

## **Wealth Inequality and the Prospects for Increasing Intergenerational Transfers<sup>\*</sup>**

Stephen L. Morgan  
Cornell University

John C. Scott  
Cornell University

Paper Presented at the  
Annual Meetings of the Population Association of America  
Philadelphia, Pennsylvania  
April 2, 2005

---

<sup>\*</sup> Direct correspondence to Stephen L. Morgan ([slm45@cornell.edu](mailto:slm45@cornell.edu)) or John C. Scott ([jcs86@cornell.edu](mailto:jcs86@cornell.edu)) at Department of Sociology, 323 Uris Hall, Cornell University, Ithaca, NY 14853.

## **Wealth Inequality and the Prospects for Increasing Intergenerational Transfers**

### **Abstract**

Analyzing two cohorts from the Health and Retirement Survey in 1992 and 2000, we investigate the growth of wealth inequality and assess cohort changes in the frequency, intensity, and determinants of intergenerational transfers. Based on these results, we discuss the range of permissible predictions about the increasing prospects for the self-perpetuation of wealth inequality across family dynasties. Although wealth inequality has grown substantially, patterns of intergenerational transfers have changed only modestly. Concerns that the level of inequality will continue to increase unabated appear unwarranted.

## **INTRODUCTION**

The level of inequality observed for any cohort is a function of intergenerational transfers – investments in children by parents and grandparents, bi-directional income-supplementation across generations, bequests to heirs, and in-kind donation of caregiving and childrearing services that release current income for other purposes (see Bowles and Gintis 2002; Danziger, Haveman, and Plotnick 1991; Mulligan 1997; O’Rand and Henretta 1999; Rosenzweig and Wolpin 1993; Rossi and Rossi 1990). Although the importance of these transfers is widely acknowledged, and some components of the process have been investigated extensively (such as investments in children by parents), the literature remains incomplete in many respects. Moving it forward requires developing a better understanding of the stocks of resources that are available to transfer and whether changes in these stocks substantially affect the frequency and distribution of transfers.

In this paper, we offer a cohort-based analysis of stocks of wealth, cash transfers from parents to their children, and bequest expectations. We build directly on the literature that has associated levels and amounts of intergenerational transfers to resource constraints and competing commitments to alternative beneficiaries (see Behrman, Pollak, and Taubman 1995; McGarry 1999; Soldo and Hill 1995; Wong, Capoferro, and Soldo 1999). And, we will investigate the composition of recent increases in the inequality of wealth (see Davies and Shorrocks 1999; Kenickell 2003; Scholz and Levine 2004; Wolff, 1998) in an effort to inform predictions about the future evolution of inequality (see Hout 2004). As suggested by the title, an ultimate goal is to begin to understand whether the recent increase in wealth inequality has pushed levels of inequality across a threshold beyond which a new level of self-perpetuation should be expected.

Our results are based upon data drawn from five waves of the Health and Retirement Study (HRS), 1992 through 2000. These data were designed to enable the analysis of intergenerational transfers (see McGarry 1999; Soldo and Hill 1995; Wong et al. 1999) as well as the accumulation of wealth toward the end of the working life (see Venti and Wise 1998, 2001), and yet (surprisingly) they have not been used before (as far as we are aware) to motivate a cohort-based analysis of changes in these relationships. Our empirical analysis will be divided into two major components: modeling the growth of wealth and then measuring the relationship between wealth and intergenerational transfers. In both portions of our analysis, we will analyze two groups of individuals. The first group represents depression-era babies (born between 1931 and 1933) who survived to 1992, by which time they were between the ages of 59 and 61. The second group represents war-era babies (born between 1939 and 1941) who survived to 2000, by which time they were between the ages of 59 to 61. The selection of these two groups was constrained by the data source. We chose comparable cohorts as far apart as the HRS allowed, while still enabling explicit modeling of the growth of wealth within the younger cohort before a substantial number of workers entered retirement.

With these data, our first goal of analysis is to determine the share of the growth of wealth inequality observed in the 1990s among adults in their fifties. We will focus on the wealth to which individuals have access. Thus, although we will treat wealth as a household-level characteristic, we will analyze it as if it is an individual-level resource. Accordingly, we will consider household structure when modeling cohort change, so that the greater average wealth of coupled households is explicitly revealed (where coupled households are comprised of two adults who are married, partnered, or cohabiting).

We cannot model comprehensively all features of the growth of wealth, but it is nonetheless worthwhile to present a basic accounting framework so that we can specify what we can and cannot model. Accordingly, the wealth of individual  $i$  at the end of time period  $t$  can be expressed sufficiently completely as:

$$(1) \quad \begin{aligned} W_{it} = & FAssets_{it-1}(1 + r_F) + RAssets_{it-1}(1 + r_R) \\ & + House_{it-1}(1 + r_H) + OAssets_{it-1}(1 + r_O) \\ & + (Earn_{it} + OthIncome_{it} - Tax_{it})(s) + (Earn_{it})(c) \end{aligned}$$

$FAssets_{it-1}$  is non-retirement-fund financial assets of all household members in the last time period, and  $r_F$  is the percentage rate of return.  $RAssets_{it-1}$  is retirement-fund assets of all household members in the last time period, and  $r_R$  is the percentage rate of return.  $House_{it-1}$  is net housing value in the last time period (i.e., market value minus mortgage debt), and  $r_H$  is the percentage rate of appreciation.  $OAssets_{it-1}$  is other assets of all household members (vehicles, real estate investment property, business assets) in the last time period, and  $r_O$  is the percentage rate of return.  $Earn_{it}$  is current year earnings for all members of a household.  $OthIncome_{it}$  is income from all other sources for all members of a household.  $Tax_{it}$  is all taxes paid, and  $s$  is the savings rate for period  $t$  income. The last term  $c$  is the percentage employer contribution to retirement-fund assets (i.e., in a 401(k) or 403(b) pension plan). The parameters,  $r_F$ ,  $r_R$ ,  $r_H$ ,  $r_O$ ,  $s$ , and  $c$  can be subscripted by  $t$  when time-varying growth patterns of wealth are investigated.

Although, in principle, one would like to be able to monitor the consequences of cohort differences in all of the components of the accounting framework represented by Equation 1, our agenda is more modest. We will focus on the two cohorts just mentioned, adopting the general cohort strategy that dominates aging research. As described later, these are cohorts who aged

through their mid-50s in the late 1980s and early 1990s and then in the mid-to-late 1990s, respectively. And, thus, the wealth accumulation of these two cohorts reflects period-specific shocks to the ingredients of the accounting framework specified in Equation 1. We will not be able to identify, for example, how much of the growth of wealth represents differences in savings rates versus increased net returns on already-saved earnings and income. We can, nonetheless, effectively measure aggregate growth and then examine, to some extent, whether the data are generally consistent with claims that particular exogenous shocks have affected wealth accumulation the most.

In the second portion of our analysis, we will assess whether cohort shifts in stocks of wealth are large enough to have changed patterns of intergenerational transfers, in particular cash gifts from older-age adults to their children and likely future bequests. We will use the same basic cohort comparison to model whether the increase in average levels of wealth in the 1990s led to increases in intergenerational transfers, and further whether any increase in inequality of wealth led to a dispersion in the frequency and amount of intergenerational transfers.

## **DATA AND ESTIMATION STRATEGY**

The HRS is a nationally representative sample of 12,652 respondents aged 51 to 61 in 1992 along with their spouses or partners. We analyze the RAND HRS data files (see <http://www.rand.org/labor/aging/dataproduct/#randhrs>), a cleaned, processed, and streamlined collection of variables. The files were created by RAND, in consultation with the HRS staff, and are publicly available. However, since the RAND dataset is not a complete reproduction of all

HRS variables, for a limited number of these (particularly relating to occupational history and pension coverage), we extracted data from the original HRS data files.<sup>1</sup>

Table 1 provides sample attrition and death patterns between 1992 and 2000 for the full HRS sample. We will use the HRS to model the wealth accumulation and intergenerational transfers for two groups of same-age respondents: depression-era babies (born between 1931 and 1933) who survived to 1992 and war-era babies (born between 1939 and 1941) who survived to 2000. These two groups of respondents are placed in boxes in Table 1.

[INSERT TABLE 1 ABOUT HERE]

As shown in the 4<sup>th</sup> through 6<sup>th</sup> lines of Table 1, obtaining population estimates for the war-era babies as of 2000 necessitates re-weighting the HRS data by patterns of attrition. For the war-era babies, 2,869 respondents were present in the baseline HRS in 1992, at which time they were between the ages of 51 and 53. However, by 2000, only 2,216 of these respondents remained. Of those who were no longer in the sample by 2000, 474 (or 16.52 percent) were missing from the sample. Since, as we will show later, these individuals were not lost to the HRS at random, we will re-weight the data to adjust for non-random sample attrition. Note also that 179 respondents (or 6.24 percent) were known to have died between 1992 and 2000. We will not adjust for known deaths, for the reasons specified later.

Appendix Table A1 provides descriptive statistics for these two groups, unadjusted for attrition patterns when both are between the ages of 59 and 61. As shown in Table A1, missing data patterns are substantial for some variables, especially the data on intergenerational transfers (in part because not all HRS respondents have children). In contrast, the wealth measures

---

<sup>1</sup> In addition, we excluded 109 observations that overlap with the AHEAD survey that was incorporated into the RAND and HRS datasets in 1998 because the RAND files code these

presented in Table A1 appear to have no missing data. This is somewhat misleading because the wealth variables are composites of underlying variables for which RAND imputed missing values in the process of constructing the composite variables. Since wealth is our dependent variable in much of our analysis, our reliance on imputed data is somewhat of a concern.<sup>2</sup> Our view is that the RAND imputations were accomplished with considerable skill (as random draws from informative predictive distributions, modeled in considerable detail). And, yet, for dynamic longitudinal analysis, the imputations are somewhat limited because wealth in subsequent years of the survey is not imputed based on past levels of wealth. Some of the true over-time dependence of wealth is not represented fully in the imputed data.

In later analysis, we will adjust for non-random attrition between 1992 and 2000 for the younger cohort so that we can estimate cohort effects by comparing 59 to 61 year-olds in 1992 and 2000. In particular, we will adjust for patterns of selection into the 16.52 percent who left the sample between 1992 and 2000 but not the remaining 6.24 percent who died between 1992 and 2000. Table 2 presents results from a multinomial logit predicting sample status in 2000 for the younger war-era cohort. The reference category is “present in the 2000 wave” and the model then predicts the relative probability of “missing from the HRS sample” and “known to be dead.” As shown in Table 3, self-reported health status in 1992 strongly predicts sample attrition, especially known deaths. To a lesser extent, socio-economic status and race also predict sample attrition, and somewhat differentially across the two destinations.

[INSERT TABLE 2 ABOUT HERE]

---

observations according to the AHEAD identification coding scheme.

<sup>2</sup> Virtually all studies of wealth accumulation (see Wolff 1998) have had to rely to some extent on imputed wealth data. It has proven nearly impossible to measure exhaustively all of the



Our adjustment procedure first extracts selected odds from the results in Table 3. For all respondents observed in 2000, we assign to each individual the predicted probability from Table 3 of being in the state “missing” rather than present in the sample. Then, we divided each of these probabilities by its complement, forming the odds of leaving the sample instead of remaining in the sample. With this procedure, we therefore ignore the logit coefficients in the “dead” column from Table 3, basing our adjustment only on the odds of leaving the sample relative to staying in the sample. Finally, we then multiplied the obtained predicted odds by the HRS sampling weight. The constructed weight adjusts for both the non-random nature of the original sample and then for the differential probability of non-death-induced attrition. When using this two-part weight in subsequent analysis, we label all corresponding results “attrition-reweighted.”

Why did we not adjust for patterns of death between 1992 and 2000 for the younger cohort? Members of the older cohort who died between the ages of 51 to 53 and 59 to 61 are not present in the 1992 baseline HRS sample. Thus, to construct a valid comparison of 59 to 61 year-olds between 1992 and 2000, one should not adjust for death patterns.

Although our adjustment procedure is consistent with the general method for constructing panel weights in longitudinal surveys (and also has direct connections to both table-standardization procedures in demography and propensity reweighting procedures from statistics), there are sources of unavoidable bias in our adjustment procedure. And, although both of the following biases are in opposite directions, it seems unlikely that they negate each other.

---

underlying dimensions of wealth, in part because of gaps in the knowledge and memory of respondents as well as concerns about guarantees of anonymity.

First, some of the respondents who were missing from the sample in 2000 were also likely dead but not known to be so. If death were independent of non-death-induced attrition, then we could conclude that 7.47% (i.e.,  $179/[179+2216]$ ) of the 474 who were missing from the HRS were likely dead. Thus, in treating about 35 or more respondents as missing when they were probably genuinely dead, our adjustment procedure slightly over-adjusts for non-death-induced sample attrition.<sup>3</sup>

Second, because of improvements in health, it seems that some additional non-trivial proportion of depression-era babies would have lived to the 59 to 61 year-old age range, if they had instead been born eight years later. Thus, it seems reasonable that the younger cohort aged 59 to 61 in 2000 may contain some individuals with relatively low levels of wealth and other socio-economic status characteristics who would not have survived to the age bracket of 59 to 61 if they had been born in the depression era.

Comparing these two offsetting biases, it seems likely that the “dead but only known to be missing” respondents would outnumber the “alive but would have been dead if born earlier.” If so, then our adjustment may over-compensate for non-death-induced attrition, thereby minimizing rather than accentuating cohort differences.

## **RESULTS**

### ***Growth in Wealth Between 1992 and 2000 for Those Aged 51 to 53 in 1992***

---

<sup>3</sup> The death rate is almost certainly higher than 35 out 474. The HRS data collectors labeled 318 of these missing cases “presumed alive” because some contact with the respondent was achieved in 2000 (even though the respondents refused to participate). That left 156 non-respondents for whom it is unknown whether they were dead or alive in 2000. As many as 156 of the 474 missing respondents were genuinely dead, and we have little reason to privilege any particular number, even though we suspect that 35 is too low.

Table 3 presents changes in household wealth and income between 1992 and 2000 for the younger cohort. The first panel presents 1992 wealth (in inflation-adjusted 2000 dollars) for all HRS respondents between the ages of 51 and 53.<sup>4</sup> The mean total net wealth for these respondents was \$213,326, which is then broken down into net financial wealth (which has a mean of \$42,558), wealth in individual retirement accounts (which has a mean of \$15,257), wealth as net equity in a primary residence (which has a mean of \$65,710), and finally total other wealth (which has a mean of \$89,801). This last component of wealth is disproportionately large, as it is composed primarily of wealth in vehicles and other types of property. As we will describe later, it also includes assets in a business, which creates a large mean value for the sample because of a few respondents who have large amounts of business assets. In the last two rows of Table 3, a similar tabulation of household income is offered, which is then broken down into income from wages and salaries and all other sources of income.

[INSERT TABLE 3 ABOUT HERE]

In the second panel of Table 3, the means and standard deviations of each of these components of household wealth and income is then calculated for the subset of 51 to 53 year-olds who were among the 2,216 respondents who were still living and still in the HRS sample in 2000, reweighted to adjust for attrition patterns using the results reported earlier in Table 3. For all six components of household wealth and income, the means (as well as the associated standard deviations) are larger than those for all 51 to 53 year-olds in the HRS in 1992 (but smaller than they would have been in the absence of the attrition adjustment).<sup>5</sup> In the third panel, the same wealth and income measures are then calculated for the same group of respondents in

---

<sup>4</sup> Nominal 1992 dollars were divided by 85.824 to generate real 2000 dollars.

2000, reweighted to adjust for attrition. Finally, in the last column of the table, the percentage growth in wealth and income between 1992 and 2000 is calculated for this age group. Total net wealth increased for these respondents by 70.4 percent between 1992 and 2000. Growth was somewhat more pronounced for net financial wealth, and especially robust for wealth stored in IRAs. Total household income increased modestly, but this growth reflects a decline in household earnings and a large increase in other types of income. In part, the latter determines the former. As income from investments increases, individuals are more likely to withdraw from the labor force.

#### ***Cohort Differences in Wealth for Those Between the Ages of 59 and 61 in 1992 and 2000***

Did the growth in wealth just documented for the younger cohort result in a stock of wealth greater than comparable cohorts in earlier years? To answer this question, we compare the two selected cohorts from the HRS. As shown in Table A1, for HRS respondents aged 59 to 61 in 1992, the mean level of total net wealth was equal to 302,998 dollars (again, in 2000 dollars), and the standard deviation of total net wealth was equal to 489,662 dollars. These numbers are directly comparable to the attrition-reweighted results for wealth in 2000 presented in the second to last panel of Table 3, where 59 to 61 year-old HRS respondents in 2000 had a mean level of total net wealth equal to 414,900 dollars, along within an associated standard deviation of 1,850,779 dollars. This comparison shows that the average level of wealth grew by 36.9 percent between the two cohorts, and the dispersion of wealth, as measured by the standard deviation, increased by 378%. Although we know from other research that wealth grew substantially in the

---

<sup>5</sup> For example, without our attrition adjustment, the total net wealth of 51 to 53 year-olds in 1992 was 218,512 dollars among the 2,216 respondents who were present in 2000.

1990s, the increase in the dispersion of wealth suggested by the HRS data seems rather extreme. Inspection of the data does reveal some extreme values, which have exerted substantial influence on these dispersion results, and to a lesser extent on the average growth of wealth.<sup>6</sup>

To begin to assess more carefully the degree of between-cohort differences in wealth, Figures 1a through 1d present four separate kernel density estimates of the distribution of wealth. These figures can be interpreted as semi-parametrically smoothed histograms. The four figures differ in the degree to which the within-cohort right tails of the distributions are ignored. For, Figure 1a, the density estimates are calculated for the minimum value of wealth up to the 90<sup>th</sup> percentile of reported wealth for each cohort. In Figures 1b through 1d, the upper bound of the estimated probability density is set at the 80<sup>th</sup> percentile, the median, and the 20<sup>th</sup> percentile of each within-cohort distribution of wealth.

[INSERT FIGURES 1A THROUGH 1D ABOUT HERE]

For Figure 1a, the 90<sup>th</sup> percentile extends farther to the right for the younger cohort in 2000 than for the older cohort in 1992. Accordingly, the density is shifted out of the center of the distribution to its right tail. A similar pattern is shown for the 80<sup>th</sup> percentile, as revealed in both Figures 1a and 1b. In contrast, Figures 1c and 1d show that cohort differences around the

---

<sup>6</sup> For example, the top 25 values of total net wealth for the older cohort increase gradually and steadily from 2.68 million to 6.69 million dollars. The top 25 values of wealth for the younger cohort increase more dramatically and less smoothly. For the 25<sup>th</sup> through the 6<sup>th</sup> highest values, wealth increases somewhat steadily from 2.7 million to 7.97 million dollars. However, the five wealthiest individuals have wealth equal to of 10.8, 26.1, 26.1, 40.1 and 53.2 million dollars. Since research has shown that there has indeed been explosive growth of wealth at the very top of the wealth distribution, these values may be valid. And yet, they nonetheless may exert too much specific leverage on the results that we report.

median and at the bottom of the distribution are less substantial. And, moreover, the 20<sup>th</sup> percentile of the older cohort is higher than the 20<sup>th</sup> percentile of the younger cohort.<sup>7</sup>

Comparing results across the four figures, it is clear that, even ignoring the top 10 percent of wealth in each cohort, there has been an increase in the inequality of wealth. Thus, even though a comparison of the standard deviation of total net wealth between cohorts may overestimate the growth of wealth inequality because of some extreme values, a substantial trend is evident when these extreme values are ignored. For the younger cohort, HRS respondents between the median and the 90<sup>th</sup> percentile of wealth distanced themselves from those in the bottom half of the wealth distribution.

To model this growth of wealth more completely, and to consider the degree to which household structure determines wealth (both substantively and as a matter of aggregation), Table 4 presents results from three specifications of OLS regression models of wealth on household structure, race, region, retirement plans, and household earnings. For these models, the two cohorts of interest are modeled jointly, with the cohort variable referring to the younger cohort (i.e., wealth for 59 to 61 year-olds in 2000 instead of 59 to 61 year-olds in 1992). As shown by the associated standard errors for each of the models, sampling error is substantial even though the analysis sample includes a fairly large number of respondents. The large standard errors reflect the inherent variability of the dependent variable (and some reasonable but nonetheless

---

<sup>7</sup> The differences that do exist for Figures 1c and 1d may well differ depending on whether our adjustment for inflation is fair, since the cohort densities are nearly of the same shape (in contrast to the difference shown in Figures 1a and 1b) suggesting that some of the differences can be captured by shift in the scale rather than meaningful distributional shifts. That being said, there does appear to be a greater tendency for members of the younger cohort to have values of zero wealth rather than small negative and positive wealth.

extreme values; see footnote earlier). When we present robust quantile regressions later, sampling error will be less consequential and our inferences will be somewhat less hesitant.

[INSERT TABLE 4 ABOUT HERE]

For Model 1 presented in Table 4, the estimated value for the intercept indicates that white respondents between the ages of 59 and 61 and living in coupled households in 1992 had total household net wealth equal to 376,144 dollars on average. In combination with the cohort main effect of 142,193, the model indicates that in 2000 respondents between the ages of 59 and 61 and living in coupled in households had total household net wealth equal to 518,327 dollars on average.<sup>8</sup>

As shown in the next four rows, households composed of white single respondents have substantially less wealth in the older cohort. However, a notable gender gap in white single households emerged in the second cohort. White male single households experienced an average wealth gain of 536,593 dollars (i.e., 142,192 for the cohort main effect plus 394,401 for the white male single household by cohort interaction), whereas single female households experienced only a small increase in wealth (142,192 - 134,565 for a net gain of 7,627 dollars). These patterns are largely a result of a few cases with substantial leverage (i.e., a never-married white male in 2000 had a total net wealth equal to 53.2 million dollars, which is by far the largest value of total net wealth in our sample). As a result, the standard error for the white male single household by cohort interaction has a very large associated standard error.

---

<sup>8</sup> When we separated individuals in coupled houses into males and females, the females had larger average wealth and a larger cohort increase. This gender difference within households may be attributable to sampling error, but it is also possible that it reflects age differences in couples. Females between the ages of 59 to 61 are more likely to have spouses who are older than them than are men between the ages of 59 and 61, and the amount of wealth accumulated by a household is a function of the average age of a household.

In the next twelve rows of Table 4, wealth differences and trends therein for individuals who self-identify as black or as a race other than white are presented as departures from the wealth of whites living in coupled households. In general, non-white respondents had uniformly lower levels of wealth in the older cohort. And, as shown for the race by cohort interactions, the race gap in wealth grew between 1992 and 2000 (except perhaps in single female households).

Model 2 adds to Model 1 dummy variables for alternative retirement plans and a household earnings variables, all interacted with the dummy for the younger cohort.<sup>9</sup> The main effects for race and types of household are generally unaltered, except insofar as the differences between white and black respondents decline because some of the lower average wealth of black respondents is attributed by this model to their lower average household earnings.

For Model 2, individuals from the older cohort who had defined benefit plans had relatively less wealth than those without retirement plans whereas individuals who had defined contribution plans had relatively more wealth. For the younger cohort in 2000, this difference reversed direction, such that those with defined contribution plans had the least wealth overall.<sup>10</sup> And, for the younger cohort, no difference is present between those with defined benefit plans and those without any retirement plan.

For household earnings, the positive and substantial main effect indicates that earnings strongly predict wealth in the older cohort in 1992 among those living in coupled households. For each 1,000 dollars of earnings, household wealth was higher by 3,817 dollars. The

---

<sup>9</sup> Intermediate models which entered retirement plans and earnings variables separately produced substantively similar results.

<sup>10</sup> We are still investigating this reversal. The HRS did not collect data on individuals' wealth in 401(k) plans. It is possible that the negative interaction effect for defined contribution by cohort is artefactual, since substantial wealth is more likely to be held in 401(k) plans of the younger cohort than of the older cohort.



interaction of this variable with the cohort dummy variable indicates that the relationship between earnings and wealth is substantially weaker for the younger cohort among individuals living in coupled houses in 2000, at only 1,042 dollars (i.e., 3,817- 2,775 dollars) of wealth for each 1000 dollars of earnings.

As with the overall wealth trends, there is a large disparity between individuals living in single households, with an especially divergent trend for men living in single households. For each 1,000 dollars of earnings, single male households in the older cohort had 1,157 dollars of wealth (i.e., 3,817 - 2,660). For the younger cohort, single male households had 25,977 dollars of wealth (i.e., 3,817- 2,775 - 2,660 + 27,595) for each 1,000 dollars of earnings. This contrasts sharply with single female households who had on average 2,580 and 969 dollars of wealth for each 1,000 dollars of earnings in the older and younger cohorts, respectively.

In general, therefore, it is clear from the models in Table 4 that, on average, wealth was larger for the younger than the older cohort. But, the inherent variability of the dependent variable, as well as some of the extreme values for the younger cohort documented earlier, cause a good deal of imprecision of estimates. Accordingly, it is unclear from these models whether or not the specific estimated trends (especially those for single male households) are influenced too substantially by the extreme values for some individuals noted earlier. Even more deeply, it is hard to know what to make of the associations between earnings and wealth, since labor market behavior and the timing of retirement are a function of wealth. Earnings are themselves endogenous in these models, and probably differentially so across types of households.

In order to estimate trends in wealth that are more robust to extreme values, and to model the growth of wealth inequality shown in the kernel density estimates presented earlier in Figures 1a through 1d, we next estimated a set of quantile regression models. Corresponding to the prior

four figures, the four panels of Table 5 predict the 90<sup>th</sup> percentile, the 80<sup>th</sup> percentile, the median, and the 20<sup>th</sup> percentile of total net wealth, using the same two specifications used for the OLS regression models presented in Table 4.

[INSERT TABLE 5 ABOUT HERE]

Table 5 presents results in its first panel where the 90<sup>th</sup> percentile of total net wealth in each cohort is predicted from household structure, region, race, retirement plans, and household earnings. For model 1, the intercept of 798,831 is an estimate of the 90<sup>th</sup> percentile in 1992 of total net wealth for individuals between the ages of 59 and 61 living in coupled households. The cohort main effect indicates that the 90<sup>th</sup> percentile of comparable respondents in 2000 was higher by 289,169 dollars for a value of 1,088,000 dollars. For white males and females living in single households, the 90<sup>th</sup> percentile of wealth was on average lower in the older cohort and increased less substantially between cohorts. Likewise, non-white respondents had substantially lower 90<sup>th</sup> percentiles of wealth (although black male and female single households had higher 90<sup>th</sup> percentiles of wealth than blacks living in coupled households).

The associations between defined benefits and defined contribution pension plans are generally in the same direction as for the OLS models from Table 4, and there remains the same basic pattern for the associations with household earnings. Again, the decline across cohorts in the association between earnings and wealth is substantial and is large enough relative to its standard error to appear meaningful. And yet, the endogeneity of household earnings, as well as the abnormally large apparent association between earnings and wealth for single male households in the younger cohort, suggests that the 90<sup>th</sup> percentile quantile regression still may be somewhat responsive to extreme values.

In the remaining three panels of Table 5, we repeat the quantile regression models for the 80<sup>th</sup> percentile, the median, and the 20<sup>th</sup> percentile. Without belaboring every coefficient, a few general patterns stand out: (1) The quantile regressions for the 80<sup>th</sup> percentile generally show the same pattern as those for the 90<sup>th</sup> percentile; (2) The quantile regressions for the median show a much less substantial cohort increase in wealth at the middle of the distribution, and the anomalous results for white single male households in the younger cohort are no longer present (suggesting that these were indeed produced by the extreme values in the right tail of wealth); (3) The quantile regressions for the 20<sup>th</sup> percentile reveal an even less consequential growth in wealth at the bottom of the distribution of wealth, and it appears that a decline in wealth is present for individuals in coupled households.

In general, the results show that wealth has increased between the cohorts, such that the younger cohort on average has more wealth on average than the older cohort. But, as shown earlier in Figures 1a through 1d and then again in Table 5, the growth in wealth is uneven, with the right tail of the distribution accumulating a disproportionate share of wealth.

### ***Cohort Differences in Intergenerational Transfers***

Has the growth of wealth between these two cohorts had a measurable effect on the size and pattern of intergenerational transfers? Following upon reports such as Wong et al. (1999), in this section we model the incidence and intensity of transfers out of HRS households for our two cohorts, as a function of the components of wealth just analyzed as well as other covariates. The central goal of this second part of the analysis is to determine whether any cohort shifts in the amounts of transfers are evident in the HRS data, and whether any observed increases can be predicted by components of wealth that have expanded disproportionately.

In both 1992 and 2000, HRS respondents were asked: “Have you given your child(ren) financial assistance totaling more than \$500 in the past 12 months?” In the first column of Table 6, results are presented from logit models that predict whether or not HRS respondents who answered this question gave such assistance to their children. Model 1 shows a small cohort increase for whites in coupled households (and perhaps blacks in single households). Model 2 indicates that wealth is positively related to the probability of extending assistance, but less strongly for the younger cohort. In addition, earnings are somewhat strongly related to the probability of extending assistance, and perhaps more strongly so in the younger cohort. In general, these results suggest that financial assistance to children has changed modestly between cohorts, in part perhaps because assistance is a function of the need of children as much as the generosity and capacities of parents. Nonetheless, the weakening of the relationship between wealth and transfers may indicate that wealth has grown substantially for some groups of parents and yet not affected patterns of transfers.

[INSERT TABLE 6 ABOUT HERE]

The second panel of Table 6 presents OLS regression models of HRS respondents’ subjective expectations of bequest probabilities. The specific dependent variable is the estimated probability that a respondent will leave a bequest to his or her children of at least 100,000 dollars. Model 1 from Table 6 indicates that the average bequest probability increased for white respondents between cohorts (and perhaps also for black respondents living in coupled households). Model 2 indicates that the relationship between wealth and bequest probabilities was stronger for the older cohort, but substantially weaker for the younger cohort. In addition, the relationship between earnings and bequest probabilities was substantial, and may have weakened substantially for those living in single households.

The HRS survey instrument does not ask individuals to adjust for inflation in any way, and it therefore seems reasonable that a 100,000 dollar bequest was subjectively larger for a respondent from the older cohort in 1992 than for the younger cohort in 2000. For this reason, some of the increase in bequest probabilities across cohorts may simply reflect implicit inflation adjustments of respondents.

Nonetheless, the generally weaker relationship for the younger cohort between levels of wealth and bequest probabilities is consistent with the weaker relationship between wealth and cash assistance to children, as presented in the first panel of Table 6. This finding gives further support for the position that wealth has grown substantially for some groups of parents and yet not affected patterns of transfers to a notable degree, nor expected transfers at death.

Accordingly, one might infer that these windfall gains in wealth will either be consumed by HRS respondents or channeled to charitable beneficiaries. Either way, these findings are fairly strong evidence against the prediction that recent increases in wealth and wealth inequality will necessarily increase dramatically the inequality of transfers across generations.

## **CONCLUSIONS**

We have presented two different sets of results in a cohort-based analysis of 59 to 61 year-olds in 1992 and 2000. Between these two cohorts, our results confirm other research that shows that individuals in their fifties during the mid-to-late 1990s accumulated more wealth than immediately prior same-age cohorts. Moreover, the growth of wealth was uneven, with those at the top of the distribution pulling away from those in the middle (even when ignoring the apparently explosive growth in wealth among those beyond the 90<sup>th</sup> percentile of wealth).

And, yet, our results also show that in spite of the growth of wealth, in both levels and in its unequal distribution, there is little evidence that a new level of self-perpetuation of wealth inequality has been reached. There is little discernible growth in the incidence of financial assistance to children, and only a modest increase in the subjective probability of leaving a sizable bequest to one's heirs. Even this cohort increase in bequest probabilities could be artefactual, since no adjustment for inflation was built into the survey instrument. More importantly, both transfers and bequest probabilities were generally more weakly related to levels of wealth for the younger cohort. This declining association suggests that relatively wealthy parents are no more likely to pass on substantial levels of resources to their children.

## **DISCUSSION**

In this concluding section, we discuss limitations of our study design – confounded cohort and period effects and then the inherent limitations of looking only at two cohorts. After detailing these limitations, we conclude with a discussion of the implications of our findings for the literature on the perpetuation of inequality across family dynasties, as well as the literature on health and retirement savings.

### ***Limitations of Our Cohort-Based Comparison***

Although cohort comparisons are common in applied demographic research, they have limitations. In our case, we have compared two cohorts at similar ages across two periods in time. We then interpret the cohort differences that we observe as estimates of period differences between the 1980s and 1990s. There is, however, the possibility that the cohort differences we interpret as period effects are instead genuine cohort effects.

For example, it is possible that the older cohort simply saved less in their fifties than the younger cohort because of socialization experiences earlier in life. Although this is a genuine possibility, we would guess that socialization experiences, if present, operate in the opposite direction. The older cohort is comprised of children who were born to parents just emerging from the great depression and who then entered early adolescence during the lean war years. The younger cohort, in contrast, grew up largely during the post-war boom. Thus, if early socialization experiences are important (perhaps as transmitted with a lag by parents), it would seem that these would minimize rather than accentuate cohort differences in wealth accumulation.

Nonetheless, the large literature on confounded cohort and period effects suggests caution. And, as we discussed earlier when explaining our procedures for attrition-adjustment, the younger cohort may well contain a non-trivial proportion of relatively low-wealth individuals who would have died before the age of 59 if they had born earlier in the depression-era cohort. Thus, it is possible that cohort differences in wealth are underestimated slightly by our models.

A possibly more consequential limitation of our results regards their relevance for the larger question we have asked: Has the growth of wealth inequality crossed a threshold beyond which a new level of self-perpetuation should be expected? Although the 1990s was a period of rapid wealth accumulation, we have examined wealth accumulation only for those in their fifties. Although we would defend this stage of the lifecourse as the period in which wealth accumulation is most dramatic (and perhaps most important), a more complete comparison would be ideal. For example, it would surely be preferable to know, in addition to our results, whether the increase in the inequality of wealth among those in their thirties, in comparison to those from 1992, will lead to an explosive growth of wealth inequality in decades to come. It is

possible, for example, that the modest wealth differences that unfolded in the 1990s among those in their thirties will be amplified by the compounding of investment returns through the year 2030, such that levels of wealth inequality will reach historically unprecedented levels in the decades to come. This is possible, but it is nonetheless clear from other research that wealth growth during the 1990s has been substantially more pronounced among those in their fifties and sixties. For example, Aizcorbe, Kennickell, and Moore (2003:7) show that, for the Survey of Consumer Finances, the mean of total net wealth for those between the ages of 35 and 44 increased by 57.5 percent between 1992 and 2001. For those between the ages of 55 and 64, the mean of total net wealth increased by a larger 73.9 percent between 1992 and 2001.

### ***Implications for Future Research***

For most of our analysis, we have had treated wealth as single pool of resources. But, we should note, to inform future research, that we are well aware that how wealth has grown is necessarily important for determining the future evolution of inequality. Were sufficient data available, we would have liked to have been able to determine whether the growth in inequality of wealth is attributable to: (1) growth in earnings inequality (by generating greater dispersion of income flows from which to save and thereby augment net worth and by greater dispersion of savings rates prompted by greater dispersion in the share of income used to cover basic living expenses); (2) gradual shifts away from defined benefit to defined contribution pension plans (by generating greater dispersion of stocks of wealth that could benefit from the favorable investment



environment over the same time period); or (3) by more general changes in investments returns on financial and housing assets.<sup>11</sup>

If the first share of growth dominates, then the claim that inequality may be increasingly self-perpetuating would be strengthened (assuming that the importance of resources for lifetime success does not decline, etc.; see Neckerman 2004, especially Chapters 4 through 8). If the second share is large, then the claim would be weakened because the apparent growth in wealth inequality would be misleading. Intergenerational transfers could not change substantially, since total lifetime wealth would gradually equalize across family dynasties as defined benefit plans have sufficient time to pay off. And, if the third share of growth dominates, then the recent increase in wealth inequality across families would almost surely dissipate over time, as the transitory gains made by some families will smooth out as investment opportunities moderate and the short-run gains are spread across intergenerational transfers to offspring.

In touching upon the literature on defined benefit and defined contribution plans, our results also inform the important and highly policy-relevant literature on aging and retirement patterns in the United States (see Binstock and George 2001; Clark et al. 2004; Martin and Preston 1994). A better understanding of the policy shifts and behavioral processes that generate wealth differentials is crucial for evaluating the needs of retirees as health care costs escalate (see Diamond and Orszag 2004; Kotlikoff and Burns 2004; Munnell and Sundén 2004). Over the course of the 1980s and 1990s, many mid- to late-career workers have either chosen or been

---

<sup>11</sup> In order to assess the relative sizes of these components of growth, other less theoretically intriguing explanations would also need to be assessed, such as: (4) Changes in the age structure of the population and attendant health expenses which have feedback effects on income, savings rates, and wealth accumulation; (5) Changes in the timing of retirement in response to the elimination of mandatory retirement ages and the strong labor market of the 1990s; (6) Changes in the costs of family formation and consequent cohort-changes in fertility.

forced to change occupations and industries as labor demand in the manufacturing sector has eased (see Katz and Autor 1999). As a result of these changes, low-skilled workers have found it increasingly difficult to secure jobs that provide generous health and pension security (see Aaronson and Coronado 2004; Kalleberg et al. 2000). The decline of manufacturing employment, a stronghold of defined benefit pension plans, has altered the mix of pension plans on offer to workers of different types, independent of the general shift away from defined benefit to defined contribution plans.

Concurrent with these occupational and labor market changes, the policy and legal landscape governing pensions and healthcare changed as well (see Clark et al. 2004). Employers shifted the risks of pension and healthcare benefits onto workers (see O’Rand 2000), in part as the incentives for long-term contracting with workers changed (see Friedberg and Owyang 2004). The prime illustration of this shift has been the introduction and widespread adoption of defined contribution 401(k) plans, which generally place a greater burden of funding and investment responsibility on the shoulders of workers.

In our analysis, we have documented a puzzling cohort difference in the relationship between wealth accumulation and the retirement plans of individuals. For the older HRS cohort, individuals with defined contribution plans lived in households with substantially more wealth. For the younger cohort, the opposite was true. Whether or not this reversal holds when amounts of 401(k) holdings are included in the HRS data must be determined (and . . . we are working on this now, as some new HRS-related data now exist). If the finding remains solid, then it seems clear that defined contribution plans are not generating the higher savings rates and resulting stocks of wealth that the theoretical literature suggests they should (for we have examined the growth of wealth in an environment more conducive to the growth of wealth in such holdings

than any comparable period over the past several decades). If this is the case, then the relative cost effectiveness of defined contribution plans for employers would seem to be the only justification for their continued adoption.

## REFERENCES

- Aaronson, Stephanie and Julia Coronado. 2004. "Are Firms or Workers Behind the Shift Away from Db Pension Plans?" Federal Reserve Board of Governors, Washington, DC.
- Aizcorbe, Ana M., Arthur B. Kennickell, and Keven B. Moore. 2003. "Recent Changes in U.S. Family Finances: Evidence from Teh 1998 and 2001 Survey of Consumer Finances." *Federal Reserve Bulletin* 89:1-31.
- Behrman, Jere R., Robert A. Pollak, and Paul Taubman. 1995. *From Parent to Child: Intrahousehold Allocations and Intergenerational Relations in the United States*. Chicago: University of Chicago Press.
- Binstock, Robert H. and Linda K. George. 2001. *Handbook of Aging and the Social Sciences*. San Diego: Academic Press.
- Bowles, Samuel and Herbert Gintis. 2002. "The Inheritance of Inequality." *Journal of Economic Perspectives* 16:3-30.
- Clark, Robert L., Richard V. Burkhauser, Marilyn Moon, Joseph F. Quinn, and Timothy M. Smeeding. 2004. *The Economics of an Aging Society*. Malden, MA: Blackwell.
- Danziger, Sheldon, Robert Haveman, and Robert Plotnick. 1991. "How Income Transfers Affect Work, Savings, and the Income Distribution." *Journal of Economic Literature* 19:975-1028.
- Davies, James B. and Anthony F. Shorrocks. 2000. "The Distribution of Wealth." Pp. 605-75 in *Handbook of Income Distribution, Volume I*, edited by A. B. Atkinson and F. Bourguignon. Amsterdam: Elsevier.
- Diamond, Peter A. and Peter R. Orszag. 2004. *Saving Social Security: A Balanced Approach*. Washington, D.C.: Brookings Institution Press.
- Friedberg, Leora and Michael Owyang. 2004. "Explaining the Evolution of Pension Structure and Job Tenure." Working Paper 10714, National Bureau of Economic Reserach, Cambridge, Massachusetts.
- Hout, Michael. 2004. "How Inequality May Affect Intergenerational Mobility." Pp. 895-929 in *Social Inequality*, edited by K. M. Neckerman. New York: Russell Sage.
- Kalleberg, Arne L., Barbara F. Reskin, and Ken Hudson. 2000. "Bad Jobs in America: Standard and Nonstandard Employment Relations and Job Quality in the United States." *American Sociological Review* 65:256-78.
- Katz, Lawrence F. and David H. Autor. 1999. "Changes in the Wage Structure and Earnings Inequality." Pp. 1463-555 in *Handbook of Labor Economics, Volume 3*, edited by O. C. Ashenfelter and D. Card. Amsterdam: Elsevier.
- Kennickell, Arthur B. 2003. "A Rolling Tide: Changes in the Distribution of Wealth in the United States." Survey of Consumer Finances Working Paper, Federal Reserve Board, Washington, DC.
- Kotlikoff, Laurence J. and Scott Burns. 2004. *The Coming Generational Storm: What You Need to Know About America's Economic Future*. Cambridge, Mass.: MIT Press.
- Martin, Linda G. and Samuel H. Preston, eds. 1994. *Demography of Aging*. Washington, D.C.: National Academy Press.
- McGarry, Kathleen. 1999. "Inter Vivos Transfers and Intended Bequests." *Journal of Public Economics* 73:321-51.
- Mulligan, Casey B. 1997. *Parental Priorities and Economic Inequality*. Chicago: University of Chicago Press.

- Munnell, Alicia Haydock and Annika E. Sundén. 2004. *Coming up Short: The Challenge of 401(K) Plans*. Washington, D.C.: Brookings Institution Press.
- Neckerman, Kathryn M., eds. 2004. *Social Inequality*. New York: Russell Sage.
- O'Rand, Angela M. 2000. "Risk, Rationality, and Modernity: Social Policy and the Aging Self." Pp. 225-49 in *The Evolution of the Aging Self: The Societal Impact on the Aging Process*, edited by K. W. Schaie and J. Hendricks. New York: Springer.
- O'Rand, Angela M. and John C. Henretta. 1999. *Age and Inequality: Diverse Pathways through Later Life*. Boulder, Colo.: Westview Press.
- Piketty, Thomas. 2000. "Theories of Persistent Inequality and Intergenerational Mobility." Pp. 429-76 in *Handbook of Income Distribution, Volume I*, edited by A. B. Atkinson and F. Bourguignon. Amsterdam: Elsevier.
- Rosenzweig, Mark R. and Kenneth I. Wolpin. 1993. "Intergenerational Support and the Life-Cycle Incomes of Young Men and Their Parents: Human Capital Investments, Coresidence, and Intergenerational Financial Transfers." *Journal of Labor Economics* 11:84-112.
- Rossi, Alice S. and Peter Henry Rossi. 1990. *Of Human Bonding: Parent-Child Relations across the Life Course*. New York: A. de Gruyter.
- Scholz, John Karl and Kara Levine. 2004. "U.S. Black-White Wealth Inequality." Pp. 895-929 in *Social Inequality*, edited by K. M. Neckerman. New York: Russell Sage.
- Smith, Karen E., Richard W. Johnson, and Leslie A. Muller. 2004. "Deferring Income in Employer-Sponsored Retirement Plans: The Dynamics of Participant Contributions." CRR WP 2004-20, Center for Retirement Research at Boston College, Chestnut Hill.
- Soldo, Beth J. and Martha S. Hill. 1995. "Family Structure and Transfer Measures." *Journal of Human Resources* 30:S108-37.
- Venti, Steven F. and David A. Wise. 1998. "The Cause of Wealth Dispersion at Retirement: Choice or Chance?" *American Economic Review* 88:185-91.
- . 2001. "Choice, Chance, and Wealth Dispersion at Retirement." in *Aging Issues in the United States and Japan*, edited by S. Ogura, T. Tachibanaki, and D. A. Wise. Chicago: University of Chicago Press.
- Wolff, Edward N. 1998. "Recent Trends in the Size Distribution of Household Wealth." *Journal of Economic Perspectives* 12:131-50.
- Wong, Rebeca, Chiara Capoferro, and Beth J. Soldo. 1999. "Financial Assistance from Middle-Aged Couples to Parents and Children: Racial-Ethnic Differences." *Journal of Gerontology* 54B:S145-53.

**Table 1. Number of Respondents and Attrition Patterns for the Health and Retirement Surveys from 1992 through 2000**

	1992		1994		1996		1998		2000	
	N	%	N	%	N	%	N	%	N	%
All Ages in HRS 1992 Sample										
Respondents in sample	12,652	100	11,424	90.29	10,775	85.16	10,242	80.95	9,630	76.11
Respondents missing	0	0	1,054	8.33	1,370	10.83	1,616	12.77	1,873	14.80
Respondents deceased	0	0	174	1.38	507	4.01	794	6.28	1,149	9.08
Aged 51-53 in 1992										
Respondents in sample	2,869	100	2,585	90.10	2,449	85.36	2,337	81.46	2,216	77.24
Respondents missing	0	0	250	8.71	337	11.75	406	14.15	474	16.52
Respondents deceased	0	0	34	1.18	83	2.89	126	4.39	179	6.24
Aged 59-61 in 1992										
Respondents in sample	2,320	100	2,092	90.17	1,960	84.48	1,828	78.79	1,707	73.58
Respondents missing	0	0	162	6.98	226	9.74	292	12.59	320	13.79
Respondents deceased	0	0	66	2.84	134	5.78	199	8.62	293	12.63

*Notes:* In this table, “missing” includes both those who are alive and did not respond in a particular wave and those persons of whom it is not known whether they are alive or dead.

*Source:* HRS, 1992-2000

**Table 2. Multinomial Logit Coefficients for the Effects of 1992  
Baseline Characteristics on Sample Status by 2000**

	Missing		Dead	
	Coef.	SE	Coef.	SE
Intercept	-.316	.378	-2.967	.618
Black	.235	.165	-.045	.243
Other race	.437	.255	.241	.442
Female	-.054	.114	-.681	.186
Northeast	-.255	.151	-.118	.235
Midwest	-.132	.135	-.083	.213
West	-.137	.155	-.528	.268
Single	.092	.281	-.037	.463
Partnered	-.005	.340	.266	.435
Divorced	.398	.296	.431	.478
Widowed	.199	.379	.161	.596
Number of children living	-.130	.031	-.008	.045
Number of parents living	-.236	.079	-.021	.123
Father's Education	-.004	.020	-.048	.032
Mother's Education	.047	.022	.082	.036
Health excellent	-.141	.147	-.811	.301
Health very good	-.115	.139	-.247	.247
Health fair	-.088	.192	.843	.257
Health poor	-.349	.298	1.358	.299
Years of Education	-.087	.023	.024	.035
Works Part Time	-.101	.181	.449	.288
Partly Retired	-.066	.372	-.328	.669
Retired	-.019	.238	.924	.270
Unemployed	.211	.308	.520	.458
Not in Labor Force	-.120	.193	-.149	.372
Disabled	-.493	.348	.405	.338
Household Income (000s)	.000	.001	-.002	.002
<i>Pseudo R-squared</i>	0.06			
N	2,869			

*Notes:* The reference category for the logit is "present in the 2000 wave."

*Source:* HRS, 1992-2000

**Table 3. Growth in Household Wealth and Income for Those Aged 51-53 in 1992 and 59-61 in 2000**

	Wealth and income in 1992 for all 51-53 year-olds			Attrition-reweighted wealth and income in 1992 for 51-53 year-olds who were in the sample as 59-61 year-olds in 2000			Attrition-reweighted wealth and income for 59-61 year-olds in 2000			Attrition- reweighted percentage growth in wealth and income between 1992 and 2000
	N	Mean	SD.	N	Mean	SD	N	Mean	SD	
Total Net Wealth	2869	213,326	524,589	2216	243,521	620,513	2216	414,900	1,850,779	70.4
Net Financial Wealth	2869	42,558	177,477	2216	49,524	193,222	2216	112,246	848,869	126.6
Individual Retirement Accounts	2869	15,257	48,304	2216	18,204	53,904	2216	62,943	184,349	245.8
Net Housing Wealth	2869	65,710	90,506	2216	71,504	94,717	2216	115,929	546,408	62.1
Total Other Wealth	2869	89,801	372,889	2216	104,288	451,886	2216	123,781	751,462	18.7
Total Household Income	2869	58,221	57,666	2216	61,596	61,963	2216	67,816	151,206	10.1
Total Household Earnings	2869	47,479	48,388	2216	49,446	49,868	2216	34,749	63,493	-29.7
Total Non-Wage Income	2869	10,742	31,008	2216	12,150	35,400	2216	33,067	106,342	272.2

*Notes:* All dollar values have been converted to 2000 dollars using the Personal Consumption Expenditures Deflator. Total net wealth equals assets (primary residence, other real estate, vehicles, businesses, individual retirement accounts, stocks, bonds, checking, certificate of deposits, savings bonds, treasury bills, and other savings) minus liabilities (primary residence mortgage, other real estate debt, and all other debt). Net financial wealth includes stock, bonds, checking accounts, certificates of deposits, savings bonds, treasury bills, and other savings minus other debt (aside from real estate debt). Individual retirement accounts (IRAs) includes the value of IRAs and Keogh accounts. Net value of housing is the value of primary residence less real estate debt. Total other wealth equals the sum of the net value of real estate (other than the primary residence), vehicles, and businesses. Total household income is the sum of all income in the household, including individual earnings, capital income, pension income, Social Security disability/SSI/retirement income, unemployment compensation, other government transfers, and other sources of income such as insurance. Total household earnings are the sum of the wage and salary income of the respondent and spouse, if any. Total non-wage income is the difference between total household income minus total household earnings.

*Source:* HRS, 1992-2000



**Table 4. Attrition-Reweighted OLS Regression Models of Total Net Wealth for Two Cohorts, Aged 59-61 in 1992 and Aged 59-61 in 2000**

	Model 1		Model 2	
	Coef.	SE	Coef.	SE
Intercept	376,144	21,094	408,648	27,603
Cohort	142,193	63,793	112,647	63,191
White Male in Single Household	-209,781	39,598	-192,525	41,138
x Cohort	394,401	424,583	544,416	122,765
White Female in Single Household	-218,065	28,106	-159,014	29,964
x Cohort	-134,565	68,588	-172,340	71,430
Black in Coupled Household	-273,460	22,769	-232,559	21,131
x Cohort	-100,027	67,112	-135,039	69,680
Black Male in Single Household	-125,777	35,177	-114,110	33,664
x Cohort	-528,851	420,398	7,197	135,830
Black Female in Single household	-119,121	19,458	-107,862	21,744
x Cohort	26,530	28,534	21,693	30,863
Other Race in Coupled Household	-93,808	119,136	-73,105	108,684
x Cohort	-215,406	143,425	-236,566	134,847
Other Race in Single Male Household	-106,861	48,800	-88,649	47,150
x Cohort	-413,680	434,733	-74,382	283,480
Other Race in Single Female Household	-69,714	30,341	-83,047	27,831
x Cohort	225,387	228,998	245,865	229,579
Defined Benefit Plan			-103,046	27,887
x Cohort			102,271	63,906
Defined Contribution Plan			64,209	34,618
x Cohort			-82,245	75,553
Household Earnings (000s)			3,817	833
x Cohort			-2,775	1,157
x In Single male household			-2,660	990
x Cohort			27,595	1,460
x In Single female household			-1,237	1,118
x Cohort			1,164	1,552
R-squared	.015		.406	
N	4,536		4,536	

*Notes:* The variable household earnings is centered around the mean household earnings of whites living in coupled households. Standard errors are robust Taylor series standard errors, further adjusted for clustering within households.

*Source:* HRS, 1992-2000

**Table 5. Attrition-Reweighted Quantile Regression Models for the Distribution of Total Net Wealth for Two Cohorts, Aged 59-61 in 1992 and Aged 59-61 in 2000**

	90 <sup>th</sup> Percentile				80 <sup>th</sup> Percentile			
	Model 1		Model 2		Model 1		Model 2	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Intercept	788,831	31,177	833,733	35,015	459,079	16,850	505,172	19,017
Cohort	289,169	45,603	215,927	48,521	156,921	24,819	84,041	26,781
White Male in Single Household x Cohort	-426,928	116,515	-283,257	89,263	-220,218	63,495	-213,439	56,029
White Female in Single Household x Cohort	-35,072	163,517	1,011,823	121,827	14,218	89,689	937,477	79,538
White Female in Single Household x Cohort	-457,921	82,584	-349,322	112,877	-227,792	44,528	-175,014	58,995
White Female in Single Household x Cohort	-156,779	113,288	-135,909	144,036	-147,208	63,121	-92,562	76,739
Black in Coupled Household x Cohort	-558,126	87,015	-423,778	71,557	-298,867	49,495	-263,192	40,005
Black in Coupled Household x Cohort	-231,874	127,943	-334,932	140,826	-149,433	72,692	-175,795	66,862
Black Male Single Household x Cohort	-255,640	220,455	-223,370	158,162	-174,194	110,846	-164,029	98,204
Black Male Single Household x Cohort	-178,361	339,167	-202,980	214,169	-174,806	165,701	-84,844	151,586
Black Female Single household x Cohort	-236,298	118,789	-207,311	95,348	-164,872	66,693	-151,081	56,487
Black Female Single household x Cohort	-45,702	182,655	152,807	127,030	30,222	99,787	51,081	95,187
Other Race in Coupled Household x Cohort	-92,084	179,224	67,076	149,805	-157,299	94,500	-121,178	82,166
Other Race in Coupled Household x Cohort	-494,916	253,723	-549,785	213,106	-98,701	134,924	-150,133	121,124
Other Race in Single Male Household x Cohort	-113,721	201,533	-95,691	162,042	-195,516	231,764	-153,426	215,181
Other Race in Single Male Household x Cohort	576,920	251,797	-471,159	281,624	-27,484	297,581	32,606	249,092
Other Race in Single Female Household x Cohort	-106,905	312,210	-172,049	196,402	-89,952	167,757	-42,295	121,680
Other Race in Single Female Household x Cohort	136,631	404,672	208,221	291,820	-46,048	224,741	-78,684	206,160
Defined Benefit Plan x Cohort			-120,038	50,881			-56,553	29,350
Defined Benefit Plan x Cohort			364,219	72,950			-47,499	49,011
Defined Contribution Plan x Cohort			27,954	60,207			-6,743	35,593
Defined Contribution Plan x Cohort			-340,304	90,497			20,922	47,995
Household Earnings (000s) x Cohort			5,768	790			4,147	407
Household Earnings (000s) x Cohort			-3,871	1,031			-2,036	562
x In Single Male Household x Cohort			-609	1,138			-2,827	674
x In Single Male Household x Cohort			24,950	1,319			27,190	780
x In Single Female Household x Cohort			-1,742	3,394			-1,029	1,850
x In Single Female Household x Cohort			2,531	4,328			2,559	2,402
R-squared	.057		.153		.050		.122	
N	4,536		4,536		4,536		4,536	

**Table 5 (continued). Attrition-Reweighted Quantile Regression Models of the Lower Tail of the Distribution of Total Net Wealth for Two Cohorts, Aged 59-61 in 1992 and Aged 59-61 in 2000**

	Median				20 <sup>th</sup> Percentile			
	Model 1		Model 2		Model 1		Model 2	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Intercept	197,264	4,368	203,654	4,058	74,222	937	82,149	1,908
Cohort	19,736	6,485	14,740	5,479	-10,222	1,415	-7,674	2,760
White Male in Single Household x Cohort	-143,666	16,847	-129,458	12,175	-70,377	3,517	-52,159	5,878
White Female in Single Household x Cohort	-121,295	11,458	-60,092	12,804	-67,521	2,404	-46,163	5,867
Black in Coupled Household x Cohort	-121,528	12,367	-95,431	9,168	-53,249	2,660	-43,933	4,254
Black Male Single Household x Cohort	-47,772	28,092	-34,839	21,202	-3,845	5,548	-5,155	9,646
Black Female Single household x Cohort	-54,996	17,422	-50,103	12,382	-6,701	3,384	-3,736	5,992
Other Race in Coupled Household x Cohort	-99,156	23,428	-70,797	17,587	-53,831	4,576	-38,470	7,820
Other Race in Single Male Household x Cohort	-10,254	56,246	-14,556	41,641	-3,845	7,996	3,736	23,002
Other Race in Single Female Household x Cohort	-1,748	39,856	-8,506	29,436	-6,351	7,793	0	10,408
Defined Benefit Plan x Cohort			-5,046	6,524			6,067	3,055
Defined Contribution Plan x Cohort			22,086	9,648			-173	4,638
			-7,927	8,079			-2,821	3,825
			-3,322	10,654			-609	5,126
Household Earnings (000s) x Cohort			2,040	73			1,076	33
x In Single Male Household x Cohort			83	99			112	42
x In Single Female Household x Cohort			-1,195	99			-234	60
			6,851	134			286	67
			294	390			-178	175
			-958	502			-177	236
R-squared	.042		.075		.032		.054	
N	4,536		4,536		4,536		4,536	

*Notes:* The variable household earnings is centered around the mean household earnings of whites living in coupled households. Standard errors are not robust Taylor series standard errors, and thus clustering within households is not reflected in these results. This is not substantially consequential, as we determined in the course of estimating prior OLS models that these robust standard errors differed little from classical standard errors (and were neither smaller nor larger on average).

*Source:* HRS, 1992-2000

**Table 6. Attrition-Reweight Regression Models for Transfers to Children for Two Cohorts, Aged 59-61 in 1992 and Aged 59-61 in 2000**

	Logit Models Predicting Whether Respondents Provided \$500 or More in Financial Assistance to Children in the Past Year				OLS Regression Models Predicting Self-Reported Probability of Leaving a Bequest Greater Than \$100,000			
	Model 1		Model 2		Model 1		Model 2	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Intercept	-.505	.085	-.479	.089	.437	.014	.437	.012
Cohort	.245	.108	.210	.113	.108	.019	.096	.018
White Male in Single Household x Cohort	-.001	.261	.797	.636	-.111	.049	.004	.050
White Female in Single Household x Cohort	-.396	.179	.662	.271	-.170	.031	.091	.051
	.047	.244	-.580	.361	-.078	.043	-.161	.067
Black in Coupled Household x Cohort	-.038	.238	.141	.237	-.238	.037	-.159	.035
Black Male in Single Household x Cohort	-.846	.512	-.612	.497	-.253	.061	-.163	.055
Black Female in Single Household x Cohort	.453	.731	.546	.726	-.006	.104	-.081	.100
Black Female in Single Household x Cohort	-.891	.297	-.545	.319	-.161	.037	-.055	.034
	.736	.407	.536	.427	.048	.056	.011	.053
Other Race in Coupled Household x Cohort	-.055	.479	-.024	.452	-.179	.080	-.177	.080
Other Race Male in Single Household x Cohort	-.262	.608	-.191	.580	.001	.103	.015	.102
Other Race Female in Single Household x Cohort	.506	1.436	1.073	1.342	-.159	.144	-.076	.111
Other Race Female in Single Household x Cohort	-.179	1.579	-.425	1.505	-.213	.162	-.287	.133
Other Race Female in Single Household x Cohort	-.708	.826	-.537	.896	-.056	.111	.008	.081
Other Race Female in Single Household x Cohort	-.056	1.075	-.56	1.160	.050	.156	-.086	.136
Total net wealth (100,000s) x Cohort			.506	.188			.248	.034
x In Single Male Household x Cohort			-.471	.196			-.209	.038
x In Single Female Household x Cohort			1.200	2.010			.288	.126
x In Single Male Household x Cohort			.622	2.279			-.276	.137
x In Single Female Household x Cohort			.674	.633			.376	.145
x In Single Female Household x Cohort			-.566	.726			.090	.205
Household Earnings (000s) x Cohort			.005	.003			.0017	.0004
x In Single Male Household x Cohort			.005	.003			.0002	.0004
x In Single Female Household x Cohort			.020	.012			-.001	.001
x In Single Male Household x Cohort			-.005	.017			-.002	.001
x In Single Female Household x Cohort			.034	.008			.004	.001
x In Single Female Household x Cohort			-.250	.011			-.003	.002
R-squared (or Pseudo-R-squared for the logit)	.014		.053		.079		.218	
N	3,297		3,297		3,722		3,722	

*Notes:* The variables household earnings and household wealth are centered around the mean household earnings and wealth of whites living in coupled households. Standard errors are robust Taylor series standard errors, further adjusted for clustering within households.

*Source:* HRS, 1992-2000

**Table A1. Descriptive Statistics for Two Cohorts from the Health and Retirement Surveys, Aged 59-61 in 1992 and Aged 59-61 in 2000**

	Aged 59-61 in 1992			Aged 59-61 in 2000		
	N	Mean	SD	N	Mean	SD.
<b>Basic Demographic Characteristics:</b>						
Female	2320	.52	--	2216	.53	--
Black	2320	.11	--	2216	.14	--
Other race	2320	.03	--	2216	.03	--
Region of residence:						
Northeast	2320	.21	--	2216	.19	--
Midwest	2320	.29	--	2216	.27	--
South	2320	.33	--	2216	.35	--
West	2320	.17	--	2216	.19	--
Marital status:						
Married	2320	.76	--	2215	.73	--
Partnered	2320	.02	--	2215	.02	--
Never Married	2320	.03	--	2215	.03	--
Widowed	2320	.09	--	2215	.08	--
Divorced/Separated	2320	.11	--	2215	.14	--
Number children living	2320	3.36	2.184	2109	3.39	1.92
Number of parents living	2253	.36	0.545	2175	0.44	0.598
Father's Education (years)	1973	8.79	3.973	1986	9.61	3.853
Mother's Education (years)	2029	9.19	3.511	2065	9.69	3.466
Health status:						
Excellent	2320	.19	--	2216	.16	--
Very good	2320	.29	--	2216	.33	--
Good	2320	.28	--	2216	.29	--
Fair	2320	.14	--	2216	.15	--
Poor	2320	.09	--	2216	.07	--
<b>Education and Work:</b>						
Education (years)	2320	12.05	3.173	2216	12.65	2.941
Work Status:						
Working Full-Time	2320	.45	--	2216	.47	--
Working Part-Time	2320	.09	--	2216	.09	--
Partly Retired	2320	.06	--	2216	.06	--
Unemployed	2320	.02	--	2216	.01	--
Disabled	2320	.04	--	2216	.07	--
Retired	2320	.23	--	2216	.21	--
Not in the Labor Force	2320	.10	--	2216	.10	--
Defined benefit pension plan	2320	.44	--	2216	.19	--
Defined contribution pension plan	2320	.21	--	2216	.22	--
Total Household Earnings	2320	31,901	40,057	2216	34,365	60,875
Total Household Income	2320	51,073	53,491	2216	71,876	159,273
<b>Wealth:</b>						
Total net wealth	2320	302,998	570,541	2216	441,903	1,928,653
Net financial wealth	2320	77,553	222,510	2216	119,547	880,329
Net value of housing	2320	84,993	93,103	2216	125,587	592,153

Individual Retirement Accounts	2320	30,195	75,594	2216	68,856	196,400
Total Other Wealth	2320	110,257	396,011	2216	128,003	775,741
Zero total net wealth	2320	.04		2216	.03	
Negative total net wealth	2320	.03		2216	.03	
<b>Intergenerational transfers:</b>						
Gave \$500+ to Children	2320	.34	--	2216	.39	--
Probability of \$100,000+ bequest:	1924	.38	.41	1798	.48	.42

---

Source: HRS, 1992-2000

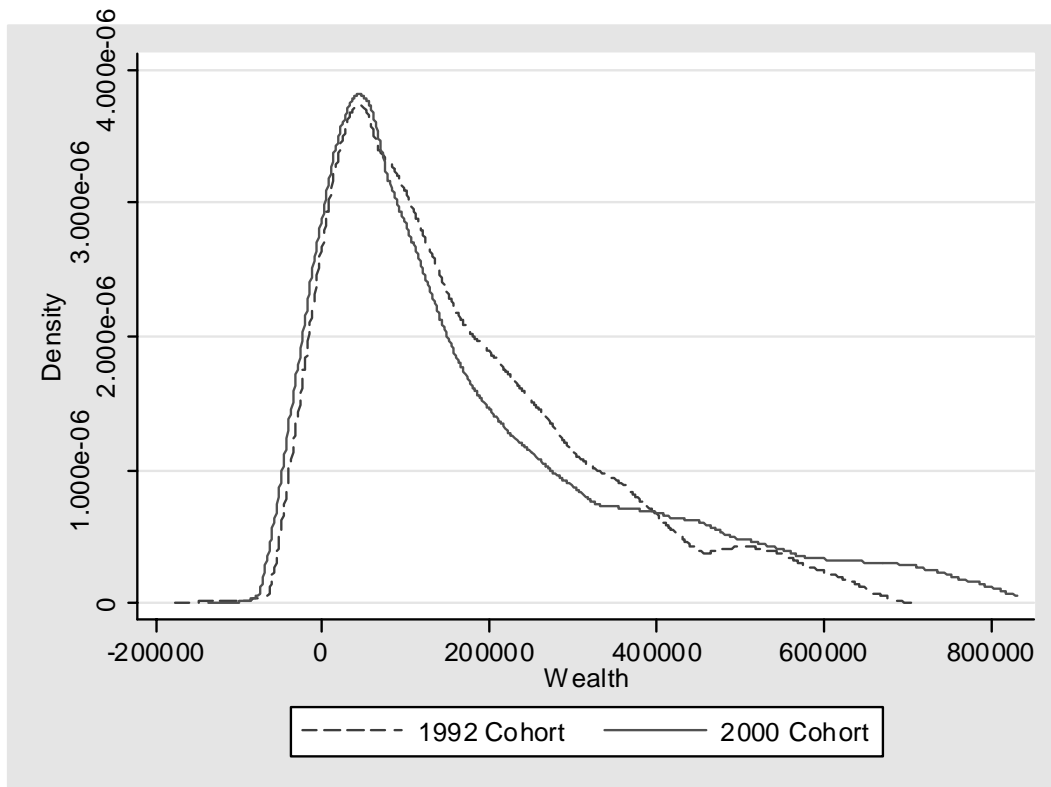


Figure 1a. Kernel Density Estimates of the Distribution of Total Wealth for Two Cohorts of Individuals Between the Ages of 59 and 61, Estimated for the Minimum Wealth Reported through the 90<sup>th</sup> Percentile of Wealth Reported for Each Cohort

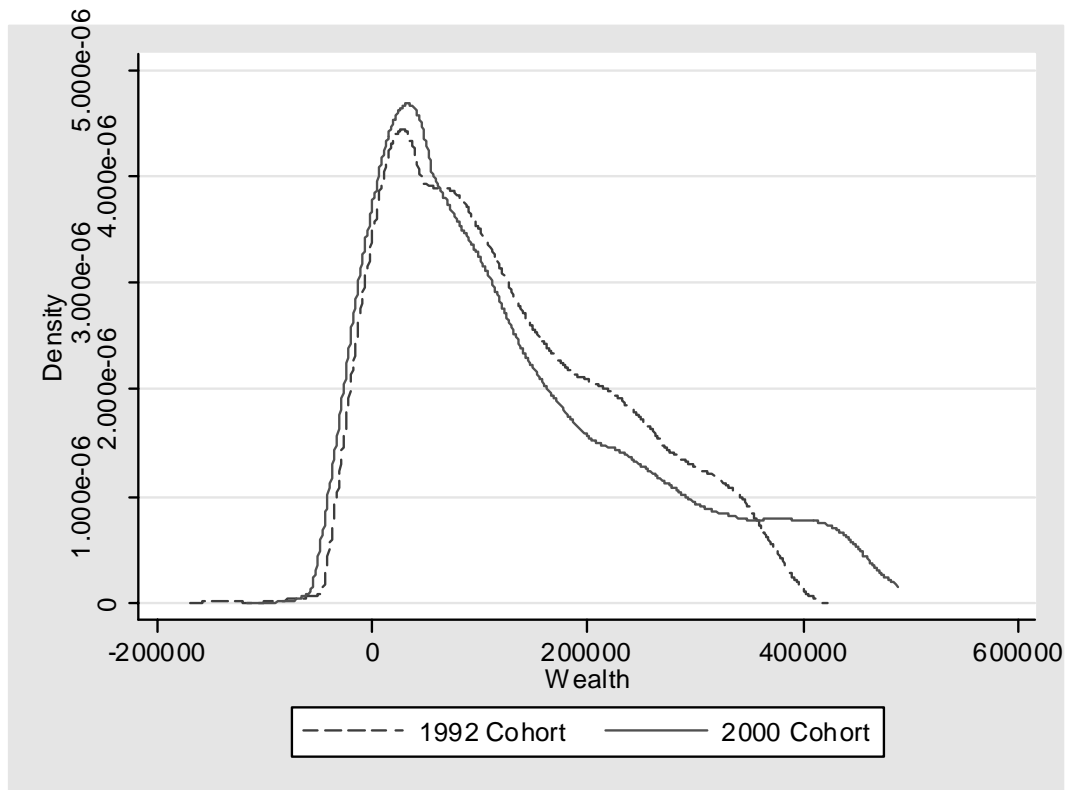


Figure 1b. Kernel Density Estimates of the Distribution of Total Wealth for Two Cohorts of Individuals Between the Ages of 59 and 61, Estimated for the Minimum Wealth Reported through the 80<sup>th</sup> Percentile of Wealth Reported for Each Cohort



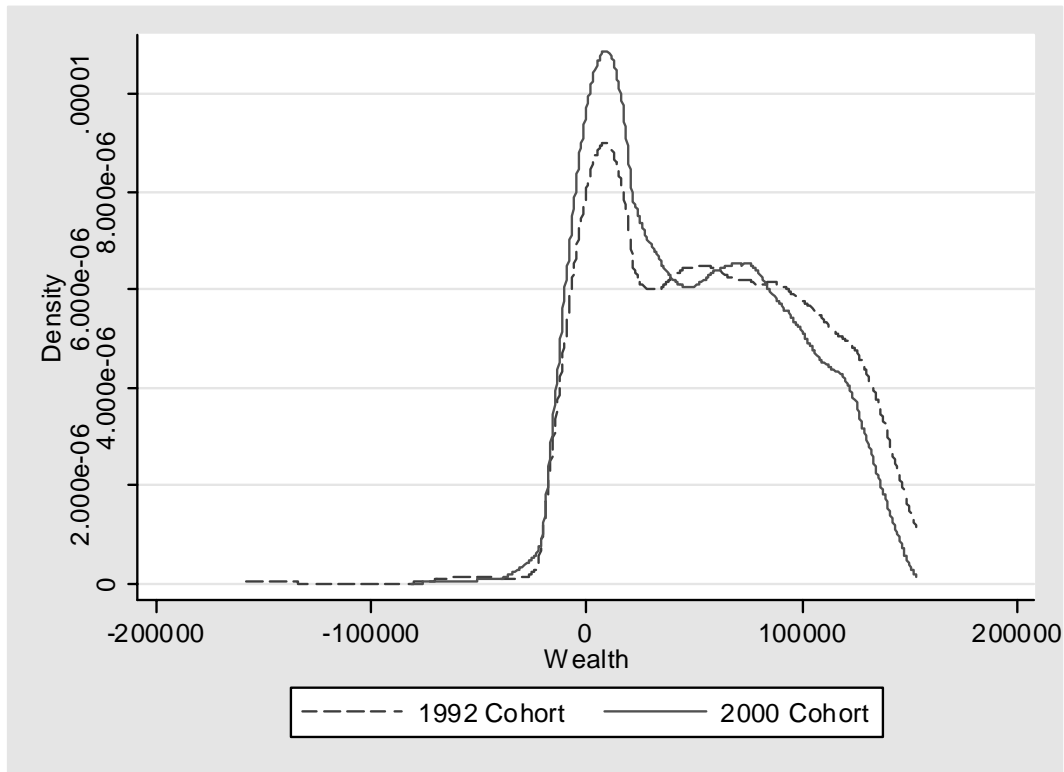


Figure 1c. Kernel Density Estimates of the Distribution of Total Wealth for Two Cohorts of Individuals Between the Ages of 59 and 61, Estimated for the Minimum Wealth Reported through the Median of Wealth Reported for Each Cohort

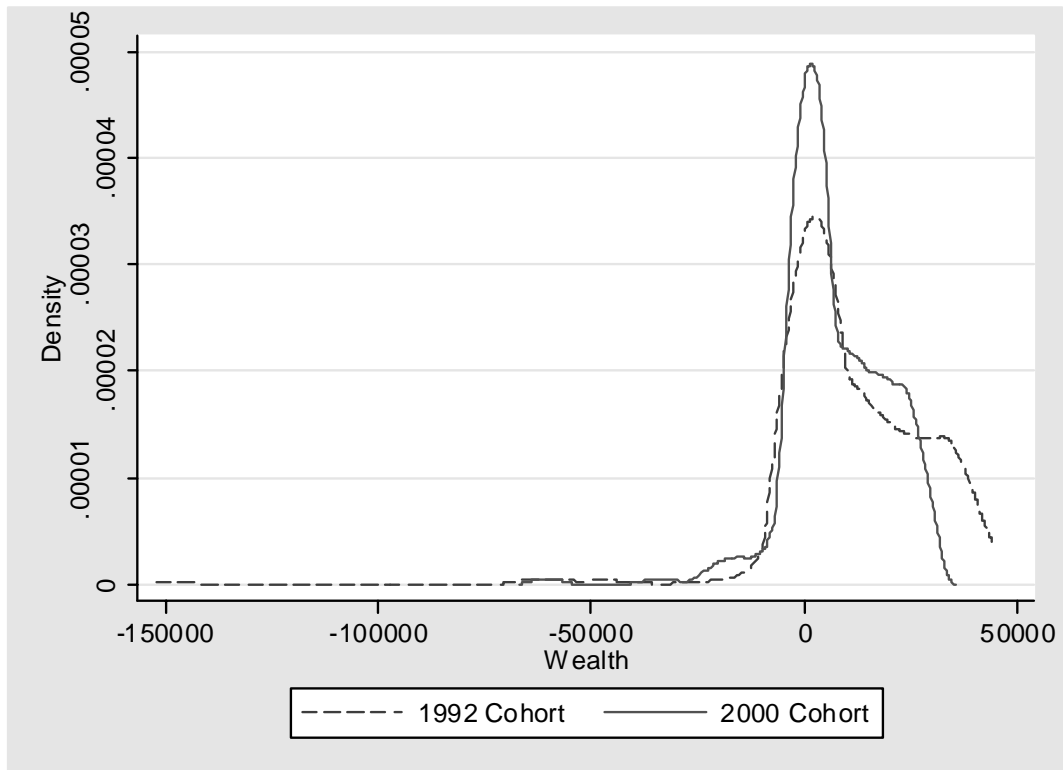


Figure 1d. Kernel Density Estimates of the Distribution of Total Wealth for Two Cohorts of Individuals Between the Ages of 59 and 61, Estimated for the Minimum Wealth Reported through the 20<sup>th</sup> Percentile of Wealth Reported for Each Cohort