Do Older Americans Have More Income Than We Think?

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U.S. Census Bureau

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This presentation is released to inform interested parties of ongoing research and to encourage discussion of work in progress. This presentation reports the results of research and analysis undertaken by Census Bureau staff. It has undergone more limited review than official publications.
Motivation

• Broad concern about well-being of Americans as they near and enter retirement
  • Have people saved enough?

• Data quality concerns as well
  • Discrepancies between survey income aggregates and other data sources such as National Income and Product Accounts and administrative records (ADREC)
  • By themselves, aggregate discrepancies cannot address questions about the distribution of income
Contributions

• Bring unique data sources together to develop new, nationally representative estimates of median household income and poverty for the population 65+ through 2012

• Explore which ADREC data sources are most important for our findings

• Reassess
  • Importance of DB and DC income for current retirees
  • Relative importance of Social Security income
  • Transition to retirement (Retirement Consumption Puzzle)
Data: 2013 CPS ASEC

- Approximately 75,000 households
  - 15,000 households with householder age 65+

- Represents civilian noninstitutionalized population

- Source for official 2012 Income and Poverty Report
  - Uses traditional income questions

- PVS Process to assign Protected Identification Key (PIK)
  - Logit to estimate inverse probabilities and reweight PIK sample
Validating Five Types of Income in CPS ASEC

• Records from SSA:
  • Earnings (wages and self-employment)
  • Social Security (OASDI)
  • Supplemental Security Income (SSI)

• Records from IRS:
  • Dividends and Interest, from Form 1040
    • [keep CPS values for non-filers]
  • Retirement Income, from Form 1099-R
    • Retirement: pension, annuity, IRA, 401(k), etc.
    • Survivor
    • Disability
CPS Income as Percent of ADREC

Source: 2013 CPS ASEC-ADREC
What are Distributional Implications?

- Median household income
  - Householders age 65+
  - Explore subgroups classified by demographic characteristics of householder

- Poverty
  - Persons age 65+
  - Compare family income to threshold which varies by family size

- Three samples in analysis
  - **Full CPS sample** (N=23,000 persons, 15,000 households)
  - **PIK reweighted sample** (N=21,000 persons, 13,500 households)
  - **ADREC sample** (same as PIK sample but replaced with ADREC income)
Median Household Income
(Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income (Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income (Householder Age 65-74)

- **FULL CPS**: $42,343
- **PIK CPS**: $42,939
- **ADREC**: $52,118

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Householder Age 75-84)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Householder Age 85+)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Family Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Non-Family Householder Age 65+)

- Full CPS: $20,856
- PIK CPS: $20,954
- ADREC: $27,196

Source: 2013 CPS ASEC-ADREC
Median Household Income
(College Graduate Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Some College Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(High School Graduate Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income (Less than High School Householder Age 65+)

<table>
<thead>
<tr>
<th>Source</th>
<th>Median Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL CPS</td>
<td>$19,769</td>
</tr>
<tr>
<td>PIK CPS</td>
<td>$19,917</td>
</tr>
<tr>
<td>ADREC</td>
<td>$23,381</td>
</tr>
</tbody>
</table>

Source: 2013 CPS ASEC-ADREC
Median Household Income
(White, Not Hispanic Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Black Householder Age 65+)

- FULL CPS: $25,182
- PIK CPS: $25,272
- ADREC: $32,224

Source: 2013 CPS ASEC-ADREC
Median Household Income
(Asian Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Median Household Income (Hispanic Householder Age 65+)

Source: 2013 CPS ASEC-ADREC
Poverty Rate
(Persons Age 65+)

Source: 2013 CPS ASEC-ADREC
Poverty Rate
(People Age 65+)

Source: 2013 CPS ASEC-ADREC
Poverty Rate
(Persons Age 65+)

Source: 2013 CPS ASEC-ADREC
Poverty Rate
(Persons Age 65-74)

Source: 2013 CPS ASEC-ADREC
Poverty Rate (Persons Age 75-84)

<table>
<thead>
<tr>
<th>Method</th>
<th>Poverty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>FULL CPS</td>
<td>9.9</td>
</tr>
<tr>
<td>PIK CPS</td>
<td>9.8</td>
</tr>
<tr>
<td>ADREC</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Source: 2013 CPS ASEC-ADREC
Poverty Rate
(Persons Age 85+)

Source: 2013 CPS ASEC-ADREC
# Transition Matrix

<table>
<thead>
<tr>
<th>CPS PIK Sample</th>
<th>Linked CPS-Admin Sample</th>
<th>Sample Income-to-Poverty Ratio</th>
<th>Proportion of people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income-to-Poverty Ratio</td>
<td>&lt;50%</td>
<td>50-100%</td>
<td>100-150%</td>
</tr>
<tr>
<td>Persons aged 65 and over</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;50% of poverty</td>
<td>0.100</td>
<td>0.185</td>
<td>0.165</td>
</tr>
<tr>
<td>50-100%</td>
<td>0.064</td>
<td>0.411</td>
<td>0.173</td>
</tr>
<tr>
<td>100-150%</td>
<td>0.030</td>
<td>0.109</td>
<td>0.324</td>
</tr>
<tr>
<td>150-200%</td>
<td>0.015</td>
<td>0.034</td>
<td>0.095</td>
</tr>
<tr>
<td>200-250%</td>
<td>0.008</td>
<td>0.021</td>
<td>0.040</td>
</tr>
<tr>
<td>250-300%</td>
<td>0.006</td>
<td>0.012</td>
<td>0.022</td>
</tr>
<tr>
<td>&gt;300%</td>
<td>0.002</td>
<td>0.006</td>
<td>0.015</td>
</tr>
<tr>
<td>Proportion of people</td>
<td>0.015</td>
<td>0.055</td>
<td>0.079</td>
</tr>
<tr>
<td>N (number of people)</td>
<td>21,239</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source:* 2013 CPS ASEC linked to SSA and IRS administrative records.
Which ADREC Source Is Driving our Results?

• Examine each percentile of the household income distribution

• Replace CPS income sources one at a time

• Re-rank households based on modified income

• Compute percent change for each percentile relative to CPS baseline
Household Income Percentiles (Admin vs. CPS)
Households with householder 65+, 2012
Household Income Percentiles (Admin vs. CPS)

Households with householder 65+, 2012

Percentage Difference in Admin Income vs. CPS

Household Income Percentile (Re-Ranked)

- CPS Baseline
- 1 Replace Earnings
- 2 Replace Social Security
Household Income Percentiles (Admin vs. CPS)

Households with householder 65+, 2012

Percentage Difference in Admin Income vs. CPS

Household Income Percentile (Re-Ranked)
Household Income Percentiles (Admin vs. CPS)

Households with householder 65+, 2012

Percentage Difference in Admin Income vs. CPS

Household Income Percentile (Re-Ranked)
Correlation of Log ADREC and CPS Income
(Persons Age 65+, Intensive Margin)

Correlation Coefficient

<table>
<thead>
<tr>
<th>Source</th>
<th>Correlation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>0.85</td>
</tr>
<tr>
<td>Social Security</td>
<td>0.76</td>
</tr>
<tr>
<td>SSI</td>
<td>0.69</td>
</tr>
<tr>
<td>Retirement</td>
<td>0.70</td>
</tr>
<tr>
<td>Retirement (No IRA)</td>
<td>0.78</td>
</tr>
</tbody>
</table>
Percent with Any Social Security Income (Persons Age 65+)

- FULL CPS: 84%
- PIK CPS: 85%
- ADREC: 86%

Source: 2013 CPS ASEC-ADREC
Percent with Any Retirement Income
(Persons Age 65+)

![Bar chart showing percent with any retirement income for FULL CPS, PIK CPS, and ADREC.]

- FULL CPS: 36%
- PIK CPS: 37%
- ADREC: 61%

Source: 2013 CPS ASEC-ADREC
What Explains Retirement Income Underreporting?

• Demographic variables explain about 5 percent of variation

• Survey design features another 2 percent
  • American Community Survey shows similar false negative rate

• Nature of 1099-R income matters the most—14 percent
  • Amounts
  • Volatility
  • IRA versus employer-sponsored
CPS Retirement Receipt by 1099-R Percentile

Percent with any CPS Retirement Income vs. Percentiles of positive 1099-R amounts
Underreporting of Defined Benefit Income?

• Can examine specific government retirement plans

• Traditional DB plans, satisfy money income concept

• Examine CPS responses for persons age 65+ who receive 1099-R distribution from:
  – Federal Civil Service Retirement System (CSRS)
  – Military Retirement Fund
  – CalPERS
Reported Receipt Among 1099-R Annuitants
(Age 65+, Excludes Imputations)

Source: 2013 CPS ASEC-ADREC
Relative Importance of Different Income Sources

• *Income of the Aged* chartbook for population 65+

• Previous edition also based on 2013 CPS ASEC

• Focus on *aged units*

• How does increase in ADREC retirement income affect relative importance of all income sources?
Percent of Aged Unit Beneficiaries with Social Security at least 90 Percent of Income

Source: 2013 CPS ASEC-ADREC
Long-Run Trends

• Use archived ADREC to construct consistent measures of income and poverty over time and compare to survey values

  – CPI-U-RS used to inflation-adjust to 2012 dollars

Rates of Receipt of Social Security and Retirement Income

Aged 65 and Over

Linked SIPP-Admin SS

CPS Survey SS

Linked CPS-Admin SS

Linked SIPP-Admin Retirement

Linked CPS-Admin Retirement

CPS Survey Retirement

Rates of Receipt of Social Security and Retirement Income
Income Quartiles, Aged 65 and Over

- **75th percentile**
  - Full ASEC Sample: $28,700
  - Linked SIPP-Admin: $34,400
  - Linked CPS-Admin: $33,800
- **Median**
  - Full ASEC Sample: $34,400
  - Linked SIPP-Admin: $34,400
  - Linked CPS-Admin: $33,800
- **25th percentile**
  - Full ASEC Sample: $28,700
  - Linked SIPP-Admin: $34,400
  - Linked CPS-Admin: $33,800
Poverty Rates, Aged 65 and Over

Full CPS Sample

Linked CPS-Admin Sample
Thank you!

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