Changes in the Distribution of After-Tax Wealth: Has Income Tax Policy Increased Wealth Inequality?

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The analysis and conclusions set forth are those of the authors and do not indicate concurrence by other members of the research staff or the Board of Governors of the Federal Reserve System.

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Motivation

- Wealth inequality is increasing
  - Recent focus on the top of the distribution
  - Piketty (2014), Saez and Zucman (2014), Wolff (2014), Bricker et al (2014), and Bricker et al (2015) and many earlier studies use pre-tax wealth
- Substantial share of US household wealth is held in tax-deferred form
  - Retirement accounts and unrealized capital gains = 38% of wealth in 2013
  - Represents an implicit tax liability for households
  - Some wealth not available for consumption

Motivation

- Effects of income tax policy on the wealth distribution
  - May increase or decrease wealth inequality
  - Effects of changes in income tax policy over time
  - Not including the estate tax – see Gale et al (2001), Avery and Rendall (2002), Kopczuk and Saez (2004), Kopczuk (2012), Avery, Grodzicki, and Moore (2013)
- After-tax wealth as a better measure of financial well-being
  - Similar to studies that build a more complete measure of income
  - Donovan (2015), Armour, Burkhauser, and Larrimore (2014), Burkhauser, Larrimore and Simon (2012), Burkhauser et al (2012), CBO (2014), and Smeeding and Thompson (2011) and many earlier studies

Data

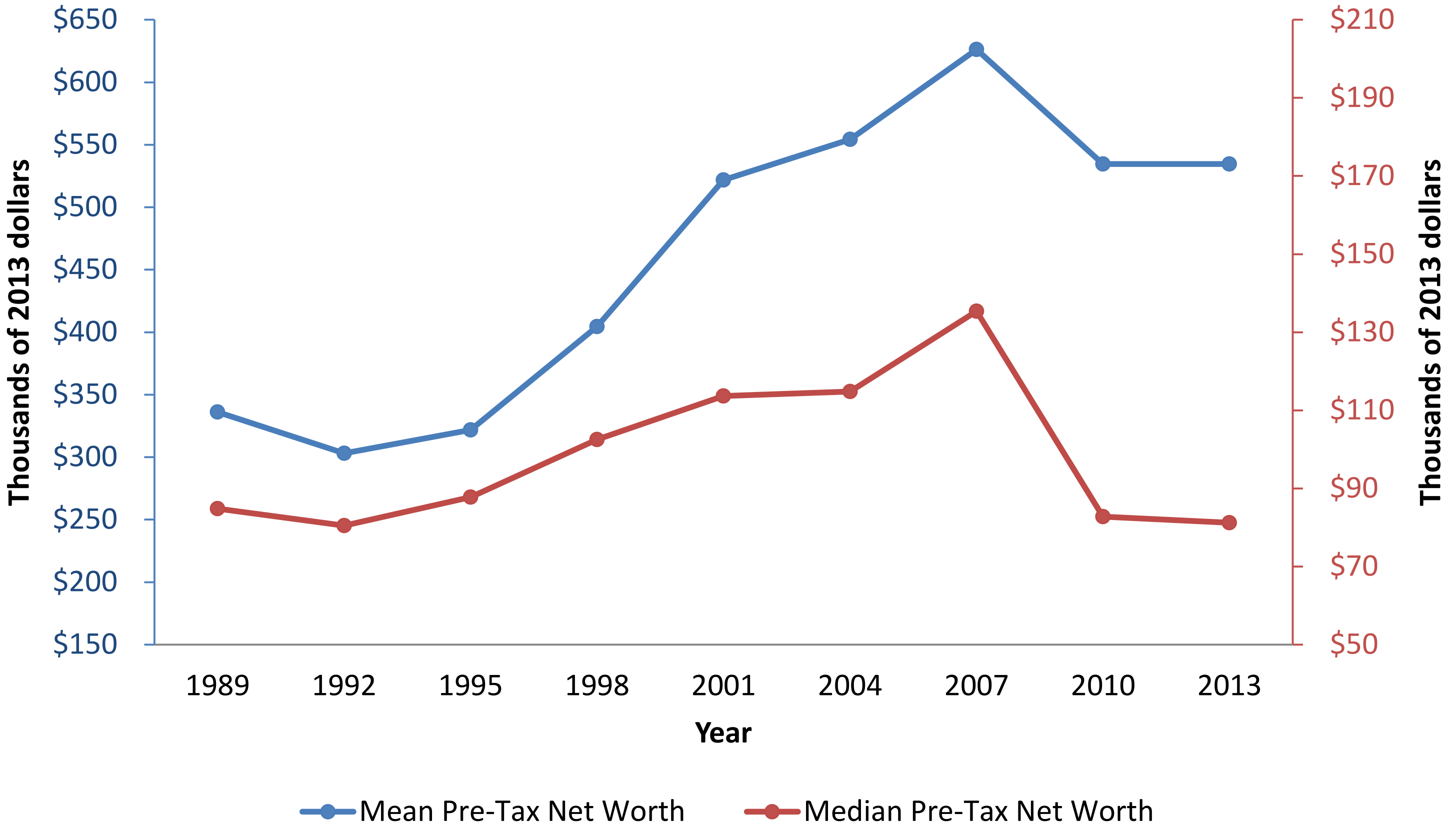
- Survey of Consumer Finances (SCF)
  - Survey of households sponsored by the Federal Reserve Board
  - In cooperation with Department of Treasury
- SCF triennial cross-sectional surveys, 1989-2013
  - Sample sizes = 4,000 to 6,500 households
- Dual frame sample design
  - Area probability – typical households
  - List – oversample wealthy households
- Details on the SCF – Bricker et al. (2014)

Measuring wealth in the SCF

- Assets
  - Financial assets
    - Transaction accounts
    - CDs
    - Stocks and bonds
    - Mutual funds
    - Retirement accounts
    - Trusts and annuities
  - Nonfinancial assets
    - Vehicles
    - Houses / other property
    - Businesses (privately-held)

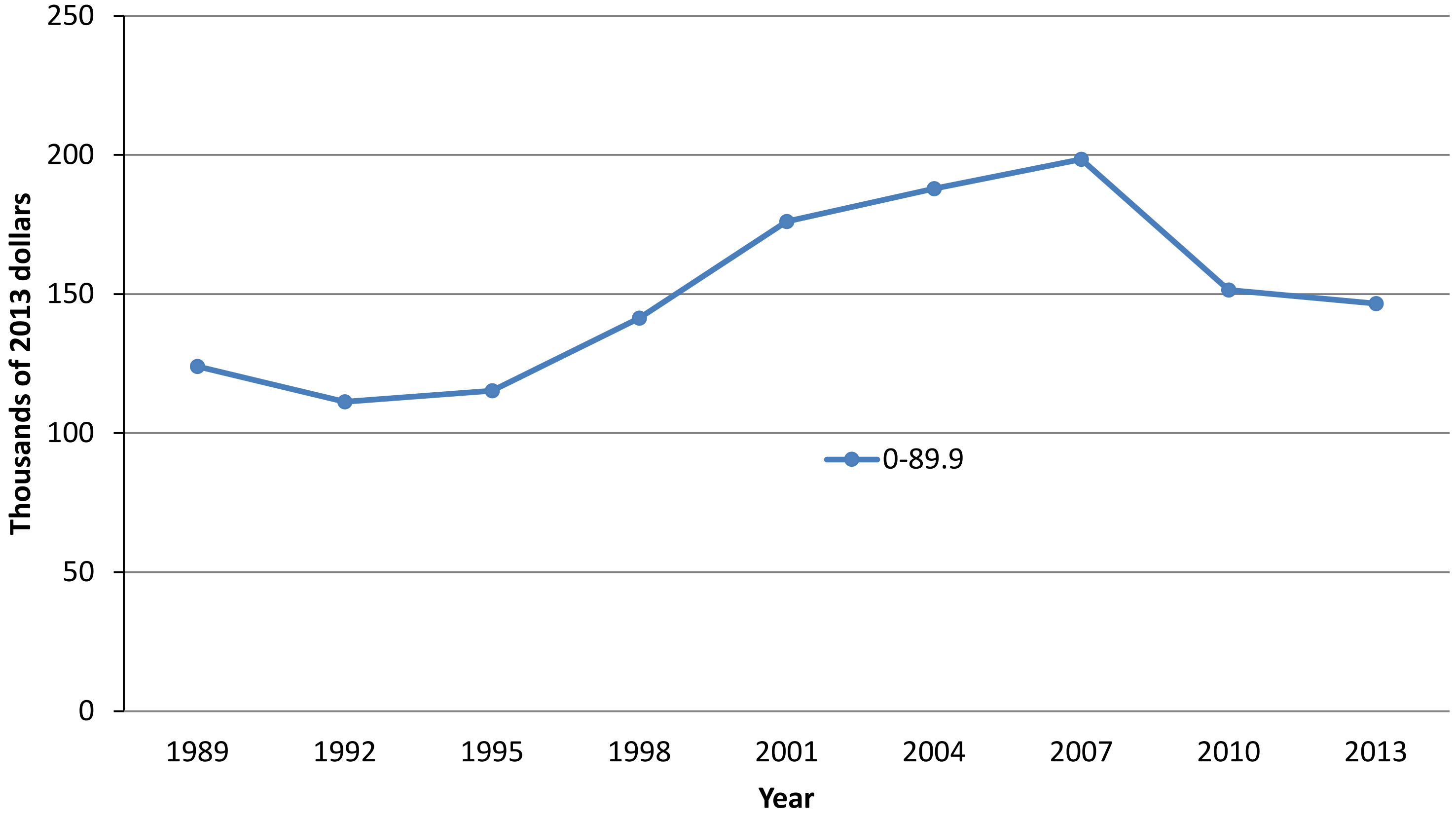
- Liabilities
  - Mortgages
  - Installment loans
    - Car loans
    - Student loans
    - Other loans
  - Credit card balances
  - Lines of credit

Mean and median pre-tax wealth



Mean pre-tax wealth

by pre-tax wealth percentile

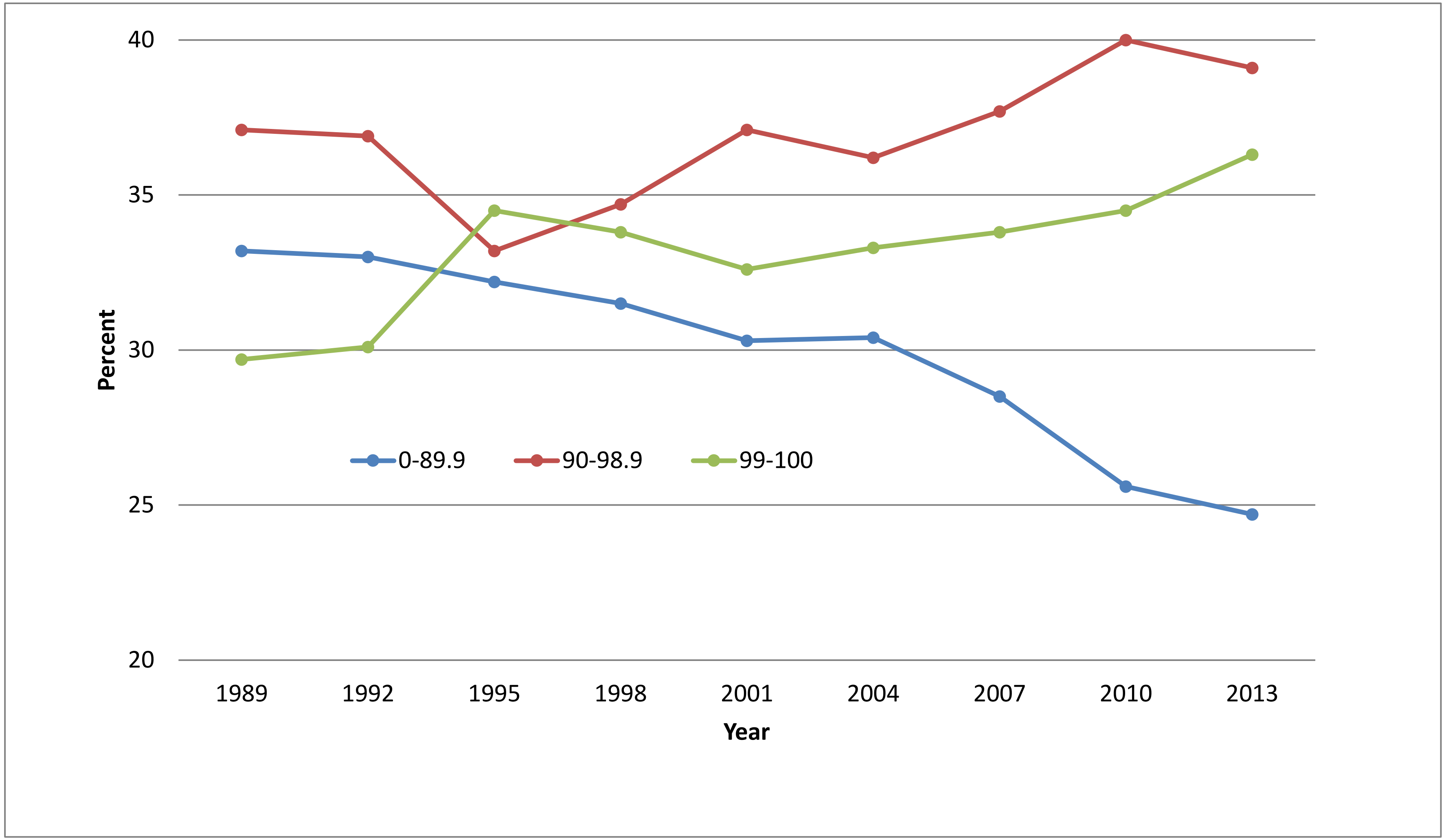


Mean pre-tax wealth

by pre-tax wealth percentile

Pre-tax wealth shares

by pre-tax wealth percentiles



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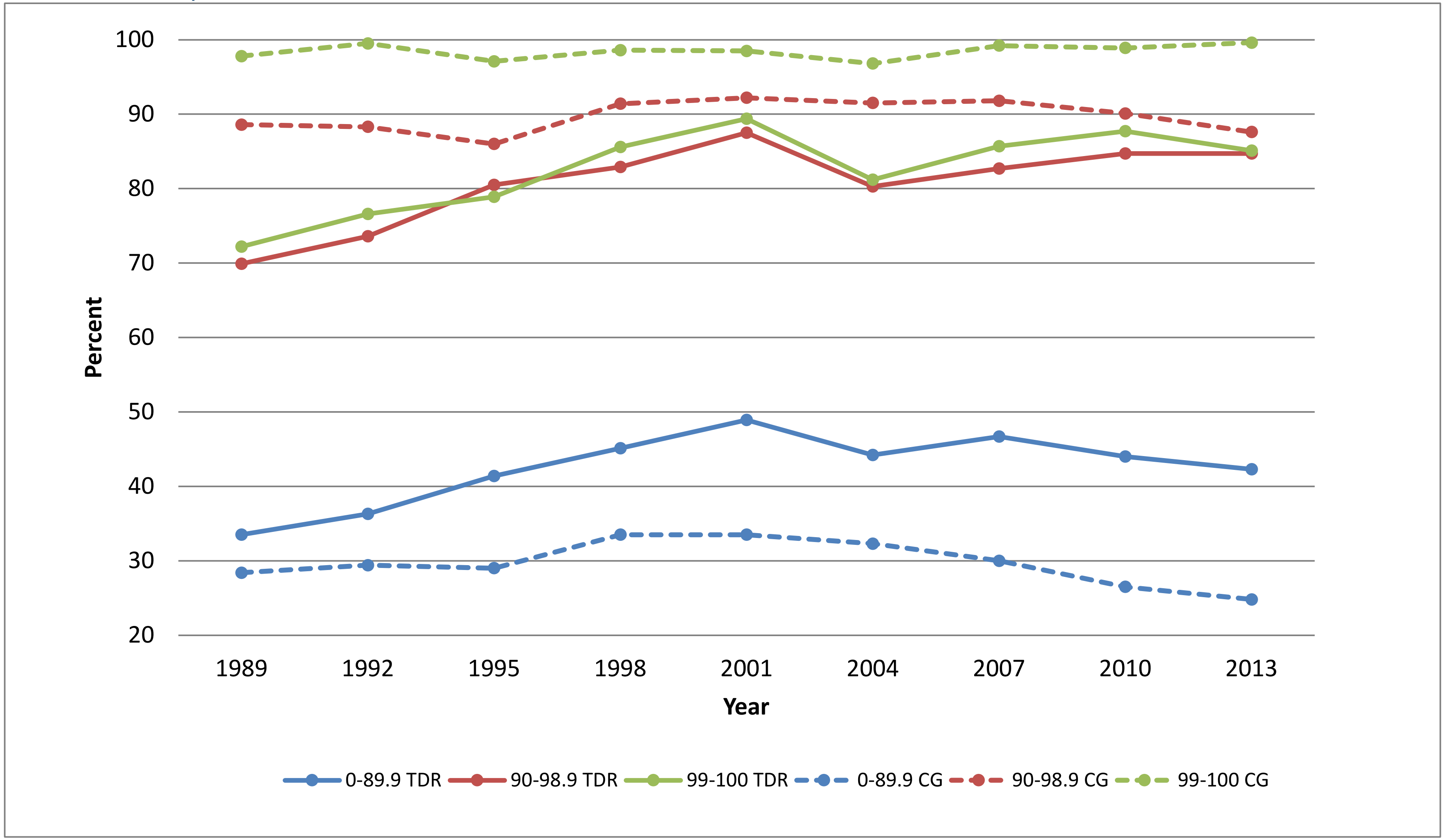
Tax-deferred assets

- Tax-deferred retirement accounts
  - Plans through current and past employers
    - 401(k)s, 403(b)s, other defined-contribution pension plans
  - Plans started by an individual
    - Individual Retirement Accounts (IRA), Keogh (like an IRA)
- Unrealized capital gains
  - Real estate
  - Privately-held businesses
  - Stock and stock mutual funds
  - Not including the primary residence
- Ownership of tax-deferred assets
  - 56% in 2013, peaked at 63% in 2001

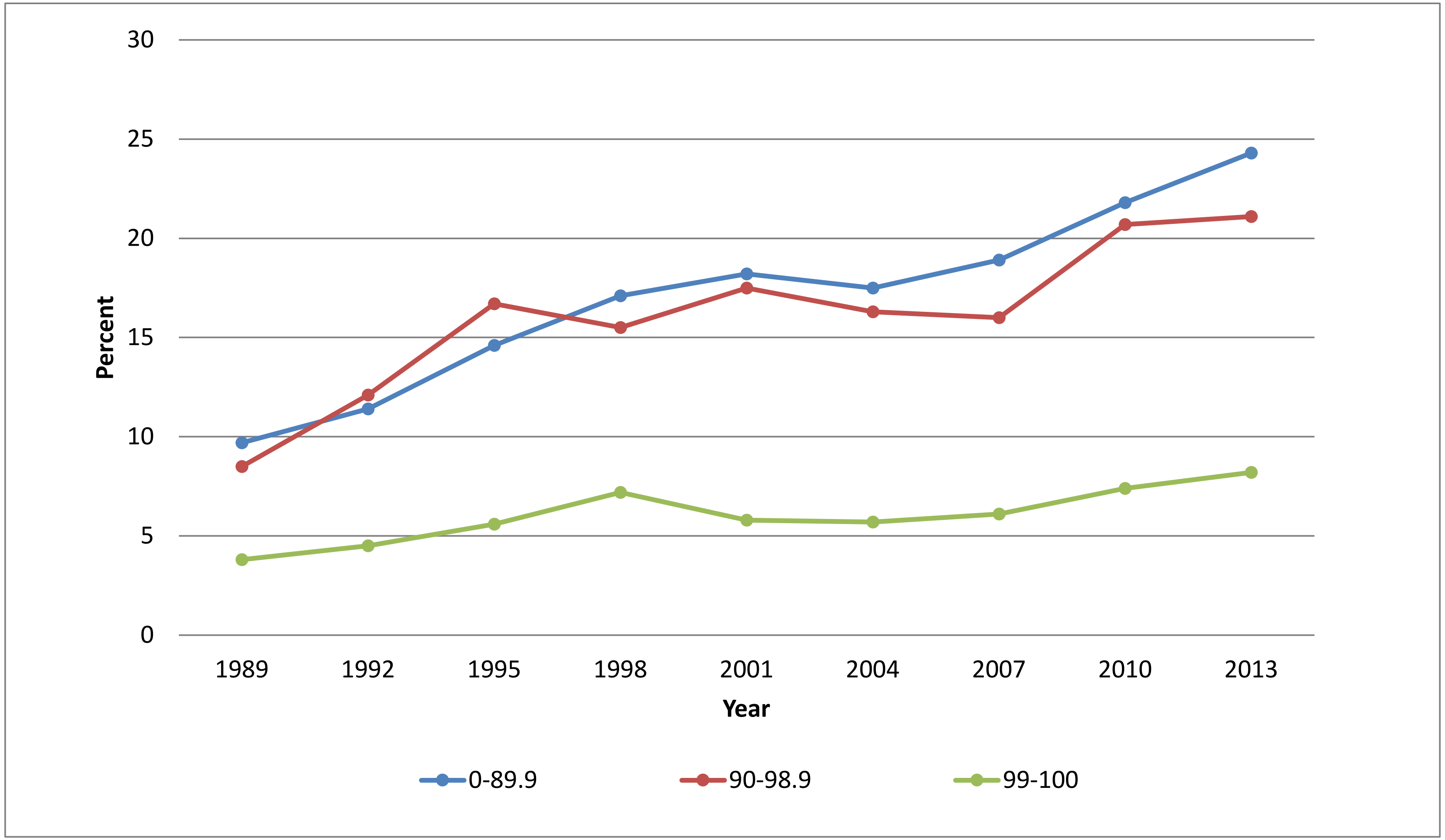
Ownership of tax-deferred assets

by pre-tax wealth percentiles



Share of wealth in tax-deferred retirement

by pre-tax wealth percentiles



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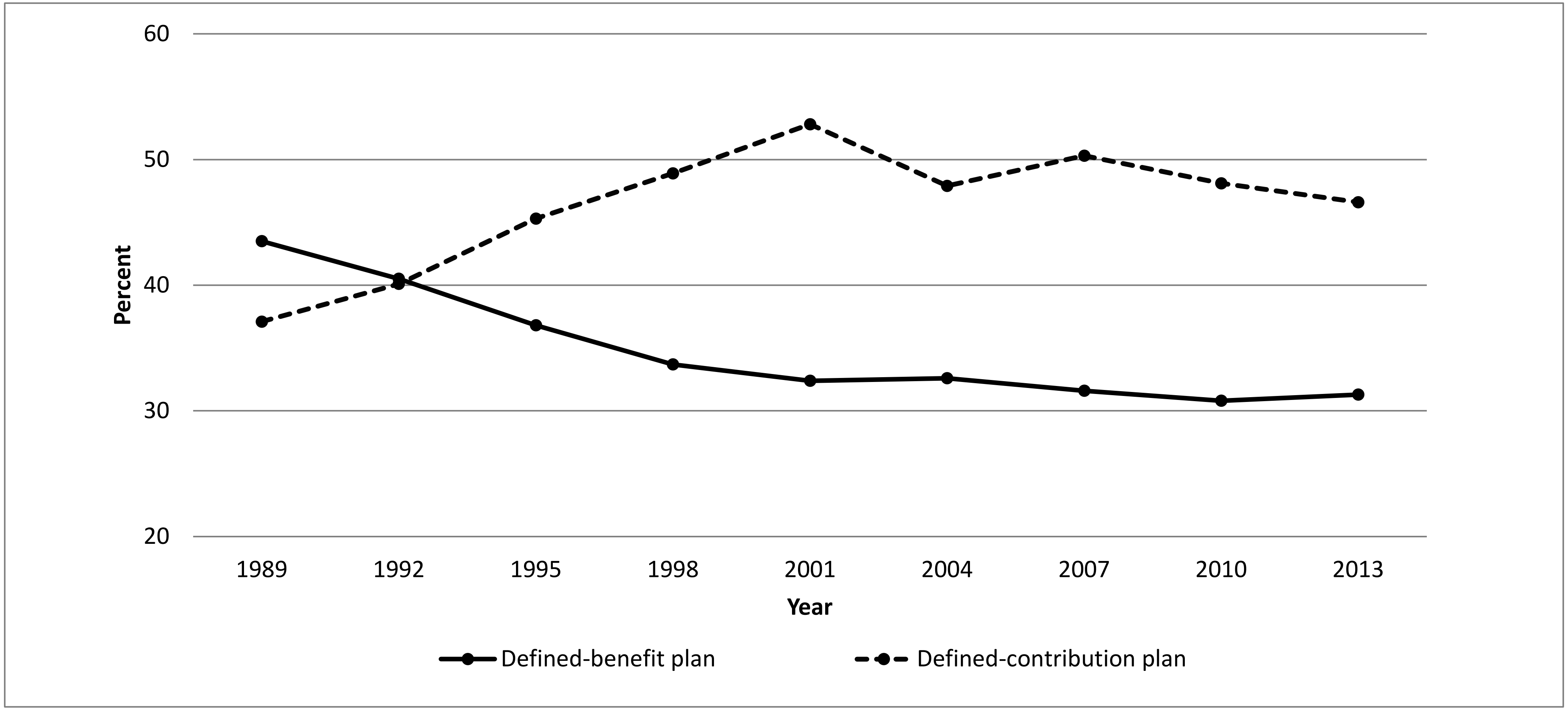
Ownership of defined-benefit and defined contribution plans



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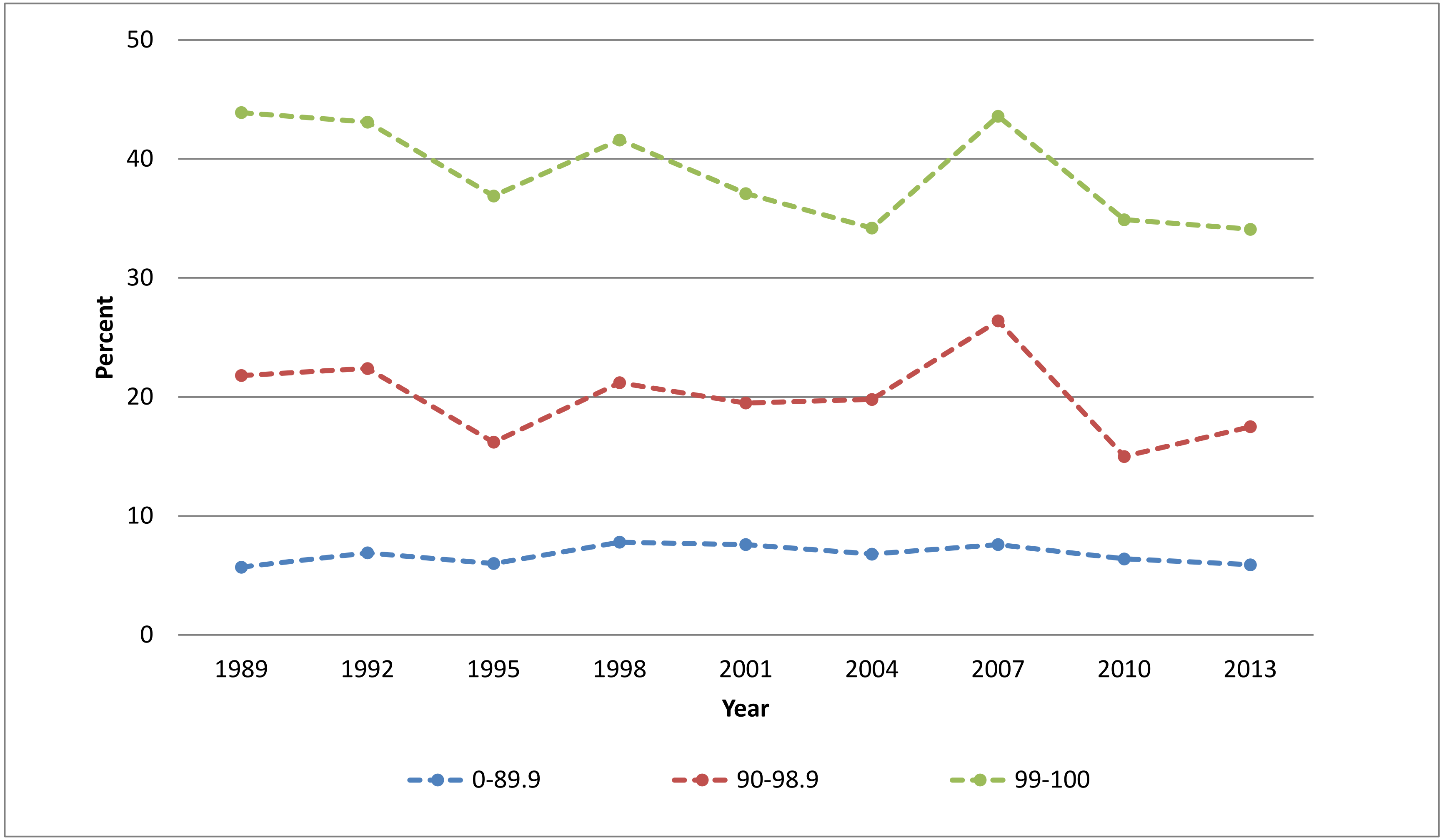
Share of wealth in unrealized capital gains

by pre-tax wealth percentiles



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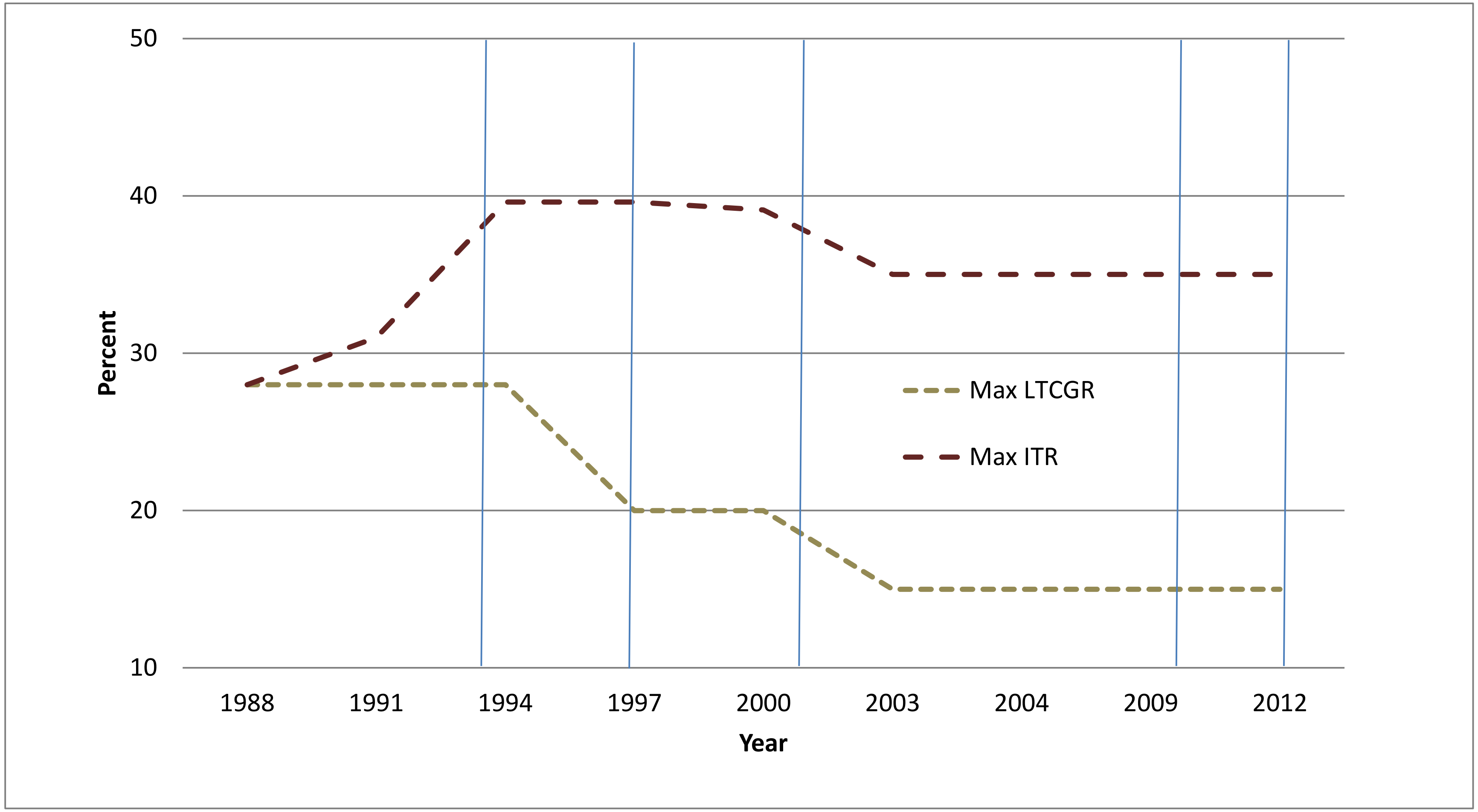
Estimating tax liabilities

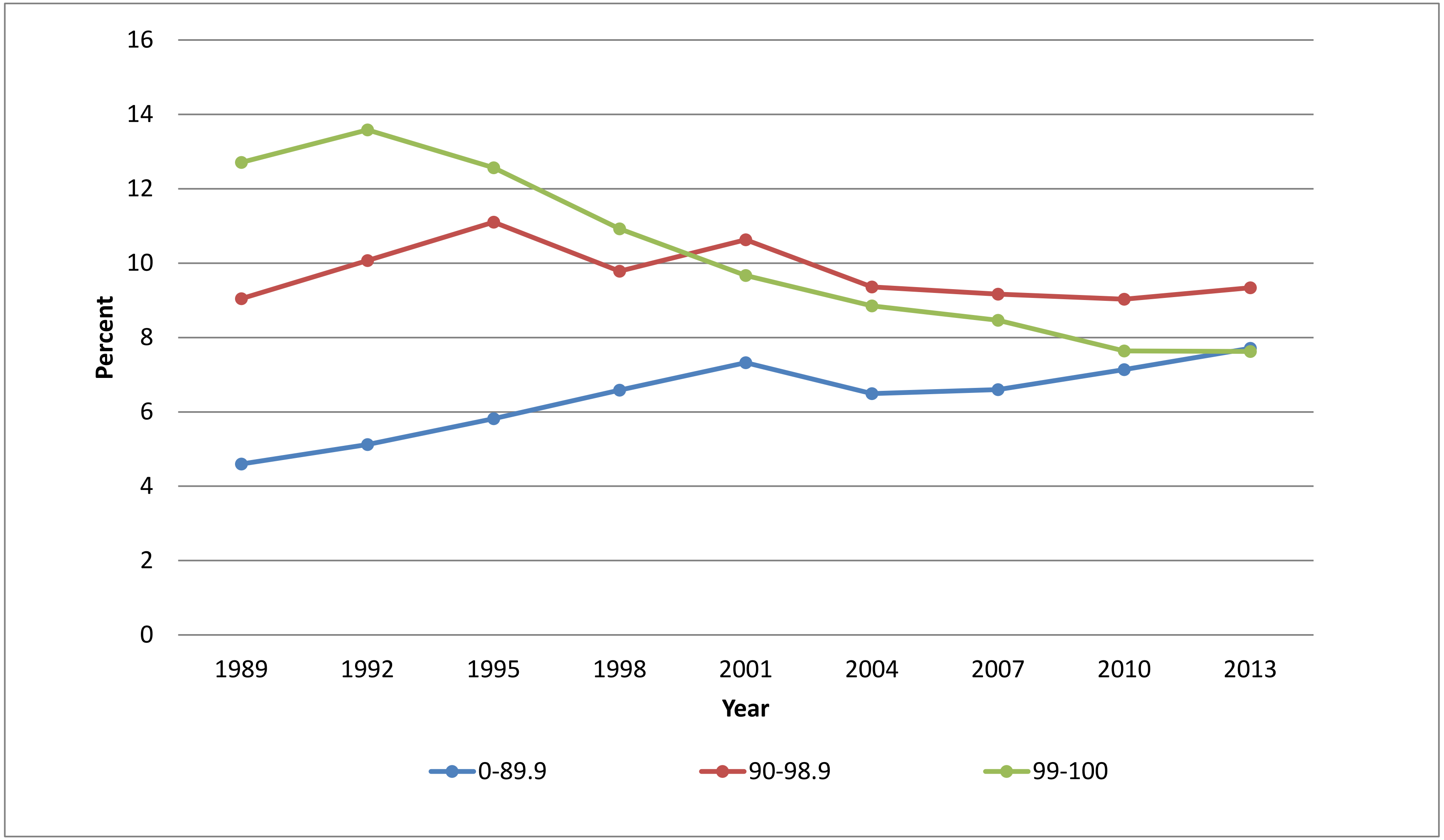
- NBER TAXSIM – calculates tax liabilities under federal & state tax laws
  - Generate necessary input variables from the SCF data
  - Base tax liability = household's tax liability based on prior year income, exemptions and deductions
  - Tax-deferred tax liability = add tax-deferred retirement assets to wage income, add unrealized capital gains to long-term capital gains income
  - Implicit tax liability = tax-deferred – base
- After-tax wealth = pre-tax wealth minus implicit tax liability

Tax rate changes, 1988-2012



Implicit tax liability as a share of wealth

by pre-tax wealth percentiles



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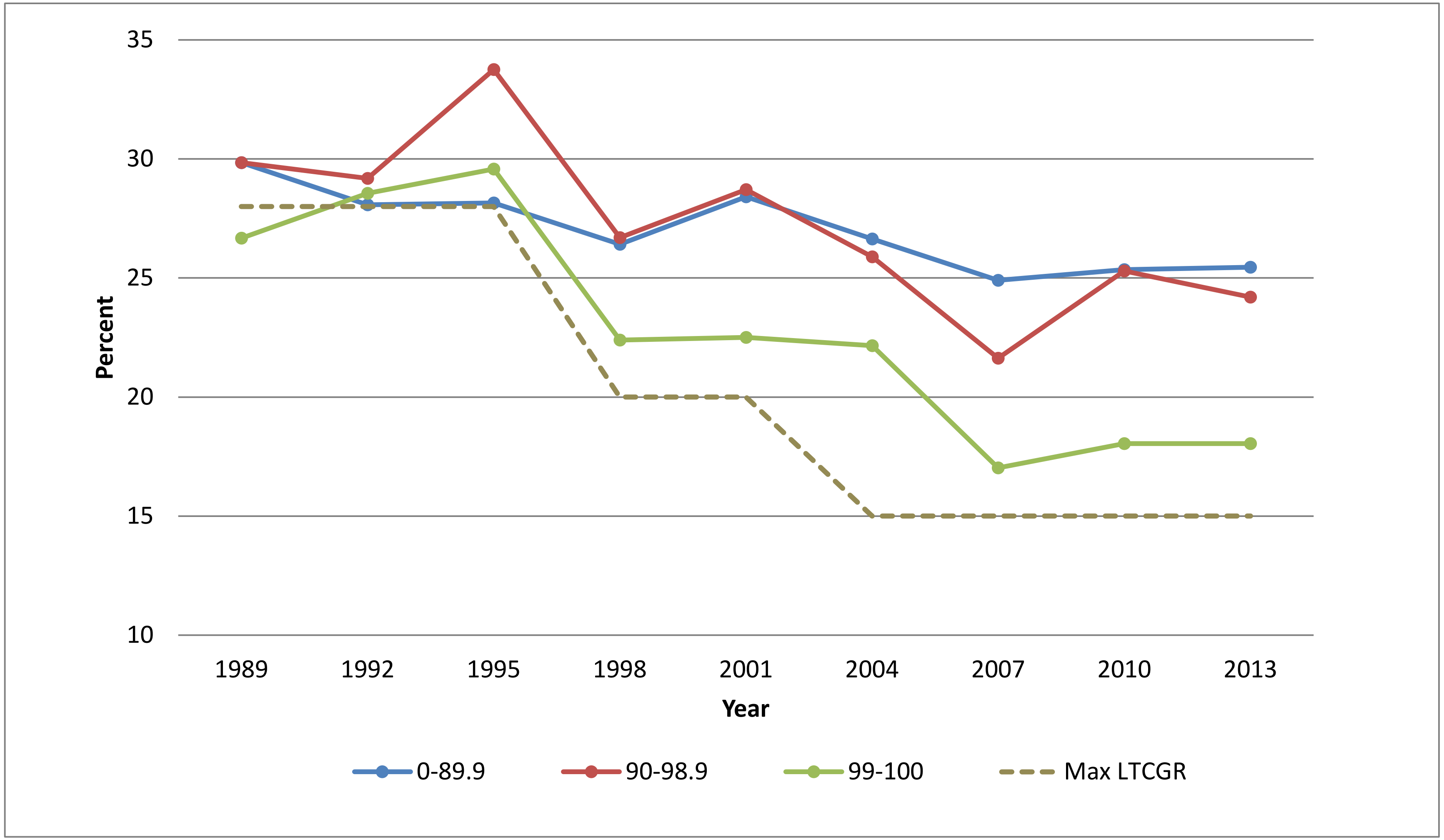
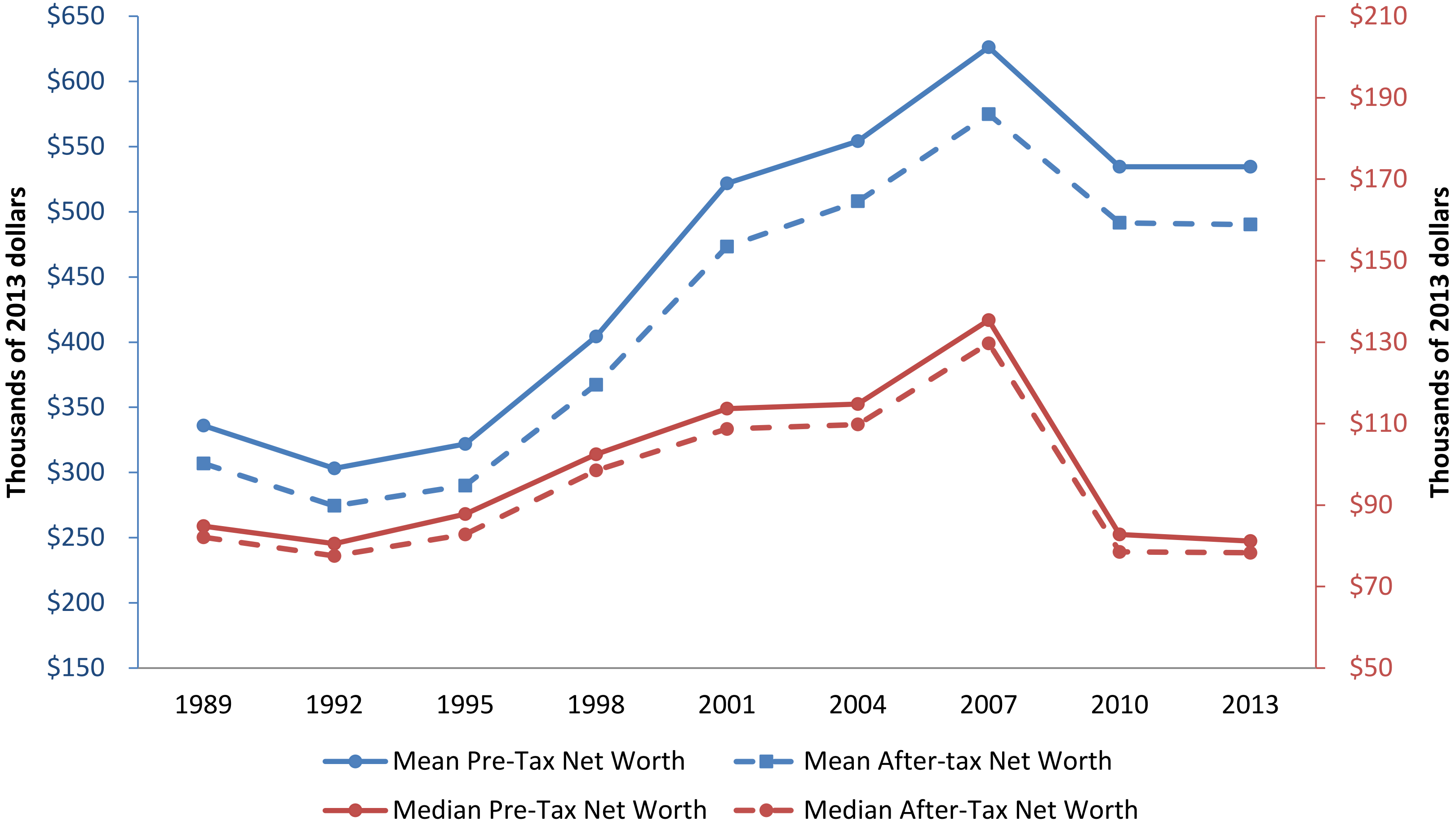
Effective tax rate on tax-deferred assets

by pre-tax wealth percentiles

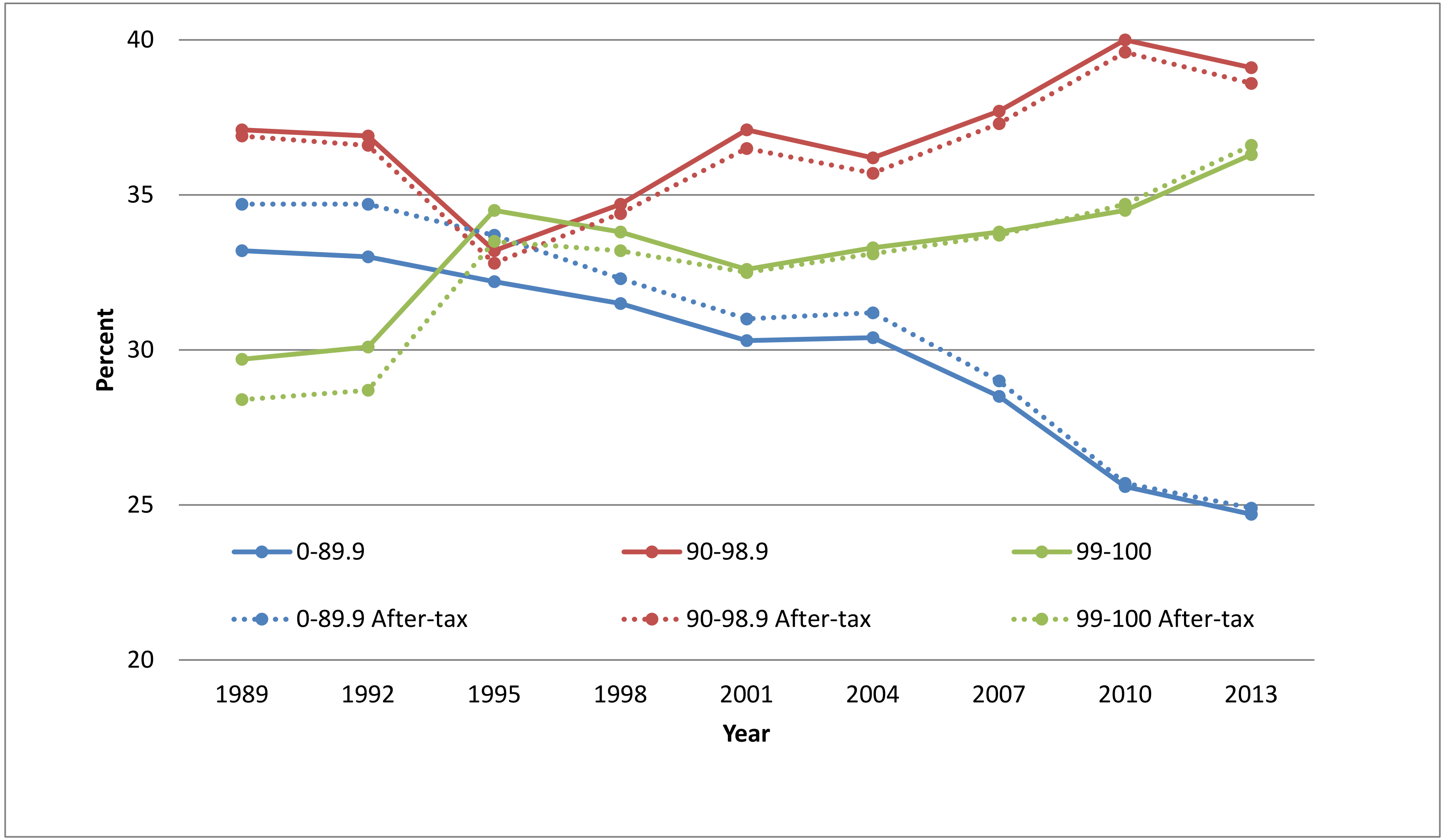


Mean and median after-tax wealth



Wealth shares

by pre-tax wealth percentiles



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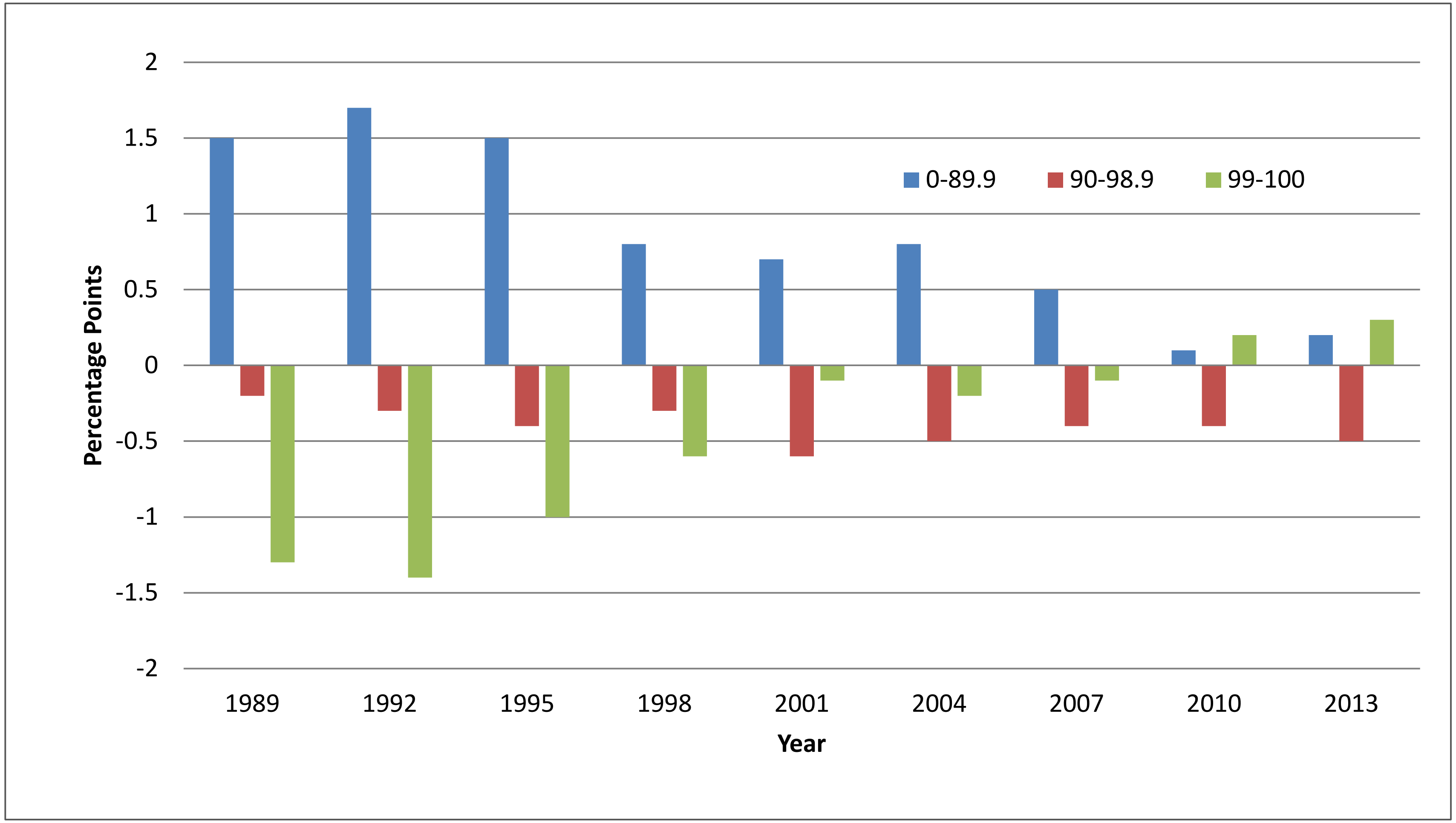
Difference in wealth shares (after-tax – pre-tax)

by pre-tax wealth percentiles



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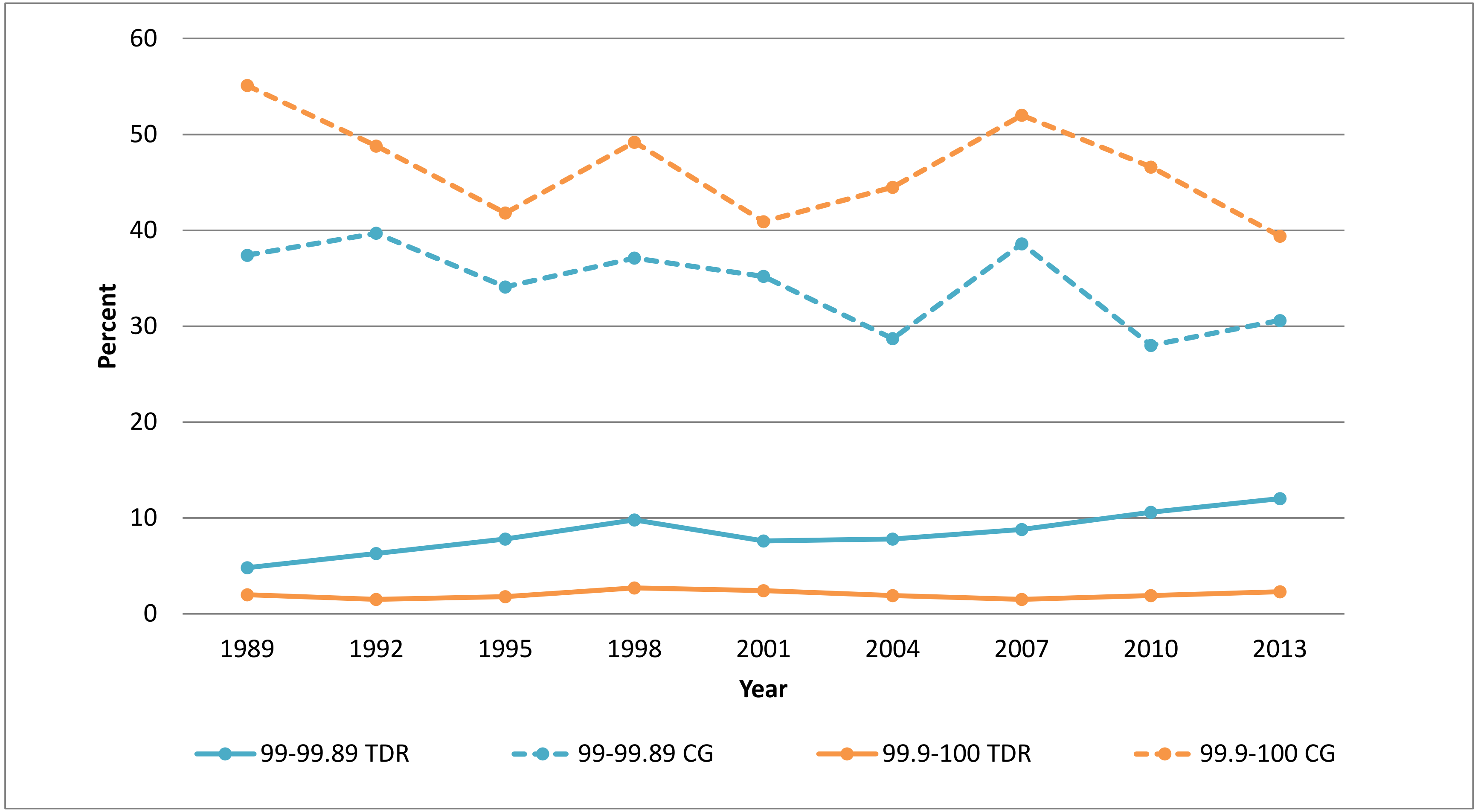
The top 1 percent

- Stand out in all parts of the analysis
- Many recent studies focus on groups within the top 1 percent
- Split top 1 percent into two subgroups
  - Top 0.1 and remaining 0.9 percent
- Heterogeneity within the top 1 percent
  - Mean wealth in 2013 for top 0.1 = $75 million
  - Mean wealth in 2013 for rest of top 1 = $13 million
  - Top 0.1 mean unrealized capital gains = 7 times the rest of the top 1
  - Mean tax-deferred retirement assets about the same

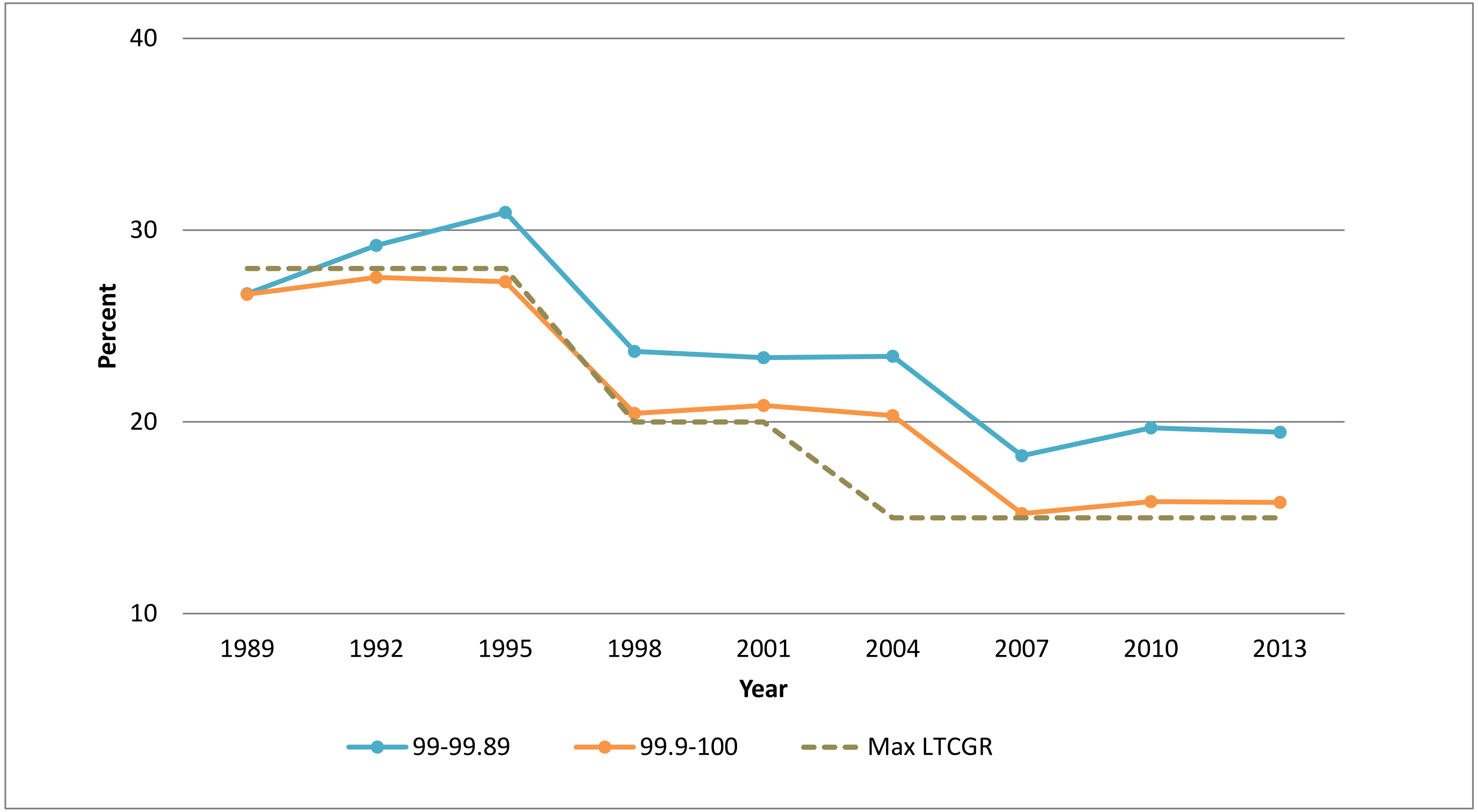
Share of wealth in tax-deferred assets

Top 1 percent



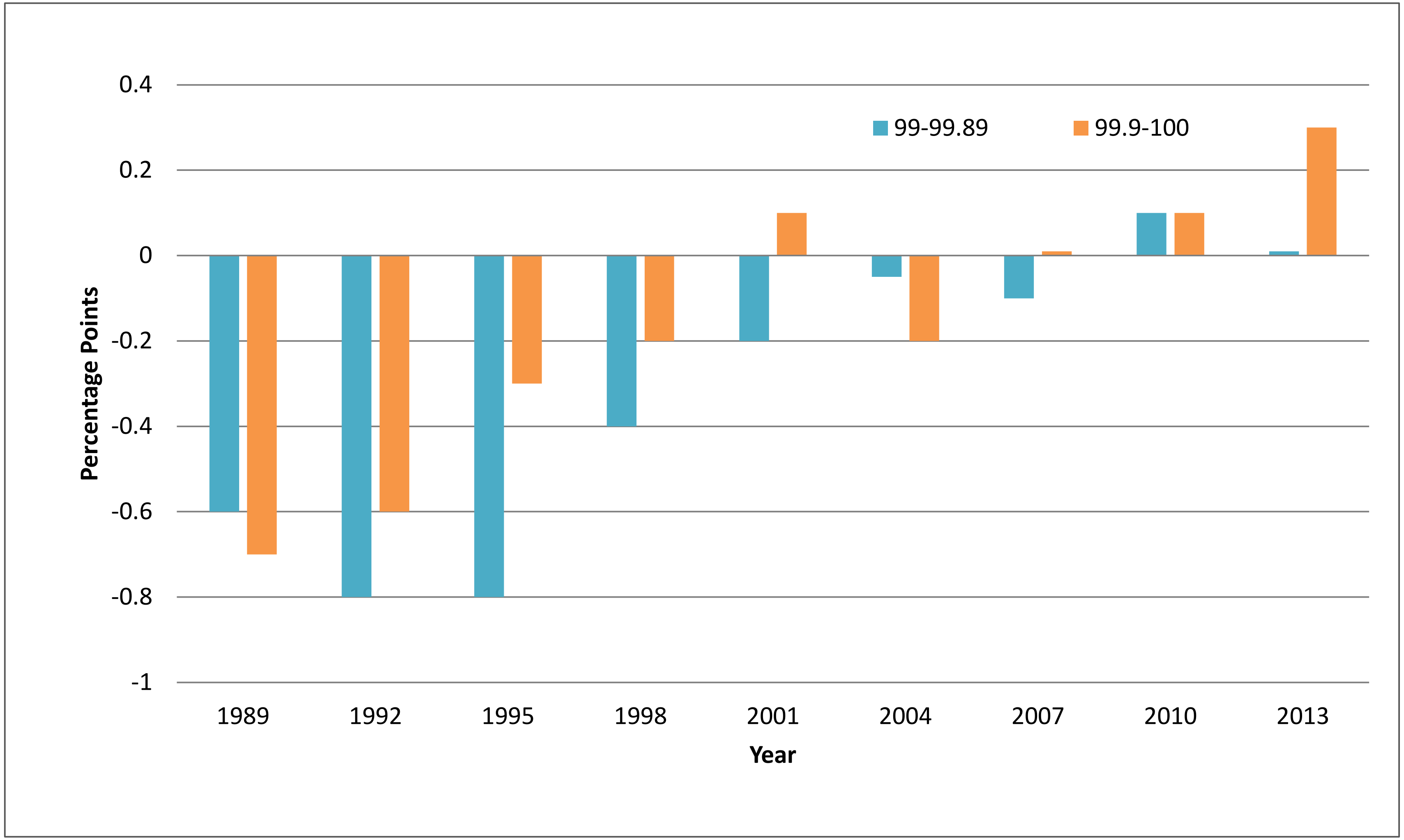
Effective tax rate on tax-deferred assets

Top 1 percent



Difference in wealth shares (after-tax – pre-tax)

Top 1 percent



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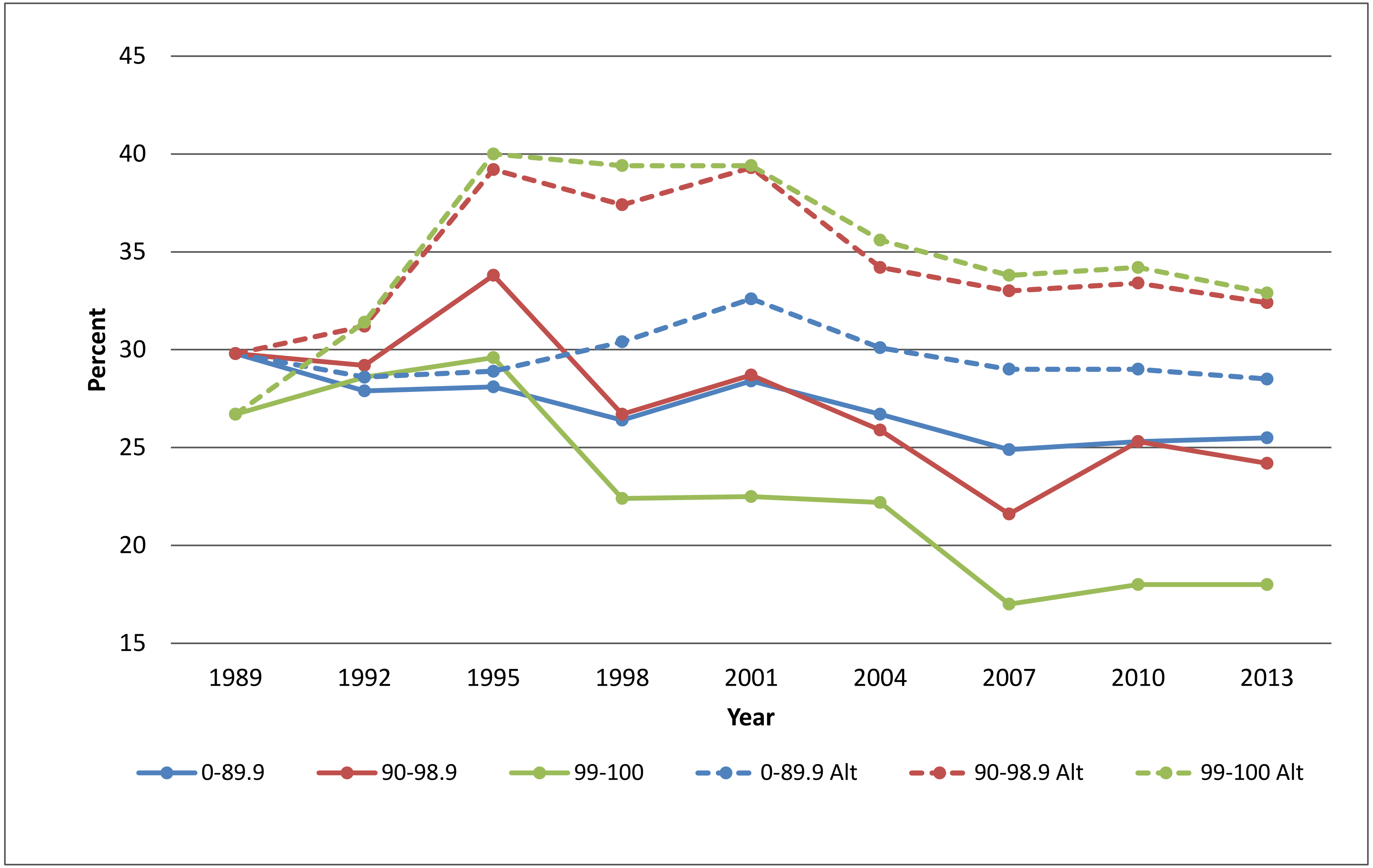
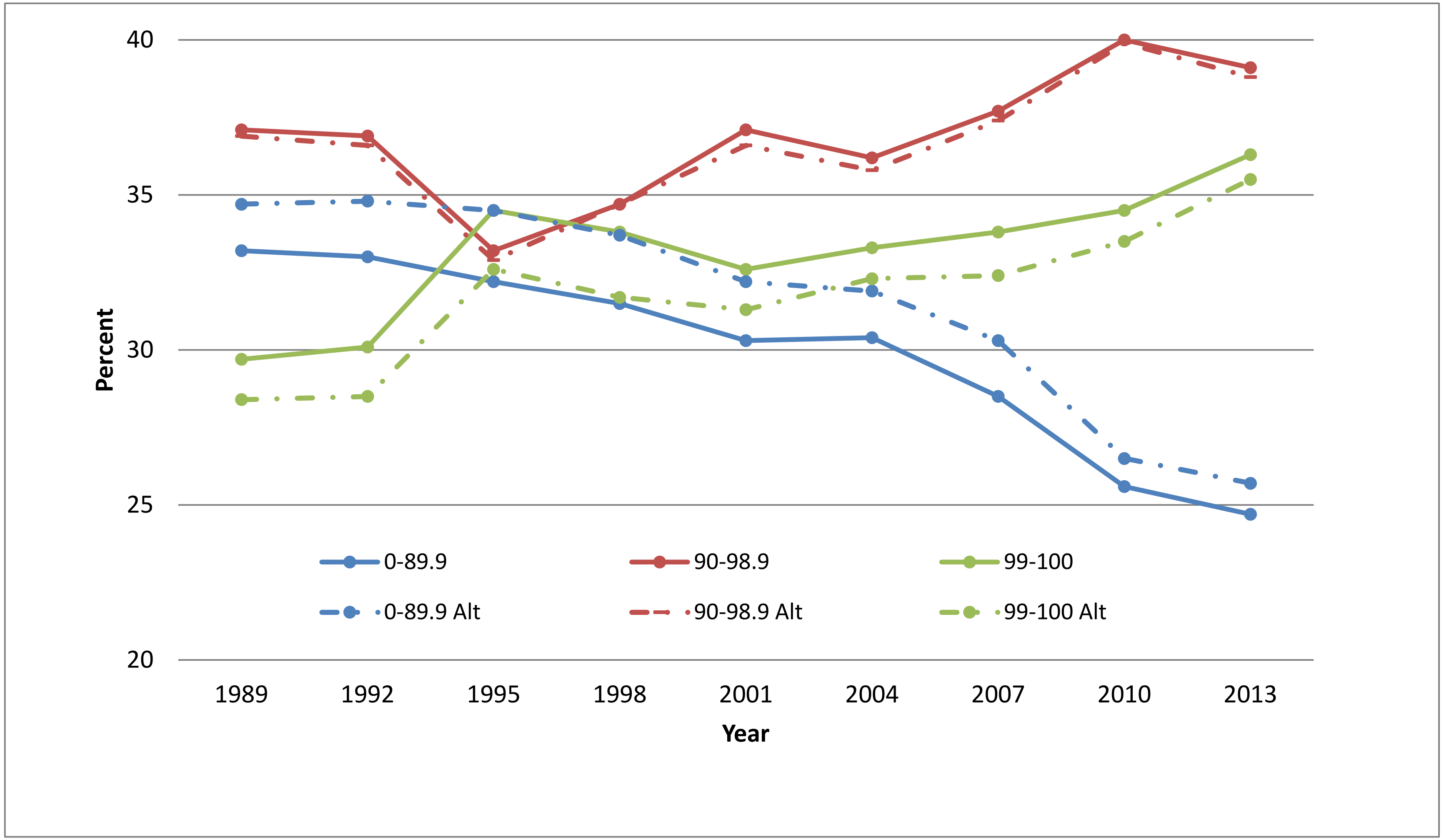
Alternative tax policy

- Why the differential in wage vs. capital gains rates?
  - “Lock-in” effect of high capital gains tax rates
  - Spur economic growth with lower tax rates
- Unrealized capital gains taxed at wage income rates
  - Treated the same as tax-deferred retirement accounts
  - Estimate alternative tax liability
  - Implicit tax liability = alternative – base
- After-tax wealth = pre-tax wealth minus implicit tax liability

Effective tax rates on tax-deferred assets
Alternative tax policy



Wealth shares
Alternative tax policy



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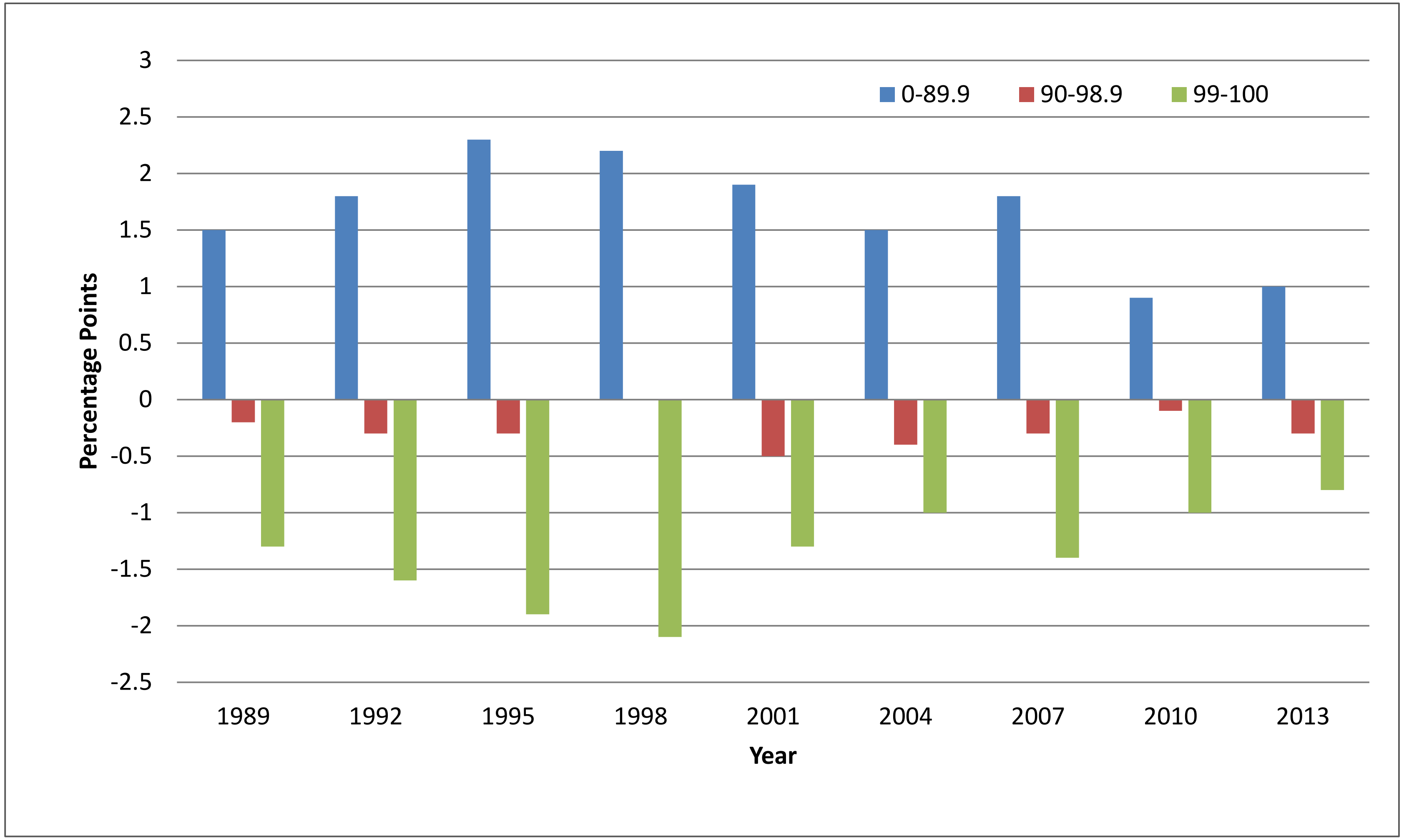
Difference in wealth shares (after-tax – pre-tax)
Alternative tax policy



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Conclusions

- We provide new estimates of the after-tax distribution of wealth
- Distribution of after-tax wealth is less concentrated than pre-tax wealth early in our sample
  - Effectiveness of income tax policy in reducing inequality has declined
  - Combination of substantial decline in capital gains tax rates and large share of unrealized gains in wealth at the top of the wealth distribution
  - Effect is magnified within the top 1 percent
    - Top 0.1 experienced largest declines in effective tax rates on tax-deferred assets
- Our alternative tax policy does reduce wealth concentration
  - Wealth inequality still increases between 1989 and 2013
- Adverse effect of income tax policies on wealth inequality

Thank you

Questions?

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