



## *Restoring Household Financial Stability: Why Household Balance Sheets Matter*

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

February 6, 2013

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Federal Reserve Bank of St. Louis

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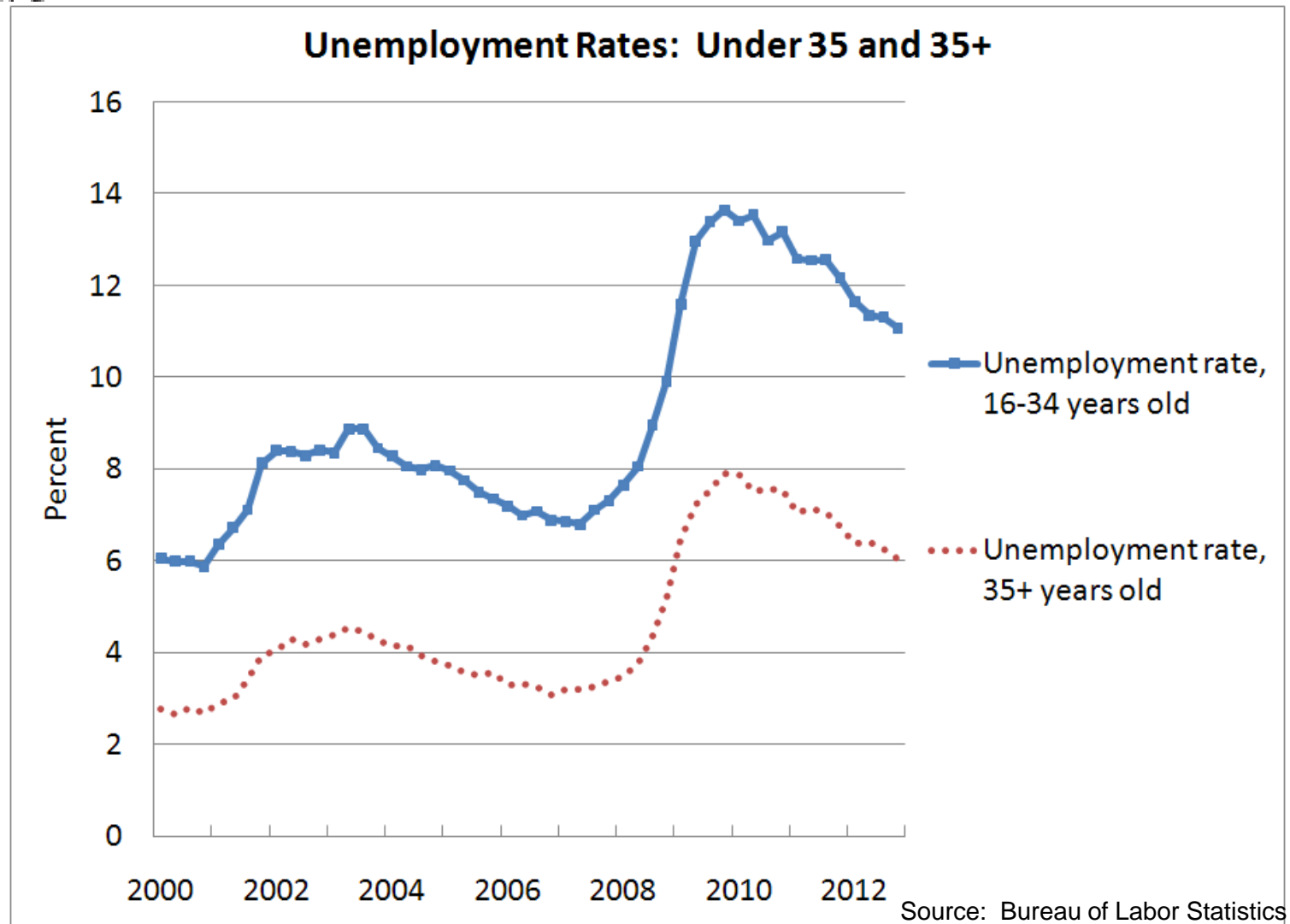
## *Why Did Economically Vulnerable Families Enter the Crisis With Risky Balance Sheets?*

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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?**

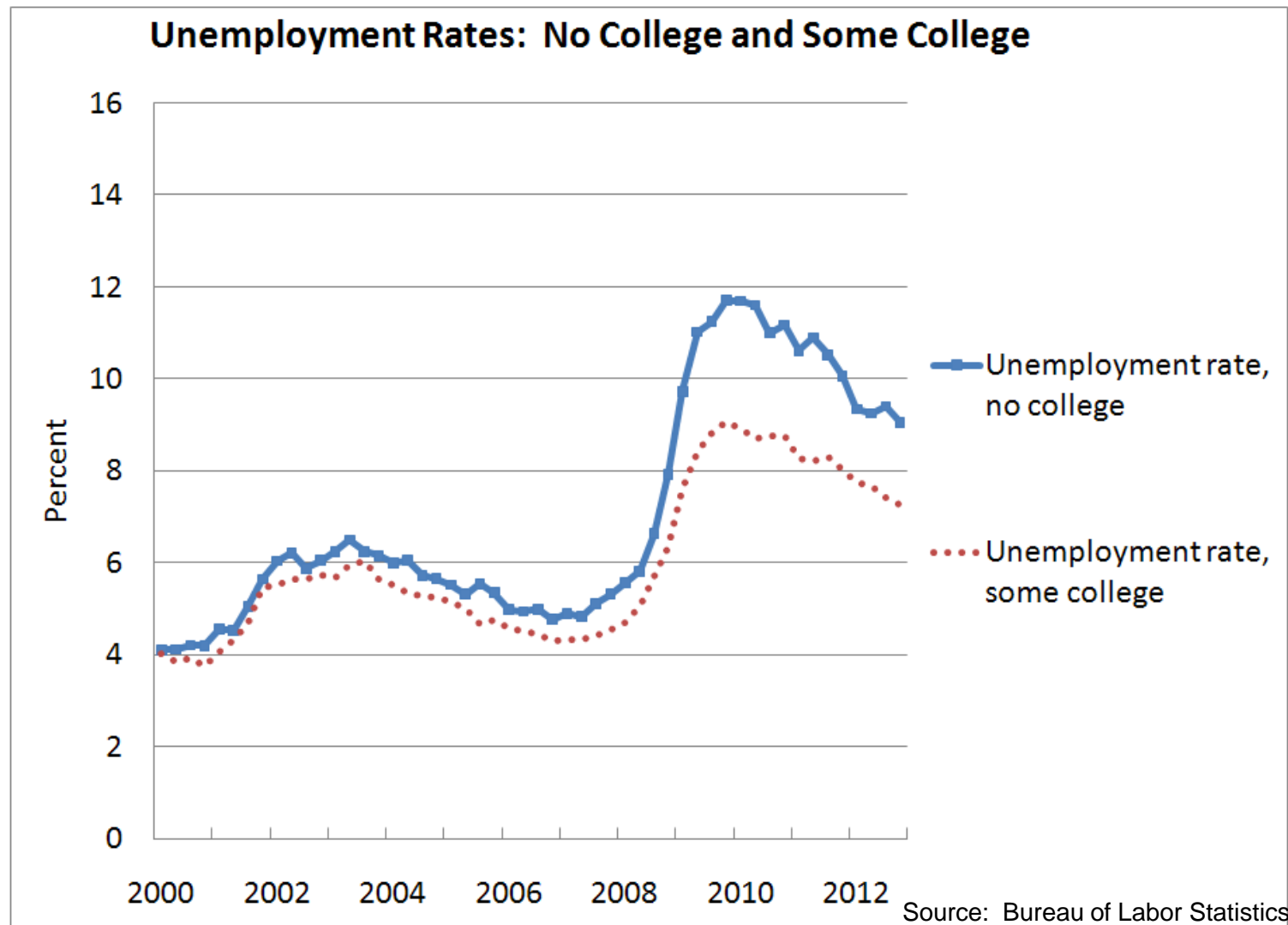


## *Economically Vulnerable Group: The Young*



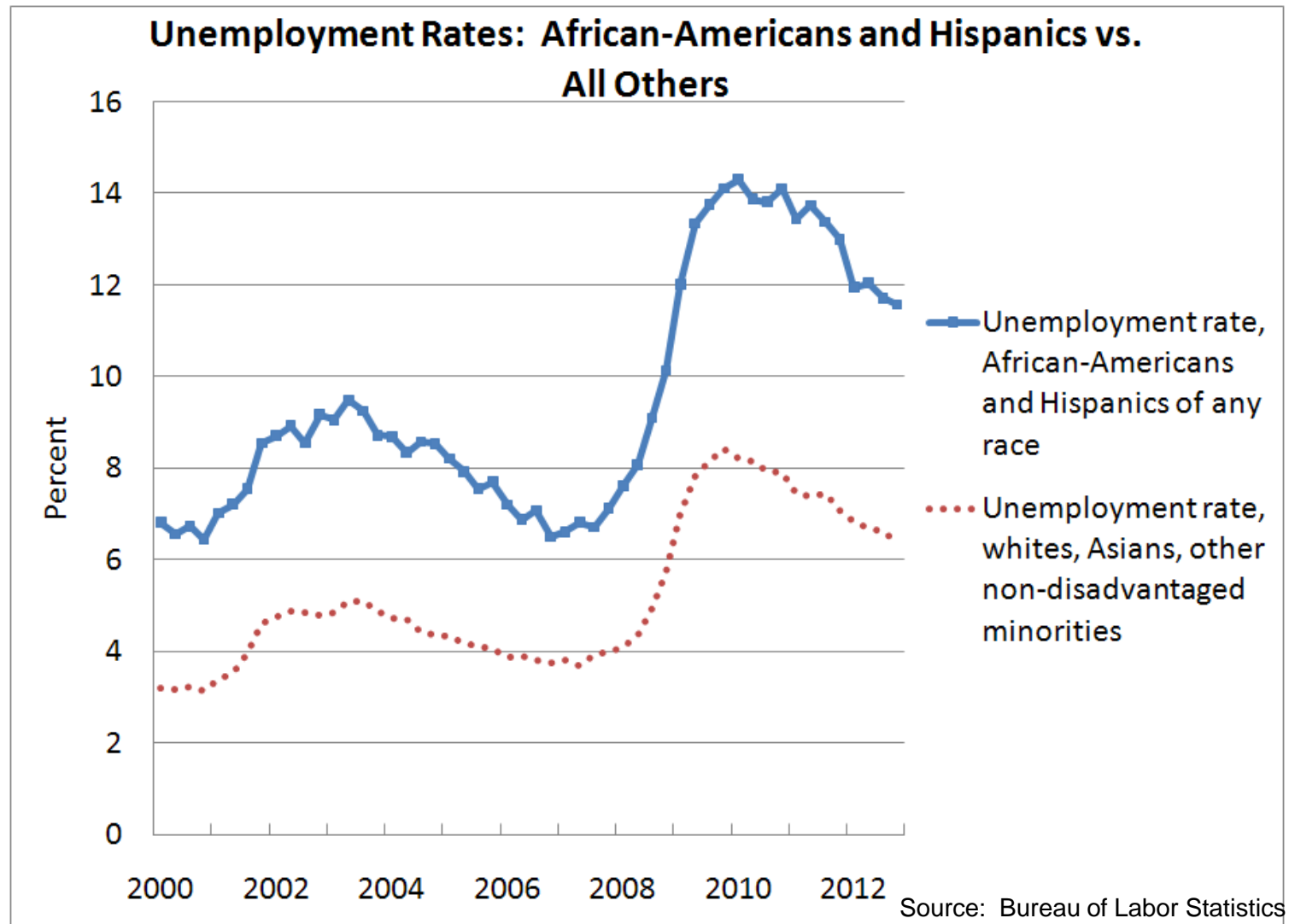


## *Economically Vulnerable Group: Less-Educated*





## *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%
  - **Less-than HS families:** -28%
  - **Minority families:** -31%
  
- **Groups with smaller average losses**
  - **Old (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>		
	<b>Safe and liquid assets relative to annual income</b>		
<b>Young families (&lt; 40 years old)</b>	-16 percentage points		
<b>High-school drop-out families</b>	-16		
<b>African-Americans and Hispanics</b>	-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	



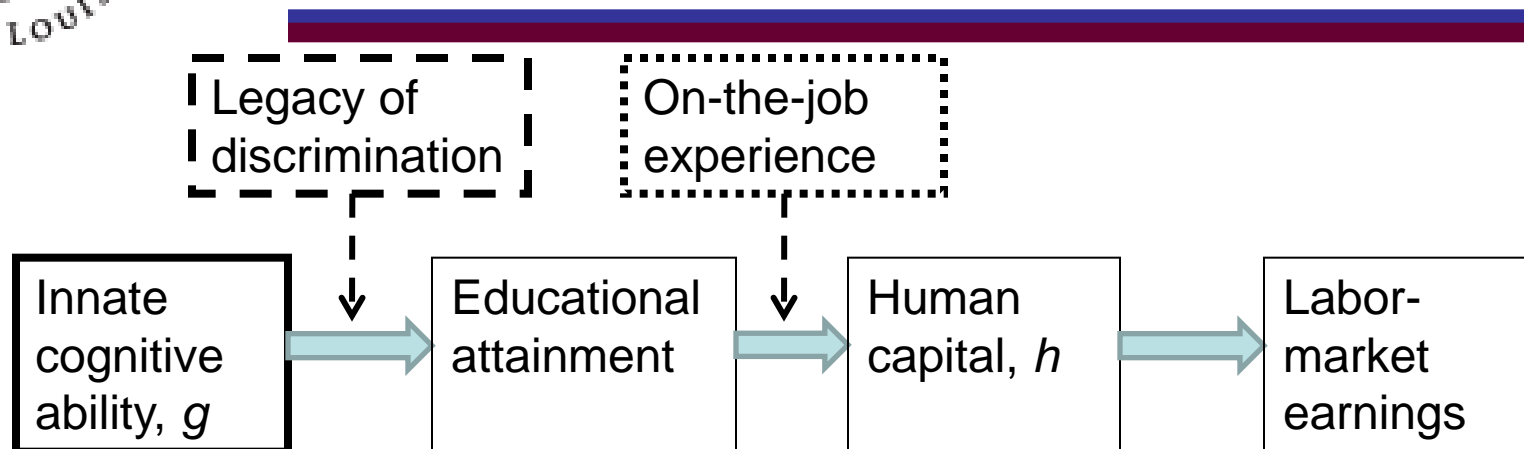
# *Economically Vulnerable Groups Had Risky Balance Sheets Going into the Crisis*

## 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



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

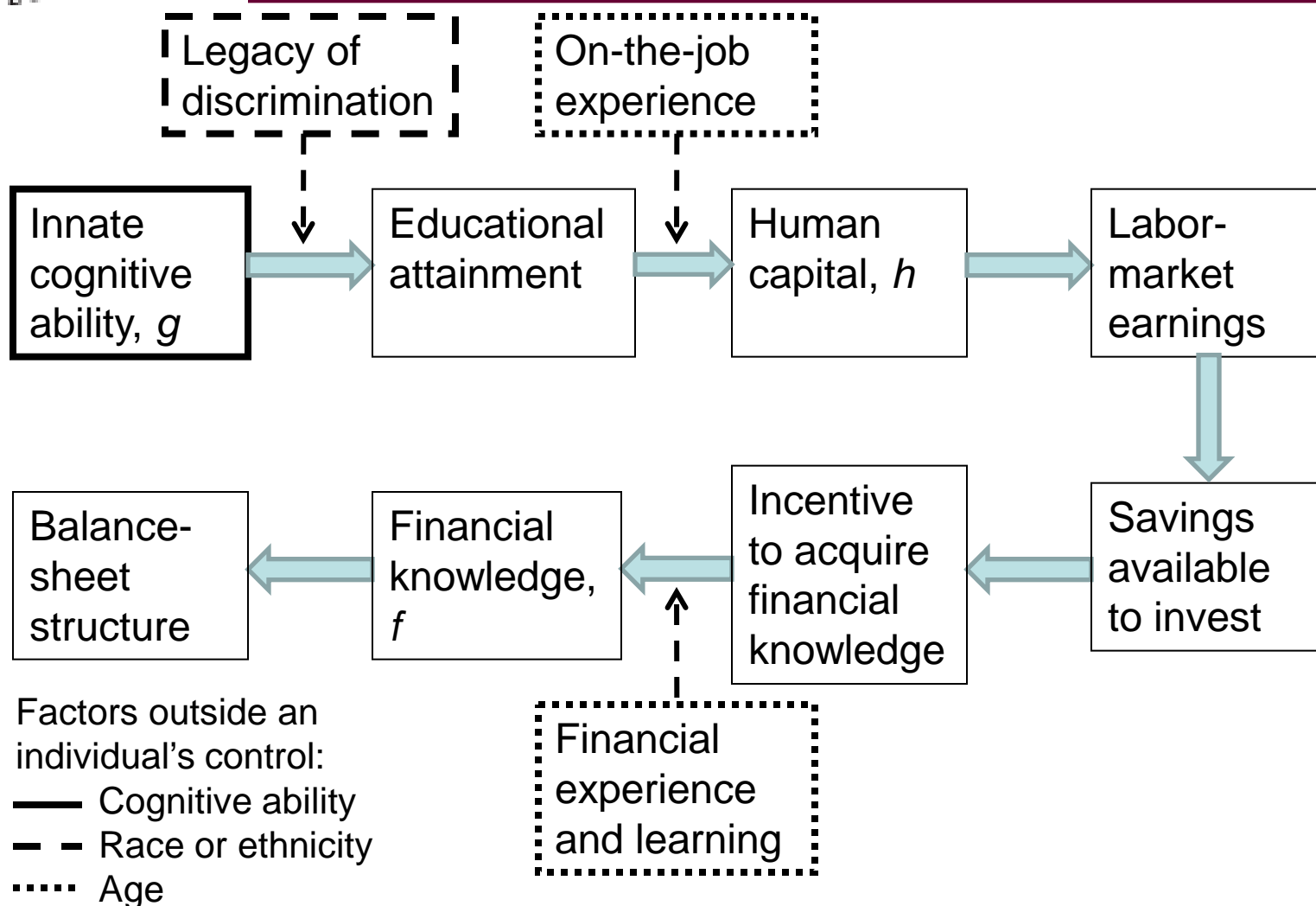


Factors outside an individual's control:

- 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*

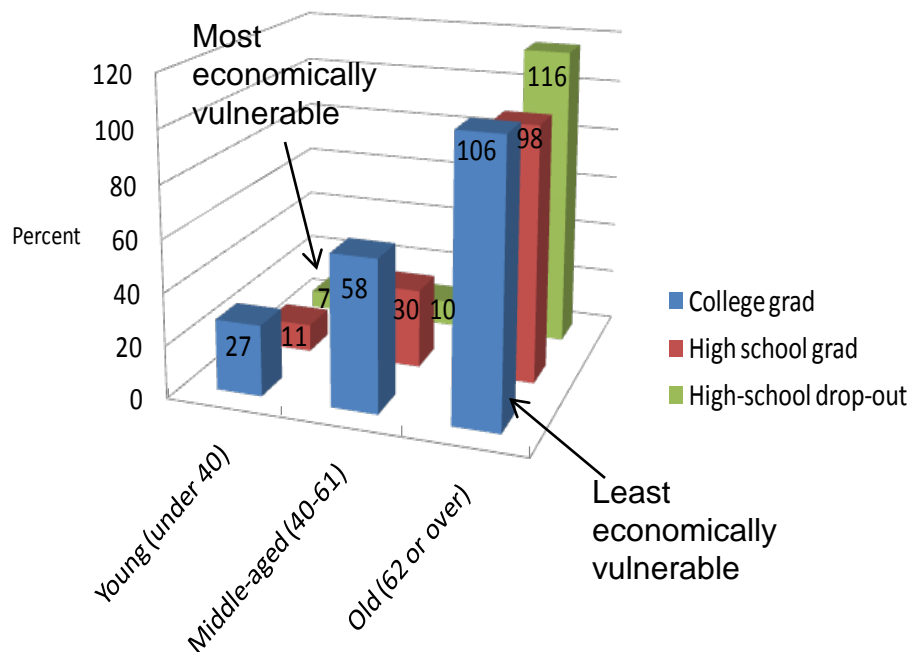
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- **All families, average 2004/2007 safe-assets-to-income ratio**
  - **Overall: 56%**
- **Economically vulnerable groups**
  - **Young (<40) families: 20%**
  - **Minority families: 19%**
  - **Less-than HS families: 54%**
- **Less-vulnerable groups**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

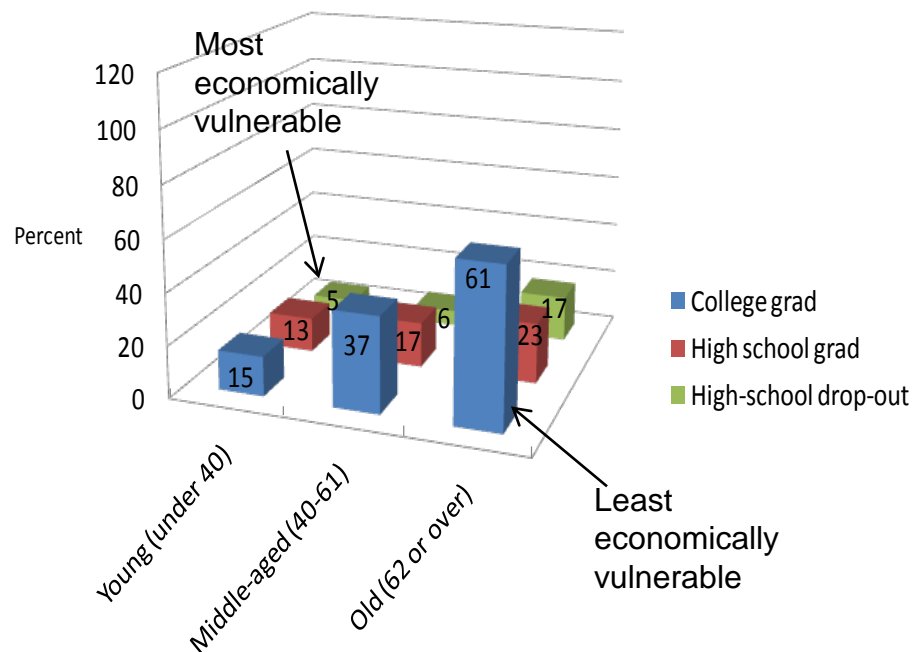


# Ratio of Safe and Liquid Assets to Income

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*

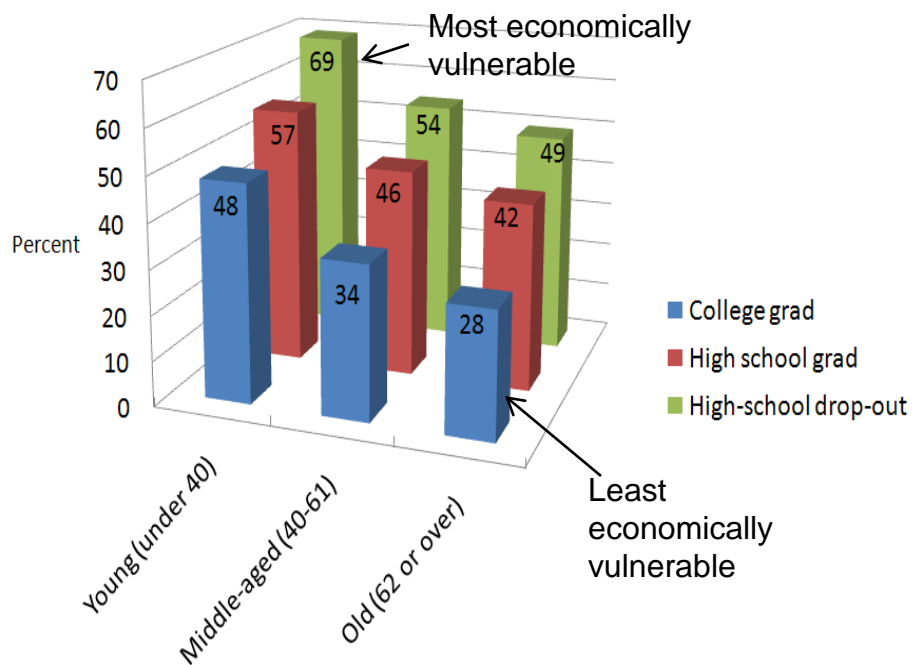
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- **All families, average 2004/2007 RRE portfolio share**
  - **Overall: 39%**
  
- **Economically vulnerable groups**
  - **Young (<40) families: 54%**
  - **Minority families: 58%**
  - **Less-than HS families: 59%**
  
- **Less-vulnerable groups**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

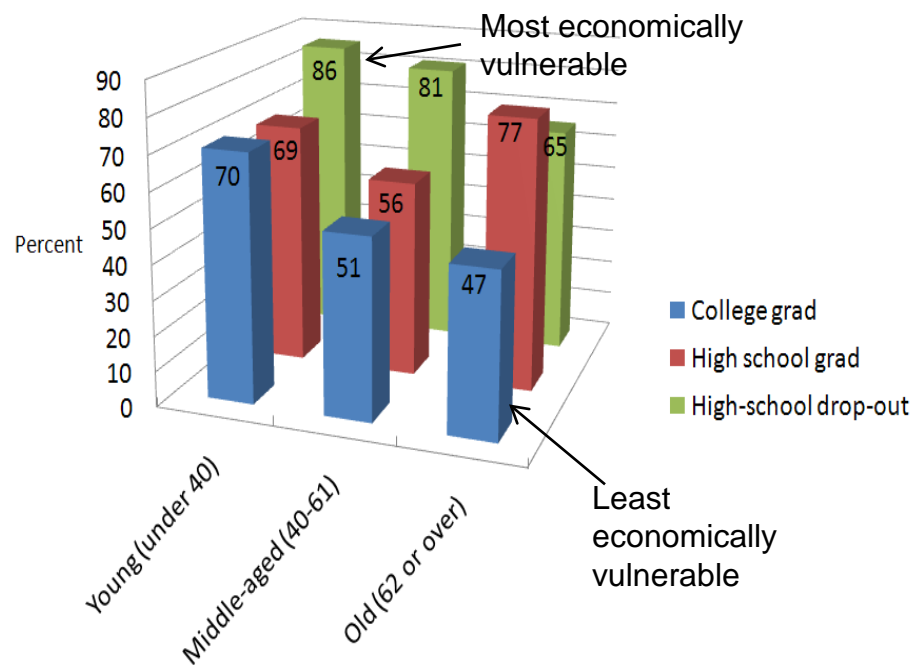


# *Residential Real-Estate Portfolio Shares*

**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*

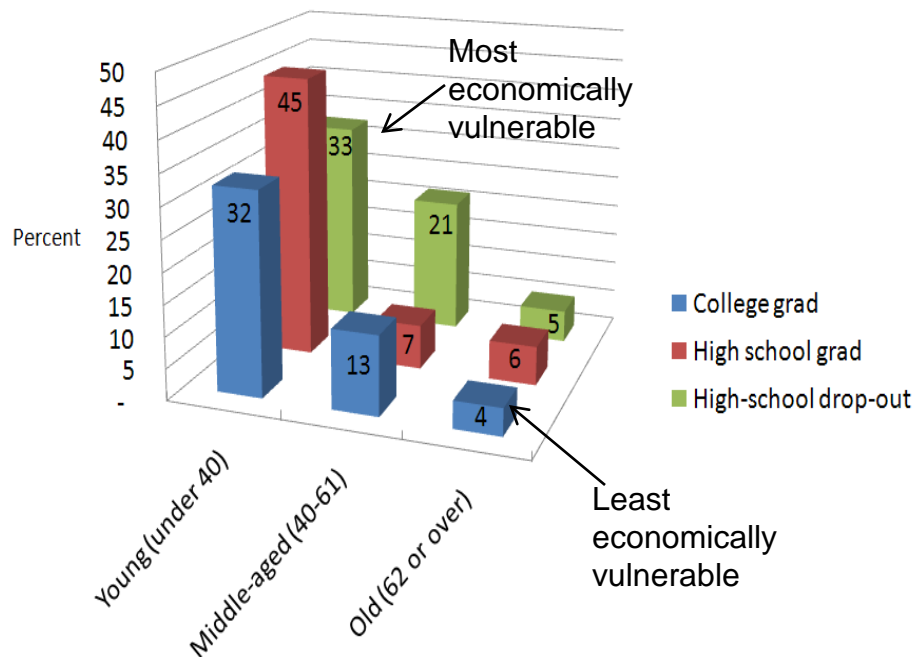
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- **All families, average 2004/2007 debt-to-assets ratio**
  - **Overall: 15%**
  
- **Economically vulnerable groups**
  - **Young (<40) families: 39%**
  - **Minority families: 31%**
  - **Less-than HS families: 16%**
  
- **Less-vulnerable groups**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

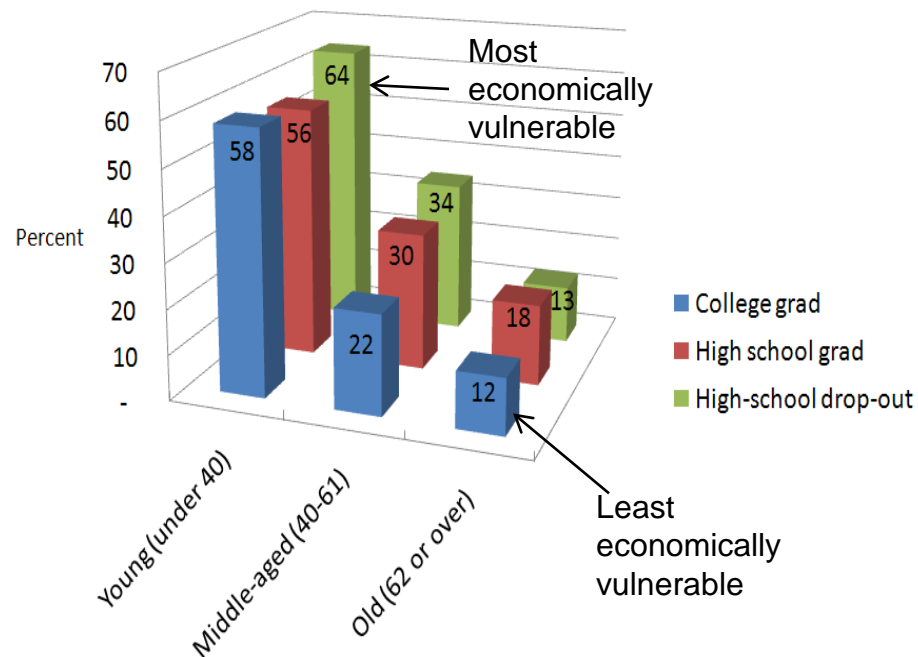


# Ratio of Total Debt to Total Assets

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



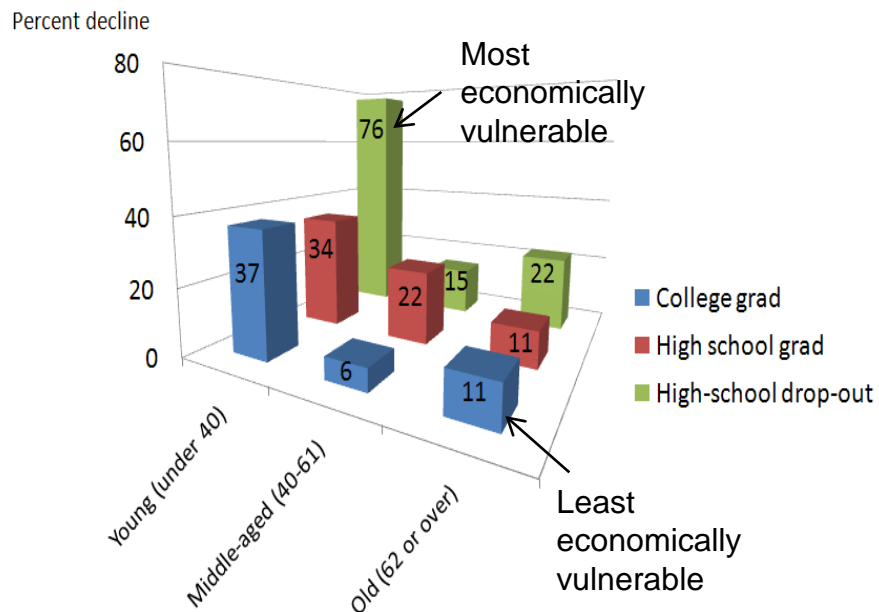
Ratio of Total Debt to Total Assets in 2007 Among African-Americans and Hispanics



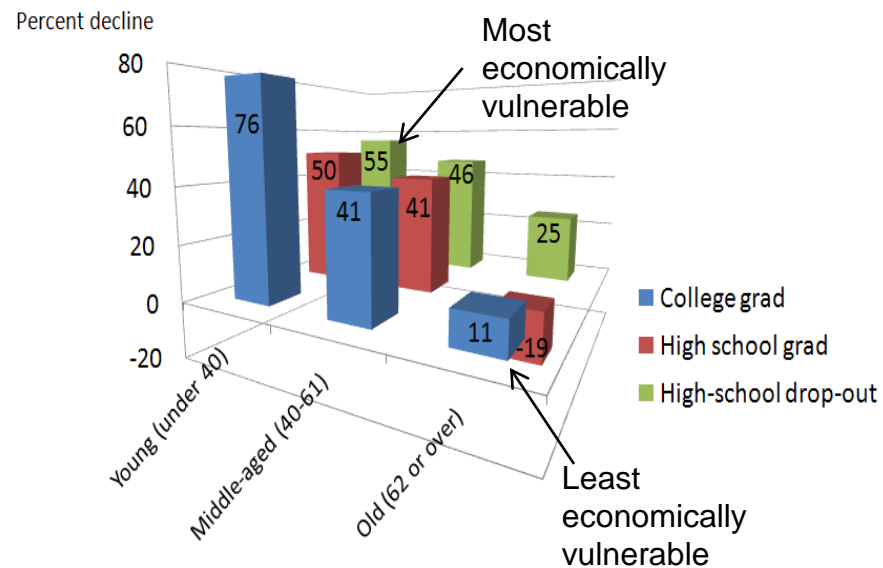


# *Wealth Loss During the Crisis*

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



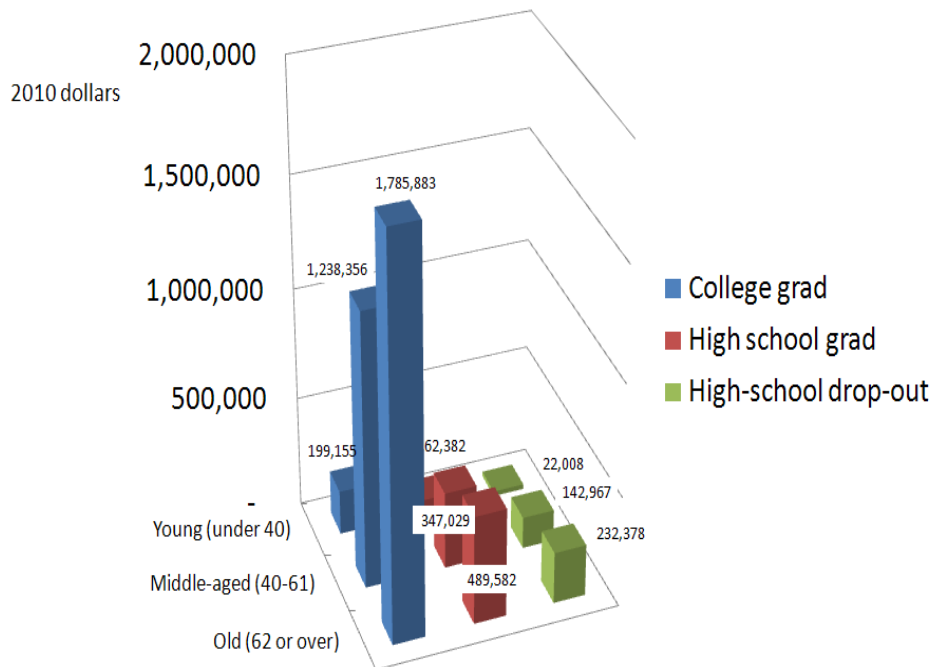
**Percent Decline in Mean Net Worth Between the 2004-07 Average and 2010 Among African-Americans and Hispanics**



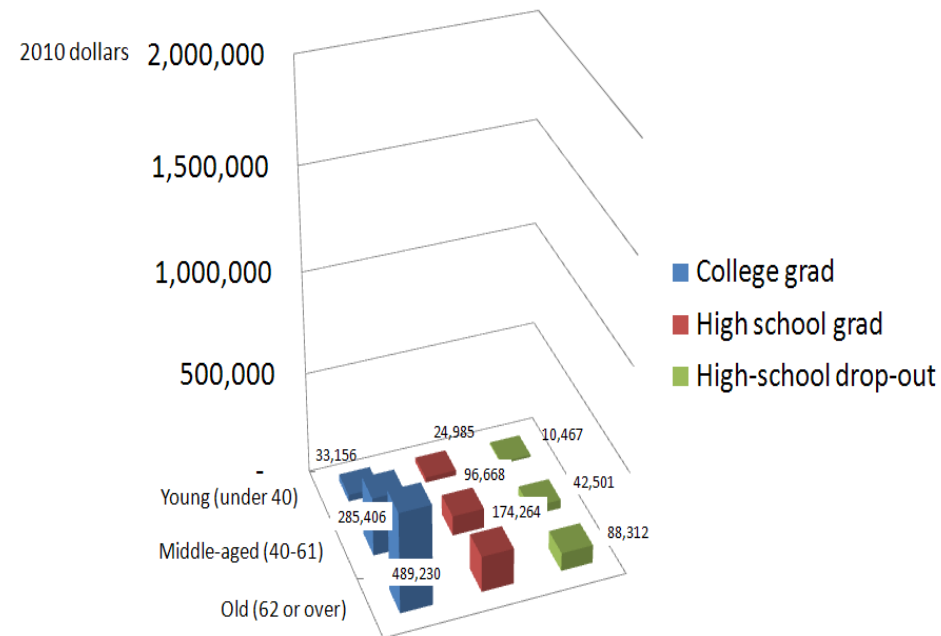


# *Wealth in 2010: Pre-Crisis Disparities Re-inforced by Crisis Losses*

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



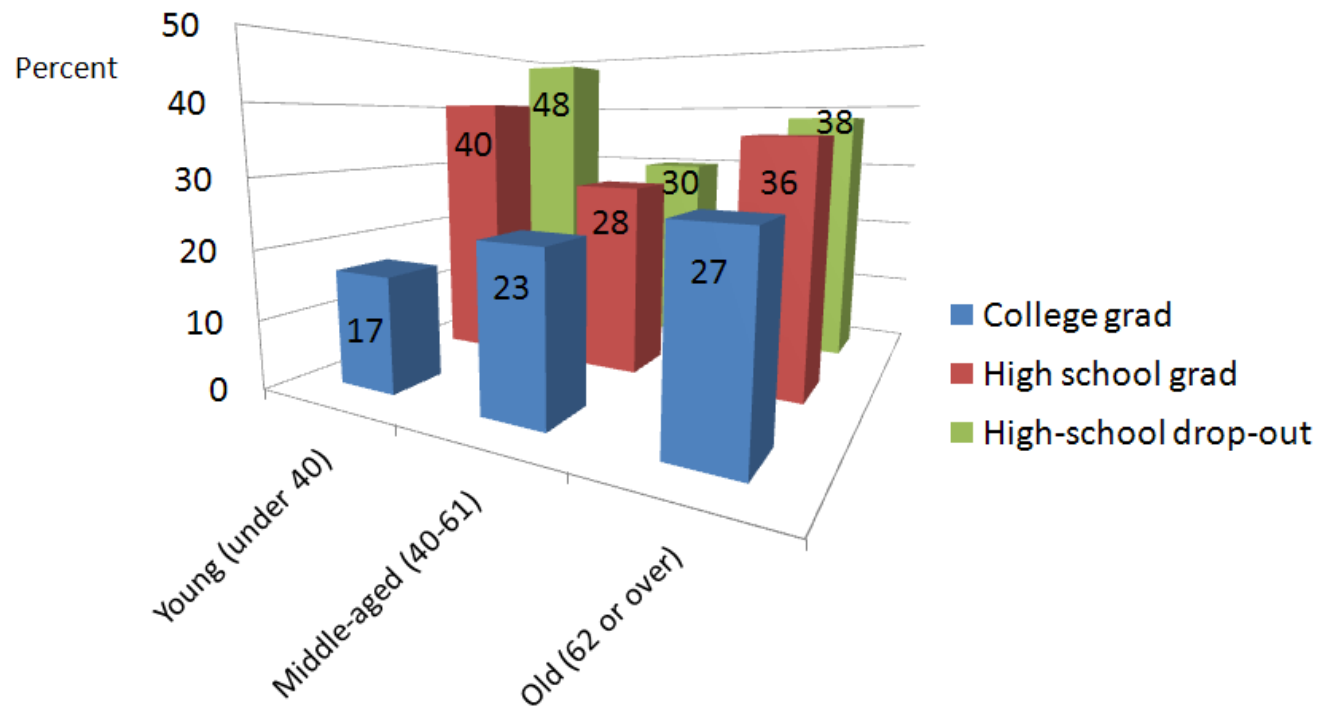
**Average African-American or Hispanic Family Net Worth in 2010**





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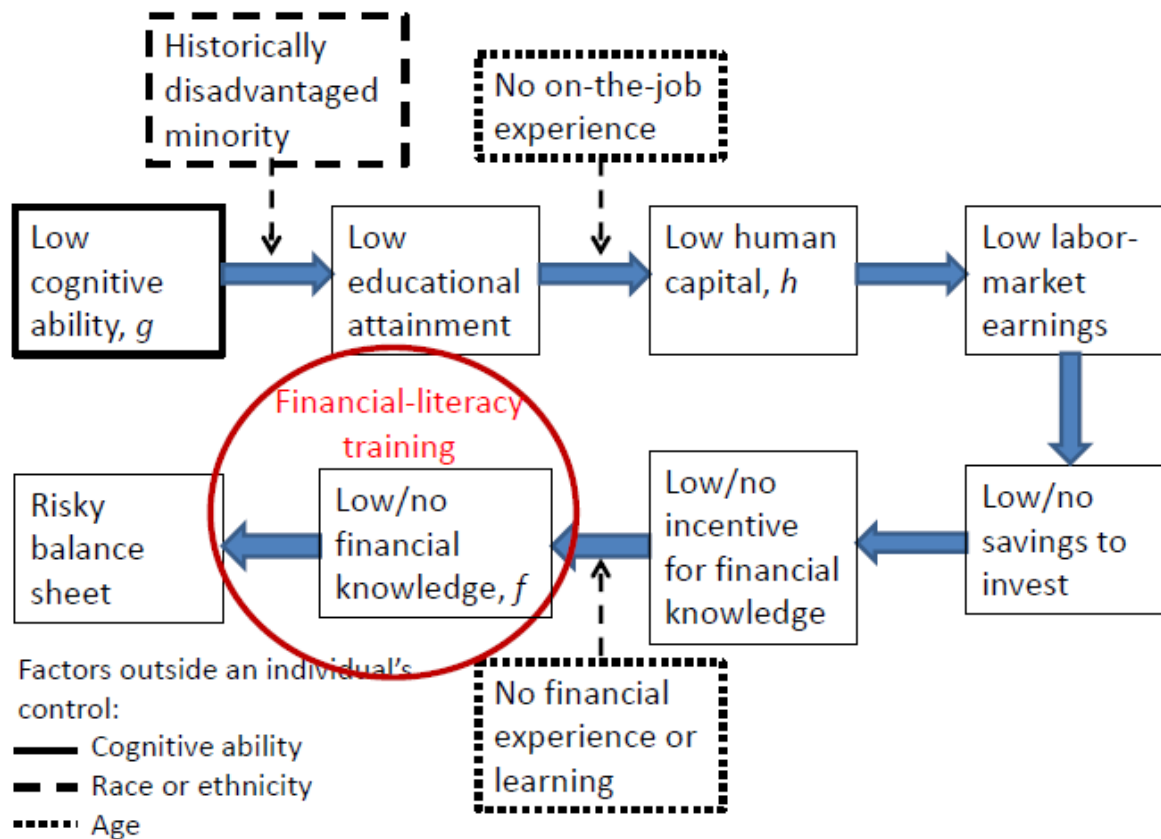
- **Financial-literacy training**
- **Cash and in-kind benefits**
- **Individual-Development Accounts (IDAs)**
- **Early-childhood enrichment**





# *Adult Financial-Literacy Education Comes Too Late*

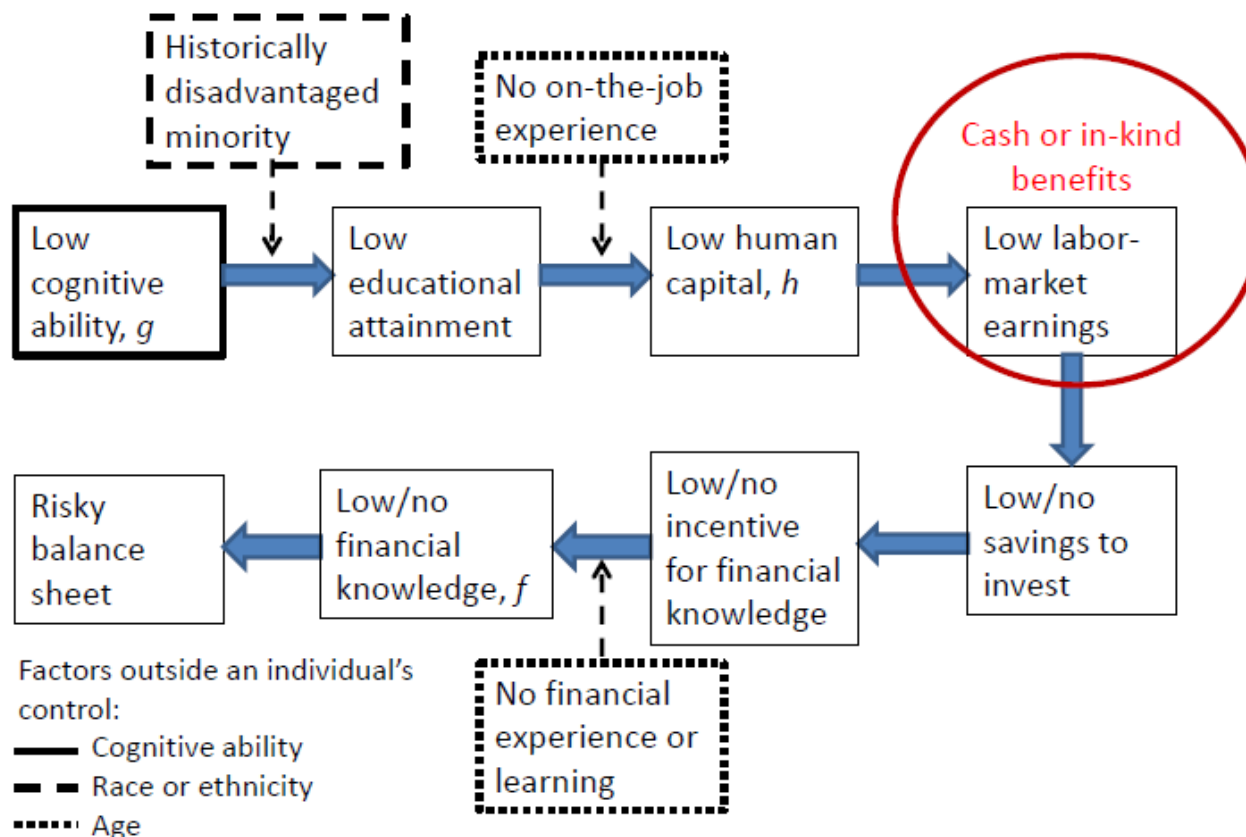
## Intervention Strategy: Financial-Literacy Training





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

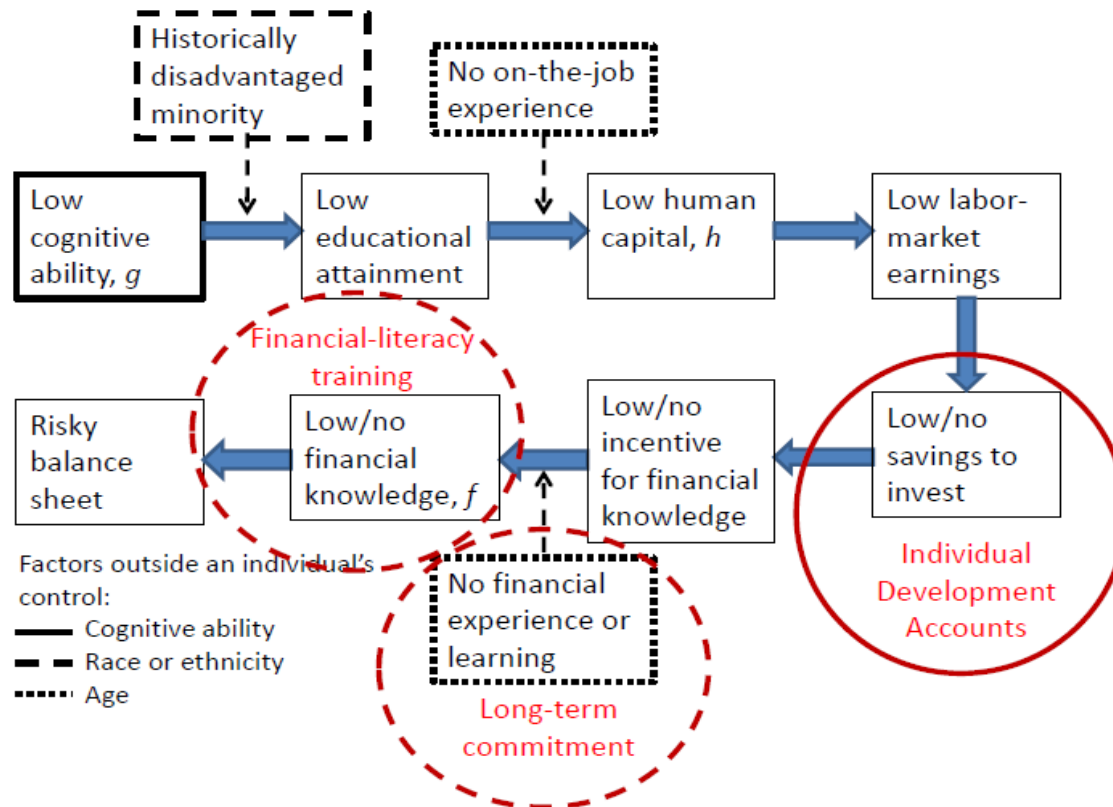
## Intervention Strategy: Redistribution in Cash or In Kind





# *Individual Development Accounts Intervene at Several Points*

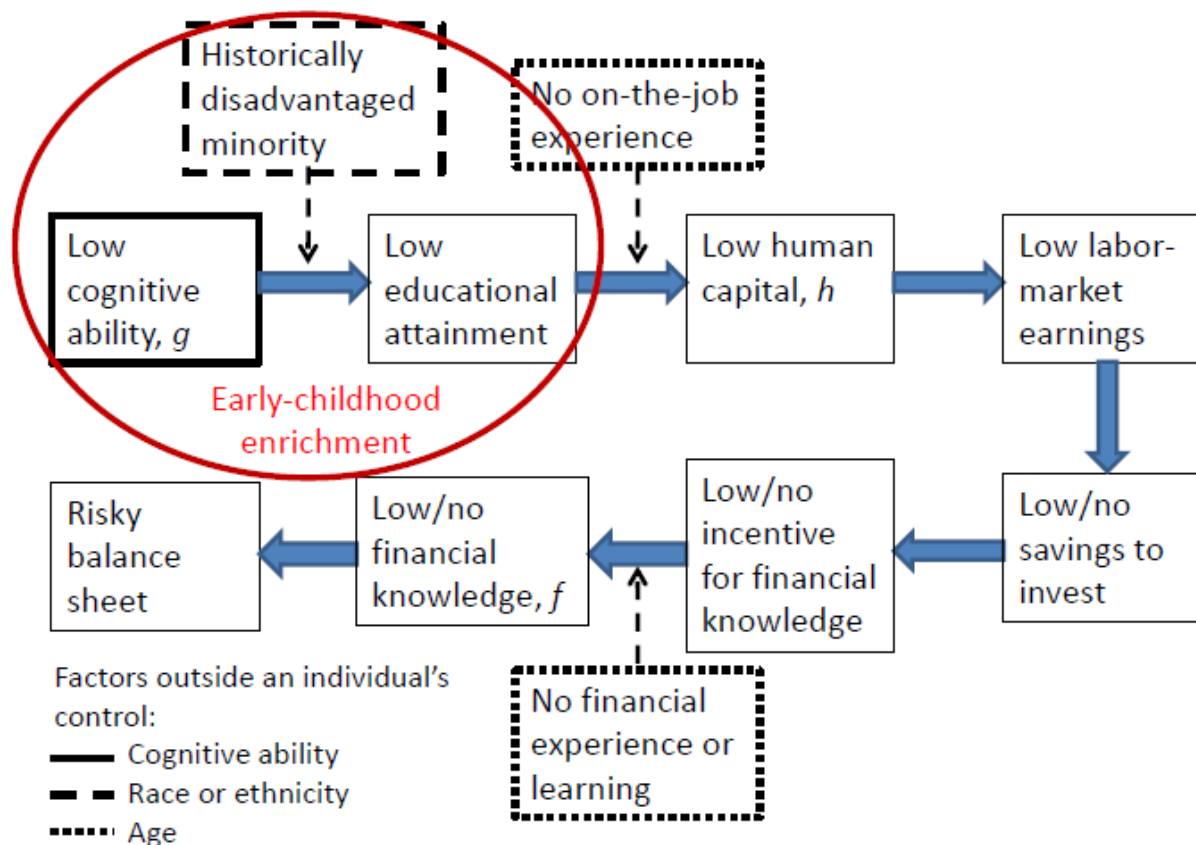
## Intervention Strategy: Individual Development Accounts





# 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.**



## *Appendix*

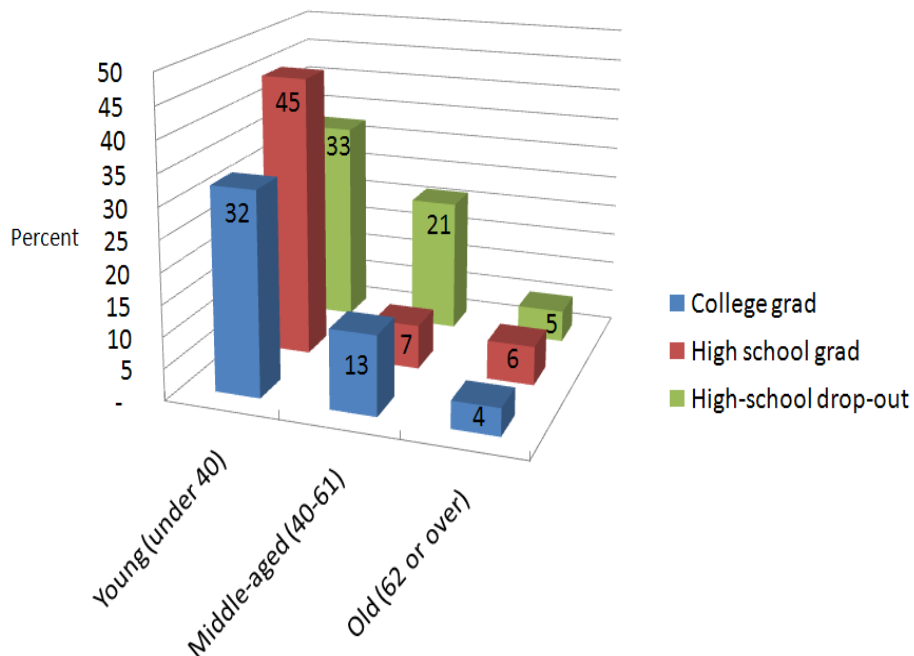
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- **Balance-sheet leverage in 2010**

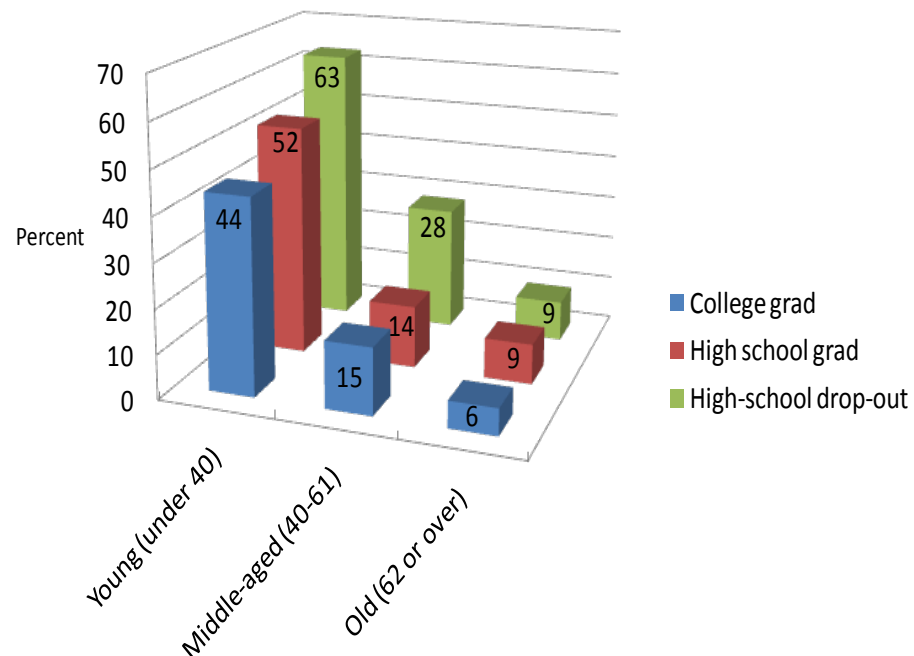


## *Non-Minorities: All 9 Subgroups Had Higher 2010 DTA Ratios Than Before the Crisis*

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



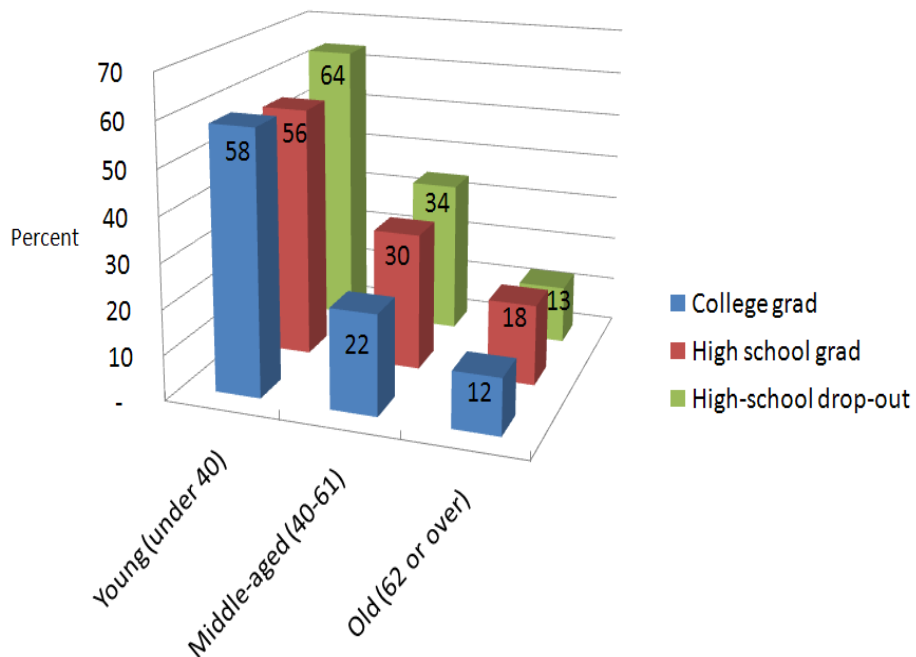
Ratio of Total Debt to Total Assets in 2010 Among Whites, Asians, and Other Non-Disadvantaged Minorities





## *Minorities: 8 of 9 Subgroups Had Higher 2010 DTA Ratios Than Before the Crisis*

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



Ratio of Total Debt to Total Assets in 2010 Among African-Americans and Hispanics

