



*FTA Revenue Estimation & Tax  
Research Conference*

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# Household Financial Stability and Economic Growth

October 9, 2013

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These comments do not necessarily represent the views of the Federal Reserve Bank of St. Louis or the Federal Reserve System.



## *A New Research Initiative: Center for Household Financial Stability*

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- **What is the state of families' balance sheets?**
  - **Survey of Consumer Finances**
  - **Financial Accounts of the United States**
  - **Experian/New York Fed Consumer-Credit panel**
- **Why does it matter for families and for the economy?**
- **What can we do to improve them?**



[www.stlouisfed.org/household-financial-stability/](http://www.stlouisfed.org/household-financial-stability/)

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- **Research**
  - *2012 Annual Report*: The state of American balance sheets
  - Who was hurt most in the crisis?
  - Why did vulnerable families have risky balance sheets?
  - Why did young families lose so much wealth?
  - What is the current status of older families?
- **Conferences and events**
  - Financial-Access Forum (Oct. '12); Student Loans (Nov. '13)
  - Research Symposia (Feb. 2013; May 2014)
  - Rebuilding-Wealth Roundtable (Urban Institute, Oct. '13)
- **Updates and monitoring tools**
  - *In the Balance* briefs



## *What is the State of American Families' Balance Sheets?*

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- **Largest household-wealth loss since the Great Depression: \$16 trillion**
- **Main balance-sheet components**
  - **Equity shares**
  - **Housing**
  - **Other assets**
  - **Liabilities continued to rise until Q3.2008**
- **Demographic dimensions**
  - **In percentage terms, biggest losers were:**
    - **Young families**
    - **Less-educated**
    - **Minorities (African-American, Hispanic)**



## *Recovery of Average Wealth Loss: 76 Percent*

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- **Average inflation-adjusted household wealth loss, Q1.2007 (peak) through Q1.2009 (trough)**

**-\$153,000**

**-22.2%**

- **Average inflation-adjusted household wealth regained, Q1.2009 (trough) through Q2.2013 (latest)**

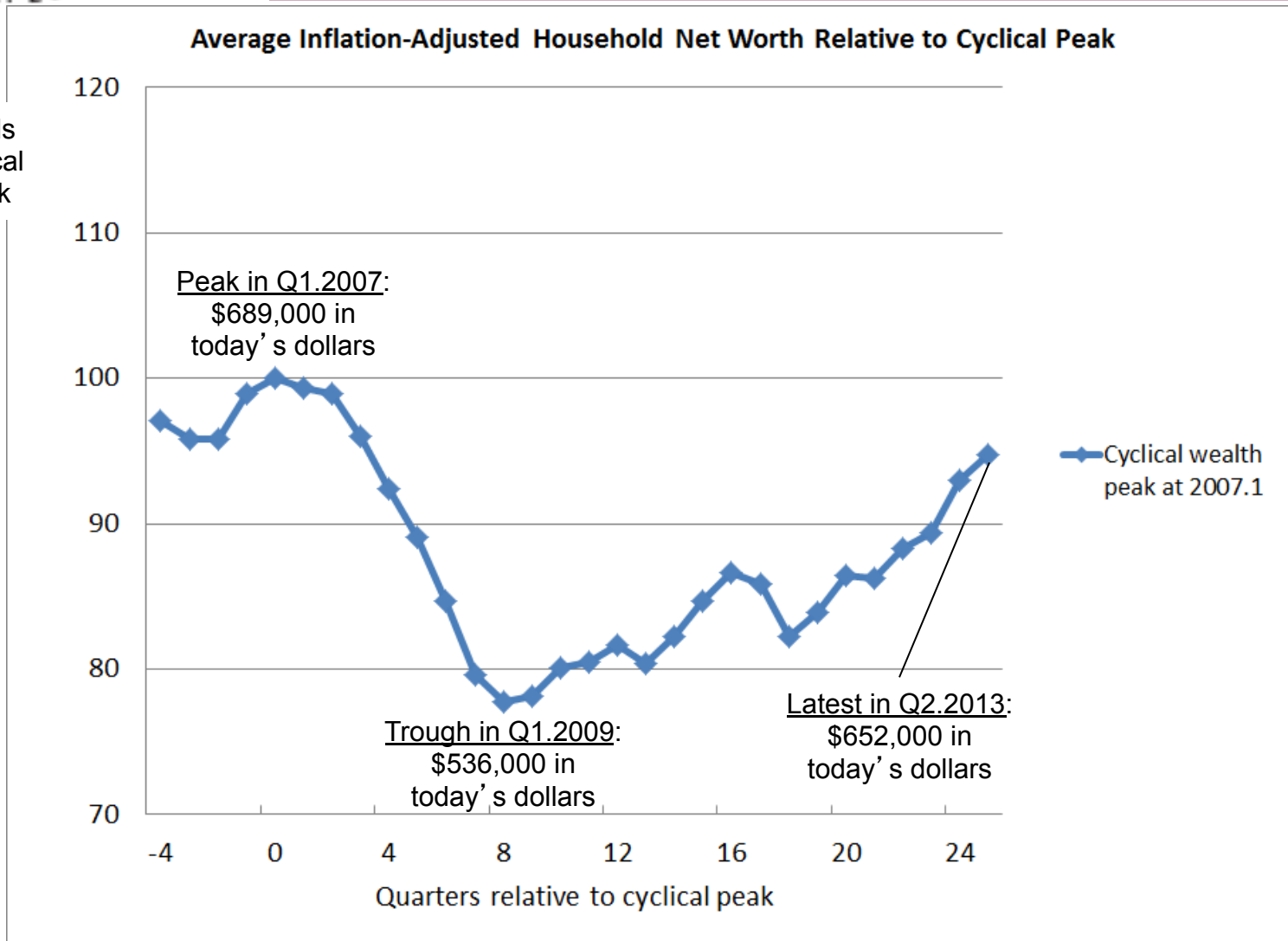
**+\$117,000**

**+21.8%**



# Average Real Household Wealth Hasn't Returned to Peak of 2007

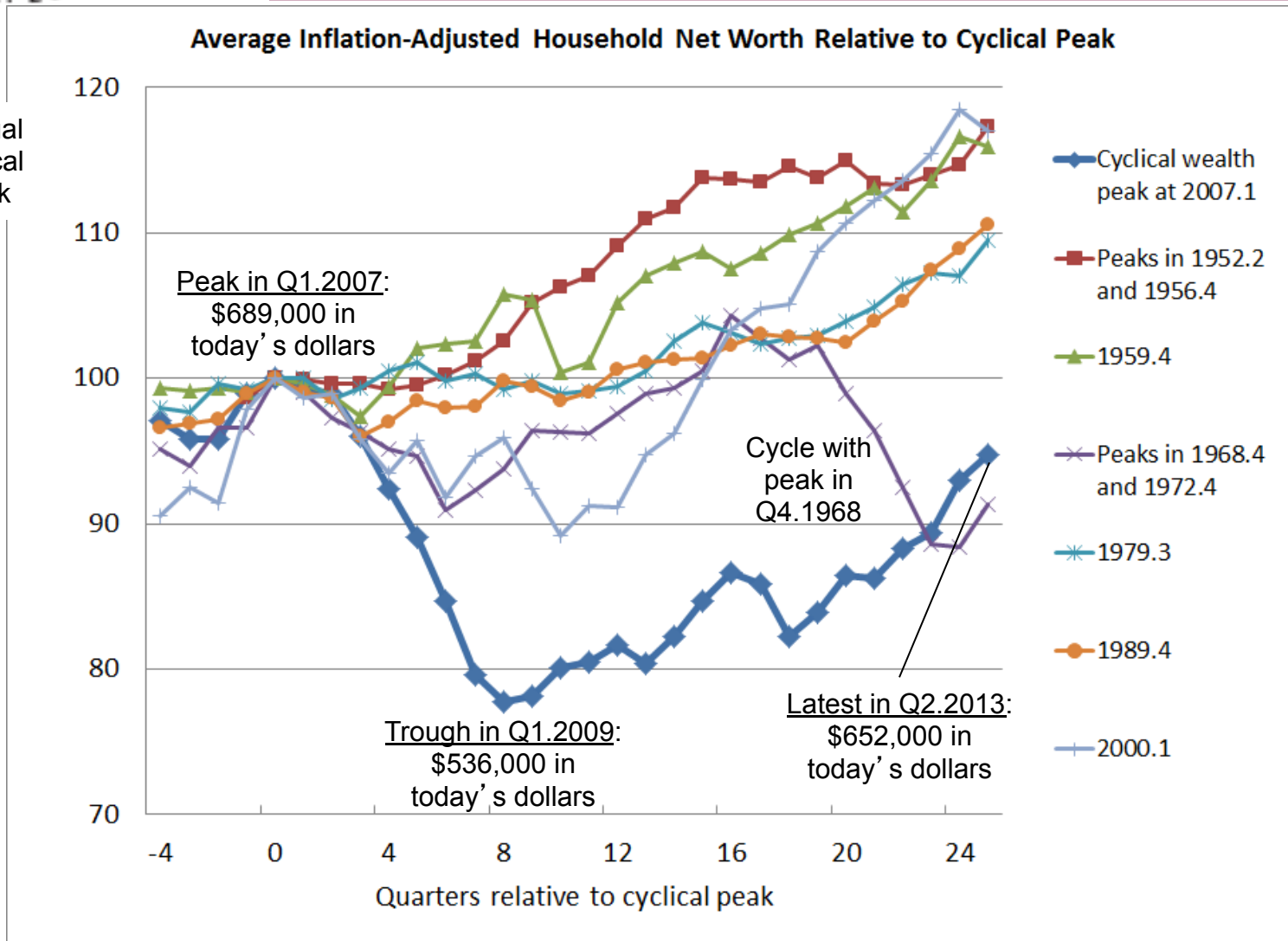
Index equals 100 at cyclical wealth peak





# Wealth Loss During 1968-75 Cycle Also Was Protracted

Indexes equal 100 at cyclical wealth peak



Sources:  
Federal Reserve Board,  
Bureau of Economic Analysis,  
Census Bureau



## *Economically Vulnerable Groups Suffered Very Large Wealth Losses*

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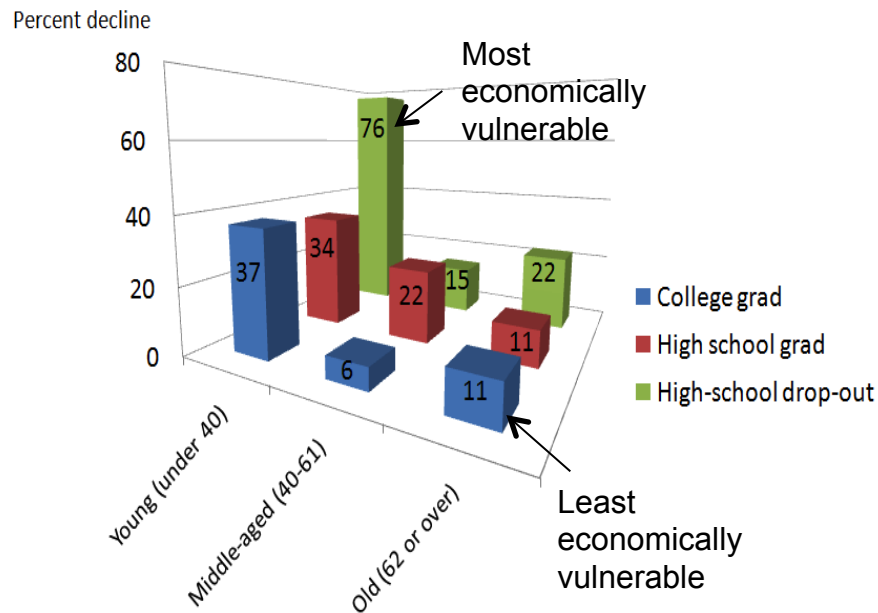
- **Wealth losses during the crisis (2010 wealth vs. 2004/07 average, inflation-adjusted)**
  - **Overall:** -10%
  - **Young (<40) families:** -41%
  - **Less-than HS families:** -28%
  - **Minority families:** -31%
  
- **Groups with smaller average losses**
  - **Older (62+) families:** -4%
  - **College grads (2- or 4-yr):** -9%
  - **Whites and Asians:** -6%



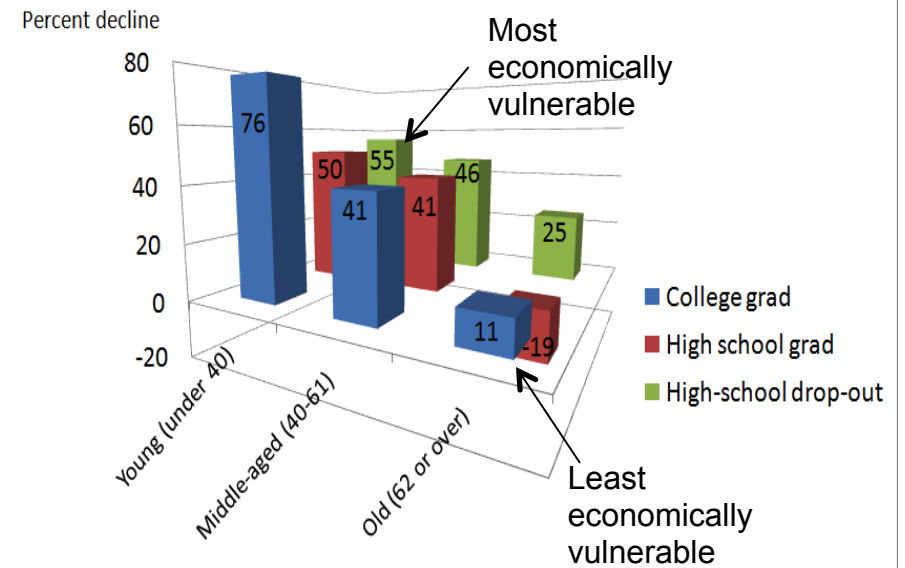


# Wealth Loss During the Crisis

Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among Whites, Asians, Other Minorities



Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among African-Americans and Hispanics



Source: Federal Reserve, Survey of Consumer Finances



## *Wealth Recovery Continues*

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- **By balance-sheet item**
  - **Equity shares fully recovered**
  - **Housing still off 25% in real terms**
  - **Other assets remain below peak**
  - **Liabilities falling but still high**
  
- **By demographic group**
  - **Biggest gainers owned stocks and businesses, had little debt: Mainly college-educated whites and Asians over 40**
  - **Biggest losers had only housing and lots of debt, and are recovering very slowly if at all**



## *Why Does it Matter for Families and the Economy?*

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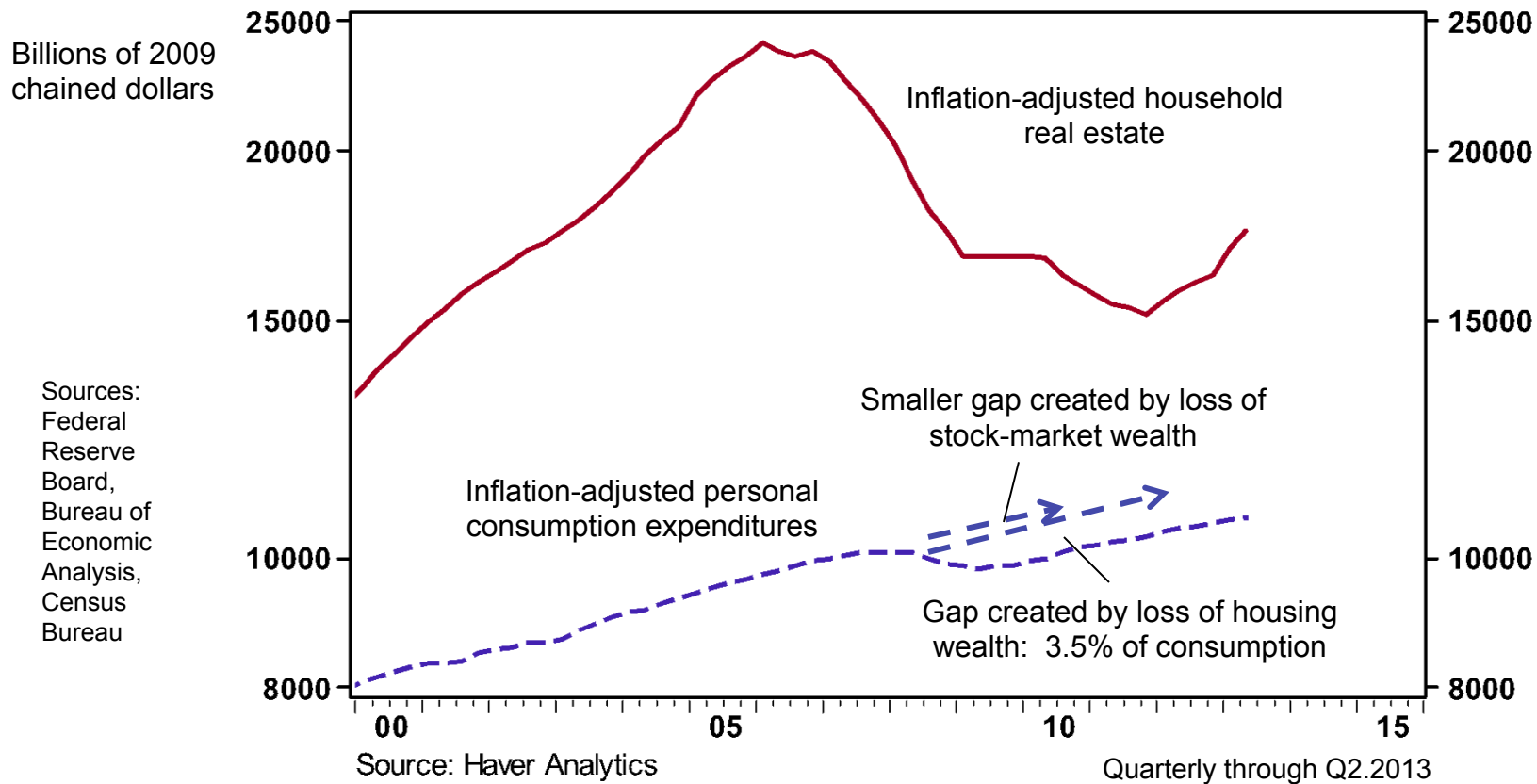
- **Families**
  - **Strong balance sheets can buffer income shocks**
  - **Wealth predicts health outcomes, community stability, and children's success**
  - **Economic mobility**
  
- **The economy**
  - **Wealth effects**
  - **Leveraging and deleveraging effects**



# Case, Quigley, and Shiller (2013): Housing Wealth Effect Reduced Consumer Spending

Inflation-Adjusted Value of Household Real Estate  
Billions of 2009 chained dollars

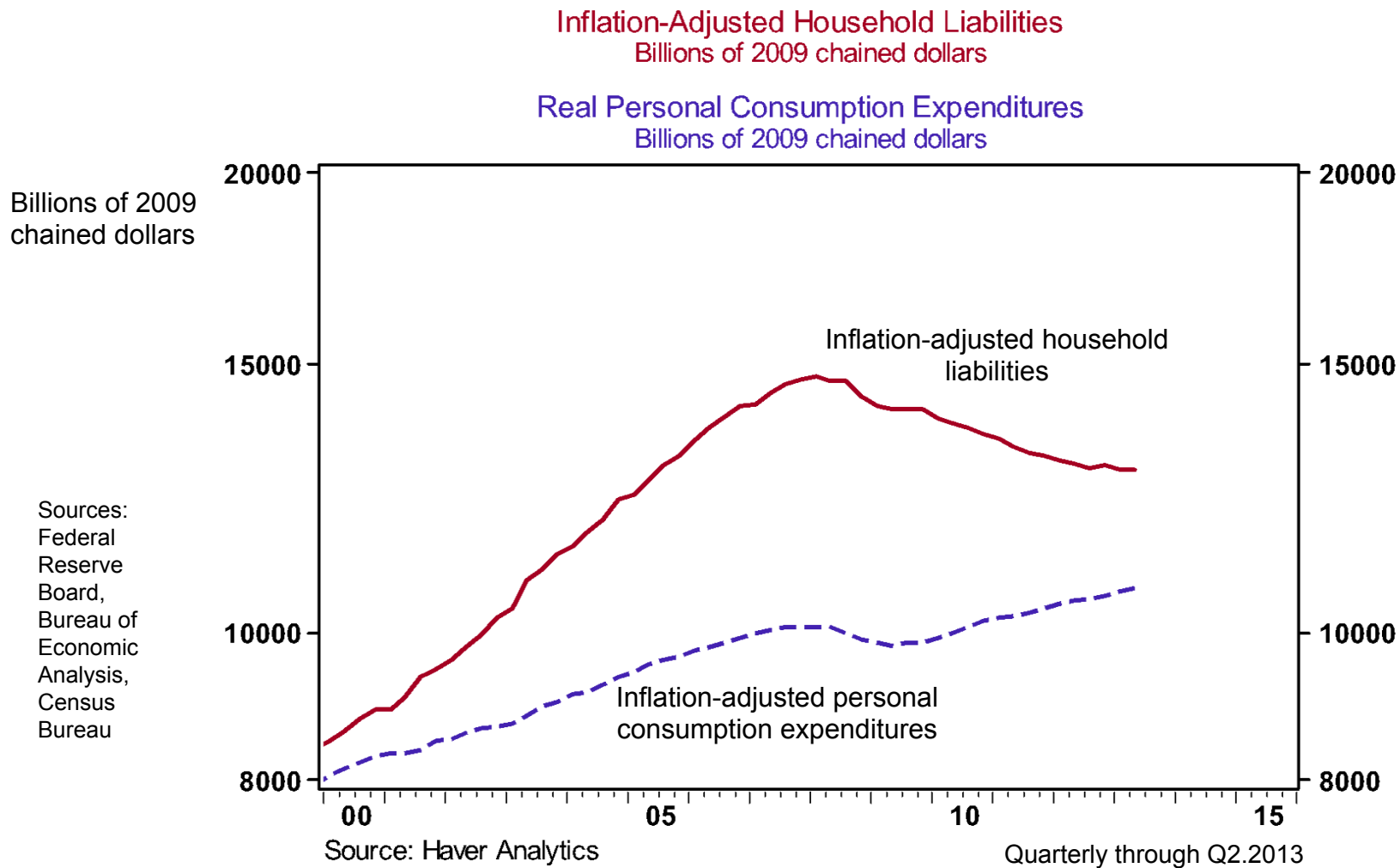
Real Personal Consumption Expenditures  
Billions of 2009 chained dollars



Sources:  
Federal Reserve Board, Bureau of Economic Analysis, Census Bureau



# Dynan and Edelberg (2013): Debt Overhang Slows Deleveraging Households





## *What Can We Do to Improve It?*

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- **Research**
  - **Demographic drivers of financial fragility**
  - **Balance-sheet failures**
  - **Wealth-building successes and failures; for example homeownership**
- **Events**
  - **Research symposia**
  - **Practitioner “best-practice” events**
- **Policy**
  - **Help Federal Reserve leaders understand the role of household balance sheets in economic growth**
  - **Public policy advocacy not the Fed’s job, but we partner with advocates**



## *For More Information*

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## *Previous Presentations*

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- **Micro view**
- **Macro view**





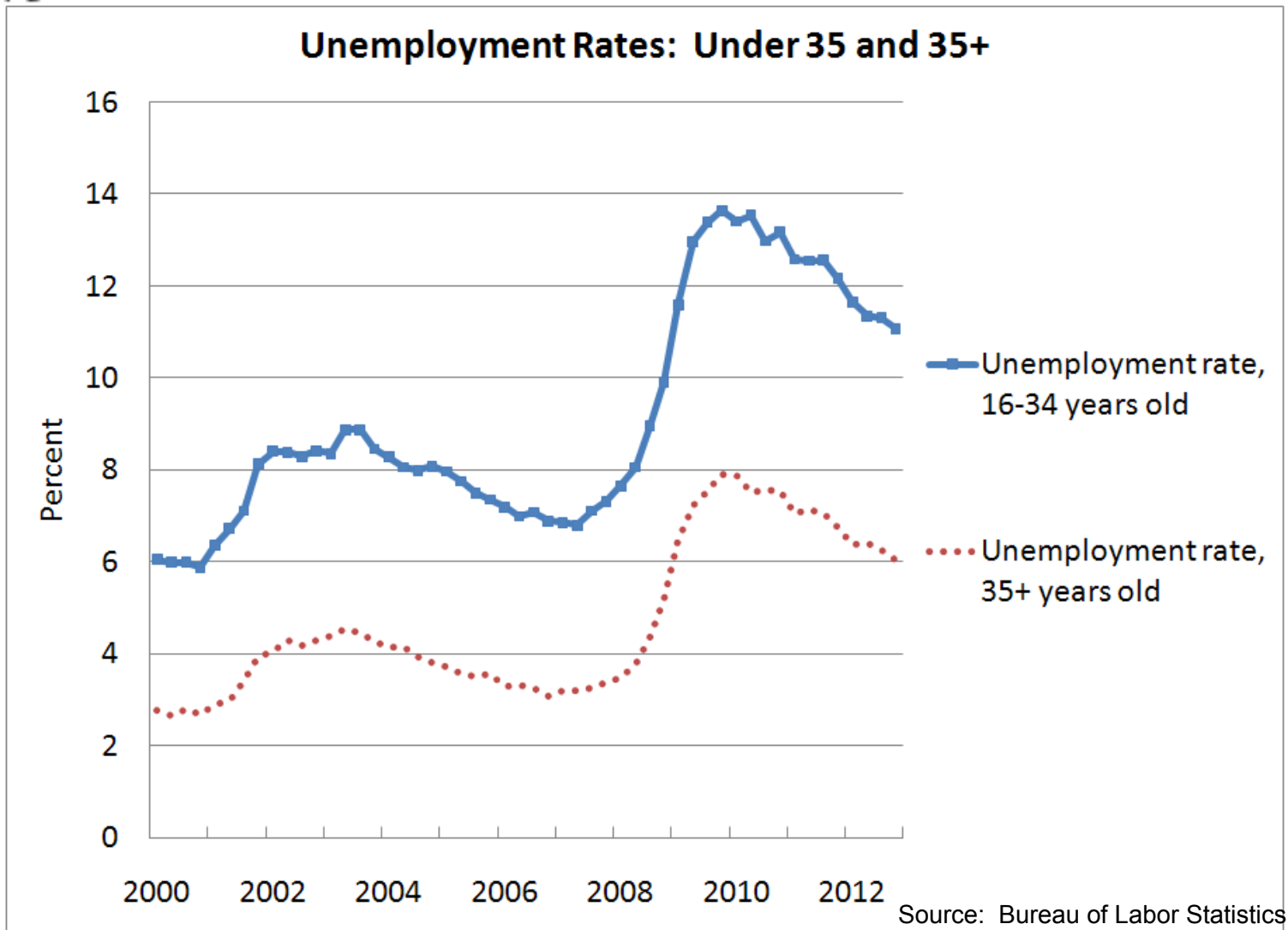
## *The Micro View: Economic Vulnerability and Financial Fragility*

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- **Evidence from the Survey of Consumer Finances: Economically vulnerable families were more likely to have risky balance sheets in 2007, then suffered larger percentage wealth losses during the crisis.**
- **Shouldn't a family's balance sheet be used to dampen its economic risk, rather than amplify it?**
- **Which interventions are most likely to break the link between economic vulnerability and financial fragility?**

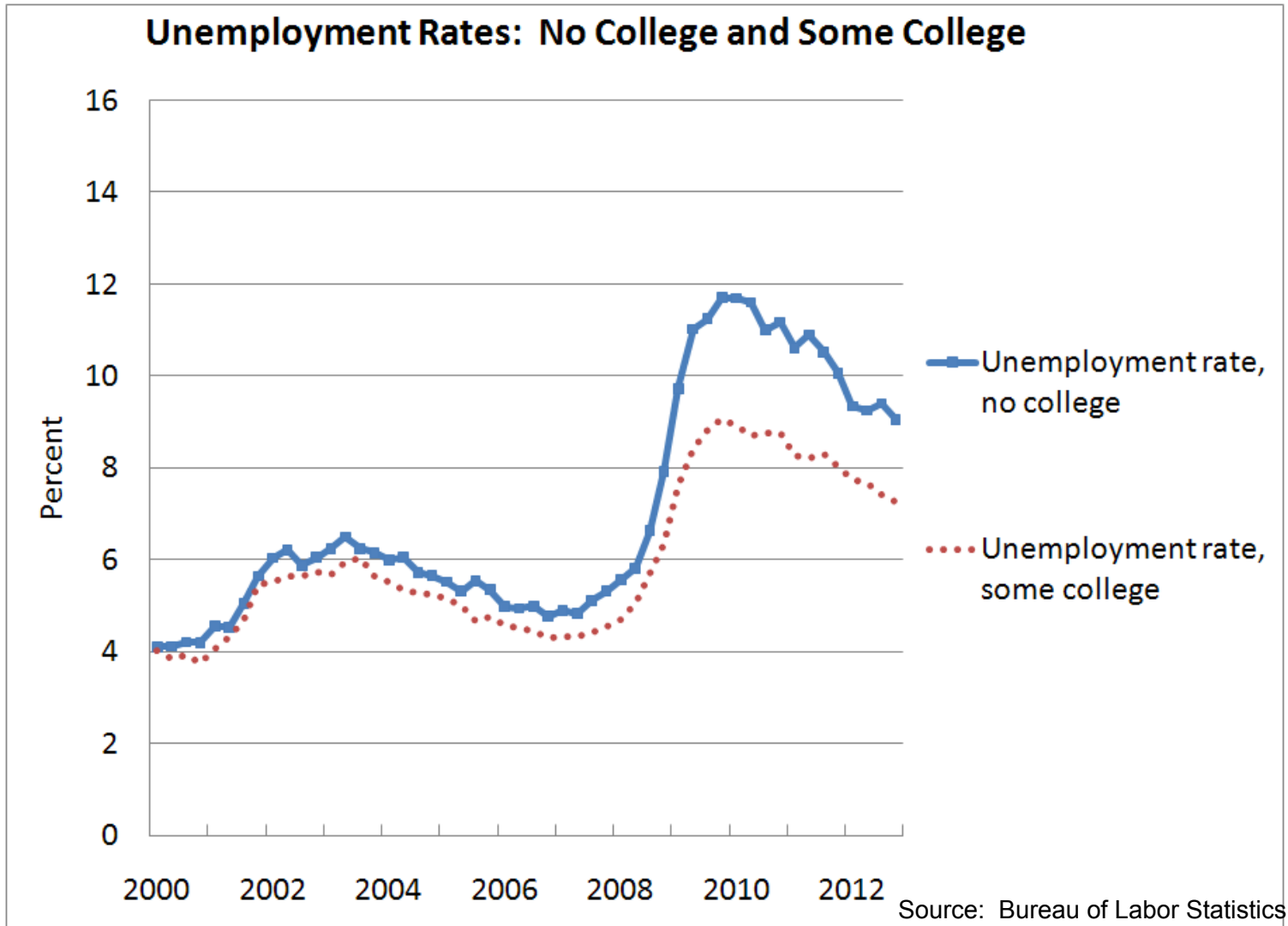


## *Economically Vulnerable Group: The Young*



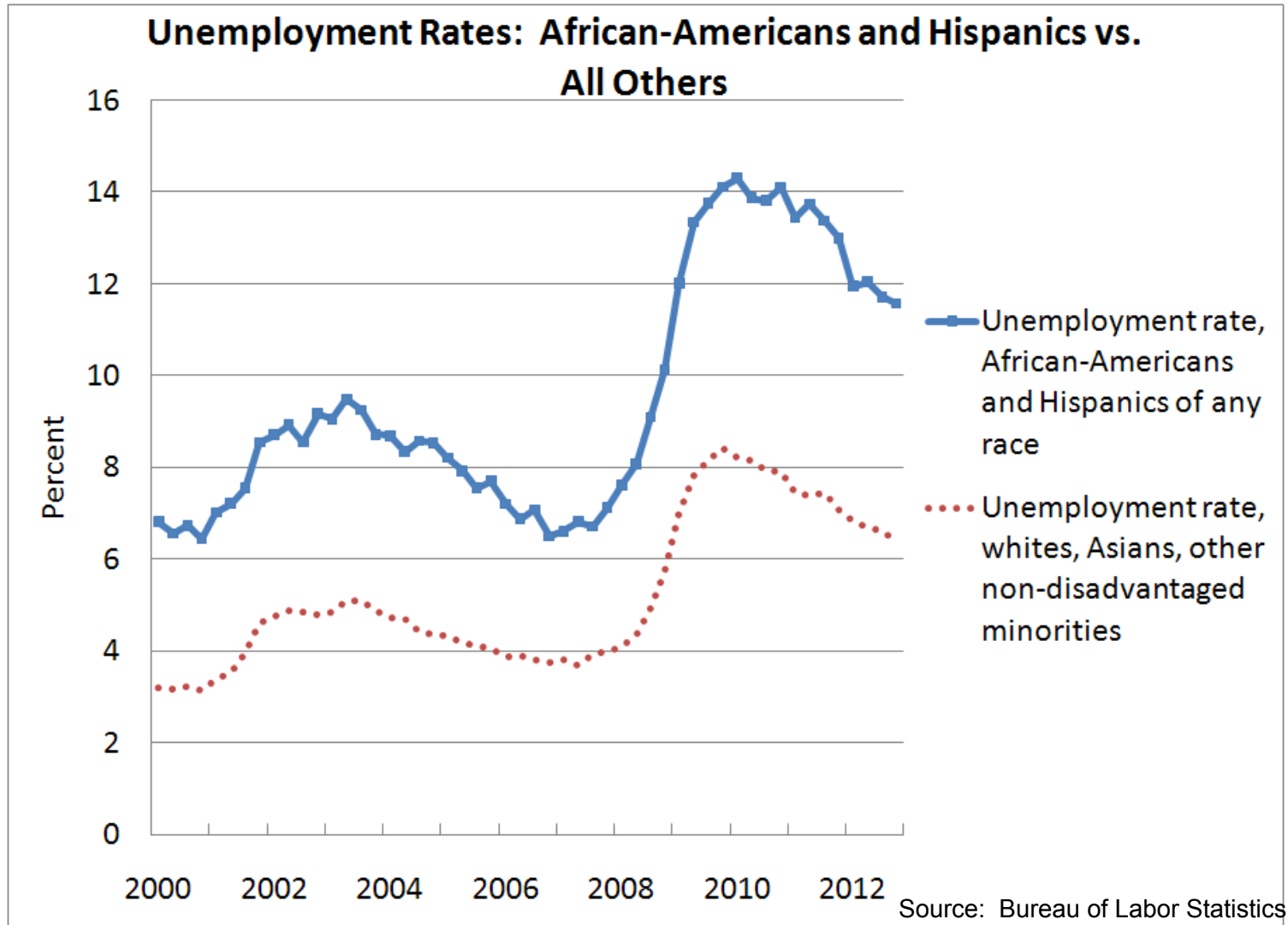


## *Economically Vulnerable Group: Less-Educated*





## *Economically Vulnerable Group: African-Americans and Hispanics*





## *Economic Vulnerability and Financial Fragility*

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- **Economic vulnerability**: Susceptibility to job and income losses
- **Financial fragility**: Risky financial behavior and risky balance sheets
  - **Fact**: They are positively correlated in the population across demographic sub-groups
- **Why don't economically vulnerable families take less financial risk to hedge their consumption risk?**
- **Our explanation**: They're driven by common factors—youth and inexperience, low human capital, and the legacy of discrimination



## *Economically Vulnerable Groups Suffered Very Large Wealth Losses*

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- **Wealth losses during the crisis (2010 wealth vs. 2004/07 average, inflation-adjusted)**
  - **Overall:** -10%
  - **Young (<40) families:** -41%
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  - **Minority families:** -31%
  
- **Groups with smaller average losses**
  - **Older (62+) families:** -4%
  - **College grads (2- or 4-yr):** -9%
  - **Whites and Asians:** -6%



## *Economically Vulnerable Groups Had Risky Balance Sheets Going into the Crisis*

### Demographic Influences on Balance Sheets

Demographic group	<i>Marginal effect of belonging to a demographic group on:</i>		
	Safe and liquid assets relative to annual income		
Young families (< 40 years old)	-16 percentage points		
High-school drop-out families	-16		
African-Americans and Hispanics	-20		



## *Economically Vulnerable Groups Had Risky Balance Sheets Going into the Crisis*

### Demographic Influences on Balance Sheets

Demographic group	<i>Marginal effect of belonging to a demographic group on:</i>		
	<b>Safe and liquid assets relative to annual income</b>	<b>Share of assets invested in housing</b>	
<b>Young families (&lt; 40 years old)</b>	-16 percentage points	+13 percentage points	
<b>High-school drop-out families</b>	-16	+9	
<b>African-Americans and Hispanics</b>	-20	+14	





## *Economically Vulnerable Groups Had Risky Balance Sheets Going into the Crisis*

### Demographic Influences on Balance Sheets

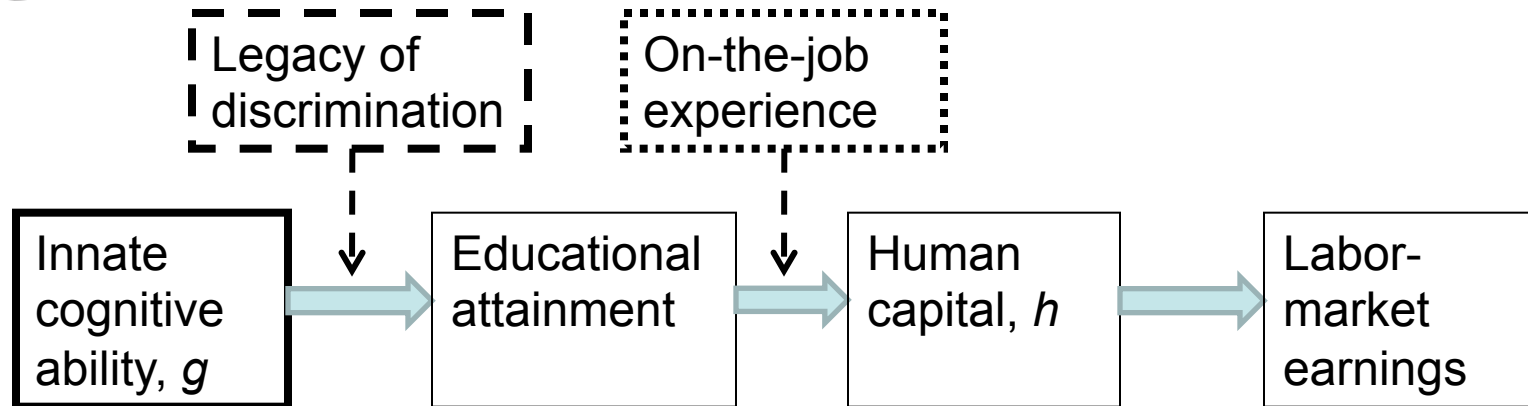
Demographic group	<i>Marginal effect of belonging to a demographic group on:</i>		
	<b>Safe and liquid assets relative to annual income</b>	<b>Share of assets invested in housing</b>	<b>Ratio of total debt to total assets</b>
<b>Young families (&lt; 40 years old)</b>	-16 percentage points	+13 percentage points	+32 percentage points
<b>High-school drop-out families</b>	-16	+9	-4
<b>African-Americans and Hispanics</b>	-20	+14	+7

25

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



## *Our Model of Earnings Determination...*

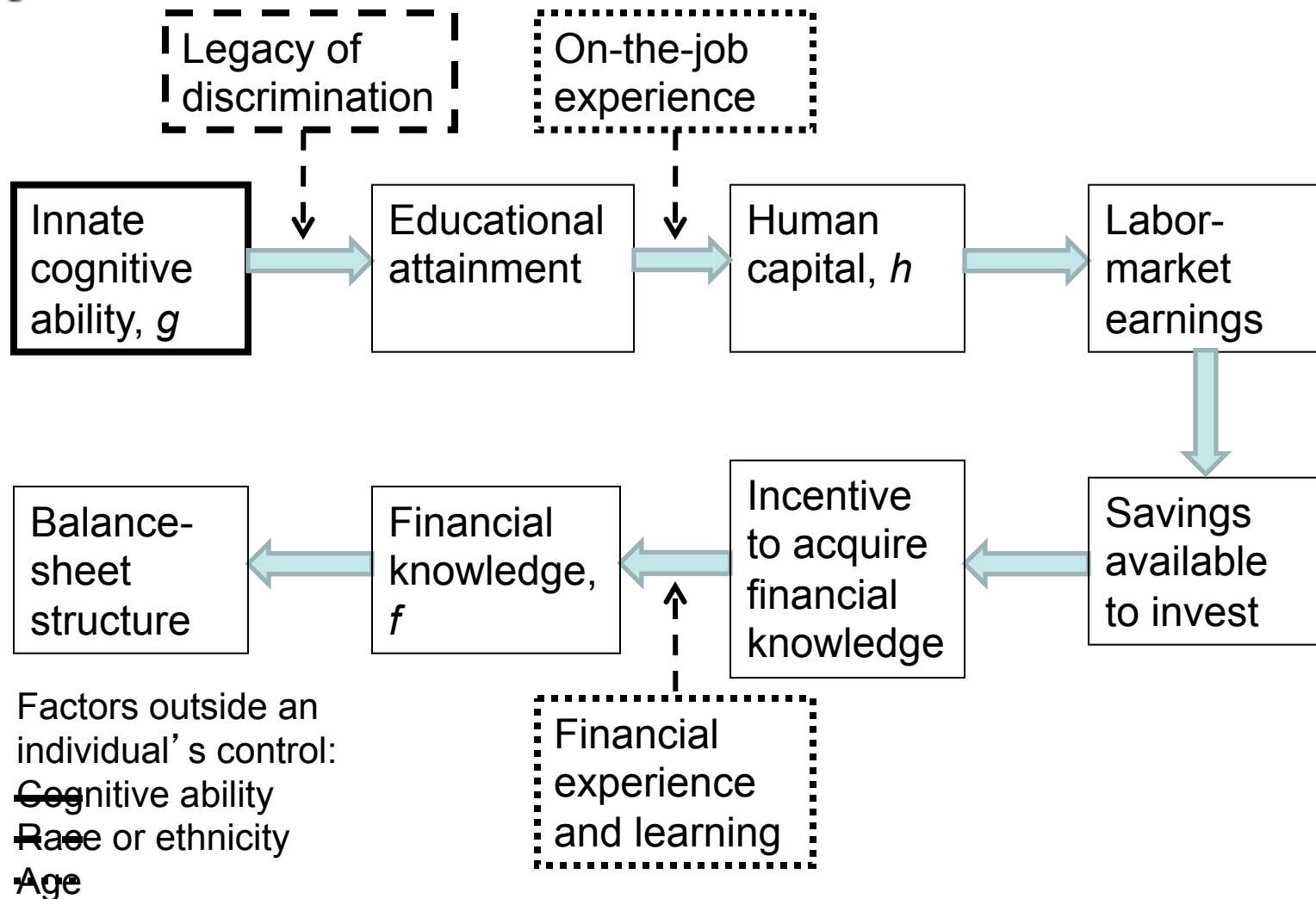


Factors outside an individual's control:

- Cognitive ability
- Race or ethnicity
- Age



## ... And Balance-Sheet Coice





## *Key Implications*

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- **Economic vulnerability and financial fragility co-exist because they have common causes, including one or more of the following:**
  - **Being young and inexperienced**
  - **Low human capital**
  - **Historically disadvantaged minority**
- **What's new and counter-intuitive?**
  - **New: Endogenous acquisition of financial knowledge interacts with human capital (and all of its determinants)**
    - ❖ **See Lusardi, Michaud, Mitchell (2013)**
  - **Counter-intuitive: Balance sheets of groups with the most economic risk amplify their risk, rather than dampening it**



## *Risky Financial Behavior and Risky Balance Sheets*

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- **We define risky financial behavior to include:**
  - **Low saving rate**
  - **High-cost financial services**
  - **High debt-service-to-income ratio**
  
- **We define risky balance sheets to contain:**
  - **Low ratio of safe and liquid assets to income**
  - **High housing concentration**
  - **High balance-sheet leverage**



## *1) Ratio of Safe and Liquid Assets to Annual Income Before the Crash*

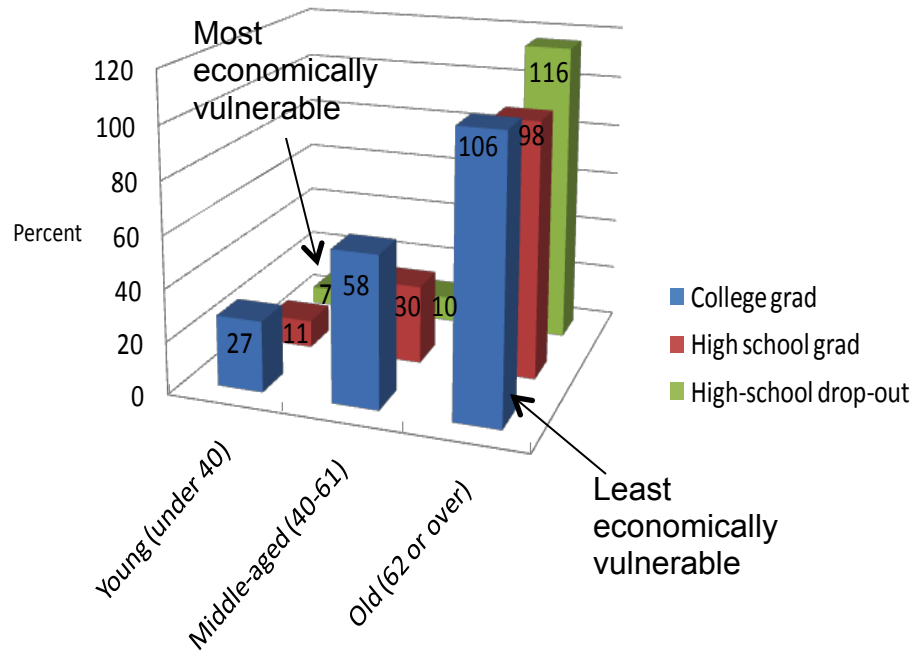
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- **All families, average 2004/2007 safe-assets-to-income ratio**
  - **Overall: 56%**
  
- **Economically vulnerable groups**
  - **Young (<40) families: 20%**
  - **Minority families: 19%**
  - **Less-than HS families: 54%**
  
- **Less-vulnerable groups**
  - **Older (62+) families: 126%**
  - **Whites and Asians: 61%**
  - **College grads: 63%**

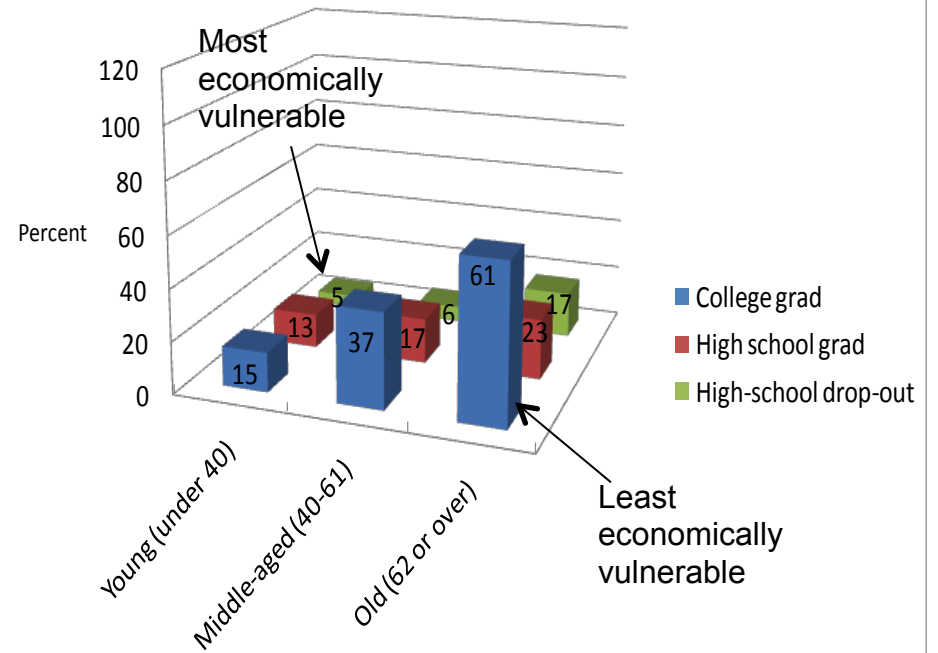


# Ratio of Safe and Liquid Assets to Income

Ratio of Safe Liquid Assets to Family Income in 2007 Among Whites, Asians, and Other Non-Disadvantaged Minorities



Ratio of Safe Liquid Assets to Family Income in 2007 Among African-Americans and Hispanics





## *2) Share of Total Assets in Residential Real Estate Before the Crash*

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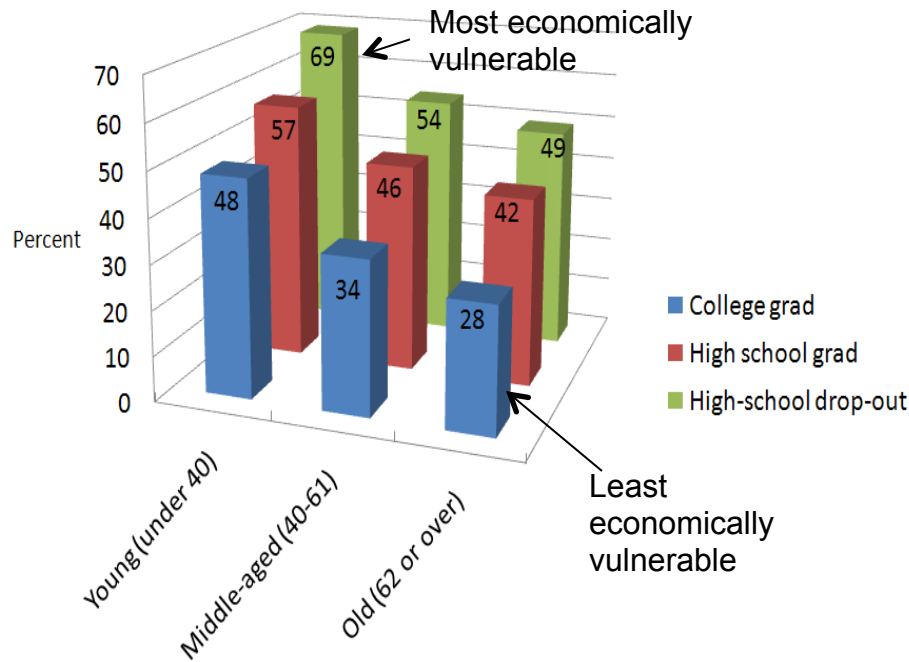
- **All families, average 2004/2007 RRE portfolio share**
  - **Overall: 39%**
  
- **Economically vulnerable groups**
  - **Young (<40) families: 54%**
  - **Minority families: 58%**
  - **Less-than HS families: 59%**
  
- **Less-vulnerable groups**
  - **Older (62+) families: 34%**
  - **Whites and Asians: 37%**
  - **College grads: 35%**



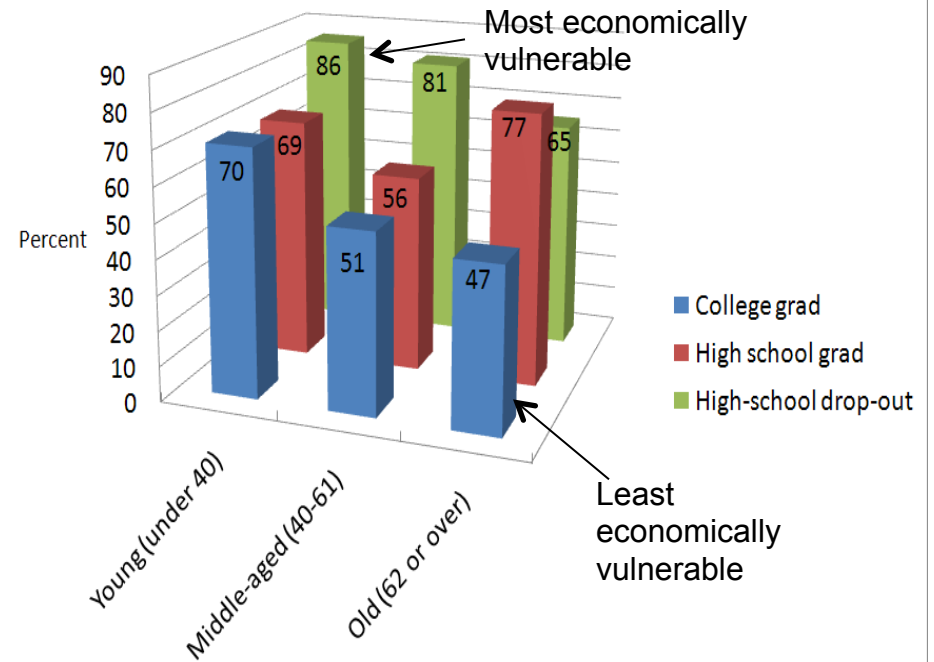


# Residential Real-Estate Portfolio Shares

Residential Real-Estate Portfolio Shares in 2007 Among Whites, Asians, and Other Minorities



Residential Real-Estate Portfolio Shares in 2007 Among African-Americans and Hispanics





### *3) Ratio of Total Debt to Total Assets Before the Crash*

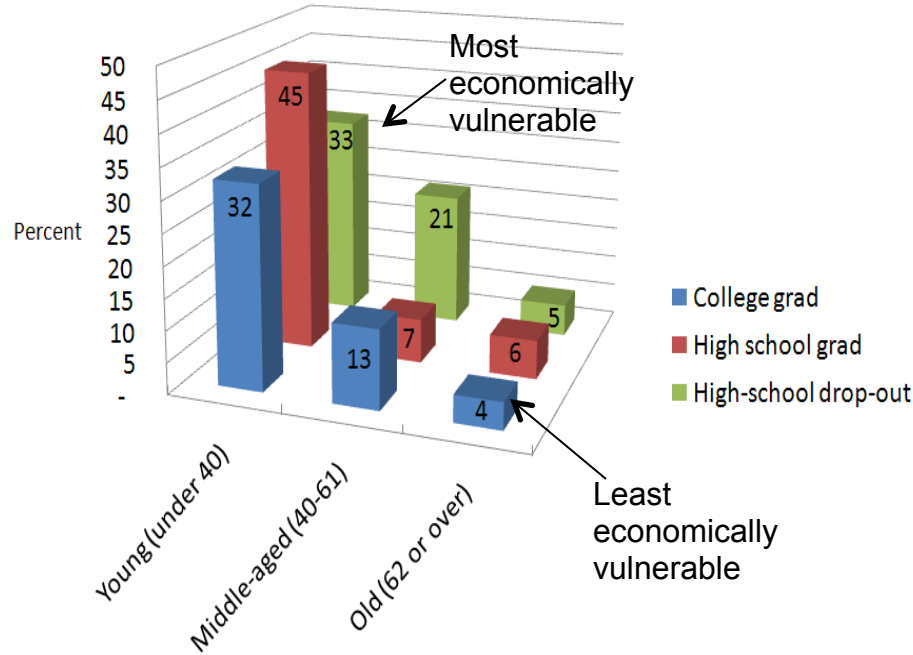
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- **All families, average 2004/2007 debt-to-assets ratio**
  - **Overall: 15%**
  
- **Economically vulnerable groups**
  - **Young (<40) families: 39%**
  - **Minority families: 31%**
  - **Less-than HS families: 16%**
  
- **Less-vulnerable groups**
  - **Older (62+) families: 5%**
  - **Whites and Asians: 14%**
  - **College grads: 13%**

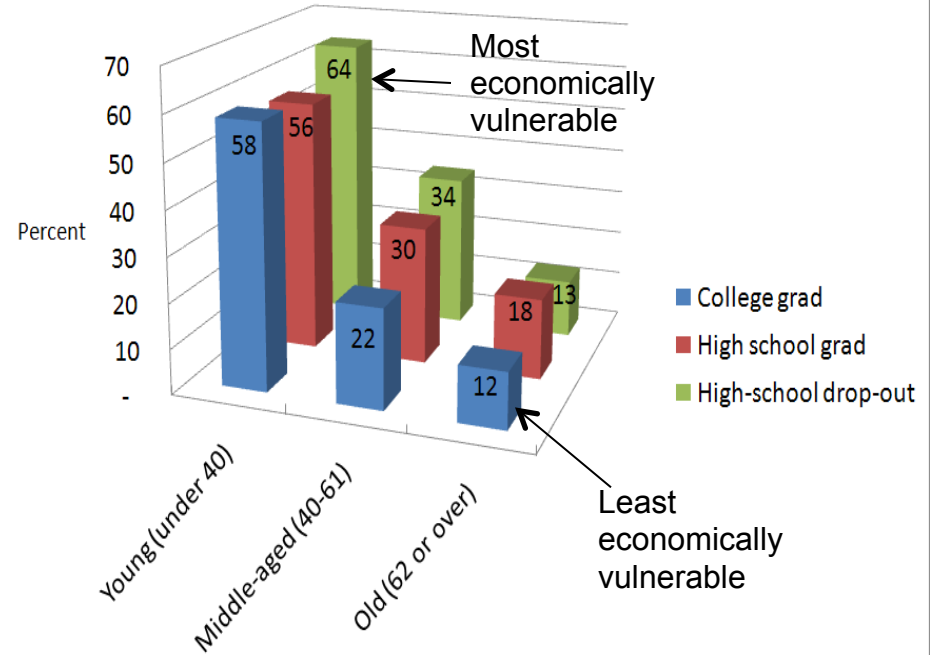


# Ratio of Total Debt to Total Assets

Ratio of Total Debt to Total Assets in 2007 Among Whites, Asians, and Other Non-Disadvantaged Minorities



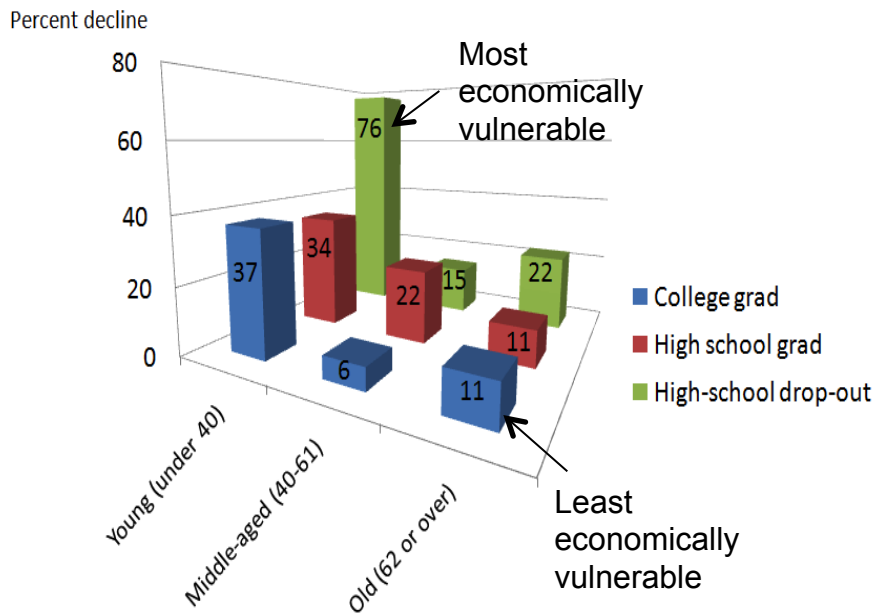
Ratio of Total Debt to Total Assets in 2007 Among African-Americans and Hispanics



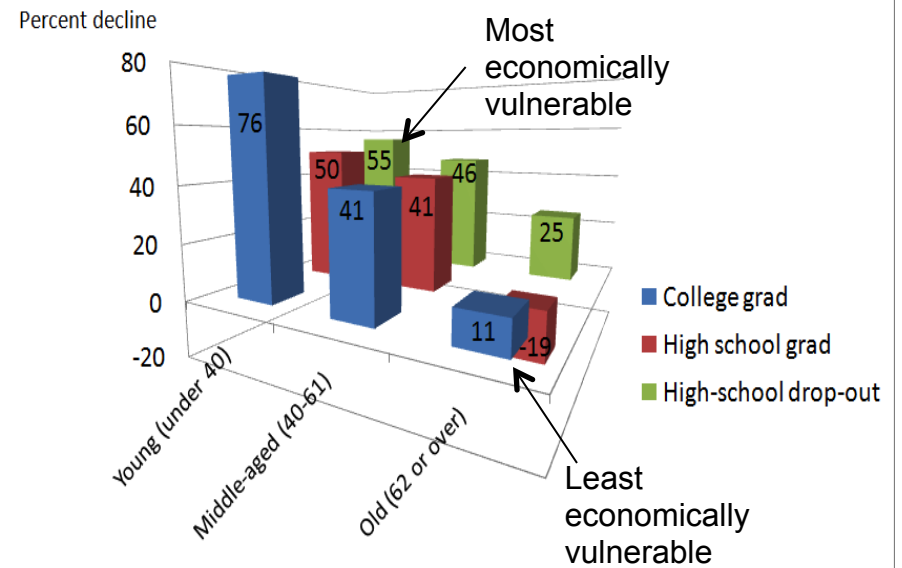


# Wealth Loss During the Crisis

Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among Whites, Asians, Other Minorities



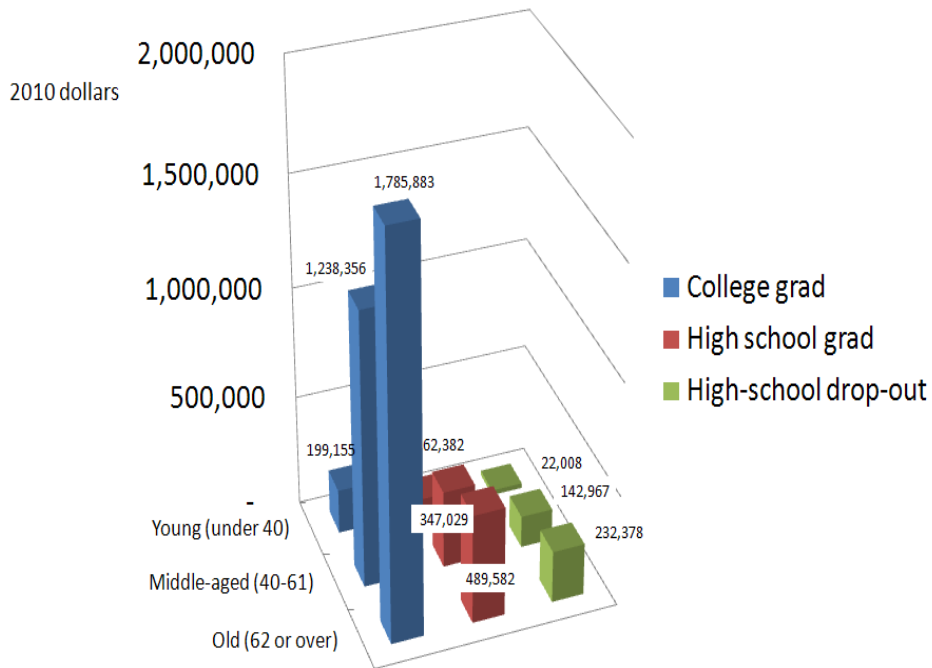
Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among African-Americans and Hispanics



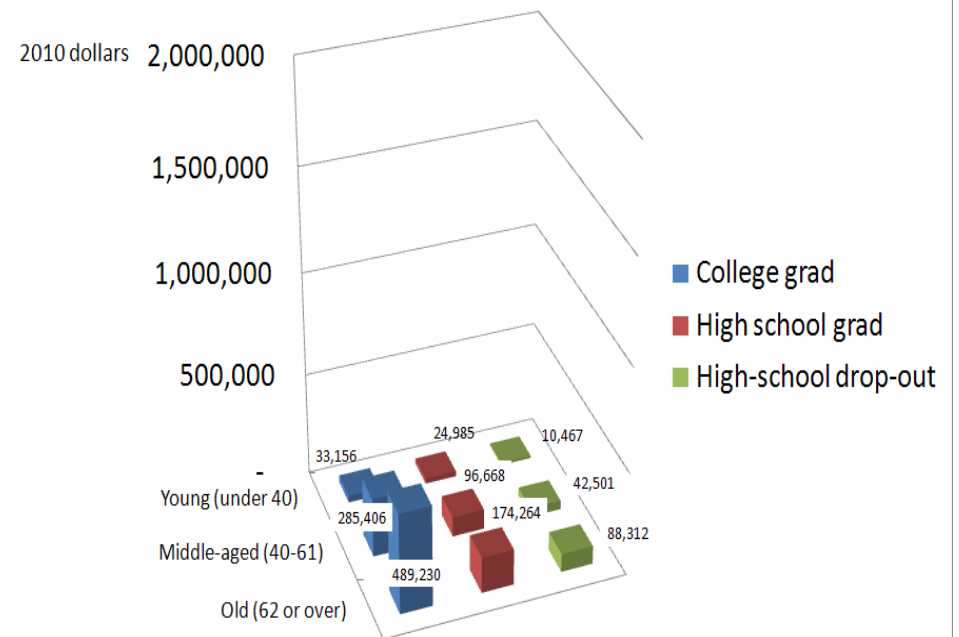


# *Wealth in 2010: Pre-Crisis Disparities Re-inforced by Crisis Losses*

**Average White or Asian Family Net Worth in 2010**



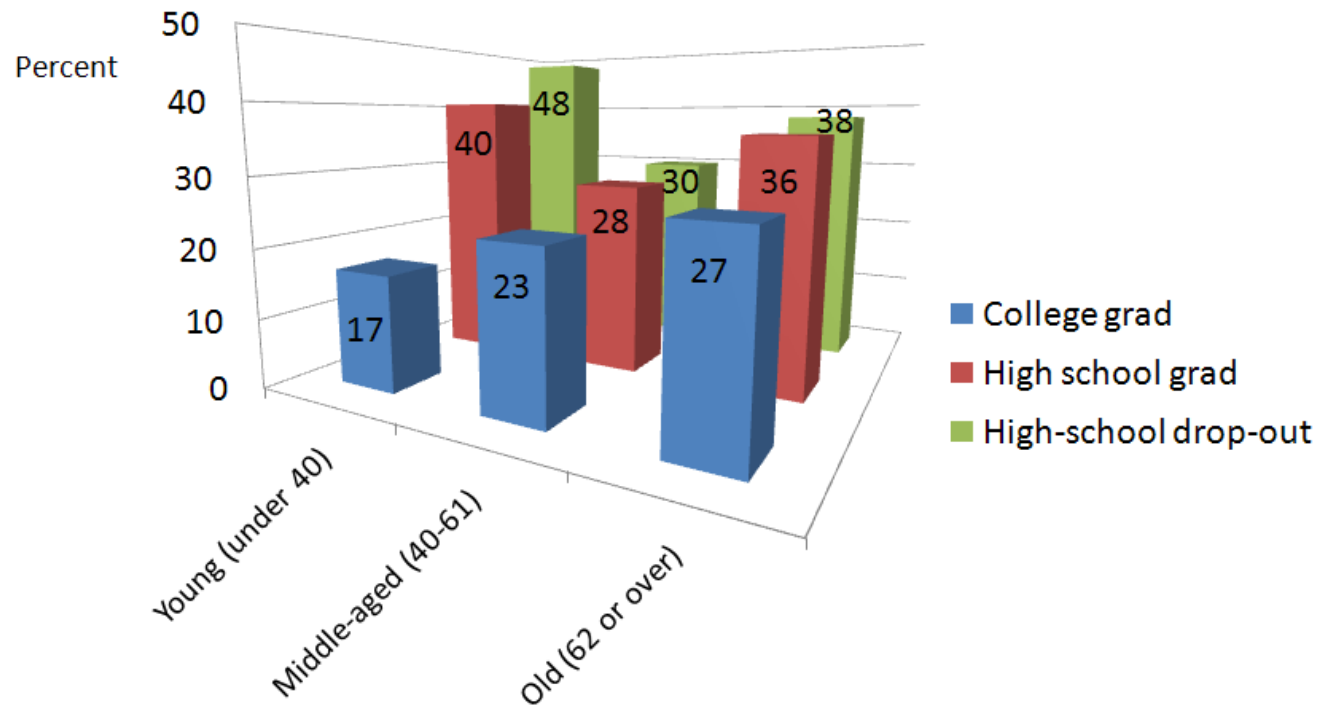
**Average African-American or Hispanic Family Net Worth in 2010**





## *Ratio of African-American or Hispanic Wealth to Non-Minority Wealth*

**Historically Disadvantaged Minorities' Net Worth in 2010 as Share of Whites, Asians, and Other Minority Counterparts**





## *Can We Break the Link Between Economic Vulnerability and Financial Fragility?*

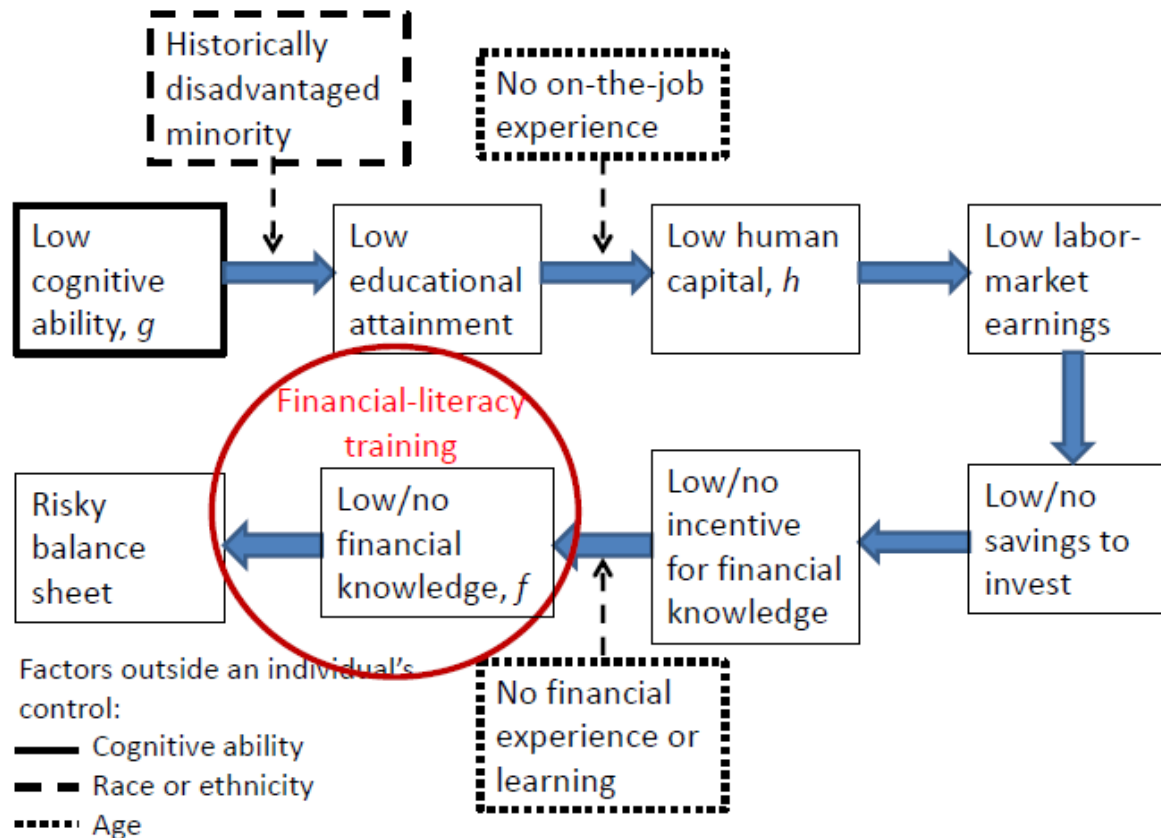
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- **Financial-literacy training**
- **Cash and in-kind benefits**
- **Individual-Development Accounts (IDAs)**
- **Early-childhood enrichment**



# Adult Financial-Literacy Education Comes Too Late

## Intervention Strategy: Financial-Literacy Training

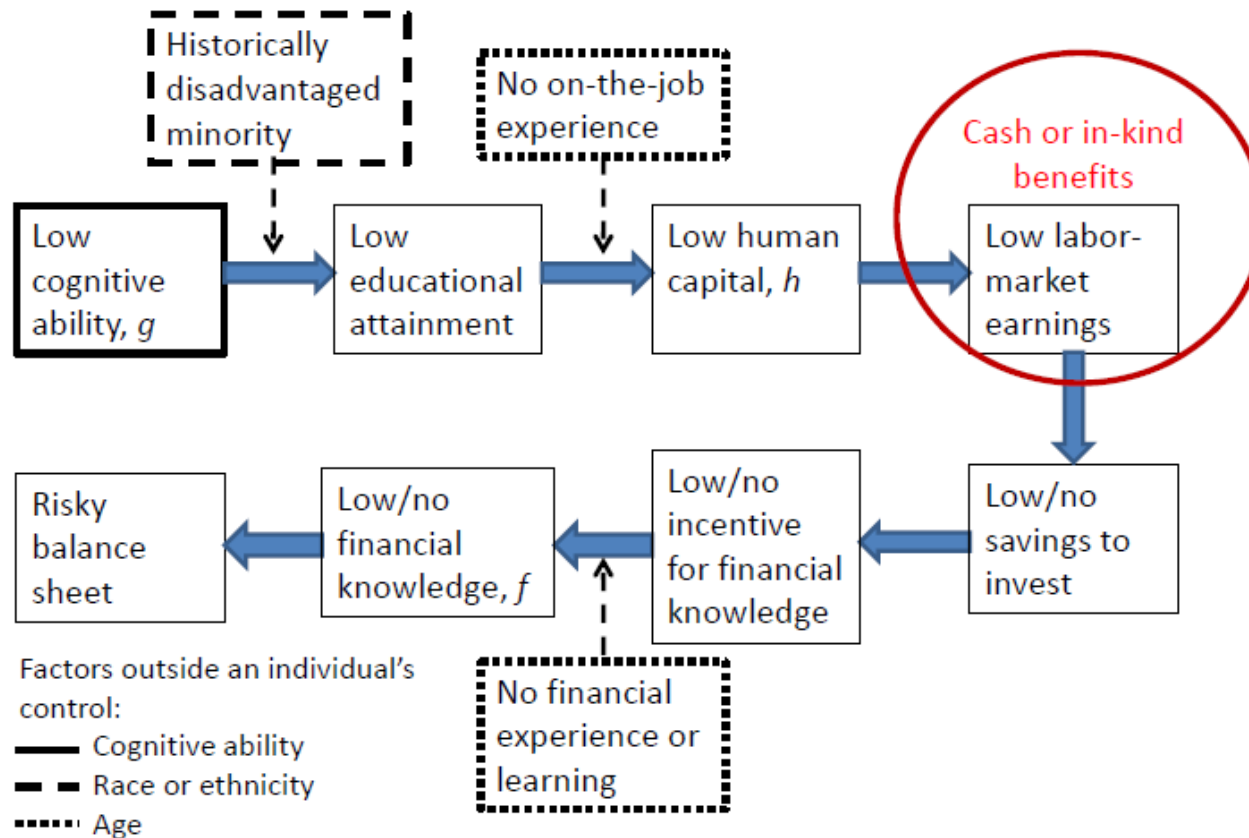






# Cash and In-Kind Benefits May Not Translate into Financial Knowledge

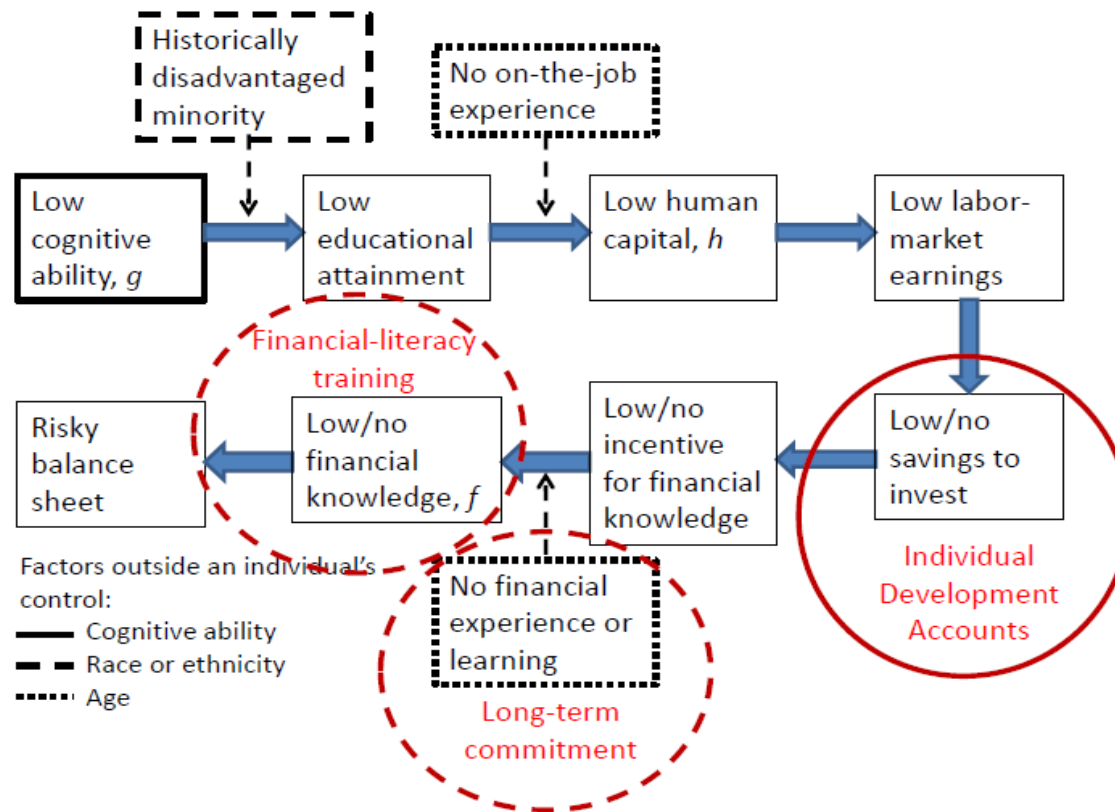
Intervention Strategy: Redistribution in Cash or In Kind





# Individual Development Accounts Intervene at Several Points

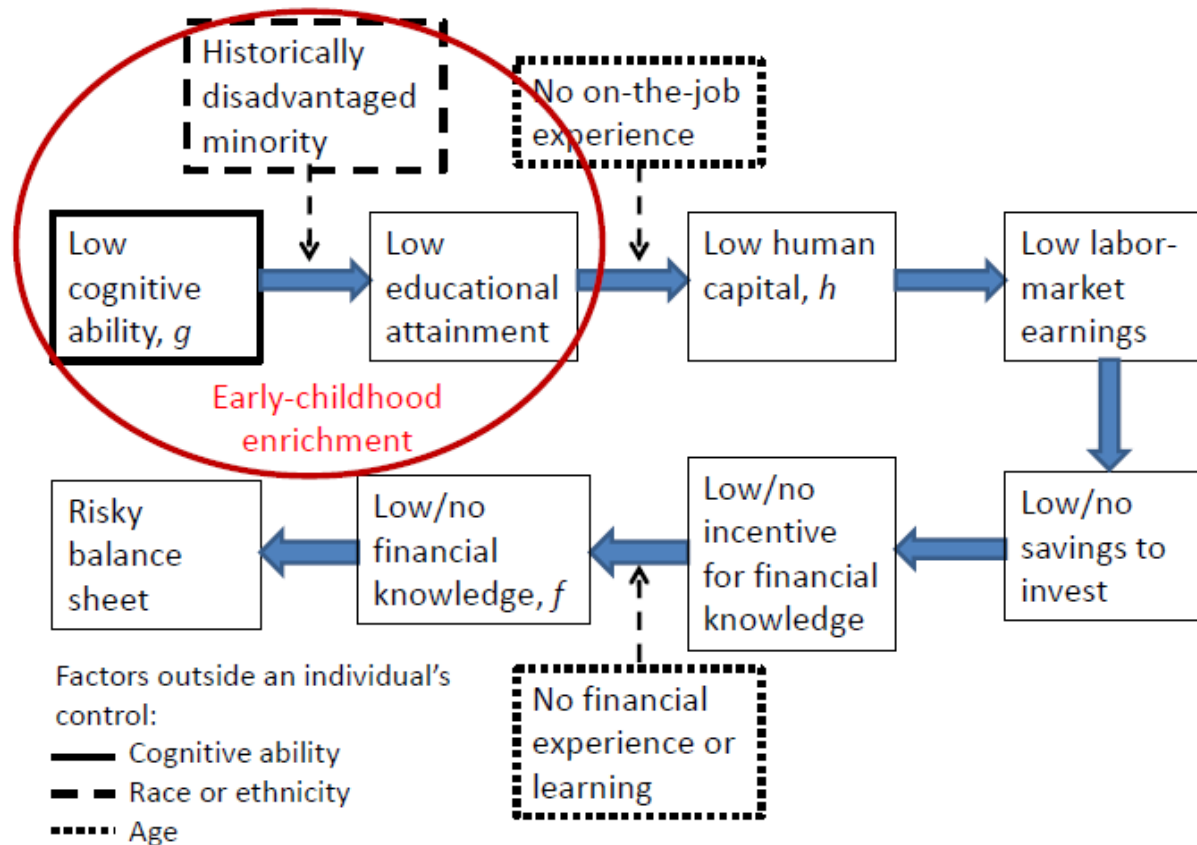
## Intervention Strategy: Individual Development Accounts





# Early Childhood Interventions Target Human Capital

## Intervention Strategy: Early-Childhood Enrichment





## *Why Did Economically Vulnerable Families Enter the Crisis With Risky Balance Sheets?*

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- **Economically vulnerable families were more likely to have risky balance sheets in 2007, and then to suffer large percentage wealth losses during the crisis.**
  
- **Common causes drive both:**
  - Youth and inexperience
  - Low level of human capital
  - Legacy of discrimination
  
- **Interventions should target human-capital formation and experience-based learning.**



## *The Macro View: Household Wealth and the Economy*

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- **How much wealth did the average household lose? How much has been rebuilt so far?**
- **What assets contributed the most to wealth losses and subsequent gains?**
- **Did wealth losses and deleveraging slow the recovery?**
- **If households are still rebuilding wealth, why is the saving rate so low?**



## *Recovery of Average Wealth Loss: 76 Percent*

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- **Average inflation-adjusted household wealth loss, Q1.2007 (peak) through Q1.2009 (trough)**

**-\$153,000**

**-22.2%**

- **Average inflation-adjusted household wealth regained, Q1.2009 (trough) through Q2.2013 (latest)**

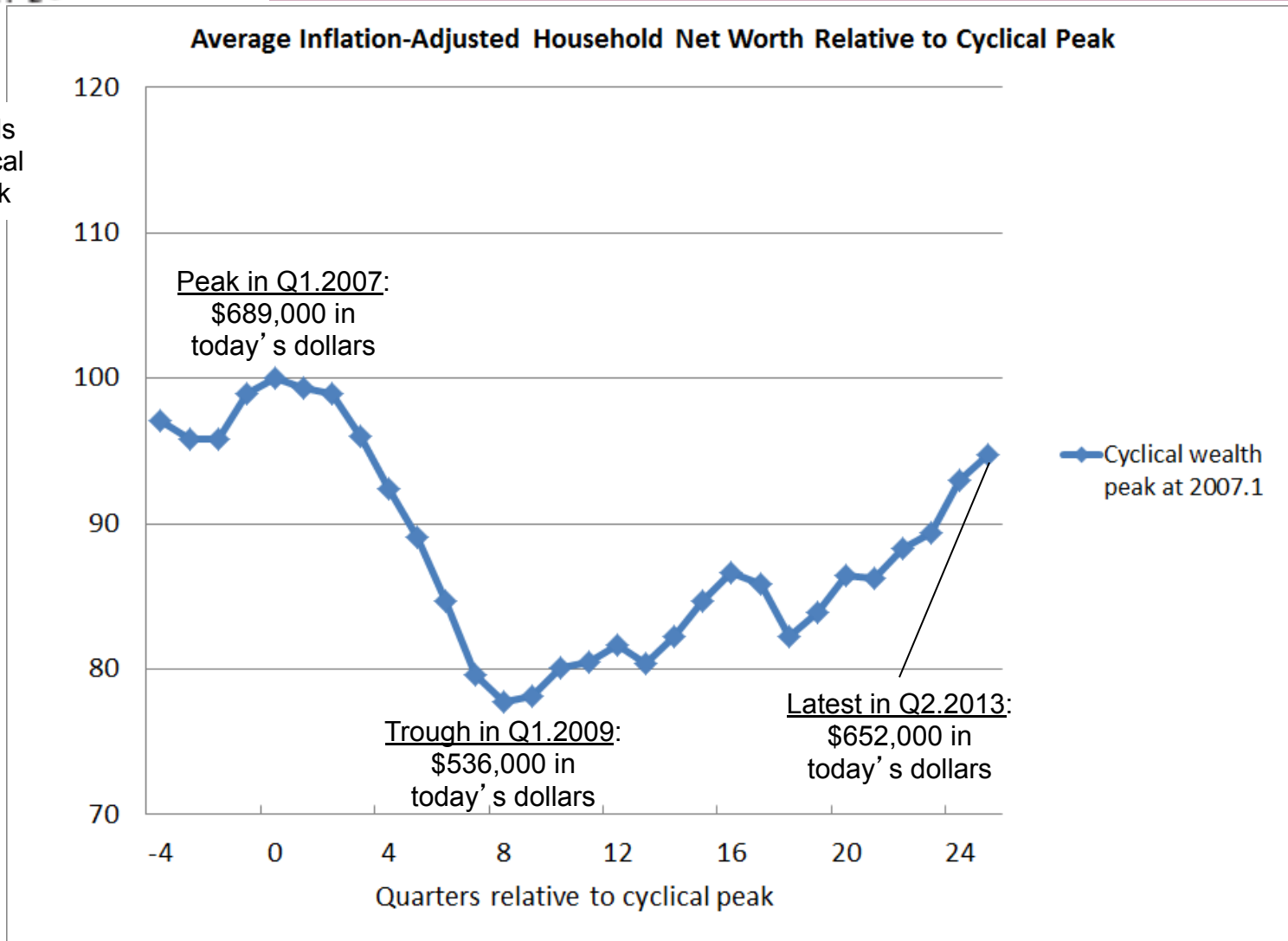
**+\$117,000**

**+21.8%**



# Average Real Household Wealth Hasn't Returned to Peak of 2007

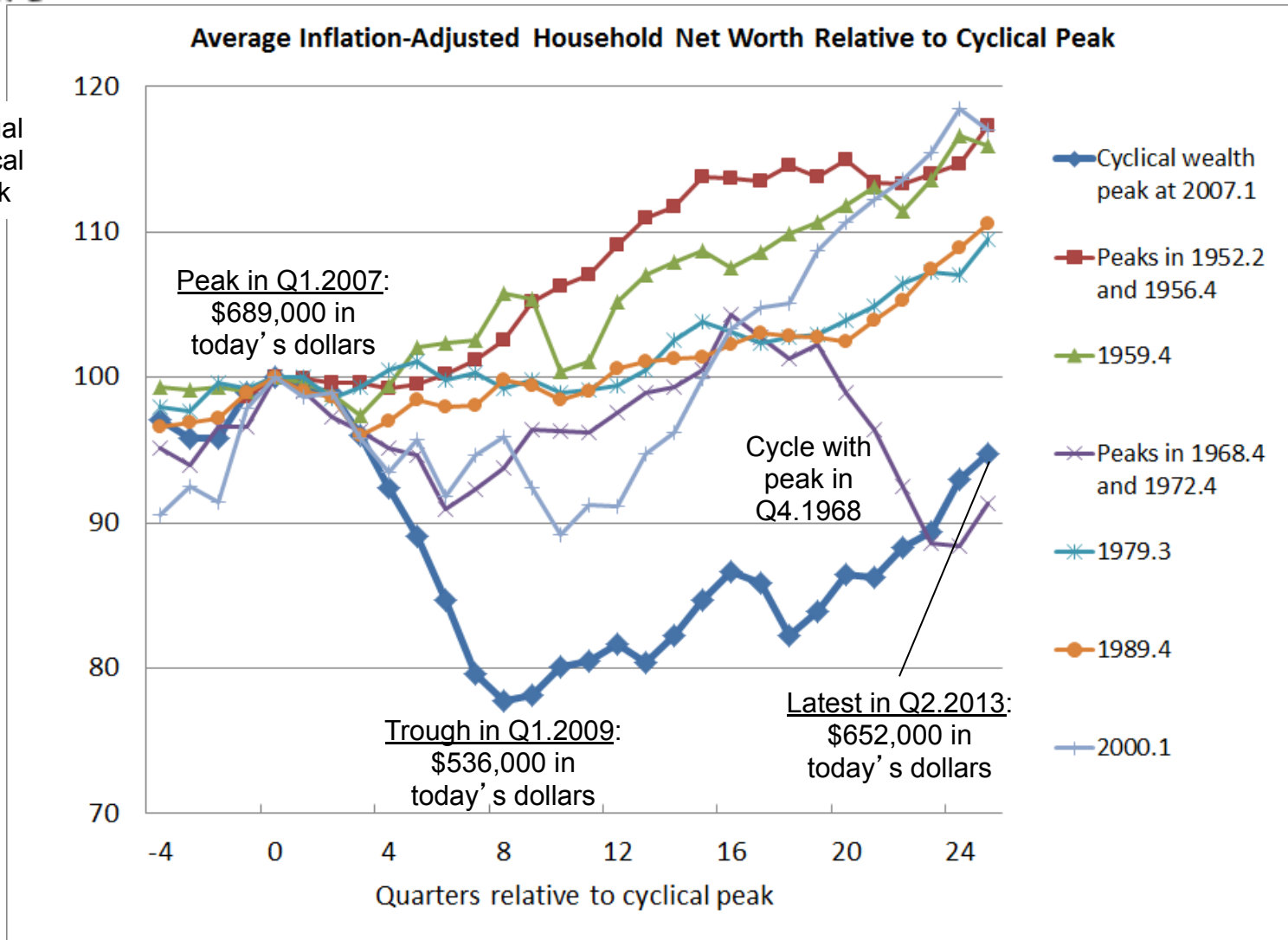
Index equals  
100 at cyclical  
wealth peak





# Wealth Loss During 1968-75 Cycle Also Was Protracted

Indexes equal 100 at cyclical wealth peak



Sources:  
Federal Reserve Board,  
Bureau of Economic Analysis,  
Census Bureau





## *Composition of Household Wealth Losses and Recoveries*

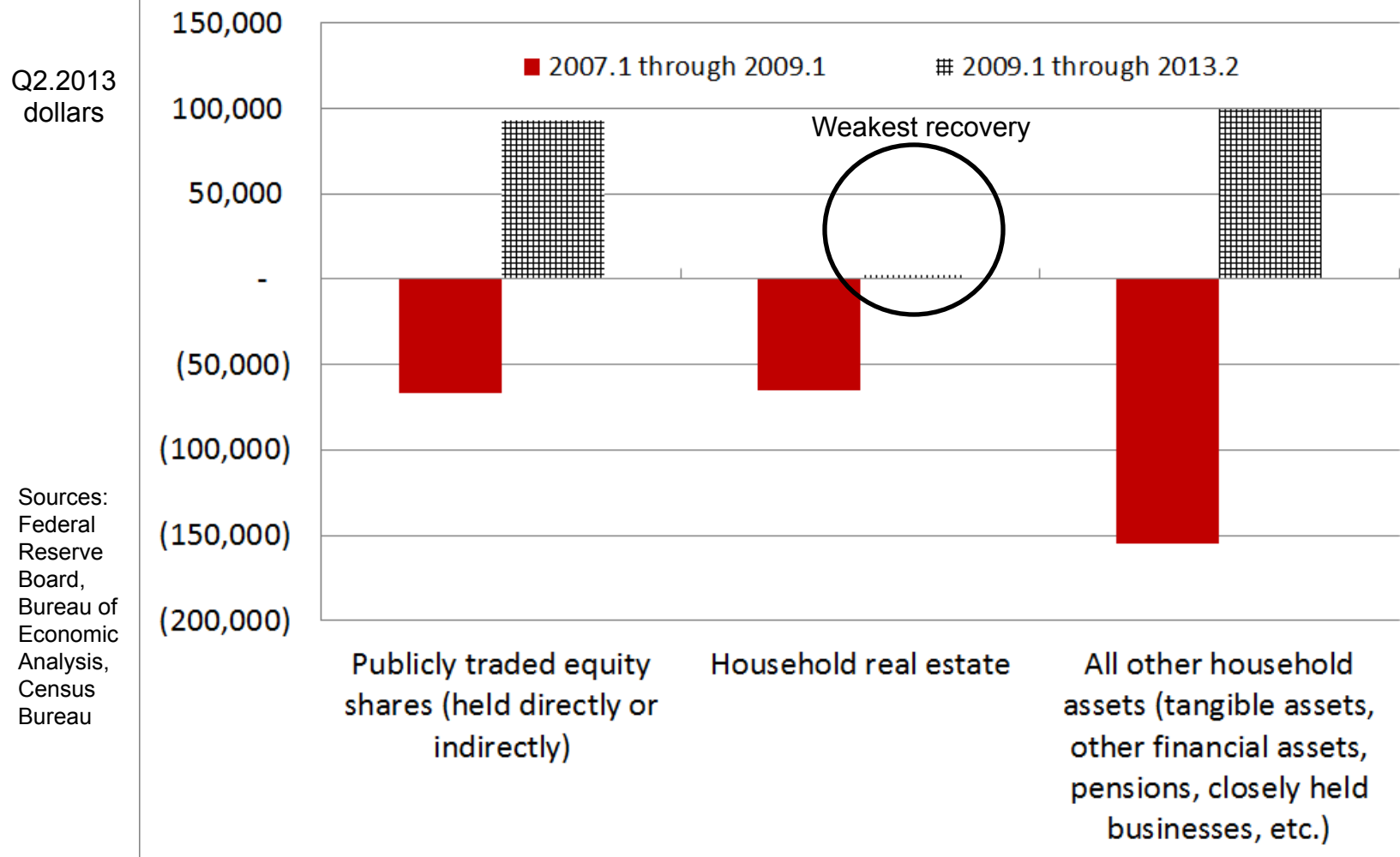
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- **Composition of gains and losses by asset type**
  - **Losses**
    - Same order of magnitude in dollar terms on stocks, houses, and “all other assets”
  - **Recoveries through Q2.2013**
    - Stocks at 113% of pre-recession peak
    - Other assets at 93%
    - Household RE at 70%



# Wealth Changes By Asset Type: Measured at Peak and Trough of Total Net Worth

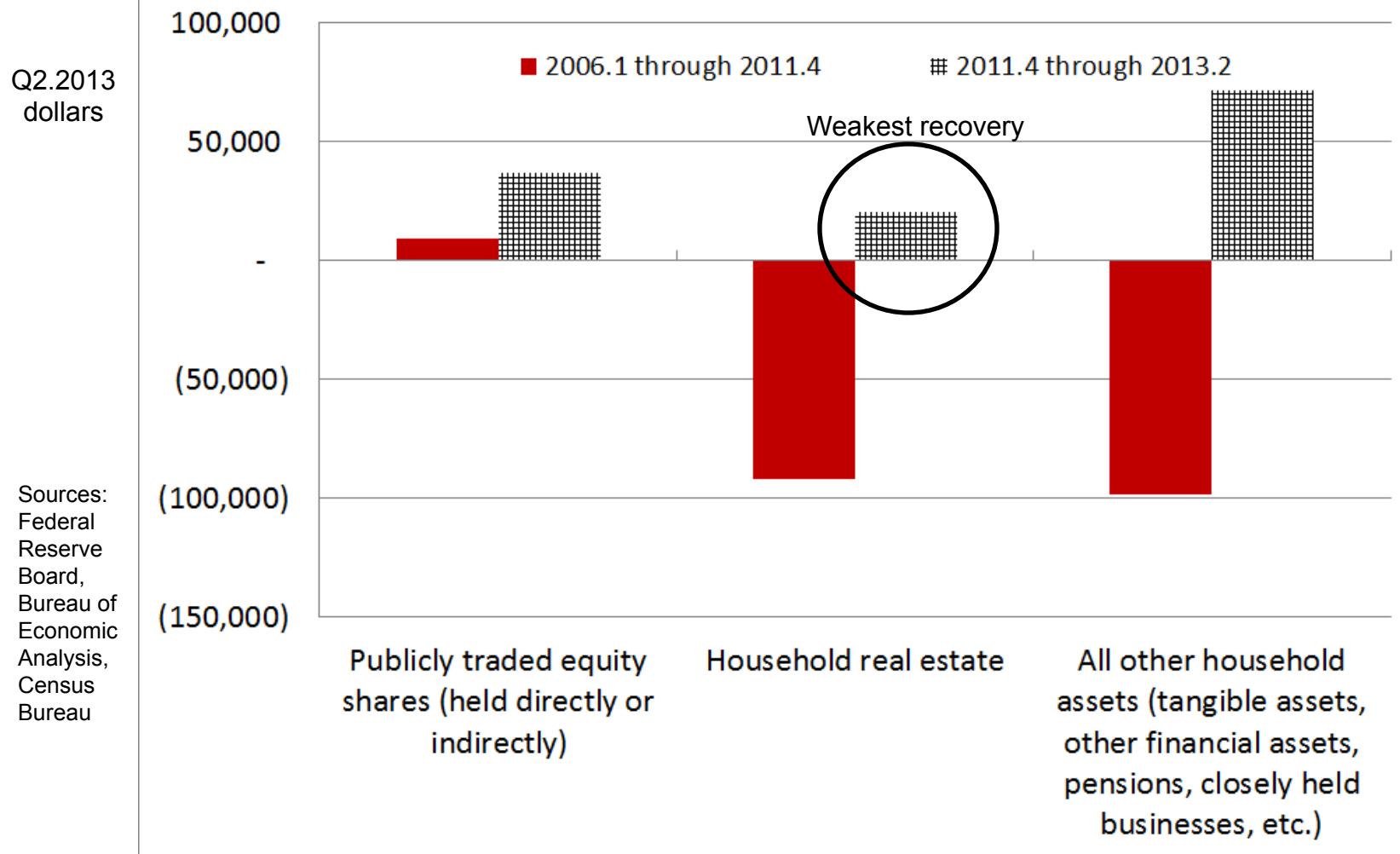
Average Household Wealth Losses and Gains By Asset Category





# Wealth Changes By Asset Type: Measured at Peak and Trough of Housing Values

**Average Household Wealth Losses and Gains By Asset Category**

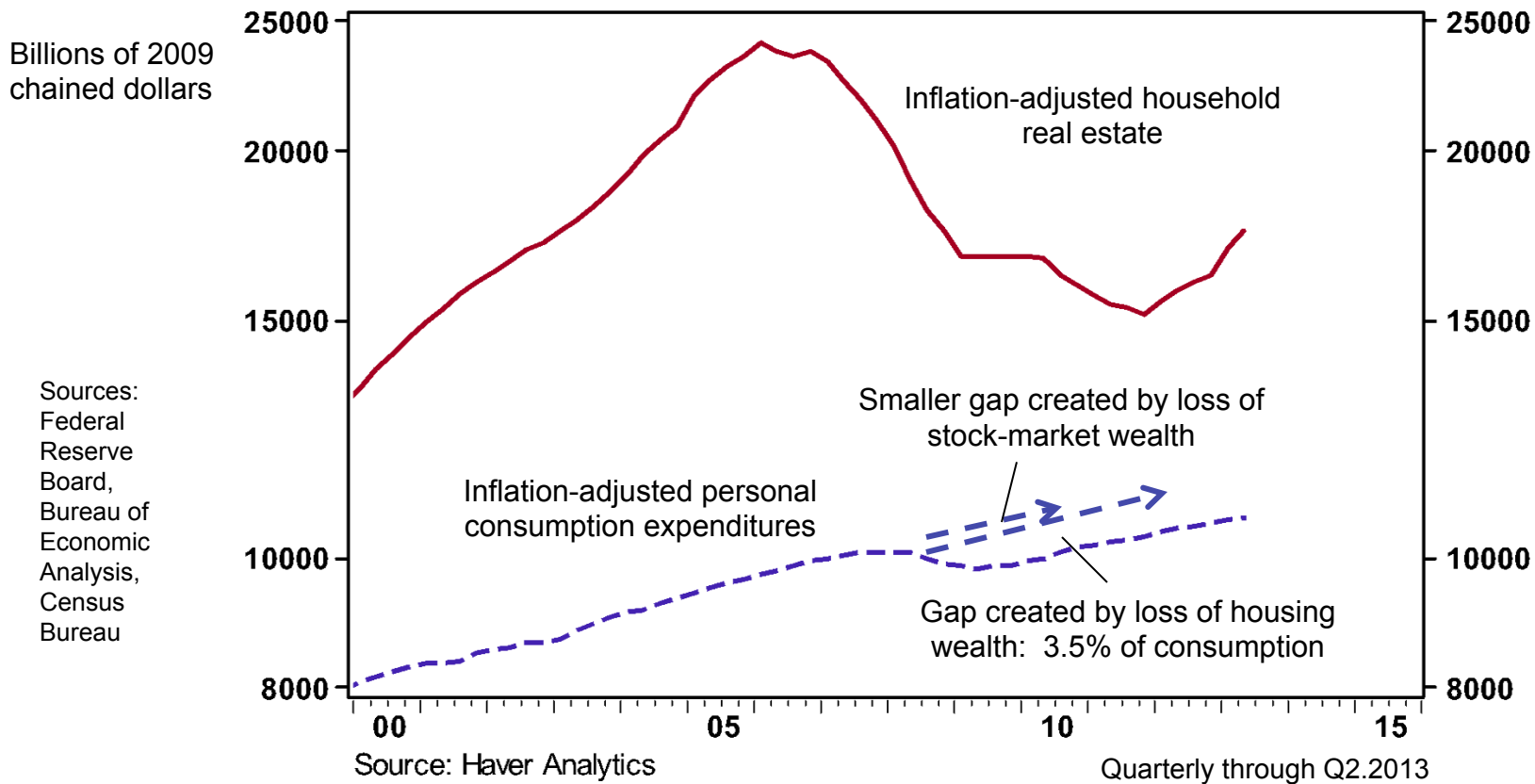




# Case, Quigley, and Shiller (2013): Housing Wealth Effect Reduced Consumer Spending

Inflation-Adjusted Value of Household Real Estate  
Billions of 2009 chained dollars

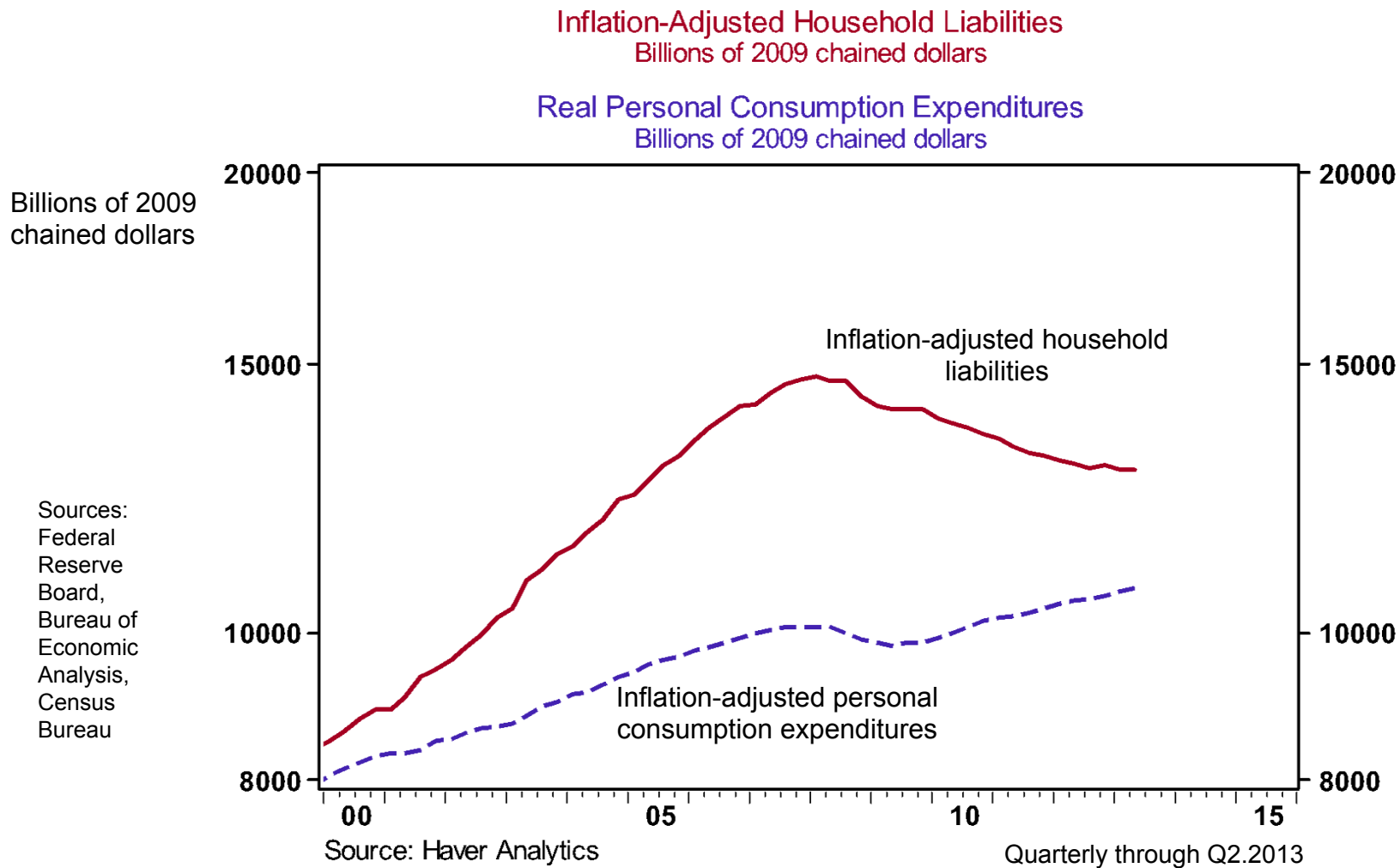
Real Personal Consumption Expenditures  
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Sources:  
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# *Dynan and Edelberg (2013): Debt Overhang Slows Deleveraging Households*



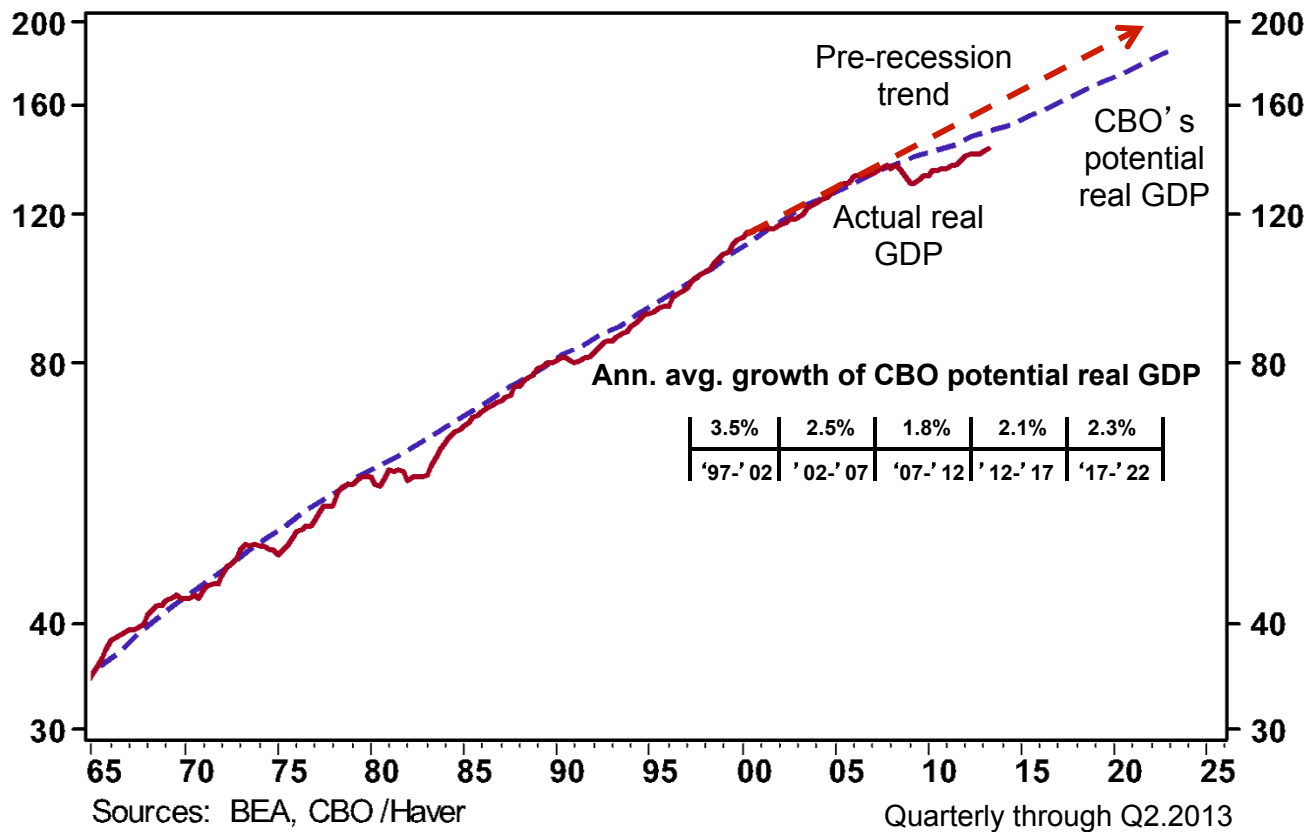


# Much If Not All of Recession Output Loss Now Seen as Permanent

**Actual Real GDP**  
 Index level set to 100 in 1997 (when actual equaled potential)

**CBO Estimate of Potential Real GDP**  
 Index level set to 100 in 1997 (when actual equaled potential)

Index levels equal 100 in 1997



Sources:  
 Bureau of  
 Economic  
 Analysis,  
 Congress  
 -ional  
 Budget  
 Office

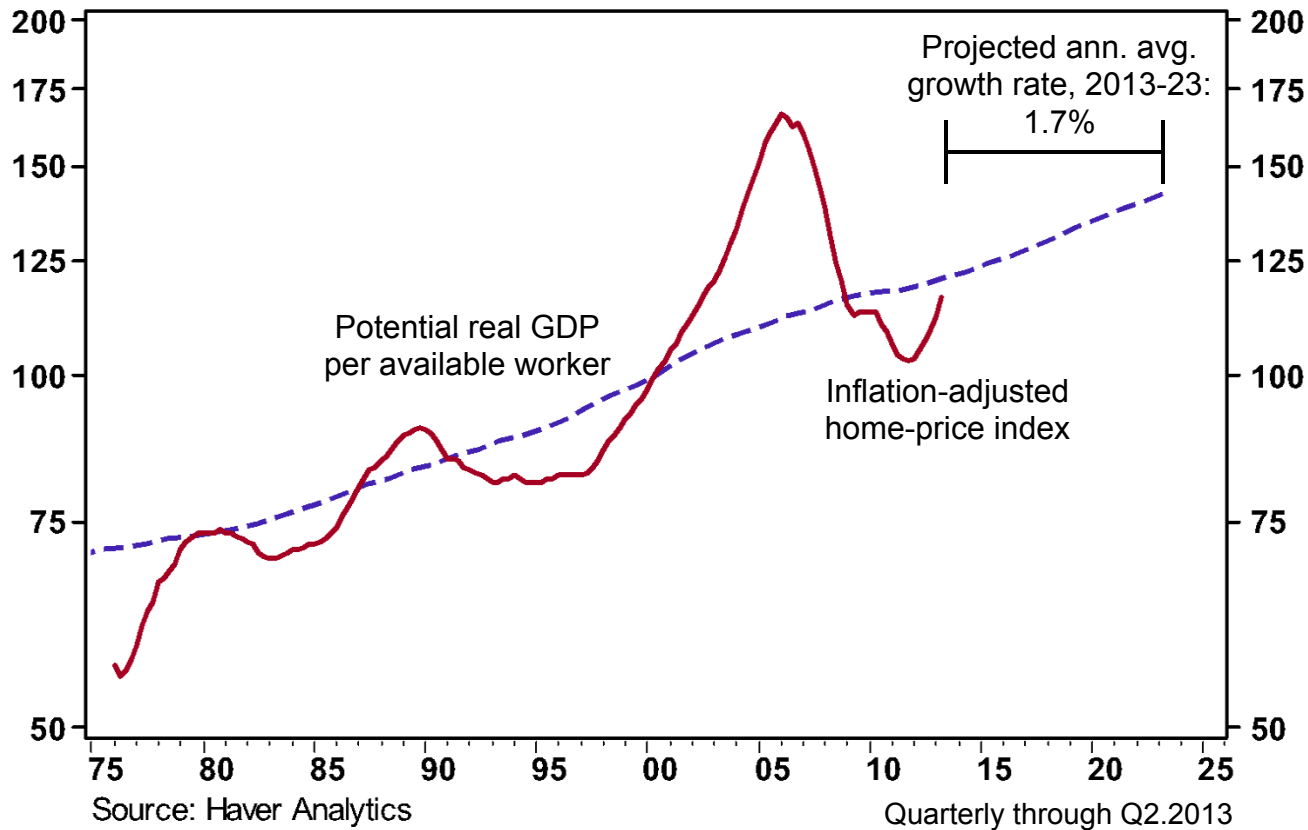


# *Real House Prices May Not Return to 2006 Peak for Decades*

Inflation-Adjusted CoreLogic National Home-Price Index  
Average level in 2000 equals 100

Real Potential GDP Per Available Worker  
Average level in 2000 equals 100

Index levels equal 100 in 1997



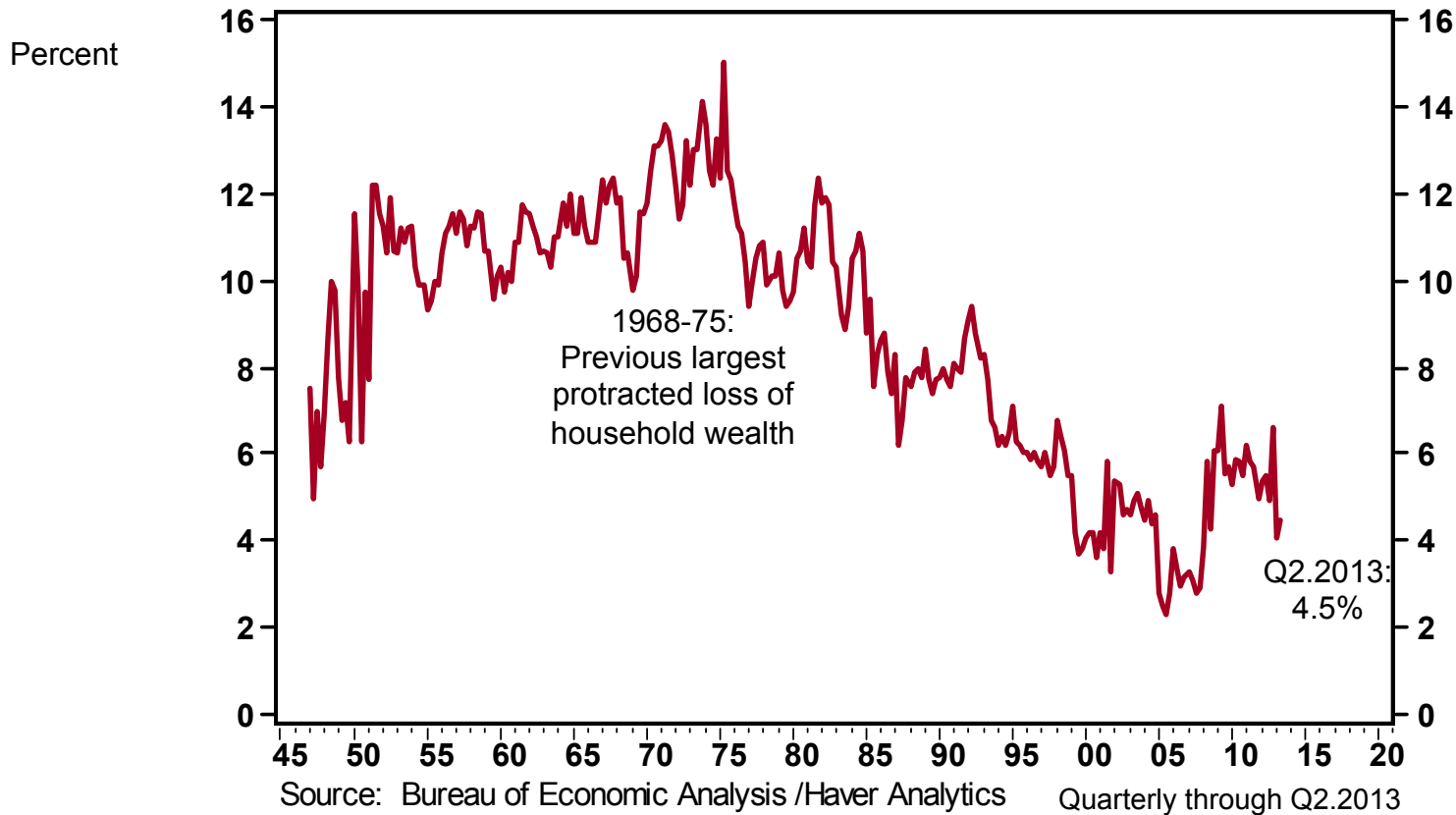
Sources:  
CoreLogic,  
Bureau of  
Economic  
Analysis,  
Congressional  
Budget  
Office



# *A Wealth Puzzle: If HHs are Rebuilding Wealth, Why Isn't HH Saving Rate Higher?*

## Personal Saving Rate

Percent of disposable personal income







## *Household Wealth and the Economy: Is Wealth Rebuilding Finished?*

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- **Housing probably had the biggest effect on consumer spending and is slowest asset to recover.**
- **Household deleveraging continues.**
- **Slower projected economic growth suggests incomes and house prices unlikely to increase much.**
- **The typical family faces stagnant income and house prices, and still may have too much debt—it's not easy to rebuild wealth!**



## *Center for Household Financial Stability*

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*[www.stlouisfed.org/household-financial-stability/](http://www.stlouisfed.org/household-financial-stability/)*