What's the Difference? Evidence on the Distribution of Wealth, Health, Life Expectancy and Health Insurance Coverage

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Paper prepared for the 11th Biennial CDC/ATSDR Symposium, April 17–18
Atlanta, Georgia

September 23, 2007

Abstract

There is a literature of long standing that considers the relationship between income and differentials in mortality and morbidity, but information on differentials over the distribution of accumulated wealth have been far more scarce and subject to measurement problems. This paper provides evidence from the Survey of Consumer Finances, which is designed as a survey of wealth, on the distribution of wealth and income and how those distributions have shifted in recent years. Particular attention is paid to the distribution of wealth across minority groups and across age groups. The paper also examines the relationship between wealth and health status, life expectancy and health insurance coverage.

Inequality is present around us in many dimensions—income, consumption, wealth, intelligence, health, beauty, grace, opportunity, etc. In some instances, there are clear causal effects among such factors—such as from intelligence or training to income. In other cases, there are more possibilities for mutual influence—such as wealth supporting good health, and good health making it possible to accumulate wealth. This paper looks primarily at the distribution of wealth in the U.S. and it provides indications of its importance as a factor in disparities in health-related outcomes.

In the period since World War II, inflation-adjusted disposable income, consumption and wealth have roughly tripled on a per capita basis. If these increases had been experienced uniformly across all groups, society would have been unambiguously better off. But the evidence for income and consumption indicates that those changes were far from uniform.[1] The evidence for wealth is much more limited, but what is available suggests that distributional shifts have been more limited.

The life expectancy of an average 18 year-old rose by over 7 years from 1950 to 2003, according to the National Center for Health Statistics,[2] and many other health measures showed improvements over this time. There are clearly variations across groups in experiences of mortality and morbidity, but the statistical evidence on the effects of economic factors is limited. Analysis of the relationship between health indicators and economic measures has often been contaminated by measurement problems.

The first section of this paper discusses wealth and its measurement in the Survey of Consumer Finances (SCF), which contains high-quality information on wealth, and a series of health-related indicators. The next section looks at various distributional measures of wealth. The third

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[1]See Picketty and Saez [1] for a discussion of income and Krueger and Perri [2] for a discussion of consumption.

[2]As estimated from data for 1949–1951, the life expectancy of an 18 year-old was 53.1 years (National Office of Vital Statistics [3]); the comparable estimate for 2003 was 60.3 years (Arias [4]).

section considers some simple models of smoking behavior, self-reported health, expected longevity and coverage by health insurance. A final section concludes.

I. Wealth and wealth measurement

Wealth is a complex summary of prior behavior and luck, and it is implicitly a statement about future expectations. It incorporates cumulative saving out of income (and, thus, a myriad of decisions about spending and working), returns on previously accumulated assets (and, thus, potentially complicated portfolio decisions and the degree to which investments are financially successful), and assets received from others (principally, inheritances and gifts). It reflects expectations of future needs or desires (for example, saving for children's college education or for retirement), the possibility of uninsurable or imperfectly insurable risks (for example, loss of a job or failure of health), and expectations about future asset values (for example, speculation in high technology stocks in the late 1990s). Wealth may also be held as an instrument of control—control of an operation, such as a personal business, or control of other people. Sometimes wealth is held, at least in part, for bequests—to individuals or to a larger part of society through nonprofit organizations.

There is no single concept of wealth that is universally applicable. Some measures, including the one used in this paper, rely on the value of assets and liabilities that can be taken as being under the direct control of an individual. But other measures that incorporate the rights to future income (for example, an expected present value of Social Security, pension benefits or trust income) or social entitlement programs (for example, the insurance value of Medicare) or other social and family resources may be also appropriate, particularly when comparing across periods when the relative composition of such assets changes.

The measurement of even the most straightforward concepts of wealth poses substantial technical and cognitive problems. Values of some assets, such as a personal business or a residence, may not be clear unless they are actually brought to the market; even then, there is a question of the conditions under which such a transaction might take place (for example, is it a "fire sale" or a transaction between a willing buyer and a willing seller). Some assets and

liabilities may be poorly understood, even by people who hold them. The distribution of wealth is highly skewed and survey nonresponse rates are typically relatively high among wealthy people; a survey data source without a way of classifying a sample by at least some indicator of wealth is likely to be inefficient and probably biased in terms of characterizing the distribution of the wealth of the population.

This paper primarily uses data from the 2004 survey, the most recent one available at the time of the writing of this paper. The SCF is conducted every three years by the Federal Reserve Board in cooperation with the Statistics of Income Division (SOI) of the Internal Revenue Service. Since 1992, data for the survey have been collected by NORC at the University of Chicago.

In contrast to other U.S. government surveys, the SCF is designed primarily to measure wealth and related variables for the whole population.[3] Few other surveys collect more than a few details of wealth, and those that do collect relatively summarized information. In addition to collecting detailed wealth information, the survey gathers a substantial amount of data on variables that provide scope for describing and interpreting wealth patterns. The supplemental variables include ones on demographic characteristics, employment history, use of financial institutions, health status, financial attitudes, and a variety of other measures. The interview questions are carefully framed to help respondents provide a reliable classification of the components of their wealth. The interviews are conducted using a questionnaire programmed to run on a laptop computer, which assists in maintaining the integrity of the data. Although the median interview length is about 75 minutes, an interview for a family with complex finances might run for several hours. The data collected are extensively reviewed during the field period, and questions and other feedback are returned to the interviewers based on that review. Missing data are addressed using multiple imputation.

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[3]See Bucks, Kennickell and Moore [5] for an overview of the survey and for references to more detailed discussions of the technical design of the survey.

The survey employs a dual-frame sample design. A relatively standard area-probability design is used to give robust national coverage of broadly distributed behavior. A special list sample is used to deal with the problems of obtaining a sufficient number of wealthy observations to characterize the upper tail of the wealth distribution and of adjusting for differential nonresponse propensities over wealth groups. The list sample is selected by Federal Reserve staff from a set of statistical records derived from tax returns by SOI, using a stratification scheme developed by applying predictive models of wealth to the SOI data.[4] At least an initial attempt is made to reach every sample member in person; but the actual interview may be done in-person of by telephone, depending on the convenience of the respondent. A system of sample management ensures that every element of the sample receives a structured amount of effort. The unit response in the survey is about 70 percent for the area-probability sample and ranges from about 50 percent for the least wealthy stratum of the list sample to about 10 percent for the wealthiest. Compensation for nonresponse is implemented through weighting adjustments that account for deviations from dimensions of the initial design as well as known distributions of population characteristics. The unit of observation in the survey is taken as the "primary economic unit," a construction that differs from the household in the exclusion of household members that are not financially connected with the head of the household and that person's spouse or partner.

The wealth estimates used in this paper are based on the value of all tangible assets (real estate, personal businesses, vehicles and miscellaneous other nonfinancial assets) and all financial assets (deposits, stocks, bonds, mutual funds, cash-value life insurance, designated retirement accounts, annuities, trusts, miscellaneous other financial assets) netted against the value of all debts (mortgages, credit cards, installment loans, loans against life insurance and pension accounts, and miscellaneous other loans). All these amounts are, in principle, as of the time of the interview.

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[4]By design, members of the *Forbes* list of the wealthiest 400 Americans are excluded from the sample. The assumption is that it would be very costly and very likely fruitless to attempt to interview members of this group. In 2004, the group's wealth accounted for about two percent of the total of their wealth and that of all households in the 2004 SCF (Kennickell [6]). None of the names of the sample members are known to Federal Reserve staff.

II. Wealth inequality

The levels of income and wealth are quite different across their distributions (table 1)[1]. Income is higher than wealth at the bottom of the distribution and substantially lower at the top. The bottom of the wealth distribution consists of young people who have not yet accumulated substantial assets, people with relatively large debts, people who have experienced economic shocks that required them to spend their assets, and people who have never saved. The other end of the wealth distribution consists of those who have saved over their lifetimes, those who have experienced unusually large returns on investments, and those who have received substantial inheritances or gifts. Comparison of the quantiles of each distribution shows that the distributions also differ greatly in relative terms, with wealth being proportionally far higher in the upper tail of the distribution. For example, in 2004 the 90th percentile of the wealth distribution was about 63 times the value at the 25 percentile, whereas the comparable figure for income was about 6.

Figure 1 shows Lorenz curves for income and wealth from the 2004 SCF. A Lorenz curve plots the cumulative distribution of a given variable against the cumulative distribution of the population. Thus, under perfect equality, the plot would be a 45-degree line. The Lorenz curve for income lies above that for wealth, except, of necessity, at the two end points. The Gini coefficient, defined as the area between the Lorenz curve and the 45-degree line as a fraction of the area below the 45-degree line, is often used as a summary measure of the information in a Lorenz curve. For 2004, the Gini coefficient for wealth was 0.805 and that for income was 0.541.

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[1]Income here is a before-tax measure for the previous calendar year that includes wages and tips, self-employment income, taxable and nontaxable interest income, dividends, partnership and other business income, realized capital gains, Social Security and pension income, welfare payments, alimony and child support, transfers from other households, and miscellaneous earned (e.g., director's fees) and unearned (lottery winnings) cash income. See Kennickell [6] for a more detailed decomposition of the distribution of wealth.

Some of the relative difference in the distributions of income and wealth may be explained as the effect of items omitted from the income measure. An important component of what some people might view as "income," unrealized capital gains, is not included in the definition of income used here (or in most analyses); in a sense, such income is "automatically saved." For owners of marketable assets, such as stocks or non-traded businesses, and holders of tax-deferred retirement accounts (e.g., IRAs and 401(k) accounts), such income might be a substantial but relatively variable component of a broader measure of income. The income measure also excludes the value of employer-provided health insurance, retirement plans and a variety of types of deferred compensation that might be relatively important factors for middle-class households. For poor households, the exclusion of publicly provided housing subsidies and health benefits may be important. However, because the income tax system is generally progressive (that is, it taxes higher incomes at a higher average rate), comparison of the distribution of wealth with an after-tax measure of income would be expected to show even sharper differences.

Characterizing shifts in the distribution of wealth over time is quite difficult, both because of the inherent variability of measurement and because there are so many measures one could examine to determine whether wealth has become "more concentrated." One commonly used measure, the concentration ratio, which gives the share of total wealth held by a subgroup of the distribution. Table 2 shows the percent of total wealth held by groups across the distribution for all of the surveys since 1989, the period for which the data are most comparable. Relative to all the earlier years except 1989, the share of the least wealth 50 percent of families declined significantly to 2004. Although the share of the upper 50 percent must of necessity have increased, there is no statistically significant evidence of change for the particular groups shown, though some of the changes—particularly those for the wealthiest 1 percent of families—may appear large at face value.

A clearer sense of the change in the distribution may be had by looking in more detail at what happened across the distribution. Figure 2 shows a relative quantile-difference plot for wealth in 2004. The figure plotted is the difference between the value of the wealth distributions in 2004 and 1989 as a proportion of the 1989 value; the dots indicate the 95 percent confidence intervals

at selected points. The changes below about the 20th percentile are difficult to interpret, largely because of noisy variation in small or negative values. For all groups above this point, the data suggest that wealth rose strongly across the board, but at a greater rate both above and below the 30 percent around the median. Wealth rose particularly strongly—and significantly so—at the very top of the distribution.

For income (figure 3), the story is more muted. The distribution rose overall, and there is a similar spike of growth at the top of the distribution. However, according to estimation methodology, these changes do not appear to differ significantly. Other ways of characterizing the distribution may show significant change, but such an exploration is tangential to the goals of this paper.

There is very substantial variation in the level of wealth across different classifications of the population. Two are considered here: racial and ethnic minorities and age groups.

Figure 4 shows the simple cumulative distribution of wealth in 2004 for African Americans (solid line), Hispanics (dotted line), and all families (dashed line). The distributions for African Americans and Hispanics are very similar. But both of them differ substantially from the distribution for all families. Where they differ most clearly is in the region around zero wealth. A far larger proportion of these groups has essentially no wealth. Although above zero the slopes of the distributions for the groups roughly parallel that for all families, of necessity the upper tail of those distributions is thinner.

Over age groups in 2004, both mean and median wealth rise until the 55–64 age group and then decline. This pattern reflects both the generally rising level of lifetime income with each succeeding cohort and life-cycle patterns of saving. Typically, a value of mean wealth greater than the median, it is taken to indicate skewness in the distribution. Relative to the median, the mean falls over the first three age groups, and then holds approximately steady.

III. Wealth and health-related outcomes

In addition to the very detailed information on wealth, the SCF contains some information on health-related outcomes, in particular: smoking behavior, self-reported health status, expected longevity and coverage by private health insurance. Although this set of measures is not as rich as those available in surveys focused on health, such surveys typically have scant data on wealth. Thus, the SCF offers a chance to see whether a high quality wealth measure has any meaningful correlation with health measures in the context of a set of simple statistical models. There has been a great deal of research on these topics. In the discussion below, only a selected set of references that consider the effects of some economic measures are given to provide context.

Before describing the results, it may be useful to discuss briefly income and wealth and why they might have different correlations with the health-related measures. Income is a current flow of resources, and it may be derived from work, returns on wealth, or transfers (including interpersonal transfer and public and private insurance). Income from work is usually taken to be determined by the level of skill of the worker, the degree of application of effort, and the demand for the skills. Different types of income have a greater degree of permanence than others. For example, Social Security provides guaranteed and inflation-adjusted monthly income to covered retired workers. In contrast, income from work may be affected by conditions in the labor market as well as by personal circumstances, such as illness; transfer income may be specifically intended to counter variations in other types of income. The models presented in this paper use a longer-term measure of income—"normal income"—that smooths, in principle, relatively short-terms income fluctuations;[2] thus, this measure should be more reflective of the socioeconomic level of a household than a pure current measure of income.

Wealth is the cumulated remains or deficits of past income (broadly defined). Because of this temporal dimension, it reflects something of the past history: of the movements in past income

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[2]The respondent is asked for all components of income for the previous calendar year and asked to confirm the total amount. Then the respondent is asked whether the figure is normal or unusually high or low. If the income is unusual, the "normal" level is asked.

(including investment income), decisions about borrowing, and past events and preferences that might have led a person to add to or subtract from that cumulation. Generally, higher levels of wealth among people with similar preferences and demographic characteristics are taken to indicate a history of either fewer negative shocks or more positive ones. Command over wealth offers the possibility of households' being able to smooth over future negative disturbances to income—that is, to serve as a sort of insurance. To the extent that possession of wealth leads people to feel more secure, it may also lead indirectly to lower levels of stress and deleterious stress-related behaviors and outcomes that could, in turn, have consequences for future income.

The models presented here are quite simple structures that express the range of wealth as a series of dummy variables for membership of the survey household in a particular group defined in terms of percentiles of the distribution of net worth. The reference category is the 40th-to-60th percentile group. As noted, income in the models is a measure of typical income or the household. Age is captured as a quadratic, education is given by years of formal schooling and minority status (nonwhite or Hispanic) is captured as a dummy variable. Because it is possible that the design of the survey could affect the results, explicit controls are given for membership in the various strata of the list sample. Other demographic characteristics are included as relevant. The models make no pretence of being structural descriptions of the outcomes modeled. They are intended to be suggestive of the possible importance of economic measures in understanding health-related outcomes. The types of models used are ones common in econometrics.

Grafova and Stafford [7] considered socioeconomic difference in smoking behavior, using data for the years 1986–2001. In their analysis people with higher income or more advanced education are less likely to be smokers. Using data from 1964–1974, Schuman [8] found a pattern of rising rates of smoking by men up to a middle income group, and then declining; for women, there was a rising profile of smoking with income, but at a lower level than for men.

In the SCF, information on smoking behavior is obtained for the head of the household and for that person's spouse or partner. Table 4 provides estimates of a probit model of smoking, where

males and females are treated separately as well as pooled[3]. Although the pooled model indicates that males are more likely than females to smoke, the patterns of the other factors are quite similar. Holding other factors constant, the propensity to smoke rises with age up to about 40, and then declines; the propensity is lower for people who are married or living with a partner, more highly educated people, and racial and ethnic minorities; higher levels of both income and wealth also have a negative effect.

The 1967 Whitehall Study of U.K. civil servants was among the earliest large research projects to find strong evidence of socioeconomic differentials in morbidity and mortality, which were confirmed in a follow-up 20 years later (van Rossum *et al.* [9]). There was a clear inverse relationship between employment grade and the prevalence of such illnesses as heart disease, and there was also a differential tendency for those in lower grades to engage in practices that contribute to poor health, such as smoking, poor diet and insufficient exercise. Mathis [10] and Kitagawa and Hauser [11] used records matched for deceased persons to establish mortality differentials for the U.S. in the 1960s; work by Pappas *et al.* [12] confirmed that such differentials persisted in the 1980s, and in some respects the socioeconomic differentials were stronger. These studies have been confirmed by numerous others using a variety of techniques.

The SCF offers self-reported information for the household head and that person's spouse or partner on current health status and expected longevity. Because these measures are self-reported, they may reflect differences across groups in optimism, as well as more fundamental differences in health and longevity. According to the estimates of the ordered probit model presented in table 5, health status worsens with age (higher values indicate worse health); this expected result serves to impart some confidence in the measure as a meaningful indicator of health. All other things equal, higher levels of education are associated with better health, and minority status—at least among women and in the pooled model—is associated with worse health; health is better among those with higher incomes and among higher wealth groups. These health differences are, as expected, reflected in differences in expected longevity shown in

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[3]The reported standard error are model-based estimates that correct for the multiple imputation of the SCF data.

the regression model in the first set of columns in table 6. But as shown by the model in the second set of columns, the other relationships identified in the model are not very dependent on controlling for current health status. There is a similar finding for minority status, which has a mild positive effect on longevity, but the strength of the other relationships is not much affected when this factor is omitted, as may be seen by comparing the second and third sets of columns in the table.. The models show an initially declining and then rising expected lifespan, higher expected lifespan among those with higher levels of education, and lower expected longevity among the least wealthy. In these models, the income variable has no significant additional effect.

As had been widely noted, not everyone in the U.S. is covered by health insurance. According to Petersen [13], almost 15 percent of Americans were not covered by any type of health insurance. As that author points out, those without insurance are more likely, in a univariate sense, to be young, poor or Hispanic. Table 7 shows estimates of probit models of health insurance coverage. The first model, which includes all households shows a significant age effect on coverage; this result is an artifact of the near universal coverage of people over age 65 by Medicare. Thus, the second model focuses on households where the head of the household or both members of the core couple are aged less than 65; the significant age effect disappears in this model. Other things being equal, households headed by single males (but not single females) or racial and ethnic minorities are less likely to have health insurance; those with higher levels of education and higher levels of income or wealth are more likely to be covered. Households with larger numbers of adults are less likely to have insurance coverage for all members of the household, but even when the definition of coverage is restricted to include only the household head or core couple and any minor children, the result persists, as shown in the third set of estimates

IV. Conclusion

Wealth and income in the U.S. are both highly concentrated, but wealth is much more so. Roughly a third of total family wealth is held by the wealthiest one percent, about another third by the next wealthiest nine percent and the remainder by the least wealthy 90 percent of families.

For some sub-groups, there are more striking differences. In particular, for African Americans and Hispanics, the proportion of families with no or virtually no wealth is far higher.

The models presented here support the conclusion that wealth is a factor independent of income in reduced smoking, better health status, greater longevity and coverage by health insurance. Wealth may affect health and health risk factors by providing resources for healthcare when income is unusually low, it may serve to make people feel more secure and thereby experience less stress, it may be used as a basis of living in a place or way that minimizes other risks, or it may simply be that possession of wealth is an indicator that past events have been favorable. More sophisticated tests than the simple models presented here would be needed to discriminate those possibilities. The findings may be taken to argue for greater collection of wealth data in health surveys.

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Table 1: Distributions of wealth and income, all families, 2004 SCF thousands of 2004 dollars.

	Wealth	Income
Mean	448.0	70.7
10th percentile	0.2	11.1
25th percentile	13.3	22.2
Median	93.1	43.2
75th percentile	328.4	77.0
90th percentile	831.6	129.4
99th Percentile	6,257.0	488.2
Memo items:		
Percent ratios		
P75/P25	24.8	3.5
P90/P25	62.8	5.8
Mean/median	4.8	1.6

Figure 1: Lorenz curves for income and wealth, all families, 2004.
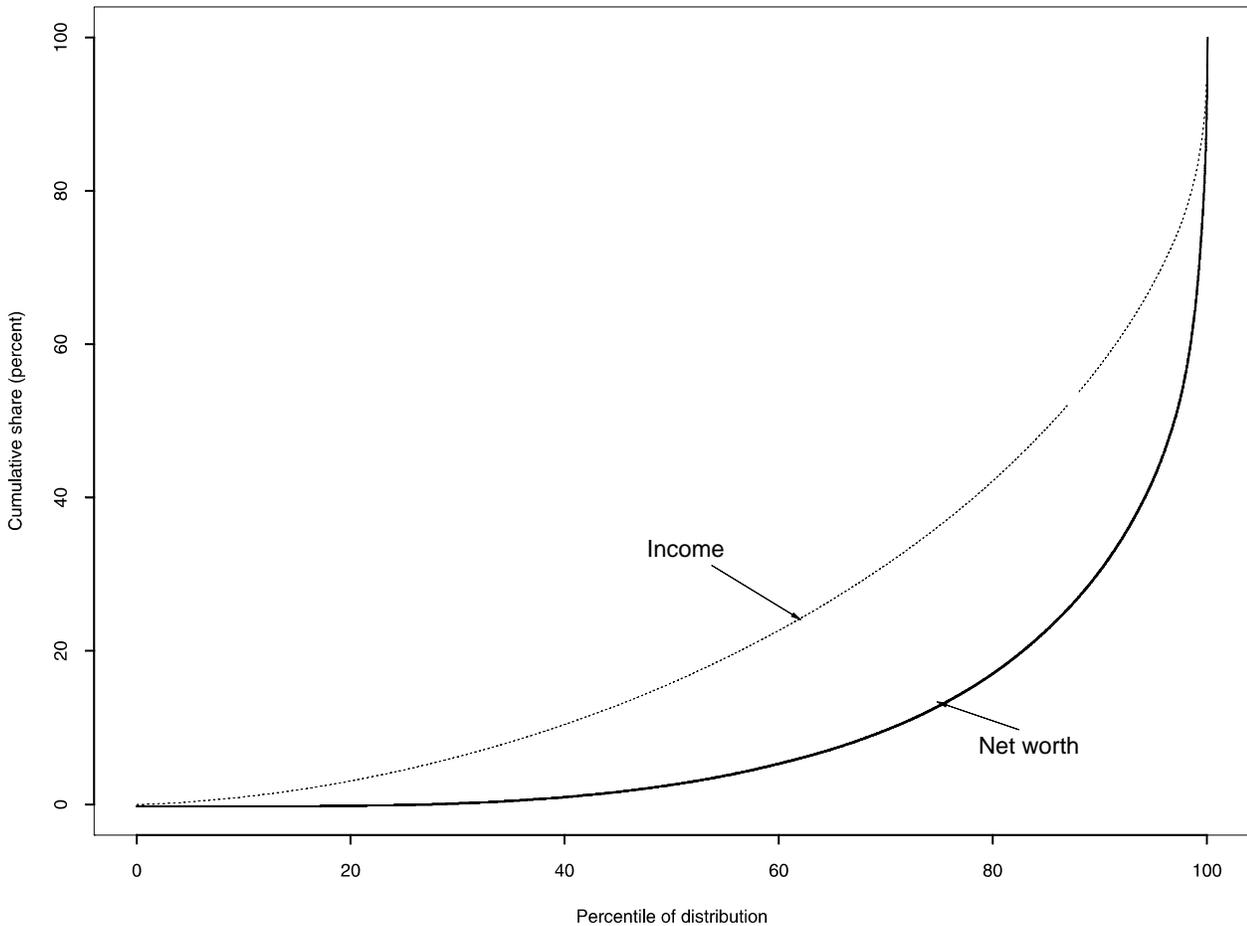
Table 2: Concentration ratios: proportions of total net worth held by various percentile groups, all families, 1989–2004 SCF.

Proportion of total net worth held by group

	Net worth percentile group				
	0-50	50-90	90-95	95-99	99-100
1989	3.0	29.9	13.0	24.1	30.1
	0.3	*1.8*	*1.6*	*2.3*	*2.3*
1992	3.3*	29.6	12.5	24.4	30.2
	0.2	*1.1*	*0.7*	*1.3*	*1.4*
1995	3.6*	28.6	11.9	21.3	34.6
	0.2	*0.7*	*0.6*	*0.9*	*1.3*
1998	3.0*	28.4	11.4	23.3	33.9
	0.2	*0.9*	*0.6*	*1.2*	*1.5*
2001	2.8*	27.4	12.1	25.0	32.7
	0.1	*0.7*	*0.7*	*1.1*	*1.4*
2004	2.5	27.9	12.0	24.1	33.4
	0.1	*0.9*	*0.7*	*1.2*	*1.2*

Standard errors are given in italics.
*=significantly different from the 2004 level at 95 percent confidence.

Figure 2: Relative quantile-difference plot for net worth, all families 2004 minus 1989 as a percent of 1989.
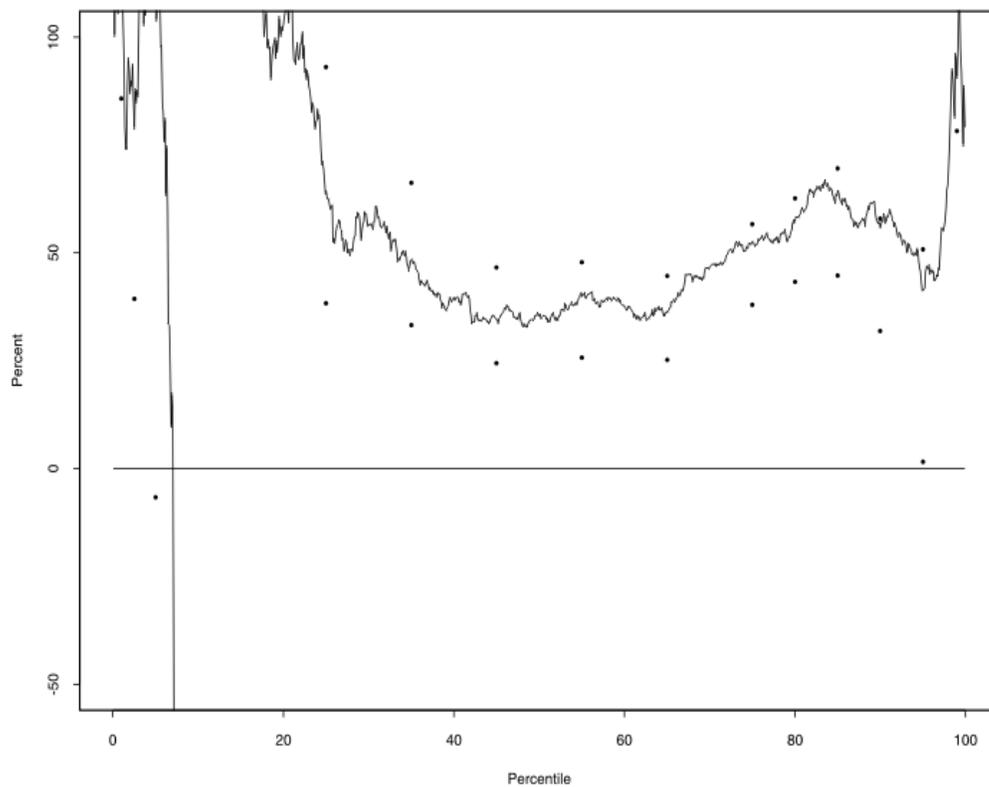
Figure 3: Relative quantile-difference plot for family income, all families, 2004 minus 1989 as a percent of 1989.
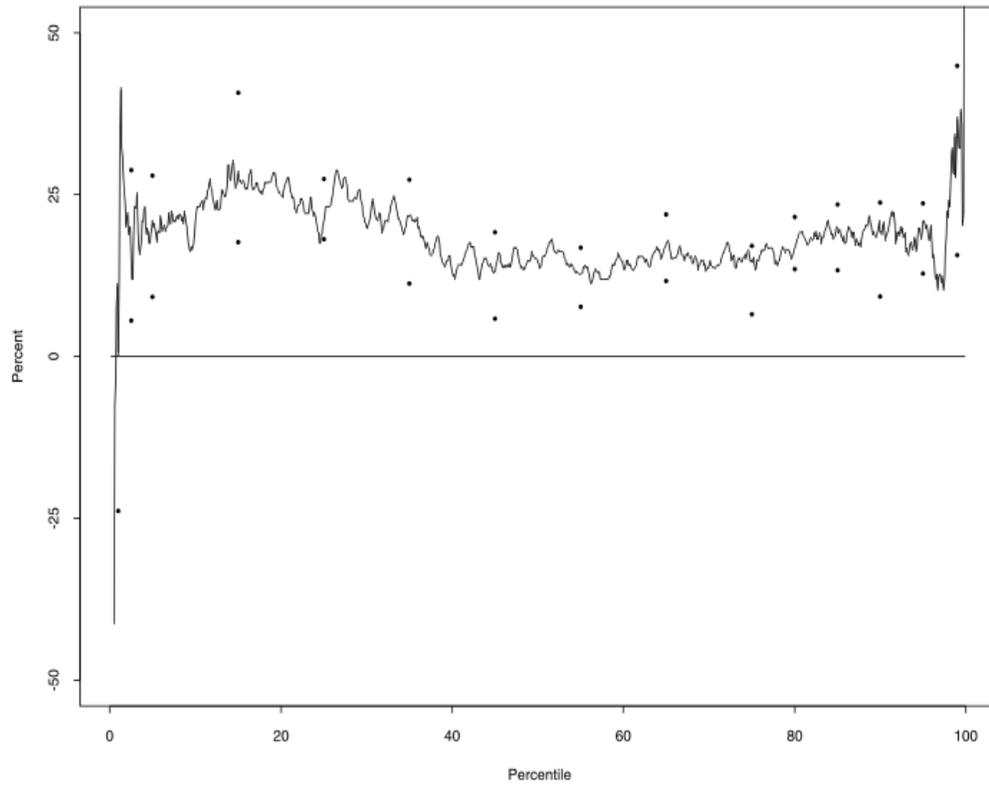
Figure 4: Cumulative distribution of net worth; African Americans, Hispanics, and all families; 2004
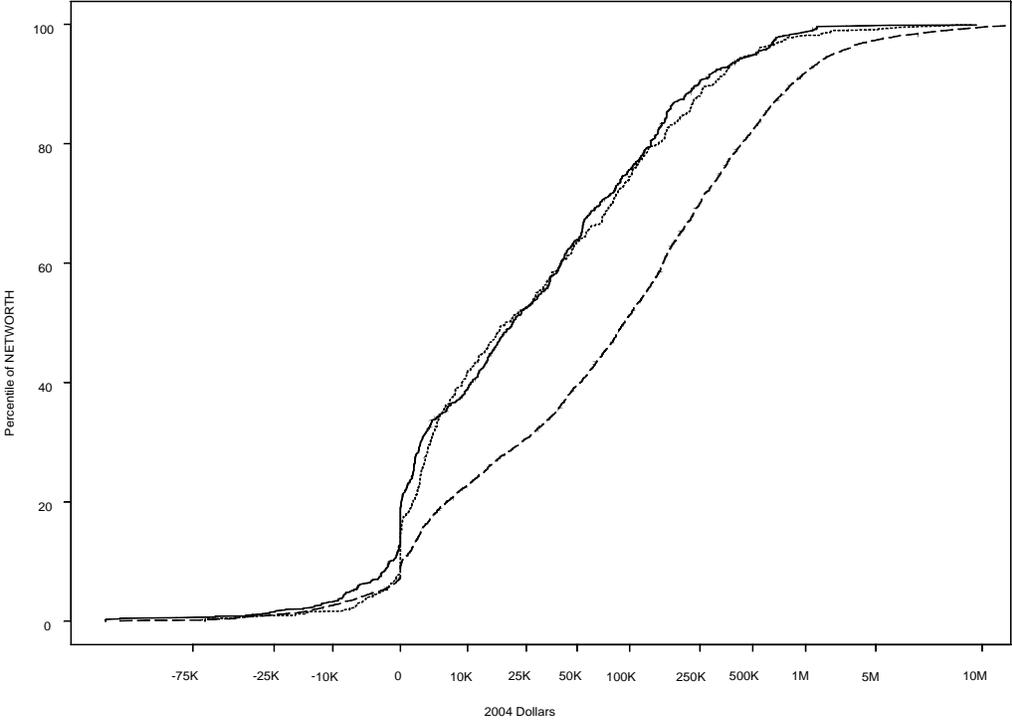
Table 3: Mean and median wealth, by age groups, all families, 2004.

	Mean	Median
<35	73.5	14.2
35–44	299.2	69.4
45–54	542.7	144.7
55–64	843.8	248.7
65–74	690.9	190.1
≥75	528.1	163.1

Table 4: Probit model of smoking; males, females, and both sexes combined: 2004.

	Males Coeff.	S.E.		Females Coeff.	S.E.		All Coeff.	S.E.	
Constant	0.188	0.407		0.946	0.413	**	0.446	0.288	
Age	0.03	0.011	***	0.04	0.011	***	0.033	0.007	***
Age2	-0.035	0	***	-0.051	0	***	-0.041	0	***
Male							0.211	0.036	***
Marrpart	-0.333	0.12	***	-0.475	0.124	***	-0.398	0.086	***
Edn	-0.049	0.009	***	-0.058	0.01	***	-0.053	0.007	***
Minority	-0.274	0.065	***	-0.508	0.066	***	-0.385	0.046	***
Dnw1	0.276	0.124	**	0.259	0.107	**	0.273	0.079	***
Dnw2	0.468	0.117	***	0.308	0.109	***	0.387	0.079	***
Dnw3	0.287	0.099	***	0.195	0.09	**	0.24	0.066	***
Dnw5	-0.176	0.098	*	-0.254	0.096	***	-0.214	0.069	***
Dnw6	-0.231	0.115	**	-0.429	0.127	***	-0.318	0.083	***
Dnw7	-0.304	0.124	**	-0.306	0.127	**	-0.305	0.088	***
Lnorminc	-0.044	0.028		-0.103	0.03	***	-0.07	0.02	***
Dstr1	-0.108	0.177		0.085	0.163		-0.011	0.12	
Dstr2	-0.197	0.148		-0.15	0.16		-0.175	0.109	
Dstr3	-0.077	0.135		-0.166	0.158		-0.106	0.102	
Dstr45	-0.159	0.119		-0.042	0.132		-0.106	0.088	
Dstr67	-0.066	0.156		0.067	0.17		-0.001	0.114	
N		3580			3930			7510	

Table 5: Self-assessed health status (Hstat); males, females and both sexes combined: 2004.

	Males			Fenales			All		
	Coeff.	S.E.		Coeff.	S.E.		Coeff.	S.E.	
Age	0.019	0.008	**	0.023	0.007	***	0.022	0.005	***
Age2	0.001	0		0.019	0		0	0	
Male							0.012	0.026	
Marrpart	-0.117	0.097		-0.12	0.101		-0.114	0.07	
Edn	-0.013	0.007	*	-0.018	0.007	**	-0.015	0.005	***
Minority	0.03	0.049		0.112	0.045	**	0.075	0.033	**
Dnw1	0.061	0.107		0.487	0.083	***	0.321	0.066	***
Dnw2	0.375	0.098	***	0.432	0.084	***	0.405	0.063	***
Dnw3	0.156	0.079	**	0.255	0.074	***	0.209	0.056	***
Dnw5	-0.211	0.077	***	-0.158	0.075	**	-0.183	0.056	***
Dnw6	-0.285	0.084	***	-0.274	0.084	***	-0.279	0.059	***
Dnw7	-0.372	0.085	***	-0.4	0.085	***	-0.386	0.061	***
Lnorminc	-0.112	0.02	***	-0.096	0.021	***	-0.106	0.015	***
Ddstr1	0.065	0.136		-0.041	0.124		0.011	0.092	
Dstr2	-0.176	0.1	*	-0.079	0.098		-0.127	0.07	*
Dstr3	-0.11	0.092		-0.084	0.094		-0.095	0.066	
Dstr45	-0.12	0.079		-0.103	0.082		-0.108	0.057	*
Dstr67	-0.122	0.104		-0.121	0.109		-0.119	0.076	
Cons1	-3.452	0.313	***	-3.313	0.309	***	-3.334	0.219	***
Cons2	-1.19	0.305	***	-0.747	0.297	**	-0.931	0.212	***
Cons3	0.215	0.305		0.624	0.298	**	0.454	0.212	**
Cons4	1.177	0.306	***	1.525	0.299	***	1.379	0.213	***
N		3580			3930			7510	

Table 6: Expected lifespan; males, females and both sexes combined; 2004.

	Males Coeff.	S.E.		Females Coeff.	S.E.		All Coeff.	S.E.
Constant	74.65	2.07	***	77.777	2.241	***	78.598	2.253
Age	-0.195	0.032	***	-0.515	0.055	***	-0.504	0.055
Age2	0.393	0	***	0.643	0.001	***	0.629	0.001
Male	-2.619	0.27	***	-2.294	0.268	***	-2.29	0.268
Marrpart	-1.829	0.718	**	-1.174	0.741		-1.327	0.742
Edn	0.916	0.054	***	1.073	0.055	***	1.045	0.055
Minority	1.225	0.378	***	1.202	0.388	***		
Dnw1	-1.865	0.709	***	-3.036	0.719	***	-2.794	0.704
Dnw2	-0.515	0.677		-1.797	0.703	**	-1.547	0.688
Dnw3	0.373	0.623		-0.392	0.63		-0.24	0.627
Dnw5	-0.815	0.616		-0.358	0.647		-0.381	0.651
Dnw6	-0.827	0.589		-0.108	0.602		-0.171	0.605
Dnw7	-0.99	0.612		-0.235	0.627		-0.336	0.63
Lnorminc	-0.251	0.153		0.059	0.157		0.041	0.157
Hstat_excel	4.491	0.305	***					
Hstat_fair	-3.109	0.434	***					
Hstat_poor	-6.178	0.684	***					
Dstr1	0.208	0.979		0.185	1.004		0.287	1.005
Dstr2	0.092	0.704		0.422	0.723		0.433	0.723
Dstr3	-0.498	0.66		-0.205	0.678		-0.227	0.679
Dstr45	0.494	0.588		0.874	0.604		0.886	0.606
Dstr67	0.749	0.802		0.848	0.824		0.869	0.825
R^2		0.177			0.131			0.129
N		7510			7510			7510

Table 7: Probit models of coverage by health insurance for all households. and all households with head aged less than 65. and all

Sample:	All households			Core person/couple aged <65					
Dep. Var.	All covered			All covered			Nuclear family covered		
	Coeff.	S.E.		Coeff.	S.E.		Coedd.	S.E.	
Constant	-1.849	0.379	***	-2.655	0.479	***	-2.655	0.484	***
Hage	-0.03	0.01	***	-0.002	0.018		-0.004	0.018	
Hage2	0.049	0	***	0.013	0		0.02	0	
SM	-0.571	0.129	***	-0.6	0.133	***	-0.697	0.134	***
SF	-0.465	0.756		-0.503	0.762		-0.516	0.77	
Hedn	0.095	0.01	***	0.114	0.011	***	0.118	0.011	***
Minority	-0.199	0.058	***	-0.203	0.06	***	-0.197	0.062	***
Dnw1	0.006	0.1		0.012	0.104		0.011	0.106	
Ddnw2	-0.218	0.102	**	-0.222	0.11	**	-0.26	0.112	**
Ddnw3	-0.077	0.082		-0.086	0.087		-0.103	0.088	
Dnw5	0.366	0.1	***	0.395	0.11	***	0.349	0.12	***
Dnw6	0.4	0.132	***	0.43	0.144	***	0.5	0.17	***
Ddnw7	0.406	0.141	***	0.359	0.156	**	0.397	0.163	**
Lnorminc	0.171	0.029	***	0.174	0.033	***	0.17	0.034	***
N_lt21	-0.024	0.023		-0.019	0.024		-0.021	0.024	
N_ge21	-0.298	0.056	***	-0.302	0.059	***	-0.131	0.061	**
Npeu	-0.313	0.097	***	-0.225	0.104	**	-0.13	0.109	
Dstr1	-0.06	0.148		-0.065	0.151		-0.002	0.155	
Dstr2	-0.098	0.163		-0.167	0.169		-0.245	0.171	
Ddstr3	-0.04	0.167		-0.03	0.178		-0.182	0.179	
Dstr45	0.176	0.165		0.299	0.187		0.311	0.207	
Dstr67	-0.319	0.204		-0.3	0.225		-0.217	0.253	
N		4522			3628			3628	

Variable definitions: tables 4–7.

Age: age in years.
Age2: age squared divided by 100.
SF: dummy variable for household headed by a single female.
SM: dummy variable for household headed by a single male.
Male: dummy variable for sex of person is male.
Marrpart: dummy variable for person is married or living with a partner.
Edn: Years of education.
Minority: Dummy variable for respondent was nonwhite or Hispanic.
Dnw1: family net worth less than 10th percentile.
Dnw2: family net worth between 10th and 20th percentiles.
Dnw3: family net worth between 20th and 40th percentiles.
Dnw4: family net worth between 40th and 60th percentiles (reference category).
Dnw5: family net worth between 60th and 80th percentiles.
Dnw6: family net worth between 80th and 90th percentiles.
Dnw7: family net worth greater than or equal to the 90th percentile.
Lnorminc: natural logarithm or "normal" annual income.
Hstat_excel: self-reported health status "excellent."
Hstat_good: self-reported health status "good" (reference category).
Hstat_fair: self-reported health status "fair."
Hstat_poor: self-reported health status "poor."
Hstat: 1=excellent, 2=good, 3=fair, 4=poor.
N_lt21: number of people in the household aged less than 21.
N_ge21: number of people in the household aged at least 21.
NPEU: dummy variable for presence within the household of economic units financial independent of the core couple of head of the household.
Dstr1: dummy for observation in stratum 1 of the list sample.
Dstr2: dummy for observation in stratum 2 of the list sample.
Dstr3: dummy for observation in stratum 3 of the list sample.
Dstr45: dummy for observation in stratum 4 or 5 of the list sample.
Dstr67: dummy for observation in stratum 6 or 7 of the list sample.

Model-based significance level:
***: significant at 1 percent.
**: significant at 5 percent.
*: significant at 10 percent.