

**“Deconstructing Household Wealth
Trends in the United States, 1983 to
2016”**

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Asset Price Changes, 2001-2016 (constant dollars)

	% Change	% Change	% Change	% Change
	<u>2001-</u> <u>2007</u>	<u>2007-</u> <u>2010</u>	<u>2010-</u> <u>2013</u>	<u>2013-</u> <u>2016</u>
Homes	18.9	-24.0	7.7	18.4
Stocks	5.7	-26.0	39.0	27.9

What Is Wealth?

- My Standard Definition. Assets:
- (1) the gross value of owner-occupied housing.
- (2) other real estate owned by the household.
- (3) cash and demand deposits.
- (4) time and savings deposits, certificates of deposit, and money market accounts;

What Is Wealth (cont.)?

- (5) government bonds, corporate bonds, foreign bonds, and other financial securities.
- (6) the cash surrender value of life insurance plans.
- (7) the cash surrender value of pension plans, including IRAs, Keogh, and 401(k) plans.

What Is Wealth (cont.)?

- (8) corporate stock and mutual funds.
- (9) net equity in unincorporated businesses.
- and (10) equity in trust funds.
- Total liabilities are the sum of.
 - (1) mortgage debt.
 - (2) consumer debt, including auto loans.
 - and (3) other debt, including educational loans.

What Is Wealth (cont.)?

- NOT INCLUDED:
- 1. Value of vehicles (standard FRB tables INCLUDE this).
- 2. Other consumer durables.
- 3. The value of future social security benefits the family may receive upon retirement (usually referred to as "social security wealth"), as well as the value of retirement benefits from private pension plans ("pension wealth").

Sources of Wealth Data

- 1. 1983, 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, 2013, and 2016 Survey of Consumer Finances (SCF) conducted by the Federal Reserve Board.
- 2. Each survey consists of a core representative sample combined with a high-income supplement.

Selected Data Results.

- 1. Trends in Mean and Median Wealth
- 2. Inequality of Wealth
- 3. Composition of Wealth
- 4. The Effects of Leverage
- 5. Racial / Ethnic Wealth Differences
- 6. Wealth Differences by Age Group

Figure 1. Mean and Median Net Worth, 1983-2016 (in thousands, 2016 dollars)

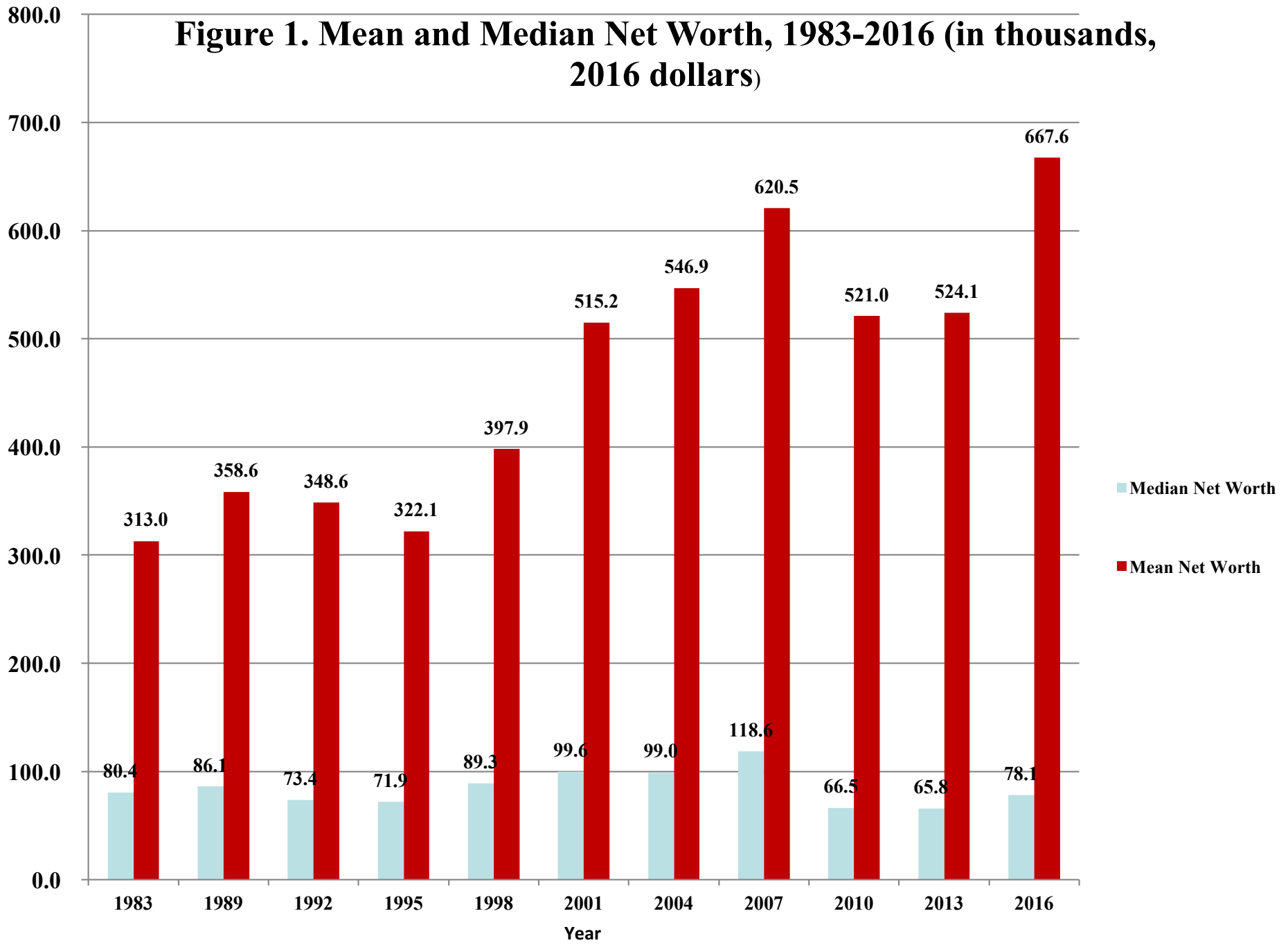


Figure 2. Mean and Median Household Income, 1983-2016 (in thousands, 2016 dollars)

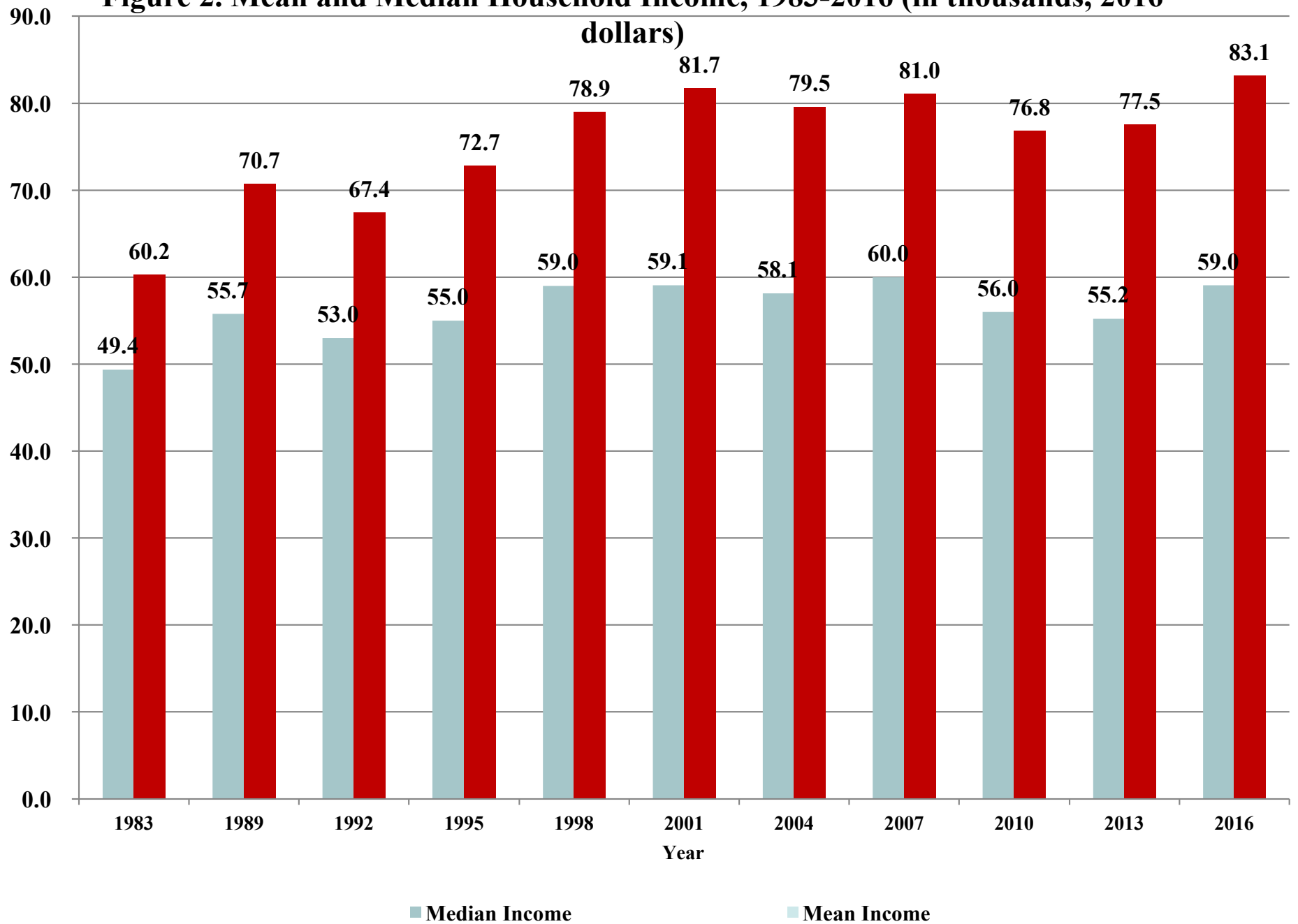


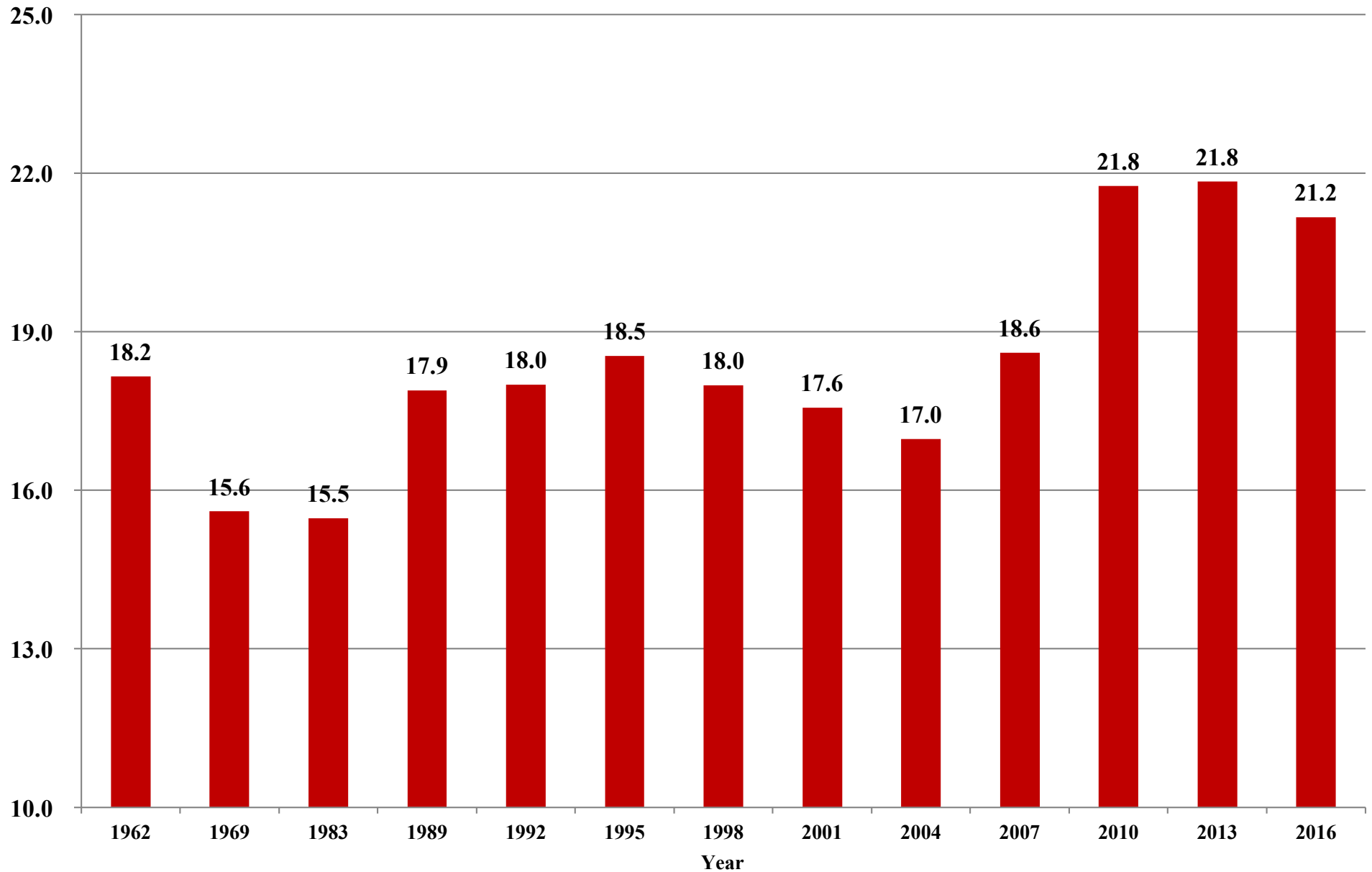
Table 1. Wealth and Income Trends, 1983-2007
(constant dollars)

	% Change	% Change	% Change
	<u>1983- 2001</u>	<u>2001- 2007</u>	<u>1983- 2007</u>
Median NW	23.9	19.1	47.5
Mean NW	64.6	20.4	98.2
Median Income	19.7	1.6	21.6

Table 1 (cont.) Wealth and Income Trends, 2001-2016 (constant dollars)

	% Change	% Change	% Change
	2001-2007	2007-2010	2010-2016
Median NW	19.1	-43.9	-17.4
Mean NW	20.4	-16.0	28.2
Median Income	1.6	-6.7	5.5

Figure 3. Percentage of Households with Zero or Negative Net Worth, 1962-2016



**Figure 4 The Size Distribution of Net Worth (NW) and Income, 2016
(Percentage Shares)**

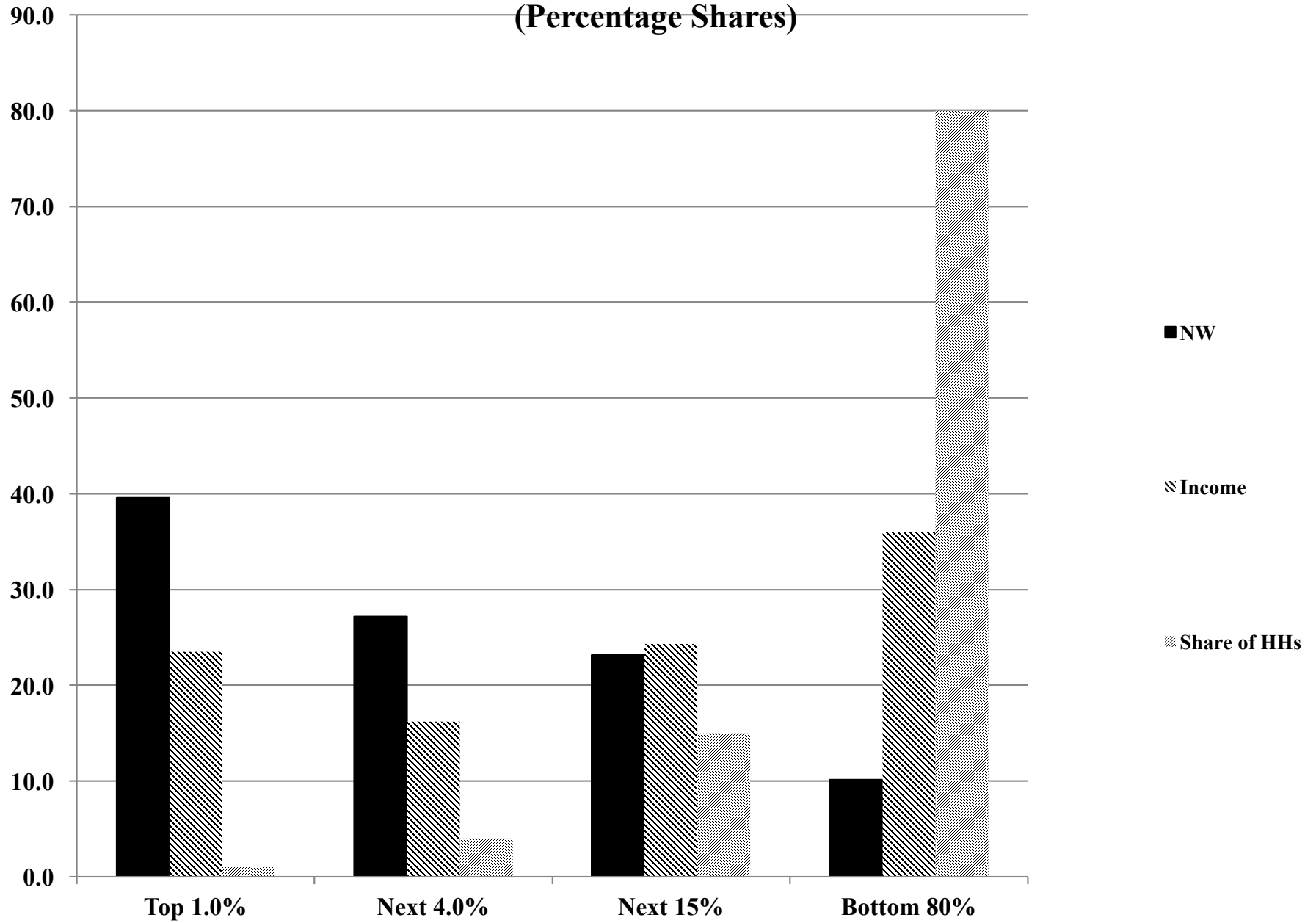


Figure 5. Wealth and Income Inequality, 1983-2016 (Gini coefficients)

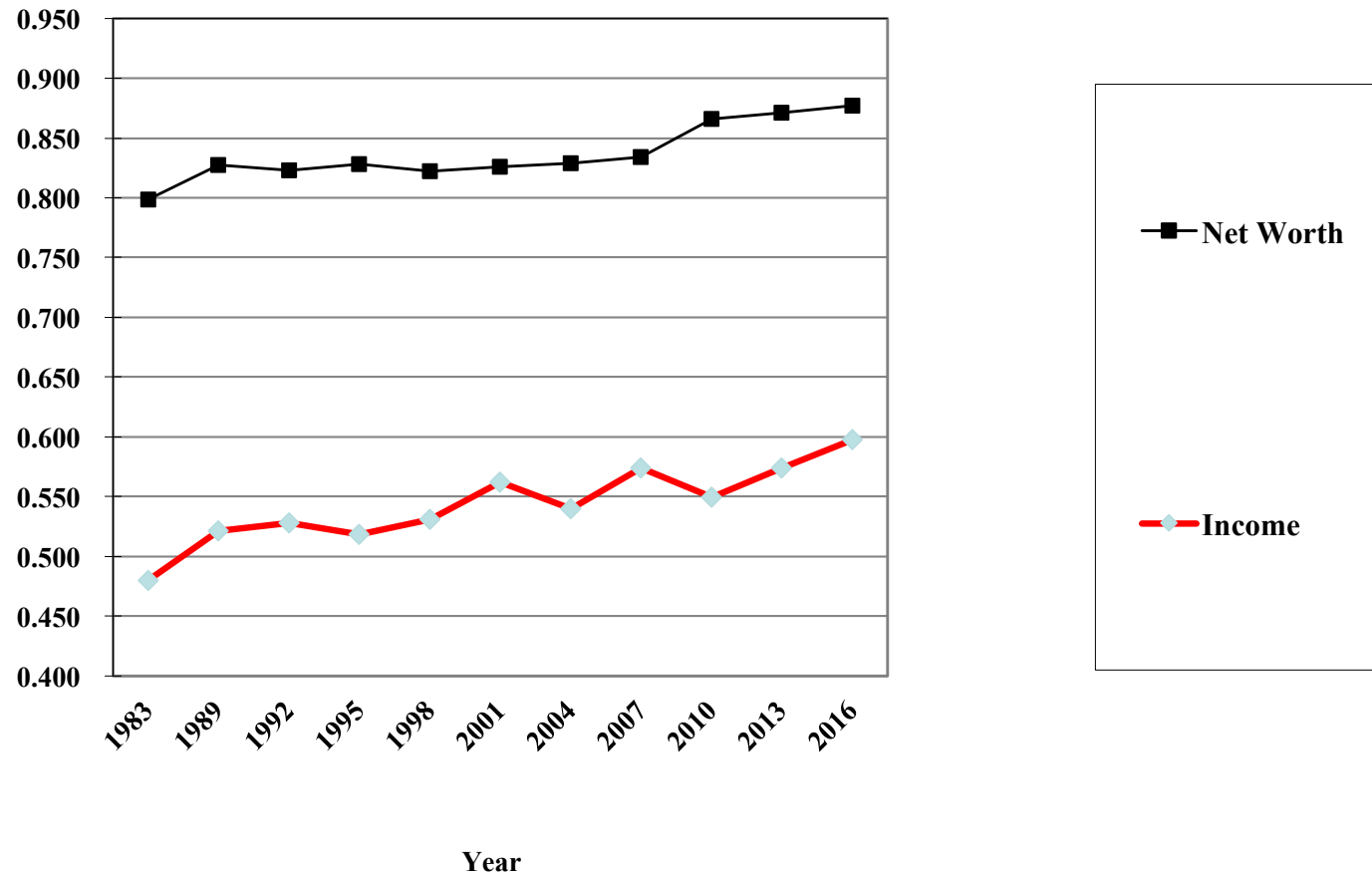


Table 2. Wealth Inequality Trends, 2007-2016

<u>NW Shares</u>	<u>2007</u>	<u>2010</u>	<u>2016</u>
Top 20%	85.0	88.6	89.9
Next 20%	10.9	9.5	8.2
Middle 20%	4.0	2.7	2.4
Bottom 40%	0.2	-0.8	-0.5
Gini Coeff.	0.834	0.866	0.877

Table 2 (cont). Income Inequality Trends, 2006-2015

<u>Income Shares</u>	<u>2006</u>	<u>2009</u>	<u>2015</u>
Top 20%	61.4	59.1	64.0
Next 20%	17.8	18.7	16.8
Middle 20%	11.1	14.9	10.2
Bottom 40%	9.6	7.3	9.0
Gini Coeff.	0.574	0.549	0.598

Figure 6 Composition of Household Wealth, 1983 and 2016 (percent of gross assets)

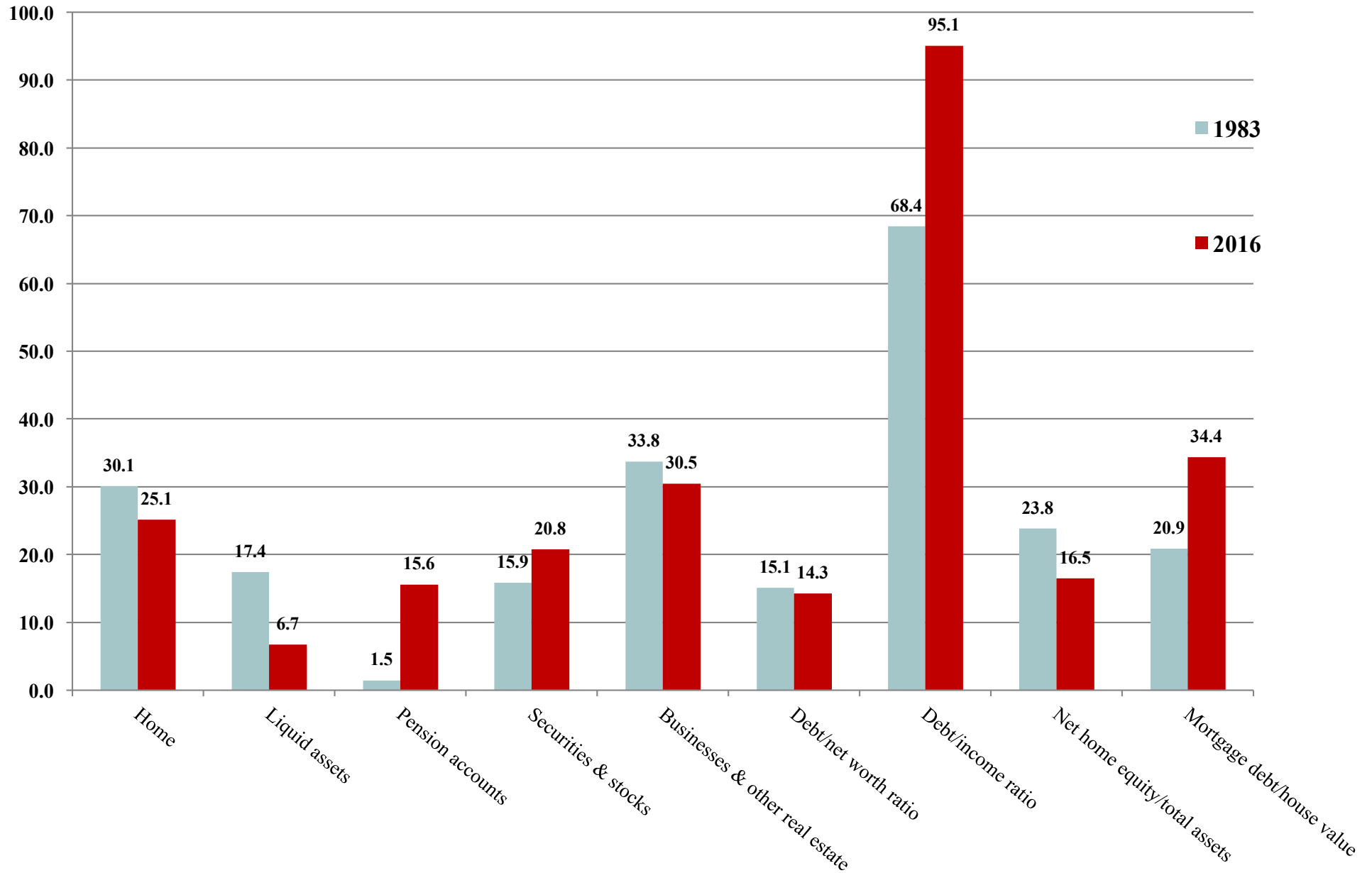


Figure 7. Composition of Household Wealth by Wealth Class, 2016 (percent of gross assets)

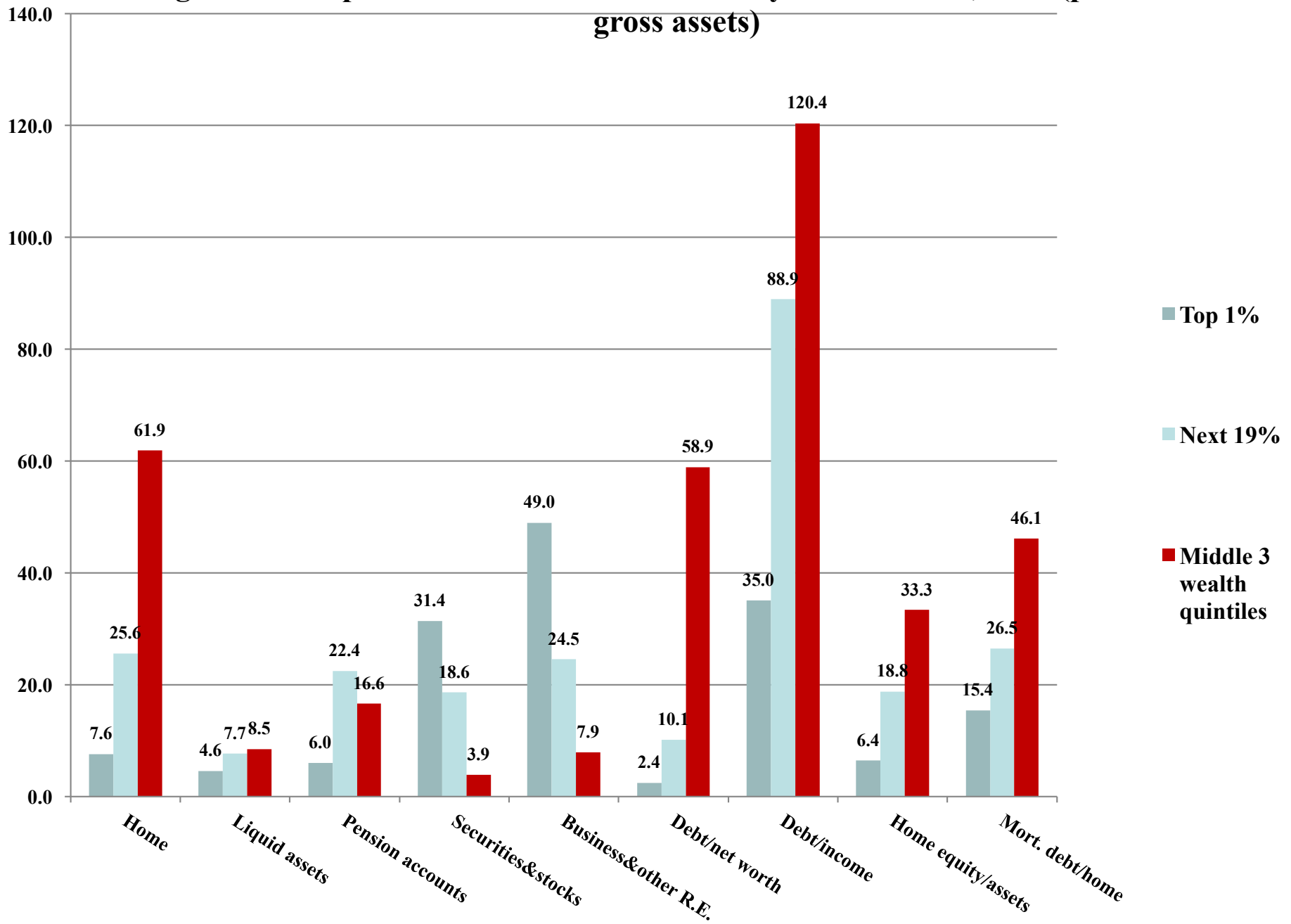


Table 6. Composition of Wealth of Middle 3 Wealth Quintiles, 1983, 2007, 2010 and 2016

<u>Ratio</u> (percent)	<u>1983</u>	<u>2007</u>	<u>2010</u>	<u>2016</u>
Debt/NW	37.4	61.1	69.2	58.9
Debt/Inc.	66.9	156.7	134.3	120.4
Home Equity/Tot al Assets	43.8	34.8	31.4	33.3
Mort. Debt / House Value	28.8	46.6	51.5	46.1

Table 7. Average Debt, All Households, 2007-2016
(1000s, 2016\$)

	<u>2007</u>	<u>2010</u>	<u>2016</u>	% Chng <u>2007- 2010</u>	% Chng <u>2010- 2016</u>	% Chng <u>2007- 2016</u>
Mort. Debt	83.9	79.7	66.0	-5.0	-17.2	-21.3
Other Debt	28.5	27.8	29.5	-2.6	6.4	3.7
Total Debt	112.4	107.5	95.5	-4.4	-11.1	-15.0

Table 7 (cont) Average Debt, Middle Class, 2007-
2016
(constant dollars)

	% Change	% Change	% Change
	<u>2007-2010</u>	<u>2010-2016</u>	<u>2007-2016</u>
Mort. Debt	-23.1	-10.6	-31.3
Other Debt	-31.6	19.0	-18.6
Total Debt	-24.8	-5.2	-28.7

Table 8. Asset Ownership Rates, All Households, 2010 and 2016 (percent)

<u>Asset</u>	<u>2010</u>	<u>2016</u>	<u>Change</u>
Homes	67.2	63.7	-3.5
Pension Accounts	50.4	52.1	1.7
Businesses	12.1	11.4	-0.7
Total Stocks	46.9	49.3	2.4

Table 8 (cont.) Asset Ownership Rates, Middle Class, 2007, 2010 and 2016 (percent)

<u>Asset</u>	<u>2007</u>	<u>2010</u>	<u>2016</u>	<u>Change</u>
Homes	76.9	68.0	67.0	-9.9
Pension Accounts	53.4	45.8	48.9	-4.5
Business	8.8	8.2	7.8	-1.0
Total Stocks	47.8	41.4	45.0	-2.8

Table 11a. Average Annual Rate of Return by Period and Wealth Class, 2001-2016 (percent)

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
<u>Gross Assets</u>			
Top 1%	3.86	-6.37	5.75
Middle	2.95	-7.06	4.15
<u>Net Worth</u>			
Top 1%	4.03	-6.52	5.96
Middle	5.95	-10.6	7.82
Difference	1.92	-4.03	1.86

Decomposition Analysis

- 1. The basic equation is:

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- (1)
$$\Delta W_{ct} \equiv W_{ct} - W_{c,t-1} = r_{ct} W_{ct-1} + s_{ct} Y_{ct} + G_{ct}.$$

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- where W_{ct} = net worth (in constant dollars) for age (or birth) cohort c at time t , r = real rate of return on wealth, Y = household income (in constant dollars), s = savings rate out of household income Y , and G = net inheritances and gifts (in constant dollars).

Decomposition Analysis (cont.)

- 2. We can directly estimate ROR effect: $r_{ct}W_{ct-1}$
- 3. The residual consists of
 - (a) Net wealth transfers (generally small)
 - (b) Net savings
 - (c) Leakages: (i) charitable contributions;
 - (ii) someone could die in this time interval and pay estate taxes or leave a charitable bequest
 - (iii) outflows if an American resident emigrates from the U.S. and takes wealth out of the U.S.
 - (d) Additions: (i) immigrants bring new wealth in.

Decomposition Analysis (cont.)

- 4. The *identity* of the households will, in general, change over time. The two main sources are deaths and the formation of new households from marriage, children moving out of the home, and the like.
- 5. Changes in *mean* wealth over time will also be affected by changes in the household count, which may come about from deaths, the formation of new households, emigration, and immigration.

Decomposition Analysis (cont.)

- 6. The comparison becomes more complicated when we consider wealth classes. The same issues of attrition and new entrants apply. In addition, households may shift their wealth class over time. For example, the households in the top 1% say in 1983 may not be the same as those in the top 1% in 1989. There is a regression to the mean over time, and some households in the top 1% in 1983 may have slipped to the next 19% say.
- 7. In the case of the top 1%, , if we call ROR the change in the mean wealth of the top one percent emanating only from capital appreciation on initial wealth, then $ROR / \Delta W$ only is a *lower bound* on $ROR / \Delta W^*$, and the contribution of the ROR effect to the change in mean wealth over the period will be biased *downward*.

Table 12. Decomposition of the Percentage Change in Median Net Worth, 2001-2016

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
Capital Gains	39.8	-27.1	52.7
Residual	-20.7	-16.8	-35.3
Net Worth	19.1	-43.9	17.4

Table 12a. Decomposition of the Change in the Ratio of the Mean Wealth of the Top One Percent to Median Net Worth, 2001-2016

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
Actual Change	8.2	91.5	65.8
Capital Gains	-16.4	23.3	-22.2
Residual	24.6	68.2	88.0

Figure 11. Ratio of Mean Net Worth between Racial and Ethnic Groups, 1983-2013

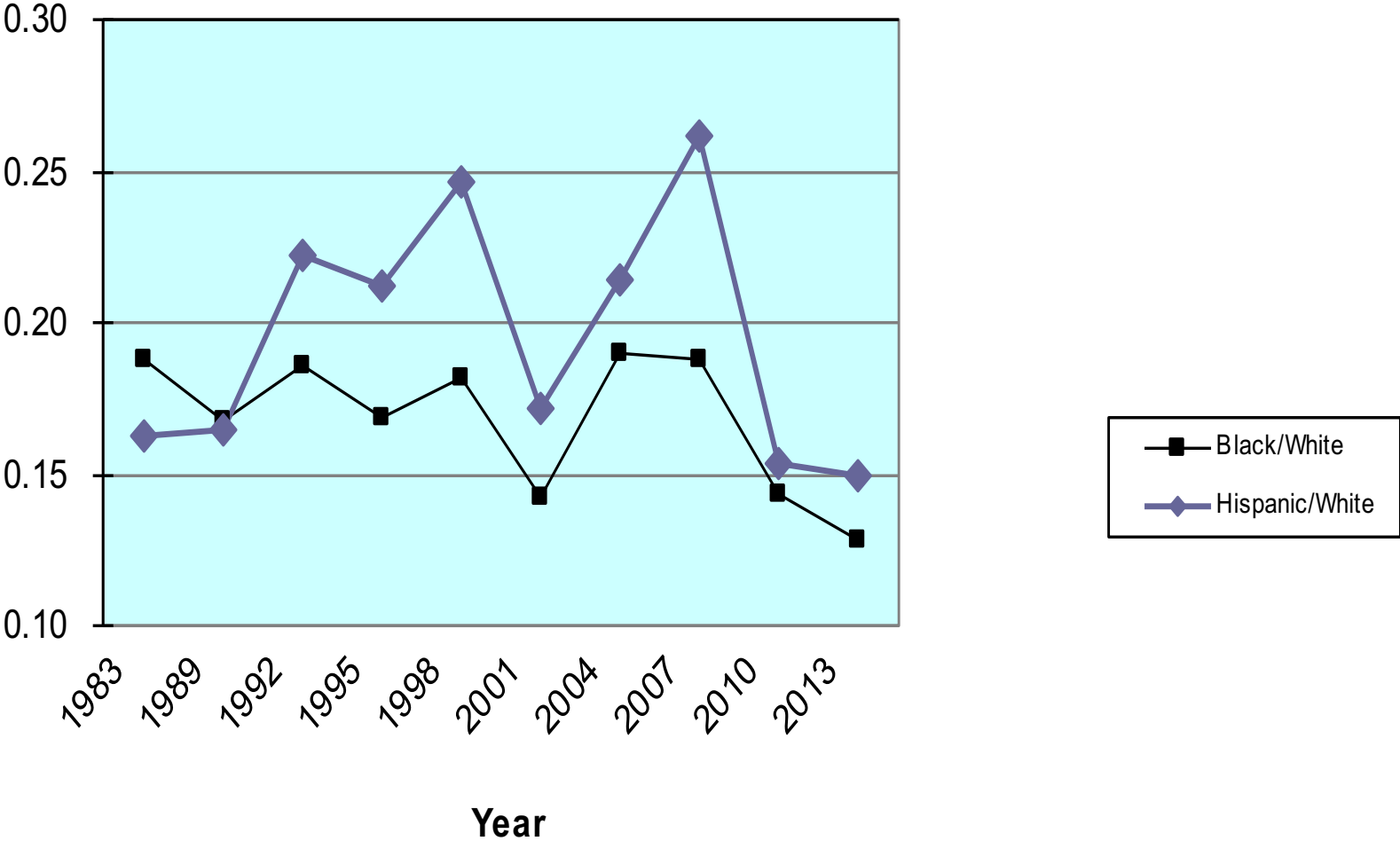


Table 13. Ratios of NW, Income, and Home Ownership between Blacks and Whites

	<u>Mean NW</u>	<u>Median NW</u>	<u>Median Income</u>	<u>Home Ownership Rate</u>
2001	0.14	0.10	0.57	0.64
2007	0.19	0.06	0.60	0.65
2010	0.14	0.05	0.59	0.64
2013	0.13	0.01	0.56	0.60
2016	0.14	0.02	0.58	0.61

Table 13a. Ratio of NW, Income, and Homes between Hispanics and (Non-Hisp.) Whites

	<u>Mean NW</u>	<u>Median NW</u>	<u>Median Income</u>	<u>Home Ownership Rate</u>
2001	0.17	0.03	0.55	0.60
2007	0.26	0.06	0.70	0.66
2010	0.15	0.01	0.67	0.63
2013	0.15	0.02	0.59	0.60
2016	0.19	0.04	0.65	0.63

Table 14. Portfolio Composition by Race and Ethnicity, 2007

	Whites	Blacks	Hispanics
House value/ gross assets	30.8	54.0	52.5
Debt / equity ratio	15.4	55.3	51.1
Debt / income ratio	109.0	152.2	187.9
Mortgage debt / house value	32.4	49.4	45.2
<u>Annual Rate of Return on Net Worth (percent)</u>			
2001-2007	3.87	6.00	6.51
2007-2010	-7.07	-9.92	-10.76
2010-2013	6.12	7.14	7.48
2013-2016	6.32	8.53	8.33

Table 14a. Decomposition of the Change in the Ratio of Mean Wealth between Black and White Households

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
Actual Change	0.046	-0.045	0.001
Capital Gains	0.019	-0.015	0.013
Residual	0.026	-0.029	-0.012

Table 14b. Decomposition of the Change in the Ratio of Mean Wealth between Hispanic and White Households

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
Actual Change	0.089	-0.107	0.036
Capital Gains	0.030	-0.027	0.015
Residual	0.060	-0.080	0.021

Figure 12. Ratio of Mean Net Worth of Young Age groups to Overall Mean Net Worth, 1983-2016

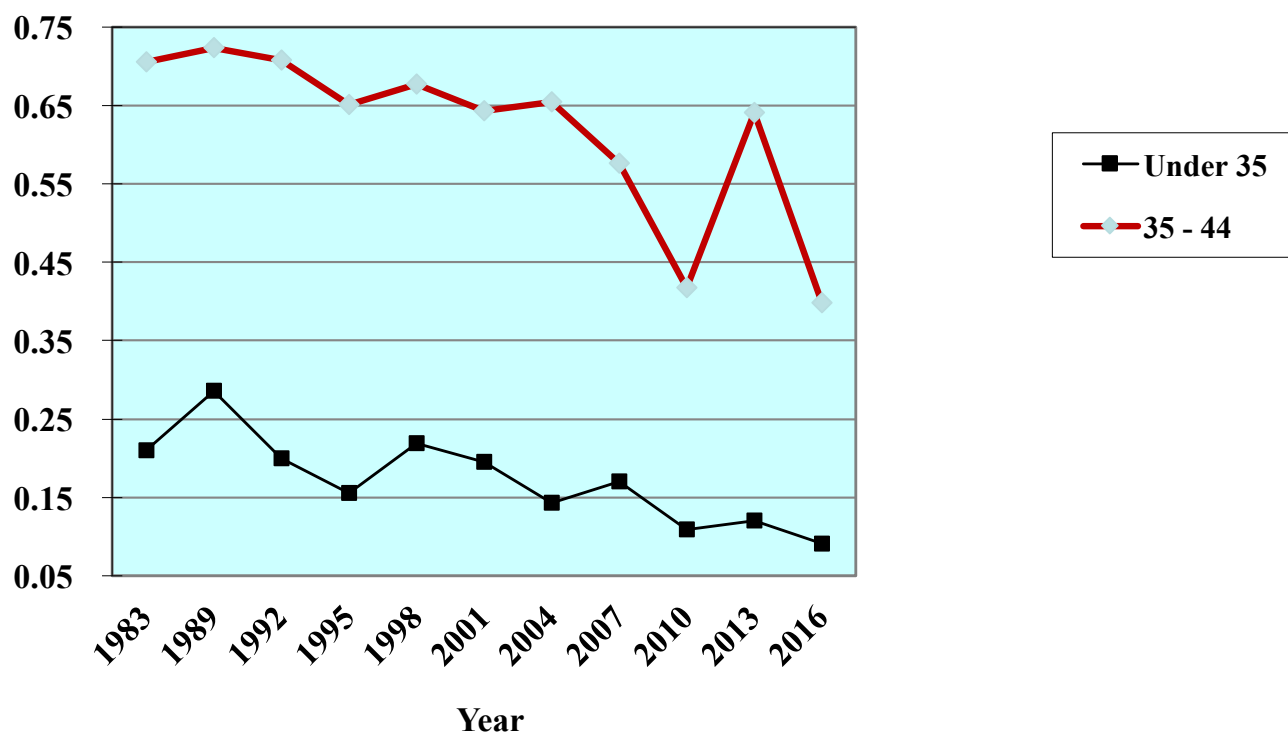


Table 15. Composition of Household Wealth by Age Class, 2007

	All	Under 35	35-44
House value / gross assets	32.8	54.3	43.7
Debt / equity ratio	18.1	92.7	41.3
Debt / income ratio	118.7	167.5	156.5
Mortgage debt / house value	34.9	65.4	51.4
<u>Annual Rate of Return on Net Worth (in percent)</u>			
2001-2007	4.04	7.90	5.63
2007-2010	-7.28	-13.49	-9.56
2010-2013	6.20	10.70	7.50
2013-2016	6.46	11.99	8.06

Table 15a. Decomposition of the Change in the Ratio of Mean Wealth between Age Group Under 35 and All Households

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
Actual Change	-0.025	-0.061	-0.018
Capital Gains	0.051	-0.053	0.079
Residual	-0.076	-0.008	0.098

Table 15b. Decomposition of the Change in the Ratio of Mean Wealth between Age Group 35-44 and All Households

	<u>2001-2007</u>	<u>2007-2010</u>	<u>2010-2016</u>
Actual Change	-0.068	-0.158	-0.020
Capital Gains	0.064	-0.074	0.096
Residual	-0.132	-0.085	0.116

A. Principal Findings for the Great Recession, 2007-2010

- 1. Housing prices fall by 24% in real terms.
- 2. Stock prices down by 26% in real terms.
- 3. Median wealth plummets by 44% in real terms (with vehicles by 38%).
- 4. Mean wealth down by “only” 16%.
- 5. Median income falls by 6.4 percent.
- 6. Mean income down by 5.0 percent.

Principal Findings- Recession (cont.)

- **7. Negative rate of return (ROR) explains 62% of decline in median NW; residual explained 38%.**
- 8. Wealth inequality spikes upward: (a) Gini coefficient rises from 0.834 to 0.866.
- (b) Share of top 20 percent up from 85 to 89 percent.
- **9. ROR differential explained 25%, residual explained 75%.**
- 10. Income inequality falls: (a) Gini coefficient falls from 0.574 to 0.549.
- (b) Share of top 1% down from 21.3 to 17.2 percent.

Principal Findings - Recession (cont.)

- 11. Racial disparity in wealth holdings spikes upward, with the ratio of mean wealth between blacks and whites dropping from 0.19 to 0.14.
- 12. **ROR differential explained 35%, residual explained 65%.**
- 13. Hispanic families get hammered, with the ratio of mean wealth plunging from 0.26 to 0.15.
- 14. **ROR differential explained 26%, residual explained 74%.**

Principal Findings - Recession (cont.)

- 15. Young families also get pummeled, with the ratio of mean wealth between household under age 35 and all households plunging from 0.17 to 0.11, and that between age group 35-44 and all from 0.58 to 0.42.
- 16. **ROR differential explained 87% and residual explained 13% for age group under 35 and 46% and 54% respectively for age group 35-44.**

B. Principal Findings for the Recovery, 2010-2016

- 1. Home prices increase by 26% in real terms.
- 2. Stock prices up by 60% in real terms.
- 3. Median wealth up by 17% in real terms, though still 34% below 2007 peak.
- 4. Mean wealth up by 28% and above previous 2007 peak.
- 5. Median income rises by 5.5 percent, though still slightly below 2007 level.
- 6. Mean income up by 8.3 percent and above 2007 level.

Principal Findings - Recovery (cont.)

- **7. ROR explains 304% of gain in median NW; residual explained -204%.**
- 8. Wealth inequality rises somewhat: (a) Gini coefficient up from 0.866 to 0.877.
- (b) Share of top 20% up slightly from 89.6% to 89.9%.
- (c) But share of top 1% up sharply from 35.1% to 39.6%.
- **9. ROR differential explained -34%, residual explained 134%.**
- 10. Income inequality up sharply: (a) Gini coefficient from 0.549 to 0.598.
- (b) Share of top 1% up from 17.2 to 23.5 percent.

Principal Findings - Recovery (cont.)

- 11. Racial disparity in wealth holdings showed little change.
- 12. Ratio of mean wealth between Hispanic and white families recovered from 0.15 to 0.19.
- **13. ROR differential explained 41%, residual explained 59% of increase in Hispanic/white ratio.**

Principal Findings - Recovery (cont.)

- 14. The relative wealth of both the under 35 and the 35-44 age groups continued to deteriorate between 2010 and 2016.
- 15. **ROR differential explained -432% and residual explained 332% for relative decline in mean wealth of age group under 35 and -490% and 390% respectively for age group 35-44.**