Income and Inequality in Montana from 2001 Through 2014

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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 recourses 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

- Montana (Frank)
- United States (Pikety and Saez)
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

Inflation Adjusted Taxable Income (Millions of Dollars)

<table>
<thead>
<tr>
<th>Income Type</th>
<th>2001</th>
<th>2007</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage and Salary</td>
<td>$12,000</td>
<td>$14,000</td>
<td>$16,000</td>
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<tr>
<td>Interest Income</td>
<td>$1,000</td>
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<td>$1,000</td>
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<tr>
<td>Ordinary Dividend Income</td>
<td>$1,000</td>
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<tr>
<td>Business Income</td>
<td>$1,000</td>
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<td>$1,000</td>
</tr>
<tr>
<td>Capital Gain Income</td>
<td>$1,000</td>
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<td>$1,000</td>
</tr>
<tr>
<td>Taxable IRA Income</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Taxable Pension and Annuity Income</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Rental Real Estate, Royalty, Partnership, S Corporation and Trust Income</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Taxable Social Security Income</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>All Other Income</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Taxable Montana Additions to Federal Income</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
</tbody>
</table>
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

Taxable Household Income (Millions of Dollars)

Household Income Decile

2001  2007  2014
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

- Wage and Salary Income
- Dividend, Interest and Business Income
- Capital Gains and Other Gains
- Rental Real Estate, Royalty, Partnership, S Corporation and Trust Income
- Taxable Retirement Income
- Other Income Sources (Other Income, UI, Farm, Alimony, Tax Refund)
- Total Additions To Federal Income

Legend:
- Bottom 50%
- Top 50%
- Top 10%
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 will 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
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.
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