

**40**  
★★★★

**YEARS**

# OUTLOOK 2015

40th Annual Economic Outlook Seminar

Presented by NorthWestern Energy and the  
Bureau of Business & Economic Research

THE  
NEW

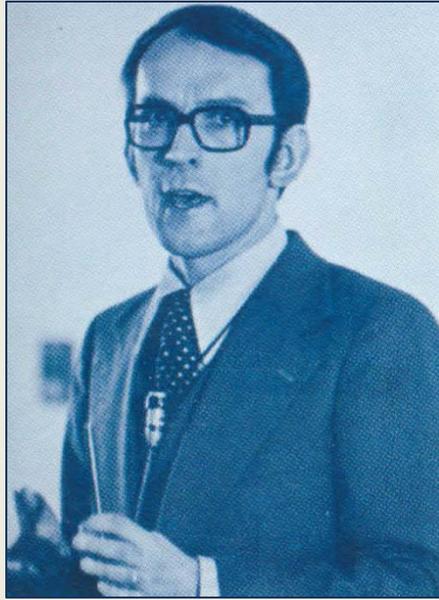
# A AMERICAN ENERGY REVOLUTION

A graphic illustration of several oil rigs and industrial structures, rendered in a golden-yellow color, positioned to the left of the main title text. The background of the entire page is a dark, textured image of an industrial structure, possibly a wellhead or part of an oil rig, with a golden-yellow glow emanating from the center.

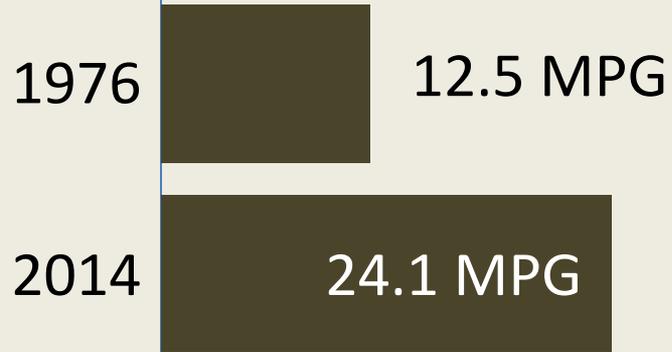
RESHAPING MONTANA

By Patrick M. Barkey

# Things Have Changed Since 1976



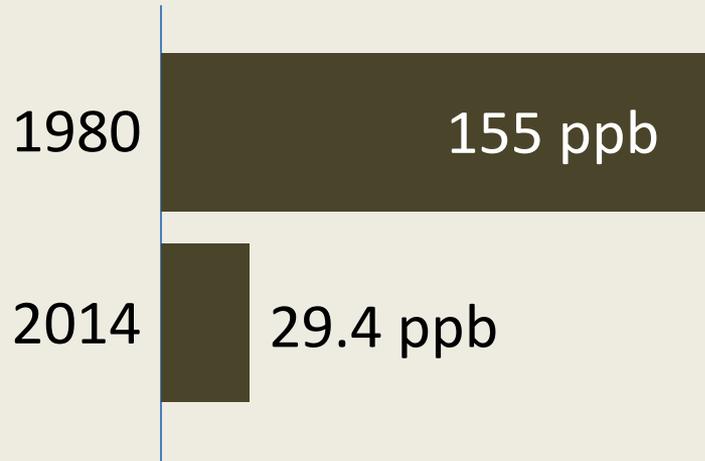
## Gas Mileage, U.S. Fleet



## Energy per Dollar of GDP



## SO2 Emissions, U.S.



# The Revolution is Very Recent

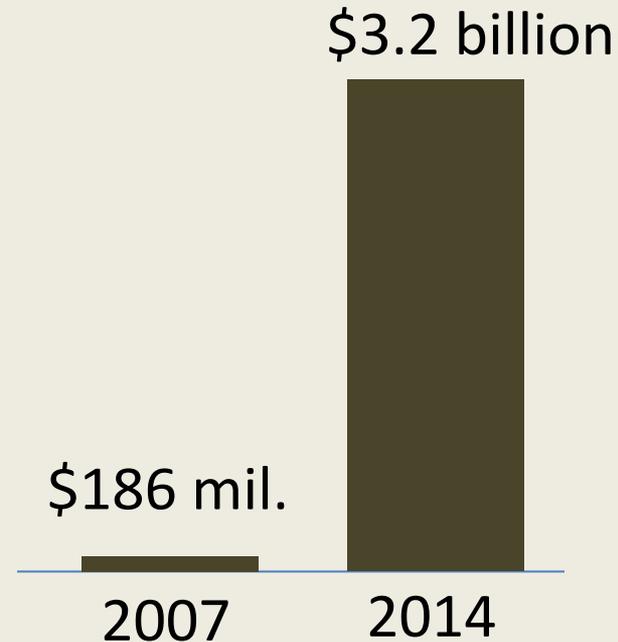
Vehicle-Miles Travelled: Growing Since World War II  
Stagnant Since 2007

U.S. Crude Oil Production: Declining since 1970  
Up by 92% since 2008

Williston Wages Per Job



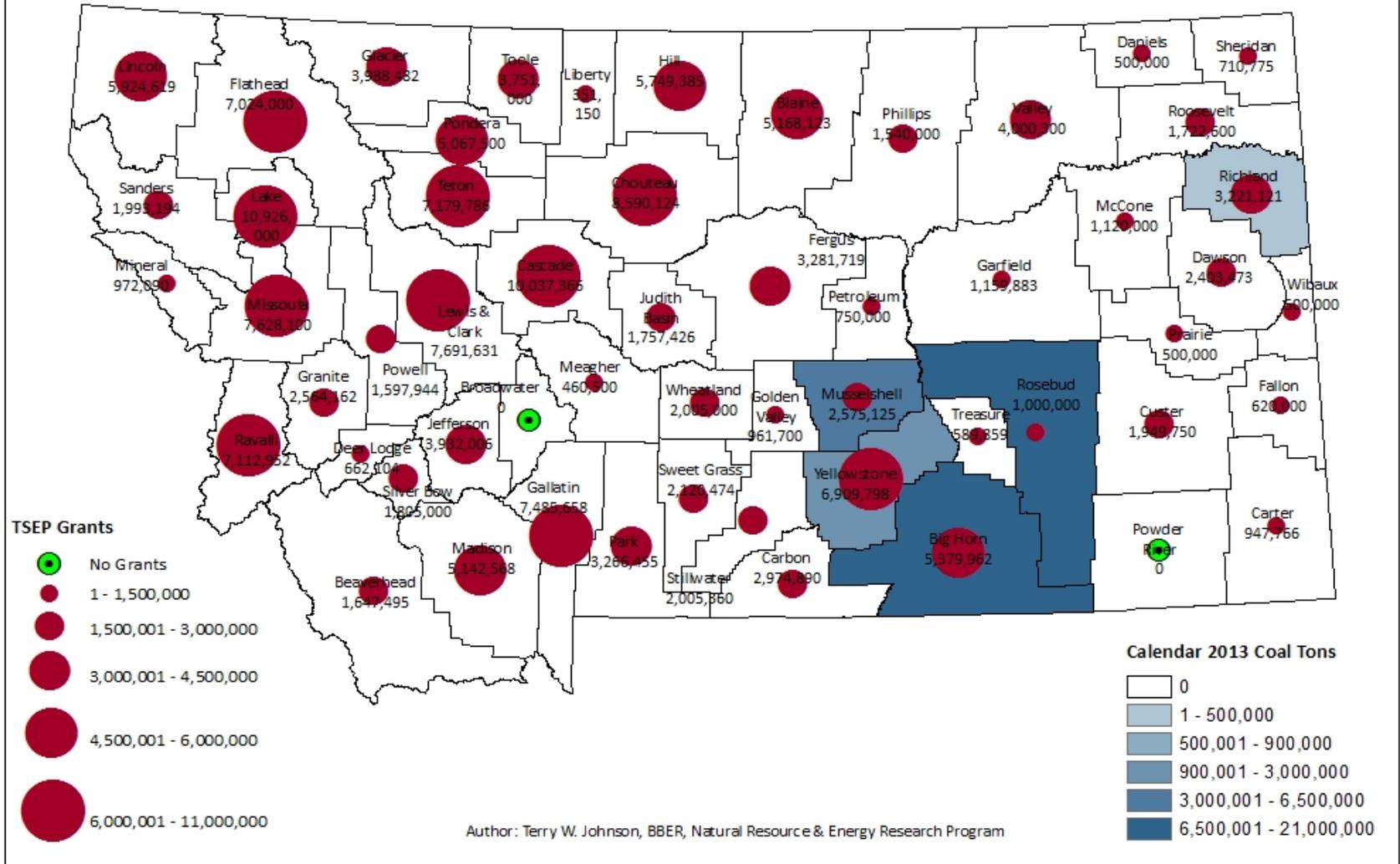
North Dakota Resource Taxes



# Financial Contributions To Counties via Treasure State Endowment Program

## Due to Montana Coal Sector

Total TSEP Grants \$180.9 million  
 Total Funded Project Costs \$826.1 million



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RESHAPING MONTANA

By Patrick M. Barkey

# Oil Markets Deliver a Surprise



## The Global, National and State Economic Outlook

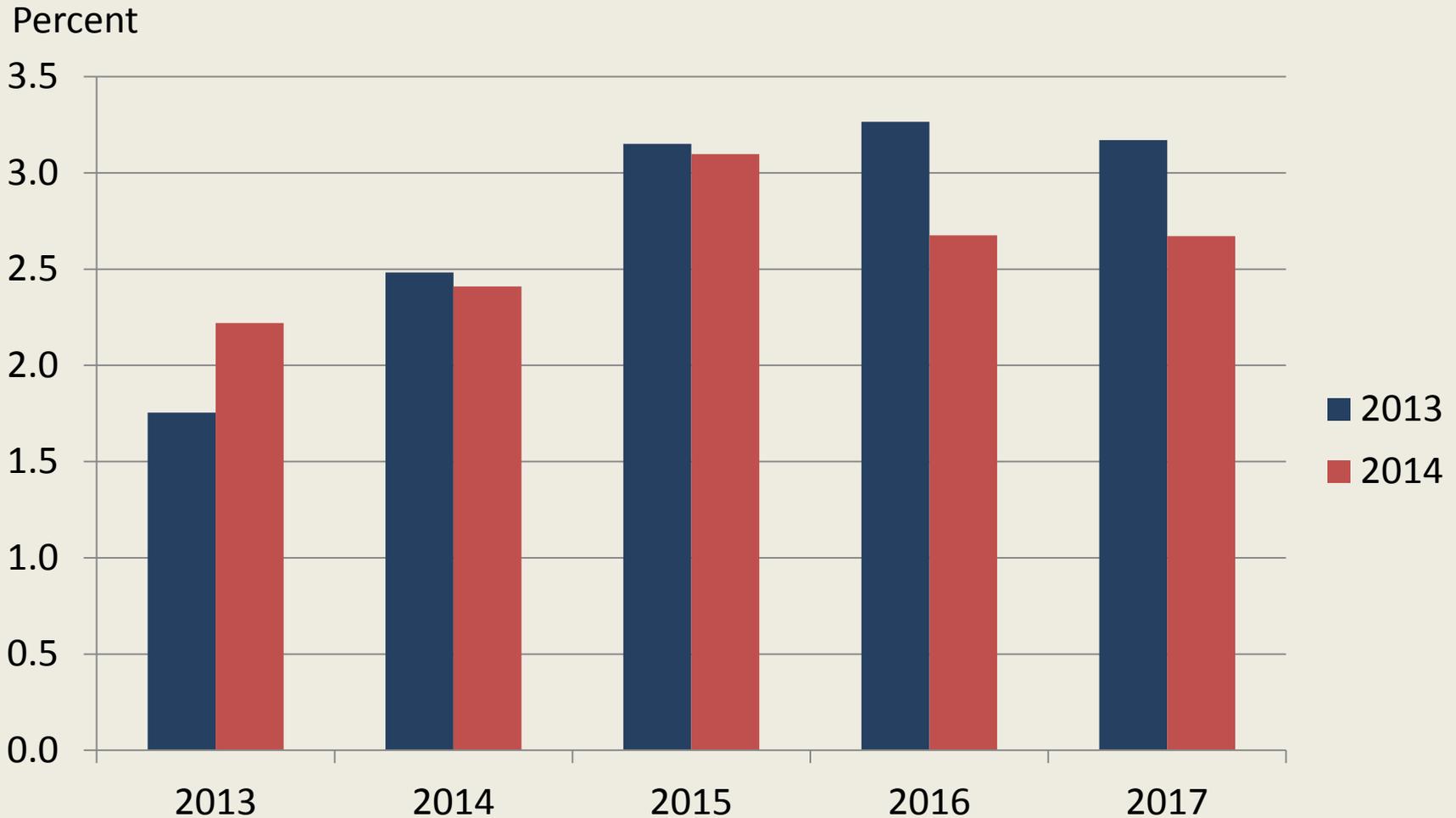
Patrick M. Barkey, Director  
Bureau of Business and Economic Research  
University of Montana

# National and Global Developments

- Best six month performance of the U.S. economy since well before the recession
- Evidence of stronger, more bullish small business activity
- Global outlook dims
- Declining oil prices reverberating around the world

# Economic Performance Finally Meeting Expectations

## Forecasts of U.S. Real GDP Growth, Percent

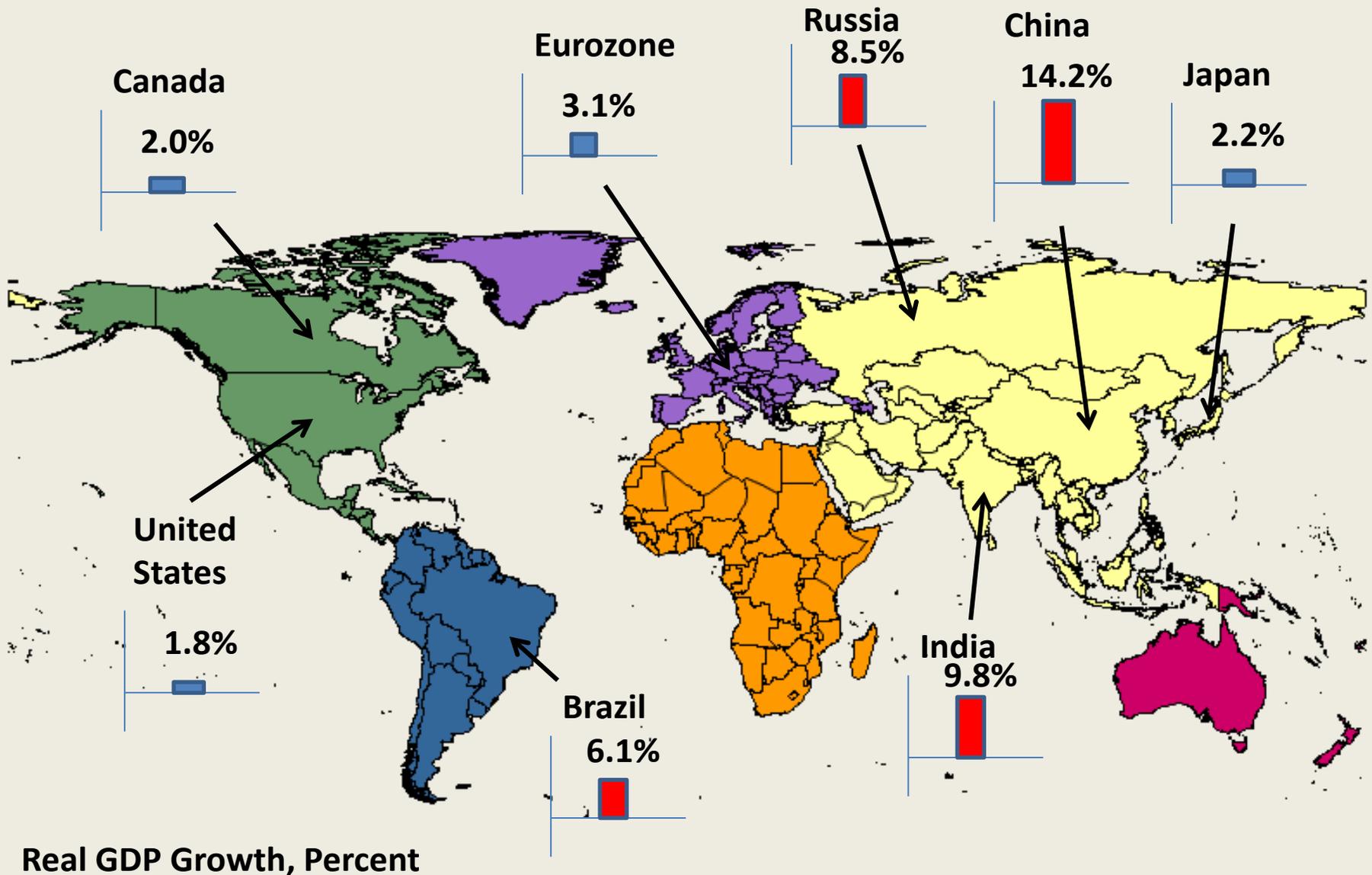


Source: IHS, Inc.

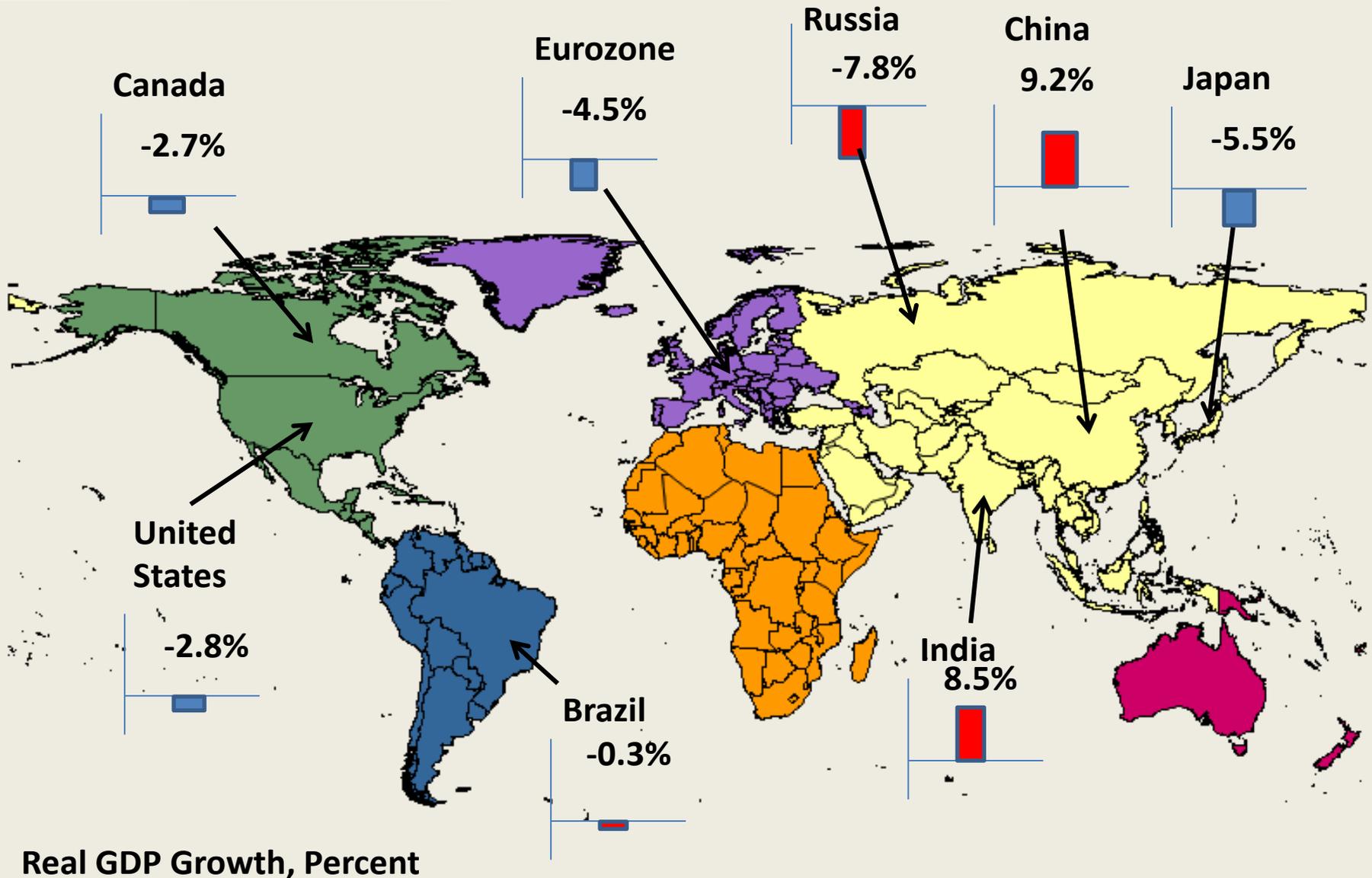
# U.S. Labor Market is Getting Better



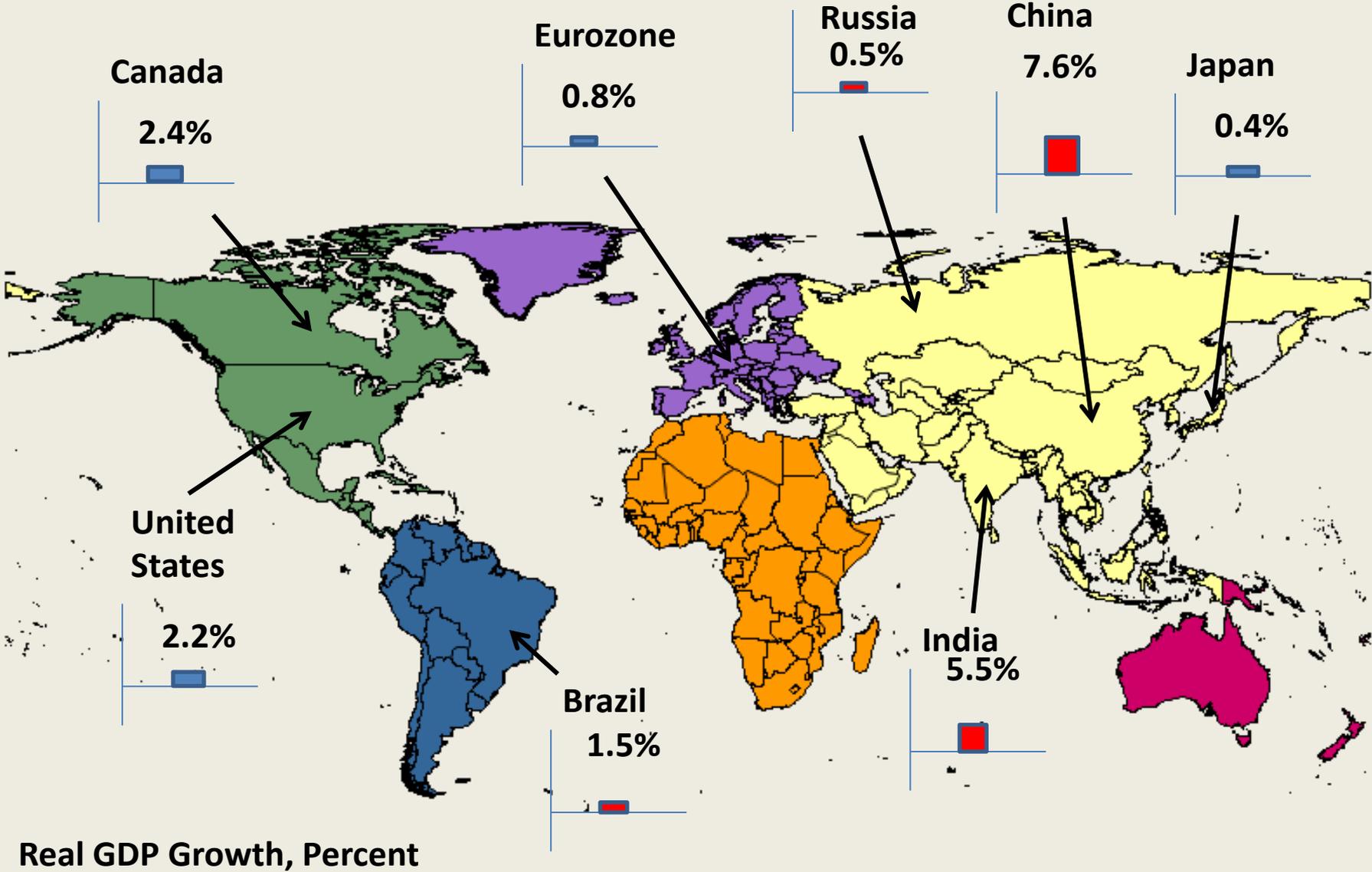
# Taking a Tour of Global Growth, 2007



# Taking a Tour of Global Growth, 2009



# Taking a Tour of Global Growth, 2014



# U.S. Outlook Summary

- Self-sustaining cycle of income growth and consumer spending
- Stronger dollar
- No inflation
- Higher interest rates
- An island of growth in the global economy for how long?

# Montana's Growth: More Balanced, but Slower

- Growth patterns starting to look more like ten years ago
- The commodity boom is over, will agriculture prices follow?
- Labor markets are quietly getting tighter
- Tourist and visitor spending growth appears healthy
- Bakken price point has been reached



**MOVIE  
TICKETS**  
**9<sup>00</sup>**

**CONCERT  
SEATS**  
**80<sup>00</sup>**

**4<sup>00</sup>**  
**LATTE**

**WATER  
IN A BOTTLE**  
**1<sup>50</sup>**

ACTUALLY, MOST PRICES  
LOOK OUTRAGEOUS WHEN  
YOU PUT THEM ON TALL SIGNS  
IN BIG NUMBERS.

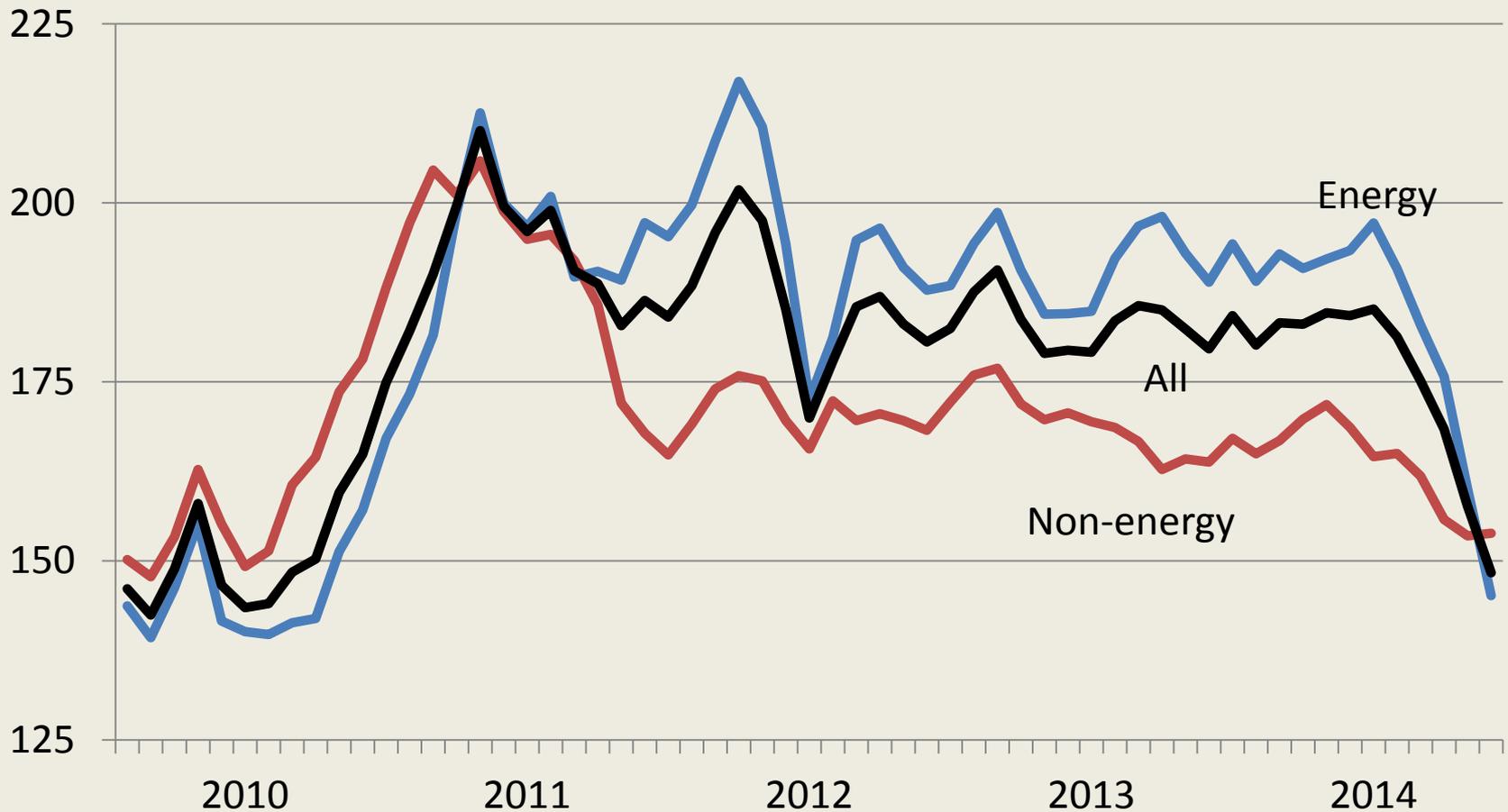
**FOAM 4<sup>25</sup>**  
**HAZELNUT 5<sup>00</sup>**

**STADIUM  
BEER**  
**7<sup>00</sup>**

**GAS**  
**3<sup>00</sup>**

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CARTOON  
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W. BRENNAN

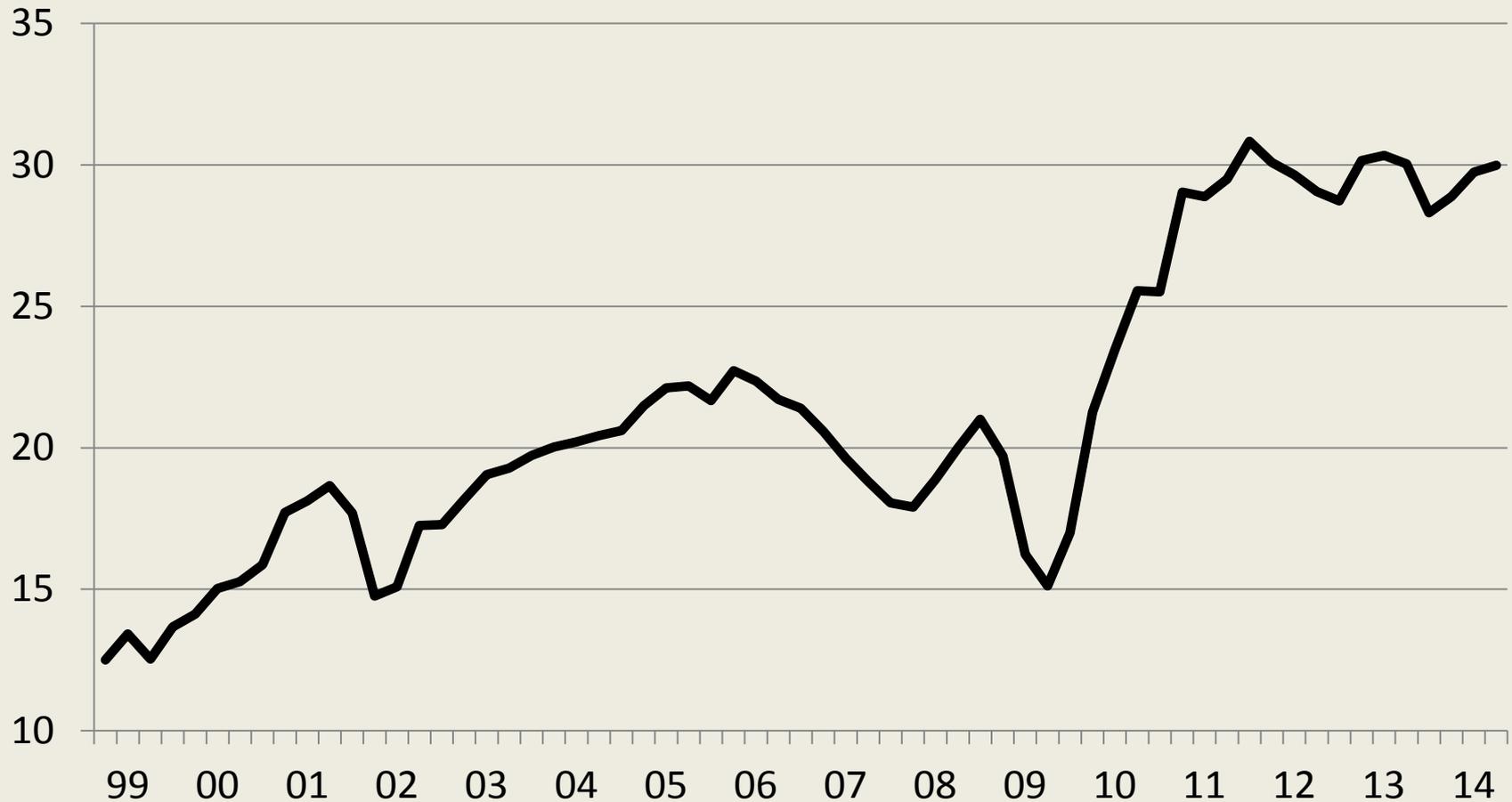
# IMF Commodity Price Indices (2005 = 100)



Source: International Monetary Fund

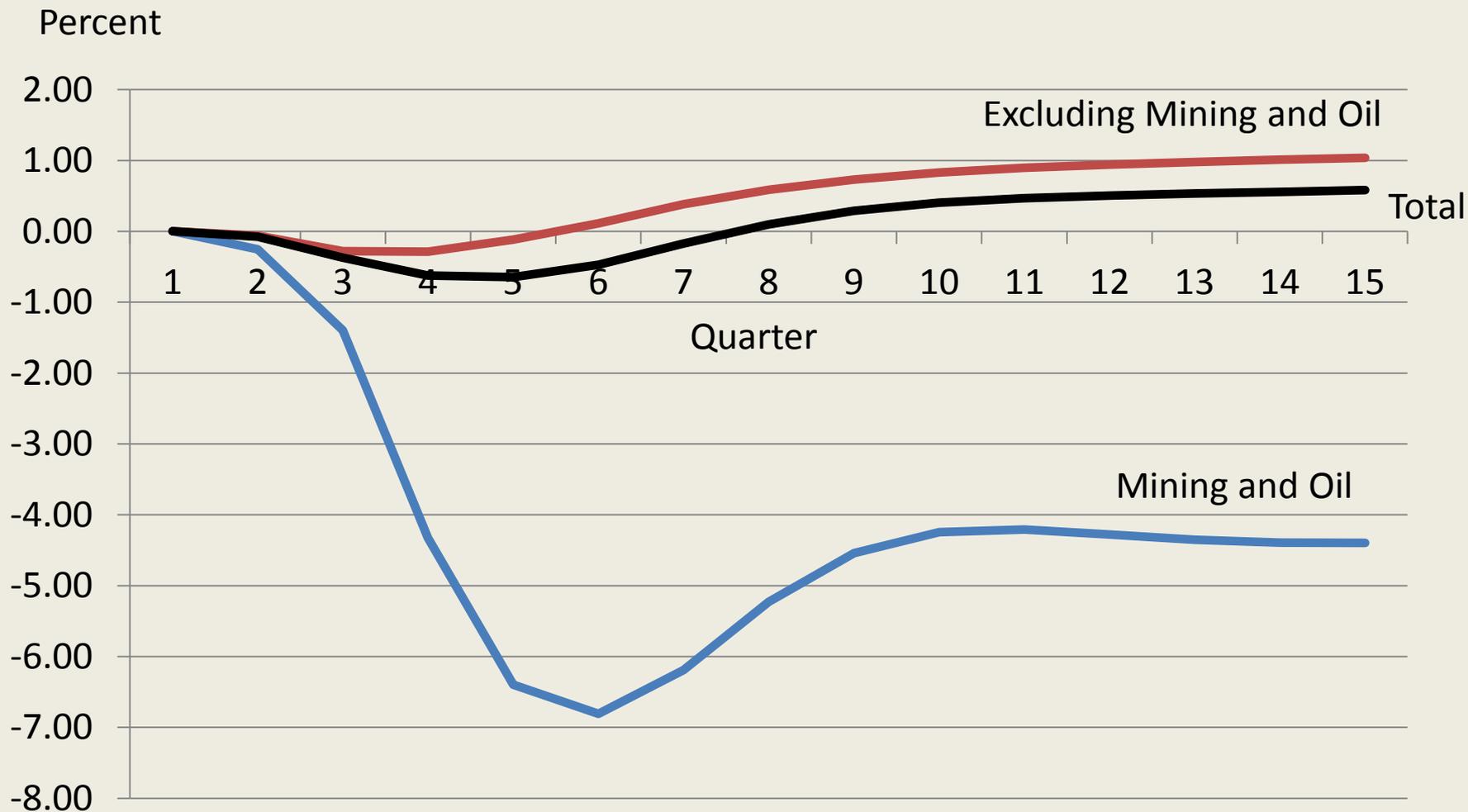
# Oilfield Investments Have Been a Big Driver of the U.S. Economy

Percent



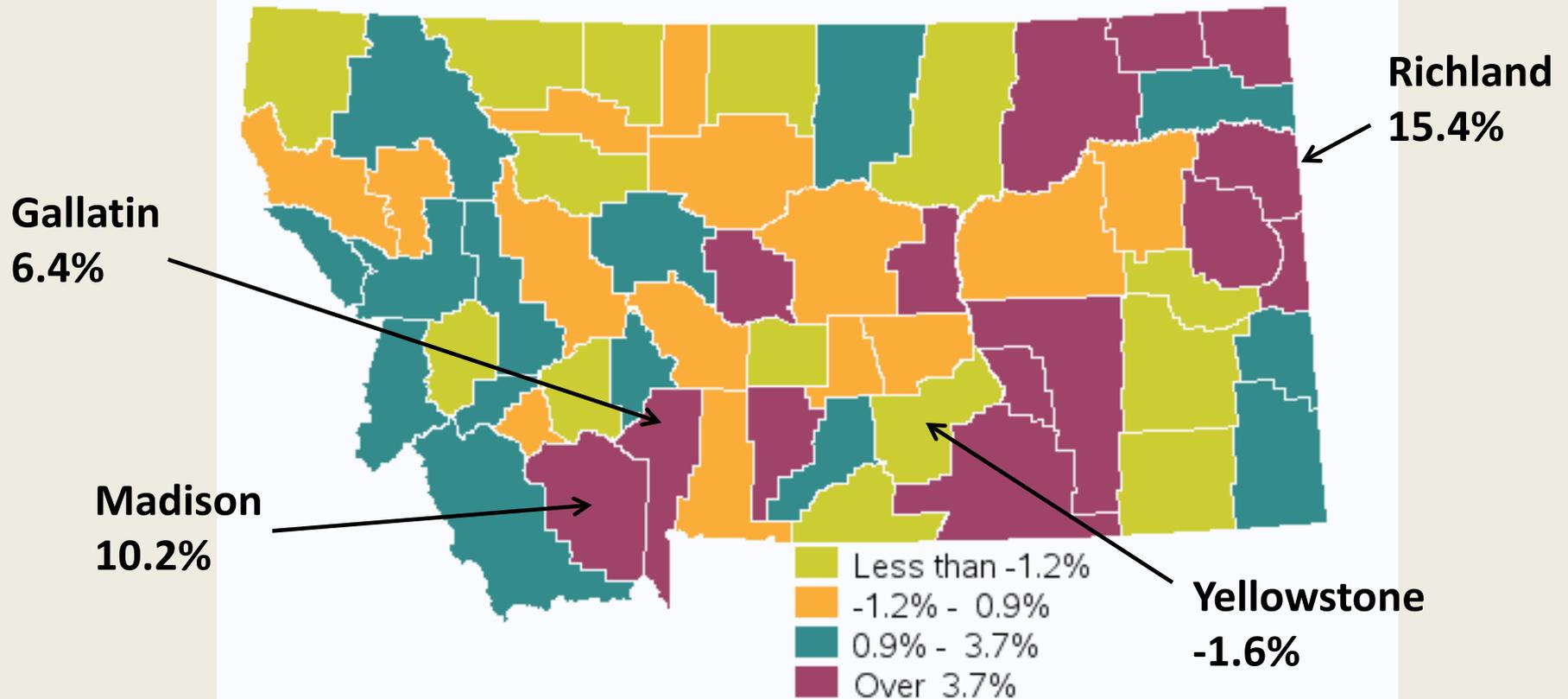
Oilfield Investment Share of Nonresidential Structures Investment, U.S.

# Investment Response to Price Shock



# Real Payroll Wages Growth

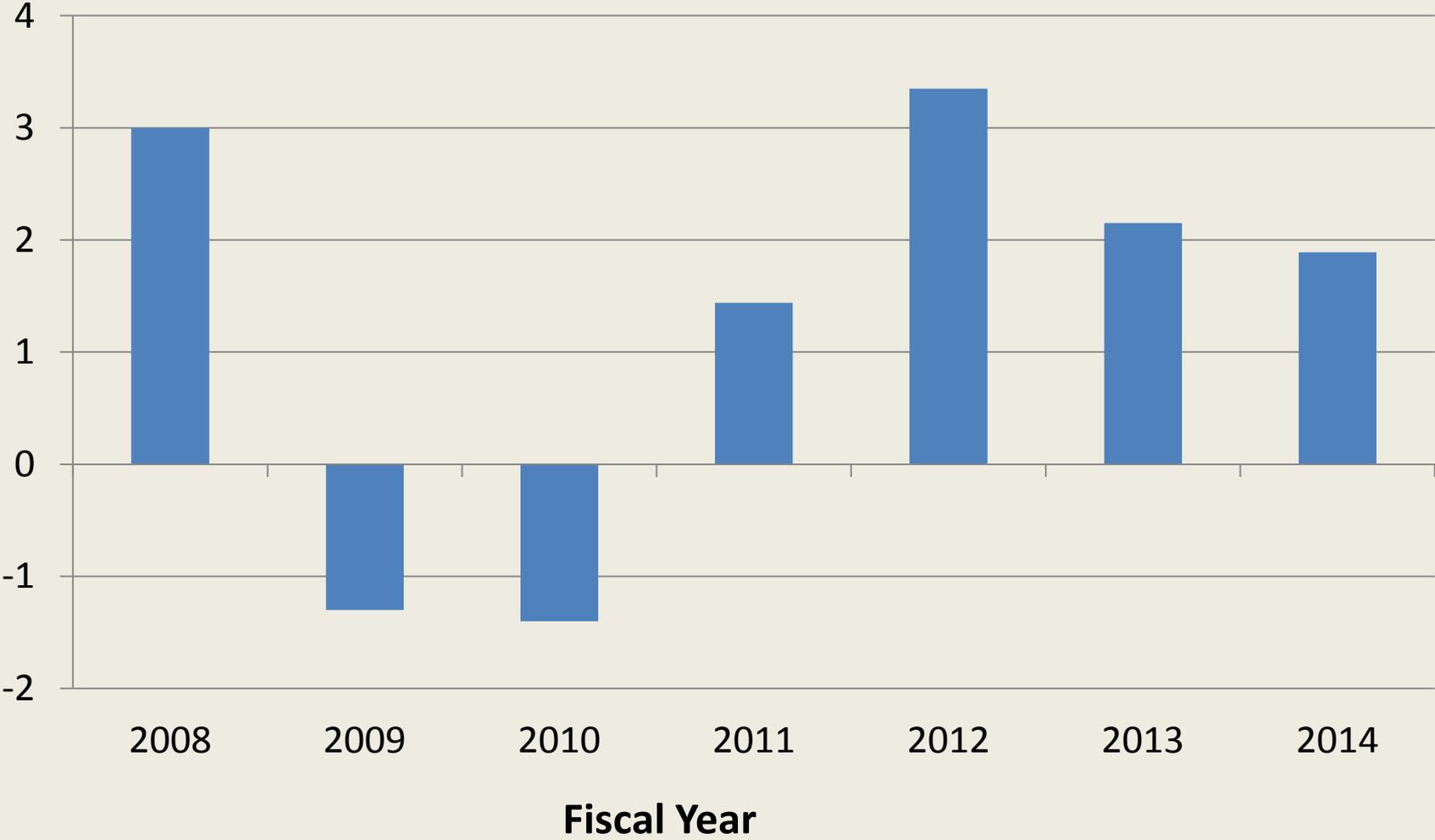
## Percent Change, 13Q2-14Q2



Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted.

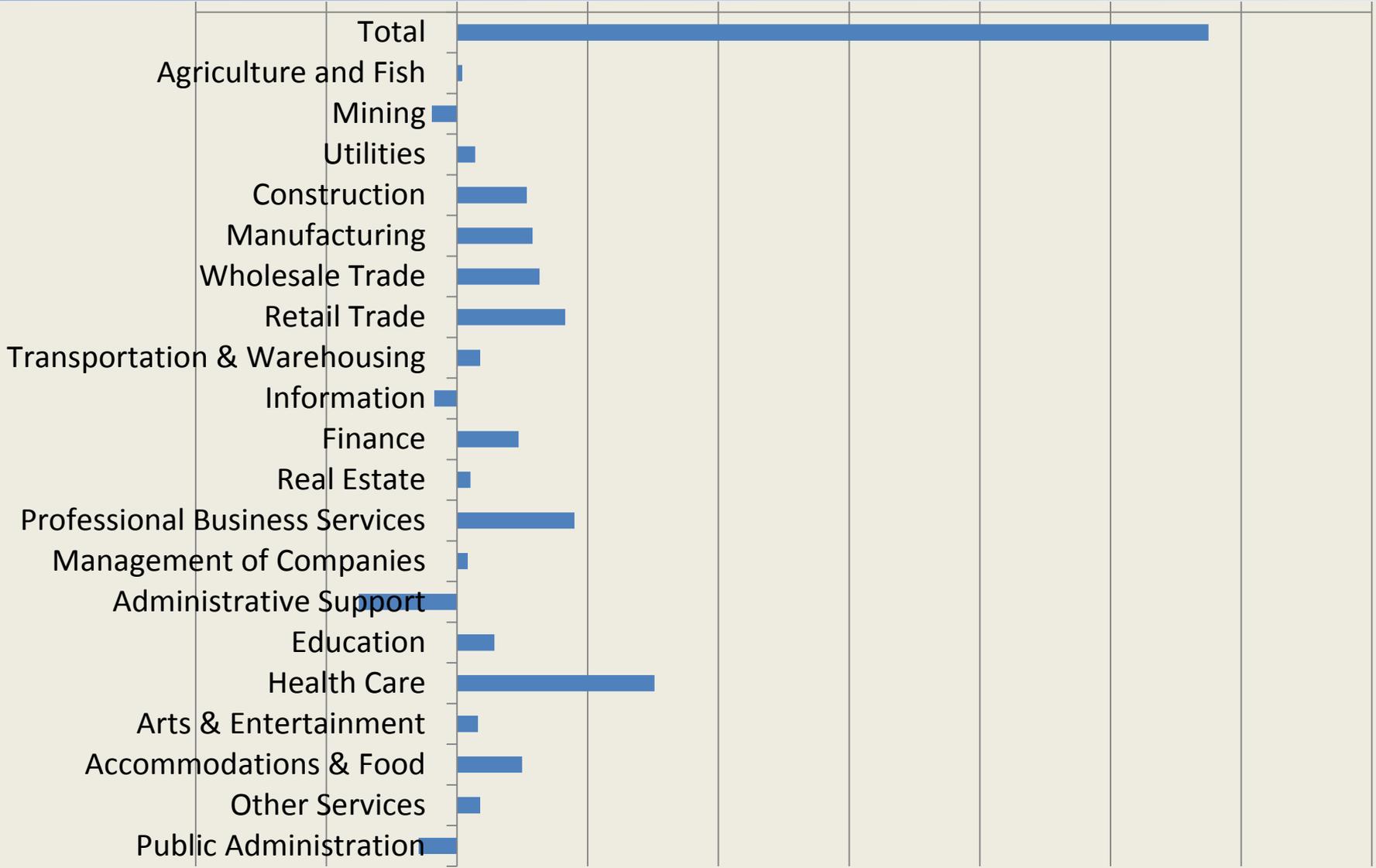
# Montana's Recent Growth

Percent Change in Real Wages and Salaries



# Montana Growth in Real Wages, FY2013-FY2014, \$ Millions

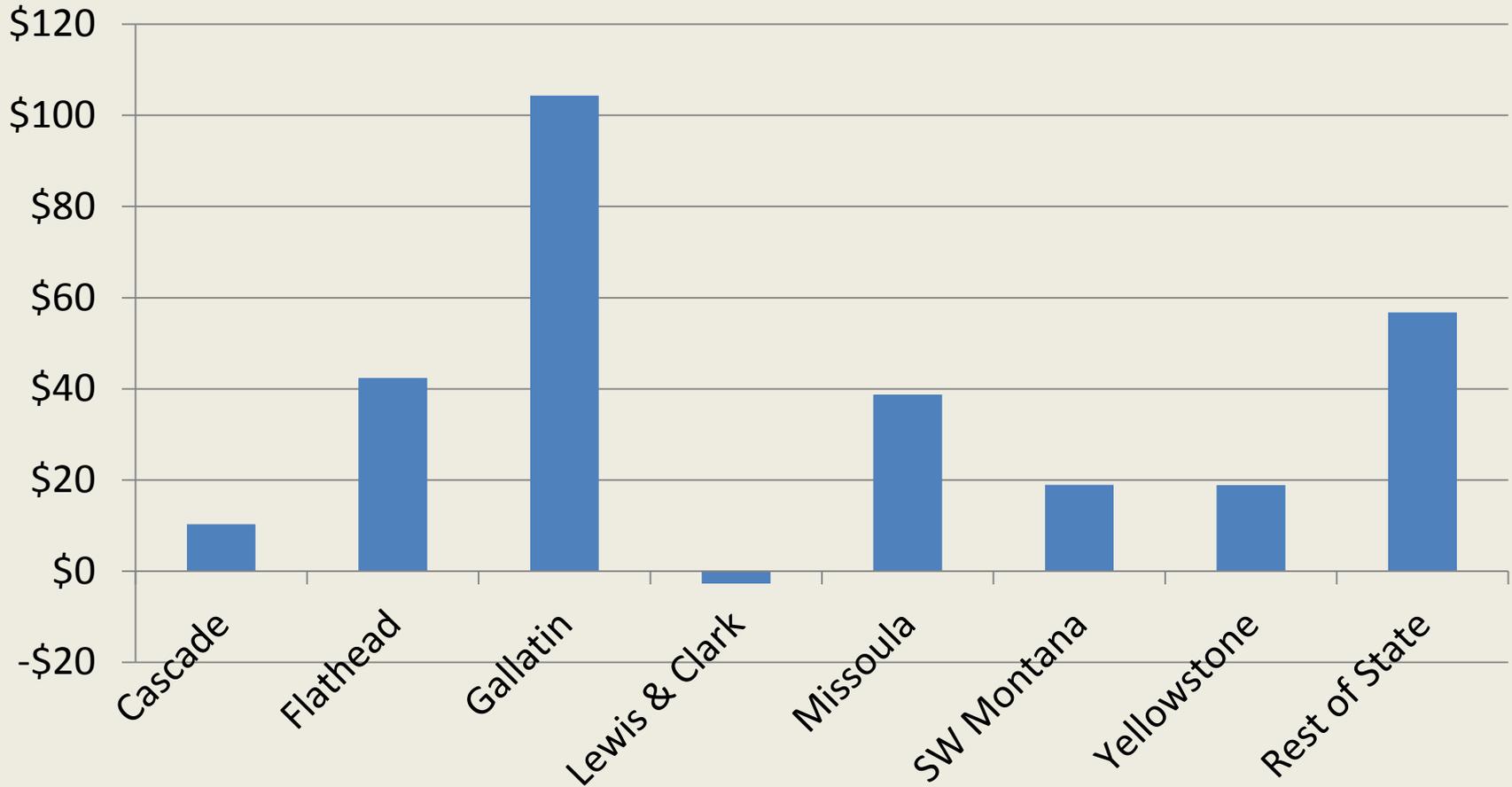
-100      -50      0      50      100      150      200      250      300      350



# Where's the Growth?

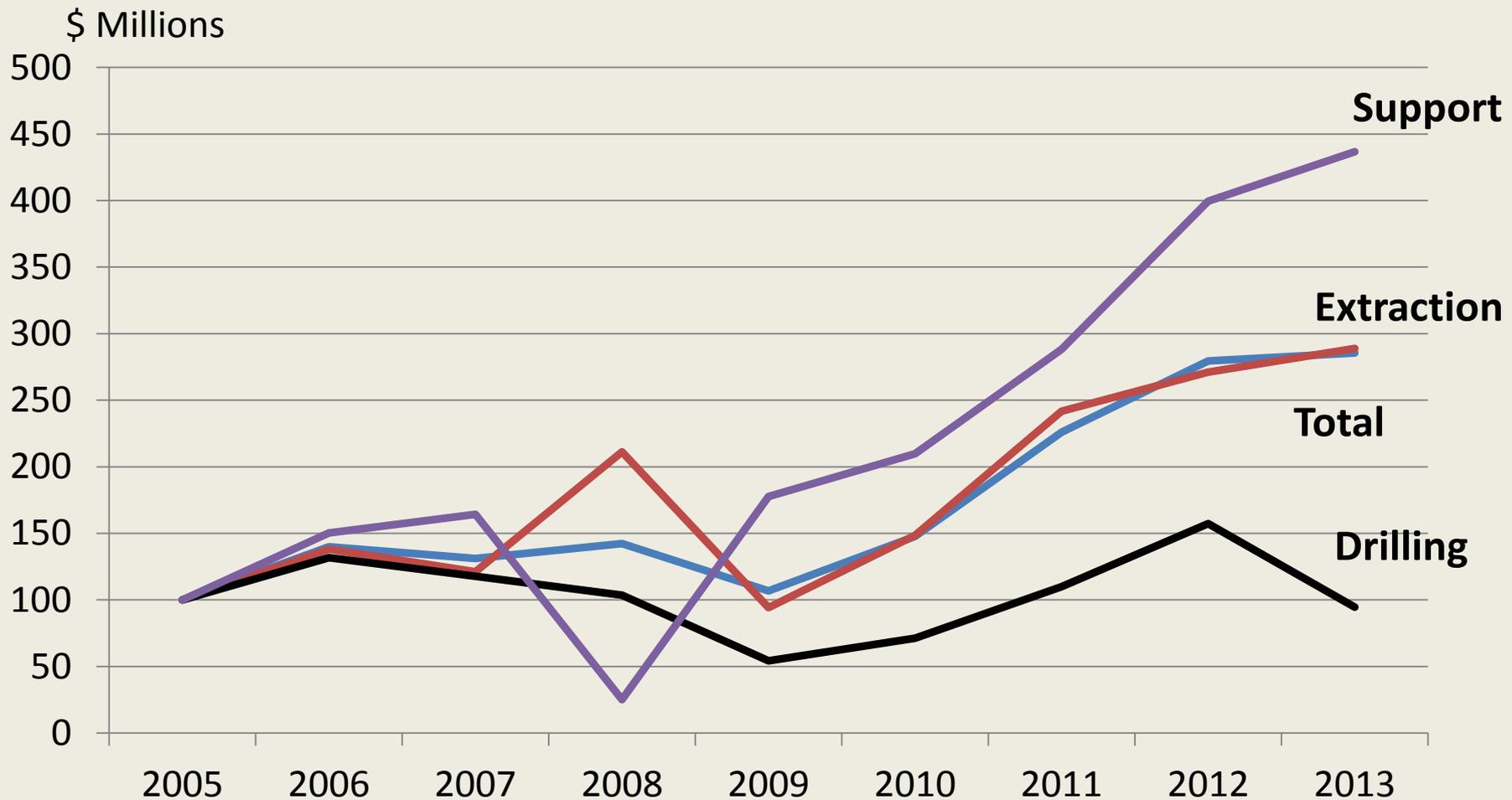
## Total Real Wage Growth, \$ million

\$ Millions



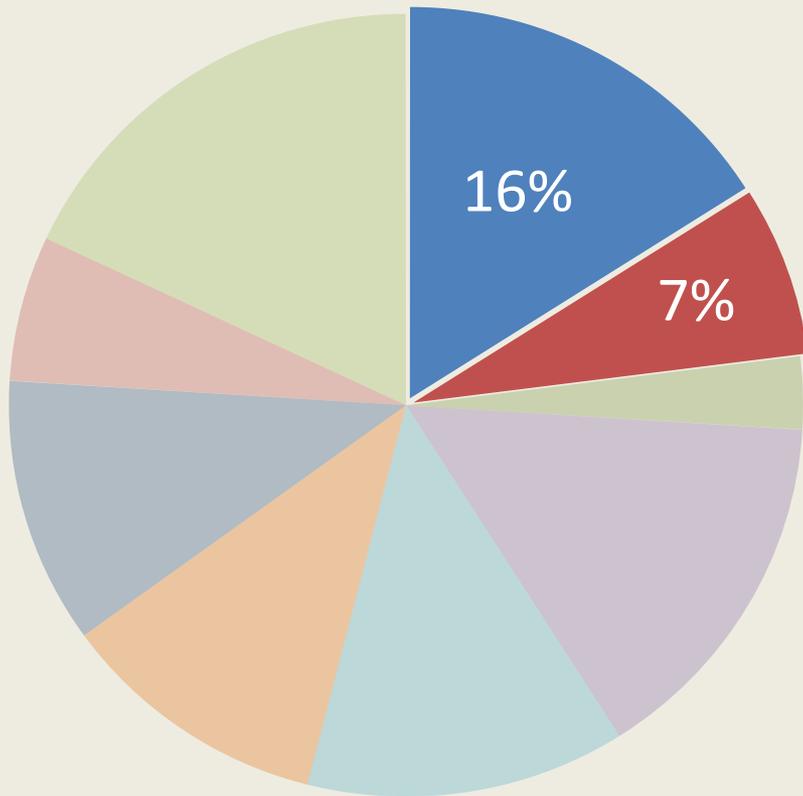
Difference between Inflation-adjusted Wages and Salaries, FY2014 vs. FY2013

# Decomposing Oil and Gas Growth



Montana Oil and Gas Earnings by Year

# Outlook for Key Industries

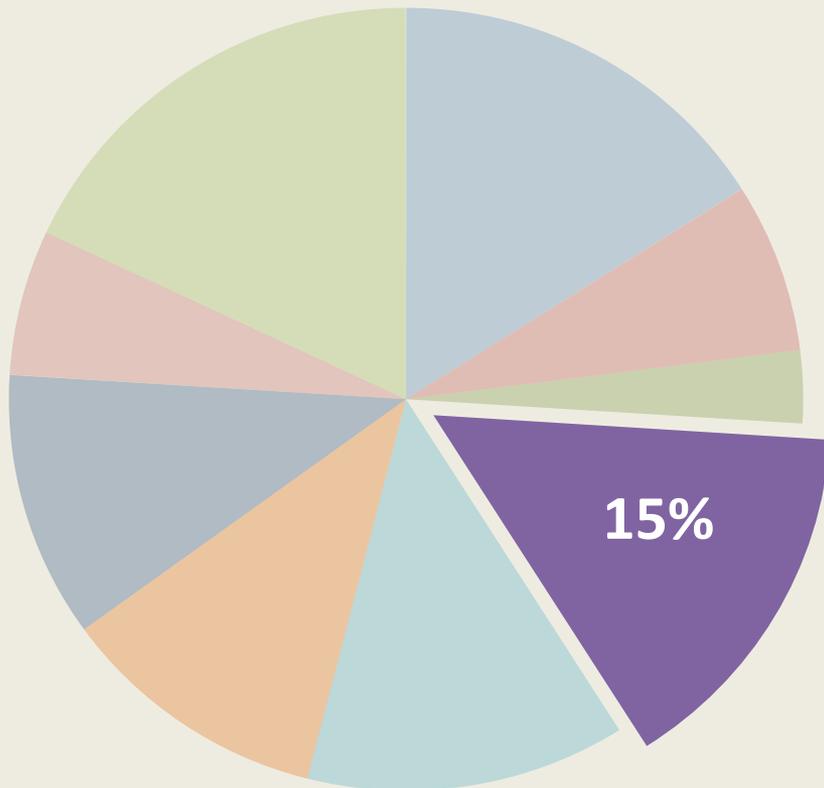


## Energy and Mining:

Significant declines in investment, beginning in mid-2015.

Composition of Earnings in Montana's Basic Industries, 2012-14

# Outlook for Key Industries



## Agriculture and Related:

Coming off a tremendous financial year.

Composition of Earnings in Montana's Basic Industries, 2011-13

# Tracking Montana's High Tech Companies

Bee Alert Technology

Purity Systems, Inc.

Sunburst Sensors

Rivertop Renewables

Visual Learning Systems

Endobiologics

AquilaVision

TerraEchos

Transynaptic Technologies

GT NeuroPharma

Sinapis Pharma

Submittable

Oracle

Microbion

Siafu Technology

Montana Molecular

Ticket River

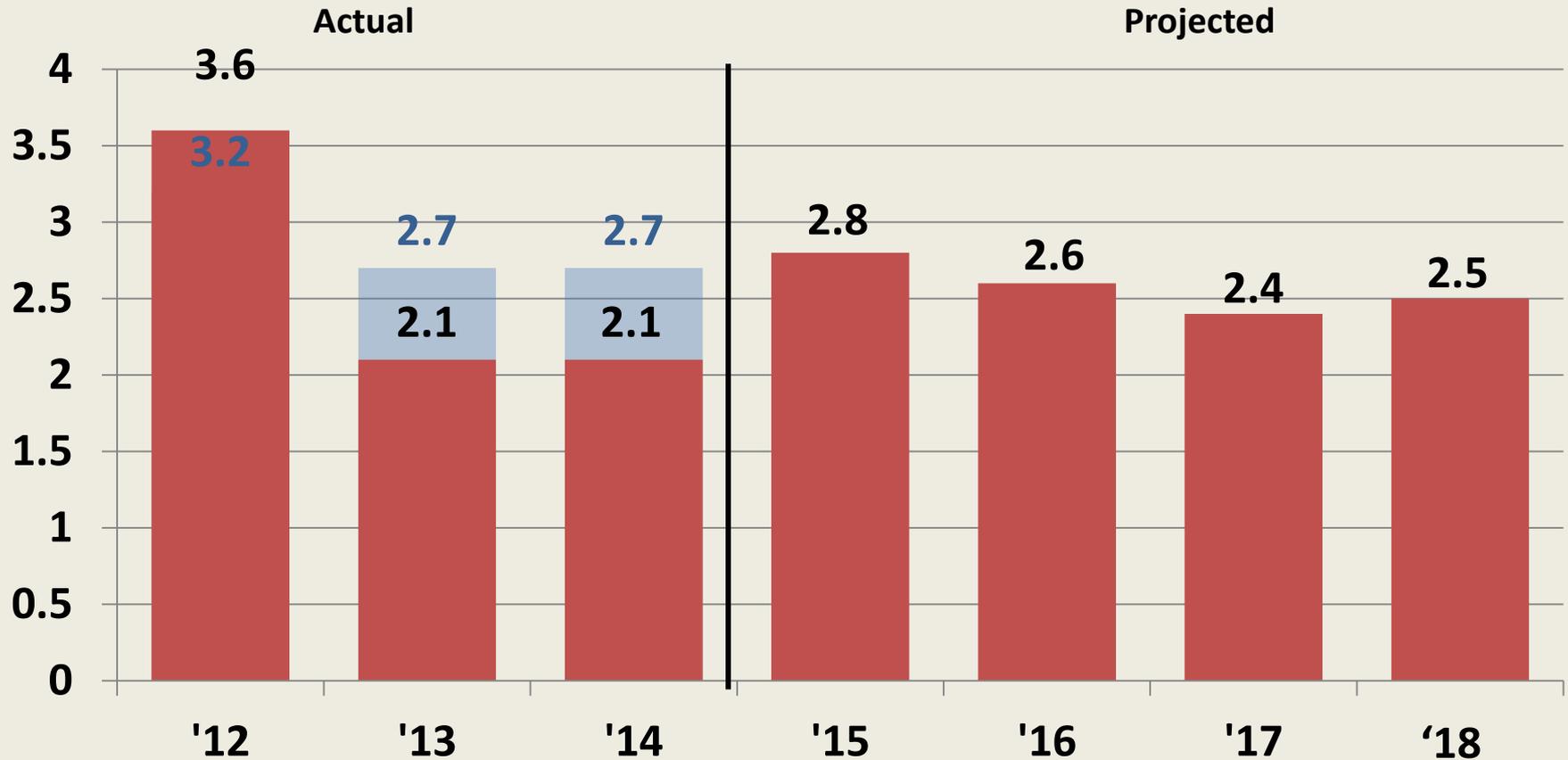
Zoot Enterprises

Elation Corp.

Montana Photonics

LMG Security

# Change in Nonfarm Earnings, Montana, 2012-2018



**Questions?**