

# Income and Inequality in Montana from 2001 Through 2014

Aaron McNay

Montana Department of Revenue

October 18, 2016

# Outline

- Why should we care about income and income inequality?
- Who else has examined this issue?
- What did I do?
- What did I find?
- What are some potential implications?

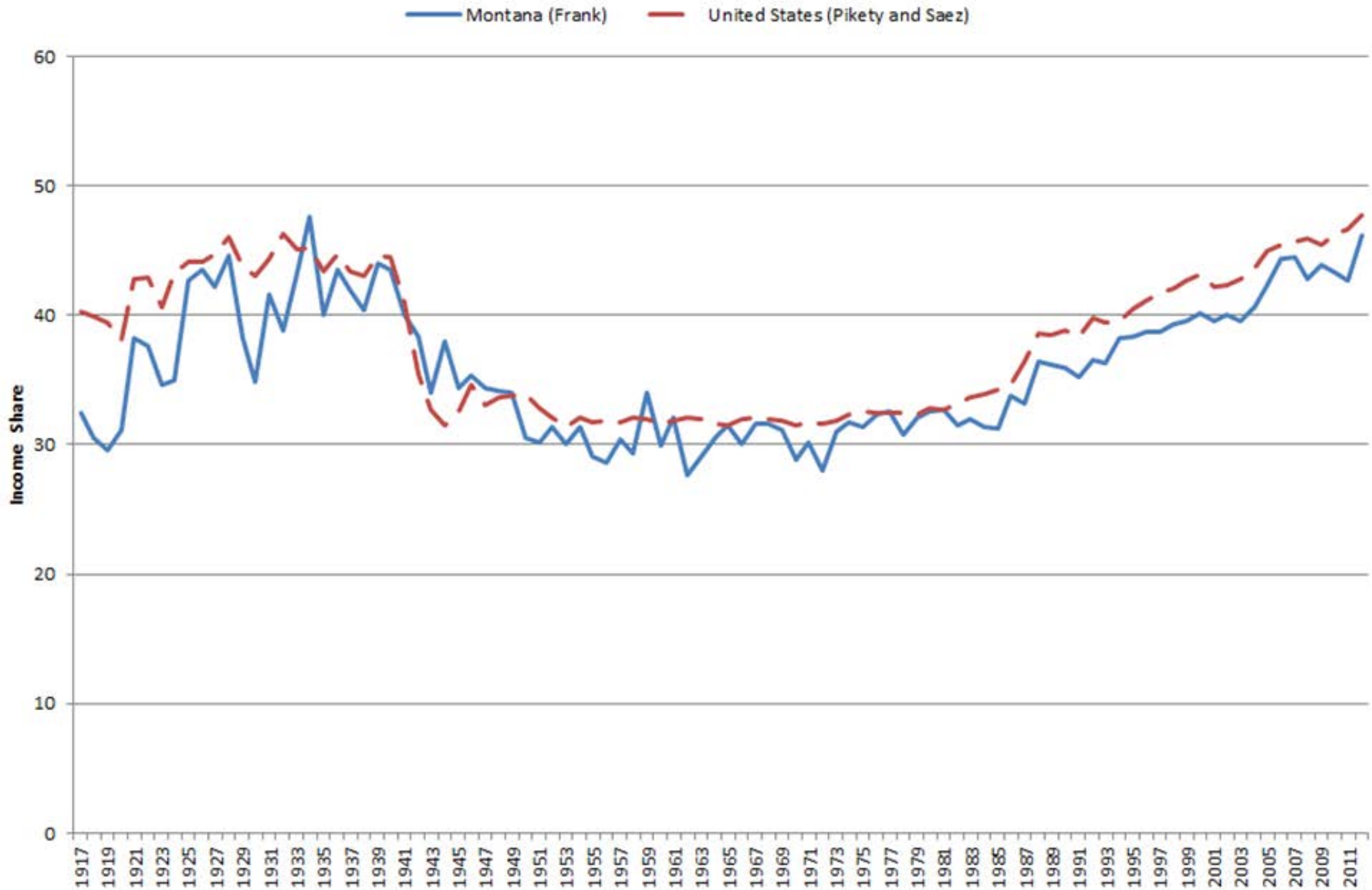
# Why Should We Care?

- The amount of economic resources available to households has a significant impact on their living standards and happiness.
- This is a topic that other people seem to care a lot about.
- The level and distribution of incomes across households may have the potential to impact state income tax revenue.

# Who Else Has Examined This Issue?

- Piketty and Saez (2003) and (2007)
  - Estimated the share of income reported by households in the top 10%, 5%, 1%, 0.5%, 0.1% and 0.01% of US taxpayer households.
  - Based on IRS income tax data released on the top 10% of taxpayer households, as well as other income data.
  - Probably the most well known estimate of changes in the incomes of high income households.
  - Estimates updated and expanded through the World Wealth and Income Database.
- Frank (2009), Frank, Sommeiller, Price and Saez (2015)
  - Using the same federal income tax data as Piketty and Saez, Frank developed top income decile estimates at the state level.
  - Estimates are available for Montana, as well as most other states.

# Income Share of Top Income Decile In Montana and United States 1917 through 2012



# What Did I Do?

- Montana's Department of Revenue has digital personal income tax records going back to 2001.
- Using total taxable income, I broke the income tax records into income deciles and income types for full-year residents.
- I did this for tax years 2001 through 2014.

# Estimate Differences

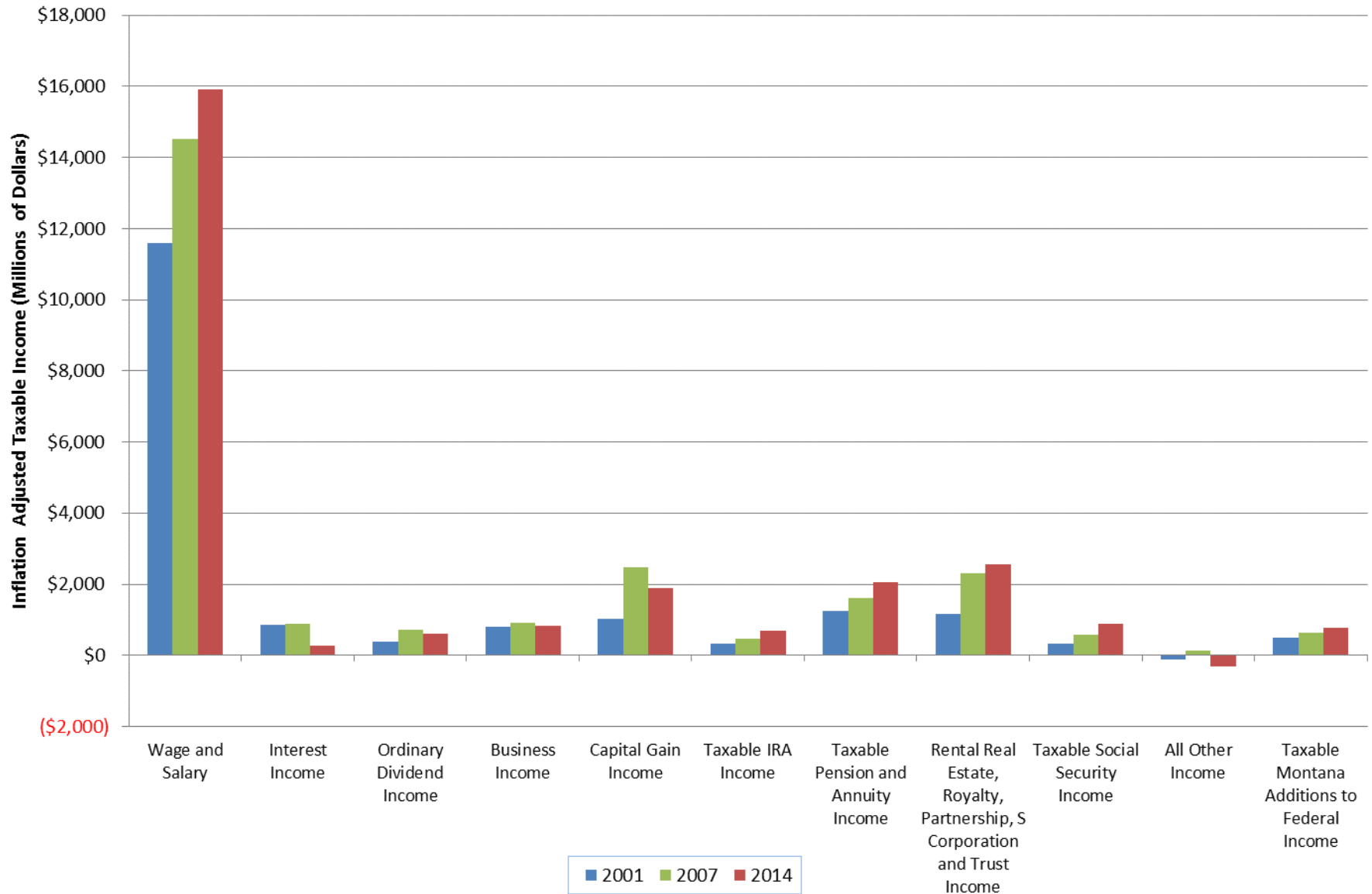
- Strengths
  - My estimates provide information on households outside the top income decile.
  - My estimates can be broken down by income types.
- Weakness
  - My estimates are only available for tax years 2001 through 2014.
    - Difficult to differentiate between business cycle and long-term changes.
  - My estimates are only available for Montana.

# What Did I Find?

- After adjusting for inflation:
  - Total taxable income increased
    - \$18 billion in 2001
    - \$26 billion in 2014
  - Average per taxpayer household incomes increased
    - \$47,195 in 2001
    - \$58,097 in 2014
  - Wage, salary and tip income comprised half the increase in incomes
    - \$8 billion increase from 2001 through 2014
    - 53.6 percent of the total increase in taxable income from 2001 through 2014



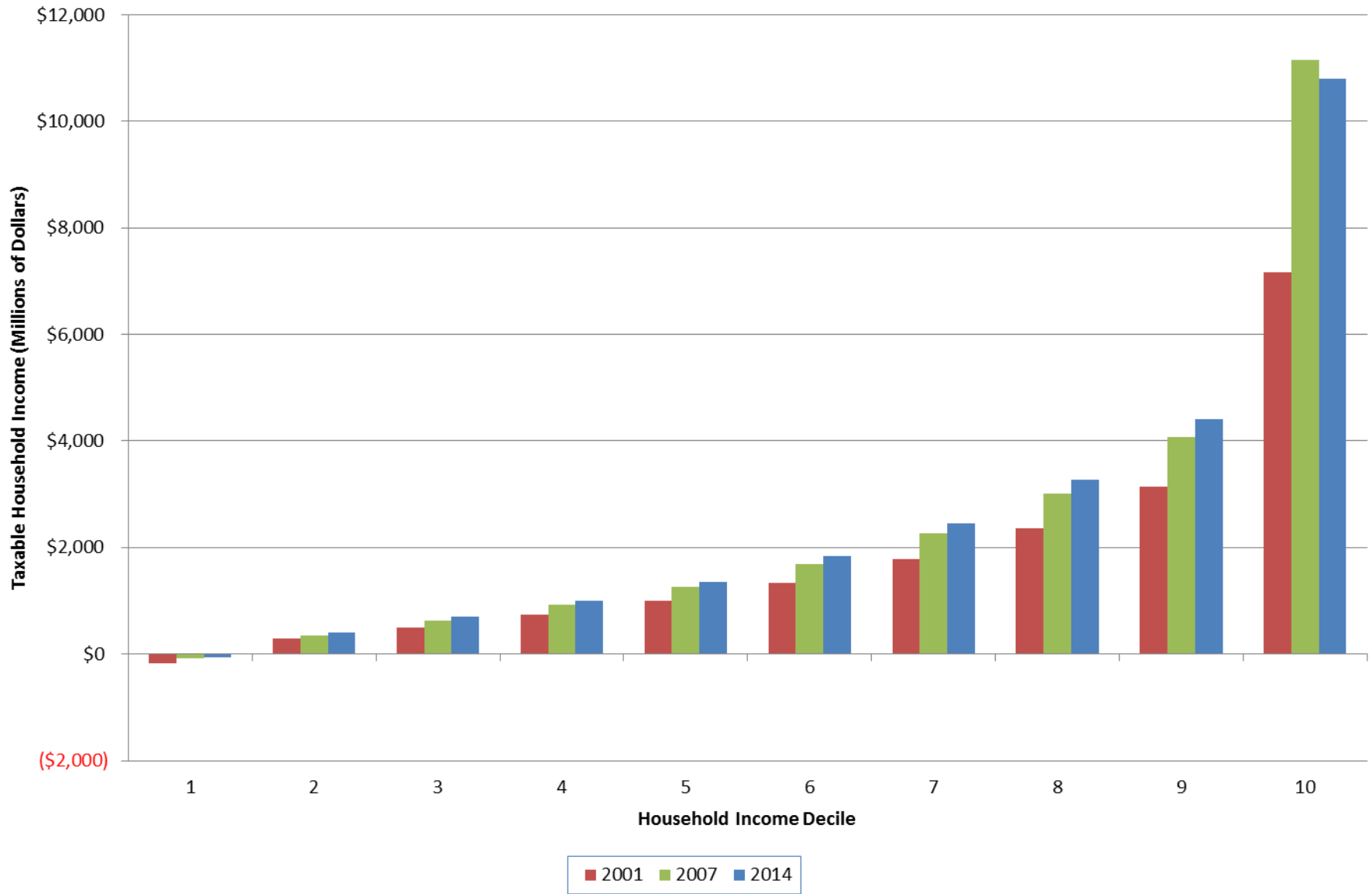
## Montana Taxable Income 2014 Dollars



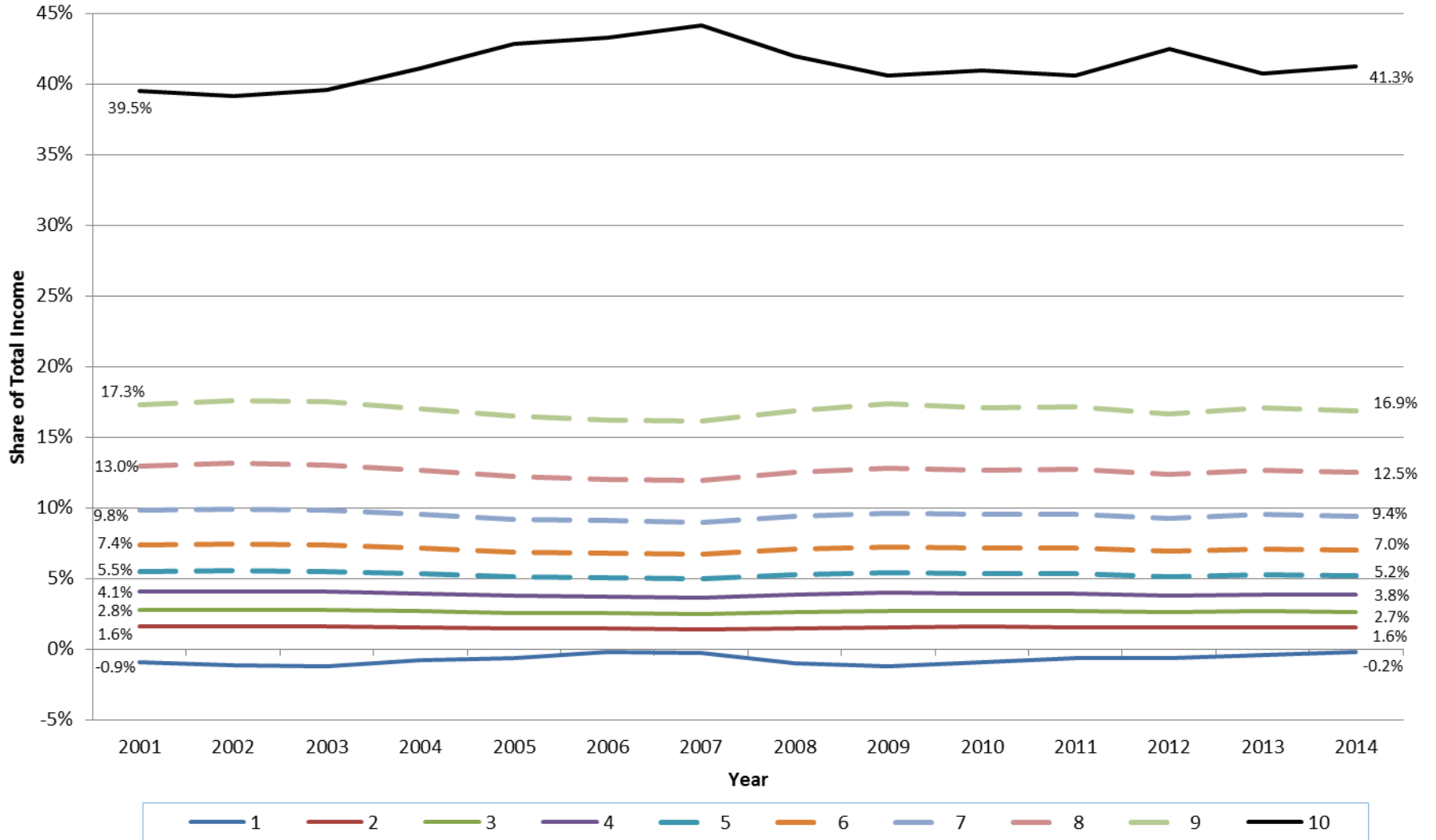
# What Did I Find?

- The combined income of all income deciles increased from 2001 to 2014.
- Taxable income is relatively unequally distributed.
  - Top income decile:
    - 41.3% of income in 2014 (49.85% for U.S.)
    - 39.5% of income in 2001 (44.82% for U.S.)
  - Top 50% of households:
    - 87% of income in 2001 and 2014
- The income distribution in Montana is more equally distributed than at the national level
  - Top Decile in US: 49.9% in 2014
  - Top Decile in MT: 41.3% in 2014

## Taxable Household Income In Montana By Decile 2014 Dollars



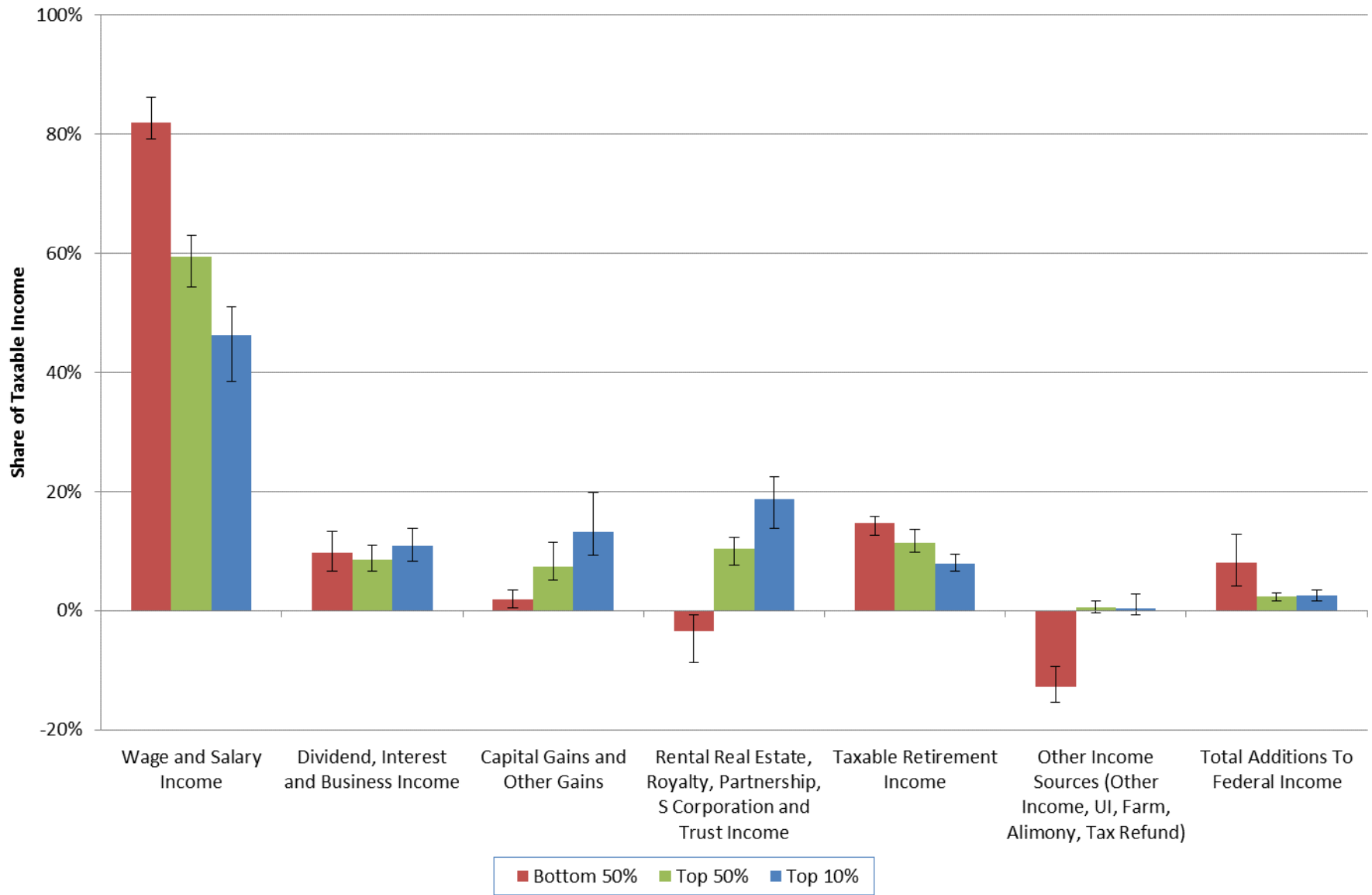
## Share of Total Taxable Income By Deciles 2001 through 2014



# What Did I Find?

- I also broke down the decile income amounts by income type.
  - Wage and salary income comprises a larger portion of income for households in the lower income deciles.
    - Bottom 50% of households: 80.3% in 2001 and 2014
    - Top 50% of households: 61.6% in 2001 and 57.9% in 2014
  - Dividend, capital gains, real estate, partnership and S corporation income comprises a larger portion of income for households in the upper income deciles.
    - Bottom 50% of households: 14.4% in 2001 and 7.5% in 2014
    - Top 50% of households: 24.9% in 2001 and 26.6% in 2014

## Taxable Income in Montana By Income Type and Income Category Average of Tax Years 2001 Through 2014



# Potential Implications

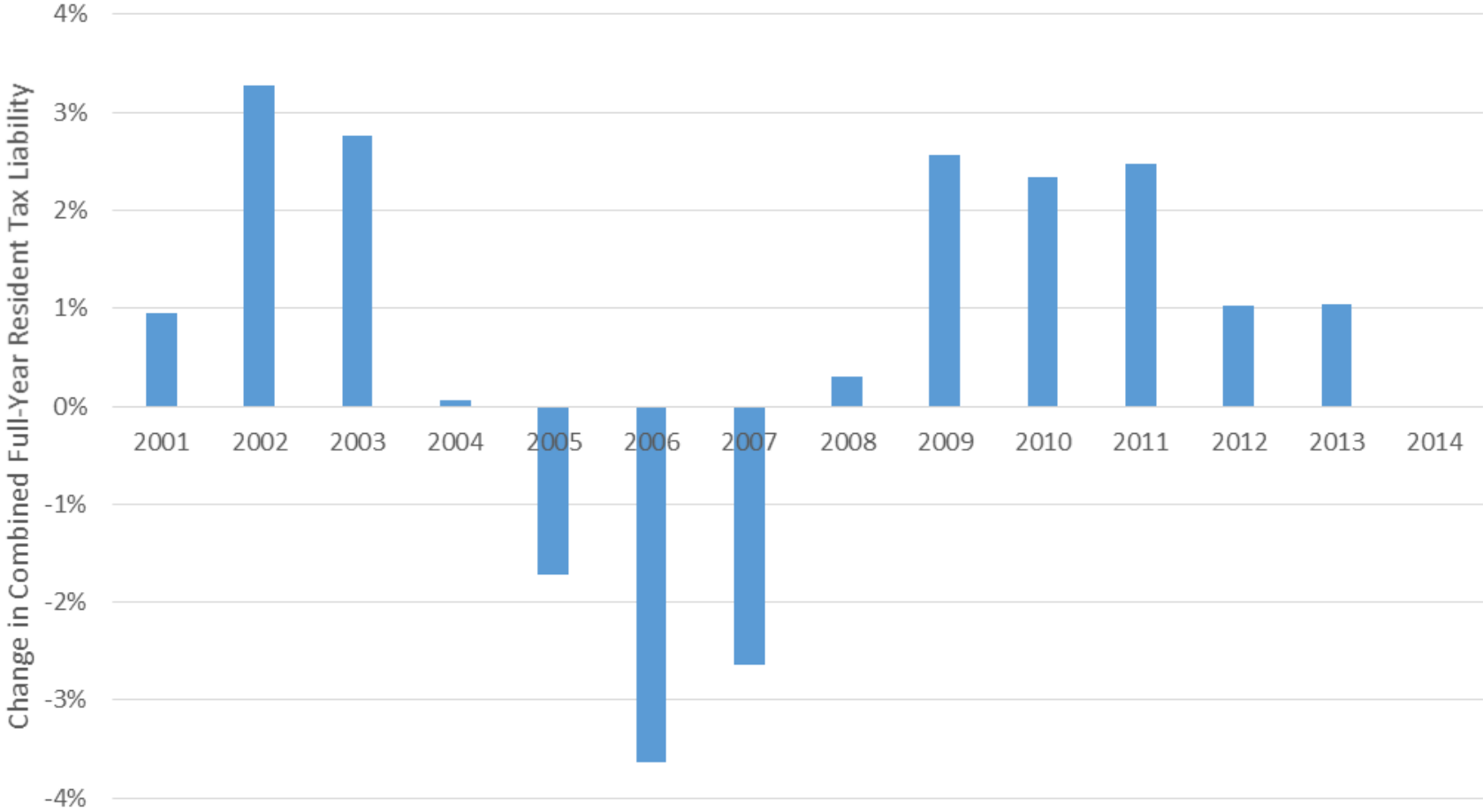
- Changes to the distribution of incomes has the potential to impact personal income tax revenue.
  - With Montana's progressive tax structure, tax revenues as a share of income will increase with any given amount of income as the share of income shifts from low-income to high-income households.
  - The type of income earned also has the potential to impact income tax revenue in Montana. For example, the state currently allows a 2% credit on capital gains income.
- How much of an impact does changes in incomes impact revenue?

# Revenue Impact

- What impact does the distribution of incomes have on total income tax liability?
  - Using 2014 income tax returns, and Montana's income tax model, I estimated the combined tax liability of Montana's households based on income distributions in previous years.
  - Only the distribution of incomes, across deciles and income types, is changed. The combined value of incomes is held to its 2014 level.
- With these changes, there are real, but relatively minor, changes in income tax liability.
  - Up to a 3.3% increase in some years
  - Up to a 3.6% decrease in other years



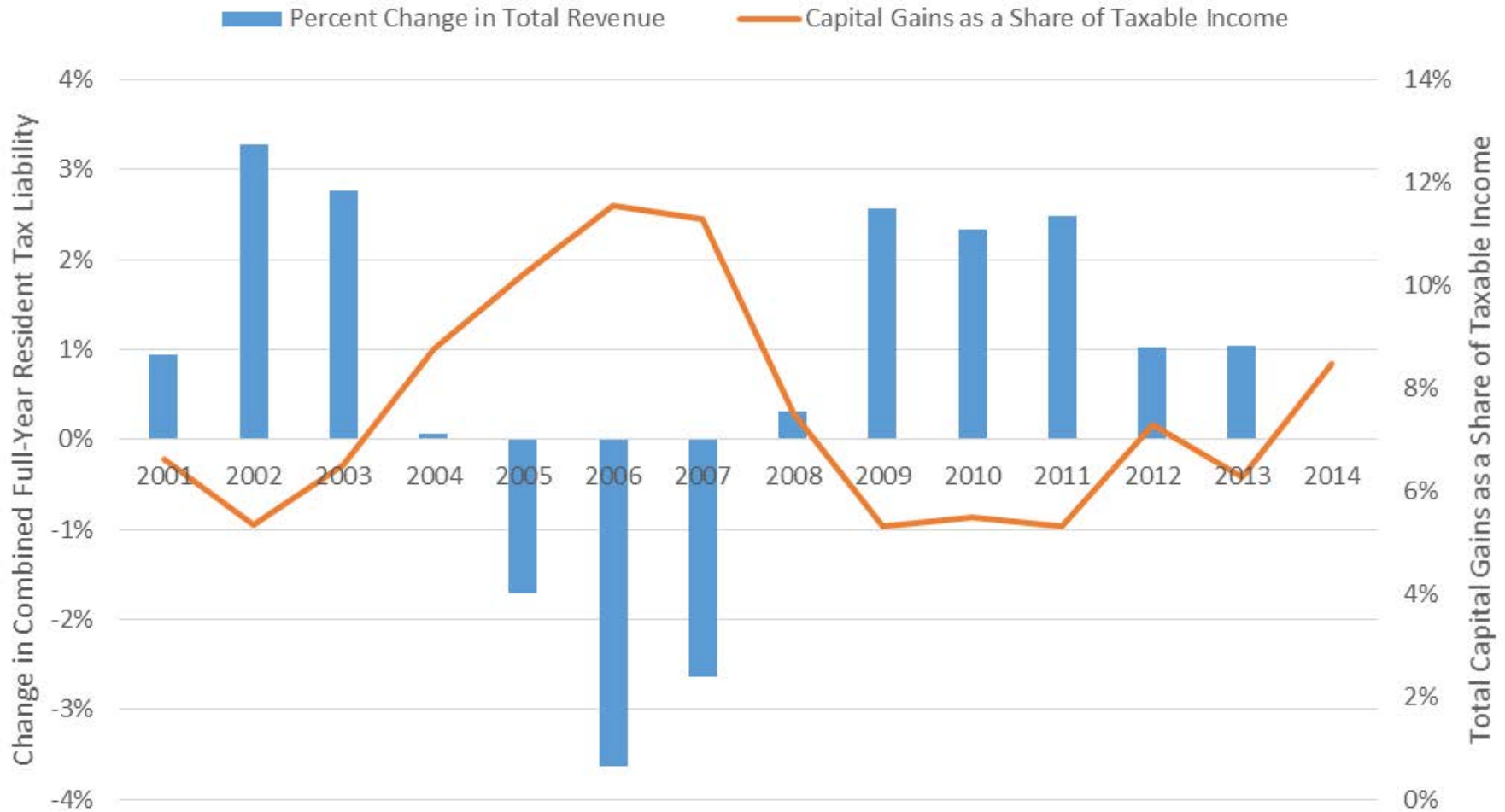
### Change in Income Tax Liability Holding Income Constant



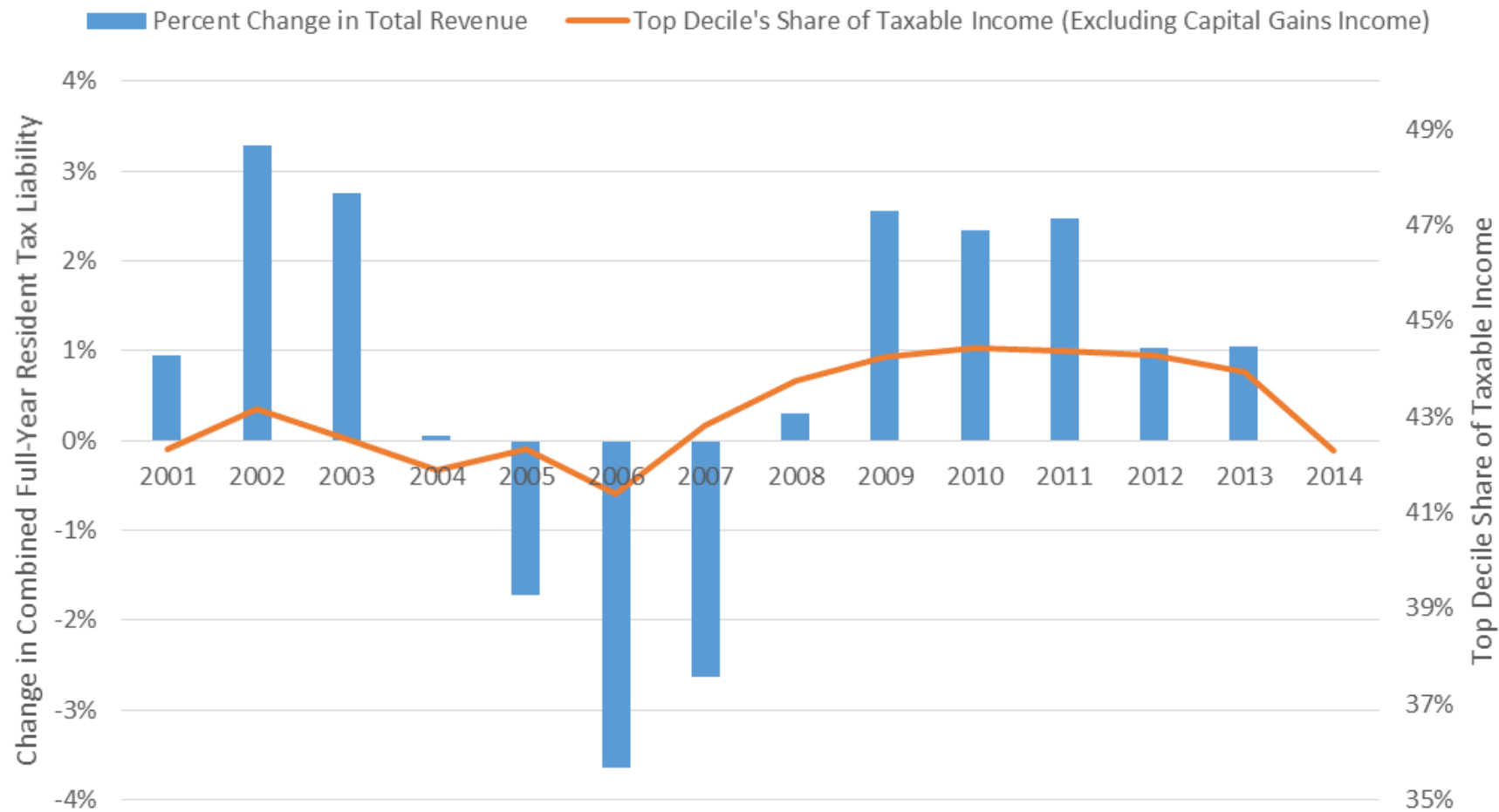
# Revenue Impact

- Most of the change is due to changes in the type of income reported, namely capital gains income.
- However, a portion of the change is due to changes in the distribution of the income as well.

## Change in Income Tax Liability Holding Income Constant



## Change in Income Tax Liability Holding Income Constant



# Conclusion

- The combined income of all income deciles increased from 2001 to 2014.
  - The top decile had the largest increase in reported taxable income, with an increase of approximately \$3.6 billion.
  - However, households in the top decile reported the only decrease in combined incomes from 2007 to 2014, with a decrease of \$363 million.
- Income is relatively unequally distributed.
  - Top 10 percent of households reported 39.5 percent of taxable income in 2001 and 41.3 percent in 2014.
- Changes to the distribution of income, as well as its sources, has the potential to impact income tax revenue.
  - Estimated revenue impacts of between a 3.6% decrease or a 3.3% increase in revenue