The Levy Economics Institute of Bard College

Levy Institute Measure of Economic Well-Being

Wealth and Economic Inequality: Who's at the Top of the Economic Ladder?

EDWARD N. WOLFF and AJIT ZACHARIAS

December 2006

Levy Institute Measure of Economic Well-Being

Wealth and Economic Inequality: Who's at the Top of the Economic Ladder?

EDWARD N. WOLFF and AJIT ZACHARIAS

This report is available on the Levy Institute website at www.levy.org.

EDWARD N. WOLFF is a senior scholar at The Levy Economics Institute and a professor of economics at New York University.
AJIT ZACHARIAS is a senior scholar at The Levy Economics Institute.

The Levy Economics Institute of Bard College, founded in 1986, is an autonomous research organization. It is nonpartisan, open to the examination of diverse points of view, and dedicated to public service.

The Institute is publishing this research with the conviction that it is a constructive and positive contribution to discussions and debates on relevant policy issues. Neither the Institute's Board of Governors nor its advisers necessarily endorse any proposal made by the authors.

The Institute believes in the potential for the study of economics to improve the human condition. Through scholarship and research it generates viable, effective public policy responses to important economic problems that profoundly affect the quality of life in the United States and abroad.

The present research agenda includes such issues as financial instability, poverty, employment, gender, problems associated with the distribution of income and wealth, and international trade and competitiveness. In all its endeavors, the Institute places heavy emphasis on the values of personal freedom and justice.

Editor: W. Ray Towle
Text Editor: Barbara Ross

The Levy Institute Measure of Economic Well-Being is a research project of The Levy Economics Institute of Bard College, Blithewood, PO Box 5000, Annandale-on-Hudson, NY 12504-5000. For information about the Levy Institute and to order publications, call 845-758-7700 or 202-887-8464 (in Washington, D.C.), e-mail info@levy.org, or visit the Levy Institute website at www.levy.org.

This publication is produced by the Bard Publications Office.

ISBN: 978-1-931493-62-8
1-931493-62-6

Preface

This report argues that wealth is an integral aspect of economic well-being. The authors combine income and net worth to demonstrate the importance of wealth inequalities in shaping overall economic inequality and defining the disparities among population subgroups.

Conventional measures of household economic well-being do not adequately reflect the advantages of asset ownership or the disadvantages of financial liabilities. The authors find that the picture of economic well-being in the United States is quite different if the yardstick is their wealth-adjusted income measure (WI) rather than the standard income measure.

WI focuses on total annual household income, which includes the sum of income from wealth and money income from other sources. It differs from the conventional measures by distinguishing between home and nonhome wealth, converting the latter into a lifetime annuity, accounting for differences in portfolio composition of nonhome wealth, and capturing differences in life expectancies among racial groups.

The report shows that the conventional measures understate most aspects of economic well-being: the portion of the aggregate economic pie that goes to the rich; the degree of overall inequality and the contribution of income from wealth to the increase in inequality; and the relative well-being of the elderly. The measures also overstate the relative well-being of minorities. Thus, policies ignoring asset ownership will have only partial success in redressing the relatively high level of economic inequality in the United States.

As always, I welcome your comments and suggestions.

Dimitri B. Papadimitriou, *President*
December 2006

Introduction

Who occupies the top rungs of the economic ladder in America today? Most people would point to the CEOs of big businesses based on their astounding compensation packages. Indeed, they *are* at the top of the income ladder, and the distance between them and the average employee is huge: the median compensation of top CEOs in 2005 was $6 million, while the median earnings of full-time male and female workers were, respectively, $41,368 and $31,858.[1] These numbers imply that the average "boss" in a top corporation earned 145 times more than the average male worker and 188 times more than the average female worker. The compensation packages of today's top CEOs are far out of line with the maxim put forward two decades ago by the late management guru Peter Drucker—that the CEO should not earn more than 20 times the salary of the lowest-paid employee in the corporation.[2] Perhaps his prediction of an "outbreak of bitterness and contempt for the super-corporate chieftains who pay themselves millions" will come true.[3]

Compared to the attention received by the issues of excessive CEO pay, the accumulation of vast amounts of wealth by a tiny minority receives far less attention. By most commonsense notions of privilege and power, the members of this tiny minority are at the top of the economic ladder. Furthermore, the truly astonishing gap in wealth separating them from the average household makes the CEO-worker compensation gap seem relatively small. Perhaps the best listing of America's wealthiest is the Forbes 400. In 2004, the median net worth of the individuals on the *Forbes* list was $1.5 billion, as compared to the median net worth of $93,100 for all other households.[4] The average "owner" among the wealthiest Americans possessed an amount of wealth that was over *16,000* times larger than that of the average household.

Both income inequality and wealth inequality are quite high in the United States, but the degree of income inequality is lower than that of wealth inequality. The Gini coefficient was 0.47 for household money income in 2005 and 0.81 for household net worth in 2004.[5] An intuitive understanding of the level of inequality implied by these numbers can be gained by picturing the division of an aggregate economic "pie" worth $100 among a hypothetical group of 10 families. An equal division would be $10 per family. Now suppose that one family got $57, while the remaining families received only $4.78 each. The Gini coefficient of this distribution is 0.47, which is equal to the Gini coefficient for money income among American households. Consider another distribution of the $100 pie, in which one family got $91 and the remaining families received only $1 each. This distribution results in a Gini coefficient of 0.81, which is equal to the Gini coefficient for wealth among American households.[6]

We argue that wealth is an integral aspect of economic well-being. Most studies of economic inequality focus on inequalities in pay or income. While these are significant dimensions of inequality, it is also important to incorporate wealth explicitly into any measurement of economic inequality. Conventional measures of household economic well-being, such as before-tax or after-tax money income, do not adequately reflect the advantages of asset ownership. They also do not reflect the disadvantages of financial liabilities.

Income generated from asset ownership is usually counted in the form of property income (the sum of dividends, interest, and rent), but this does not reflect the "stock" dimension of the advantages of asset ownership and is, at best, a partial measure of the "flow" dimension. Some of the principle components of household wealth—most importantly, homes and retirement assets—do not generate any current money income. Yet, it is difficult to imagine that ownership of such assets does not contribute to differentials in economic security or well-being among households. Similarly, ownership of substantial amounts of financial wealth adds something more to a household's economic status than the mere entitlement to an annual flow of dividend and interest income. "Something more" can mean additional economic security, as well as considerable economic and political privilege and power. Improvements along the dimensions of economic security or power may result from the growth in financial wealth, which often does not correspond to any changes in property income.

For a significant number of households at the bottom of the economic ladder, negative net worth—that is, indebtedness—is a serious economic problem. The accrued disadvantages from the burden of debt are not captured in standard income measures. Apart from the fact that carrying substantial amounts of debt implies a diversion of household income toward debt service instead of meeting other needs, there are also other consequences. A bad credit score can mean that you cannot rent the house you want or get a loan for a used car that you absolutely need for getting to work. It can also mean that you become caught in the grip of what is euphemistically called the "subprime" lending market. A serious blemish in your credit record

can carry consequences that last well beyond the date on which an overdue debt was paid off or the default on monthly payments was overcome. Just as ownership of substantial financial wealth confers advantages that go beyond the receipt of dividend and interest income, holding substantial debt imposes disadvantages that extend beyond the burden of debt service.

Our argument, therefore, is that an adequate measure of economic well-being or economic status should account for wealth in a more comprehensive manner than the standard income measures. There is a general consensus among modern economists engaged in the assessment of economic well-being that an adequate measure should approximate potential consumption over a given period of time (Canberra Group 2001). We believe that, apart from a better measure of income from wealth, a comprehensive measure of well-being should include estimates of the value of public provisioning and household production. Indeed, the Levy Institute Measure of Economic Well-Being (LIMEW) has been constructed to fulfill this goal (*see* Wolff, Zacharias, and Kum 2005). However, we ignore public provisioning and household production here because we would like to present the effects of modifying the conventional measure for wealth in stark detail, rather than obfuscating the effects by incorporating these additional components of well-being.

Our aim is to show that the picture of economic well-being in the United States over the 1980s and the 1990s is quite different if the yardstick of well-being is our wealth-adjusted measure rather than the standard income measure. The differences relate to the share of the rich in aggregate income and the sources of income for the rich; the level of overall inequality and the contribution of different income sources to the changes in overall inequality; and the extent of disparities among racial and age groups.

Alternative Measures of Income from Wealth

Total annual household income is our measure of well-being: the sum of income from wealth and money income from other sources. Income from wealth in the official measures usually includes property income or, sometimes, the sum of property income and realized capital gains. We employ an alternative measure of income from wealth because we think that the conventional measures are inadequate.

There are many studies that have attempted to combine income and wealth (e.g., Weisbrod and Hansen 1968). Typically, net worth is converted into a lifetime annuity for the expected remaining life of the family. The annuity is defined as a stream of equal annual payments that will fully exhaust the stock of initial wealth; it is then added to current money income to obtain an augmented measure of family income. To avoid double counting of the returns from household wealth, property income is subtracted from current money income prior to the addition of the annuity.

Our approach differs from standard measures in four significant ways. First, we distinguish between home and nonhome wealth. Housing is a universal need, and owning a house frees the owner from the obligation of paying rent, leaving more resources for spending on other needs. Hence, the benefits from owner-occupied housing are reckoned in terms of the replacement cost of the services derived from ownership (i.e., a rental equivalent).

Second, we convert nonhome wealth into a lifetime annuity. However, in computing lifetime annuities, we use actual historical rates of return rather than an arbitrary interest rate, as in most studies. Third, we take into account the differences in the portfolio composition of nonhome wealth by computing the lifetime annuity as the weighted average of annuity flows generated by the individual components of the portfolio, with the shares of the components in the portfolio serving as weights. Fourth, we use life-tables that are differentiated by sex and race in order to capture the well-known differences in life expectancies among racial groups. The expected remaining life of families is usually based on sex-specific life-tables.

Data and Definitions

Our basic data source is the Federal Reserve Board's Survey of Consumer Finances (SCF) for 1983 and 2001, for which there were 4,262 completed interviews in 1983 and 4,449 in 2001.[7] Conducted every three years, the SCF is the premier survey on household wealth in the United States. Each survey consists of a nationally representative core sample combined with a high-income supplement. This is the best available source of data for our purposes. In addition, SCF income data are not "top-coded," which is the practice of not recording, in the interests of individual privacy, the actual income amounts for persons or households that are higher than an arbitrarily determined threshold. The income data reported in the Census Bureau's annual income surveys, for example, are top-coded.

We use marketable wealth (or net worth) as our preferred wealth definition: the current value of all marketable or fungible assets less the current value of liabilities. Total assets are defined as the sum of (1) the gross value of owner-occupied housing; (2) other real estate owned by the household and net equity in unincorporated businesses; (3) cash and demand deposits, time and savings deposits, certificates of deposit, money market accounts, and the cash surrender value of life insurance plans; (4) government bonds, corporate bonds, foreign bonds, and other financial securities, such as corporate stock, mutual funds, and equity in trust funds; and (5) the cash surrender value of defined-contribution pension plans, including IRAs and Keogh and 401(k) plans. Total liabilities are the sum of mortgage debt and other debt, such as car and credit card loans.

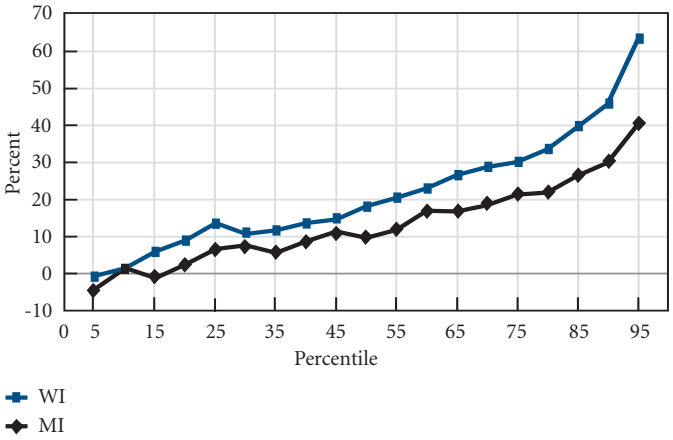
The total real rate of return for each nonhome asset is the average annual rate over a relatively long period of time (i.e., 40 years for most assets, but only 14 years for pension assets). The total rates of return for the data include both capital gains and the income generated by the assets.[8] Debts are annuitized using the average annual inflation rate over the 1960–2000 period.[9] The total amount of *gross* imputed rent on (nonfarm) owner-occupied housing is taken from the national income and product accounts (NIPA).

We define income from wealth as the sum of income from home and nonhome wealth. Income from home wealth is the gross imputed rent assigned to each household *minus* the annuitized value of mortgage debt.[10] Income from nonhome wealth is the imputed lifetime annuity from nonhome wealth *minus* the annuitized value of other debt. Our measure of household income, which we call "wealth-adjusted income" (WI), differs from the standard measure of money income (MI) because we replace property income with our definition of income from wealth.

Income Gains, Income Shares, and Income Composition

We begin by examining how income gains over the period from 1982 to 2000 were distributed along the economic ladder. The simplest way to do this is to see how the thresholds changed, causing households to fall into a selected portion of the distribution—say, the bottom 10 percent or the top 5 percent. Figure 1 shows the percentage change in the thresholds for MI and our preferred WI measure. In general, both measures show that there was a strong positive relationship between the initial income level and subsequent income gains. Loosely speaking, the measures show that "the rich got richer." For example, the minimum amount of MI required to be in the top 5 percent of the MI distribution shot up by 40 percent (from $117,895 to $164,964 in 2001 dollars), while the percentile cutoff for the bottom 5 percent declined by more than 4 percent (from $6,880 to $6,582 in 2001 dollars).

Figure 1 **Percent Change in Money Income (MI) and Wealth-adjusted Income (WI) at Selected Percentiles, 1982 to 2000**



Source: Authors calculations based on the SCF public-use files

However, there are two important differences between the MI and WI distributions. First, the WI rate of increase is higher for almost all percentiles, including at the median. Especially notable is the fact that the increase in median WI is almost double that of median MI (18 versus 9 percent).[11] Second, the gap between the two distributions appears to widen toward the top rungs of the distribution and is widest at the 95th percentile, where the percentage increase of the WI distribution is a whopping 63 percent. The primary factor behind the difference in the two distributions is the steep rise in the annuitized value of nonhome wealth, the mean value of which soared by 93 percent between 1982 and 2000.[12]

As expected, this pattern of income gains across the distribution was accompanied by a redistribution of aggregate income toward households on the top rungs over the same period (Table 1). The top decile gained 10.0 percentage points according to WI and 9.5 percentage points according to MI. The

Table 1 Income Shares of Families in Aggregate Income by Income Measure and Selected Percentiles, 1982 and 2000

Percentile	1982		2000	
	Money income (MI)	Wealth-adjusted income (WI)	Money income (MI)	Wealth-adjusted income (WI)
0–25	5.7	5.3	4.2	3.7
25–50	14.0	13.0	11.4	9.9
50–90	46.9	43.6	41.4	38.3
90–100	33.4	38.1	42.9	48.1
90–95	10.7	10.3	10.2	10.5
95–99	12.9	13.7	15.3	17.5
99–100	9.9	14.1	17.4	20.1

Source: Authors' calculations based on the SCF public-use files

losses suffered by the remaining 90 percent are also roughly the same across income measures. However, a remarkable revelation in the table is that the standard measure understates the share of the top decile in the aggregate economic pie: in 2000, the share of the top decile was 42.9 percent in MI, while the share in WI was substantially higher—48.1 percent. The same relationship holds for the share of the top 1 percent: 17.4 percent in MI, but 20.1 percent in WI.

What income source is propelling the growth in the share of the rich in the aggregate economic pie? On the basis of standard income measures, some analysts believe that it is the relatively rapid growth in labor income (e.g., Piketty and Saez 2003). This conclusion also fits well with the exceptional growth in top managerial pay relative to the salaries of other employees during the period. Indeed, this trend could result in a shift in the composition of the income of the rich away from property income—that is, property income's share of total income would fall. It would then seem that the rich were becoming less reliant on property income and have, in effect, become the "working rich."[13]

The standard income measures support this view regarding the income sources of the rich (Table 2). The share of income from wealth in the total income of the top decile (90–100) appears to be quite low. Estimates by Piketty and Saez (labeled "PS") show that, as a proportion of total income, income from wealth fell by half between 1982 and 2000 (from 16 to 8 percent). Our estimate according to MI also shows a decline (from 19 to 12 percent), but it is smaller than the decline indicated by PS. However, there is no such decline according to our preferred definition of income (WI). As a share of total WI of the top decile, income from wealth was 42 percent in both 1982 and 2000. It is also striking that wealth appears as a much larger income source for the rich in WI as compared to MI.

We now look at the relative importance of income from wealth for the "superrich"—those on the top 1 percent rung of the economic ladder. All three estimates show that the share of income from wealth in total income declined for the superrich between 1982 and 2000. This may reflect the enhanced salaries of corporate executives, particularly CEOs. However, the share of income from wealth in WI was quite high in 2000 (46 percent) compared to PS and MI (12 and 13 percent, respectively). Accordingly, our preferred definition does not support the conclusion that the so-called "working rich" have fully replaced the "coupon-clipping rentiers" at the top of the economic ladder.

What Drives the Growth in Inequality?

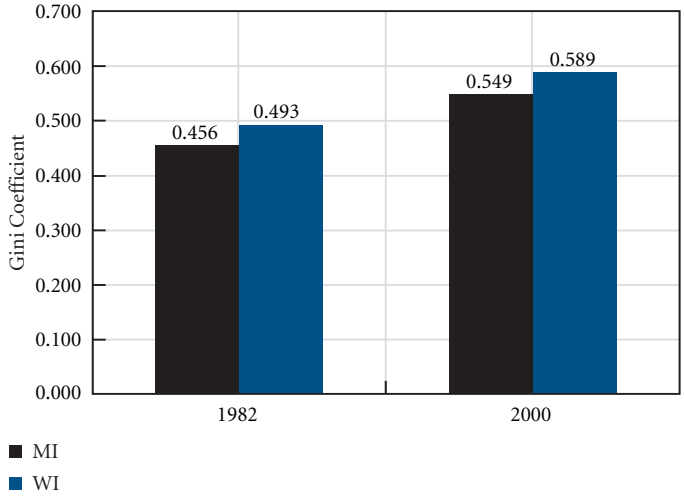
We next turn to trends in inequality as shown by MI and WI (Figure 2). The inequality in MI climbed by a considerable amount (0.093, or 9.3 Gini points) between 1982 and 2000. The increase in WI inequality was slightly higher (9.6 Gini points).

Table 2 Share of Income from Wealth in Total Income, by Income Measure and Selected Percentiles, 1982 and 2000 (in percent)

Income Measure	90–100		90–95		95–99		99–100		All Households	
	1982	2000	1982	2000	1982	2000	1982	2000	1982	2000
PS	16	8	8	4	13	7	29	12	NA	NA
MI	19	12	13	7	15	14	30	13	10	7
WI	42	42	22	29	36	45	61	46	24	29

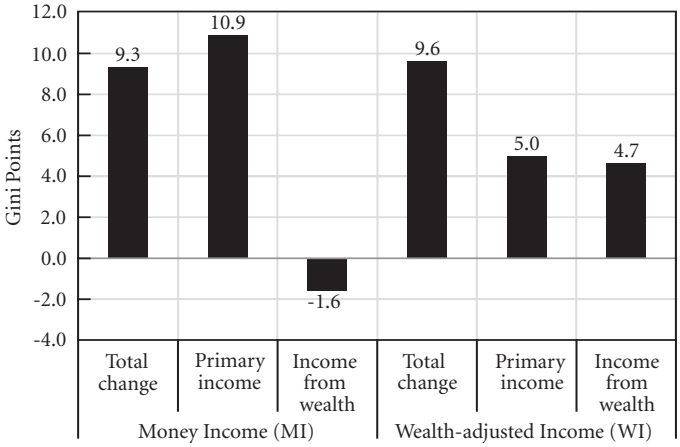
Sources: PS refers to estimates reported in the data appendix of Piketty and Saez (2003). MI and WI are authors' calculations based on the SCF public-use files.

Figure 2 Inequalities in Money Income (MI) and Wealth-adjusted Income (WI), 1982 and 2000



Source: Authors' calculations based on the SCF public-use files

Figure 3 Contribution to the Change in the Gini Coefficient Between 1982 and 2000 (in Gini points)



Source: Authors' calculations based on the SCF public-use files

However, the most striking result is the much higher level of inequality in WI (4.0 Gini points in 2000). This is consistent with our observations in the last section regarding the significantly larger share of the rich in aggregate WI than in aggregate MI.

Although the change in the Gini coefficient between 1982 and 2000 is similar for MI and WI, is the same income source driving the growth in inequality? To answer this question, we separated total income into two sources: income from wealth and income from all other sources, or "primary income." We then decomposed the Gini coefficient for each income definition by income source for both years. In the final step, the contribution of the income sources to the change in the Gini coefficient was calculated as the difference between the individual income source contributions in 1982 and 2000.[14] The results of the calculation are shown in Figure 3.

There is a striking asymmetry between the two measures with respect to the contribution of income from wealth to the increase in inequality. Income from wealth had an inequality-reducing effect on MI. Its contribution to the 9.3 Gini point increase was *minus* 1.6 points, indicating that the increase in inequality was due solely to the increasing inequality of primary income. In contrast, income from wealth and primary income contributed approximately the same amount to the 9.6 Gini point increase in WI. The contribution of income from wealth to changes in inequality thus depends crucially on how income from wealth is measured.

Disparities Among Population Subgroups

An essential aspect of economic inequality in the United States is the disparity among different demographic groups. Here we consider two groups: racial/ethnic and age. Our results show that the pattern of disparities among subgroups is quite sensitive to the definition of income from wealth that is used in the income measure.

Racial/Ethnic Disparities

The ratio of median and mean MI between African Americans and non-Hispanic whites was 0.56 and 0.57, respectively, in 1982 (Table 3). By 2000, the ratio of median income had edged upward to 0.57, while the ratio of mean income had slipped to 0.50 (*see also* Figure 4 for the comparison between mean MI and mean WI).

The ratio of median WI in 1982 was somewhat lower than that of MI, while the ratio of mean WI was a full 7 percentage points lower. In this case, the ratio of median WI fell from 0.53 in 1982 to 0.49 in 2000, while the ratio of mean WI fell more steeply (from 0.50 to 0.41). Thus, the racial income gap was wider in 2000, and wider still when imputed rent and, particularly, annuitized wealth were added to MI. These results reflect the fact that the wealth gap between African Americans and whites is considerably larger than the income gap, and that there are differences in portfolio composition (i.e., whites have a higher share of assets in stocks).

Table 3 Family Income by Race/Ethnicity and Income Measure, 1982 and 2000 (in 2001 dollars)

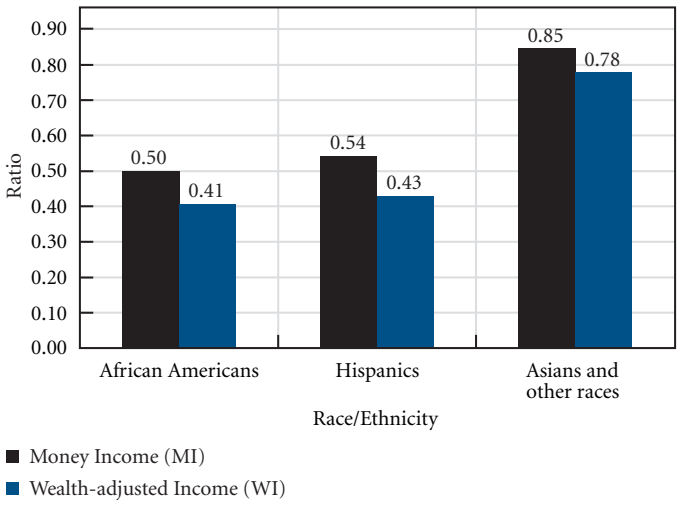
	1982		Ratio to Whites		2000		Ratio to Whites	
Race/Ethnicity	Median	Mean	Median	Mean	Median	Mean	Median	Mean
Non-Hispanic whites								
1. Money income (MI)	38,540	51,658	1.00	1.00	43,586	72,806	1.00	1.00
2. Wealth-adjusted income (WI)	42,243	62,013	1.00	1.00	52,591	97,108	1.00	1.00
Memo items:								
a. Income from home wealth	2,047	3,441	1.00	1.00	1,710	4,115	1.00	1.00
b. Income from nonhome wealth	761	12,764	1.00	1.00	2,209	25,811	1.00	1.00
African Americans								
1. Money income (MI)	21,474	29,231	0.56	0.57	24,683	36,321	0.57	0.50
2. Wealth-adjusted income (WI)	22,324	31,093	0.53	0.50	25,714	39,356	0.49	0.41
Memo items:								
a. Income from home wealth	0	1,164	0.00	0.34	0	740	0.00	0.18
b. Income from nonhome wealth	0	1,439	0.00	0.11	33	2,807	0.02	0.11
Hispanics								
1. Money income (MI)	25,693	32,912	0.67	0.64	25,711	39,494	0.59	0.54
2. Wealth-adjusted income (WI)	25,719	34,523	0.61	0.56	26,365	41,709	0.50	0.43
Memo items:								
a. Income from home wealth	0	1,440	0.00	0.42	0	1,120	0.00	0.27
b. Income from nonhome wealth	0	576	0.00	0.05	1	3,056	0.00	0.12
Asians and other races								
1. Money income (MI)	38,356	51,619	1.00	1.00	34,967	61,544	0.80	0.85
2. Wealth-adjusted income (WI)	40,156	55,303	0.95	0.89	38,508	75,514	0.73	0.78
Memo items:								
a. Income from home wealth	0	2,400	0.00	0.70	0	4,487	0.00	1.09
b. Income from nonhome wealth	19	3,688	0.03	0.29	463	15,005	0.21	0.58

Source: Authors' calculations based on the SCF public-use files

The pattern of results is very similar for Hispanics. In particular, there was a more precipitous drop in WI than MI. The ratio of median MI between Hispanics and whites fell from 0.67 in 1982 to 0.59 in 2000 (8 percentage points), and the ratio of mean MI fell from 0.64 to 0.54 (10 percentage points). The corresponding WI ratios declined from 0.61 to 0.50 (11 percentage points) and from 0.56 to 0.43 (13 percentage points), respectively. Overall, the ratios were much lower for WI than for MI in 2000.

The pattern is also similar for Asians and other races ("Asians"). There was virtual parity in MI between Asians and whites in 1982. By 2000, however, the ratio had slipped to 0.80 for median MI, and was likely the result of increased Asian immigration in the intervening years. The ratio of median WI in 1982 was slightly below parity (0.95), but had plummeted to 0.73 by 2000.

Figure 4 Ratio of Mean Income to Overall Mean Income of Non-Hispanic Whites by Race/Ethnicity and Income Measure, 2000



Source: Authors' calculations based on the SCF public-use files

Table 4 Family Income by Age of Household Head and Income Measure, 1982 and 2000 (in 2001 dollars)

	1982		Ratio to Overall		2000		Ratio to Overall	
Age Group	Median	Mean	Median	Mean	Median	Mean	Median	Mean
Under 35								
1. Money income (MI)	32,166	37,646	0.90	0.78	32,931	43,680	0.84	0.67
2. Wealth-adjusted income (WI)	33,173	39,072	0.86	0.69	33,608	45,729	0.75	0.54
Memo items:								
a. Income from home wealth	0	1,009	0.00	0.33	0	846	0.00	0.25
b. Income from nonhome wealth	5	1,173	0.01	0.11	0	2,010	0.00	0.10
35 to 44								
1. Money income (MI)	49,551	58,885	1.39	1.22	51,423	74,533	1.32	1.15
2. Wealth-adjusted income (WI)	51,617	63,246	1.34	1.11	55,055	82,043	1.22	0.97
Memo items:								
a. Income from home wealth	2,063	3,049	1.30	1.00	741	2,684	0.75	0.78
b. Income from nonhome wealth	396	3,739	1.03	0.35	854	7,760	0.77	0.37
45 to 54								
1. Money income (MI)	47,514	60,612	1.33	1.26	55,537	89,871	1.42	1.38
2. Wealth-adjusted income (WI)	52,146	71,562	1.35	1.26	61,576	107,966	1.37	1.28
Memo items:								
a. Income from home wealth	3,147	4,455	1.99	1.45	1,517	3,970	1.54	1.15
b. Income from nonhome wealth	738	11,107	1.91	1.03	2,207	19,274	2.00	0.93
55 to 64								
1. Money income (MI)	39,979	57,467	1.12	1.20	45,252	84,620	1.16	1.30
2. Wealth-adjusted income (WI)	44,908	70,610	1.16	1.24	53,211	118,918	1.18	1.41
Memo items:								
a. Income from home wealth	3,256	4,511	2.06	1.47	2,834	5,234	2.87	1.52
b. Income from nonhome wealth	2,197	17,063	5.69	1.59	3,729	36,751	3.38	1.78
65 to 74								
1. Money income (MI)	23,487	42,410	0.66	0.88	27,563	50,580	0.71	0.78
2. Wealth-adjusted income (WI)	28,923	60,980	0.75	1.07	38,959	92,959	0.87	1.10
Memo items:								
a. Income from home wealth	3,023	4,662	1.91	1.52	3,413	5,436	3.46	1.58
b. Income from nonhome wealth	3,184	27,019	8.25	2.51	5,336	45,638	4.83	2.20
75 and over								
1. Money income (MI)	13,764	26,298	0.39	0.55	18,615	32,550	0.48	0.50
2. Wealth-adjusted income (WI)	17,726	49,178	0.46	0.86	30,337	76,134	0.67	0.90
Memo items:								
a. Income from home wealth	1,861	3,115	1.18	1.02	3,603	5,410	3.65	1.57
b. Income from nonhome wealth	2,125	29,096	5.50	2.71	5,396	46,009	4.88	2.22

Source: Authors' calculations based on the SCF public-use files

Disparities Among Age Groups

Table 4 shows the same set of results by age of household head (*see also* Figure 5). The effect of using WI instead of MI is to increase the relative well-being of older groups relative to younger ones. There are two reasons for this. First, the wealth-to-income ratios are higher for older households. Second, mortality rates are higher for older people, which result in larger annuity flows per dollar of wealth. Moreover, because of the tilt in age-wealth profiles in favor of older households over the 1982 to 2000 period, WI grows faster relative to MI for older groups than for younger ones.

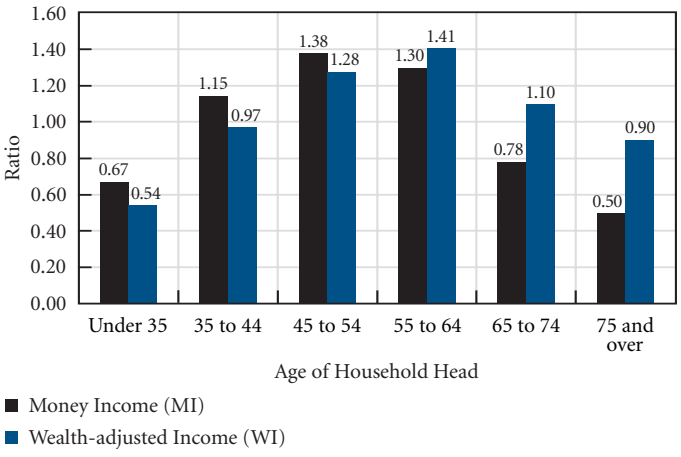
The results are quite dramatic. The ratio of median MI to the overall median in 1982 was 0.66 for the 65–74 age group, while the corresponding ratio for WI was 0.75. Likewise, the ratio of mean MI to the overall mean in 1982 was 0.88 for the same age group, while the corresponding ratio for WI was 1.07. While the ratio of median MI to the overall median grew modestly over the 1982–2000 period (from 0.66 to 0.71), the corresponding ratio for WI climbed by 12 percentage points (from 0.75 to 0.87). The ratio of mean MI to the overall mean fell by 10 percentage points (from 0.88 to 0.78) over the period, while the corresponding ratio for WI rose by 3 percentage points (from 1.07 to 1.10). The results are similar for the 75 and over age group. By 2000, the mean WI reached 90 percent of the overall mean, compared to 50 percent for MI.

For the 45–54 and 55–64 age groups, the WI figures relative to the overall figures are similar to those for MI. On the other hand, both the under-35 and 35–44 age groups show deterioration in the relative level of well-being when WI figures are used instead of MI figures. For the under-35 age group, the ratio of mean WI to the overall mean was 0.54 in 2000, compared to 0.67 for MI, while the corresponding ratios for the 35–44 age group were 0.97 and 1.15. WI also shows slower growth than MI relative to the overall figures for both age groups over the 1982–2000 period.

Conclusion

Wealth and income are not interchangeable as indicators of economic status or well-being. Rather, wealth is an additional dimension of well-being, over and above income. Conventional measures of well-being do not adequately reflect the advantages from asset ownership and neglect the disadvantages from financial liabilities. Our wealth-adjusted income measure (WI)

Figure 5 The Ratio of Mean Income to Overall Mean Income by Age and Income Measure, 2000



Source: Authors' calculations based on the SCF public-use files

addressed these deficiencies. We replaced property income with our estimate of income from wealth derived from imputed rent on owner-occupied housing, net of the annuitized value of mortgage debt (income from home wealth), and a lifetime annuity on nonhome assets, net of the annuitized value of all other debt (income from nonhome wealth). The latter component was mainly responsible for the difference between MI and WI in the stylized facts regarding economic inequality.

There are three factors that determine the distributional effects when adding an annuity flow from nonhome household wealth. The first is the variation of wealth-to-income ratios both across the income distribution and among different demographic groups. The second is the joint distribution of income and wealth. The third consists of differences in portfolio composition among households and rates of return by asset type, and the consequent variation in overall rates of return across households.

These factors were behind the key findings highlighted in this report: that the conventional measures (1) understate the portion of the total economic pie that goes to the rich and the relative importance of wealth for the well-being of the rich; (2) understate the degree of overall inequality and the contribution of income from wealth to the increase in inequality between 1982 and 2000; and (3) overstate the relative well-being of minorities while understating the extent to which they fell behind whites during the 1980s and 1990s. The conventional

measures also understate the relative well-being of the elderly and the extent of improvement during the 1980s and 1990s.

Most studies of disparities in well-being employ MI as the metric of well-being. Since earnings are the overwhelming proportion of MI, academic and policy discussions center on tax-transfer policies and differences in earnings capacity among those in the labor force to alleviate the income shortfalls of individuals outside the labor force. Economic inequality tends to be aligned with earnings inequality.

By employing a combined income–net worth measure, we have attempted to demonstrate the importance of wealth inequalities in shaping overall economic inequality and disparities among population subgroups. While further research is required on several of the issues raised here, we are certain that policies ignoring questions of asset ownership will have only partial success in redressing the relatively high level of economic inequality in the United States.

Notes

1. We calculated the median CEO compensation from the report by Wall Street Journal/Mercer Human Resource Consulting (2006) covering 350 of the largest U.S. public companies. We used "realized direct compensation" as our measure of pay. Our data on median earnings are taken from the report based on the annual income survey conducted by the U.S. Census Bureau (DeNavas-Walt, Proctor, and Lee 2006, p. 7).
2. "The Man Who Invented Management: Why Peter Drucker's Ideas Still Matter." *BusinessWeek*, November 28, 2005. www.businessweek.com/magazine/content/05_48/b3961001.html.
3. "Management Visionary Peter Drucker Dies." *The Washington Post*, November 12, 2005, p. B06.
4. We calculated the median net worth of the Forbes 400 from the data published on the magazine's website, http://www.forbes.com/2004/09/22/rl04land.html. The median net worth of all other households was taken from a report based on the latest official triennial survey on household wealth (Bucks, Kennickell, and Moore 2006, p. A8). The official survey excludes the people on the *Forbes* list, but contains a special subsample of the superrich.
5. The Gini coefficients for money income and net worth are from DeNavas-Walt, Proctor, and Lee (2006, p. 7) and Kennickell (2006, p. 10), respectively.
6. Anthony Shorrocks put forward the interpretation of the Gini coefficient as "excess share" in an unpublished paper.
7. Findings for 1989 and 1995, in addition to the two years reported here, are discussed in Wolff and Zacharias (2006).
8. The source of data is the Flow of Funds tables published by the Federal Reserve. For details regarding data on rates of return and other items mentioned in this section, see Wolff and Zacharias (2006).
9. We use the Consumer Price Index for Urban Consumers (CPI-U), published by the U.S. Bureau of Labor Statistics, as our gauge of inflation.
10. The amount of gross imputed rent assigned to each household is according to its share in the aggregate gross value of houses.
11. The median WI in 2000 was, in fact, about 17 percent higher than MI ($45,578 versus $39,081), reflecting the larger size of our definition of income from wealth, as compared to property income.
12. Income from wealth increased from $13,815 to $24,149 per household between 1982 and 2000 (in 2001 dollars), an increase of 75 percent. In contrast, mean property income increased from $6,069 to $9,403, a rise of 55 percent. As the estimates show, property income was only about 40 percent of income from wealth in 2000.
13. *Forbes* popularized this term. However, the magazine used it in the sense that the wealthiest Americans hold jobs rather than in the sense that the wealthiest depend mainly on labor income as their chief source of income.
14. Mathematically, the operation can be described as follows. Let G be the Gini coefficient. Using the method discussed in Lerman and Yitzhaki (1985), decompose the Gini as: $G = K_p + K_w$, where the first term represents the contribution of primary income and the second term represents the contribution of income from wealth. It follows that we can calculate the change in the Gini between two years, say, Year 0 and Year 1, as: $G_1 - G_0 = (K_{p1} - K_{p0}) + (K_{w1} - K_{w0})$, where the first term represents the contribution of primary income to the change in the Gini and the second term represents the contribution of income from wealth to the change in the Gini. The estimates of the terms within the parentheses are shown in Figure 3 for MI and WI.

References

Bucks, Brian K., Arthur B. Kennickell, and Kevin B. Moore. 2006. "Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances." *Federal Reserve Bulletin* 92: A1–A38.

Canberra Group. 2001. "Expert Group on Household Income Statistics: Final Report and Recommendations." Ottawa, Canada.

DeNavas-Walt, Carmen, Bernadette D. Proctor, and Cheryl Hill Lee. 2006. *U.S. Census Bureau, Current Population Reports, P60-231: Income, Poverty, and Health Insurance Coverage in the United States: 2005.* U.S. Government Printing Office, Washington, D.C.

Kennickell, Arthur B. 2006. "Currents and Undercurrents: Changes in the Distribution of Wealth, 1989–2004." SCF Working Paper. www.federalreserve.gov/pubs/oss/oss2/method.html.

Lerman, Robert I., and Shlomo Yitzhaki. 1985. "Income Inequality Effects by Income Source: A New Approach and Applications to the United States." *The Review of Economics and Statistics* 67 (1): 151–56.

Piketty, Thomas, and Emmanuel Saez. 2003. "Income Inequality in the United States, 1913–1998." *Quarterly Journal of Economics* 118 (1): 1–39.

Wall Street Journal/Mercer Human Resource Consulting. 2006. "2005 CEO Compensation Survey and Trends."

Weisbrod, Burton A., and W. Lee Hansen. 1968. "An Income–Net Worth Approach to Measuring Economic Welfare." *The American Economic Review* 58 (5): 1315–29.

Wolff, Edward N., and Ajit Zacharias. 2006. "Household Wealth and the Measurement of Economic Well-Being in the United States." Working Paper No. 447. Annandale-on-Hudson, N.Y.: The Levy Economics Institute. May.

Wolff, Edward N., Ajit Zacharias, and Hyunsub Kum. 2005. *Interim Report 2005: The Effects of Government Deficits and the 2001–02 Recession on Well-Being.* Levy Institute Measure of Economic Well-Being. Annandale-on-Hudson, N.Y.: The Levy Economics Institute. May.

Related Levy Institute Publications

LEVY INSTITUTE MEASURE OF ECONOMIC WELL-BEING

Wealth and Economic Inequality: Who's at the Top of the Economic Ladder?
EDWARD N. WOLFF and AJIT ZACHARIAS
December 2006

Interim Report 2005: The Effects of Government Deficits and the 2001–02 Recession on Well-Being
EDWARD N. WOLFF, AJIT ZACHARIAS, and HYUNSUB KUM
May 2005

Economic Well-Being in U.S. Regions and the Red and Blue States
EDWARD N. WOLFF and AJIT ZACHARIAS
March 2005

How Much Does Public Consumption Matter for Well-Being?
EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
December 2004

How Much Does Wealth Matter for Well-Being? Alternative Measures of Income from Wealth
EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
September 2004

Levy Institute Measure of Economic Well-Being United States, 1989, 1995, 2000, and 2001
EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
May 2004

Levy Institute Measure of Economic Well-Being Concept, Measurement, and Findings: United States, 1989 and 2000
EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
February 2004

Levy Institute Measure of Economic Well-Being United States, 1989 and 2000
EDWARD N. WOLFF, AJIT ZACHARIAS, and ASENA CANER
December 2003

POLICY NOTES

The Burden of Aging: Much Ado About Nothing, or Little to Do About Something?
L. RANDALL WRAY
2006/5

Debt and Lending: A Cri de Coeur
WYNNE GODLEY and GENNARO ZEZZA
2006/4

Twin Deficits and Sustainability
L. RANDALL WRAY
2006/3

The Fiscal Facts: Public and Private Debts and the Future of the American Economy
JAMES K. GALBRAITH
2006/2

Credit Derivatives and Financial Fragility
EDWARD CHILCOTE
2006/1

Social Security's 70th Anniversary: Surviving 20 Years of Reform
L. RANDALL WRAY
2005/6

Some Unpleasant American Arithmetic
WYNNE GODLEY
2005/5

Imbalances Looking for a Policy
WYNNE GODLEY
2005/4

Is the Dollar at Risk?
KORKUT A. ERTÜRK
2005/3

Manufacturing a Crisis: The Neocon Attack on Social Security
L. RANDALL WRAY
2005/2

The Case for an Environmentally Sustainable Jobs Program
MATHEW FORSTATER
2005/1

Those "D" Words: Deficits, Debt, Deflation, and Depreciation
L. RANDALL WRAY
2004/2

Inflation Targeting and the Natural Rate of Unemployment
WILLEM THORBECKE
2004/1

The Future of the Dollar: Has the Unthinkable Become Thinkable?
KORKUT A. ERTÜRK
2003/7

Is International Growth the Way Out of U.S. Current Account Deficits? A Note of Caution
ANWAR M. SHAIKH, GENNARO ZEZZA, and CLAUDIO H. DOS SANTOS
2003/6

Deflation Worries
L. RANDALL WRAY
2003/5

Pushing Germany Off the Cliff Edge
JÖRG BIBOW
2003/4

Caring for a Large Geriatric Generation: The Coming Crisis in U.S. Health Care
WALTER M. CADETTE
2003/3

Reforming the Euro's Institutional Framework
PHILIP ARESTIS and MALCOLM SAWYER
2003/2

The Big Fix: The Case for Public Spending
JAMES K. GALBRAITH
2003/1

PUBLIC POLICY BRIEFS

U.S. Household Deficit Spending
A Rendezvous with Reality
ROBERT W. PARENTEAU
No. 88, 2006 (Highlights, No. 88A)

Maastricht 2042 and the Fate of Europe
Toward Convergence and Full Employment
JAMES K. GALBRAITH
No. 87, 2006 (Highlights, No. 87A)

Rethinking Trade and Trade Policy
Gomory, Baumol, and Samuelson on Comparative Advantage
THOMAS I. PALLEY
No. 86, 2006 (Highlights, No. 86A)

The Fallacy of the Revised Bretton Woods Hypothesis
Why Today's International Financial System Is Unsustainable
THOMAS I. PALLEY
No. 85, 2006 (Highlights, No. 85A)

Can Basel II Enhance Financial Stability?
A Pessimistic View
L. RANDALL WRAY
No. 84, 2006 (Highlights, No. 84A)

Reforming Deposit Insurance
The Case to Replace FDIC Protection with Self-Insurance
PANOS KONSTAS
No. 83, 2006 (Highlights, No. 83A)

The Ownership Society
Social Security Is Only the Beginning . . .
L. RANDALL WRAY
No. 82, 2005 (Highlights, No. 82A)

Breaking Out of the Deficit Trap
The Case Against the Fiscal Hawks
JAMES K. GALBRAITH
No. 81, 2005 (Highlights, No. 81A)

The Fed and the New Monetary Consensus
The Case for Rate Hikes, Part Two
L. RANDALL WRAY
No. 80, 2004 (Highlights, No. 80A)

The Case for Rate Hikes
Did the Fed Prematurely Raise Rates?
L. RANDALL WRAY
No. 79, 2004 (Highlights, No. 79A)

The War on Poverty After 40 Years
A Minskyan Assessment
STEPHANIE A. BELL and L. RANDALL WRAY
No. 78, 2004 (Highlights, No. 78A)

The Sustainability of Economic Recovery in the United States
The Risks to Consumption and Investment
PHILIP ARESTIS and ELIAS KARAKITSOS
No. 77, 2004 (Highlights, No. 77A)

Asset Poverty in the United States
Its Persistence in an Expansionary Economy
ASENA CANER and EDWARD N. WOLFF
No. 76, 2004 (Highlights, No. 76A)

Is Financial Globalization Truly Global?
New Institutions for an Inclusive Capital Market
PHILIP ARESTIS and SANTONU BASU
No. 75, 2003 (Highlights, No. 75A)

Understanding Deflation
Treating the Disease, Not the Symptoms
L. RANDALL WRAY and DIMITRI B. PAPADIMITRIOU
No. 74, 2003 (Highlights, No. 74A)

Asset and Debt Deflation in the United States
How Far Can Equity Prices Fall?
PHILIP ARESTIS and ELIAS KARAKITSOS
No. 73, 2003 (Highlights, No. 73A)

STRATEGIC ANALYSES

Can Global Imbalances Continue? Policies for the U.S. Economy
DIMITRI B. PAPADIMITRIOU, GENNARO ZEZZA, and GREG HANNSGEN
November 2006

Can the Growth in the U.S. Current Account Deficit Be Sustained? The Growing Burden of Servicing Foreign-Owned U.S. Debt
DIMITRI B. PAPADIMITRIOU, EDWARD CHILCOTE, and GENNARO ZEZZA
May 2006

Are Housing Prices, Household Debt, and Growth Sustainable?
DIMITRI B. PAPADIMITRIOU, EDWARD CHILCOTE, and GENNARO ZEZZA
January 2006

The United States and Her Creditors: Can the Symbiosis Last?
WYNNE GODLEY, DIMITRI B. PAPADIMITRIOU, CLAUDIO H. DOS SANTOS, and GENNARO ZEZZA
September 2005

How Fragile Is the U.S. Economy?
DIMITRI B. PAPADIMITRIOU, ANWAR M. SHAIKH, CLAUDIO H. DOS SANTOS, and GENNARO ZEZZA
March 2005

Prospects and Policies for the U.S. Economy: Why Net Exports Must Now Be the Motor for U.S. Growth
WYNNE GODLEY, ALEX IZURIETA, and GENNARO ZEZZA
August 2004

Is Deficit-Financed Growth Limited? Policies and Prospects in an Election Year
DIMITRI B. PAPADIMITRIOU, ANWAR M. SHAIKH, CLAUDIO H. DOS SANTOS, and GENNARO ZEZZA
April 2004

WORKING PAPERS

The Balance Sheet Approach to Financial Crises in Emerging Markets
JAN TOPOROWSKI and GIOVANNI COZZI
No. 485, December 2006

Expensive Living: The Greek Experience Under the Euro
TAUN N. TOAY and THEODORE PELAGIDIS
No. 484, December 2006

Fisher's Theory of Interest Rates and the Notion of "Real": A Critique
ERIC TYMOIGNE
No. 483, December 2006

Net Intergenerational Transfers from an Increase in Social Security Benefits
LI GAN, GUAN GONG, and MICHAEL HURD
No. 482, November 2006

An Inquiry into the Nature of Money: An Alternative to the Functional Approach
ERIC TYMOIGNE
No. 481, November 2006

Methodology and Microeconomics in the Early Work of Hyman P. Minsky
JAN TOPOROWSKI
No. 480, November 2006

This LIMEW publication and all other Levy Institute publications are available online on the Levy Institute website, www.levy.org.

To order a Levy Institute publication, call 845-758-7700 or 202-887-8464 (in Washington, D.C.), fax 845-758-1149, e-mail info@levy.org, write The Levy Economics Institute of Bard College, Blithewood, PO Box 5000, Annandale-on-Hudson, NY 12504-5000, or visit our website at www.levy.org.

The Levy Economics Institute of Bard College
Blithewood
PO Box 5000
Annandale-on-Hudson, NY 12504-5000

Address Service Requested