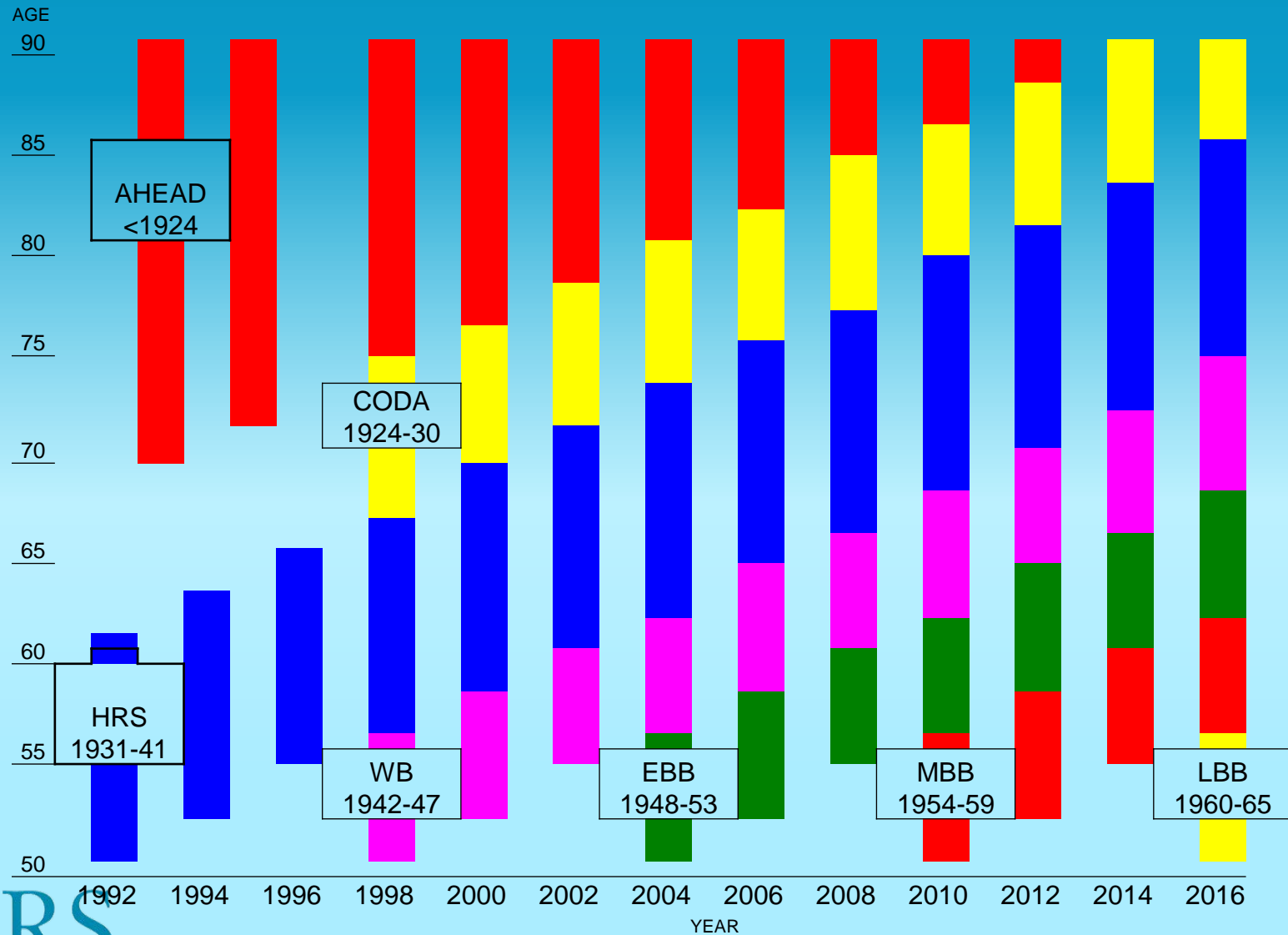# Panel 5: Cohort Changes

Cohort Changes in Social Security and Pension Wealth

Chichun Fang, Charles Brown, and David Weir
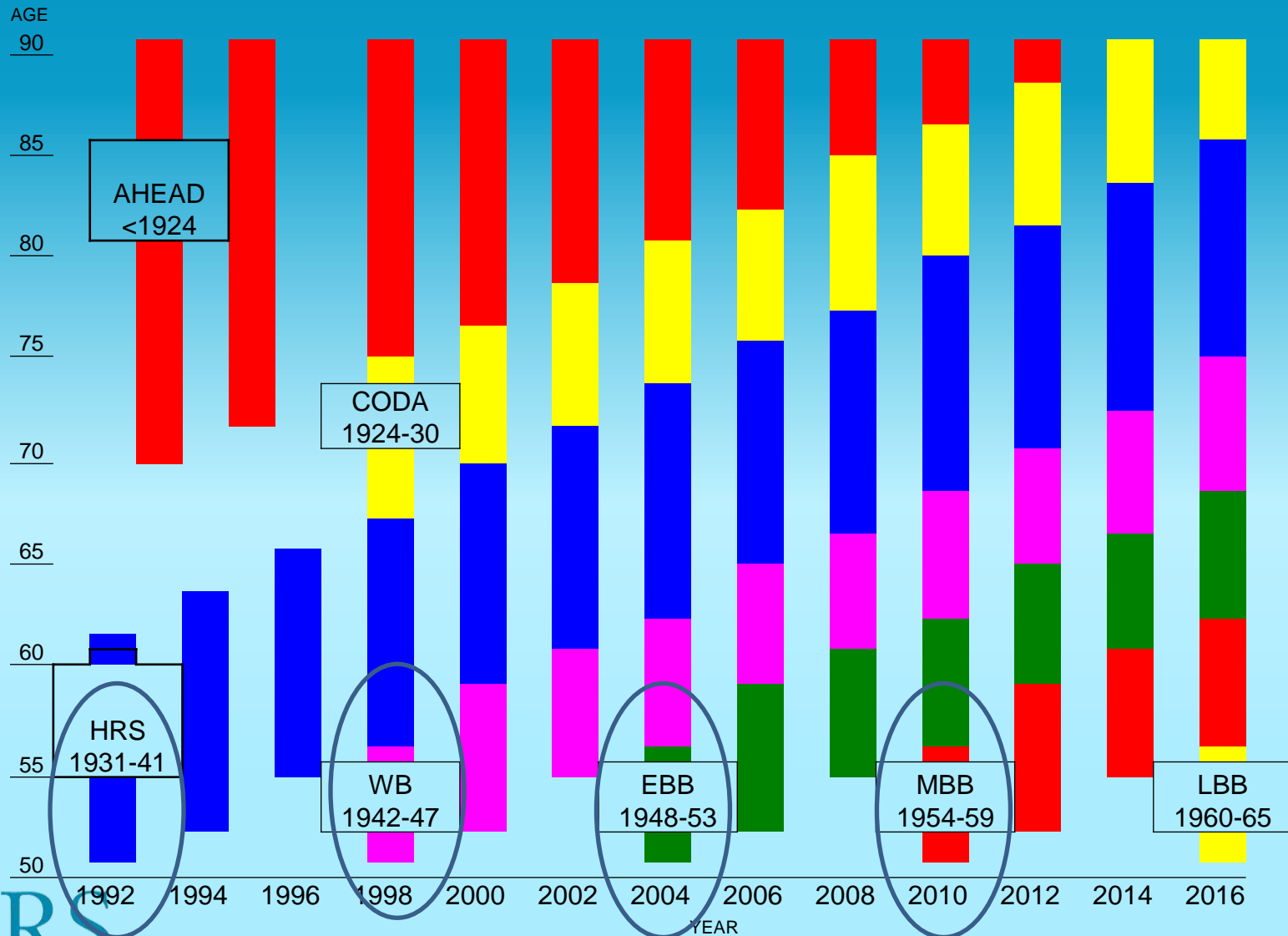HRS, Institute for Social Research, University of Michigan

HRS Cohort Design

Crucial question for an aging America:

As we move from the small cohorts born before 1946 to the large ones of the baby boom, how is their health and preparation for retirement changing?

For middle-aged whites, US mortality headed in the wrong direction
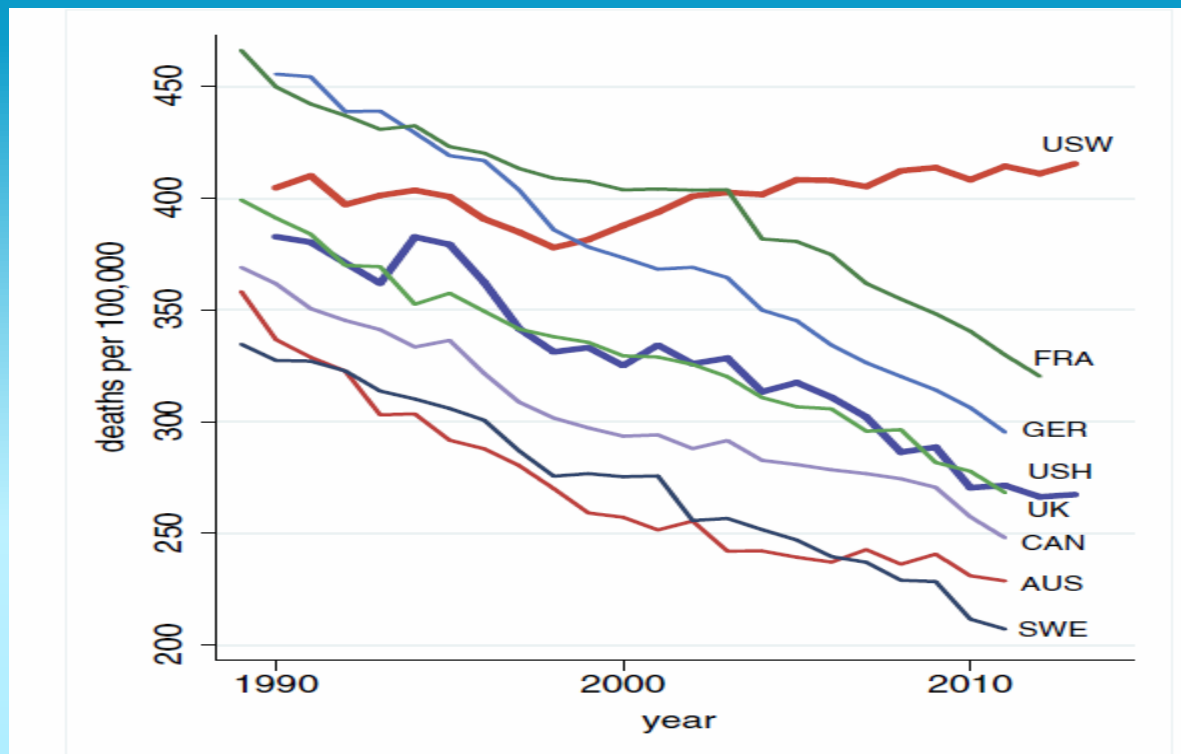
Fig. 1. All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).

HRS

HRS Cohort Design
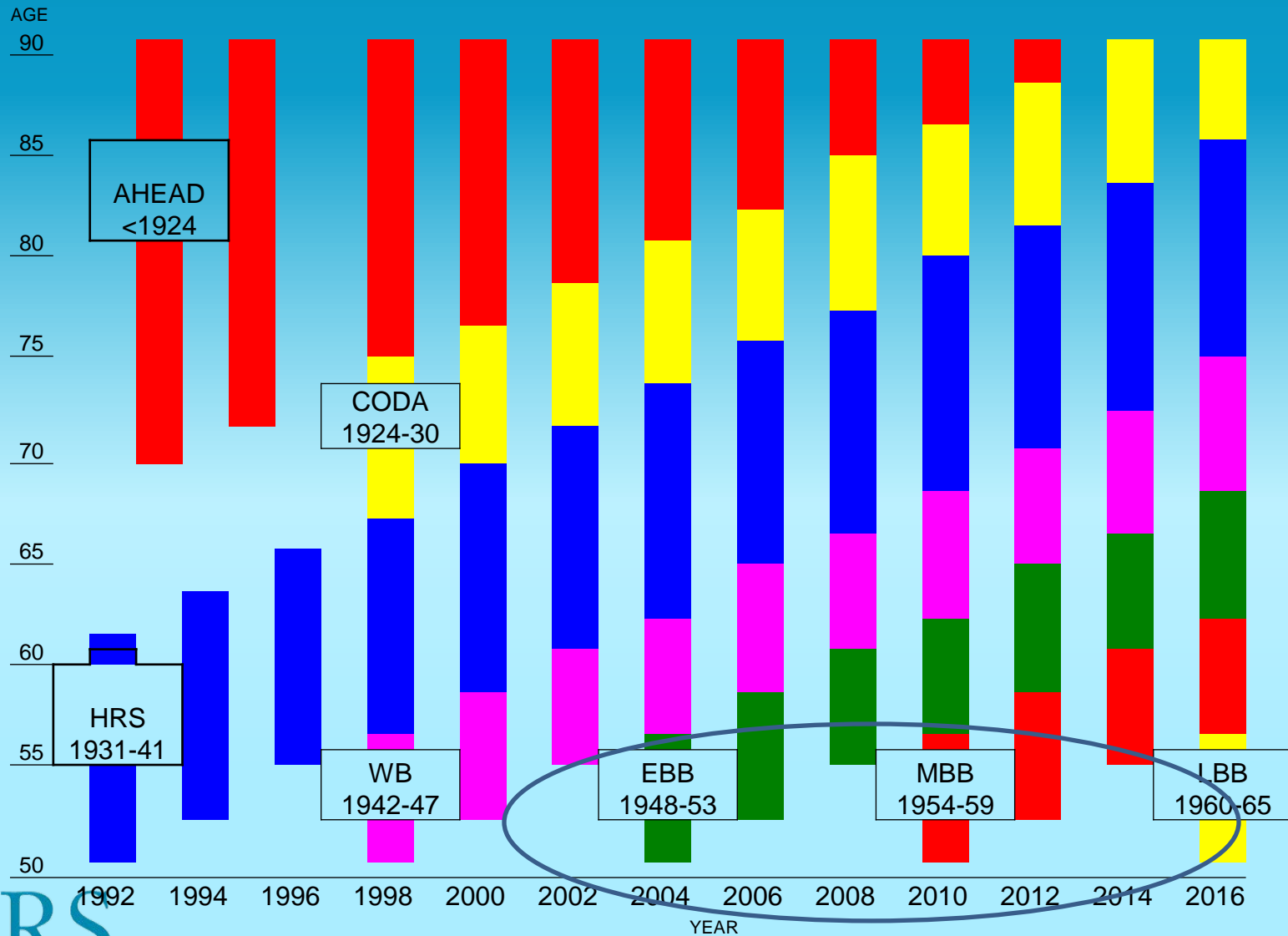
Cohort changes in health (ages 51-56 in indicated year)
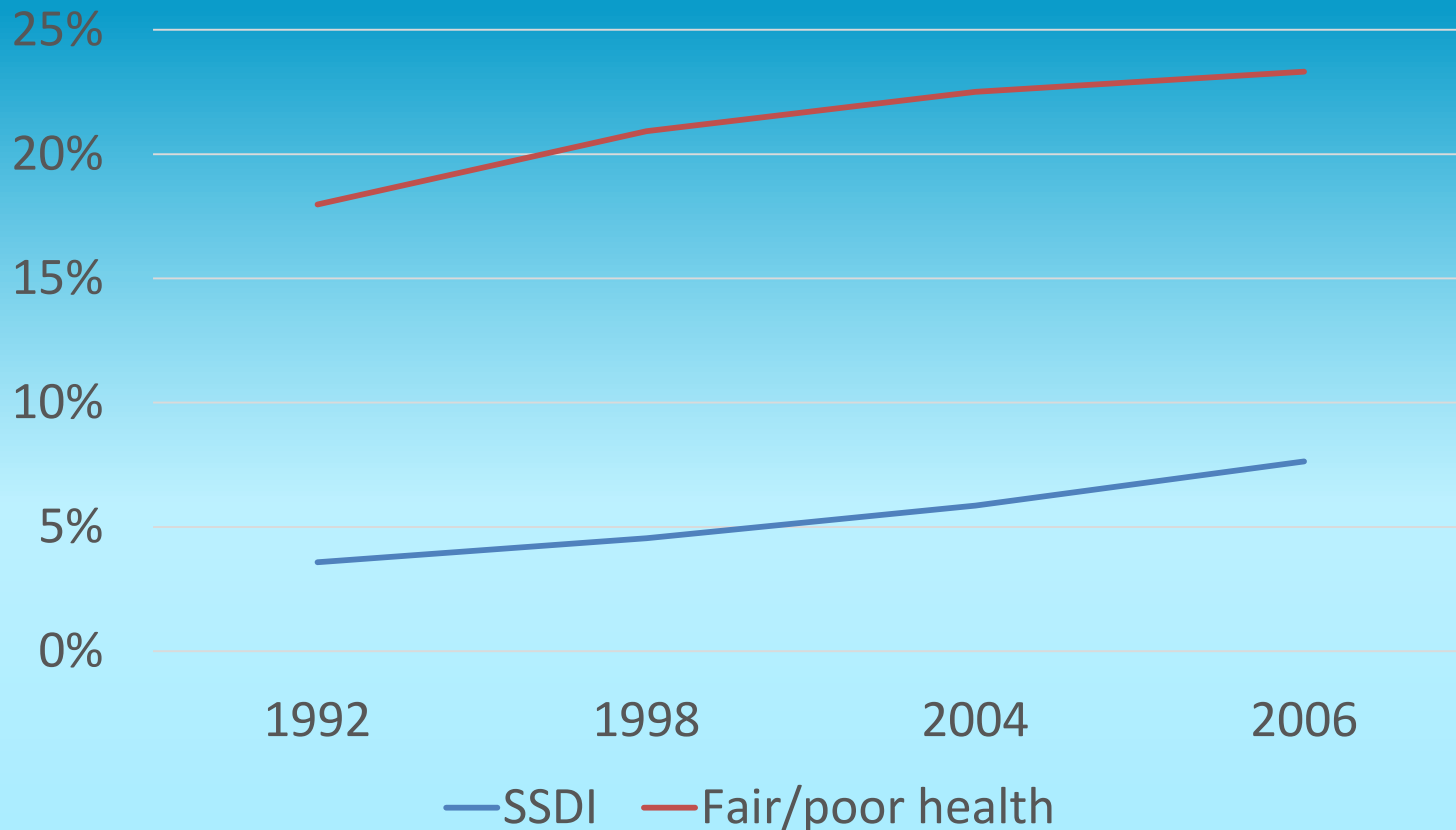
Source: HRS 1992, 1998, 2004, 2010

So what's happening to retirement preparation?

HRS and Retirement Security

- A key aim of HRS has always been to assess preparation for retirement of successive cohorts in their early 50s.

HRS

HRS and Retirement Security

HRS
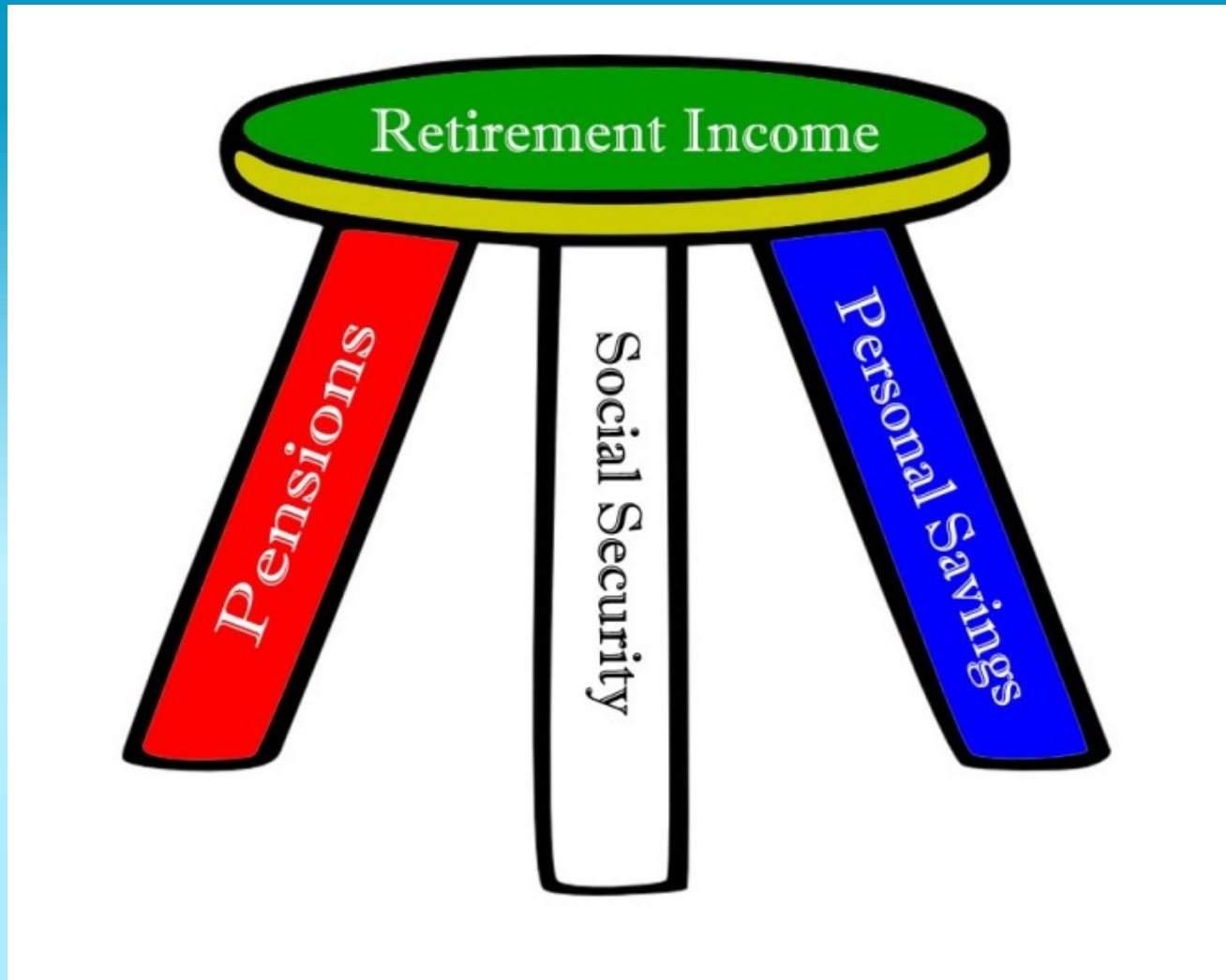
How do we measure these legs?

- Personal savings (mostly home equity)
  - Survey self-report
- Social Security
  - Consent-based individually identified linkage to administrative records
  - + imputation for non-consenters
  - Wealth = PDV of future benefits
- Employer pensions
  - Survey + non-identified linkage to employer plan information
  - + imputation for unmatched
  - Wealth = PDV of future benefits

HRS

Pensions on Current Jobs

- For DB plans, we need to know the plan rules to estimate benefits and wealth
  - This includes terminated, frozen, and cash balance conversions
- 1992-2004 a lot of effort went into trying to obtain employer plans
  - From employers, from respondents, from the web
  - With increasingly dismal results
- For 2010, we were able to go the Department of Labor's website and obtain PDF copies of detailed 5500 filings from private employers, including attachments not in electronic versions of Form 5500

HRS

Employee Benefits Security Administration

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To find actuarial information for plan year 2008, use the Pension Plan Actuarial Information Search.

You can view one plan filing at a time through this search engine based on the search criteria listed below. If you would like the raw data from all filings, including schedules, you can download Form 5500 datasets from EBSA's electronic FOIA webpage. If you are unable to find a filing that you believe has been submitted, please contact the EFAST2 Help Line at 866-463-3278.

Enter criteria in one or more of the below fields (at least one of these fields *must* be filled in).

Wildcard searches are automatically used in the Plan Name, Sponsor Name, and Plan Administrator fields. The wildcard is executed on the right side of the character string. For example, the search for "Widg" will show information for all plans that begin with the letters "Widg", such as "Widget Company" and "Widgard LLC". At least four letters must be entered into these fields when performing a search.

Wildcard searches are not used in fields other than Plan Name, Sponsor Name, and Plan Administrator. Only exact matches are displayed for these other fields.

For help searching for filings through this website, see the EFAST2 Filing Search Guide.

Fill in the search criteria, then click Search.

HRS

Employer Plan Match Rates, by Sector and Self-Report of Plan Type, 2004 and 2010

Sector	Plan Type	2004	2010
Private	All	31.6%	87.9%
	Any DB	33.6%	88.4%
Public	All	88.2%	96.9%
	Any DB	92.1%	98.3%

HRS

Does it matter whether you match someone correctly to their own plan, or will any similar employer do?

Variation in DB plan generosity: Wealth of a simulated "typical" worker under all HRS-coded plans from 2010, by sector ($2010 000s)

	0-49	50-99	100-149	150-199	200-249	250-99	300+
Private	0.192	0.263	0.243	0.128	0.082	0.037	0.055
Public	0.007	0.001	0.004	0.136	0.271	0.282	0.297

HRS
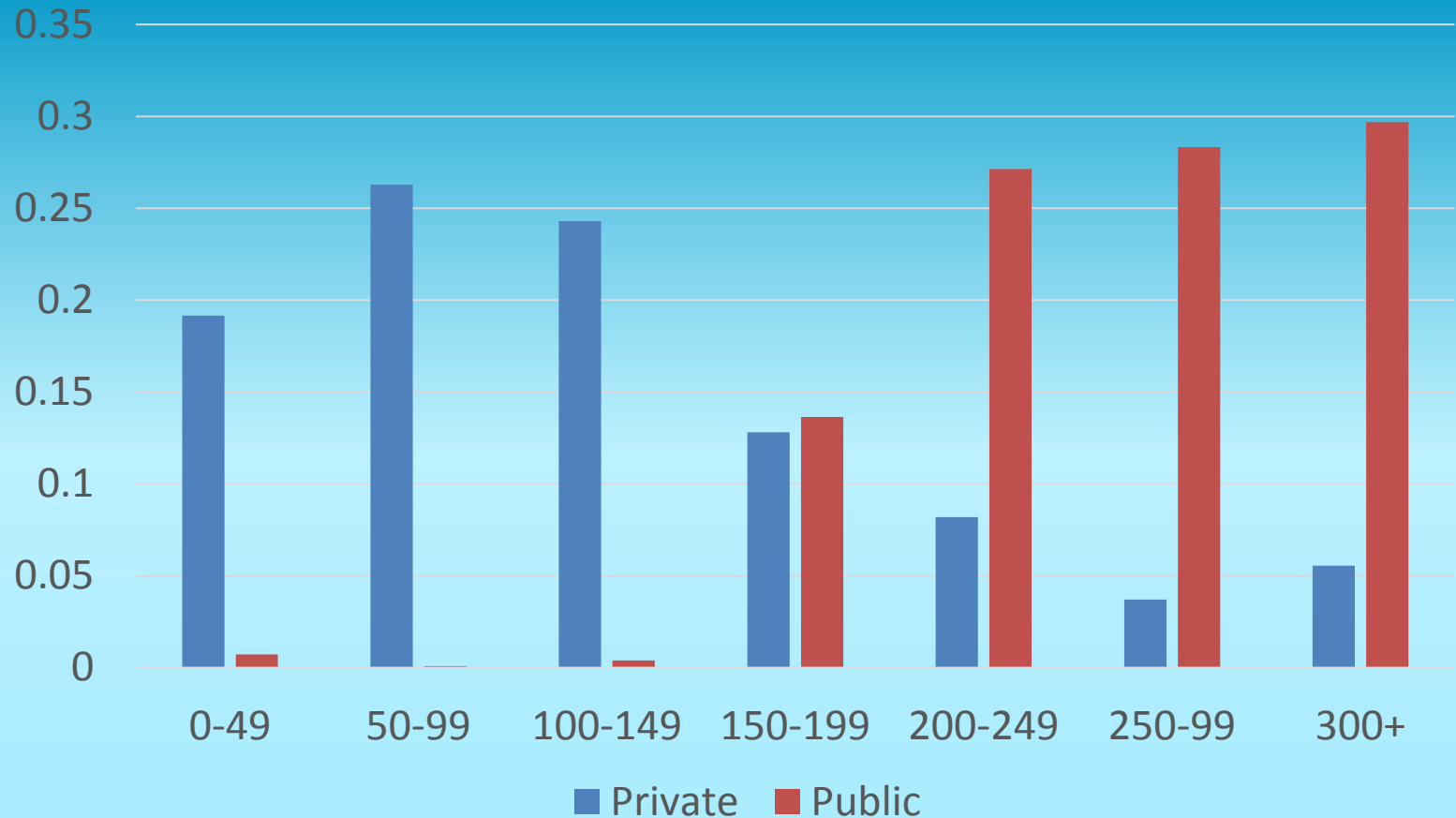
What if we relied entirely on employer match?

- As designed by Gustman and Steinmeier (and described in their book with Nahid Tabatabai on Pensions in the HRS), the HRS approach has been to rely on self-report of plan type and use employer match only when it agrees.

- With low match rates, not much alternative, even though evidence for plan type error is strong

- With high match rates, we can consider substituting employer match for self-report

HRS pension wealth in 2010, comparing self-report of plan type to employer match of type ($000s)

Plan type agreement	DB wealth		DC wealth		Total Pension wealth	
	Resp	Empl	Resp	Empl	Resp	Empl
Agree	139,964	139,494	201,160	201,160	341,123	341,123
Type switch	13,698	14,579	7,085	20,437	20,783	35,016
Drop plan	40,468	28,624	40,128	22,565	80,596	51,189
Add plan	69,856	116,006	83,706	140,579	153,562	256,585
Total	263,986	298,704	332,079	384,740	596,065	683,443

HRS

Other evidence on incomplete self-report

- Employer match might raise pension wealth by about 10-13% - Is that plausible?
- For persons linked to IRS-SSA-W2 records, we can compare deferred compensation on W2 with self-report of plan participation (see Dushi and Honig, 2014)
  - Only available for linked cases, doesn't provide information on balance, doesn't capture plans not getting active contributions
- It does confirm there are DC plans missing in self-report, and more often than not in places where employer match also finds them

HRS

Some adjustments for our cohort comparisons

- Pro-rate DB wealth based on years of service (as in Gustman, Steinmeier, and Tabatabai)
- Add in value of plans on past jobs
- Pro-rate SS wealth based on PIA formula and covered earnings up to entry into HRS
- Include IRAs and assign them to individuals
- Split other household wealth evenly in two-person households

HRS

Components of Wealth, Cohorts aged 51-56 by Year ($2010)

Wealth	1992	1998	2004	2010
IRA	15,147	26,409	30,395	26,238
DC	22,152	38,497	35,711	44,675
DB	109,856	108,086	60,549	35,881
SSW	104,139	104,154	120,166	127,313
Total retirement wealth	251,294	277,146	246,821	234,107
HH wlth	176,744	177,530	217,082	179,699
Total wealth	428,038	454,676	463,903	413,806

HRS

The Three Legs

- Personal savings
  - Flat, but 2010 was hit by housing crisis
  - May see some growth later
- Social Security
  - Increasing with rising incomes
- Private pensions
  - Shrinking
  - Loss of DB plans not compensated by growth in DC+IRA wealth
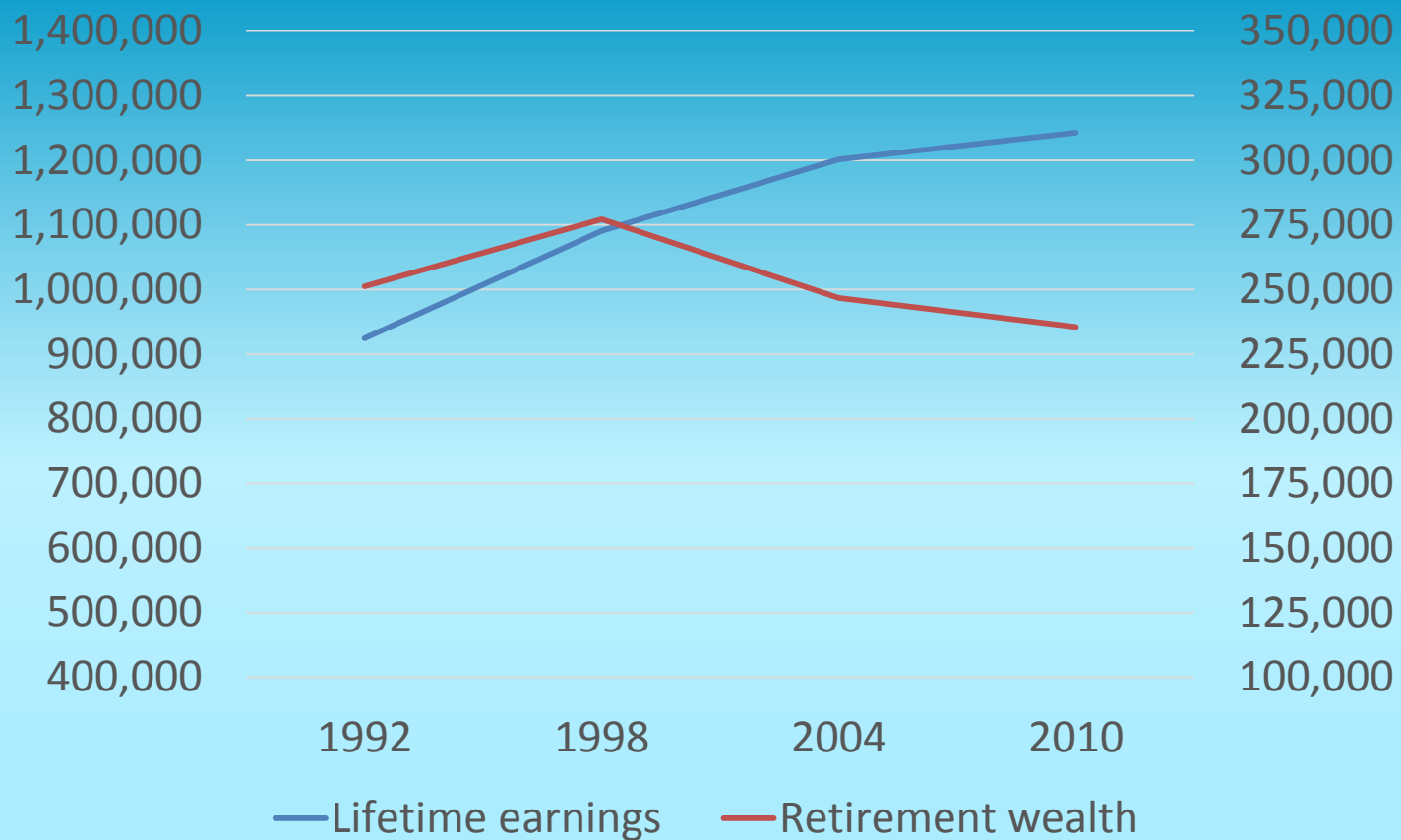
HRS

Lifetime Earnings and Retirement Wealth at Age 51-56, by Year

— Lifetime earnings   — Retirement wealth

HRS

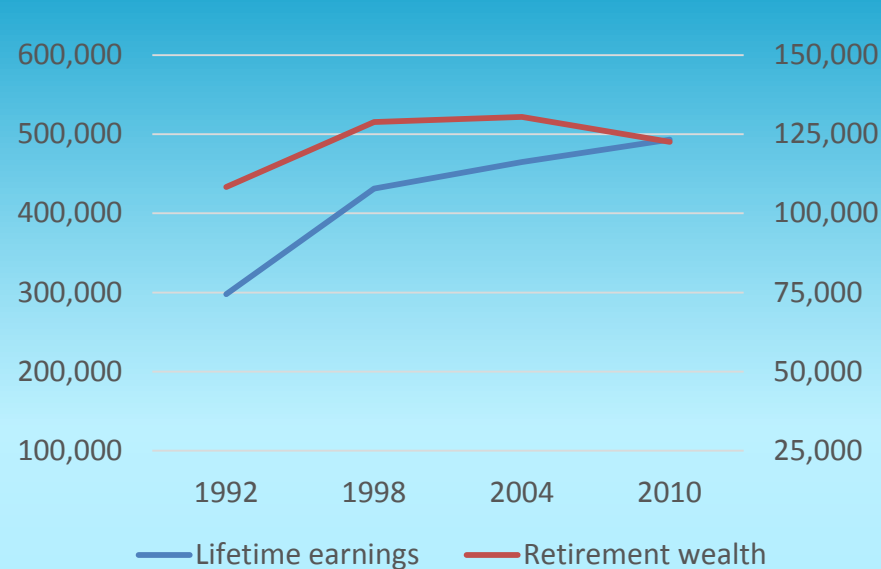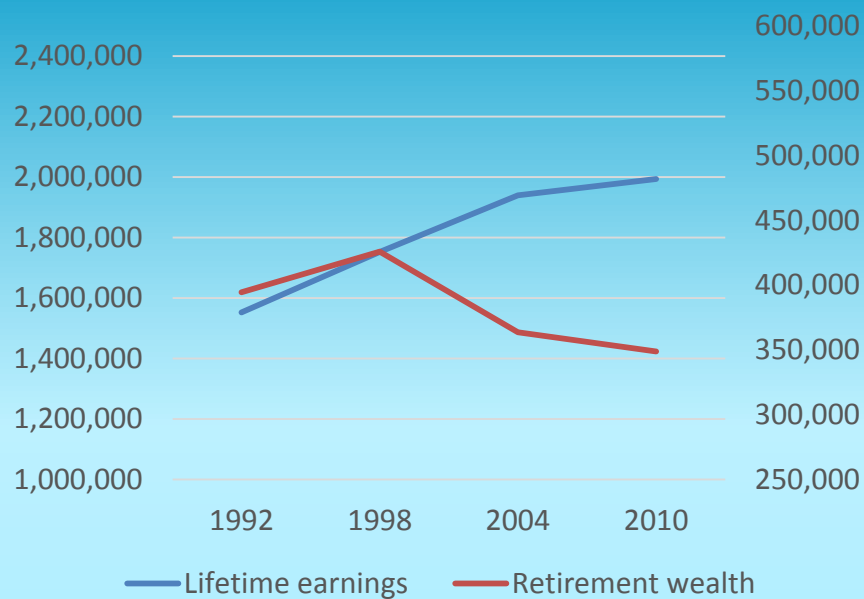# Lifetime Earnings and Retirement Wealth at Age 51-56, by Year

Lifetime Earnings and Retirement Wealth, by Position in Distribution of Lifetime Earnings

Lifetime Earnings and Retirement Wealth, by Race/Ethnicity
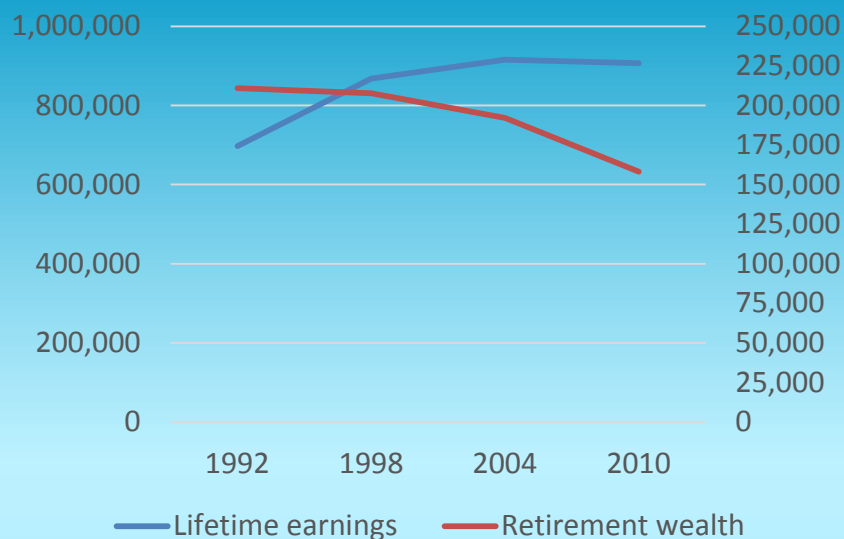
African-American
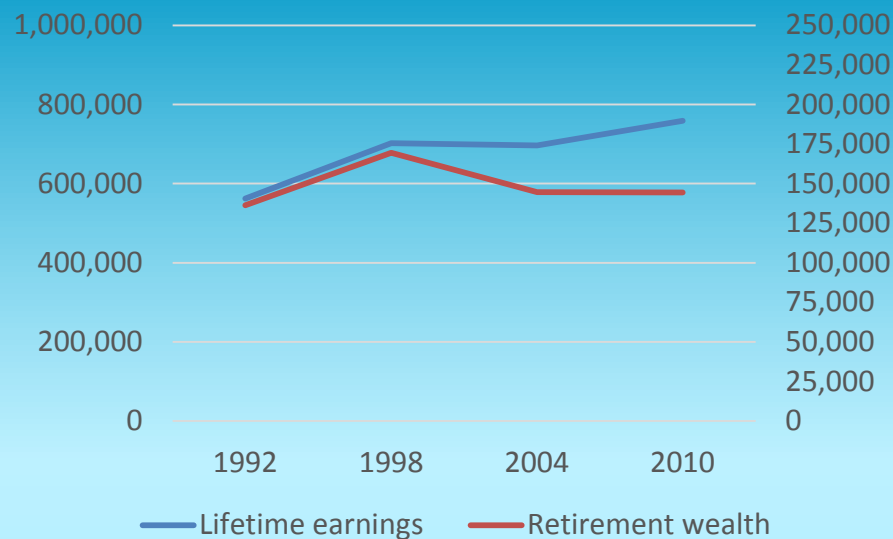
Hispanic

Lifetime Earnings and Retirement Wealth, by Gender

Men

Women

HRS
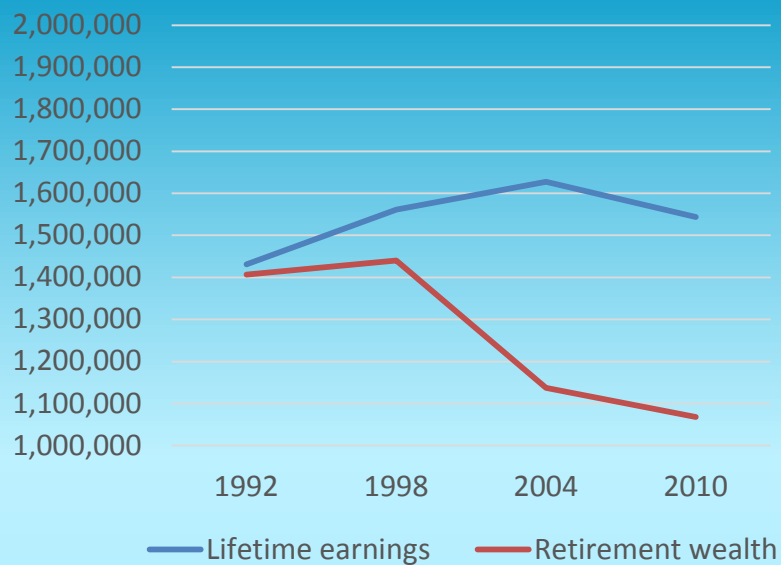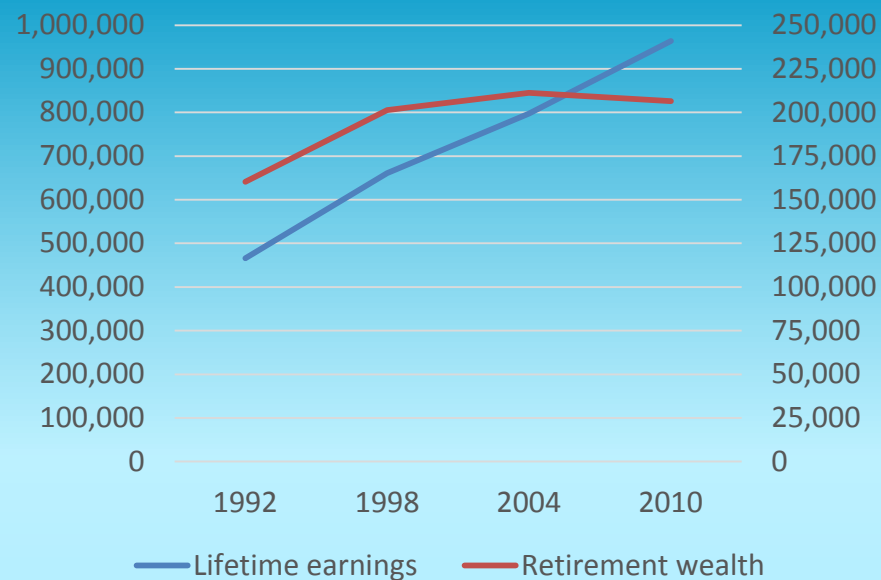
Summary and Policy Implications

- The views expressed here are my own

HRS

Summary and Policy Implications-1

- Thank you, DoL, and keep up the good work!
  - Even though employer matching does not increase estimated pension wealth enough to change the aggregate path of cohort change,
  - It does make individual-level data more accurate
- Next up on the worry list: public DB plans

HRS

Summary and Policy Implications-2

- Retirement wealth has been declining, in absolute value and as a share of lifetime earnings

- The growth in DC + IRA balances has not compensated for the decline in DB values

- Can we do more to nudge DC offerings by employers and take-up by workers?

HRS

Summary and Policy Implications-3

- Social Security is a larger share of total retirement wealth for later cohorts, and becoming the only source with mandatory annuitization

- But this depends on solving solvency!

- Can someone please save Social Security?

HRS

HEALTH AND RETIREMENT STUDY
A Longitudinal Study of Health, Retirement, and Aging
Sponsored by the National Institute on Aging

THANK YOU !

http://hrsonline.isr.umich.edu/

Comments on:
Cohort Changes in Social Security Benefits and Pension Wealth
by Fang, Weir, and Brown

1

Irena Dushi

Social Security Administration

Presented at the 18th Annual RRC Meeting, Washington DC
August 4-5, 2016

The opinions expressed here are my own and do not represent the view of SSA

Key questions

- How financially prepared, particularly in terms of SSW and PW, are younger cohorts (MBB) of pre-retirees compared to previous cohorts?

- What are the differences in SSW and PW within cohorts such as across the income distribution?

Importance of Having SSW and PW estimates

- Provide a complete picture of the balance sheet of pre-retirees, when combined with other wealth components available in the HRS

- Allow to assess retirement preparedness of pre-retirees

- Calculating PW and SSW is time consuming and requires different assumptions. Having these wealth measures created in a consistent way from the HRS is an enormous contribution to the research community

Key takeaways

- Employer pensions (DB+DC+IRA) are providing a much lower share of total wealth for the MBB cohort than for the HRS cohort (25% vs. 34%)

- SSW comprises a higher share of total wealth than PW for the MBB cohort (31% and 25%); the reverse is true for the HRS cohort (24% and 34%, respectively)

IRA+DC wealth much lower than DB wealth

- Stock market shocks – all retirement accounts lost 31% in assets from September 07 - May 09 (Soto 2009)

- Leakages - Argento, Bryant, Sabelhaus (2013) find:
  - Pre-retirement withdrawals from IRAs and DC plans are substantial, and strongly correlated with income and marital status shocks

- Job and earnings shocks - Dushi and Iams (2015) using w-2 data find:
  - Even during non-recessionary periods and even when employees stay in the same job, their participation and contributions to DC plans fluctuate considerably

  - Among workers with <u>no job change</u>: those with decreased earnings were more likely to stop or decrease contributions than those with stable earnings

  - Among workers <u>with stable earnings</u>: those who changed jobs were more likely to stop contributing than those with no job change

➔ Assuming consistent and increasing contributions in order to project DC wealth at retirement is likely to overestimate DC wealth

What W-2 data tell us about DC plans

Participation rate (%) by age and birth cohort

Legend: 1936-41, 1942-47, 1948-53, 1954-59
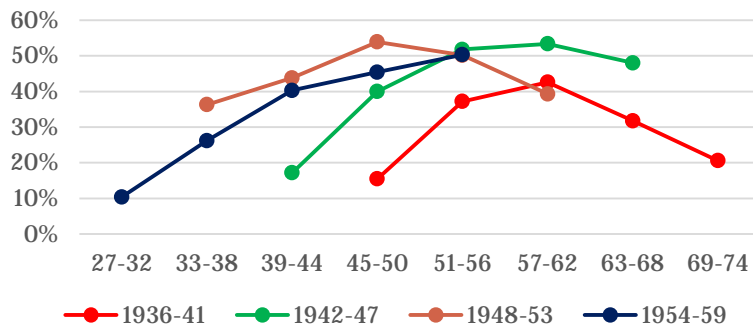
Median Annual Contributions ($) by age and birth cohort

Legend: 1936-41, 1942-47, 1948-53, 1954-59
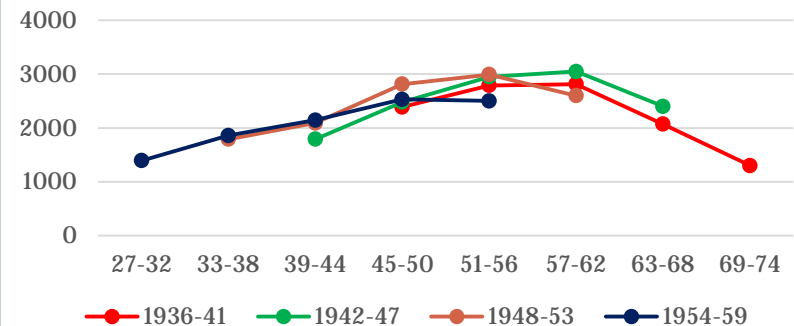
Source: Honig and Dushi (2009), estimates updated with recent data for MBB cohort

Contributions according to W-2 record, by cohort				
	HRS - 1992	WB - 1998	EBB-2004	MBB-2010
Participation Rate %	37	54	50	50
# of years with contrib. in the past 10 years (%)				
None	69	57	47	48
1-5 years	21	19	20	21
6-9 years	9	15	20	14
10 years	1	10	13	17
Total $ contributions in the past 10 years				
Mean	14392	21021	24936	26540
Median	8500	12437	13201	12742

Survey-reported DC and IRA accounts

% of respondents currently with no pension plan, with at least a DC plan, and with positive DC or IRA accounts

	Currently no plan	Currently at least a DC plan	With non-zero DC	With non-zero DC+IRA
HRS cohort	57	25	18	49
MBB cohort	54	37	24	51
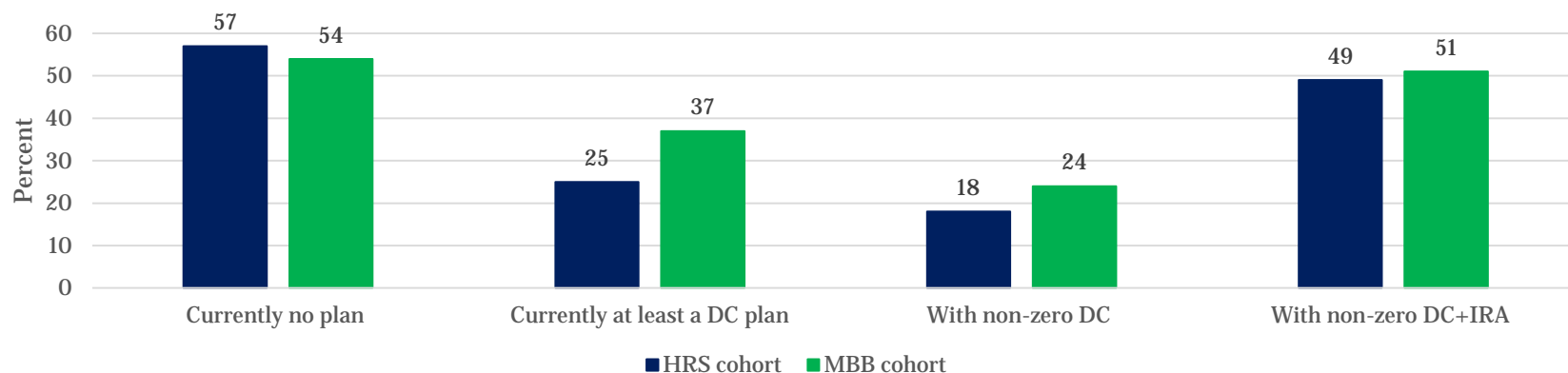
Conditional Mean/Median (in '000) of DC only and DC or IRA accounts

	Mean (DC account)	Mean (DC+IRA)	Median (DC account)	Median (DC+IRA)
HRS cohort	73	83	25	39
MBB cohort	138	166	58	75
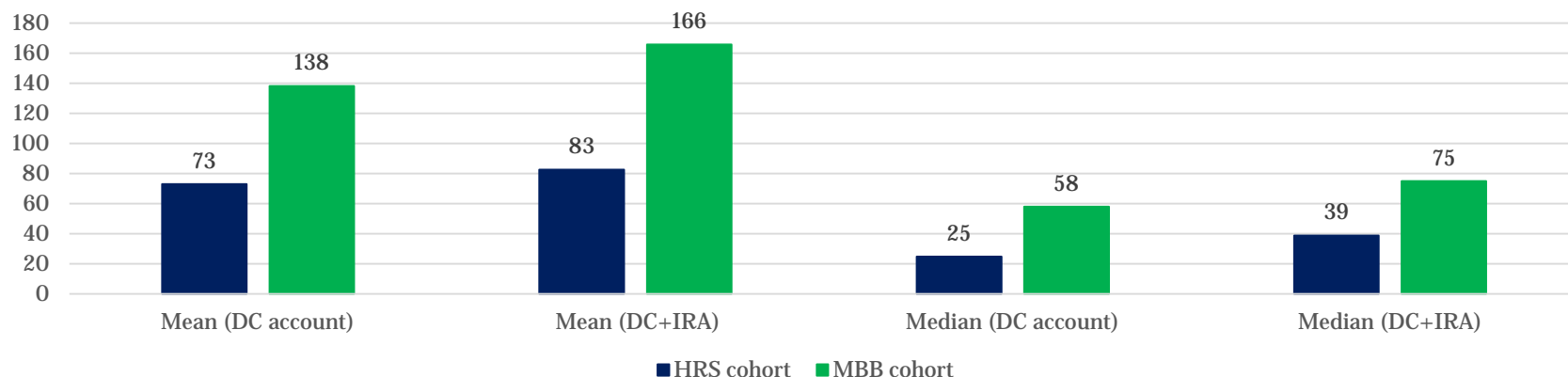
Policy Implications

- The small amount of PW (DB+DC+IRA) among younger cohorts suggests that they will be more dependent on SS in retirement

- Younger cohorts will need to work longer and save more in voluntary DC plans in order to support their standard of living in retirement
  - Good news: Average expected probability of working full time past age 62 and 65 is higher for the MBB cohort compare to earlier cohorts

- Policy makers should continue to design policies that induce employers offering, employees participation and savings, such as the automatic plan features, as well as provisions that discourage early withdrawal

Calculating PW

○ Respondents' self-reported vs. employers' plan data - since the inaccuracy of self-reported pension information may lead to inaccurate PW estimates (Gustman and Steinmeier (2004b) and Dushi and Honig (2014))

○ Fang, Brown, and Weir (2016) use data from employers' Form 5500 to compare and correct self-reported plan type and calculate respective PW

- However, the magnitude of (in)consistencies between self-reported and firm data regarding plan type is not presented in the paper

- Also, authors do not use the W-2 data to correct for respondents misreport of DC plans

- Are employers' reported plan data (or matching of these data) subject to errors?
  - Both respondent & employer reported DB only plan - 12% had W-2 contributions
  - Employer reported DB only and employee reported Both - 63% had W-2 contributions

→ W-2 records are the gold standard for DC plans, use them to determine and correct for DC plan type by looking at contributions in the current or the past few years

Calculating PW (cont.)

- Use survey reported earnings and employment histories to project future earnings, but when available use W-2 records to determine hire dates
  - Suggestions:
    - For those with matched W-2 records use actual W-2 earnings to project future earnings, as you currently do for SSW

- Impute DC account balances based on nearest neighbor matching method
  - Suggestion:
    - Use information from adjacent waves when available
    - Can also use w-2 records to validate whether and how much contributed in the past few years

Calculating SSW

- SSW estimates are not available for respondents who have claimed SS benefits
  - Suggestion:
    - include the value of remaining SSW for those who have currently claimed benefits

- Calculate SSW only at the first wave when cohorts enter the survey
  - Suggestion:
    - create wave-specific measures of SSW (also of PW) as information from survey reports in consecutive waves and from administrative records become available

Thank you

How Does Student Debt Affect Early-Career Retirement Saving?

Matthew S. Rutledge
Research Economist
Center for Retirement Research at Boston College

18th Annual Meeting of the Retirement Research Consortium
Washington, DC
August 5, 2016

Student loan borrowing has increased greatly over the last two decades.

Proportion of Graduates with Student Loans and Average Real Loan Balance, 1993 and 2012
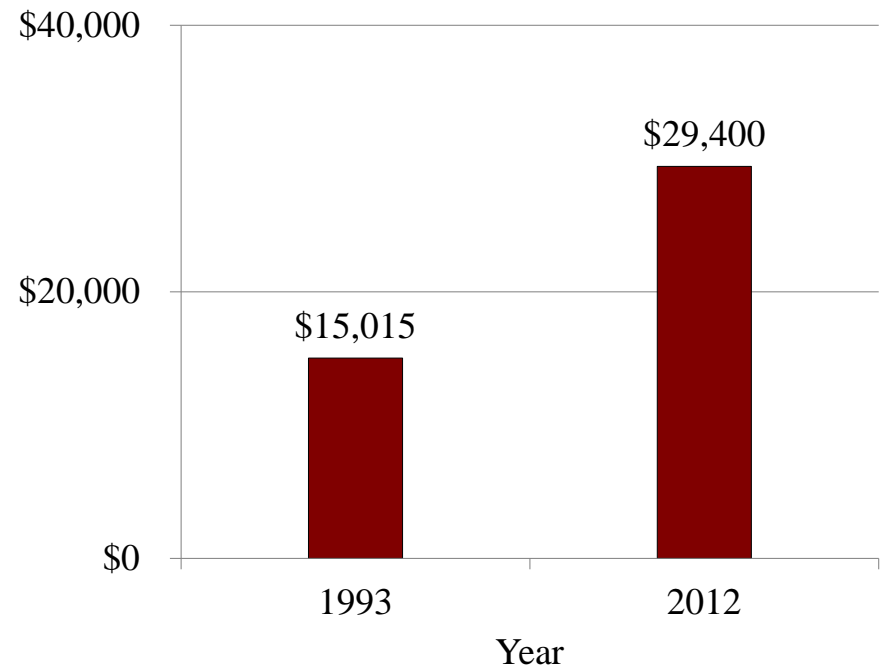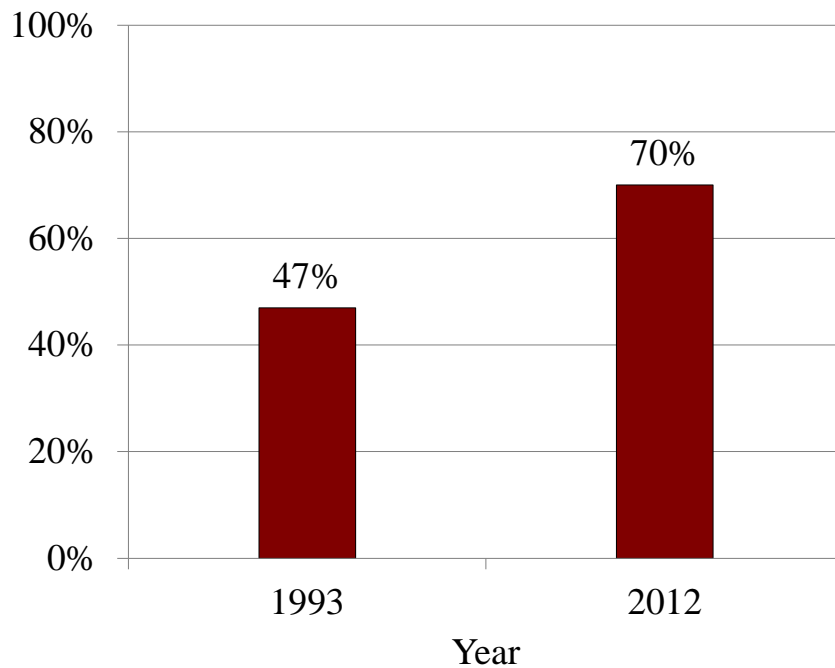
Note: Student loan balances in 2012 dollars.
Source: The Institute on College Access and Success. 2014. "Quick Facts about Student Debt." Oakland, CA.

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How could young households handle the student debt burden?

- Cut back on consumption

- Rack up other debt

- Cut back on non-retirement savings

- Cut back on savings for retirement

Research question: How does student debt affect retirement saving?

- Joint work with Geoffrey Sanzenbacher, Francis Vitagliano.

- Not well-studied because of recency of problem.

- Most studies use the *Survey of Consumer Finances* (SCF).
  - Small sample of young households with debt.
  - Often include older households with their kids' debt.
  - Little background information on student debtors.

Instead, we use the data from the *National Longitudinal Survey of Youth*, 1997 Cohort.

- Key ages of observation:
  - Age 25: respondent's student loan balance
  - Age 30: household retirement assets, plan participation

- Unique controls for debtor's background
  - College quality: public, private non-profit, private for-profit
  - Parents' education and income at age 30
  - ASVAB aptitude test score

Retirement plan participation is not lower for student debtors compared to non-debtors.

Retirement Plan Participation by Degree Status and Student Loan Status

Source: National Longitudinal Survey of Youth 1997 Cohort, 1997-2013.
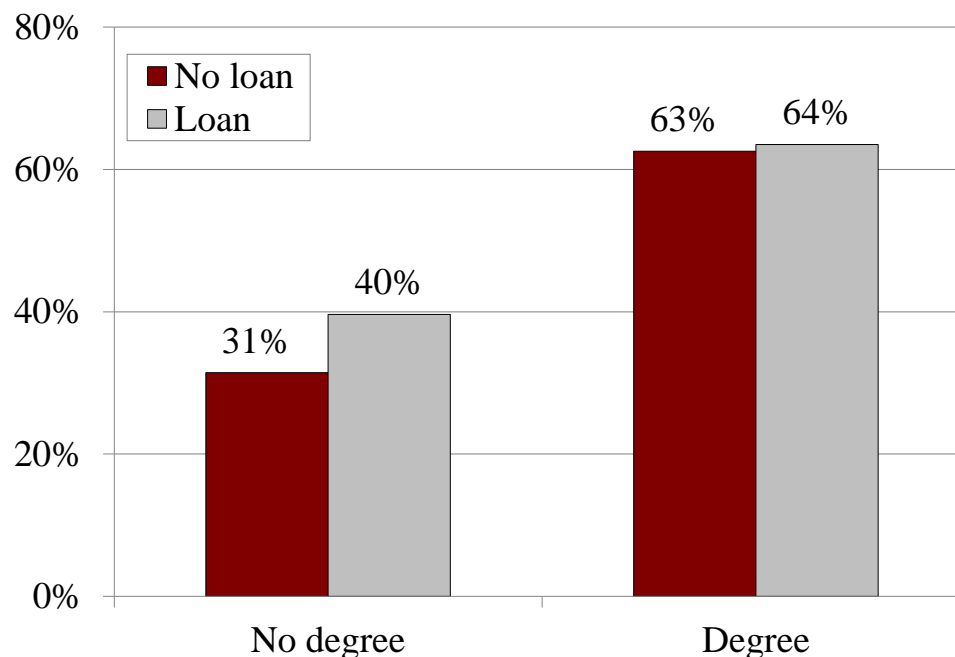
But median assets half as large for graduates with debt relative to graduates without debt.

Median Retirement Assets by Degree Status and Student Loan Status
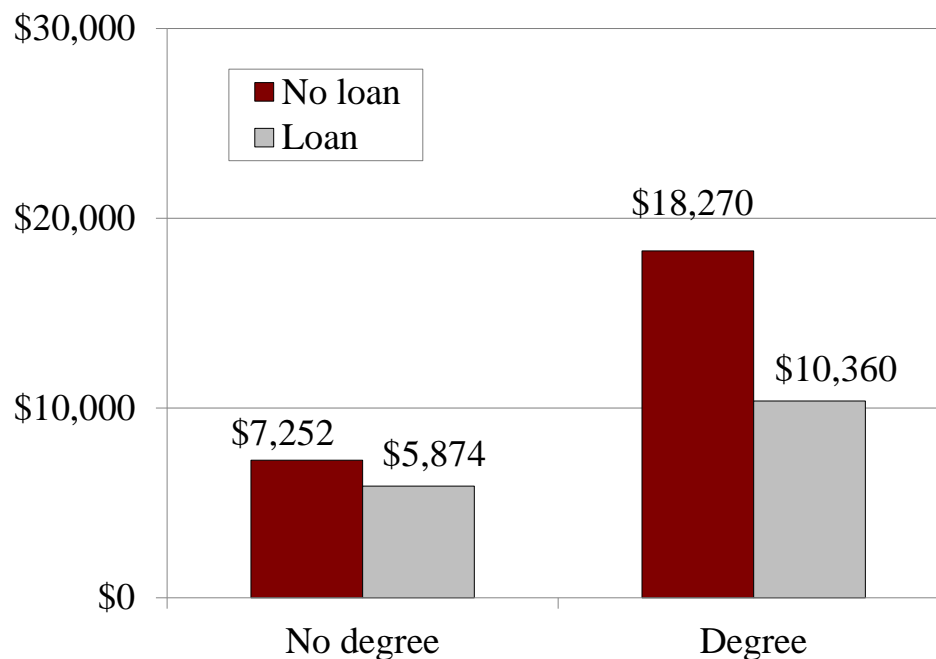
No reduction in plan participation as student loan balances increase.

Retirement Plan Participation Rate by Degree Status and Student Loan Quintile
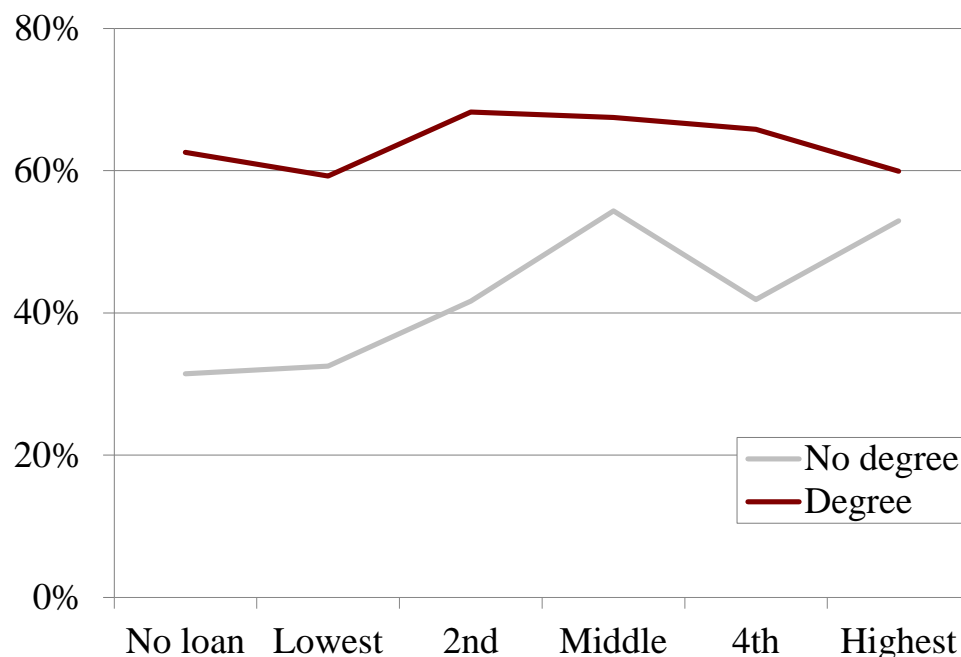
Median assets also do not decrease as loans increase; difference is in loans vs. no loans.

Median Retirement Assets by Degree Status and Student Loan Quintile
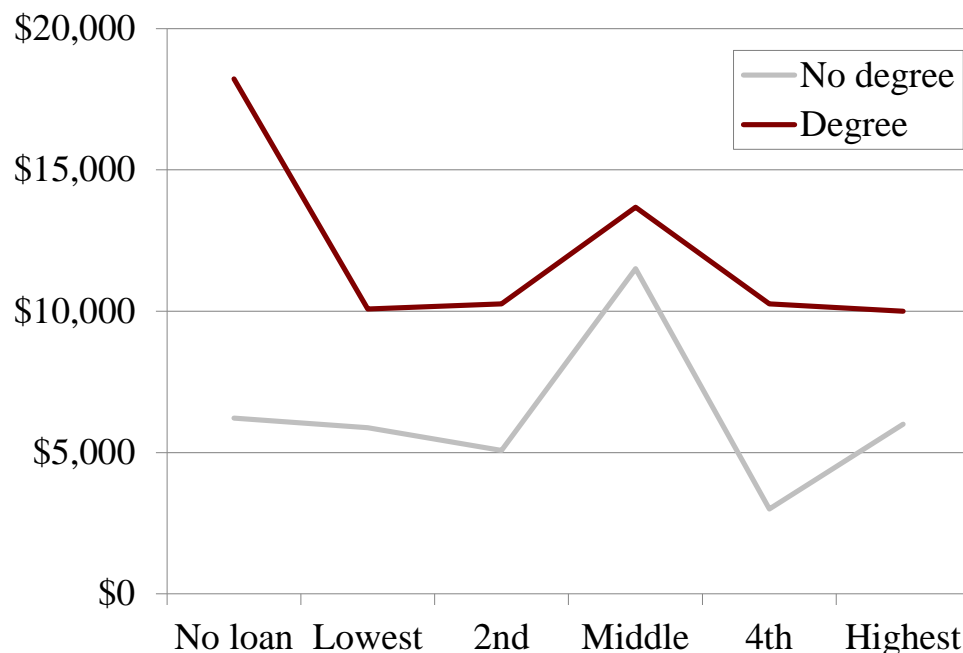
Source: National Longitudinal Survey of Youth 1997 Cohort, 1997-2013.

But mean assets do decline as loans increase.

Average Retirement Assets by Degree Status and Student Loan Quintile
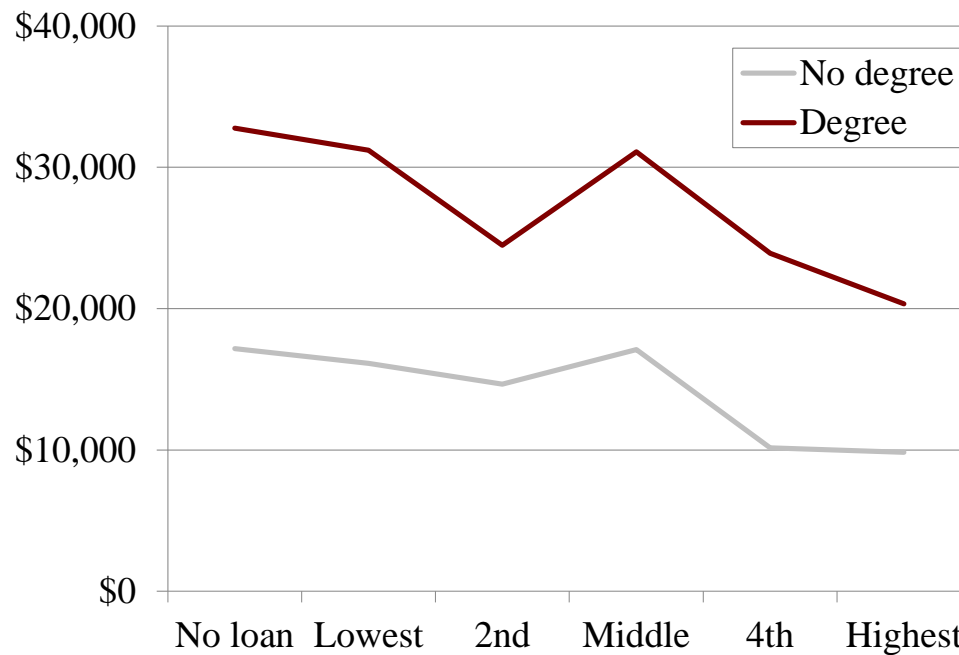
Econometric model

- Outcomes of interest:
    - Participation in employer-sponsored plan
    - Take-up of an employer's pension offer
    - Retirement assets

- Key variables: indicator for having loan, ln(loan balance)

- Base specification: loan controls, earnings, firm size, demos

- Then add degree status, school quality, parental background, ASVAB percentile

No statistically significant difference in plan participation with loans or as loans grow.

Retirement Plan Participation Regression Results

	All		No degree		Bachelor's	
	(1)	(2)	(3)	(4)	(5)	(6)
Student loan (0/1)	0.030	-0.007	0.038	0.010	-0.142	-0.147
	(0.101)	(0.103)	(0.172)	(0.176)	(0.168)	(0.173)
Ln real loan balance at 25	0.011	0.013	0.028	0.026	0.022	0.020
	(0.011)	(0.011)	(0.021)	(0.021)	(0.017)	(0.018)
Sample size	3,313	3,074	1,508	1,293	985	978

Notes: Students' variables are measured as of age 30. Regressions also include gender, marital status, presence of children, race, and Hispanic ethnicity.
Source: National Longitudinal Survey of Youth 1997 Cohort, 1997-2013.

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Take-up of pensions also does not decrease with greater loans.

Participation Regressions among Workers Ever Offered a Plan

	All		No degree		Bachelor's	
	(1)	(2)	(3)	(4)	(5)	(6)
Student loan (0/1)	0.074	0.001	0.036	-0.002	-0.172	-0.171
	(0.107)	(0.109)	(0.188)	(0.193)	(0.179)	(0.186)
Ln real loan balance at 25	0.026**	0.026**	0.033	0.034	0.029	0.025
	(0.011)	(0.012)	(0.023)	(0.023)	(0.018)	(0.019)
Sample size	2,804	2,626	1,184	1,025	881	876

Notes: Students' variables are measured as of age 30. Regressions also include gender, marital status, presence of children, race, and Hispanic ethnicity. ** $p<0.05$.
Source: National Longitudinal Survey of Youth 1997 Cohort, 1997-2013.

Assets may be lower with loans, but not statistically significantly.

Retirement Asset Regression Results

	All		No degree		Bachelor's	
	(1)	(2)	(3)	(4)	(5)	(6)
Student loan (0/1)	0.298	0.163	-0.244	-0.355	-0.381	-0.414
	(0.410)	(0.408)	(0.838)	(0.851)	(0.612)	(0.609)
Ln real loan balance at 25	-0.003	-0.009	0.068	0.055	-0.017	-0.009
	(0.043)	(0.043)	(0.098)	(0.099)	(0.062)	(0.062)
Sample size	1,472	1,420	468	422	565	564

Notes: Dependent variable is the log of retirement assets. Students' variables are measured as of age 30. Regressions also include gender, marital status, presence of children, race, and Hispanic ethnicity.
Source: National Longitudinal Survey of Youth 1997 Cohort, 1997-2013.

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No evidence student loans affect retirement saving in alternative models, either.

- Limiting the sample to unmarried individuals.

- In asset regressions, adding number of years in a pension plan.

- Using a nonlinear function of the student loan balance.

Instead, student debtors have more non-educational debt, lower assets.

Median Non-Educational Debt and Non-Retirement Asset Levels at Age 30, by Student Loan Status and Degree Status
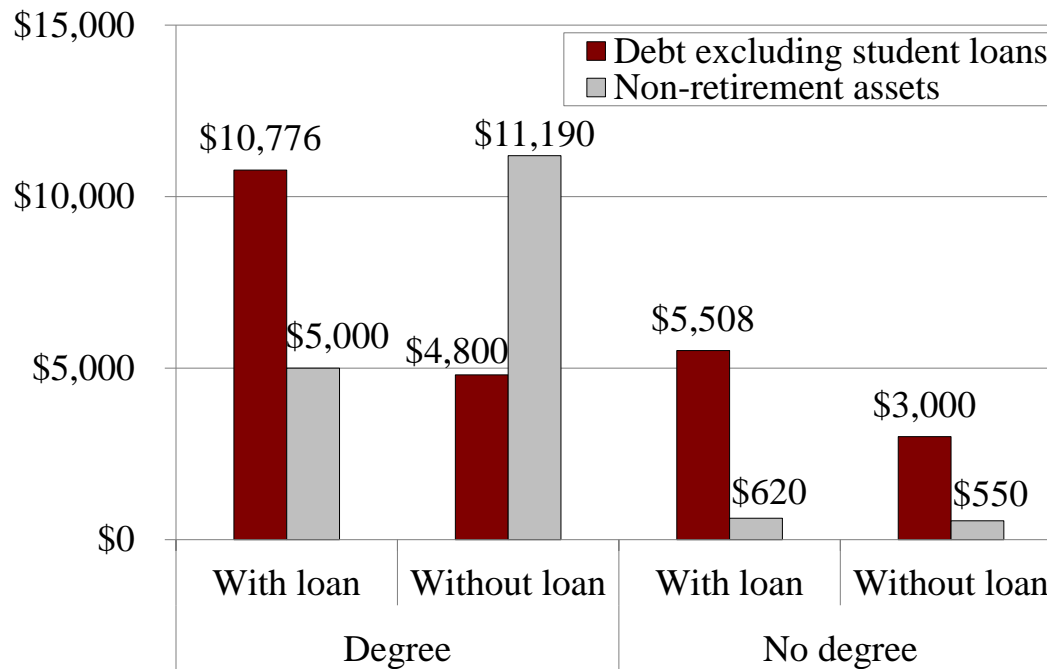
Source: National Longitudinal Survey of Youth 1997 Cohort, 1997-2013.

Conclusion

- Student loan debt clearly hurts young workers' finances.

- But student loans do not appear to hurt retirement saving by age 30.

- So disadvantage in student debt manifests in other negative financial outcomes.

- Will retirement savings still be unaffected for the coming cohorts with even larger student debt burdens?

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Comments:
How Does Student Debt Affect Early-Career Retirement Saving?

Rutledge, Sanzenbacher, and Vitagliano

High debt is associated with better balance sheets

Figure 5

Typical High-Debt Gen Xers and Millennials Tend to Have Better Balance Sheets Than Their Low-Debt Peers

High debt, income, and net worth, by generation

High-debt Gen Xers	3 times higher income than low-debt peers	6.5 times higher net worth than low-debt peers
High-debt millennials	3 times higher income than low-debt peers	5.5 times higher net worth than low-debt peers

Source: Pew Survey of American Family Finances

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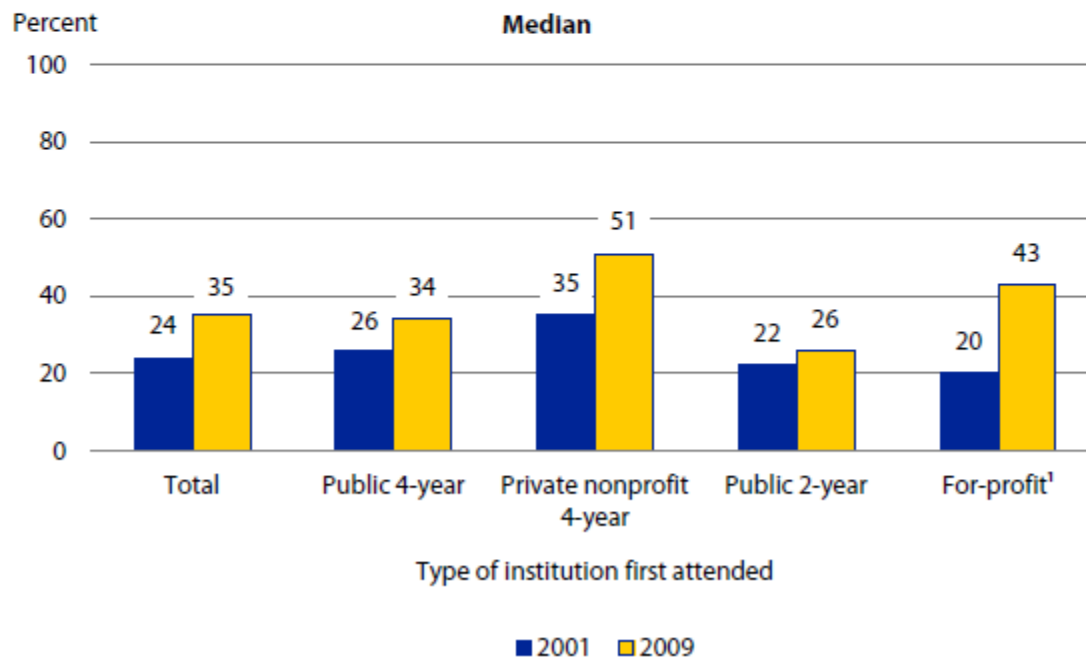
Non-completers

FIGURE 7.

TOTAL-FEDERAL-DEBT-TO-ANNUAL-INCOME-RATIO AMONG NONCOMPLETERS
Cumulative federal loan debt as a percentage of annual income at the 50th percentile (bars) and at the 25th and 75th percentiles (table below), by type of first institution attended: 2001 and 2009

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Graduate Students

Debt Is Higher among Graduates with Higher Degrees

Cumulative debt among degree recipients, 2012

Legend: ☐ No debt ■ Less than $50,000 ■ $50,000 or more

Category	No debt	Less than $50,000	$50,000 or more
All degree recipients	37%	51%	12%
Associate degree	50%	49%	1%
Bachelor's degree	31%	60%	10%
Graduate degree	32%	30%	37%
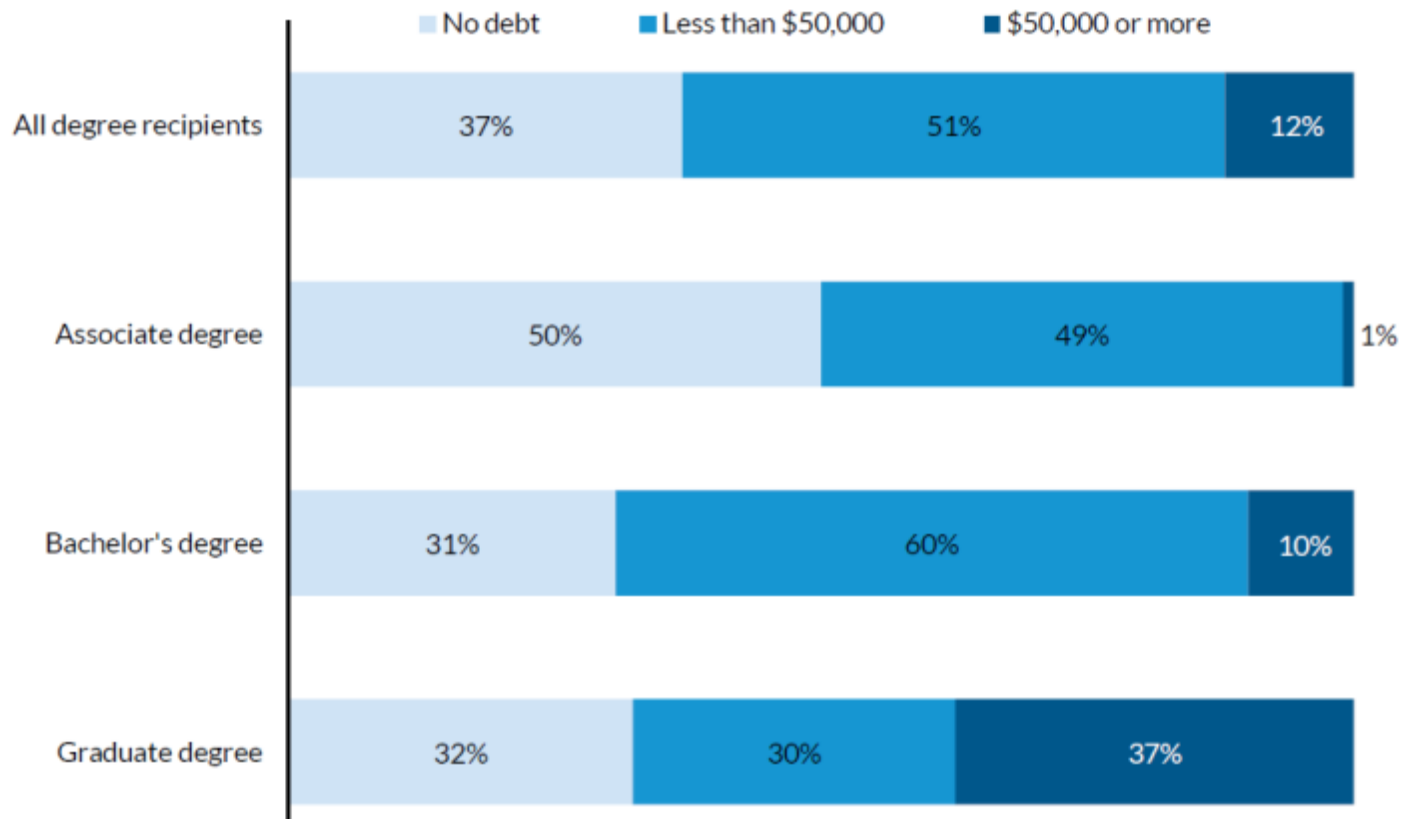
Source: Sandy Baum and Martha C. Johnson, 2015, "Student Debt: Who Borrows Most? What Lies Ahead?" Urban Institute
http://www.urban.org/research/publication/student-debt-who-borrows-most-what-lies-ahead

What about the parents?

Figure 6 — How the Typical Family Pays for College 2014-15, Average Percent of Total Cost Paid from Each Source

Student Borrowing 16%

Parent Borrowing 6%
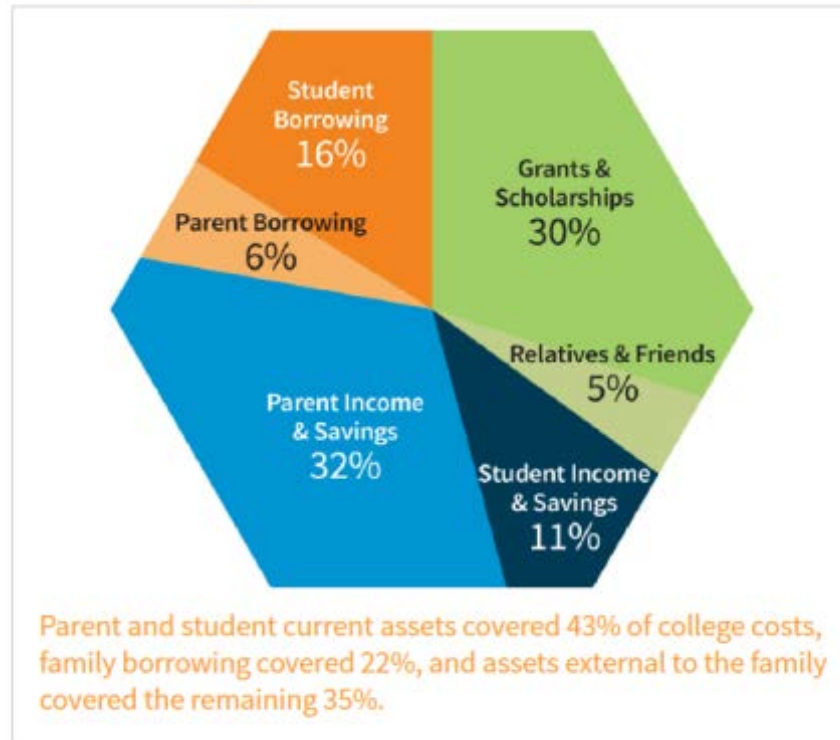
Grants & Scholarships 30%

Parent Income & Savings 32%

Relatives & Friends 5%

Student Income & Savings 11%

Parent and student current assets covered 43% of college costs, family borrowing covered 22%, and assets external to the family covered the remaining 35%.

Source: Sallie Mae and Ipsos, 2015, "How America Pays for College 2015"
http://news.salliemae.com/files/doc_library/file/HowAmericaPaysforCollege2015FNL.pdf

A Larger Question of Inequality

RETIREMENT READINESS HAS BECOME MORE UNEQUAL OVER TIME

FIGURE 12. REPLACEMENT RATE RATIOS BETWEEN THE MEDIAN AND THE LEAST-PREPARED, AND BETWEEN THE MOST-PREPARED AND THE MEDIAN, BY COHORT
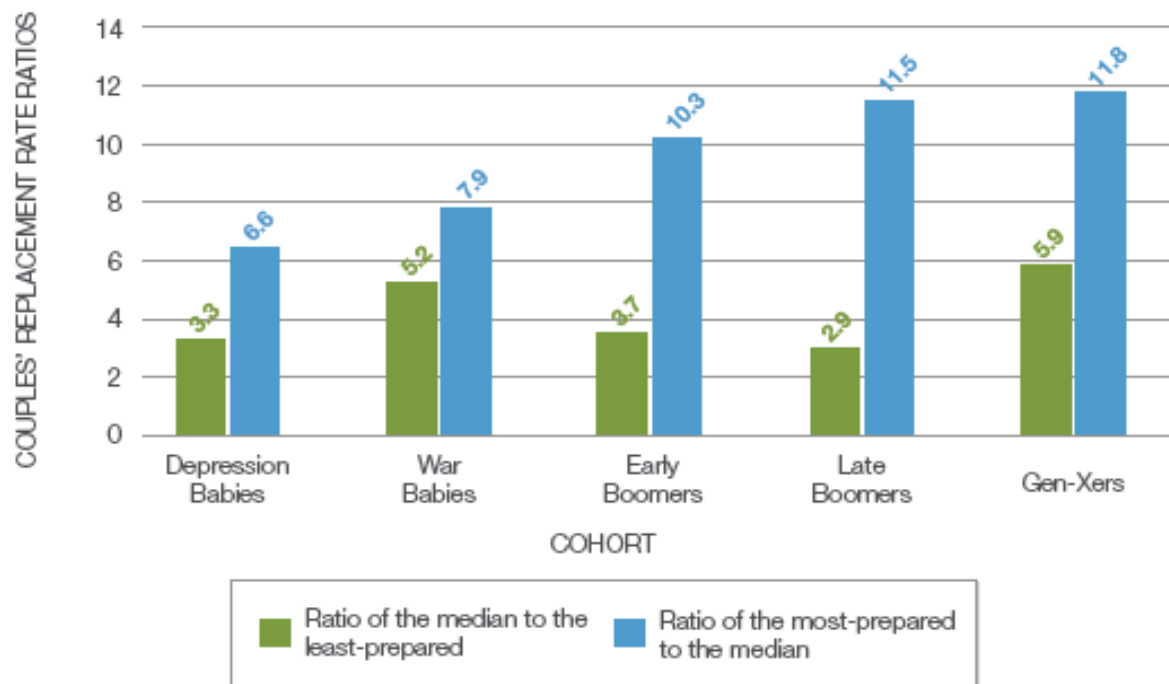
Source: Panel Study of Income Dynamics.

Note: The replacement rates are calculated assuming retirement at age 65. The least-prepared, median, and most-prepared are represented by the replacement ratios of the 1st, 50th, and 99th percentiles, respectively.

Source: The Pew Charitable Trusts, 2013 ,"Retirement Security Across Generations"
http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/empretirementv4051013finalforwebpdf.pdf

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Conclusion

- **Non-completers - low loan balances– low human capital, employers with fewer retirement benefits**

- **Grad students – high loan balances, but excellent prospects for repayment and retirement**

- **Are we worrying about the wrong age group? Is it parents we should think about?**

- **Larger questions around inequality**
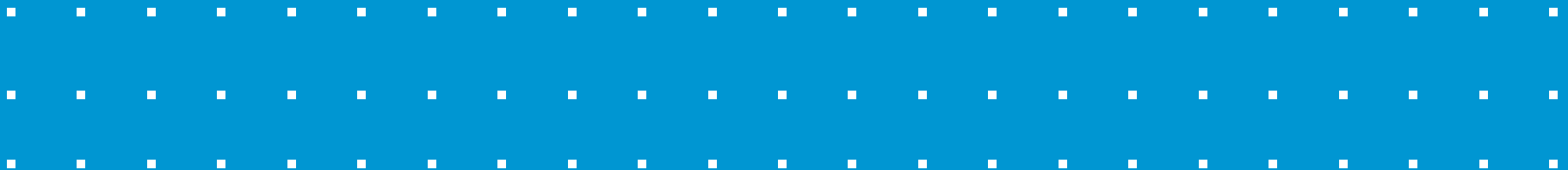
Marital Histories, Gender, and Financial Security in Late Mid-Life: Evidence from the Health and Retirement Study (HRS)

Amelia Karraker and Cassandra Dorius, Iowa State University

What This Study is About

- How are more recent cohorts faring in terms of pre-retirement financial security?

- How have marital histories changed across cohorts?

- How do marital histories relate to measures of financial security and what does this entail for more recent cohorts approaching retirement?
  - Is there variation by gender?

- We use multiple regression models using 4 cohorts from the Health and Retirement Study.

Marital History and Financial Security in Later Life across Cohorts

- Continuous marriage = $
  - Resource pooling, specialization, economies of scale (Becker 1973, 1981)
  - Encourage saving behavior
  - Economic advantages accrue over marital duration (Addo and Lichter, 2013)
  - Social Security policy (Meyer and Herd, 2007)

- "Marital history" incorporates not only current marital status but also the timing, sequencing, and duration of marital statuses across an individual's life course.
  - This project: past and present marital statuses.

Thinking about Marital Histories and Gender Together

- The financial benefits of marriage differ by gender
  - Men: marriage premiums and fatherhood premiums for wages for men (Glauber 2008; Killewald 2012; Korenman and Neumark 1991)
  - Women: wage penalties for both marriage and motherhood (Budig and England 2001)

- Marital dissolution likewise varies in its economic consequences for men and women
  - Women are more economically disadvantaged following divorce or widowhood (Lavelle and Smock 2012; Meyer and Herd 2007)
  - Men are more likely to remarry (Shafer and James 2013)

- Combined with other gender differences in economic and demographic factors, differences in the economic consequences of marriage increase women's financial vulnerability in later life (Favreault 2005; Fisher et al. 2009)

Marriage is Changing

- In more recent birth cohorts, there have been increases in:
  - Divorce
  - Cohabitation—pre-marriage or as a substitute
  - Never-marriage
  - Children born outside of marriage, multi-partnered fertility
  - "Marriage-go-round"—de-partnering and re-partnering (Cherlin, 2010)

- Marriage has also changed in additional ways related to:
  - Selectivity
  - Division of labor by gender within and outside of the household
  - Expansion to same-sex couples

- **What do these demographic shifts in marriage mean for the financial security of men and women approaching retirement?**

Data: Health and Retirement Study

- We examine four birth cohorts at ages 51-56.

- 1992: Sample of Americans born 1931-1941 (aged 51-61) **("Original HRS Cohort")**
  - **We focus on a subset born 1936-1941 (aged 51-56 in 1992)**
- 1998: **War Babies** born 1942-1947 added
- 2004: **Early Boomers** born 1948-1953 added
- 2010: **Mid-Boomers** born 1954-1959 added

- Period effects? Cohort effects?

Elaborated Marital History Categories (n=17)

Partnered

- Continuously married

- Currently remarried
  - Divorced once
  - Divorced twice
  - Divorced three or more times
  - Widowed once

- Currently cohabiting
  - Never married
  - Divorced or widowed once
  - Divorced or widowed twice

Single

- Never married
- Separated
  - From first marriage
  - From second marriage
  - From third marriage

- Divorced
  - Once
  - Twice
  - Three or more times

- Widowed once

- Divorced and widowed at least once

Selected Marital History Categories (%) by Cohort, Ages 51-56 (Weighted)

	Original HRS (b. 1936-1941) (Wave 1, 1992)	War Babies (b. 1942-1947) (Wave 4, 1998)	Early Boomers (b. 1948-1953) (Wave 7, 2004)	Middle Boomers (b. 1954-1959) (Wave 10, 2010)
Continuously married	52.4%	49.2%	45.3%	43.7%
Currently remarried, divorced once	14.4%	15.7%	16.5%	15.7%
Currently remarried, divorced twice	2.8%	3.6%	3.9%	4.2%
Currently, remarried, divorced thrice	0.9%	0.8%	1.1%	0.8%

Selected Marital History Categories (%) by Cohort, Ages 51-56 (Weighted)

	Original HRS (b. 1936-1941) (Wave 1, 1992)	War Babies (b. 1942-1947) (Wave 4, 1998)	Early Boomers (b. 1948-1953) (Wave 7, 2004)	Middle Boomers (b. 1954-1959) (Wave 10, 2010)
Never married	3.8%	4.3%	5.4%	7.6%
Single, divorced once	8.6%	10.6%	9.1%	9.1%
Single, divorced twice	2.7%	3.5%	4.5%	4.0%
Single, divorced thrice/+	1.0%	0.8%	1.1%	1.0%

Financial Security Measures(Mean or %) by Cohort, Ages 51-56 (Weighted)

	Original HRS (b. 1936-1941) (Wave 1, 1992)	War Babies (b. 1942-1947) (Wave 4, 1998)	Early Boomers (b. 1948-1953) (Wave 7, 2004)	Middle Boomers (b. 1954-1959) (Wave 10, 2010)
Net Wealth (includes primary and secondary residence)				
Negative	4.6%	4.6%	6.2%	10.9%
Zero	2.9%	2.0%	2.2%	3.2%
Positive	92.5%	93.3%	91.6%	85.9%
Positive wealth, 2016$, top-coded	$366,029	$432,249	$485,511	$354,743
Earnings, full-time workers, 2016$, top-coded	$50,972	$52,211	$60,868	$55,640

Multinomial Logistic Regression	Negative v. Positive Wealth; RRR (SE)		Zero v. Positive Wealth; RRR (SE)	
Original HRS (ref.)	--		--	
War Babies	0.89	(0.10)	0.75 +	(0.10)
Early Baby Boomers	1.17	(0.12)	0.91	(0.10)
Middle Baby Boomers	2.43 ***	(0.21)	1.52***	(0.20)
Continuously married (ref.)	--		--	
Remarried, divorced once	1.44 ***	(0.15)	0.93	(0.20)
Remarried, divorced twice	1.67**	(0.29)	0.83	(0.40)
Remarried, divorced thrice	2.40**	(0.73)	0.00	(0.00)
Cohabiting, never married	1.43	(0.45)	7.02***	(1.90)
Cohabiting, divorced/widowed once	1.90**	(0.35)	1.96	(0.60)
Cohabiting, divorced/widowed twice	1.30	(0.46)	1.35	(0.80)
Single, never married	3.30***	(0.40)	6.96***	(1.10)
Single, divorced once	2.70***	(0.28)	4.56***	(0.70)
Single, divorced twice	2.95**	(0.44)	4.31***	(1.00)
Single, divorced thrice/+	2.23*	(0.62)	4.23***	(1.70)

Notes: +p<0.10, *p<0.05, **p<0.01, ***p<0.001. Covariates in model but not shown here include gender, age, race, education, number of children ever-born, labor force status, total household income, self-rated health, and count of chronic conditions. N=15,296

OLS Positive Wealth (logged, 99% top-coded, 2016$)	Unstandardized beta (SE)	
Original HRS (ref.)	--	
War Babies	0.06+	(0.04)
Early Baby Boomers	0.05	(0.04)
Middle Baby Boomers	-0.22***	(0.04)
Continuously married (ref.)	--	
Remarried, divorced once	-0.16***	(0.04)
Remarried, divorced twice	-0.40***	(0.07)
Remarried, divorced thrice	-0.42**	(0.15)
Cohabiting, never married	-0.87***	(0.15)
Cohabiting, divorced/widowed once	-0.48*	(0.09)
Cohabiting, divorced/widowed twice	-0.43**	(0.15)
Single, never married	-1.00***	(0.07)
Single, divorced once	-0.84***	(0.05)
Single, divorced twice	-1.22***	(0.08)
Single, divorced thrice/+	-1.67***	(0.14)

Notes: +$p<0.10$, *$p<0.05$, **$p<0.01$, ***$p<0.001$. Covariates in model but not shown here include gender, age, race, education, number of children ever-born, labor force status, total household income, self-rated health, and count of chronic conditions. N=13,442.

OLS FT Earnings (logged, 99% top-coded, 2016$)	Men, unstandardized beta (SE)		Women, unstandardized beta (SE)	
Original HRS (ref.)	--		--	
War Babies	0.05	(0.03)	0.00	(0.03)
Early Baby Boomers	0.03	(0.03)	0.07*	(0.03)
Middle Baby Boomers	0.07*	(0.03)	0.16***	(0.03)
Continuously married (ref.)	--		--	
Remarried, divorced once	-0.02	(0.03)	0.03	(0.04)
Remarried, divorced twice	-0.03	(0.06)	0.02	(0.07)
Remarried, divorced thrice	-0.16	(0.12)	0.10	(0.15)
Cohabiting, never married	-0.60***	(0.14)	-0.20	(0.14)
Cohabiting, divorced/widowed once	-0.10	(0.09)	-0.10	(0.08)
Cohabiting, divorced/widowed twice	-0.22	(0.14)	-0.10	(0.14)
Single, never married	-0.35***	(0.06)	-0.10	(0.05)
Single, divorced once	-0.12*	(0.05)	0.04	(0.04)
Single, divorced twice	-0.01	(0.08)	0.10	(0.06)
Single, divorced thrice/+	-0.09	(0.14)	0.06	(0.11)

Notes: +$p<0.10$, *$p<0.05$, **$p<0.01$, ***$p<0.001$. Covariates in model but not shown here include age, race, education, number of children ever-born, labor force status, hours worked per week, self-rated health, and count of chronic conditions. N (men)=4,300; N (women)=3,949.

Summary

- At ages 51-56, Middle Baby Boomers (b. 1954-1959) differ from those in the original HRS Cohort (b. 1936-1941) in several ways.
  - MBBs less likely to be continuously married, more likely to be never-married, cohabit, and have complex marital histories.
  - MBBs are more likely to have negative or zero wealth
  - MBBs who have positive wealth have lower levels of wealth
  - MBBs (and EBBs) working full-time have higher real earnings.

- Marital history is more strongly related to wealth than earnings.

- Gender differences by cohort for earnings but not wealth.

- Past marital history, not just present marital status, matter especially with regards to wealth.

- Period effect of Great Recession, cohort effect of 1970s stagflation

Implications of Increasing Marital Complexity

- Policy
  - Social Security
  - Medicare and Medicaid

- Individuals and Families
  - Financial behaviors and decision-making
  - Family caregiving

- Increasing heterogeneity, increasing inequality in later life? (gender, race, class)

Highlights

- IMPORTANT TOPIC
  - How does the decline in marriage affect preparedness for retirement?

- HRS reveals new insights
  - Detailed data on wealth
  - Detailed data on marital histories
  - Multiple cohorts nearing retirement

Highlights

- KEY RESULTS
  - Big change in family structure across HRS cohorts

    Decline in marriage, increase in divorce

    - both matter

    - trends will be magnified further for future cohorts

    - along with decline in fertility
  - Non-long-term marriage is associated with lower wealth, at ages 51-56

    Though not lower earnings for women
  - Most recent HRS cohort has lower wealth, at ages 51-56

Extensions

- EMPIRICAL STRATEGY

- Can be viewed as differences-in-differences
  - Older cohorts serve as control for younger cohorts
  - Differences in marriage within cohorts identify wealth, earnings effects

    Do older cohorts help control for underlying trends

         - e.g. rising inequality, changes in fertility

    Do older cohorts help control for contemporaneous shocks

         - e.g. housing crisis, Great Recession

    Did marriage patterns change because of other factors also affecting wealth

    Tests for pre-trends, placebo outcomes

Extensions

- POLICY IMPLICATIONS
  - Marriage law
    - State laws affect likelihood, cost of divorce, division of marital property
  - Old-age programs
    - How to treat marriage, divorce in Social Security, Medicaid, SSI