

Social Security Wealth, Inequality, and Lifecycle Savings

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John Sabelhaus

Washington Center for Equitable Growth

Alice Henriques Volz

Federal Reserve Board

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Background and Motivation

- U.S top wealth inequality is increasing
 - Capitalization method ([Saez and Zucman, 2016](#); [Smith, Zidar, Zwick, 2019](#)) or wealth surveys ([Bricker, Henriques, Krimmel, Sabelhaus, 2016](#))
 - Wealth measures include allocated DB, but not Social Security
- Retirement accounts (DB and DC) unequally held, but not *as unequally* as closely-held businesses, financial assets
 - Declining DB coverage per se not driving rising inequality ([Sabelhaus and Volz, 2019](#)) but poor coverage always an issue for many ([Jacobs, Llanes, Moore, Thompson, and Volz, 2019](#))
- Analysis of lifecycle saving patterns usually ignores accumulation and decumulation in retirement accounts
 - Proper accounting of DB and DC helps reconcile observed wealth patterns with lifecycle principles ([Feiveson and Sabelhaus, 2019](#))

Why Construct Comprehensive Wealth?

Three Key Questions

- How does building a comprehensive wealth measure affect the estimated wealth distribution of near-retirees?
- How does incorporating Social Security wealth accrual affect estimated lifecycle savings patterns?
- How do accrual patterns for DB and Social Security retirement benefits affect retirement incentives?

Measuring Retirement Wealth

- Decision to move to a comprehensive wealth measure raises conceptual question: **What is retirement wealth?**
- Seems simple, just construct discounted present values for DB and Social Security benefits (PDV-DB, PDV-SS)
 - PDV is discounted mortality-adjusted stream of future benefits
 - Estimates here use differential mortality, real discount rate = 3%
- Big Question: Is the stream of benefits in PDV what has been legally earned as of given age (**termination value**) or what is expected to be earned under reasonable set of assumptions about future work (**continuation value**)?

Measuring PDV-DB

- Our wealth inequality papers use DB termination values
 - If plan shuts down today, that is what workers are owed
 - What workers are owed equals total assets in Financial Accounts
 - Funding imbalance shows up as liability of plan sponsor
- Other studies have used DB continuation values to measure retirement resources and gauge preparedness
 - Overstated wealth of participants in plans that later shut down
 - Sum of PDV-DB is higher than Financial Accounts totals
- Termination versus continuation value is also at the heart of measuring retirement incentives (Coile and Gruber, 2007)
 - Models compare PDV of retiring today versus PDV of working an additional year or until “peak value”

Measuring PDV-SS

- Social Security wealth has no underlying marketable assets to anchor distributional estimates, but every person still has PDV of future benefits less future taxes
- Aggregate PDV-SS is zero by definition
 - Actuarial deficit = Trust Fund + PDV(taxes) – PDV(benefits)
 - Deficit now roughly 2 percent of total payroll
 - Resolve by lowering future benefits or raising future taxes?
- Assuming no near-term benefit cuts, near-retirees have large positive PDV-SS, so others (including unborn) must have offsetting negative PDV-SS
- Conceptual framework suggests that PDV-SS starts out negative, becomes increasingly positive over lifecycle

Why Study Retirement Wealth *Accrual*?

- Estimated PDV-DB and PDV-SS at given age informative about lifecycle stage, but understanding behavior involves *how they got there* and *where they are going*
- First behavior of interest is saving: Total saving is net acquisition of marketable wealth plus DB and SS accruals
 - Only rich people accumulate and then draw down wealth?
- Second behavior of interest is retirement: Incentive to retire based on net accrual (change in PDV benefits less taxes) from working another year (or until “peak value”)
- Working on accrual measures to answer these questions, balance of presentation is focused on implications of adding PDV-DB and PDV-SS for near-retirees

Survey of Consumer Finances (SCF)

- Choice of SCF based on extensive balance sheet information, high wealth oversample, long time period
 - SCF also has fail-safes built into instrument, extensive interview notes and post-processing, connects income and balance sheets
- SCFs are cross-sections, how to study lifecycle wealth?
 - Theoretically impossible
 - Empirically challenging
- Use detailed labor force recall and expectations modules
 - Extensive questions about current job, including the usual details, but also job start and expected stop ages
 - Work history module, number of years full and part time, start and stop ages, specific questions vary by current work status
 - Work expectations module, questions also vary by work status

Wealth of Well-Attached Near-Retirees

- “Near-retiree” sample is age 50 to 59 in survey year
 - SCF household “head” in micro data is always male, override that by choosing primary earner as of survey year
- “Well-attached” primary earners only, meaning they have 30 or more years of full-time work by age 60 and still expect to be working at age 60
 - Roughly 50 percent of heads and spouses well-attached
- PDV-SS measured as of age 60, other wealth components (including PDV-DB) measured as of survey year
- Pool SCF samples for 1995 through 2016, inflation adjust to 2019, per-capita, sorted by permanent income

Income and Wealth by Permanent Income Percentile Group

Permanent Income Percentile Group	Per Adult Averages		Ratio of Wealth to Permanent Income
	Permanent Income	Total Wealth	
1 to 10	17,328	208,293	12.0
11 to 20	27,486	294,348	10.7
21 to 30	34,739	359,084	10.3
31 to 40	41,811	470,762	11.3
41 to 50	50,031	551,148	11.0
51 to 60	58,649	651,651	11.1
61 to 70	69,744	738,141	10.6
71 to 80	85,127	949,171	11.2
81 to 90	114,136	1,314,635	11.5
91 to 100	354,001	3,634,211	10.3
All	85,305	917,144	10.8

Notes: Based on SCF "well attached near retirees" sample which includes primary earner ages 50-59 with 30+ years full time as of age 60 and still working full-time at age 60.

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Sort "well attached" sample by SCF permanent income measure

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Measure average total wealth by permanent income group

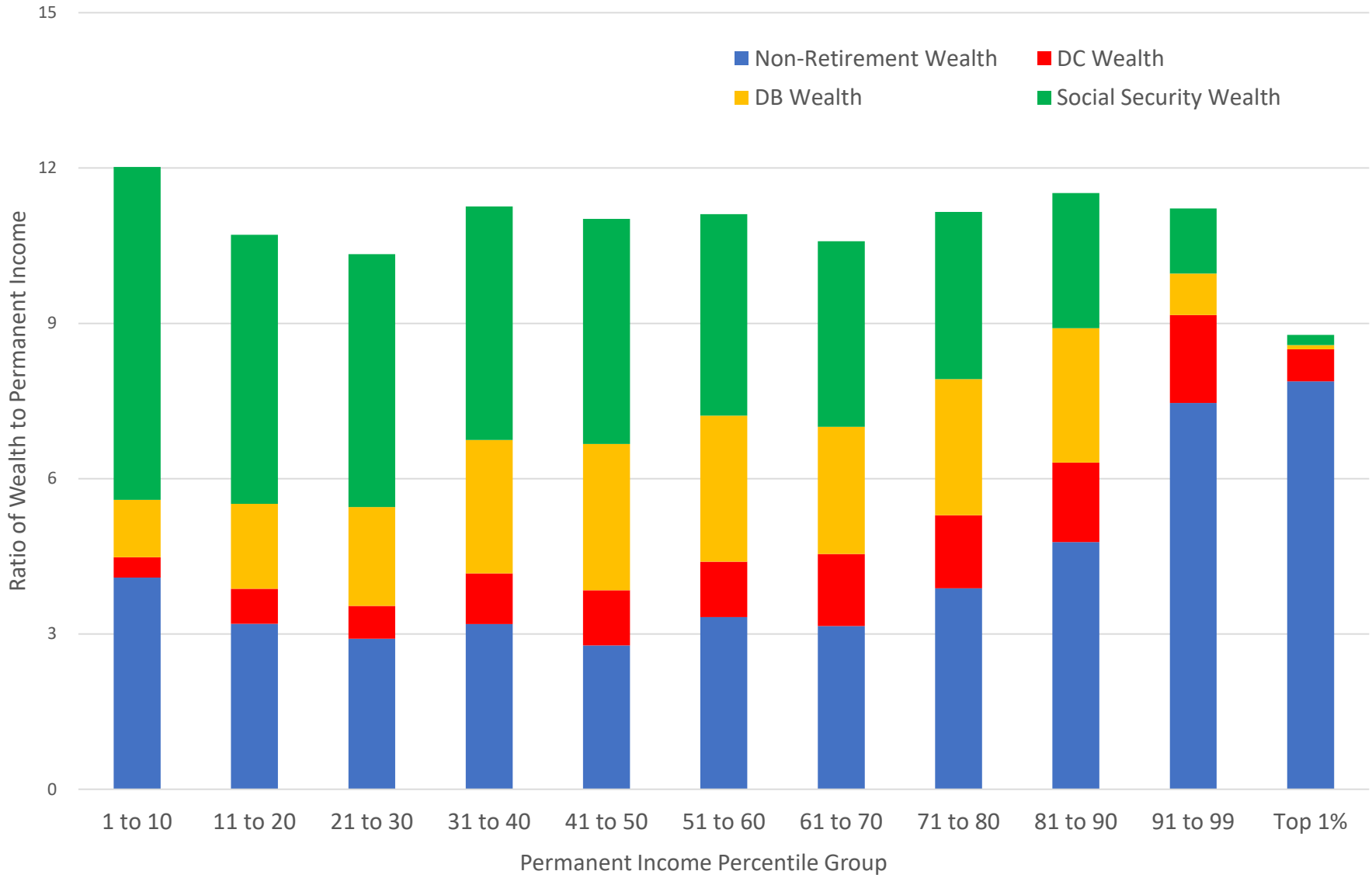
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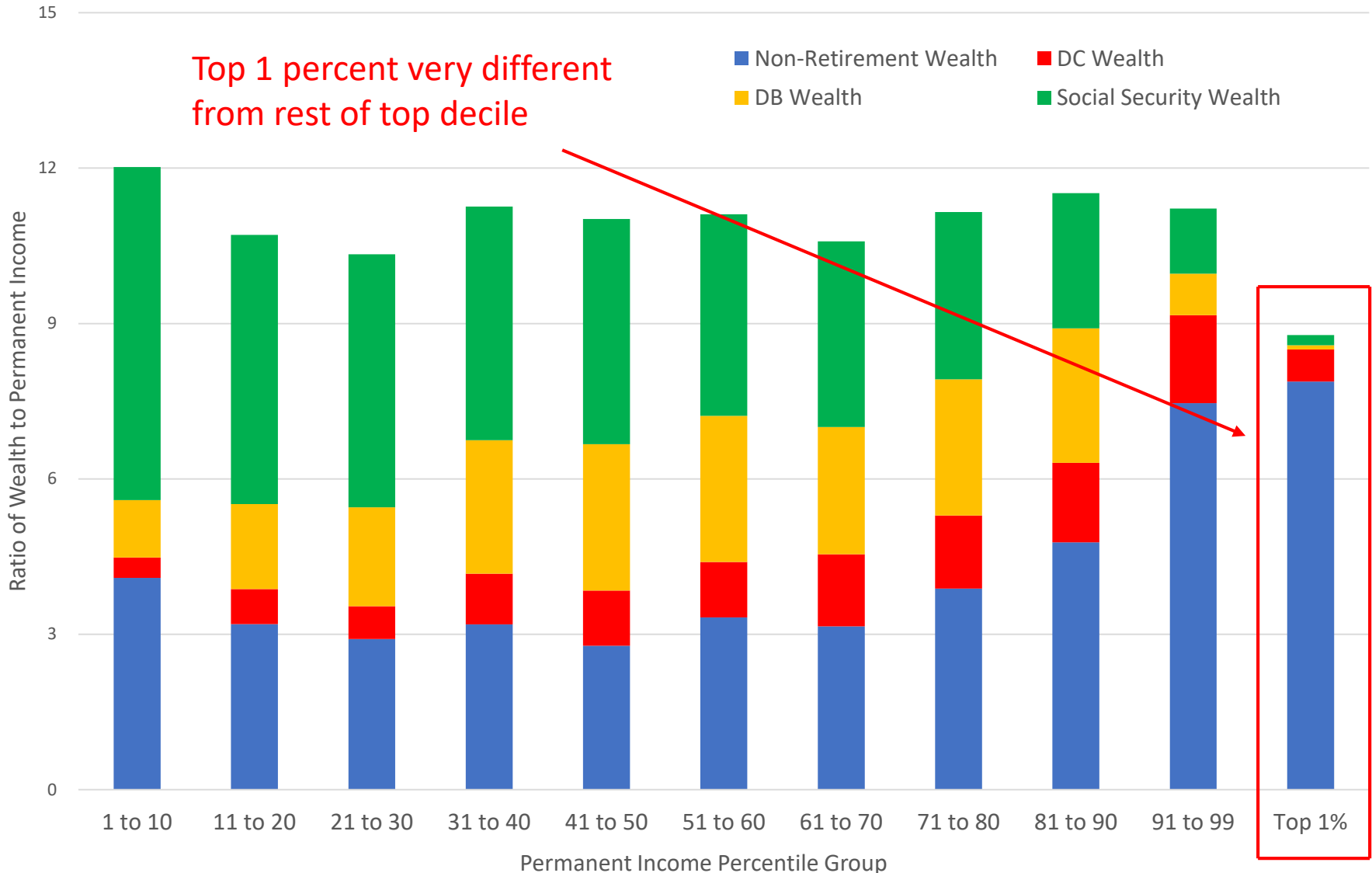
Average total wealth/permanent income does not vary much by permanent income

Ratio of Various Wealth Components to Permanent Income



Notes: SCF "well-attached" sample, ages 50-59 with 30 or more years of full time work and still working full time at age 60.

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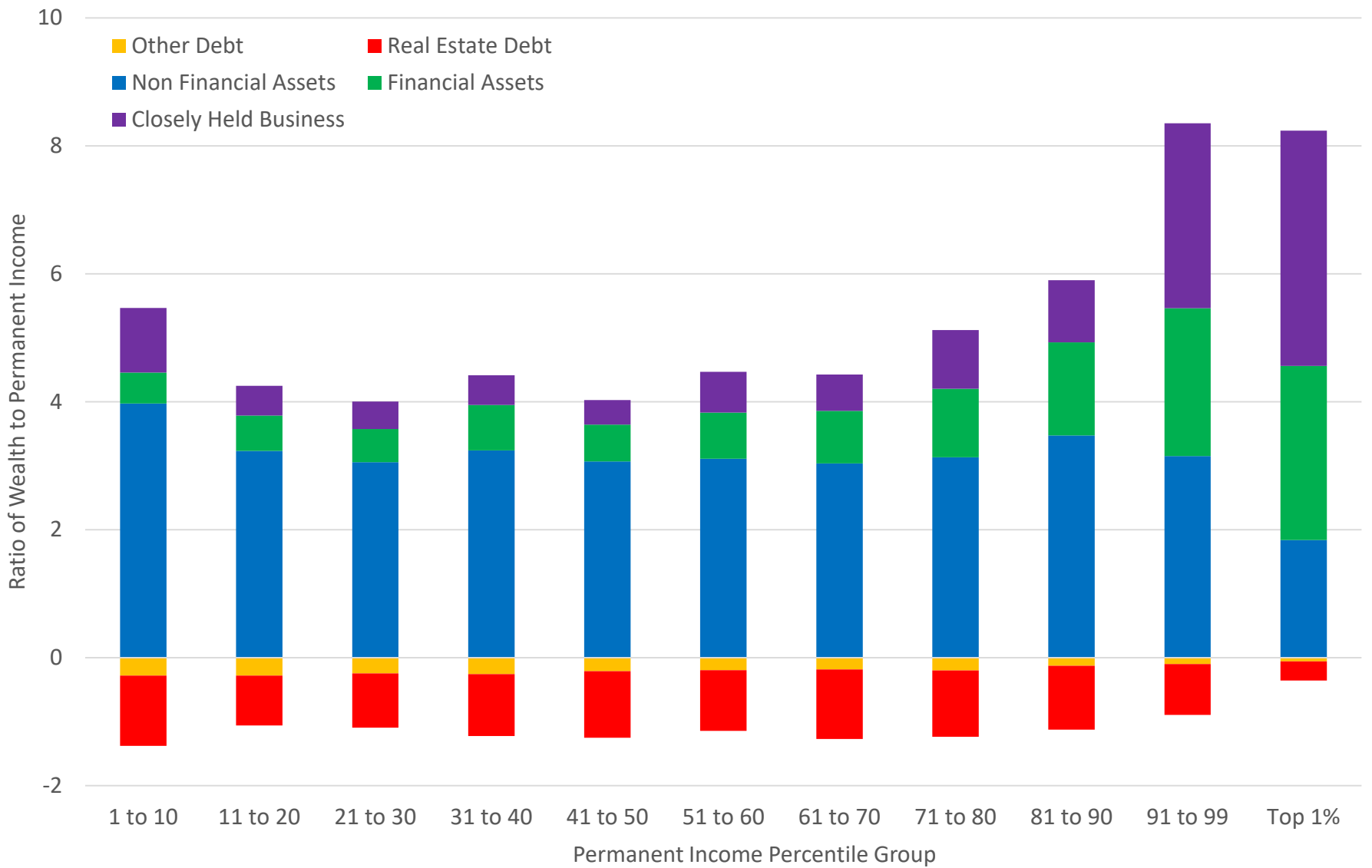


Top 1 percent very different from rest of top decile

- Non-Retirement Wealth
- DC Wealth
- DB Wealth
- Social Security Wealth

Notes: SCF "well-attached" sample, ages 50-59 with 30 or more years of full time work and still working full time at age 60.

Detailed Non-Retirement Wealth Relative to Permanent Income



Notes: SCF "well-attached" sample, ages 50-59 with 30 or more years of full time work and still working full time at age 60.

Next Steps: Lifecycle Analysis

- PDV-DB and PDV-SS vary systematically with age and retirement age, construct conditional wealth measures
 - For example, at a given age, what is PDV at that age conditional on no more work, one more year of work, two more years, ...
- Improve inputs to PDV calculations using additional SCF earnings details and external data such as linked HRS
- Map reconstructed lifecycle variables (from cross-section recall/expectations, supplemental data) into panel frame
- Use panel data to study total saving (total wealth accrual) and effective tax rates/retirement incentives (taxes less change in accrued benefits) over the lifecycle

Thanks!

jsabelhaus@gmail.com

alice.h.volz@frb.gov

Permanent Income Percentile Group	Per Adult Averages		Retirement Wealth				Non-Retirement Wealth					
	Permanent Income	Total Wealth	All	Social Security	Defined Benefit	Defined Contribution	All	Financial Assets	NonFinancial Assets	Closely Held Business	Real Estate Debt	Other Debt
1 to 10	17,328	208,293	137,418	111,389	19,259	6,770	70,875	8,406	68,852	17,489	-19,019	-4,852
11 to 20	27,486	294,348	206,529	142,714	45,219	18,596	87,820	15,120	88,900	12,846	-21,411	-7,635
21 to 30	34,739	359,084	258,057	169,626	66,431	22,000	101,027	17,892	106,243	14,917	-29,545	-8,481
31 to 40	41,811	470,762	337,260	188,721	107,542	40,997	133,501	29,789	135,452	19,400	-40,377	-10,763
41 to 50	50,031	551,148	412,167	217,333	141,370	53,465	138,980	28,933	153,416	19,086	-51,892	-10,563
51 to 60	58,649	651,651	456,624	228,385	165,395	62,844	195,027	42,265	182,461	37,325	-55,697	-11,327
61 to 70	69,744	738,141	518,087	249,742	171,279	97,066	220,054	57,262	211,794	39,571	-75,922	-12,651
71 to 80	85,127	949,171	618,491	274,612	224,109	119,770	330,680	91,223	266,703	77,913	-88,411	-16,748
81 to 90	114,136	1,314,635	769,331	297,966	296,272	175,093	545,304	166,247	396,485	110,702	-114,007	-14,123
91 to 100	354,001	3,634,211	934,966	298,748	184,074	452,144	2,699,245	874,712	934,729	1,131,464	-213,092	-28,567
Percentiles 90-99	239,832	2,690,608	901,066	301,711	191,921	407,434	1,789,542	554,551	756,012	692,788	-190,578	-23,231
Top 1 Percent	1,381,531	12,126,641	1,240,071	272,087	113,452	854,531	10,886,570	3,756,154	2,543,187	5,079,540	-415,720	-76,591
All	85,305	917,144	464,893	217,924	142,095	104,874	452,251	133,185	254,504	148,071	-70,937	-12,571

Notes: Based on SCF "well attached near retirees" which includes primary earner ages 50-59 with 30+ years full time as of age 60 and still working full-time at age 60.

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	Permanent Income	Total Wealth	All	Social Security	Defined Benefit	Defined Contribution	All	Financial Assets	NonFinancial Assets	Closely Held Business	Real Estate Debt	Other Debt
1 to 10	1.00	12.02	7.93	6.43	1.11	0.39	4.09	0.49	3.97	1.01	(1.10)	(0.28)
11 to 20	1.00	10.71	7.51	5.19	1.65	0.68	3.20	0.55	3.23	0.47	(0.78)	(0.28)
21 to 30	1.00	10.34	7.43	4.88	1.91	0.63	2.91	0.52	3.06	0.43	(0.85)	(0.24)
31 to 40	1.00	11.26	8.07	4.51	2.57	0.98	3.19	0.71	3.24	0.46	(0.97)	(0.26)
41 to 50	1.00	11.02	8.24	4.34	2.83	1.07	2.78	0.58	3.07	0.38	(1.04)	(0.21)
51 to 60	1.00	11.11	7.79	3.89	2.82	1.07	3.33	0.72	3.11	0.64	(0.95)	(0.19)
61 to 70	1.00	10.58	7.43	3.58	2.46	1.39	3.16	0.82	3.04	0.57	(1.09)	(0.18)
71 to 80	1.00	11.15	7.27	3.23	2.63	1.41	3.88	1.07	3.13	0.92	(1.04)	(0.20)
81 to 90	1.00	11.52	6.74	2.61	2.60	1.53	4.78	1.46	3.47	0.97	(1.00)	(0.12)
91 to 100	1.00	10.27	2.64	0.84	0.52	1.28	7.62	2.47	2.64	3.20	(0.60)	(0.08)
Percentiles 90-99	1.00	11.22	3.76	1.26	0.80	1.70	7.46	2.31	3.15	2.89	(0.79)	(0.10)
Top 1 Percent	1.00	8.78	0.90	0.20	0.08	0.62	7.88	2.72	1.84	3.68	(0.30)	(0.06)
All	1.00	10.75	5.45	2.55	1.67	1.23	5.30	1.56	2.98	1.74	(0.83)	(0.15)

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