

Slipping and Sliding: Wealth of U.S. Households Over the Financial Crisis

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Macroeconomics After the (Financial) Flood: Conference in Memory of Albert
Ando

Banca d'Italia

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Opinions expressed are my own and they do not necessarily reflect the views of the Board of Governors of the Federal Reserve System or its staff.

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- NORC colleagues: Cathy Haggerty, Micah Sjoblom, the field management and support team and the **interviewers**
- Many other colleagues
- SCF **Respondents**



Albert Ando

Relevance in Measurement

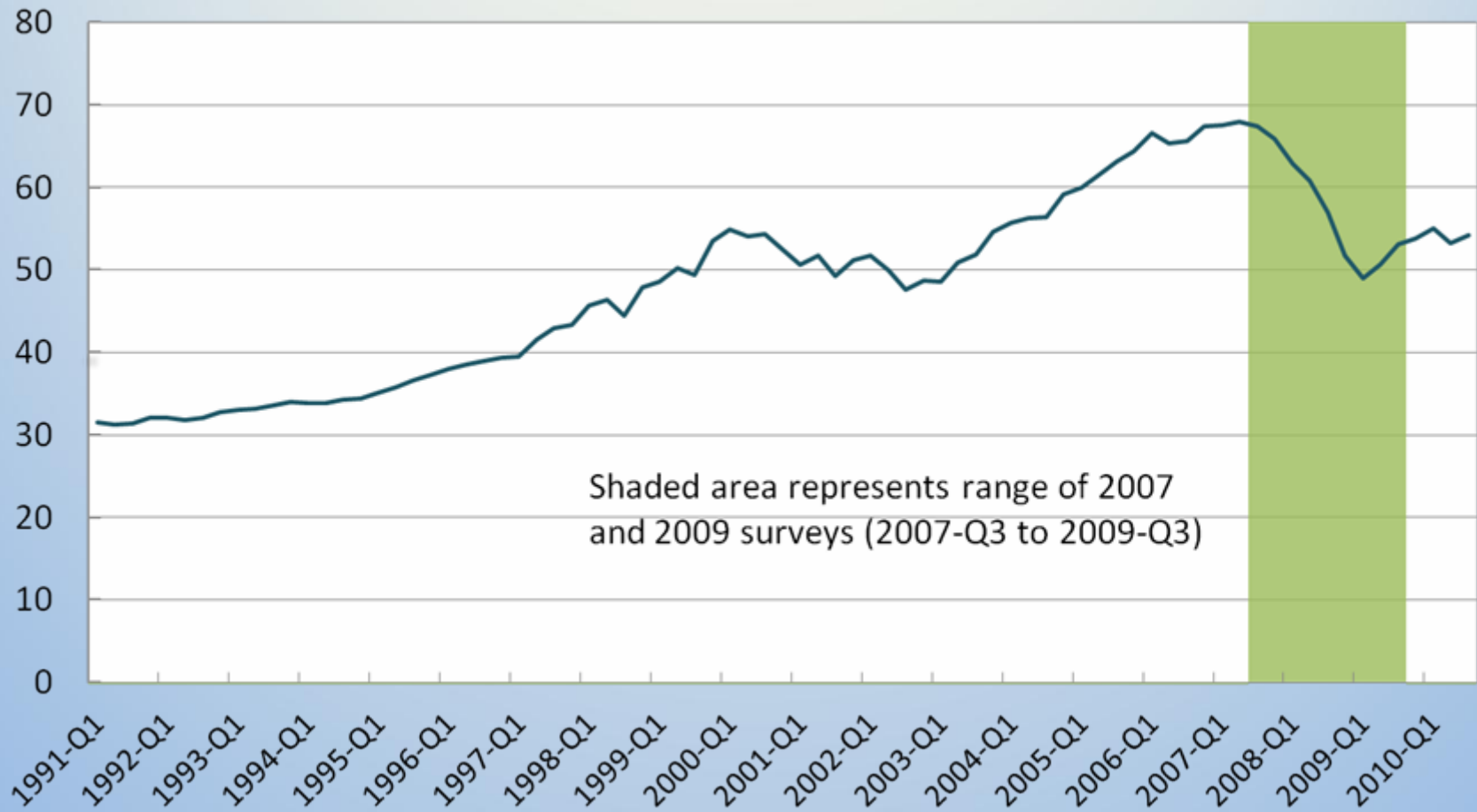
- Virtually all interesting measurement is an approximation
- Stability of underlying process
 - Basic physical processes appear to be stable, demographic processes tend to move slowly
 - Economic processes tend to mutate in response to incentives (and sometimes measurement)
 - Correlations at macro level can change as a result of heterogeneity or changes at the micro level
- **Evaluation and adaptation in measurement**
- **Continuing feedback from analysis to measurement**
- **Both critical for maintaining relevance**

Wealth Change and the Financial Crisis

- Background
- Description of the data
 - 2007-2009 Survey of Consumer Finances panel
- Distributional shifts in U.S. wealth over the financial crisis
 - Related changes
 - Heterogeneity matters for understanding aggregate outcomes
- Some conclusions

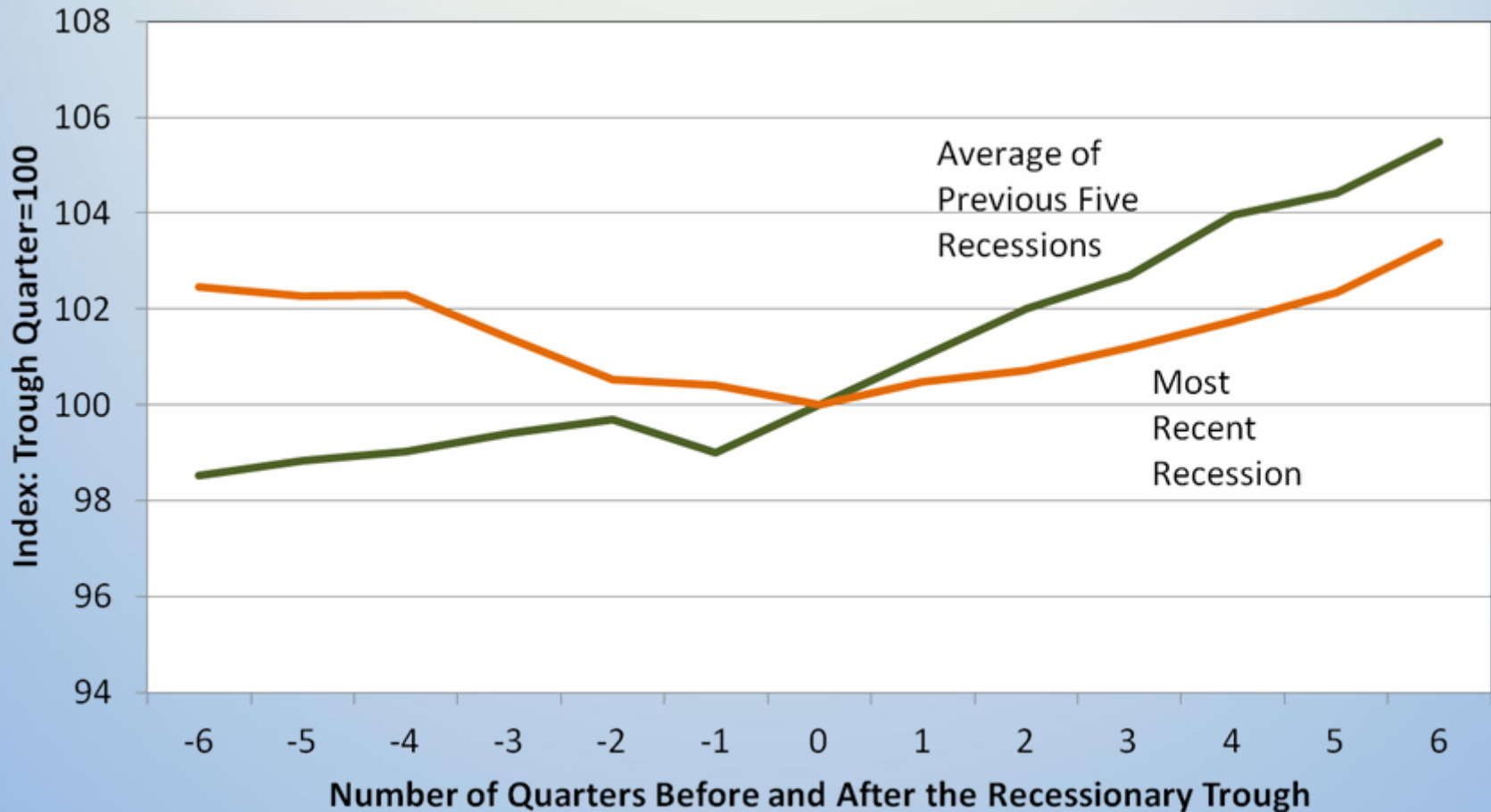
U.S. Household Sector Net Worth

2009 dollars (trillions)



Source: U.S. Flow-of-Funds Accounts

Consumer Spending Around Recessionary Troughs



Wealth Change

- FFA household sector net worth fell by about 28% over the period 2007-2009
- Sluggish recovery of consumption
- Direct wealth effect?
- Shift in relationships among economic variables, esp. income?
- Effects on risk tolerance?
- Behavioral changes?
- Other important heterogeneity?

Background on the SCF

- Survey of finances of U.S. households
- Triennial cross section
 - Last completed in 2010
- April 2009, FRB gave support for a panel interview with 2007 participants
- In the field July 2009 to bit into January 2010

2007-2009 Panel Sample

- Baseline 2007 sample
 - Broadly representative area-probability sample
 - List sample that oversamples the wealthy
 - Excluded people named in the *Forbes* list of 400 wealthiest
- Panel sample: 2009 household of the 2007 respondent
 - If dead or permanently out of the country, that person's 2007 spouse or partner
 - At most, one 2009 household interviewed

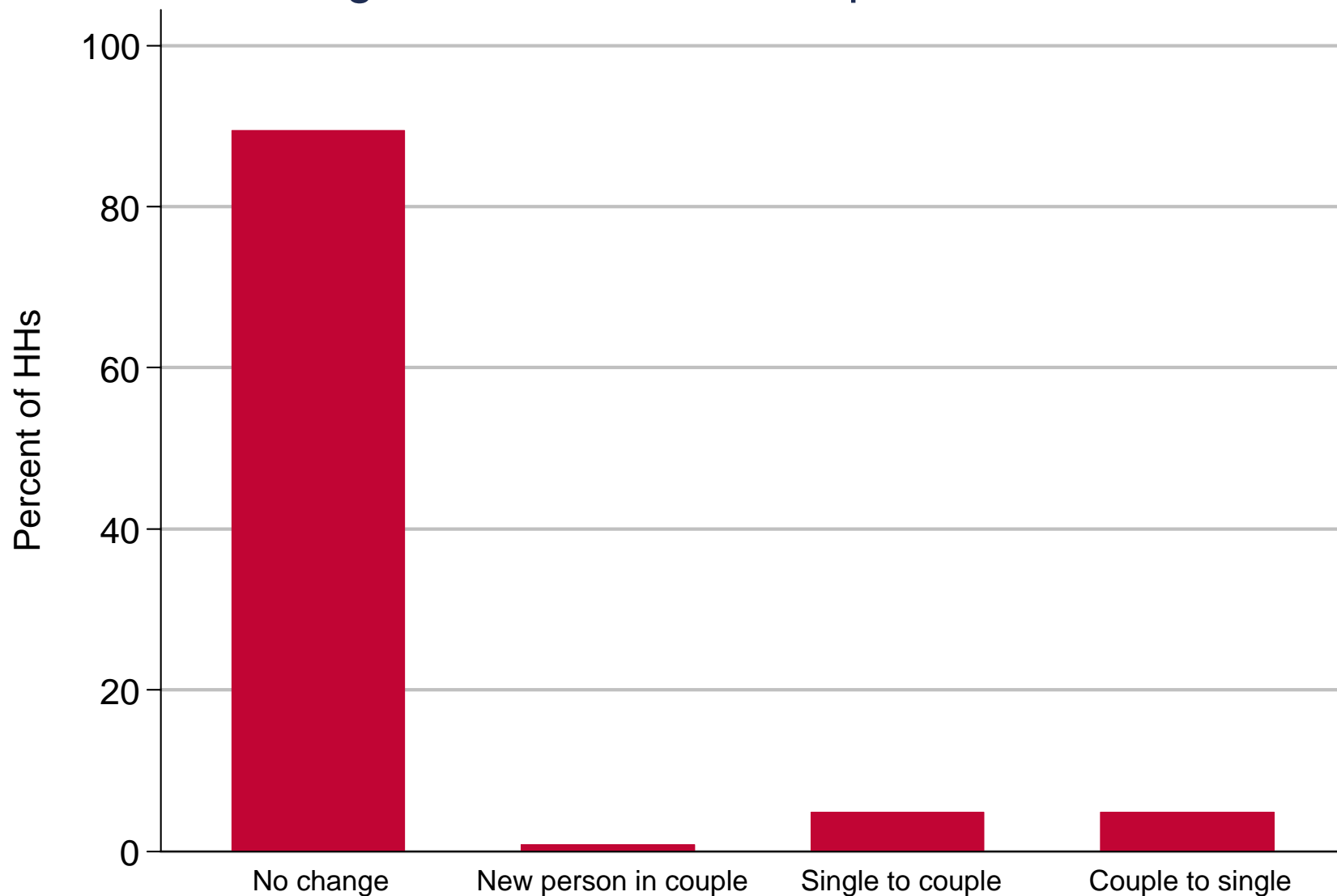
Panel Content

- Cross-sectional SCF interview typically requires 75-90 minutes
 - May take up to 4 hours for person with complex finances
- Necessary to reduce length and variation in length for the panel
- Panel questionnaire built around framing of the cross-sectional version
 - Maximized comparability subject to length constraint
 - Far less detail collected

Representativeness of the Panel

- Nonresponse
 - Nearly everyone was located and re-contacted
 - 89% of eligible cases re-interviewed
 - Negligible difference in participation of very wealthy households and others
 - Any biases from original sample of necessity follow through
- Changes in household composition
- Panel aging
- Represents a version of households that existed in 2007
- Nonsampling error
 - Longitudinal editing and imputation help to mitigate problem

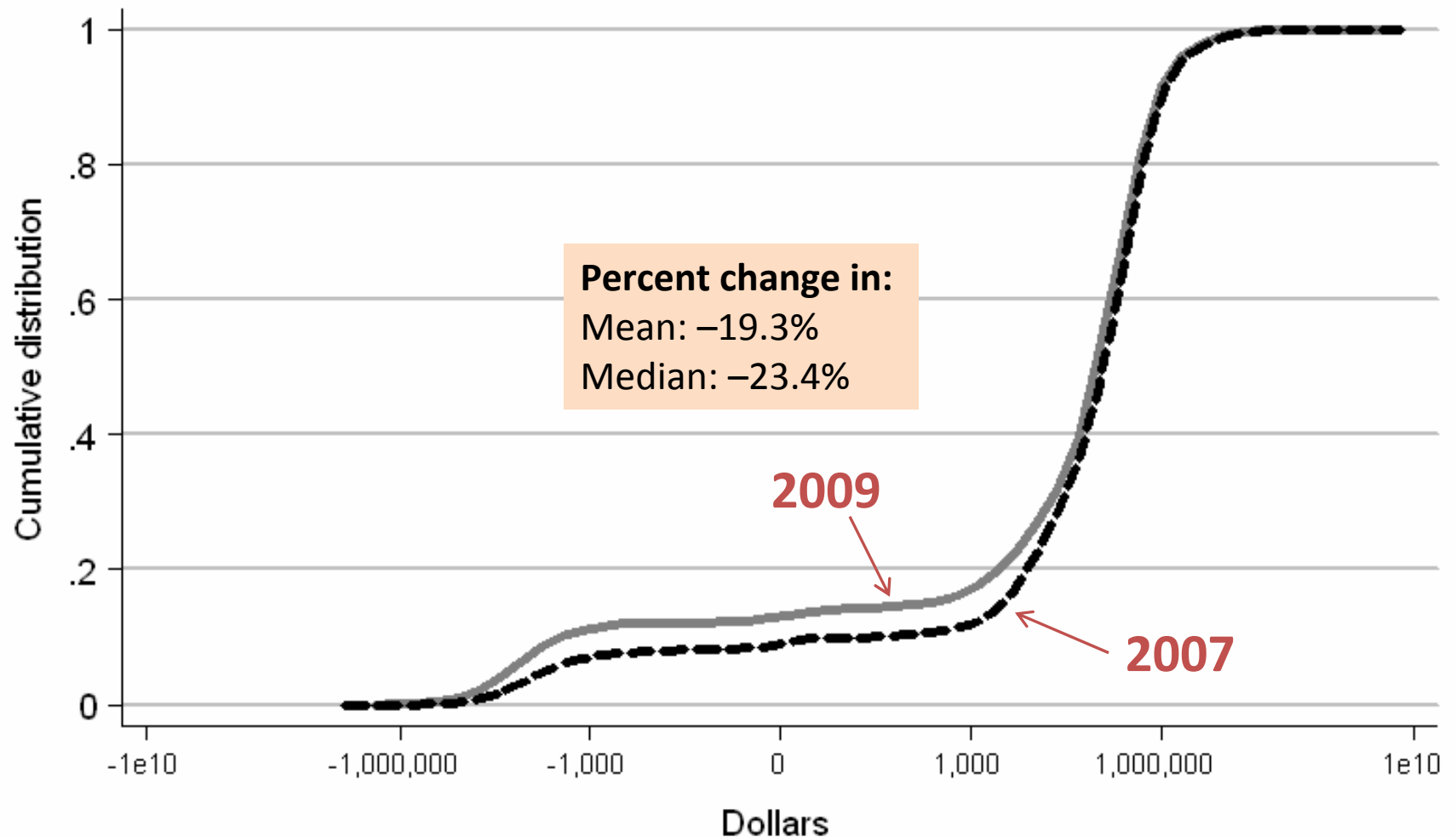
Changes in Household Composition, 2007-2009



Overall Picture

- Strong downward shift in the wealth distribution is also clear in the micro data

Overall Distributional Shift



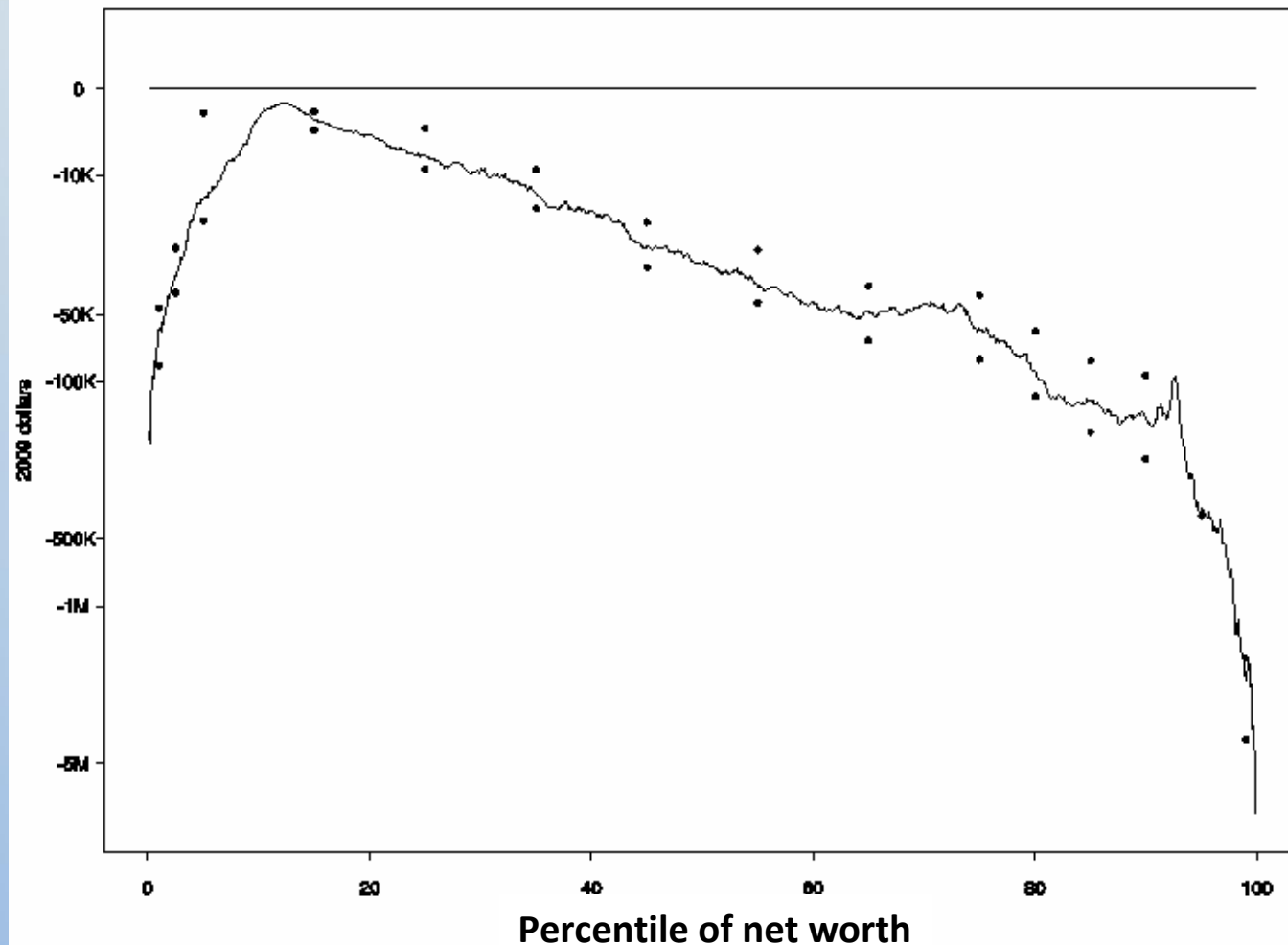
Overall Change in Net Worth

- Flow-of funds measure of household sector net worth declined about 28%

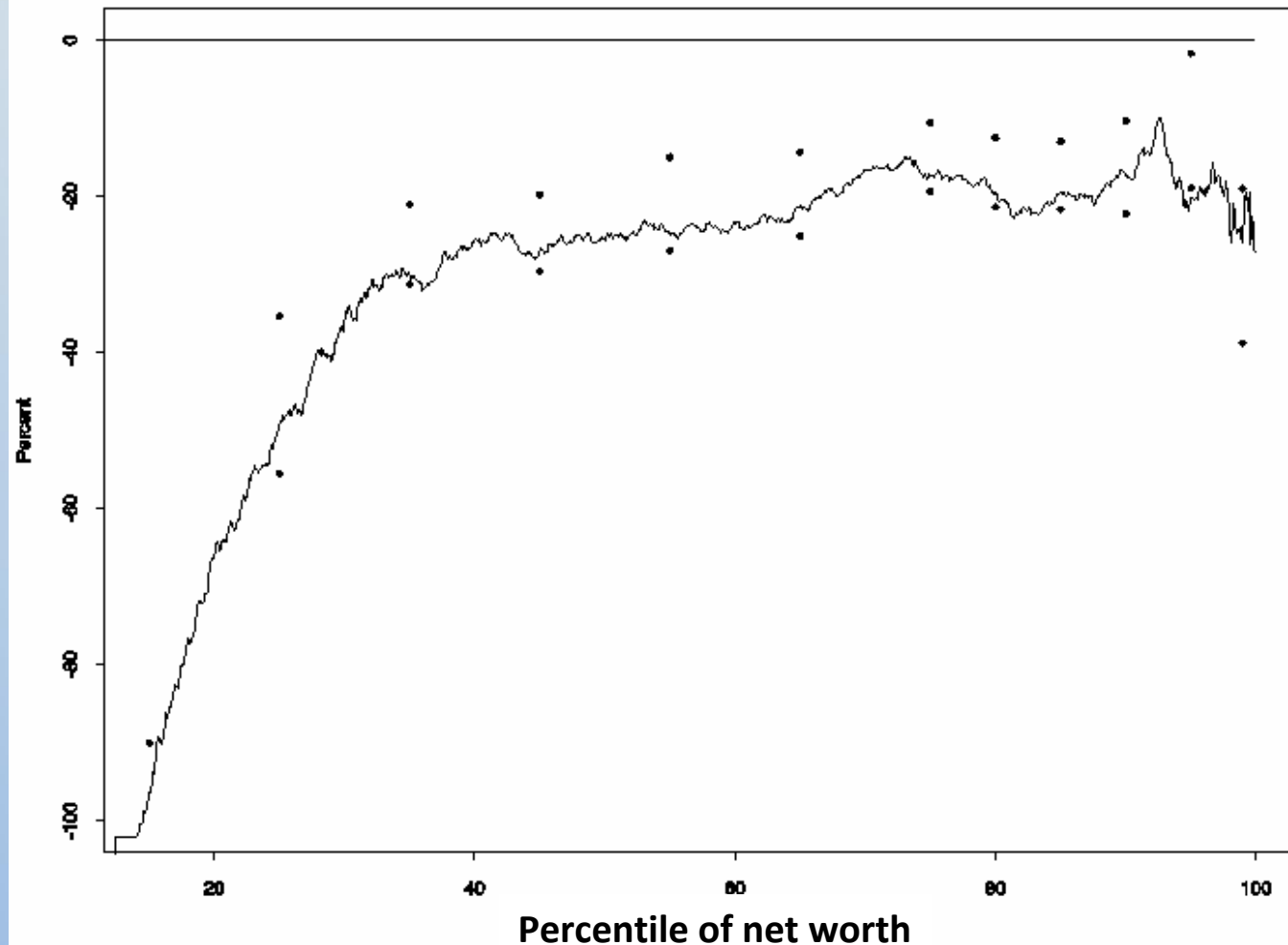
SCF measure

		2007 (th. '09 \$)	2009 (th. '09 \$)	% change
Net worth				
	Mean	595.4	480.5	-19.3
	Median	125.4	96.0	-23.4
<i>Memo:</i> Income				
	Mean	87.3	76.5	-12.4
	Median	50.1	49.8	-0.6

Quantile-Difference: Levels: 2009-2007



Quantile-Difference: Percent: 2009-2007



Net Worth by Percentile Points

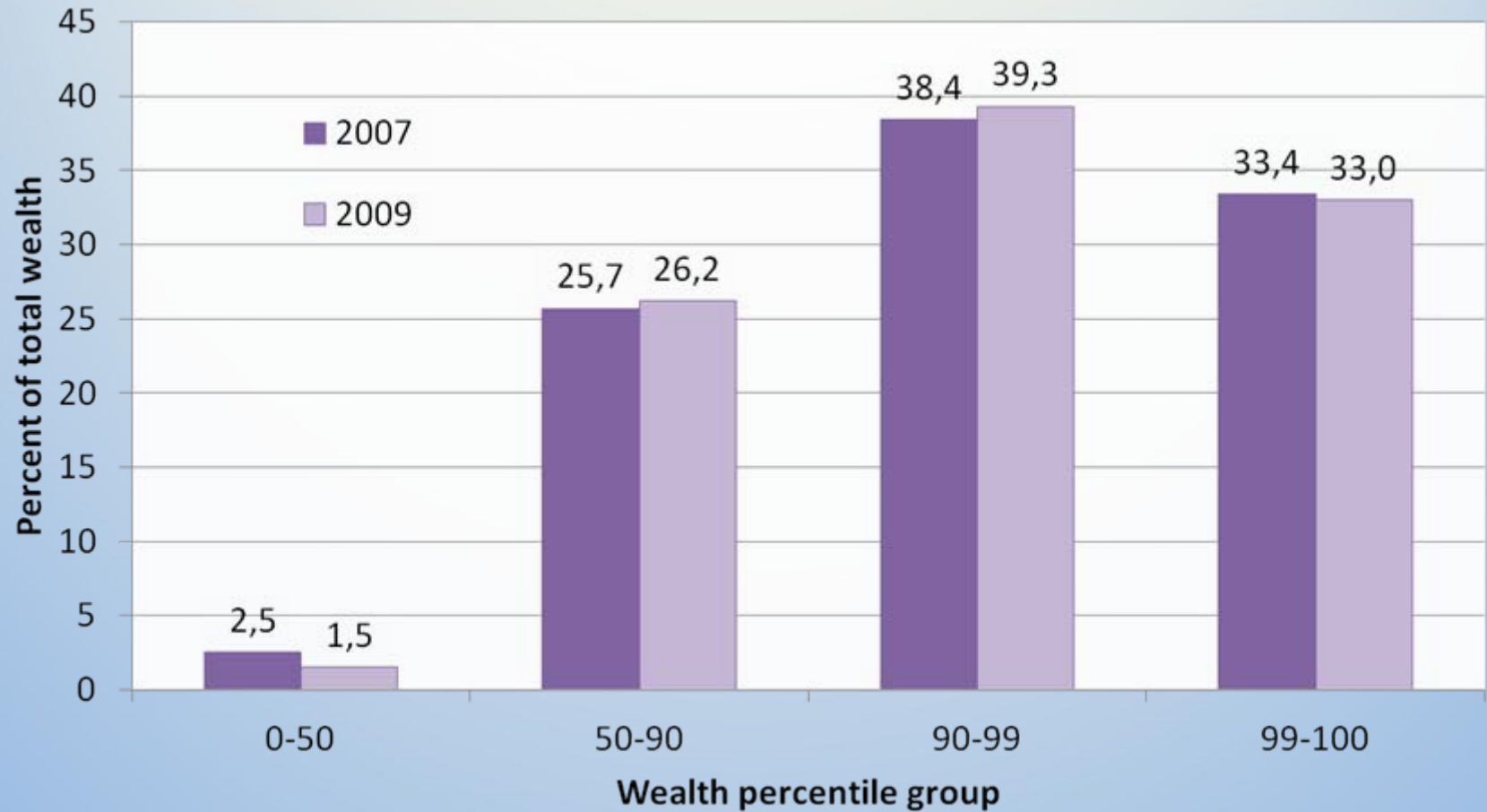
Percentile	2007 value (th. 2009 \$)	2009 value (th. 2009 \$)	Percent change
25	15.5	8.2	-47.1
50	125.4	96	-23.4
75	388.6	330	-15.1
90	970.3	823.7	-15.1
99	9015.8	6917	-23.3

Fraction with negative net worth rose from 8.2% to 12.3%

Wealth Shares

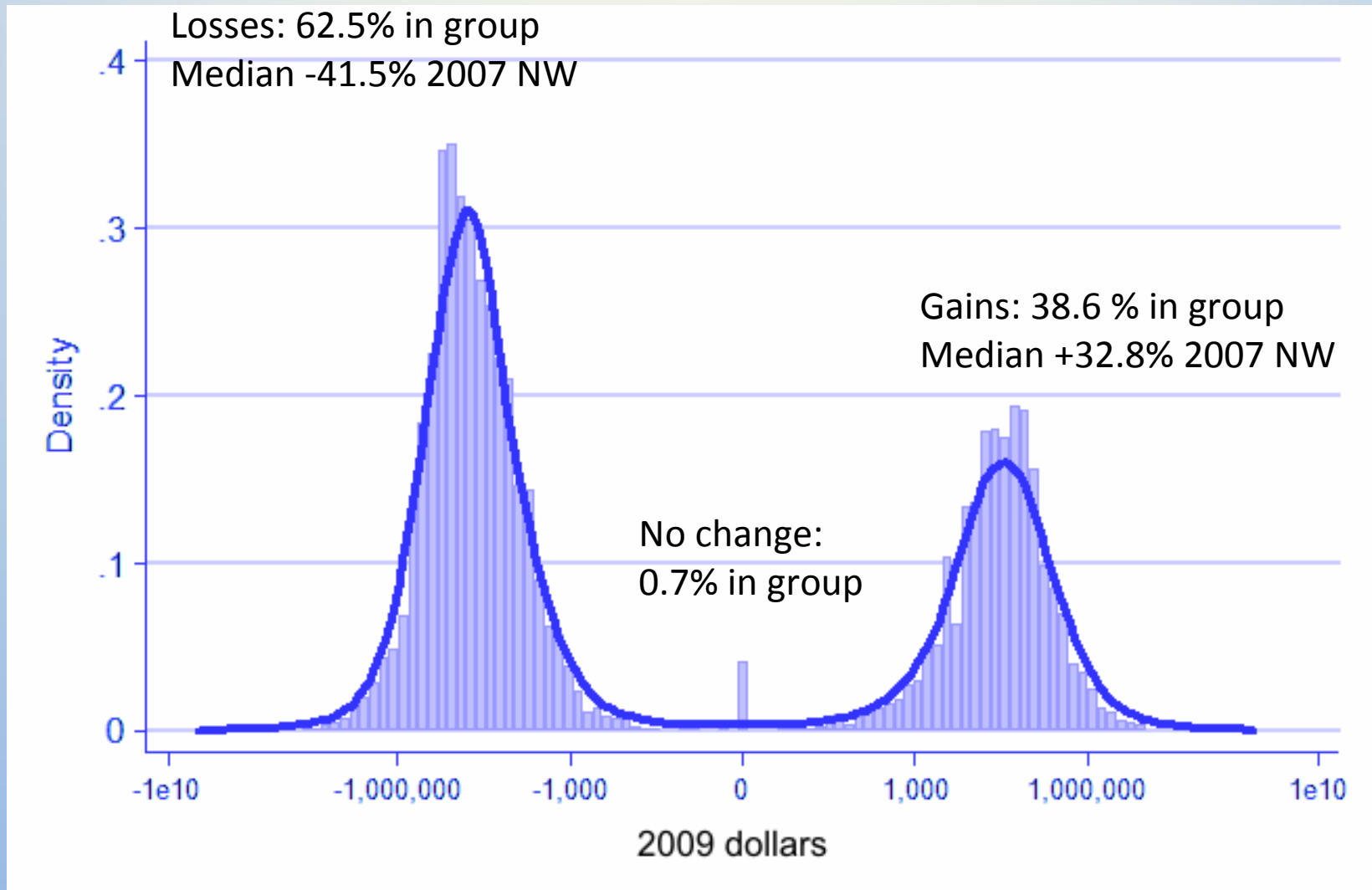
- Overall, distribution of wealth did not move much in terms of shares of the (smaller) total
- But, again, much movement among groups
- Almost half of losses in net worth concentrated in the wealthiest 1%

Concentration of wealth, 2007 & 2009



Household-Level Change

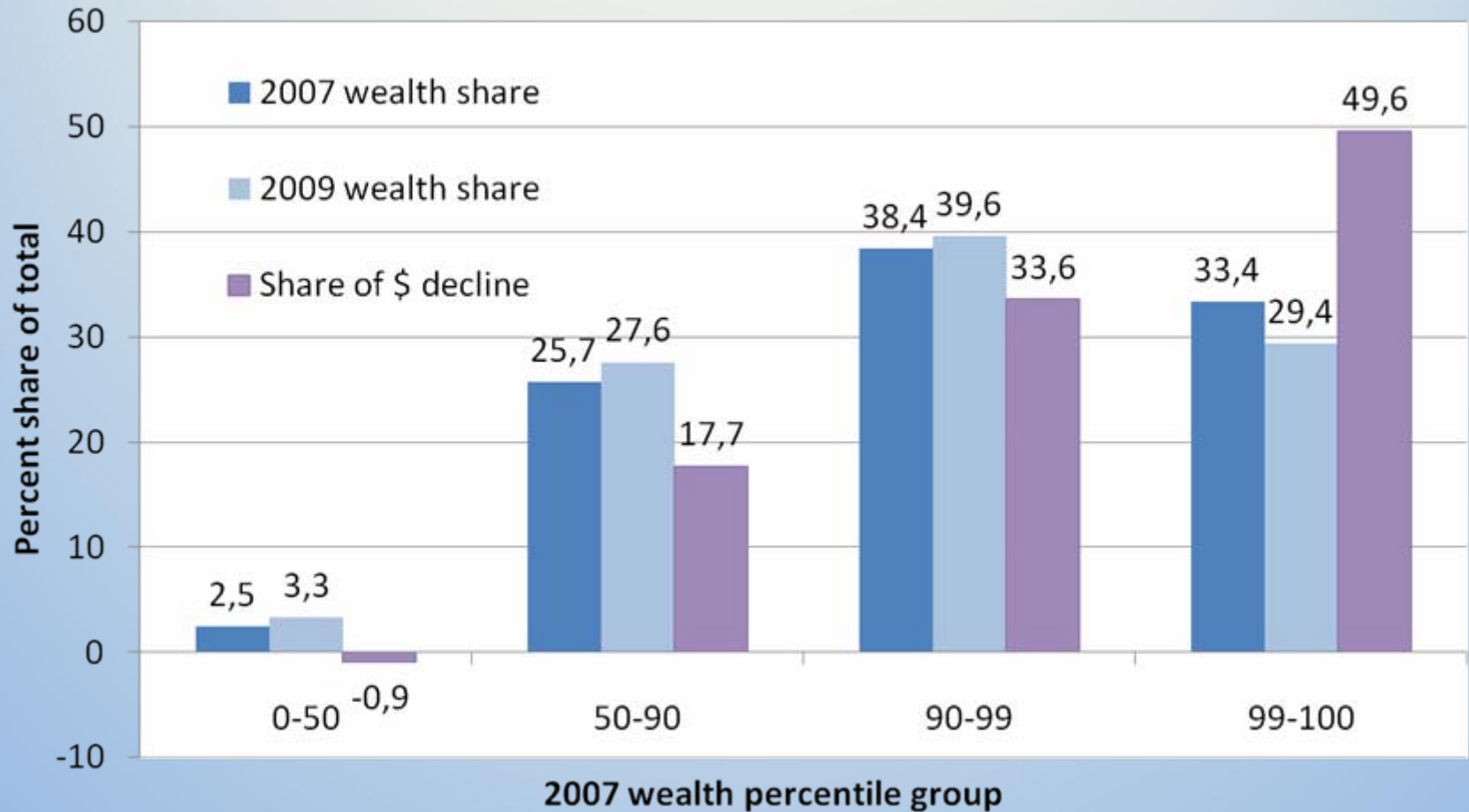
Se vogliamo che tutto rimanga com'è bisogna che tutto cambi...



Gains and Losses in NW, 2007-2009

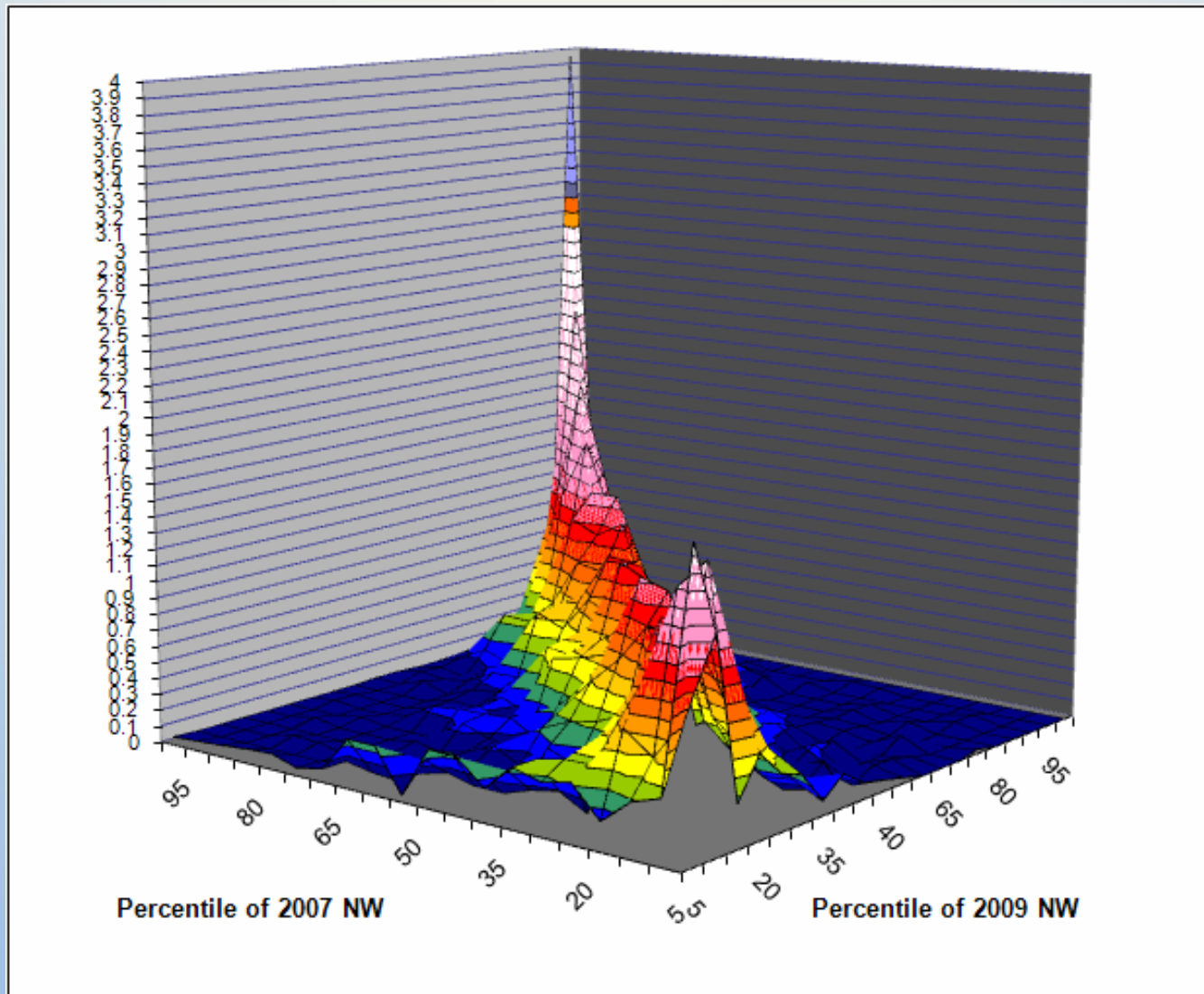
Overall		
	Median % 2007 NW	-20.8%
	Median amount	\$-11,400
Losses		
	Percent having	62.5%
	Median % 2007 NW	-41.7%
	Median amount	\$-60,400
Gains		
	Percent having	36.8%
	Median % 2007 NW	32.8%
	Median amount	\$32,800
No change		
	Percent having	0.7

Concentration by 2007 Groups



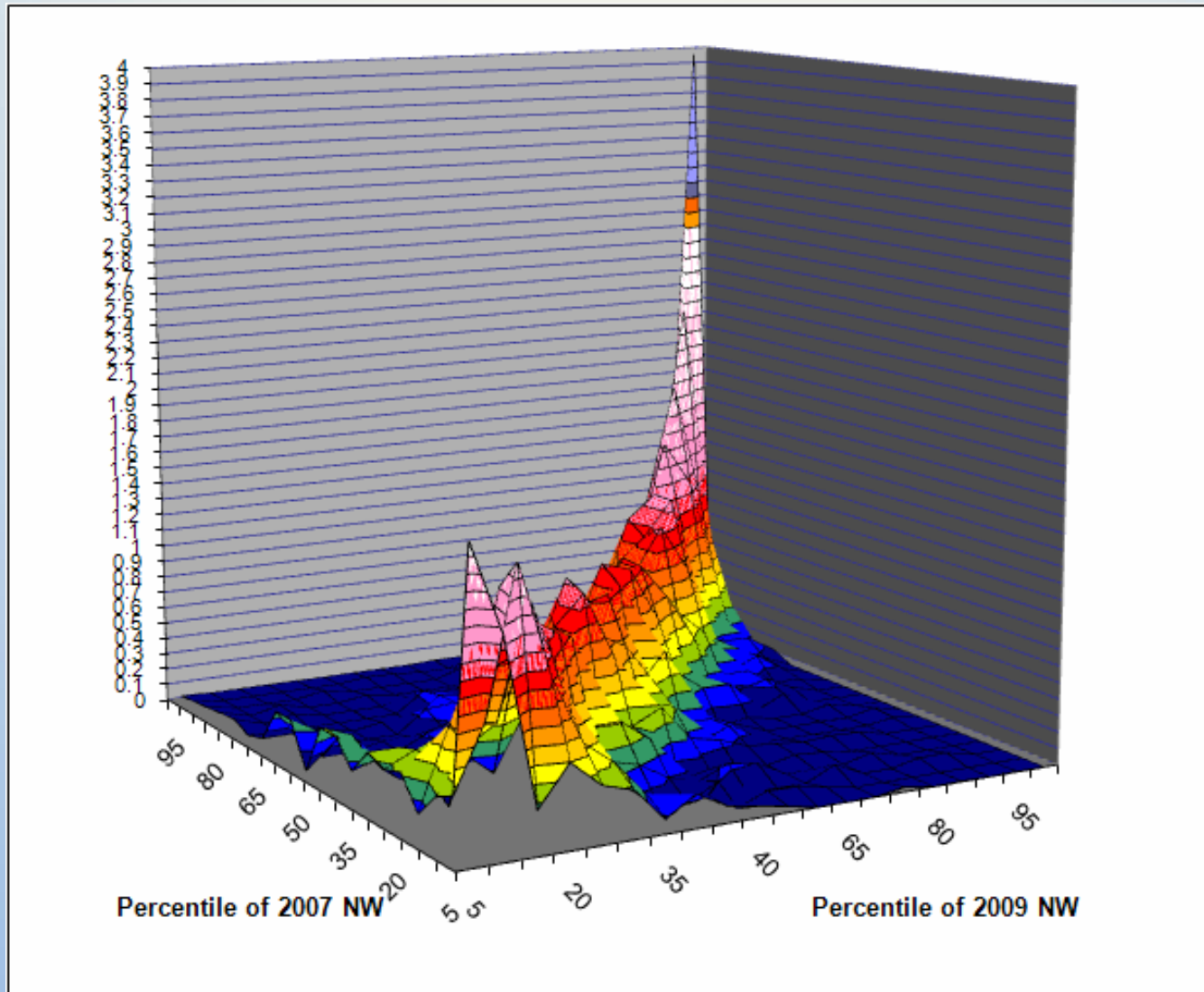
Joint Normalized NW Distribution

2007-2009

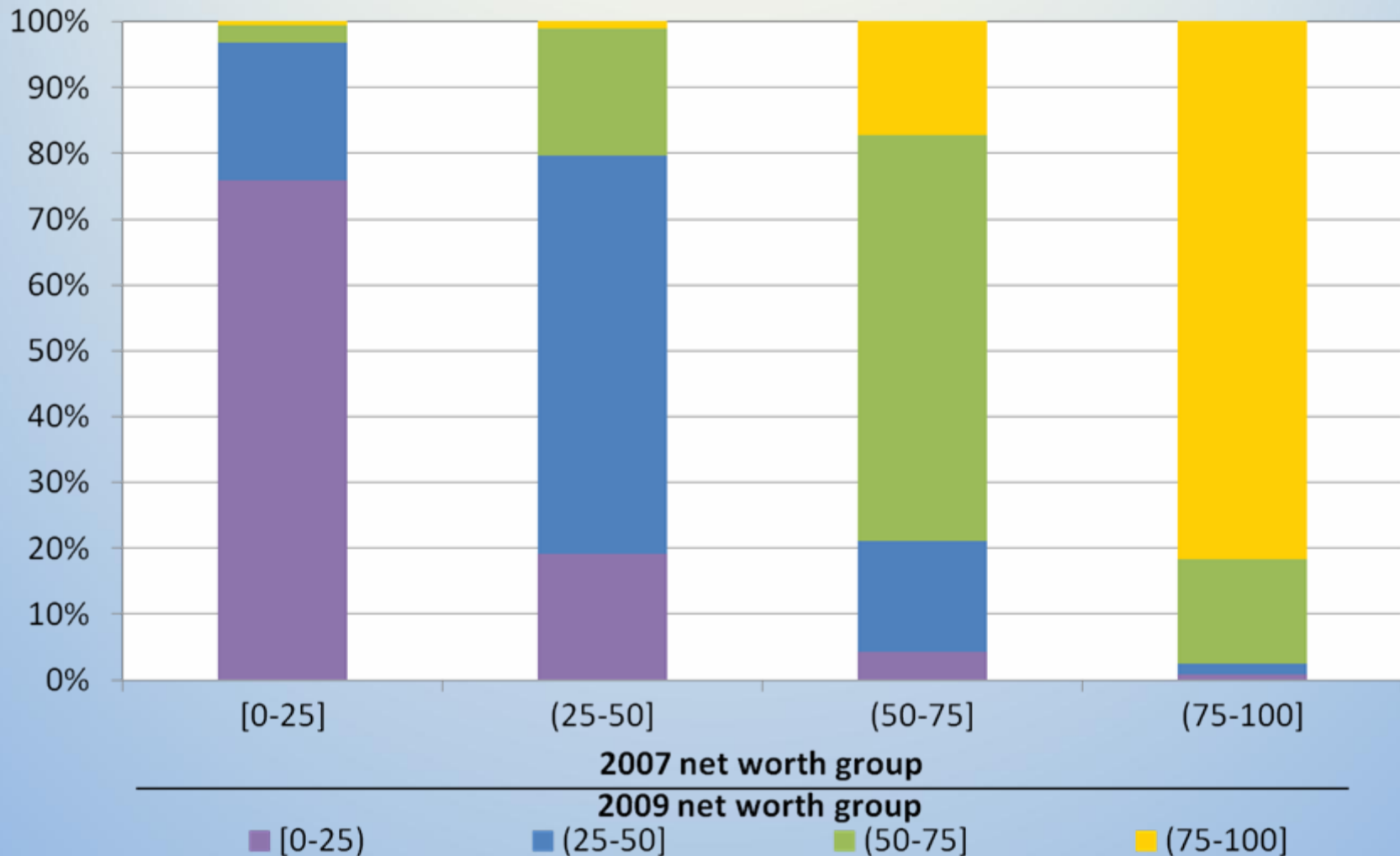


Joint Normalized NW Distribution

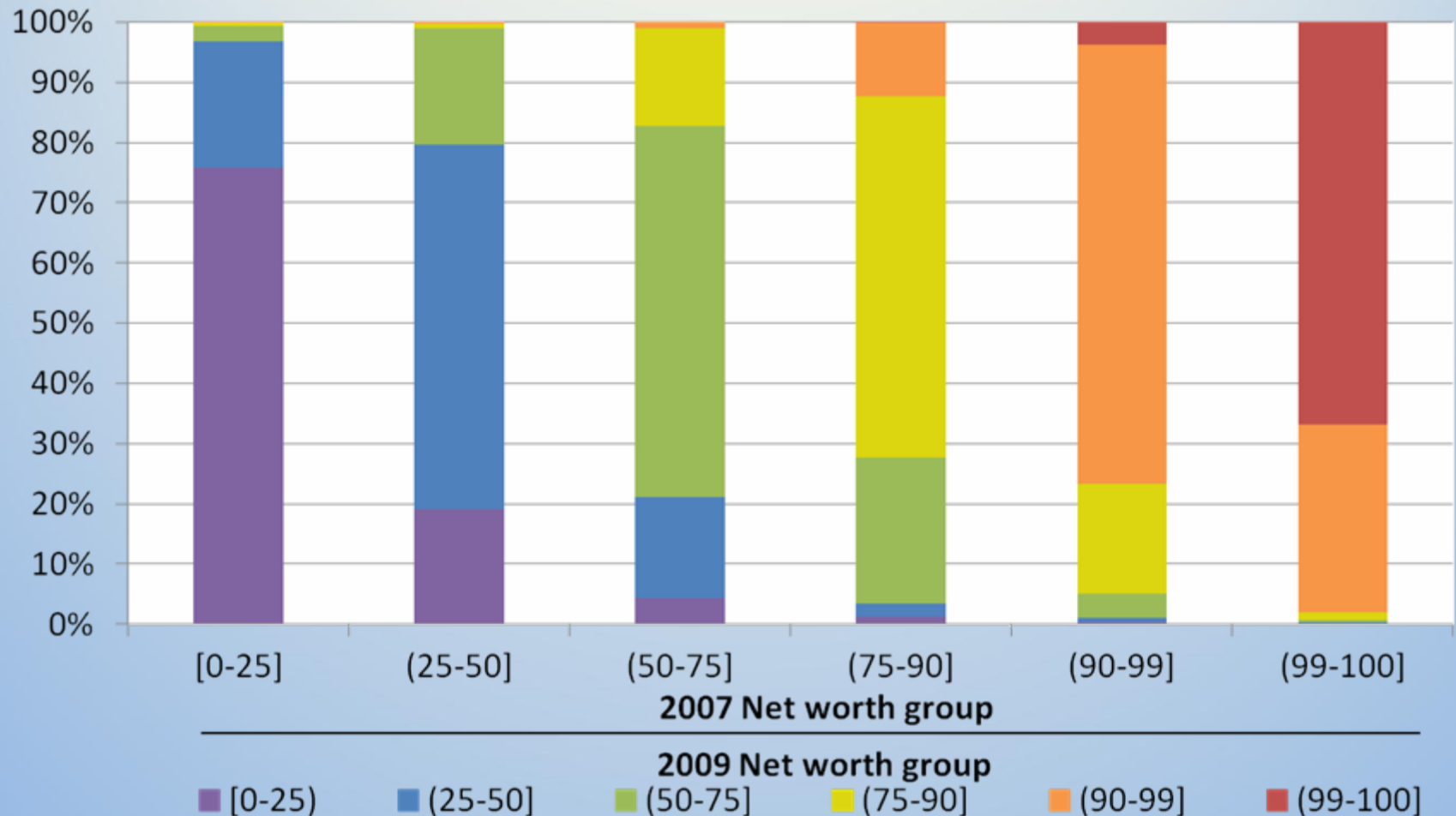
2007-2009



Wealth Transition, 2007-2009

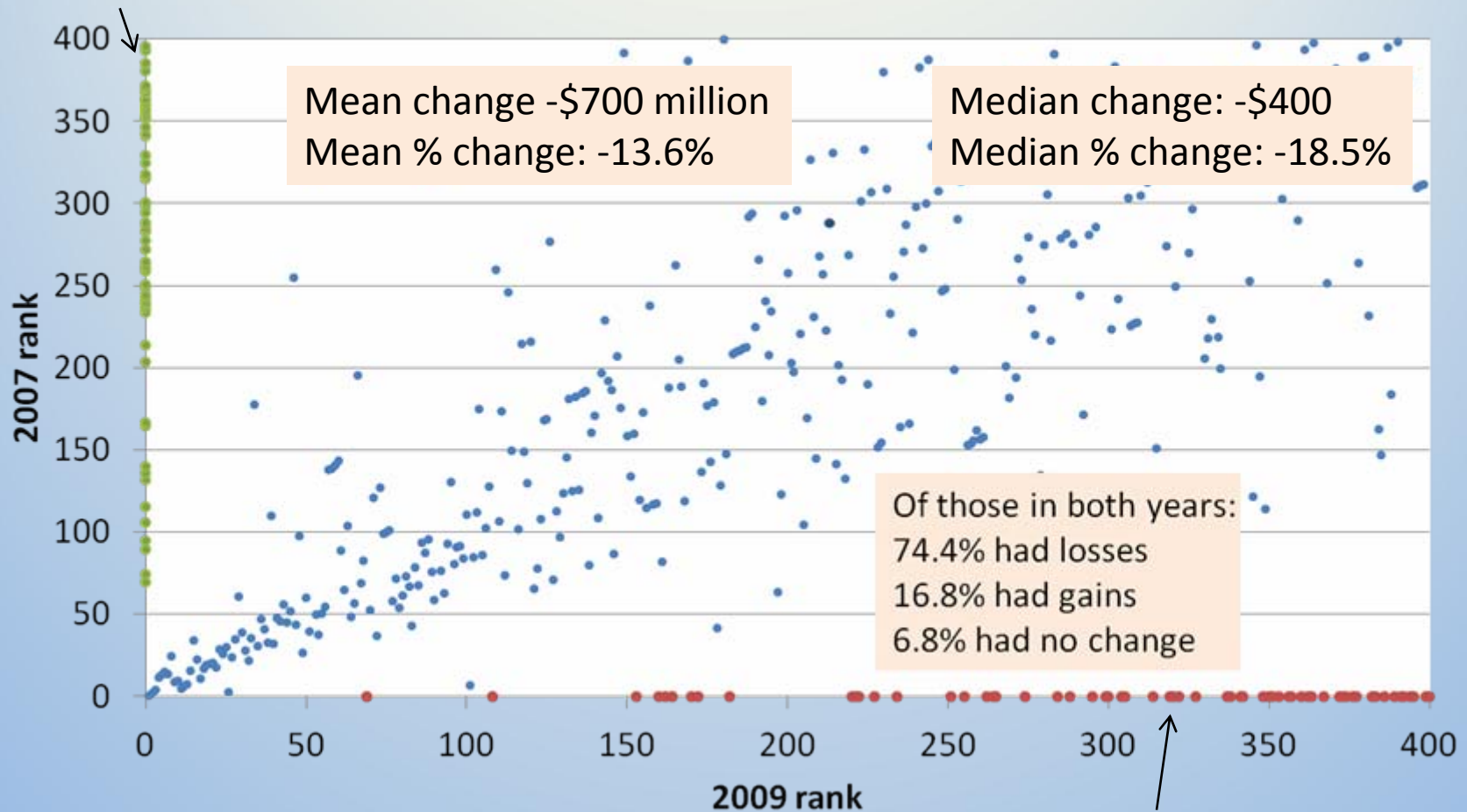


Wealth Transition, 2007-2009



Forbes Rank: 2007 vs. 2009

61 not in 2009






Statistics on Forbes Wealth Measure

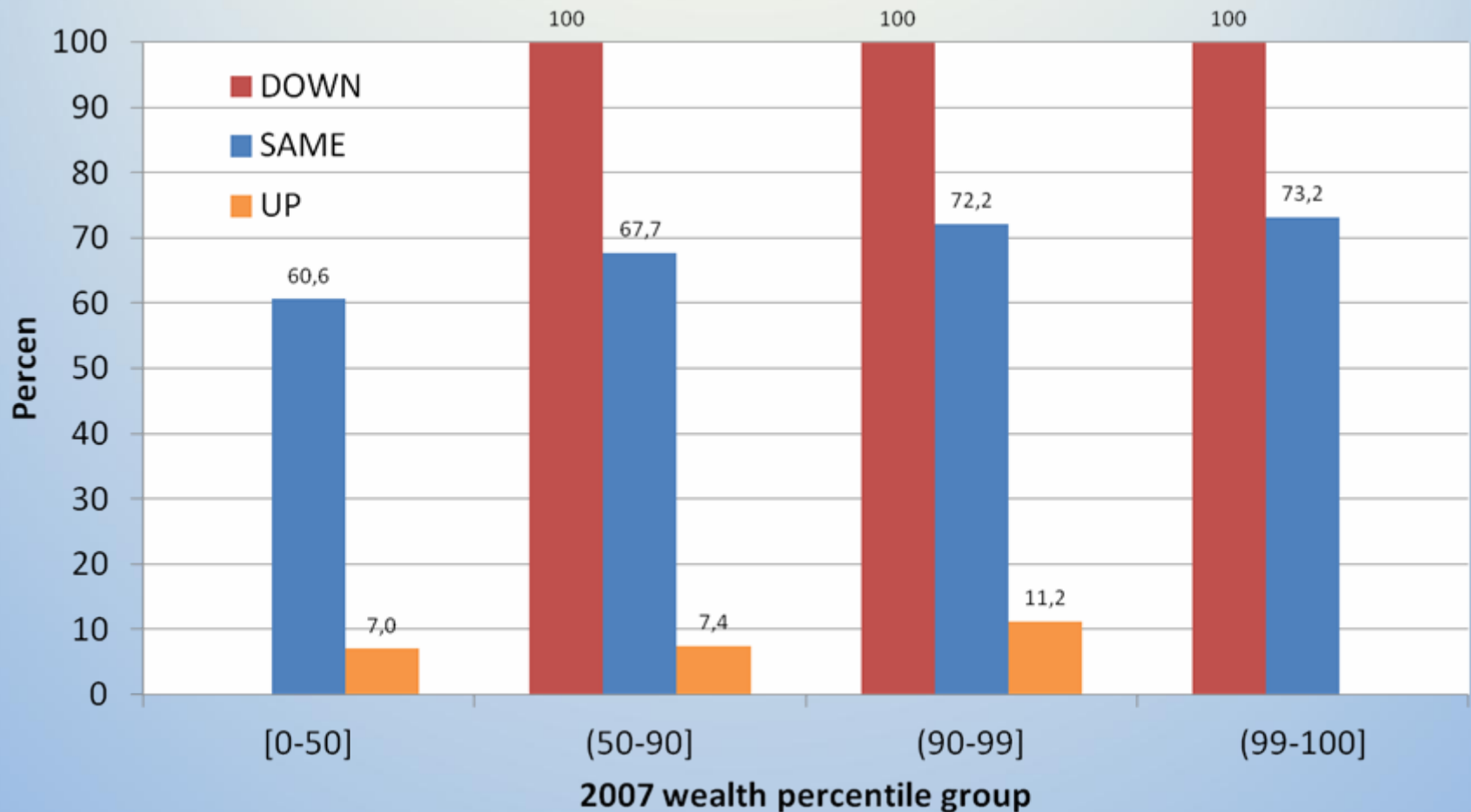
	2007	2009	% change
Maximum wealth	\$59 billion	\$50 billion	-18%
Minimum wealth	\$1.3 billion	\$950 million	-27%

61 cases in 2009 not present in 2007
61 cases in 2007 not present in 2009

LEGEND: Change 2007-2009

-  Moved down at least one percentile group
-  Same percentile group
-  Moved up at least one percentile group

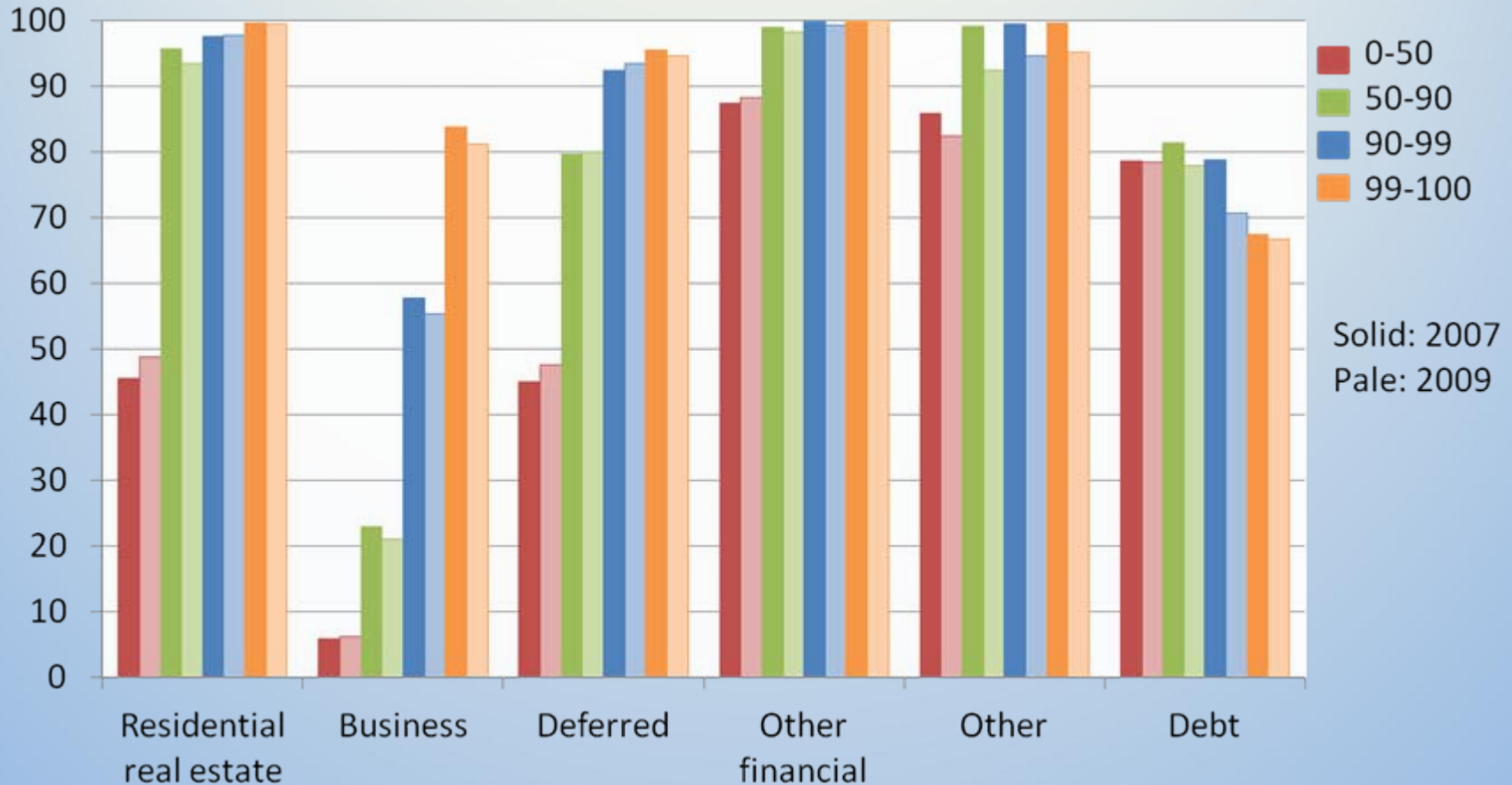
Percent in Group Having Dollar Losses 2007-2009



Important Stylized Facts on Ownership and Wealth

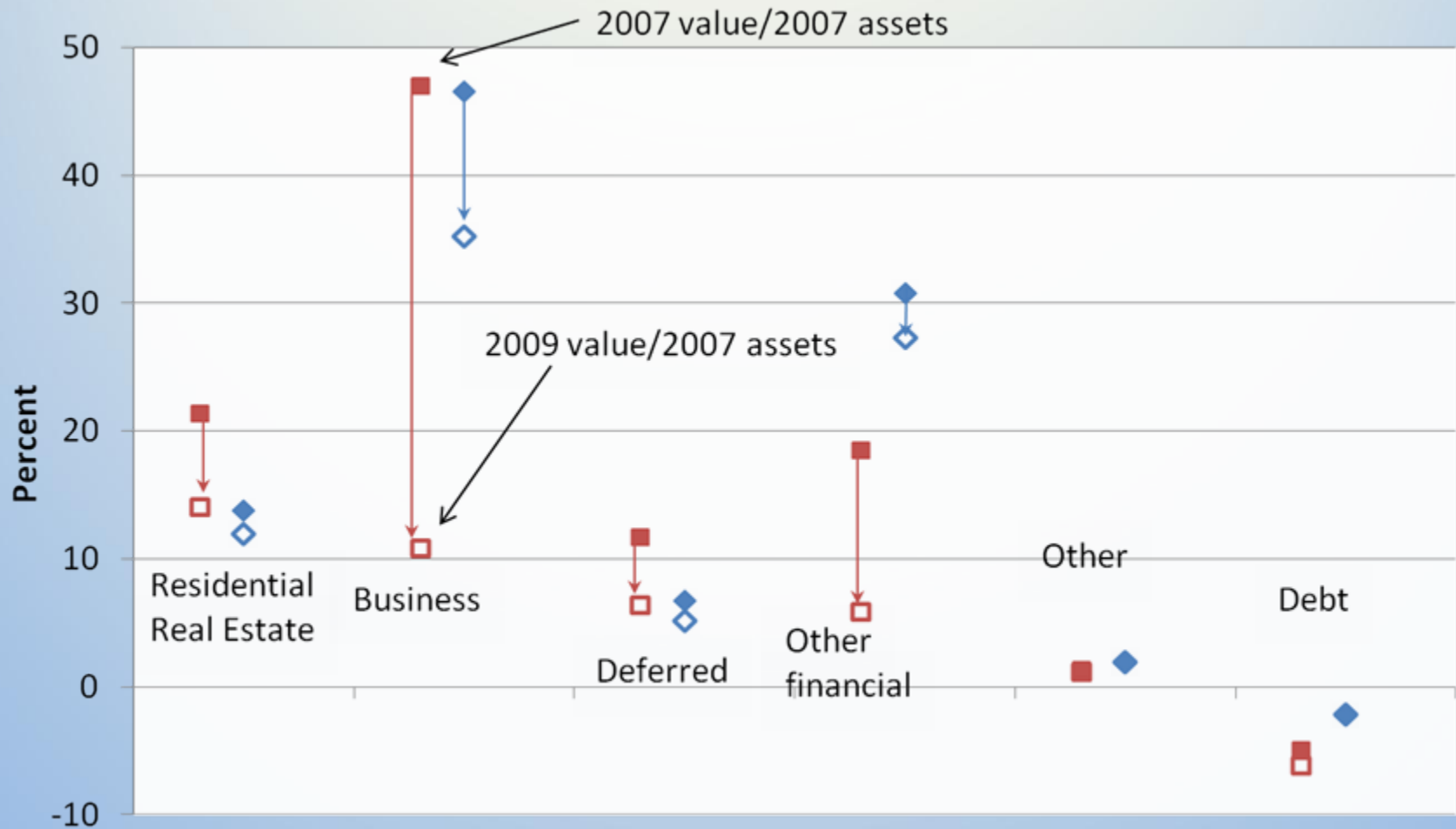
- In 2007 and 2009:
 - Home ownership <50% for the least wealthy 50% and near 100% for wealthier groups
 - Business ownership/investment rises strongly with wealth—about 80% among wealthiest 1%
 - 90-100% have some type of financial asset
 - Only half of least wealthy 50%, but 80-90% other have some sort of deferred asset
 - 60-70% of all groups have some type of debt
- Minimal change in ownership of portfolio items
 - 54 percent of all families reported making no changes at all
 - Some increase in homeownership for least wealthy 50%
- Very little change in debt holdings
- **Wealth shifts apparently mostly driven by changes in valuation**

Ownership Rates, by 2007 Wealth Group



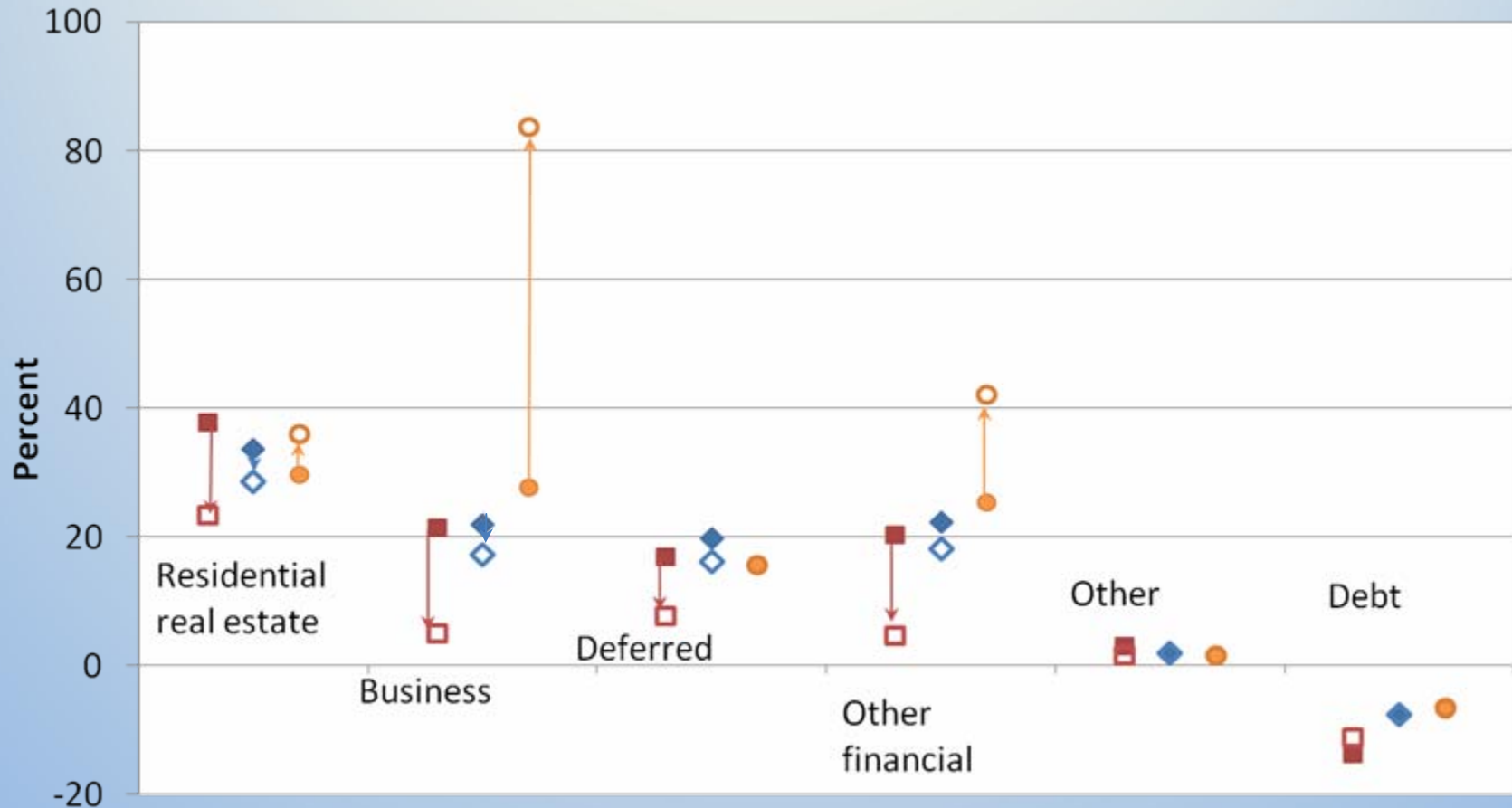
Items as Share of Total 2007 Assets

Wealthiest 1% in 2007



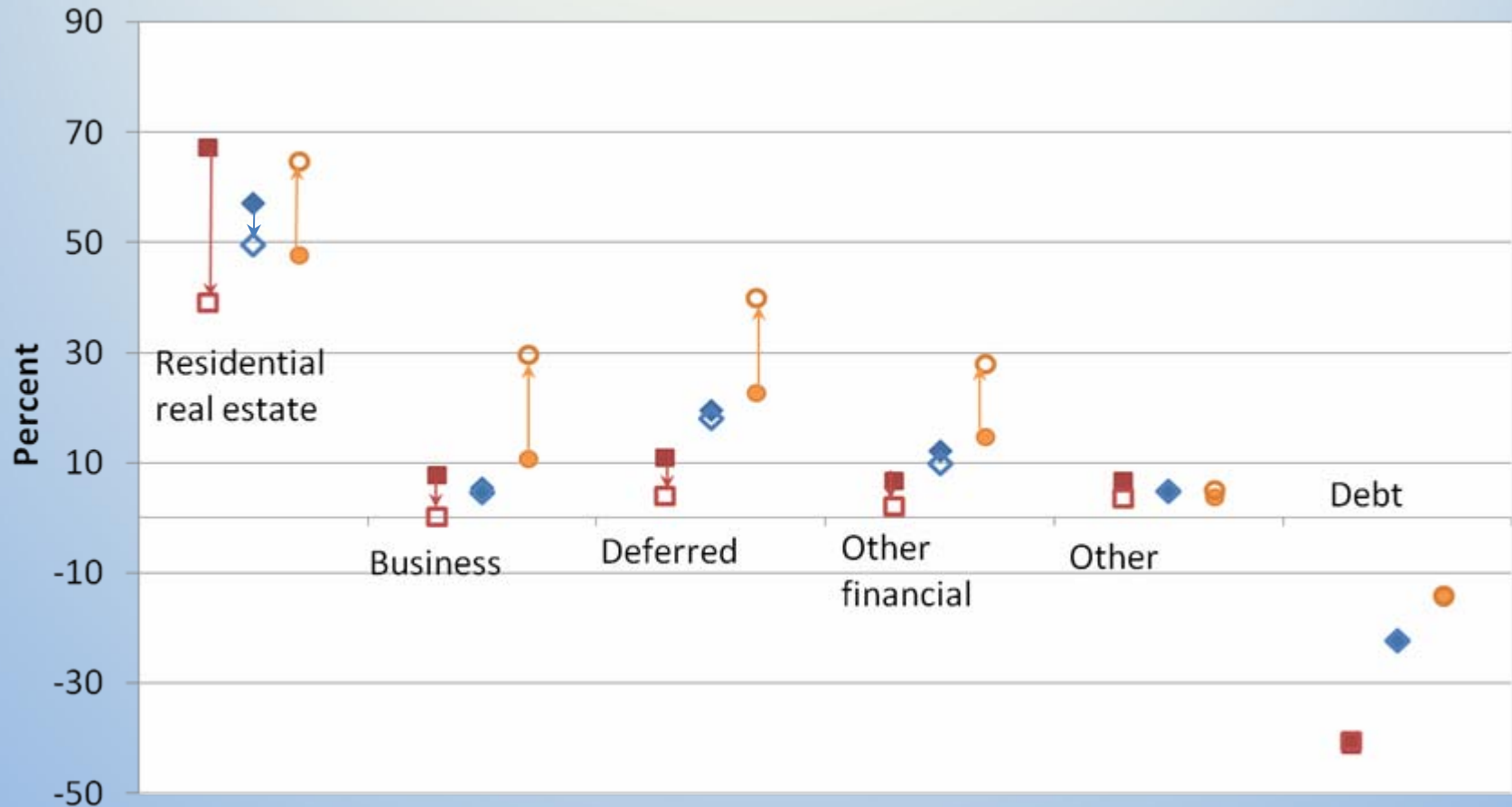
Items as Share of Total 2007 Assets

90th-99th Percentiles in 2007



Items as Share of Total 2007 Assets

50th-90th Percentiles in 2007



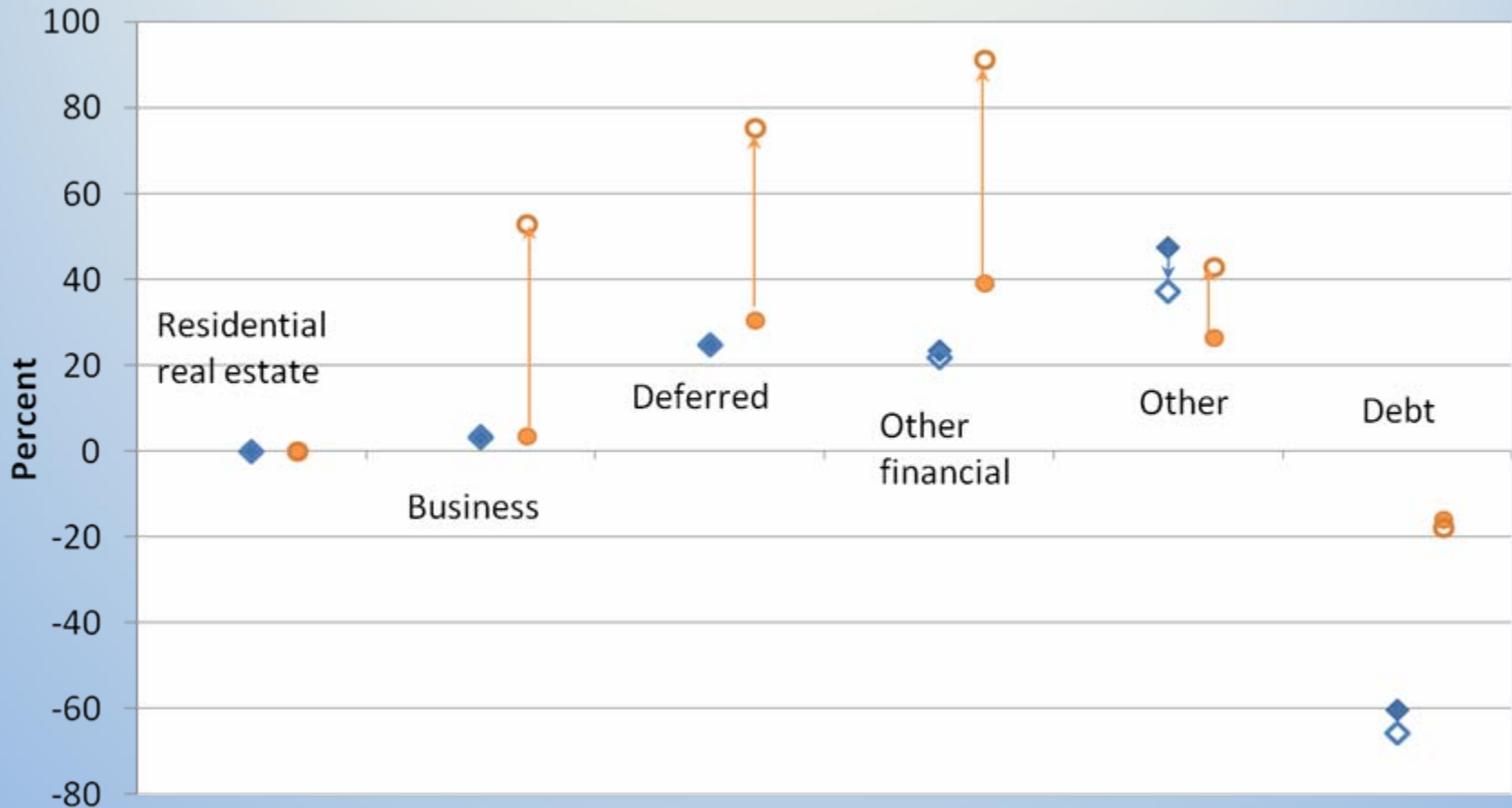
Items as Share of Total 2007 Assets

1st-50th Percentiles in 2007



Items as Share of Total 2007 Assets

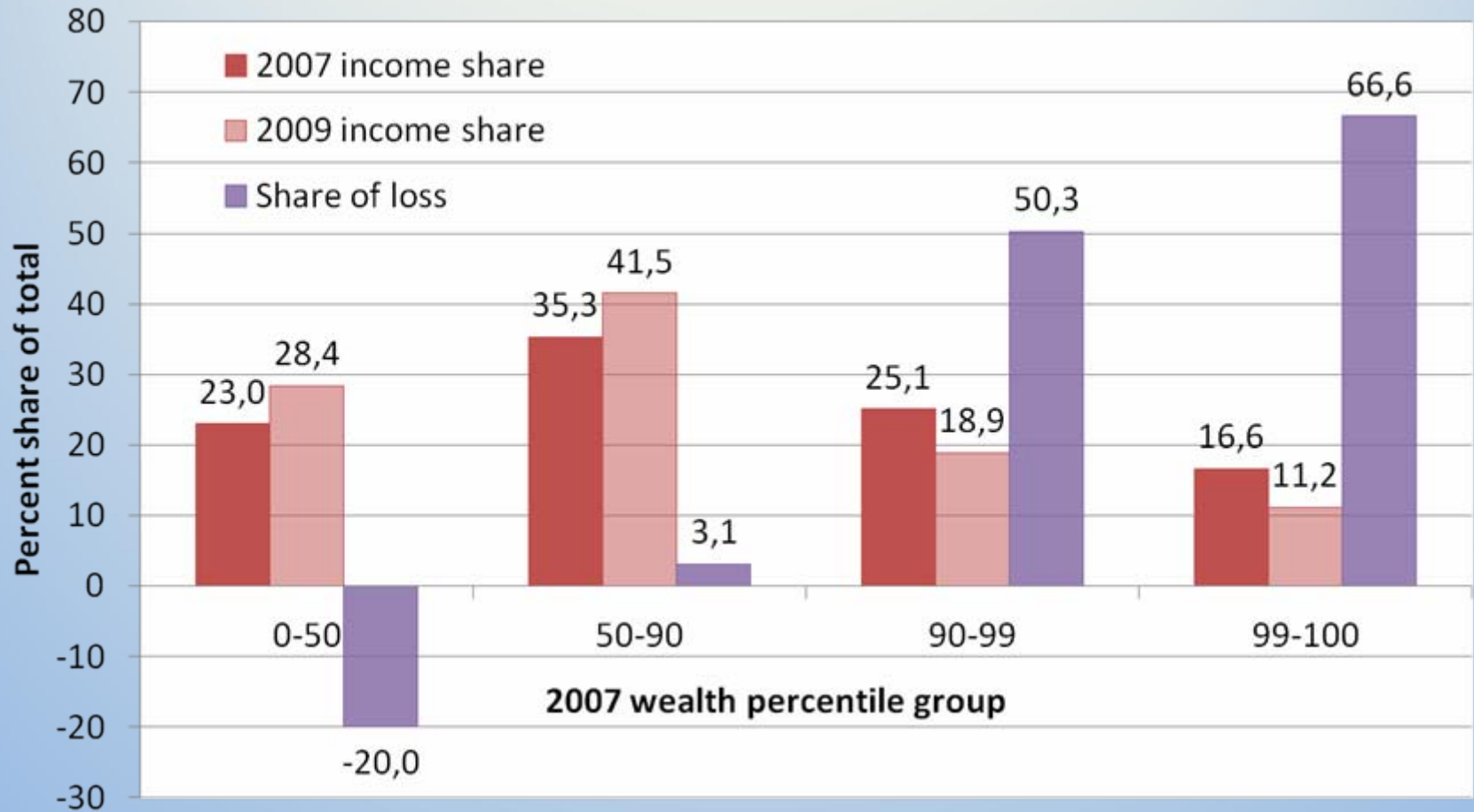
1st-50th Percentiles in 2007: Not Homeowner Either Year



Other Factors

- Income changes
- Size of losses relative to usual income
- Signs of increased risk aversion
- Asymmetric response to changes in asset valuation
- Differing expectations

Share of Total Income By 2007 Wealth Percentile Groups

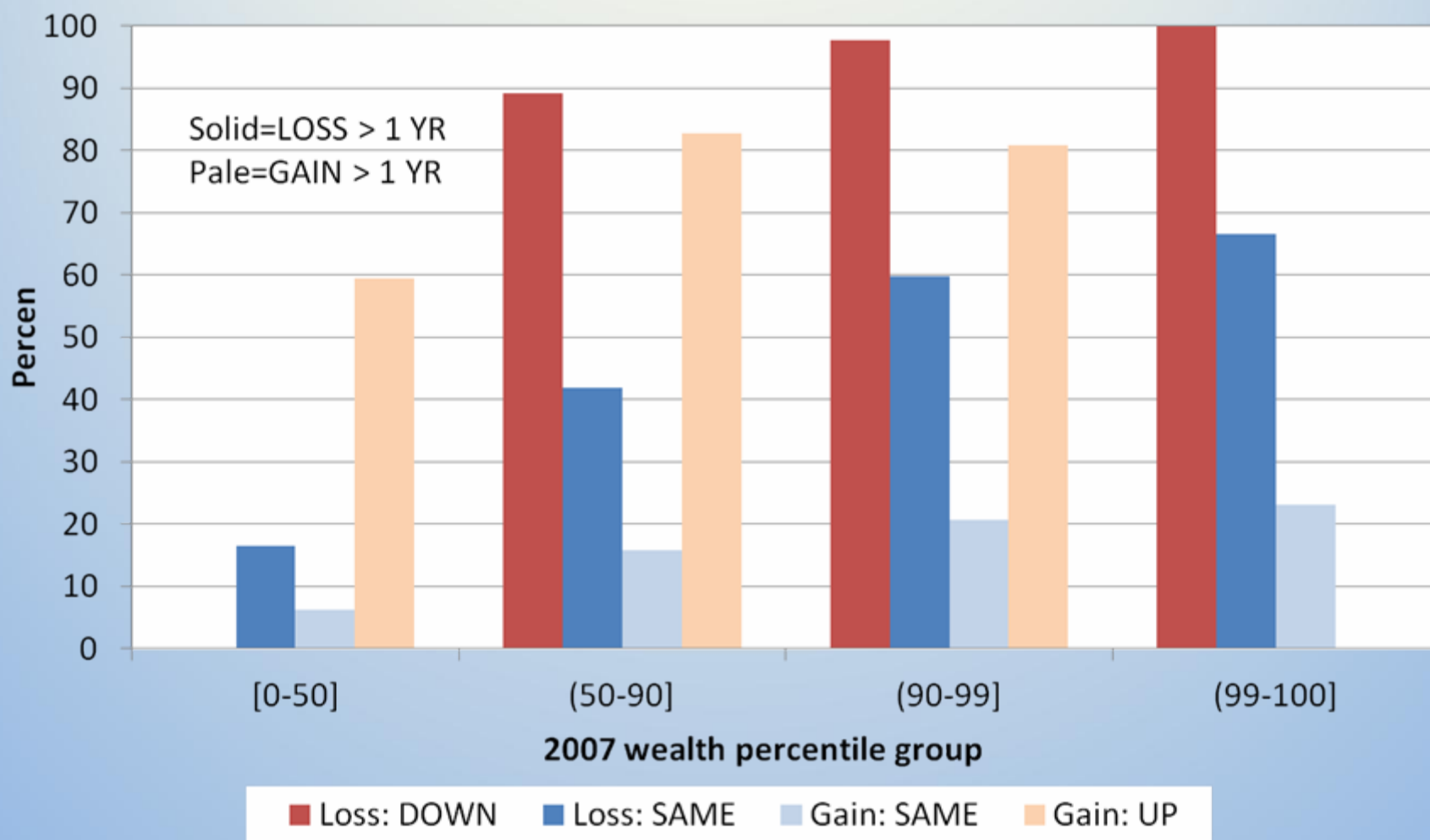


Income from 2001-2010

- Wealth-income relationship disturbed
 - For example:

Median income by wealth percentile group		
Year	Wealth percentile group for year	
	0-10	10-30
2001	19.0	28.6
2004	23.2	26.7
2007	22.7	28.2
2009	39.8	24.8
2010	32.9	22.1

Percent with Loss/Gain > 1 Year of Usual Income

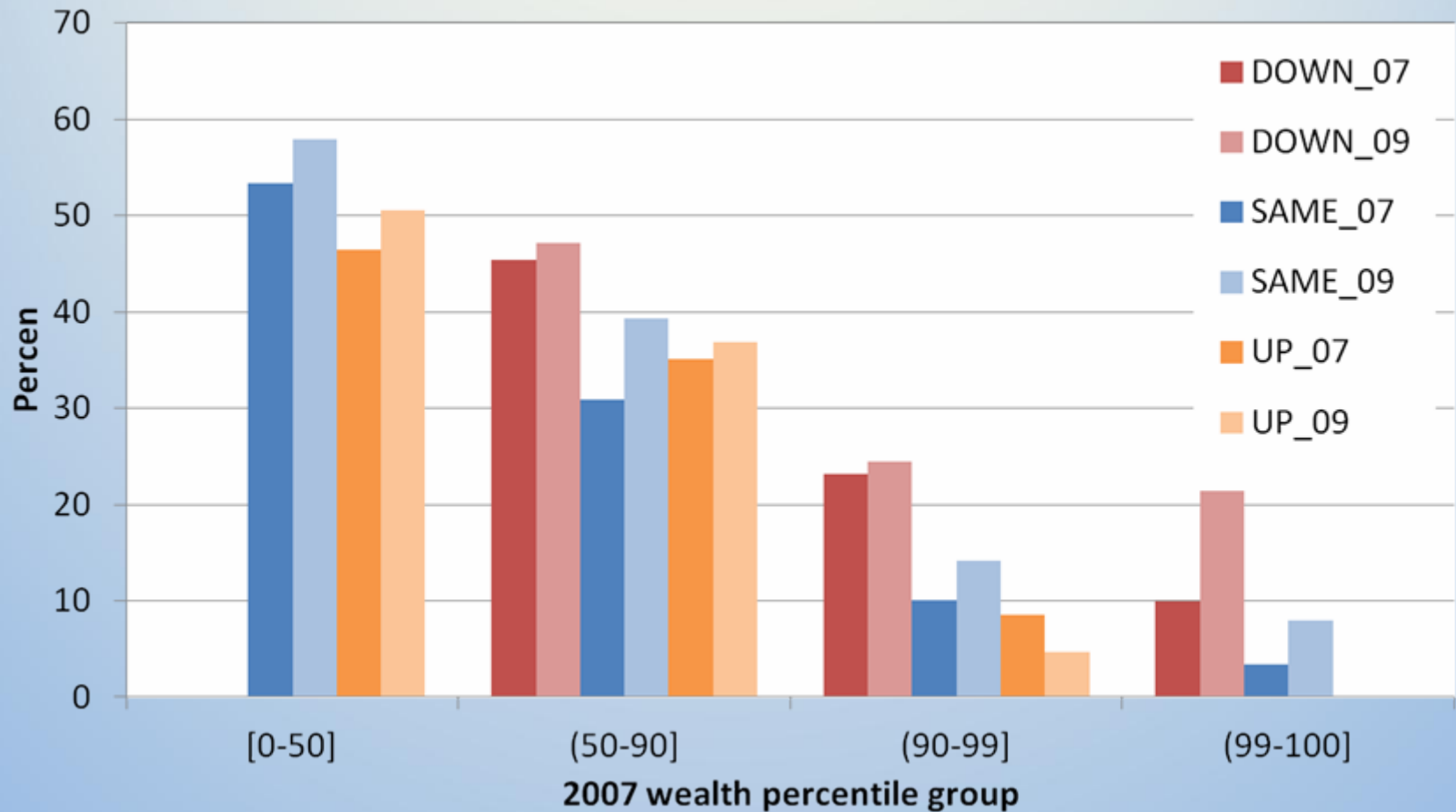


“Gain: DOWN” and “Loss: UP” are suppressed

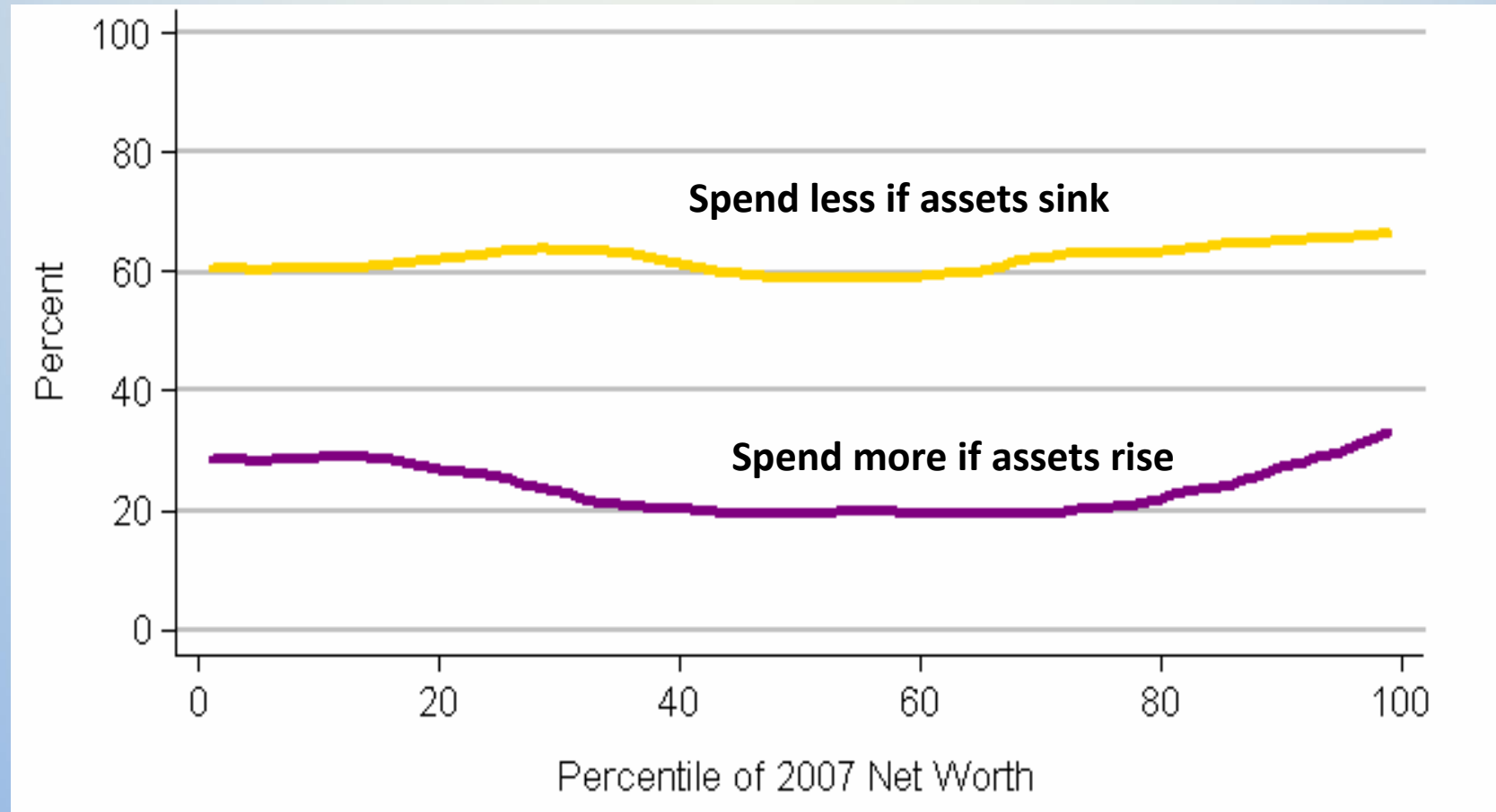
Median Percent Change in Desired Precautionary Saving, 2007-2009



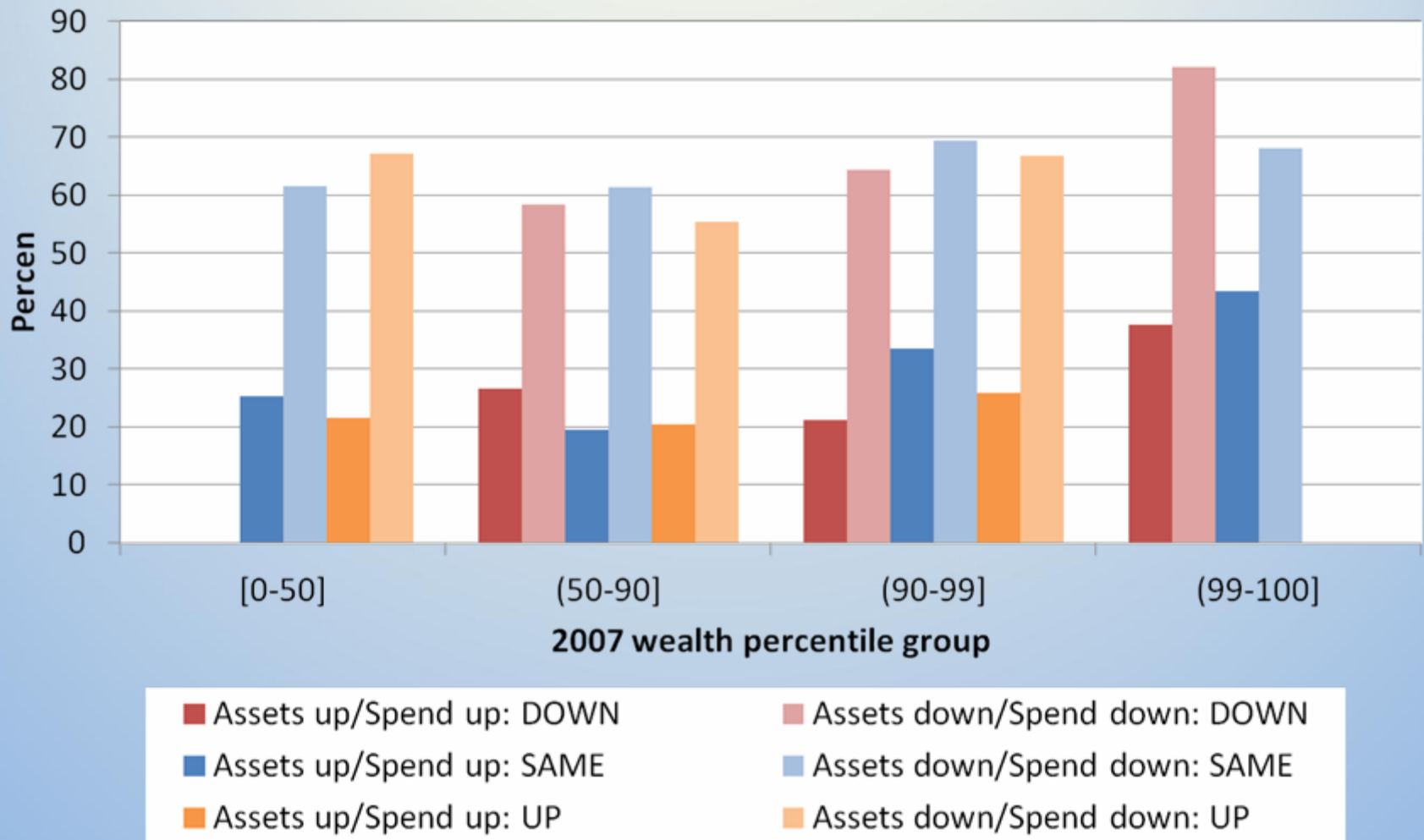
Unwilling to Take Financial Risk



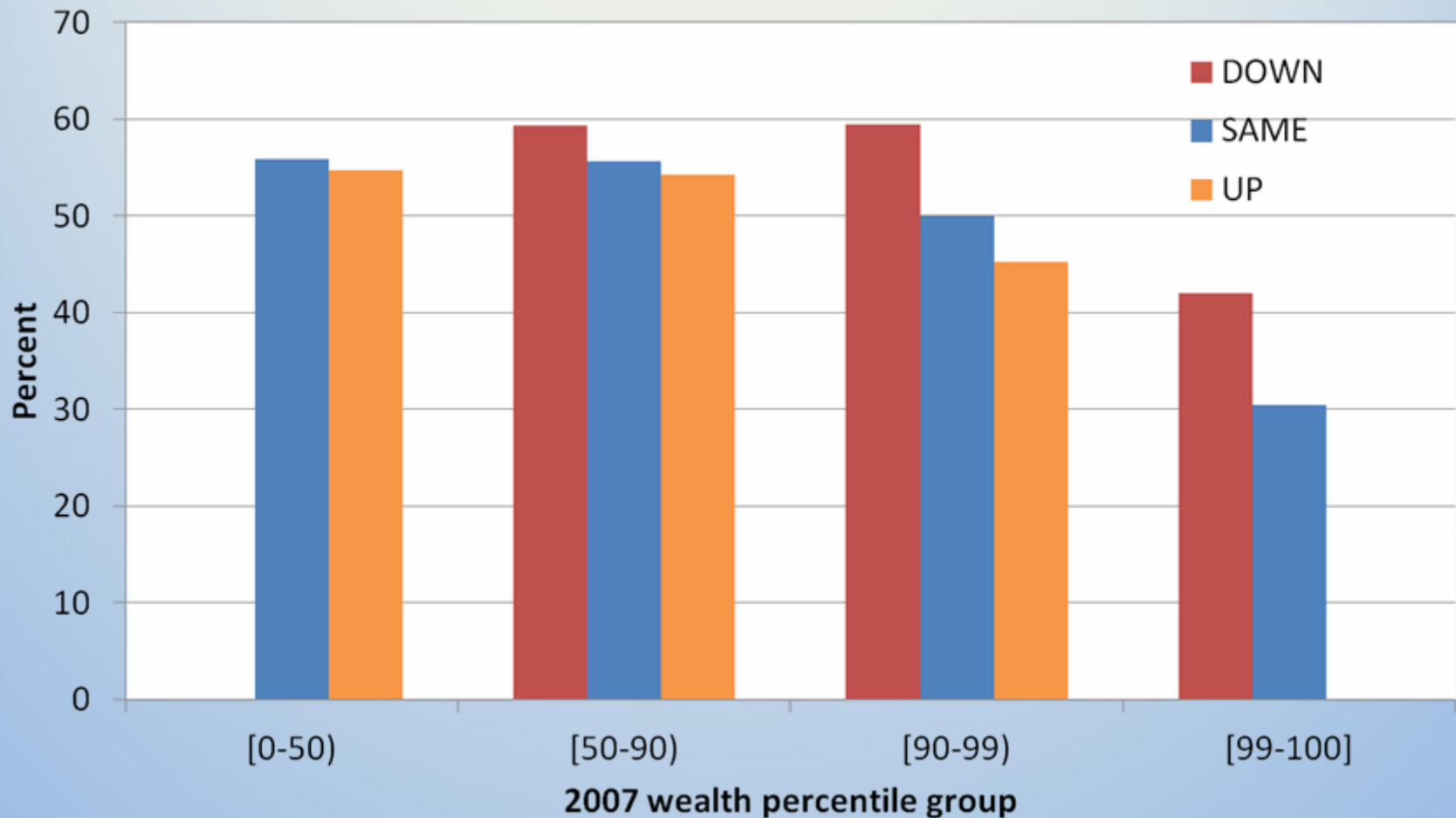
Spend More (Less) if Wealth Rises (Falls)



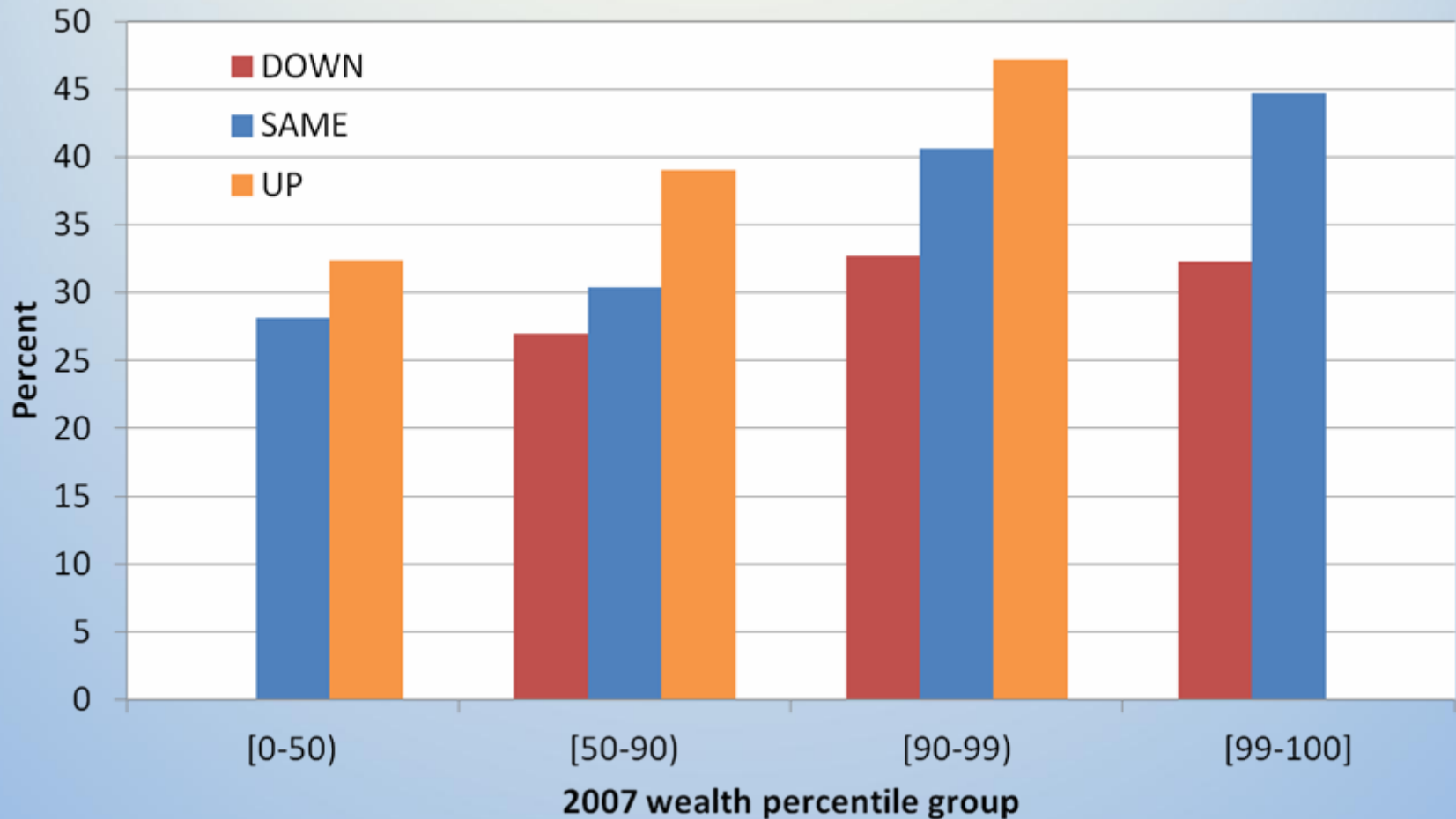
Spend More (Less) if Wealth Rises (Falls)



Percent Expecting Better Economy in Five Years, 2009



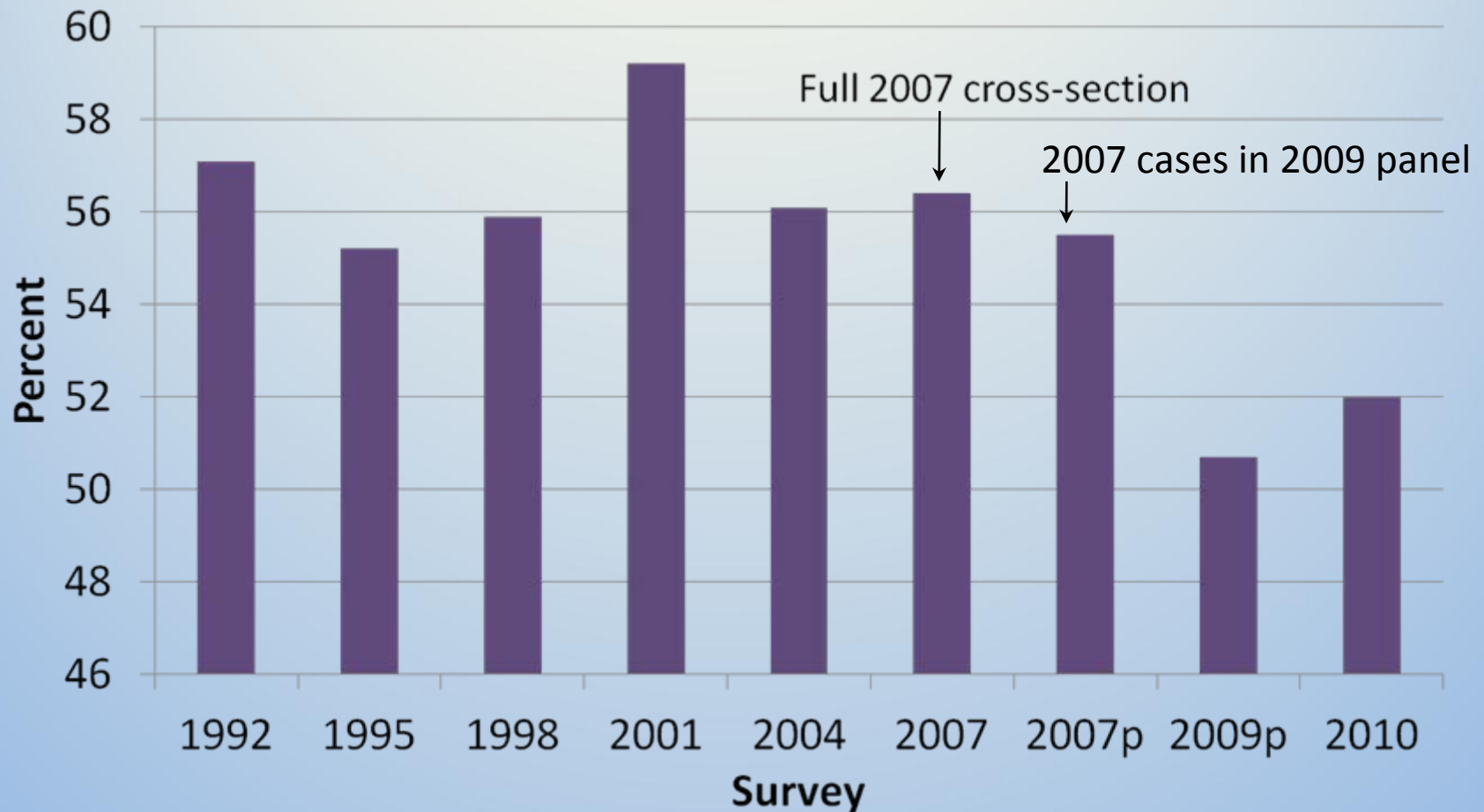
Percent Expecting Better Economy in One Year, 2009



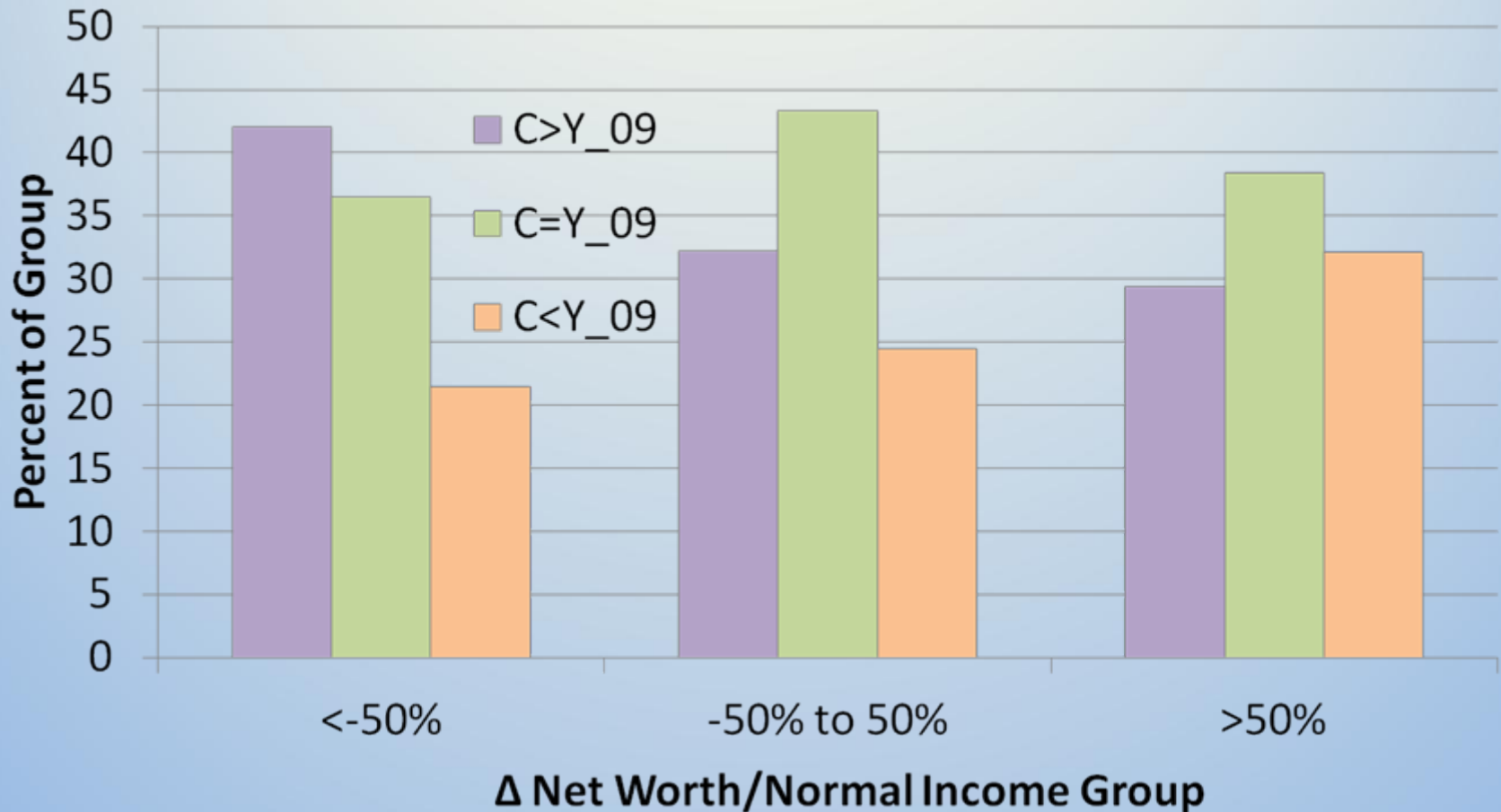
SCF Spending/Saving Indicator

- *Over the past year, would you say that your family's spending exceeded your family's income, that it was about the same as your income, or that you spent less than your income?*
- Follow-up questions to adjust for investments or major durables purchases
- **Indication of the frequency of spending/saving behavior, not the amount**

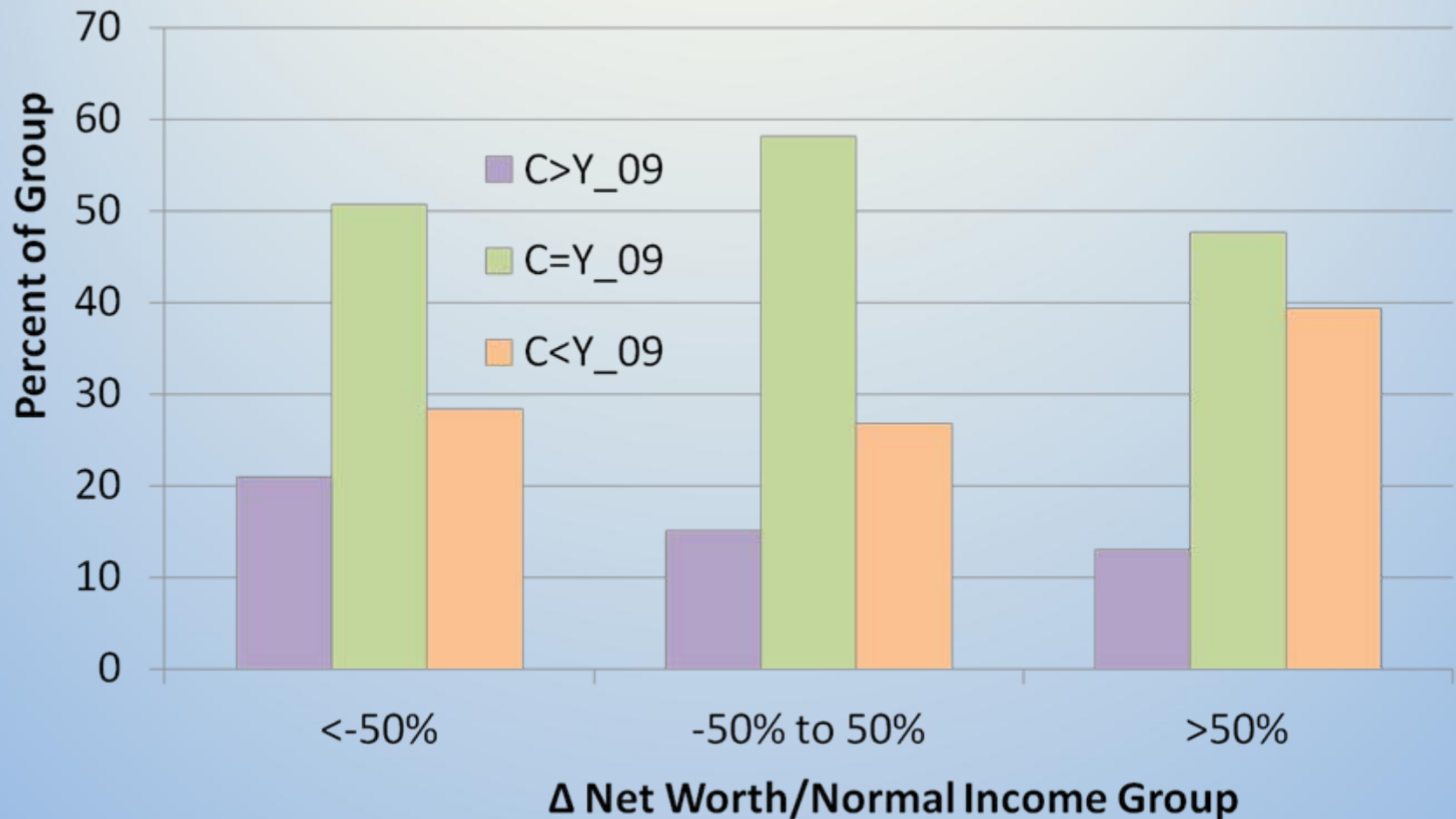
Indicator of Saving: Percent Who Spent Less than Income Last Year



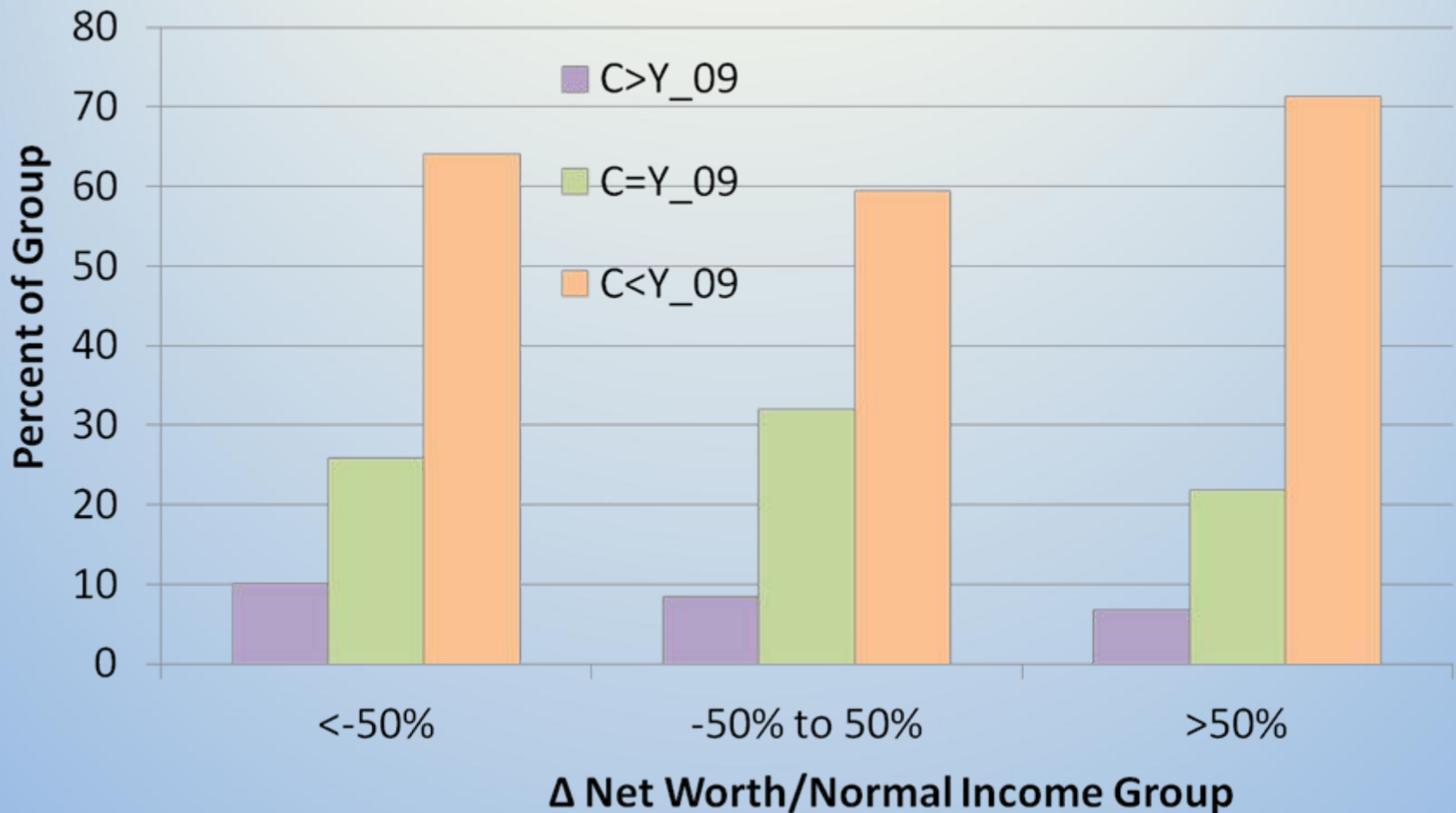
Spending in 2009 by ΔNW /Normal Y: C>Y in 2007



Spending in 2009 by $\Delta NW/\text{Normal } Y$: $C=Y$ in 2007



Spending in 2009 by ΔNW /Normal Y: $C < Y$ in 2007



Change in Saving 2007-2009 by 2007 wealth group

- Somewhat higher (lower) likelihood of saving for those with large wealth increases (decreases)
- Habit persistence appears strong
- Those who saved in 2007 were much more likely to persist in saving in 2009 regardless of wealth change

Some Results of Modeling 2009

- Increasing likelihood of saving with higher normal income
- Likelihood of saving varies directly with degree of transitory income
- Higher (lower) wealth → higher (lower) likelihood of saving
 - Squares with univariate approach and separately asked questions on spending and wealth
- Persistence in saving propensity
- Likelihood of saving increases with age

Conclusions

- Strong message in the data is heterogeneity of wealth outcomes: winners **and** losers
- Overall, wealth fell, but distribution of shares little changed from 2007 to 2009
 - Substantial rearrangement within the distribution
 - Almost half the losses taken by the top 1% as of 2007
 - But as share of income, very serious losses throughout distribution
- Changes in relationship between income and wealth
- Increased risk aversion, desire for higher buffer saving, asymmetry in spending as a result of wealth changes
 - Implications for the speed of economic recovery?
- Apparent habit persistence in saving propensity, but wealth increases associated with higher saving propensity

Grazie!



Questions?

