Reporting Accuracy of Social Security Benefits in the Health and Retirement Study and its Implications

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Motivation

➢ Survey reported income measures (e.g., Social Security benefits) are commonly used to inform policy makers on well-being of different population groups

➢ However, the accuracy of survey reports is subject to both the design of the interview question and the respondent's reporting error

➢ Hence, it is important to assess respondents' reporting accuracy (or misreport) of Social Security benefits because misreporting of benefits may lead to inaccurate estimates of:

- the retirement security and wellbeing in old age,
- the share of income that elderly receive from Social Security, and
- the proportion of elderly classified as poor or near poor

Research Questions

Gross Social Security benefits = amount paid to the beneficiary + amount of Medicare Premium

1. Do respondents report their <u>net</u> benefit (excluding Medicare premium) or <u>gross</u> benefits (including Medicare premium)? How accurately?

2. What is the impact of respondents' reporting accuracy (or error) on estimates of the poverty rate and of the relative importance of Social Security income among the elderly?

Previous research

➢ Survey respondents are likely to misreport their Social Security benefits (Iams and Purcell, 2013) :

- On average, SIPP respondents underreported their 2009 Social Security benefits by $1,000

- Social Security benefits reported in the 2010 CPS closely corresponded to the amount in the SSA administrative records. This outcome is attributed to Census correcting respondent's reported benefits by adding Medicare premiums.

➢ Evidence of respondents misreporting is also found regarding:

- Government transfer programs (Meyer and Mittag, 2015),

- Social Security wealth and pension plans (Gustman and Steinmeier, 2004, 2005; Mitchell, 1988; Chan and Stevens, 2003), and

- DC plan contributions (Dushi and Honig, 2015; Dushi and Iams, 2011)

Health and Retirement Study (HRS) – Public Data

➢ The HRS is considered to be the leading data source for research on aging and retirement in America

➢ It is conducted by the University of Michigan with funding from NIA and SSA

➢ The HRS is a survey of a nationally representative sample of people aged 51+ and their spouses (i.e. cohorts born in 1965 or earlier)

➢ The first interviews started in 1992 and follow-up interviews were conducted every other year, with the most recent occurring in 2016

➢ The HRS is unparalleled by other surveys because of the depth and breadth of information it collects (about such as employment, income, assets, health, consumption, pensions, genetics, etc.)

➢ The RAND-HRS user-friendly public data file – contains consistently created variables across all interviews.

HRS - Public Data (cont.)

➢ Sample: Respondents aged at least 65 years old in 2012 wave

➢ We examine their self-reported Social Security benefits

➢ HRS respondents were asked: "… *how much was the Social Security check or the amount deposited directly into your account last month? We want the amount after any deductions.*"

➢ Given the wording of this question, we expect respondents to report net benefits, although some may report gross benefits

➢ Based on survey reports, RAND-HRS creates an annual measure for each income source (from Social Security, earnings, pensions, welfare programs, capital income, and other sources) separately for respondent and spouse, and a measure of total annual household income

➢ The latter variable is used to generate the poverty status for each respondent according to the Census poverty threshold and respondent's family composition

HRS - administrative data

➢ HRS respondents are asked to provide consent to the match of their SSA records (earnings and benefits) with their survey data. About 56% of elderly respondents have matching SSA benefits records.

➢ The true amounts of Social Security benefits paid in a given month are available in the SSA's Payment History Update System (PHUS) of records.

➢ The PHUS records contain monthly amounts of net benefits paid directly to the beneficiary and monthly amounts of the Medicare premium (mainly Part B) deducted from the gross benefits and paid to the CMS.

➢ We use this information in our analysis for respondents with matched records.

Methodology

➢ First, we assess if, and to what extent, Social Security benefits are reported accurately by comparing:

  - Self-reported vs. Net PHUS benefits - we hypothesize that respondents report net benefits

  - Self-reported vs. Gross PHUS benefits - if differences are greater, it suggests reports of net benefits

➢ Second, we examine the impact of misreporting of Social Security benefits on elderly poverty rate and their share of income from (or reliance on) Social Security by comparing:

  - Variables in the RAND-HRS public data   vs. variables that we create (after adjustments to the survey-reported Social Security benefits and total household income)

Findings: Self-reported vs. PHUS records

➢ Payment receipt:

- 7.9% of matched respondents reported payments that differed from those indicated in admin records:

  - 3.7% self-reported a positive amount vs. no payment in the PHUS records (Type I error)

  - 4.2% self-reported not receiving benefits vs. a positive amount in PHUS records (Type II error)

➢ Benefit amounts:

- 73% of respondents reported Social Security income that were close to their <u>net</u> PHUS benefits

- 11% over-reported and 16% under-reported their <u>net</u> benefits

- The mean difference between self-reported and <u>net</u> PHUS benefits is small (- $253) and statistically insignificant

- The mean difference between self-reported and <u>gross</u> benefits (about - $1,270) is statistically significant and almost equal to the mean Medicare premium paid in 2012

Findings (cont.)

Sample distribution (%) of the absolute and relative difference between self-reported and PHUS benefits						
	Absolute Difference				**Relative Difference (Ratio)**	
Absolute Difference is:	Net	Gross	Relative Difference is:		Net Ratio	Gross Ratio
Both zero	5.0	5.0	Zero		10.4	6.4
Both positive and equal	5.4	1.4	+/- 1 to 5%		42.2	13.6
$ 1-1,300	56.2	38.6	+/- 6 to 10%		13.0	24.0
$ 1,301-2,400	9.2	25.0	+/- 11 to 25%		12.5	31.5
$ 2,401+	24.3	30.1	+/- more than 25%		21.9	24.5
Total %	100	100	Total %		100	100
Total N	6,059				6,059	

Main take-away

➢ Majority of elderly HRS respondents report net Social Security benefits received

➢ At the median, self-reported benefits in HRS underestimate respondent's true gross benefits by 11 percent (or $1,200)

➢ Hence, the total household income is also underestimated

➢ Consequently, the elderly poverty rate and their reliance on Social Security benefits would be inaccurate, likely upward biased

Survey variable adjustments

1. We replace self-reported net Social Security benefits to represent the gross benefits:

    - Matched respondents - with PHUS gross benefits

    - Non-matched respondents - add $1,200 (the standard Medicare Part B premium)

    - Similarly for the spouse (if coupled)

2. We adjust the total household income to include the corrected gross Social Security benefits

3. We calculate the IRA distributions using reported account balances and the IRS RMD factor specific to each respondent's age and add them to the total household income

4. Then, we calculate the poverty ratio using the adjusted measure of total household income, but the same poverty threshold and family composition as in the RAND-HRS public data file

5. We calculate the share of income from Social Security, using the adjusted measures of Social Security benefits and total household income

Findings: Poverty Rate and Share of Income from Social Security

Poverty rate	RAND-HRS	Adjusted
In or near poverty	30.7%	26.5%
Share of family income from Social Security	50% of family income	90% of family income
Survey reported measures	50.8%	21.1%
Adjusted measures (gross SS benefits + IRA withdrawals)	47.3%	17.1%
Matched sample – adjusted measures	43.3%	14.0%

Conclusions

➢ HRS respondents accurately reported <u>Net</u> Social Security benefits, according to the question asked

➢ HRS does not measure <u>Gross</u> Social Security benefits that count as income for determining poverty and does not correct for it in the public data file

➢ Implications:
- Gross Social Security benefits -- underestimated
- Total household income -- underestimated
- % of elderly that are poor or nearly poor   -- overestimated by 4 percentage points
- % of elderly with 50%+ of family income from Social Security -- overestimated by 3 - 4 percentage points

➢ Policy relevance:
- Social Security income comprises at least 50% of the family income for about half of elderly respondents

Recommendations to HRS

- Create new variables in the RAND-HRS public file:

  ➢ Gross Social Security income for respondent and spouse (if married).

  ➢ Distributions/withdrawals from IRA accounts (when reported in the survey) and imputation of unreported RMDs for those aged 70 ½ and over

  ➢ Total household income that includes the gross Social Security benefits and IRA withdrawals. Thus, data users can decide which variable to use (net vs. gross).

  ➢ A new poverty status measure based on the adjusted measure of total household income (gross Social Security benefits + IRA withdrawals)

Thank You