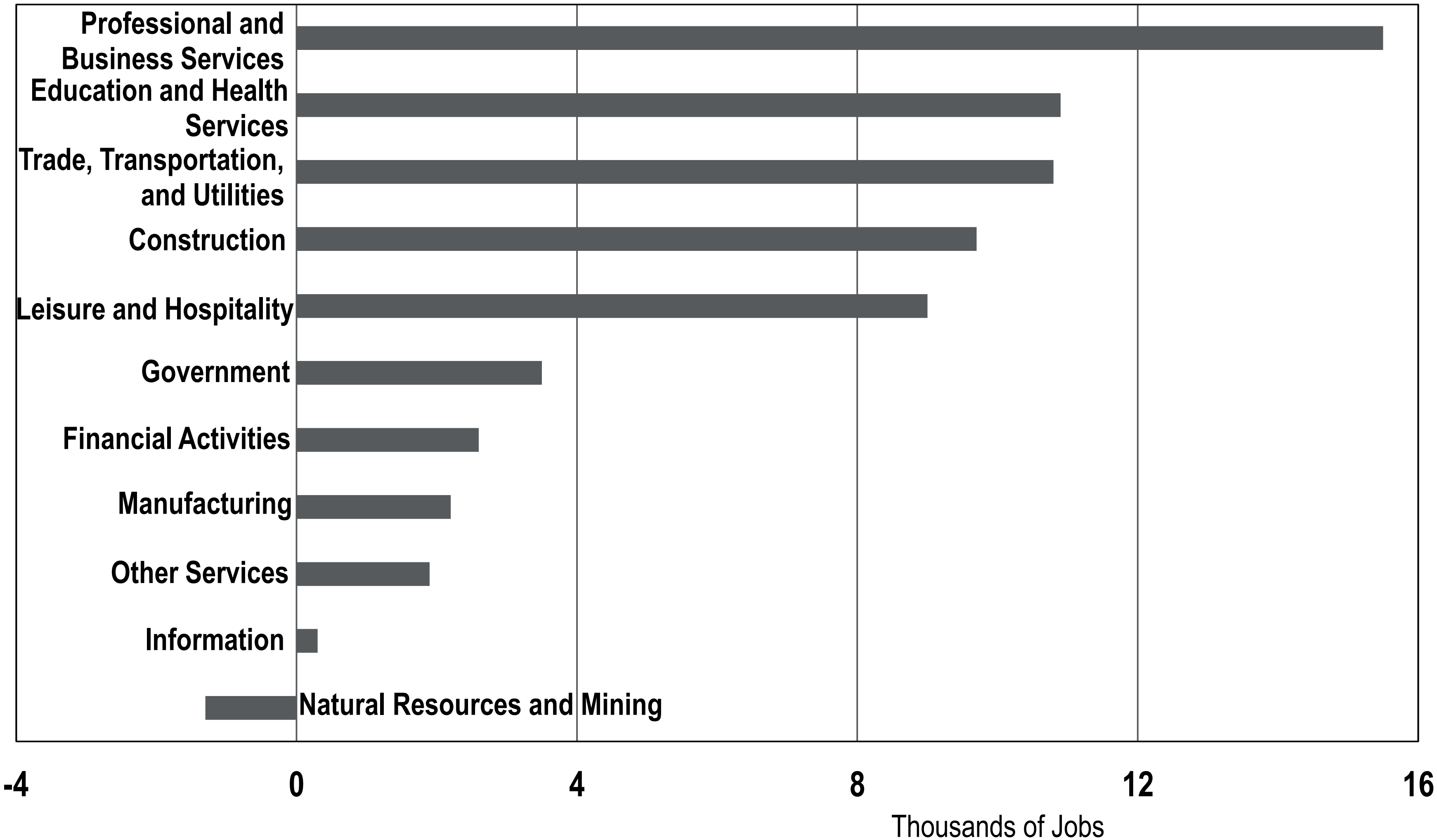
Jobs Added



Sources: Colorado Department of Labor and Employment, BEOF Committee Members.

Employment Change

2015-2016



Source: Bureau of Labor Statistics (Seasonally Adjusted).

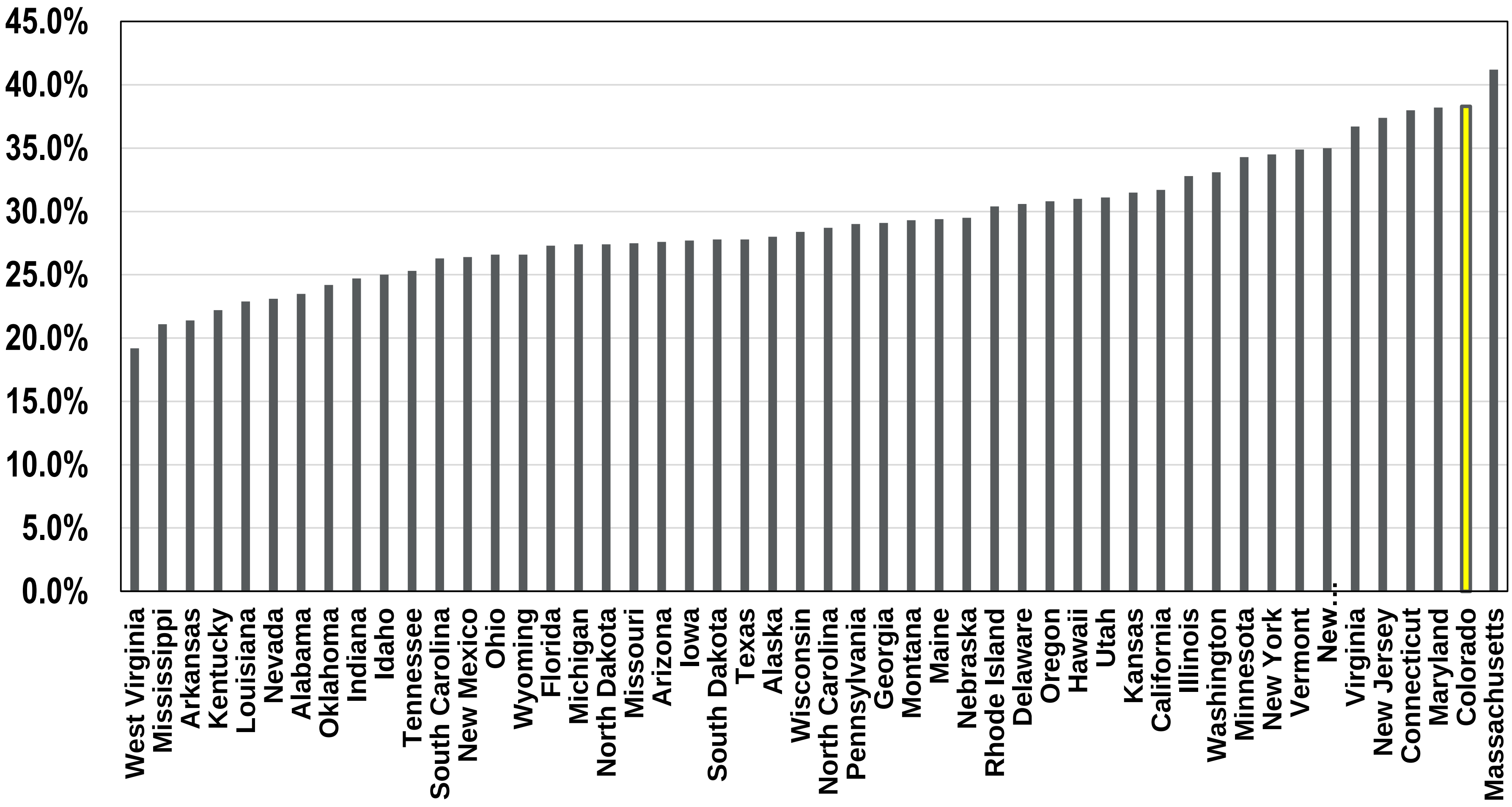
Colorado Ranking Among Other States

Metric	1-Year	3-Year	5-Year	10-Year
Real GDP Growth	5	3	9	9
Employment Growth	21	6	5	5
Population Growth	4	3	4	6
Personal Income Growth	7	1	3	9
PCPI Growth	9	12	23	29
PCPI	14	16	13	12
Average Annual Pay Growth	8	16	20	20
Average Annual Pay	13	12	12	12
Unemployment Rate	13	27	29	22
Labor Force	38	17	12	7
FHFA Home Price Index	1	5	6	4

Data Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, U.S. Census Bureau, Federal Housing Finance Agency, and the Colorado State Demography Office. BRD calculations. Note: 1-year, 3-year, and 5-year are based on the compound annual growth rate.

Talent in Colorado

Percent Bachelor's Degree or Higher



Source: U.S. Census Bureau, Educational Attainment, 2014 ACS.

Construction

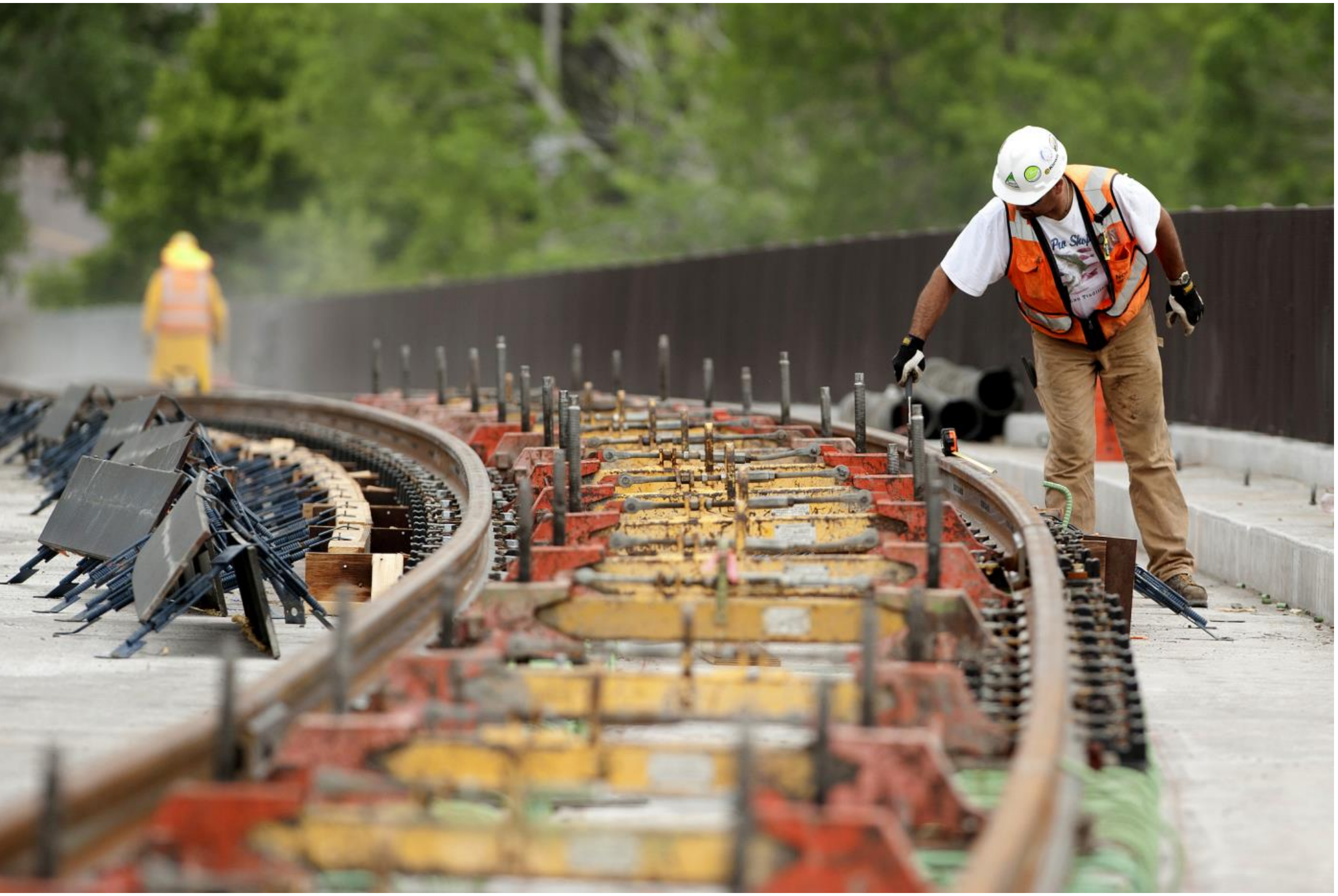
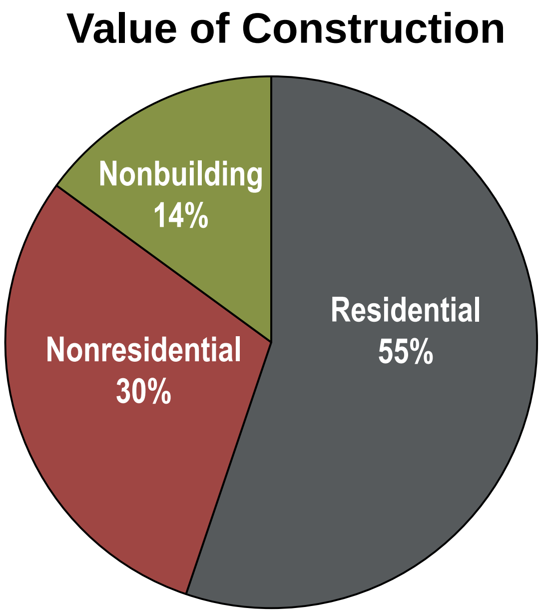
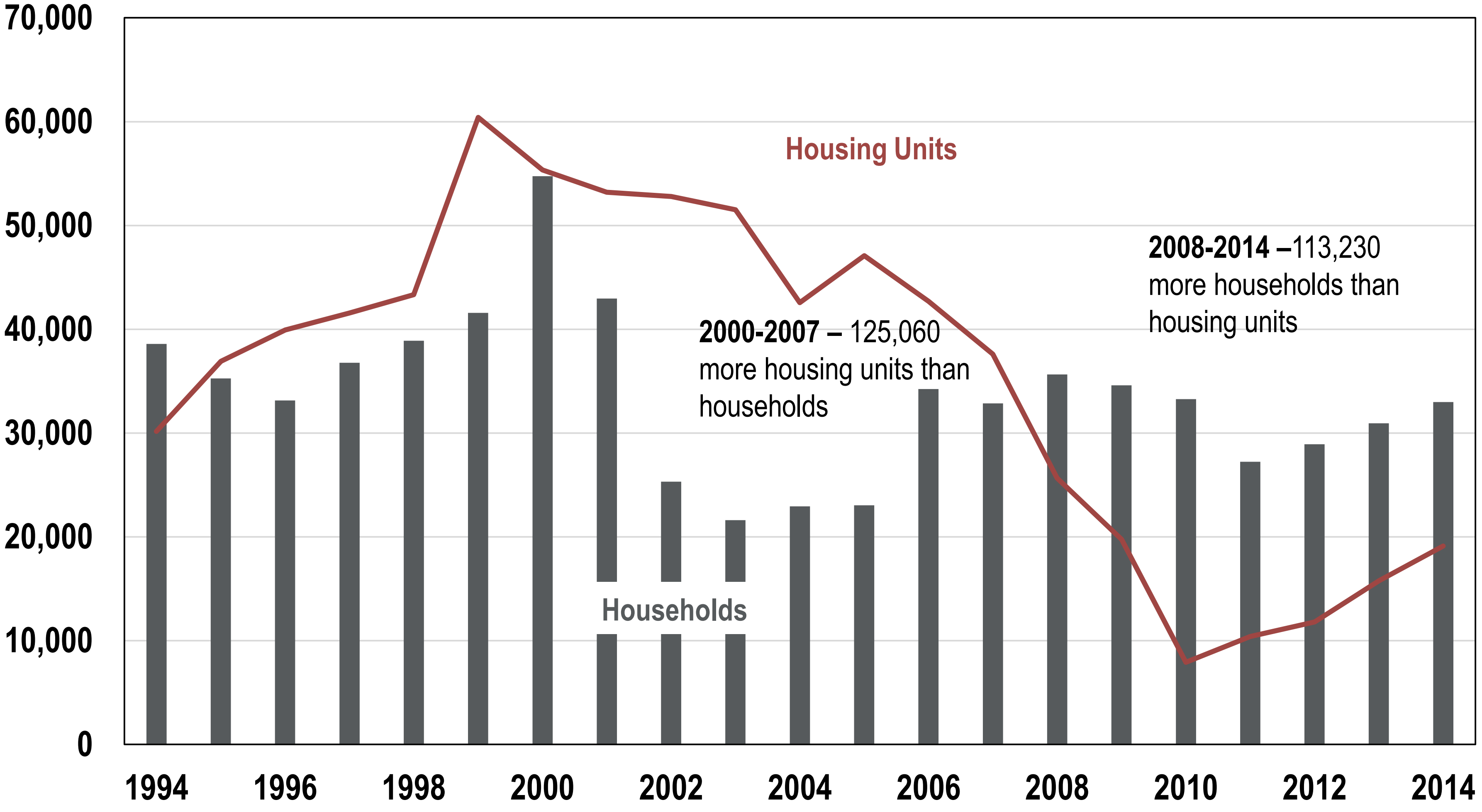


Photo Courtesy www.rtd-fastracks.com



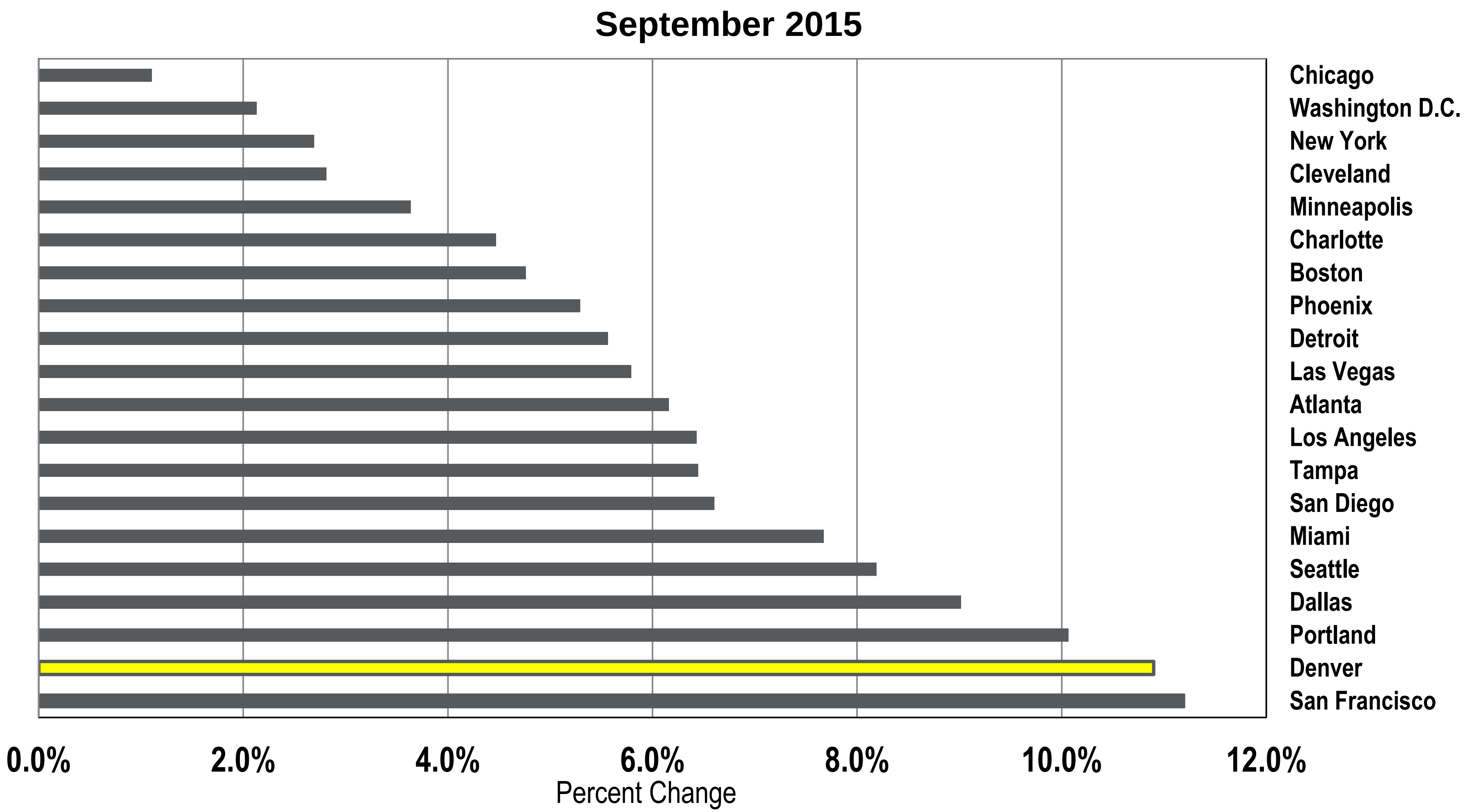
Housing Units vs. Households

Annual Change



Source: Colorado State Demography Office. Data as of September 2014.

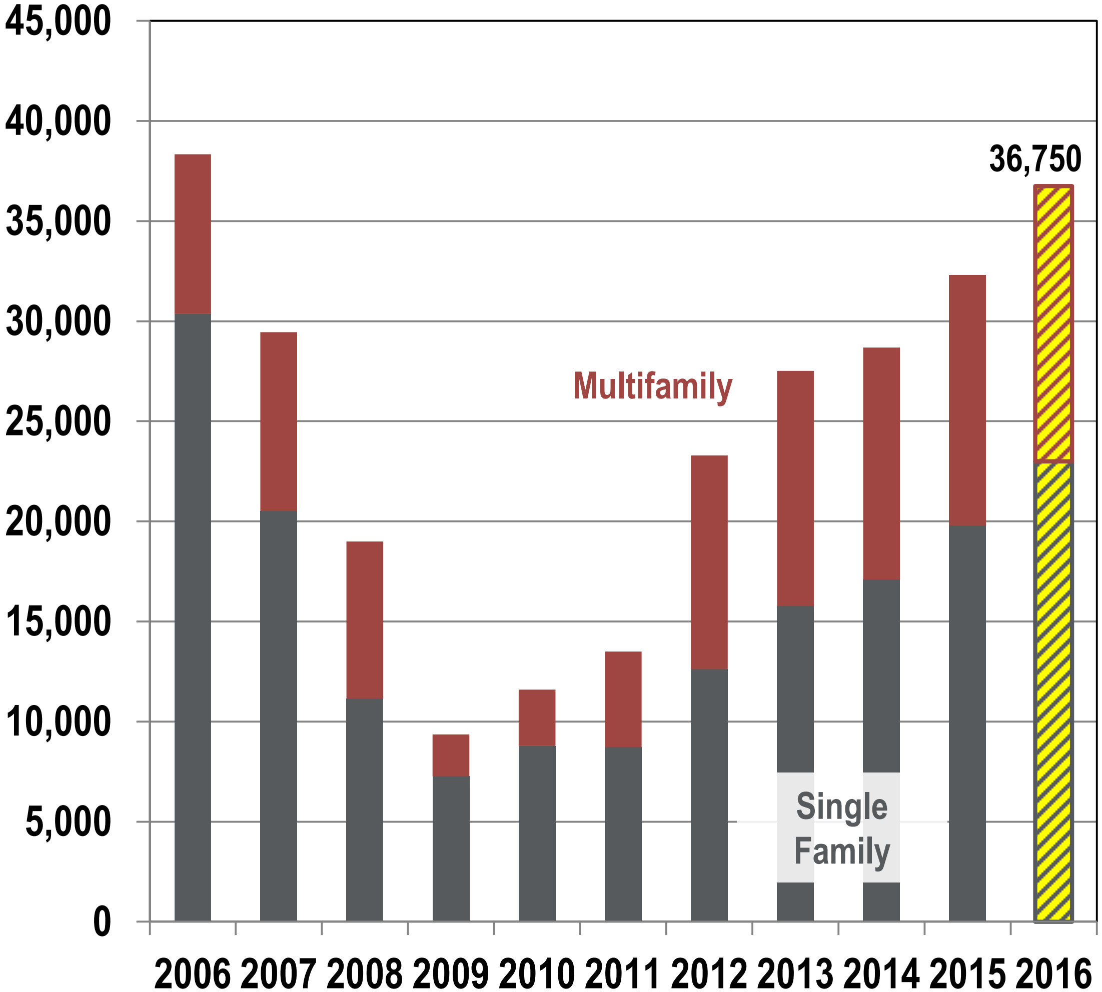
S&P/Case-Shiller Home Price Indices



Source: Standard & Poor's (Not Seasonally Adjusted).

Residential Building Permits

2006-2016



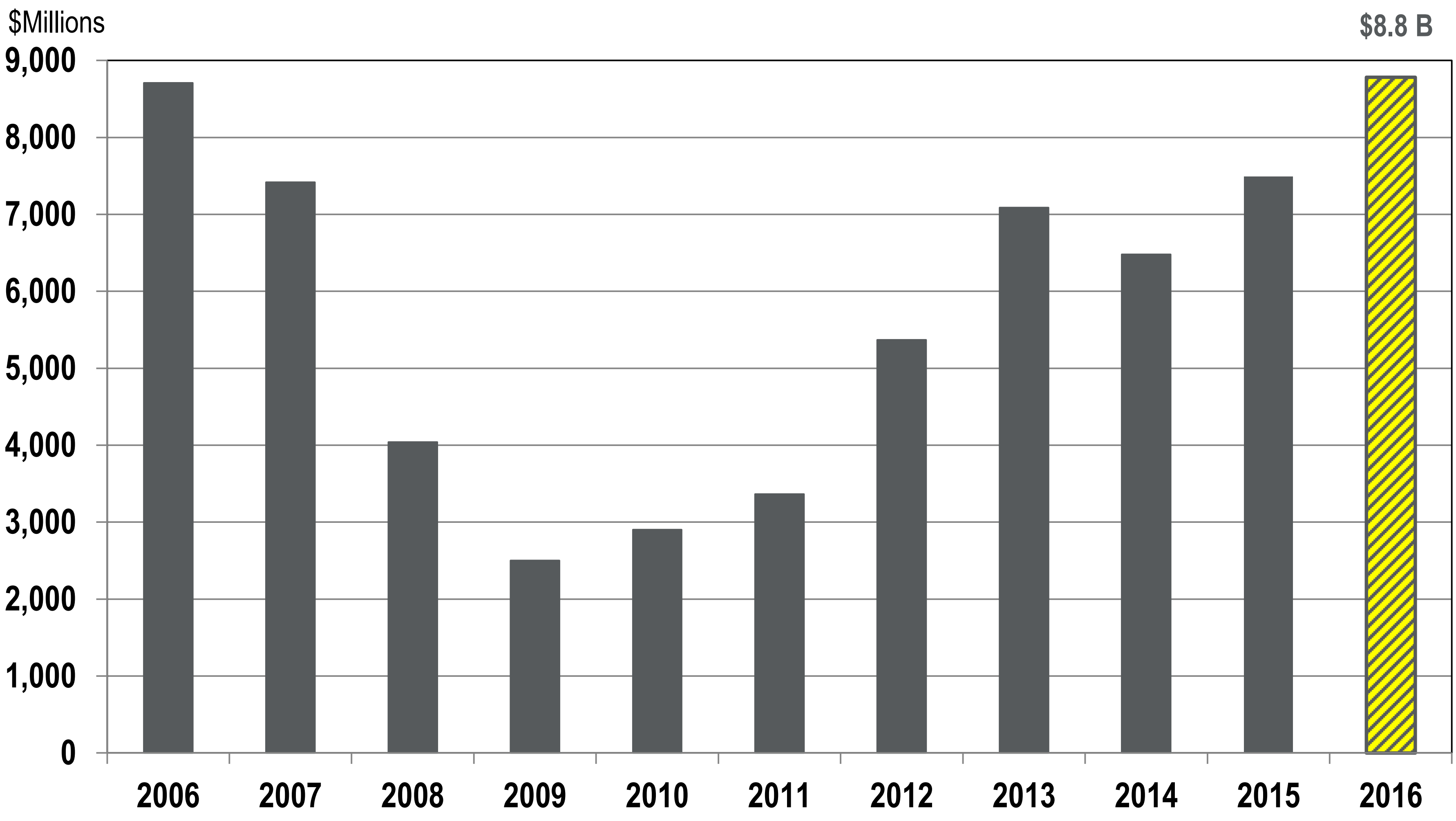
Residential Housing:

- **Home appreciation among the fastest nationally**
- **Mostly single family permits in 2016**
- **Lowest foreclosure rate in two decades**

Sources: U.S. Census Bureau and Colorado Business Economic Outlook Committee.

Value of Construction

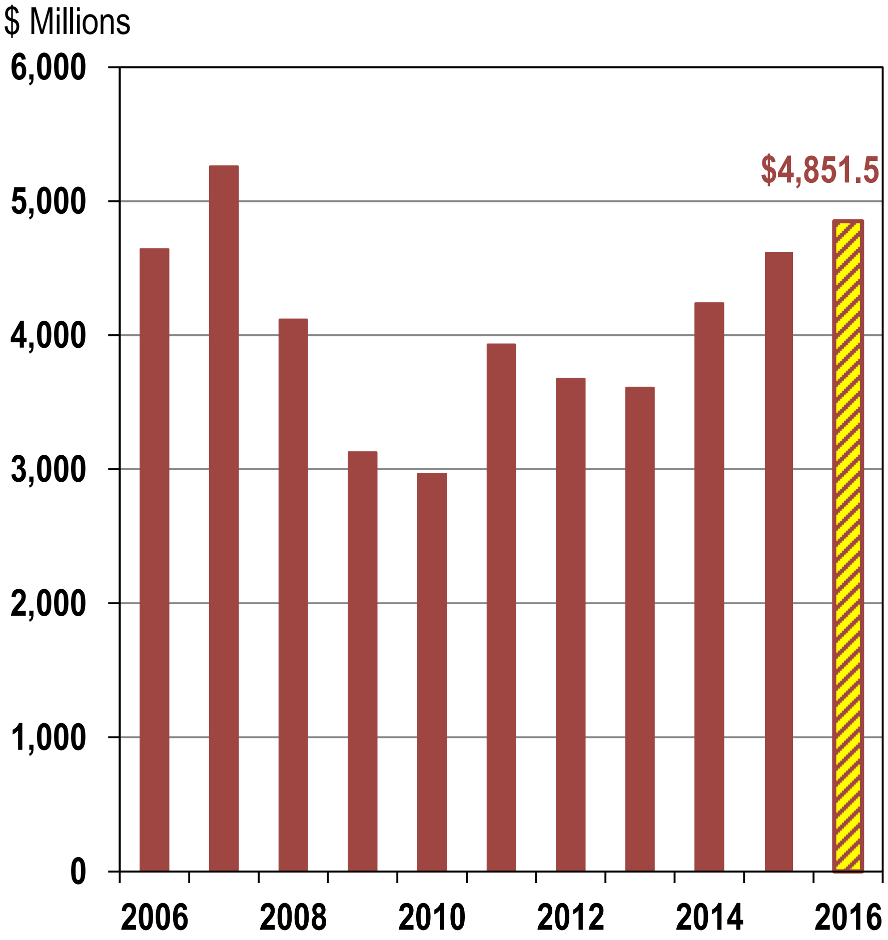
Residential, 2006-2016

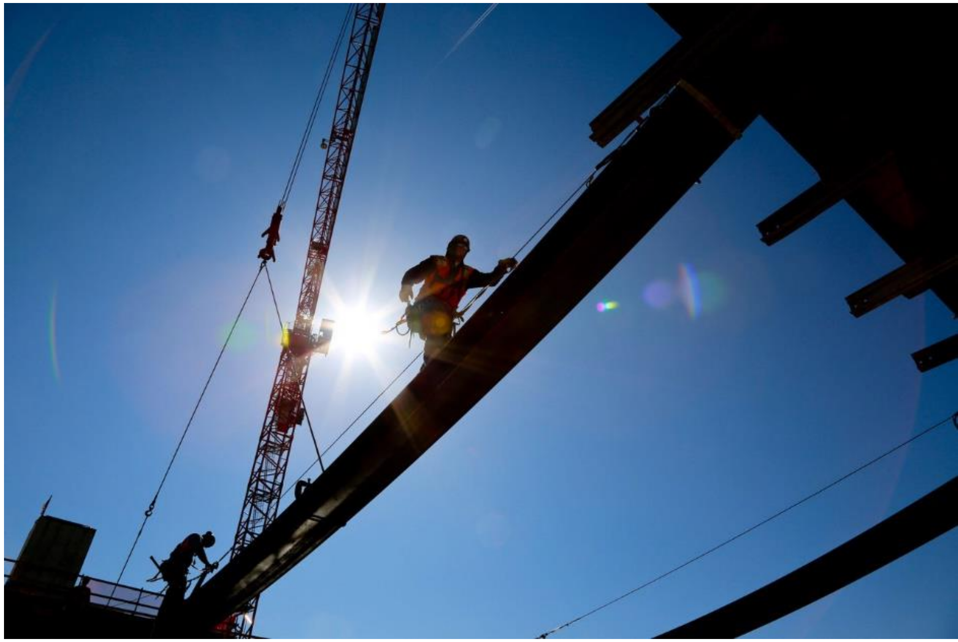


Sources: U.S. Census Bureau, Colorado Business Economic Outlook Committee.

Value of Construction

Nonresidential, 2006-2016

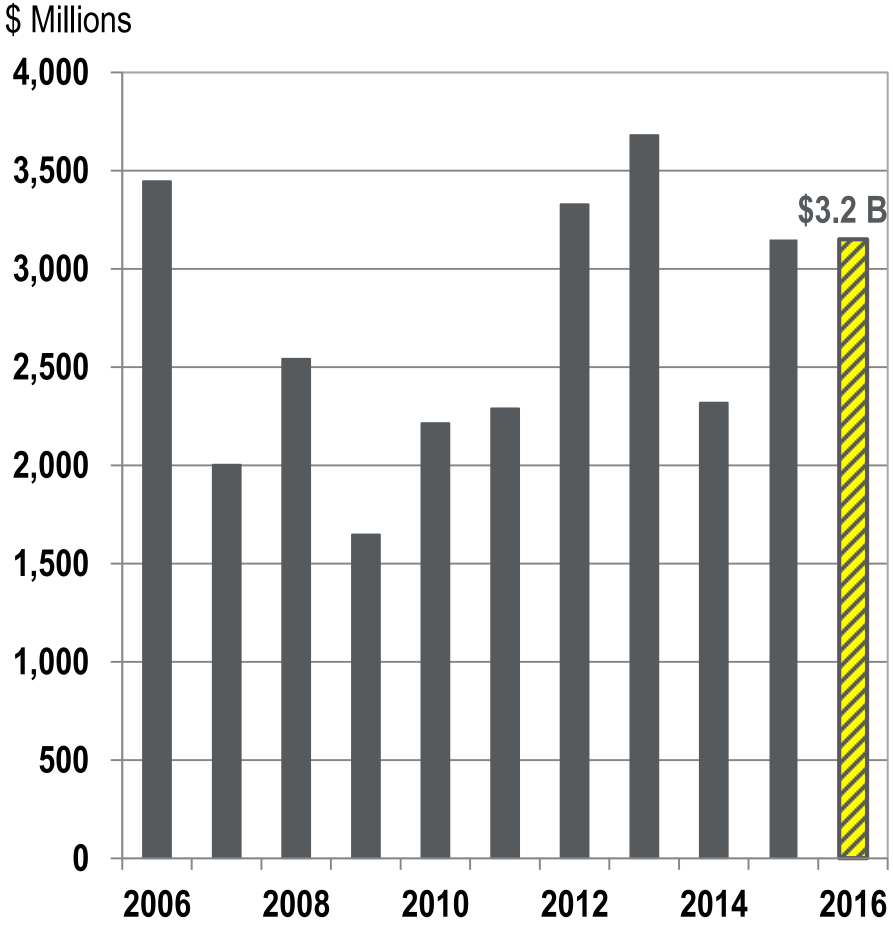


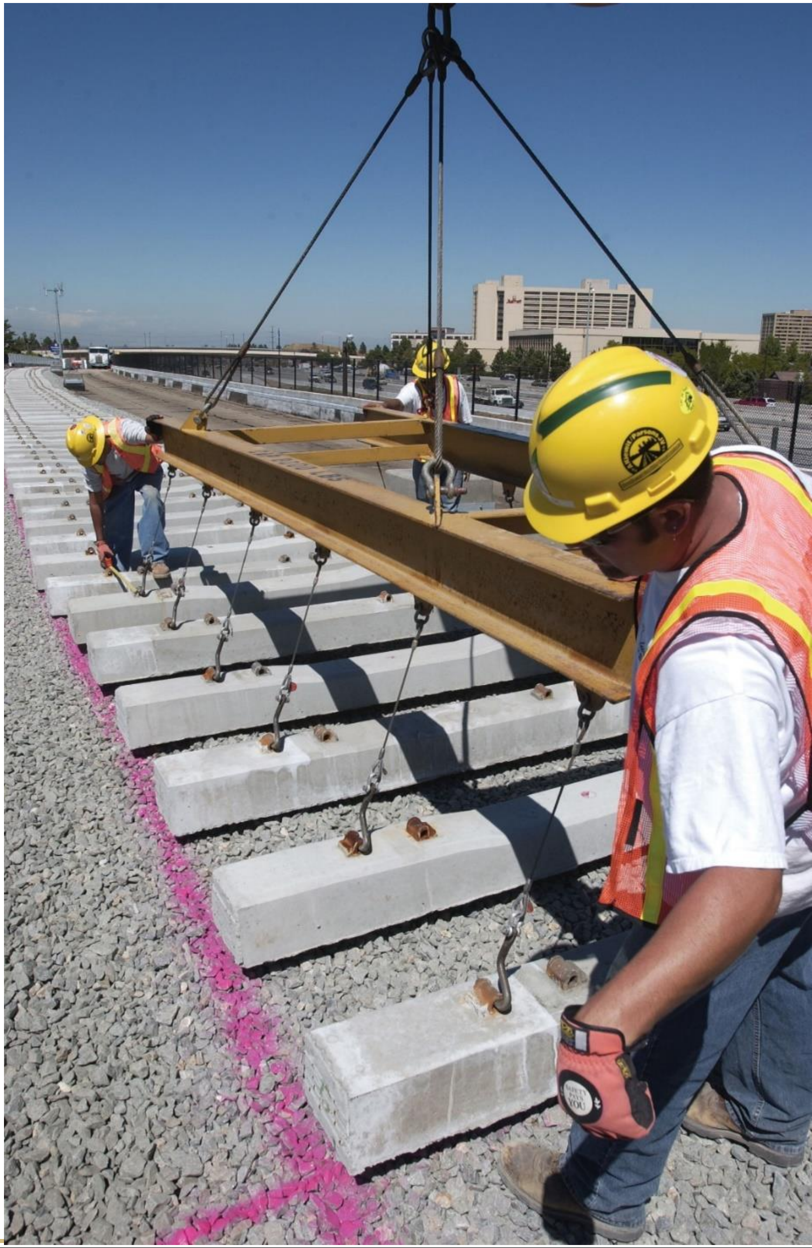


Sources: U.S. Census Bureau and Colorado Business Economic Outlook Committee. Photo courtesy of Denver International Airport.

Value of Construction

Nonbuilding, 2006-2016

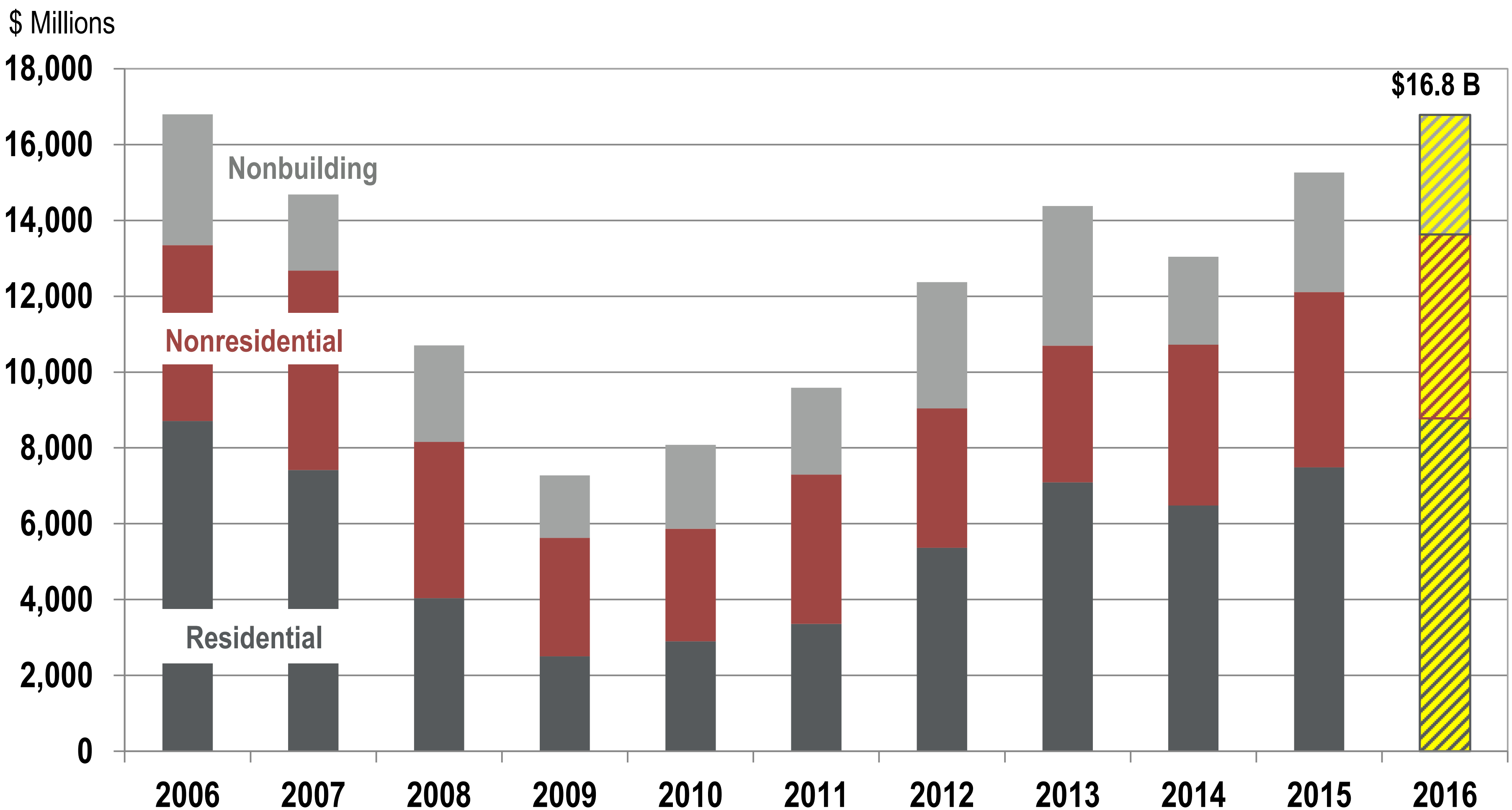




Sources: Colorado Business Economic Outlook Committee and Dodge Construction Analytics. Photo courtesy of RTD..

Value of Construction

2006-2016

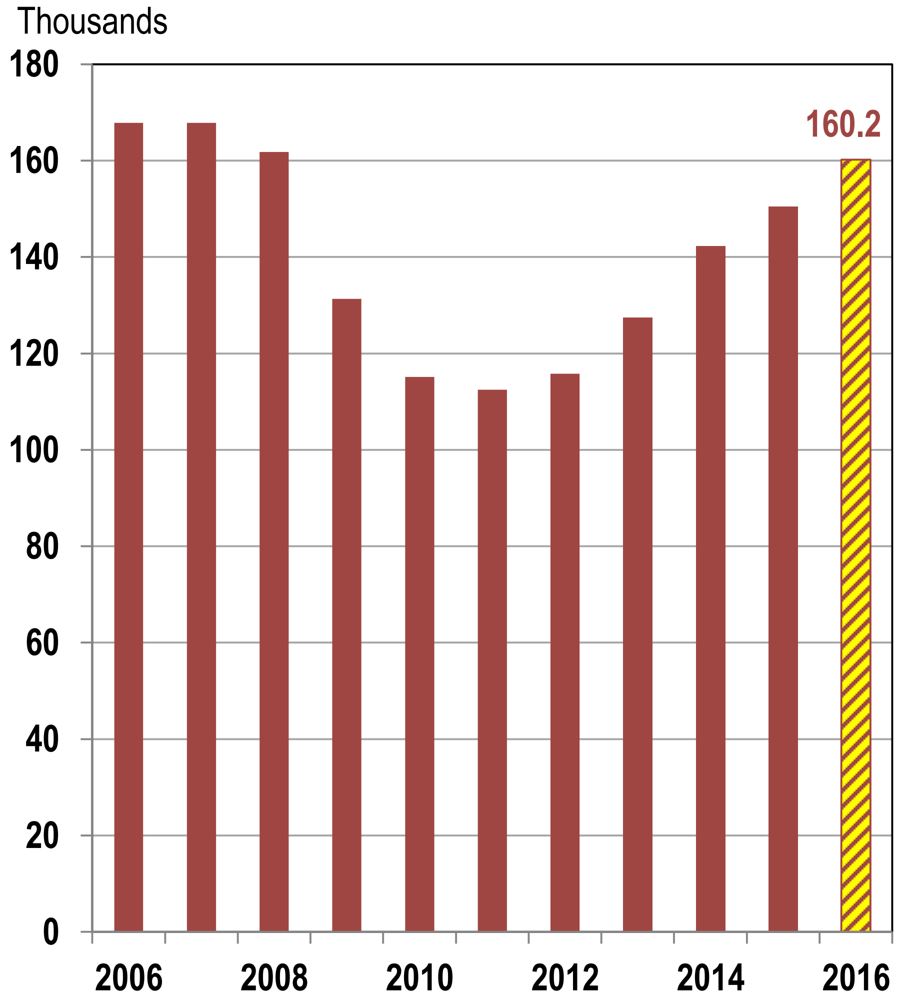


Sources: McGraw-Hill Construction Dodge Research and Analytics and Colorado Business Economic Outlook Committee.

Construction

Employment, 2006-2016

Photo Courtesy of Breckenridge Brewery.



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Real Estate Breakout Session

“How Long will This Hot Real Estate Market Last?”

Tom Thibodeau, Leeds School of Business
Tyler Carner, CBRE
Jeff Handlin, Anthem
Riki Hashimoto, Newmark Grubb Knight Frank
Pat Stucker, Jones Lang LaSalle
Doug Wulf, Cassidy Turley
Jay Landt, Colliers International

Agriculture

Photo courtesy of Jill Lambert.

Gross Farm Revenue and Net Income

2006-2016

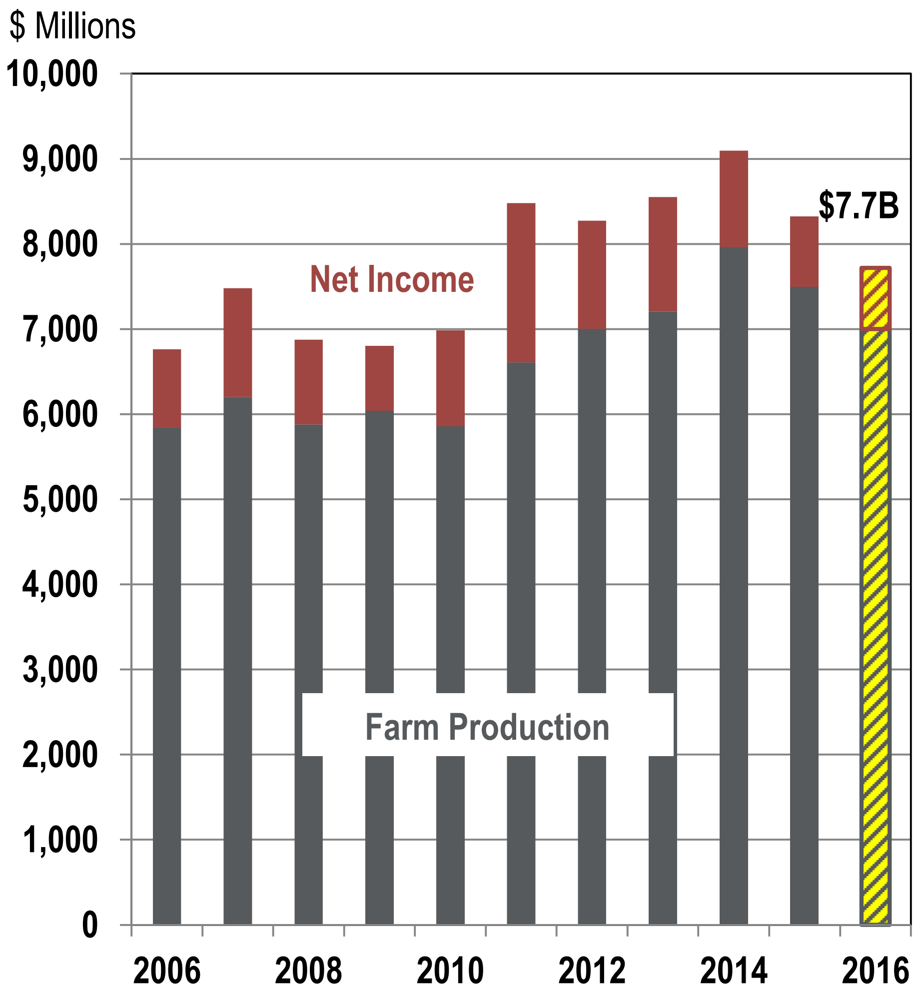
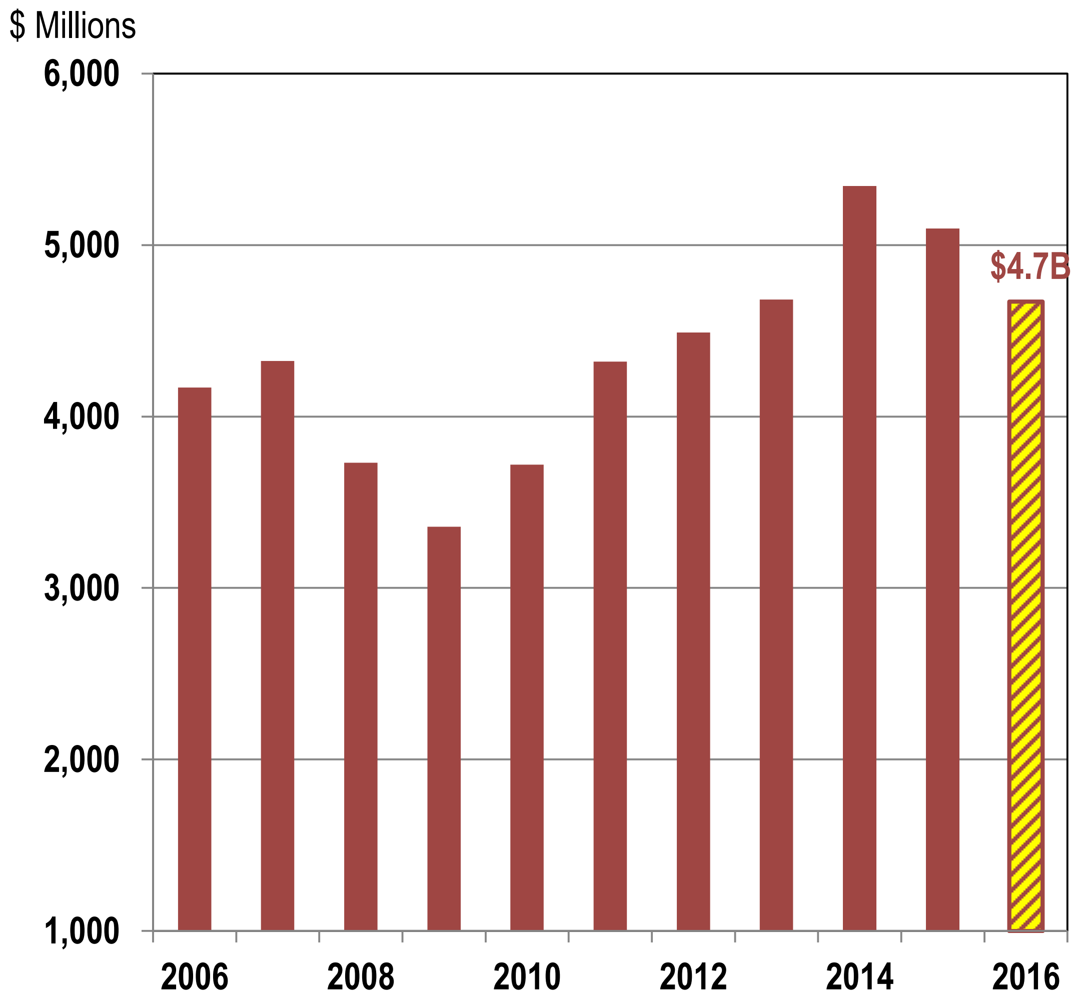


Photo courtesy of Sandy Wilt.

Source: Colorado Business Economic Outlook Committee.

Livestock Cash Receipts

2006-2016

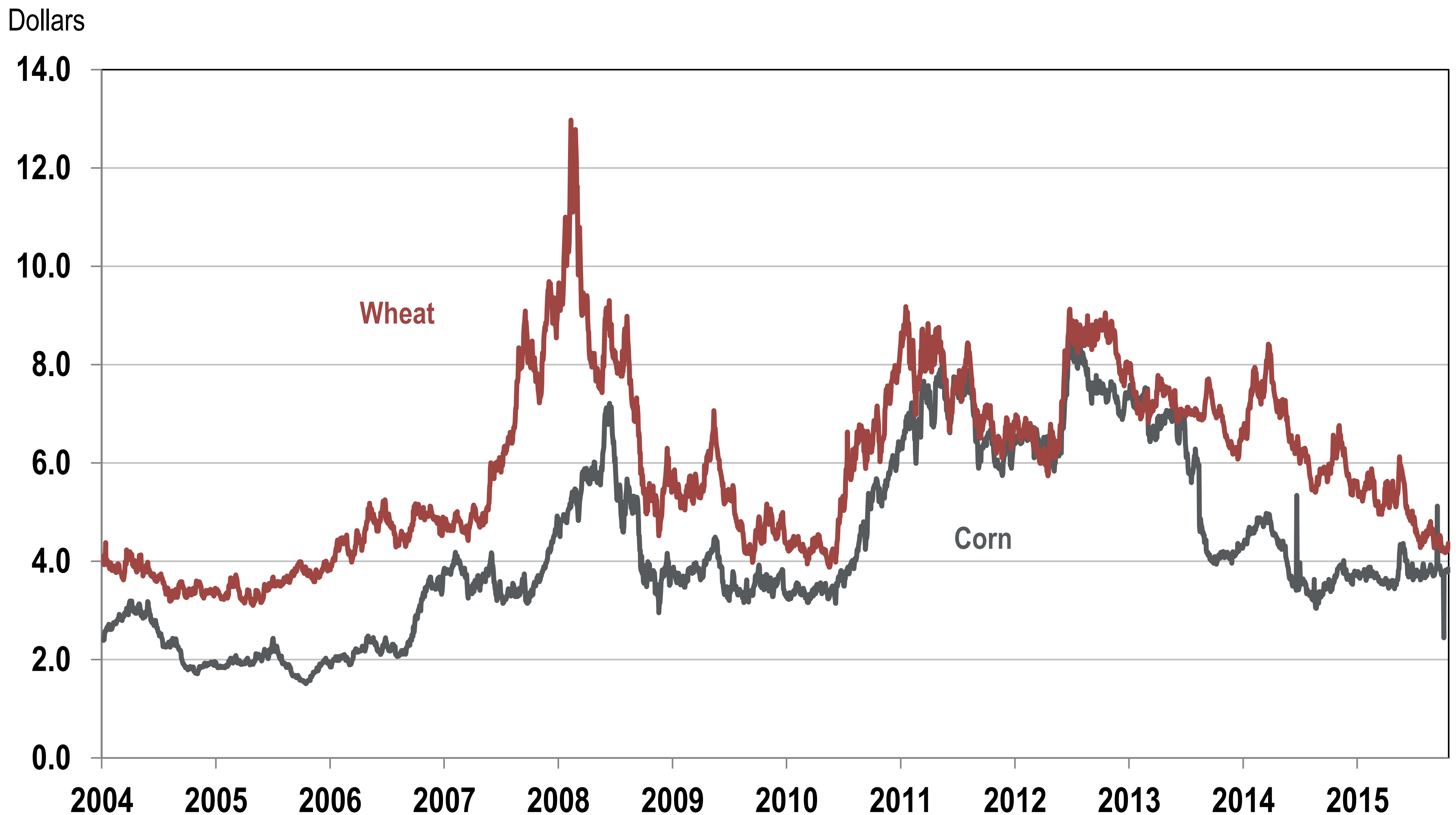


- 70% of total value of production in Colorado
- Rebuilding herds
- Fed cattle prices continued to wane from 2011 high
- Number of cattle sales anticipated to drop to record low in 2015

Source: Colorado Business Economic Outlook Committee.

Commodity Prices

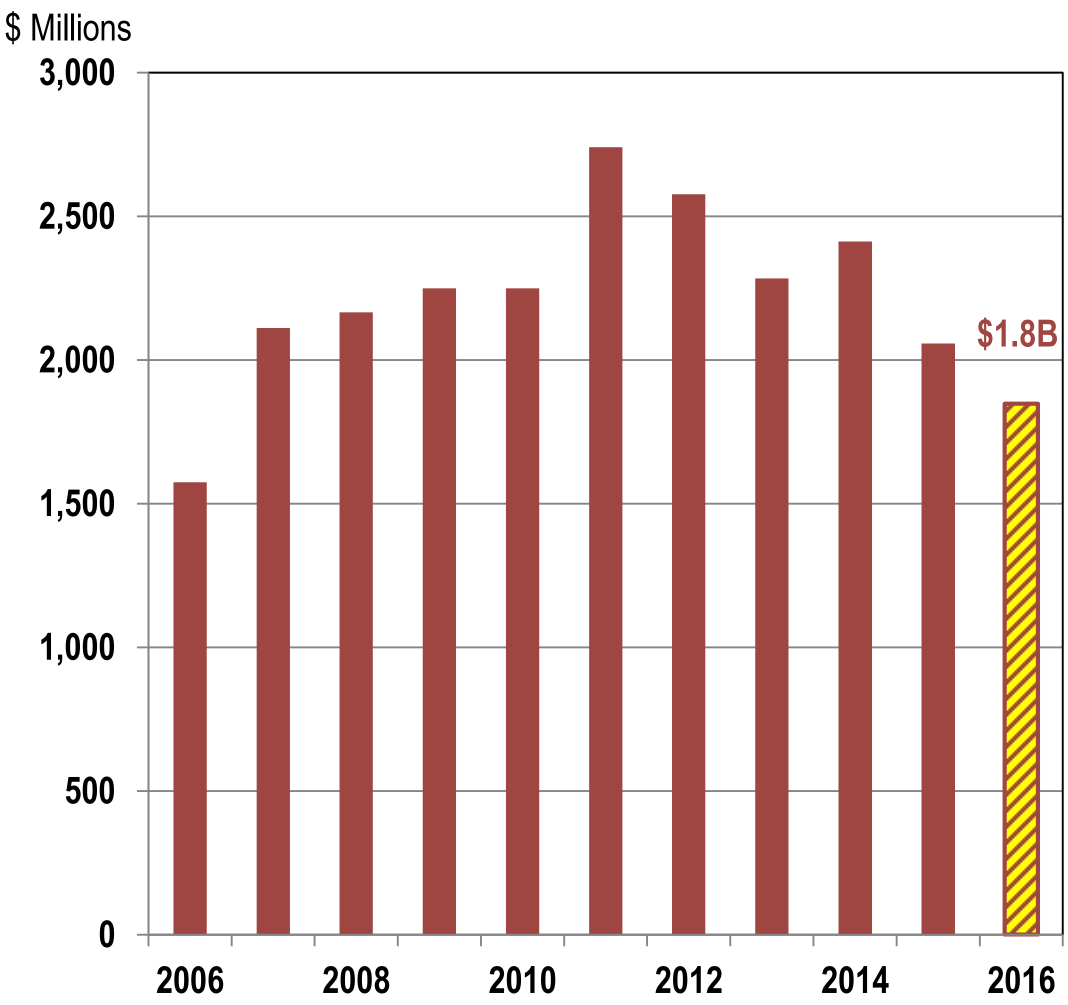
Wheat and Corn



Sources: Prices from U.S. Department of Agriculture (No. 1 hard red winter - ordinary protein, Kansas City, MO), Bloomberg (USDA Toledo No. 2 Yellow Corn Not on the River Spot Price). Data through November 12, 2015.

Crops Cash Receipts

2006-2016



- Corn prices lowest in five years
- Major crops: wheat, corn, and hay
- Cash receipts expected to fall for 2016
- Government payments expected to rise for 2016
- Innovation will play an increasing role for agriculture

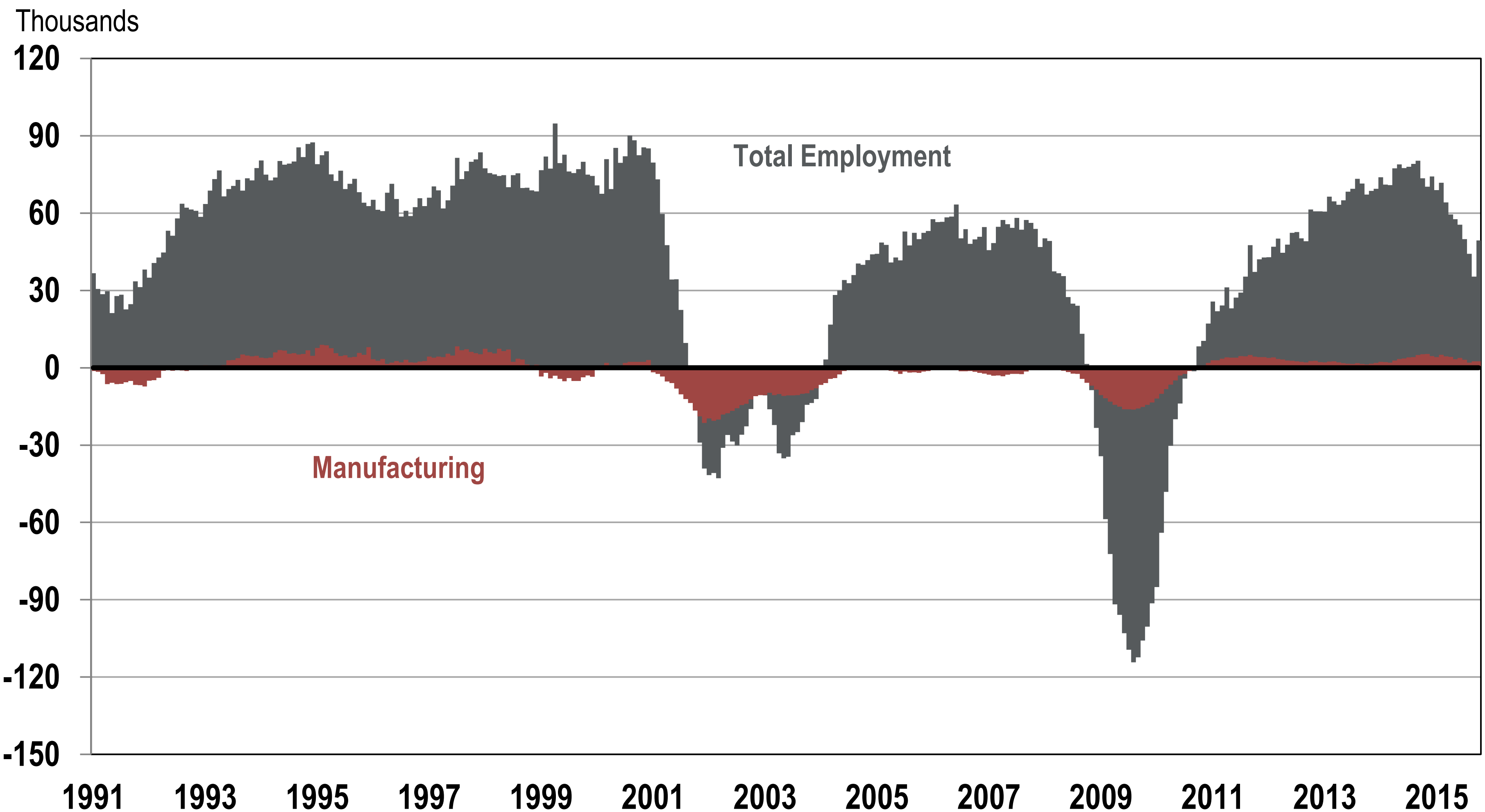
Source: Colorado Business Economic Outlook Committee.

Manufacturing

Sprout Tiny Homes built in La Junta's industrial park. Photo by Diane Graham.

Manufacturing and Total Jobs Added

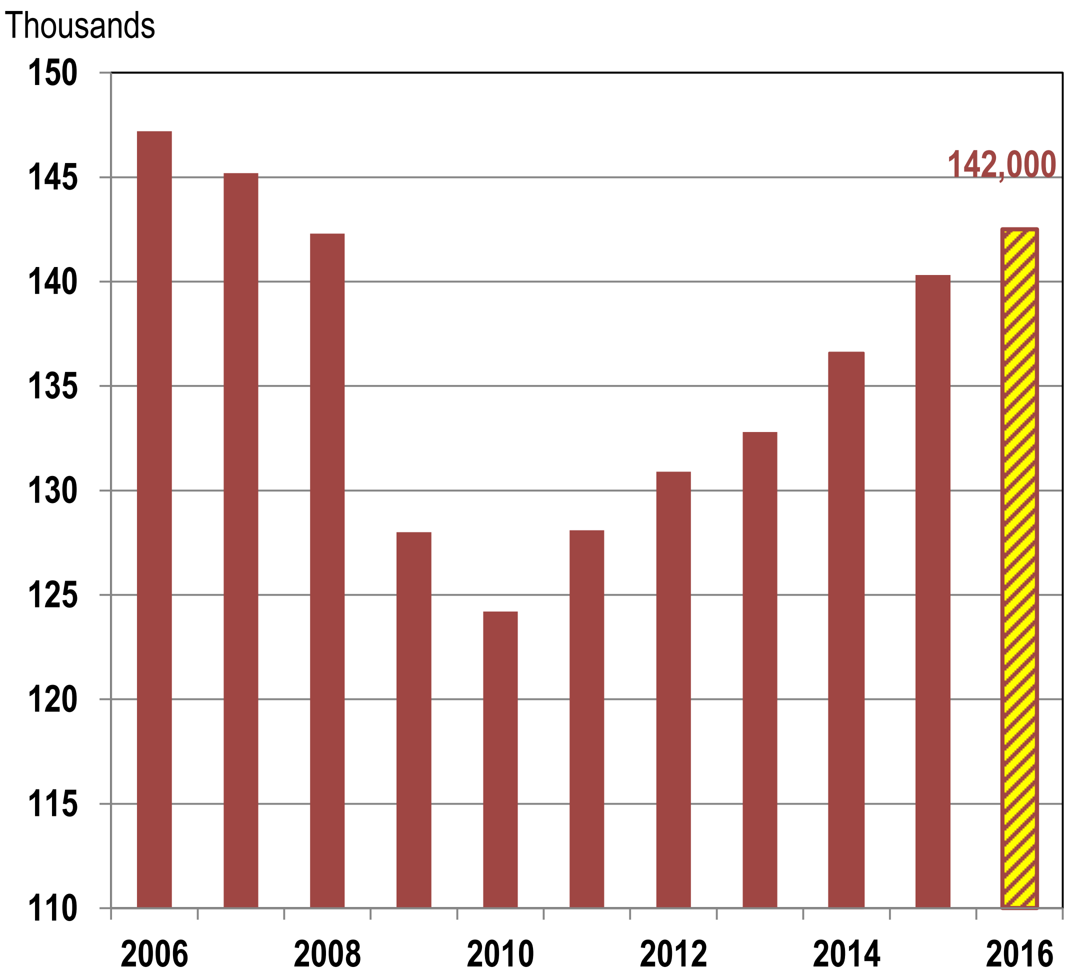
Colorado, 1991-2015



Source: Bureau of Labor Statistics.

Manufacturing Employment

2006-2016



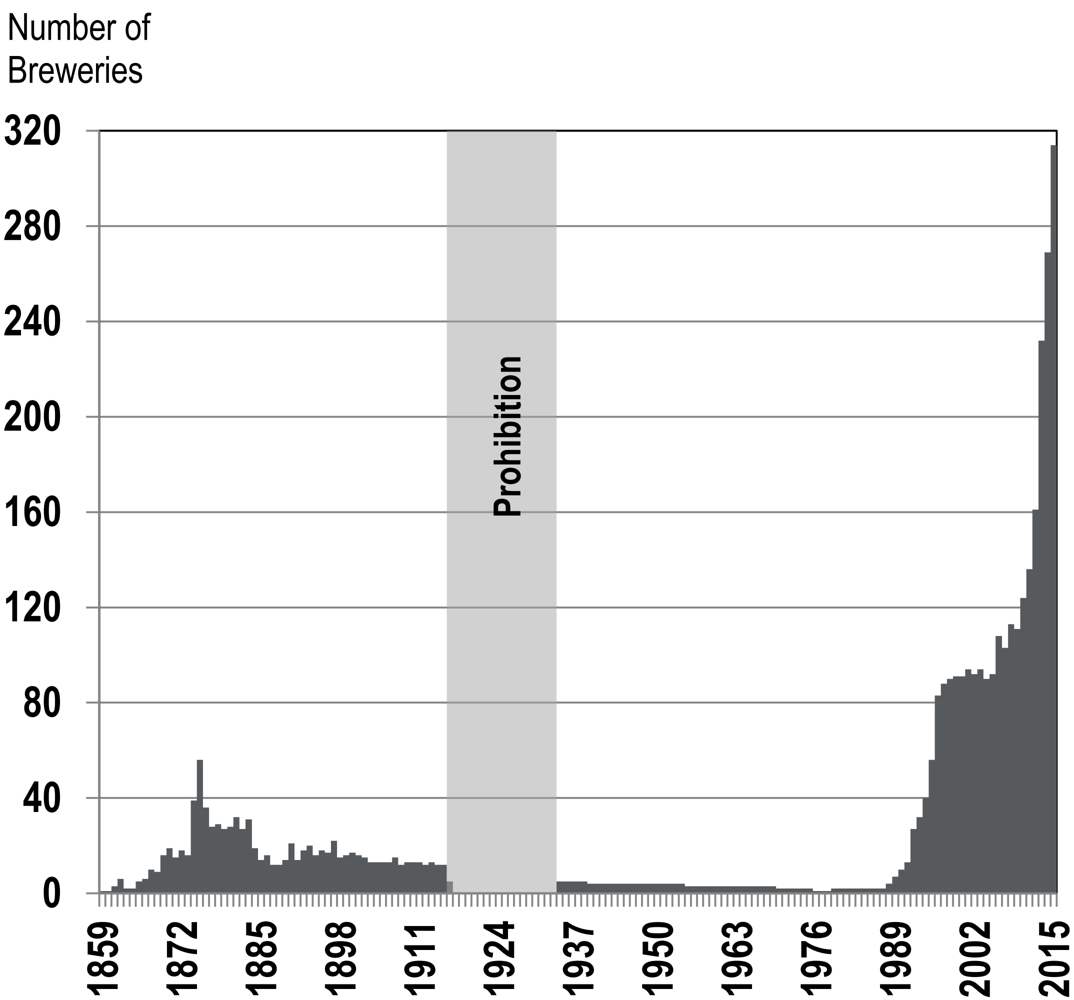
2016 impacts will include:

- Lower energy prices
- Interest rates
- Trans-Pacific Partnership
- Dollar strength
- Exports

Source: Bureau of Labor Statistics and Colorado Business Economic Outlook Committee.

Nondurable Goods

1859-2015



- Account for 35% of manufacturing employment
- Food manufacturing largest subsector
- Food manufacturing adding the most jobs in 2016
- Colorado third for craft breweries

Source: Colorado Brewers Guild.

Durable Goods

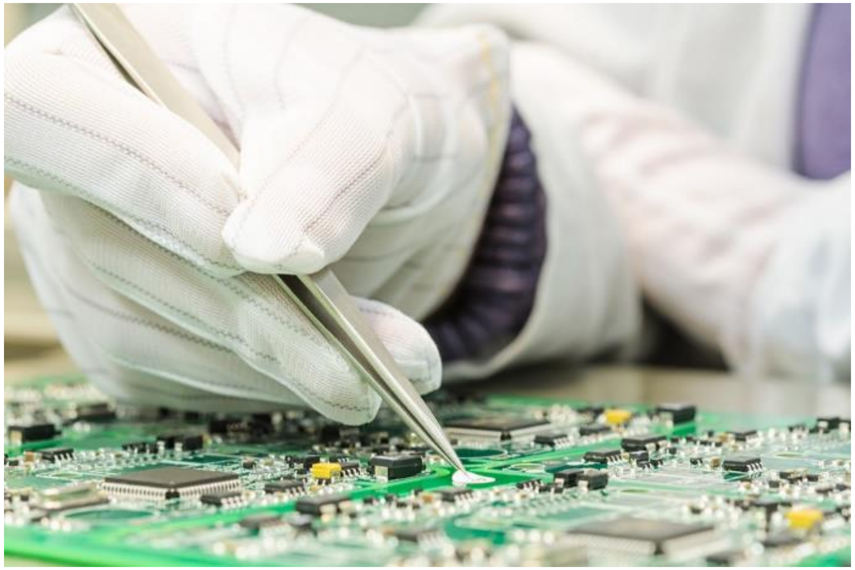
Account for 65% of manufacturing employment

2016 throughout sector:

- Nonmetallic minerals
- Fabricated metals
- Computer and electronic products
- Transportation equipment
- Other durables

Employment growth:

- 2.7% in 2015
- 1.8% in 2016



Natural Resources and Mining

WTI Oil Price

2004-2015

Source: EIA, Cushing, OK WTI Spot Price FOB (Dollars per Barrel).

Crude Oil Production

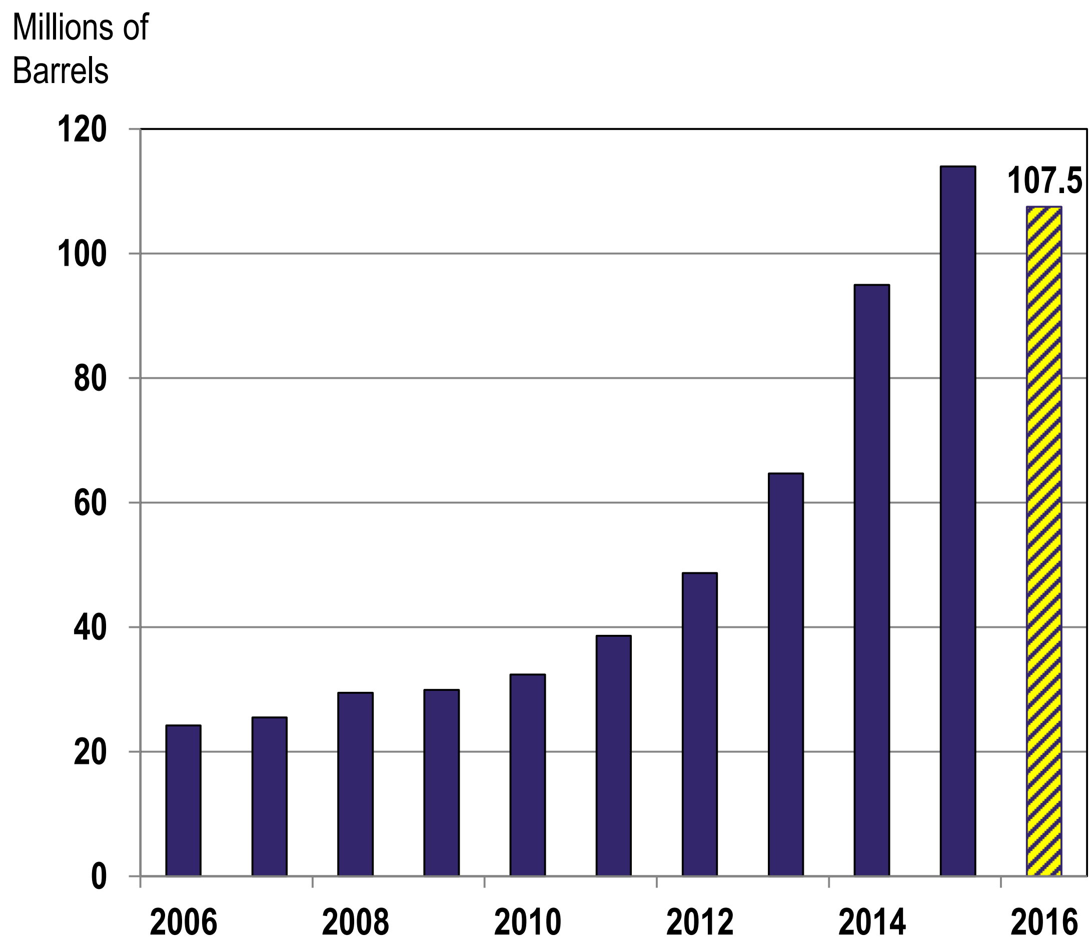
2006-2016

Largest Producers

1. Texas
2. North Dakota
3. California
4. New Mexico
5. Alaska
6. Colorado
7. Oklahoma
8. Wyoming
9. Louisiana
10. Kansas

Production boosted by

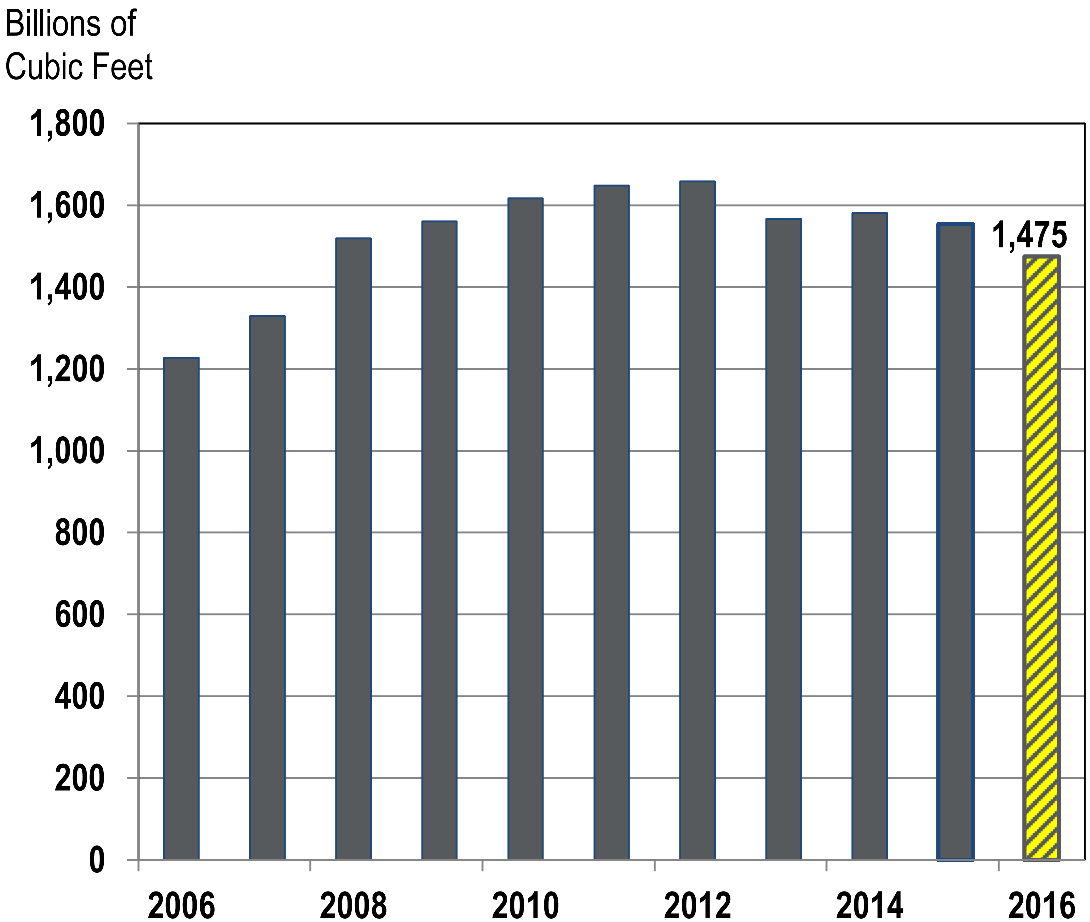
Horizontal drilling
Hydraulic fracturing



Sources: Rankings from the Energy Information Administration. Production data from Colorado Geological Survey Mineral and Mineral Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Natural Gas Production

2006-2016



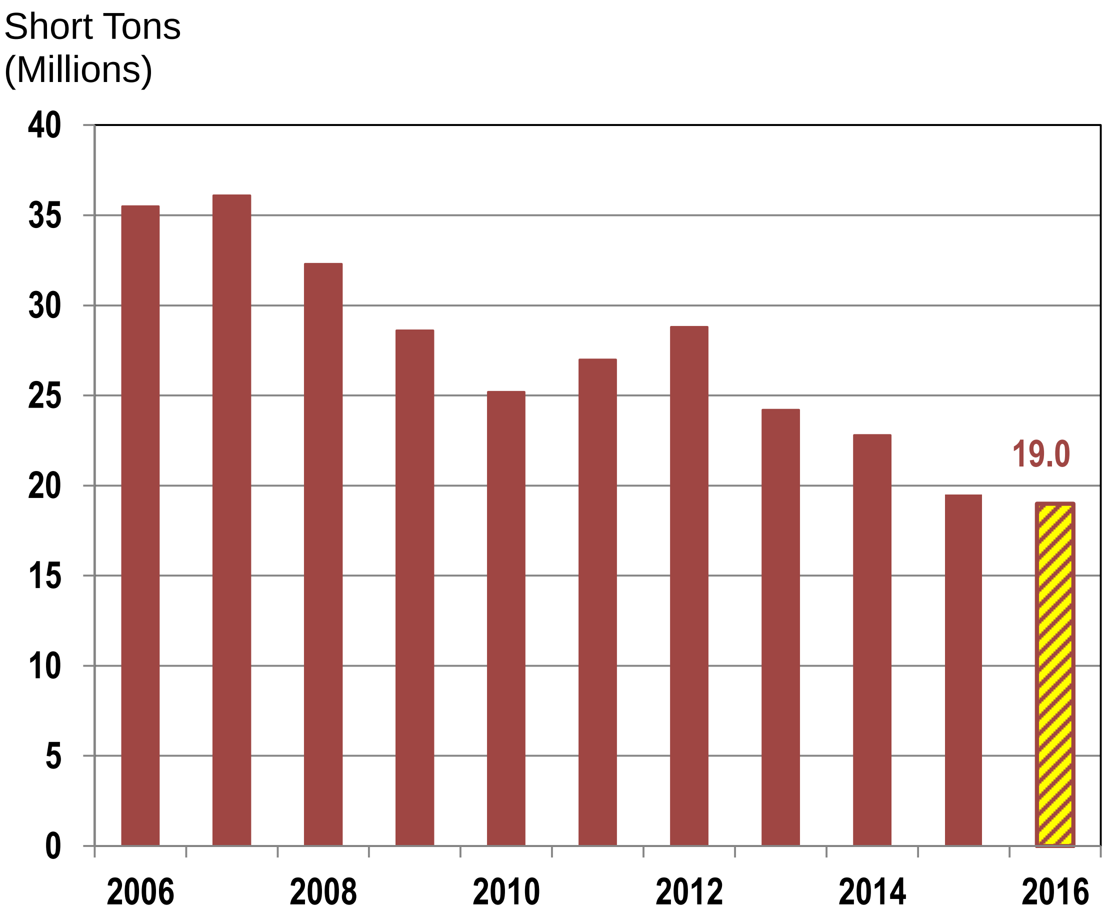
- **Seventh-largest producing state**
- **Average residential gas prices in Colorado for 2014 were the fourth-lowest in the country**
- **Net exporter of natural gas**
- **Total value of production stagnant due to prices**

Sources: Colorado Geological Survey Mineral and Mineral Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Coal Production

2006-2016

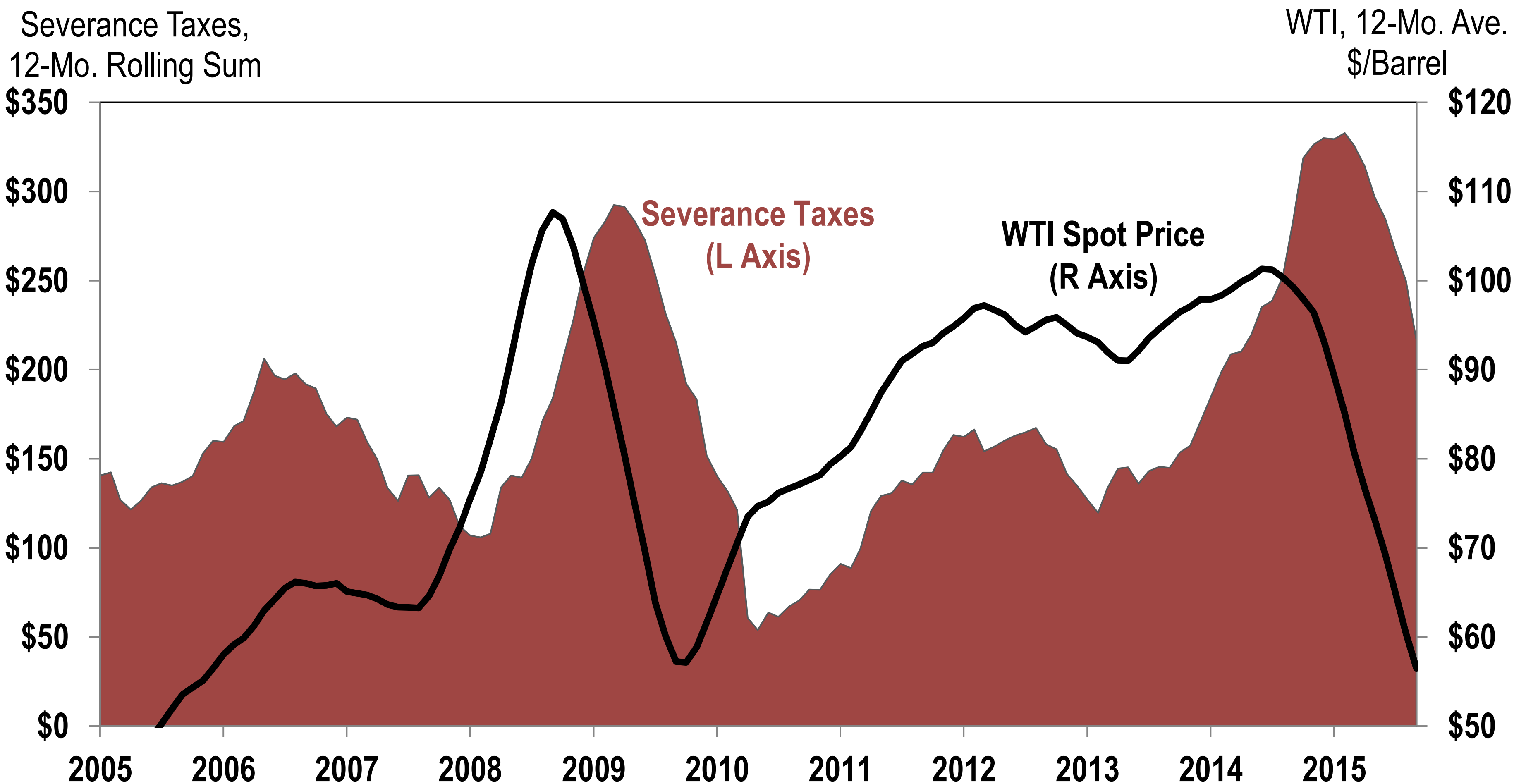
- **Supplies 60% of Colorado's energy**
- **State ranking slipped to 11th in 2015**
- **Ships to 21 states**
- **Decreasing demand from TVA**
- **Power plants divesting from coal**



Sources: Colorado Geological Survey Mineral and Mineral Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Colorado Severance Taxes

2005-2015



Sources: Energy Information Association (EIA), Cushing, OK WTI Spot Price FOB; Colorado Department of Revenue, Colorado Office of State Planning and Budgeting.

Renewables

- First renewable portfolio standard in the country
- Includes wind, solar, hydro, geothermal, and biomass
- 17.8% of net generation in 2014
- Most of Colorado's renewable energy comes from wind resources
- Colorado ranks 10th nationally for total megawatts installed for wind energy

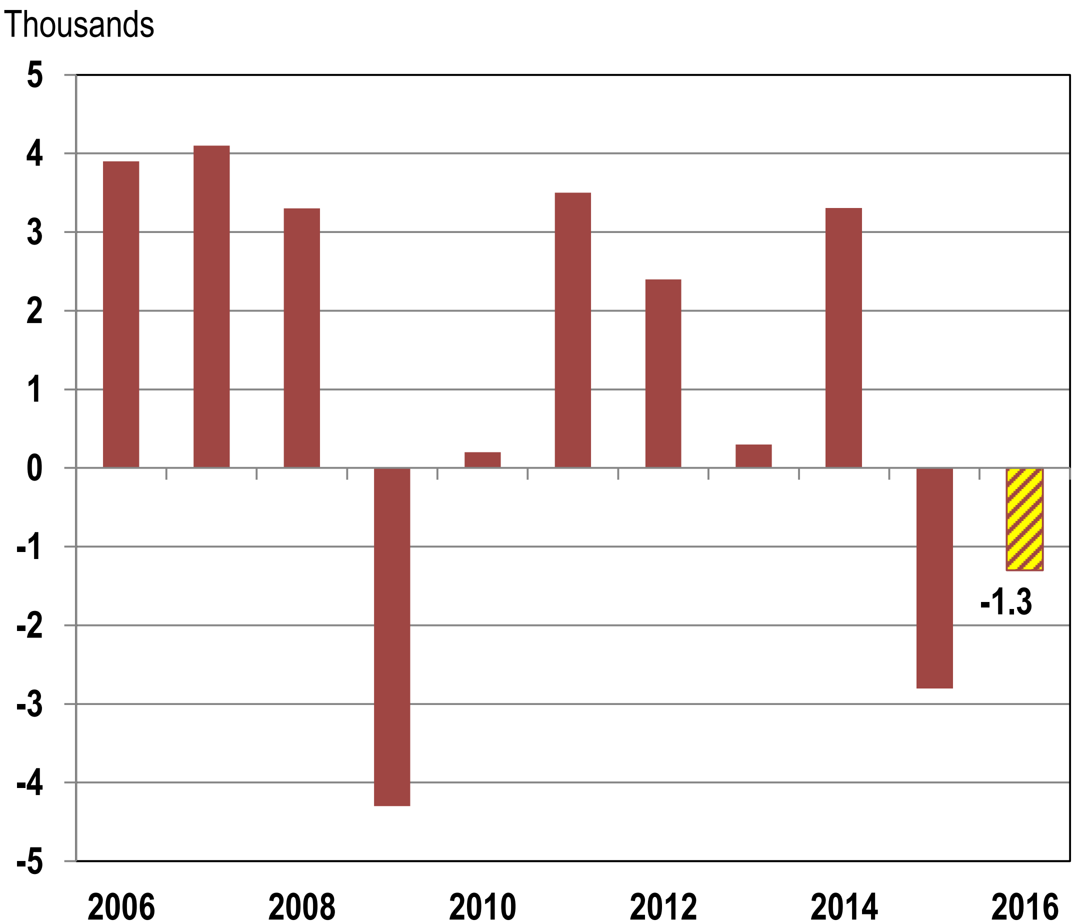
Photo courtesy of Juan Altamirano.

Natural Resources and Mining

Workers Added, 2006-2016

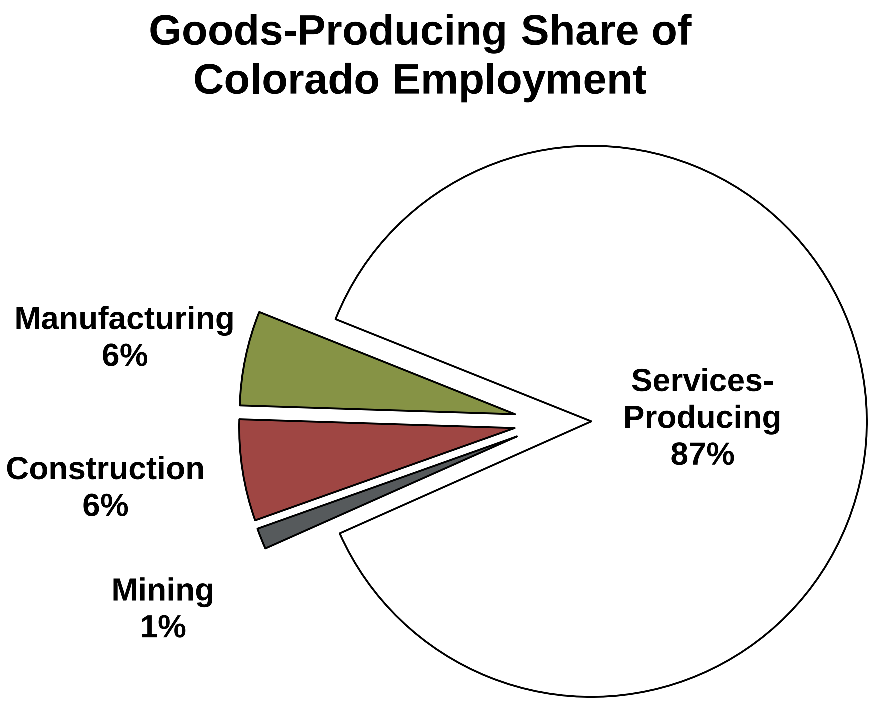
Making Sense of Commodities Prices

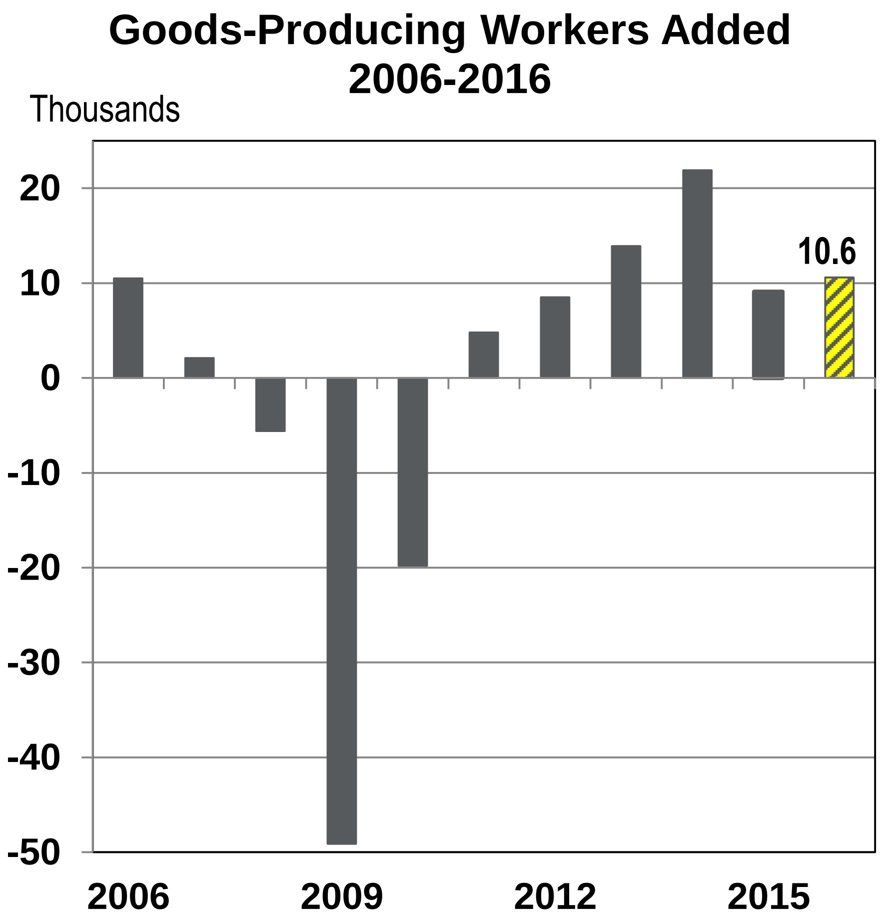
-Mt. Sopris Room B



Sources: Colorado Geological Survey Mineral and Mineral Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Goods-Producing Employment





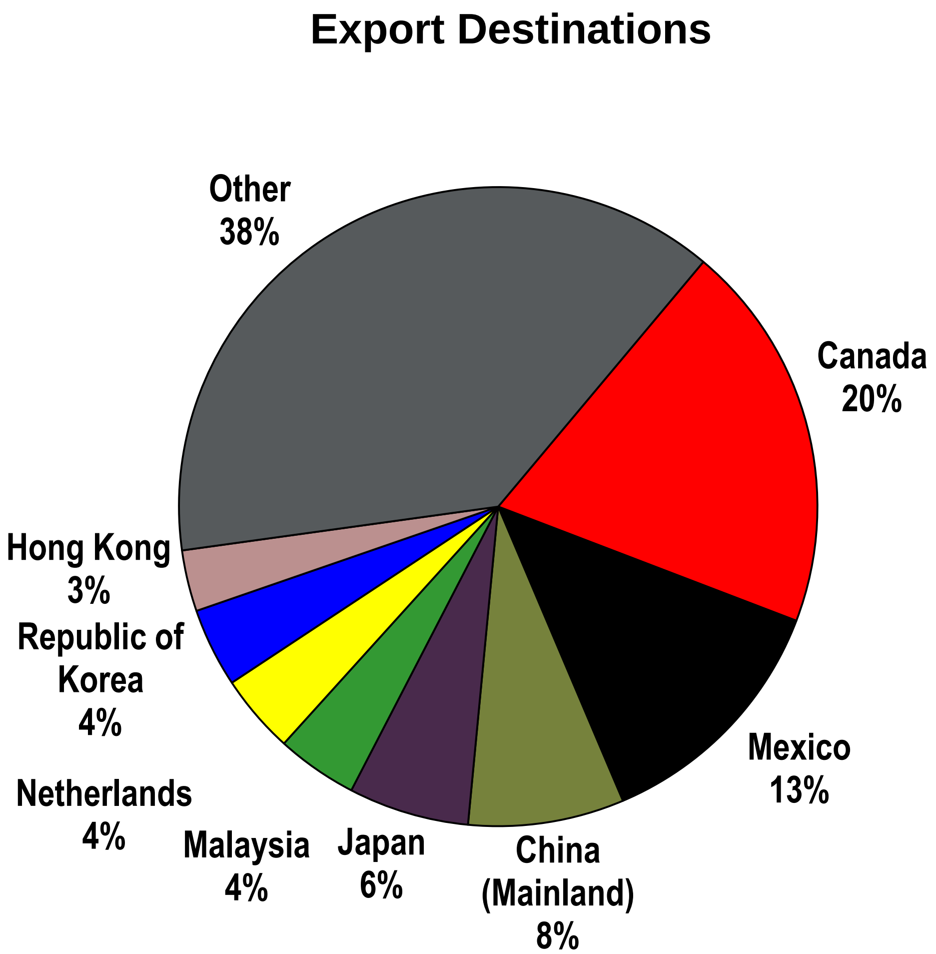
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

International Trade

Major Export Destinations

Top 15 Export Destinations

- Canada
- Mexico
- China
- Japan
- Malaysia
- Korea, Republic Of
- Netherlands
- Switzerland
- United Kingdom
- Germany
- Hong Kong
- Taiwan
- Philippines
- Australia
- Belgium

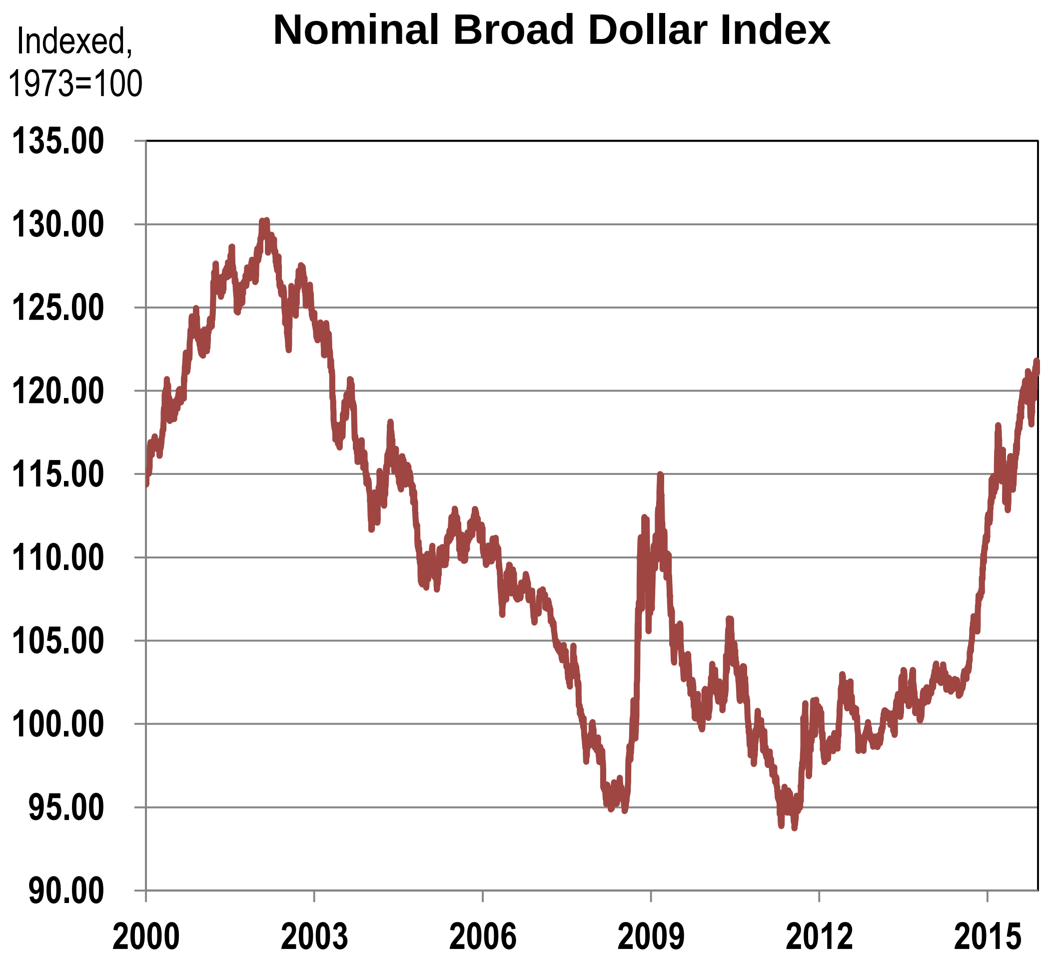


Sources: World Institute for Strategic Economic Research and Colorado Business Economic Outlook Committee.

International Trade

Factors Impacting Trade

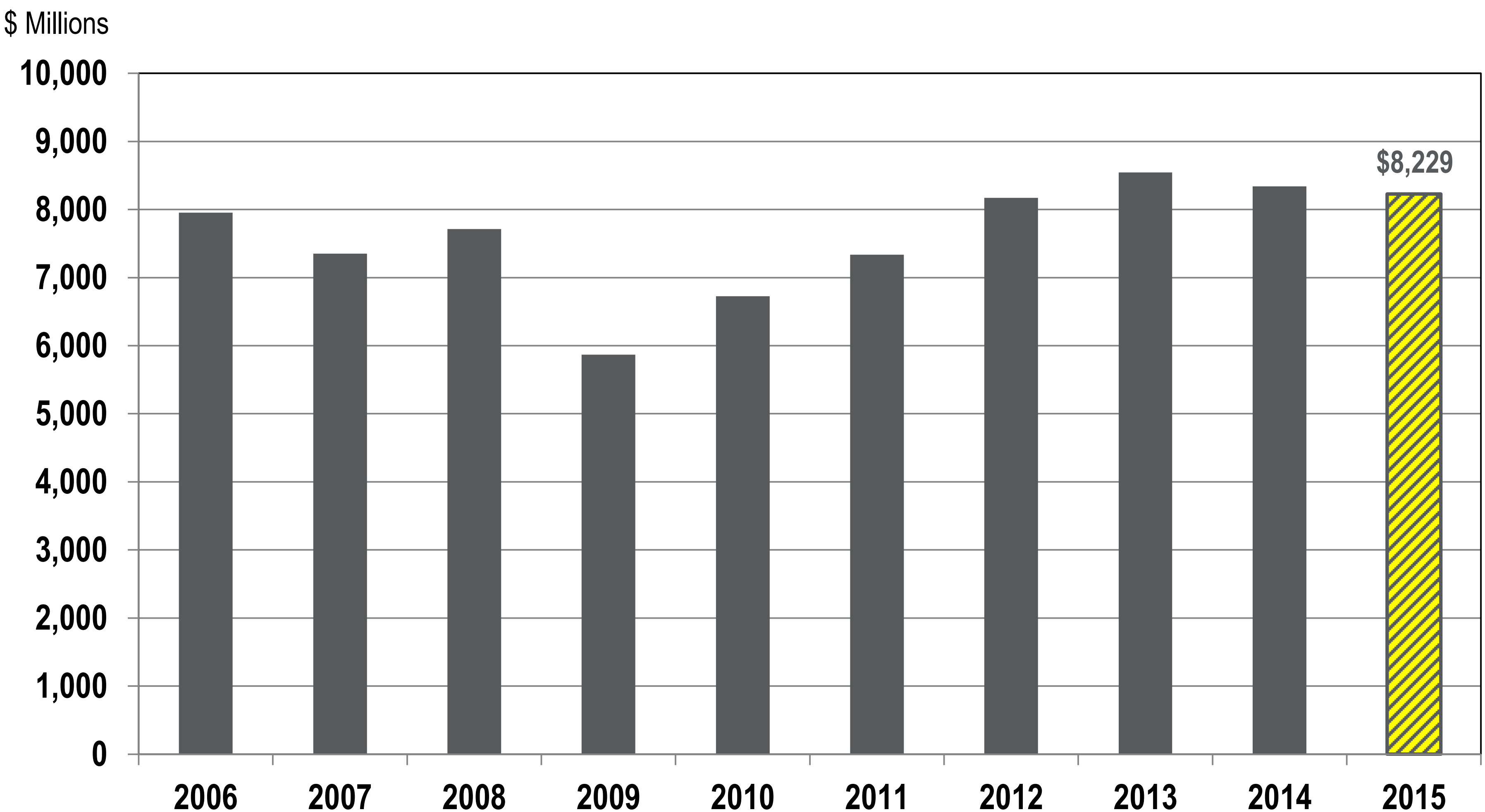
- **Slower economic growth in some international economies**
- **Strengthening of U.S. dollar**
- **Trans-Pacific Partnership**



Source: Federal Reserve Board.

Colorado Exports

Value of Exports, 2006-2015



Sources: World Institute for Strategic Economic Research and Colorado Business Economic Outlook Committee.

Colorado Agricultural Exports

Photo courtesy of Brigitte Shafer.

Trade, Transportation, and Utilities

Photo courtesy of Denver International Airport.

Wholesale Trade

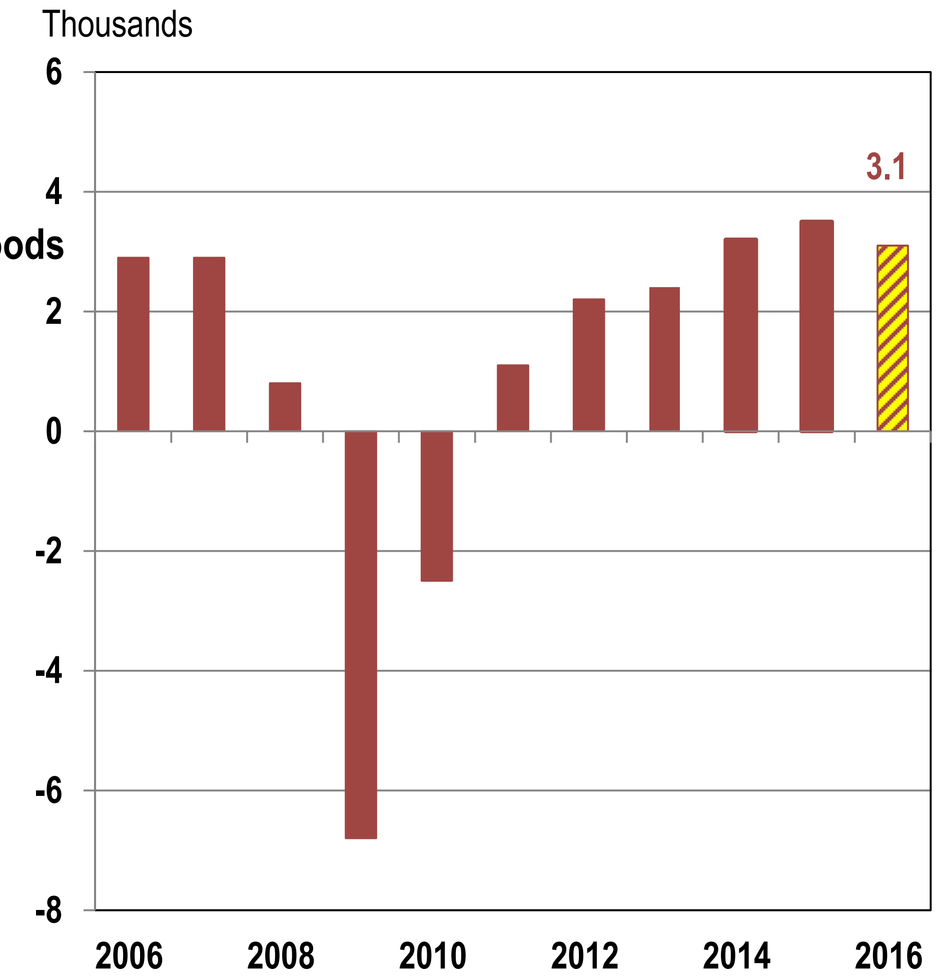
Workers Added, 2006-2016

Employment growth at a slower pace

Dominated by merchant wholesalers in durable goods

Durables: computers, electronics

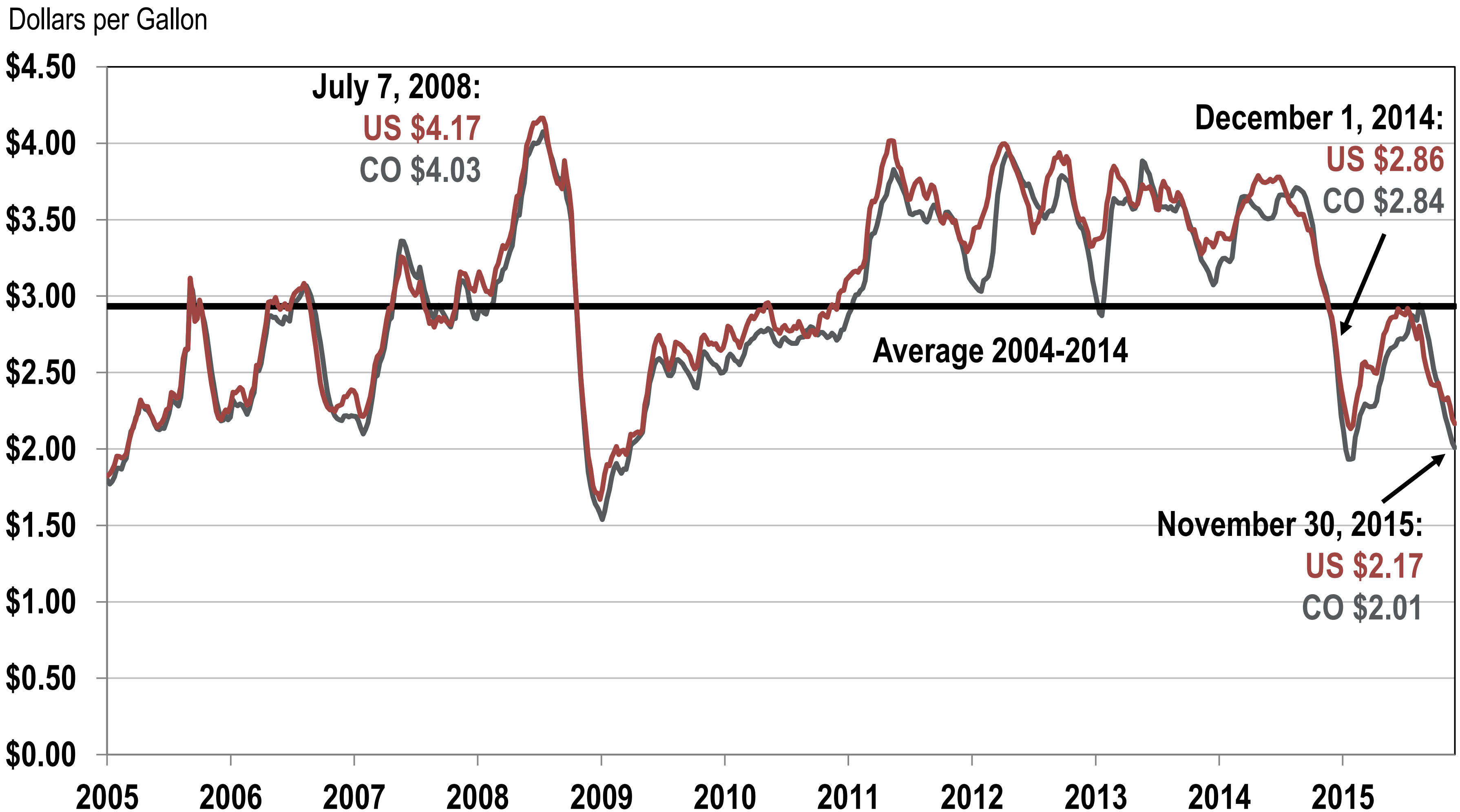
Nondurables: groceries



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

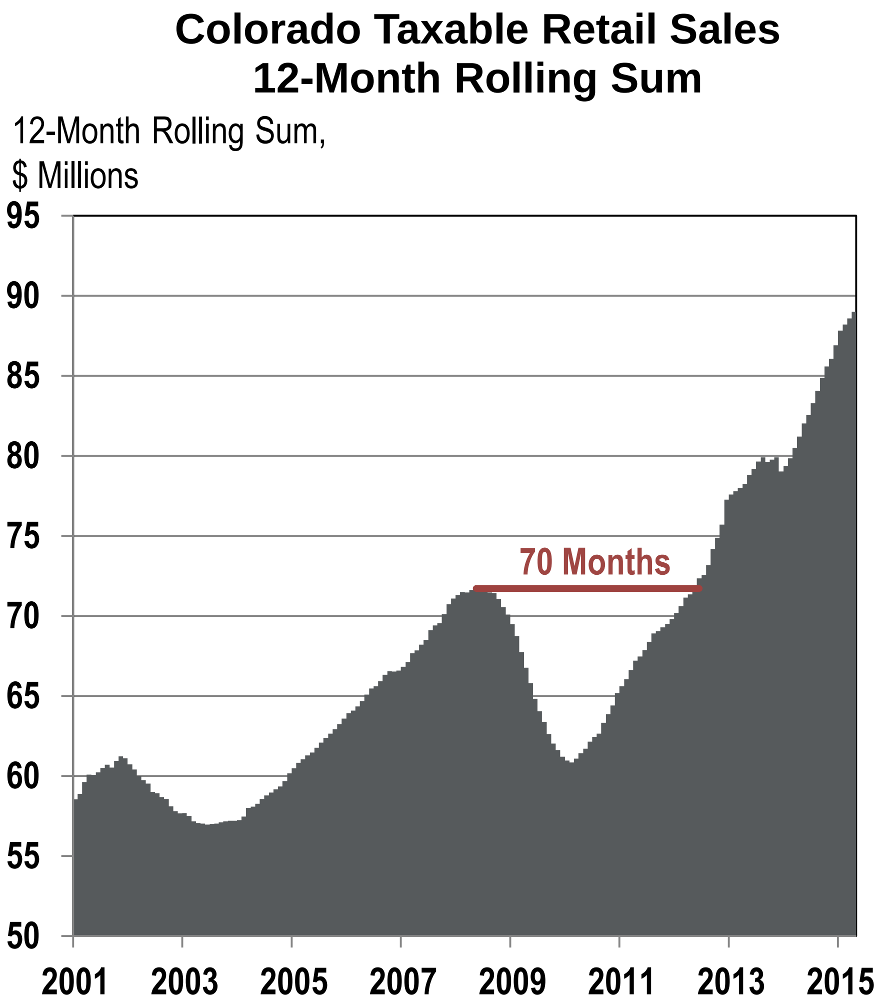
Colorado Gasoline Prices

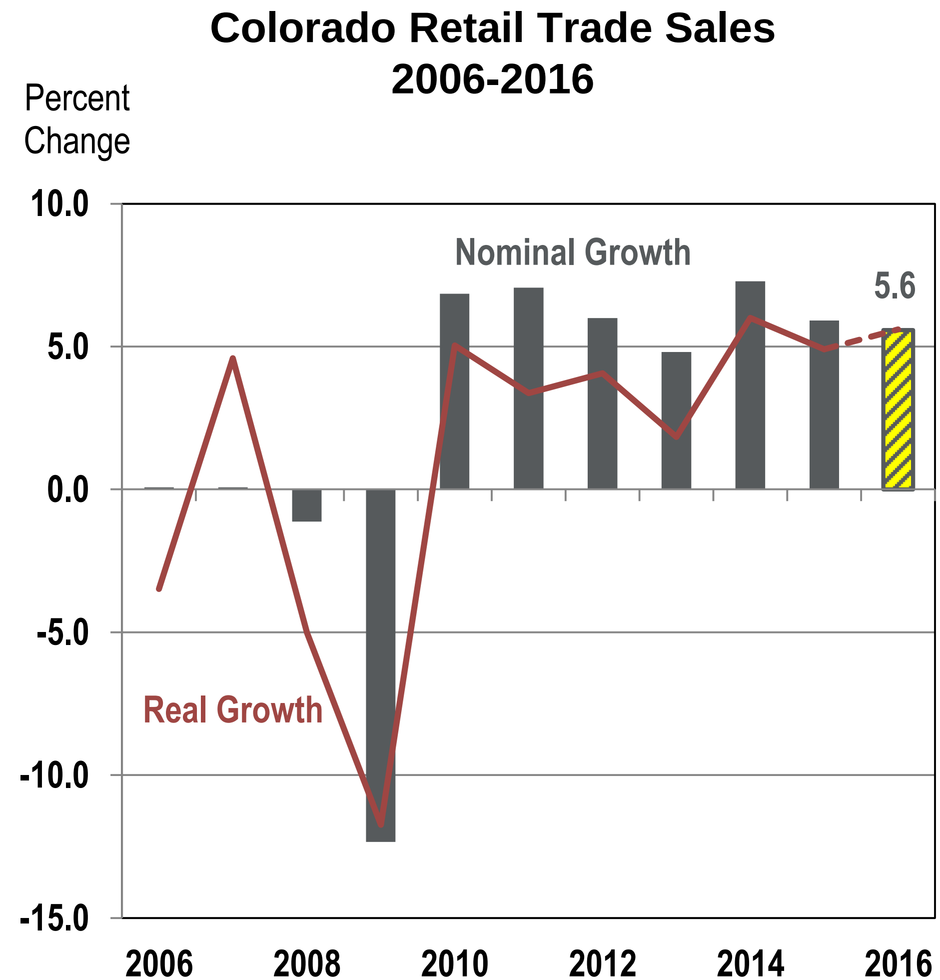
2005-2015



Source: Weekly Colorado All Grades All Formulations Retail Gasoline Prices (Dollars per Gallon).

Retail Trade Sales

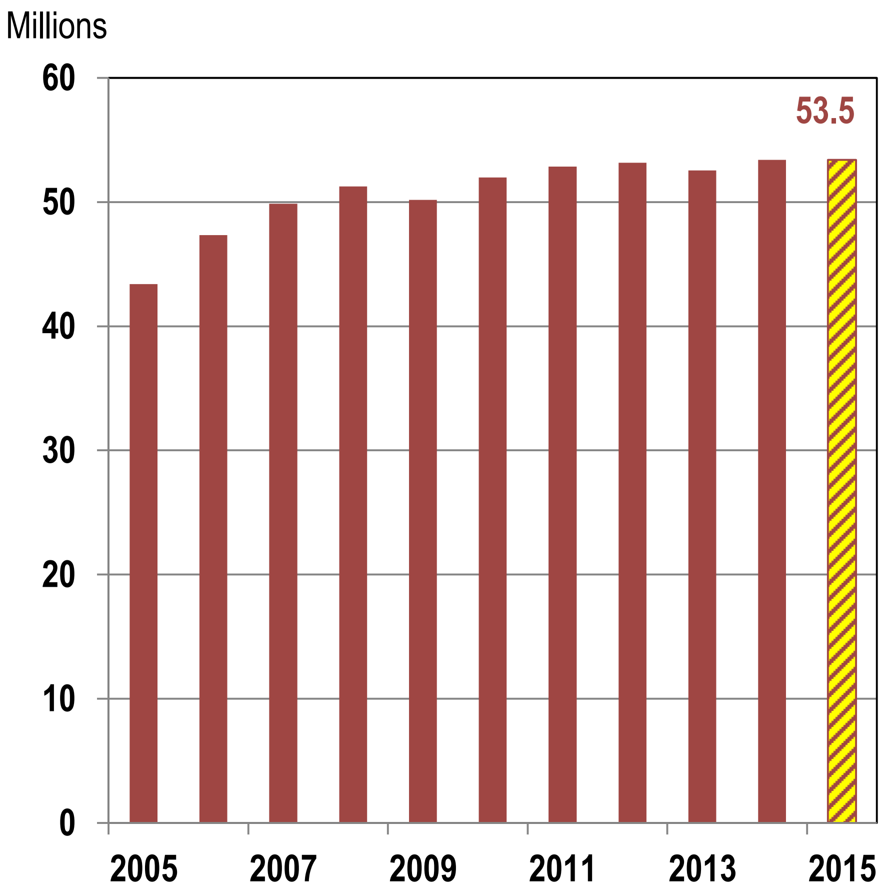




Sources: Colorado Department of Revenue and Colorado Business Economic Outlook Committee.

DIA Enplanements and Deplanements

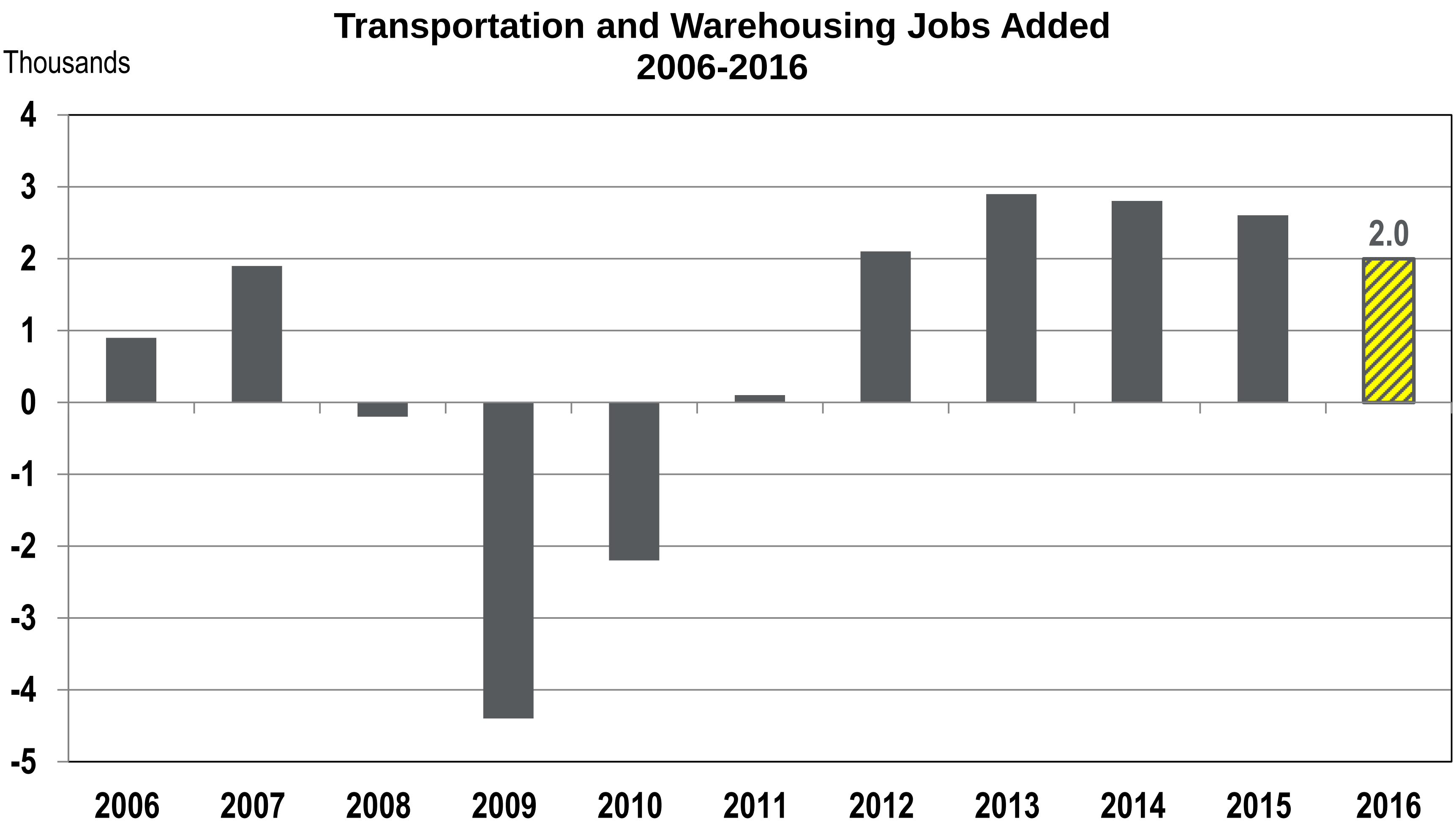
2005-2015



Sources: Denver International Airport and Colorado Business Economic Outlook Committee.

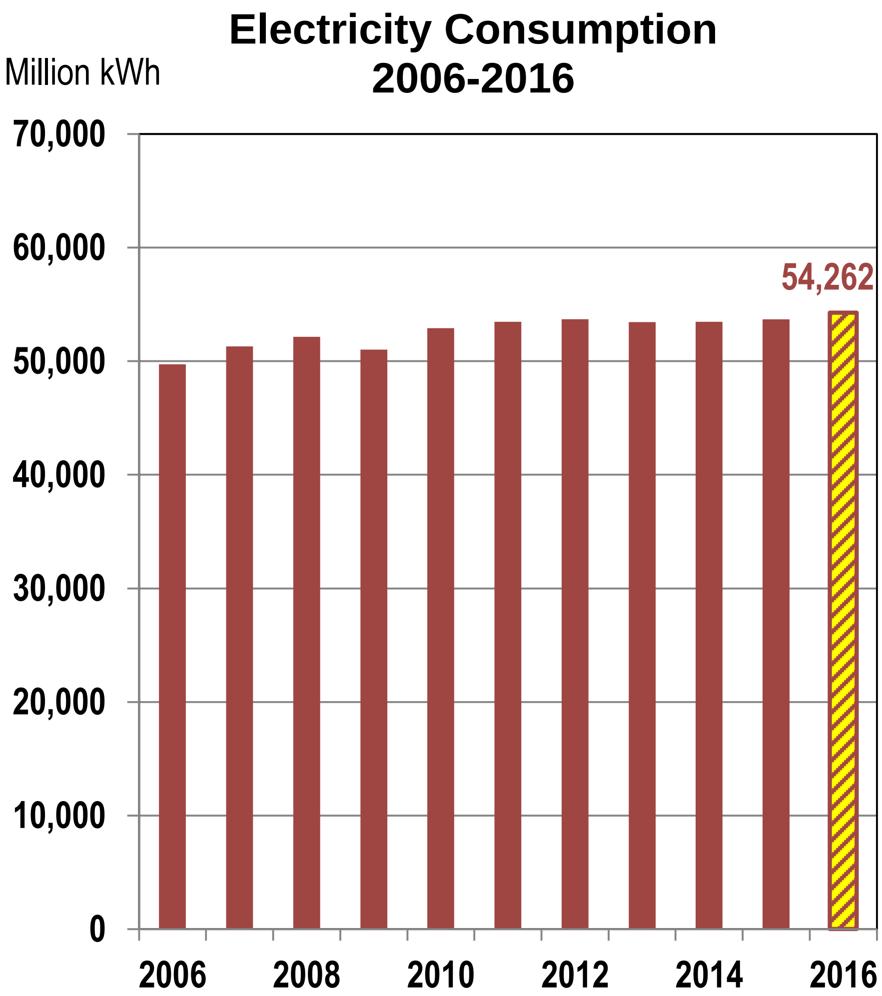
Transportation and Warehousing

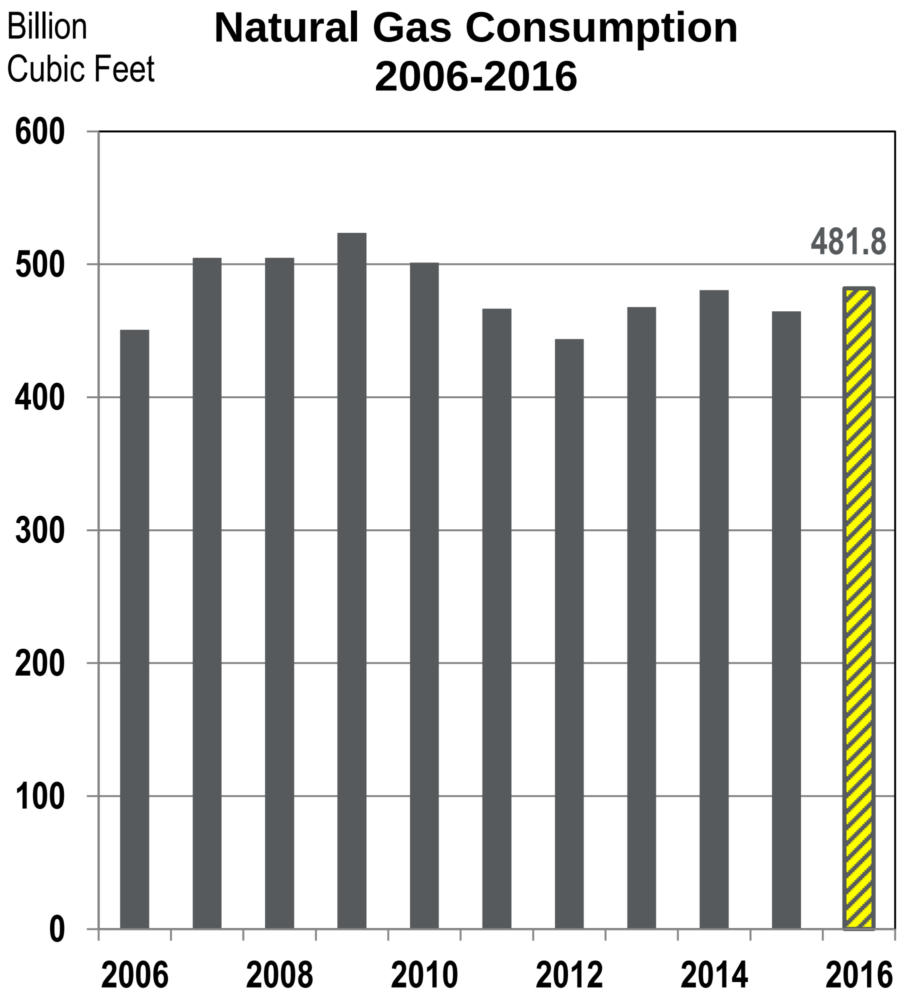
Employment



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Electricity and Natural Gas Consumption

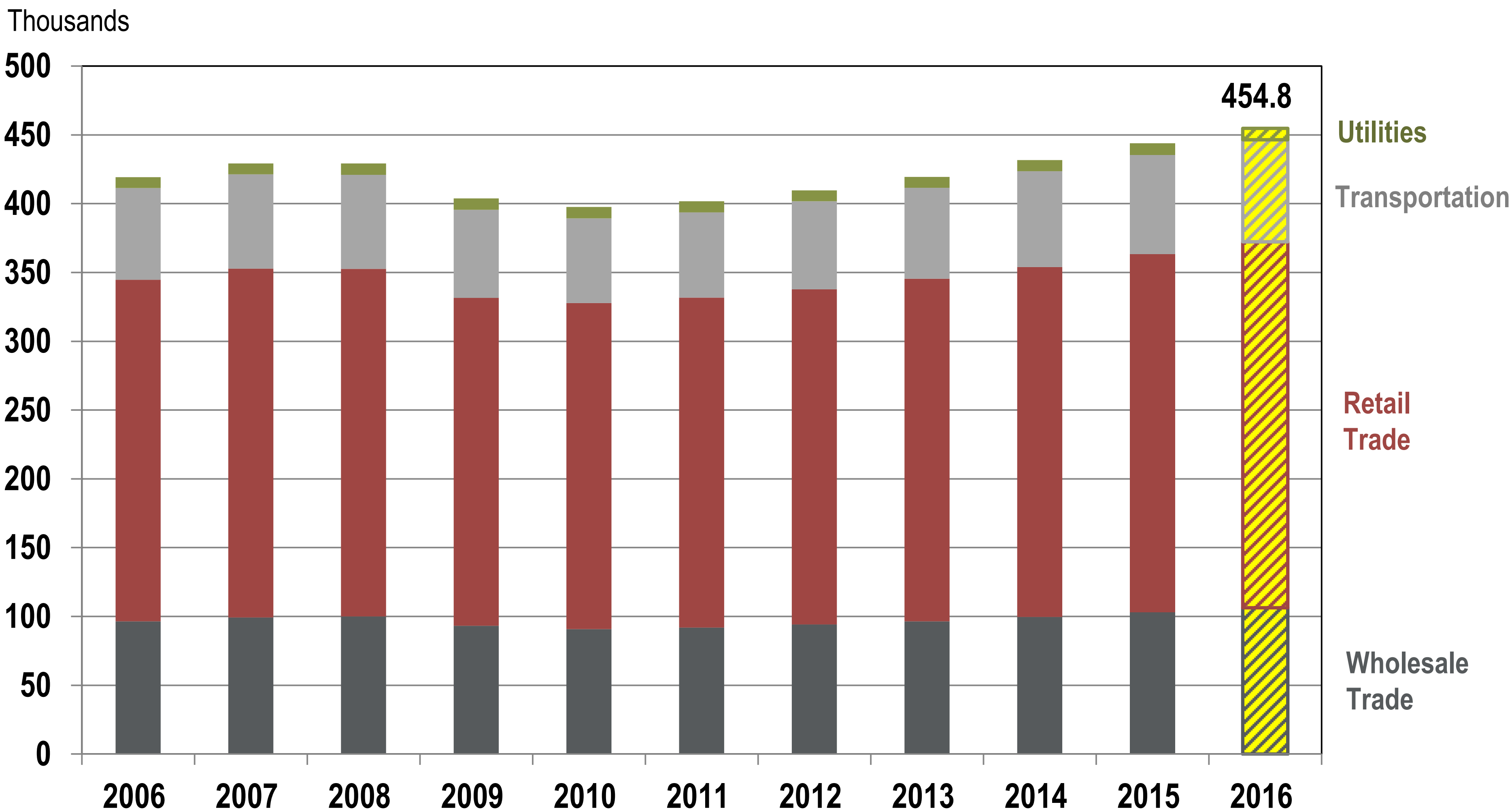




Sources: Edison Electrical Institute Statistical Yearbook, Xcel Energy, and Colorado Business Economic Outlook Committee.

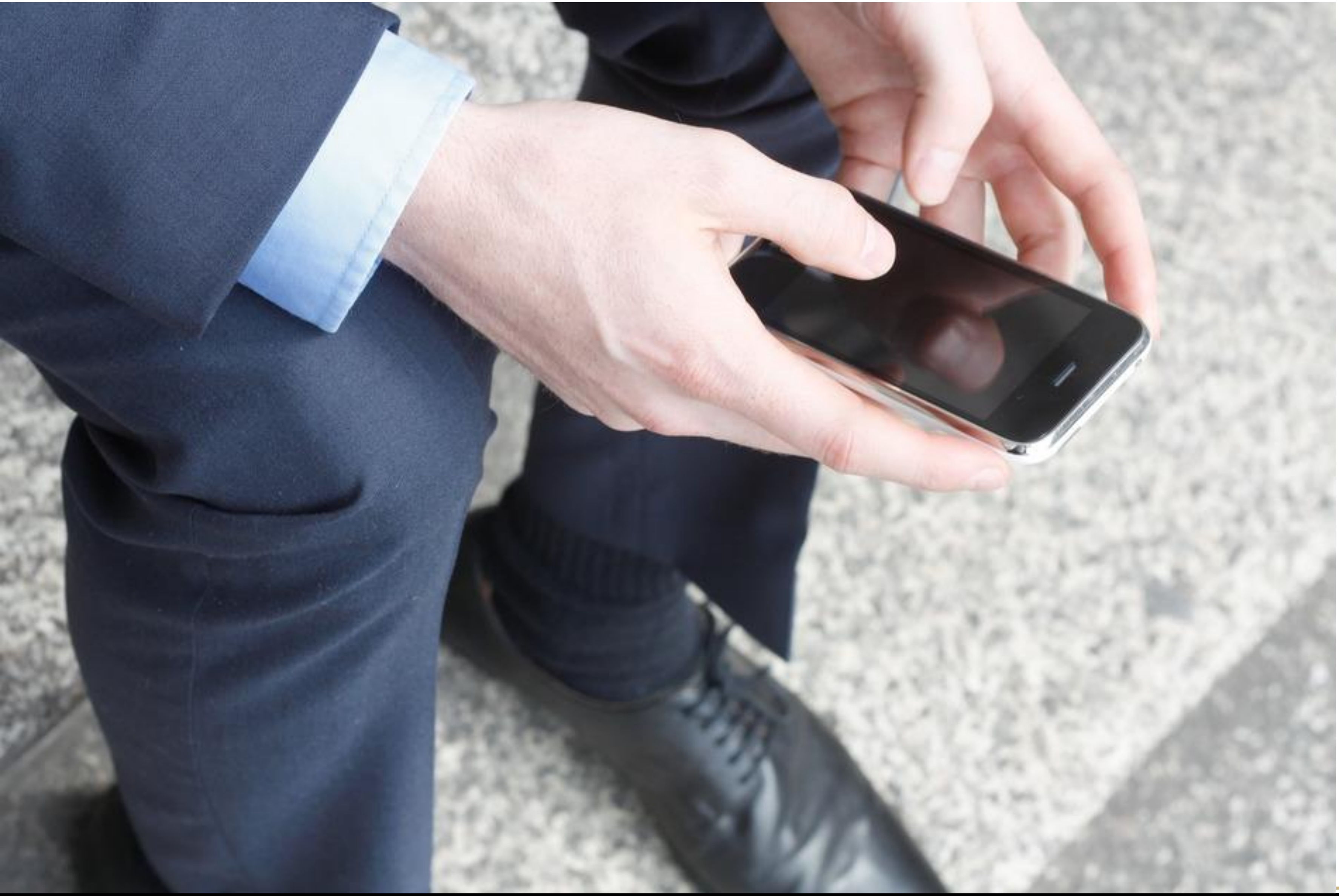
Trade, Transportation, and Utilities

Employment, 2006-2016



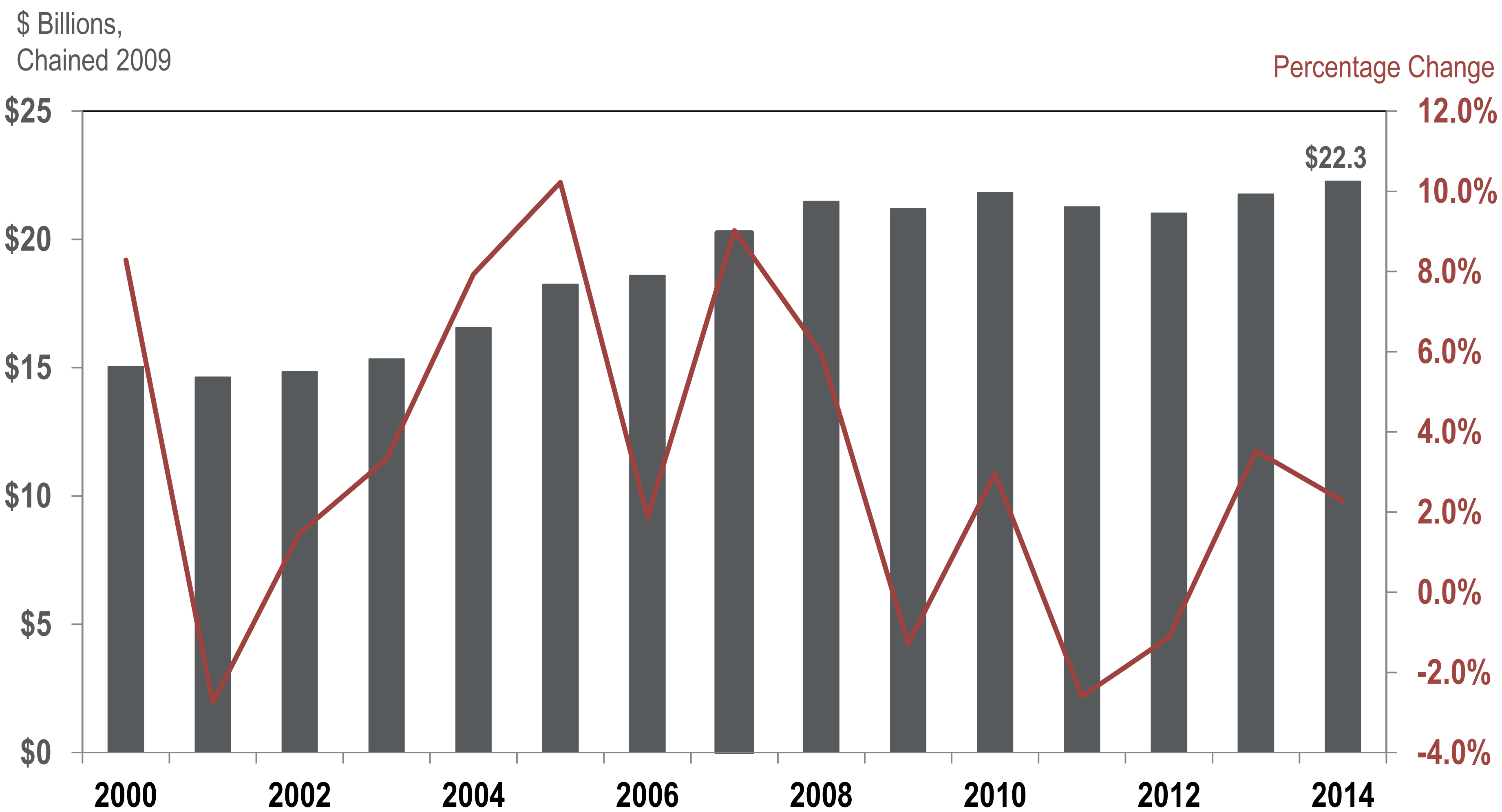
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Information



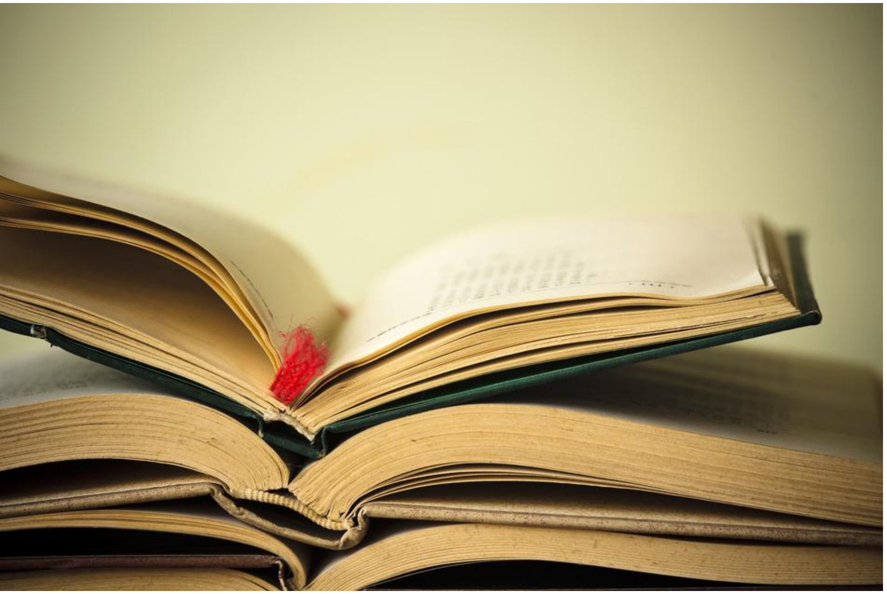
Information GDP

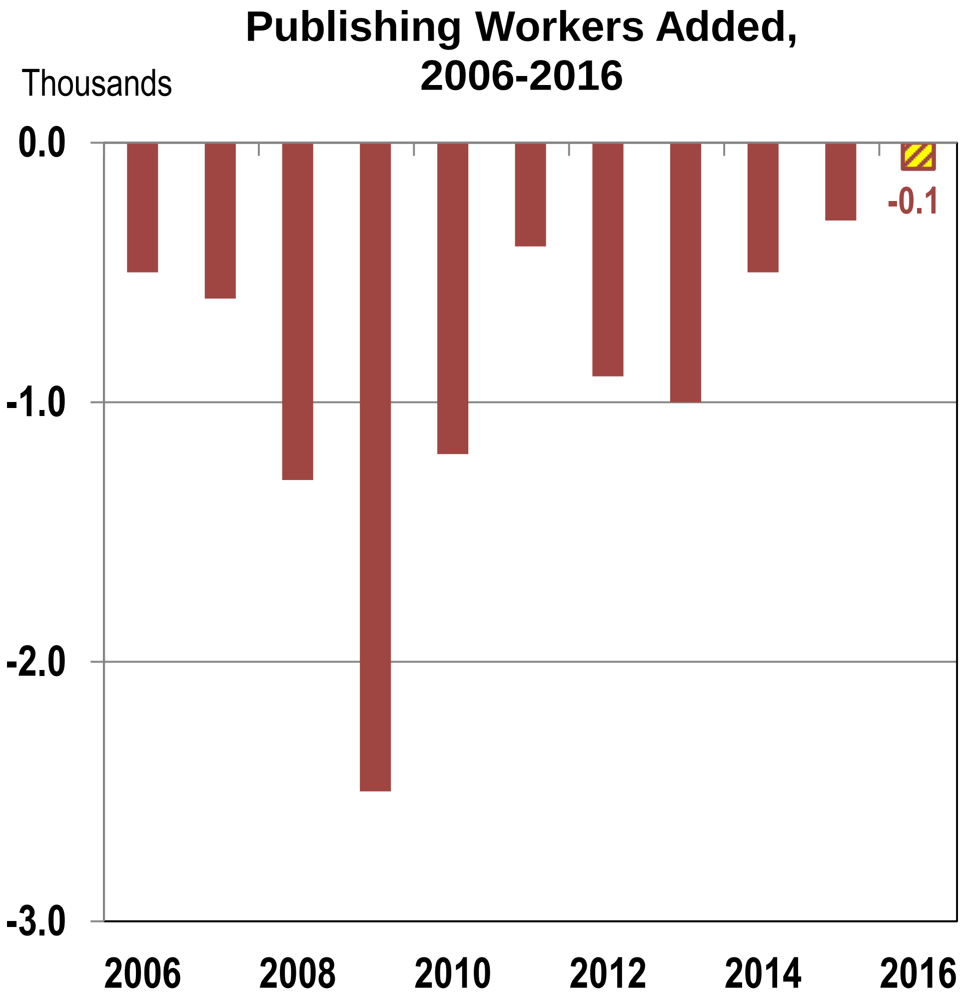
2000-2014



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Publishing

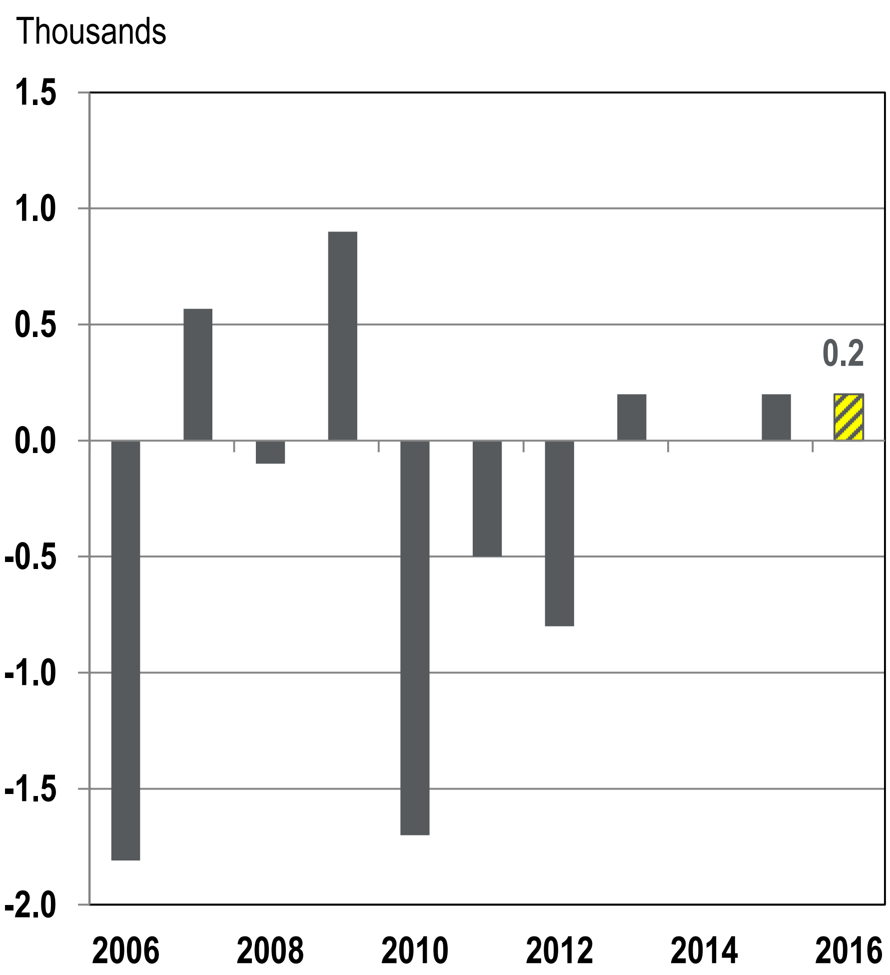


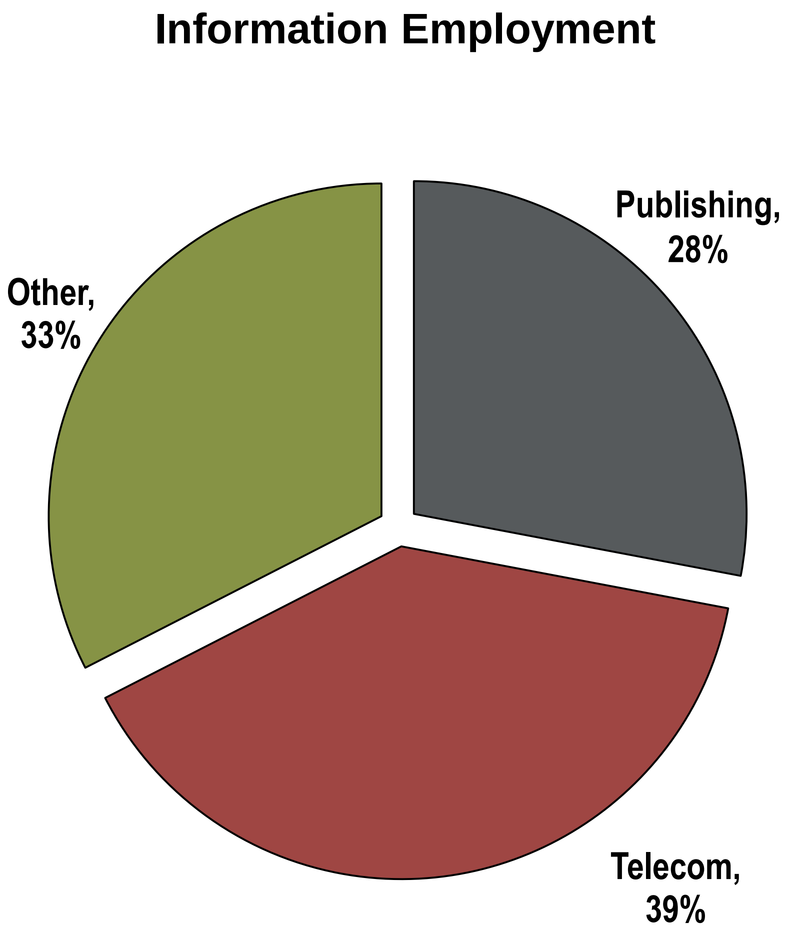


Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Telecommunications

2006-2016





Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Colorado's Film Industry

Colorado Film Tourism

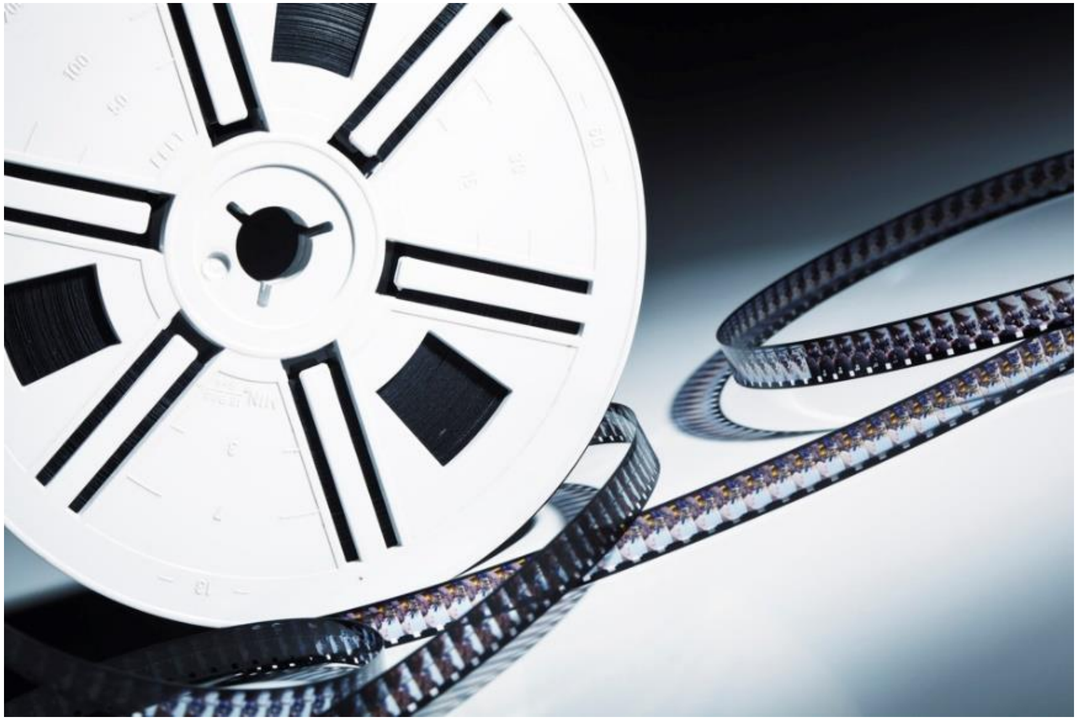
The Hateful Eight

Dear Eleanor

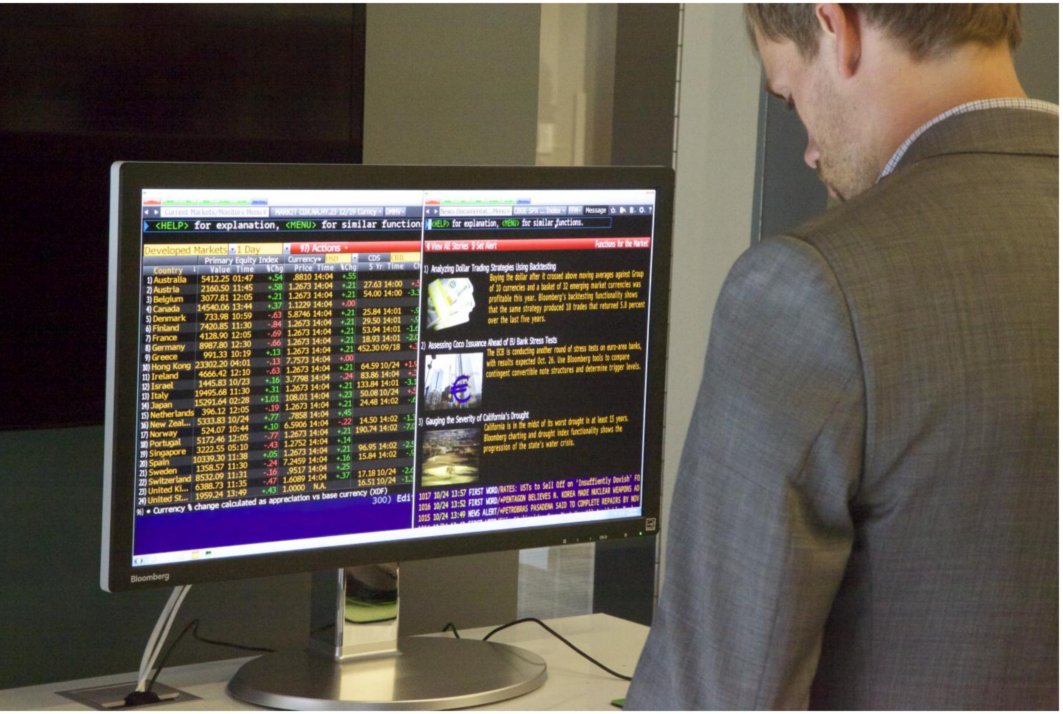
Heaven Sent

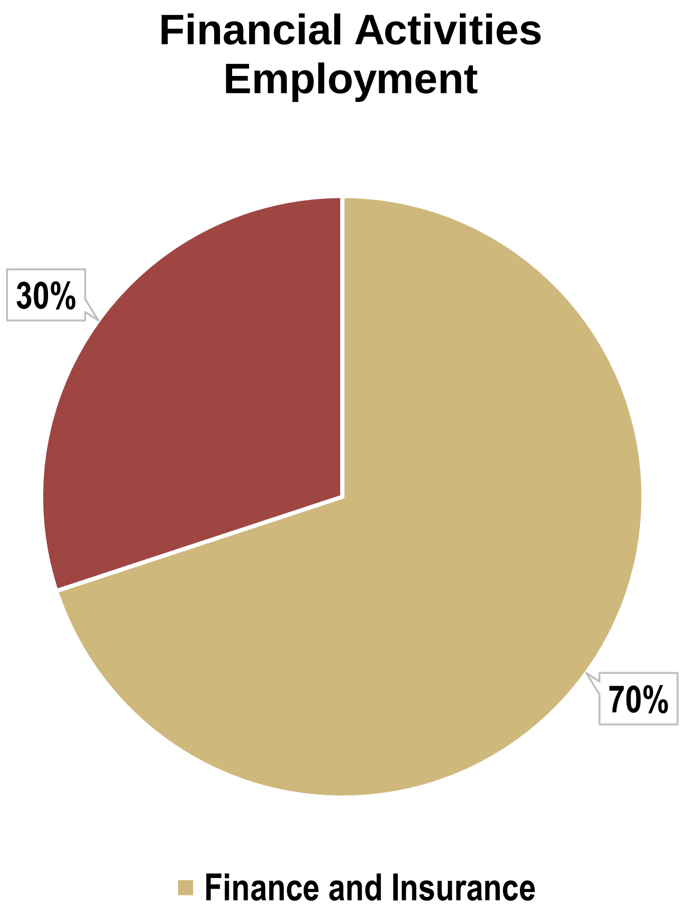
Fast and Furious 7

Cop Car



Financial Activities





Source: Colorado Business Economic Outlook Committee

Securities Trends

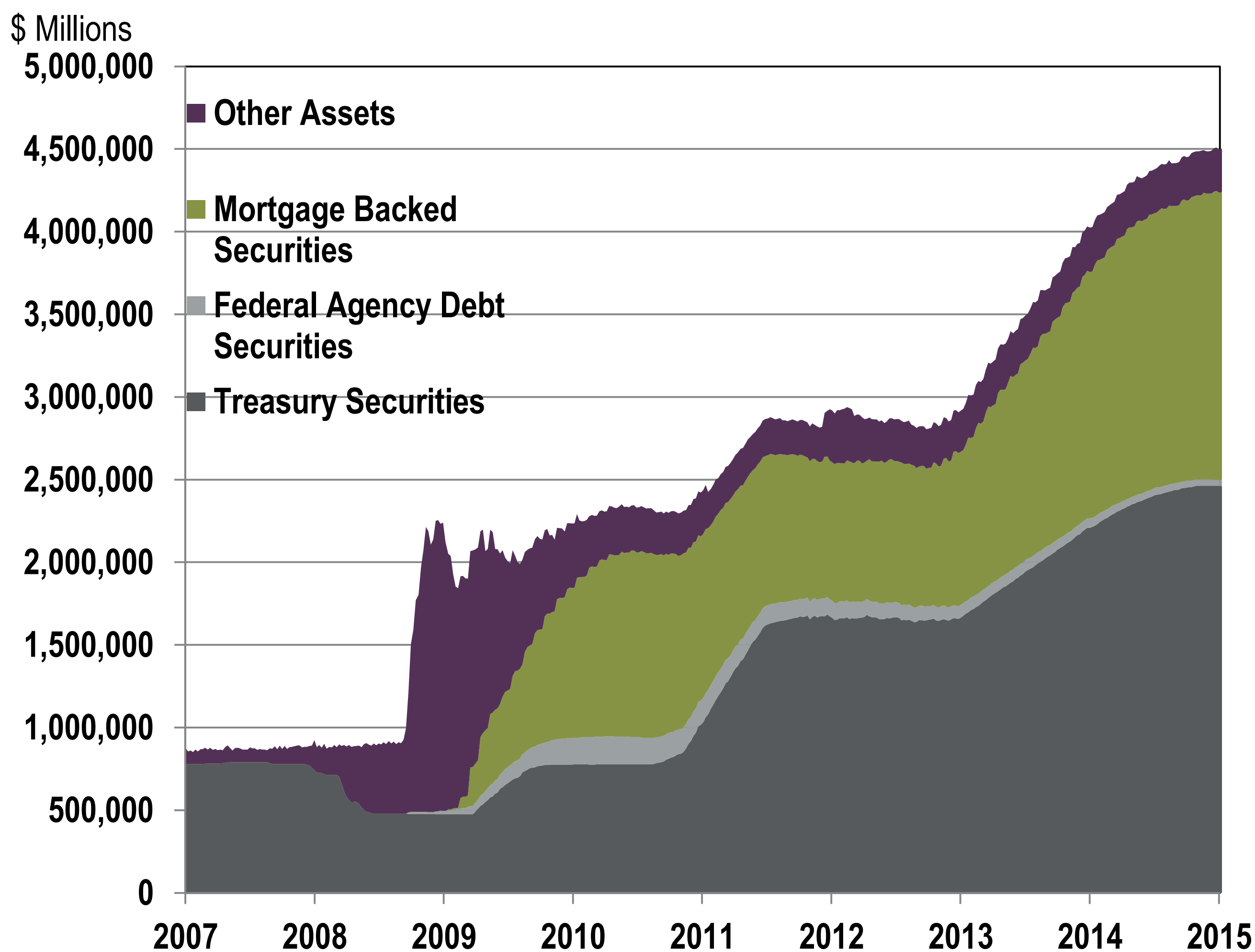
S&P 500 Index, 2008-2015 YTD

Source: Bloomberg.

The FED

Balance Sheet, 2007-2015

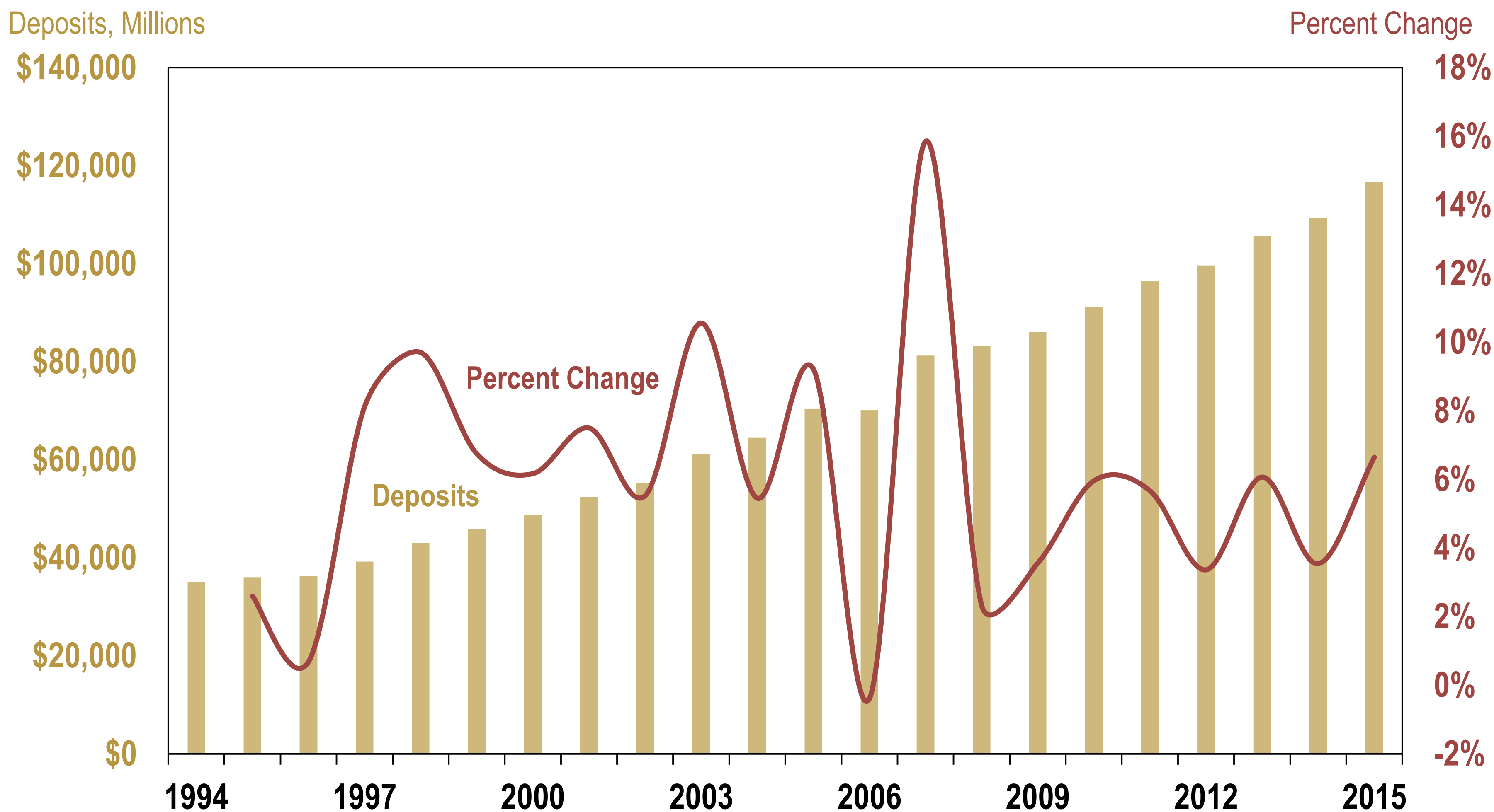
- **QE 1, QE 2, QE 3**
- **Fed promises near zero interest rates until mid-2013, 2014, 2015, 2016**
- **Operation Twist**
- **Swaps**
- **Tapering**
- **Tapering Complete**
- **Federal Funds Rate Increase?**



Source: Federal Reserve Balance Sheet.

Colorado Bank Deposits

1994-2015



Source: FDIC, Deposit Market Share Report.

Banking Trends

Improving capital structures in banks

Raising new capital is expensive for smaller banks

Solid loan demand

Improvement in loan portfolios

Decline in acquisitions by large banks

Regulatory environment causing some banks to opt out of making mortgage loans

Regulation

Dodd-Frank Act Rulemaking

- **Real estate lending "7 rules"**

Growing compliance costs

Regulation uncertainty

Customers on the margin are excluded due to tightened regulation and greater regulatory complexity with regards to loans

TILA-RESPA went into effect in August 2015

Smaller loan interest margins limit revenues

Colorado Insurance Trends

Modest job growth in 2015 and 2016

Premium increases for property and casualty subsector

Increased number of insurance agency mergers and acquisitions

Health rates expected to increase 2016

Commercial Real Estate Trends

Colorado ranked fourth-best state for a STEM-focused economy

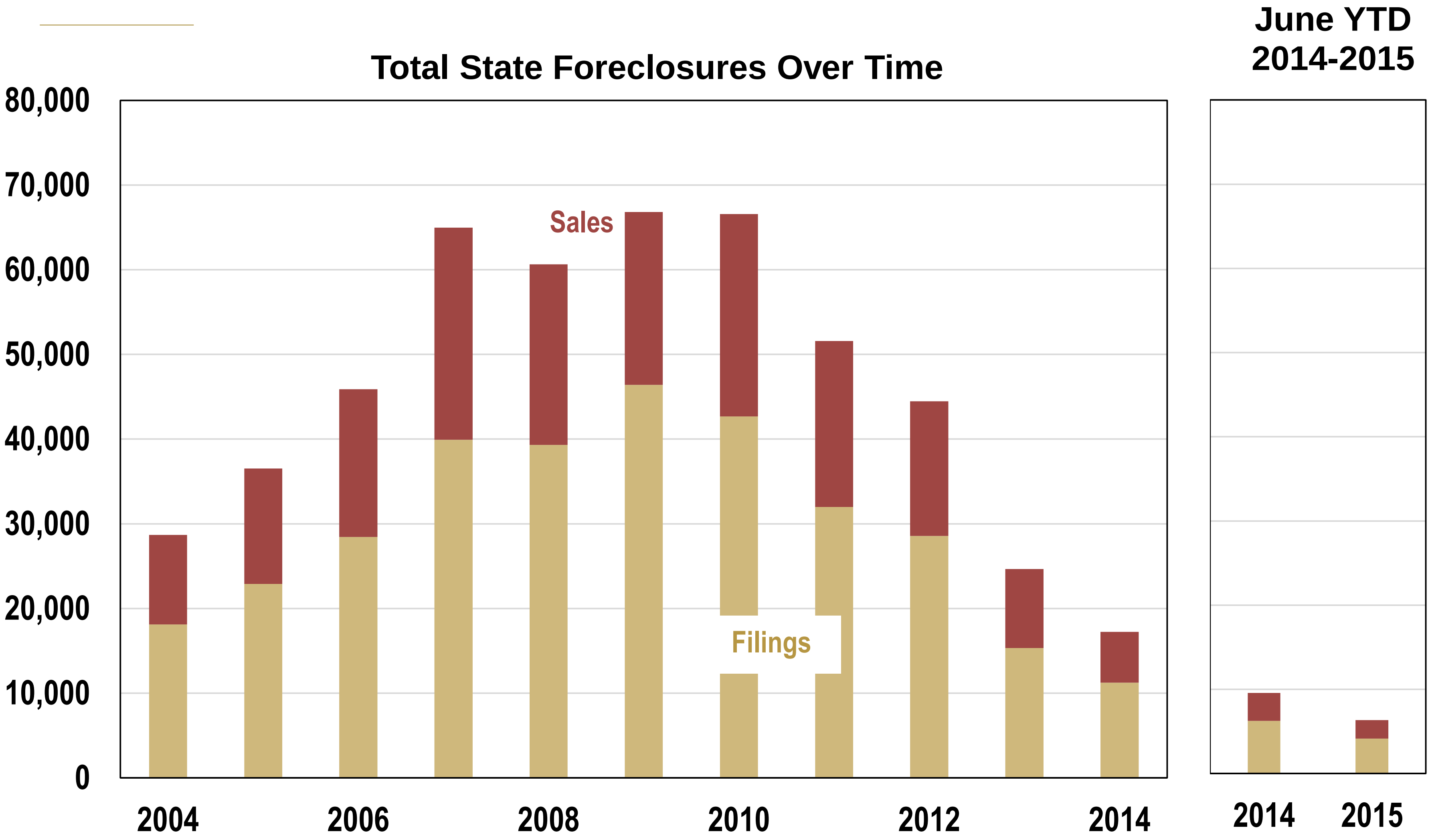
Rising rents and decreasing vacancies

Lowest post-recession retail vacancy rate in Denver (5.9%)

Statewide economic growth driving real estate activity

Colorado Foreclosures

2004-2015

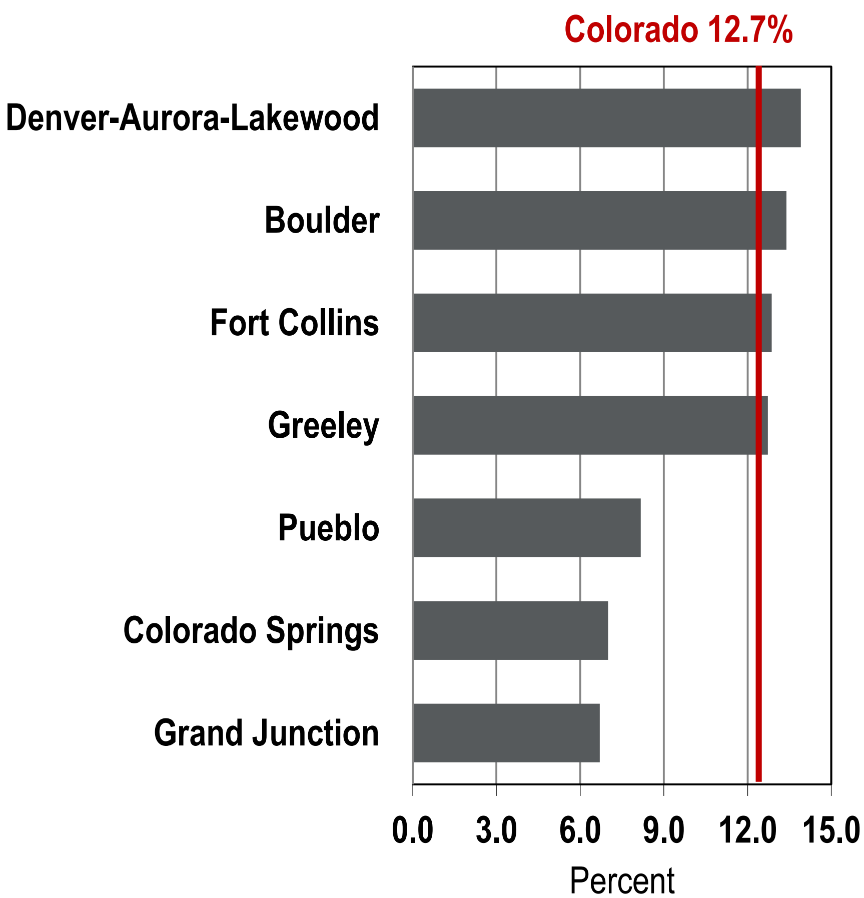


Source: Colorado Division of Housing

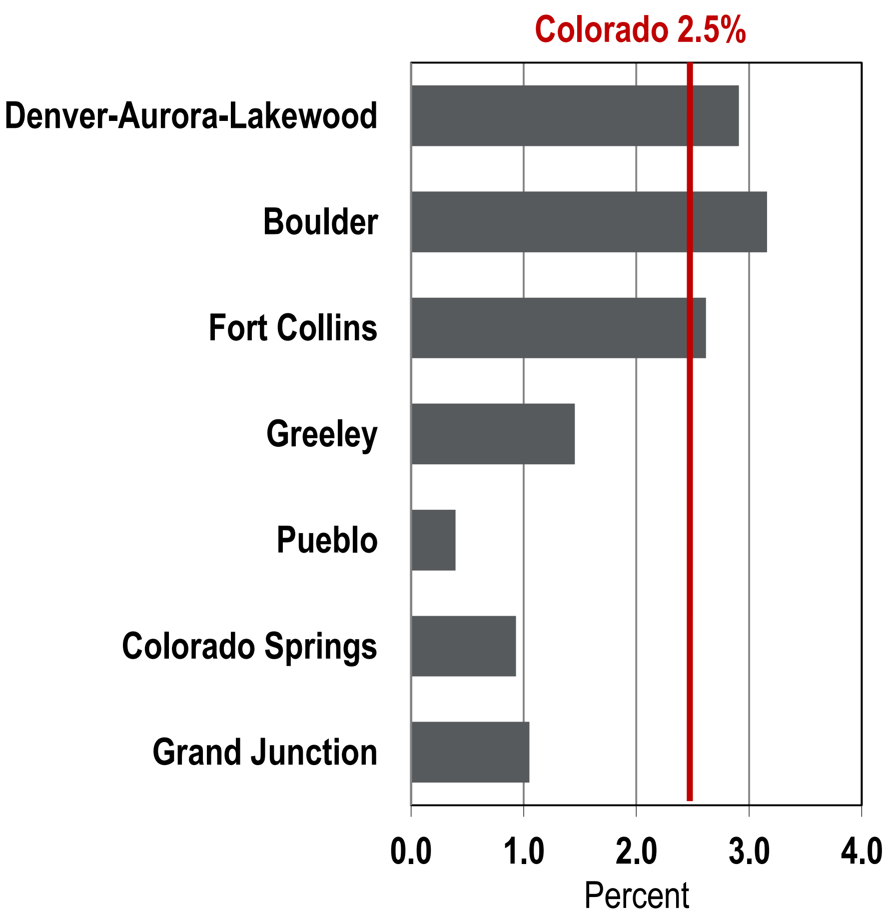
Federal Housing Finance Agency (FHFA)

House Price Index by MSA

Q3 2014 – Q3 2015



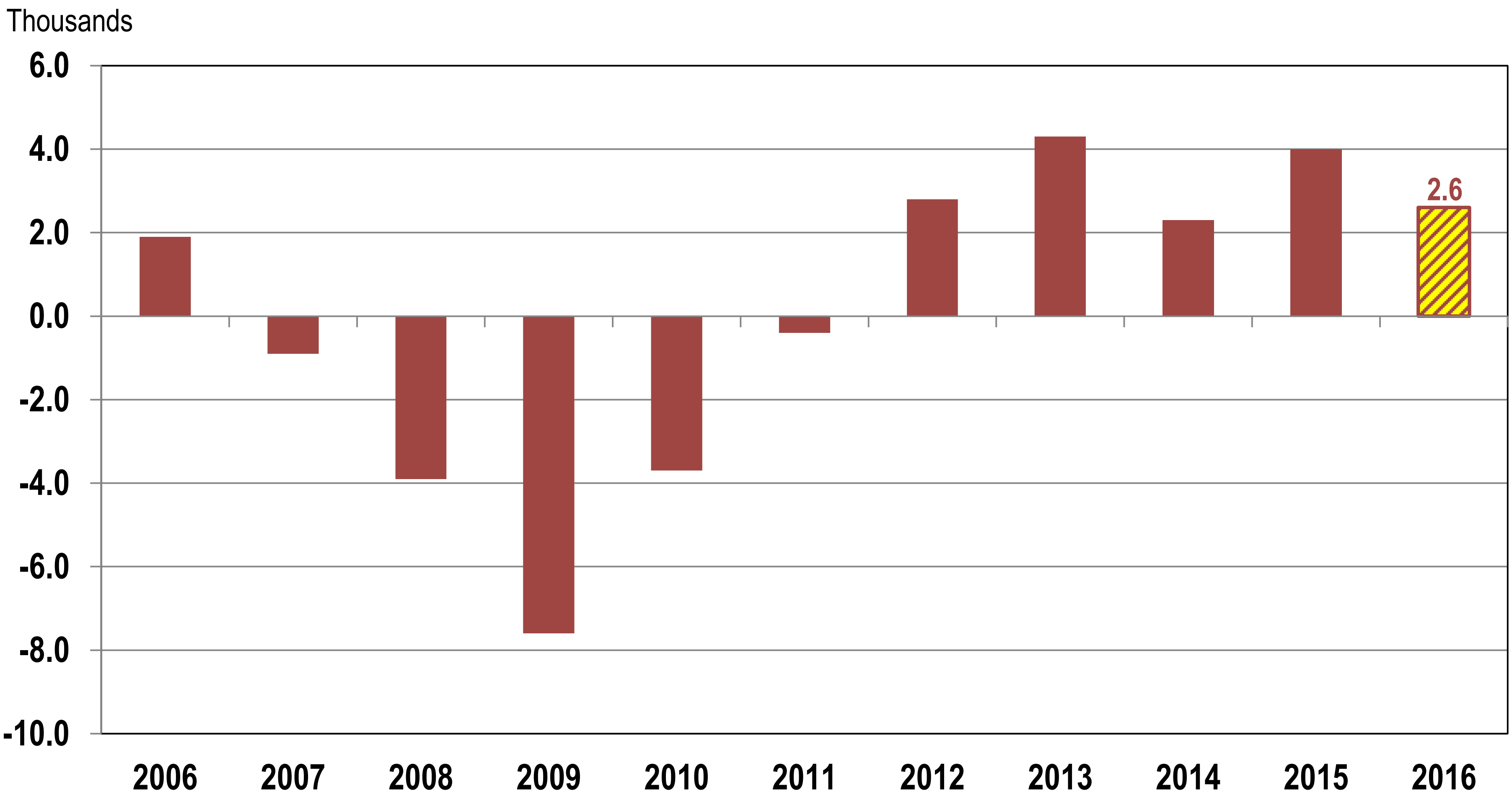
CAGR Q3 2005 – Q3 2015



Source: Federal Housing Finance Agency, All Transactions Indexes.

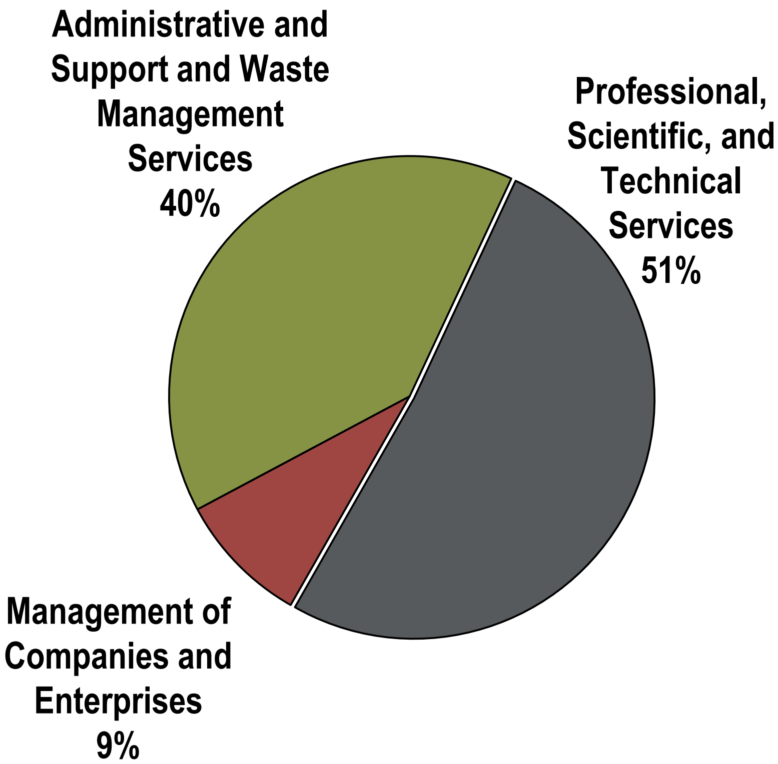
Financial Activities Employment

2006-2016

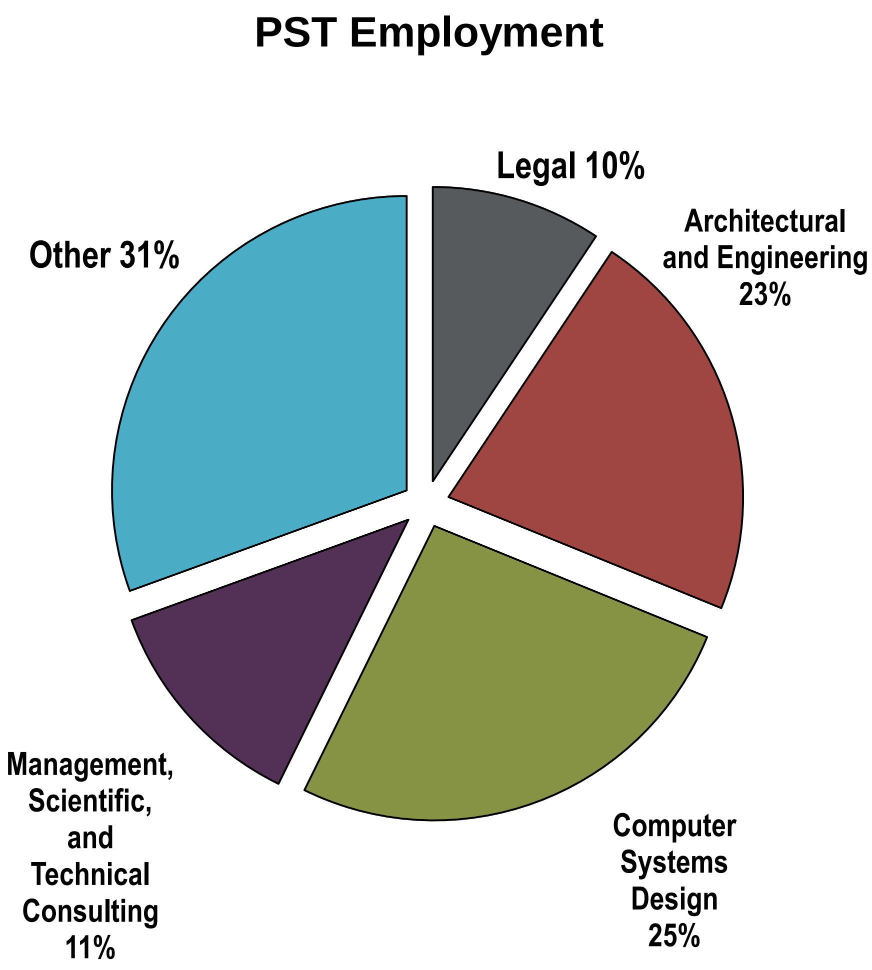


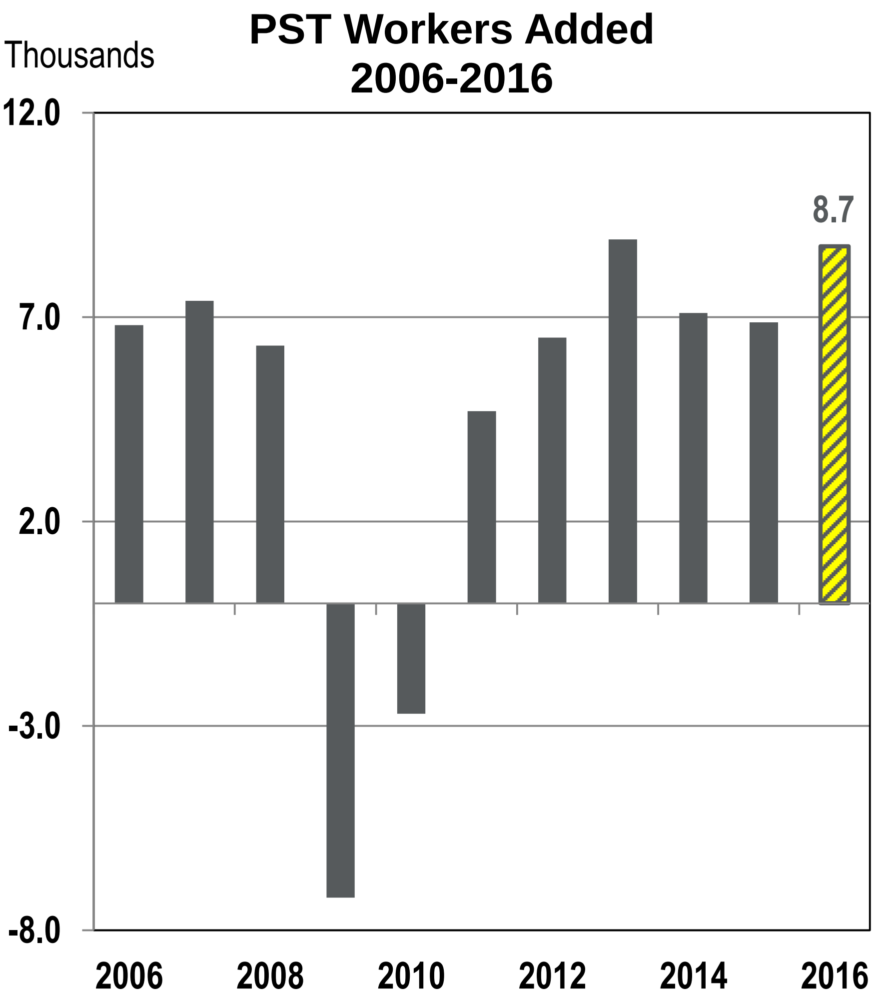
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Professional and Business Services



Professional, Scientific, and Technical Services





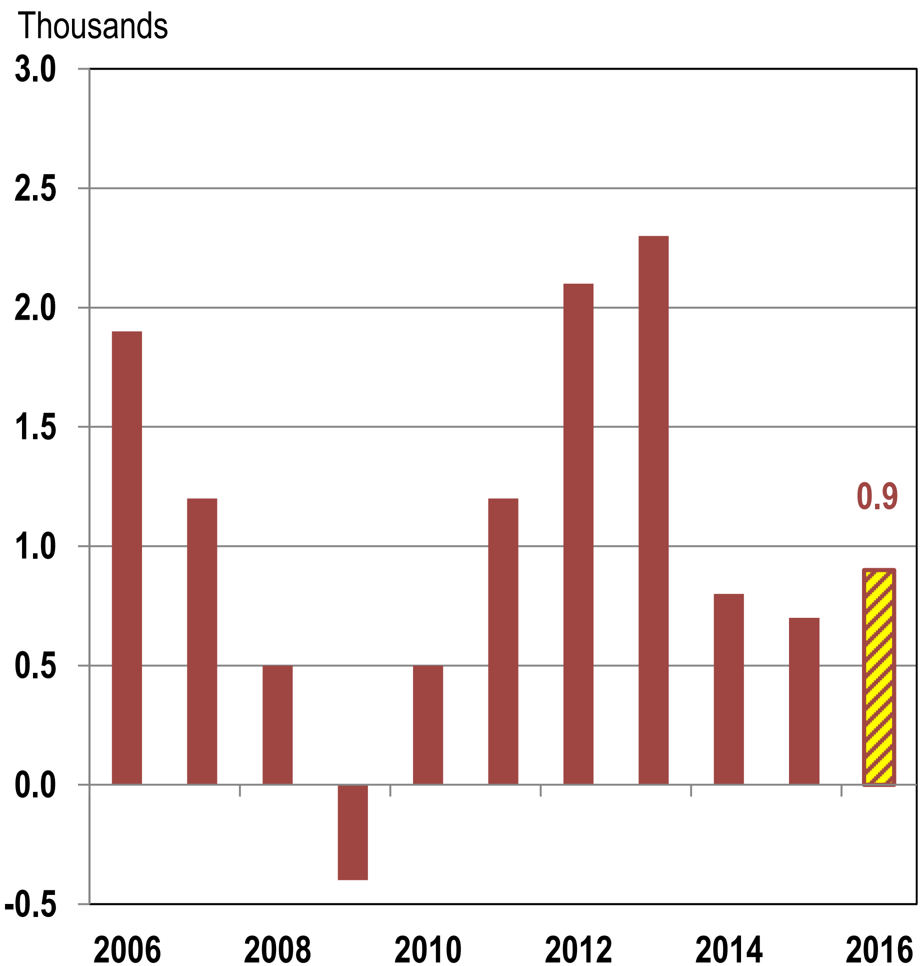
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Management of Companies and Enterprises
2006-2016

Most diverse sector of PBS, includes broad cross-section of headquarters and regional offices

Sells nationally and globally

Colorado remains an appealing place to locate company headquarters



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

CEO Panel

Moderated by:

Ellen Balaguer, Retired Senior Executive, Accenture

Panelists:

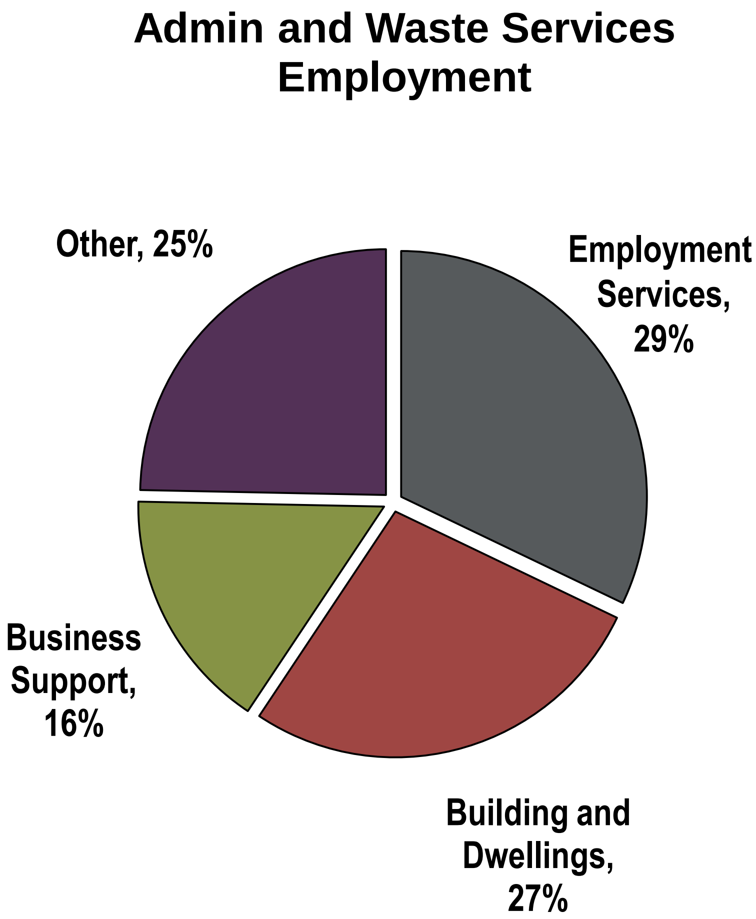
Matt Erickson, Zayo Group

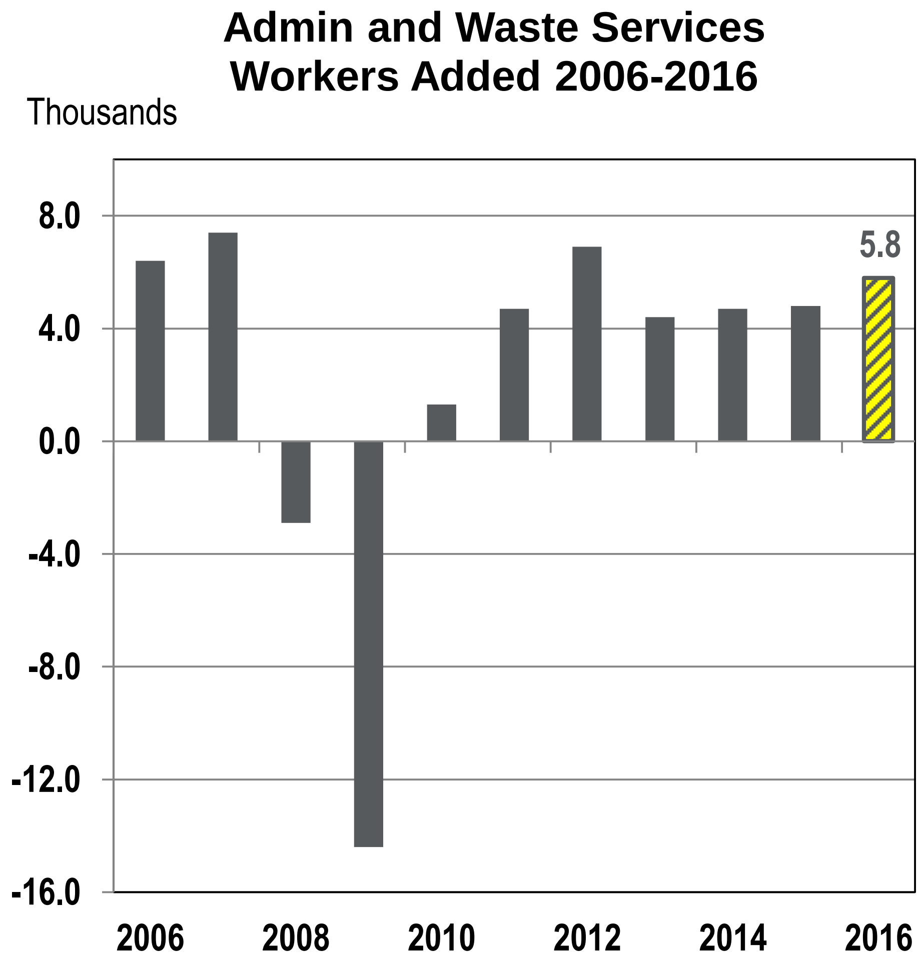
Brian McDonald, Charles Schwab

Joe Mello, DaVita HealthCare Partners

Mary Rhinehart, Johns Manville

Administrative and Waste Services

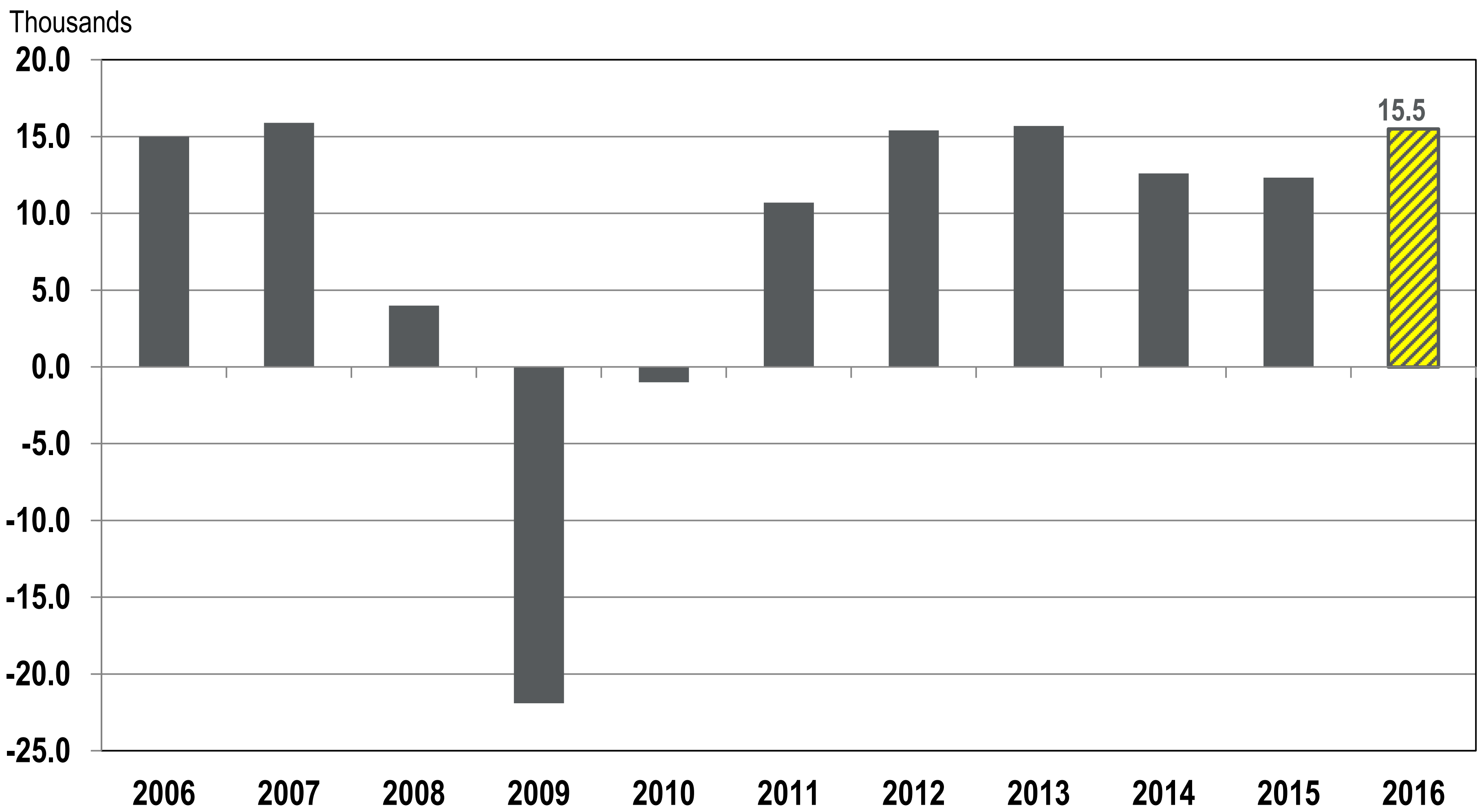




Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Professional and Business Services

Workers Added, 2006-2016



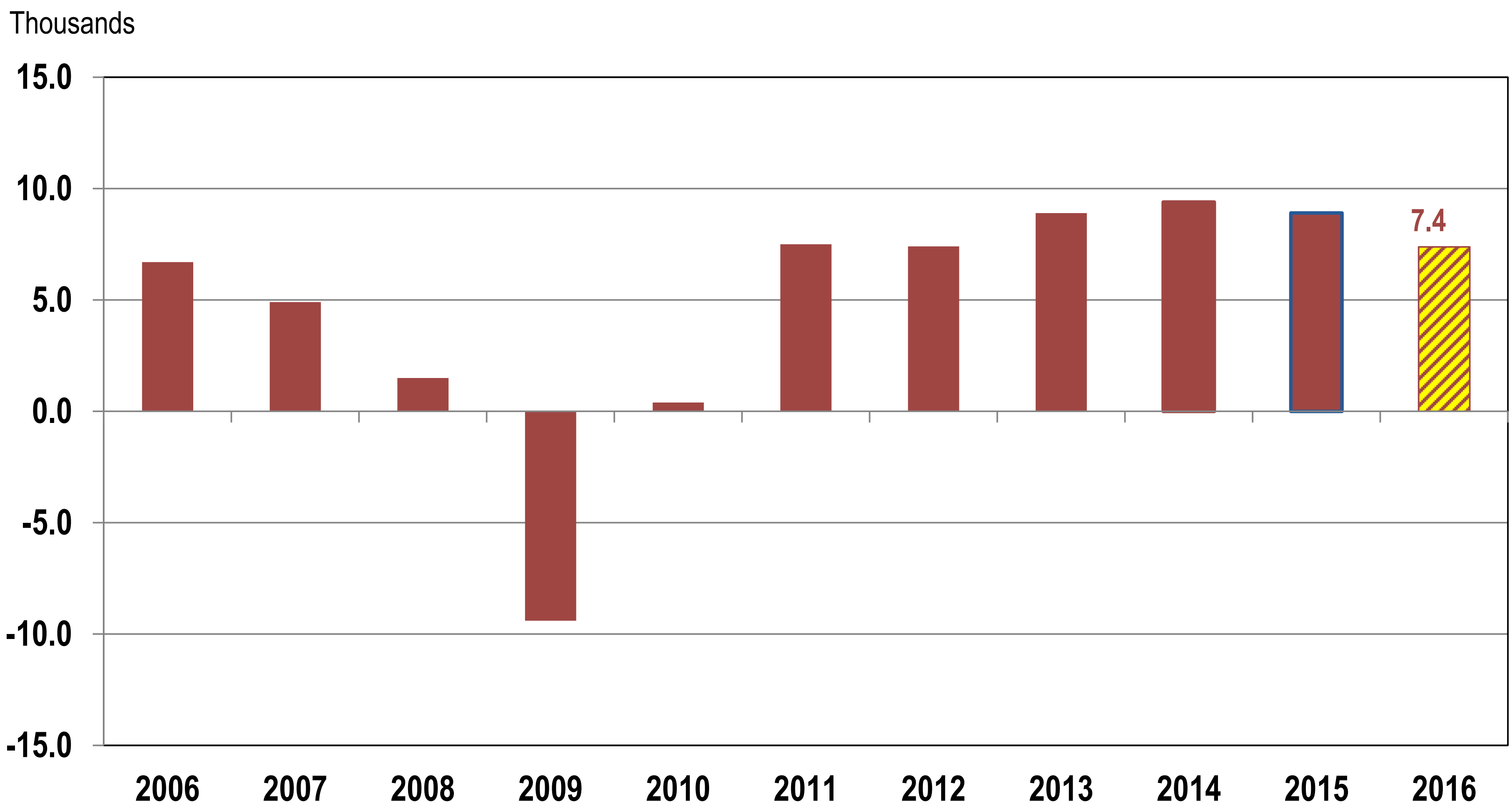
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Leisure and Hospitality

Photo courtesy of: Colorado State Parks.

Accommodation & Food Services

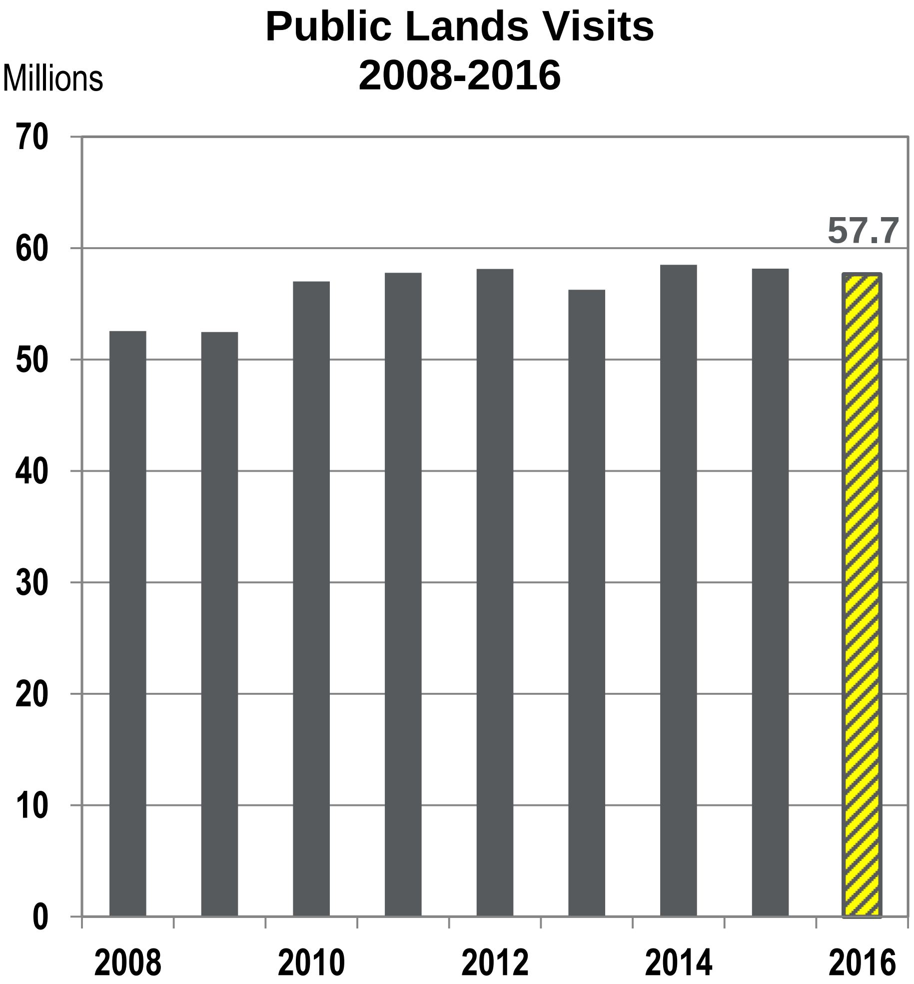
Workers Added, 2006-2016



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Colorado Public Lands Visits

Photo courtesy of: Colorado State Parks.



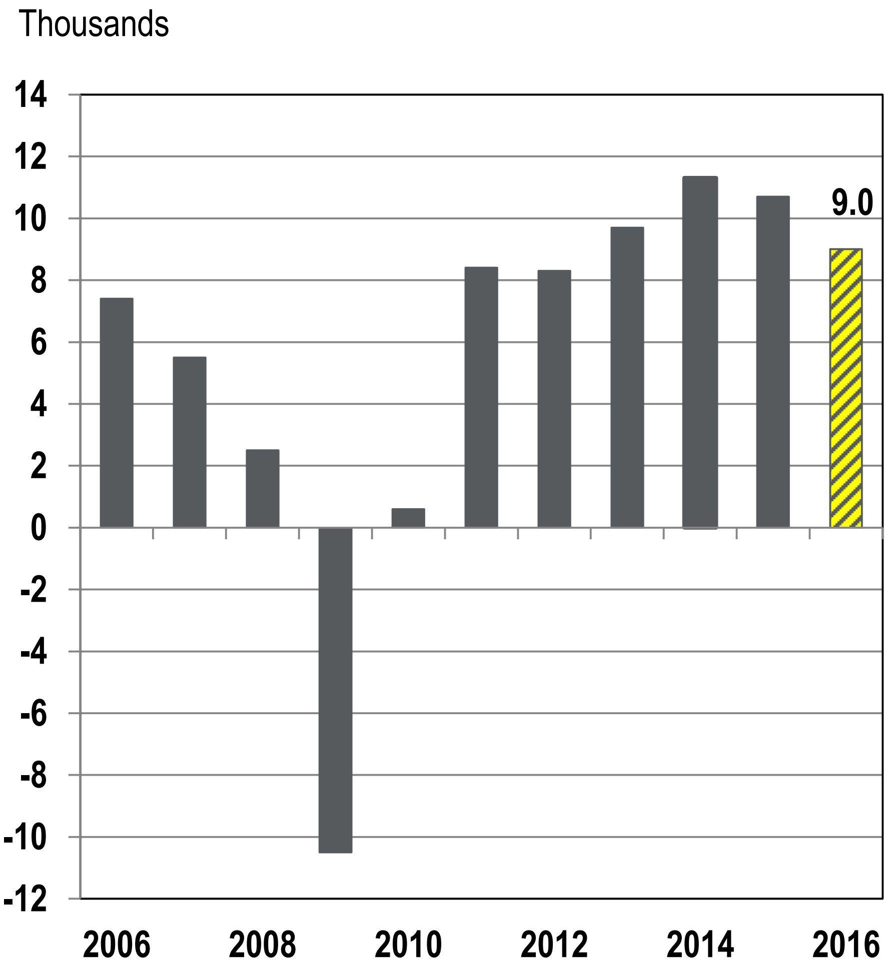
Sources: National Park Service and Colorado Business Economic Outlook Committee.

Skier Visits

Photo Courtesy of: steamboatpowdercats.com

Leisure and Hospitality

Workers Added 2006-2016



- 1-in-8 Colorado jobs
- Industry among the first to add workers after the recession
- Stronger household balance sheets and increased income
- Increase in consumer spending in restaurants

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Education and Health Services

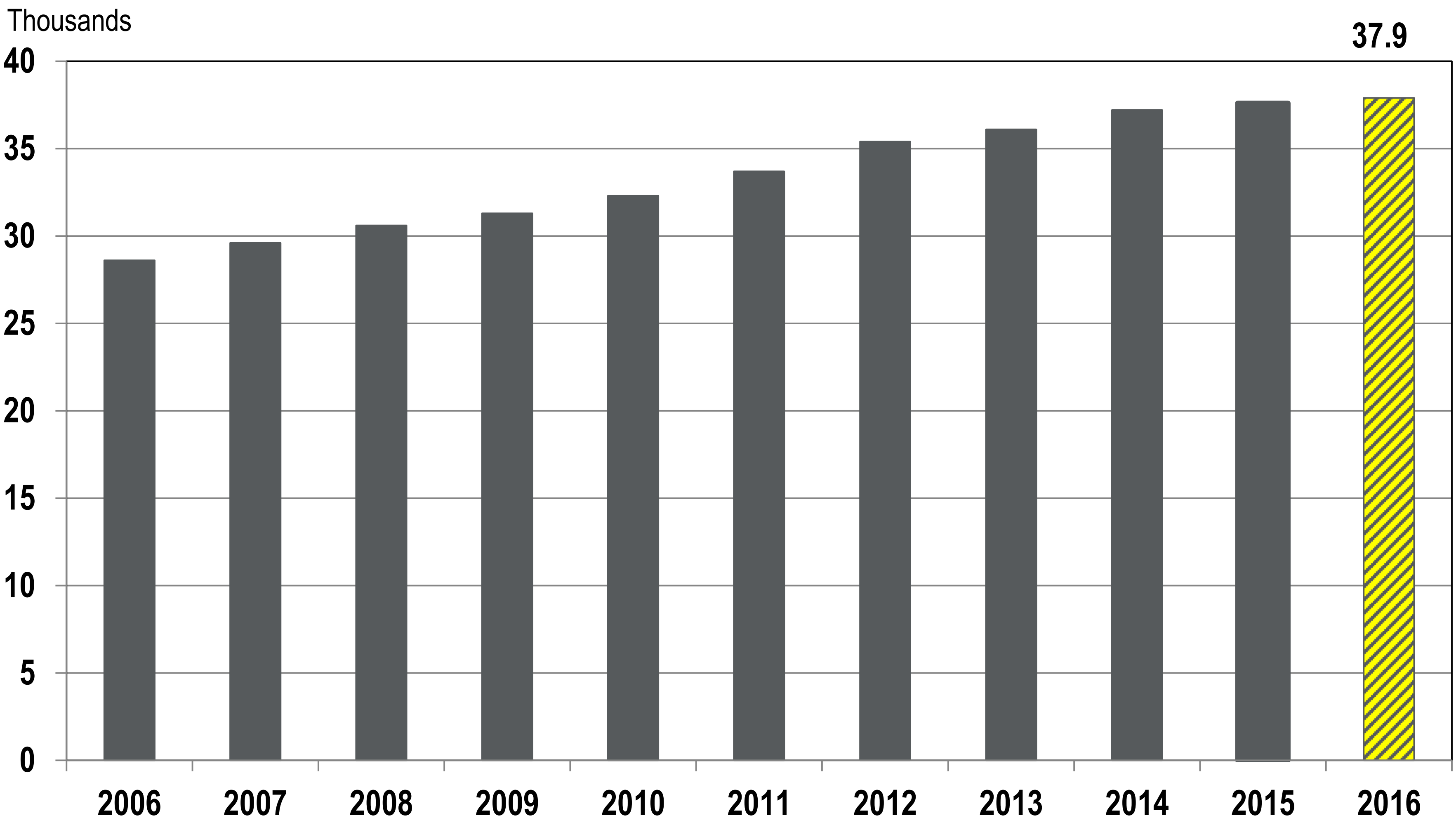
Private Education

Includes:

- Elementary and Secondary Schools
- Colleges, Universities, and Professional Schools
- Sports and Recreation Instruction
- Cosmetology and Barber Schools
- Fine Arts Schools
- Exam Preparation and Tutoring
- Automobile Driving Schools

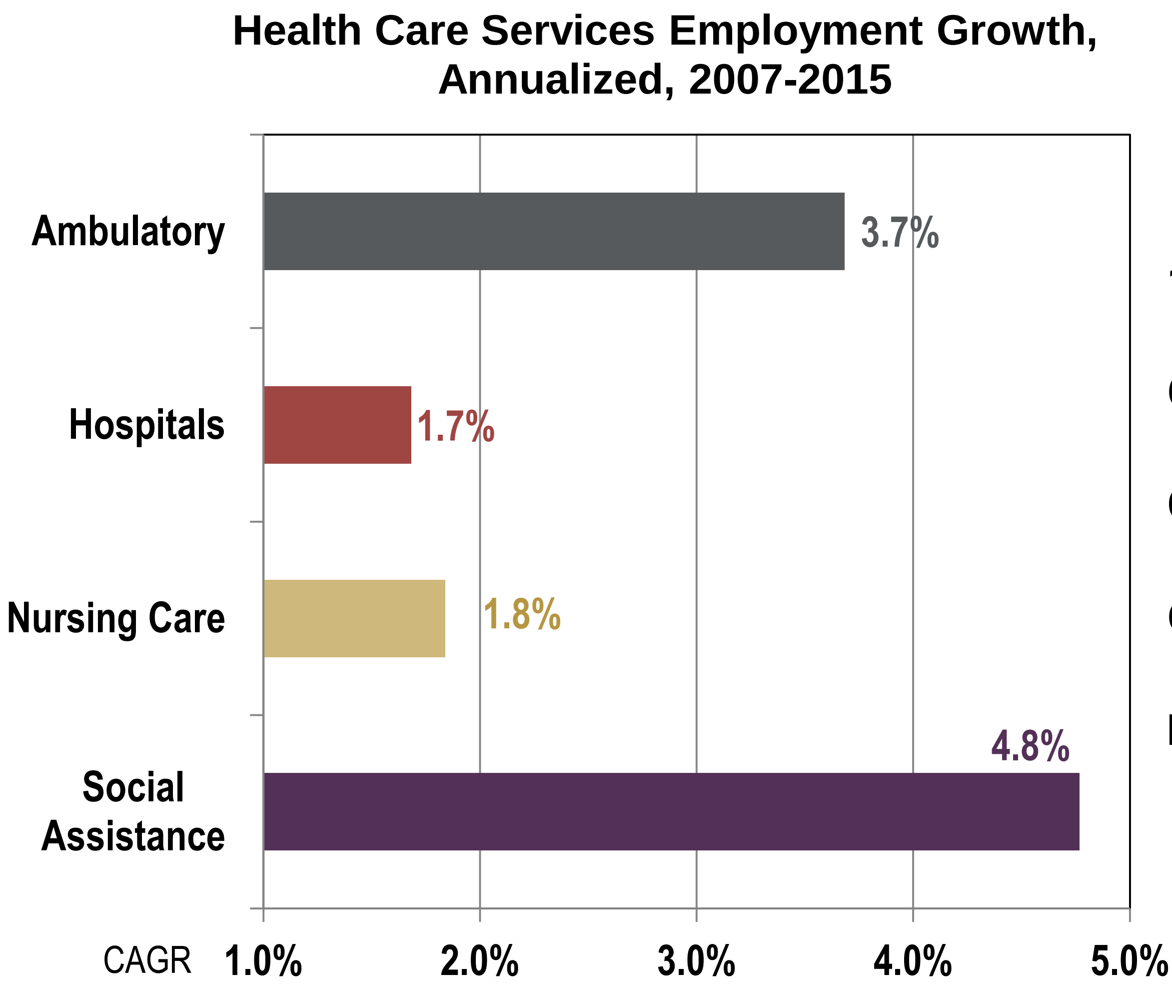
Private Education

Employment, 2006-2016



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Health Care Services



11% of Colorado jobs

Consistent employment growth

Obesity among Coloradoans growing

Growing senior population

Insurance coverage expanding

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Health Care Services

Major Trends

- **Growth of patient population outpacing growth of healthcare providers**
- **Average annual wage is below statewide average**
- **Sustained growth expected because of:**
  - **Aging population**
  - **Greater number of people eligible for health insurance**
  - **Growing rates of diabetes and obesity**

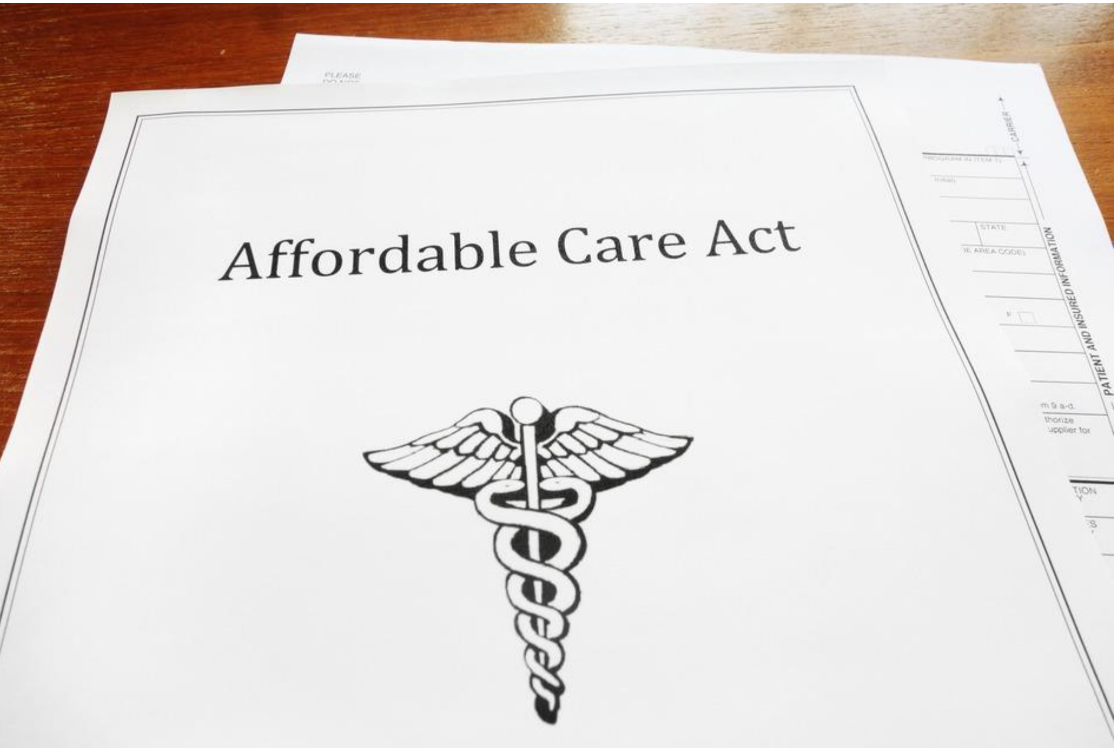
Health Care Services

Occupations

- **Above average patient to physician ratio compared to the nation**
- **Nurse practitioners are growing the quickest of the healthcare occupations, both statewide and nationally**
- **Registered nurses are the largest segment of primary care**
- **Growing demand for long-term services and support (LTSS) workforce with aging population**

Health Care Services

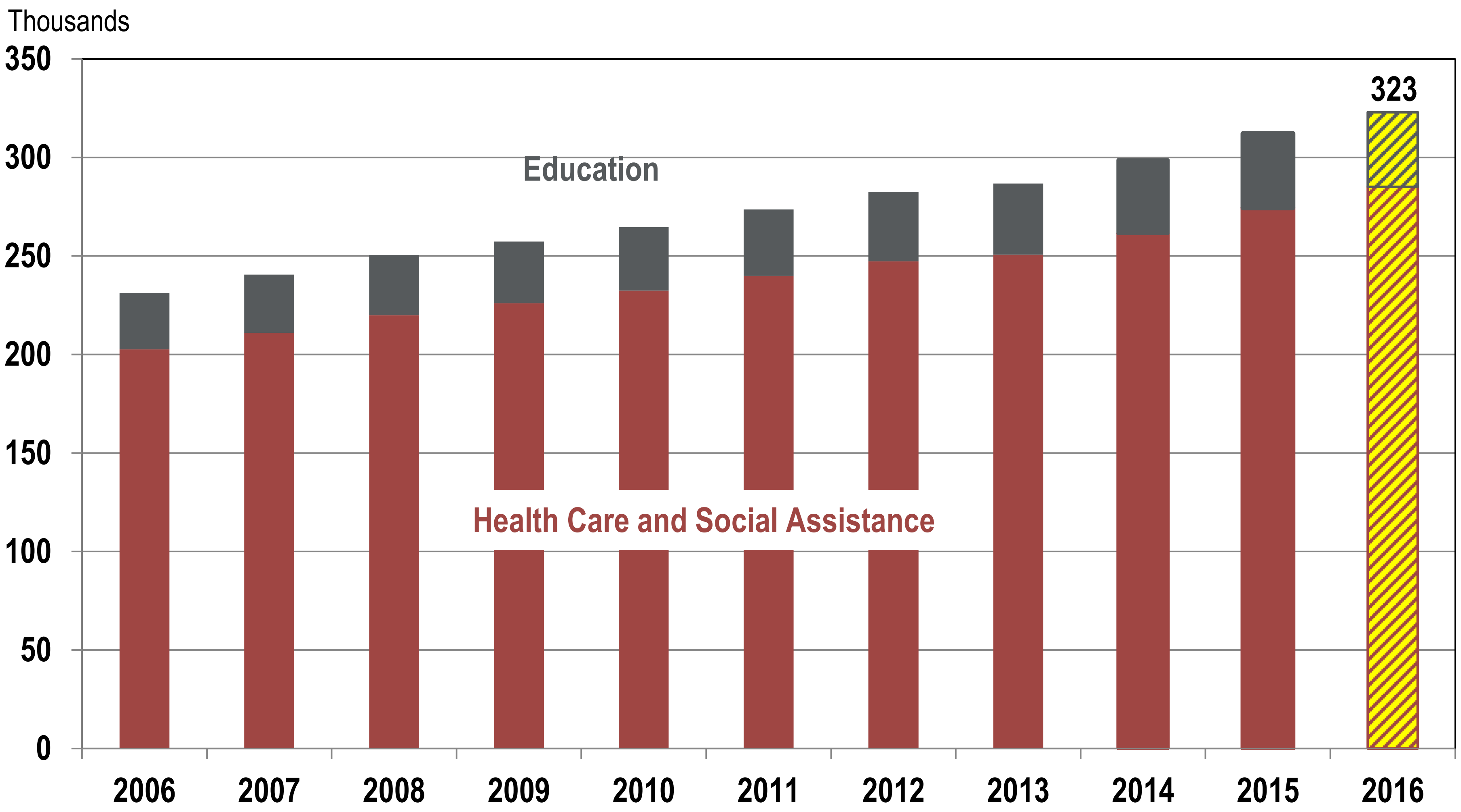
Legislation



- 93.3% of Colorado's population now has health insurance due to the passing of the PPACA
- Increasing insurance premiums
- Growing number of underinsured Coloradoans
- Higher premiums for individual insurance coverage

Education and Health Services

Employment, 2006-2016



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

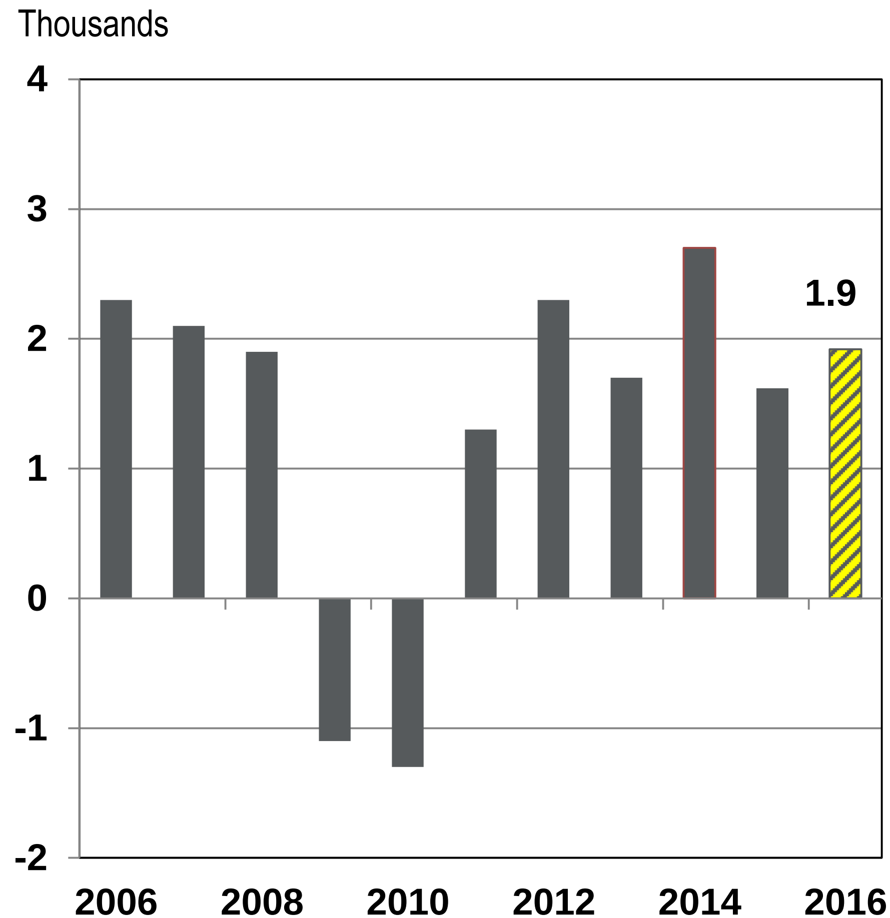
Other Services

Workers Added, 2006-2016

Repair and Maintenance

Personal and Laundry Services

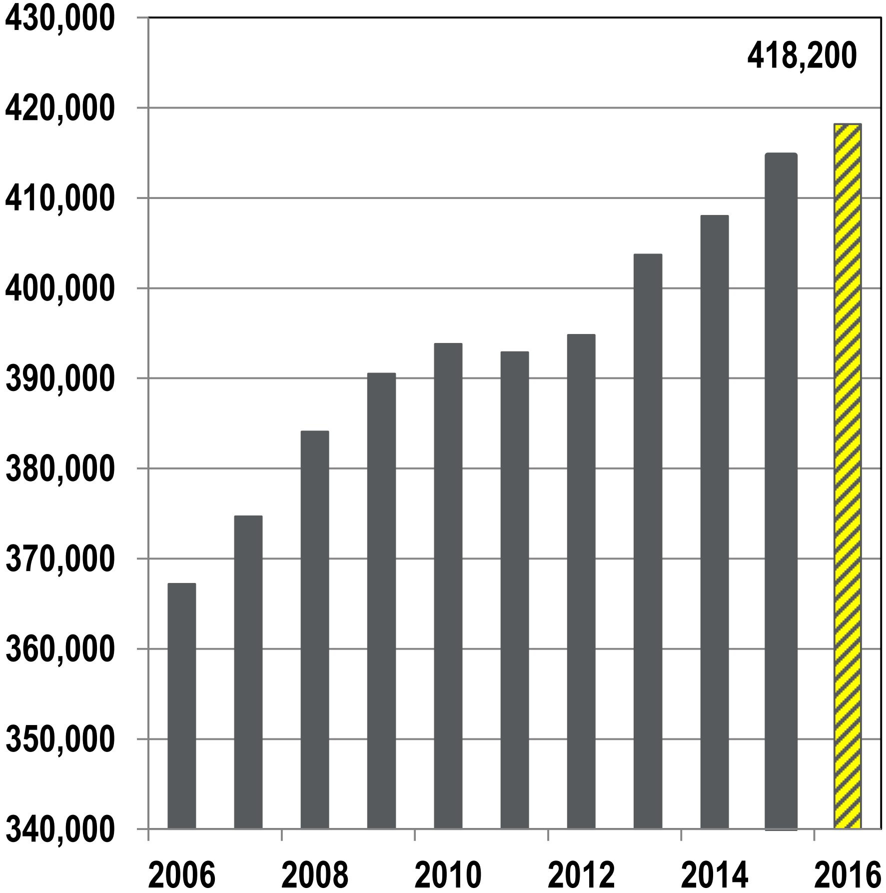
Nonprofit Associations (Religious, Grantmaking, Civic, Professional, and Similar Organizations)



Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

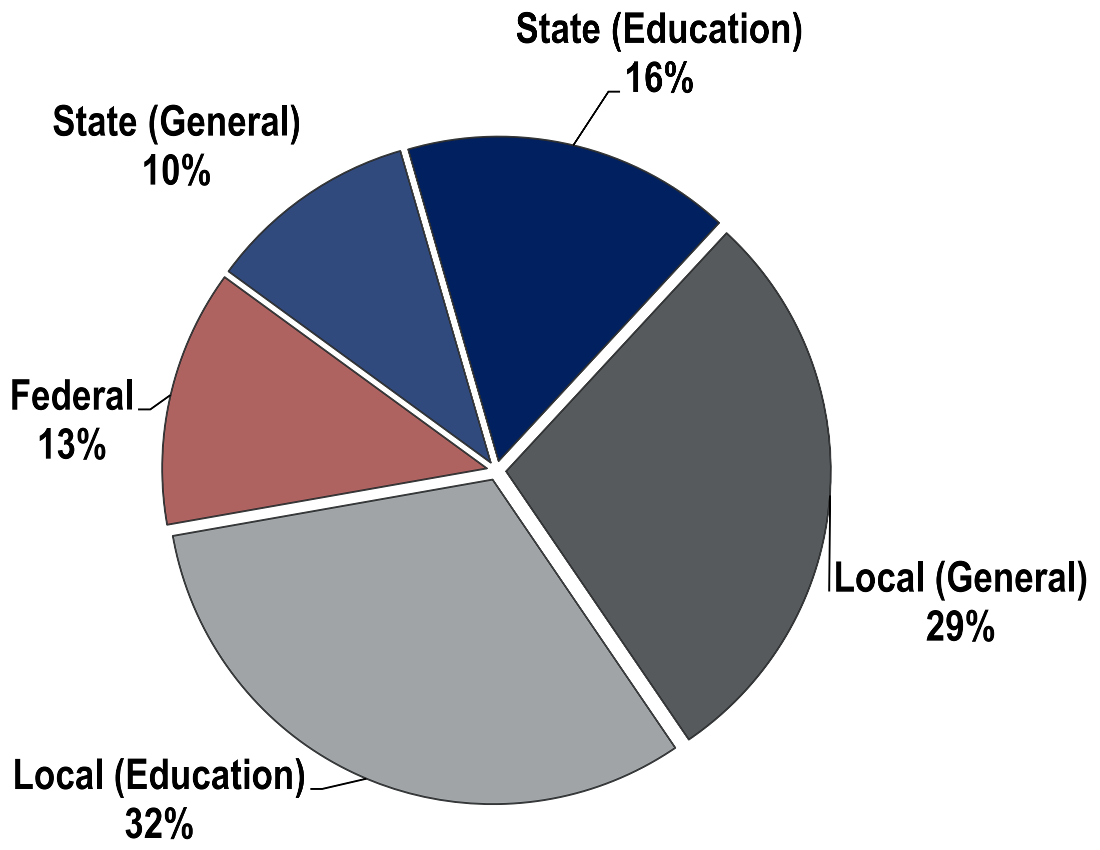
Government

Employment, 2006-2016



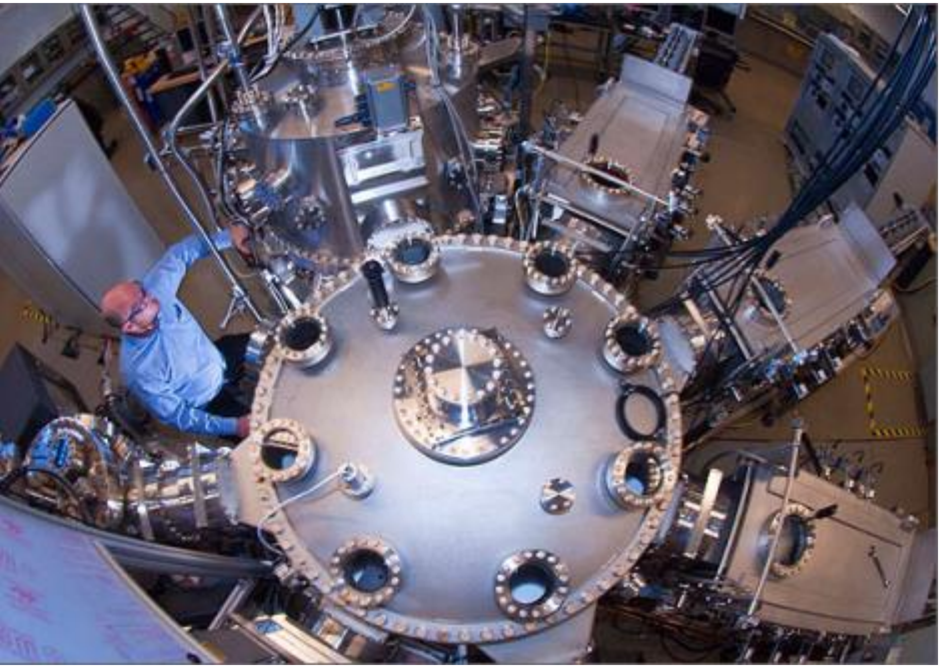
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

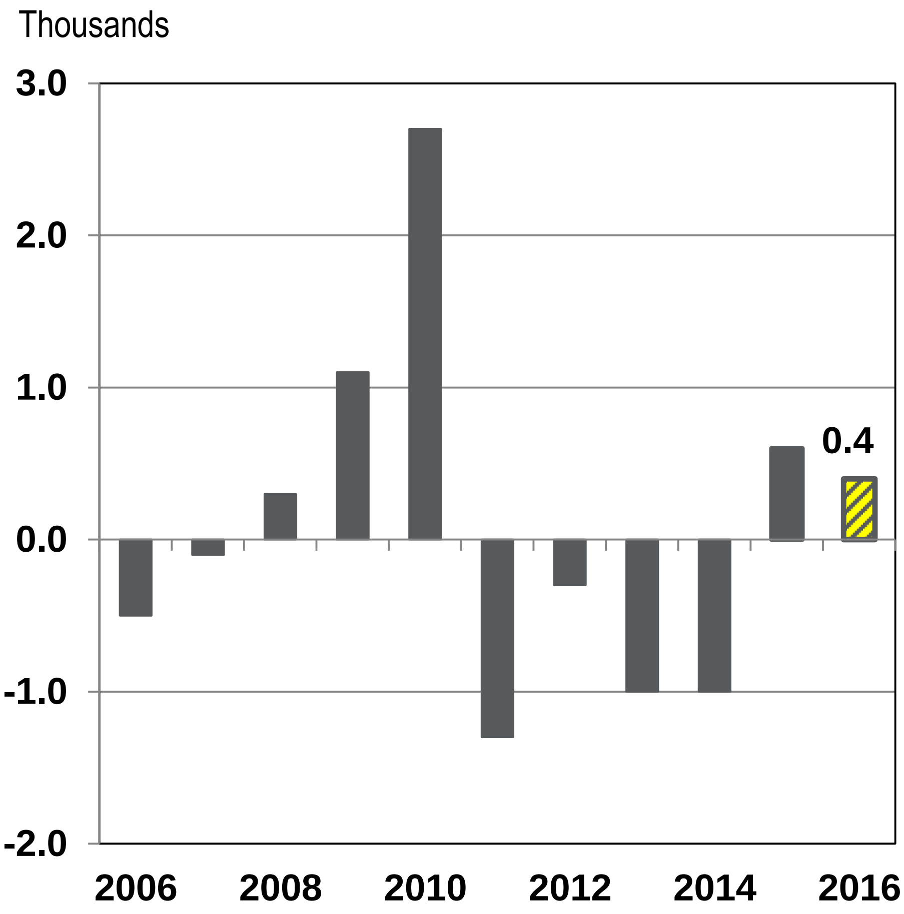
Government Employment



Federal Government

Workers Added, 2006-2016

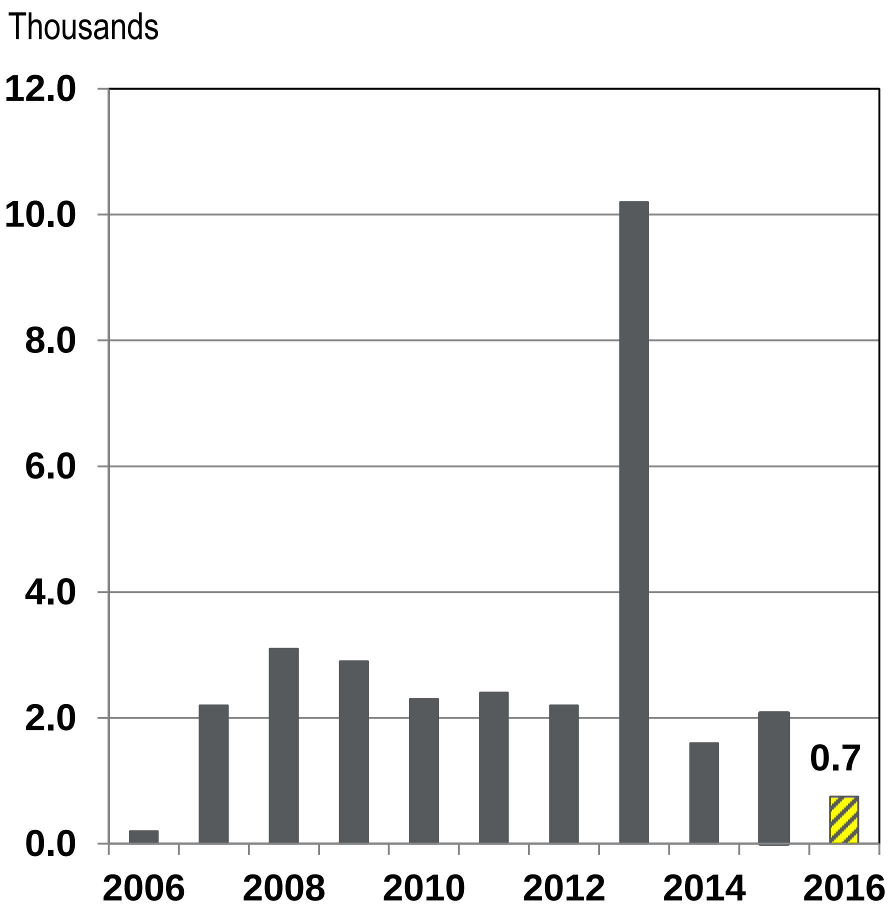




Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

State Government

Workers Added, 2006-2016

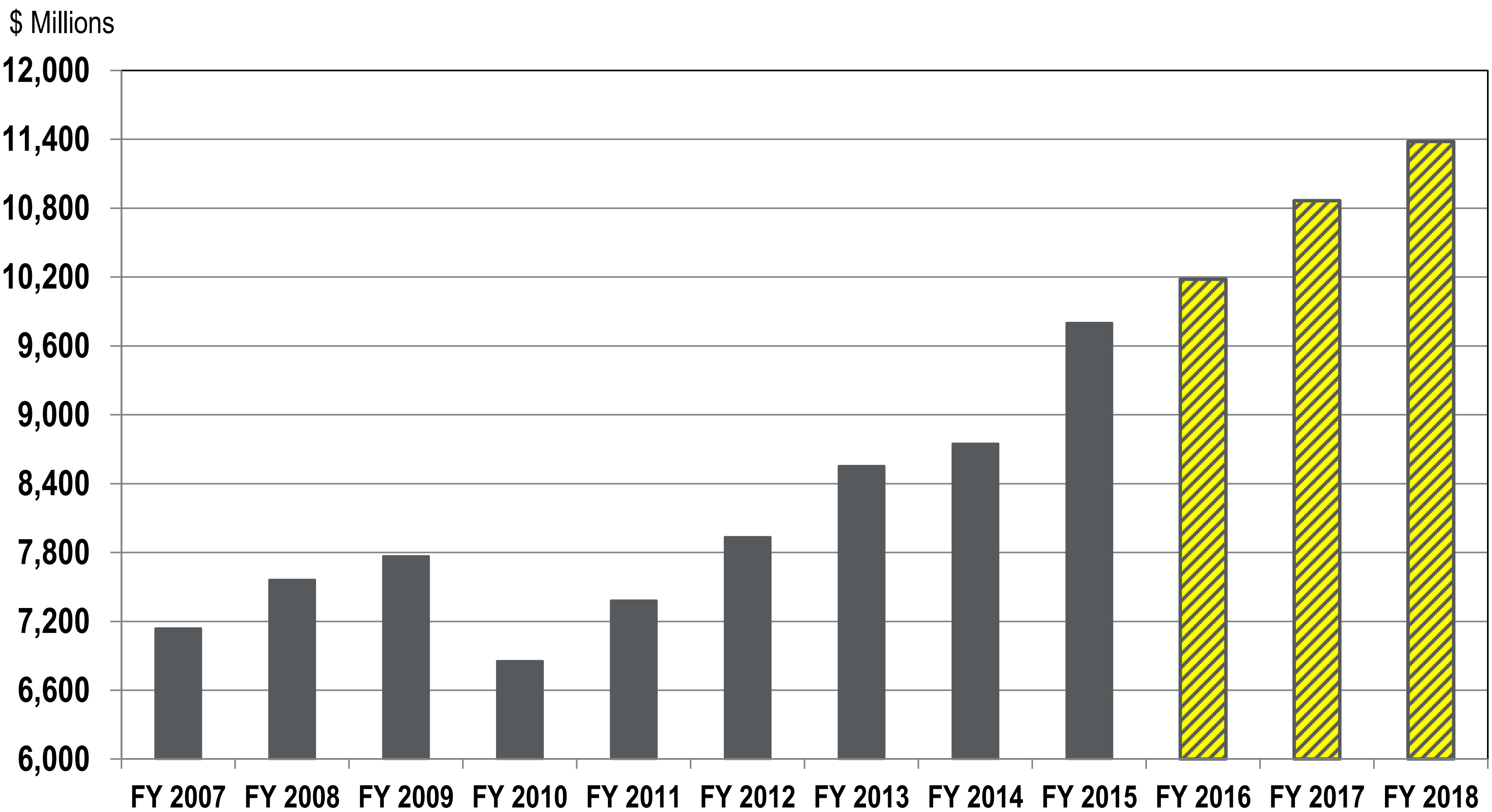


Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee, Photo courtesy of coloradopreservation.org.

*Note: 2013 increase partially due to reclassification of employees.

Colorado General Fund

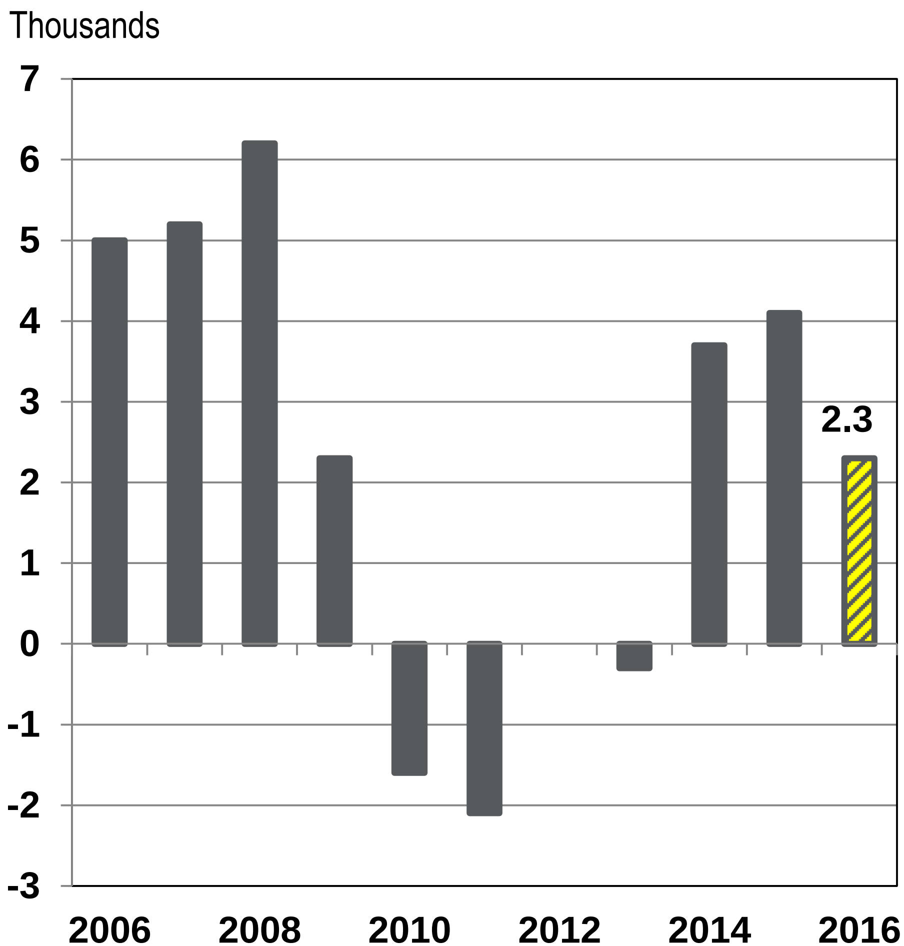
Gross Revenue (excluding reserves, diversions, and transfers)



Source: Colorado Office of State Planning and Budgeting, excluding reserves, diversions, and transfers, December 2014.

Local Government

Workers Added, 2006-2016



Revenue Sources:

Property taxes

Sales and use taxes

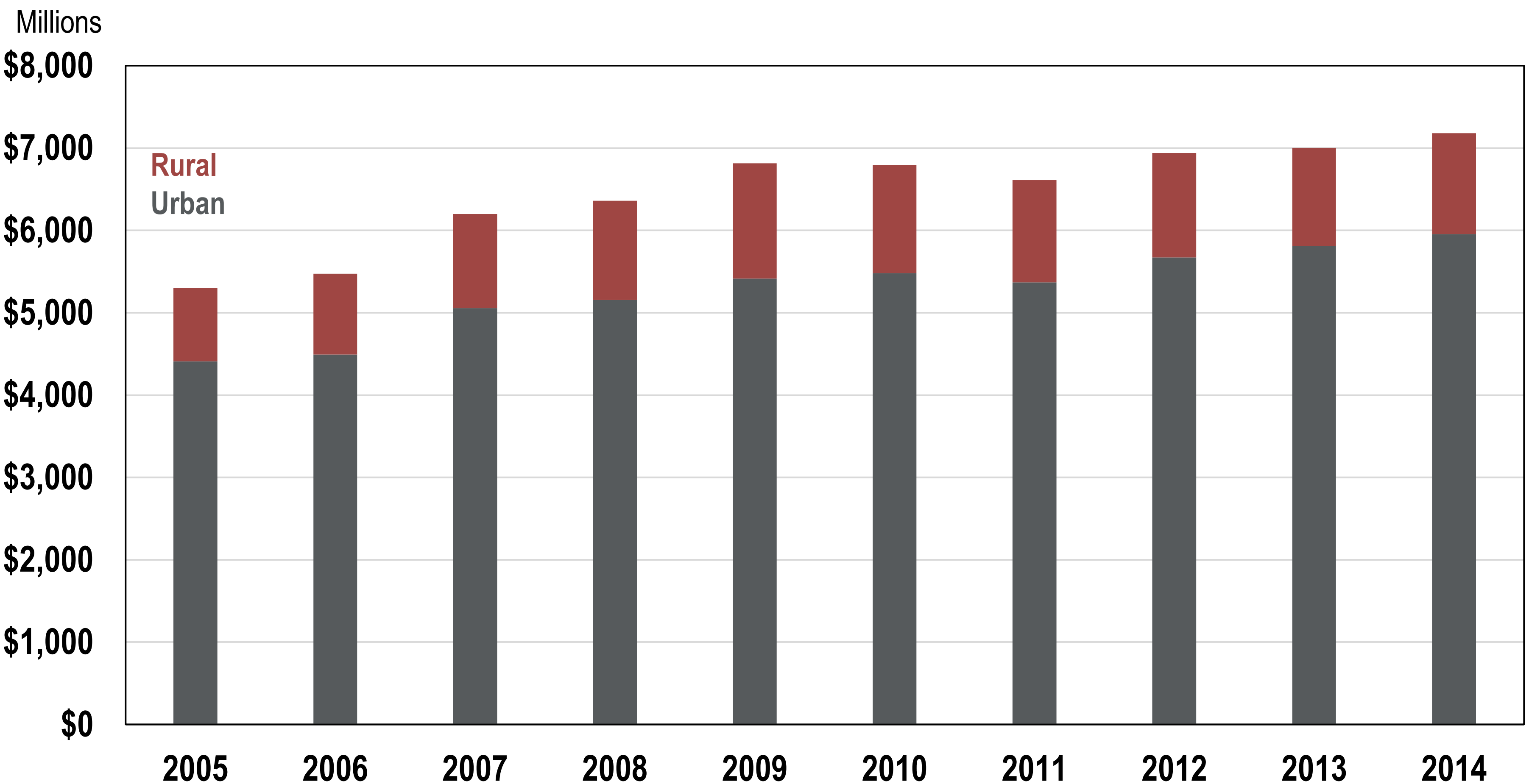
Fees

Intergovernmental revenues

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Colorado Property Tax Revenue

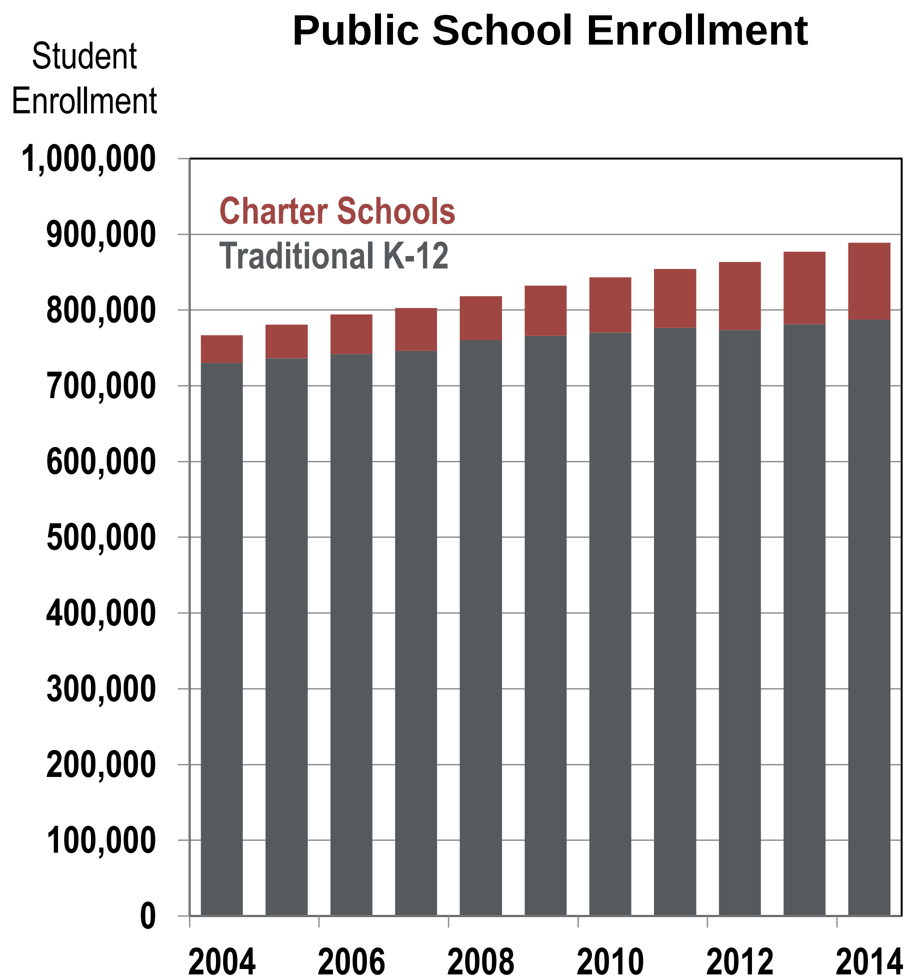
Urban and Rural, 2005-2014

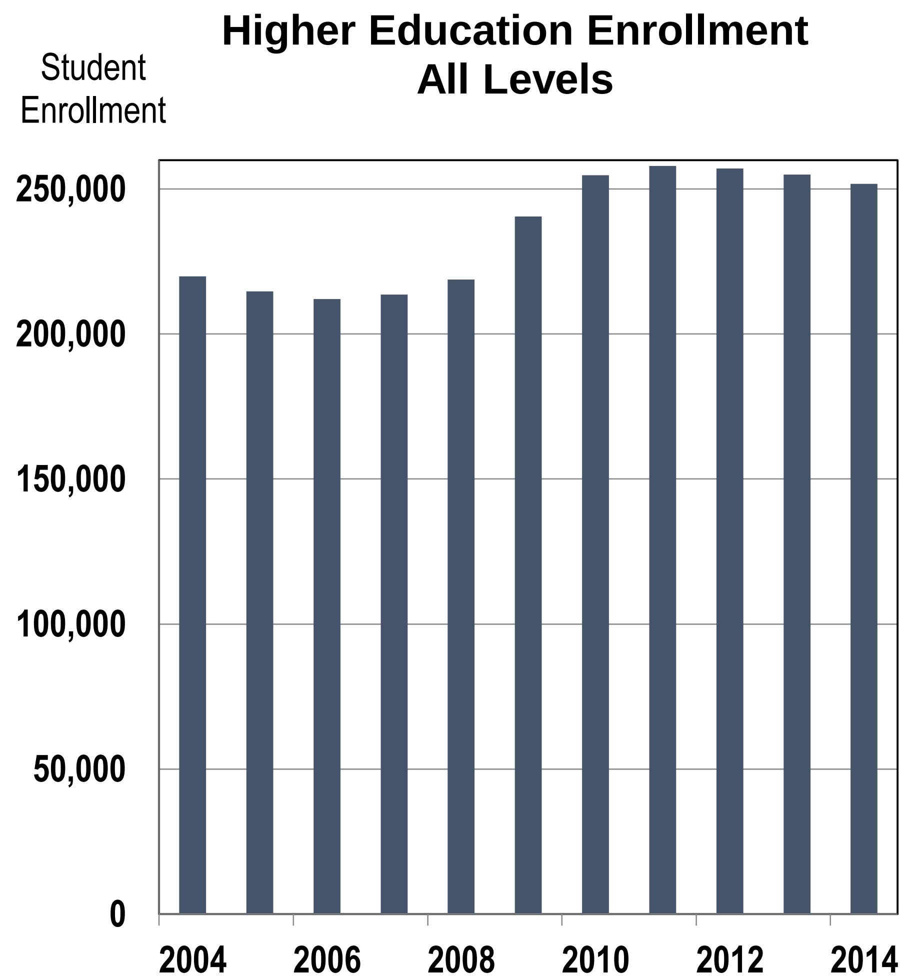


Source: Colorado Department of Local Affairs.

Education

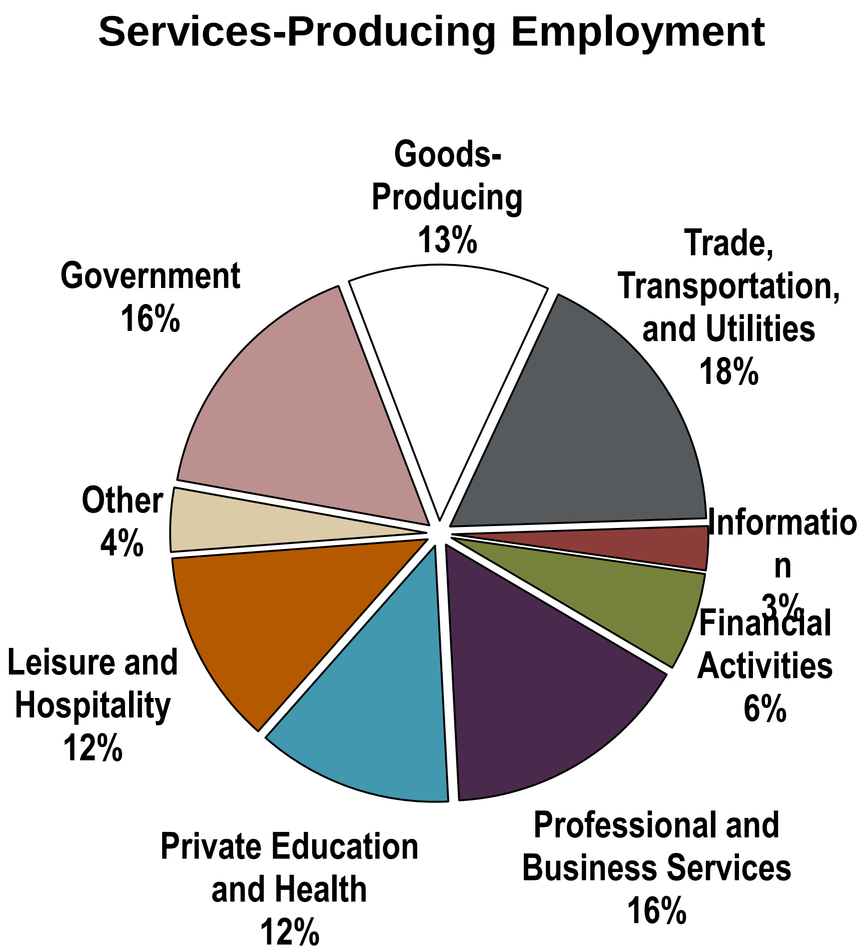
Public Enrollment, 2004-2014

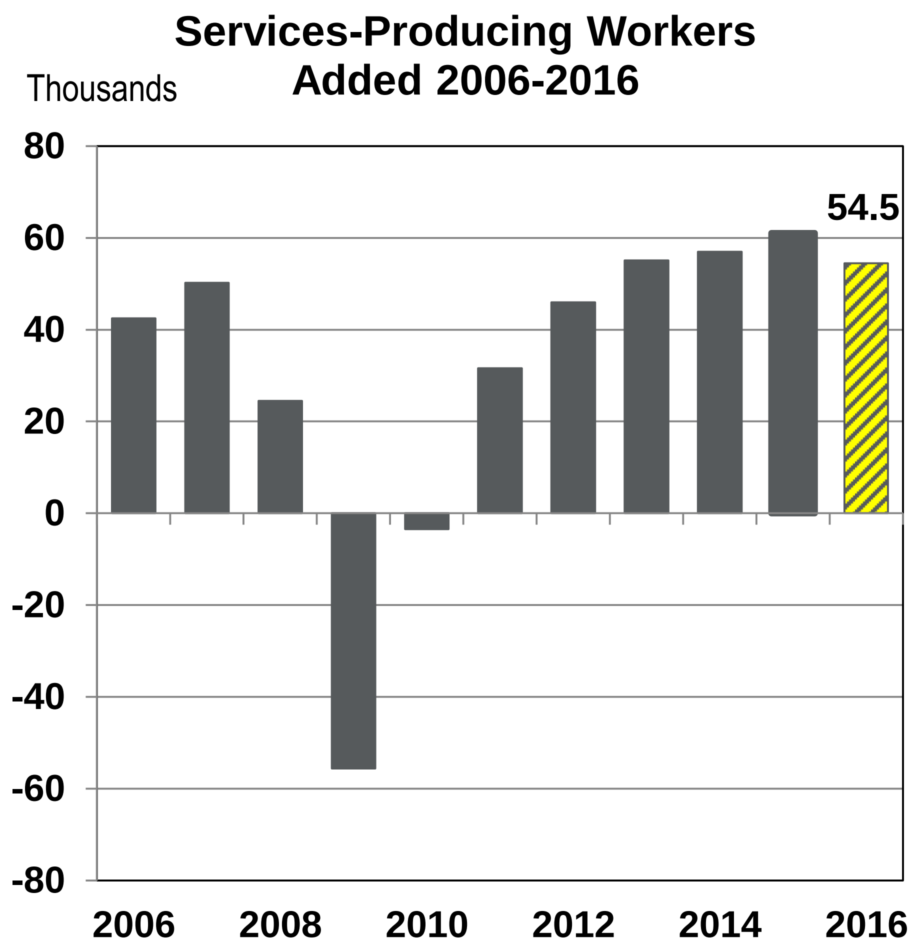




Source: Colorado Department of Education and Colorado Department of Higher Education

Services-Producing Employment

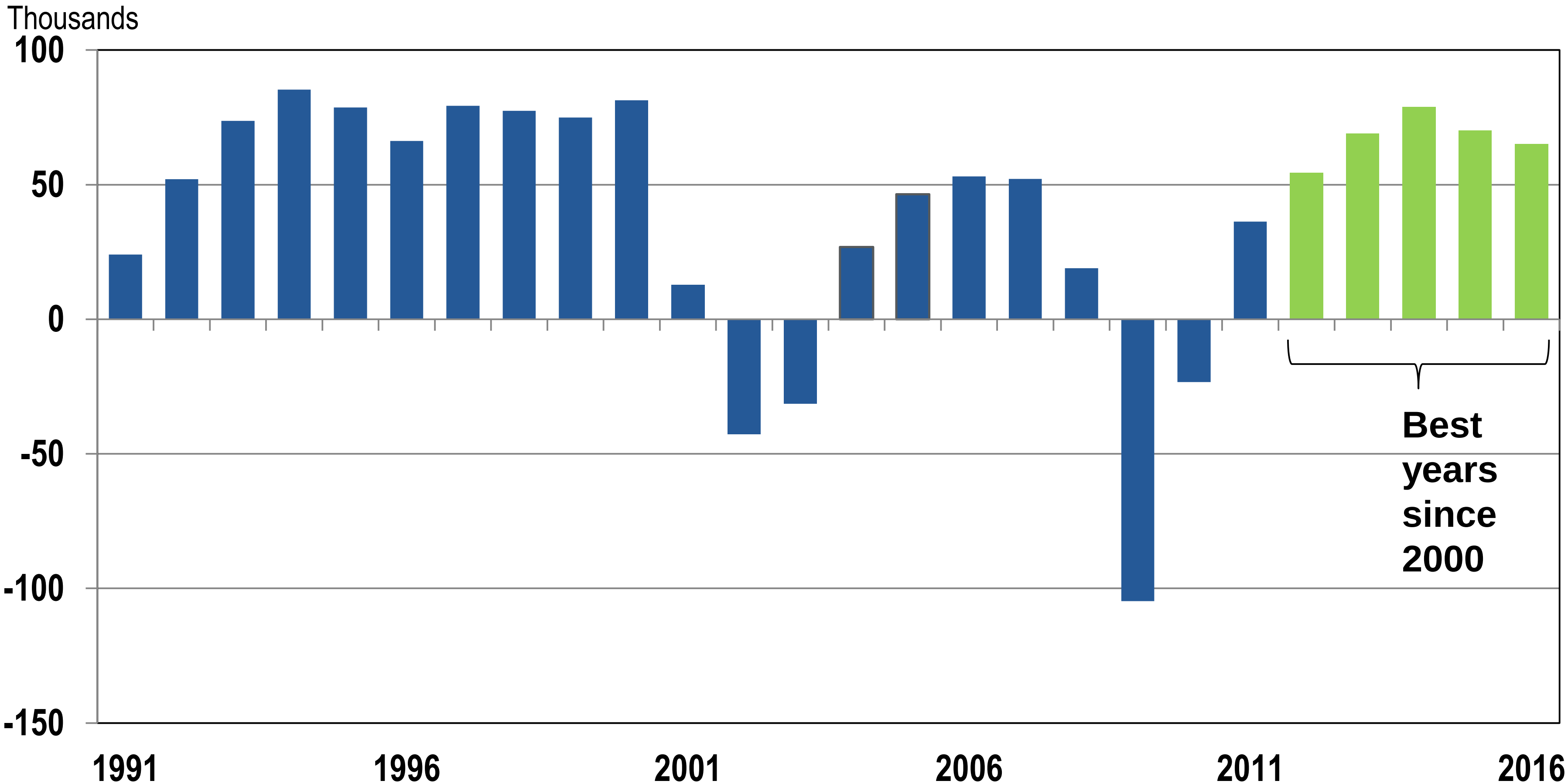




Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Colorado Employment Growth

Jobs Added, 1991-2016



Sources: Bureau of Economic Analysis, NIPA Table 3.18B, Consensus Forecasts.

International and National Summary

Global output and trade growth

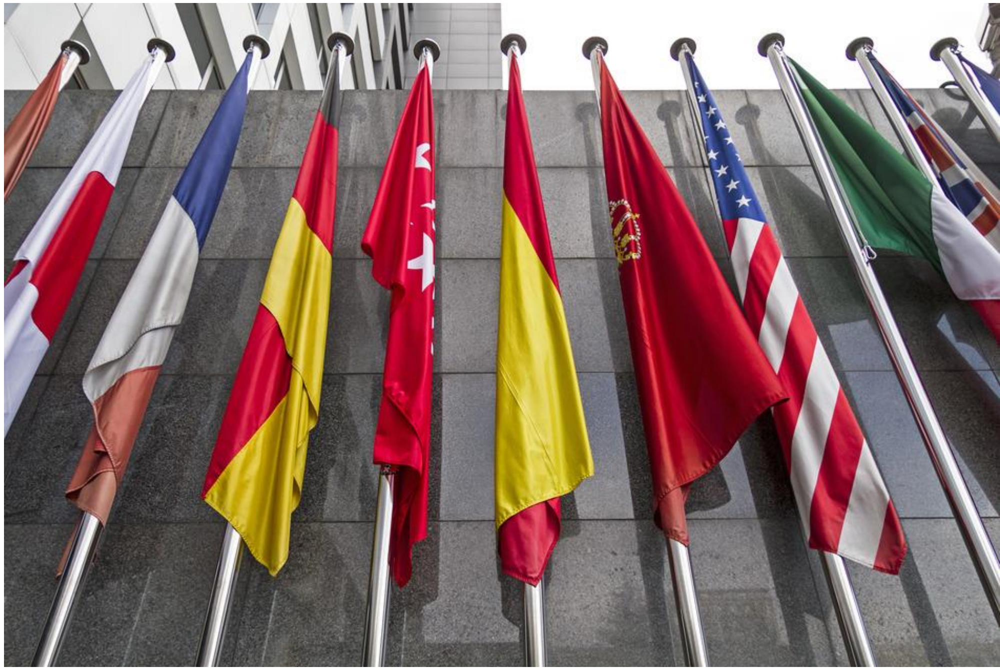
Value of the dollar strengthening

GDP growth nearing potential

Balance sheets getting stronger

Rising (but low) interest rates

Subdued inflation



State Summary

Colorado outperforms nation in employment growth

Falling unemployment

Labor force pressures

Full employment

Growing population

Strong in-migration

Concerns

Fed funds target rate

Cost of housing

Availability of labor

Price of oil

El Niño

Median family income