Income Inequality in the United States: Using Tax Data to Measure Long-term Trends

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The views and opinions expressed are those of the authors and do not necessarily represent official positions or policy of the U.S. Treasury Department.

This work embodies work undertaken for the staff of the Joint Committee on Taxation, but as members of both parties and both houses of Congress comprise the Joint Committee on Taxation, this work should not be construed to represent the position of any member of the Committee.
Conventional income inequality story: Top 1% income shares rose dramatically especially after 1980

But: Measuring inequality over time isn’t easy

- Base broadening tax reforms (TRA-86)
- Government transfers increased
- Market income sources not in AGI
- Declining marriage rates/family size
- More attend college = more dependent filers
- Earlier data has less detail
Conventional Story: Top 1% income share doubled 
But: 40% of increase is 1986 to 1988
TRA-86 increased dependent & under <20 filers

Millions of returns

Dependent and age <20 filers

Non-dependent filers <20 years old
Some studies use more comprehensive income:

**Tax Data:** CBO (2014) since 1979
  Piketty, Saez and Zucman (2016)

**SCF:** Bricker, Henriques, Krimmel and Sabelhaus (2016)

**Census:** Burkhauser, Feng, Jenkins and Larrimore (2012)

**Result:** Generally less inequality & less upward trend

**But:** No adjustment for tax base changes

Forgotten tax research:

**TRA86:** Effects on measuring inequality:

**1960’s:** Pechman & Okner/ Stanley Surrey
  “dipping deeply into the incomes of the wealthy with a sieve”
Goal of this paper:

Estimate top 1% income share using consistent tax based incomes 1960-2013 that adjust for:
- Changing tax base & filing rules
- Changing marriage rates
- And uses comprehensive income
Basic Plan - Estimate Top 1% shares of:

1. Consistent Market Income
   - Correct sample to match resident Census
   - Adjust for tax law changes: TRA-86
   - Adjust for decreasing marriage rate
   - Excluded income: ESI, imputed rent, ...
   - Retirement Income: when received
   - Capital gains: Pre-tax corporate profits

2. Pre-tax Income
   - Include transfer payments

3. After-tax Income
Correct sample and income definition

- Remove <20, dependent, and non-resident filers
- Subtract state income tax refunds and gambling losses
- Add exempt combat pay, dividends and NOLs
- Adjust non-filer income: 30% vs 20% avg. (=CDW)

TRA-86 adjustments

- Apply post-TRA passive loss limits before TRA
- Add tax-exempt interest: use SCF to allocate<1987

Set income groups by # adult filers

- Filer Marriage rates fell from 66% to 40% since 1962
- Marriage rates among top 1% still high: 90% and 86%
- Use # adults to correct for falling marriage rates and increased cohabitation
Add C corporation retained earnings

• Pre-TRA86: C corporations as tax shelter
• Post-TRA86: Pass-through business to avoid double tax and 34% corp. rate > 28% top individual rate
• NIPA retained earnings – Individual portion
  • **Not** stock owned by pension/retirement funds or non-profits
    Retirement fund share: 4% to 54% from 1960 to 2013
    Non-profit share: 5-7%
• Allocate $\frac{3}{4}$ by dividends and $\frac{1}{4}$ by capital gains

Add Corporate income tax:

• $\frac{1}{4}$ wages and $\frac{3}{4}$ capital (=CBO/JCT assumption)

Add business property taxes
Add imputed rent
  • Distribute by property tax deductions

Add employer payroll taxes
  • Assume employees bear burden of payroll tax

Add employer provided health insurance
  • Rose from 1% to 6% of income since 1960
  • Distribute NIPA totals using insurance on 2014 W-2
Top 1% shares: Consistent market income

Piketty-Saez (with cap gains)

Consistent market income

+3 vs +10 pp
Share of income on tax returns is decreasing:
Top 1% shares: Pre-tax income - add transfers

Piketty-Saez (with cap gains)

Consistent market income

Pre-tax income

+1.2 vs +10 pp
Figure
Top 0.1% income shares

+ 1.5 vs + 6.0

Piketty-Saez (with cap gains)
8.5

Consistent market income

Pre-tax income

After-tax income
4.0
Top 1%: taxes as % of pre-tax income

Federal income tax
Corporate income tax
Property tax
State/Local income taxes
Sales and other taxes

Bottom 90%: taxes as share of pre-tax income

- Federal income tax
- Corporate income tax
- Property tax
- State/Local income tax
- Sales and other taxes

Taxes over time:
- Federal income tax: 21%
- Corporate income tax: 17%
Payroll taxes & transfers: Top 1% & Bottom 90%

Bottom 90%
- Social insurance transfers
- Payroll taxes

Top 1%
- Social insurance transfers
- Payroll taxes
Sensitivity tests: Top 1% share increases, 1960-2013

Corp. tax incidence

\[
\frac{1}{4} \text{ wages and } \frac{3}{4} \text{ corp. capital} + 1.3 \text{ Base effect}
\]

Corporate capital + 1.2

All types of capital + 1.6

Corp. retained earnings

\[
\frac{1}{4} \text{ cap gains and } \frac{3}{4} \text{ dividends} + 0.7 \text{ Base effect}
\]

\[
\frac{1}{2} \text{ cap gains and } \frac{1}{2} \text{ dividends} + 1.0
\]

Half to retirement share to wages + 0.6
Summary: Inconsistent measures give a distorted story
New story: Inequality less high, not much increase

• TRA86: Tax shelters closed: reduced losses
  Shift from C corps to pass-through business

• Since 1960 top 1% income shares:
  +10 pp: Unadjusted market income
  +3 pp: Consistent market income
  +1 pp: Pre-tax income (including transfers)
  +1 pp: After-tax income (including transfers)
Summary:
Inconsistent measures give a distorted story

New story: Inequality less high and not much increase

• Since 1960 top 1% income shares:
  +10 pp: Piketty and Saez market income
  +3 pp: Consistent market income
  +1 pp: Pre-tax income (including transfers)
  +1 pp: After-tax income (including transfers)

• Main factors:
  ~4 pp: C corp retained earnings & taxes
  ~2 pp: Transfers
  ~1 pp: Employer provided health insurance
  ~1 pp: Falling marriage rates
  ~1 pp: Filer demographics and non-filer incomes

REMINDER: IT’S NOT THE SAME PEOPLE AT THE TOP
The End:
Top 1% shares: Consistent market income adjustments

1. Imputed rent
2. Employer payroll taxes
3. Employer sponsored insurance
4. Consistent mkt. income (increases only)


- Consistent mkt. income (increases only)
  - 1970: 12.2
  - 1980: 11.8
  - 1990: 11.5
  - 2000: 14.5
  - 2010: 16.2

- Imputed rent
  - 1970: 12.2
  - 1980: 11.8
  - 1990: 11.5
  - 2000: 15.2
  - 2010: 15.8

- Employer payroll taxes
  - 1970: 11.5
  - 1980: 11.5
  - 1990: 11.5
  - 2000: 14.5
  - 2010: 16.2

- Employer sponsored insurance
  - 1970: 11.5
  - 1980: 11.5
  - 1990: 11.5
  - 2000: 15.2
  - 2010: 15.8
Top 1% shares: Consistent market income adjustments 2

- Business property taxes
- C-corp taxes
- C-corp retained earnings
- Group by # adults

<table>
<thead>
<tr>
<th>Year</th>
<th>Business property taxes</th>
<th>C-corp taxes</th>
<th>C-corp retained earnings</th>
<th>Group by # adults</th>
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<td>11.6</td>
<td>10.2</td>
<td>7.9</td>
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<td>1970</td>
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<td>2010</td>
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</tbody>
</table>
Top 1% shares: Consistent market income adjustments

Group by # adults

Adj. mkt. income
PS mkt. income (no cap gains)

8.6
8.3
7.9
15.2
17.1
17.8
Consistent market income

Pre-tax income

After-tax income

Piketty-Saez (with cap gains)

Top 10% income shares