Sharing is Caring: Inequality, Transfers and Growth in the National Accounts

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The views expressed are those of the author and do not necessarily represent the U.S. Bureau of Economic Analysis or the U.S. Department of Commerce.
• BEA released updated prototype distributions of Personal Income (PI) and Disposable PI (DPI) in the National Income and Product Accounts (NIPA) in December 2020 for 2007-2018
  - **Objective**: Use microdata to distribute macro totals (NIPA) to households
  - PI (& DPI) is most appropriate NA concept for **households**: closest to the measure of economic resources available to households for consumption

• **Methodology**
  - CPS is base dataset with additional (all) public data sources
  - Adj. of “tail” (top incomes) using aggregated tax data from IRS (SOI)
  - Adjust for household size (i.e., “equivalize”): accounts for resource sharing in households (then rank on equivalized income)
• Total PI and DPI grew 22% from 2007-2018
  - Equivalized median DPI grew (12.1%) vs. median PI (10.2%)
  - Top 1% share of PI (DPI) increased 13.2% → 14.4% (11.4% → 12.1%)*

• Growth was unequal throughout distribution
  - 60.3% of growth in PI and 54.9% of growth in DPI went to top 20%*
    (cannot follow individuals over time, but group is relatively sticky in this time period)
  - Share of top quintile of PI went up 2pp while bottom quintile went down 0.2pp (similarly with DPI)

*significant portion of increase due to CPS survey redesign
BEA release highlights relationship between inequality and pre-tax growth in *working paper*
Motivation: Inequality and Growth

• Unequal distribution of growth persists. Why?
    ▪ Hard to predict, may lead to short-run movements in metrics (2008-2011), changes in income reporting (e.g., 2012/2013), or perhaps long-run shifts
  o Structural elements: SBTC (& RBET) increasing labor incomes (Autor et al. (2008, 2020); Goldin & Katz (2007)), assortative mating (Greenwood et al. 2014), concentration of capital at the top (Piketty et al. 2018 (PSZ); Hoffmann et al. 2020)
    ▪ Long-term impact – best seen in extended time series (especially post-1980)
    ▪ Makes it difficult to contextualize and interpret levels and trends

• Changes in composition of income: share of labor income (PSZ 2018) and role of transfers (Larrimore et al. 2020, Meyer & Wu 2018, Hoynes & Patel 2018)
  ▪ Often target for policy intervention (“inclusive growth”)
Motivation: Role of Transfers

• Focus of DINA literature is on levels and growth of top incomes
  o Attention paid to disaggregating top 1%, not bottom of distribution
  o But transfers make up 17.4% of PI in 2018 (up from 15.3% in 2007)
  o Most households receive at least one transfer in BEA exercise

• Transfers reduce poverty (e.g., Social Security, Medicare & Medicaid, Refundable Tax Credits (esp. EITC), SNAP TANF) (Meyer & Wu 2018, Meyer et al. 2015, Hoynes & Patel 2018, PSZ 2018) should affect inequality

• Transfers underreporting: recipiency and amount (Meyer & Mittag 2019)
  o BEA adjusts for this (somewhat) through CBO imputation
  o Scaling to NIPA totals raises amounts

• Key Questions: What impact do transfers have on the DINA (PI & DPI)?
  o Do they raise bottom incomes sufficiently to impact overall inequality?
  o Which ones are most consequential for reduction in inequality?
  o How does aging population affect inequality?
Impact of Transfers: BEA Classification

• Different classification and treatment by different studies
• PI is post-trans and pre-tax
• Transfers in PI (and DPI) include

  o Social Security
  o Unemployment Insurance
  o SSI
  o Veteran’s Benefits
  o Educational Assistance
  o Workers’ Compensation
  o Railroad Retirement
  o Black Lung
  o Medicare

  o Medicaid
  o CHIP
  o Medical Assistance
  o SNAP
  o Refundable Tax Credits
  o WIC
  o Energy Assistance
  o State and Local Assistance: Education, Employment, etc.
Impact of Transfers on PI Distribution (2018)

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<th>No Transfers</th>
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- 0-20%: 0.8% 5.4%
- 20-40%: 11.9% 9.1%
- 40-60%: 20.8% 13.2%
- 60-80%: 43.9% 38.4%
- 80-99%: 17.2% 14.4%
- Top 1%: 5.2% 9.1%
Distributional Impact of Transfers Over Time

- For both PI & DPI: share of transfers *increases* over time (esp. for bottom deciles), but income share of lower deciles *decreases*

### Share of Transfers in PI by Decile: 2007 & 2018

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<tr>
<th>Decile</th>
<th>2007</th>
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### Share of decile in PI: 2007 & 2018

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Age Composition

• Transfers significantly reduce inequality, but
  o Redistribution from younger hh in labor force to elderly hh through SS & Medicare (hh with members age 65+ benefit most)

• Share of elderly hh increases from 24%-31% from 2007-2018
  o Over ¼ of households in 2018 had both SS & Medicare benefits
  o Significant impact on overall inequality results

[Graph: Share of Households with Age 65+ Members: 2007 & 2018]
Shares of Income with Iterative Trans Add. for elderly households (2018)

GINIs: 0.689 0.522 0.434 0.417 0.416 0.411 0.409

0-20% 20-40% 40-60% 60-80% 80-99% Top 1%

PI-no trans +SS +Medicare +Medicaid +Tax Cred +MT PI

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Shares of Income with Iterative Trans Add. for non-elderly households (2018)

<table>
<thead>
<tr>
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<th>0.536</th>
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<th>0.487</th>
<th>0.478</th>
<th>0.466</th>
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<tbody>
<tr>
<td>PI-no trans</td>
<td>16.7%</td>
<td>16.5%</td>
<td>16.4%</td>
<td>15.8%</td>
<td>15.6%</td>
<td>15.4%</td>
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<tr>
<td>+SS</td>
<td>40.9%</td>
<td>40.5%</td>
<td>40.3%</td>
<td>38.9%</td>
<td>38.6%</td>
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<td>37.7%</td>
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<tr>
<td>+Medicare</td>
<td>20.5%</td>
<td>20.4%</td>
<td>20.3%</td>
<td>19.8%</td>
<td>19.8%</td>
<td>19.7%</td>
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<tr>
<td>+Medicaid</td>
<td>12.9%</td>
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<td>12.9%</td>
<td>13.0%</td>
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<td>13.2%</td>
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<td>+Tax Cred</td>
<td>7.4%</td>
<td>7.5%</td>
<td>7.7%</td>
<td>8.5%</td>
<td>8.8%</td>
<td>9.0%</td>
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<td>+MT</td>
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<td>2.5%</td>
<td>4.0%</td>
<td>4.2%</td>
<td>4.6%</td>
<td>5.1%</td>
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GINIs: 0-20% 20-40% 40-60% 60-80% 80-99% Top 1%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Households without Age 65+ members

- What transfers have an impact on hh without age 65+ members?
- Expect: Medicaid, tax credits, and other means-tested transfers
- However, Medicaid has small impact on inequality (but more than tax credits)
- Refundable tax credits and means tested transfers have a minimal impact, likely due to small share of NIPA totals
Comparisons to Published Estimates

• PSZ, A&S, CBO

• Measurement challenges
  o Important differences (good discussion in BEA working paper)
    ▪ Unit of measurement
    ▪ Income concept
    ▪ Source data
    ▪ Allocation strategy
  o Lead to different conclusions in levels & trends
    ▪ Top 1% income shares of PSZ > CBO > BEA > AS
    ▪ Changes in source data (e.g., CPS) can lead to artificially large increases in inequality
Comparisons to Published Estimates

- **PSZ:** Compare post-tax-and-transfer NI distribution to BEA DPI
  - BEA share of top decile is 4pp lower & share of bottom 50% in 3pp higher
  - PSZ include transfers in post-tax income, but don’t consider SS a transfer
  - PSZ include “collective expenditures” (government spending on public goods) as transfers (part of NI) $\rightarrow$ higher share of non-health transfers

- **A&S:** Compare pre-tax/post-transfer top 1% share to BEA PI
  - Similar decrease in top 1% share from add. of transfers, despite level diff
  - In 2017, add. of SS, Cash Transfers, Medicare reduces top 1% share in A&S by 1.4pp (vs. 2pp for BEA)

- **CBO:** Compare “income before taxes & transfers” to modified PI
  - Similar shares of transfers in income, but CBO shares grow more than BEA
  - Lower quintiles gain more from transfers in BEA analysis (scaling to NIPA)

- All show similar fall in inequality from addition of transfers
Conclusions

• Addition of transfers lowers inequality in levels, but redistribution is from younger hh in labor force to elderly hh, through SS & Medicare
  o Not redistribution from higher income hh to lower income hh
    ▪ Expansion of Medicaid has a small mitigating effect on inequality
    ▪ Refundable tax credits and means tested transfers have a minimal impact, likely due to small share of NIPA totals
  o Effect increases as population ages (baby boomer retirement)
  o Same pattern for PI & DPI

• Comparisons to other national estimates show similar effects of transfers on inequality overall, and especially for top shares
  o PI & DPI distributions provide opportunity to evaluate impact of important programs on hh through distribution, linking inequality, transfers, and growth
  o Implications beyond movements in top shares
  o Rising share of transfers in PI (2007-2018) doesn’t lead to ineq. decrease
Extra Slides: DPI Results
Inequality and Growth: BEA Chart 2 (DPI)

BEA release highlights relationship between inequality and post-tax growth in working paper