Joint Center for Housing Studies Harvard University

Growing Wealth, Inequality, and Housing in the United States Zhu Xiao Di February 2007 W07-1

© by Zhu Xiao Di. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quotes without explicit permission provided that full credit, including © notice, is given to the source.

Any opinions expressed are those of the author and not those of the Joint Center for Housing Studies of Harvard University or of any of the persons or organizations providing support to the Joint Center for Housing Studies.

© 2007 President and Fellows of Harvard College. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notices, is given to the source.

#### **Abstract**

The rapid growth of household wealth in the United States has been accompanied by drastic growing inequality. This paper discusses both wealth and inequality growth, examines demographic factors behind the growth, and analyzes housing's role in it, using the Survey of Consumer Finances data collected by the Federal Reserve Bank. While aggregate household net wealth grew from \$25.9 trillion in 1995 to \$50.1 trillion in 2004 (both in 2004 dollars), nearly 90 percent of the net gains occurred only among the top quartile of households in the wealth distribution. Although housing wealth (both home equity and housing value) was still more evenly distributed than other types of wealth, it largely served to widen the wealth gap rather than to narrow it during the last decade.

#### **Introduction**

Household wealth in the United States experienced rapid growth during the past decade despite a recession and slow recovery after the stock market crash in 2000. According to Survey of Consumer Finances (SCF) conducted by the Federal Reserve Bank, aggregate household net wealth nearly doubled from \$25.9 trillion in 1995 to \$50.1 trillion in 2004 in real 2004 dollars.<sup>1</sup> How much did that rapid growth in wealth during the recent decade affect wealth distribution and has it increased inequality? Furthermore, what was the role of housing throughout this process? Those are the questions that this paper tries to answer.

The typical metaphor used to describe wealth or income growth is a rising tide lifting all the boats, but that image does not catch the true nature of rapid wealth growth. As low-income households have difficulty making ends meet and high-income households have better investment opportunities with reduced risks through more diversified financial holdings and access, wealth growth often means no growth at the lower end but huge growth at the top. Growing inequality in the distribution of household wealth consequently accompanies growing wealth over time. In fact, even if the rich and the poor experienced the same speed of growth, the absolute gap between the rich and poor would keep enlarging due to the difference in the size of the base.

From a longer historic perspective, economic and wealth growth in the United States during the postwar period has already produced growing inequality in this country. As Keister and Moller (2000) point out, while inequality of wealth was consistently more extreme throughout Europe for many decades, by the early 1990s, the United States had surpassed all industrial societies in the extent of inequality of household wealth.<sup>2</sup> By 1997, one man, Bill Gates, was worth about as much as the 40 million American households at the bottom of the wealth distribution.<sup>3</sup>

1

<sup>&</sup>lt;sup>1</sup> The Flow of Funds Data (FFD), also published by the Federal Reserve Bank, show that the net worth of households and non-profit organizations went up from \$35.5 trillion in 1995 to \$52.1 trillion in 2005 in real term. Traditionally, the aggregate wealth level from the SCF data has been much smaller than that from the FFD data except for 2001. Despite the fact that FFD figures include wealth holdings by non-profit organizations and many other differences in definitions and processes of data collection, staff at the Federal Reserve still could not reconcile the discrepancy between the two datasets. For more details comparing the two data sets, see Antoniewicz, Rochelle L. "A Comparison of the Household Sector from the Flow of Funds Accounts and the Survey of Consumer Finances", Federal Reserve Board of Governors, October 2000.

<sup>&</sup>lt;sup>2</sup> Lisa A. Keister and Stephanie Moller, Annual Review of Sociology, Vol. 26 (2000).

<sup>&</sup>lt;sup>3</sup> Edward N. Wolff, "Recent Trends in the Size Distribution of Household Wealth," *The Journal of Economic Perspectives*, Vol. 12, No. 3 (Summer, 1998).

Interestingly, Edward Wolff (1998)<sup>4</sup> found that wealth inequality actually leveled off from 1989 to 1995, a slow growth period, after rising steeply between 1983 and 1989, a fast growing period. These findings support the idea that growing inequality accompanies wealth growth.

As an extension of existing research, this paper uses the newly released 2004 SCF data to look at the growth between 1995 and 2004, a period of remarkably fast growth, which may make the issue crystal clear. The consequent policy concern is to ensure that the poor can accumulate wealth in an absolute sense, so that they experience wealth growth, even if the wealthy still experience greater growth.

This paper is structured around three key sections: 1) wealth inequality and household net wealth growth; 2) demographic factors behind the rapid growth in household net wealth; and 3) housing wealth in relation to rapid wealth growth and increasing inequality. The arguments are based on cross sectional descriptive statistics from micro SCF data released for public use.

#### **Data and Method**

The SCF data are microdata collected and publicly released every three years in a stabilized and unified format since 1989. Because the survey over samples wealthy households, it captures the aggregate amount of household wealth more accurately than any other wealth data in the United States. Since SCF data have micro level details for analyzing longitudinal change, this paper relies on the 1995 and 2004 SCF data to report and analyze the growth of household wealth in the United States. One reason for focusing on this period rather than the more recent period between 2001 and 2004 is that the 2001 SCF data apparently contain some overestimates of stock wealth. Even though the stock market had a notorious price correction in 2000, the reported value of stock wealth in the 2001 SCF data did not reflect that change at all.<sup>5</sup> To analyze housing wealth change and its role in the overall distribution of household wealth accurately, it is best to place it in the context of a longer historical perspective. The 1995-2004

<sup>&</sup>lt;sup>4</sup> Edward N. Wolff, "Recent Trends in the Size Distribution of Household Wealth," *The Journal of Economic Perspectives*, Vol. 12, No. 3 (Summer, 1998).

<sup>&</sup>lt;sup>5</sup> When interviewed in 2001, households seemed to report a still high level of stock wealth while the actual stock market already had its dramatic downfall.

period catches a more complete economic cycle, as there were recessions at the beginning of both decades.

The SCF data have a major limitation in terms of sample size, since each survey interviewed fewer than 5,000 households. This makes it impossible to investigate small subgroups. In this paper, the two race/ethnic groups compared are non-Hispanic whites and all minorities. Quartiles are used to examine wealth and income distribution overtime, and sometimes the top two deciles are used to highlight the imbalance in the distribution. In some cases, the top one percent is compared with the bottom half of all households. The sample size for the top one percent is admittedly small, less than 50 cases, but both Wolff (1998) and Keister and Moller (2000) have used it in their reports, as well. All dollar figures in this paper are in 2004 constant dollars adjusting for inflation using the factors provided by SCF, and data sources are the 1995 and 2004 SCF data for public use unless otherwise stated. Descriptive statistics are used with weights to adjust to the level of the total number of households in the nation. The SCF data do not benchmark with either the Current Population Survey or Housing Vacancy Survey of the Census Bureau and readers should be aware of a potential discrepancy in reported statistics regarding the number of households due to this difference.

#### Wealth Inequality and Household Net Wealth Growth

It is well known that the distribution of household net wealth is even more unbalanced than that of household income. Net wealth is defined as all assets net out all debts. In 2004, the top quartile of the household net wealth distribution held the lion's share—87 percent (or \$43.6 trillion) while the bottom quartile of households had nothing. The upper and lower middle quartiles combined held \$6.5 trillion, or 13 percent of total household net wealth (see Chart 1).

3

Chart 1:





In other words, the bottom 28 million of American households in 2004 had nothing once their debt is netted out, and another 28 million households had only \$47,153 on average in net wealth. The top 28 million households had \$1,556,801 of net wealth on average, or 33 times that of the lower middle quartile in the wealth distribution. In contrast to the wealth distribution, the annual household income distribution in 2004 was much less uneven, with the top quartile having a share of 65 percent of total aggregate income, while the bottom quartile had at least a 4 percent share. The bottom 28 million households had an average household income of \$12,688, but the lower middle 28 million households fared better, with \$31,803 on average. The top 28 million households, on the other hand, had \$177,265 on average, or more than 5 times that of the lower middle quartile. Nevertheless, both wealth and income distributions were less balanced by 2004 than in 1995, as indicated by the ratios of averages of top to lower middle quartiles (see Table 1).

## **Table 1:**

(In 2004 Dollars)								
By Distributions	Income							
	1995	2004	1995	2004				
Top Quartile	885,934	1,556,801	135,417	177,265				
Upper Middle Quartile	122,490	185,537	49,264	57,310				
Lower Middle Quartile	37,634	47,153	27,156	31,803				
Bottom Quartile	(204)	(1,344)	9,822	12,688				
Ratio of Top to Lower Middle	23.5	33.0	5.0	5.6				

**Comparisons of Wealth and Income Distribution** 

The difference between inequalities in wealth and income is quite natural, as one is from a stock perspective and the other is from a flow perspective. Low income households have to spend most or all of their incomes on life necessities with little capability of saving and investment so they can hardly accumulate any household net wealth. Thus they often remain in the bottom distribution of household wealth with nothing; the exception is the group of low income senior households who recently fell into the low-income category due to retirement and the loss of income. In short, while the bottom quartile of income distribution still has income, the bottom quartile of wealth distribution does not have any wealth net of debt.

During the period between 1995 and 2004, a growth of \$24.2 trillion was achieved in aggregate household net wealth in the United States, nearly doubling its 1995 level. In the process of this rapid growth, the wealth of the top quartile of households gained \$21.7 trillion. In other words, 89 percent of the total net growth from 1995 to 2004 took place among the wealthiest households (see Chart 2).

5

#### Chart 2:

#### Wealth Growth Mostly Came from the Top Quartile



Although some individual households may move in and out of the top wealth quartile over time, wealth mobility is not that common or easy unless through inheritance. If we view our aggregate household net wealth nationwide in 1995 as possessing a huge pie, we nearly doubled the size of the pie by 2004. The top wealth quartile had the lion's share of 84 and 89 percent, respectively in both the 1995 pie and the new pie of net wealth growth between 1995 and 2004. Most remarkably, the share held by the two middle quartiles shrank from 16 percent in 1995 to 13 percent by 2004 because the two middle quartiles had only 11 percent net growth between 1995 and 2004.

As a result, the rapid growth in household wealth during the period produced an even more unbalanced distribution of wealth than before, with the top quartile nearly doubling from \$21.9 trillion to \$43.6 trillion, while the bottom quartile still had nothing. The two middle wealth quartiles only had a meager growth of \$2.6 trillion, occurring almost exclusively among the upper middle wealth quartile (\$2.2 trillion) (see Chart 3).

#### Chart 3:

The Growth of Wealth Mostly Occurred Among the Top Wealth Quartile of Households



Not only did wealth distribution become far more unequal, but households with higher income also became much wealthier than their low-income counterparts. Income and wealth distributions are not expected to correlate perfectly because retired senior households have lots of wealth but greatly reduced incomes. Nevertheless, compared to 1995, higher income households in 2004 had much more wealth, while wealth growth among lower income households was much slower. This is true when measuring either the aggregates, the means, or the medians of household net wealth between 1995 and 2004 by household income quartiles (see Table 2).

## Table 2:

8

TT! - 1 T	II	337 141- 17 4	41 T	T
HIGNER INCOME	HANGENAIDS L-PEV	v vvesitn Rister	' Inan L'Awer	Income Housenoids
inghei meome	HUUSCHUIUS OIC	v vv cartin r aster	than Lower	mediate mousemonus

Among All Households						
	Aggregate Net Wealth (Millions of \$)					
Income Distribution	1995	2004	<b>Growth Rate</b>			
Top Quartile	\$17,912,000	\$36,025,800	101%			
Upper Middle Quartile	\$3,784,140	\$7,963,380	110%			
Lower Middle Quartile	\$2,689,060	\$3,833,360	43%			
Bottom Quartile	\$1,503,310	\$2,289,690	52%			
		Mean Net Wealth				
Income Distribution	1995	2004	<b>Growth Rate</b>			
Top Quartile	\$702,865	\$1,260,405	79%			
Upper Middle Quartile	\$155,308	\$282,422	82%			
Lower Middle Quartile	\$106,044	\$139,873	32%			
Bottom Quartile	\$63,186	\$82,032	30%			
	N	Iedian Net Wealth				
Income Distribution	1995	2004	<b>Growth Rate</b>			
Top Quartile	\$214,138	\$422,400	97%			
Upper Middle Quartile	\$72,795	\$124,500	71%			
Lower Middle Quartile	\$44,911	\$44,740	0%			
Bottom Quartile	\$9,479	\$9,960	5%			

For example, the average household net wealth among top quartile income households in 2004 was about \$1.26 million, compared to only about \$700,000 in 1995. Meanwhile, the top 10 of the percent highest income group had even more dramatic gains, nearly doubling on average and amounting to more than twice as much at the median (see Chart 4). While a certain degree of wealth inequality is inevitable, it is unusual for the level of inequality to rise so substantially within such a short period of time.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> Edward N. Wolff (1998) also expressed concerns about the troubling increase in wealth inequality. "Recent Trends in the Size Distribution of Household Wealth," *The Journal of Economic Perspectives*, Vol. 12, No. 3 (Summer, 1998).

<sup>© 2007</sup> President and Fellows of Harvard College. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

## Chart 4:







## Demographic Factors behind the Rapid Growth in Household Net Wealth

A major demographic change that took place during this period was the aging of baby boomers. As a result, there were nearly 8.5 million more households headed by people in their 50s in 2004 than in 1995 (see Chart 5). Because household wealth usually peaks around these ages, the growth in the number of households in this age group helps explain some of the observed rapid growth in household net wealth and its unequal distribution during this period.

## Chart 5:

Many More Households Became Headed by People in Their 50s



Households headed by people in their 50s or over dominate wealth holdings in this country. In 2004, the aggregate net wealth in the hands of households headed by those in their 50s amounted to nearly \$15 trillion. Households headed by those in their 60s held about \$11 trillion in total aggregate net wealth, as did households headed by those over 70 (see Chart 6). Together, these three groups held \$37.2 trillion worth of net wealth or 74 percent of total household net wealth, while accounting for only 49 percent of all households.

## Chart 6:

Three Quarters of Aggregate Household Net Wealth was Held by half of the Households,





It is particularly remarkable that those in their 60s had the most wealth growth on average. They not only greatly expanded their wealth within a decade as they moved to the next stage in the life cycle of wealth accumulation, but they also had nearly twice as much wealth as the age cohort ahead of them when that cohort was at a similar age in 1995 (see Chart 7). Several possible reasons may help explain this phenomenon. A later retirement age lessens the need for seniors to spend their accumulated wealth. Post-war prosperity in the United States complied with huge income growth over life relative to cohorts ahead of them provided more opportunities to save and accumulate wealth. An increase in defined contribution retirement plans, which SCF captures while ignoring defined benefit plans, also makes the wealth growth appear larger in the data for the group reaching retirement age.

#### Chart 7:

Household Heads in Their 60s Made the Largest Increase in Wealth over the Decade



While aging baby boomers have contributed to the rapid wealth growth during recent years, each generation has experienced more unbalanced wealth distribution than the previous generation at a similar age. Table 3 demonstrates such growing inequality over time by measuring net wealth distribution within age groups and looking at the ratio of net wealth at the 75<sup>th</sup> percentile to that at the 25<sup>th</sup> percentile. For example, among households headed by people in their 50s in 1995, the 75<sup>th</sup> percentile (a relatively wealthy household) had net wealth of \$326,094, while the 25<sup>th</sup> percentile (a relatively poor household) had \$49,490 in net wealth. By 2004, a relatively wealthy household had \$563,770 in net wealth, but the relatively poor household only had have \$44,400 in net wealth. In 1995, the net wealth of a wealthy household was 6.6 times that of a poor one, by 2004; the wealthy one had as much as 12.7 times the net wealth of the poor one.

#### Table 3:

1		8						
Net Wealth in 2004 Dollars								
		1995						
By Age of	75 <sup>th</sup> Donoontilo	25 <sup>th</sup> Doncontilo	Datio of 75 <sup>th</sup> to 25 <sup>th</sup>					
Household Head	75 Percentile	25 Percentile	Katio 01 / 5 to 25					
20s	\$41,242	\$492	83.8					
30s	\$106,663	\$6,069	17.6					
40s	\$215,590	\$24,721	8.7					
50s	\$326,094	\$49,490	6.6					
60s	\$359,358	\$36,231	9.9					
70 and over	\$263,455	\$38,632	6.8					
	·	·						
		2004						
By Age of Household Head	75 <sup>th</sup> Percentile	25 <sup>th</sup> Percentile	Ratio of 75 <sup>th</sup> to 25 <sup>th</sup>					
20s	\$36,020	\$1	36020.0					
30s	\$128,100	\$6,300	20.3					
40s	\$338,100	\$22,350	15.1					
50s	\$563,770	\$44,400	12.7					
60s	\$647,200	\$42,500	15.2					
70 and over	\$490,200	\$63,000	7.8					

#### Wealth Inequality Grew Over Time within Age Cohorts

Some of the rapid wealth growth could possibly be attributed to the growth in the number of households from 99 million in 1995 to 112 million in 2004, but that represents just 13 percent growth, and net household growth does not necessarily guarantee aggregate wealth growth. For example, between 1989 and 1995, the SCF data show no growth at all in household net wealth after adjusting for inflation. The aggregate wealth level in 1989 was already \$25.9 trillion in 2004 dollars, even though the number of households in 1989 was only 93 million.<sup>7</sup> The major reason for the stagnant aggregate household net wealth is depreciation in home prices during much of that period. As many homeowners lost value in their homes, the aggregate household net wealth in the nation as a whole declined.

Most of the household growth between 1995 and 2004 came from minorities. The share of minority households increased from 22.4 percent in 1995 to 26.4 percent in 2004, while the share of non-Hispanic whites went down from 77.6 percent in 1995 to 73.6 percent in 2004. Since white households had much more wealth than that of minorities on average, this

<sup>&</sup>lt;sup>7</sup> Incidentally, the Flow of Funds Data show a similar flat trend during the 1989 to 1994 period, with \$31.4 trillion in 1989 and \$32.7 trillion in 1994 in constant 2005 dollars. The 1995 figure was \$35.5 trillion. See Appendix 1.

demographic change does not help explain the rapid growth of aggregate household wealth during the period.

In fact, during the period from 1995 to 2004, minority households fell further behind their non-Hispanic white counterparts. While the median net wealth of a white household went up from \$94,352 in 1995 to \$136,750 in 2004, a 45 percent growth, the median household net wealth of minorities only went up by 22 percent from \$19,021 in 1995 to \$23,200 in 2004 (see Chart 8).

## Chart 8:



Wealth Gap is Enlarged across the Race/Ethnicity Line

When you put race/ethnicity and age factors together, it becomes clear that most of wealth and its growth occurred among those non-Hispanic white households headed by people over 40 years old in the 1995 and 2004 SCF data (see Chart 9).<sup>8</sup> They typically had more than

<sup>&</sup>lt;sup>8</sup> There is a slight difference between grouping the age cohort born between 1945 and 1954 as postwar baby boomers (or the leading boomers) and grouping those born during the 1940s as an age cohort. Traditionally, baby boomers are grouped as two ten-year cohorts, and this grouping has its merits in catching the postwar phenomenon of more childbirths. Yet, many social behavior changes began with the group born just a few years before 1945, and grouping those born in the 1940s as an age cohort serves better in catching the trends in social behavior change. Starting from this cohort, there have been lower marriage rates, lower remarriage rates, higher divorce rates, higher age at first marriage, higher rate of never-married, and higher female labor participation rates. In their youth, they experienced radical social movements during the 1960s and 1970s, and yet in their later life they obtained the most remarkable increase in wealth holdings compared to the age cohort ahead of them. Appendix 2 demonstrates that if

\$100,000 in 1995 and over \$150,000 in 2004 in constant 2004 dollars. A typical non-Hispanic white household headed by someone in their 50s or 60s had more than a quarter of a million dollars in 2004. These households grew their typical net wealth from under \$200,000 in 1995 in 2004 dollars, representing growth rates of over 25 percent, compared to previous age cohorts at a similar age.

## Chart 9:





The gap between non-Hispanic whites and minorities among these age groups also increased over the period. Among those households headed by people in their 60s, the median net wealth of minority households fell from \$30,778 in 1995 to \$17,161 in 2004 in constant 2004 dollars. Even if you ignore this unexplainable decrease as a possible error in the 2004 SCF data, other age groups also show a growing wealth gap (see Table 4).

we use this grouping method instead of the traditional grouping method of baby boomers, we would identify the remarkable wealth achievement of the generation born in the 1940s. Such generational fortune, however, only applies to the non-Hispanic white households, not minority households (See Appendix 2).

## Table 4:

Except for Young Households, the Wealth Gap between Minorities and Non-Hispanic

## Whites Has Enlarged

Median Net Wealth in 2004 Dollars									
	Non-Hispanic Whites		All Minori	ties	White to minority Ratio				
By Age of Household Head	1995	2004	1995	2004	1995	2004			
20s	\$13,419	\$10,070	\$3,607	\$5,000	3.7	2.0			
30s	\$51,817	\$59,650	\$9,603	\$15,900	5.4	3.8			
40s	\$104,250	\$154,140	\$36,933	\$37,880	2.8	4.1			
50s	\$177,771	\$251,900	\$47,151	\$63,350	3.8	4.0			
60s	\$187,497	\$262,400	\$30,778	\$17,161	6.1	15.3			
70 and over	\$136,283	\$212,600	\$52,445	\$54,400	2.6	3.9			

## Housing Wealth in Relation to the Rapid Wealth Growth and Increasing Inequality

In the context of such rapid growth in household net wealth and growing inequality in wealth between 1995 and 2004, housing wealth, measured either as home equity (a component of net wealth) or housing value, grew even faster than household net wealth. In aggregate terms, both home equity and housing value grew more rapidly (113 and 111 percent, respectively) than household net wealth (94 percent), although the growth in stock wealth was still faster (124 percent) (see Table 5).

#### Table 5:

#### Household Wealth Growth by Wealth Types (1995-2004 vs. 1989-1995)

All Households (Millions of 2004\$)									
Aggregate	1995	2004	Growth 1995-2004	1989	Growth 1989-1995				
Net Wealth	\$25,888,500	\$50,112,200	0.94	\$25,875,900	0.00				
Home Equity	\$5,847,470	\$12,450,600	1.13	\$6,850,830	-0.15				
Housing Value	\$9,074,880	\$19,104,400	1.11	\$9,311,270	-0.03				
Stock Wealth	\$4,449,060	\$9,958,440	1.24	\$2,599,770	0.71				
Median Net Wealth	\$70,973	\$93,001	0.31	\$69,377	0.02				
Mean Net Wealth	\$261,501	\$447,041	0.71	\$278,198	-0.06				
Among Homeowners			1						
Median Home Equity	\$61,555	\$86,000	0.40	\$72,329	-0.15				
Mean Home Equity	\$91,282	\$160,848	0.76	\$115,318	-0.21				
Median House Value	\$109,568	\$160,000	0.46	\$103,327	0.06				
Mean House Value	\$141,664	\$246,807	0.74	\$156,734	-0.10				
Among Stock Holders			1						
Median Stock Value	\$17,851	\$24,460	0.37	\$13,285	0.34				
Mean Stock Value	\$111,275	\$182,889	0.64	\$87,968	0.26				
Share of Having Stocks	\$40.4	\$48.6	0.20	\$31.8	0.27				
Share of Having Homes	\$64.7	\$69.1	0.07	\$63.9	0.01				
Total Number of Households	99,010,458	112,110,000	0.13	93,020,101	0.06				

This growth is in contrast to the earlier period between 1989 and 1995, when net wealth did not grow at all, housing wealth had negative growth, but stock wealth grew by 71 percent. Unlike the previous period, housing wealth made a positive contribution to the overall growth of household net wealth during the recent decade. It is also worth noting that while aggregate stock wealth grew faster than that of housing wealth between 1995 and 2004, in absolute terms the net growth in aggregate housing wealth (\$10 trillion) was nearly twice as much as that of stock wealth (\$5.5 trillion).

Also, at the individual household level, housing wealth grew faster among homeowners than stock wealth among stock holders between 1995 and 2004. A typical homeowner had 40 percent greater home equity in 2004 than in 1995, while a typical stockholder only increased his/her stock portfolio value by 37 percent. The same is true when measured as means instead of medians. Homeowners grew home equity by 76 percent on average, while stock holders grew stock value by 64 percent. This growth is partly due to rapid home price appreciation. In fact, if not for the changed behavior of assuming far more mortgage debt than before, homeowners would have even more home equity today.<sup>9</sup>

Even with a substantial amount of equity liquidation through refinancing, home equity loans, and lines of credit, home equity levels kept growing at an impressive rate. Such growth, however, had quite a different distribution across income levels. Higher income households grew home equity at a much faster speed than low income households. While homeowners in the top quartile of household income distribution more than doubled their home equity and nearly doubled their housing value on average, homeowners among the bottom quartile of household income distribution only saw 32 percent gain in home equity and a 42 percent gain in housing values on average (see Table 6). A typical homeowner in the bottom income quartile only gained 12 percent in home equity and 22 percent in housing value. As such, the growth pattern in housing wealth contributed to the widening wealth gap in this country over the last decade.

<sup>&</sup>lt;sup>9</sup> For more details about growing mortgage debt, see Masnick, Di, and Belsky (2005). "Emerging Cohort Trends in Housing Debt and Home Equity," Harvard University Joint Center for Housing Studies Working Paper Series, W05-1.

<sup>18 © 2007</sup> President and Fellows of Harvard College. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

#### Table 6:

	Mean Housing Value			Mean Home Equity		
By Household	1005	2004	Percent	1005	2004	Percent
Income	1775	2004	Growth	1775	2004	Growth
Top Quartile	\$215,512	\$410,865	91%	\$126,710	\$261,359	106%
Upper Middle	\$120 788	\$201.002	66%	\$73.053	\$124 240	70%
Quartile	¢120,700	<i>\\\</i> 201,002	0070	\$75,055	φ121,210	1070
Lower Middle	\$99.706	\$151 198	52%	\$76.913	\$105 545	37%
Quartile	ψ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	φ131,190	5270	ψ/ 0,915	φ105,515	3770
Bottom Quartile	\$75,371	\$107,190	42%	\$65,076	\$86,186	32%
	Median Housing Value		Median Home Equity			
	Median Ho	ousing Value		Median Ho	me Equity	
By Household	Median Ho	ousing Value	Percent	Median Ho	ome Equity	Percent
By Household Income	Median Ho 1995	using Value 2004	Percent Growth	Median Ho 1995	2004	Percent Growth
By Household Income Top Quartile	Median Ho 1995 \$166,199	using Value 2004 \$289,000	Percent Growth 74%	Median Ho 1995 \$79,138	2004   \$145,000	Percent Growth 83%
By Household Income Top Quartile Upper Middle	Median Ho 1995 \$166,199 \$102,181	<b>2004</b> \$289,000 \$155,000	Percent Growth 74%	Median Ho 1995 \$79,138 \$49,244	2004   \$145,000	Percent Growth 83%
By Household Income Top Quartile Upper Middle Quartile	Median Ho 1995 \$166,199 \$102,181	<b>2004</b> \$289,000 \$155,000	Percent Growth 74% 52%	Median Ho 1995 \$79,138 \$49,244	2004   \$145,000   \$80,000	Percent Growth 83% 62%
By Household Income Top Quartile Upper Middle Quartile Lower Middle	Median Ho 1995 \$166,199 \$102,181 \$81,253	<b>2004</b> \$289,000 \$155,000 \$116,000	Percent   Growth   74%   52%   43%	Median Ho 1995 \$79,138 \$49,244 \$59,093	2004   \$145,000   \$80,000   \$68,000	Percent   Growth   83%   62%   15%
By Household Income Top Quartile Upper Middle Quartile Lower Middle Quartile	Median Ho 1995 \$166,199 \$102,181 \$81,253	<b>2004</b> \$289,000 \$155,000 \$116,000	Percent   Growth   74%   52%   43%	Median Ho 1995 \$79,138 \$49,244 \$59,093	2004   \$145,000   \$80,000   \$68,000	Percent   Growth   83%   62%   15%

Higher Income Households Grew Housing Wealth Faster than Lower Income Households

In contrast, stock wealth growth had a quite different pattern. The most remarkable increase in stock wealth was the increased ownership rate of stocks rather than portfolio value gains. While the homeownership rate only increased from 64.7 percent in 1995 to 69 percent in 2004, a 7 percent growth rate, the rate of stockholdings (including both directly held individual stocks and indirectly held stocks through funds) increased from 40.4 percent in 1995 to 48.6 percent in 2004, a 20 percent growth rate.

Interestingly, patterns in stock holdings indicate that during this same period stock wealth did not contribute as much to the growing wealth inequality as housing wealth did, mainly because of more widely spread ownership of stock holdings than in the past. For example, the bottom income quartile of all households (mostly among elderly households) saw a 136 percent

growth in aggregate stock wealth and 67 percent increase in the share of households having stock holdings (see Table 7).

## <u>Table 7:</u>

# The Growth of Stock Wealth during the Period Spread across Household Incomes, with Particularly Remarkable Growth in the Bottom Income Quartile of Households

	Aggregate Stocks	Share of Having Stocks				
By Household Income	1995	2004	Growth Rate	1995	2004	Growth Rate
Top Quartile	\$3,587,120,000,000	\$8,061,980,000,000	125%	70.83%	84.07%	19%
Upper Middle Quartile	\$511,335,000,000	\$1,278,910,000,000	150%	50.63%	58.86%	16%
Lower Middle Quartile	\$280,455,000,000	\$452,318,000,000	61%	30.54%	37.24%	22%
Bottom Quartile	\$70,149,500,000	\$165,232,000,000	136%	7.79%	12.98%	67%

This sharp increase may be the result of more senior households and low-income working families gaining new stock wealth through defined-contribution pension plans. The share of households with stock holdings increased from 40.4 percent in 1995, to 48.9 percent in 1998, and to 51.9 percent in 2001; the share then decreased to 48.6 percent in 2004.<sup>10</sup> The entire growth of stock holdings ownership between 1995 and 2004 shown in SCF data actually came from the growing popularity of 401(k) or 403(b) retirement plans. If we recalculate, excluding those stock

<sup>&</sup>lt;sup>10</sup> The decrease between 2001 and 2004 may suggest some kind of withdraw of households from directly owning stocks since the market crash in 2000.

<sup>20 © 2007</sup> President and Fellows of Harvard College. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

equities from pension funds, only 40 instead of 48.6 percent of households owned stock wealth in 2004. It is therefore, the widespread participation in this type of pension fund that has helped create a more balanced distribution of stock wealth.<sup>11</sup>

The widening wealth gap between 1995 and 2004 is also reflected in the expansion of owned homes during the period and the greater housing demand from higher income households than lower income households. It is also remarkable how much of the growth of housing demand from the top quartile income households came from second homes (13%), defined as non-timeshare, vacation homes. Together with the demand for primary homes, more than twice as much of total housing demand came from the upper half of households than their lower income counterparts in the household income distribution; nearly 10 million units of housing demand came from the upper half of all households (see Chart 10).

#### **Chart 10:**

## Higher Income Households Generated More Than Twice as Much of Housing Demands than Lower Income Households



<sup>&</sup>lt;sup>11</sup> The estimated growth in the share of households owning stock wealth from 40 percent in 1995 to 48.6 percent in 2004 is also somewhat exaggerated because some employers used to provide defined-benefit retirement plans and the SCF data do not catch this in the surveys. Most of these have now been replaced by defined-contribution plans.

Nevertheless, housing wealth usually functions as an equalizer, accumulator, cultivator, and protector of household wealth (Di 2001).<sup>12</sup> Just as it was last measured in 2001 SCF data,<sup>13</sup> housing wealth was still more evenly distributed than net wealth and stock wealth in 2004 (see Chart 11).

## Chart 11:



Housing Wealth Still More Evenly Distributed than Other Types of Wealth

Yet housing could also be a force that actually helps widen rather than narrow the wealth gap in this country. In recent years, we saw a remarkable concentration of household wealth in the hands of wealthy owners and a widening wealth gap between homeowners and renters. It is thus particularly important to note that, during the period from 1995 to 2004, housing played a role that worsened the inequality in wealth distribution compared to the role that stock wealth played during the same period. This reinforces the importance of the question raised in an earlier paper (Di, 2005)<sup>14</sup> about whether housing wealth contributes to or tempers the widening wealth gap in America, and the evidence presented in this paper suggests that housing actually served to

<sup>&</sup>lt;sup>12</sup> Zhu Xiao Di, "The Role of Housing as a Component of Household Wealth," Harvard University Joint Center for Housing Studies Working Papers, W01-6, July 2001.

<sup>&</sup>lt;sup>13</sup> For 2001 figures, see Di (2005), Figure 7. "Does Housing Wealth Contribute to or Temper the Widening Wealth Gap in America?" *Housing Policy Debate*, Vol. 16, Issue 2.

<sup>&</sup>lt;sup>14</sup> Zhu Xiao Di, "Does Housing Wealth Contribute to or Temper the Widening Wealth Gap in America?" *Housing Policy Debate*, Vol. 16, Issue 2, 2005.

widen inequality during the 1995 to 2004 period. Part of this widening is understandably due to the stock market crash in 2000 and the consequent movement of investments from stock market to housing market, especially in the form of second homes. To what extent that change is sustainable and repeatable is a worthy question that deserves further research.

For public policy concerns, both housing wealth and stock wealth are the two main vehicles for household wealth accumulation and growth, and therefore promoting the ownership of both occupied homes and stocks among lower-income households serves the purpose of helping the poor. Since most home purchases are financed investments, the returns are leveraged. A positive investment brings much higher returns than the stock market, but a downturn could easily wipe out all home equity. In that sense, the government needs to be perhaps even more careful in monitoring its housing policy and consequent effects than it does regarding that of stock holdings.

It is important to underscore, though, that housing remains a key method to build wealth, especially among lower income households who usually do not own stock wealth. Housing wealth is no different from other forms of wealth in that equal growth rates applied to smaller and larger bases make for greater wealth inequality, but housing made a remarkable showing from 1995 to 2004 by increasing the wealth of those in the lower quartiles of the income distribution in absolute terms.

#### **Conclusion**

This paper looks at the rapid growth in household wealth in the United States over the recent decade between 1995 and 2004, discusses the increasing inequality in wealth distribution, analyzes major demographic forces behind the changes over time, illustrates some socioeconomic concerns, and examines the role of housing throughout this period in the context of growing wealth and inequality.

According to the most recent SCF data collected by the Federal Reserve Bank in 2004, the aggregate household net wealth in the United States was almost double its level in 1995.<sup>15</sup> Most of the wealth growth occurred among the top wealthy households (nearly 90 percent among

<sup>&</sup>lt;sup>15</sup> Even the other data source from the Federal Reserve Bank, which is not reconcilable with the SCF data, shows a substantial growth of over 40 percent.

the top quartile), making inequality in wealth distribution even more severe in this country than ever before.

Net growth in the number of households during the period may help explain some of the aggregate wealth growth but not entirely. Net household growth in a previous period between 1989 and 1995 did not bring about any aggregate wealth growth because of home price depreciation during the time. From 1995 to 2004, age structure of the population and households catalyzed wealth growth as the high numbering baby boomers grew into a wealthier stage in the life cycle, but inequality within this and other generations has also been notably more severe, compared to each previous generation at a similar age.

The driving force for net growth in household numbers came from minority groups, but the wealth gap between non-Hispanic whites and minorities actually widened during the period. It was the non-Hispanic white cohort born in the 1940s who experienced the most remarkable wealth growth. This inequality does not mean that minorities did not achieve wealth gains—they did—but it points to the growing disadvantage they are at in bidding markets (such as housing) where wealth matters.

## **Appendix One:**

Wealth Growth from a Different Data Source of the Federal Reserve Bank



## **Appendix Two:**

Traditional Age Grouping of Baby Boomers Would Not Show the Peculiar Wealth Growth in One Particular Age Group, Regrouping in Birth Cohorts by Decades Reveals It

