



*Session 1: Micro and Macro Perspectives
on Young Families' Balance Sheets*

Young Adults' Balance Sheets and the Economy

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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.



Young Adults' Balance Sheets and the Economy

- **Young adults are different.**
- **Young adults harmed themselves when given more financial freedom.**
- **Young adults harmed the economy, too.**
- **Researchers and policymakers should focus on repairing the damage and preventing a recurrence.**



The Beginning of the Financial Life Cycle: Assets (and Liabilities) at 21

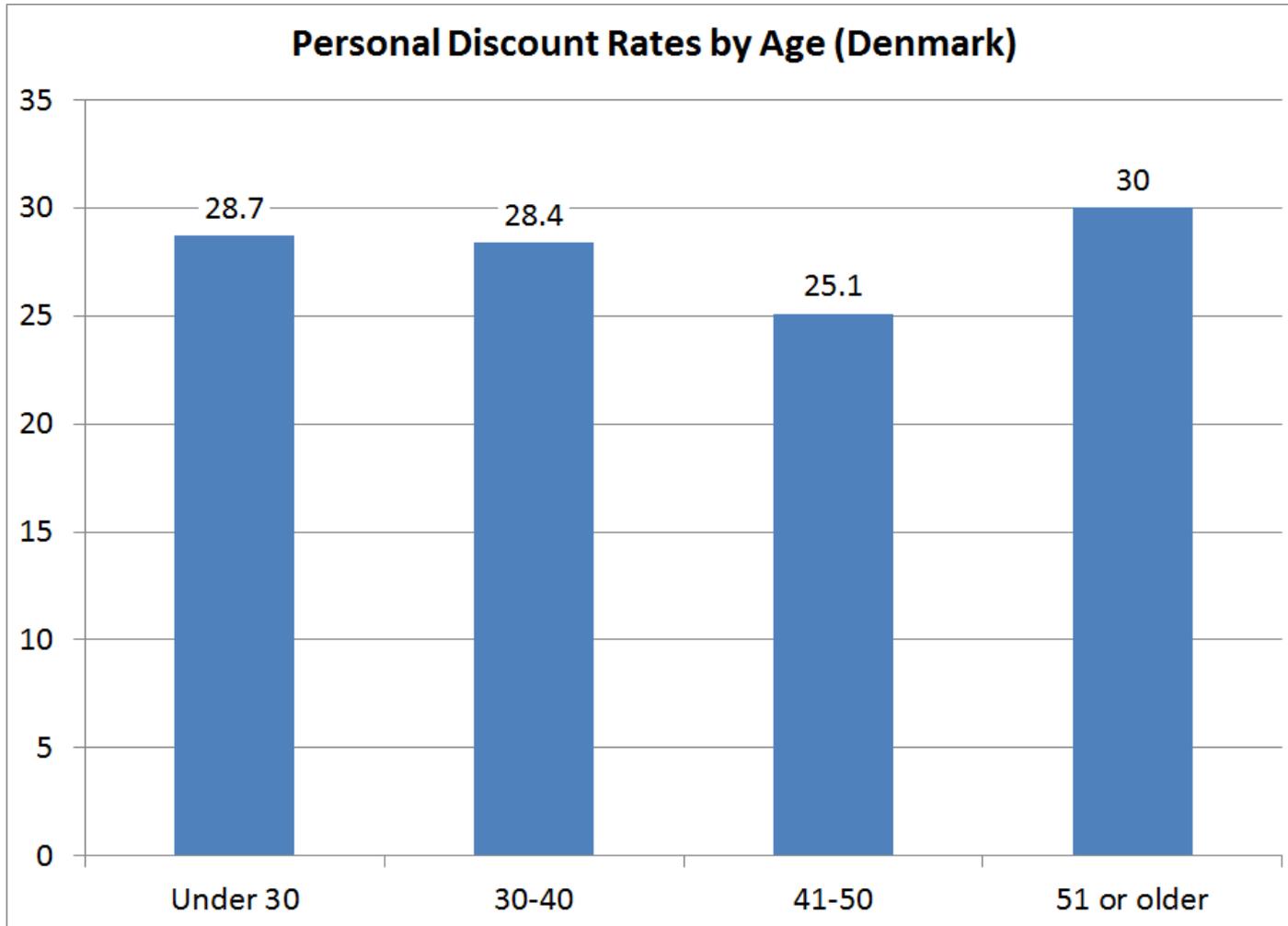
| Assets | Liabilities: Actual or implicit |
|--|--|
| Good health | College loans |
| Basic education | Living expenses |
| Time and energy | Shelter |
| No money | Save for kids' education |
| | Save for retirement |
| Balance is negative for most young people—you must work your way out of a financial hole. | |



Young People Are Impatient

Personal Discount Rates by Age (Denmark)

Percent



Source: Harrison, Lau, and Williams, 2002



Young People Are Impulsive

“[I]mpulsivity in decision-making declines rapidly in young adulthood, reaching stable levels in the 30s.”

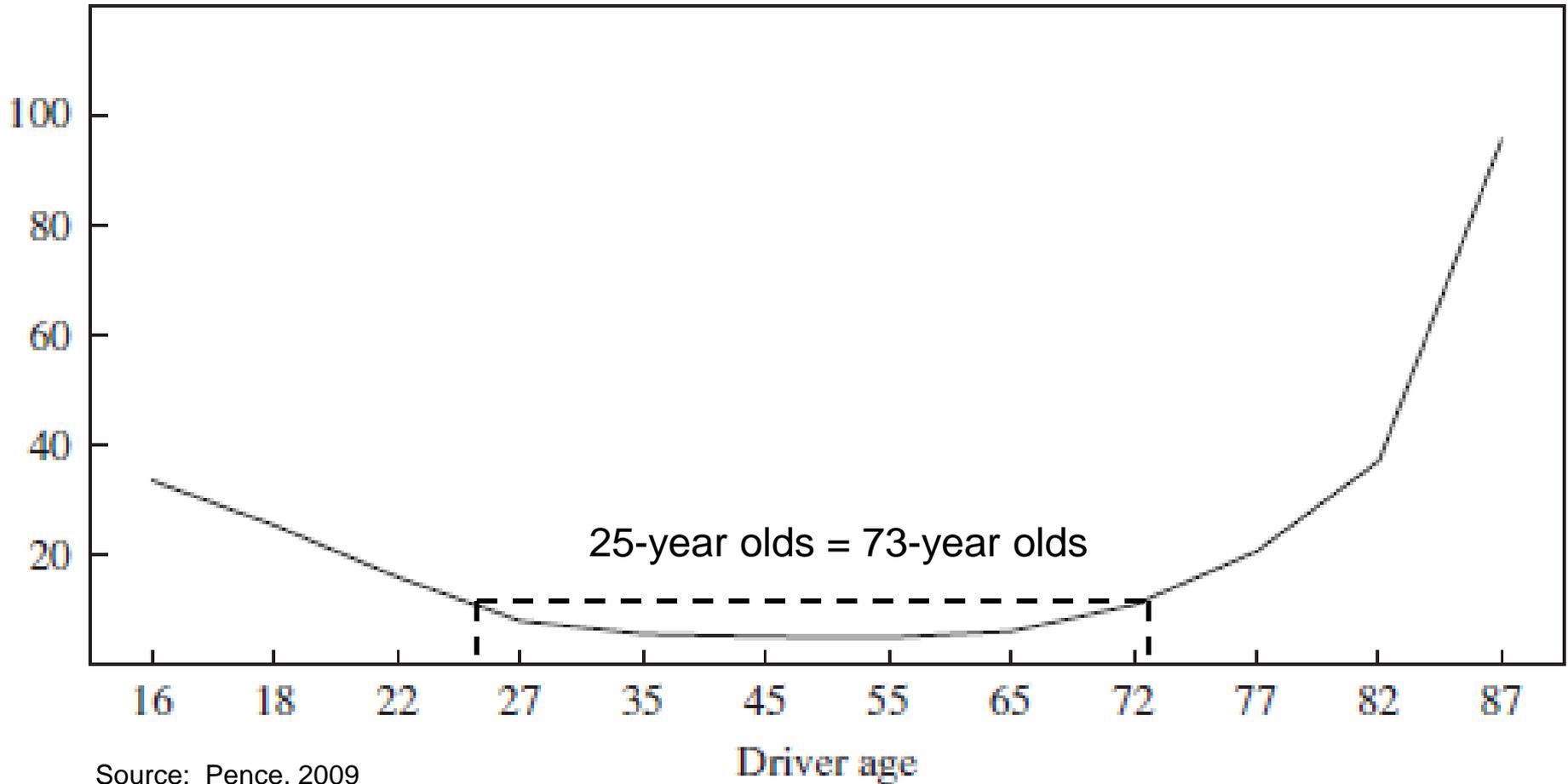
**--Green, Myerson, Lichtman, Rosen, and Fry,
“Temporal Discounting in Choice Between
Delayed Rewards: The Role of Age and Income,”
Psychology and Aging, Vol. 11, No. 1, Mar. 1996,
pp. 79-84.**



Young People Are Bad Drivers

Driver fatalities

Per billion miles driven



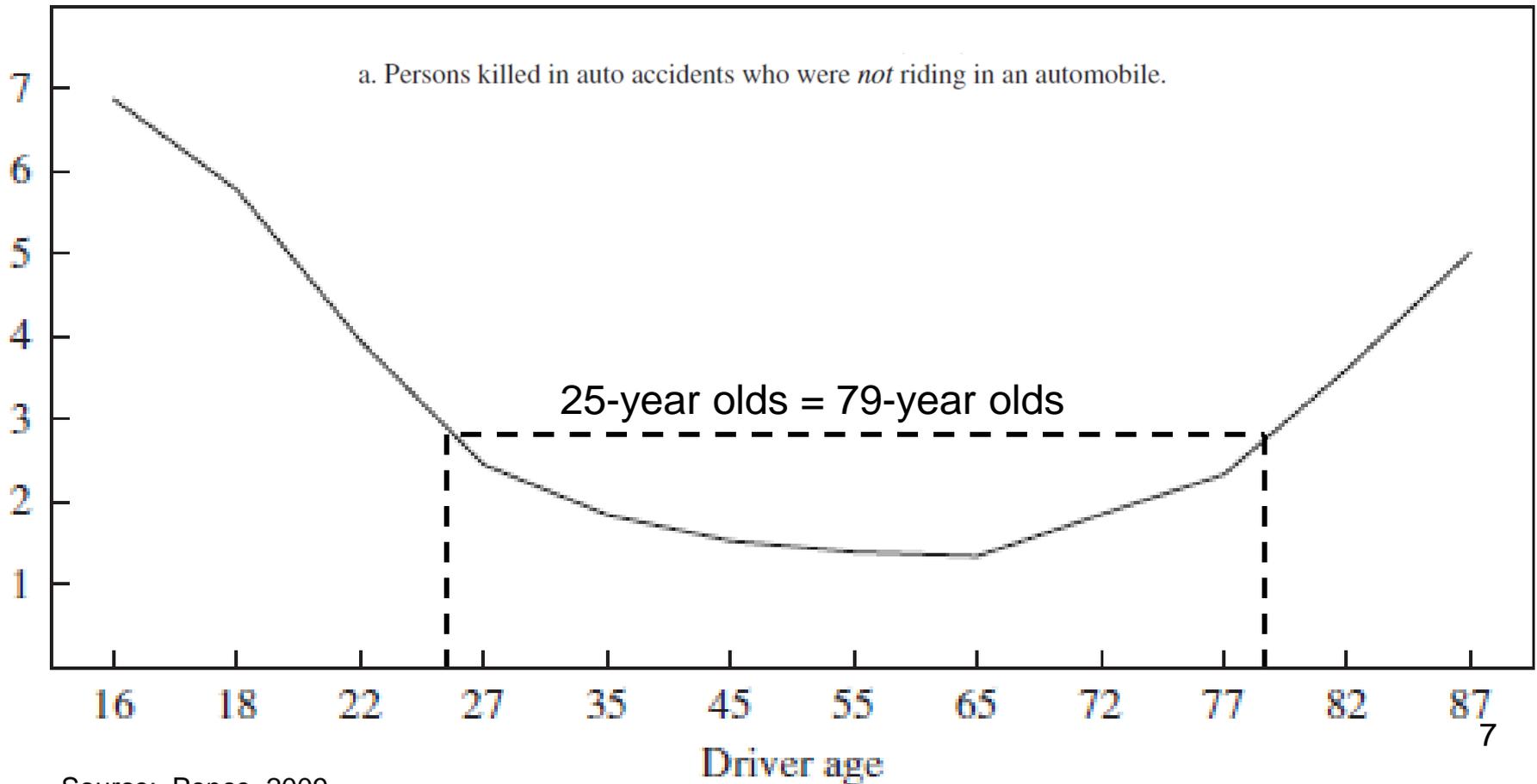
Source: Pence, 2009



Young People Are Bad Drivers

Nonmotorist fatalities^a

Per billion miles driven

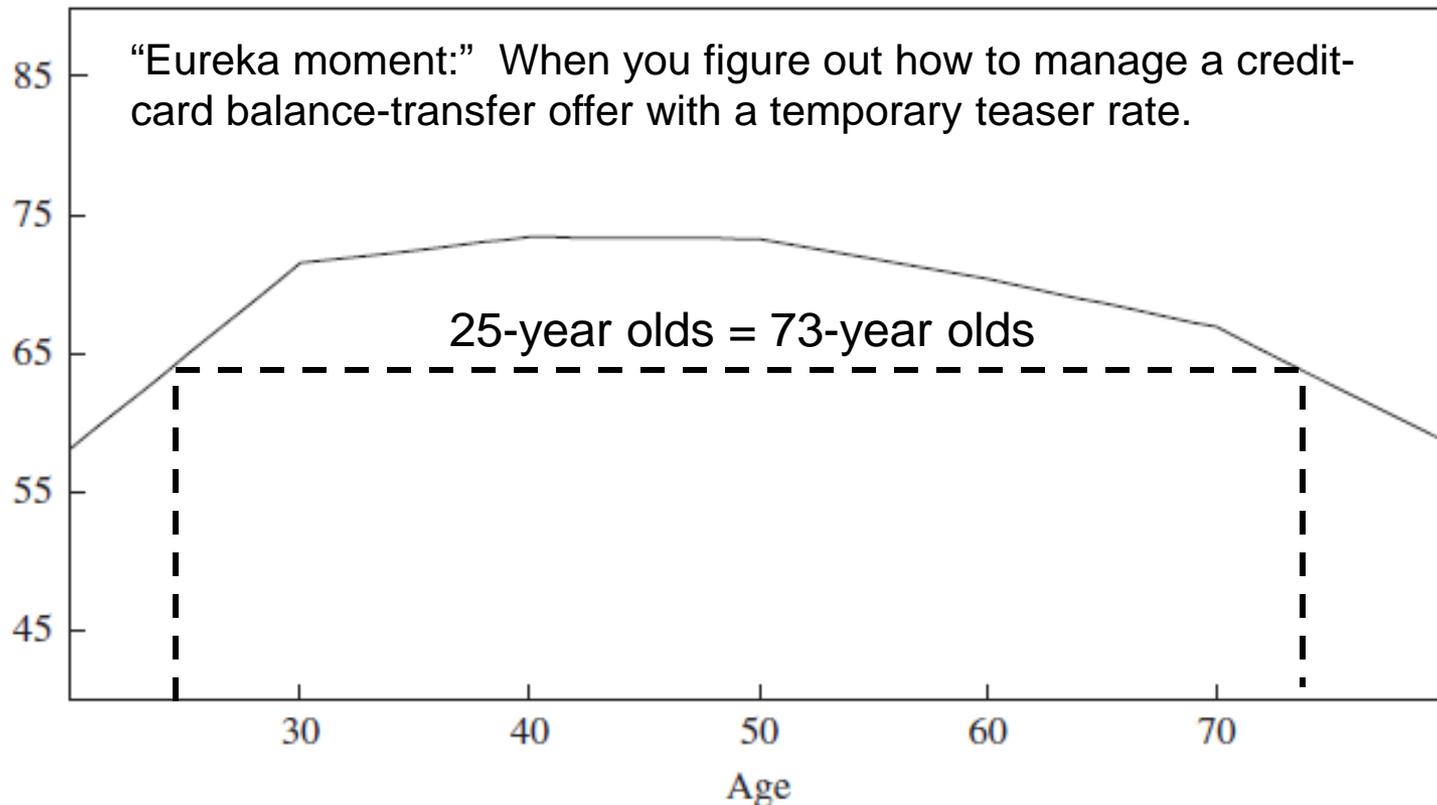




Young Adults Make Credit-Card Mistakes

Propensity ever to experience eureka moment

Percent



Source: Agarwal, Driscoll, Gabaix, Laibson, 2009

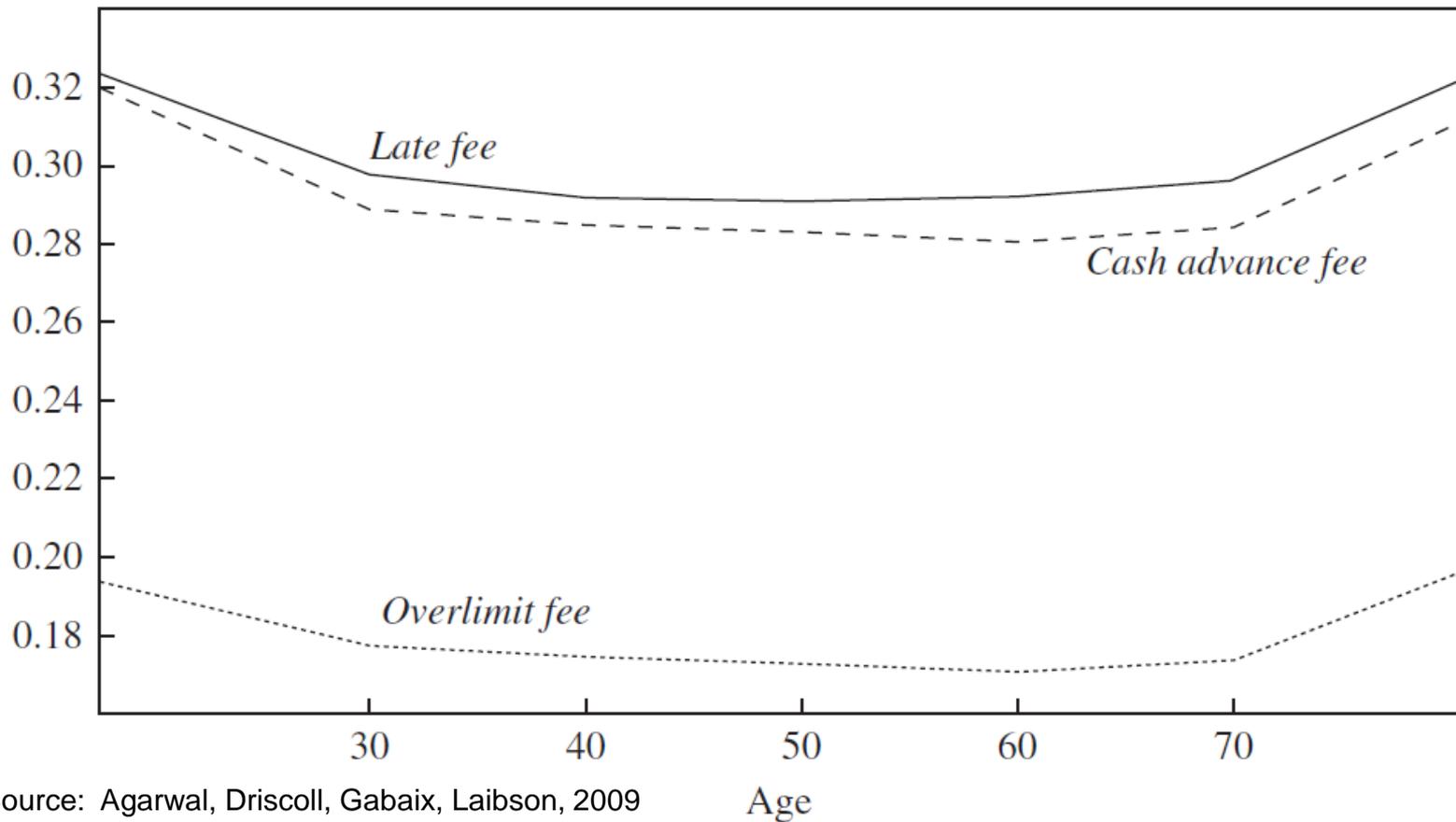
a. Fraction experiencing eureka moment in each of months 3 through 6 is below 10 percent for all ages.



Young Adults Make Credit-Card Mistakes

Figure 10. Incidence of Credit Card Fees by Age of Borrower

No. of fees incurred per month



Source: Agarwal, Driscoll, Gabaix, Laibson, 2009

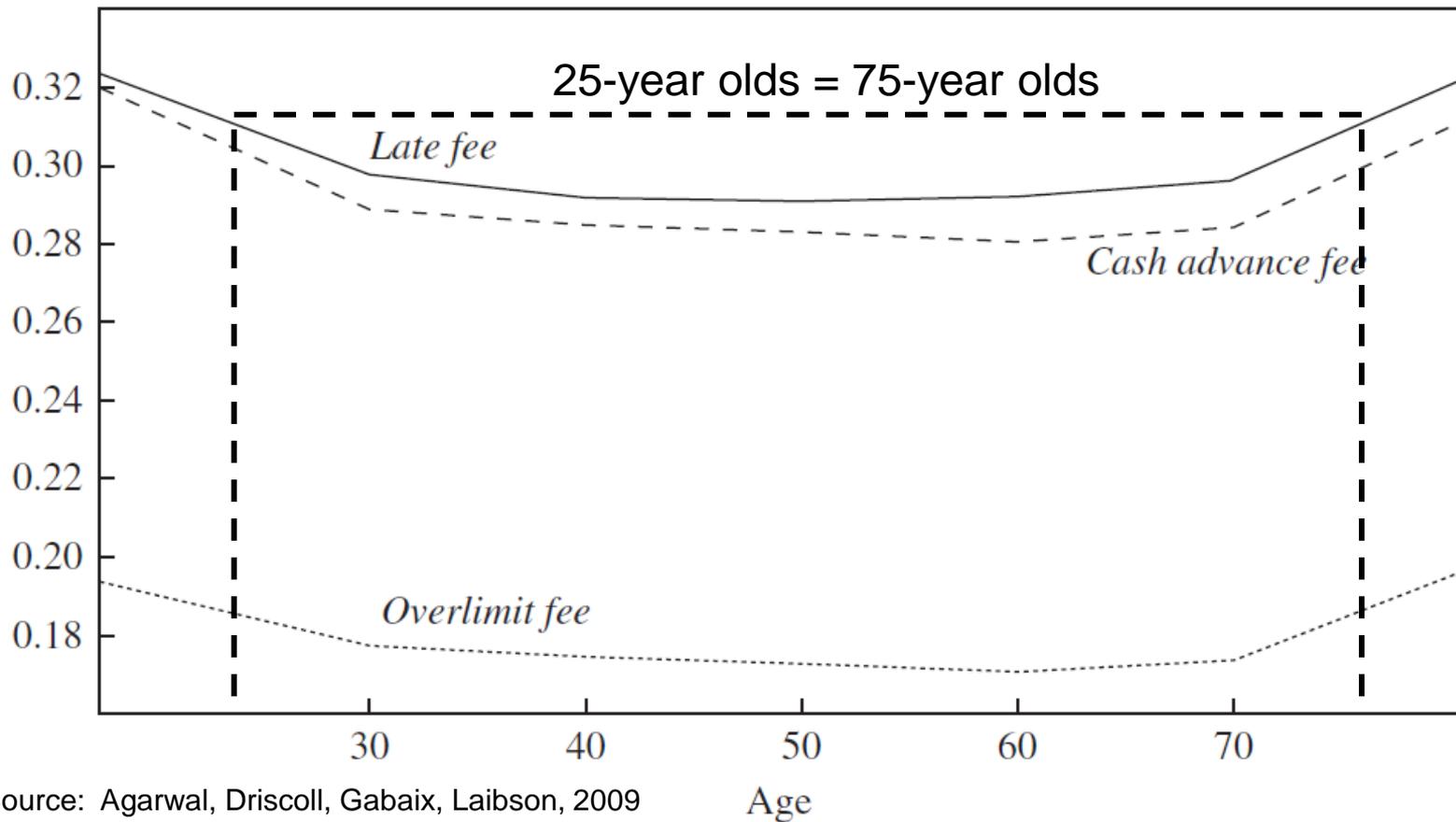
Age



Young Adults Make Credit-Card Mistakes

Figure 10. Incidence of Credit Card Fees by Age of Borrower

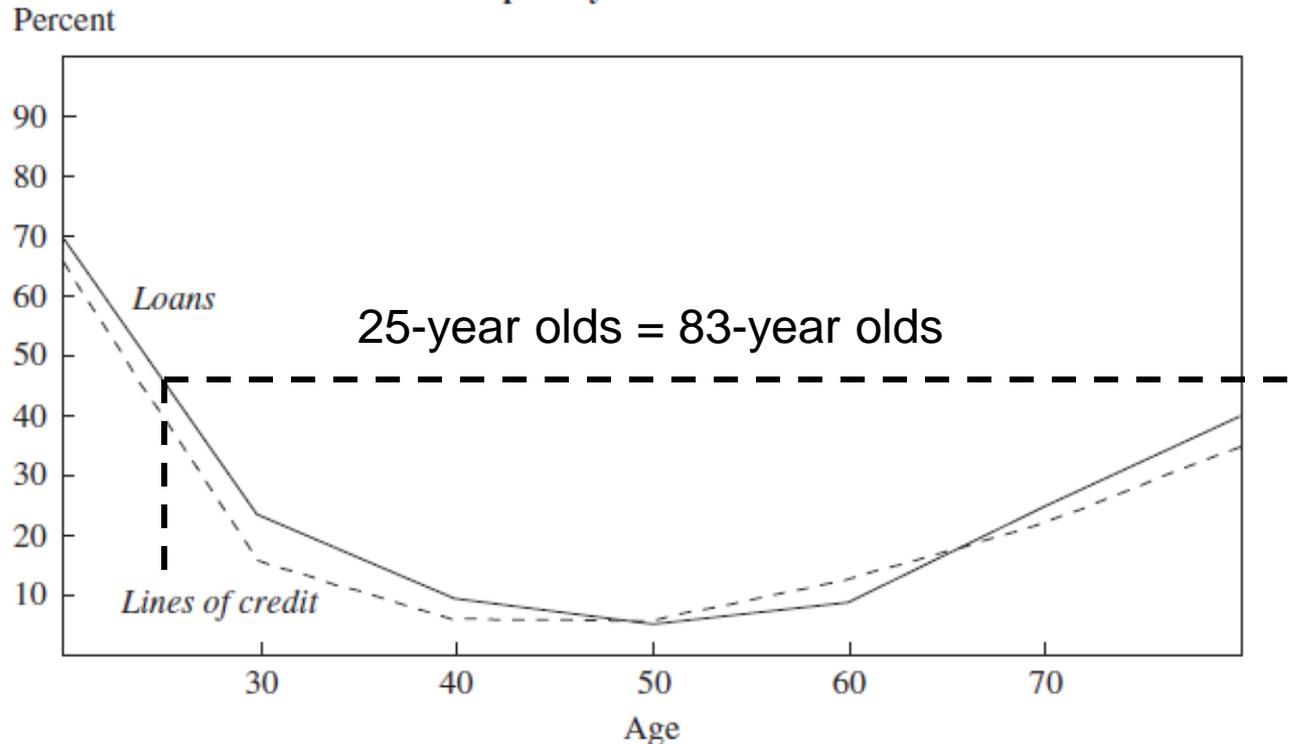
No. of fees incurred per month





Young Adults Make Mortgage Mistakes

Propensity to make an RCM



Source: Agarwal, Driscoll, Gabaix, Laibson, 2009

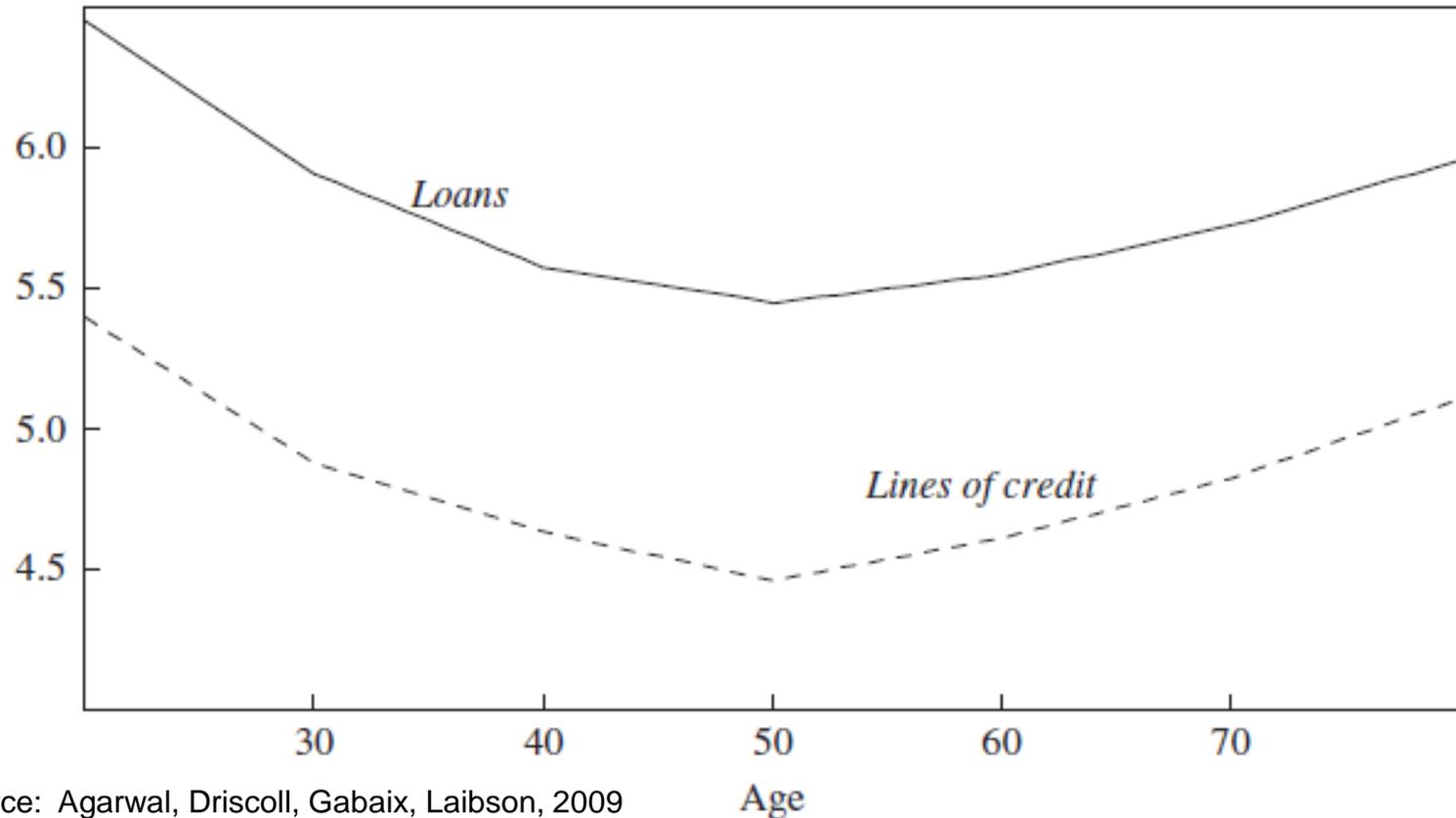
a. A rate-changing mistake (RCM) occurs when the borrower's estimate of the value of the home differs from the lender's estimate by enough to place the borrower's implied loan-to-value (LTV) ratio in a different interest rate category from the lender's implied LTV. The categories are $LTV \leq 80$ percent, $80 \text{ percent} < LTV < 90$ percent, and $LTV \geq 90$ percent; loans in higher LTV categories may be charged higher interest rates.



Young Adults Make Mortgage Mistakes

Figure 7. Interest Rates Offered on Home Equity Loans and Lines of Credit by Age of Borrower

Annual percentage rate (APR)



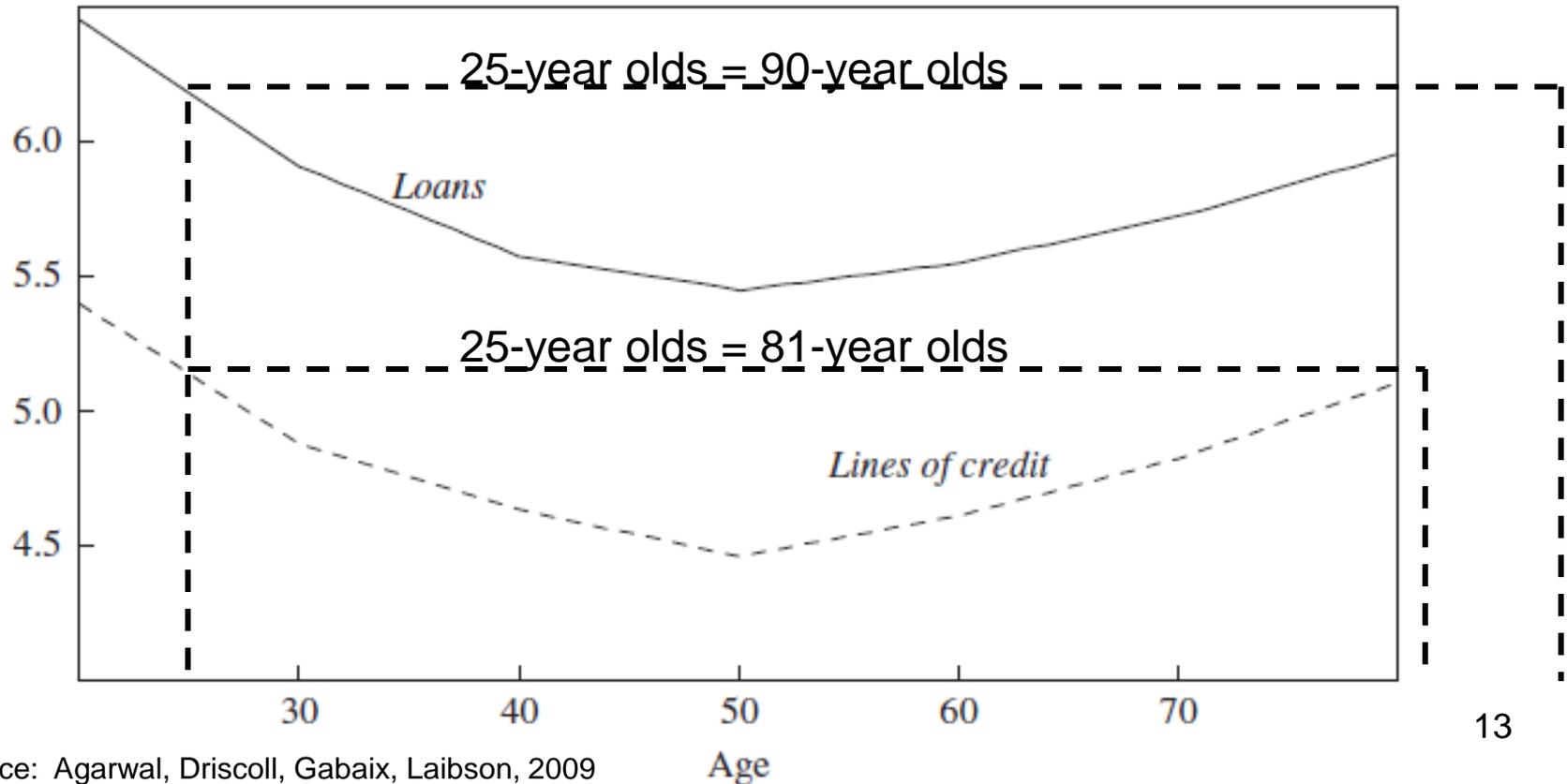


Young Adults Make Mortgage Mistakes

Figure 7. Interest Rates Offered on Home Equity Loans and Lines of Credit by Age of Borrower

Fully collateralized loans!

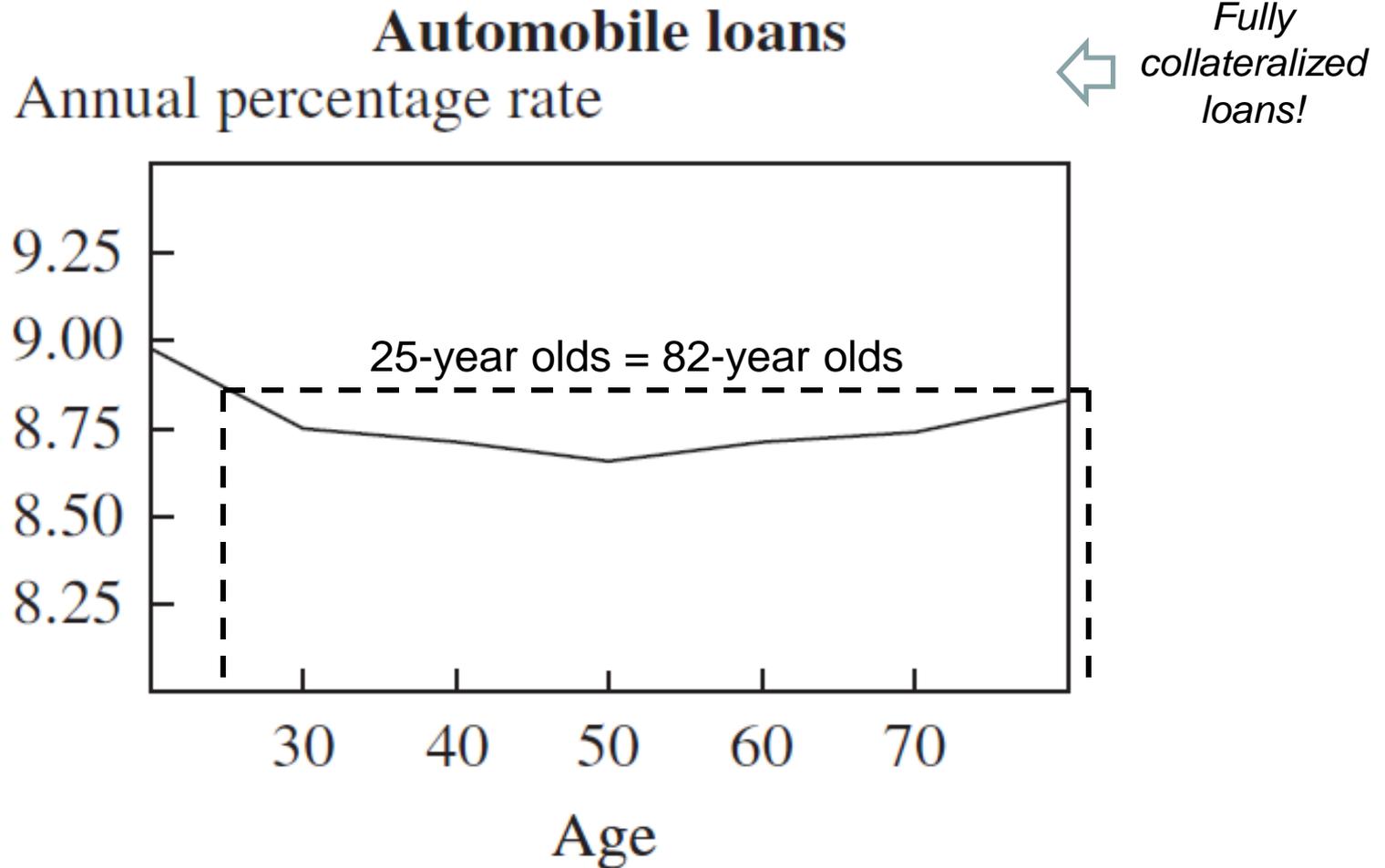
Annual percentage rate (APR)



Source: Agarwal, Driscoll, Gabaix, Laibson, 2009

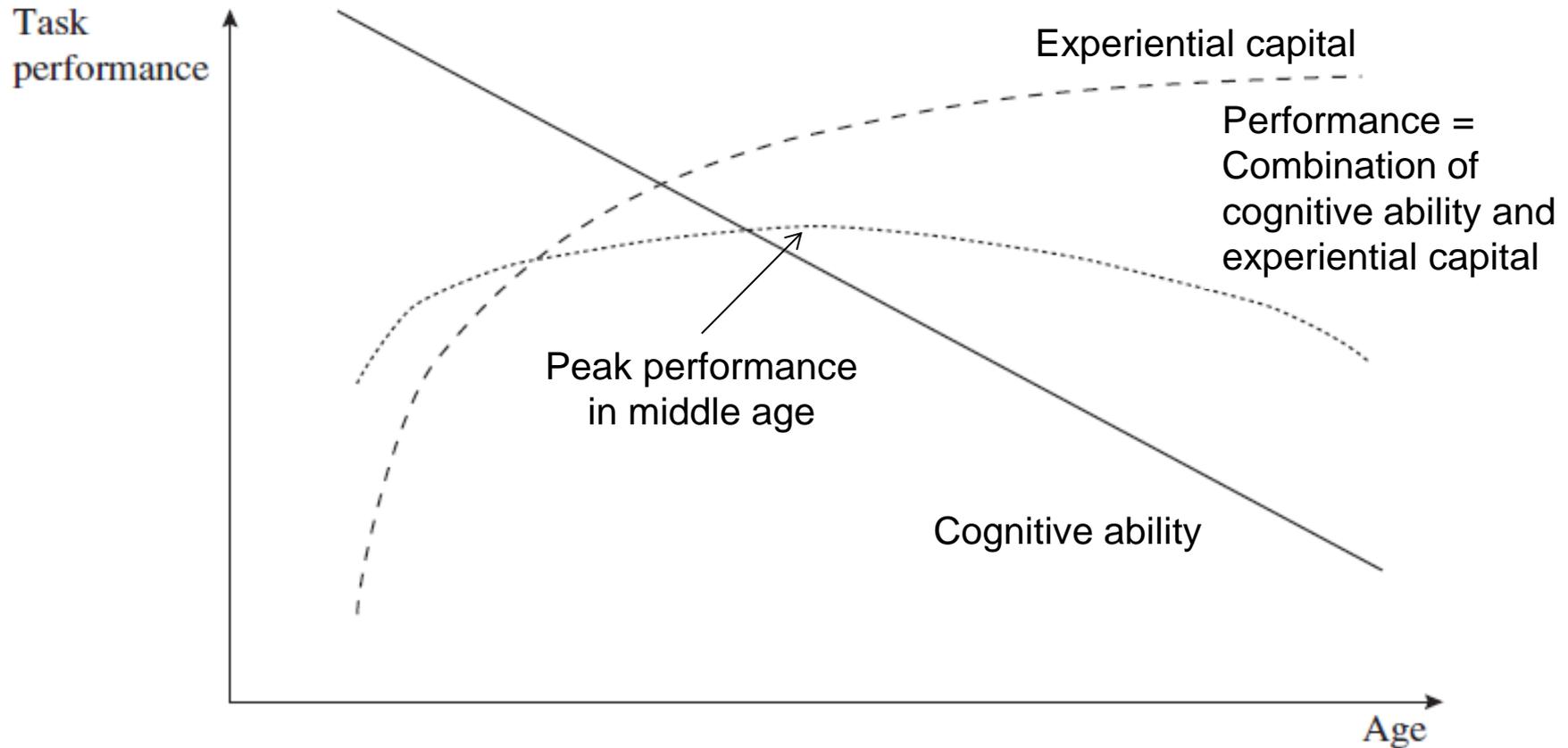


Young Adults Make Car-Loan Mistakes





The Age-Experience Trade-Off in Financial Decision-Making





Young Adults' Balance Sheets: Illiquid, Concentrated in Housing, Highly Levered

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 | Share of assets invested in housing | Ratio of total debt to total assets |
| Young families (< 40 years old) | -16%age pts vs. mid | +13%age pts vs. mid | +32%age pts vs. mid |
| | -82%age pts vs. old | +16%age pts vs. old | +50%age pts vs. old |
| High-school drop-out families | -16%age pts vs. HS | +9%age pts vs. HS | -4%age pts vs. HS |
| | -34%age pts vs. coll | +22%age pts vs. coll | -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 |



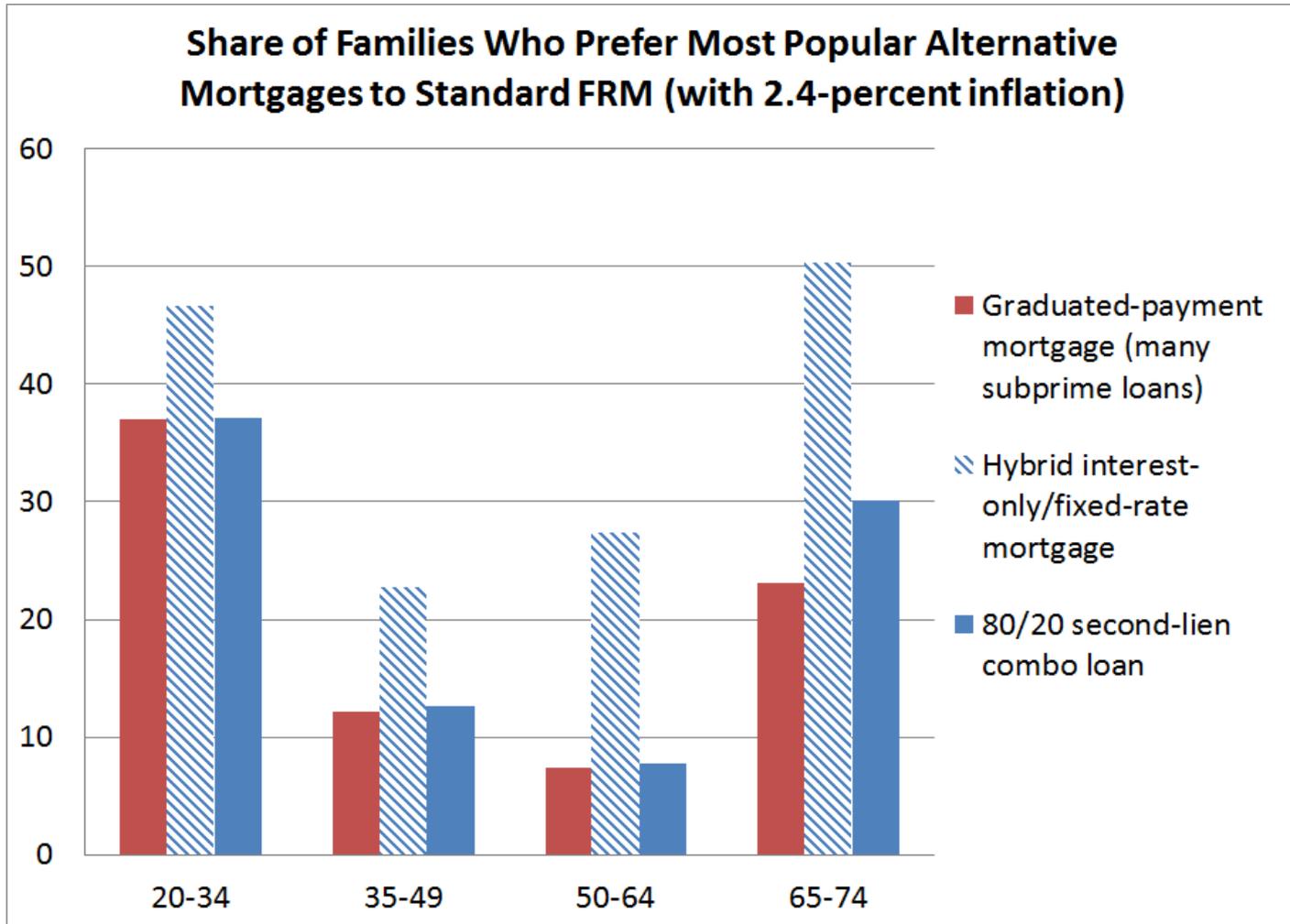
Part 2: Young Adults Harmed Themselves When Given Greater Financial Freedom

- **Financial liberalization affected young adults the most.**
- **Young adults were (arguably) the biggest contributors to the housing and credit bubbles.**



“Exotic“ Mortgages Appealed to Young and Old

Percent



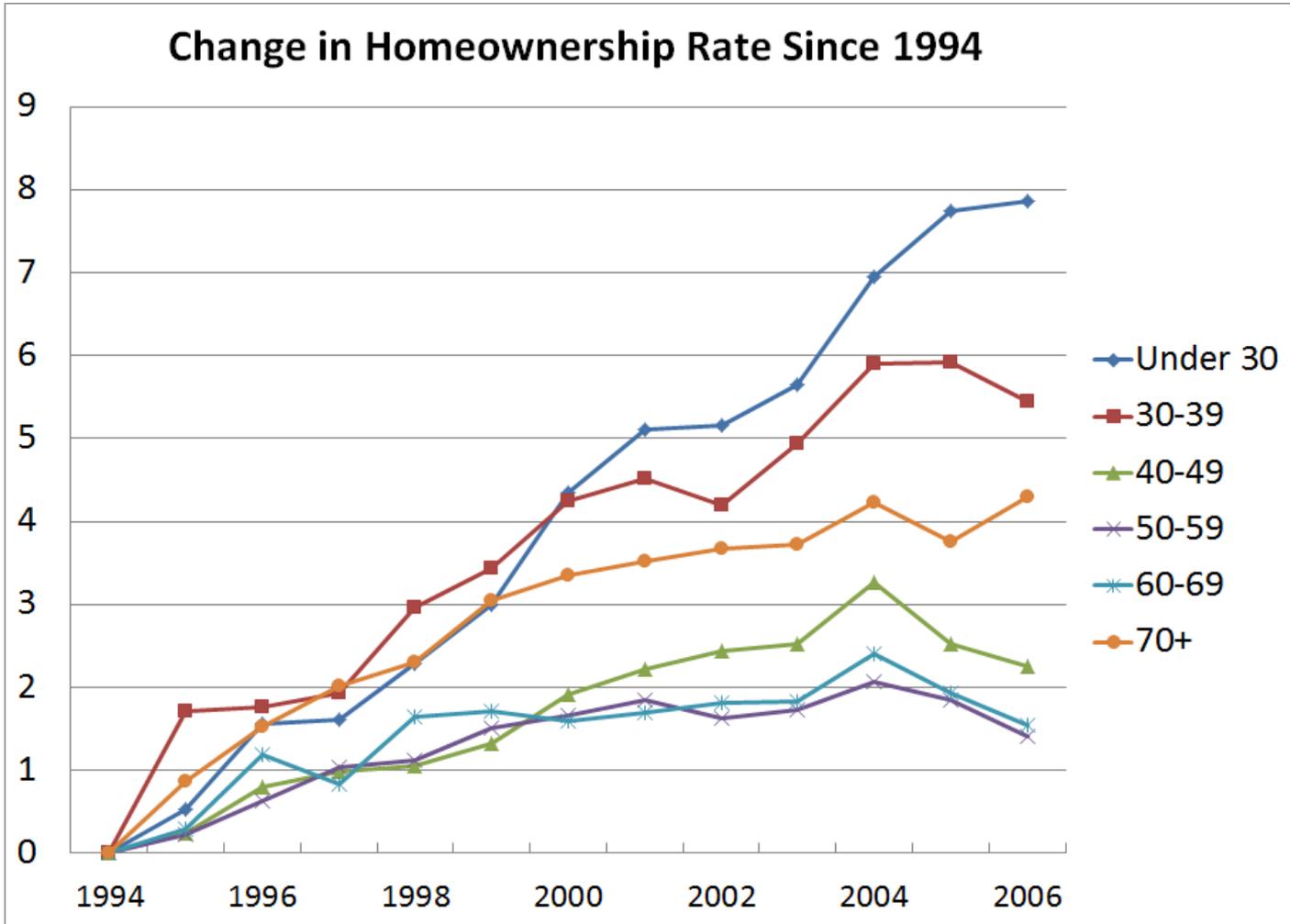
Source: Chambers, Garriga, and Schlagenhaut, 2009



Homeownership Boomed Among Young and Old

Change in Homeownership Rate Since 1994

Percentage points

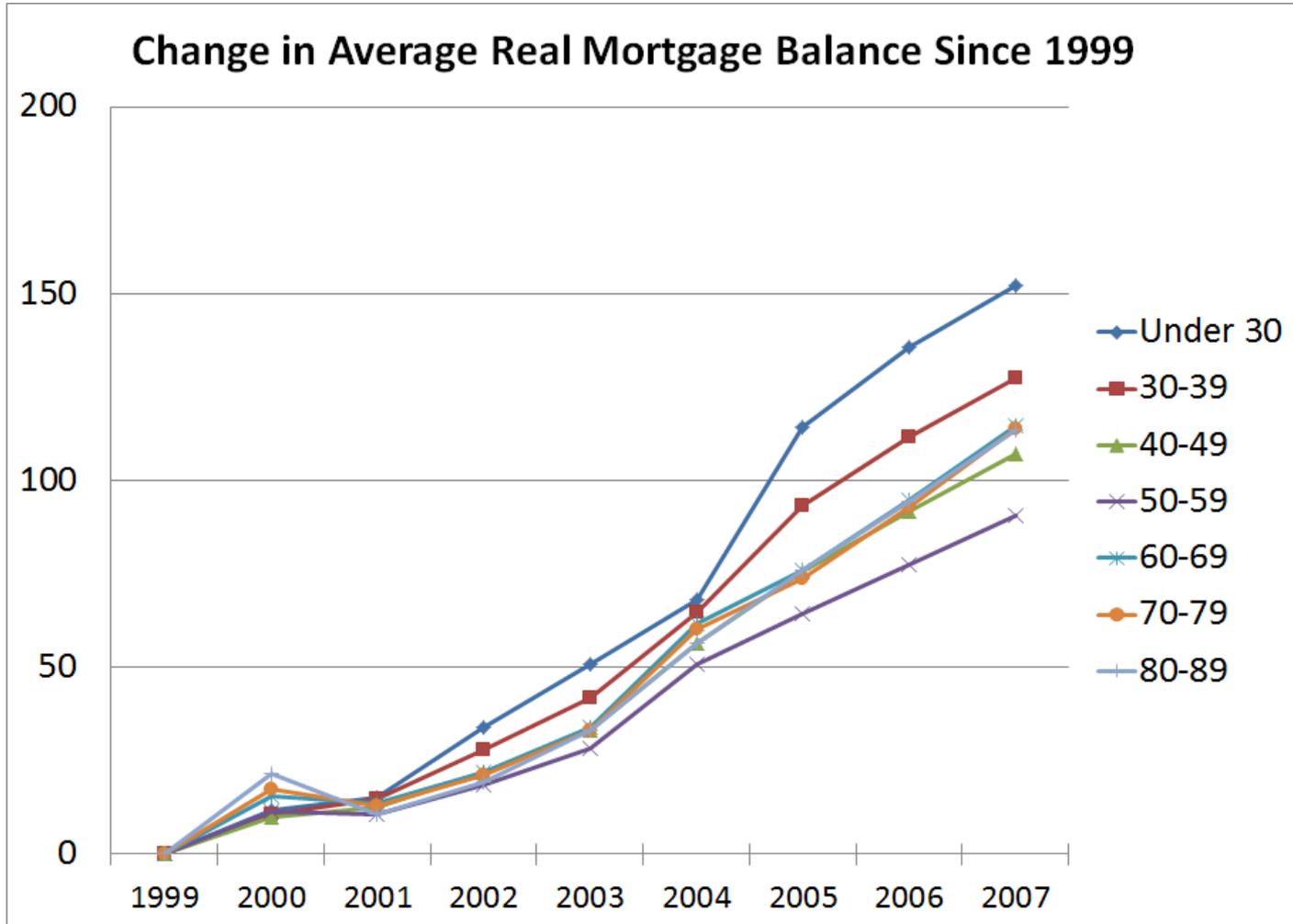


Source: Census Bureau



Mortgage Debt Exploded Among Young and Old

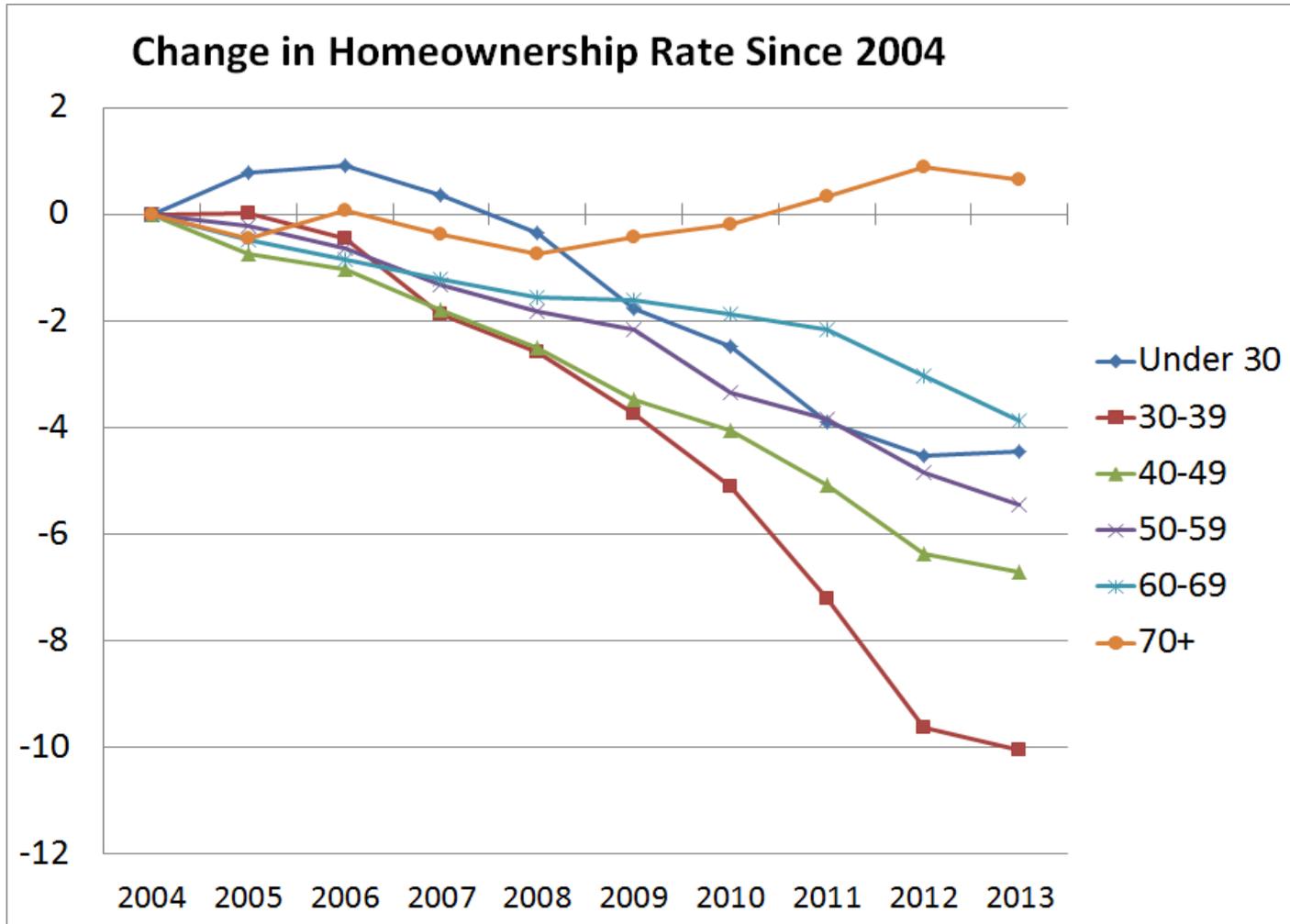
Percent change since 1999





Homeownership Collapsed Among 30s and 40s

Percentage points

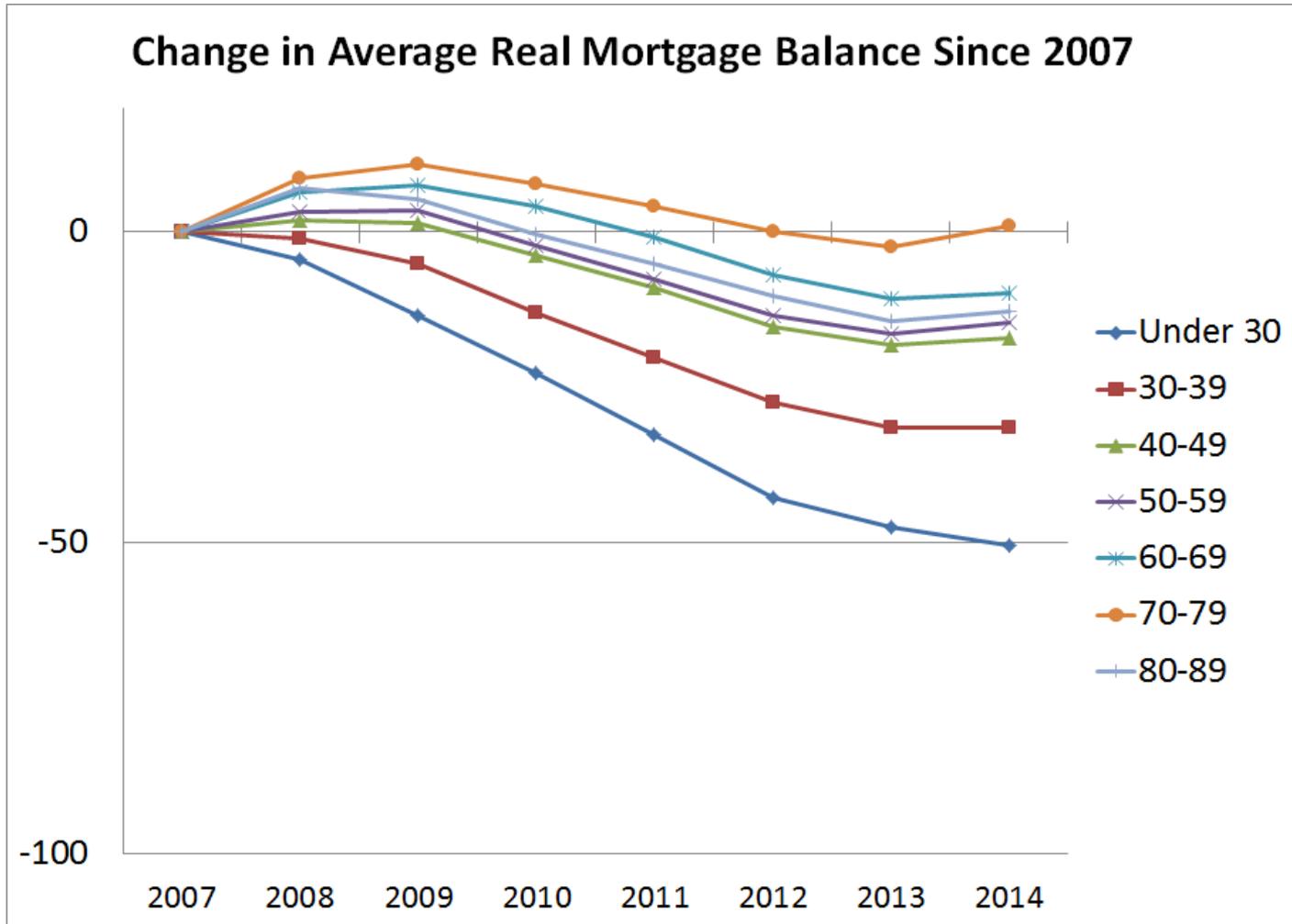


Source: Census Bureau



Deleveraging Strongest Among 20s and 30s

Percent
change since
2007

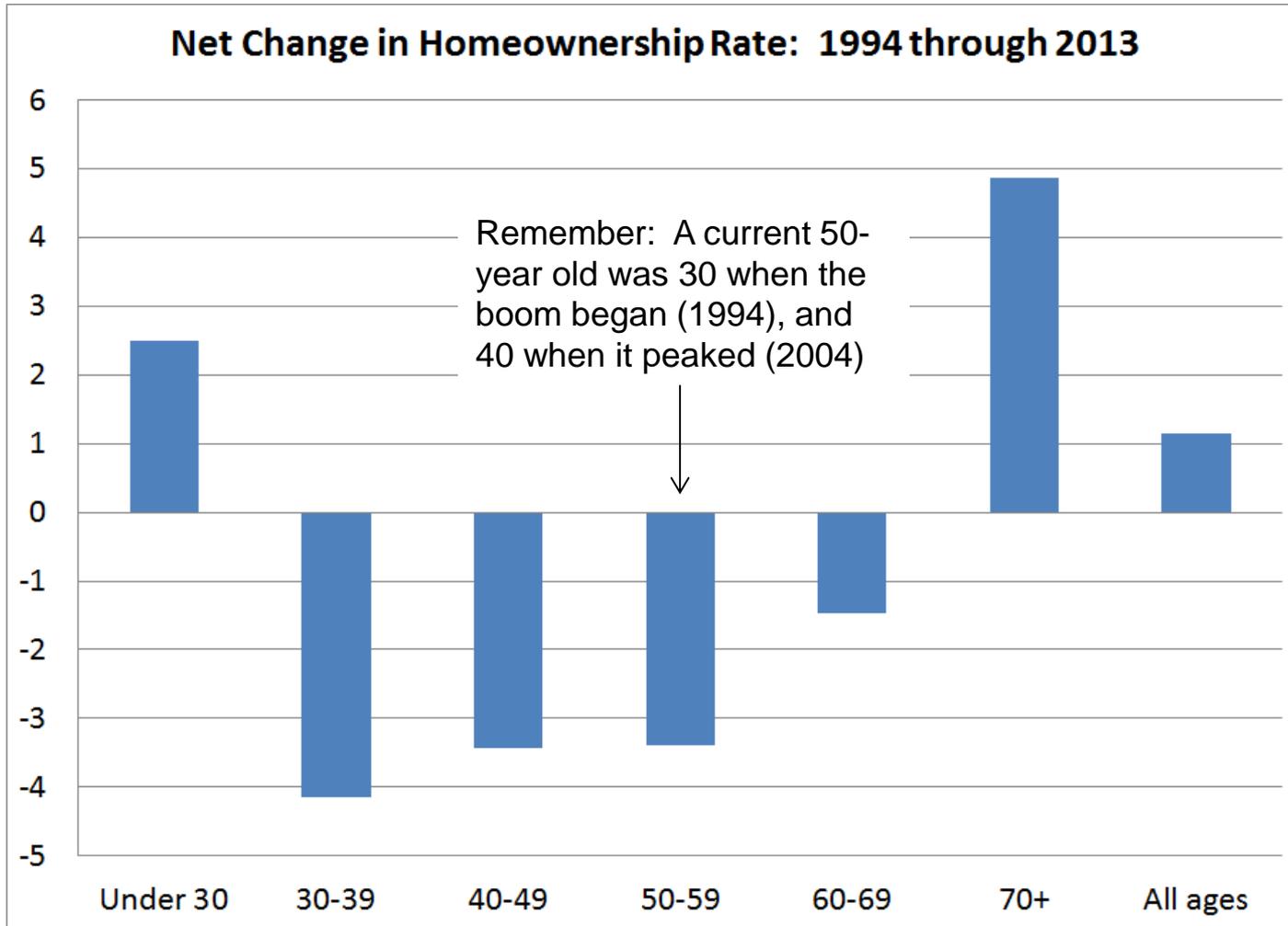




Biggest Homeownership Declines Among 30s

Net Change in Homeownership Rate: 1994 through 2013

Percentage points



Source: Census Bureau



Shouldn't CFPB Protect Younger Americans, Too?

An official website of the United States Government

[Español](#)



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- LAW & REGULATION
- SUBMIT A COMPLAINT

HOME > FINANCIAL PROTECTION FOR OLDER AMERICANS



Financial protection for older Americans

Older Americans face many financial challenges as they age. They have opportunities to travel, explore new fields of work or hobbies, or spend time with family and friends. But often scam artists or bad advice take away these opportunities. The Office of Financial Protection for Older Americans is here to give seniors information and tools to navigate safely through financial challenges.

Learn how to prevent elder financial exploitation using the Money Smart for Older Adults – Prevent Financial Exploitation curriculum. Produced in partnership with the FDIC, consumers can download the [resource guide](#) or the [training module for instructors](#). Hard copies of the resource guide can be ordered and shipped free of charge [here](#).

Financial caregiving is also an important task that many take on suddenly or with little preparation. The free, downloadable *Managing Someone Else's Money* guides are available for agents under [powers of attorney](#), [court-appointed guardians](#), [trustees](#), and [government fiduciaries](#) (Social Security representative payees and VA fiduciaries). You can order free print copies in bulk [here](#).



YOU...

- ...are 62 or over
- ...can expect to live 21 more years if you are a woman, 17 if you are a man
- ...like three out of five American families with a head of household 65 or older, may have no retirement savings
- ...may not know what your benefits are when your spouse dies
- ...need to ask the right questions



YOU MAY FACE...

- ...clever scam artists or desperate family members targeting you because of your home equity or net worth
- ...a choice between paying the mortgage/rent or your credit card
- ...complicated decisions about finances, retirement, and long-term care planning



WE'RE HERE TO HELP YOU...

- ...prevent others from taking your savings or your home
- ...understand your financial options when your spouse dies
- ...find out where you can turn to for information
- ...learn about your financial choices
- ...access tools you need to achieve your goals



Young Adults Harmed the Economy and the Harm is Compounding

- **Empirical evidence suggests young adults contributed disproportionately to the housing bubble and crash.**
- **A generational perspective—following young adults through their life courses—suggests deep wounds that may undermine future growth.**



Empirical Evidence: Young Adults and the Economy

- **Household-level evidence (Mian and Sufi, 2011)**
 - Young adults borrowed more aggressively in 2002-06.
 - Young adults reacted more strongly to house-price increases.
 - Higher default rates followed more aggressive borrowing and house-price sensitivity.
- **Family-level evidence (Emmons and Noeth, 2013a, 2013b)**
 - In general, young families have low levels of liquid assets, high concentrations in housing, and high debt.
 - See table above for our point estimates.
 - Young families were unusually likely to be homeowners and have high debt in 2007—that is, they were more strongly affected by the housing bubble.



- *Young Adults Borrowed Aggressively*
- *Young Adults Reacted Strongly to House Prices*

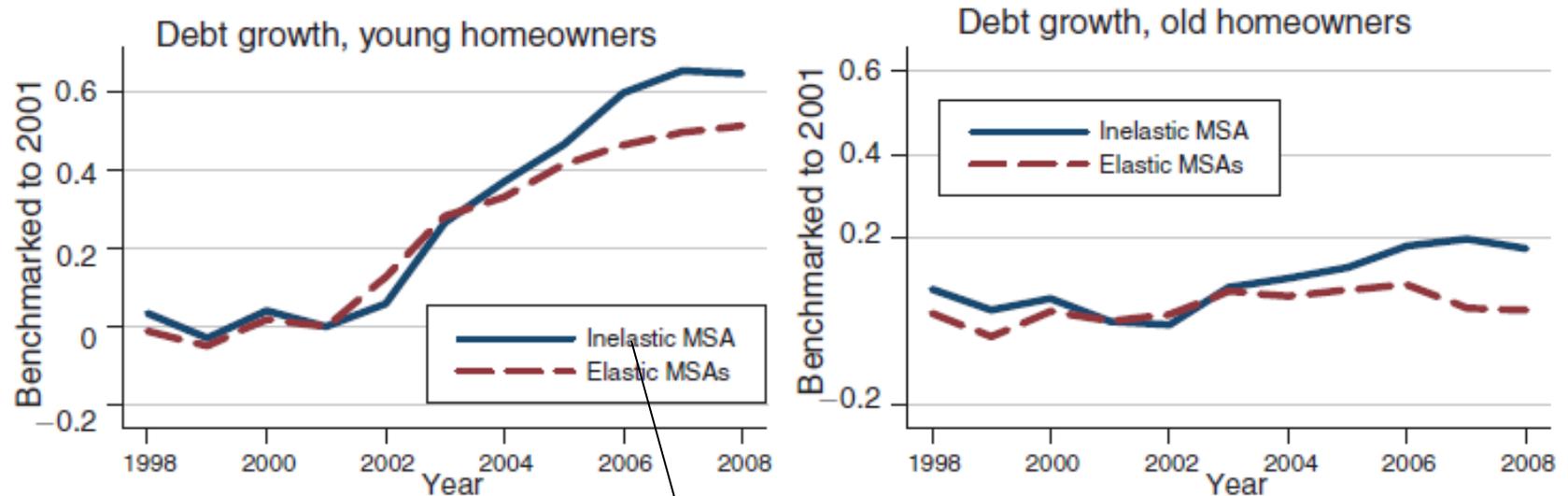


FIGURE 3. CROSS-SECTIONAL HETEROGENEITY IN LEVERAGE PATTERNS FOR 1997 HOMEOWNERS BY HOUSING SUPPLY ELASTICITY

Inelastic MSAs: Housing markets that had bigger house-price increases, all else equal, due to geographical constraints on new-home construction.



Empirical Evidence: Young Adults and the Economy

- **County-level evidence (Mian, Rao, and Sufi, 2013)**
 - Household spending is very sensitive to housing-wealth shocks.
 - Higher leverage increases sensitivity of spending to shocks.
 - Young adults had high and increasing housing exposure and leverage.
- **State-level evidence (Calomiris, Longhofer, and Miles, 2012)**
 - States with higher shares of young adults had more volatile housing markets.
 - Higher concentrations of young adults increased the state economy's sensitivity to the housing cycle.



- *Strong Response to Housing-Wealth Shocks*
- *Leverage Increases Sensitivity*

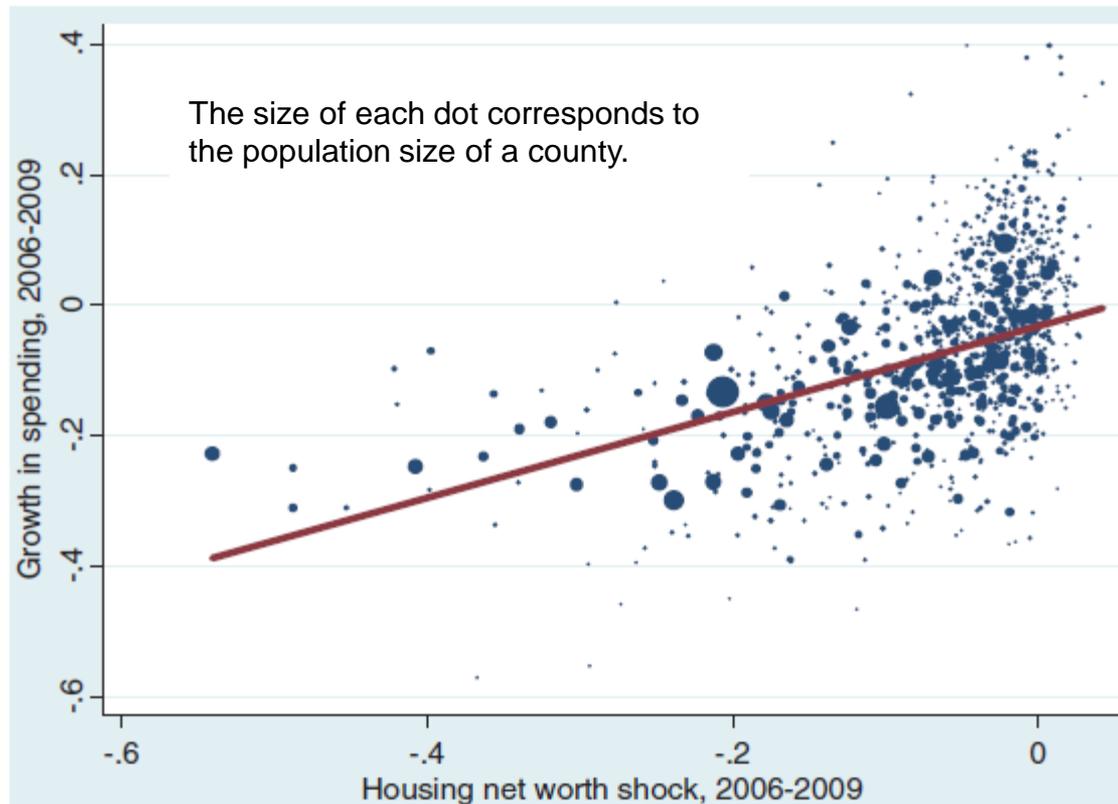
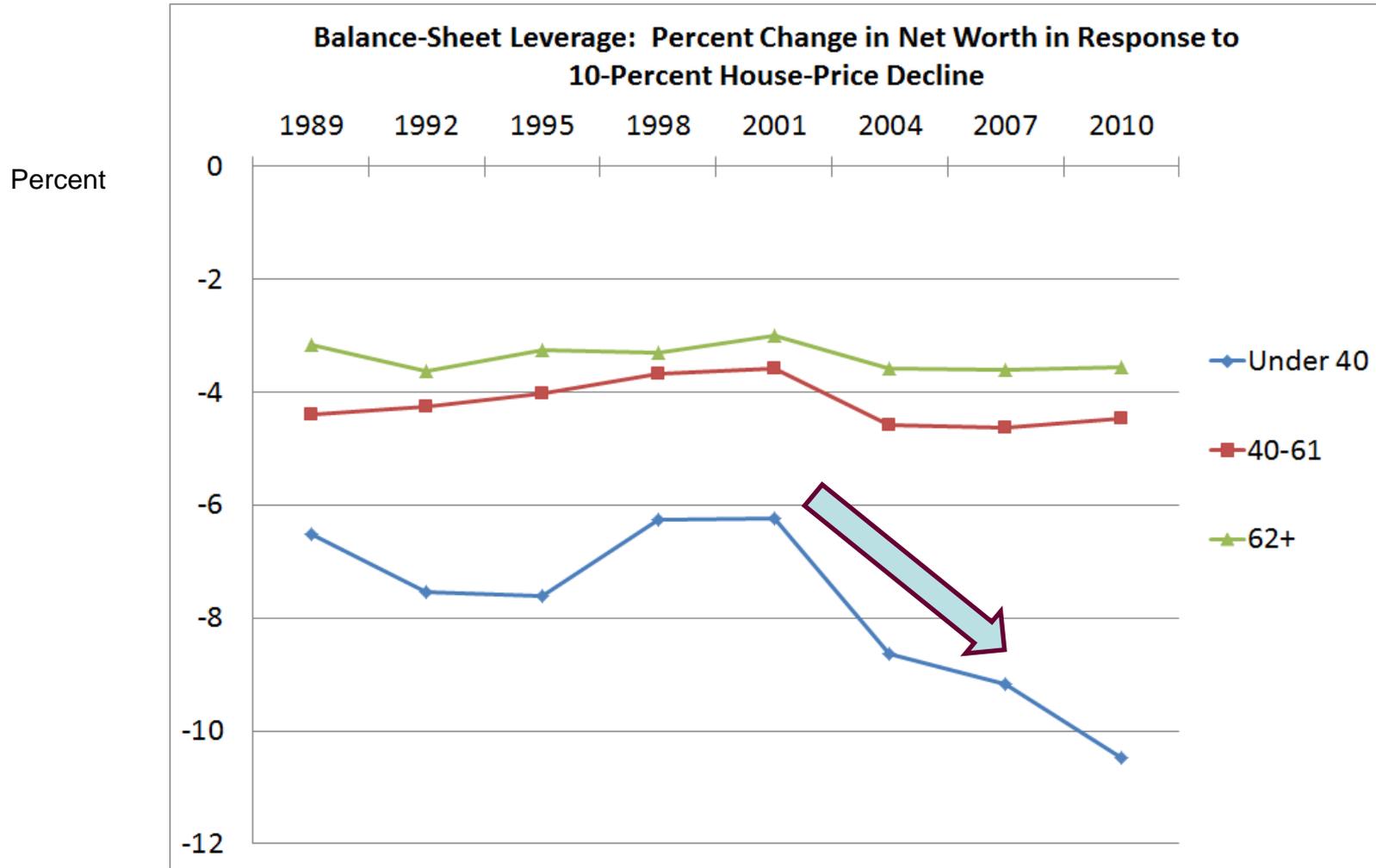


FIGURE III

Elasticity of Spending with Respect to Housing Net Worth Shock



Young Adults Loaded Up On House-Price Risk

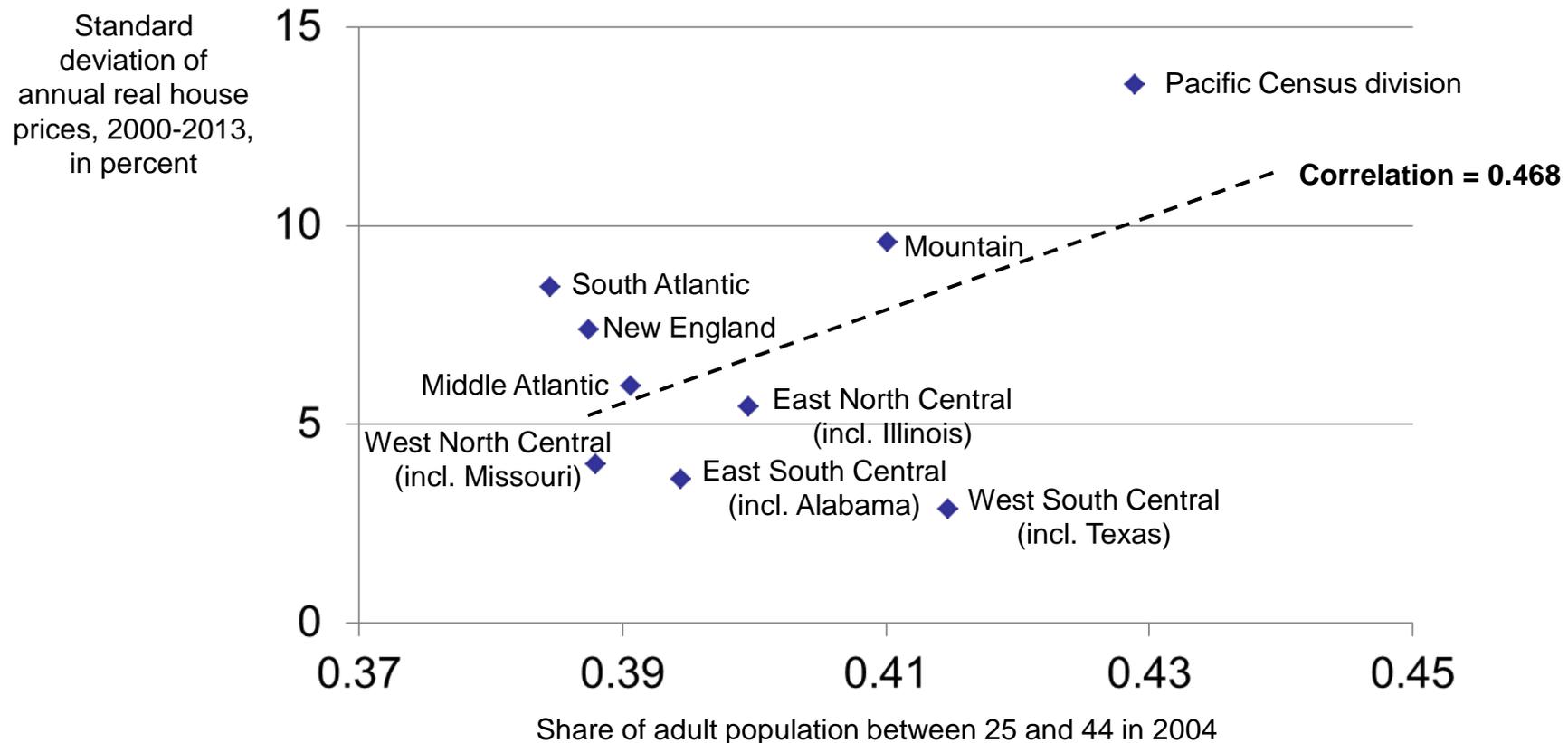


Source: Federal Reserve, Survey of Consumer Finances



More Young Adults => More Volatile Housing Markets

Volatility of Real House Prices vs. Share of Young Adults in the Population in 2004



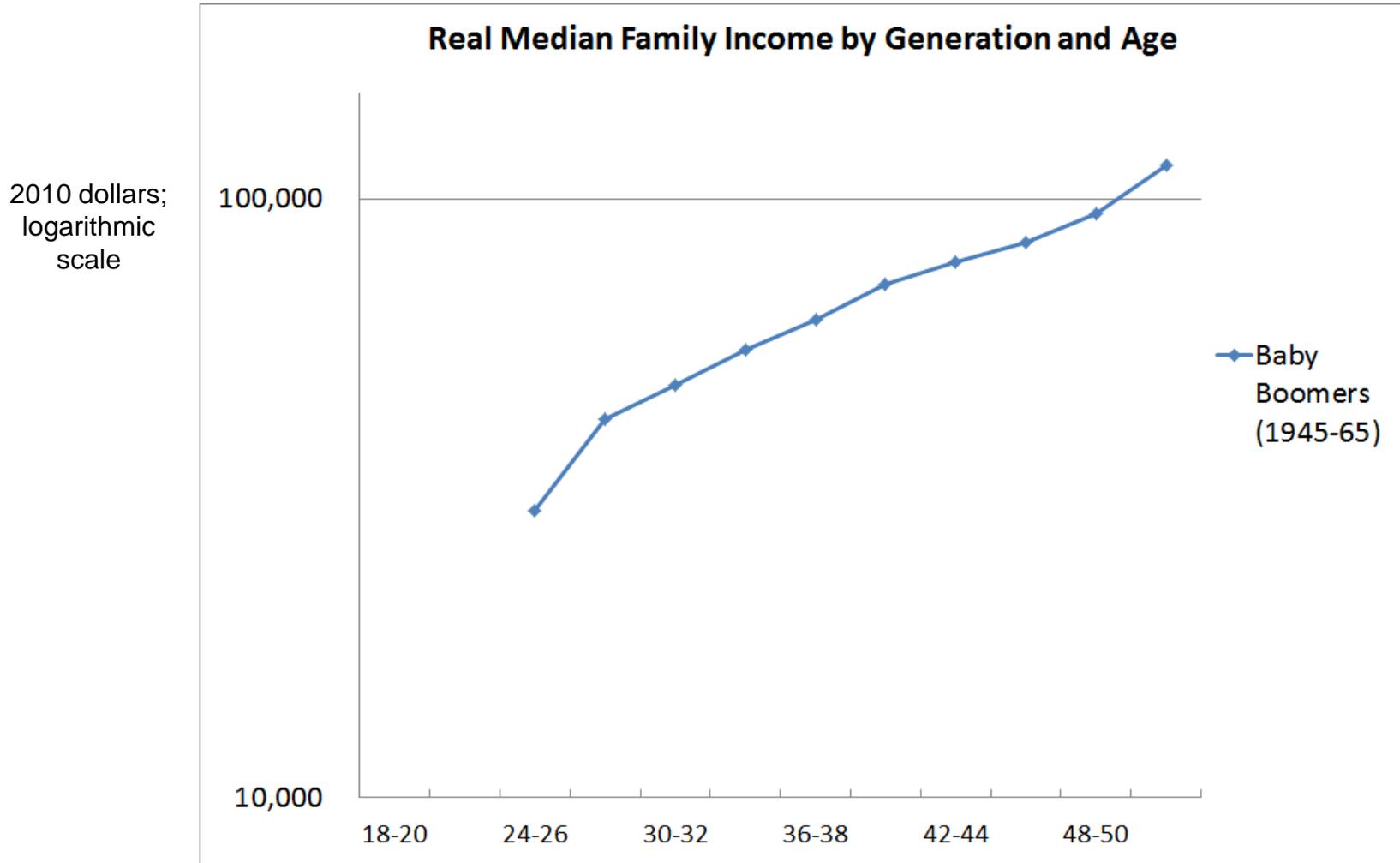


A Generational Perspective: Generations Since 1900

| | <u>Currently</u> |
|--|------------------|
| ■ The “Greatest Generation,” born 1900-24 (included people who fought in WW II) | 90-114 years old |
| ■ The “Silent Generation,” born 1925-45 (Depression and WW II) | 69-89 |
| ■ “Baby Boomers,” born 1946-64 | 50-68 |
| ■ “Generation X,” born 1965-80 | 34-49 |
| ■ “Generation Y” (also called “Millennials” or “Echo Boomers”), born 1981-2000 | 14-33 |
| ■ The “Post-Millennial Generation,” born after 2000 | Under 14 |



Median Income by Generation

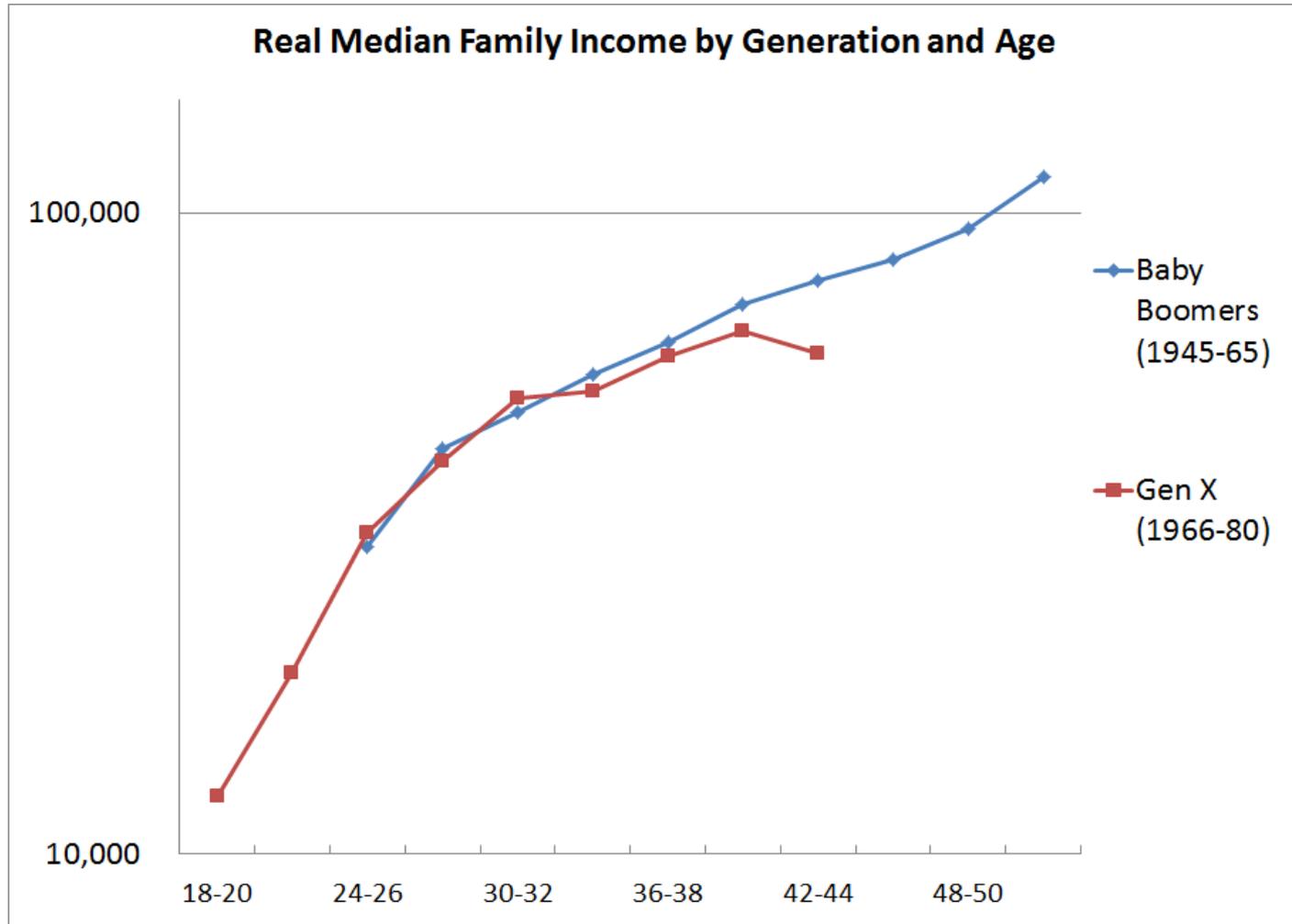


Source: Federal Reserve, Survey of Consumer Finances



Median Income by Generation

2010 dollars;
logarithmic
scale

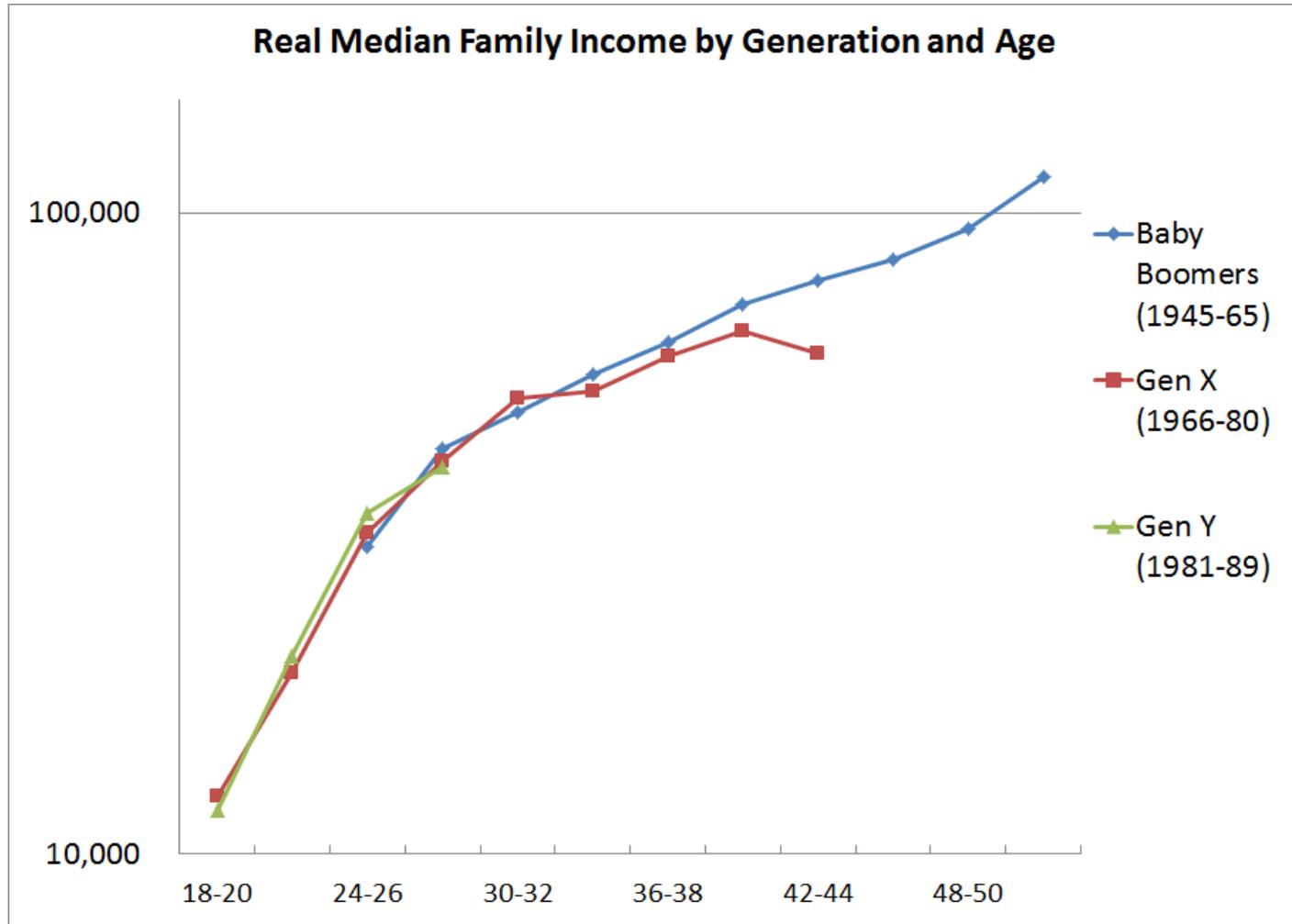


Source: Federal Reserve, Survey of Consumer Finances



Median Income by Generation

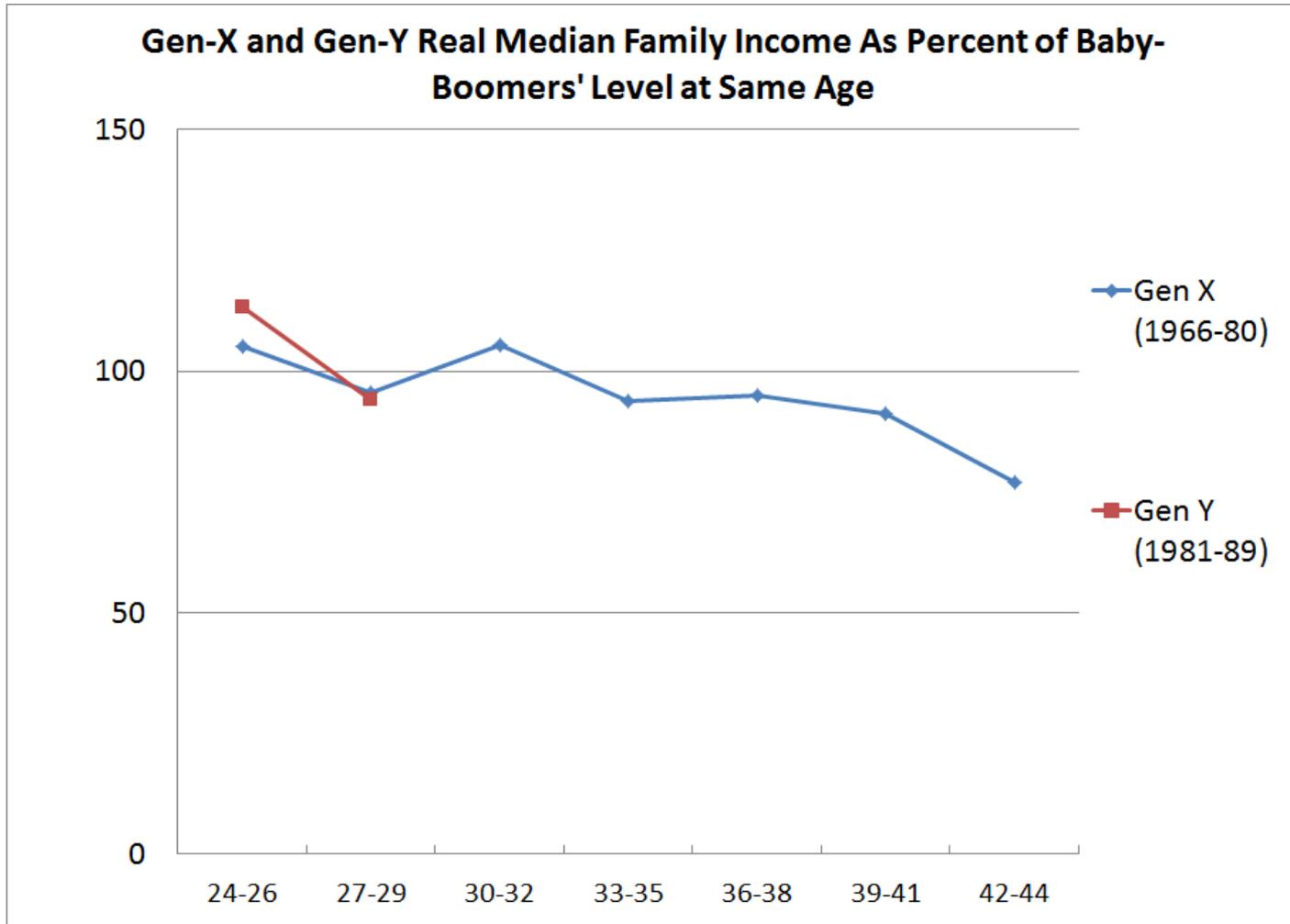
2010 dollars;
logarithmic
scale



Source: Federal Reserve, Survey of Consumer Finances



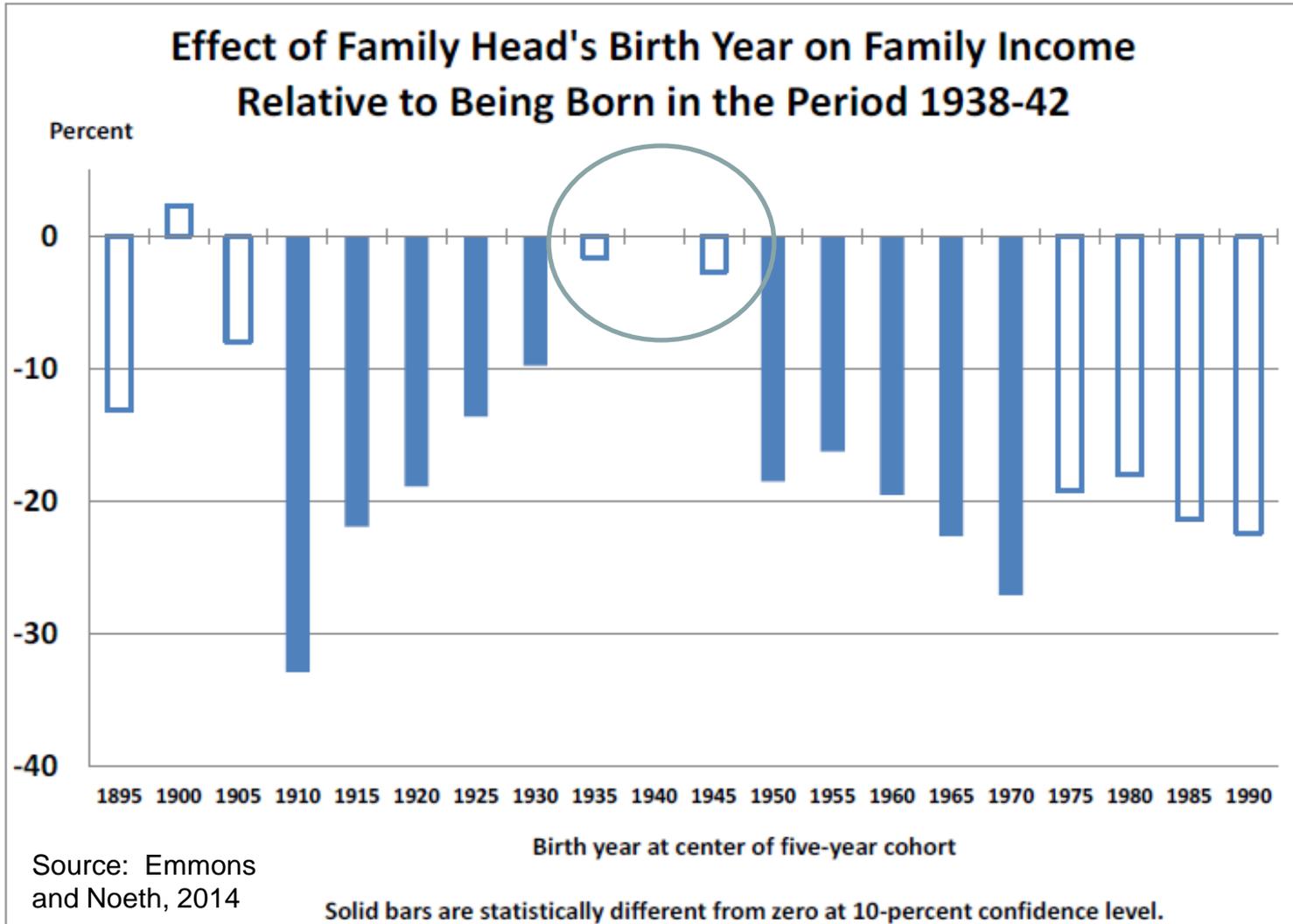
Income Trend of Gen X Has Weakened



Source: Federal Reserve, Survey of Consumer Finances



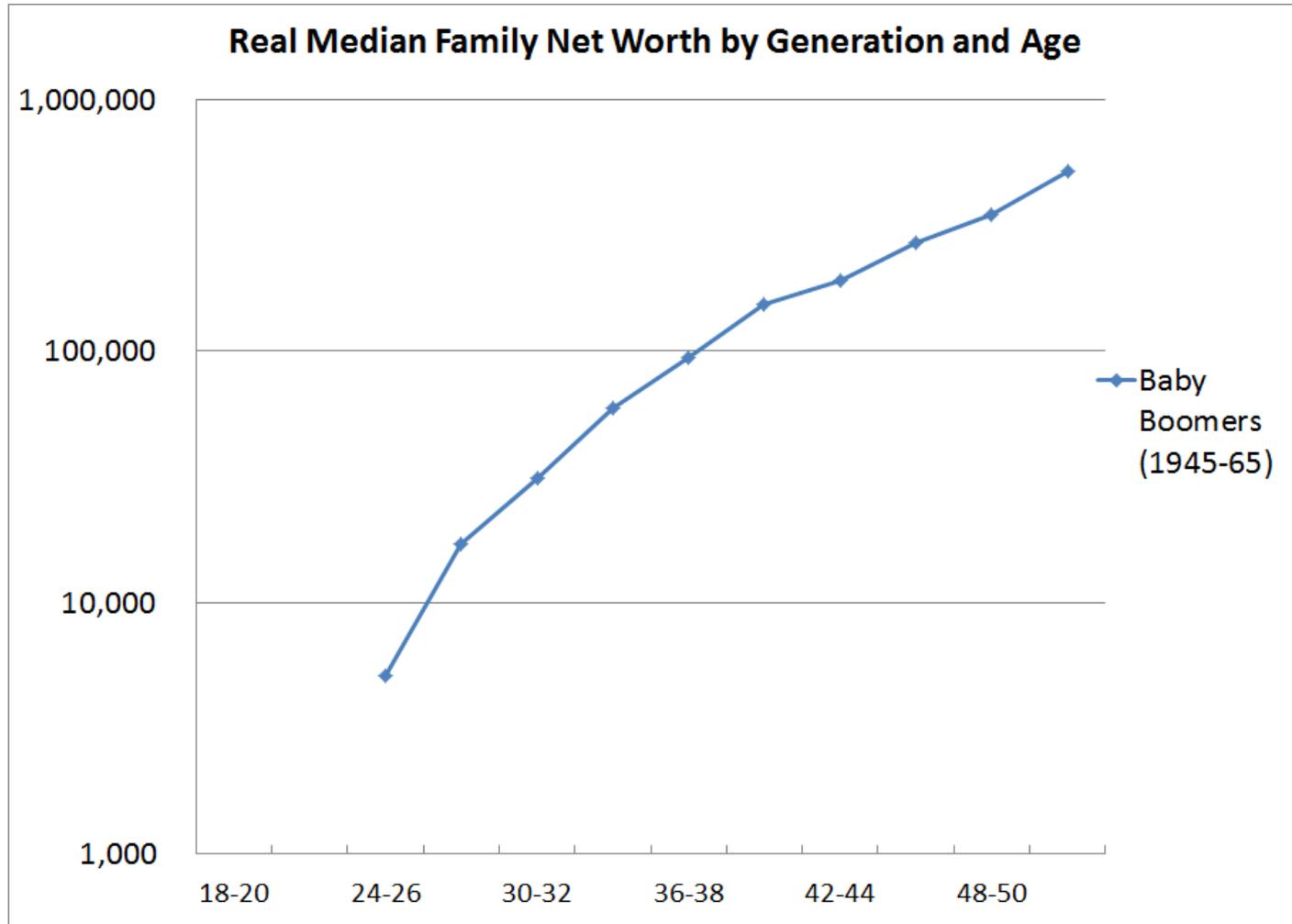
All Following Silent Generation Earn Less, Ceteris Paribus





Median Net Worth by Generation

2010 dollars;
logarithmic
scale

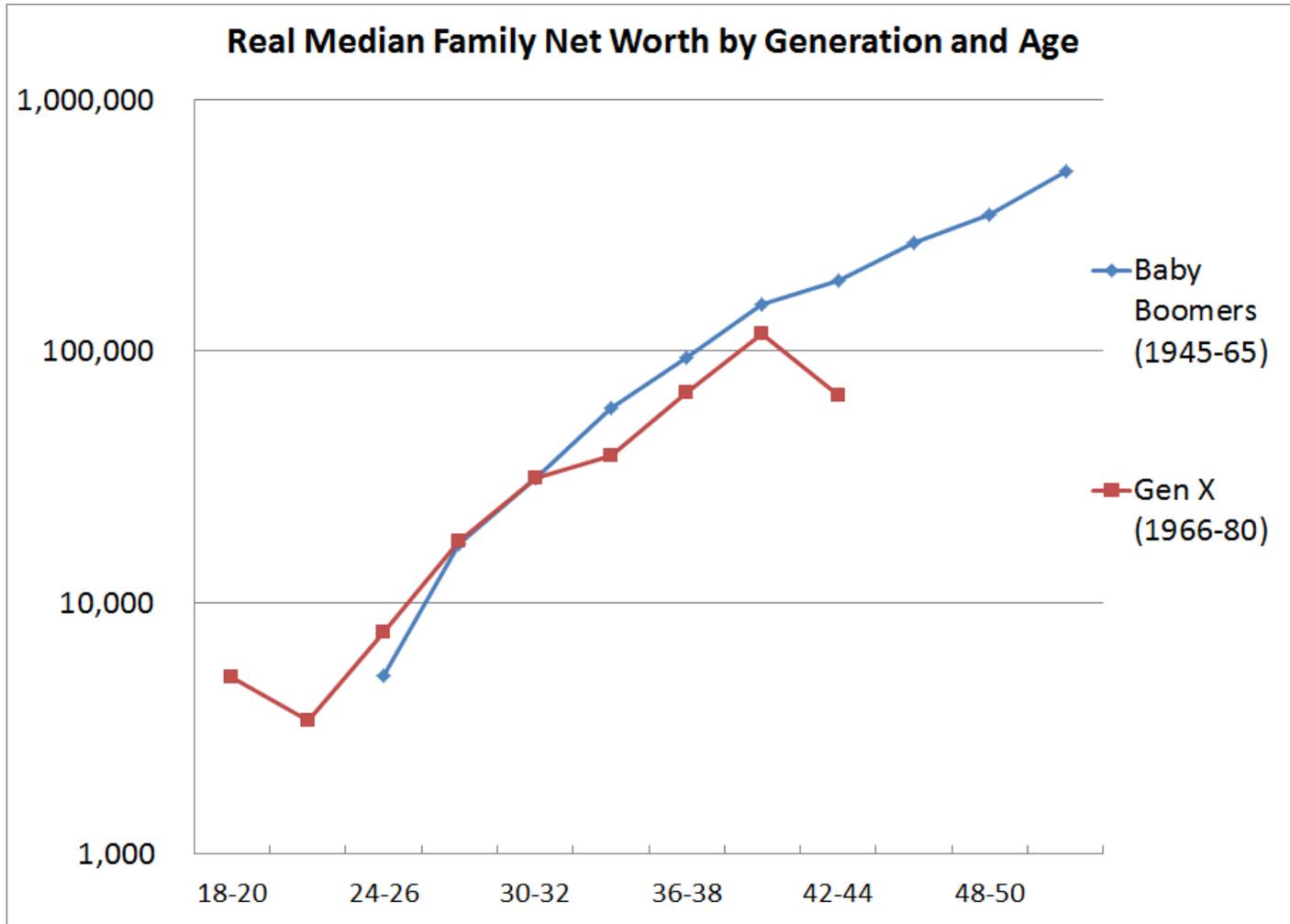


Source: Federal Reserve, Survey of Consumer Finances



Median Net Worth by Generation

2010 dollars;
logarithmic
scale

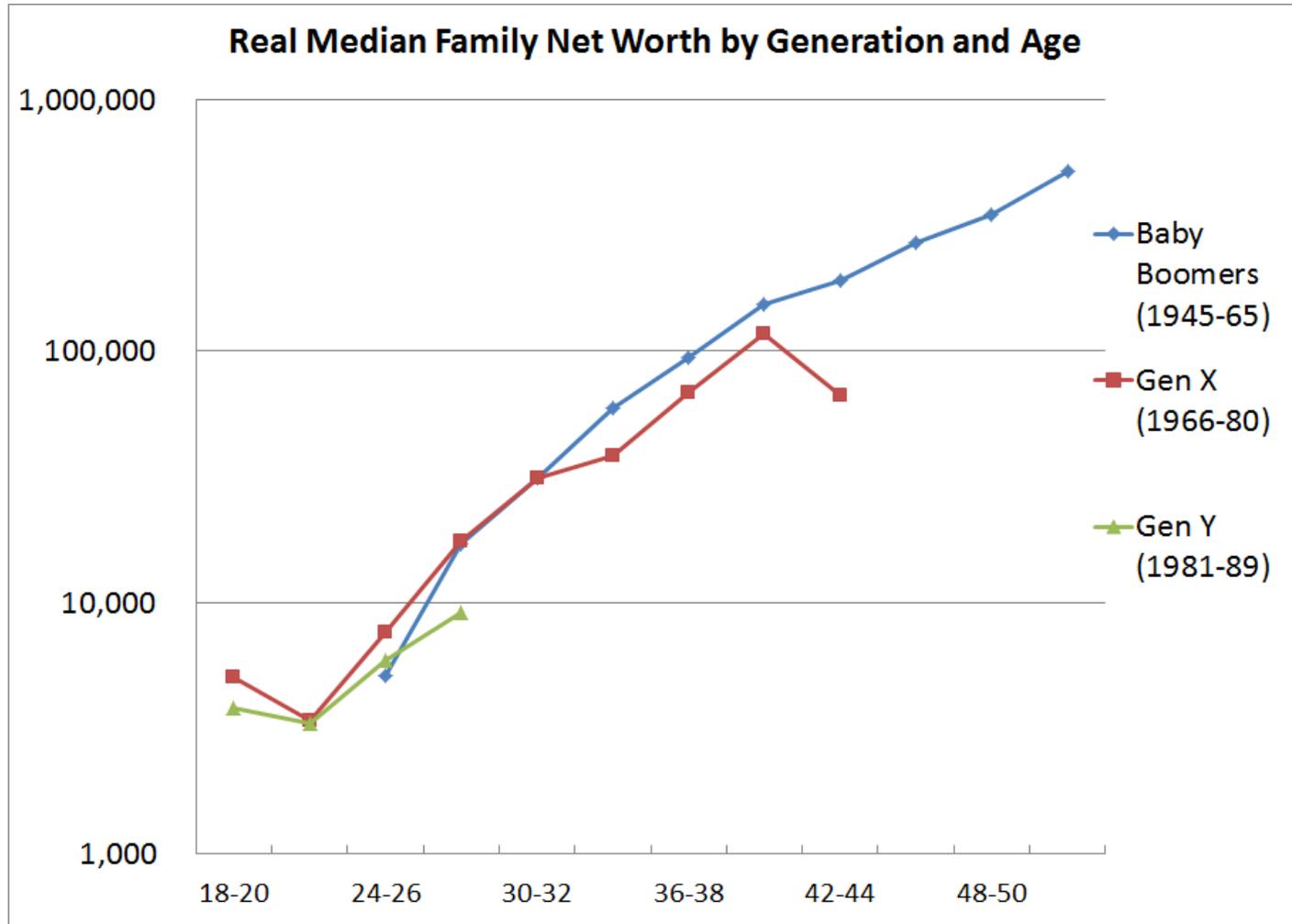


Source: Federal Reserve, Survey of Consumer Finances



Median Net Worth by Generation

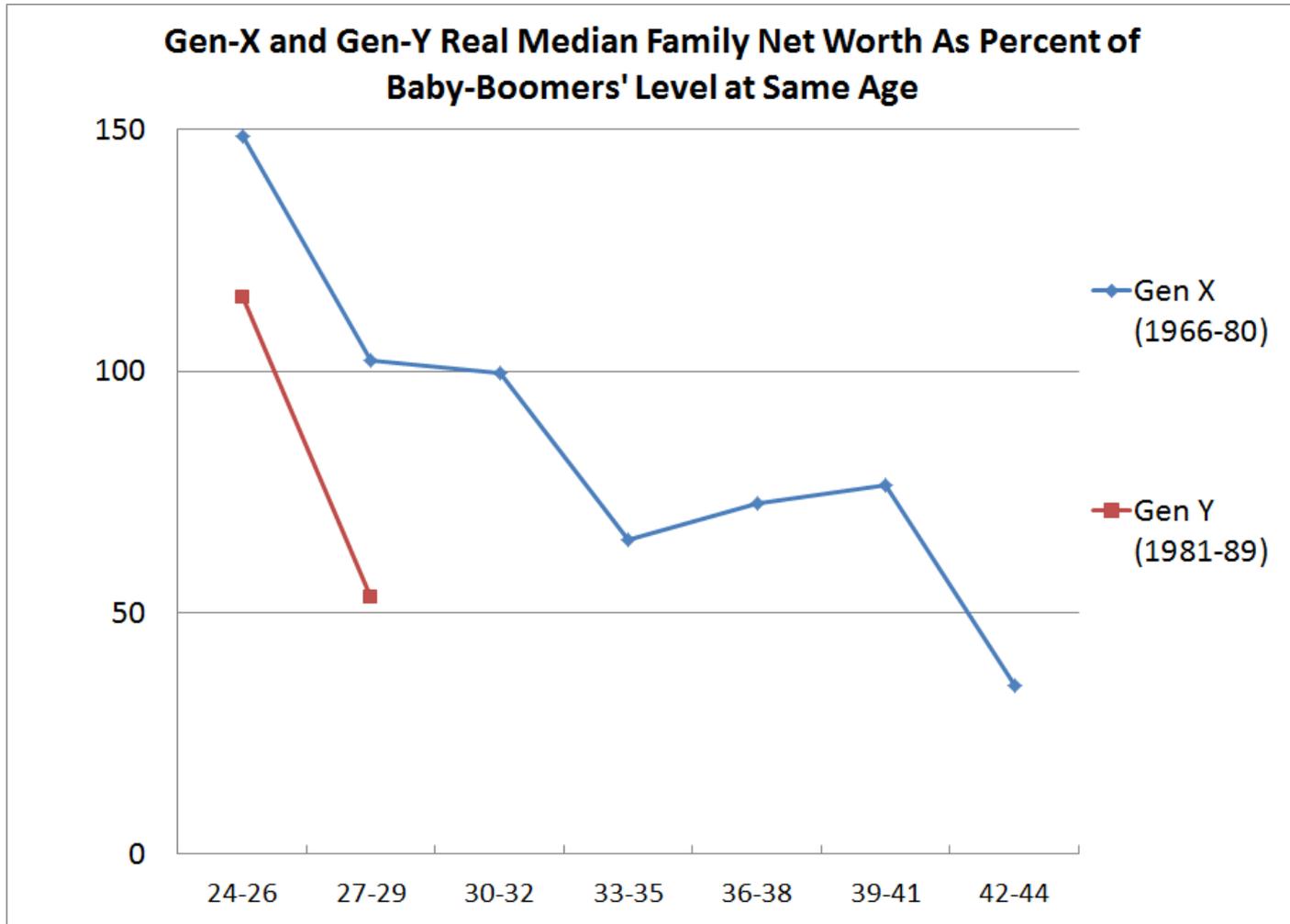
2010 dollars;
logarithmic
scale



Source: Federal Reserve, Survey of Consumer Finances



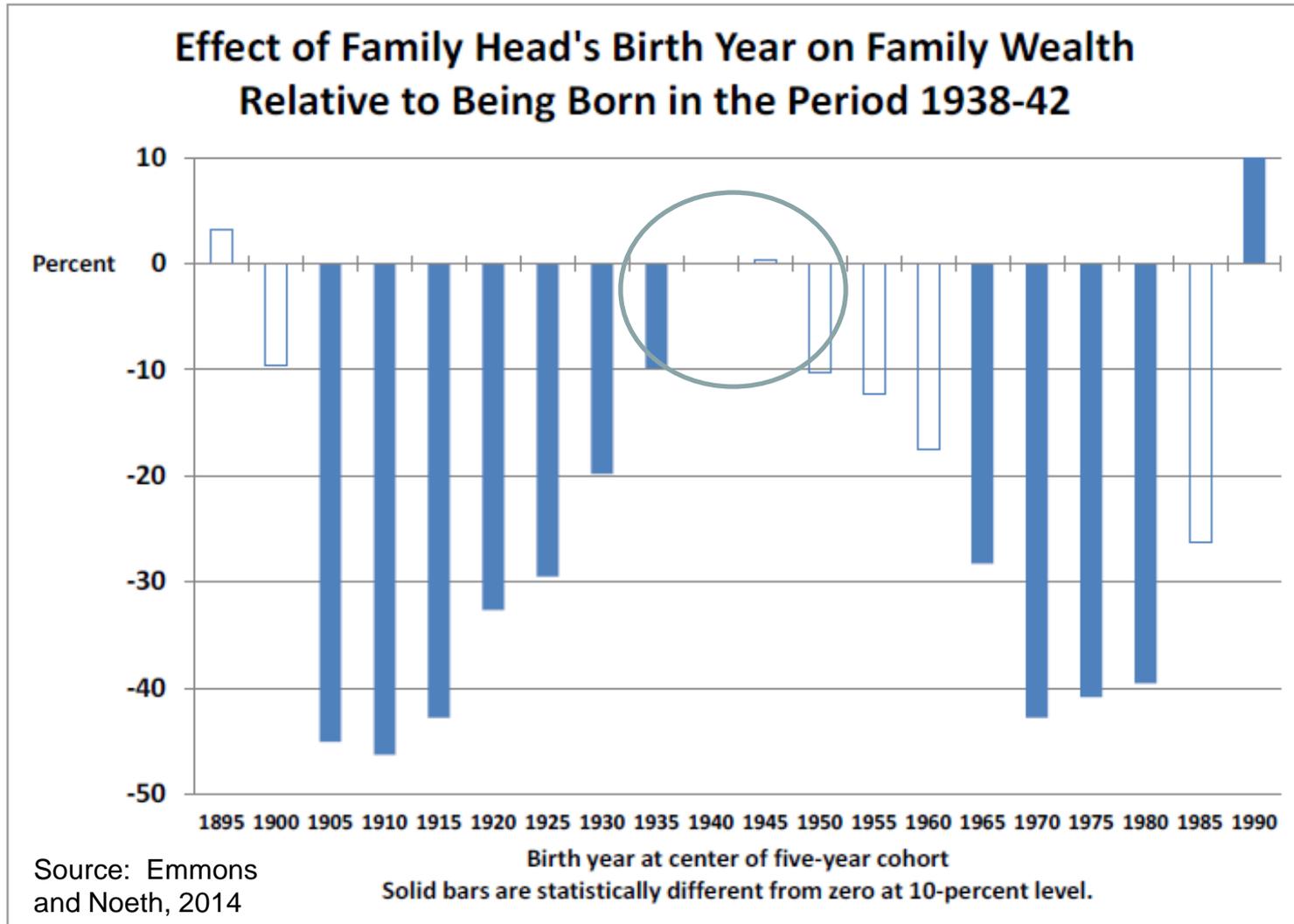
Wealth Trends of Gen X & Y Have Collapsed



Source: Federal Reserve, Survey of Consumer Finances



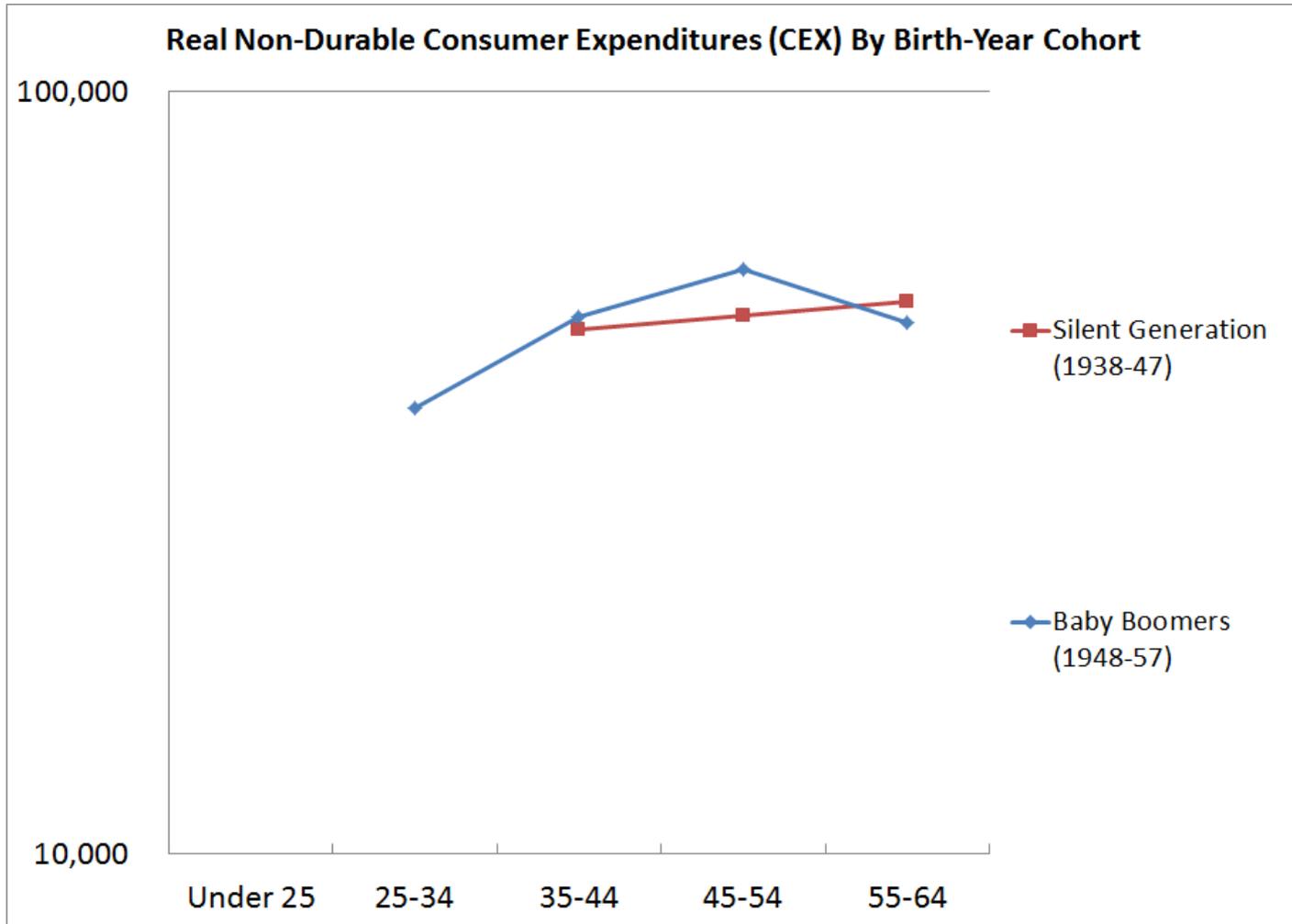
All Following Silent Generation Own Less, Ceteris Paribus





Real Mean Non-Durable Consumer Expenditures

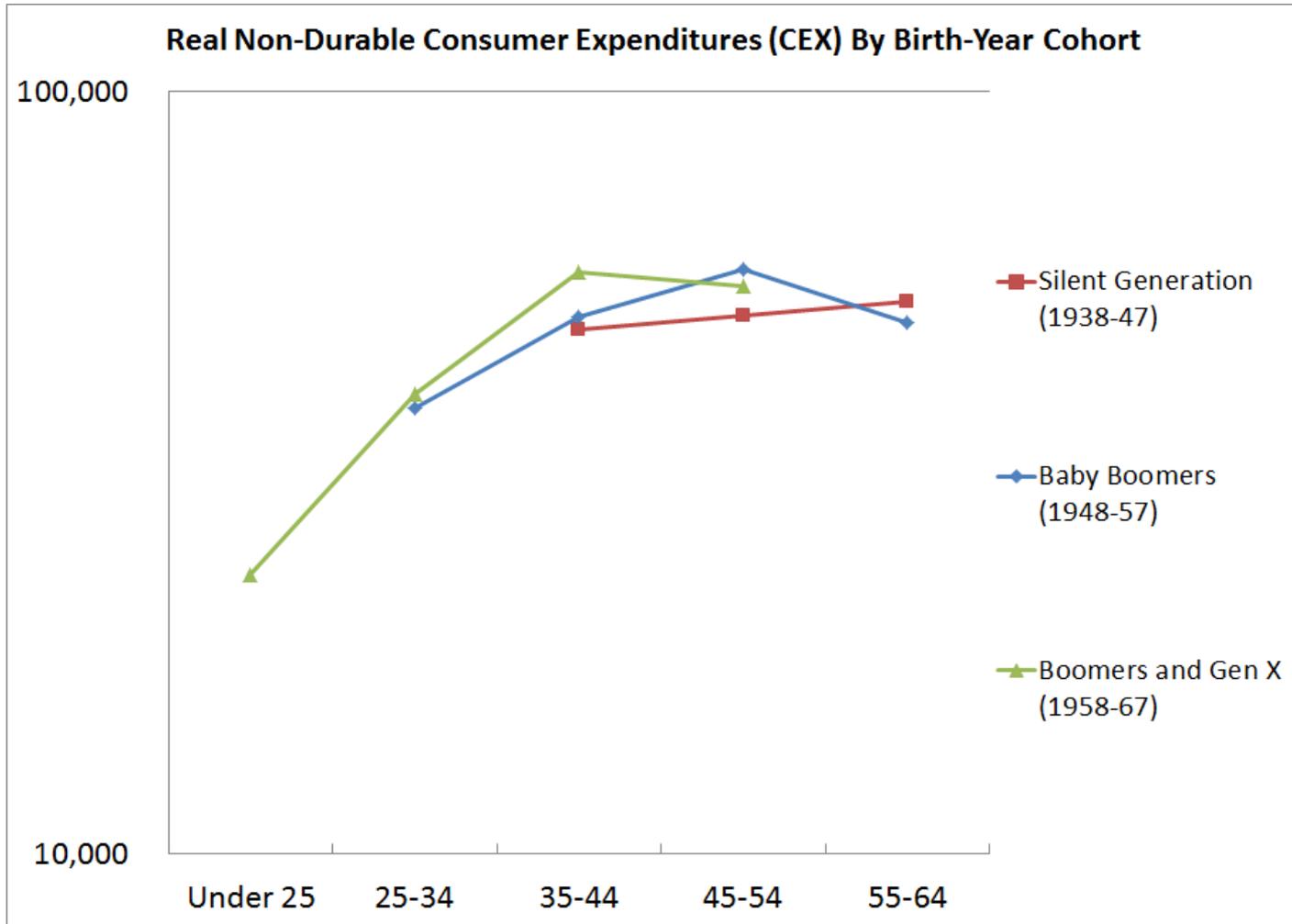
2005 dollars;
logarithmic
scale





Real Mean Non-Durable Consumer Expenditures

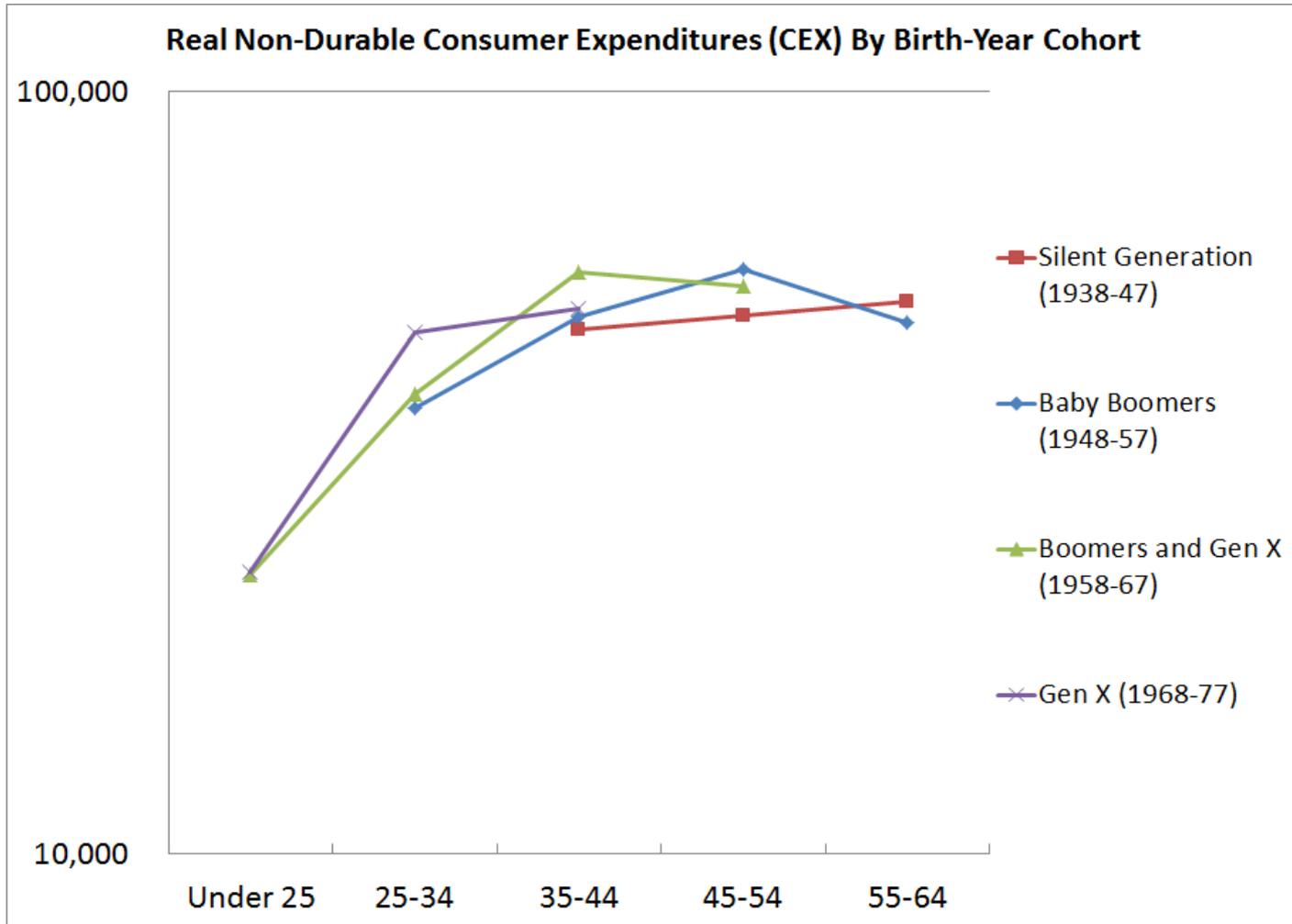
2005 dollars;
logarithmic
scale





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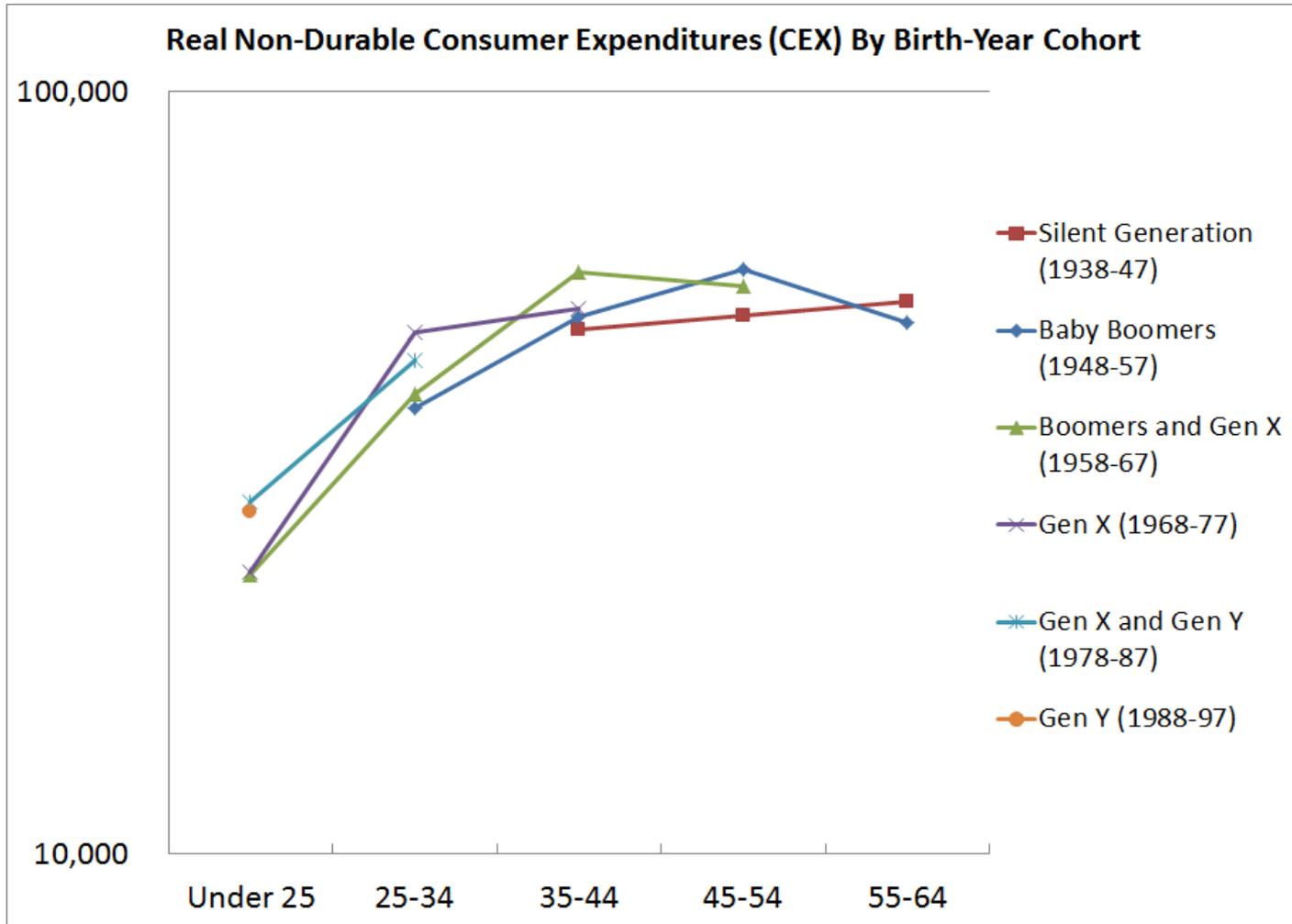
2005 dollars;
logarithmic
scale





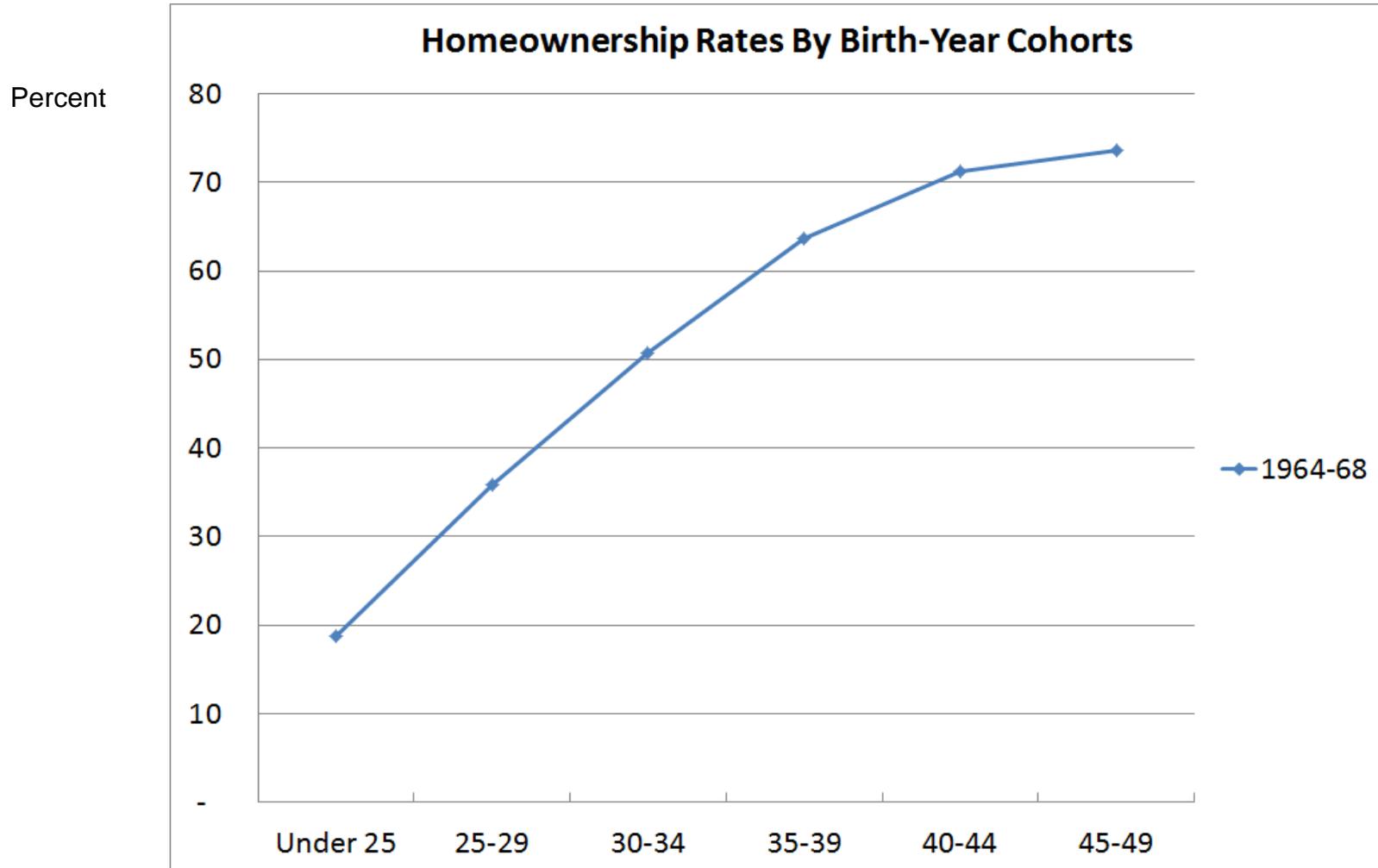
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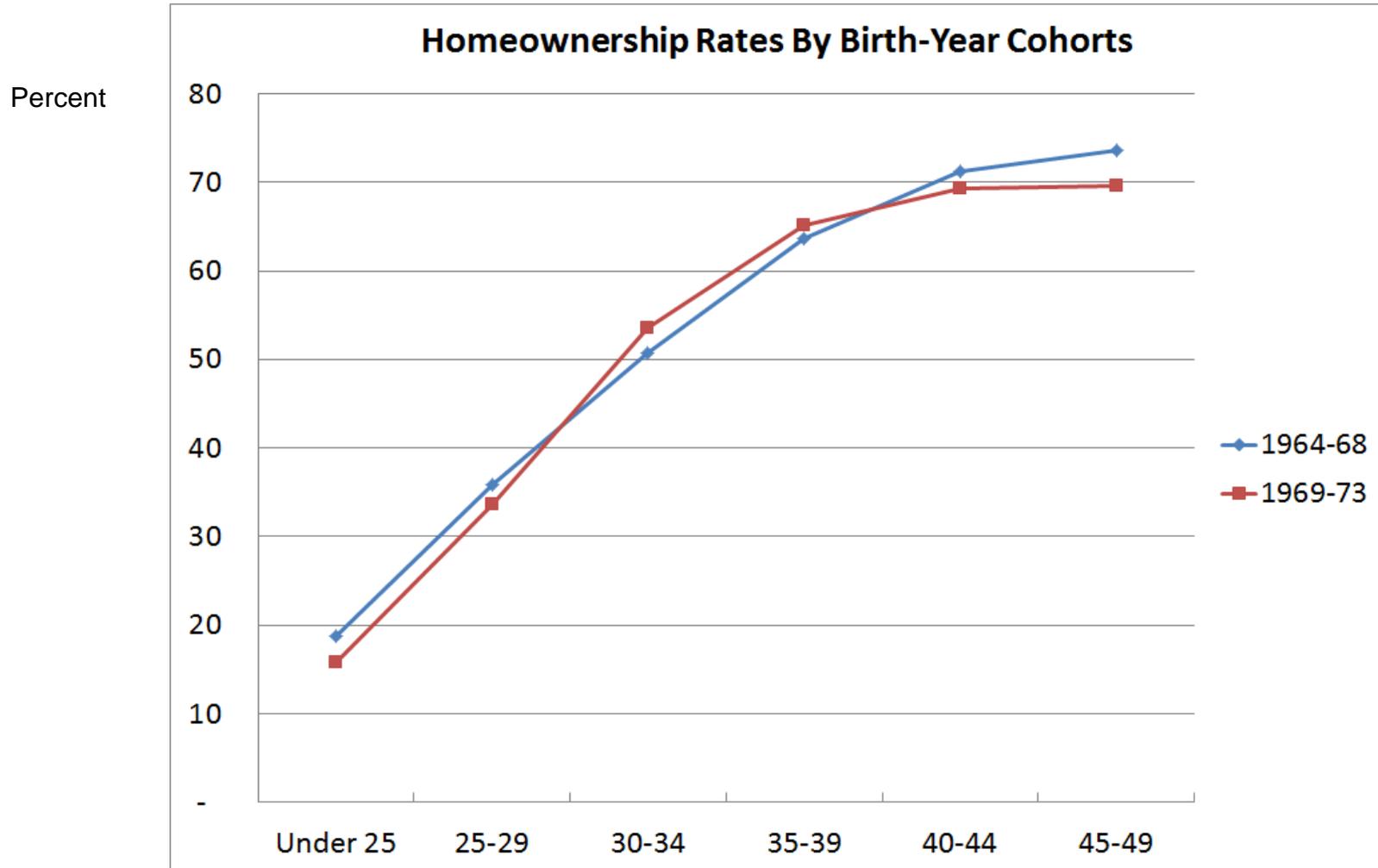
Homeownership Rates by Five-Year Birth Cohorts



Source: Census Bureau



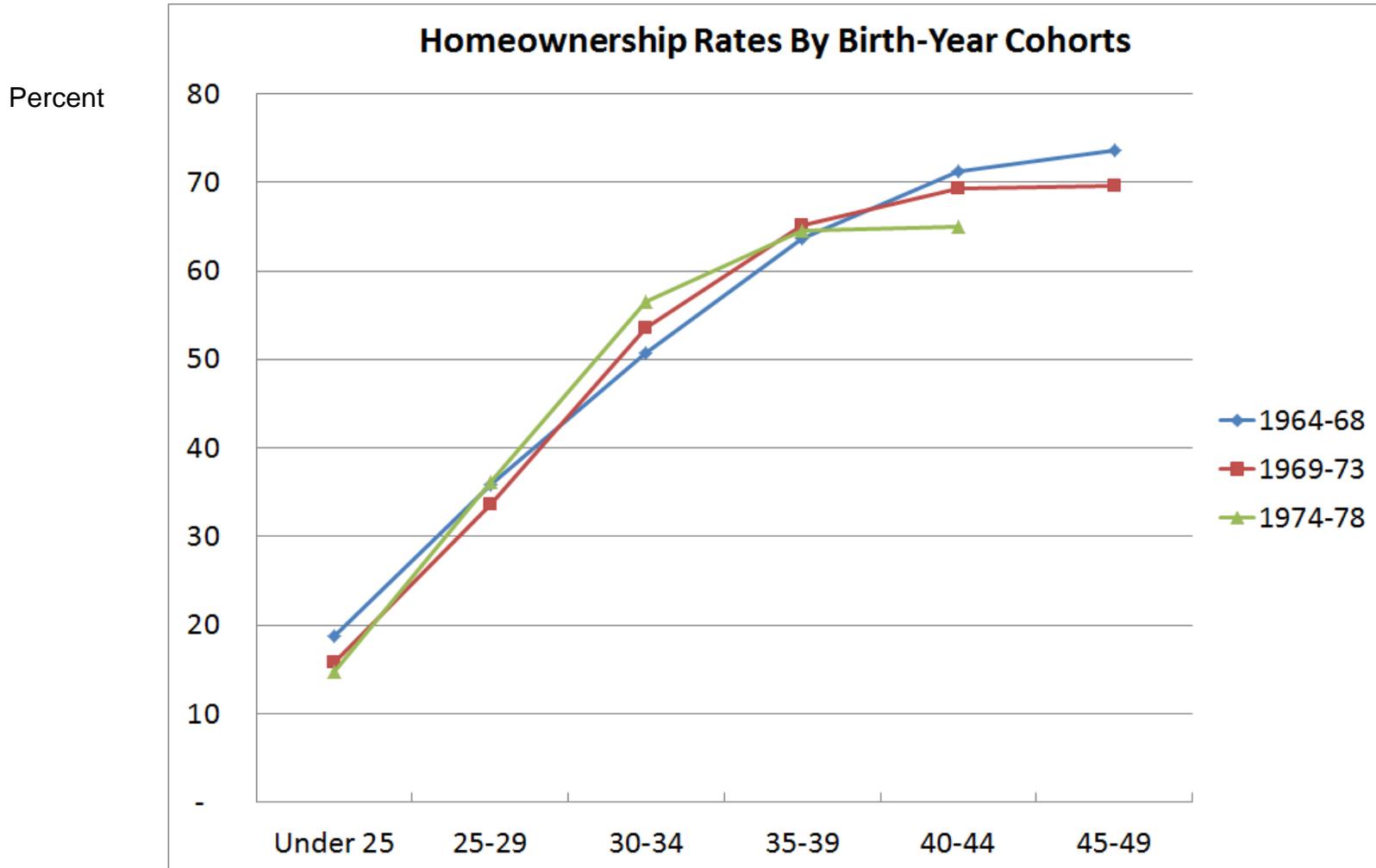
Homeownership Rates by Five-Year Birth Cohorts: Gen X (1966-80)



Source: Census Bureau



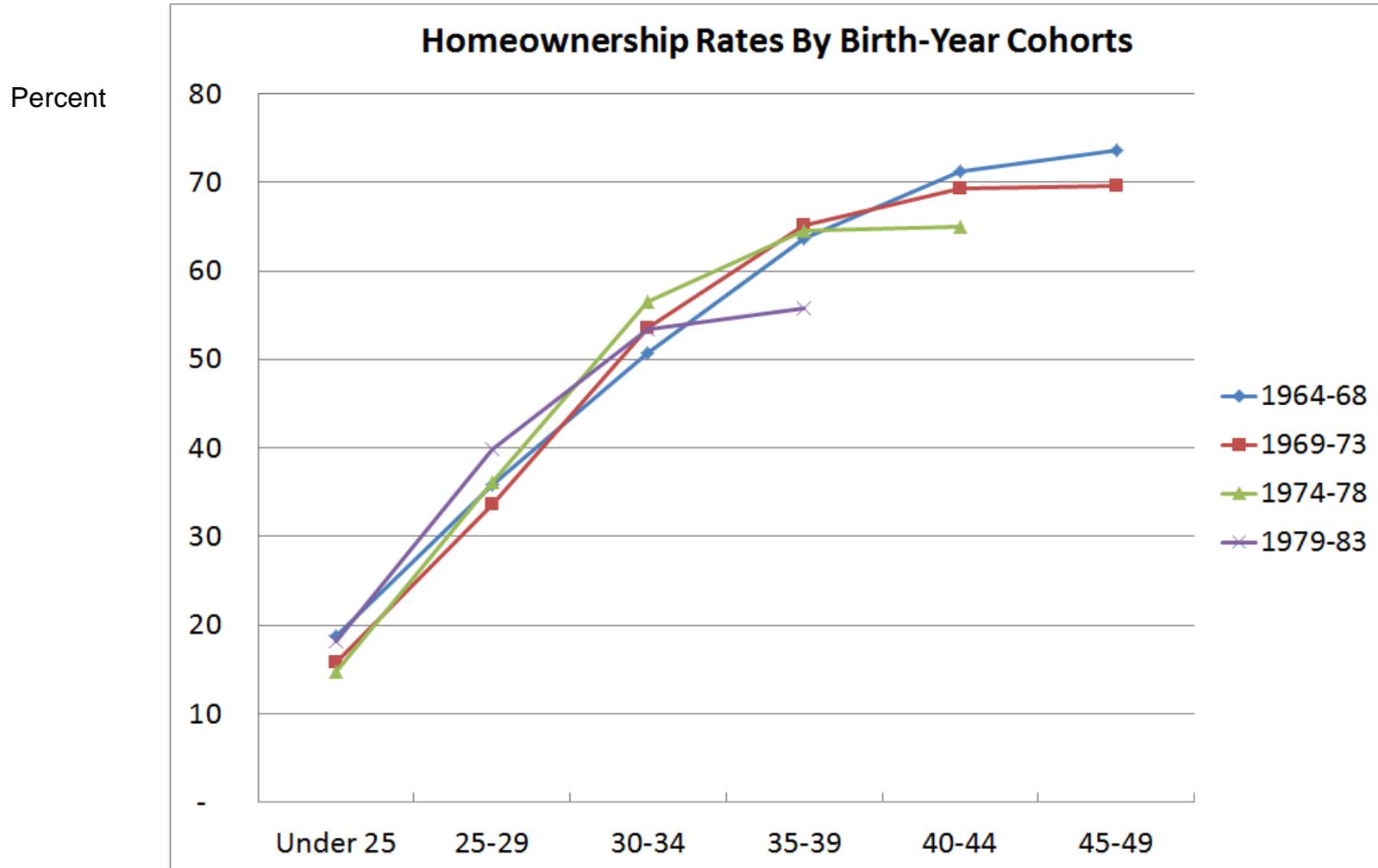
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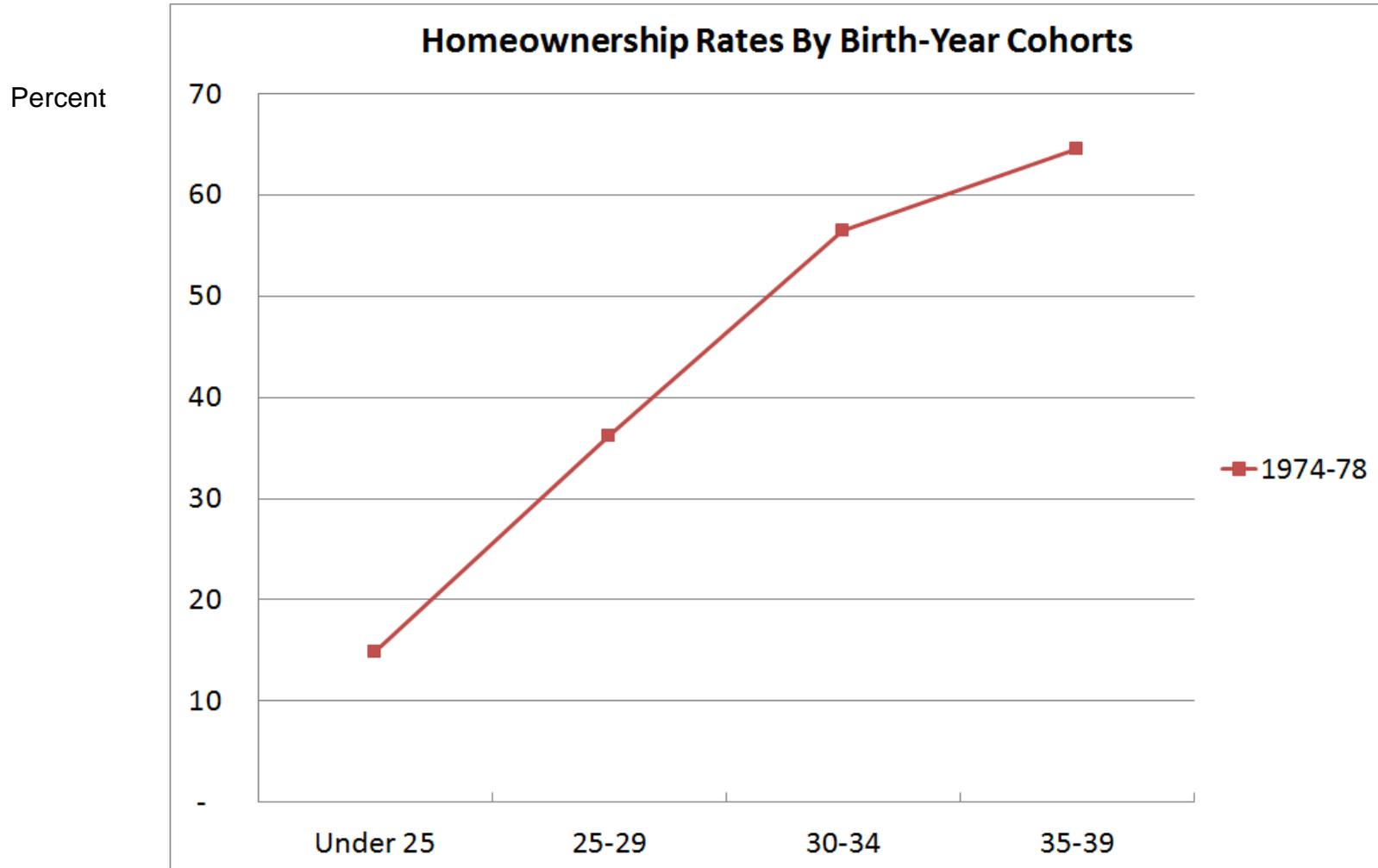
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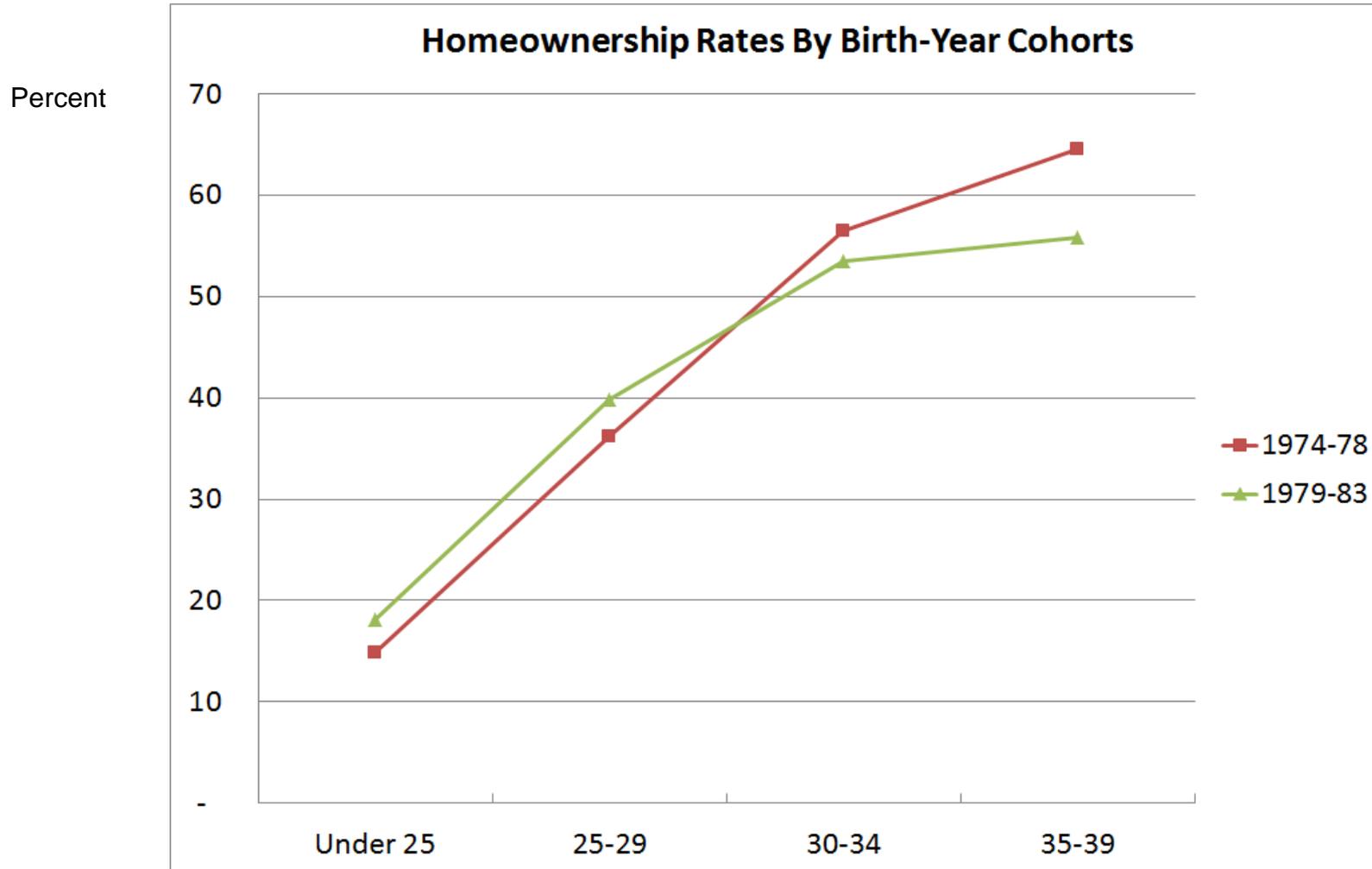
Homeownership Rates by Five-Year Birth Cohorts: Gen Y (1981-2000)



Source: Census Bureau



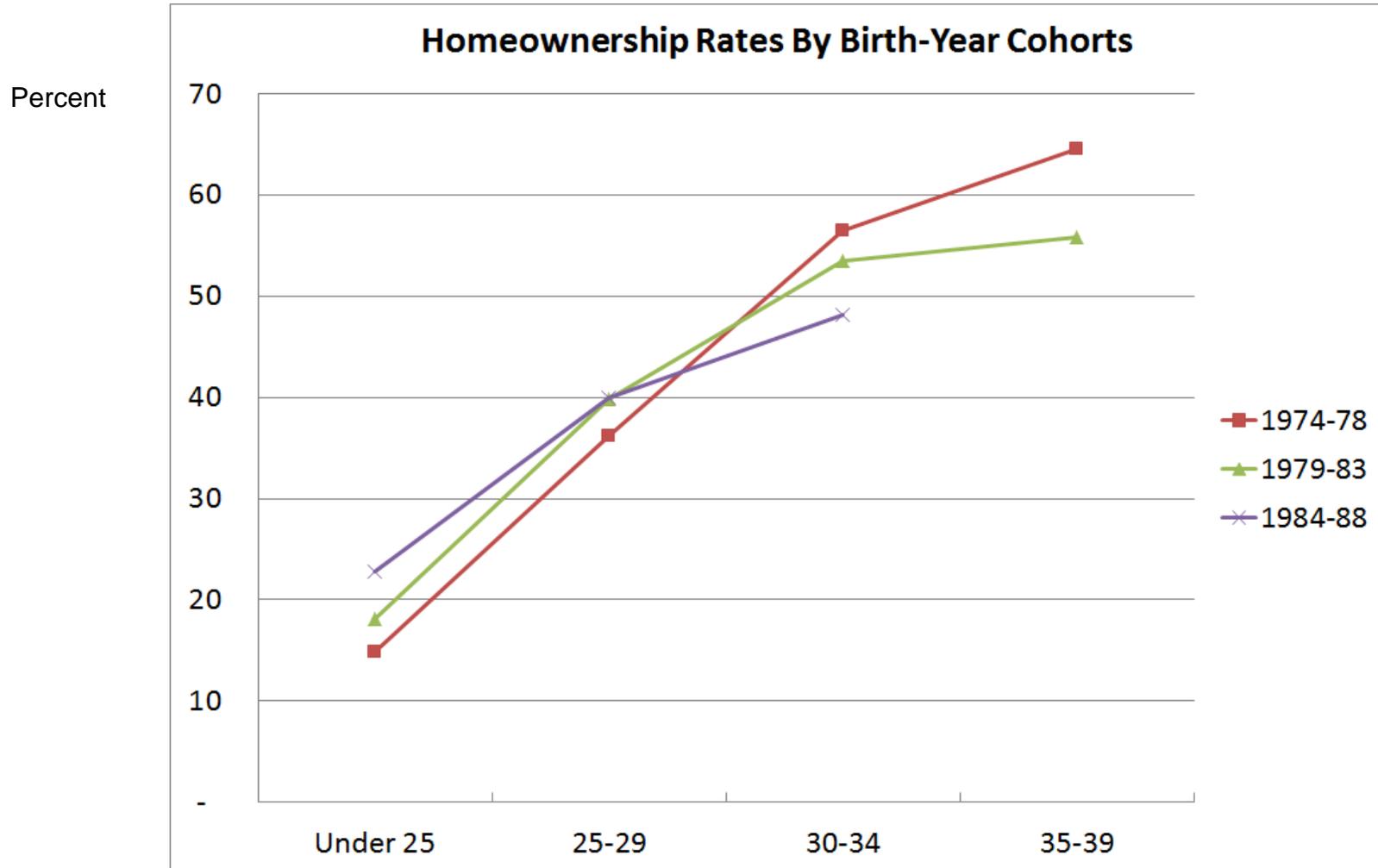
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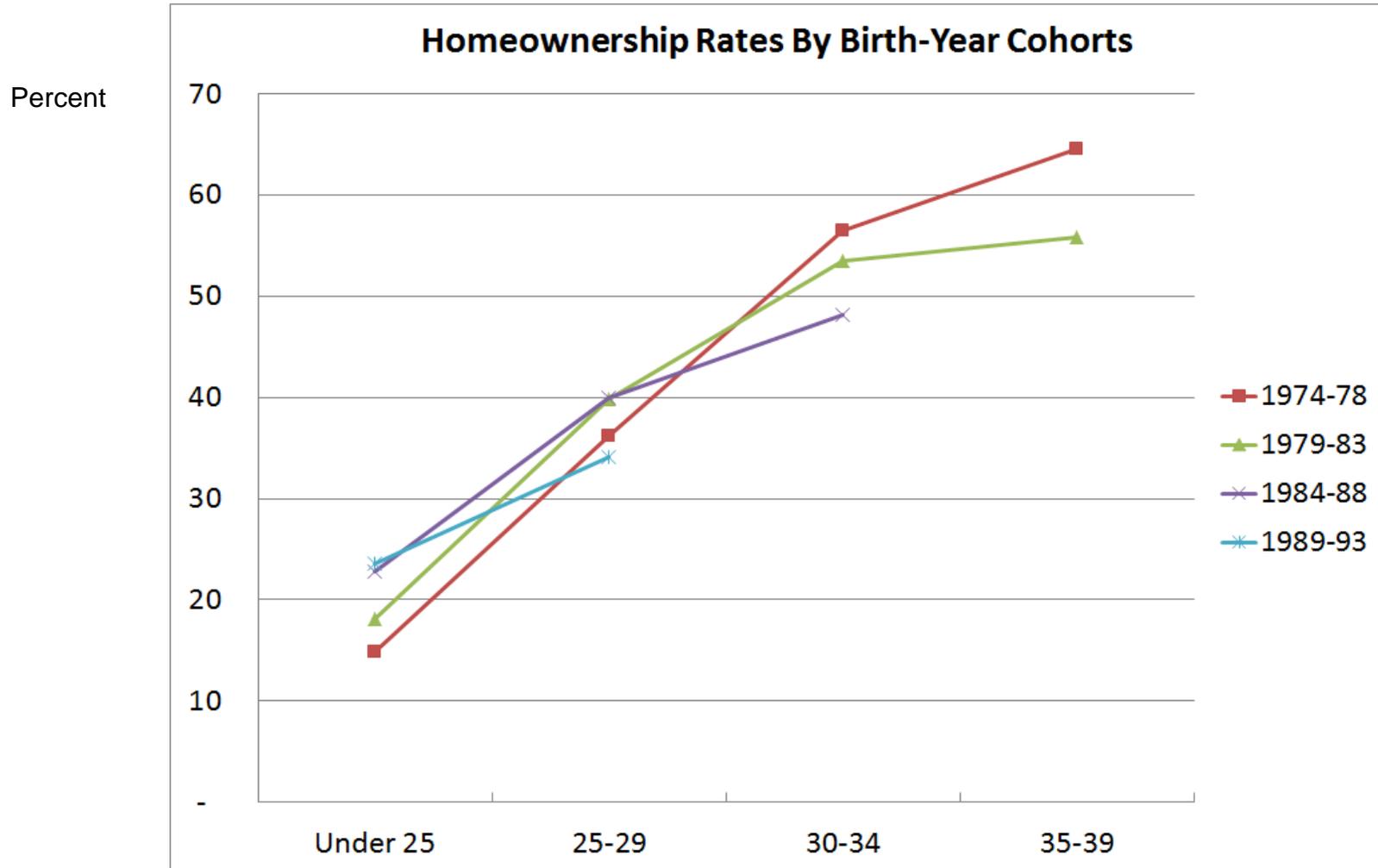
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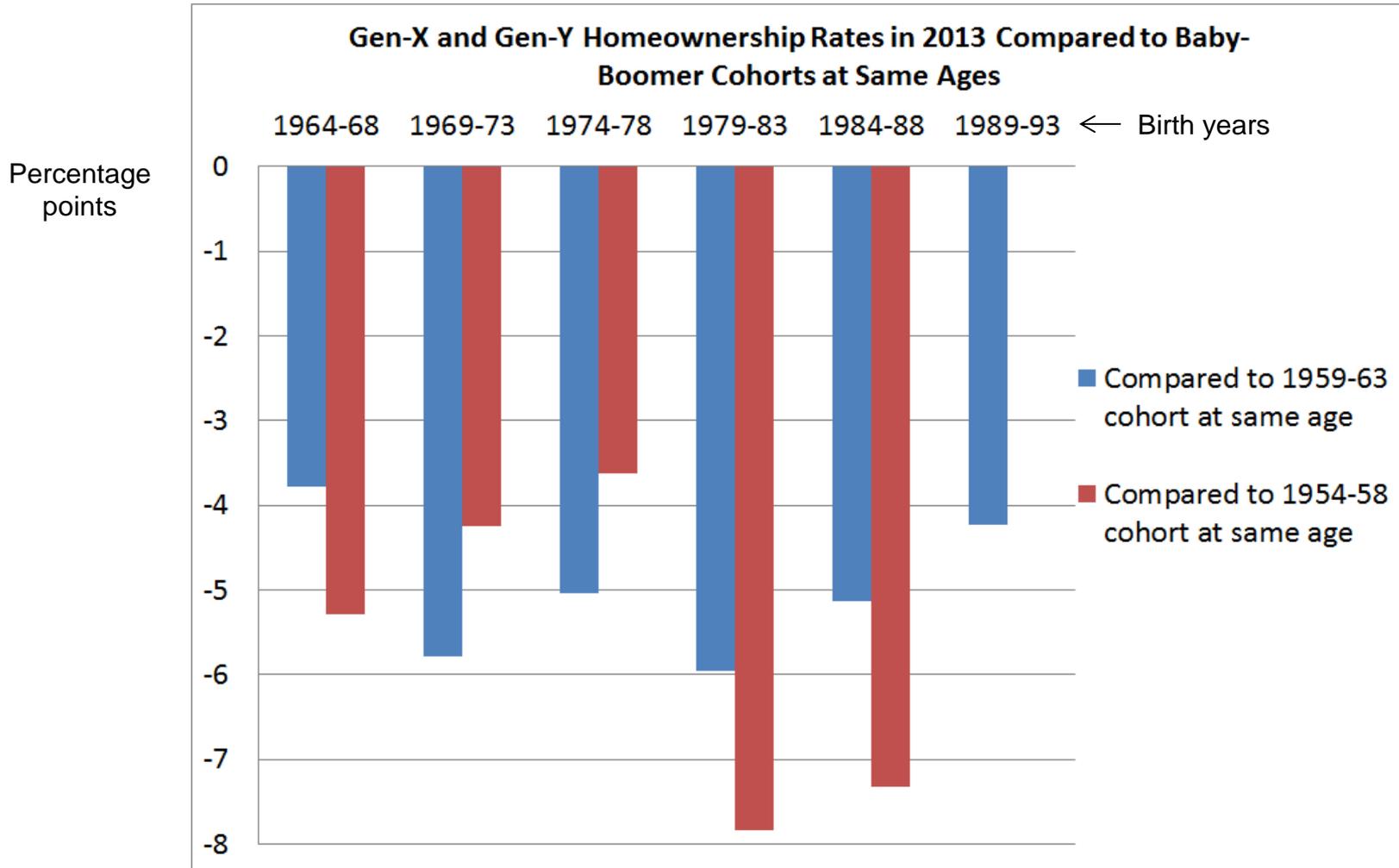
Homeownership Rates by Five-Year Birth Cohorts: Gen Y (1981-2000)



Source: Census Bureau



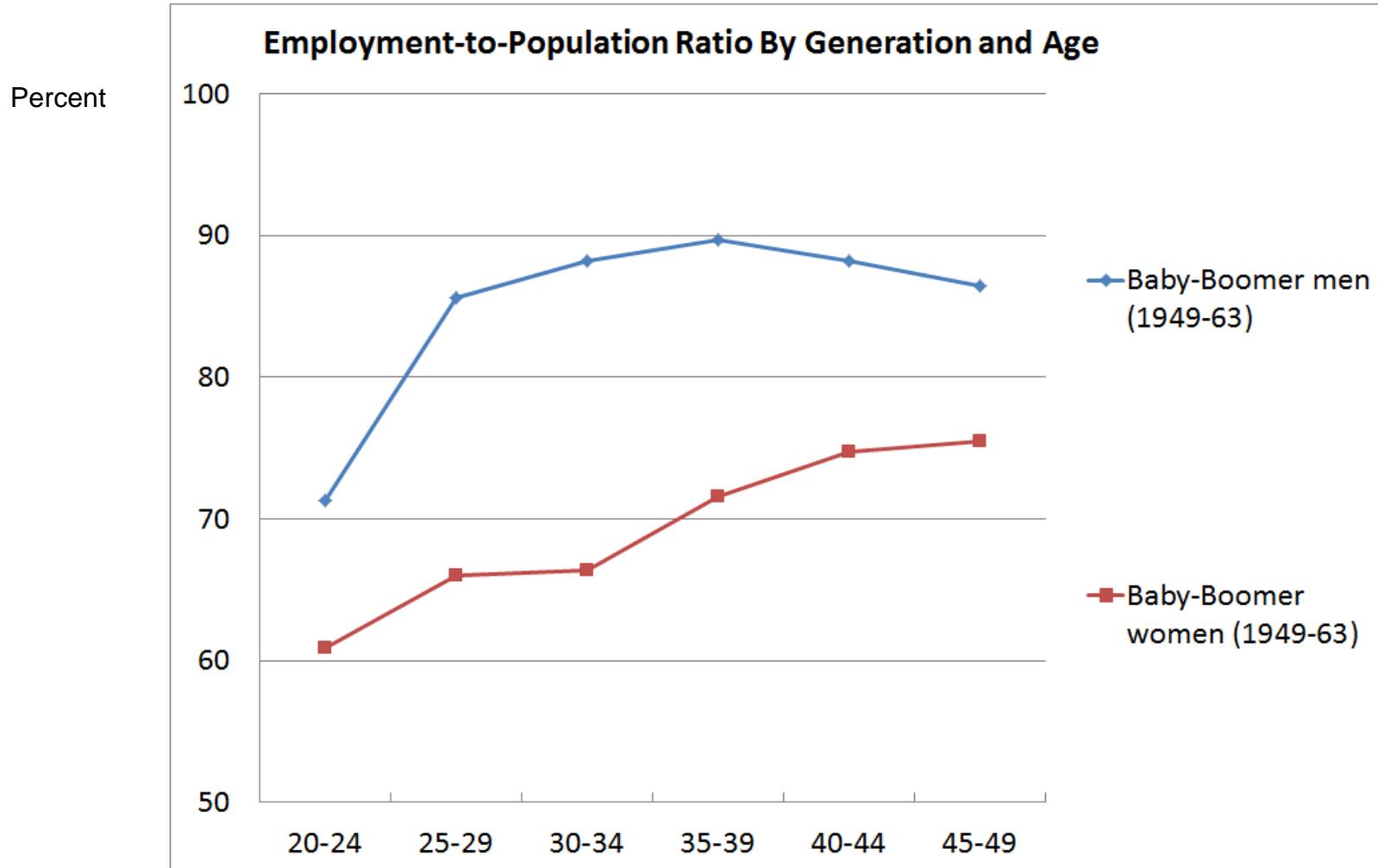
Gen-X, Gen-Y Homeownership Rates Far Below Baby-Boomer Rates



Source: Census Bureau



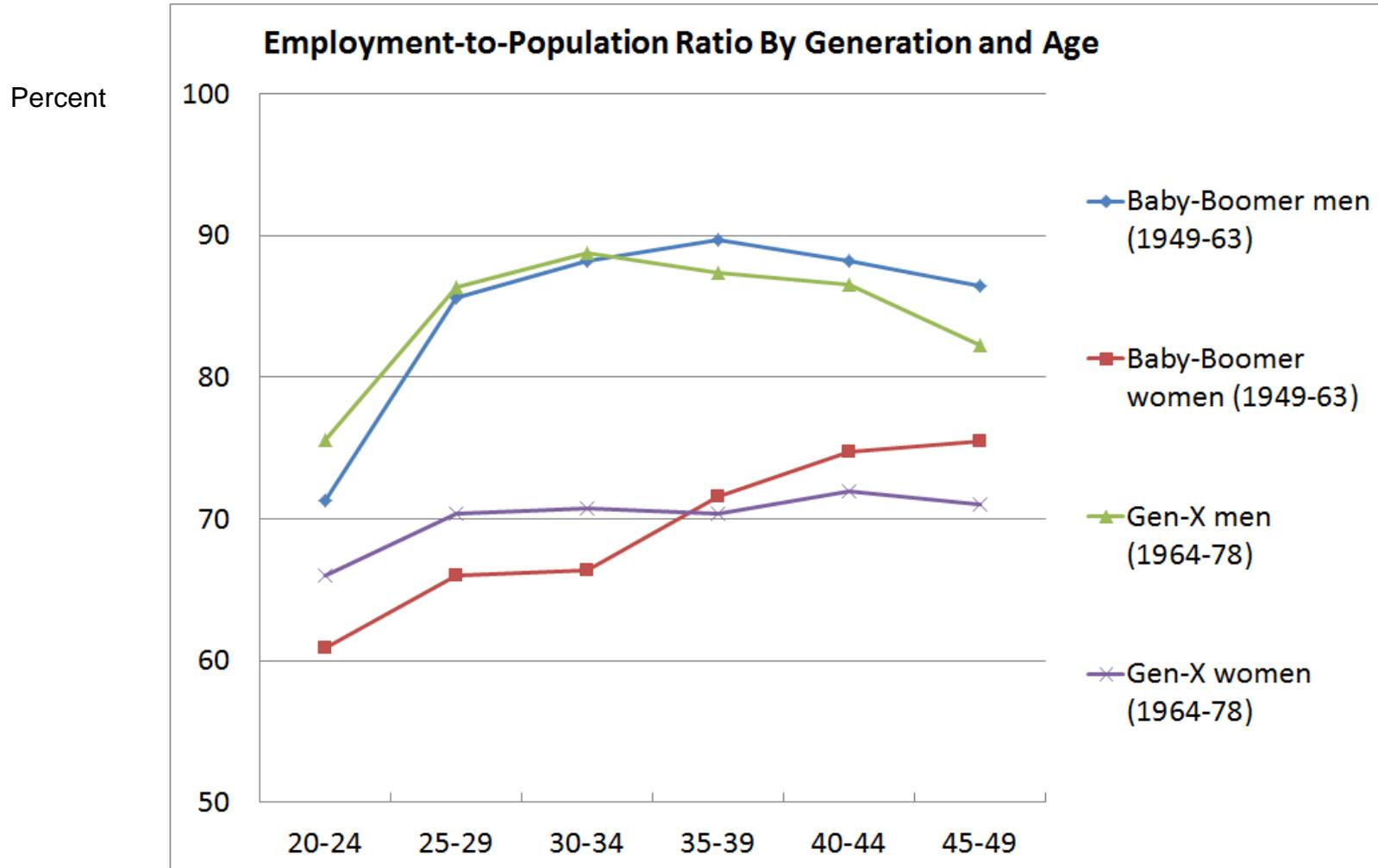
Employment-to-Population Rates: Baby Boomers



Source: Bureau of Labor Statistics



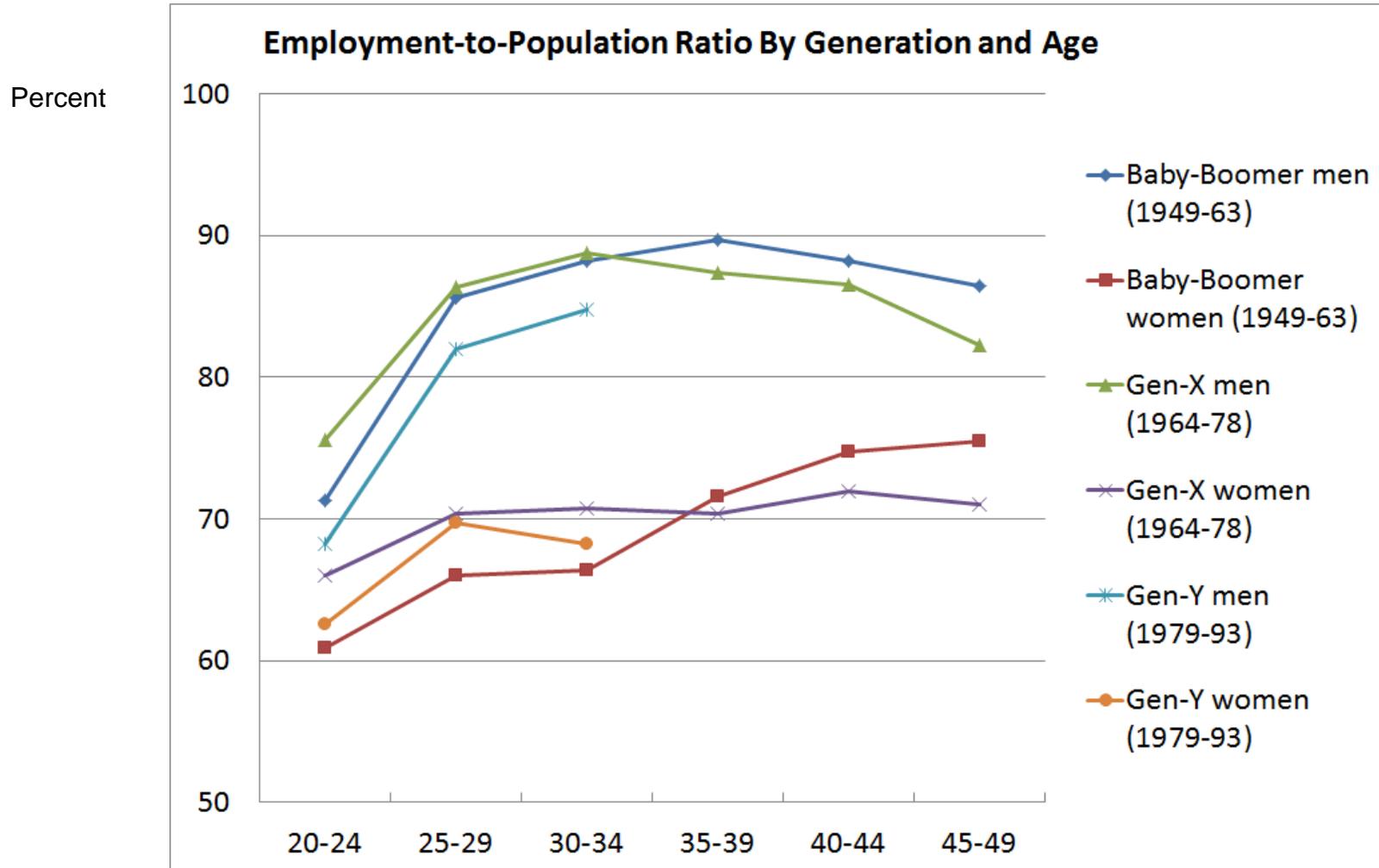
Employment-to-Population Rates: Gen X



Source: Bureau of Labor Statistics



Employment-to-Population Rates: Gen Y



Source: Bureau of Labor Statistics



The Crisis Has Reduced Fertility Rates and Affected College Outcomes

- **Reduced fertility**
 - **Dettling and Kearney (2014)**
 - Average \$63,000 home-value decline, 2006-10
 - Decline in fertility rate: -7.5%
 - **Lovenheim and Mumford (2013)**
 - Increase of \$10,000 in home value => 0.07% increase in fertility rate
- **College attendance, choice, and graduation rates**
 - **Lovenheim (2011)**
 - Housing wealth positively affects college attendance.
 - **Lovenheim and Reynolds (2012)**
 - Housing wealth positively affects quality of college attended.
 - **Bound, Lovenheim, and Turner (2010)**
 - Housing wealth positively affects college completion.



The Fiscal Deck Is Stacked Against Gen X and Especially Gen Y

| 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.



Fitzgerald Was Right



- **F. Scott Fitzgerald (paraphrased)**
“The young are different than you and me.”
- **Ernest Hemingway (paraphrased)**
“Yes, they haven’t lived as long.”

- **Our messages**
 - **Fitzgerald was right—the young are different.**
 - **We continue to ignore this fact in research and policy.**
 - **Young Americans suffered, as did we all.**