Tax Noncompliance and Measures of Income Inequality*

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*The views expressed here are solely those of the authors and do not reflect the opinions of the U.S. Department of the Treasury or the Office of Tax Analysis.
Background

- From Piketty and Saez (2003) to Auten and Splinter (2017), measuring inequality using tax data has been a topic of interest.
- Research into the tax gap by the IRS and OTA has found that quite a bit of income is misreported in the published data.
- What we don’t know is how these two pieces of information interact.
Theory

- No clear predictions on where we should expect to find misreporting
- Taxpayers with high incomes generally have more complex returns with more opportunities to misreport
- Taxpayers with low incomes might have more incentive to misreport, or might not have low incomes in reality
Previous Literature

- Using the inaugural wave of the NRP, Johns and Slemrod (2010) found that while misreporting increases with income, the post-audit Gini coefficient is lower.
- Auten and Splinter (2017) finds that incorporating audit data decreases inequality measures.
- Alstadsæter, Johannesen, and Zucman (2017) shows how very high income individuals may be underreporting their income.
Data

- National Research Program (NRP)
  - Randomized
  - Representative
  - In-Depth
- Cross-sectional data for 2006-2014
- Oversampling for business income
Data Limitations

- Not all noncompliance is captured by NRP
  - Offshore accounts
  - Cash income
- Detection Controlled Estimation (DCE)
  - Attempts to correct for variation in examiner quality, harder to detect income
  - Still unable to incorporate offshore accounts, easily hidden cash income
  - Affects scale of non-compliance, but not (to a great extent) the distribution
  - Aggregation over filers and line items makes it difficult to use for inequality measures
  - Excluded from the results here
Overall findings

- Higher income individuals are generally more likely to misreport.
- Higher income individuals have larger amounts that are misreported, but they are small compared to their overall income.
- This results in small but statistically significant reductions in the Gini coefficient.
Audit Adjustments by Income Group

Figure 1: Fraction of Tax Filers with Audit Adjustments by Reported AGI Group
Audit Adjustments by Income Group – Reported Income

Figure 2: Audit Adjustments as a Fraction of ATI and AGI, by Reported AGI Group

- ATI
- AGI
Audit Adjustments by Income Group – Corrected Income

Figure 4: Audit Adjustments as a Fraction of AGI, by Corrected AGI Group
Figure: Income Percentiles, Pre and Post Audit
### Role of Noncompliance on Inequality

**Table:** Inequality Measures Before and After Audit

<table>
<thead>
<tr>
<th>Income Definition</th>
<th>Gini Coefficient Before Audit</th>
<th>Gini Coefficient After Audit</th>
<th>Top 1% Share Before Audit</th>
<th>Top 1% Share After Audit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted Total Income</td>
<td>0.570</td>
<td>0.563</td>
<td>0.185</td>
<td>0.182</td>
</tr>
<tr>
<td>Adjusted Gross Income</td>
<td>0.589</td>
<td>0.582</td>
<td>0.188</td>
<td>0.185</td>
</tr>
<tr>
<td>Taxable Income</td>
<td>0.712</td>
<td>0.693</td>
<td>0.244</td>
<td>0.233</td>
</tr>
<tr>
<td>Wages and Salaries</td>
<td>0.617</td>
<td>0.616</td>
<td>0.132</td>
<td>0.131</td>
</tr>
<tr>
<td>Dividends</td>
<td>0.973</td>
<td>0.972</td>
<td>0.673</td>
<td>0.667</td>
</tr>
<tr>
<td>Sch C Income</td>
<td>0.966</td>
<td>0.958</td>
<td>0.554</td>
<td>0.490</td>
</tr>
<tr>
<td>Sch D Income</td>
<td>0.994</td>
<td>0.993</td>
<td>0.907</td>
<td>0.893</td>
</tr>
<tr>
<td>Sch E Income</td>
<td>0.989</td>
<td>0.988</td>
<td>0.825</td>
<td>0.805</td>
</tr>
</tbody>
</table>

Source: IRS National Research Program, 2006-2014
Income Composition Effects

Figure 5: Composition of Income Before and After Audit, by Reported AGI Group
Conclusion

- Higher income individuals are generally more likely to misreport.
- Higher income individuals have larger amounts that are misreported, but they are small compared to their overall income.
- This results in small but statistically significant reductions in the Gini coefficient.
COMPARISON WITH JOHNS AND SLEMROD (2010)

Net Misreporting Percentage by AGI Percentiles
Ranked by True AGI with DCE