CFPB Research Seminar

Household Balance Sheets: Links Between Economic Vulnerability, Financial Fragility, and Economic Recovery

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Household Balance Sheets: Links Between Economic Vulnerability, Financial Fragility, and Economic Recovery

- **The Center for Household Financial Stability**
- **Demographic drivers of household financial outcomes**
  - **Economic vulnerability and financial fragility**
  - **Young adults**
  - **Older adults**
- **Household balance sheets and the economy**
  - **Wealth effects**
  - **Deleveraging**
  - **Human capital**
- **Future research and policy**

Center for Household Financial Stability

- A research and policy initiative of the Federal Reserve Bank of St. Louis: www.stlouisfed.org/hfs.
- Our research and policy goals
  - What is the state of American families' balance sheets?
  - How do households' balance-sheet conditions affect communities and the broader economy?
  - What can we do to enhance the stability of household balance sheets and the economy?
- Upcoming events:
  - May 8-9, 2014: 2nd Annual Household Financial Stability Research Symposium, at the St. Louis Fed.
  - October 16-17, 2014: Policy Symposium in Washington DC.

Part 1: Micro Perspectives

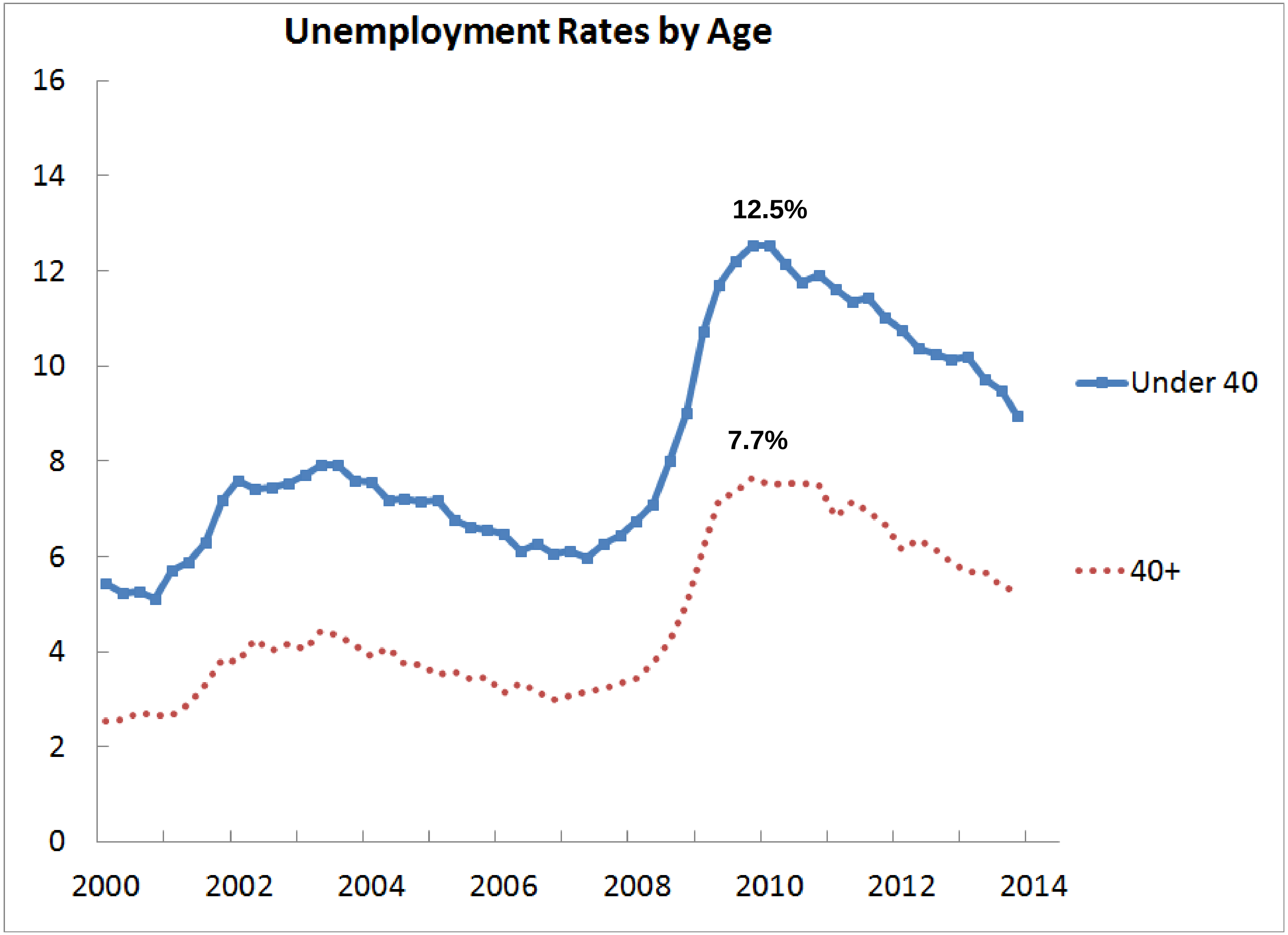
- **Demographic drivers of household financial outcomes**
  - **Economic vulnerability and financial fragility**
    - **"Economically Vulnerable and Financially Fragile," William R. Emmons and Bryan J. Noeth, *Review*, Federal Reserve Bank of St. Louis, Sept.-Oct. 2013.**
  - **Young adults**
    - **"Why Did Young Families Lose So Much Wealth During the Crisis? The Role of Homeownership," William R. Emmons and Bryan J. Noeth, *Review*, Federal Reserve Bank of St. Louis, Jan.-Feb. 2013.**
  - **Older adults**
    - **"The Economic and Financial Status of Older Americans: Trends and Prospects," William R. Emmons and Bryan J. Noeth, in Nancy Morrow-Howell and Margaret Sherraden, Editors, *Financial Capability and Asset Holding in Later Life: A Life Course Perspective*, Oxford University Press, 2014 (forthcoming).**

Household Balance Sheets: Wealth Recovery Has Been Uneven

- **The families that were economically vulnerable and financially fragile going into the crisis were hit hardest and have recovered least.**
- **College-educated white and Asian families over 40 are most likely to have recovered wealth lost during the crash.**
- **Homeownership rates are down the most among people born in late 1970s and early 1980s.**
- **Weak economic recovery may be due, in part, to widespread household financial weakness.**

Economically Vulnerable Group 1: Young Adults

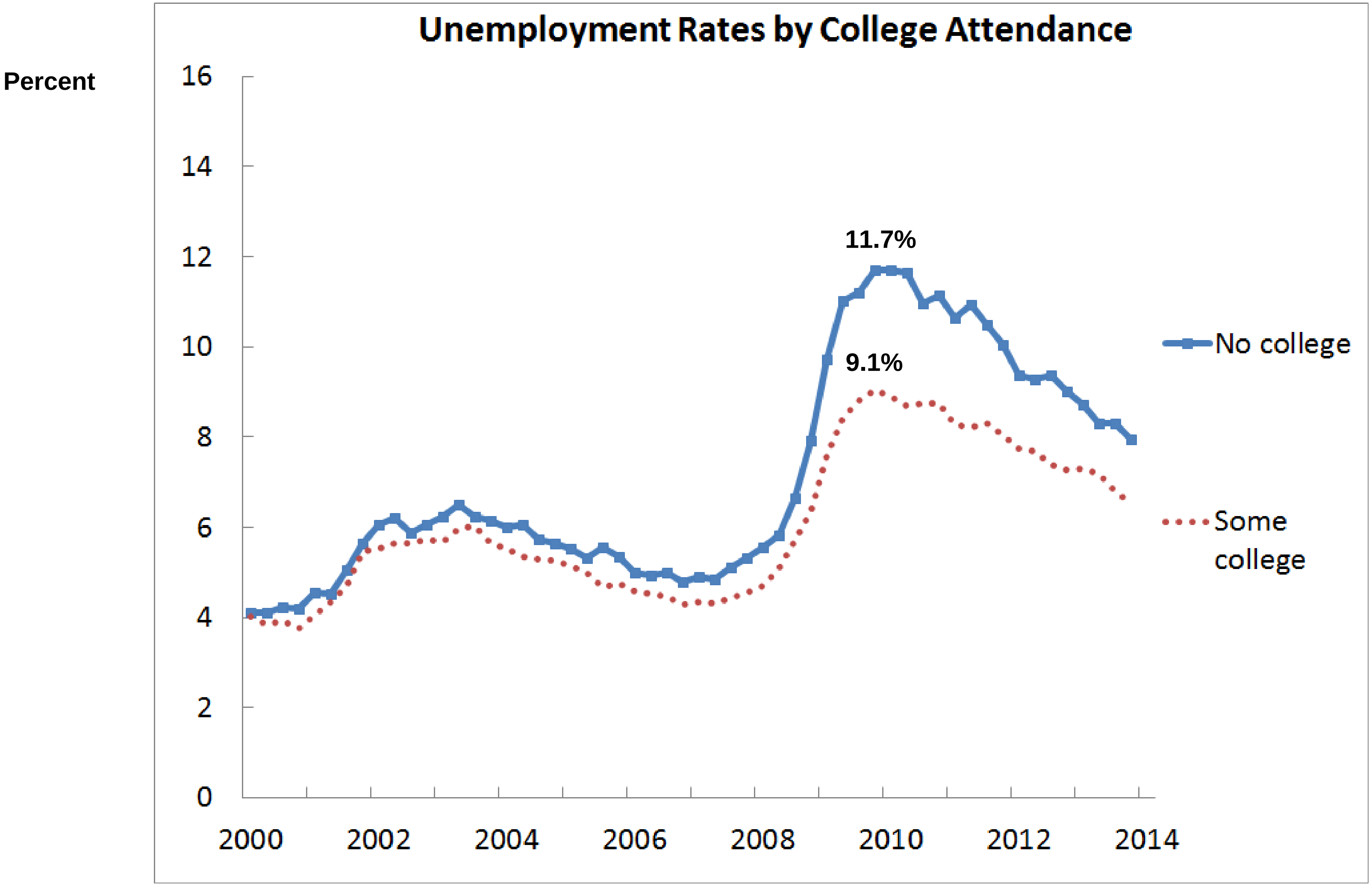
Percent



Source: Bureau of Labor Statistics

Quarterly through Q4.2013

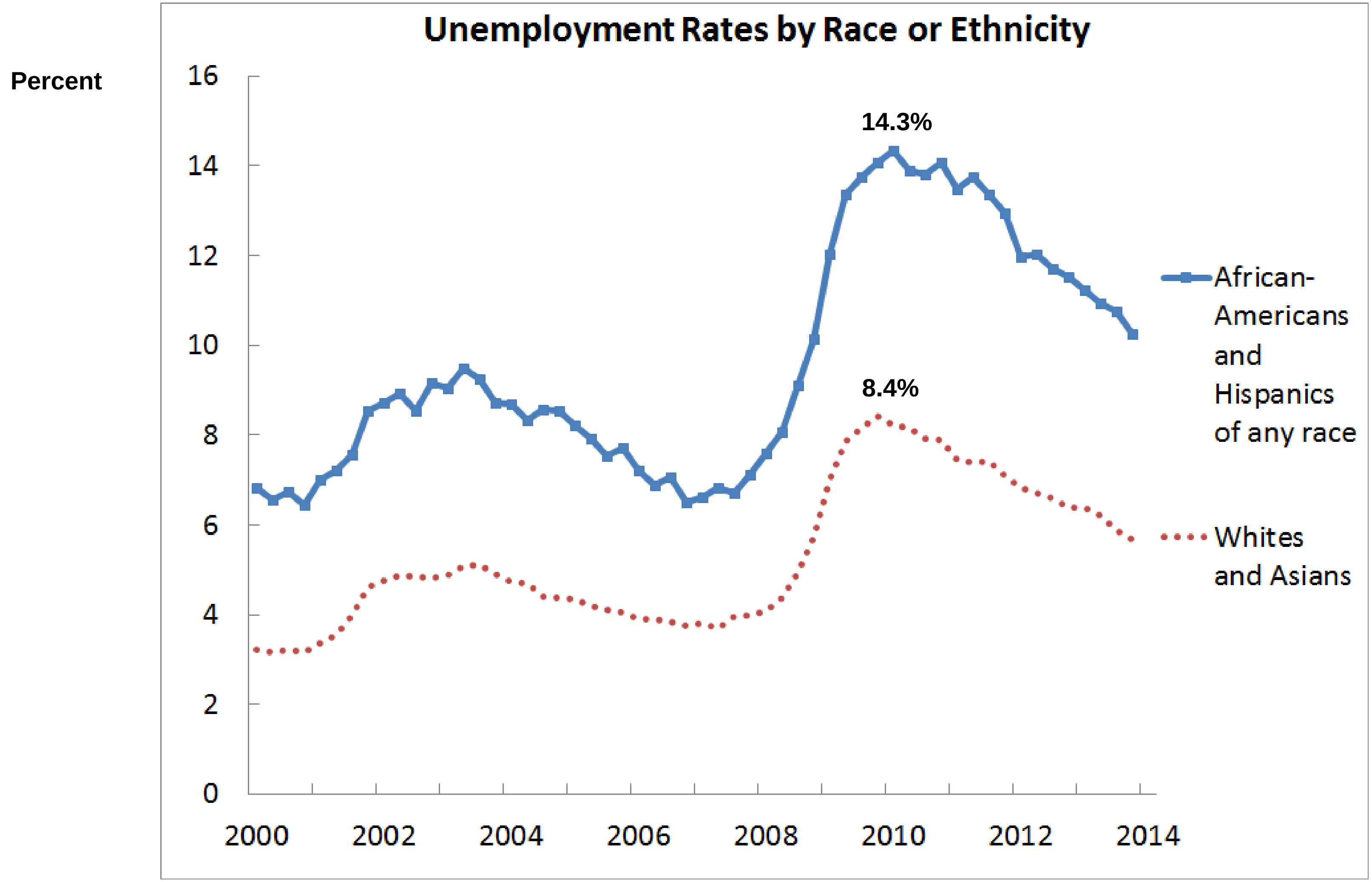
Economically Vulnerable Group 2: Less-Educated



Source: Bureau of Labor Statistics

Quarterly through Q4.2013

Economically Vulnerable Group 3: African-Americans and Hispanics



Source: Bureau of Labor Statistics

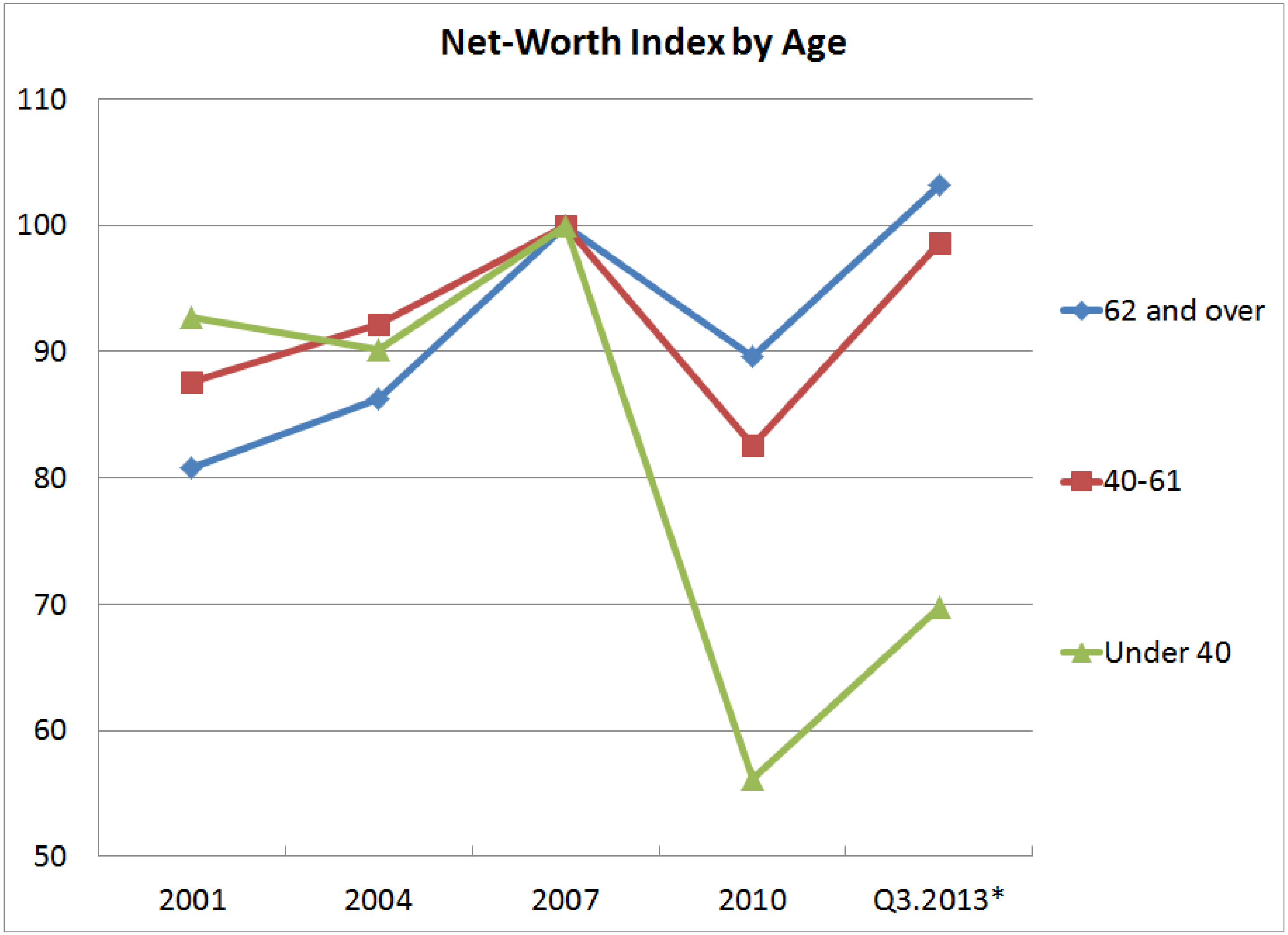
Quarterly through Q4.2013

Who Are the Economically Vulnerable and What Financial Choices Do They Make?

- **Who is likely to be economically vulnerable?**
  - **Young: Under 40**
  - **Less-educated: No college**
  - **Historically disadvantaged minorities: African-Americans and Hispanics of any race**
- **Economically vulnerable families:**
  - **Were more likely than average to have risky and fragile balance sheets in 2007.**
    - **Less liquid**
    - **Less diversified**
    - **Greater leverage**
  - **Suffered larger percentage wealth losses during the crisis.**
  - **Have recovered wealth more slowly since 2010.**

Young Families Remain Far Below Pre-Crisis Wealth Level

Index levels equal 100 in 2007

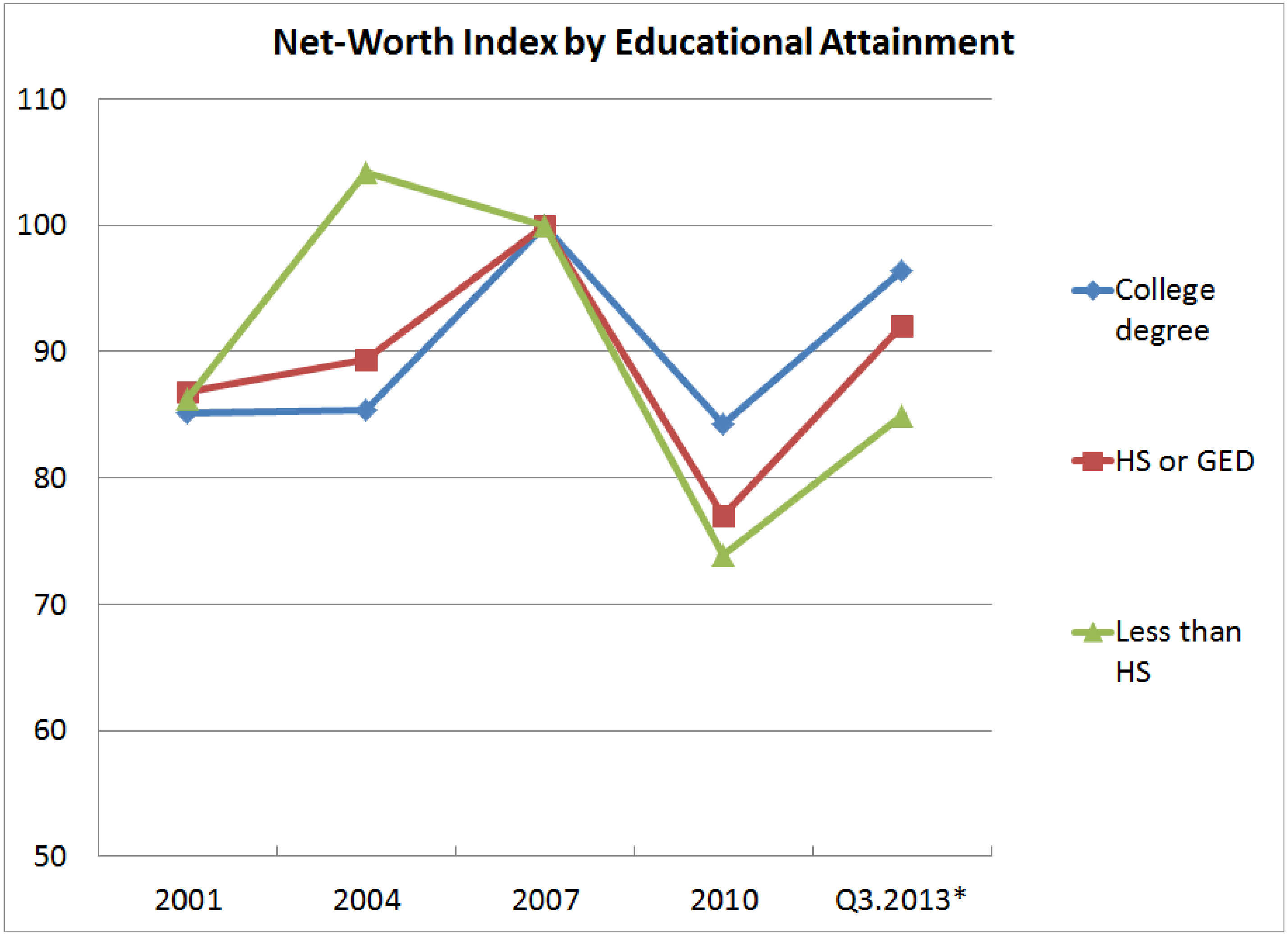


Source: Federal Reserve Board

*Tri-ennial surveys through 2010; our estimates for Q3.2013

Lower-Skill Families Trail the College-Educated

Index levels equal 100 in 2007

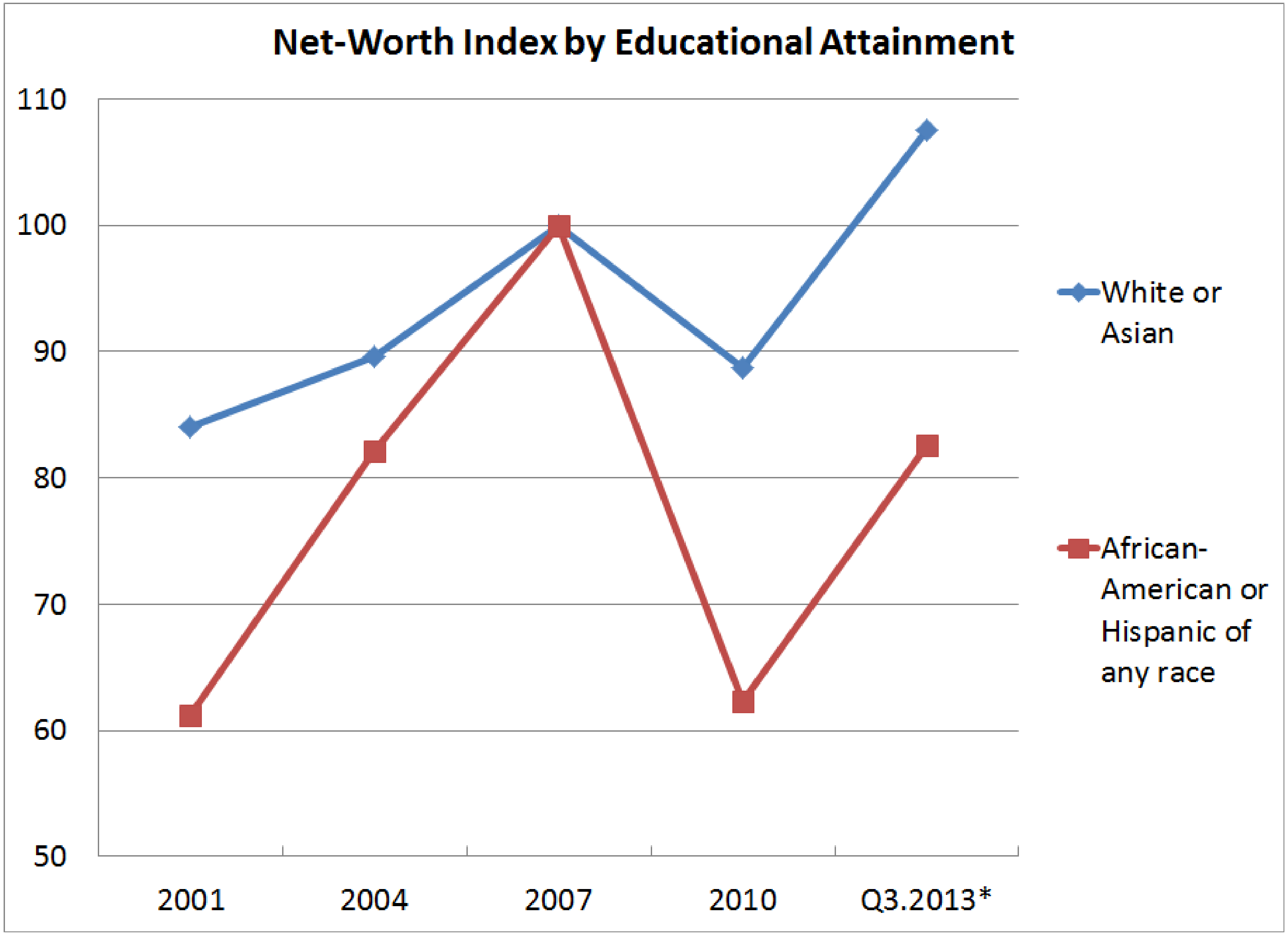


Source: Federal Reserve Board

*Tri-ennial surveys through 2010; our estimates for Q3.2013

Historically Disadvantaged Minorities Were Hit Hard By the Crisis

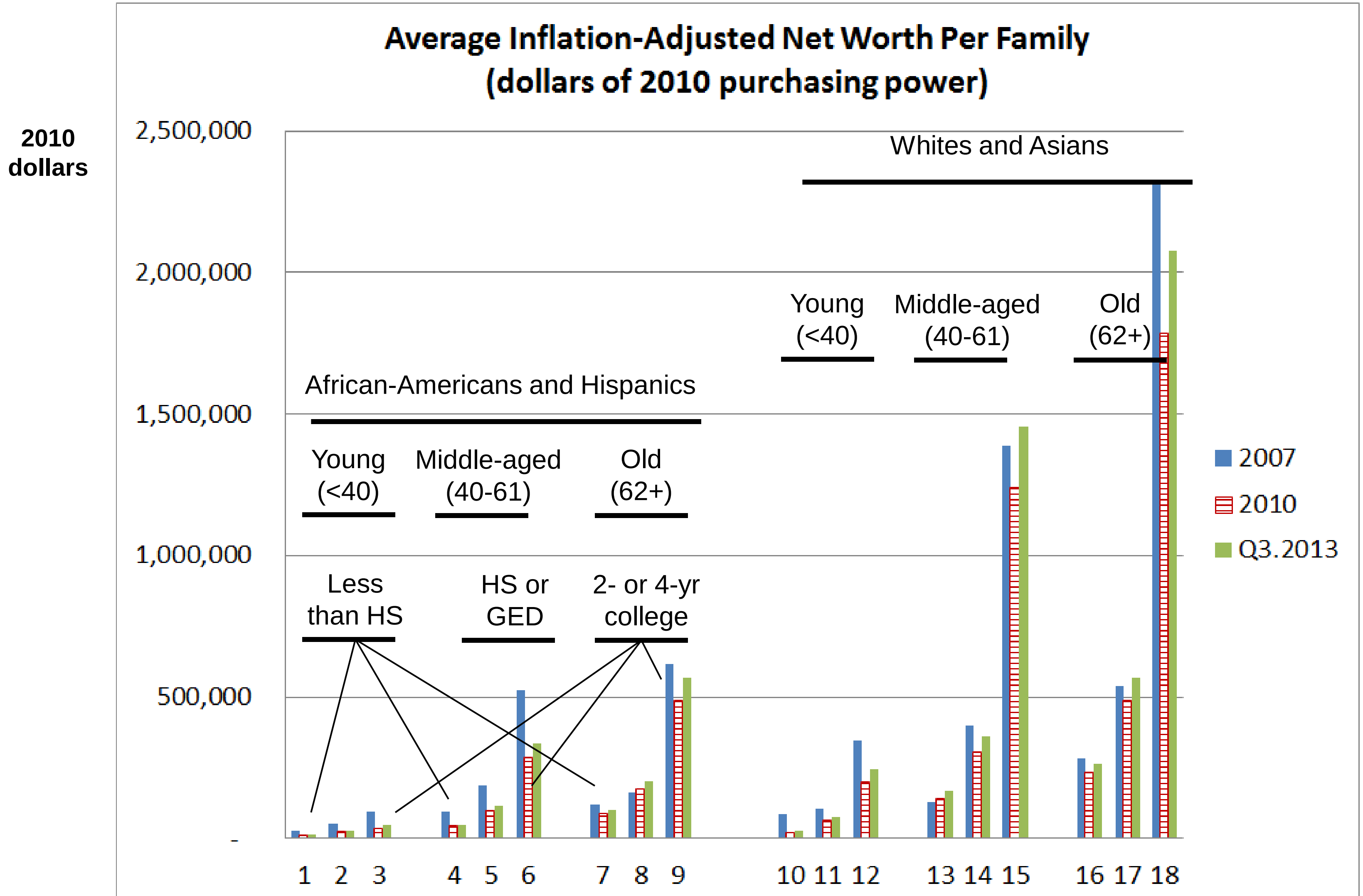
Index levels equal 100 in 2007



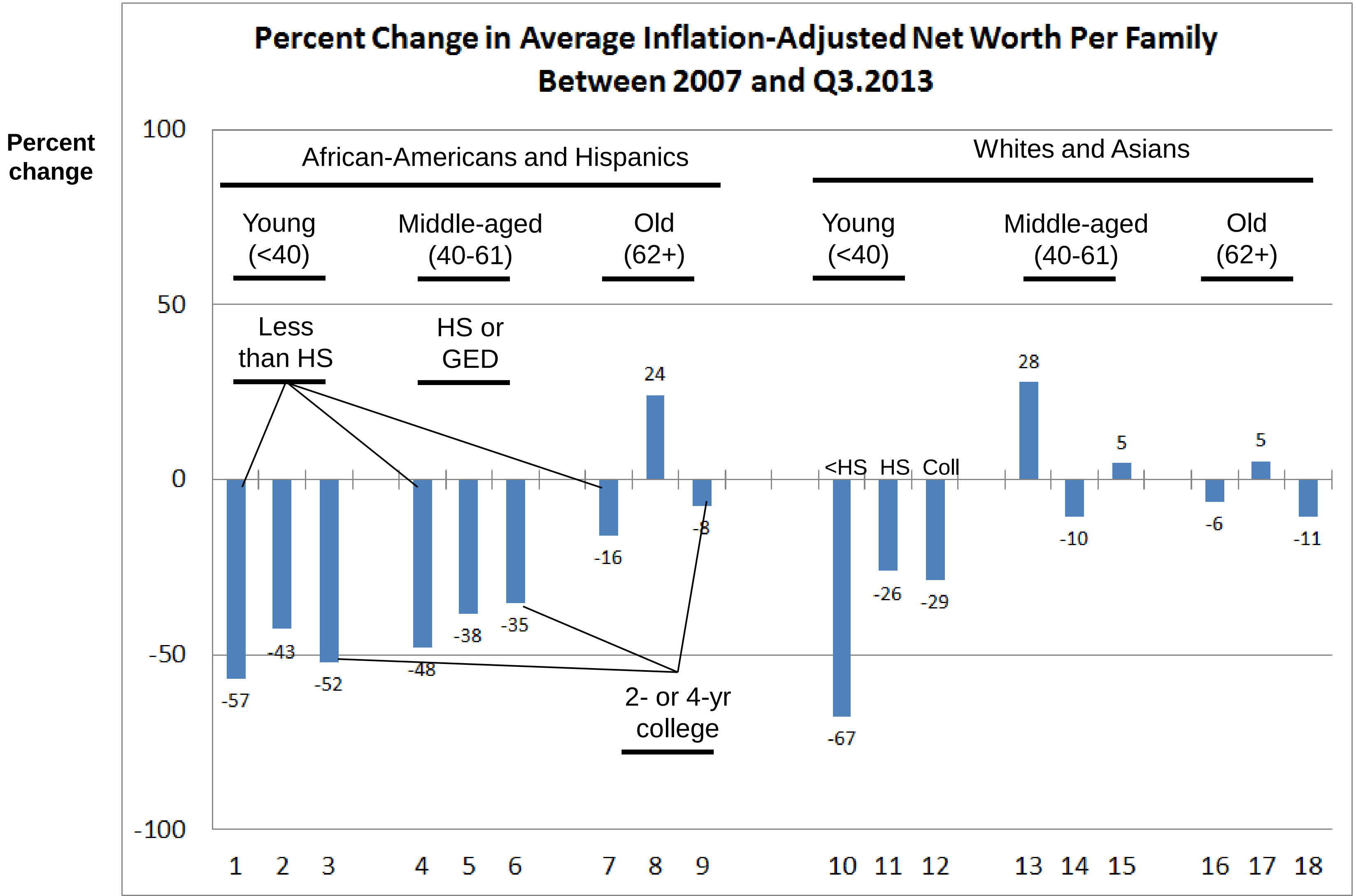
Source: Federal Reserve Board

*Tri-ennial surveys through 2010; our estimates for Q3.2013

Wealth is Held Mostly By Middle-Aged and Older Families with College Degrees



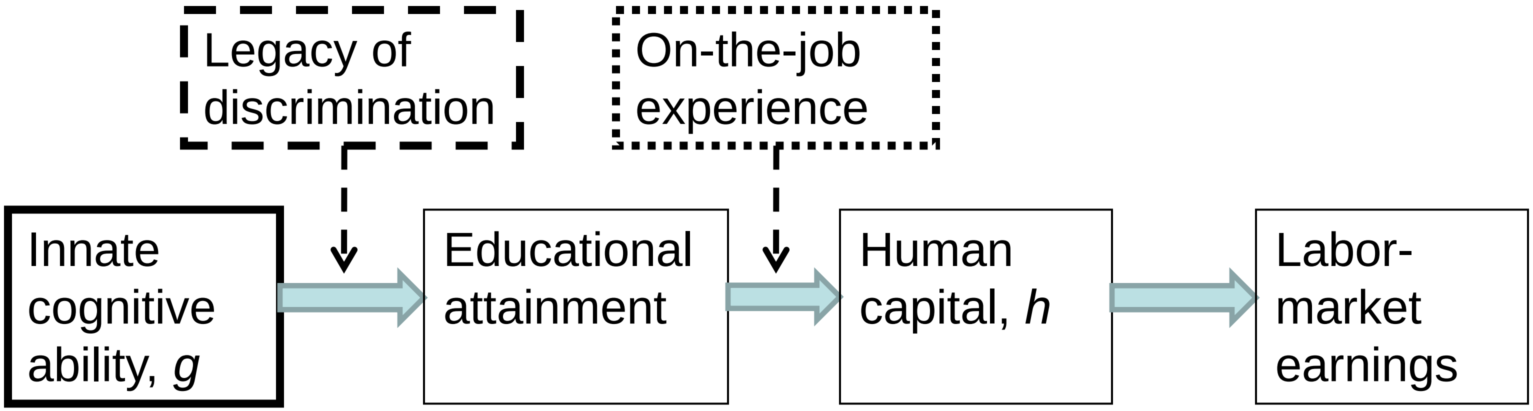
Largest Cumulative Wealth Losses Through 2013 Are Among Young, Less-Educated, and Minority Families



What's Driving Economic Vulnerability and Financial Fragility?

- **Why do economically vulnerable families' financial choices and balance sheets *amplify* their risk rather than *dampening* it?**
- **Underlying factors that may contribute to both economic vulnerability and financial fragility**
  - **Low cognitive ability and acquired skills**
  - **Lack of experience in job and financial markets**
  - **Legacies of discrimination in housing, education, jobs, etc.**

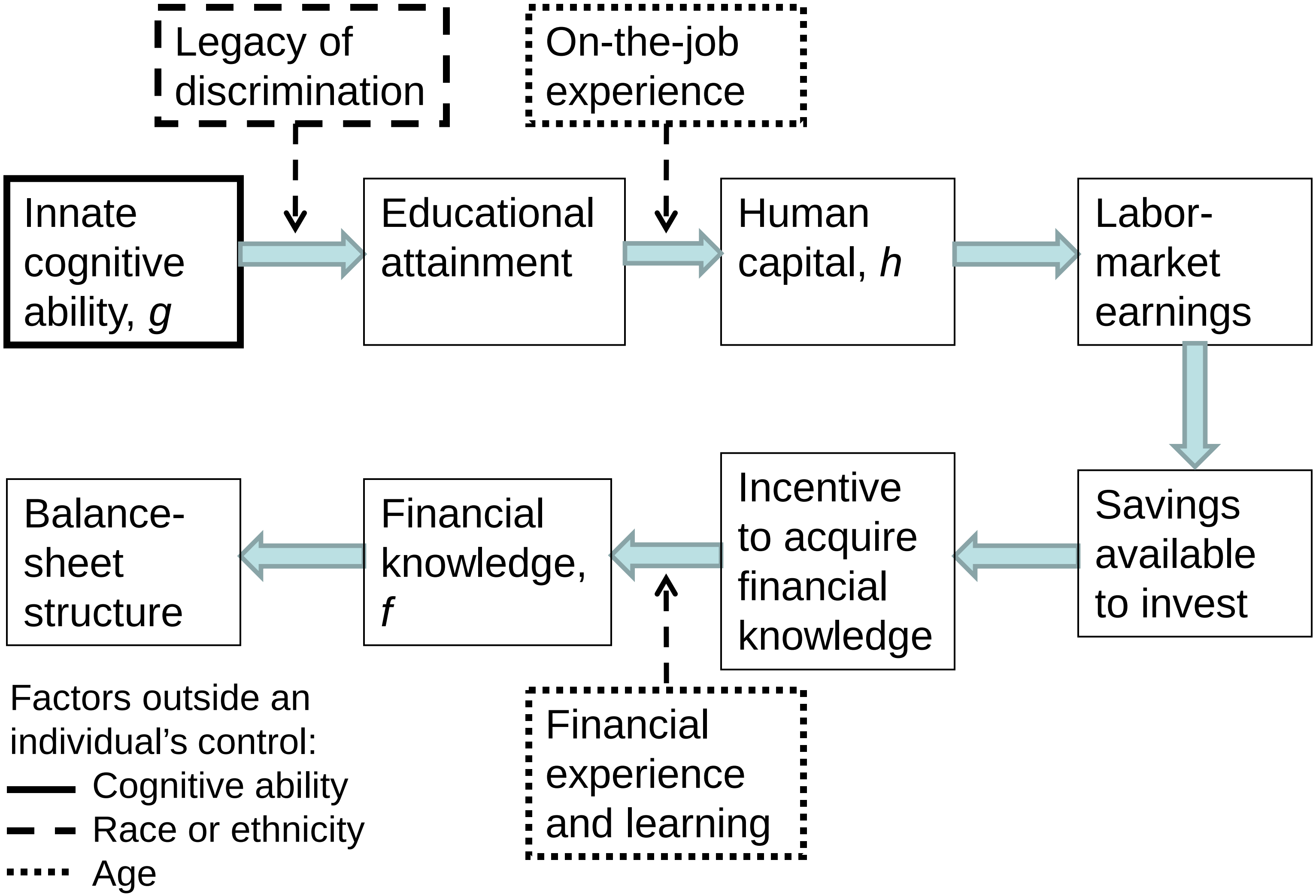
Our Model of Earnings Determination...



Factors outside an individual's control:

- Cognitive ability
- Race or ethnicity
- Age

... And Balance-Sheet Choice



What is a Healthy Household Balance Sheet?

- **Characteristics of a healthy balance sheet:**
  - **Adequate liquid assets (or access to low-cost credit) to handle emergencies**
  - **Broad asset diversification to withstand asset-price volatility, such as the housing crash**
  - **Low or no debt to avoid financial distress**
- **For future discussion: What does this mean for homeownership among economically vulnerable families?**
  - **Buying a house early in life often means taking on a "lumpy" asset, depleting liquid assets, and borrowing heavily**
  - **Does homeownership inevitably create financial fragility for economically vulnerable families?**

1) Members of Economically Vulnerable Groups Hold Much Less in Liquid Assets

Young

No college

Minority

Table 3

Dependent Variable: Safe and Liquid Assets-to-Annual Family Income Ratio

	Regression		
Variable	(1)	(2)	(3)
Intercept	0.441***	0.490***	0.368***
Age < 40 years dummy (ages 40-61 years omitted)	–0.209***		–0.162***
Age ≥ 62 years dummy (ages 40-61 years omitted)	0.667***		0.662***
Less than high school education dummy (high school or GED omitted)	–0.178***		–0.157***
College graduate dummy (high school or GED omitted)	0.226***		0.188***
Member of historically disadvantaged minority dummy (white or non-disadvantaged minority omitted)	–0.231***		–0.198***
Married deviation		–0.018	–0.055***
Number of children deviation (normalized)		–0.042***	–0.035***
Square root of income deviation (normalized)		–0.046***	–0.052***
Available credit line amount deviation (normalized)		0.028***	0.025***
Square root of assets deviation (normalized)		0.094***	0.083***
Saved within the past year dummy deviation		0.161***	0.148***
Emergency funds needed target deviation (normalized)		0.064***	0.067***
Believe you are financially lucky deviation		–0.110***	–0.112***
History of credit problems deviation		–0.173***	–0.191***
2001 Dummy	–0.008	0.002	–0.002
2004 Dummy	–0.048*	–0.024	–0.028
2007 Dummy	–0.073***	–0.022	–0.056**
2010 Dummy	–0.104***	–0.062***	–0.070***
R^2 for first implicate	0.1083	0.0735	0.1628

NOTE: Unweighted regressions using repeated-imputation inference techniques. The deviation variables are deviations from the weighted mean within the smallest demographic subgroup for age, race, and education level. *, **, and *** indicate significance at the 10, 5, and 1 percent levels, respectively.

Source: William R. Emmons and Bryan J. Noeth, "Economically Vulnerable and Financially Fragile," *Review*, Federal Reserve Bank of St. Louis, Sept.-Oct. 2013.

2) Members of Economically Vulnerable Groups Have Higher Housing Concentrations

Table 4

Dependent Variable: Residential Real Estate Assets-to-Total Assets Ratio: Homeowners Only

		Regression	
Variable	**(1)**	**(2)**	**(3)**
Intercept	0.492***	0.511***	0.542***
Young — Age < 40 years dummy (ages 40-61 years omitted)	0.138***		0.128***
Age ≥ 62 years dummy (ages 40-61 years omitted)	–0.048***		–0.035***
No college — Less than high school education dummy (high school or GED omitted)	0.099***		0.092***
College graduate dummy (high school or GED omitted)	–0.146***		–0.130***
Minority — Member of historically disadvantaged minority dummy (white or non-disadvantaged minority omitted)	0.146***		0.135***
Married deviation		–0.057***	–0.060***
Number of children deviation (normalized)		0.013***	0.009***
Square root of income deviation (normalized)		–0.019***	–0.016***
Available credit line amount deviation (normalized)		–0.008***	–0.018***
Saved within the past year dummy deviation		–0.096***	–0.094***
Emergency funds needed target deviation (normalized)		–0.005***	–0.004***
Believe you are financially lucky deviation		0.044***	0.049***
History of credit problems deviation		0.047***	0.042***
2001 Dummy	–0.001	–0.010	–0.006
2004 Dummy	0.049***	0.047***	0.053***
2007 Dummy	0.057***	0.050***	0.059***
2010 Dummy	0.079***	0.061***	0.065***
R^2 for first implicate	0.1267	0.1321	0.2292

NOTE: Unweighted regressions using repeated-imputation inference techniques. The deviation variables are deviations from the weighted mean within the smallest demographic subgroup for age, race, and education level. *** indicates significance at the 1 percent level.

Source: William R. Emmons and Bryan J. Noeth, "Economically Vulnerable and Financially Fragile," *Review*, Federal Reserve Bank of St. Louis, Sept.-Oct. 2013.

3) Members of Economically Vulnerable Groups Have More Debt

Table 5

Dependent Variable: Total Debt-to-Total Assets Ratio

Variable	Regression (1)	(2)	(3)
Intercept	0.275***	0.350***	0.306***
Age < 40 years dummy (ages 40-61 omitted)	0.343***		0.322***
Age ≥ 62 years dummy (ages 40-61 omitted)	–0.180***		–0.178***
Less than high school dummy (high school or GED omitted)	–0.037**		–0.043***
College graduate dummy (high school or GED omitted)	–0.061***		–0.037***
Member of historically disadvantaged minority dummy (white or non-disadvantaged minority omitted)	0.080***		0.067***
Married deviation		–0.072***	–0.056***
Number of children deviation (normalized)		0.002	–0.001
Square root of income deviation (normalized)		–0.013***	–0.007***
Available credit line amount deviation (normalized)		0.018***	0.020***
Saved within the past year dummy deviation		–0.141***	–0.135***
Emergency funds needed target deviation (normalized)		–0.007**	–0.006*
Believe you are financially lucky deviation		0.139***	0.136***
History of credit problems deviation		0.232***	0.235***
2001 Dummy	–0.016	–0.030**	–0.021
2004 Dummy	0.025	0.014	0.023
2007 Dummy	0.039**	0.021	0.040***
2010 Dummy	0.104***	0.082***	0.091***
R^2 for first implicate	0.0868	0.0675	0.1386

NOTE: Unweighted regressions using repeated-imputation inference techniques. *, **, and *** indicate significance at the 10, 5, and 1 percent levels, respectively. The deviation variables are deviations from weighted mean within the smallest demographic subgroup for age, race, and education level.

Young

No college

Minority

True only of H.S. grads, not < H.S.

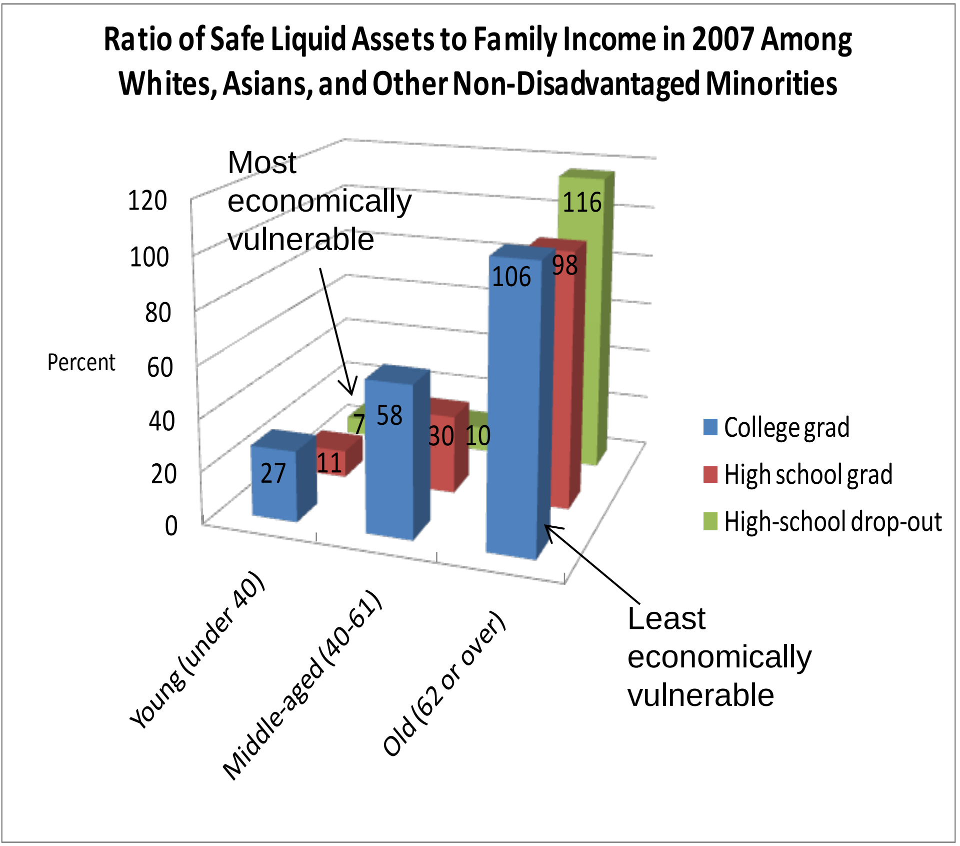
Source: William R. Emmons and Bryan J. Noeth, "Economically Vulnerable and Financially Fragile," *Review*, Federal Reserve Bank of St. Louis, Sept.-Oct. 2013.

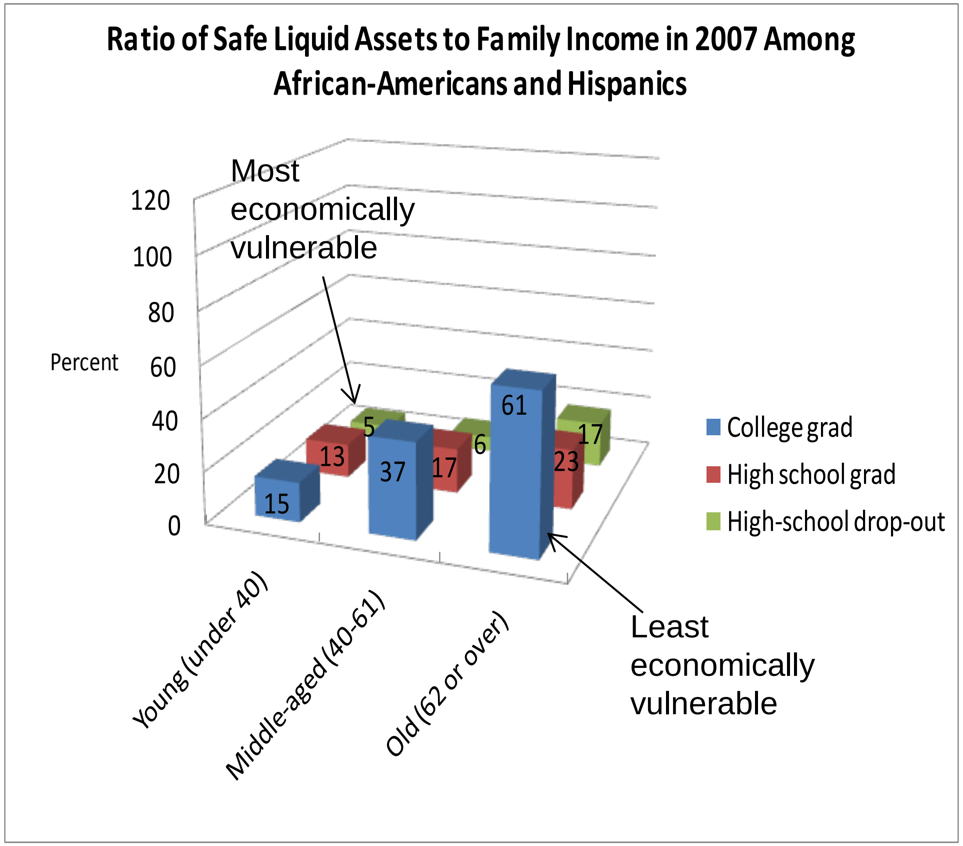
Economically Vulnerable Groups Have Fragile Balance Sheets

Demographic Influences on Balance Sheets			
Demographic group	*Marginal effect of belonging to a demographic group on:*		
	Safe and liquid assets relative to annual income	**Share of assets invested in housing**	**Ratio of total debt to total assets**
Young families (< 40 years old)	-16%age pts vs. mid -82%age pts vs. old		
High-school drop-out families	-16%age pts vs. HS -34%age pts vs. coll		
African-Americans and Hispanics	-20%age pts vs. whites and Asians		

Source: Emmons and Noeth (2013), based on Survey of Consumer Finances

Ratio of Safe and Liquid Assets to Income





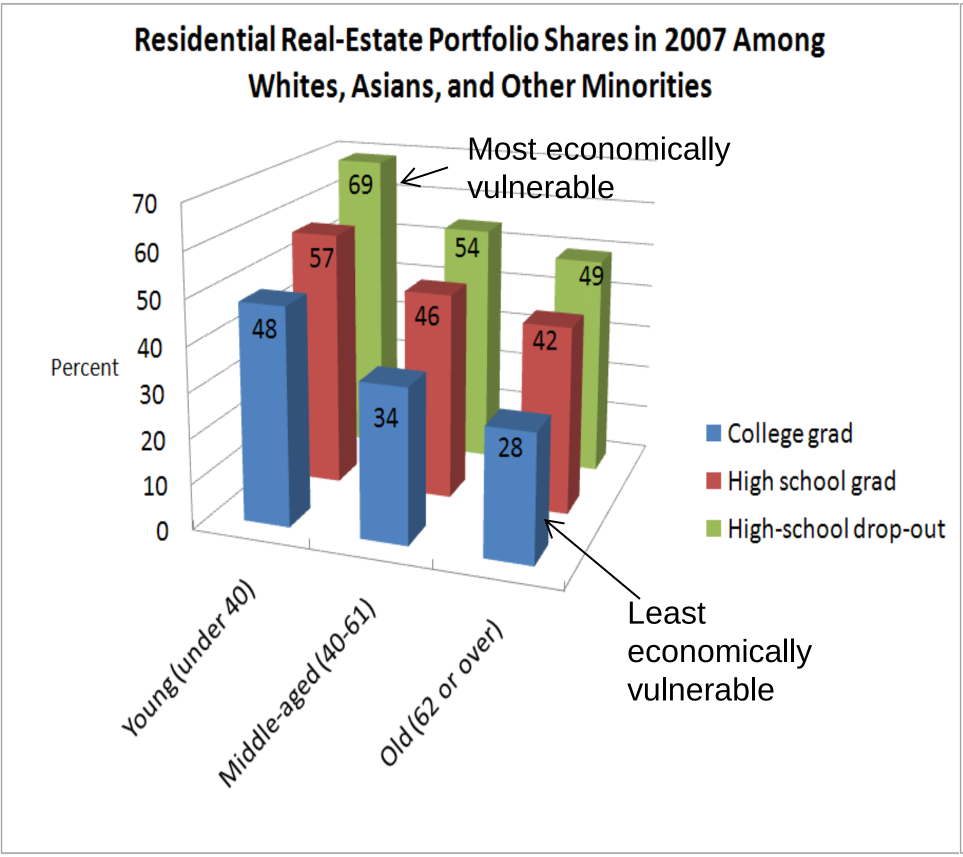
Economically Vulnerable Groups Have Fragile Balance Sheets

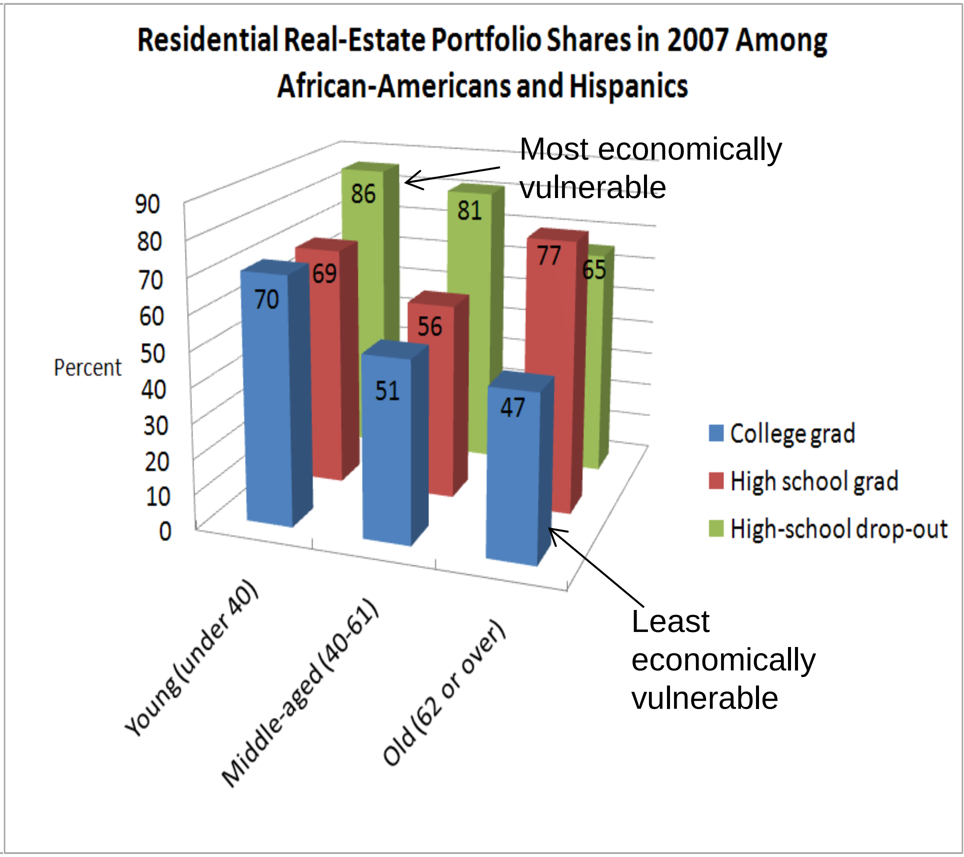
Demographic Influences on Balance Sheets

Demographic group	*Marginal effect of belonging to a demographic group on:*		
	Safe and liquid assets relative to annual income	**Share of assets invested in housing**	**Ratio of total debt to total assets**
Young families (< 40 years old)	-16%age pts vs. mid -82%age pts vs. old	+13%age pts vs. mid +16%age pts vs. old	
High-school drop-out families	-16%age pts vs. HS -34%age pts vs. coll	+9%age pts vs. HS +22%age pts vs. coll	
African-Americans and Hispanics	-20%age pts vs. whites and Asians	+14%age pts vs. whites and Asians	

Source: Emmons and Noeth (2013), based on Survey of Consumer Finances

Residential Real-Estate Portfolio Shares



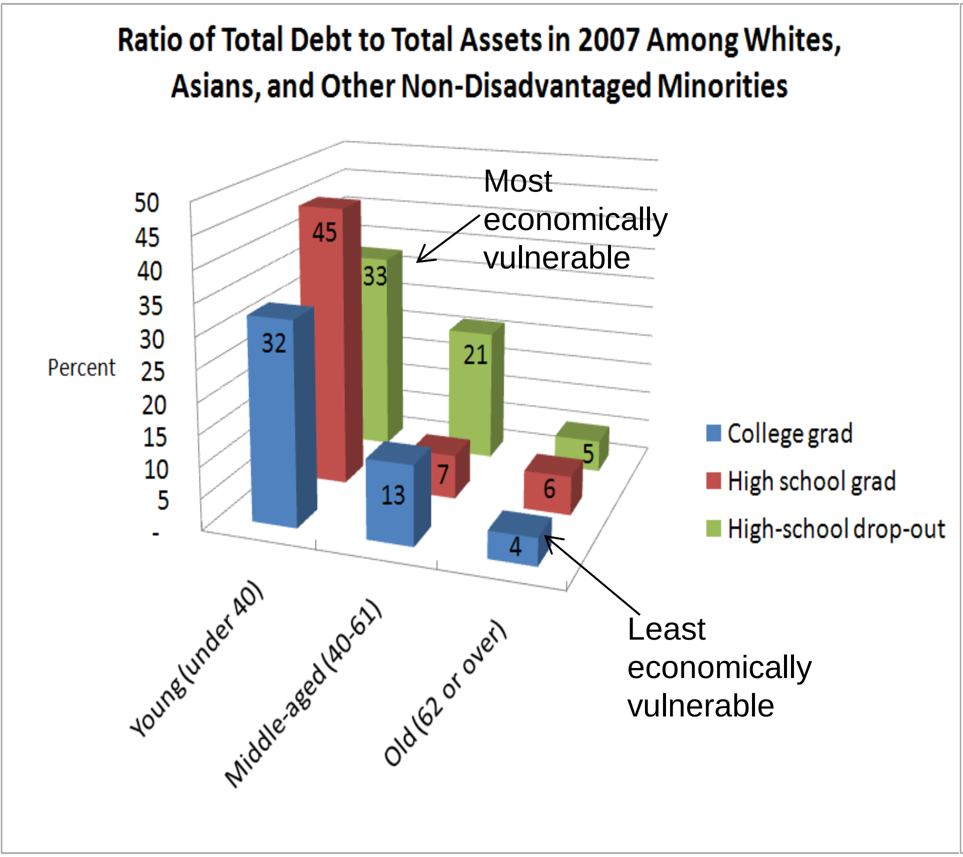


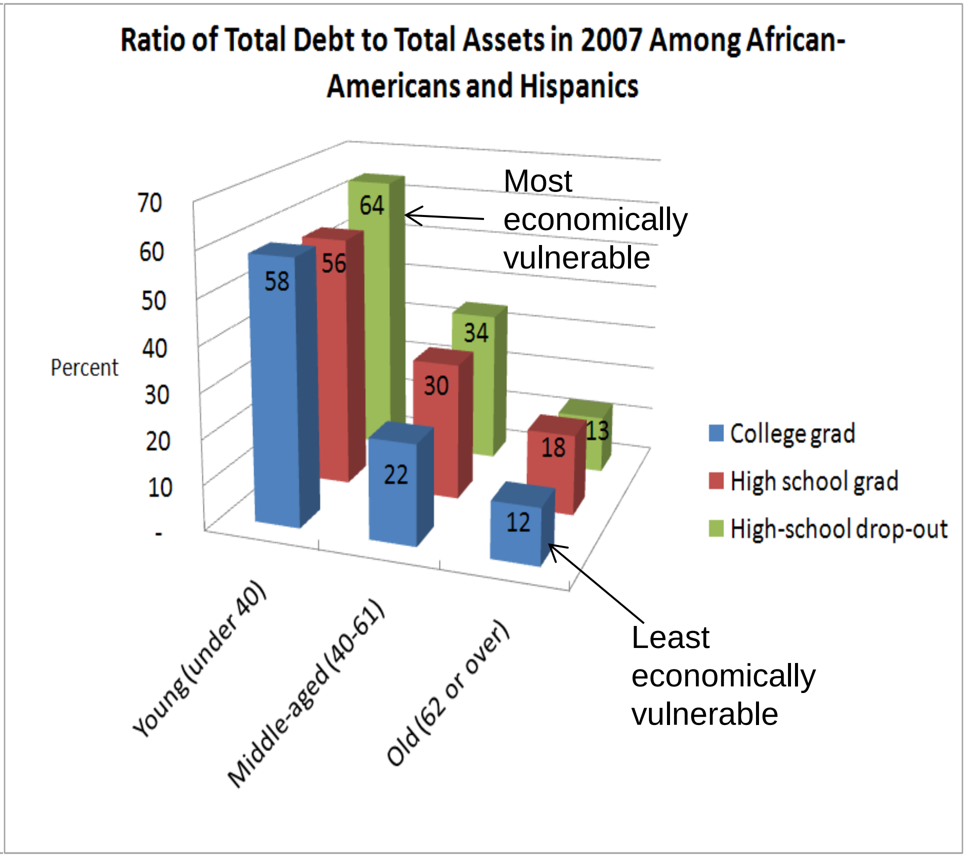
Economically Vulnerable Groups Have Fragile Balance Sheets

Demographic Influences on Balance Sheets			
Demographic group	*Marginal effect of belonging to a demographic group on:*		
	Safe and liquid assets relative to annual income	**Share of assets invested in housing**	**Ratio of total debt to total assets**
Young families (< 40 years old)	-16%age pts vs. mid -82%age pts vs. old	+13%age pts vs. mid +16%age pts vs. old	+32%age pts vs. mid +50%age pts vs. old
High-school drop-out families	-16%age pts vs. HS -34%age pts vs. coll	+9%age pts vs. HS +22%age pts vs. coll	-4%age pts vs. HS -1%age pts vs. coll
African-Americans and Hispanics	-20%age pts vs. whites and Asians	+14%age pts vs. whites and Asians	+7%age pts vs. whites and Asians

Source: Emmons and Noeth (2013), based on Survey of Consumer Finances

Ratio of Total Debt to Total Assets





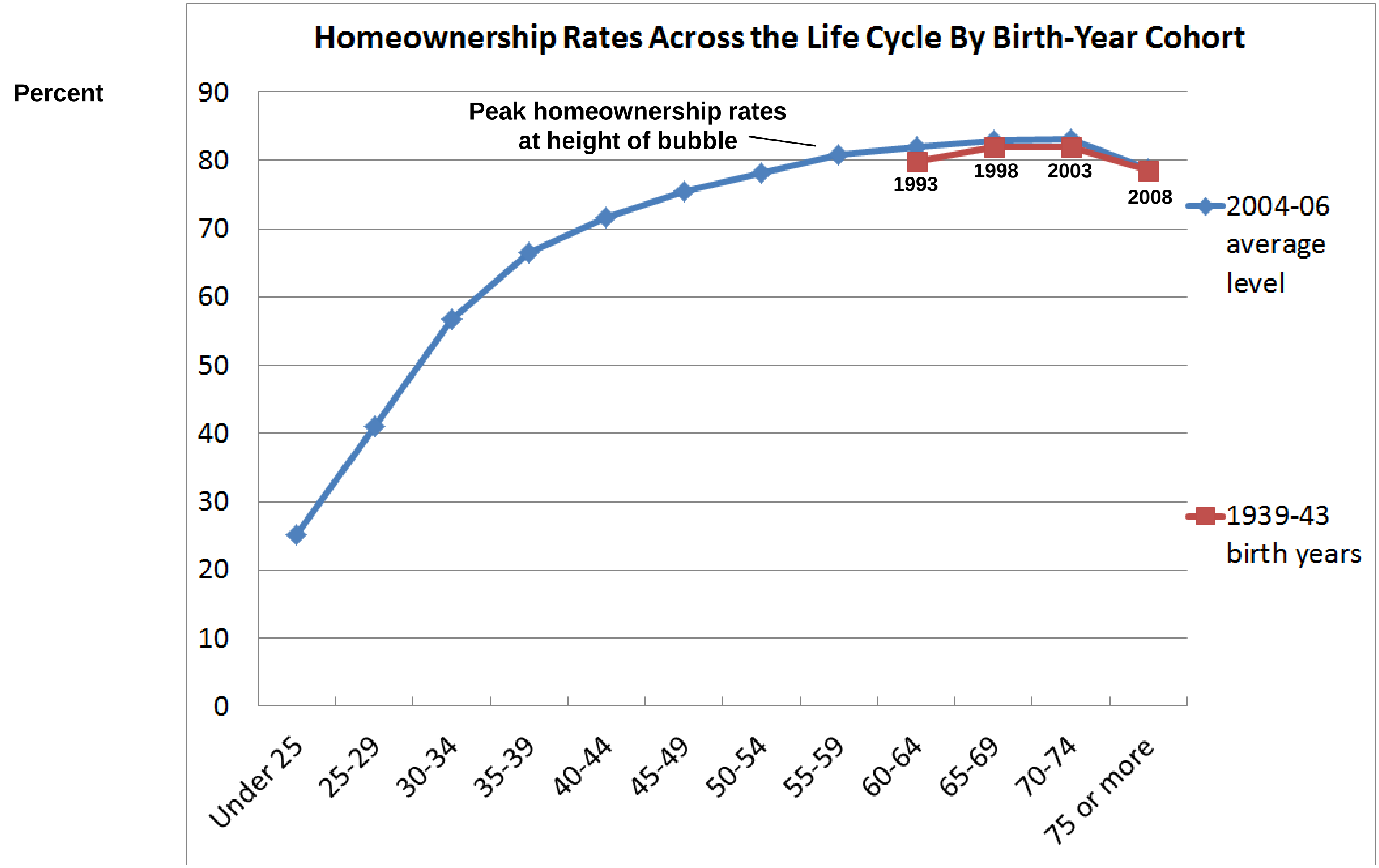
Other Family Characteristics That Predict Financial Fragility

	Less liquid	More housing	More debt
▪ **Family structure (measured as positive deviation from group mean)**			
➢ **Married**	x		
➢ **Children**	x	x	
▪ **Financial (dev. from group mean)**			
➢ **Low income**		x	x
➢ **Low financial slack (available credit line)**	x	x	
➢ **Low wealth**	x	x	n.a.
▪ **Behavioral (dev. from group mean)**			
➢ **Not a saver**	x	x	x
➢ **Believe you're lucky**	x	x	x
➢ **History of credit problems**	x	x	x

Young Adults

- **“Why Did Young Families Lose So Much Wealth During the Crisis? The Role of Homeownership,” W. R. Emmons and B. J. Noeth, *Review*, Jan.-Feb. 2013.**
- **Main results**
  - **Much larger wealth losses among young families, 2007-10**
  - **The homeownership rate among young families (<40) rose and fell more than in other age groups**
  - **Young families were “swept up” in the housing bubble more than middle-aged and older families**
    - **Unusually high homeownership rate in 2007**
    - **Unusually high debt-to-assets ratios in 2007**
  - **Large wealth losses primarily due to homeownership**

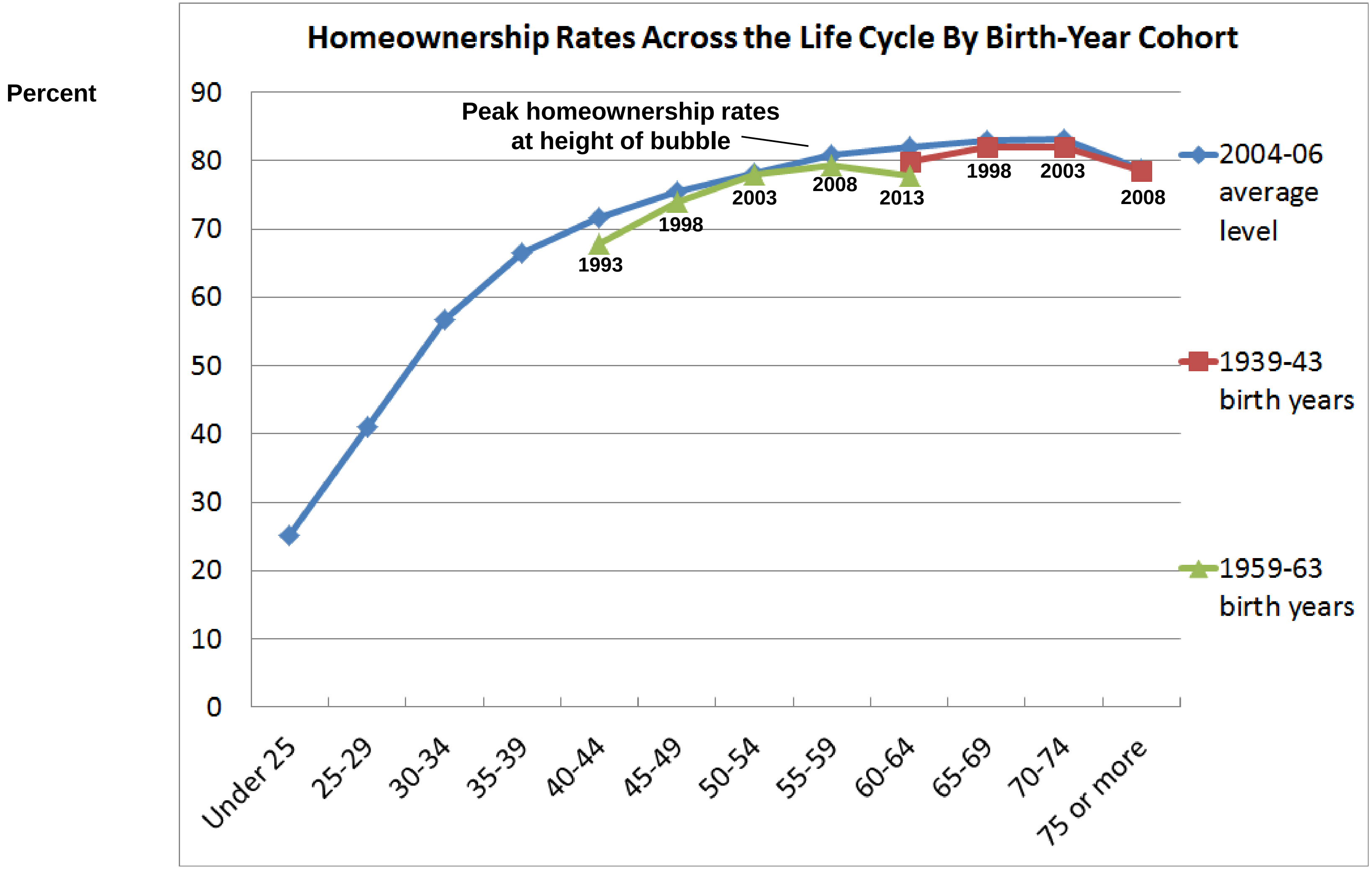
Homeownership Rate of "Silent Generation" (b. 1925-45) Little Changed by Bubble



Source: Census Bureau

Annual data through 2013

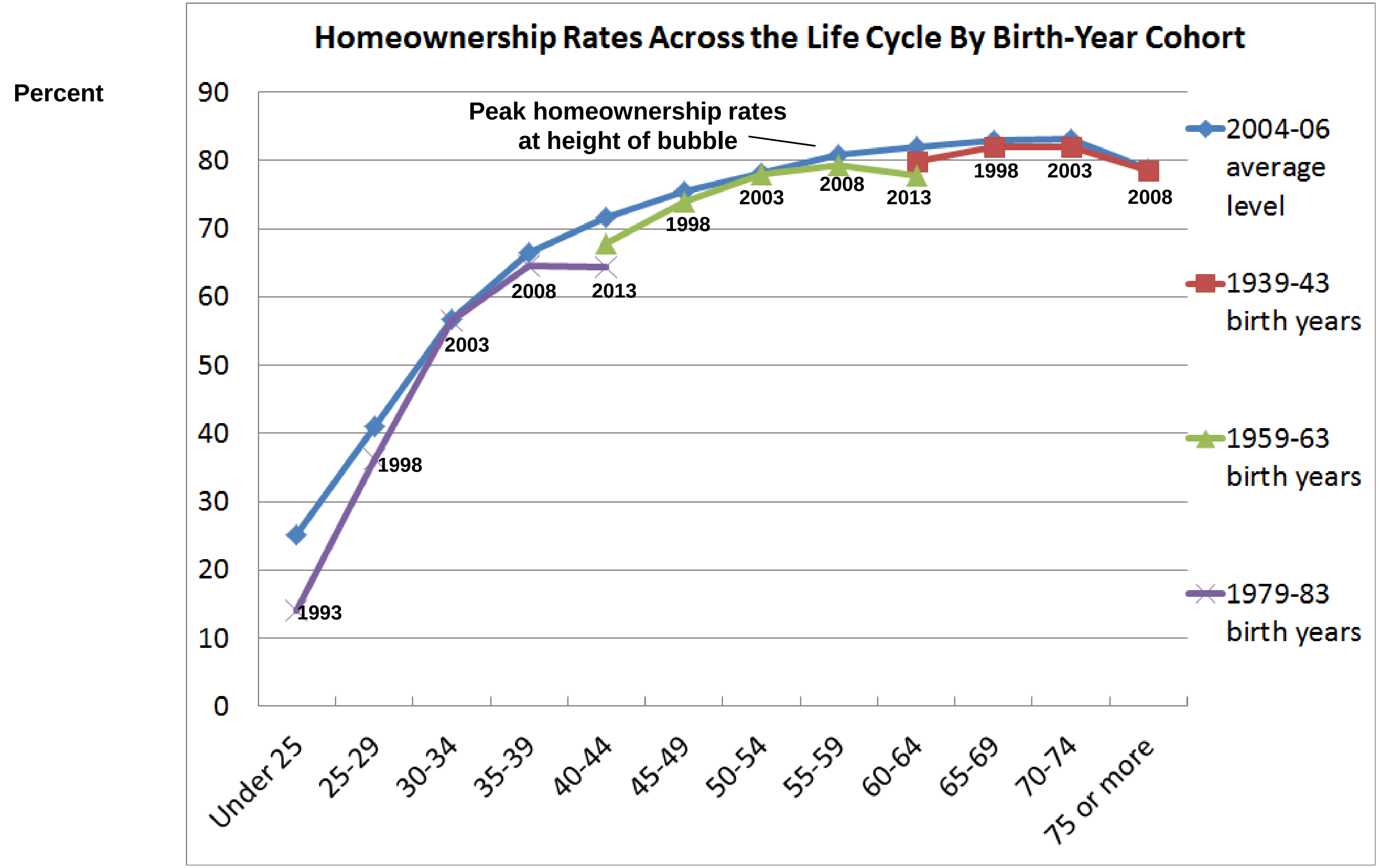
"Baby Boomers" (b. 1946-64) Participated in the Homeownership Boom and Bust



Source: Census Bureau

Annual data through 2013

“Gen X“ (b. 1965-80) and “Gen Y“ (b. 1981-2000) Felt Biggest Effects



Source: Census Bureau

Annual data through 2013

Gen X and Gen Y Homeownership Rates Fell the Most From Peak

Difference in Homeownership Rate from the Average Rate of 2004, 2005 and 2006 in Percentage Points by Age and Year of Birth of Family Head

Age of Family Head at Time of Observation	2004-06 Average Rate (%)	Baby Boomers	Gen X	Gen X	Gen X	Gen Y	Gen Y	Gen Y
		Year of Birth of Family Head						
		1959-63	1964-68	1969-73	1974-78	1979-83	1984-88	1989-93
Under 25	25.2			-11.2	-7.0	-2.4	-1.6	-3.4
25-29	41.0		-7.0	-4.8	-1.1	-0.9	-6.5	
30-34	56.7	-6.7	-3.1	-0.2	-3.2	-8.3		
35-39	66.4	-2.7	-1.3	-1.8	-11.0			
40-44	71.6	-0.3	-2.2	-7.3				
45-49	75.4	-1.8	-5.8					
50-54	78.1	-5.2						
55-59	80.7							
60-64	81.9							
65-69	82.8							
70-74	83.1							
75 or Over	78.8							

Source: William R. Emmons and Bryan J. Noeth, "Housing Crash Continues to Overshadow Young Families' Balance Sheets," *In the Balance*, Federal Reserve Bank of St. Louis, Issue 7, 2014.

1) Homeownership Rate Was Unusually High Among Younger Families in 2007

Source: William R. Emmons and Bryan J. Noeth, “Why Did Young Families Lose So Much Wealth During the Crisis? The Role of Homeownership,” *Review*, Federal Reserve Bank of St. Louis, Jan.-Feb. 2013.

Table 3

Logit Regressions of Homeownership Indicator Variable on Pooled Data from SCF (1992-2007)

	Regression	
Independent variables	(1)	(2)
Intercept	–0.937***	–0.888***
High school or GED dummy (<high school omitted)	0.387***	0.39***
College graduate dummy (<high school omitted)	0.601***	0.604***
Age < 40 dummy (ages 40-61 years omitted)	–1.365***	–1.48***
Age ≥ 62 dummy (aged 40-61 years omitted)	0.762***	0.76***
Member of minority dummy (nonminority omitted)	–0.751***	–0.753***
Square root of income	0.098***	0.098***
Saved within the past year dummy	0.45***	0.45***
Married dummy	1.07***	1.07***
No. of children in family	0.171***	0.171***
1995 year dummy (1992 omitted)	0.137**	0.079
1998 year dummy (1992 omitted)	–0.052	–0.108
2001 year dummy (1992 omitted)	–0.07	–0.122
2004 year dummy (1992 omitted)	0.033	–0.008
2007 year dummy (1992 omitted)	0.029	–0.056
<40 TIMES 1995 year dummy (1992 omitted)		0.133
<40 TIMES 1998 year dummy (1992 omitted)		0.129
<40 TIMES 2001 year dummy (1992 omitted)		0.12
<40 TIMES 2004 year dummy (1992 omitted)		0.089
<40 TIMES 2007 year dummy (1992 omitted)		0.213*
Observations (first implicate)	25,889	25,889

NOTE: Unweighted regressions using repeated-imputation inference techniques (see Montalto and Sung, 1996). *, **, and *** indicate statistical significance at the 10 percent, 5 percent, and 1 percent confidence levels, respectively. DTA ratios greater than 10 are omitted. Minority includes African Americans and Hispanics of any race; nonminority includes whites, Asians, and other non-disadvantaged minorities.

SOURCE: Data from 1992-2007 pooled longitudinal SCF surveys.

Being young in 2007 created an elevated propensity to be a homeowner

2) Debt-to-Assets Ratios Were Unusually High Among Younger Families in 2007

Table 4

Ordinary Least Squares Regression of DTA Ratio on Pooled Data from SCF (1992-2007)

	Regression	
Independent variables	(1)	(2)
Intercept	0.367***	0.368***
High school or GED dummy (<high school omitted)	0.031**	0.032**
College grad dummy (<high school omitted)	0.023	0.023
Age < 40 dummy (ages 40-61 years omitted)	0.306***	0.306***
Age ≥ 62 dummy (ages 40-61 years omitted)	–0.17***	–0.17***
Member of minority dummy (nonminority omitted)	0.051***	0.05***
Square root of income	–0.002***	–0.002***
Saved within the past year dummy	–0.143***	–0.144***
Married dummy	–0.06***	–0.061***
No. of children in family	–0.002	–0.002
1995 year dummy (1992 omitted)	0.015	0.031*
1998 year dummy (1992 omitted)	0.028*	0.021
2001 year dummy (1992 omitted)	0.016	0.02
2004 year dummy (1992 omitted)	0.056***	0.06***
2007 year dummy (1992 omitted)	0.074***	0.057***
<40 TIMES 1995 year dummy (1992 omitted)		–0.055*
<40 TIMES 1998 year dummy (1992 omitted)		0.024
<40 TIMES 2001 year dummy (1992 omitted)		–0.014
<40 TIMES 2004 year dummy (1992 omitted)		–0.017
<40 TIMES 2007 year dummy (1992 omitted)		0.074**
R-squared (first implicate)	0.11	0.11
Observations (first implicate)	25,115	25,115

NOTE: Unweighted regressions using repeated-imputation inference techniques (see Montalto and Sung, 1996). *, **, and *** indicate statistical significance at the 10 percent, 5 percent, and 1 percent confidence levels, respectively. Minority includes African Americans and Hispanics of any race; nonminority includes whites, Asians, and other non-disadvantaged minorities.

SOURCE: Data from 1992-2007 pooled longitudinal SCF surveys.

Being young in 2007 raised debt-to-assets ratios

Source: William R. Emmons and Bryan J. Noeth, "Why Did Young Families Lose So Much Wealth During the Crisis? The Role of Homeownership," *Review*, Federal Reserve Bank of St. Louis, Jan.-Feb. 2013.

3) Housing Losses Were the Main Reason Young Families' Wealth Declined

Table 2

Changes in Major Asset and Liability Categories by Age Group (2007-10)

Age of families	2007-10 Change ($)	2007-10 Change (%)	Contribution to decline in net worth (%)
Older families (≥62 years)			
Changes in:			
Durable goods	418	1.60	–0.5
Financial and business assets	–46,327	–7.73	49.9
Residential real estate	–36,721	–11.34	39.6
Total assets	–82,629	–8.71	89.1
Less changes in:			
Non-mortgage debt	–579	–6.88	–0.6
Mortgage debt	10,697	25.28	11.5
Total liabilities	10,118	19.95	10.9
Equals:			
Change in net worth	–92,748	–10.32	100.0
Middle-aged families (40–61 years)			
Changes in:			
Durable goods	–1,467	–5.22	1.2
Financial and business assets	–57,437	–12.00	47.1
Residential real estate	–64,819	–20.03	53.2
Total assets	–123,723	–14.90	101.5
Less changes in:			
Non-mortgage debt	1,560	9.17	1.3
Mortgage debt	–3,435	–3.04	–2.8
Total liabilities	–1,875	–1.44	–1.5
Equals:			
Change in net worth	–121,847	–17.40	100.0
Young families (<40 years)			
Changes in:			
Durable goods	–3,074	–16.62	4.5
Financial and business assets	–31,596	–32.25	46.4
Residential real estate	–51,014	–35.85	74.9
Total assets	–85,685	–33.11	125.9
Less changes in:			
Non-mortgage debt	–570	–2.98	–0.8
Mortgage debt	–17,044	–20.18	–25.0
Total liabilities	–17,614	–17.00	–25.9
Equals:			
Change in net worth	–68,071	–43.87	100.0

SOURCE: Survey of Consumer Finances.

Older families: 40% of wealth loss due to housing

Middle-aged families: 53% of wealth loss due to housing

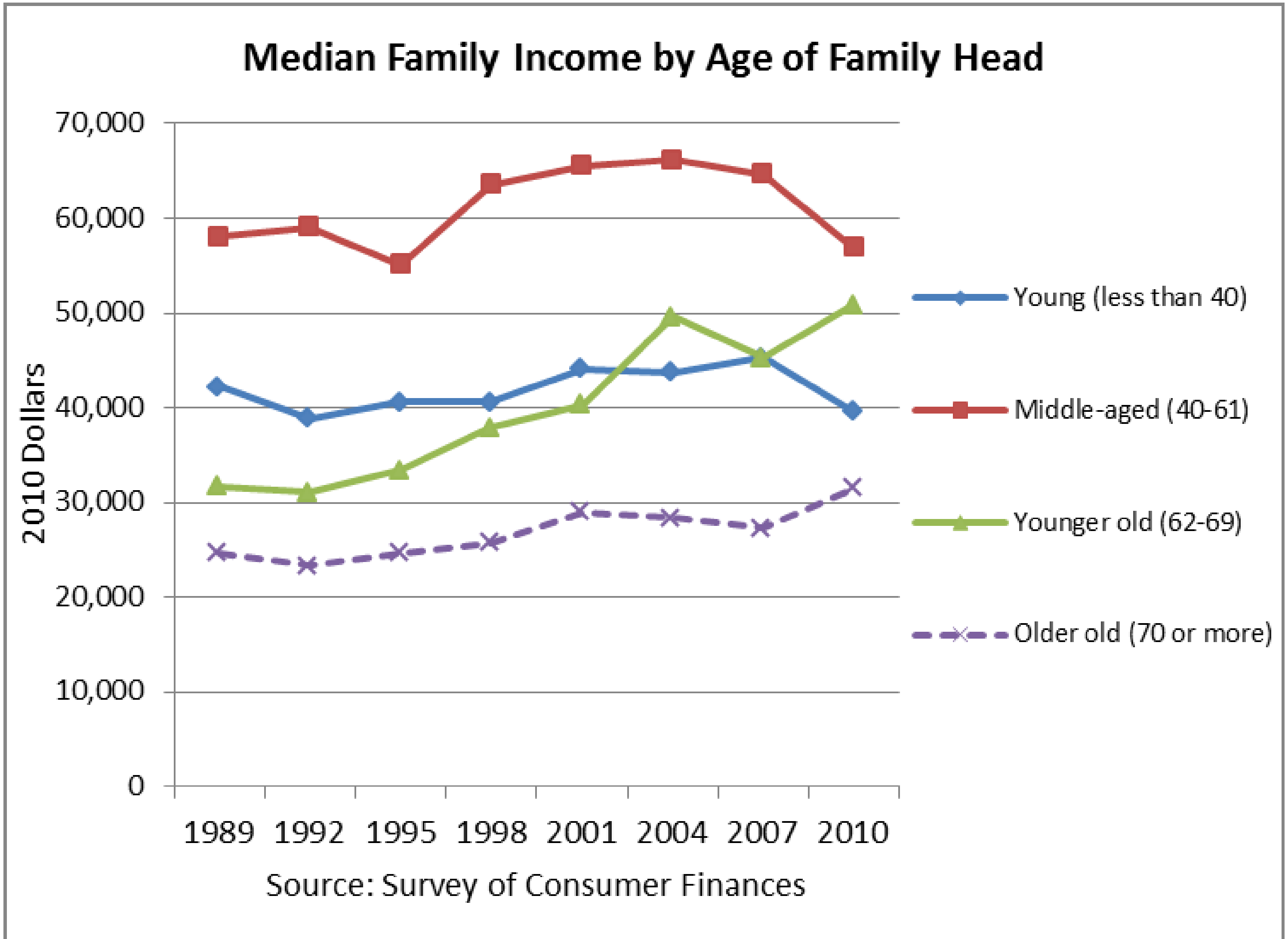
Young families: 75% of wealth loss due to housing

Source: William R. Emmons and Bryan J. Noeth, "Why Did Young Families Lose So Much Wealth During the Crisis? The Role of Homeownership," *Review*, Federal Reserve Bank of St. Louis, Jan.-Feb. 2013.

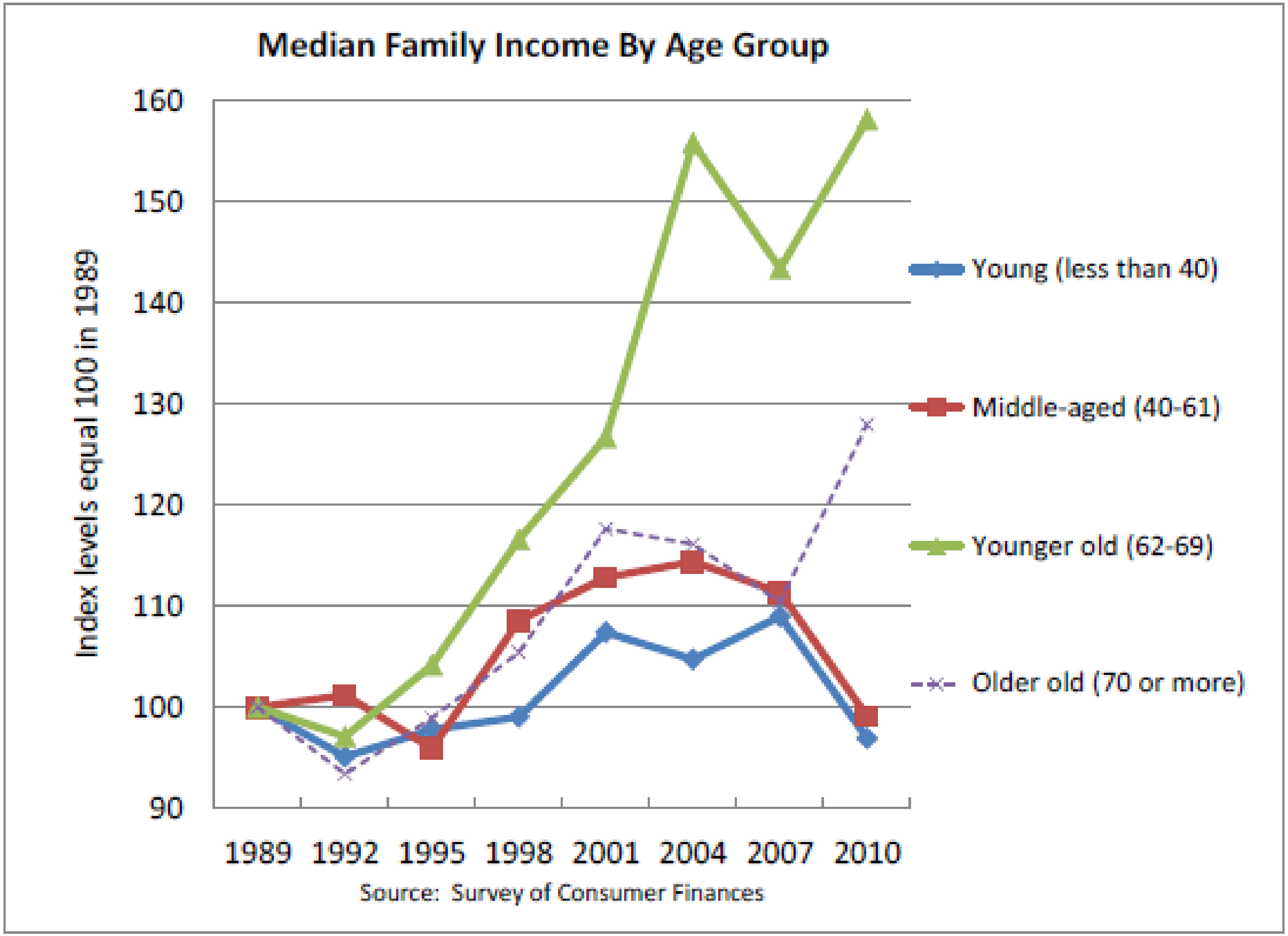
Older Adults

- "The Economic and Financial Status of Older Americans: Trends and Prospects," W. R. Emmons and B. J. Noeth, in N. Morrow-Howell and M. Sherraden, Editors, *Financial Capability and Asset Holding in Later Life: A Life Course Perspective*, Oxford University Press, 2014 (forthcoming).
- Main results
  - Older families (62+) have enjoyed better income and wealth trajectories than middle-aged, and especially younger, families over both short and long horizons
  - Important causes are sources of income and balance-sheet structure, respectively
  - Significant birth-year cohort effects in both income and wealth, favoring people born in late 1930s, early 1940s

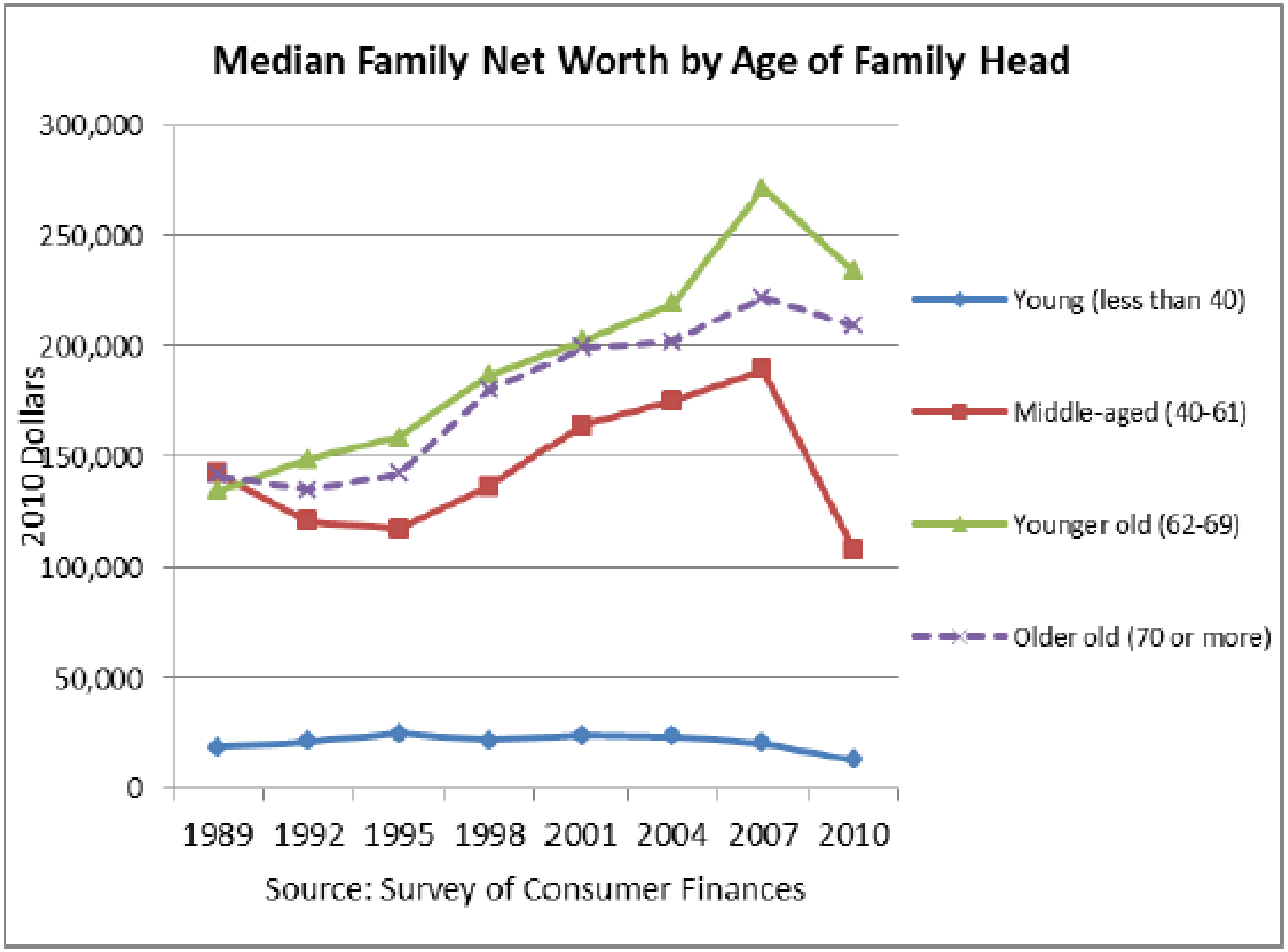
Median Family Income Has Stagnated Among Young & Middle-Aged Families



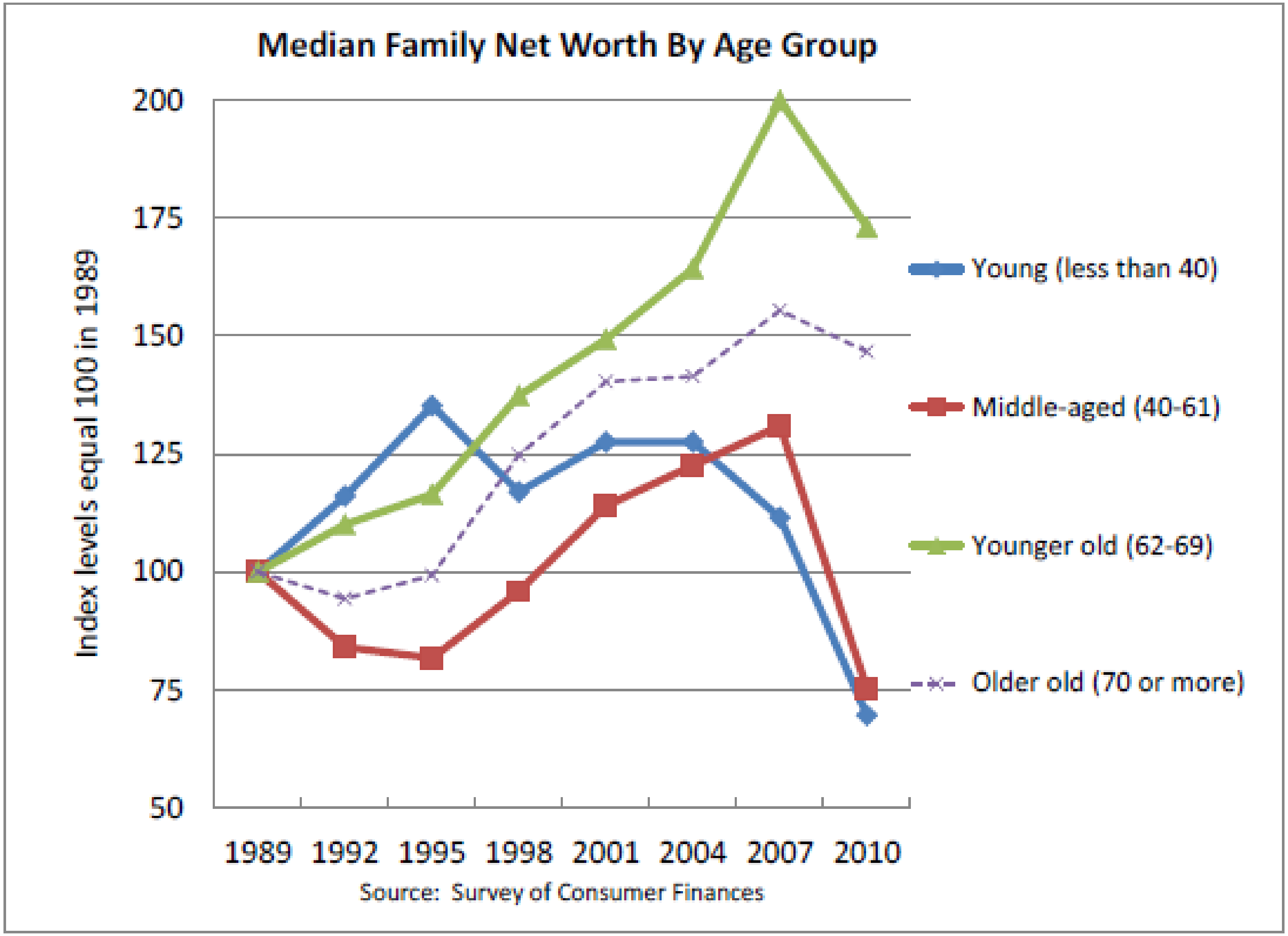
Median Family Income Increased for Older Families, Especially During Crisis



Median Family Net Worth Has Declined Among Young & Middle-Aged Families

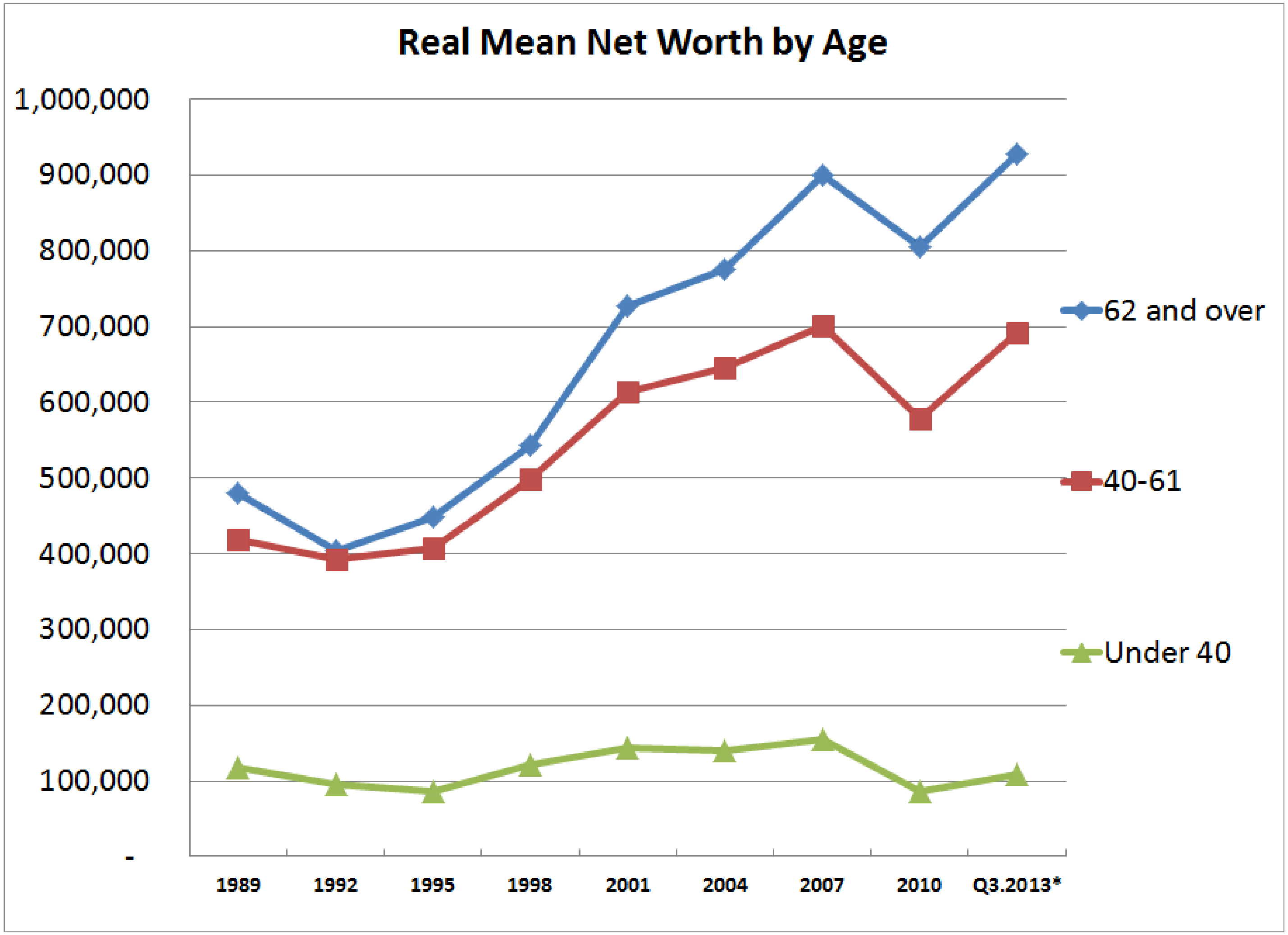


Median Family Net Worth Has Increased Among Older Families



***Mean Family Net Worth** Is Strongest Among Older Families*

2010 dollars

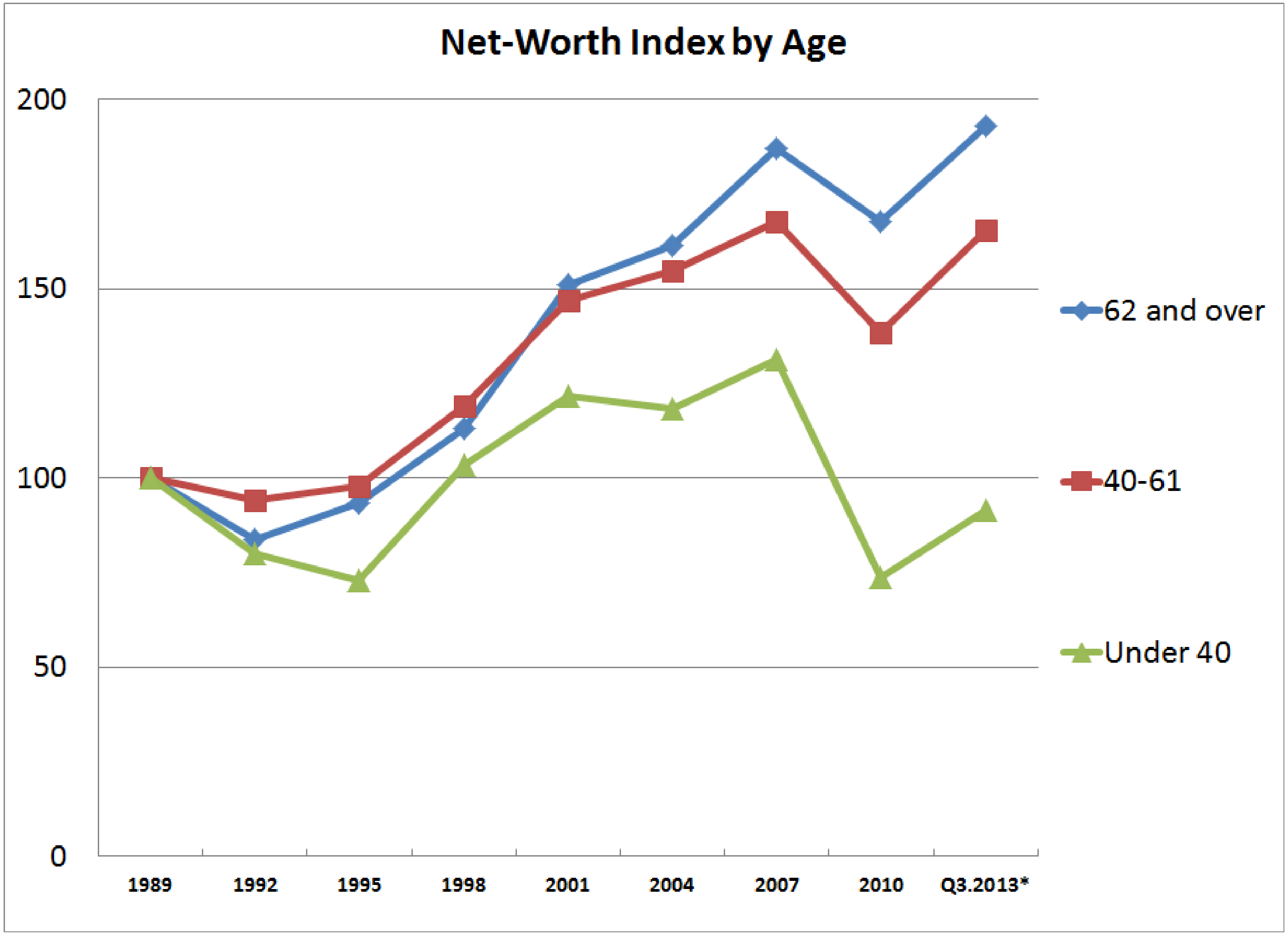


Source: Federal Reserve Board

*Tri-ennial surveys through 2010; our estimates for Q3.2013

Mean Family Net Worth Is Strongest Among Older Families

Index levels equal 100 in 1989



Source: Federal Reserve Board

*Tri-ennial surveys through 2010; our estimates for Q3.2013

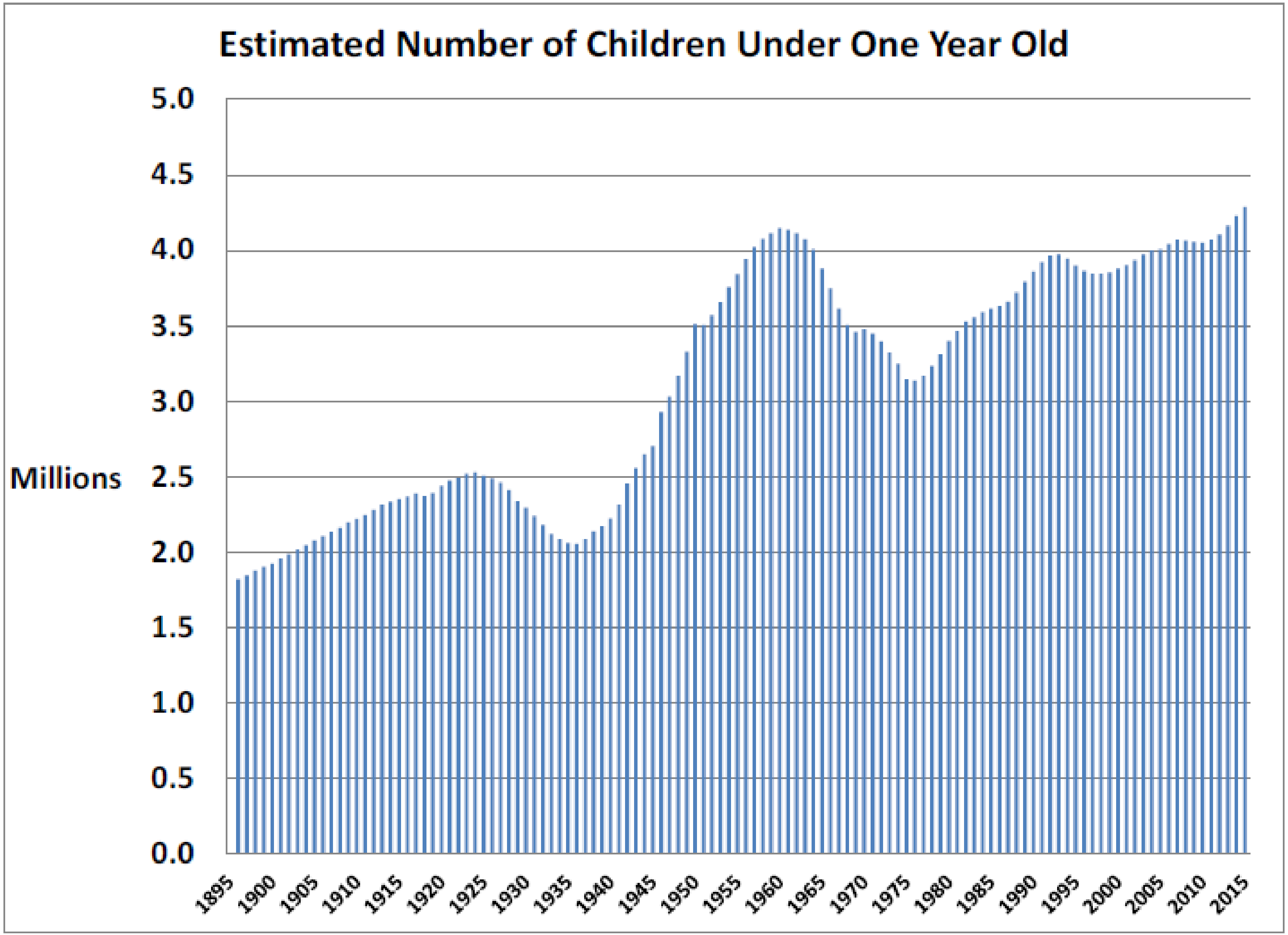
Why Have Older Adults Fared Better?

- **Income**
  - **Increasing "quality" of older adults (Gale and Pence, 2006)**
    - **Rising share of people reaching retirement age with college degrees, good health, married**
  - **Public safety net, pensions provide stable income**
- **Wealth (net worth)**
  - **Stronger and more stable income trends when young helped build wealth over time**
  - **Strong balance sheets helped withstand crisis**
    - **High saving rates**
    - **Low debt**
    - **Diversified assets**
    - **Plenty of liquid assets**

An Extra Boost for Today's Older Adults: Positive Birth-Year Cohort Effects

- **Lucky: Born in the first half of the 20th century**
  - **Rising tide of prosperity after WW II lifted all boats**
  - **Unionization and fast wage growth in "American moment"**
  - **Expanding safety net for older Americans**
- **Unlucky: Born in the second half of 20th century**
  - **Golden era of high income growth ended in 1973**
  - **Crowding of Baby Boomers into education, job, housing, financial markets**
  - **Increasing access to credit + Fading ethic of thrift**
- **The luckiest generation of all: Born 1930-50**
  - **Depression-era and WWII babies were scarce**
  - **Rode the rising post-war economic tide; resisted debt**
  - **Retired before recent turmoil**

Birth Dearth in 1930s and 1940s



Members of the Silent Generation Have Been Big Fiscal Winners

Year of birth	Generation	Average per-capita lifetime net benefit from federal benefits received minus taxes paid
1923	Greatest	$105,900
1933	Silent	$191,100
1943	Silent	$279,300
1953	Baby Boom	$222,700
1963	Baby Boom	$54,200
1973	Gen X	-$75,250
1983	Gen Y	-$160,150
1993	Gen Y	-$183,400
2003	Post-Millennial	-$135,100
2013	Post-Millennial	-$86,900

Source: Jagadeesh Gokhale, "Fiscal and Generational Imbalances and Generational Accounts: A 2012 Update," Cato Institute working paper, November, 2012, Table 3.

1) Determinants of Family Income...

Table 6

Pooled Regression of Logarithm of Family Income on Demographic, Idiosyncratic, Birth-Year Cohort, and Time Variables

- **Dependent variable is logarithm of inflation-adjusted family income in year t, excluding all non-positive observations.**
- **Sample years are 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010.**
- **Co-efficients are expressed as decimal fractions; for example, the value -0.195 for "Birth-year 1958-62 indicator" means negative 19.5 percent.**

Variable	Beta	T-Stat
Intercept	7.432	25.12
Age in years	0.170	13.17
Age squared	-0.002	-8.61
Age cubed	0.000	4.64
Standardized marital status	0.458	67.16
Standardized number of children	0.060	8.97
Standardized saving indicator	0.198	28.64
Standardized health status	0.491	30.19
High-school drop-out indicator	-1.419	-60.71
High-school grad or GED indicator	-1.037	-62.65
Some college indicator	-0.697	-35.96
College graduate (omitted)		
White indicator	0.282	8.27
African-American or Black indicator	-0.165	-4.18
Hispanic of any race indicator	-0.043	-1.02
Asian or other (omitted)		

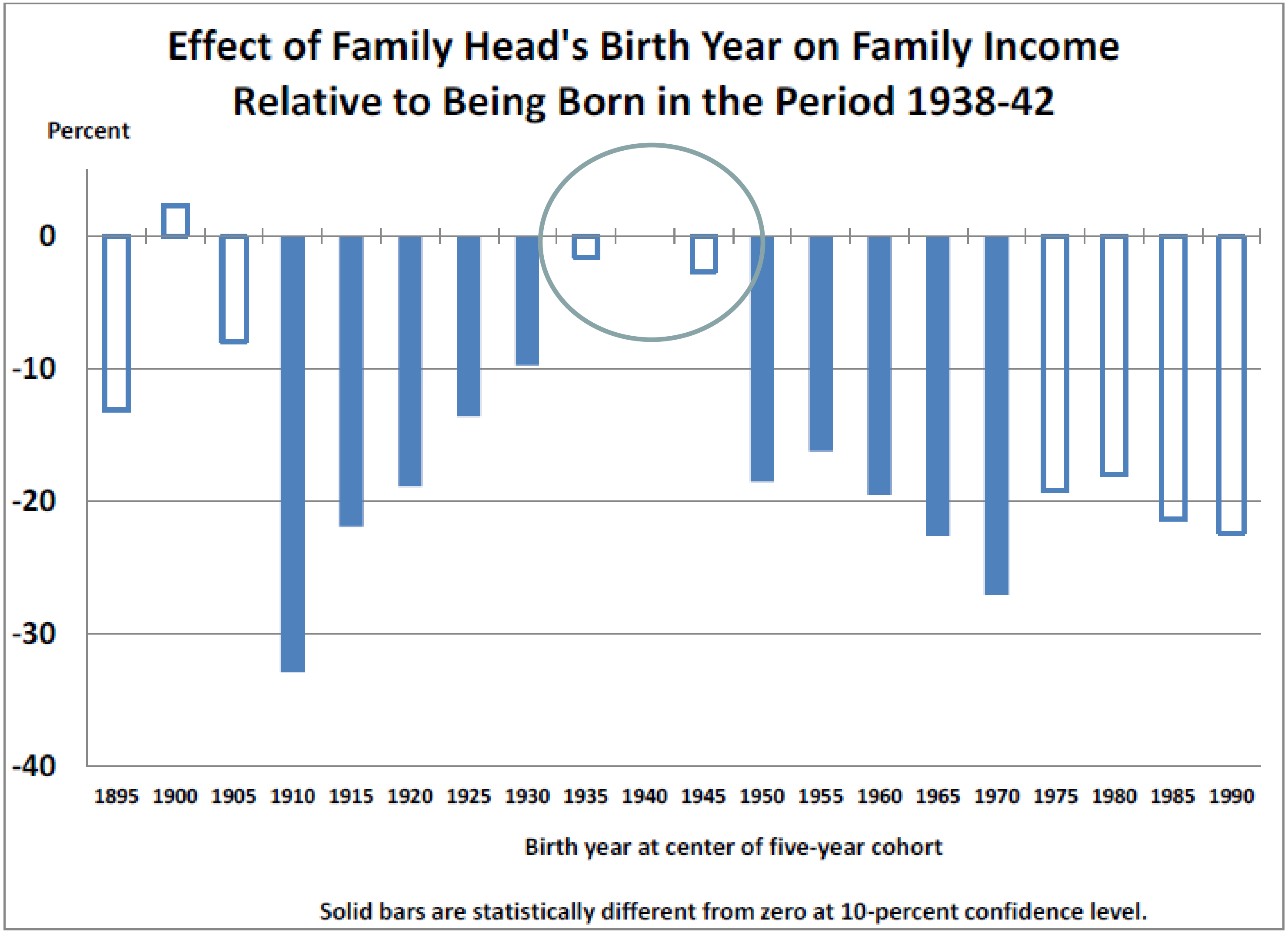
Source: William R. Emmons and Bryan J. Noeth, "The Economic and Financial Status of Older Adults: Trends and Prospects," forthcoming in Morrow-Howell and Sherraden, eds., 2014.

... Include Birth Year

Birth year 1893-97 indicator	-0.131	-0.20
Birth year 1898-1902 indicator	0.022	0.08
Birth year 1903-07 indicator	-0.080	-0.41
Birth year 1908-12 indicator	-0.329	-2.13
Birth year 1913-17 indicator	-0.219	-1.72
Birth year 1918-22 indicator	-0.189	-1.85
Birth year 1923-27 indicator	-0.136	-1.73
Birth year 1928-32 indicator	-0.098	-1.66
Birth year 1933-37 indicator	-0.016	-0.39
Birth year 1938-42 (omitted)		
Birth year 1943-47 indicator	-0.027	-0.70
Birth year 1948-52 indicator	-0.185	-3.39
Birth year 1953-57 indicator	-0.162	-2.18
Birth year 1958-62 indicator	-0.195	-2.04
Birth year 1963-67 indicator	-0.226	-1.92
Birth year 1968-72 indicator	-0.271	-1.94
Birth year 1973-77 indicator	-0.192	-1.18
Birth year 1978-82 indicator	-0.179	-0.97
Birth year 1983-87 indicator	-0.214	-1.02
Birth year 1988-92 indicator	-0.224	-0.91
Year 1989 (omitted)		
Year 1992 indicator	-0.034	-1.05
Year 1995 indicator	-0.027	-0.67
Year 1998 indicator	0.019	0.39
Year 2001 indicator	0.148	2.42
Year 2004 indicator	0.177	2.42
Year 2007 indicator	0.266	3.10
Year 2010 indicator	-0.091	-0.92
R Squared of first regression	0.46	
Observations	35,245	

Source: William R. Emmons and Bryan J. Noeth, "The Economic and Financial Status of Older Adults: Trends and Prospects," forthcoming in Morrow-Howell and Sherraden, eds., 2014.

People Born 1933-47 Enjoyed Incomes 10-30 Percent Higher, All Else Constant



2) Determinants of Family Wealth...

Table 7

Pooled Regression of Transformed Net Worth on Demographic, Idiosyncratic, Birth-Year Co
Time Variables

- Dependent variable is inflation-adjusted net worth after applying the inverse hyperbolic-sine transformation: ASINH(Net Worth*Theta)/Theta
- Theta = 0.0001
- Estimates shown for co-efficients for indicator variables are expressed after applying the Halversen-Palmqvist transformation (100 * [exp(theta * beta) - 1])
- Interpretation of co-efficients for indicator variables is analogous to the log specification; for example, the value -0.175 for "Birth-year 1958-62 indicator" means negative 17.5 percent.

Variable	Beta	T-Stat
Intercept	9,211.16	2.17
Standardized Square Root Income (By Demographic)	10,302.76	96.52
Age in years	209.93	1.13
Age squared	19.55	5.78
Age cubed	(0.18)	-8.69
Standardized marital status	3,835.15	38.84
Standardized number of children	828.88	8.75
Standardized saving indicator	2,937.74	29.02
Standardized health status	5,972.67	26.39
High-school drop-out indicator	-0.901	-70.02
High-school grad or GED indicator	-0.791	-65.22
Some college indicator	-0.736	-49.23
College graduate (omitted)		
White indicator	0.313	5.72
African-American or Black indicator	-0.585	-15.83
Hispanic of any race indicator	-0.494	-11.38
Asian or other (omitted)		

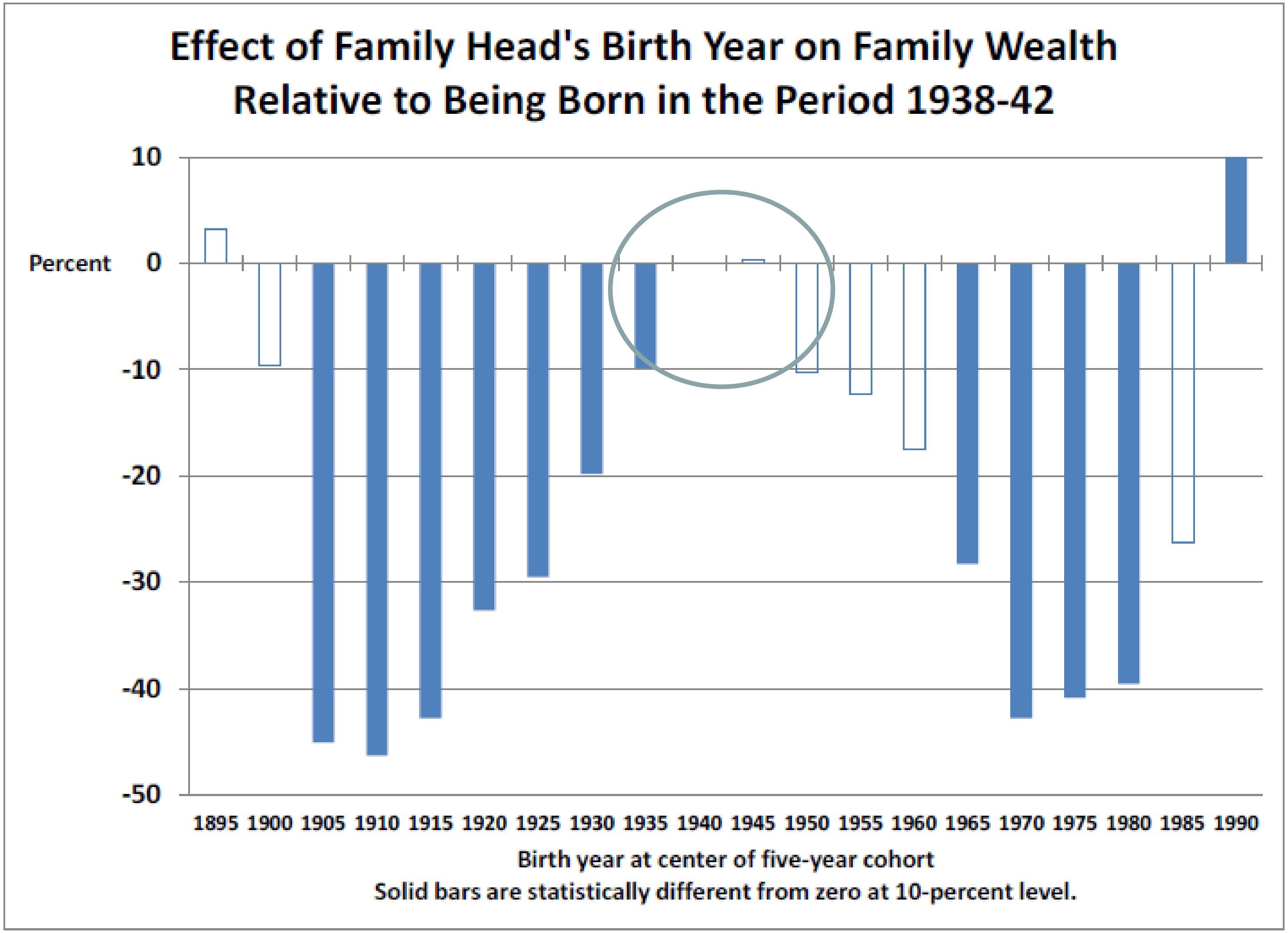
Source: William R. Emmons and Bryan J. Noeth, "The Economic and Financial Status of Older Adults: Trends and Prospects," forthcoming in Morrow-Howell and Sherraden, eds., 2014.

... Include Birth Year

Birth year 1893-97 indicator	0.032	0.03
Birth year 1898-1902 indicator	-0.097	-0.25
Birth year 1903-07 indicator	-0.451	-2.15
Birth year 1908-12 indicator	-0.463	-2.86
Birth year 1913-17 indicator	-0.428	-3.14
Birth year 1918-22 indicator	-0.327	-2.75
Birth year 1923-27 indicator	-0.295	-3.15
Birth year 1928-32 indicator	-0.198	-2.66
Birth year 1933-37 indicator	-0.098	-1.77
Birth year 1938-42 (omitted)		
Birth year 1943-47 indicator	0.004	0.07
Birth year 1948-52 indicator	-0.103	-1.41
Birth year 1953-57 indicator	-0.123	-1.25
Birth year 1958-62 indicator	-0.175	-1.43
Birth year 1963-67 indicator	-0.282	-2.01
Birth year 1968-72 indicator	-0.428	-2.83
Birth year 1973-77 indicator	-0.408	-2.29
Birth year 1978-82 indicator	-0.395	-1.92
Birth year 1983-87 indicator	-0.263	-1.02
Birth year 1988-92 indicator	0.953	1.93
Year 1989 (omitted)		
Year 1992 indicator	-0.017	-0.38
Year 1995 indicator	0.024	0.41
Year 1998 indicator	0.009	0.13
Year 2001 indicator	0.176	1.86
Year 2004 indicator	0.140	1.25
Year 2007 indicator	0.282	2.03
Year 2010 indicator	-0.392	-3.56
R Squared of first regression	0.642	
Observations	35,514	
Scaling Parameter, theta	0.0001	

Source: William R. Emmons and Bryan J. Noeth, "The Economic and Financial Status of Older Adults: Trends and Prospects," forthcoming in Morrow-Howell and Sherraden, eds., 2014.

People Born 1933-47 Have Wealth 10-45 Percent Higher, All Else Constant



Prospects for Future Generations of Older Adults: Not What You See Today

- Baby Boomers and Gen X-ers are on track for lower levels of income and wealth, holding constant all important factors (education, health, marriage)
- Educational attainment not increasing much
- The demographic composition of the population is changing toward groups with lower income and wealth
- Globalization and technology will continue to squeeze middle-income jobs
- Pressure to reduce generosity of old-age safety net
- Silver lining (?): Crisis may encourage stronger household balance sheets (less debt)

In Sum: Don't Use Current Older Adults to Forecast Future Generations

- **Very strong income and wealth trends among successive generations of older adults may not continue.**
- **We can learn from current older adults to increase education, be financially conservative.**
- **Should not use the "luckiest generation" born during the Depression and WWII as basis for changing old-age safety net.**

Part 2: Macro Perspectives

- **Household balance sheets and the economy**
  - **Wealth effects**
  - **Deleveraging**
  - **Human capital**

Short-Term Effects of Young Families' Balance Sheets on the Economy

- **Wealth effects**
  - **Case, Shiller and Quigley (2013) find differential wealth effects**
    - **Housing > stocks**
    - **Down > up**
  - **How much did young families' balance sheets contribute to total wealth effects?**
- **Deleveraging**
  - **Dynan and Edelberg (2013), Mian and Sufi (2013) find independent effects of debt and deleveraging on household spending and economic growth**
  - **How much did young families' balance sheets contribute to total deleveraging effects?**

Long-Term Effects of Young Families' Balance Sheets on the Economy

- **Human capital**
  - **Will weak balance sheets send many young people back to school or prevent it?**
    - **A potential silver lining to the crisis: More human capital would boost long-run growth**
  - **Will low birth rate continue, depressing long-run growth?**
- **Spending**
  - **Consumption and saving: Will the Great Recession increase young families' long-run saving rate?**
    - **Silver lining: Higher saving would boost long-run growth**
  - **Residential investment: Permanently lower homeownership rate?**
    - **Silver lining: Greater non-housing investment would boost long-run growth**
    - **Silver lining: Less financial fragility bec. fewer young homeowners**

Future Research and Policy

- **Research questions**
  - **How are balance sheets changing in response to the crisis?**
  - **How will changing balance sheets affect economic recovery and growth?**
- **Policy questions**
  - **How can we attenuate the link between economic vulnerability and financial fragility?**
    - **Financial education**
    - **Nudges**
    - **Reducing (bad) choice sets**
  - **What is the role of homeownership in building healthy balance sheets?**
  - **Generational equity when birth-year cohort effects are large**

To Learn More About Center for Household Financial Stability and Future Events

- **Find our research, public presentations, and media coverage at www.stlouisfed.org/hfs.**
- **Upcoming public events:**
  - **May 8-9, 2014: 2nd Annual Household Financial Stability Research Symposium, at the St. Louis Fed.**
    - **Topic: The Balance Sheets of Younger Americans—Is the American Dream at Risk?**
    - **Sessions on student loans, homeownership, economic mobility, economic impacts of young families, and more.**
  - **October 16-17, 2014: Policy Symposium in Washington DC.**
    - **Topic: Topic: Millennials After the Great Recession.**
    - **In partnership with the *New America Foundation* and the *Young Invincibles* (an advocacy group for young Americans).**