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Survey Estimates of Wealth: A Comparative Analysis and Review of the Survey of Income and Program Participation

Final Report

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EXECUTIVE SUMMARY

The Office of Research, Evaluation, and Statistics (ORES) within the Social Security Administration (SSA) relies on data from the Census Bureau's Survey of Income and Program Participation (SIPP) for a variety of applications. Data on wealth are important in these applications. Earlier comparisons of SIPP estimates of wealth with those from other surveys—namely, the Survey of Consumer Finances (SCF) and the Panel Study of Income Dynamics (PSID)—identified a number of shortcomings in the SIPP data. These shortcomings mostly affected the survey's estimates of high-income families and the types of assets that such families hold disproportionately. More recently, however, SIPP estimates of median wealth have shown little change over a period of time when the SCF has shown a marked increase. This has raised concern that continued use of SIPP data for ORES applications may require some form of adjustment of the wealth data, if not their outright replacement by one or more other sources. This report compares SIPP estimates of wealth with estimates developed from the SCF and the PSID, seeks to attribute the observed disparities to differences in survey design and implementation, explores ways to improve the quality of the SIPP estimates for the most relevant subpopulations, and presents recommendations regarding both the use and production of SIPP wealth data.

COMPARATIVE ESTIMATES OF WEALTH

Each of the three surveys is ultimately intended to represent the entire noninstitutionalized population, but each collects data from a different unit of observation. The SCF collects its most detailed data on the "primary economic unit", which includes the economically dominant individual or couple and all others who are financially dependent. The SCF collects very limited data on the collective remaining individuals in the household. The SIPP collects wealth data from each adult member (15 and older) of the sample household. With these data it is possible to construct alternative units of analysis. We constructed SIPP family units that mimic the SCF primary economic unit. The PSID collects data from families, using a concept of economic dependence like the SCF to determine which related persons living together constitute a family. To produce PSID wealth estimates for a universe that matches that of the SCF and SIPP, we limited the PSID families to those that were likely to include the household head. Most of the estimates presented in this report are from the 1998 SCF, the 1999 PSID, and wave 9 of the 1996 SIPP panel, which has a reference period covering late 1998 and early 1999.

Overall Wealth. Wealth, or net worth, is defined as total assets less total liabilities. The SIPP estimate of aggregate net worth, at $14.4 trillion, is just under half of the SCF estimate of $29.1 trillion and 60 percent of the PSID estimate. The SIPP estimate of *median* net worth, $48,000, is two-thirds of the SCF median of $71,800 and 74 percent of the PSID median.

With the detail captured in the SIPP and the SCF, it is possible to separate assets from liabilities. The SIPP estimate of aggregate assets is 55 percent of the SCF estimate of $34.1 trillion, but its estimate of aggregate liabilities is 90 percent of the SCF estimate of $5.0 trillion. The SIPP estimate of median assets is 83 percent of the SCF median of $116,500 while its estimate of median liabilities is 97 percent of the SCF median of $11,900. By estimating liabilities so much better than assets, the SIPP reduces its estimate of net worth significantly.

Wealthy Families. Wealth is highly concentrated. Estimates from the SCF indicate that the wealthiest one percent of families own a third of all wealth in the United States. The SIPP's estimate of aggregate assets is much weaker than its estimate of median assets because the SIPP underestimates both the number of wealthy families and their average wealth. The SIPP's use of topcoding contributes to this shortfall by removing assets from wealthy sample members.

Excluding assets and liabilities not measured in the SIPP, the proportion of SCF families with net worth above $1 million, or 3.8 percent, is two-and-a-half times the SIPP proportion, and the fraction with net worth above $2 million, or 1.7 percent, is five times the SIPP fraction. When families with net worth of $2 million or more are excluded from both surveys, the SIPP estimate of aggregate net worth is 75 percent of the comparable SCF estimate; aggregate assets are 80 percent of the SCF estimate; and aggregate liabilities are 101 percent of the SCF estimate.

Components of Wealth. As a proportion of the corresponding SCF estimate, the SIPP's estimates of aggregate assets exhibit wide variation by type. The SIPP's estimate of the value of the home is 91 percent of the SCF estimate, but the SIPP captures only 41 percent of the SCF valuation of other real estate. The SIPP also captures 76 percent of the SCF estimate of motor vehicles but only 17 percent of SCF business equity. Among financial assets, the SIPP estimate of 401(k) and thrift accounts is 99 percent of the SCF estimate, but the next best component, other financial assets, is only 71 percent of the SCF estimate. For assets held at financial institutions, the SIPP estimate is 63 percent of the SCF estimate. For stocks and mutual funds, the largest financial asset, the SIPP estimate is only 59 percent of the SCF estimate while the SIPP estimate of IRA and Keogh accounts is 55 percent of the SCF estimate. Lastly, the SIPP estimate of other interest earning assets is only 33 percent of the SCF amount.

If we remove families with net worth of $2 million or more, the SIPP estimates of aggregate assets by type draw closer to the SCF estimates by varying amounts, reflecting differences in their distribution. The SIPP estimates of own home, 401(k) and thrift plans, and other financial assets equal or exceed the SCF estimates while the SIPP estimate of motor vehicles reaches 82 percent of the SCF estimates. Stocks and mutual funds improve to 84 percent of the SCF estimate while the remaining financial assets and other real estate rise to between 74 and 79 percent of the SCF estimates. Business equity remains lowest at 50 percent of the SCF estimate.

We can decompose the difference between the SIPP and SCF aggregate assets into four components. Underestimation of the assets of the wealthy accounts for 72 percent of the total difference. Assets not measured in the SIPP, excluding those reported by the wealthy, account for 13 percent. Underestimation of business equity for the nonwealthy is 5 percent of the total difference while the underestimation of all remaining assets accounts for 10 percent.

Even with the wealthiest families included, SIPP estimates of aggregate liabilities by type generally lie close to the SCF estimates. Home mortgages dwarf all other liabilities with an aggregate value five times that of the next largest component, and the SIPP estimate is 95 percent of the SCF amount. The SIPP estimates of three other components *exceed* the SCF estimates while loans from financial institutions are 73 percent of the SCF estimate. Mortgages on rental property and the debt held in margin and broker accounts are the only components estimated poorly by the SIPP; their estimates are 42 and 30 percent of the respective SCF amounts. A decomposition of the difference in the two surveys' estimates of liabilities is not meaningful because aggregate agreement is so high.

The PSID as a Benchmark. Comparing SIPP estimates of the components of wealth with estimates from the SCF may provide the most rigorous test of their quality in most cases, but as a measure of what may be attainable with a general household survey such as the SIPP, the SCF sets the bar too high—at least for assets. While the PSID does not provide the same detailed breakdown of assets and liabilities as the SIPP, the PSID may provide more appropriate benchmarks but for those components that line up well with the SIPP.

For checking and savings accounts the SIPP aggregate is 79 percent of the PSID aggregate, and for equity in stocks and mutual funds the SIPP aggregate is 72 percent of the PSID aggregate. The SIPP estimate of the equity value of other real estate is only 46 percent of the PSID estimate, and the SIPP estimate of business equity is only 22 percent of the PSID estimate. All of these findings suggest that significant improvement in the SIPP is feasible.

The PSID is not helpful for retirement assets, but the PSID confirms that the SIPP estimate of the value of the family's own home is very strong: the SIPP aggregate is 94 percent of the PSID amount. Comparisons involving the two liabilities distinguished in the PSID—home mortgages and unsecured liabilities—show exceedingly high agreement (and with the SCF as well). This further confirms that survey respondents are able to provide good data on their debts.

The findings for vehicles suggest that the methodology used in the SIPP and the SCF (which assign a blue book value based on reported make, model and year) is better than the PSID approach, which asks respondents to estimate the equity value of their vehicles. Respondents appear to overestimate what their vehicles are worth.

Ownership of Assets and Liabilities. SIPP estimates of particular components of wealth could be low because too few respondents report owning such components or because those who do report ownership do not report their full amounts. In general, SIPP ownership rates lag behind SCF ownership rates whenever there are differences in aggregate amounts that cannot be explained by differences in the surveys' estimates of wealthy families. A few examples are particularly notable. First, SIPP families underreport their ownership of checking and savings accounts, IRAs and Keogh accounts, and real estate other than the home, but the median amounts for families that do report such assets are similar between the two surveys. Second, other financial assets show a 2 percent ownership rate in the SIPP compared to 10 percent in the SCF, yet the conditional median in the SIPP is much higher than in the SCF. This suggests that the SIPP respondents are reporting only their more valuable assets in contrast to the SCF respondents, who were prompted with a lengthy list of examples. Third, for business equity, a 50 percent higher SCF ownership rate but a three-fold higher median value suggests that the businesses not being reported by SIPP respondents are exceptionally valuable.

CHANGE IN ESTIMATES OF WEALTH OVER TIME

Findings from the four SCFs conducted from 1992 through 2001 document an impressive and broad-based growth in wealth holdings after the nation emerged from recession. Does the SIPP capture the trends in wealth holdings revealed in the SCF, even though the SIPP's estimates of the levels of wealth holdings may be low? Second, is there any evidence of deterioration in the quality of the SIPP's estimates of wealth between the early 1990s panels and the 1996 panel?

Growth in Aggregate Assets. The SIPP tracks the SCF exceedingly well in the growth of aggregate assets by type. Between 1993 and 1999, assets in the SIPP grew by 39 percent after adjustment for inflation while SCF assets grew by 43 percent. SIPP financial assets grew by 81 percent compared to 78 percent for the SCF. SIPP property assets grew by 25 percent versus 24 percent in the SCF. Of the other assets measured in the SIPP, only vehicles failed to match the growth rate recorded in the SCF, increasing by just 8 percent compared to 40 percent in the SCF.

Comparative Trends in the Distribution of Wealth. The similarities in SIPP and SCF trends in aggregate assets mask important differences in trends throughout the distribution. When asset components not measured in the 1992 SIPP panel are excluded from the 1992 SCF, the SIPP and SCF median assets are nearly identical, and the SIPP estimates of the 40th to the 80th percentiles are within five percentage points of the SCF estimates. Between 1992 and 1998, however, the gap between the SIPP and SCF estimates increased at every decile below the 90th percentile. In contrast to this, the SIPP and SCF liabilities stayed in close agreement.

The relationship between the two surveys' trends in net worth is more complex. Families with zero or negative net worth grew from 13 percent to 17 percent of the population in the SIPP but remained at 13 percent in the SCF. SIPP estimates of net worth below the 50th percentile declined in constant dollars whereas the SCF estimates grew at percentiles 20 and above. Most notably, the SIPP's estimate of the 20th percentile of net worth fell to 25 percent of the SCF value after having been 72 percent; and SIPP median net worth remained unchanged while the SCF median grew by 14 percent. SIPP net worth grew between the 50th and 90th percentiles but did so more slowly than the SCF. At the 90th percentile and above, however, SIPP growth in net worth matched or even exceeded the growth in SCF net worth.

Trends within the SIPP. Adding 1995 data from the 1993 SIPP panel and 1997, 1998, and 2000 data from the 1996 panel yields clear evidence of a disjuncture between the 1992/1993 panels and the 1996 panel. While the earlier panels provide evidence of growth in net worth at every decile, this growth is reversed between 1995 and 1997 at percentiles 60 and lower. Percentile values then remain flat or decline through at least 1999. Assets show this same pattern at percentiles 30 and lower but grow at percentiles 40 through 90, consistent with the earlier panels. Liabilities show little or no growth at any decile between 1993 and 1995 but shift abruptly between 1995 and 1997 at every decile. They grow modestly after that.

Correlation between Assets and Liabilities. The most striking evidence that "something" happened between the 1993 and 1996 SIPP panels is found in the correlation between assets and liabilities. In both the earlier SIPP panels the correlation between assets and liabilities was .49, compared to the 1992 SCF estimate of .50. With the 1996 SIPP panel this correlation dropped precipitously and became very unstable, with values ranging from .06 to .19 over the four waves. The correlation in the 1998 SCF was only moderately lower than in 1992 at .40.

SUBPOPULATIONS

Each of ORES's uses of SIPP wealth data is in the context of a specific target population, so it is important to ask how the SIPP varies with respect to the quality of its measurement of wealth across key subpopulations.

Demographic and Economic Differentials. The SIPP shows stronger differentials than the SCF in median net worth by age, race, and income below 400 percent of poverty. For assets and particularly liabilities, the differentials are generally very similar between the two surveys.

Key Subpopulations. We identified 10 subpopulations that are of potential interest to SSA for policy analysis or for better understanding the strengths and limitations of SIPP wealth data. Four subpopulations are defined by income in relation to poverty. Another six subpopulations consist of families with an elderly head or spouse, a head nearing retirement, a prime working-age head (30 to 60), an aged head or spouse receiving Social Security benefits, a nonaged head or spouse receiving such benefits, and a nonaged disabled head or spouse. SIPP's strength in sample size is evident in the sample counts for these subpopulations. For example, the SIPP has more than 2,000 sample families with a nonaged disabled head or spouse whereas the SCF has fewer than 200 and the PSID only 368. Similarly, the SIPP has more than 10,000 low-income families compared to 1,100 for the SCF and 2,100 for the PSID.

Assets measured in the SCF but not the SIPP can explain much of the difference between the surveys' estimates of subpopulation aggregates. To examine the impact of these non-SIPP assets more directly, we subtracted their mean values from the SCF mean net worth to create an adjusted SCF mean. Wealthy families ($2 million and up) were excluded. For the low-income subpopulation and the nonaged Social Security beneficiary and disabled subpopulations, the SIPP means match the adjusted SCF means. For all but one of the other subpopulations the SIPP means range from 87 to 94 percent of the SCF adjusted means. For families with prime working age heads the SIPP mean is 78 percent of the corresponding SCF mean. These results support the use of SIPP data to analyze the wealth of these subpopulations, and they make a strong case for expanding SIPP data collection to capture the major components that are currently omitted.

SOURCES OF ERROR IN MEASURED WEALTH

Under-representation of High-income Families. Compared to both the SCF and the Current Population Survey (CPS), the SIPP under-represents families above $300,000 by two-thirds, families between $150,000 and $300,000 by at least one-third, and families between $90,000 and $150,000 by at least 12 percent. Topcoding in the SIPP might shift some families from the top group to the next, but the CPS uses similar topcodes. Differential attrition does not explain the shortage of high-income families either. A surprising feature of the SIPP weights is their uniformity over the income distribution, which implies that families at all income levels are weighted up to offset the missing high-income families. Reweighting the SIPP sample to reproduce the SCF income distribution improves the SIPP wealth distribution only slightly. Responding families may have less income and less wealth than the nonresponding families that they are being reweighted to represent.

Coverage and Content. Assets that are measured in the SCF but not the SIPP include: the value and debt associated with vehicles beyond three per family, the balance in defined contribution pension accounts other than 401(k) and thrift accounts (collected once in a separate module, see next section), the cash value of life insurance, and "other" assets, consisting primarily of annuities and trusts. Liabilities measured in the SCF but not the SIPP are more limited: just personal business debt and other secured debt. Collectively, these items account for about 10 percent of the SCF estimate of aggregate net worth. With these items removed, the

SIPP estimate of aggregate or mean net worth is 55 percent of the SCF estimate (versus 50 percent when these items are included).

Assets and liabilities that the SIPP measures but with very limited success include: interest earning assets besides those held at financial institutions, all other real estate beside the family's main home, business equity, and mortgage debt on rental property. Collectively, these items account for $9.6 trillion of the SCF estimate of aggregate net worth but only $2.5 trillion of the SIPP estimate of aggregate net worth. If these items are removed from both surveys, the SIPP estimate of aggregate or mean net worth is 72 percent of the SCF estimate.

On the whole, the non-SIPP items that are included in the SCF increase the estimated value of net worth throughout most of the distribution by a greater margin than they increase aggregate net worth. And they add proportionately more net worth to the lower half of the distribution than to the upper half. In contrast, the items that the SIPP measures relatively poorly are concentrated in the upper regions of the net worth distribution and have a much bigger impact on aggregate net worth than on most of the distribution.

Other Pension Data in the SIPP. The annual wealth module in the 1996 SIPP panel captures 401(k) and thrift account holdings but does not capture other pension wealth. Additional data on retirement accounts were collected in wave 7—separately from the annual wealth module. The wave 7 data duplicate the 401(k) and thrift account data collected in the wealth module but also capture defined contribution pension plans. We found that the wave 7 module captured as much pension wealth as the SCF.

Negative and Zero Net Worth. The proportion of families with no assets and no liabilities is 4.3 percent in wave 9 of the 1996 SIPP panel and 2.4 percent in the 1998 SCF. Other MPR research suggests a possible explanation for this difference: respondents lose interest in the survey and provide less and less information, which may culminate in attrition. We find some support for this thesis. One-quarter of families with zero net worth in wave 9 did not respond to the survey a year later, and one-half continued to report no assets or liabilities. Attrition was marginally lower among families with negative or low positive net worth in wave 9, but it was less than half as high among families with higher reported net worth.

About 11 percent of SIPP families and 8 percent of SCF families have negative net worth. The SIPP families often have combinations of assets and liabilities that are rare among SCF families with negative net worth. In particular, the SIPP families are much more likely to have low assets and high liabilities, and they have higher assets and higher liabilities generally. These patterns are consistent with the low correlation between assets and liabilities reported earlier.

Item Nonresponse. Item nonresponse to the SIPP wealth questions is very high, with 20 to 60 percent of the nonzero amounts being imputed. While the most common assets and liabilities have imputation rates that tend toward the low end, more than half of the amounts for stocks and mutual funds—the second largest asset in the SIPP—are imputed. In contrast to the SCF's state of the art imputation methods, the Census Bureau applies the same hot deck procedure that it uses to impute items with much lower nonresponse rates. In the 1996 panel the correlation between assets and liabilities among families with particular combinations of imputed values is weaker than it is among the remaining families. A limited analysis found no evidence of this in the 1992 SIPP panel. Not taking account of reported liabilities when imputing assets, and vice

versa, could explain the 1996 panel result. But unless the imputation methodology changed in some critical way between the two panels, the 1992 panel finding contradicts this interpretation.

Response Brackets. Less effective use of range responses could be a factor in the SIPP's generally low estimates of assets. The response brackets used in the SIPP to collect ranges from respondents who could not provide exact amounts do not match the distributions very well, generally. The PSID often provides three brackets above the median while the SIPP usually provides only one.

Vehicles. Like the SCF, the SIPP uses an industry "blue book" to assign values to vehicles based on the reported make, model, and year. This is a proven methodology, but the Census Bureau relies on a reference book that extends back only seven years. While there exists a blue book for older cars, the Census Bureau assigned values to older cars in the 1996 panel based entirely on the reported year. Every car with the same model year was assigned the same value, regardless of make and model. The source of these values is not evident, but with decreasing model year (or increasing age) the values are progressively lower than the average blue book values assigned in the SCF. With as many as half of all cars being older than seven years, this method of assigning values has a pronounced negative effect on the quality of the SIPP vehicle data. Imputations were also based solely on model year. If only the model year was reported, the mean value for that model year was assigned. If no year was reported, a single value representing a multi-year average was assigned, even if the make and model were reported. These primitive imputations further weakened the SIPP estimates of a widely-held asset.

ADJUSTING THE SIPP DATABASE FOR SIPP-SCF DIFFERENCES IN THE LEVEL AND DISTRIBUTION OF ASSETS

We applied reweighting based on income and a method of "recoding" based on econometric models to adjust the SIPP distributions of six types of assets so that they more closely resemble the distributions in the SCF. The objective of the recoding was to estimate what outcomes would have been reported had the SIPP families been surveyed in the SCF instead. Recoding addresses differences in survey content and administration but not sample composition.

Recoding. For each of six assets we estimated four equations predicting: (1) the presence of the asset in the SCF, (2) the presence of the asset in the SIPP, (3) the asset value in the SCF, and (4) the asset value in the SIPP. For the SIPP equations we calculated standardized residuals. We then used the equations estimated from the SCF, the observed characteristics of each SIPP family, and the SIPP residuals to generate predictions of the presence and amount of assets. We recoded the observed SIPP values by replacing them with these predicted values, which assume that the SIPP family was observed in the SCF with its SIPP characteristics and residuals.

Retirement Assets. Reweighting the SIPP database reduced the SIPP-SCF gap in total retirement assets by 23 percent. Recoding topcoded values reduced the gap an additional 18 percent. Replacing imputed values with recoded values widened the gap slightly. Recoding all remaining values reduced the gap by another three-fifths, leaving less than 3 percent of the original gap. These findings imply that SIPP-SCF differences in the non-reporting or under-reporting of retirement assets are largely due to differences in survey content and administration instead of sample composition. These results are consistent with our findings that most of the

difference between SIPP and SCF estimates of retirement assets is due to defined contribution pensions, which are not measured in the SIPP wealth module.

Non-retirement Assets. Reweighting and recoding were much less successful for total non-retirement assets than for retirement assets, leaving more than two-fifths of the original SIPP-SCF gap. The effectiveness of reweighting and recoding varied across major types of non-retirement assets. The comparatively small percentage gap for owner-occupied housing was reduced very little by the adjustments, while the proportionately larger but small dollar gaps for checking and savings accounts and motor vehicles were reduced by one-third and two-thirds, respectively. The large gap for other non-retirement assets was reduced by two-fifths. The remaining gap for total non-retirement assets appears to be due to systematic differences in the characteristics of families in the two surveys—in particular, the substantially better representation of high-wealth families in the SCF.

RECOMMENDATIONS REGARDING SIPP WEALTH DATA

Our recommendations to ORES include strategies for making the most effective use of SIPP wealth data in their present form and improvements and enhancements that ORES should encourage the data producer, the Census Bureau, to pursue.

Making Effective Use of SIPP Wealth Data. To make the most effective use of SIPP wealth data, users need to be aware of the limitations of these data, at the very least, and be willing to consider some adjustments to the data values. These include:

- Making certain that their SIPP files are the latest releases
- Excluding wealthy families (for example, $2 million and up) from their analyses
- Reweighting the SIPP sample to correct for its under-representation of high-income families
- Extracting defined contribution pension data from the pension module and imputing other missing wealth components: primarily life insurance, trusts, and annuities
- Using a Pareto distribution or data from the SCF to estimate the mean of topcoded values
- Borrowing strength from the SCF or other surveys to adjust the data values using the methodology presented in this report

None of these techniques can substitute for the data improvements recommended below, but as interim tactics they can help to correct for known shortcomings of the SIPP data.

Improvements in SIPP Data Collection and Processing. We recommend the implementation of several improvements in the collection and processing of SIPP wealth data:

- Adding questions to collect the cash value of life insurance as well as annuities and trusts

- Moving the pension module to the same wave as the wealth module and integrating the questions on retirement wealth
- Revising many of the brackets used to collect range responses when respondents cannot provide exact amounts, and substituting unfolding brackets for fixed brackets
- Incorporating debts into the imputation of assets and vice versa and seriously considering model-based imputation of wealth items
- Improving the review of imputed values and publishing benchmark tabulations
- Improving the valuation of vehicle assets by extending the blue book method to older vehicles and replacing mean value imputation with a method that yields a distribution
- Publishing means of topcoded values or assigning these as the topcodes
- Establishing a version control system for public releases of SIPP data

We also recommend additional methodological research directed, first, at determining why the quality of the SIPP wealth data declined between the 1993 and 1996 panels, second, at developing a more effective approach to measuring selected components of wealth, and, third, at understanding the reasons for and finding ways to reduce the SIPP's under-representation of high-income families.

I. INTRODUCTION

The Office of Research, Evaluation, and Statistics (ORES) within the Social Security Administration (SSA) relies on data from the Census Bureau's Survey of Income and Program Participation (SIPP) for a number of different applications. These include simulation models of future retirement income, eligibility for the Supplemental Security Income (SSI) program, and eligibility for Medicare buy-in programs, as well as more routine estimates of the characteristics of current and prospective future beneficiaries. Data on wealth play an important role in these applications. Earlier cross-sectional comparisons of SIPP estimates of net worth with those from other surveys—namely, the Survey of Consumer Finances (SCF) and the Panel Study of Income Dynamics (PSID), indicated that the SIPP data had a number of shortcomings. However, these shortcomings mostly affected the survey's estimates of high-income families and the types of assets that were unique to such families, making the limitations less relevant to ORES's uses of the data than if they had been more broadly based. More recently, however, SIPP estimates of median net worth seem to show little change over a period of time when the SCF, in particular, shows a marked increase. If the SIPP is incorrectly capturing the trend in median household wealth, this cannot be due solely to deficiencies among the families with the highest incomes. This has raised concern that continued use of SIPP data for the many ORES applications may require some form of adjustment of the wealth data, if not their outright replacement by one or more other sources.

This report compares SIPP estimates of wealth with estimates developed from the aforementioned surveys, seeks to attribute the observed disparities to differences in survey design and implementation, explores ways to improve the quality of the SIPP estimates for the

most relevant subpopulations, and presents recommendations regarding both the use and production of SIPP wealth data.

The remainder of this chapter is organized as follows. Section A presents background information on ORES's use of SIPP data and the reasons why ORES would want to continue using SIPP wealth data in many of its applications. Section B provides an overview of the SIPP, the SCF, the PSID, and the newer Health and Retirement Study (HRS), which represents the population born before 1948 and collects data on wealth along with a wide range of aging-related topics. Section C discusses factors that may account for differences between the SIPP and these other surveys. Section D reviews earlier evidence on the quality of SIPP wealth data, and Section E presents an overview of the rest of the report.

A. VALUE OF SIPP DATA

There are several reasons why ORES should want to maintain its reliance on SIPP data. First, the size of the sample—nearly 40,000 households at the start of the 1996 panel—supports analysis of a broad array of subpopulations. Second, the capture of monthly rather than just annual income and program participation and the survey's focus on these data make SIPP uniquely well suited to modeling SSI and developing projections of the populations that are most dependent on social security as a major component of their retirement income. Third, the possibility—perhaps only remote—that the SIPP might replace the CPS as the source of official estimates of poverty in the United States, as a National Academy of Sciences panel recommended, holds out the possibility of changes to the design of SIPP and the data it collects, which would further enhance the value of these data for SSA's modeling needs. Fourth, the SIPP collects social security numbers, which the SSA is able to match to its own administrative records, thereby producing exceedingly rich databases for policy analysis. These are significant strengths that no other survey can match.

At the same time, however, evidence suggesting a possible deterioration in the quality of SIPP asset data cannot be ignored. Table I.1, which is drawn from published sources, supplemented by tabulations from recent SIPP and PSID files, reports median net worth (in 1999 dollars) as measured at different points in time by the SIPP, the SCF, and the PSID.[1] Setting aside, for now, issues of comparability in what the survey estimates represent, we observe the following. SIPP estimates of median household wealth in the 1980s were fairly close to those obtained from the PSID while the SCF estimates ran 20 to 25 percent higher. Between 1988 and 1991, SIPP median wealth declined along with SCF median wealth, albeit more sharply. Through the rest of the 1990s, however, the SCF recorded a steady rise in median wealth while the SIPP reported no growth until the final year, by which point the SCF was close to doubling the SIPP median. The addition of 401(k) plans to the SIPP measure of wealth in 1997 narrowed the gap between the SIPP and the SCF and generated modest annual growth. Furthermore, with the upsurge in 2000, the median value of this enhanced SIPP measure of wealth grew by nearly 12 percent between 1997 and 2000, compared to 10 percent for the SCF between 1998 and 2001. But three-quarters of the growth in the SIPP median occurred in the final year, whereas the SCF trend suggests a more steady rise. Comparison with the PSID is more difficult because of its less frequent measurement of wealth and a design change in 1997 that expanded the survey's population coverage but ratcheted down the estimate of median wealth. Nevertheless, the gap between the SIPP and the PSID—when both are compared without 401(k) and other pension accounts, which the PSID added in 1999—has grown to the same magnitude as the 1980s difference between the SIPP and the SCF.

[1] All tables in this report appear in a separate section following the References.

Many of the ways in which ORES uses SIPP wealth data must be questioned if the SIPP is shown to be seriously off the mark in its estimates of levels and trends in household wealth among the subpopulations of particular interest to SSA. ORES already uses other wealth data to supplement the SIPP. For example, ORES uses wealth data from the PSID to enhance its retirement income modeling. Nevertheless, SIPP data continue to play a significant role in this work. But unless the SIPP data can be adjusted in the short term to compensate for their most pertinent deficiencies and, very likely, unless the Census Bureau can be persuaded to make improvements in the longer term, ORES may have to consider more substantial substitution of asset data from other sources for those collected in the SIPP. We now describe these other sources.

B. OTHER SURVEYS OF WEALTH

The SCF, which is sponsored by the Federal Reserve Board, is the nation's premier survey of wealth. The strengths of the SCF are these: (1) its principal focus is the measurement of wealth; it devotes several hundred questions to this topic, which its interviewers and respondents are well prepared to address, (2) it contains a high-income supplement, which gives the SCF a large sample of observations from the upper tail of the income distribution, where wealth is heavily concentrated, and (3) it employs very sophisticated imputation procedures to adjust for item nonresponse, which presents a serious problem in the measurement of asset holdings. The sample for the high-income supplement is drawn from tax records, which are used to develop strata based on predicted wealth and which provide data to support very detailed nonresponse adjustments. As a result, the SCF provides much better representation of very wealthy households than any other survey that measures wealth.

The principal limitations of the SCF, relative to the SIPP, are its small sample size and its more limited ability to identify all of the subpopulations that are of interest to SSA. The 1998

sample included about 4,300 households, with nearly a third of these coming from the high-income subsample and, therefore, not having much policy relevance to SSA. While the data are rich in financial information, measures of participation in SSA programs and the non-economic characteristics that contribute to eligibility—such as disability—are weak. Nonresponse—both unit and item—are concerns as well, although these are offset, at least in part, by detailed weighting adjustments and rigorous and extensive imputation of missing data. But these add complexity to the weighting, which is compounded by issues in combining the area probability sample and the high-income list frame sample, which have very different sampling and response rates (Wolff 1999, Kennickell 2000b). Furthermore, to reduce the risk of disclosure the weights cannot reveal the sample frame from which a family was selected.

The PSID was initiated in 1968 with a sample of about 5,000 families and has followed the members of this initial sample—including children—and all of the families that they have created or joined since that time. Until relatively recently, when interviews were shifted to every two years, panel members have been interviewed annually. A Latino supplement was added in 1990 to help compensate for the survey's under-representation of part of the immigrant population. This supplement was later dropped due to insufficient funding, but a new and more broadly representative sample of immigrants was added in 1997.

A wealth module was introduced in 1984 and repeated in 1989, 1994, 1999, and 2001. With fewer than a dozen questions, the wealth module has nevertheless yielded data that compare remarkably well, in a number of respects, to the data collected in the SCF. The PSID data have also been shown to provide a more complete accounting of wealth than the SIPP, which has substantially more questions. About 7,000 households responded to the wealth module in 1999. The PSID pioneered the use of "unfolding brackets" to collect at least some useful data when respondents refuse or are unable to answer questions about the dollar amounts of their asset

holdings. The PSID has also realized significantly lower item nonresponse rates on most of its wealth items than either the SCF or the SIPP.

The HRS, which is also a panel study, began in 1992 with a sample of about 7,600 households containing at least one individual born between 1931 and 1941. These initial respondents have been reinterviewed every two years. A companion survey, the Asset and Health Dynamics Among the Oldest Old Survey (AHEAD), was started a year later, in 1993, with a sample of 7,500 households containing persons born in 1923 and earlier. These respondents were reinterviewed in 1995 and then again in 1998, when the HRS and AHEAD surveys were combined into a single data collection with a common instrument. At the same time, two additional HRS cohorts drawn from about 5,000 households were added. The "War Babies" cohort consists of persons born 1942 to 1947, and the "Children of the Depression" cohort includes persons born from 1924 through 1930, bridging the gap between the original HRS and AHEAD cohorts. Interviews with the combined sample will be conducted every two years. Additional cohorts will be added every six years to renew the combined sample's representation of all persons over 50.

Data on financial assets and liabilities have been collected since the first HRS interview in 1992. Like the PSID, the HRS has employed unfolding brackets in its wealth modules, and it, too, has enjoyed comparatively low item nonresponse. To SSA, which has contributed to the funding of this new survey, the expanded HRS holds interest as an additional source of data on the wealth holdings of near- and recent retirees because it offers significantly larger sample sizes of these populations than even the SIPP and because the data on income and wealth can be analyzed in conjunction with many types of outcomes.

C. ACCOUNTING FOR DIFFERENCES IN SURVEY ESTIMATES OF WEALTH

There are a number of reasons why estimates of the level and distribution of wealth may differ substantially across surveys. As our discussion of Table I.1 suggests, content and coverage have a major impact. The parallel estimates from SIPP in the late 1990s indicate that the addition of 401(k) plans to that survey's estimates of wealth increased the household median by nearly 15 percent. The SIPP still does not routinely collect estimates of wealth held in pension accounts, and as the Census Bureau has noted repeatedly over the years, the SIPP does not measure the cash value of life insurance, the monies held in annuities and trusts, or the value of "other" nonfinancial assets, such as jewelry, art, and other collections. Some of these are very small, but we will show that the collective value of assets that are measured in the SCF but not the SIPP is not trivial; nor are such assets limited to the wealthy. Even assets and liabilities that *are* measured in the SIPP may be defined differently in other surveys, and few are captured with the same thoroughness in the SIPP (or the PSID or HRS) with which they are collected in the SCF.

The most important differences, however, stem from the high concentration of wealth in the United States. Estimates from the SCF show that the wealthiest one percent of families hold one-third of all wealth, the next nine percent hold another third, and the bottom 90 percent hold the last third (Kennickell 2003). This distribution has changed little since 1989, but only the SCF, with wealth as its primary focus, employs a design whose sample allocation, questionnaire, interviewer training, and post-survey processing take into account the concentration of wealth. Survey differences in the capture of data from the wealthiest families may be compounded by procedures designed to minimize the risk that a sample member can be identified from the data in the survey. The SIPP makes particularly heavy use of topcoding, which caps the amounts

reported in public use files and may remove hundreds of billions of dollars from the estimates of aggregate wealth.

Attempts to measure wealth can produce high rates of nonresponse, either because respondents are unwilling to report the details of their financial holdings or cannot recall or look up their account balances. Surveys differ in their approach to editing or imputing missing data, and if nonresponse is high, the imputation procedures chosen and the level of attention afforded their execution can have a very substantial effect on the final estimates. Significant bias may be unavoidable if nonrandom patterns in the nonresponse cannot be fully reflected in the imputation models. Our analyses detailed in this report suggest that unspecified changes in the Census Bureau's imputation procedures may account for some of the evident lack of growth in SIPP median wealth during much of the second half of the 1990s.

D. EARLIER EVIDENCE ON THE QUALITY OF SIPP WEALTH DATA

The SIPP's misrepresentation of the trend in median household wealth after the early 1990s is a clear departure from its earlier performance—and not just with respect to median wealth but other measures as well. Wolff (1999) compared the SIPP, the SCF, and the PSID with respect to a number of measures of the size and distribution of wealth over the mid-1980s through the mid-1990s. His findings suggest that, for the lowest two incomes quintiles, the SIPP did as well as the SCF in capturing asset holdings, and this comparative performance did not deteriorate a great deal through the next two quintiles, or through the lower 80 percent of the income distribution. The SIPP also did particularly well in capturing the major *types* of wealth held by the middle class, such as homes, vehicles, and savings bonds; but it did not do so well in capturing the types of assets held by the wealthiest families.

Ten years earlier, Curtin et al. (1989) reported that the 1983 SCF found a substantially greater proportion of all households to be in their top income class ($192,000 or more) than did

either the 1984 SIPP or the PSID. The SCF found .8 percent compared to .1 percent in the SIPP and .2 percent in the PSID. This finding was not due solely to the high-income supplement; the area probability portion of the SCF sample (which was identified in the 1983 public use file) also found a greater share of the population to be in this open-ended income class (.5 percent). But Curtin et al. stressed the importance of the high-income supplement because it provided a sizable sample for a small fraction of the population that accounted for 27 percent of estimated household net worth in 1983. Because of the SCF's advantage in sample design, not to mention its attention to the complexities of wealth holdings among the wealthy, other surveys cannot match the SCF in describing the upper levels of the household wealth distribution. Because of their apparent under-representation of the wealthiest subset of the population, the SIPP and the PSID do not fare well in comparison with the SCF in accounting for total household wealth or the types of assets that are most highly concentrated among very wealthy households. Much of our effort in preparing this report has focused on separating the measurement of the wealth of the wealthiest from that of the rest of the population, where the SIPP's deficiencies are more amenable to correction.

E. ORGANIZATION OF THIS REPORT

Most of the estimates presented in this report refer to a recent, narrow window of time in which all four surveys collected wealth data. The 1998 SCF was fielded between July and December of 1998. The 1999 PSID was conducted largely in the first half of 1999, although the interviews stretched from February through December. Wave 9 of the 1996 SIPP panel collected wealth data for a period bridging the SCF and the PSID; the survey's reference period was the

last day of November 1998 through the last day of February 1999.[2] The newly expanded HRS was conducted in 1998. To assess the SIPP's capture of change in wealth over the 1990s, we also present limited estimates comparing the SIPP and the SCF in late 1992 and early 1993, and we include additional SIPP estimates from early 1995 and from waves 3, 6, 7, and 12 of the 1996 panel, which are centered on early 1997 and 1998, mid-1998, and early 2000.

The remainder of this report is organized as follows. Chapter II compares recent estimates of wealth from the SIPP with estimates from the SCF and the PSID. Chapter III extends this comparison to a number of subpopulations and includes a comparison of SIPP and HRS estimates of wealth among the persons born before 1948. The findings presented in these two chapters provide the basis for a more detailed review of factors that account for the SIPP's general underestimation of levels of wealth and its misrepresentation of at least some aspects of recent trends. The results from these analyses are reported in Chapter IV. Chapter V presents the results of an application of econometric modeling to decompose the differences between SIPP and SCF estimates of wealth and to test an approach to adjusting the SIPP microdata to more closely approximate the distribution of wealth in the SCF. Finally, Chapter VI presents a number of recommendations regarding the ORES's continued use of SIPP wealth data, including strategies to adjust the SIPP wealth data and, thereby, improve its resemblance to the wealth data from the other surveys, and both interim and longer term strategies that the data producer—the Census Bureau—could employ to improve the quality of the SIPP wealth data.

[2] The Census Bureau interviews one quarter of the SIPP sample—a "rotation group"—each month. The interviews for each wave of data collection, therefore, are distributed across four months.

II. COMPARATIVE ESTIMATES OF WEALTH

Wealth, or net worth, is defined as total assets less total liabilities. In this chapter we compare SIPP estimates of net worth and component assets and liabilities with estimates from the SCF and the PSID. Additional comparisons, focusing on subpopulations, are presented in Chapter III, where we also include estimates from the HRS.

This chapter is organized as follows. Section A compares the survey universes and their units of observation and outlines a strategy for making comparative estimates from the three surveys. Section B compares SIPP, SCF, and PSID estimates of net worth, assets, and liabilities in the period 1998 to 1999. Section C examines differences in survey estimates of the components of wealth for the same period. Section D compares the SIPP and the SCF with respect to estimates of change in wealth holdings over the 1990s. Finally, Section E summarizes the chapter's main conclusions.

A. SURVEY UNIVERSES AND UNITS OF OBSERVATION

Each of the three surveys on which we base our comparisons in this chapter is ultimately intended to be representative of the entire noninstitutionalized population, but each collects data from a different unit of observation. We will use the term "family" in speaking generically about the data collection and reporting unit for all three surveys, but first we lay out how the survey concepts differ.

1. SCF Families

The SCF collects its most detailed data on the "primary economic unit", which is defined as the "economically dominant single individual or couple (whether married or living together as partners) and all other persons living in the household who are financially dependent on that person or those persons" (Kennickell, Starr-McCluer, and Surette 2000). The SCF collects very

limited data on the collective remaining individuals in the household. Research findings from the SCF, whether written by SCF staff or other investigators, generally present estimates of wealth holdings for primary economic units and do not take account of the remaining household members.

2. SIPP Families

The SIPP collects wealth data from each adult member (15 and older) of the sample household. With these data it is possible to construct alternative units of analysis. For example, wealth can be estimated for the entire household or for individual families or persons within the household.

Before describing how we constructed family units for the purpose of estimating family wealth from the SIPP, it is helpful to review Census Bureau household and family terminology. The Census Bureau defines a "family" as two or more persons living together who are related by blood, marriage, or adoption. For data collection purposes, one person in each family is designated the family reference person, and relationships are recorded relative to this person. A "primary family" includes the householder—that is, the person who owns the housing unit or in whose name the unit is rented. The householder becomes the household reference person as well as the family reference person for his or her family.[3] A subset of the members of the primary family may be identified as a "subfamily," consisting of a married couple (with or without

[3] For married couples, in most cases, either partner is eligible to be identified as the householder, and the designation of one partner versus the other as householder holds no economic or demographic significance. Only one partner is designated as householder, however, so that the relationships of all other household members to this one person can be recorded.

children) or a parent and child who do not include the householder as a member.[4] Every other family within a household is identified as a "secondary family," which consists of persons who are related to each other but includes no one who is related to the householder. Householders who live with no other relatives are identified as "primary individuals." Other individuals who are not related to anyone in the household are identified as "secondary individuals."

A point on which the Census Bureau's family concept differs from those of the SCF and PSID is in the treatment of unmarried partners. An unmarried partner of the householder is counted as a secondary individual or, if he or she has children in the householder, the reference person of a secondary family. The Census Bureau began identifying unmarried partners fairly recently and has not yet incorporated them into its family concepts.[5] Furthermore, while unmarried partners of the householder are identified, unmarried partners of *other* household members are *not* identified.

To improve comparability between the SIPP and the SCF, we wanted to replicate the SCF's primary economic unit with the SIPP data. We were limited in doing so, however, by the manner in which the SCF defines financial dependence. Financial dependence is determined by the respondent rather than a test applied by the interviewer. Consequently, financial dependence is a subjective concept and may be interpreted differently across households. Our examination of the characteristics of SCF household members who were or were not included in the primary economic unit persuaded us that we could not reliably use the economic characteristics of SIPP household members to replicate the SCF's concept of economic dependence. We decided,

[4] A subfamily is defined more narrowly than a family generally in order that the members of a subfamily may be distinguished from the rest of the primary family to which they belong.

[5] The 1996 SIPP panel was the first SIPP panel in which unmarried partners were identified.

instead, to rely exclusively on demographic characteristics to define "SCF-like" units within the SIPP. In doing so, we made extensive use of Census Bureau family concepts because they are coded into the SIPP data and provide a ready way to identify relationships and to group related persons.

To define an SCF-like family in the SIPP, we began with the Census Bureau's primary family and primary individual. We added unmarried partners of the householder and any of the partners' children under 25 who were living with them. We excluded subfamilies from the primary family except when the subfamily head, or reference person, was under 25. Within the rest of the primary family, we excluded the householder's children unless they were under 25.[6] We also excluded other related individuals—such as siblings—25 and older. Thus, if the members of a household consisted of a husband, his wife, their child, and the husband's father, all but the husband's father would have been included in the SCF-like family. Conversely, if the members of a household consisted of a husband, his wife, their daughter, and *her* child, the SCF-like family would have included only the husband and wife if the daughter was 25 or older but would have included all four if the daughter was under 25.

The exclusion of all—rather than just some—parents of the householder is a notable area of divergence between the SCF primary economic unit and the SCF-like family that we defined from the SIPP. We also found that, given a household that included both a parent and an adult child, the SCF was somewhat more likely than the SIPP to identify the adult child as the householder. The biggest area of divergence, however, lies in the SIPP's markedly lower rate of

[6] In our examination of the SCF primary economic unit, we found that age 25 was the approximate point at which the probability that a child was included in the unit shifted from above 50 percent to below 50 percent. The same applied to most other relatives.

identification of unmarried partners of the householder. The SCF identified roughly 6 million persons (weighted) as unmarried partners, which compares closely to the 2000 census, but the SIPP found only about half that number. As a result, the SCF-like families include about 3 million fewer couples than the SCF primary economic units. We explored ways to address these areas of divergence—for example, converting some SIPP roommates and housemates to unmarried partners and setting a different age cut-off for including or excluding parents of the householder. But the SCF data suggested that the subjective element in the identification of unmarried partners and economically dependent parents and other relatives was too strong to replicate with SIPP data. Ultimately, we decided to make no changes to the SCF-like unit, but, as we will show, the implications for wealth estimates appear to be very minor if not entirely negligible.

Our last observation regarding the SIPP family units involves group quarters. The SIPP sample frame includes non-institutional group quarters, but we have excluded such units from our wealth estimates—as does the Census Bureau in its published wealth estimates (see, for example, U.S. Census Bureau 2003). Group quarters consist of units in which unrelated individuals occupy separate rooms but share certain common facilities, such as dining rooms. Non-institutional group quarters include boarding or rooming houses, college dormitories (individual rooms are sampled), and facilities shared by members of a religious community. Institutional group quarters—nursing homes, hospitals, correctional facilities—are excluded from the SIPP sample frame. Our exclusion of group quarters reduced the estimated number of households—and, therefore, SCF-like families—by less then 0.3 percent (about 300,000). In reality, however, the SIPP counts most residents of non-institutional group quarters, who are

only temporarily away from their usual places of residence, as part of the household rather than group quarters population.[7] Consequently, comparatively few of the persons who were in fact living in non-institutional group quarters at the time the SIPP wealth data were collected are excluded from our estimates.[8]

Table II.1 compares SIPP estimates of net worth for households, families defined using SCF family concepts, and families defined using Census Bureau family concepts. The families defined using SCF family concepts include the SCF-like families described above and a residual consisting of subfamilies, secondary families and individuals, and the additional members of primary families that we excluded because they were 25 years of age and older. Each of these last persons counts as a separate family, which inflates the estimated total of all these other non-SCF-like families to 19.6 million. The number of households and the number of SCF-like families are identical by construction, at 102.5 million. Families defined using Census Bureau family concepts include: (1) primary families and primary individuals, with subfamilies excluded from the former, and (2) a residual consisting of subfamilies, secondary families, and secondary individuals. Unmarried partners were included in the residual. Indeed, our purpose in defining a set of householder-based families using only Census Bureau concepts was to allow us

[7] Most of the college dormitory population is counted in households rather than in these group quarters. The population actually counted in non-institutional group quarters by the 1996 SIPP panel numbered about one-half million whereas the 2000 census counted four million persons in non-institutional group quarters.

[8] The treatment of group quarters residents in the SCF and the PSID is not entirely clear. Neither survey includes the institutionalized population in its estimates, and the SCF does not appear to sample non-institutional group quarters, but college students who are temporarily away at school may be counted in both SCF and PSID families. We could not determine if the PSID continues to interview sample members who move into non-institutional group quarters. Regardless, because of the age of the residents or the circumstances that lead individuals into non-institutional group quarters living arrangements, this population has low average wealth, and this fact in combination with its small size implies that the treatment of this population has little impact on estimates of aggregate, mean, or even median wealth.

to make comparisons with earlier SIPP panels, which do not identify unmarried partners. Like SCF families, therefore, primary families and individuals also correspond to households in number, but the residual families total less than 12 million. The all-family total using Census Bureau concepts is 114 million versus 122 million using the SCF family concepts.

Columns two through four reveal how little wealth is held by families that do not include the householder, underscoring why the SCF focuses on the primary economic unit. SCF-like families account for nearly 98 percent of the total measured household net worth, or $14.4 trillion out of $14.7 trillion, and have a mean net worth of $140,200 with a median of $48,000. The residual families have a mean net worth of only $18,600 with a median of only $75. Using the Census Bureau concepts, primary families and individuals account for nearly 99 percent of the total measured household net worth, or $14.5 trillion out of the aforementioned $14.7 trillion.[9] Their mean net worth of $141,900 and median of $48,600 contrast sharply with the mean of only $16,500 and median of zero among the residual families. In sum, while the SCF-like families mimic the SCF primary economic unit most closely, we could substitute primary families and individuals or even households and not materially change the SIPP estimates of net worth.

[9] Using the limited wealth data that the SCF collects for the set of household members who are not included in the primary economic unit, we estimate the aggregate net worth of this group at $204 billion, which is very close to the SIPP estimate for sub- and secondary families and individuals in Table II.1 and only about half as large as the SIPP estimate of $365 billion for "all other families"—the group excluded from our construction of SCF-like families. Because of the limited questions and the use of proxy respondents, however, the SCF probably understates the wealth of household members outside the primary economic unit. Regardless, our SIPP estimate of the aggregate wealth of persons outside the SCF-like family is sufficiently close to the SCF estimate to assure us that our method of constructing SCF-like families does not exclude too much or too little household wealth from the SIPP universe on which we base most of the cross-survey comparisons in this report. These results also indicate that when we have to substitute a Census Bureau family concept, as we must when comparing the 1996 SIPP panel with earlier SIPP panels later in this chapter, the shift in family concepts has a negligible impact.

3. PSID Families

The PSID follows and interviews the members of a sample selected in 1968 and their adult offspring plus the members of the supplemental sample added in 1997 and *their* adult offspring. Data are collected on the sample member and other family members living together at the time of the interview. Like the SCF, the PSID relies on a concept of economic dependence to determine which related persons living together constitute a family. Also like the SCF, the PSID includes unmarried cohabitors as family members and interviews them as spouses when they appear to be in a "fairly permanent arrangement" (Hill 1992).[10] Because the PSID is a panel study, sample members who are residing in the same household but not considered part of the same family will be interviewed as separate families. However, other household members who are neither members of the panel sample nor members of a panel family (through marriage or the type of relationship described above) will not be interviewed at all. Thus even the head of a household containing one or more PSID sample families may not be included in a sample family. PSID sample families that include the household head correspond closely to SCF primary economic units. Other PSID families, however, draw their membership from persons who would be excluded from the SCF primary economic unit and, therefore, left out of most SCF-based analyses of wealth.

With the addition of a supplemental immigrant sample in 1997, the PSID was restored to full representativeness of the U.S. household population—a status that the PSID could last claim in 1968, the survey base year. When weights were constructed, the family weights were post-stratified to a Census Bureau estimate of the total number of U.S. households—100 million—

[10] If a PSID sample member is not living with a partner or any relatives, then the PSID family is simply that individual.

from the March 1997 CPS, and the person weights were post-stratified to an estimate of the total civilian, noninstitutionalized population (Heeringa and Connor 1999). But families as defined in the PSID are more numerous than households. This follows from the fact that a household can have more than one family, and the PSID represents the entire household population.[11] Consequently, the PSID family weights are too low, on average, and if applied to the individual family members would yield a smaller total population than the sum of the person weights. To confirm this, we multiplied the 1999 family weights by the sample family sizes and obtained a population count that was 5.9 percent below the Census Bureau's March 1999 estimate.[12]

To produce PSID wealth estimates for a universe that matches that of the SCF and SIPP estimates reported herein, we must limit the PSID families to those that include the household head. While the PSID stopped identifying household heads when the survey moved from paper and pencil to computer-assisted interviewing, it is possible to determine in most cases that a sample family either does or does not include the household head, leaving a relatively small group for which this status is uncertain. The 1999 public use file includes a variable indicating the number of additional families in the household besides the sample family. Sample families in households with no other families clearly include the household head, and these accounted for 91 percent (weighted) of the sample families in 1999. For sample families in households with only one other family, about one in two would include the household head. For sample families

[11] In fact, there are households with two or even three separate PSID sample families, according to PSID documentation.

[12] We compared the PSID population estimate to the Census Bureau's estimate of persons in households, which includes Armed Forces members living off of a military base or with their families on base.

in households with two other families, about one in three would include the household head, and so on.

If a sample family in a household with at least one other family reported owning (or buying) its home, we treated it as including the household head. Conversely, if a sample family in a household with at least one other family reported that it neither owned nor rented, and the government did not pay the rent, we treated such a family as *not* including the household head. This left families that reported paying rent, which is an ambiguous status because multiple families could split the rent payments, and there was no variable on the file to indicate that a sample family was the sole payer of rent.[13] To deal with this residual group, we assigned families to headship status based on family size and a variable indicating whether or not the family reported having received financial assistance from other family members in 1997. Reasoning that larger families were more likely to include the household head, but not knowing the size of any family besides the sample family, we assigned sample families of size one to non-headship status, and we assigned sample families of size two or greater to headship status providing that they did not report receiving financial assistance from other family members. While this strategy has an obvious bias against single-person families among renters, it yielded about the right proportion of sample families with heads among sample families in households with one or more other families.

Finally, for the sample families that we classified as including the household head, we rescaled the 1999 family weights so that they summed to the March 1999 CPS estimate of total households, or nearly 103.9 million. This represented an increase of 4.8 percent in the family

[13] In such cases the Census Bureau would assign headship to the person whose name was on the lease.

weights, which is reasonably close to the 5.9 percent that we would have to increase the weights of *all* sample families to match the March 1999 CPS estimate of persons. While we would have preferred that these two independent calculations yield even more similar adjustment factors, we would have ended up with the same weighted number of PSID families in either case.

If we rescale the PSID family weight by the 4.8 percent factor in order to estimate the aggregate net worth of all families, we find that the aggregate net worth excluded with the sample families that we dropped from the PSID universe is $1,157 billion. This is substantially higher than (1) the $365 billion that we excluded from the SIPP estimate of household wealth by focusing on SCF-like families and (2) the $204 billion that the 1998 SCF estimated for household members outside the primary economic unit. While this may indicate that we excluded a significant number of actual householder families in lieu of non-householder families, we suggest another possible explanation. The partially subjective determination of family membership in the PSID, combined with the fact that the PSID is not a household sample, may result in some double counting of assets, in effect, through the overrepresentation of the types of persons who might be claimed by two or more families. Whether this is a real problem or not, by limiting our estimates to quasi-householder families, which correspond to the number of households, we reduce the potential for such double counting and we make the PSID wealth estimates more directly comparable to the SCF and SIPP estimates presented in this report.

4. Family Characteristics

Table II.2 compares SCF primary economic units, SIPP SCF-like families, and PSID quasi-householder families with respect to selected demographic and economic characteristics. These include characteristics of the household head—age, race, and sex—and characteristics of the family—size, annual income in relation to poverty, and whether the family owns its primary residence. In preparing this and other tabulations in this report, we have redefined the headship

of SIPP married couple families to more closely match the SCF and the PSID. With our revision, the husband is always the family head. For unmarried partners, however, the partner identified as householder by the Census Bureau remains the family head regardless of sex.

With this change we would expect the SCF and SIPP families to agree fairly closely on the characteristics of the household head. We would also expect that our restriction of the PSID sample to quasi-householder families resulted in close agreement between the characteristics of the PSID family heads and the SCF and SIPP household heads. These expectations were largely borne out. While the SIPP families have noticeably fewer heads under 30 and more between the ages of 30 and 65, the PSID families match the SCF age distribution very closely.[14] The smaller proportion of young family heads in the SIPP reflects differences in how the two surveys determine headship rather than anything in our creation of SCF-like families. The SIPP and SCF distributions by race and Hispanic origin match fairly closely, but comparable data from the PSID were not available. The SCF and PSID agree closely on the gender of the head while the SIPP has somewhat more female heads—perhaps the result of our not assigning the headship of unmarried couple families to the male in every case.

The three surveys diverge markedly with respect to the frequency of families of size one, two, three, and four. The modal family size among SIPP families is one (33.5 percent) but two among the SCF and PSID families (33.0 and 34.1 percent, respectively). The PSID has the fewest families of size one and the most at sizes three and four, which may reflect our method of identifying quasi-householder families when the family circumstances were ambiguous.

[14] Among all PSID families, 15.7 percent have a head under age 30, so our selection of quasi-household families did indeed move the age distribution closer to that of both the SCF and the SIPP.

Rates of home ownership are nearly identical across the three surveys, but there are important differences in the distribution of income. At the low end, the PSID shows only 10.0 percent of families below poverty compared to 12.5 percent for the SIPP and 14.7 percent for the SCF, but the SCF and the SIPP agree on the proportion of families below 200 percent of poverty while the PSID trails both surveys by several percentage points. At the high end we find more agreement between the SCF and the PSID than between the SIPP and either survey. While 1.6 percent of the SCF families and 1.0 percent of the PSID families have incomes above 2,000 percent of poverty, this is true of only 0.5 percent of the SIPP families. In fact, the SIPP lags behind the SCF in every poverty category above 600 percent while the PSID *exceeds* the SCF in every category between 200 percent and 2,000 percent. As we will demonstrate, this difference in the relative frequency of high-income families between the SIPP and the other two surveys has important implications for estimates of aggregate and mean wealth.

B. OVERALL WEALTH IN LATE 1998 AND EARLY 1999

Using the family concepts described in the preceding section, we compare SIPP estimates of wealth in wave 9 of the 1996 panel with estimates from the 1998 SCF and the 1999 PSID. Because the reference periods of these three surveys are relatively close in time, with the SIPP reference period overlapping the last two months of SCF data collection and the first month of PSID data collection, we elected not to convert the estimates to constant dollars.[15] Inflation was very low between late 1998 and early 1999 and probably less than real growth in wealth over this

[15] A rigorous approach would vary the adjustments within each survey, based on each sample family's actual interview month rather than the average interview month for that survey.

period. With or without adjustment, the timing of the surveys will favor the SIPP wealth estimates over the SCF and will favor the PSID estimates over both the SCF and the SIPP.

1. Net Worth

Table II.3 presents estimates of net worth derived from the SIPP, the PSID, and the SCF, and the last two columns express the SIPP estimates as a percentage of, first, the PSID estimate and then the SCF estimate. The top panel includes all of the wealth measured in each of the three surveys while the middle and bottom panels present alternative estimates of non-retirement wealth. The middle panel excludes 401(k), thrift, and defined contribution pension accounts from all three surveys. These components were added to the SIPP and the PSID in 1996 and 1999, respectively.[16] The bottom panel excludes, in addition, the amounts reported for IRA and Keogh accounts.[17]

Relative to the SCF, the SIPP captures only 49.5 percent of aggregate net worth, falling short by nearly $15 trillion (out of $29 trillion). As we have seen, our estimates for these two surveys represent approximately the same number of families, so the SIPP estimate of mean net worth is also 49.5 percent of the SCF estimate. The SIPP median, however, is two-thirds of the SCF median, indicating that the SIPP does comparatively better in at least the lower half of the net worth distribution than it does in the aggregate. The SIPP captures 60.0 percent of the PSID estimate of aggregate net worth but a somewhat larger fraction of PSID *mean* net worth, given

[16] The 1996 SIPP panel captured 401(k) and thrift accounts in each annual wealth module, but other pension accounts were identified in a separate module and only once (in wave 7). These other pension assets are not included in the estimates of SIPP wealth presented in this chapter, but we provide estimates of pension wealth from this additional module in Chapter IV.

[17] The PSID does not include Keogh plans with IRAs, but it combines IRAs with annuities, which the SIPP does not measure at all and which the SCF includes elsewhere.

the marginally greater PSID population estimate. The SIPP estimate of median net worth is 73.9 percent of the PSID median. The PSID median is $17,000 above the SIPP median and about $7,000 below the SCF median.[18]

Excluding 401(k) and pension accounts reduces the aggregate dollar gap between the SIPP and the SCF because pension holdings were included in SCF but not SIPP total net worth. But the proportionate reduction in the SIPP aggregate is greater than the reduction in the SCF aggregate, so the SIPP estimate falls slightly as a percentage of the SCF estimate. The SIPP aggregate and the mean also fall as percentages of the corresponding PSID estimates. The SIPP median, which falls by $6,700, remains a third lower than the SCF median but declines a few percentage points relative to the PSID. Excluding IRA and Keogh accounts, which lowers the SIPP median by another $3,600, has little effect on the percentage gap between the SIPP and SCF estimates. But the PSID estimates fall proportionately more than the SIPP and SCF estimates, presumably because annuities are included in the same PSID wealth component as IRAs and, therefore, drop out of non-retirement wealth.[19]

2. Assets and Liabilities

With the detail captured in the SIPP and the SCF, it is possible to construct separate estimates of total assets and total liabilities. This separation is nearly complete; only the wealth associated with certain financial assets and with an unincorporated business must be counted in

[18] The PSID public use file that was available at the time this report was prepared included imputations to all of the items in the wealth supplement. Pension accounts and the value and debt on the home were collected in different modules, however, and were not imputed. If missing, these amounts were treated as zeroes in preparing the estimates for Table II.3 and subsequent tables. The incidence of missing amounts in the PSID is very low, however, so the impact of these missing data is likely to be small.

[19] Annuities are captured in the SCF but not the SIPP.

the asset column as equity, with no associated liability, because that is how they are reported in either the SCF or SIPP (and we treat them the same). Comparing the separate estimates of assets and liabilities from the SIPP and the SCF yields a somewhat surprising explanation for some of the SIPP's shortcomings in capturing net worth. The SIPP understates aggregate net worth by as much as it does, in part, because it does a better job of capturing total liabilities than total assets.

Table II.4 compares SIPP and SCF estimates of total assets, non-retirement assets, and total liabilities. The SIPP estimate of total assets, at $18.8 trillion, is only 55 percent of the SCF estimate of $34.0 trillion, but the SIPP estimate of total liabilities, at $4.5 trillion, is 90 percent of the SCF estimate. More importantly, the SIPP estimate of median assets is 83 percent of the SCF estimate while the SIPP estimate of median liabilities of 97 percent of the SCF estimate. But because the SIPP accounts for a greater share of liabilities than assets, it accounts for a smaller share of net worth than assets.

Excluding retirement accounts has little effect on the comparative size of SIPP and SCF assets, lowering the SIPP share of SCF assets by just a percentage point. This small impact implies that both surveys measure retirement wealth about equally well. We will examine each survey's measurement of the components of retirement wealth in the next section of this chapter. Because there are no liabilities associated with these retirement accounts, removing them from total assets reduces aggregate and mean asset values by the same amount that it reduces net worth, as reported in Table II.3.[20]

[20] While the SCF captures the amounts of any outstanding loans against retirement accounts, the retirement account balances that respondents report may already be net of these loan balances. Because of the ambiguity in the questionnaire, we do not count these loans as liabilities in our estimates from the SCF.

3. The Distribution of Net Worth

Table II.5 reports percentiles of the net worth distribution from 1 to 99 for each of the three surveys. We note, first, that negative net worth is more common in the SIPP than in either the PSID or the SCF. Families with negative net worth account for 11 to 12 percent of the population in the SIPP versus 8 to 9 percent in the PSID and 7 to 8 percent in the SCF. The SIPP also has somewhat more families with zero net worth than either the PSID or the SCF although we can infer only crude proportions from the percentile values in Table II.5. Between 15 and 16 percent of SIPP families have net worth that is less than or equal to zero compared to 11 to 12 percent of PSID families and 10 to 11 percent of SCF families.

SIPP net worth continues to lag behind SCF net worth by 5 to 7 percentile points over much of the distribution. For example, $5,000 corresponds to the 26th percentile of the SIPP distribution but only the 20th percentile of the SCF distribution; and $100,000 corresponds to the 65th percentile in the SIPP distribution but only the 58th percentile in the SCF distribution. The lag diminishes near the very top of the distribution, but the differences between the percentile values become very large. As a proportion of SCF net worth, SIPP net worth rises from 0 percent at the 15th percentile to 25.2 percent at the 20th percentile and 46.8 percent at the 30th percentile. Between the 40th and 95th percentiles, SIPP net worth varies between 60 and 74 percent of SCF net worth, with the peak occurring at the 64th percentile. Near the top of the distribution the ratio of SIPP to SCF net worth begins to fall at an increasing rate. At the 99th percentile the SIPP net worth is only 32 percent of the SCF net worth. Taken at face value, this comparison of wealth distributions suggests that the SIPP misses a larger share of family wealth among families *lower* in the distribution—say, the bottom two quintiles—than among those higher in the distribution but short of the top few percentiles.

The SIPP distribution lags the PSID distribution by less than it lags the SCF distribution, but differences are still large. For any given percentile in the positive range the SIPP never exceeds 77 percent of the corresponding PSID percentile value.

We have seen that the SIPP does a better job of capturing total liabilities than total assets. Table II.6 shows the percentile distributions of both assets and liabilities. At the bottom of the distribution, the reporting of assets grows more slowly in the SIPP than in the SCF. Reported SIPP assets are less than half of the reported SCF assets between the 3rd and 12th percentiles, but after that they are no less than 60 percent of the SCF assets through the 96th percentile. Between the 42nd and 83rd percentiles (roughly the third and fourth quintiles), SIPP assets are consistently 79 to 83 percent of the SCF assets, then fall back gradually to 65 percent by the 95th percentile, after which they drop at an increasing rate. Liabilities display a rather different profile. Except for the lowest nonzero amounts and the top few percentiles, the SIPP and SCF distributions of liabilities are essentially identical.

4. Differential Measurement of the Wealthy

As we noted in discussing Table II.5, over much of the percentile range the SIPP net worth distribution appears to merely lag behind the SCF distribution rather than display a substantially different profile. We can see further evidence of this if we compare the distributions of SIPP and SCF net worth with respect to fixed categories of net worth. Table II.7 provides such a comparison. To enhance the resemblance between the two distributions, we have excluded from SCF net worth those assets and liabilities that are not measured in the SIPP (see the next section). Looking at the ratio of population estimates by category of net worth, we see the greater concentration of SIPP families at the very bottom but then nearly identical populations beginning with the lowest positive net worth class and continuing up to a million dollars. Referring to the cumulative percentage distributions in the final two columns, we see that 83 percent of SIPP

families and a little over 84 percent of SCF families fall into the range from one dollar to a million dollars. At the same time, the fraction of SCF families with net worth above one million dollars, or 3.8 percent, is two-and-a-half times the SIPP fraction, and the proportion with net worth above two million dollars, or 1.7 percent, is *five* times the SIPP fraction.

The substantially larger number of very wealthy families estimated by the SCF versus the SIPP even after we have excluded assets and liabilities not measured in the SIPP can be attributed, in some combination, to three factors: (1) the SCF's better representation of wealthy families in its sample, (2) the SCF's more complete capture of the wealth of the wealthiest families, and (3) the SIPP's use of topcoding as a disclosure limitation technique, which removes reported wealth from the wealthiest sample members.

As we discussed in chapter I, the SCF devotes about one-third of its total sample to a list frame of high-income families, which are drawn from tax return data and stratified on the basis of predicted wealth. By using predicted wealth to post-stratify the sample, the SCF can make adjustments for differential nonresponse within this high-income group—and the area frame sample, as well. Both these features—the sample design and the post-stratification—give the SCF a considerable advantage over the SIPP and the PSID in measuring wealth at the top of the distribution.[21] As a result, the SCF has consistently obtained higher estimates of wealth at the top of the distribution and, therefore, higher total wealth than either the SIPP or the PSID.

[21] Even if the estimates obtained from the SIPP and PSID were unbiased (implying that, over all possible samples, estimated mean wealth equaled true mean wealth), the extreme skew of the wealth distribution together with the expected small samples of very wealthy families makes it much more likely that individual samples drawn for these surveys will underestimate rather than overestimate the wealth of the wealthiest families. The occasional sample with a high estimate will overstate wealth by a large amount.

Questionnaire design and interviewer training give the SCF an advantage over these other surveys as well. Measuring wealth is a major purpose of the SCF, and the oversampling of high-income families makes it cost effective to design questions and train interviewers to identify and distinguish among types of wealth that may be rarely seen in the PSID or the SIPP. Yet the success of the PSID (and, as we shall see, the HRS) with a brief wealth module embedded in a survey with much broader objectives would seem to suggest that the wealth focus is less important than other aspects of the data collection.

Lastly, the comparatively low estimates of aggregate and mean wealth in the SIPP are influenced in part by topcoding, which is designed to protect the confidentiality of SIPP respondents but in so doing undoes some of the survey's success in capturing the wealth of the wealthy.[22] Neither the SCF nor the PSID topcodes its asset or liability amounts but relies on other methods of perturbing the data to protect confidentiality. We examine aspects of the role of each factor in Chapter IV, and we attempt to disentangle their relative contributions to the disparities observed between the SIPP and SCF estimates of wealth in Chapter V.

We considered different approaches to measuring the shortfall in the SIPP's estimates of the wealth of the wealthy. Removing the wealthiest one or two percent of families from each of the surveys is what we favored initially. But as Table II.7 makes clear, the top one or two percent in the SCF and the top one or two percent in the SIPP do not represent the same families. Rather, most of the families represented by the wealthiest one or two percent of SCF families are not represented in the SIPP at all. Screening on an absolute rather than relative level of net worth,

[22] The Census Bureau recently adopted a new rule to make topcoding consistent across its surveys—including the decennial census. Topcoding for all continuous fields will be set at either the 99.5th percentile, as measured among all persons, or the 97th percentile, among persons with nonzero values, whichever is higher. The 1996 SIPP panel may have used lower topcodes.

which members of our expert panel recommended, addresses this problem. Now, an obvious problem with this alternative approach is that if the SIPP underestimates the wealth holdings of wealthy sample members by a greater margin than the SCF, too many SIPP families will fall below the screen. Ideally, we would screen on true wealth in both surveys rather than measured wealth, but this is not an option. We have addressed this problem, in part, by using only those assets and liabilities that are measured in the SIPP to determine whether an SCF family has $2 million in net worth.[23] But the SIPP's less complete coverage of assets and liabilities is not the only limitation of the survey's measurement of wealth. There may be SIPP families below the $2 million line that would be above the line if the SIPP measured their net worth with the same quality as the SCF. If so, then we attribute too little of the SIPP's estimate of aggregate net worth to the wealthy. This implies that we overstate the difference between the SCF and SIPP estimates of the net worth of the wealthy. We recognize this limitation of our approach, but on balance we find this approach to be preferable to the alternatives that we considered.

To estimate and isolate the impact of differential measurement of the wealth of the wealthy, then, we identified families with net worth of two million dollars or more, using assets and liabilities common to the SIPP and the SCF, and we generated statistics on the wealth distribution with and without such families. This approach is used throughout the remainder of this chapter and in Chapter III as well.[24]

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[23] The fewer and broader categories of assets and liabilities reported in the PSID did not allow us to exclude non-SIPP components from PSID net worth.

[24] Based on Table II.7 we also examined the implications of using a million dollars to differentiate between wealthy and nonwealthy families. We found, however, that excluding families down to this level made the SIPP and the SCF aggregates closer in the top quintile than in the next lower quintile. We concluded that in drawing the line this low we were overcompensating for the differences between the two surveys with respect to estimates of the wealthy.

Table II.8 provides estimates of aggregate assets, liabilities, and net worth by quintile of net worth for SIPP and the SCF. Including the bottom quintile, where the SIPP finds greater aggregate *negative* net worth than the SCF, the SIPP estimates much lower aggregate net worth than the SCF in every quintile. The SIPP approaches the SCF most closely in the third and fourth quintiles, where the SIPP accounts for 68 and 73 percent, respectively, of the SCF aggregate net worth. But the SIPP finds only 45 percent of the SCF aggregate net worth in the top quintile and only 51 percent in the second quintile.

Families with a net worth of two million dollars or more account for nearly $12 trillion of the aggregate wealth estimated by the SCF and $7 trillion of the net worth estimated by the PSID but only $1.5 trillion of the net worth estimated by the SIPP. After excluding this group the SIPP share of the SCF estimate of aggregate wealth in what remains of the top quintile rises to nearly 79 percent, or somewhat higher than the SIPP share of the aggregate net worth in the fourth quintile. Over the whole population the SIPP estimate of aggregate net worth excluding the wealthy is 75 percent of the comparable SCF estimate.

The similarity between the PSID and SCF estimates of aggregate net worth by quintile is striking. The estimates are essentially identical in the second and fourth quintiles, and they become identical in the top quintile and over the whole population after the wealthy families are removed. The PSID falls short of the SCF aggregate only in the first and third quintiles.

Separating assets and liabilities shows that the story is more complex than the net worth distributions would suggest. In the bottom quintile of the net worth distribution, the SIPP captures 36 percent more aggregate assets and 65 percent more aggregate liabilities than the SCF. With liabilities dominating assets in this quintile, however, the SIPP ends up with lower (that is, substantially more negative) aggregate net worth than the SCF. In the middle three quintiles of the net worth distribution, the SIPP captures 77 to 82 percent of the aggregate assets

and 96 to 105 percent of the aggregate liabilities reported in the SCF. Overall, the SIPP captures 80.3 percent of the aggregate assets and 100.9 percent of the aggregate liabilities of the nonwealthy as estimated by the SCF. Again, by doing better with liabilities than assets, the SIPP does less well with net worth than with total assets in every quintile.

C. COMPONENTS OF WEALTH

Previous comparisons of SIPP and SCF wealth data have provided evidence that the SIPP is more effective at capturing some types of assets than others (Curtin, Juster and Morgan 1989; Wolff 1999). We compare the SIPP and the SCF with respect to the components of wealth that can be identified in common across the two surveys, and we show the contributions of components that are measured in the SCF but not the SIPP. We also include a more limited comparison that includes the PSID. We conclude this section by examining the ownership of assets and liabilities as reported across the three surveys.

1. A Typology of Wealth

As the basis for organizing this comparison, we developed a typology of wealth components, which separates assets and liabilities. Because the SCF collects so much more detail than the SIPP, we decided to base this typology primarily on the asset and liability categories identified in the SIPP—adding categories, as necessary, to account for additional types of assets for which the SIPP collects no data but other surveys do. Table II.9 presents this classification scheme for assets and liabilities. A document mapping the SIPP, SCF, PSID, and HRS survey questions into this typology is presented in Appendix A. Computer code that we used to create these components from the public use files of the four surveys is included in Appendix B.

Our typology recognizes nine types of financial assets, four types of property assets, and two additional categories that we label "SIPP pension assets," which are collected in a separate

module of the survey and not included in our estimates in this chapter, and "other non-SIPP assets," on which the SIPP collects no information. These other non-SIPP assets include nonfinancial assets other than those listed under property, such as jewelry and precious metals, art, other types of collections, and cemetery plots. These non-SIPP assets also encompass certain managed assets in which there is an equity interest, including annuities and trusts.

In addition to these other non-SIPP assets, the category "other quasi-liquid retirement accounts" also includes only assets measured in the SCF. Similarly, the limited information that the SIPP collects on life insurance does not include the cash surrender value, which is generally considered the asset value of life insurance. Life insurance, then, is a non-SIPP asset. Finally, while the SIPP collects "other financial assets," this category is more inclusive in the SCF, which uses a detailed set of questions and extensive prompts to collect this information. Moreover, the SIPP questionnaire requests only the equity value of these assets (although the associated liabilities tend to be negligible in comparison with the asset value).

The four property assets are the family's own home, all other real estate, motor vehicles, and business equity. Business equity is measured directly in both the SCF and the PSID, and while the SCF collects a debt component, it has a different meaning than the debt component measured in the SIPP. In particular, the SIPP counts the debt held by a respondent's business as a personal liability that may create a negative equity value if the debt exceeds the reported worth of a business. In measuring the equity value of a business directly, both the SCF and the PSID use the notion of how much the respondent could receive by selling his or her share. A business share may be worth nothing, but its value is not recorded as negative in either survey. The SCF classifies money that the family owes the business separately, as personal debt. The SIPP does not measure such debt. To partially offset these differences, we subtracted SIPP business debt from the reported value of the business ("before any debts") and defined this as business equity,

but we imposed a floor of zero. This eliminated a number of instances of negative business equity, some of them in the hundreds of thousands of dollars.

On the SCF side, we combined money owed a business with money owed on properties that the family has already sold but is collecting mortgage income. The sum of these two is classified as a secured liability, "personal business debt," which is type 214 and is measured only in the SCF. Our typology also lists five other types of secured liabilities and three types of unsecured liabilities. Of these liabilities, "other secured liabilities" is the only other category that is not measured in the SIPP. In the SCF this consists of loans against pension accounts and life insurance.

2. Assets

Table II.10 breaks down estimates of total assets into nine types of financial assets, four types of property assets, and an additional category of non-SIPP assets. We see that, relative to the SCF, the SIPP does only marginally better with property assets than with financial assets, despite the fact that the home is both the largest single asset and one that the SIPP measures comparatively well. While the SIPP's estimate of the value of the home is 91 percent of the SCF estimate, the SIPP captures only 41 percent of the SCF valuation of other real estate. The SIPP also captures 76 percent of the SCF estimate of motor vehicles but only 17 percent of SCF business equity. Among financial assets, after 401(k) and thrift accounts, for which the SIPP estimate is 99 percent of the SCF estimate, the next best component, other financial assets, is only 71 percent of the SCF estimate. For assets held at financial institutions, the SIPP estimate is 63 percent of the SCF estimate. For stocks and mutual funds, the largest financial asset, the SIPP

estimate is only 59 percent of the SCF estimate.[25] For IRA and Keogh accounts, the SIPP estimate is 55 percent of the SCF estimate. The SIPP is least successful with other interest earning assets, for which its estimate is only 33 percent of the SCF amount.

The final column of Table II.10 shows what percent of the total difference between SIPP and SCF aggregate assets can be attributed to differences by each type. Business equity is the single largest contributor to the total SIPP shortfall, accounting for 32 percent. The next largest contributors are stocks and mutual funds and other real estate, each of which accounts for about 13 percent of the shortfall. Other non-SIPP assets account for 10 percent, with IRA and Keogh accounts, own home, and the cash value of life insurance adding another 6 percent. Each of the remaining asset types accounts for 4 percent or less.

If we exclude wealthy families, as defined above, SIPP property assets rise to 90 percent of the SCF estimate while SIPP financial assets improve to 74 percent of the SCF estimate. The share of the remaining aggregate difference that is attributable to life insurance reaches 18 percent, and the share attributable to other non-SIPP assets rises to 20 percent while the share attributable to businesses is reduced to 19 percent, and the share attributable to stocks and mutual funds is reduced to 7 percent (Table II.11). These shifts indicate that wealthy families hold a lower share of aggregate cash value life insurance and other non-SIPP assets than they do of business equity or stocks and mutual funds. In a reversal from Table II.11, financial assets account for a larger of the remaining difference than property assets (48 versus 31 percent).

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[25] In wave 9 of the 1996 panel, one family reported $100 million in stocks and mutual funds. This single record adds appreciably to the aggregate estimate. In addition, this family's stock value was imputed to three other families, adding more than a trillion dollars to the aggregate wealth recorded on the public use file. We edited the stock values of all three imputed cases, removing nearly all of this additional value, but the one remaining sample family represents seven times as many families with stocks and mutual fund holdings of at least $100 million as the 1998 SCF found.

3. Liabilities

Table II.12 provides a detailed comparison of SIPP and SCF estimates of total liabilities. This table contrasts sharply with the preceding tables because the SIPP estimate of total liabilities equals 90 percent of the SCF aggregate, and four of the nine types of liabilities listed in the table exceed this fraction. One SIPP estimate—of credit card and store debt—is markedly higher than the corresponding SCF estimate—by nearly 50 percent.

Home mortgages dwarf all other liabilities with an aggregate value five times that of the next largest component, according to the SCF, and the SIPP estimate is 95 percent of the SCF amount. The two smallest SCF components—personal business debt and other secured debt—are not measured by the SIPP at all. Mortgages on rental property and the debt associated with margin and broker accounts are the only components estimated poorly by the SIPP; their SIPP estimates are 42 and 30 percent of the respective SCF amounts. Of the remaining components, the only component for which the SIPP estimate is less than 95 percent of the SCF component is loans from financial institutions, for which the SIPP estimate is 73 percent of the SCF estimate.

With the SIPP estimates of many components exceeding the SCF estimates, the column assigning each liability a share of the difference in total liabilities is not very useful. The most compelling information contained therein is that the difference in the estimates of mortgages on rental property represents half of the difference in the SIPP and SCF estimates of total liabilities. But the difference in estimates of home mortgages, which the SIPP measures exceedingly well, accounts for nearly a third of the difference in aggregate liabilities.

Removing wealthy families eliminates the difference between the SIPP and SCF estimates of aggregate liabilities (the SIPP estimate becomes slightly higher) and pushes the SIPP estimate of home mortgage debt to just over the SCF figure (Table II.13). The weakest SIPP components

are made stronger as well, with the SIPP estimates of mortgages on rental property and margin and broker accounts rising to 77 and 54 percent, respectively, of the SCF estimates.

We can speculate about the reasons for the SIPP's more successful measurement of liabilities than assets, but it is difficult to deny that families are much better informed about their debts than their assets. Families receive monthly statements from most of their creditors and have to make—or decide to defer—monthly payments. Even if respondents do not check their records when answering questions about their liabilities, the monthly balances have to be more salient than the assets for which they receive no statements or infrequent statements and do not have to do anything in response.

Home real estate values present a different situation. While few respondents will have had a recent appraisal, except when low interest rates stimulate widespread refinancing, many homeowners may be aware of recent sales in their neighborhoods, which can provide data on a par with their own appraisals. Perhaps as important, there would appear to be little that one survey could do to obtain better assessments of home real estate value than another survey, assuming respondent cooperation. Posing the question differently or allowing respondents to check records would not appear likely to generate better data because there is little room for respondents to misinterpret questions about such a fundamental asset and, except in rare cases, there are no records to check. While subsets of respondents may err systematically and overvalue or undervalue their homes, such errors may appear with some consistency across surveys.

With the information presented in the preceding tables, we can decompose the difference between the SIPP and SCF aggregate assets and liabilities into four components:

1. Underestimation of the assets and liabilities of the wealthy, defined as families with net worth of two million dollars or more

2. Assets and liabilities not measured in the SIPP, excluding those reported by the wealthy
3. Underestimation of the most poorly measured assets and liabilities among the nonwealthy, which are business equity and margin accounts, and
4. Underestimation of the remaining assets and liabilities among the nonwealthy

For assets, the first component accounts for 72 percent of the total difference, and the second component accounts for 13 percent (Table II.14). Underestimation of business equity accounts for just 5 percent of the total while the underestimation of all remaining assets accounts for 10 percent of the total difference.

For liabilities, underestimation of the debts of the wealthy accounts for 107 percent of the overall difference, which means that the direction of the difference reverses when the wealthy are excluded. As we have seen, the SIPP estimate of aggregate liabilities among the nonwealthy is very slightly larger than the SCF estimate. The remaining terms in the decomposition are largely offsetting. The liabilities not measured in the SIPP account for 8 percent of the total difference, and margin and broker accounts represent 4 percent while the SIPP's "underestimation" of the remaining liabilities (the SIPP *overestimates* them) contributes a negative 19 percent. In Chapter IV we propose an explanation for why the SIPP exceeds the SCF's estimate of one particular type of liability. But the basic conclusion here is that the SIPP measures liabilities about as well as the SCF. While there may be some room for improvement, the aggregate difference that we observe is due almost entirely to wealthy families that the SIPP under-represents.

4. Comparison with PSID Components

Comparing SIPP estimates of the components of wealth with estimates from the SCF may provide the most rigorous test of their quality in most cases, but as a measure of what may be attainable with a general household survey such as the SIPP, the SCF sets the bar too high—at

least for assets. For a more appropriate source of standards for the SIPP, we may want to look to the PSID and the HRS (see Chapter III). While the PSID does not provide the same detailed breakdown of assets and liabilities as the SIPP, and some of the PSID components include asset types that are not measured in the SIPP, most of the PSID components can be matched to SIPP (and, therefore, SCF) components.

Table II.15 compares SIPP, PSID, and SCF estimates of the aggregate value of individual asset, liability, and equity components. For checking and savings accounts, the PSID provides an estimate that lies closer to the SIPP than the SCF. The SIPP aggregate is 79 percent of the PSID aggregate versus only 53 percent of the SCF aggregate.

The PSID is not helpful at all in evaluating SIPP estimates of retirement wealth because the PSID components do not line up well with the SIPP components. We have noted that the PSID combines IRAs with annuities and leaves out Keogh accounts, which may be combined with thrift plans. The PSID estimate of IRAs and annuities is substantially higher than both the SIPP and the SCF estimates of aggregate IRA and Keogh accounts. The PSID estimate of the subset of pension plans that we interpret as 401(k) and thrift accounts is less than half the value of corresponding SIPP and SCF components.[26] The SIPP and SCF estimates of 401(k) plans differ

[26] The PSID does not explicitly request the balances of 401(k) and thrift plans. Following an extensive set of questions about pension coverage, the PSID pension module asks if the family head or spouse has any tax-deferred compensation or savings plans on the current job and specifically mentions thrift, profit-sharing, and Keogh plans, but account balances are not requested. Despite this question, and its implication that these types of plans have not been reported previously, we have interpreted an earlier set of questions on current pension coverage as providing a 401(k) or thrift plan account balance if the family member was reported as making contributions to the plan. In so doing we have almost certainly misclassified some quasi-liquid pension plans as 401(k) or thrift plans. But if all of the account-type plans reported in response to the current pension questions were classified as quasi-liquid pension plans, then both the ownership and aggregate value of such plans would be two to three times the corresponding SCF estimates. This suggests to us that some of the reported plan balances do indeed represent 401(k) or thrift plans. At the same time, however, any 401(k) or thrift plan balances that respondents did not report in the earlier questions would not have been captured elsewhere in the PSID.

by only one percent, which provides a strong endorsement for the SIPP's addition of this component to the wealth module.

Comparisons involving the two individual liabilities measured in the PSID—home mortgages and unsecured liabilities—show exceedingly high agreement across all three surveys. This lends further support to our conclusion from the more detailed SIPP and SCF liability comparisons that respondents seem to be able to provide good data on their debts.

The PSID estimate of aggregate equity in stocks and mutual funds lies closer to the SCF estimate than to the SIPP estimate, which is 72 percent of the PSID estimate. As with checking and savings accounts, the PSID results suggest that the SIPP ought to be able to do better.

The remaining financial asset component, listed under equity in stocks and mutual funds, combines a variety of types of assets and liabilities—most of which the SIPP does not measure and some of which the PSID excludes as well. The SIPP estimate lies well below the PSID estimate, which lies well below the SCF estimate. For this miscellaneous group of assets and liabilities the PSID does not provide a meaningful benchmark for what should be possible with the SIPP.

The PSID estimate of the aggregate equity value of real estate other than the home lies much closer to the SCF estimate than to the SIPP estimate, which is just 46 percent of the PSID aggregate. The PSID results suggest that the SIPP can be improved substantially. The same is even more true of business equity, where the SIPP estimate is only 22 percent of the PSID estimate. By contrast, the PSID looks very good in comparison with the SCF. For motor vehicles, however, the PSID estimate appears too high. While the SIPP estimate is 66 percent of the SCF estimate, it is only 45 percent of the PSID estimate. The PSID relies on respondent-reported equity for this particular component. The estimates that the PSID obtains suggest that this may be a flawed approach. Both the SIPP and the SCF collect the make, model, and year of

family-owned vehicles and assign blue book values based on these reports. By comparison, respondents seem to overestimate the value of their own vehicles, which is not particularly surprising, given how rapidly motor vehicles depreciate.

We have seen that the PSID is much more successful than the SIPP in capturing the wealth of the wealthy. How do the findings in Table II.15 change when we exclude families with net worth of two million dollars or more? Table II.16 shows that excluding the wealthy brings the three survey estimates of checking and savings accounts closer together and essentially equalizes the estimates of home value and home mortgages. Estimates of unsecured liabilities remain close. But while the exclusion of wealthy families lowers both the PSID and the SCF business equity much closer to the SIPP, the SIPP estimate is only 56 percent of the PSID estimate and 50 percent of the SCF estimate. Clearly, the PSID can provide good benchmarks for the SIPP estimates.

Excluding the wealthy has an unexpected effect on stock values and other real estate. While the gap between the SIPP and the SCF shrinks from 41 percent to only 13 percent, the difference between the SIPP and the PSID declines by only 3 percentage points, as the SCF estimate drops below the PSID estimate. The same occurs with other real estate. The SIPP estimate rises to 64 percent of the PSID estimate but 74 percent of the SCF estimate. Perhaps these results are sensitive to a small number of observations in the PSID that could lie just below the cut-off between wealthy and nonwealthy families. Nevertheless, the results underscore both the need and the possibility of improvement for these components of wealth measured in the SIPP.

5. Ownership

SIPP estimates of particular components of wealth could be low because too few respondents report owning such components or because those who do report ownership do not report their full amounts. Low ownership rates could result from a variety of causes, as could the

underreporting of amounts. Conditional median values can vary for a number of reasons as well, and when the ownership rates are substantially different across two surveys, a comparison of conditional median values may not be especially informative.

Table II.17 compares SIPP, PSID, and SCF ownership rates and median amounts conditional on reported ownership for the full typology of assets and liabilities as well as the additional combinations of components that are collected in the PSID. The results of a number of these comparisons are notable.

Beginning with financial assets, we find that 80 percent of SIPP families report such assets compared to 93 percent of SCF families. A number of individual components contribute to this difference. Only 78 percent of SIPP families report checking and savings accounts compared to 91 percent of SCF families. PSID families fall in the middle, with 83 percent. SIPP families also report somewhat lower median amounts than either PSID or SCF families. The SIPP ownership rate for stocks and mutual funds, 23 percent, is somewhat below the SCF ownership rate of 29 percent, and the median value is somewhat lower as well. These are consistent with the relatively small difference in aggregate stock values between the SIPP and the SCF in Table II.16 with wealthy families excluded. Other financial assets show a very low SIPP ownership rate, 2 percent, compared to 10 percent for the SCF. The much higher SIPP median coupled with the large difference in ownership rates suggests that SIPP respondents are reporting on a much narrower and generally more valuable range of assets than the SCF respondents, who were given a lengthy list of examples (see Appendix A). The SIPP does not collect the cash value of life insurance, but 30 percent of SCF families report having such an asset. The PSID includes life insurance in combination with other assets and liabilities, and this is reported near the bottom of

the table, but the reported ownership of any of these items, 19 percent, is below the SCF ownership rate for life insurance alone.[27] Like the SIPP respondents to the other financial assets question, the PSID respondents may be overlooking assets that they might have mentioned if asked specifically about them.

Turning to property assets, we find substantial uniformity across the surveys. Roughly the same proportion of SIPP and SCF families—about 90 percent—report owning any property assets, although the SIPP median is $7,000 below the SCF median. Two-third of the families in all three surveys reporting owning a home, and all three surveys obtain the same median value: $100,000. This is further evidence of how well respondents can report the value of their homes. While the SIPP ownership rate for all other real estate is a third lower than the SCF ownership rate, the median values are identical ($55,000). Motor vehicle ownership is about the same in the SIPP and the SCF, but the SIPP median is nearly $2,000 lower than the SCF median. Vehicle equity at the bottom of the page shows both a higher ownership rate and a higher median among PSID families than either SIPP or SCF families, both of which suggest that the PSID estimates are high. Business equity has a lower ownership rate in the SIPP, at just under 8 percent, than either the PSID (over 10 percent) and the SCF (over 11 percent). The SIPP median of $25,000 is much lower than the PSID and SCF medians of $60,000 and $85,000, respectively, which suggests a conceptual difference—a possibility that we explore in Chapter IV.

With respect to liabilities we find that, except for margin and broker accounts, which are very rare, the ownership rates and medians are very similar. For example, the range of mortgage

[27] The disparity between the SIPP and SCF ownership rates of these other assets (2 percent versus 42 percent) can be traced to the fact that the SIPP collects only one of the five component types of assets or liabilities and, as we have noted, is much lower than the SCF even on that one component.

ownership rates across the three surveys is less than two percentage points (41.3 to 43.1), and the range of medians is only $3,000 ($62,000 to $65,000). But while the ownership rates and median amounts of unsecured liabilities are very similar between the SIPP and the SCF, there are some differences in the components. The SIPP reports higher ownership of credit card and store debt (51 versus 44 percent) and a 50 percent larger median amount ($2,400 versus $1,700). The two surveys also report a different mix of loans from financial institutions (the SCF is 7 points higher) and other unsecured liabilities (the SIPP is 5 points higher). The median amounts in each case are relatively similar. Based on the questionnaire items reproduced in Appendix A, we speculate that educational loans are more likely to show up as other unsecured liabilities in the SIPP than the SCF, which may account for most of the observed difference.

D. CHANGE IN ESTIMATES OF WEALTH OVER TIME

Following a recession in the early 1990s, the balance of the decade saw a period of unprecedented economic growth in the United States. Findings from the four SCFs conducted from 1992 through 2001 document the impressive and broad-based growth of wealth holdings among American households after the nation emerged from the recession (Kennickell 2003, 2000a). We have seen evidence that, in comparison to the 1998 SCF and the 1999 PSID, the early 1999 wave of the 1996 SIPP panel underestimated the aggregate net worth of the population by a wide margin but that 72 percent of this shortfall was concentrated among the wealthiest two percent of the population. By comparing SIPP and SCF estimates over the period of economic growth we address two related questions raised in Chapter I.[28] First, does the SIPP

[28] We exclude the PSID from this comparison because the introduction of the immigrant supplement in 1997 and the associated changes in weighting raises issues of comparability between population estimates from the 1994 and 1999 wealth supplements, as our discussion of the PSID estimates in Table I.1 attests.

capture the *trends* in wealth holdings revealed in the SCF, even though the SIPP's estimates of the *levels* of wealth holdings may be low? Second, is there any evidence of deterioration in the quality of the SIPP's estimates of wealth between the early 1990s panels and the 1996 panel? In addition, by examining trends across four annual waves of the 1996 panel we explore a third question that is subsidiary to the first question: does the SIPP capture changes in wealth holdings *within* the 1996 panel to the same degree that it captures change *across* panels?

1. Change in Assets, Liabilities and Net Worth in the SIPP and the SCF

Table II.18 reports selected percentile values from the distribution of assets as measured in the 1992 and 1998 SCFs and the early 1993 and 1999 waves of the 1992 and 1996 SIPP panels. The asset estimates from the four surveys exclude all asset components that were not measured in the 1992 SIPP panel. Comparing the 1992 SCF and 1993 SIPP estimates, we find that the median values were nearly identical and that all of the SIPP estimates from the 40th to the 80th percentiles were within five percentage points of the SCF estimates. This close resemblance between the SIPP and SCF estimates of similarly defined assets over the middle of the distribution diminishes by 1999. The SIPP estimate of median assets drops to 89 percent of the SCF median, and the gap between the SIPP and SCF estimates over the 40th to 80th percentiles rises to between 9 and 15 percentage points. The gap between the SIPP and SCF estimates also increases at percentile points below 40, where the SIPP did not match the SCF as closely as it did in the middle part of the distribution, but the gap narrows somewhat at the highest percentiles, where the SIPP estimates compared least favorably to the SCF estimates in 1993 (and continue to do so in 1999). The last two columns of the table show that SIPP estimates of assets grew

more slowly than the SCF estimates *below* the 90th percentile but grew more rapidly *above* the 90th percentile.[29] The SCF estimates imply that the median and lower percentile values of assets grew more rapidly between 1992 and 1998 than did the percentile values above the median, up to the 99th percentile, but Kennickell (2000) cautions that the confidence intervals surrounding these estimates are large.

The bottom row of Table II.18 indicates the percentile at which the value of assets became positive for each survey in each year. In 1992 this was the 5th percentile for the SCF and, in 1993, the 6th percentile for the SIPP. By way of interpretation, the 5th percentile figure for the SCF implies that between 4 and 5 percent of the population had no assets. The SCF estimates suggest that between 1992 and 1998 the proportion of families with no assets dropped slightly while the SIPP estimates suggest that this proportion remained unchanged.

Liabilities exhibit much greater agreement than assets between the SIPP and the SCF, as we have demonstrated already in this chapter. Table II.19 replicates Table II.18 for liabilities. Again, we have excluded from the SCF estimates those liabilities that are not measured in the SIPP. Table II.19 shows that the SCF and SIPP percentile values of liabilities were essentially identical through the 95th percentile in late 1998 and early 1999. The same was true in the earlier years, for the most part, except that the SIPP estimates ran somewhat higher than the SCF estimates between the 40th and 70th percentiles. The two surveys also agree closely in the percentage of families with zero liabilities at both points in time and in the fact that liabilities

[29] The growth rates reported in the final two columns incorporate an adjustment for inflation based on the Consumer Price Index Research Series Using Current Methods (CPI-U-RS). The monthly index values, obtained from www.bls.gov/cpi/cpiurstx.htm, yield an adjustment factor of 1.1368 for the SCF (September 1992 to September 1998, reflecting the approximate midpoint of the data collection in each year) and 1.1274 for the SIPP (January through April 1993 to November 1998 through February 1999).

experienced the greatest percentage growth between the 30th and 40th percentiles, with growth rates declining progressively as the percentile level rises. Perhaps because of its larger sample size the SIPP gives evidence of a much smoother decline in growth rates through the 95th percentile than does the SCF.

When we turn to net worth (Table II.20), we find changes in the relationship between the SCF and SIPP estimates at the low end of the wealth distribution that we would not have anticipated based on the asset and liability comparisons. First, the SIPP estimate of the proportion of families with zero or negative net worth rises from 13 percent to 17 percent while the SCF estimate remains at 13 percent. Second, the SIPP estimates of net worth below the 50th percentile show an actual decline in constant dollars whereas the SCF finds nearly consistent growth at the 20th percentile and above. Most notably, the SIPP's estimate of the 20th percentile of net worth falls to 25 percent of the SCF value from 72 percent in 1993. Median net worth shows no change at all between 1993 and 1999—as we saw at the household level in Table I.1—whereas the SCF median grows by 14 percent.

Above the 50th percentile, the patterns for net worth are more consistent with what we saw for assets and liabilities. Between the 50th and 90th percentiles, the SIPP shows positive but slower growth than the SCF. At the 90th percentile and above the SIPP estimates of growth in net worth match or even exceed the SCF estimates.

2. SIPP Trends Over the 1990s

Table II.21 reports SIPP estimates of selected percentile values of the distribution of net worth for multiple years spanning 1993 to 2000. To the 1993 and 1999 values reported in the earlier tables we have added 1995 from the 1993 panel and 1996, 1997, and 2000 from the 1996 panel. All values are expressed in constant, 1999 dollars.

What is immediately evident is an abrupt shift in trend between 1995 and 1997 at percentiles 60 and lower, with the 1996 panel completely reversing the growth recorded between 1993 and 1995 and then displaying a flat or, at the lowest percentiles, declining trend line through at least 1999. At the bottom of the table we see that while the first positive percentile dropped from 13 to 11 between 1993 and 1995, implying a two percentage point decline in the percentage of families with negative or zero net worth, it rose to 16 in 1997 and then plateaued at 17 through the end of the 1996 panel. Only at the 80th percentile and above does the 1996 SIPP panel continue the growth observed between the preceding two panels. But even here there is a disjuncture as well. At the 90th percentile and above the percentile values take large jumps between 1995 and 1997 but then exhibit less dramatic growth through the life of the 1996 panel.

Like net worth, assets show a reversal of growth between 1995 and 1997 followed by a flat trend line at percentiles 30 and lower, but at percentiles 40 through 90 the growth observed between 1993 and 1995 is sustained or exceeded through the duration of the 1996 panel (Table II.22). At percentiles 95 and above the SIPP shows a slight decline in asset values between 1998 and 1999, but growth resumes the next year.

Liabilities present a very different pattern (Table II.23). There is little or no growth at any decile between 1993 and 1995 but an abrupt upward shift in liabilities between 1995 and 1997 at *every* decile. Liabilities grow modestly after that, and we recall that the 1999 SIPP liability distribution matches the 1998 SCF distribution very closely.

While we would like to have compared the trends within the 1996 panel to an external source, neither the SCF nor the PSID provided more than one observation point within the four-year span of the 1996 SIPP panel. Thus we could not use either survey directly to evaluate the within-panel trend in the 1996 panel. Both the SCF and the PSID returned to the field again in 2001, and data from both surveys have been released (and, for the SCF, extensively analyzed).

But the 2001 surveys followed the last 1996 panel wealth module by almost 18 months. To have used either survey (in conjunction with its predecessor) to evaluate the trend observed within the 1996 SIPP panel would have required assumptions about how the growth recorded in the SCF and the PSID was distributed across the intervening years. With the 1990s economic boom coming to an end in 2001, a straight-line interpolation would not have sufficed. We concluded that adding either 2001 survey to the evaluation would not have enhanced our ability to critique the 1996 SIPP panel trends sufficiently to warrant the considerable investment.

3. Change in the Relationship between Assets and Liabilities

While families with zero net worth almost all report no assets or liabilities, families with negative net worth do not necessarily have low assets. To understand why the 1996 SIPP panel shows an upsurge in families with negative net worth, we may need to look well above the lowest asset levels. Seeing that the SIPP captures liabilities exceedingly well, a possible source of the decline in net worth in the bottom quintile may lie in the underreporting of assets among families with high liabilities but higher assets. We noted that SIPP assets below the 90th percentile grew more slowly than SCF assets, and while we questioned the reliability of these findings, the combination of high growth in liabilities with understated growth in assets could combine to produce the observed decline in net worth below the 50th percentile.

Another possibility that we need to consider is that the decline in net worth and, in particular, the growth in the number of families with *negative* net worth may be due to a shift in the relationship between assets and liabilities in the 1996 versus earlier SIPP panels rather than the trends in levels of assets and liabilities. While aggregate and therefore *mean* net worth is determined by the aggregate levels of assets and liabilities, the *distribution* of net worth depends on the correlation between assets and liabilities. The Census Bureau's imputation procedures for assets and liabilities, like nearly all other variables, rely on a hot deck procedure that matches

donors to cases with missing values based on a combination of categorical variables that varies little from item to item and whose level of detail is limited by the need to maintain adequate numbers of donors per cell. Reported assets and liabilities do not figure into the matching except insofar as they are related to the matching variables. For example, if a respondent reports the mortgage debt but not the asset value of a house, the hot deck imputation of the asset value will not take into account the reported debt, which may result in a negative equity when in fact the equity is positive and perhaps substantial. Ironically, if both the asset value and the debt on a house are missing, the hot deck procedure will tend to yield a more plausible equity value because the imputed values will in all likelihood be drawn from the same donor.[30] In Chapter 4 we examine evidence bearing on this and other possible explanations of the decline in net worth below the median, but here we present some intriguing findings regarding the relationship between assets and liabilities.

Table II.24 reports estimated correlation coefficients between assets and liabilities for the three SIPP panels and six years examined in the preceding tables. The table also includes correlation coefficients estimated from the 1992 and 1998 SCFs. The first column excludes 401(k) plans from the asset measure in the 1996 panel and the SCFs in order to render the asset measures comparable across years. Column two includes 401(k) plans but excludes estimates for the two earlier SIPP panels.

The table exhibits two striking findings. First, the correlation between assets and liabilities in the 1992 SCF and the two earlier SIPP panels is essentially identical: .50 in the SCF and .49

[30] Drawing multiple values from the same donor increases the efficiency of the hot deck procedure and enhances internal consistency among the imputed values. However, the use of a fairly limited number of covariates to define the matching cells weakens the internal consistency between reported and imputed values.

in both SIPP panels. Second, the table documents a precipitous decline in the correlation between assets and liabilities from the two earlier SIPP panels to the 1996 panel. The correlations estimated from the 1996 panel range from .061 to .191. That they vary at all is itself a major change from the earlier panels. But the magnitude of the decline, which is not echoed between the 1992 and 1998 SCFs, is indicative of a significant change in the underlying data. The SCF shows a modest decline between 1992 and 1998, with the correlation between assets and liabilities dropping from .50 to .40. But, clearly, the change observed between the earlier and 1996 SIPP panels is on a different scale.

The correlation coefficients confirm what the trend analysis suggests: namely, that "something" happened in the collection or processing of SIPP wealth data between the earlier panels and the 1996 panel. The precipitous fall in the correlation between assets and liabilities is unlikely to have resulted from respondent behavior, and in the absence of any other information we would point to a change in some aspect of data processing as a likely cause. A change in imputation procedures is one possibility, and we investigate this possibility in Chapter IV. To anticipate what we will present there, we do indeed find evidence that the correlation between assets and liabilities differs between certain sets of cases with imputations and other cases in the 1996 panel. But our limited analysis suggests that imputation alone cannot explain the finding in Table II.24.

4. Growth in Aggregate Assets by Type

Despite these evident problems, we also find that the SIPP tracks the SCF exceedingly well in the growth of aggregate assets by type. Table II.25 compares aggregate SIPP estimates of assets by type in 1993 and 1999 with SCF estimates in 1992 and 1998. The early estimates are adjusted for inflation to matach the reference periods of the later estimates. For total assets, the SIPP's 39 percent growth rate nearly matches the 43 percent growth recorded by the SCF. The

SIPP shows 81 percent growth in financial assets compared to 78 percent for the SCF. The SIPP also shows 25 percent growth in property assets compared to 24 percent in the SCF even though the SCF includes some assets not measured in the SIPP.

This comparison also demonstrates the dominant impact of the stock market over this period. The value of stocks and mutual funds grew three-fold according to the SIPP—a somewhat larger increase than in the SCF, but the difference may be due to the aforementioned outlier in the SIPP. IRA and Keogh accounts doubled in size in both surveys while the value of 401(k) accounts, which only the SCF measured at both points in time, grew two- to three-fold. The value of the family's own home grew by about 25 percent over this period in both surveys while other real estate did not grow in either survey. SIPP show very little growth in vehicle assets, but this is the only suggestion of a component-specific problem that might help to explain the decline in the correlation between assets and liabilities. We examine vehicle estimates and vehicle imputations in Chapter IV.

E. CONCLUSIONS

Several conclusions emerge from this comparison of SIPP estimates of wealth with those obtained from the SCF and the PSID. First, the SIPP obtains only half the total net worth reported in the SCF and about two-thirds of the net worth reported in the PSID. Second, the SIPP does better with median than mean net worth, but its estimate is still only two-thirds of the SCF median and about four-fifths of the PSID median. Third, the SIPP does much better with total liabilities than with assets or net worth, estimating 90 percent of the SCF aggregate and essentially the same median. The SIPP captures nearly 60 percent of SCF total assets and more than 80 percent of SCF *median* assets, but the better performance on liabilities depresses the SIPP estimates of net worth relative to the SCF.

A decomposition of the difference between the SIPP and SCF estimates of total assets indicates where improvements would be needed to close the gap or, alternatively, where users should not rely on SIPP for estimates of wealth. We found that 72 percent of the difference in aggregate assets can be attributed to the SIPP's underestimation of the assets of wealthy families, defined here as having net worth of two million dollars or more. About 13 percent of the difference (or about 46 percent of the difference among the non-wealthy) can be attributed to assets that are simply not measured in the SIPP: specifically, the cash value of life insurance; defined contribution pension accounts (which are measured only once and in a different wave than other assets); managed assets such as trusts; and a variety of property assets including jewelry, art, and various collections. Another 5 percent is the result of the SIPP's underestimation of business equity among the non-wealthy. The final 10 percent of the aggregate difference is due to SIPP's underestimation of the remaining assets among the non-wealthy.

Our examination of recent trends in SIPP estimates of wealth and the observed relationship between assets and liabilities provides strong evidence that something" happened between the earlier panels and the 1996 panel and, further, that the SIPP estimates of net worth among families in the lower half of the wealth distribution appear to have been weakened as a result. This leads us in two directions: one, a more detailed examination of what may account for the weaknesses that we have identified and, two, an examination of what these weaknesses imply about the utility of SIPP wealth data among subpopulations that the SIPP is particularly well suited to study. We turn to the quality of SIPP wealth data for subpopulations in Chapter III and then explore some specific topics that bear on the sources of the limitations in SIPP wealth data in Chapter IV.

III. SUBPOPULATIONS

Each of SSA's uses of SIPP wealth data is in the context of a specific target population, so it is important to ask how the SIPP varies with respect to the apparent quality of its measurement of wealth across key population subgroups. This chapter compares survey estimates of the wealth of subpopulations. Specifically, we examine population subgroups defined by demographic and economic characteristics and by policy considerations. We also compare SIPP and HRS estimates of wealth for the subpopulation of older Americans that the HRS represents.

A. DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

While our focus in this chapter is on differential measurement of wealth across subpopulations, differences in the distribution of wealth are difficult to ignore. Furthermore, if the measurement of wealth is uneven across subpopulations, then differences in the distribution of wealth will be misrepresented. Does the SIPP understate—or even overstate—differences by key demographic and economic characteristics? We look first at net worth and then at assets and liabilities.

1. Net Worth

In our comparison of percentile distributions of net worth in Chapter II, we found that SIPP percentile values compared less well to SCF values lower in the net worth distribution than higher, except for the top few percentiles. This carries over to median values for subpopulations. Thus, where there are very pronounced differentials in median assets, such as by age and race, these tend to be even more pronounced in the SIPP than in the SCF. This is not true for means, however. Table III.1 compares SIPP and SCF estimates of mean and median net worth by selected demographic and economic characteristics. We summarize the findings by type of characteristic.

Age of Head. The mean and median wealth of families by the age of the head illustrates the life cycle process of wealth accumulation. Both mean and median net worth rise steeply through the early retirement years then decline as families begin to draw on their assets to replace lost income. We see this in both the SIPP and the SCF although the SCF shows a more pronounced decline in mean wealth than median wealth after age 75, which the SIPP does not. In addition, the SIPP captures the median wealth of older families better than younger families, so the age differential in median wealth is less pronounced in the SIPP than in the SCF. SIPP *mean* wealth tracks SCF mean wealth very closely, however, except for the aforementioned decline after 75.

Race and Hispanic Origin. Differences in net worth by race and Hispanic origin are striking as well, with white and Asian families having much higher means and medians than families headed by blacks or Hispanics.[31] Mean net worth varies consistently across the two surveys, but the SIPP medians show more variation than the SCF medians. In the SIPP, half of the families headed by a black or Hispanic member have less than $6,000 in net worth. For families with a white head the median is more than 10 times as high at $70,400 while the median for Asian and other families is $30,600.

Gender of Head. Families with male heads have markedly higher mean and especially median net worth than families with female heads. This is due in large part to all married couples (and unmarried couples in the SCF) being classified as headed by males. The SIPP medians again show a greater difference than the means, but in contrast to what we saw for age and race, the magnitude of the differential is consistent with the SCF medians—and also means. The

[31] Asian families dominate the Asian and other group, which the SCF does not subdivide. With the SIPP we find that families with Asian heads have much higher net worth than families with American Indian and Alaskan Native heads.

differences by gender are smaller than the differences by age and race, and this almost certainly accounts for the similarities between the SIPP and the SCF.

Income Relative to Poverty. Both mean and median net worth increase sharply with income measured relative to the family poverty level. Both surveys show this, but below 400 percent of poverty (which includes two-thirds of families) the SIPP means and medians show somewhat more variation than the SCF values. Above 400 percent of poverty and into the extreme upper tail of the income distribution, the SCF means and medians exhibit more variation than the SIPP values.

Home Ownership. Given the predominance of the primary residence among types of assets, it is not surprising that homeowners have substantially higher net worth and assets than non-homeowners. The difference in means in both surveys is nearly 10 to 1 while the difference in medians is even greater. The SIPP shows greater variation in the medians than the SCF due to a very low median value among non-owners, but the SCF shows somewhat greater variation in the means.

Family Size. The two surveys agree that families of size two have the highest mean and median net worth. Mean net worth exhibits the same variation in both surveys, but above size two the SIPP shows less variation in median net worth than the SCF. As with gender, the smaller variation in net worth compared to what we see for age, race, or income explains this departure from the pattern of generally greater variation in median net worth in the SIPP than the SCF.

2. Assets and Liabilities

Mean and median assets show generally the same patterns as net worth except that the SIPP differentials in median assets are more similar to the SCF differentials (Table III.2). Liabilities, which are much smaller than assets, generally, can exhibit strikingly different differentials than

assets or net worth, and they do so for a number of demographic and economic characteristics (Table III.3). Here, too, the SIPP and the SCF agree more closely than for net worth.

Age of Head. Asset accumulation exhibits an age profile that is very similar to net worth accumulation, except that growth stops earlier. This slight difference in the patterns for net worth and assets is due to liabilities, which rise to a plateau among families with heads 30 through 49 then decline steadily. The earlier decline in liabilities than assets keeps net worth high through an older age.

In contrast to what we saw for net worth, the SIPP and the SCF exhibit similar differentials in median assets, with the SIPP showing somewhat smaller differentials than the SCF in mean assets. The differentials in mean and median liabilities, which are much smaller than for assets, are very similar between the two surveys, and the amounts themselves are nearly identical—especially at younger ages.

Race and Hispanic Origin. Assets differ less than net worth by race and Hispanic origin. While the SIPP still shows stronger differentials in median assets than the SCF, the disparity is not as great as for net worth, and the SIPP exhibits smaller differences in mean assets than the SCF. Liabilities display a somewhat different pattern. While the liabilities of white and Asian families are higher than those of black and Hispanic families, the differences are much smaller than they are for assets. Furthermore, Asian families have lower mean assets but greater mean liabilities than white families. Both surveys show this, but the SIPP exhibits weaker differentials than the SCF for both mean and median liabilities.

Gender of Head. Families with male heads have not only higher net worth but higher assets and higher liabilities than families with female heads. Again, we attribute this in large part to married couples being classified as headed by males. For assets, the differences in means are somewhat less pronounced in the SIPP than the SCF while the differences in medians are

somewhat more pronounced than in the SCF. For liabilities, the two surveys' estimates are nearly identical.

Income Relative to Poverty. Like net worth, assets increase sharply with income measured relative to the family poverty level. Liabilities rise more slowly with income than do assets. Up to 400 percent of poverty the SIPP shows more pronounced differentials in mean and median assets than the SCF. Above 400 percent, the SIPP exhibits weaker differentials. For liabilities the two surveys provide strikingly similar estimates of means and medians except in the upper tail, where the SCF (with far more sample observations) shows considerably higher means and medians than the SIPP.

Home Ownership. Homeowners have substantially higher assets than non-homeowners. Due to their homes, they also have considerably higher liabilities. It is particularly striking that the mean assets and liabilities of non-homeowners exceed their median values by a wide margin. For both assets and liabilities, the SIPP and SCF differentials in means and medians are very similar.

Family Size. In both surveys, families of size two have the highest assets but rank second from the bottom in liabilities. Curiously, while families of size one and families with six or more members have the same mean and roughly the same median net worth, they achieve this with a different average mix of assets and liabilities—the larger families having substantially more of both—particularly liabilities. For both assets and liabilities the SIPP and the SCF show very similar differentials in both means and medians.

B. POLICY-RELEVANT SUBPOPULATIONS

We identified 10 subpopulations that are of potential interest to SSA for policy analysis or for better understanding the strengths and limitations of SIPP wealth data. These 10 are listed

and defined in Table III.4. Estimates of the size of each subpopulation among SIPP families, SCF families and PSID families are presented in Table III.5 along with sample counts. Ultimately, we were able to identify similar numbers of families across the surveys for each subpopulation, but in a number of cases this required that we adopt a less preferred definition because of limitations in one or another survey database. In particular, we had to use work-preventing rather than the more common work-limiting disabilities to define the last subpopulation because that was closest to what the SCF and the PSID provided, and we had to divide Social Security beneficiaries by age rather than type because the 1996 SIPP panel, surprisingly, does not identify the reason for receipt of such benefits except in wave 1.

SIPP's strength in sample size is clearly evident in Table III.5. For example, the SIPP has more than 2,000 sample families with a nonaged disabled head or spouse whereas the SCF has fewer than 200 and the PSID has 368.

Table III.6 compares the SIPP, the PSID, and the SCF with respect to their estimates of the mean and median net worth of the 10 subpopulations. Families with net worth of two million dollars or more are excluded from the tabulations. Mean net worth in the SIPP approximates the SCF mean net worth most closely for families with a nonaged head or spouse receiving Social Security benefits and families with a nonaged *disabled* head or spouse, followed by low-income and moderate-income families, which together include two-thirds of all families. The SIPP fares better in comparison with the PSID, with mean net worth remaining within 10 percentage points of the PSID estimate through the top income group (that is, up to 800 percent of poverty). Oddly, though, the SIPP matches the PSID mean net worth among families receiving Social Security benefits for a nonaged head or spouse but is barely half the PSID mean among families with a nonaged disabled head or spouse.

Comparisons of SIPP and PSID median net worth match the results for mean net worth rather closely across the 10 subpopulations, except for families with a nonaged disabled head or spouse, where the median is only 29 percent of the PSID median. However, with few exceptions, the SIPP medians do not match the SCF medians as well as the SIPP means match the SCF means. The chief exceptions are families receiving Social Security benefits for a nonaged head or spouse, where the SIPP median exceeds the SCF median by 27 percent, and families with a head nearing retirement, where the SIPP mean is 80 percent of the SCF mean and the SIPP median is 82 percent of the SCF median. For families in the fourth income group and families with an elderly head or spouse the results for means and medians are similar.

The inconsistent findings for families with a nonaged disabled head or spouse are probably due to differences in how this subpopulation is identified across the three surveys. The low mean and median net worth estimated by the SIPP could in fact be due, in large part, to the SIPP's more accurately identifying this economically disadvantaged subpopulation even though the SIPP estimates of its size are the largest.

Except for the disabled, the subpopulation for which the SIPP fares least well is families with a prime working age head. Here the SIPP mean is 69 percent of the SCF mean, and the SIPP median is 63 percent of the SCF median. The SIPP estimates are 9 to 10 percentage points better in comparison with the PSID.

After reviewing subpopulation patterns by asset component we determined that the assets measured in the SCF but not the SIPP appeared to account for much of the difference between subpopulation aggregates. To examine the impact of these non-SIPP assets more directly, we calculated their mean values for each of the 10 subpopulations, subtracted these from the SCF mean net worth, and then compared the SIPP mean net worth to this adjusted SCF mean. The results of this exercise are presented in Table III.7. In the final column we see that for the low-

income subpopulation and the nonaged Social Security benefiary and disabled subpopulations, the SIPP means match the adjusted SCF means. For all of the other subpopulations the SIPP means range from 78 percent to 94 percent of the SCF adjusted means, with all but one of the SIPP means (prime working age heads) being at least 87 percent of the corresponding SCF mean.

These results are encouraging for the use of SIPP data to analyze the wealth of these subpopulations, but they also make a strong case for expanding the SIPP wealth data collection to include the major components that are currently omitted. In Table III.7 we see that these components can account for nontrivial sums of wealth holdings although their importance clearly varies. Life insurance cash value is the largest of these components for the moderate-income and next higher income group and for families with a prime working age head. But the residual other non-SIPP assets, which consist primarily of annuities and trusts, are the largest among six of the subpopulations.

C. PERSONS OVER 50

With the sample additions described in Chapter I, the HRS in 1998 became representative of the population of household residents born before 1948—plus their younger spouses and partners. We identified this subset of the population in the SIPP and produced estimates of wealth that can be compared between the two surveys.

Our estimate of the SIPP equivalent of the HRS population is somewhat larger than the weighted HRS sample: 48.7 million families versus 46.1 million. Therefore, comparisons of means and medians may be more appropriate than comparisons of aggregate estimates. We provide all three in Table III.8, which shows the SIPP estimate of aggregate net worth to be 55.6 percent of the HRS estimate while the SIPP mean is only 52.8 percent of the HRS estimate. The SIPP median is 64.1 percent of the HRS median. If we exclude trusts, which the SIPP does not measure but which are one of the largest components in the HRS, the SIPP aggregate rises to

65.0 percent of the HRS aggregate, and the SIPP mean rises to 61.6 percent of the HRS mean. These represent 9 percentage point changes. The impact on the median is small, however; the SIPP median rises to 65.2 percent of the HRS median—a single percentage point change. As we would expect, trusts are held almost exclusively by families with high net worth.

Excluding retirement wealth, which is measured more completely in the HRS than in the SIPP, produces more comparable, 3 to 4 percentage point increases across all three statistics, with the SIPP mean rising to 64.7 percent of the HRS mean and the SIPP median reaching 69.0 percent of the HRS median. As a point of reference, SIPP median non-retirement wealth was 66.9 percent of the SCF median for the whole population and 75.0 percent of the PSID median (Table II.8). With respect to mean non-retirement wealth, however, the SIPP was only 47.4 percent of the SCF value and 59.9 percent of the PSID value for the full population. The narrower gap between mean and median suggests that when compared to the HRS, the SIPP's under-representation of the very wealthy is less important than it is in comparisons with the SCF and the PSID.

Looking at differences in aggregate and mean net worth by component, we find that the SIPP compares best on liabilities, equity in stocks and mutual funds, and the value of the home (Table III.9). The SIPP compares least well on business equity, where its mean is only a third of the HRS mean. For the remaining components, the SIPP means fall between 45 and 58 percent of the HRS means. The lowest of these is explained, in part, by the fact that the SIPP estimate includes only 401(k) and thrift accounts whereas the HRS estimate includes additional pension accounts. But the SIPP estimate of IRA and Keogh plans is only half the HRS estimate even though the two survey concepts of this asset appear to be the same. Even SIPP motor vehicle equity is just over half of the HRS estimate. But here the HRS uses the same methodology as the PSID, relying on respondents' estimates rather than calculating blue book values from reports of

year, make and model by vehicle. We concluded in Chapter II that respondents appear to overestimate the value of their vehicles, and the HRS findings reaffirm this inference.

The HRS obtains aggregate holdings of $2,478 billion in trusts, which the SIPP does not measure, and $408 billion for the combination of other financial assets—which the SIPP does measure—and other non-financial assets, which the SIPP does not. It is informative to compare these estimates to the SCF, which collects trusts as a component of what we labeled other non-SIPP assets (category 130). For the whole population, as opposed to just those over 50 (and their younger spouses), the SCF estimates the total holdings in other financial assets and these other non-SIPP assets as just $1,810 billion, or a trillion dollars lower than the HRS estimate. Trusts appear to account for all of this difference. Depending on which estimate is more correct—the SCF or the HRS—the SIPP is missing between one and two trillion dollars in aggregate net worth by not asking about trusts. Annuities are also a component of the non-SIPP assets in the SCF, the HRS, and the PSID. While none of the surveys isolates this component, we have seen that the PSID obtains an estimate for the combination of IRAs and annuities that exceeds the SCF estimate of IRAs and Keogh accounts by $350 billion (and the SIPP estimate by nearly $1,300 billion). By not asking about annuities, then, the SIPP is missing another several hundred billion dollars in net worth.

For the assets and liabilities that are measured in the SIPP, the differences between the SIPP and the HRS may be due to differences in reported ownership or to differences in reported amounts given ownership, or to both. Table III.10 reports ownership rates and median values among owners for the same components of net worth reported in Table II.9. For nearly every component, the HRS finds both a higher ownership rate and a higher conditional median than the SIPP. For example, for checking and savings accounts the HRS ownership rate of 84 percent exceeds the SIPP ownership rate by nearly 7 percentage points while the HRS median value

exceeds the SIPP median by nearly $4,000 ($10,000 versus $6,300). For IRA and Keogh accounts, the HRS ownership rate of 35.5 percent exceeds the SIPP ownership rate by 10 percentage points, and the median value of $38,000 exceeds the SIPP median by $8,000. For own home, where the SIPP compares less well to the HRS than to the SCF, the SIPP ownership rate is 9 percentage points lower than the HRS, and the median value among SIPP owners is $5,000 lower than the HRS median. For business equity the SIPP ownership rate is about three-quarters the HRS ownership rate, but the median value among owners is only 30 percent of the HRS median.

One possibility that a fuller comparison of SIPP and HRS estimates of net worth would have to consider is that there are differences in composition between the two samples that may account for the SIPP's weaker performance on home ownership and contribute to the magnitudes of some of the other observed differences. At the same time, however, the HRS devotes more questions to retirement wealth than does the SIPP or the PSID—and possibly the SCF as well. The especially large differences that we find between the SIPP and the HRS with respect to components of retirement wealth could reflect the HRS's greater attention to this area in the survey instrument.

IV. SOURCES OF ERROR IN MEASURED WEALTH

In the preceding chapters we identified and discussed a number of potential sources of error that may affect survey estimates of wealth. In this chapter we examine some of the evidence regarding individual sources of error. We begin with the under-representation of high-income families and then move to content and coverage. Following that we examine the occurrence of negative and zero net worth, the particular combinations of assets and liabilities that are responsible, and how these vary between the SCF and the SIPP. Finally, we consider whether item nonresponse and how the Census Bureau addresses it—particularly through the use of response brackets and imputation—may have depressed median net worth in the 1996 SIPP panel.

A. UNDER-REPRESENTATION OF HIGH-INCOME FAMILIES

We have shown that, based on comparisons with the SCF, the SIPP underestimates the wealth of the wealthiest Americans by a much greater margin than it underestimates the wealth of the rest of the population. To what extent this may be due to the SIPP's under-representation of wealthy families, as opposed to its underestimation of their average wealth, is difficult to determine. Both phenomena diminish the observed fraction of families whose wealth exceeds a specified threshold. The difficulty that we encounter in trying to separate the two sources of error is compounded by the topcoding that the Census Bureau applies to many of the wealth items in the SIPP public use file.

While the relative importance of these alternative explanations of the SIPP's shortage of wealth in the upper tail may be difficult to disentangle from the wealth data alone, a comparison of family income distributions between the SIPP and the SCF is highly informative. Income and wealth are strongly correlated, but the SIPP measures income more effectively than it measures

wealth, and, furthermore, the Census Bureau's method of topcoding income in the SIPP is less damaging to means and totals than its method of topcoding assets.[32]

Table IV.1 compares the distributions of annual income in the SIPP and the SCF with respect to a very detailed set of categories based, in part, on the distribution of income in the SCF. The top one percent of the SCF distribution is divided into nine categories and represents a range of $350,000 and up. Less than a third of one percent of SIPP families fall into this top range, and no families lie above $750,000.

While the Census Bureau's method of topcoding SIPP income, unlike assets, will preserve means and aggregates, topcoding still affects the upper tail of the income distribution. In particular, topcoding would be expected to compress the SIPP income distribution, perhaps even producing a noticeable bulge relative to the SCF distribution, because it pushes the highest income families downward. Yet the SIPP estimates show little evidence of this. The ratio of 1.03 (SIPP to SCF) at $350,000 to $400,000 is isolated. The next lower income category in which the SIPP population estimate equals or exceeds the SCF estimate is $140,000 to $150,000. From there down to $85,000, the SIPP estimates are generally 80 to 100 percent of the SCF estimates. It is only below $85,000 that the SIPP estimates consistently match the SCF estimates, and they do not consistently exceed the SCF estimates until $50,000 and lower. This is well below the level where we would expect bunching of families due to topcoding. This

[32] The topcodes assigned to earnings in the 1996 SIPP panel public use files were based on the original values observed on records that were topcoded in wave 1 (U.S. Census Bureau 2001, Appendix B). The mean amounts on these records were calculated for 12 combinations of sex, race, and whether employment was full-time or part-time and full-year versus part-year. Topcoded amounts were assigned these mean values (which were indexed for use in later waves) rather than the threshold values that made them subject to topcoding. For example, monthly wage and salary earnings were topcoded, in most cases, if they exceeded $12,500. For a male, nonblack, non-Hispanic, full-year, full-time worker, earnings in excess of $12,500 were replaced with $29,660. If earnings were handled in the same way as assets, however, the topcoded amounts would have been assigned a value of $12,500.

suggests that the under-representation of very high-income families is far more significant than topcoding in explaining the low numbers of very high-income SIPP families.

For the periods we are comparing, both the SIPP and the SCF samples weight up to the same number of families, essentially, so if the SIPP finds fewer families at the very top, it has to find comparatively more families elsewhere. This occurs, consistently over the range $8,000 to $50,000. The SIPP and the SCF report nearly equal numbers of families between $6,000 and $8,000, but the SCF finds more families below $6,000, with three times as many as the SIPP at incomes of zero or less.

We considered the possibility that the seemingly greater representation of very low-income families in the SCF might be due to business and farm losses, which the SIPP does not include in family income.[33] But families with business losses and negative total income accounted for only one-fifth of the excess families with negative total income in the SCF and none of the excess families with positive income less than $6,000. Nothing in the SCF's design or the response rate for its area probability sample suggests that the SCF should achieve better coverage than the SIPP among the poor. A more likely explanation for the SIPP's lower estimate of low-income families is that the SIPP, with its focus on program participation and its much larger battery of income questions, is simply identifying more income among the lowest income families rather than finding fewer of them. Consistent with this, if we were to drop food stamp benefits from the SIPP estimate of annual income (the SCF includes them but in a question that also asks about

[33] The SIPP asks the self-employed how much income they *draw* from the business rather than what they realize as net profit or loss. The SCF asks only the net profit or loss, so we could not apply either survey's business income concept to both surveys.

TANF and other forms of welfare or assistance), we would markedly improve the similarity between the SIPP and the SCF distributions at the low end.

A comparison of sample counts by income level, reported in Table IV.2, shows that the SIPP sample counts run about 10 times the SCF sample counts over the range $5,000 to about $60,000, at which point this advantage begins to diminish—presumably with the appearance of the SCF high-income subsample. By $100,000 the SIPP sample counts are running only five times the SCF, and above $200,000 the SCF sample counts generally exceed the SIPP counts. The roughly 800 SCF sample families with annual incomes above $200,000 stand in stark contrast to the barely 250 SIPP families.

The final three columns of Table IV.2 report the average weights in the two surveys and their ratio (SCF to SIPP) by income level. A surprising feature of the SIPP weights is their uniformity over the entire income distribution. Knowing that the number of very high-income families in the SIPP is diminished by nonresponse, we would have expected the average weight to rise with income over the highest income levels. That it does not is further evidence that the weighting adjustments employed in the SIPP do not compensate for differential nonresponse by income. Rather, these adjustments distribute the weights of the missing high-income families over a very broad range.

We were curious, first of all, whether the SIPP income distribution was influenced by attrition and, second, whether the same deficiencies at the high end were evident in the March supplement to the Current Population Survey (CPS), which is the source of the nation's official estimates of families and persons in poverty. To investigate the role of attrition, we tabulated the same detailed income distribution for waves 3, 6, and 12 of the 1996 panel and we found that the distribution was essentially the same in every wave—particularly at the top. If the under-

representation of very high-income families was the result of attrition, then this sample loss had to have occurred between waves 1 and 3—and then stopped. This seems unlikely.

To see if the under-representation of high-income families was unique to the SIPP among Census Bureau household surveys, we tabulated the income distribution in the March 1999 CPS. This produced a distribution that looked very much like the SCF income distribution. Table IV.3 compares family income distributions estimated from the 1998 SCF, the SIPP wave 9, and the March 1999 CPS using a reduced number of categories that focus on the high and low ends. The weighted number of families with incomes of $300,000 and up is nearly the same in the CPS as in the SCF, or three times the number estimated from the SIPP.

Strikingly consistent findings were reported by Roemer (2000), who compared SIPP and CPS estimates of aggregate wages and salaries, by range, over the period 1990 to 1996. While the two series lined up fairly closely over most of the income distribution, with the SIPP finding more aggregate earnings at ranges below $25,000 and the CPS finding more aggregate earnings above that level, at incomes above $200,000 the CPS aggregates exceeded the SIPP aggregates by at least three to one. Roemer considered the role of differential attrition in the SIPP's underestimate of high-income families and, as a simple test, compared the mean wave 1 wages of 1996 panel members who attrited by wave 3 with those who remained. While the wave 1 wages of the attriters were different from those of the respondents who remained, the attriters had lower rather than higher wages. Roemer concluded that if differential attrition were not responsible for the CPS-SIPP disparities in the relative frequency of very high earners, then differential nonresponse at the outset could play a role. He recommended further research using record checks with matched tax returns or social security earnings records to determine how much of the fall-off in SIPP wages at the high end could be attributed to omitted amounts (estimated from matched records) versus unit nonresponse (estimated, presumably, as a residual).

We can use the information contained in Table IV.1 to reweight the SIPP sample so that it more closely approximates the income distribution of the SCF. Then we can evaluate how much, if at all, this reweighting improves the estimated distribution of net worth. This will provide a measure of the impact of the SIPP sample's under-representation of high-income families on the SIPP's estimates of net worth.

Obviously, reweighting alone cannot be sufficient to reproduce the SCF income distribution exactly because no SIPP families fall into the top four income classes shown in Table IV.1. Furthermore, it would not be desirable to match the SCF distribution category by category because much of the SCF distribution is subject to considerably greater sampling error than the SIPP distribution. Instead, we created nine adjustment classes that clearly show an overall pattern in the relationship between the two income distributions. These classes are the ones reported in Table IV.3, and the adjustment factors are reported in the last column. In calculating each adjustment factor, we divided the estimated SCF population by the SIPP population in that class and then multiplied the result by the overall ratio of SIPP families to SCF families. Because of this rescaling the adjustment factors differ slightly from the ratios of SCF to SIPP reported in column four (and from the reweighting adjustments applied in Chapter V). The reweighted sample sums to the same number of families as the original SIPP sample, but the income distribution takes on the shape of the SCF income distribution.

The adjustment factors show how the SIPP and SCF income distributions differ. The series of factors exhibits a J-shape. For the lowest income families the factor exceeds 1.0, indicating the excess of SCF families over SIPP families in this income range. The factors then fall to a low of around 0.92, which applies to a broad range of incomes where the SCF estimates fewer families than the SIPP. After that they rise, fairly steeply, reaching a level above 3.0 for the highest income families, where the SCF finds far more families than the SIPP.

With the reweighted SIPP sample we estimated the percentile distribution and the aggregate amount of net worth. The results, which are compared to the PSID and the SCF for selected percentiles in Table IV.4, show a very modest effect. The three-fold expansion in the number of families with incomes above $300,000 and the 81 percent increase in families between $150,000, combined with a 52 increase in very low income families and a small reduction in middle income families produces a $2,500 rise in median net worth. This takes the SIPP median from 73.9 to 77.7 percent of the PSID median and from 66.9 to 70.4 percent of the SCF median. At the 20th percentile the increase in the SIPP estimate is only $35, but the amount of the increase grows to $158,000 by the 99th percentile, raising the SIPP value from 55.4 to 62.5 percent of the corresponding PSID value and from 32.3 to 36.5 percent of the SCF value. Higher percentage point increases occur below the 99th percentile. The largest growth relative to the PSID occurs at the 97th percentile (8.1 percentage points), with the 93rd percentile close behind (8.0 percentage points). The largest growth relative to the SCF occurs at the 93rd percentile (7.8 percentage points). Aggregate net worth grows by $1,349 billion or from 61.6 to 67.4 percent of the PSID aggregate and from 49.5 to 54.1 percent of the SCF aggregate.

While the overall impact of reweighting is small, this need not imply that the under-representation of wealthy families has a smaller impact on aggregate wealth than either the underestimation or topcoding of their wealth, which reweighting does not address. With the SIPP having no families with incomes above $750,000, compared to about a third of a percent of the SCF, the potential effect of reweighting is muted. But these results do indicate that reweighting by itself is not a very effective strategy for recapturing the wealth that is missed by the SIPP. In chapter V we take an alternative approach to adjusting the SIPP to better match the SCF. In addition to reweighting we apply an econometric model that allows us to directly adjust the data values in the SIPP records.

B. COVERAGE AND CONTENT

In developing the classification of assets and liabilities used in this report, we examined the questionnaires for the SIPP and the SCF to determine whether a variable or set of variables in one survey that appeared to measure the same concept as a set of variables in the other survey really measured only a part of that content. For example, we initially juxtaposed a SIPP measure of 401(k) and thrift plans against an SCF measure that included not only 401(k) and thrift plans but separate pension plans from current and previous jobs. On closer study, we determined that we could identify the 401(k) and thrift plans with the aid of some additional fields on the SCF file and could create a separate field for the pension plans, which we treated as a component not measured in the SIPP.

We looked closely at two of the components that the SIPP seemed to measure very poorly: business and other real estate. Here we concluded, however, that there was no basis for disaggregating these items into separate components, some of which the SIPP measured and some of which it did not. The SIPP measure in each case seemed to cover the entire concept captured by the SCF measure; it just failed to obtain anywhere near enough dollars from the respondents.[34]

The PSID also measures assets that are not captured in the SIPP (including, in particular, annuities and the cash value of life insurance), but with the exception of certain pension assets, the PSID questionnaire asks about these assets in combination with other assets that *are* measured in the SIPP. It is not possible, therefore, to fully exclude non-SIPP assets from the

[34] SIPP business equity is limited to the self-employed while SCF business equity is not, which suggests a potentially large difference in coverage. But the distributions of types of business entity (sole proprietorship, partnership, or corporation) are similar between the SIPP and the SCF, and 80 percent of SCF business equity is associated with businesses that are actively managed by SCF family members.

PSID estimates, so our empirical analysis of coverage and content is limited to the SIPP and the SCF.

Because of the detail collected in both the SIPP and the SCF, it is possible to construct alternative measures of assets, liabilities and net worth that exclude components that are measured in the more comprehensive SCF but not the SIPP or are measured much less effectively in the SIPP than the SCF. We present our findings here and then review an additional source of pension data collected outside of the modules that provide the SIPP wealth data. Other coverage issues are discussed following the pension data.

1. Unmeasured and Poorly Measured Components

Several of the asset and liability components in the classification scheme that we presented in Chapter 2 are collected in the SCF but not the SIPP. We provided estimates of their contribution to aggregate SCF assets and liabilities in Chapter II. To understand how well or not the SIPP captures those assets and liabilities that it does measure, it is instructive to remove from the SCF measure of net worth those components that are not measured in the SIPP and to compare the distribution of SIPP net worth to the distribution of this adjusted SCF measure of assets and liabilities. To do this, we removed from the SCF net worth the following:

- The value and the debt associated with cars/trucks/vans beyond three per family
- The balance in defined contribution pension accounts from the current and prior jobs (category 118)
- The cash value of life insurance (119)
- The value of other non-SIPP assets, consisting primarily of annuities and trusts (130)
- Personal business debt (214)
- Other secured debt (216)

We constructed an additional measure of SCF net worth that also excluded the assets and liabilities that were measured especially poorly in the SIPP, based on estimates that include wealthy families (see Tables II.10 and II.12). These were:

- Interest earning assets besides those held at financial institutions (112)
- All other real estate besides the family's main home (123)
- Business equity (125)
- Mortgage debt on rental property (213)[35]

We then calculated aggregate, mean, and median net worth for both of these concepts of net worth in the SCF and compared them to SIPP estimates of (1) total net worth and (2) net worth less these last four items.

Table IV.5 summarizes the effects of excluding non-SIPP items from the SCF and then excluding the items measured poorly in the SIPP from both. Excluding the non-SIPP items from the SCF reduces the SCF aggregate net worth to $26.2 trillion (from $29.1 trillion). The SIPP aggregate is 54.8 percent of this figure compared to 49.5 percent of total SCF net worth (see the second to last column of Table IV.4). There is a more pronounced effect at the median, where the exclusion of the non-SIPP items reduces the SCF value from $71,780 to $64,600, which raises the SIPP median from two-thirds to three-quarters of the SCF value.[36] The point in the distribution where the removal of the non-SIPP items has the greatest impact is at the 30th

[35] Margin and broker accounts are measured less well than mortgage debt on rental property, but they are very small. Their total value in the SCF equals only one-third of the *difference* between the SCF and SIPP estimates of mortgage debt on rental property.

[36] Recall that in Chapter II we found that the 1993 SIPP median *equaled* the 1992 SCF median after the non-SIPP items were removed from the SCF. We noted that in comparison with the 1999 result this suggested a deterioration in the quality of SIPP asset data between the 1992 and 1996 panels, but we have not identified a contributing cause.

percentile, where the reduction in the SCF value raises the SIPP value to 60.1 percent from 46.8 percent. At the 20th percentile the SIPP value is increased from just over one quarter to one-third of the SCF value. It is only at the 99th percentile that the gap between the SIPP and the SCF after excluding the non-SIPP items shows a smaller percentage point reduction than the gap in aggregate net worth. On the whole, we find that the non-SIPP items that are included in the SCF increase the estimated value of net worth throughout most of the distribution by a greater margin than they increase aggregate net worth. And they add proportionately more net worth to the lower half of the distribution than to the upper half.

The final three columns of Table IV.5 show the results of excluding the items measured most poorly in the SIPP. Here we see little change in the relative values of the SIPP and SCF below the 50th percentile. At the 20th percentile, for example, the SIPP estimate remains 33.5 percent of the SCF estimate while at the 40th percentile the SIPP estimate improves only 2 percentage points, from 72.4 to 74.4 percent of the SCF estimate. The improvement at the median—from 74.4 to 82.9 percent—is actually greater than the improvement at the 60th and 70th percentiles. But the improvement in the SIPP percentile values grows dramatically beyond the 92nd percentile. At the 99th percentile the SIPP estimate rises from 35.8 percent of the SCF estimate with the non-SIPP items excluded to 52.6 percent of the SCF estimate when the weak SIPP items are removed from both surveys. The aggregate net worth shows a similar result. Removing the weak SIPP items drops the SCF estimate of aggregate net worth by nearly $10 trillion, to $16.6, but reduces the SIPP estimate of aggregate net worth by only $2.5 trillion. The reduced SIPP estimate is nearly 72 percent of the reduced SCF estimate of aggregate net worth, an improvement of 17 percentage points. In contrast to the items that are measured in the SCF but not the SIPP, the items that the SIPP measures relatively poorly are concentrated in the upper regions of the net worth distribution and have a much bigger impact on aggregate net worth.

Table IV.6 summarizes the effects of these two sets of exclusions on mean and median net worth when combined with reweighting the SIPP to match the SCF income distribution. The upper half of the table shows the effects on mean and median net worth without reweighting, which we have just seen. The lower half of the table shows the effects of excluding non-SIPP items from the SCF and excluding weak SIPP items from both surveys when the SIPP data have been reweighted.

We would have expected reweighting to reduce the effects of excluding the weak SIPP items because the impact of reweighting is most pronounced among families with relatively high net worth, which account for much of the aggregate value of these items—at least in the SCF. But, in fact, reweighting makes little difference in the effects of either exclusion. With no components excluded from either survey, reweighting improves the SIPP estimate of mean net worth by 4.6 percentage points relative to the SCF mean. When the non-SIPP components are excluded from the SCF, the SIPP estimate of mean net worth is improved an additional 5.9 percentage points (versus 5.4 percentage points without the reweighting). When the weak SIPP components are excluded from both surveys, the SIPP estimate of mean net worth is improved another 17.5 percentage points (compared to 16.9 percentage points without reweighting). Changes in median net worth show a similar pattern but with smaller percentage point improvements. We infer from this that reweighting did not benefit the weak SIPP items disproportionately, which could mean that the wealthier families that responded to the SIPP did not tend to have particularly large amounts of business equity and rental or vacation real estate.

One observation that we can draw from these findings on the non-SIPP items and reweighting involves the impact of minor improvements to the SIPP. If the Census Bureau could add the non-SIPP components to the SIPP and measure them with at least the same quality as other SIPP items and could revise the SIPP weighting to adjust for the under-representation of

higher income families (without improving their response rate), then the SIPP estimate of median net worth could be raised from about 67 percent of the SCF median to at least 78 percent of the SCF median—an increase of 11 percentage points. These same changes would produce a comparable improvement in SIPP mean or aggregate net worth, raising it from under 50 percent of the SCF estimate to 60 percent. In the next section we explore the quality of data collected on one of the non-SIPP components in a module separate from the wealth data, and we show that the SIPP can measure this component not just as well as other SIPP components but as well as the SCF.

2. Pension Accounts Captured Elsewhere in the SIPP

The SCF collects information and balances for several types of retirement accounts associated with the current jobs of family members and for any additional retirement accounts that may have originated with previous jobs. We have separated 401(k), thrift, and related plans from other types of pensions, which the SCF includes in its net worth measure if the employee can borrow or withdraw funds from the account. We have assigned the SCF 401(k) plans to our category 117 and assigned the additional pensions, along with pensions from former jobs, to category 118, which we labeled other quasi-liquid pensions.

With the 1996 panel the SIPP began to collect account balances for 401(k) and thrift plans in the annual wealth module, and, as we have seen, these data compare favorably to the data collected in the SCF. But except for IRAs and Keogh plans, which had been part of the asset module since 1984, no other types of retirement accounts were included. Because of this, we have treated category 118 as non-SIPP assets. An entirely separate set of questions on retirement plans was asked just one time in the 1996 panel, in a topical module attached to the wave 7 questionnaire. These questions captured balances for both tax-deferred and non-tax-deferred accounts associated with the respondent's current employment and, collectively, for accounts

generated under earlier jobs. The wave 7 interviews were conducted in April through July 1998, or eight months earlier than the wave 9 interviews that are the source of most of the SIPP wealth estimates in this report. Insert B. Because the pension data were collected in a separate wave, they may be missing for some of the wave 9 respondents.[37] Furthermore, there is significant overlap in the content of the wave 7 questions and the 401(k) and thrift questions asked in wave 9. Nevertheless, the wave 7 questions are a potentially important source of data on additional retirement accounts, for which we have created—but not yet filled—a separate category (131) in our typology of assets and liabilities.

Table IV.7 summarizes the accounts and balances captured in response to the wave 7 questions. The aggregate holdings reported in these retirement accounts were $1,611 billion, which is only slightly below the $1,715 billion reported by the SCF for 401(k) plans, thrifts, and quasi-liquid pensions a few months later. Nearly $1,300 billion of the $1,611 billion total is associated with tax-deferred savings plans while another $169 billion represents other types of pension plans from current jobs, and $144 billion is held in pension plans from previous employment.

We would like to know how much of the $1,300 billion reported in tax-deferred savings plans in wave 7 would have been reported in 401(k) and thrift plans in wave 9. The wave 9 plans totaled $1,255 billion (see Table II.10), which was just below the corresponding SCF total of $1,277 billion. Some portion of the $1,300 billion may belong in asset type 118 (or 131) rather than type 117. While the wave 7 questionnaire did ask respondents if they had participated in an employee thrift plan in 1997, the wording of the question does not mirror the

[37] Missing wave 7 data were imputed only for wave 7 respondents. If a wave 9 respondent skipped the wave 7 interview, none of the wave 7 data would have been imputed.

language used to identify 401(k) and thrift plan participants in wave 9. Only $804 billion of the $1,300 billion was reported by persons who also reported participating in an employee thrift plan in 1997. It is doubtful that this amount grew to $1,255 billion in the eight months between waves 7 and 9. Therefore, some part of the $494 billion reported in tax-deferred savings plans by persons who did *not* report participating in an employee thrift plan in 1997 must have been associated with 401(k) or thrift plans nonetheless.

We attempted to match the wave 9 thrift plan balances to the wave 7 tax-deferred savings plan balances at the micro level in order to determine the amount of overlap in the aggregate wave 7 and wave 9 reports. But unit nonresponse in the two waves and the independent imputation for item nonresponse made this too difficult to accomplish. As a result, we have estimated both lower and upper bounds for the total amount of pension wealth reported in wave 7 that derives from plans that were not reported in wave 9. The lower bound assumes that all of the tax-deferred savings plans reported in wave 7 are redundant with plans reported in wave 9. The upper bound assumes that only those tax-deferred savings plans reported by persons who also reported having participated in an employee thrift plan in 1997 are redundant with the wave 9 plans. Even the lower bound of $313 billion is not too far below the $443 reported in the SCF for plans that we have classified as quasi-liquid retirement accounts while the upper bound of $807 billion is substantially higher.

While it remains unclear how much of the wave 7 pension balances could be moved into asset category 118 and then escalated eight months to give the SIPP a wave 9 counterpart to the SCF quasi-liquid pension accounts, the overall results suggest that, with some allowance for growth between the wave 7 and SCF reference periods, the wave 7 pension module captured as much total pension wealth as the SCF.

Because of the growing importance of defined contribution pensions and the retirement accounts that they generate, the value of the data collected in the SIPP pension module would be strengthened considerably if the retirement account questions asked in that module were integrated with the wealth module questions. Ultimately, this may require that the two sets of questions be asked in the same wave. We include this as recommendation for improving the SIPP wealth data in Chapter VI of this report.

3. Other Coverage Issues

There remain additional issues with regard to the coverage of particular questions in the SCF and the SIPP. We review such issues with regard to credit card debt, savings bonds, and college savings accounts maintained by children.

a. Credit Card Debt

Accounts that routinely experience large inflows and outflows over a short period of time present a particular problem for measurement. On the asset side, consider a checking account into which a family deposits its paychecks and pays out its food, shelter, clothing, and entertainment costs, with any balance being transferred to a separate investment vehicle. In a typical month, all of the money that flows into the account eventually flows out. The balance in such an account may fluctuate between zero and a significant fraction of the family's monthly earnings. On the debit side, consider a credit card account to which a family charges many of its routine expenditures but leaves no unpaid balance when the monthly payment is due. In each case, the account's contribution to net worth, positive or negative, is arguably zero. Yet when asked about the balances in these accounts, the family's responses could vary over a wide range, depending on how the questions were posed. What's important is that the balances be measured in a consistent manner across the accounts. If the family sends $1,000 from the checking account to a mutual fund each month, that $1,000 should be counted in one place—not both and

not neither. Similarly, if the family pays off a $2,000 credit card bill late in the month, the $2,000 should not be counted as an asset in the checking account during the month without also being counted as a liability in the credit card account. The potential error from inconsistent counting of the money retained in such accounts is generally small relative to a family's overall net worth, but differences in the ways that surveys approach the measurement of such accounts can lead to differences in estimates of aggregate net worth and, particularly, aggregate assets and liabilities.

The one component for which the SIPP estimate exceeds the SCF estimate is family credit card debt. A review of the two survey instruments suggests that this difference may be nothing more than an artifact of the way the survey questions are phrased. In the SCF, respondents are asked for the balances still owed on their accounts after the last payments were made. In the SIPP, respondents are asked how much was owed as of the last day of the reference period (the last day of the month preceding the interview). Conceptually, these are different, and the difference is most evident for families that routinely pay off their accounts. In the SCF, such families would be expected to answer zero. In the SIPP such families would be expected to give responses that, on average, would equal about half their monthly charges. We propose that the difference between these two approaches probably accounts for most if not all of the observed difference in the estimates of aggregate credit card debt.

b. Savings Bonds and College Savings Accounts

SIPP does not capture assets owned by children under 15. Based on personal observation, many children own savings bonds, and they often do so in households in which no adults have them. These assets would not be measured in the SIPP, but they *would* be measured in the SCF along with any assets owned by children. A relatively new savings vehicle allows parents to transfer money to an investment account that will accumulate earnings tax free and not require a

tax payment if the money is used for the child's education. The SIPP will not capture such accounts until the children reach age 15, we surmise, whereas the SCF presumably will capture such savings. Barring any change in SIPP procedures, over time this may add to the SIPP/SCF gap among households with higher levels of wealth.[38]

C. NEGATIVE AND ZERO NET WORTH

We saw in Chapter II that one of the factors contributing to the lower median wealth in the SIPP versus the PSID and the SCF is the markedly greater proportion of families with negative or zero net worth: 15 percent in the SIPP versus 11 percent in the PSID and 10 percent in the SCF. Given the evidence that liabilities are distributed nearly identically in the SIPP and the SCF, the fact that the lowest quintile of net worth in the SIPP had more assets than the lowest quintile in the SCF suggested a possible explanation. The excess number of SIPP families with negative net worth could be due to the SIPP's correctly recording their liabilities but missing large components of their assets—either assets not measured in the SIPP or measured very poorly.

To investigate this and other possible explanations, we classified assets and liabilities into ranges and cross-tabulated the two variables in each survey. Table IV.8 reports the results. Each cell provides the weighted percentage of all SIPP and SCF families with that combination of assets and liabilities. The percentage of SIPP families appears above the percentage of SCF

[38] We understand that the Census Bureau is planning to introduce questions into the SIPP wealth module to capture assets that parents are accumulating in their children's names. If these plans are implemented, the assets that are accumulated in college savings plans and similar financial vehicles will be captured as part of the family's wealth.

families in each cell, with the SCF percentage in bold. Cells in which the SIPP percentage exceeds the SCF percentage are shaded.

We note, first, that the SIPP exceeds the SCF by nearly two percentage points in the proportion of families who report no assets and no liabilities: 4.3 versus 2.4 percent. Interestingly, an MPR study of attrition in the SIPP found that the reporting of zero assets was one of the characteristics that predicted attrition in the next few waves (Rosso and Cody 2002). The authors speculated that the reporting of zero assets was more likely a sign of growing disinterest in the survey rather than an accurate rendering of their financial situations.

The next striking feature is the dominance of SIPP families in several regions of the cross-tabulation: (1) the triangle above the main diagonal (outlined), where all families have negative net worth, (2) the diagonal itself, (3) cells just below the diagonal, and (4) cells indicating zero liabilities but assets below $100,000.[39] We have noted that the SIPP has proportionately more families with negative net worth. What we see in Table IV.8 is that the SIPP families with negative net worth often have combinations of total assets and total liabilities that are rare among SCF families. For example, in the column that includes families with liabilities of $100,000 to under $150,000 there are no SCF families with fewer than $100,000 in assets, yet the SIPP has families with as little as $1,000 to under $5,000.

We can see more clearly how the two surveys differ with respect to the location of families with zero or negative net worth if we limit the asset-liability distribution to just these families, which we do in Table IV.9. By definition, all of the observations lie on or above the diagonal.

[39] Except for the 0,0 cell, cells on the main diagonal include some families with positive net worth, some families with negative net worth, and, theoretically, some families with zero net worth, although we doubt that there are many families with equal, nonzero assets and liabilities.

From the marginal distribution of assets (the right-most column) we see that in addition to the larger proportion with zero assets, SIPP families are more numerous than SCF families at every asset level but particularly at the highest asset levels. With respect to liabilities, the SIPP has more families with zero liabilities but also more families with liabilities of $10,000 or more in every category except $500,000 to under $1 million. Seeing these results, we recall from Chapter II that the correlation between assets and liabilities is much lower in the 1996 SIPP panel than in the SCF (.11 in wave 9 versus .40 in the SCF), whereas the correlation in the 1992 and 1993 SIPP panels was identical to the correlation in the 1992 SCF (.49 versus .50). This low correlation in the 1996 SIPP panel and the unusual dispersion of SIPP families across the joint distribution of assets and liabilities are related, of course, and the excess families with negative net worth are symptomatic of both.

Erroneous cases of negative net worth, which we believe that we are seeing in the SIPP, may be caused by underreporting or under-imputation of assets or overreporting or over-imputation of liabilities or a combination of both. We have focused on the underreporting of assets because we have seen that, in the aggregate, the SIPP has collected far too few dollars of assets but nearly the right amount of dollars of liabilities. But in this and earlier sections we have also presented evidence that, independently of the aggregate levels, the joint distribution of assets and liabilities in the SIPP is flawed. In other words, conditioning on liabilities, the distribution of assets is generally too low or at least skewed down and, conditioning on assets, the distribution of liabilities is generally too high or at least skewed up. This leads us, naturally, to a discussion of item nonresponse and the adequacy or inadequacy of the methods used to compensate for it. First, however, we end this discussion of negative and zero net worth by examining the stability of these statuses over time.

A cross-tabulation of broad categories of net worth between waves 9 and 12 (one year apart) shows several patterns (Table IV.10). First, about one in eight families with negative or zero net worth in wave 9 had no wealth data reported in earlier waves (3 or 6). Most of these may be new families (that split off from wave 1 households), which could account for their low net worth. Whatever the reason for the absence of earlier data, we were concerned that their status in wave 12 might have been influenced less by their net worth in wave 9 than by the circumstances that explain their lack of prior wealth data. Therefore, we cross-tabulated wave 9 by wave 12 net worth separately for families that had wealth data in at least one of the two earlier waves and those that did not.

Second, between 22 and 24 percent of the families with negative, zero, or very low net worth (less than $6,000) in wave 9 had no data in wave 12. This contrasted with 11 percent among families with net worth of $6,000 or more and recalls the finding from other MPR research, cited above, that the reporting of zero assets and zero liabilities was an indicator of disengagement from the survey and a predictor of subsequent nonresponse. Here, though, we see little difference between those who reported (or were imputed) zero net worth versus negative or low positive net worth.

Third, of the families with zero net worth in wave 9 who were still present in wave 12, about two-thirds—or one-half of all families with zero net worth in wave 9—had zero net worth in wave 12. There may indeed be some indication of survey disengagement in this high proportion because families with negative or low positive net worth show a greater tendency to experience a change in net worth between waves 9 and 12.

Fourth, families with negative net worth in wave 9 show the greatest change in net worth by wave 12. They were more likely to have positive than negative net worth in wave 12 and almost as likely to have net worth of $6,000 or more (26 percent versus 29 percent). This mobility

suggests greater error in their wave 9 classification than among families with zero or low positive net worth.

Lastly, among families with no prior wealth data, half of those with zero net worth in wave 9 and nearly half of those with negative or low positive net worth in wave 9 had no data in wave 12. Among families with net worth of $6,000 or more, the proportion with no data in wave 12 was only about half as high.

In sum, these findings suggest that there are response issues and perhaps legitimate data quality concerns surrounding families with negative or zero net worth in at least the later waves of the 1996 SIPP panel. This may help to explain the greater incidence of negative and zero net worth in the 1996 SIPP panel than in any of the other surveys, but further research is required to better understand the factors that underlie these findings.

D. ITEM NONRESPONSE

Item nonresponse to most of the asset ownership and amount questions in the SIPP is substantial. In this respect, the SIPP does not differ greatly from the SCF, although nonresponse in both surveys is much higher than it is in the PSID. In all three surveys the missing data are filled in by imputation. The need to impute what turns out to be a large proportion of total assets and liabilities in the SCF and the SIPP creates the potential for a considerable bias in the final estimates of these quantities—and, therefore, net worth. Net worth is particularly sensitive to imputation because its distribution is a function of the *correlation* between assets and liabilities. Imputation may yield reasonable distributions of assets and liabilities separately, but if their joint distribution is not captured adequately, the distribution of net worth will not be nearly as good as the distributions of assets and liabilities.

The SCF staff devote considerable attention to imputation, using models that are specific to the variables being imputed and that condition on a wide range of reported and imputed values.

Their work in this area has advanced the state of the art. By contrast, the Census Bureau applies the same methods to imputing assets and liabilities that it does to most other variables, including those with much lower nonresponse.

Does imputation account for the SIPP's weaker performance on net worth than on assets and liabilities, which we have documented at several points? We explore this possibility by looking, first, at comparative frequencies and outcomes of imputation in the SCF and the SIPP. We then review the use of response brackets to collect partial data on amounts when respondents cannot or will not provide full amounts. Next we examine the role of imputation in the reduced correlation between assets and liabilities in the 1996 SIPP panel, which we first noted in chapter II. Lastly, we review the SIPP's approach to valuing vehicles, which mirrors the SCF approach for newer vehicles but deviates from this approach for older vehicles and in the handling of missing data.

1. Imputation

Most of the components of net worth measured in the SIPP are captured at the person level and must be aggregated to produce family or household level statistics. In addition, many of the components are built up from subcomponents. One or more subcomponents for one or more persons in a family may be missing while all of the others are reported. To describe the frequency of nonresponse most simply and most accurately, we must do so at the person-subcomponent level. While the SCF does not utilize the person as a reporting unit, the detail with which many components of wealth are collected has much the same effect. Where the SIPP may capture one account for each of three persons, for example, the SCF would capture three accounts for the family. Furthermore, the SCF collects wealth component at a generally greater level of disaggregation than the SIPP. This makes it difficult to produce directly comparable

statistics on item nonresponse. While we present nonresponse rates for a wide range of items from the SIPP, we report SCF nonresponse rates for a more limited set of items.

Table IV.11 lists the names and descriptions of 47 asset and liability items from the SIPP and reports the percentage of nonzero amounts that were missing and therefore imputed in wave 9 of the 1996 panel. Only two of the asset items and one of the liability rates have imputation rates below 20 percent while, at the other extreme, two asset items and two liability items have imputation rates in excess of 60 percent. Over the 47 items the median imputation rate is 38 percent. Generally, but not always, the more common items have the lowest rates of imputation. For example, the value of the principal residence was imputed for 26 percent of households, and the value of the first vehicle was imputed for 28 percent. Keogh account balances, on the other hand, were imputed for 62 percent of the persons who owned them, and even stocks and mutual funds were imputed over half the time.

Table IV.12 reports rates of imputation for a smaller selection of roughly matched items from the 1996 SIPP panel (wave 9) and the 1998 SCF. Variable names are provided to allow the reader to link the SIPP items in this table with their more complete descriptions in Table IV.11 as the description of the SCF variable does not always match the SIPP variable. The imputation rates for the SCF include cases that provided ranges in lieu of dollar amounts. These can be separated with the SCF public use data, but the SIPP public use file does not distinguish cases that provided ranges rather than dollar amounts from cases that provided no amounts at all. Both are classified as imputed.

Generally, the imputation rates for the SCF are about half to two-thirds the imputation rates for the most closely corresponding SIPP variable, but there are exceptions in both directions. Loan balances on vehicles after the first are more likely to be imputed in the SCF than the SIPP.

But the value of the first vehicle is imputed to only 1.5 percent of families in the SCF compared to 28 percent in the SIPP.

For most asset variables, the Census Bureau employs a "hot deck" methodology to impute missing responses. The record to be imputed is matched to a similar record (a "donor") with a reported value for the item in question, and the missing value is replaced with this reported value. "Similarity" is based on characteristics that are present (reported) for both records. In order to support close matches on several key characteristics and still provide a distribution of reported values, the number of donors must be large. Imputation methods based on matching, like the hot deck, do not perform as well for rare items or for items with high nonresponse rates as they do for common items with low nonresponse rates. Model-based methods, which are used to impute missing data in the SCF, generate imputed values by modeling the relationship between the missing items and observed characteristics, using the data for respondents with reported values for the items in question. As a result, model-based methods make more efficient use of small samples of cases with reported data.

Table IV.13 gives the mean and median reported values and the mean and median imputed values for a wide range of asset and liability variables in the SIPP. There is no consistent pattern. Sometimes the nonrespondents are imputed values with means and medians above the reported values and sometimes they are imputed values with averages below the reported values. This is puzzling in and of itself, except that the deviations from equal means tend to be fairly small in both directions—suggesting that, on average, the nonrespondents differ little from the respondents on the various measures of wealth. If this is indeed correct, then the variation that we see is not surprising. However, a comparison with the SCF's model-based results is instructive, given the tendency for the SIPP to underestimate nearly every component measure of net worth. We present some SCF results below.

2. Response Brackets

One device for reducing the impact of nonresponse is to ask respondents who are unable or unwilling to supply an amount if they can at least indicate the range within which their amount falls. When respondents are willing to do so, this information can be incorporated into the imputation procedures and thereby reduce both the variance of the imputations (that is the deviation from the true values) and, possibly their bias. Table IV.14 reports the frequency with which amounts were reported in ranges, or brackets, for a selection of asset and liability items from the 1998 SCF compared to the frequency with which "exact" amounts were reported or no information was provided. The table also shows the mean amounts that were reported or imputed for each response category for each of the items.

It is clear that for the amounts reported in brackets can lead to substantially higher mean imputed values. Publicly traded stock and stock mutual funds provide the most striking examples in this regard. The information reported in the bracket responses yielded imputed values with means two to three times as high as the reported values and about double the mean amounts imputed without the benefit of brackets. For other items, however, there is little difference among the response categories. For example, there is little difference across the response categories for principal residence. Generally, the mean amounts imputed without brackets do not differ appreciably from the mean reported amounts.

Looking back at the SIPP results in Table IV.13, what we conclude is that the mean SIPP imputations appear to resemble what the SCF obtains without the benefit of brackets. For example, the SIPP mean imputation for jointly held stocks and mutual funds is about 40 percent above the mean reported value. The SCF mean imputation for publicly traded stock is about 30 percent higher than the mean reported amount when the range responses are not included. For the value of the principal residence, the SCF mean imputed amount without the range responses

is slightly below the mean reported amount. For the SIPP, the mean imputed amount is about 9 percent below the mean reported amount.

The SIPP attempts to collect bracket information in many of its asset and liability questions. The bracket categories can be critical to the effectiveness of this approach. If they are too low, then important information may be loss. Table IV.15 reports the response brackets used in the SIPP for a number of the asset and liability components. Brackets from the PSID (which are more readily discernible from the survey instrument than the SCF brackets) are reported as well, along with the median positive values estimated from both the SIPP and PSID data.

Where we have PSID brackets for comparison, the floor of the top PSID bracket (the top bracket is always open-ended) is always higher than the floor of the top SIPP bracket. For checking and savings accounts and for stocks and mutual funds, the PSID has three brackets covering the same range as the top SIPP bracket. For checking and savings accounts, the top SIPP bracket is $5,000 and up while the top PSID bracket is $50,000 and up. For stocks and mutual funds, the top SIPP bracket is $25,000 and up while the top PSID bracket is $100,000 and up.

We note, too, the placement of the SIPP and PSID brackets relative to the median. For the SIPP, the median is just inside the upper boundary of the last closed bracket, implying that the top bracket covers nearly half the population. The PSID, however, tends to use three brackets to cover the top half of the population. Clearly, we would prefer more brackets above than below the median because the upper tail stretches much farther than the lower tail, which is truncated at zero. For other interest earning assets, which is one of the SIPP's least successful items, the floor of the top bracket is only one-third the median nonzero amount. Most SIPP items are better in this regard. For IRAs and 401(k) plans, there are two entire brackets and part of a third bracket above the SIPP median. For the value of a business, the SIPP median lies near the floor

of the second bracket. The same is true of the PSID median relative to the PSID brackets, but the PSID median is more than double the SIPP median.

In sum, this comparison with the PSID suggests that the SIPP brackets are too low relative to the SIPP medians and, especially, the PSID brackets. Higher brackets could potentially improve the SIPP imputations, providing more information for imputing values in the upper half of the distribution, where the SIPP's performance is particularly problematic.

3. Correlation Between Assets and Liabilities

In Chapter II we reported evidence of a precipitous decline in the correlation between assets and liabilities between the 1993 and 1996 SIPP panels and showed that the SCF did not find nearly as large a decline. We speculated that something in the processing of the 1996 SIPP panel data must account for much of this decline and suggested that imputation might play a role.

To determine if imputation might indeed be responsible for the decline in the correlation between assets and liabilities, we defined subsets of families in the 1996 SIPP panel that differed with respect to whether or not selected variables had been imputed. This was not simply a matter of distinguishing between families with little versus a lot of imputation. As we have suggested elsewhere, records with a lot of imputed fields may be more likely to have internally consistent values than records with just a few imputed fields. We calculated the correlation between assets and liabilities for different subsets of families in wave 9 and, for comparison, in other waves of the 1996 panel and in the 1992 panel.

Table IV.16 summarizes our main findings. For families that had either the value or the debt owed on their first vehicle imputed (22 percent of families in wave 9), we obtained a correlation of .073 between assets and liabilities. For families that did not have either of these imputations (or had both), the correlation was .160. By contrast, the correlation in 1993 between assets and liabilities among families with imputations to vehicle value or debt was .515, or

slightly higher than the correlation of .486 among families without these imputations (or with both).

Expanding the subgroup to include families with imputed values for the home (value or debt but not both) or stocks and mutual funds did not appreciably change the 1996 panel results. The correlation among the imputed families dropped only slightly, to .060 while the correlation among families without these imputations rose modestly to .188.

We also looked at cases that included imputations to both the home value and the debt. These correlations varied across the four waves, but they were consistent in one respect: in every wave the families in the imputation subgroup had a *higher* correlation between assets and liabilities than the families in the rest of the sample. By including cases with imputations to both the value and debt on the home, we added enough families with internally consistent imputations to raise the correlation above that of families whose imputations, if any, did not include these particular combinations.

We conclude from this exercise that some type of change in imputation procedures may indeed have contributed to the steep decline in the correlation between assets and liabilities between the earlier SIPP panels and the 1996 panel, but imputation was not the whole story and may not have been the major story in explaining this decline. Further research to determine if any subgroup of cases continues to have a correlation as high as the 1992 panel might be useful, but a more fruitful undertaking would be to determine what aspects of processing—imputation or other—may have changed materially with the 1996 panel and could have worked to lower the correlation between assets and liabilities.

4. Motor Vehicles

One area where the SIPP imputation practices appear especially problematic is in regard to motor vehicles—specifically cars, trucks and vans.[40] Vehicles stand out as the only SIPP asset for which the growth in aggregate value between 1993 and 1999 did not match or exceed the growth recorded in the SCF. This gives us further reason to review the Census Bureau's procedures for valuing vehicle assets.

Both the SIPP and the SCF measure the asset value of motor vehicles by collecting from the respondent the make, model, and year of each vehicle and then assigning the corresponding retail "blue book" value.[41] SIPP does this for up to three such vehicles per household while the SCF does it for as many as four.[42] This is an objective procedure that appears to yield good results when applied fully. By comparison, asking respondents to estimate the value of their vehicles, as both the PSID and the HRS do, appears to produce substantial overestimation of vehicle assets.

A serious limitation of the Census Bureau's estimation of vehicle assets in the 1996 SIPP panel was its reliance on the standard blue book, which goes back only seven years. There is a separate blue book for older cars, which the SCF uses but the Census Bureau does not. What the Census Bureau chooses to do with older cars weakens the estimates of vehicle assets considerably. In wave 9, for example, vehicles earlier than 1992 were assigned a common value within each model year (Table IV.17). That is, the make and model were not used to assign a

[40] Motorcycles, recreational vehicles, boats, and other vehicles are handled differently.

[41] The use of retail rather than wholesale values is not intuitive. The retail blue book value assumes minor repairs and a dealer mark-up. Entitlement programs with asset tests generally use wholesale prices to value vehicle assets. MPR's food stamp microsimulation model converts the SIPP vehicle values to wholesale values.

[42] The SCF also asks the respondent to estimate the total value of all additional vehicles, which, in rare cases, may include entire collections valued at millions of dollars.

value to these older vehicles. All 1991 cars were valued at $5,000; all 1990 cars were valued at $3,350, and so on. The model year, which is reported on the public use file, was bottom coded to 1985, and all vehicles from 1985 or earlier were assigned a uniform value of $500.

It is evident from Table IV.17 that vehicles more than seven years old are relatively common. More than 27 million of the 62 million first vehicles represented by reported (as opposed to imputed) values were more than seven years old. First vehicles are disproportionately newer than second or third vehicles, so vehicles older than seven years will be even more common among second and third vehicles. To employ a decidedly inferior methodology for such a large proportion of vehicles is difficult to justify.

Unlike other assets, vehicles in the 1996 SIPP panel were not imputed with the hot deck methodology. Instead, a much more primitive procedure was employed. If the make and model were missing but the year was reported, the mean value of other cars from the same year was assigned as the imputed value.[43] If the model year was missing, even if the make and model were reported, then a single mean value was imputed, which was $5,685 in wave 9. This same value was used for all vehicles, first, second, or third—arguably because the vehicles could not be ordered if the year were missing. However, estimates from households with blue book values for three cars show that the mean value of the third car was only one fourth that of the first car.

Vehicles from 1992 and later were topcoded within each model year. Vehicles at the 97th percentile or higher were assigned the value corresponding to this percentile. Because this was done within model year, the topcodes for cars as old as seven years are not particularly high in the distribution of all car values.

[43] Note that for cars older than seven years, this was not considered an imputation because their make and model would not have been used to assign values even if they had been reported.

The deficiencies in the Census Bureau's strategy for valuing older cars are evident in Table IV.18, which presents mean values of vehicles by model year and order (first, second, or third) from the 1998 SCF and wave 9 of the 1996 SIPP panel. For vehicles that were assigned blue book values, the mean SIPP value by model year and order is generally 80 to 90 percent of the corresponding mean value in the SCF. But for years earlier than 1992, the ratios of SIPP values to SCF values decline steadily. The $500 value assigned to 1985 vehicles is only 12 percent of the SCF value for a first car.

This comparison with the SCF suggests that older cars in the SIPP are progressively under-valued on average. At the same time, assigning a single value to all cars within a year generates considerable error, since the true values vary widely around this single value (and all the more so if the single value is itself a considerable understatement of the mean value). Given the importance of vehicles as a countable asset for a number of entitlement programs, this treatment of older vehicles may introduce significant error into estimates of asset eligibility for means-tested programs that employ asset tests.

V. USING REWEIGHTING AND ECONOMETRIC MODELS TO ADJUST FOR SIPP-SCF DIFFERENCES IN THE LEVEL AND DISTRIBUTION OF ASSETS

As indicated in Chapter II, the SIPP, for a variety of reasons, estimates only slightly more than half of the total assets reported in the SCF. In this chapter, we use reweighting adjustments and a series of econometric models to generate estimated asset distributions in the SIPP that more closely resemble the distributions in the SCF. The justification for these adjustments is that they can help to account for a number of differences between the SIPP and the SCF. We assume throughout the chapter that the SCF is a reliable yardstick by which to assess the quality of the asset distribution reported in the SIPP. While our primary focus is on adjusting reported asset amounts in the SIPP, we also explore whether the same methods can be applied to adjust reported liability amounts.

The chapter includes five sections. The first two sections describe the reweighting and econometric methods, respectively, that we used to modify the SIPP database. In the third section, we apply these methods to the total retirement assets reported in the SIPP.[44] In the fourth section, we apply similar adjustments to home values, checking/savings accounts, motor vehicles, life insurance policies, and other non-retirement assets. A concluding section discusses the value of the adjustments as a whole and whether the underlying approach is useful, not only for recoding asset amounts, but also for recoding liabilities.

[44] Retirement assets include IRAs, Keogh plans, 401(k) and thrift plans, and quasi-liquid pensions as reported in the SCF, and IRAs, Keogh plans, and 401(k) and thrift plans as reported in the SIPP. Non-retirement assets include all other assets reported in each survey. Certain assets, such as the cash value of life insurance, "other nonfinancial" assets, and "other managed" assets, were reported in the SCF but not the SIPP.

A. REWEIGHTING THE SIPP DATABASE

As we have discussed in previous chapters, the SIPP has fewer very low- and fewer very high-income families represented by its database than does the SCF. Dividing primary families into nine income categories on the basis of the gross income of the primary family or economic decision-making unit, we see that SCF weights imply that there are about 1.5 times as families in the SCF than in the SIPP with incomes under $6,000 per year, and over three times as many families in the SCF than in the SIPP with incomes of $300,000 or higher per year (Table V.1). As we have shown, the SIPP sample weights do not vary based on household or family income. The SCF, in contrast, over-samples families with predicted high wealth levels and adjusts precisely for differential non-response rates in its high-income sub-sample.[45] These differences between the surveys may explain why high-income families are better represented in the SCF than in the SIPP. (The reason for the lower representation of very low-income families in the SIPP than in the SCF is uncertain.) Applying scale factors to the original SIPP household weights generates a new population that has an income distribution more closely resembling that in the SCF.

The SCF and SIPP populations were remarkably similar in terms of the observed characteristics of families, regardless of which SIPP weights were used, but there were a few exceptions (Table V.2). Families in the SIPP were substantially more likely to have Hispanic

[45] The degree to which the SCF over-samples very high-wealth families is indicated by the fact that, of the *unweighted* sample of SIPP families, only 1 percent are at or above the 99th percentile of the total asset distribution as measured within the SIPP while, of the *unweighted* sample of SCF families, *15 percent* are at or above the 99th percentile of the total asset distribution as measured within the SCF.

heads, to include heads living with youth aged 18 to 24,[46] and to include persons with disabilities.[47] Families in the SCF, in contrast, were substantially more likely to include never-married heads living without a spouse or partner, unmarried heads living with a partner,[48] or heads who had completed a bachelor's degree or some higher level of education. Face values of life insurance, and total asset amounts used for modeling liabilities, tended to be lower in the SIPP than in the SCF. Reweighting the database based on income reduced the magnitude of these differences. Otherwise, the characteristics of the population were similar regardless of whether the original SIPP weights or adjusted weights were used.

The weighted sample sizes of the SIPP and SCF were almost identical, meaning that percentage differences of mean asset amounts for the entire sample of families were very close to percentage differences of total asset amounts for the entire population.

B. USING ECONOMETRIC MODELS

We showed in Chapter IV that reweighting the SIPP database to match the SCF income distribution does not address all of the sources of disparities between SIPP and SCF estimates of wealth. As we have discussed in previous chapters, there are several additional sources of the discrepancies in the levels and distributions of wealth reported in the SIPP and the SCF that are unrelated to the income distribution of families in each survey. First, the topcoding of asset

[46] In our attempt to mimic the SCF primary economic unit using only objective characteristics available in the SIPP data, children of the household head under 25 were included in the SIPP unit with certainty. Children 18 to 24 were usually but not always included in the SCF primary economic unit, creating the discrepancy evident in the table. See Chapter II.

[47] These estimates preceded our efforts to define comparable measures of disability between the two surveys, which produced the results discussed in Chapter III.

[48] As discussed in Chapter II, it appears that domestic partners were more likely to identify themselves as such in the SCF than in the SIPP.

levels in the public use version of the SIPP leads to the understating of the true levels of wealth for the sample. (There is no topcoding in the SCF.) While the proportion of values topcoded in the SIPP is low, ranging from about 1 to 3 percent,[49] the topcoding of assets held by very wealthy individuals may depress significantly the aggregate assets estimated from the SIPP. Second, the sophisticated, multiple imputation methods by which the SCF estimates missing values of asset variables may generate, relative to the methods used for the SIPP, more reliable estimates of levels of wealth for families for which actual assets levels are unknown. Third, whole categories of assets, such as defined contribution pension accounts, the cash value of life insurance policies, "other nonfinancial" assets, and "other managed" assets, are measured in the SCF but not in the SIPP, or else may be under-represented in the SIPP. For instance, it is possible that the manner in which the SIPP topical module questionnaire is structured, and the manner in which SIPP interview staff are trained, lead to a systematic underreporting of some assets in the SIPP versus the SCF.

To develop plausible alternative values for SIPP assets including topcoded components, or imputed components, or because the SIPP estimates in general are believed to under-represent the true level of assets, we estimated a set of four equations for each category of assets. For each of the six asset categories, we estimated coefficients of the following four equations:

- an equation to predict the presence of the asset in the SCF
- an equation to predict the presence of the asset in the SIPP
- an equation to predict the natural log of 1 plus the asset value in the SCF

[49] For the specific asset measures studied in this chapter, the proportion of values with topcoded components was 2.2 percent for non-retirement assets, 1.1 percent for own housing, 2.8 percent for checking/savings accounts, 2.5 percent for motor vehicles, and 1.5 percent for other non-retirement assets.

- an equation to predict the natural log of 1 plus the asset value in the SIPP

We estimated the first two equations using probit procedures and all observations in the corresponding dataset, and we estimated the last two equations using linear regression methods and only those observations with positive asset values. We transformed asset values to log form (taking the natural log of 1 plus the asset value) for the linear models because this resulted in a distribution of values that resembled a normal distribution, consistent with the assumptions of the linear regression model. For the equations estimated from the SIPP, we used the adjusted weights since these account for the under-representation of certain income groups in the SIPP.

We selected numerous characteristics of each family to include as independent variables in the probit and linear regression model equations. These variables included the sex of the family head,[50] the family head's race and ethnicity (white/non-Hispanic, black-non-Hispanic, Hispanic, or other), the family head's age, the family head's marital status, the presence of children and youth in the family, the presence of elderly and disabled persons in the family, the educational attainment of the family head, the income percentile of the family, and the homeowner status of the family head.[51] We also defined interaction terms including all possible combinations of the variables indicating that the family head was female, white, black, married, never-married, living with children, or a homeowner. We also used the face value of life insurance policies to predict

[50] According to SCF interview protocols, the head of the primary economic unit was the male spouse or partner in the case of heterosexual couples, and the older partner in the case of same-sex couples. We prepared SIPP data in a manner that sought to approximate the SCF definition of who was and was not within each unit and who was the head of the unit. For nonmarried couples, however, we retained the Census Bureau's identification of the household head. See Chapter II.

[51] Homeowner status was not used to predict the level or amount of own housing assets, since the value of a home is included with such assets.

the cash value of life insurance, and the total assets in categories measured in both the SIPP and the SCF to predict the total liabilities of each family.

The coefficients of the equations we estimated are displayed in Appendix C. The R-squared statistics, indicating the predictive power of the models, ranged from a low of 0.11 (for the SCF model of the presence of cash value of life insurance) to a high of 0.87 (for the SIPP model of the level of the face value of life insurance). In most instances, however, the models predicted between 20 and 40 percent of the variability in the data.

Because, in most instances, a majority of the variation in the presence and amount of assets was generated by unobserved factors, we estimated standard normal (mean zero, standard deviation one) residuals (error terms) consistent with the observed pattern of outcomes for each family in the SIPP to use in simulating alternative asset amounts under different assumptions. Consequently, the alternative asset values were obtained using information from both the SCF and the SIPP: the coefficients of an econometric model estimated from the SCF (B_p for the presence of asset equation, and B_l for the level of asset equation), the observed characteristics of each family in the SIPP (X), and random error terms (r_p and r_l, respecitvely) formed in a manner consistent with the pattern of outcomes observed for that family in the SIPP.[52]

To form the residuals, we first generated a pair of uncorrelated uniform random numbers for each family in the SIPP. For families reporting positive asset amounts, we selected the first

[52] For families reporting a given category of asset, the residual (r_p) for the presence of asset equation was set equal to –1*invnorm(u1*prob_p), where invnorm is the inverse normal density function, u1 is a uniform random number, and prob_p = normprob(XB_p) is the estimated probability of having the asset, where normprob is the normal density function. For families not reporting that category of asset, the residual was set equal to –1*invnorm(prob_p + (1-prob_b)*u1). The residual for the log level of asset equation (r_l) was set equal to the actual log level minus the predicted log level (XB_l), if the level was observed, or else to the standard error of the residual of the log level regression (se_r) times (rho*r_p + (1 – rho^2)^0.5*invnorm(u2)), where rho is the estimated correlation between r_p and observed values of (r_l/se_r), and u2 is a uniform random number uncorrelated with u1.

residual to generate a prediction of the presence of assets using the equation from the probit model, and we selected the second residual by subtracting the expected value of the log amount of assets from the actual amount and normalizing by the root mean square error of the regression. For families *not* reporting asset amounts, we selected the first residual to generate a prediction of no assets, and the second residual to be correlated with the first residual to the same extent that the two residuals were correlated for families reporting positive asset amounts.[53] We used the same pair of uniform random numbers to generate residuals for different distinct categories of assets (non-retirement, housing, checking/savings, motor vehicle, life insurance, other non-retirement), under the assumption that unobserved factors influencing the level of one type of asset are likely to influence levels of other types of assets as well.[54]

We then used the equations estimated from the SCF, the observed characteristics of each SIPP family, and the family's residuals for the presence and log amount of assets, to generate predictions of the presence and amount of assets *assuming the SIPP family was observed in the SCF with the same family characteristics and standardized residuals*. The purpose of this recoding of asset values was to assess whether making asset amounts in the SIPP more like the asset amounts for similar families in the SCF would narrow substantially the overall differences in the level and distribution of wealth between the two surveys.

[53] As indicated in Appendix C, the correlation between the two residuals was always low, always under 0.01 in absolute value.

[54] The use of different random numbers for the different categories of wealth does not result in substantially different findings from those we report in this chapter.

To adjust for the topcoding in the SIPP, we recoded asset amounts that included topcoded components, but *only* in those instances were the alternative value implied by the SCF equation exceeded the value reported in the SIPP.[55]

To adjust for SIPP imputation methods, we recoded those observations in the SIPP for which asset amounts had been imputed in full or in part (that is, in one of their constituent components). The recoded value was a weighted average of the value imputed in the SIPP and the alternative value estimated from the SCF equation, with the weight attached to the latter value equaling the proportion of components of the SIPP value that were imputed.[56] This recoding helped us to assess whether SIPP-SCF differences in the level and distribution of assets would be smaller if imputations generated values similar to those reported for similar families in the SCF.

To adjust for all remaining differences between the SIPP and the SCF arising from the non-reporting or underreporting of certain asset categories or other differences in survey content and administration, we recoded the asset values for all remaining families in the SIPP. After taking this step, the correlation between the original and recoded asset variables remained high in most instances.[57]

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[55] The SCF equation implied a higher asset value in 63 percent of cases of total non-retirement assets, 34 percent of cases for owner-occupied housing, 44 percent of cases for checking/savings accounts, 62 percent of cases for motor vehicle assets, and 72 percent of cases for other non-retirement assets.

[56] The proportion of observations with imputed components was 19 percent for total retirement assets, 17 percent for owner-occupied homes, 37 percent for checking/savings accounts, 29 percent for motor vehicles, and 32 percent for other non-retirement assets. The average weight for observations with imputed components averaged 0.23 for total retirement assets, 1.00 for owner-occupied housing, 0.23 for checking/savings accounts, 0.53 for motor vehicles, and 0.06 for other non-retirement assets.

[57] Correlations between original values and recoded values of assets were approximately 0.7 to 0.9 for every asset category except life insurance. The correlation of original and recoded asset variables was lowest for the life

In all instances of recoding asset values in the SIPP, the correlations between the original and recoded asset values would have been considerably lower had we not constrained the underlying residuals to be consistent with the original outcomes reported in the SIPP. Since the outcomes reported in the SIPP contain valuable information on what outcomes would have been reported had these families been surveyed through the SCF, we concluded that use of the residuals was valuable for predicting alternative values of assets for families in the SIPP.

Using SIPP data with recoded asset amounts for all or some families, we decomposed the sources of variation between the SIPP and SCF estimates of the total wealth in the United States in each of the six, mutually exclusive asset categories: total retirement assets, the asset value of owner-occupied housing, checking and savings accounts, motor vehicle assets, the cash value of life insurance, and other non-retirement assets. We first consider total retirement assets, and then the various components of non-retirement assets.

C. APPLYING THE METHODS TO RETIREMENT ASSETS

The proportion of families reporting retirement assets was about one-fifth lower in the SIPP than in the SCF (40 percent versus 49 percent, Table V.3). Retirement assets were lower in the SIPP than in the SCF at every percentile of the wealth distribution (Figure V.1), and at every percentile of the distribution of family income relative to the poverty level (Figure V.2). Aggregate retirement assets were about 37 percent lower overall in the SIPP than in the SCF, but

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(continued)

insurance variable (about 0.4), since the original SIPP variable represented the face value of life insurance policies, whereas the recoded variable represented the cash value of life insurance policies.

the disparity between the surveys was only 17 percent if families with $2 million or more of net worth are excluded from the calculation.

Reweighting the SIPP database to account for the under-representation of high-income families reduced the SIPP-SCF gap in total retirement assets by 23 percent (Table V.3). Recoding certain topcoded values reduced the gap in retirement assets by an additional 18 percent. Replacing imputed values with alternative values estimated from the SCF actually had a negative effect, that is, widened the SIPP-SCF gap slightly, because the average size of imputed values estimated from the SCF was lower than the average size of imputed values estimated from the SIPP. Recoding all remaining retirement asset values in the SIPP reduced the SIPP-SCF gap by nearly an additional three-fifths, leaving less than 3 percent of the original gap and suggesting that SIPP-SCF differences in the non-reporting or underreporting of retirement assets are largely due to differences in survey content and administration instead of sample composition. These results provide confirmation of the modeling approach, as we have shown previously that most of the difference between the SIPP and SCF estimates of retirement assets is due to quasi-liquid pensions, which are not measured in the SIPP. As indicated in Figure V.1 and V.2, the fully adjusted SIPP distribution of retirement assets (labeled as trend "SIPP-A") is very similar to the distribution reported in the SCF.[58]

D. APPLYING THE METHODS TO SPECIFIC NON-RETIREMENT ASSETS

While the combination of reweighting the model database, and recoding reported asset values, is quite effective in producing a distribution of non-retirement assets in the SIPP similar to the one in the SCF, its effectiveness varies for each of five specific types of non-retirement

[58] Figures appear in a separate section following the tables.

assets: owner-occupied housing, checking/savings accounts, motor vehicles, life insurance, and other non-retirement assets.

Owner-Occupied Housing. The proportion of families reporting owner-occupied housing was two-thirds in both the SIPP and the SCF (Table V.4, Figure V.3). Own housing values were lower in the SIPP than in the SCF at the high ends of the income distribution (Figure V.4). While the aggregate amount of own housing assets is 9 percent lower in the SIPP than in the SCF, the aggregate amounts reported in the two surveys are similar for families with under $2 million of net worth.

Reweighting the SIPP database to account for the under-representation of high-income families reduced the SIPP-SCF gap in owner-occupied housing assets by over half (56 percent). Recoding certain topcoded values reduced the gap in these assets by an additional 2 percent. Replacing imputed values with alternative values estimated from the SCF actually had a negative effect, that is, widened the SIPP-SCF gap considerably, because the average size of imputed values estimated from the SCF was lower than the average size of imputed values estimated from the SIPP. Recoding all remaining own housing asset values in the SIPP to the values estimated from the SCF also widened the SIPP-SCF gap, indicating that SIPP-SCF differences in the non-reporting or underreporting of housing assets are largely due to differences in sample composition with respect to both observed and unobserved characteristics beyond those addressed by reweighting instead of survey content or administration. Because of the limited effect of these adjustments, the fully adjusted SIPP distribution of owner-occupied housing assets (labeled as trend "SIPP-A" in Figures V.3 and V.4) is very similar to the original distribution reported in the SIPP. But because housing assets are estimated comparatively well in the SIPP, both distributions are similar to the distribution reported in the SCF, differing markedly only in the upper tail.

Checking/Savings Accounts. Only 77 percent of families in the SIPP reported ownership of checking or savings accounts, compared with 91 percent of families in the SCF (Table V.5). The amount of wealth in checking and savings accounts was lower in the SIPP than in the SCF at every percentile of the wealth distribution (Figure V.5) and of the income-to-poverty ratio distribution (Figure V.6). The estimated total value of checking and savings accounts was 37 percent lower in the SIPP than in the SCF, but only 25 percent lower when families with net worth of $2 million or higher were excluded from the calculation (Table V.5).

Reweighting the SIPP database to account for the under-representation of high-income families reduced the SIPP-SCF gap in checking and savings account values by only 10 percent. The recoding of asset values in the SIPP to resemble the corresponding values that would be reported in the SCF was less effective in reducing gaps in wealth included in checking and savings accounts than it was in reducing gaps in total retirement assets. Recoding certain topcoded values reduced the gap in retirement assets by only 2 percent. Replacing imputed values with alternative values estimated from the SCF actually had a slight negative effect, that is, widened the SIPP-SCF gap slightly, because the average size of imputed values estimated from the SCF was lower than the average size of imputed values estimated from the SIPP. Recoding all remaining checking and savings account values in the SIPP narrowed the gap by an additional 23 percent, suggesting that SIPP-SCF differences in the non-reporting or under-reporting of checking/savings accounts are due in part to differences in survey content and administration. Nonetheless, as indicated in Figure V.6 in particular, the fully adjusted SIPP distribution of checking/savings accounts (labeled as trend "SIPP-A"), while containing higher checking/savings account levels than the original SIPP distribution, still tends to imply lower average levels of checking/savings accounts than are reported in the SCF. This result suggests

that basic differences in the kinds of families included in each sample may be responsible for much of the SIPP-SCF difference in checking/savings account assets.

Motor Vehicles. While the proportions of families reporting ownership of motor vehicles was similar in the SIPP and in the SCF (84 percent and 83 percent, respectively), the total amount of wealth in motor vehicle assets was nearly one-quarter lower in the SIPP than in the SCF (Table V.6). While some families low in the wealth and income distributions reported more motor vehicle assets in the SIPP than in the SCF (Figure V.7), high-income families report noticeably higher motor vehicle assets in the SCF than in the SIPP (Figure V.8). As with the other asset gaps, the SIPP-SCF gap is smaller—but only slightly so (17 percent instead of 24 percent)—when the wealthiest families are excluded from the calculation.

Reweighting the SIPP database to account for the under-representation of high-income families reduced the SIPP-SCF gap in motor vehicle assets by only 9 percent (Table V.6). Recoding certain topcoded values reduced the gap in motor vehicle assets by an additional 4 percent. Replacing imputed values with alternative values estimated from the SCF reduced the gap by 9 percent more, indicating that the average size of imputed values estimated from the SCF was higher than the average size of imputed values estimated from the SIPP. Recoding all remaining motor vehicle asset values in the SIPP to the values estimated from the SCF reduced the SIPP-SCF gap by over two-fifths, leaving the remaining gap at 35 percent of the original gap. This suggests that SIPP-SCF differences in the non-reporting or underreporting of motor vehicle assets are due more to differences in survey content and administration than to differences in sample composition. This is consistent with the fact that the SIPP instrument does not necessarily capture all vehicles owned by the family and with our finding that vehicles older than seven years are systematically undervalued (see Chapter IV). As indicated in Figures V.7 and

V.8, the fully adjusted SIPP distribution of motor vehicle assets (labeled as trend "SIPP-A") is closer to the distribution reported in the SCF, although still at lower predicted levels of assets.

Life Insurance. While the SCF collects information on both the face value of term and whole-life policies owned by each family, and the cash value of whole-life policies, the SIPP only collects the face value of all life insurance policies. This is unfortunate for the purpose of estimating wealth, since the cash value, rather than the face value, is the proper indicator of the asset value of a family's life insurance.

The total face value of all policies in the SIPP was 14 percent lower than the total face value of all policies in the SCF (Table V.7). Whereas 69 percent of SCF families reported a positive face value of life insurance, only 30 percent of SCF families indicated a positive cash value of life insurance (Figure V.9), and average cash values are far lower than average face values (Figure V.10). Using the residuals from the SIPP's face value of life insurance equations with the cash value of life insurance equations estimated from the SCF, we obtained predicted cash values of life insurance for the SIPP that implied aggregate cash values 14 percent lower than the aggregate cash values reported in the SCF (and 40 percent lower for families with net worth below $2 million). This is consistent with the differences in the face values reported in each survey. We did not attempt to adjust these predicted cash values further because the remaining differences may reflect basic differences in the characteristics of the families in each survey.

Other Non-Retirement Assets. The proportion of families with other non-retirement assets was much lower in the SIPP (41 percent) than in the SCF (57), as is indicated graphically in Figures V.11 and V.12. The SIPP reports only about one-third of the aggregate amount of these assets reported in the SCF, but this includes two-thirds of the aggregate amount of these assets owned by families with net worth values under $2 million (Table V.8).

Reweighting the SIPP database, recoding topcoded values, and recoding imputed values all made modest contributions to narrowing the SIPP-SCF gap in other non-retirement assets. The gap was further reduced by more than two-fifths by recoding all remaining values to the values implied by the SCF-based equations, suggesting that SIPP-SCF differences in the non-reporting or under-reporting of other non-retirement assets are due to differences in survey content and administration as well as differences in sample composition.

E. CONCLUSIONS AND IMPLICATIONS

The public use versions of the SIPP and the SCF give very different portraits of the level and distribution of wealth in the U. S. as of the late 1990s. For the retirement and various non-retirement asset measures we studied, the total value of assets was substantially lower in the SIPP than in the SCF. These disparities were still present, but were generally considerable smaller, when we excluded from the calculation families with two or more million dollars of net worth.

By reweighting the SIPP according to family income, and using econometric methods to predict alternative asset values for SIPP families, we were able to adjust asset distributions in the SIPP so they more closely resemble the SCF. Nonetheless, even after reweighting the SIPP database to account for the under-representation of high-income families, and recoding reported assets to resemble the values that would be reported by similar families in the SCF, substantial gaps remain in total non-retirement assets[59] (Table V.9, Figures V.13 and V.14), although not in aggregate retirement assets. Because most assets are *not* retirement assets, the methods outlined

[59] Total non-retirement assets is the sum of the five components analyzed separately in previous sections: owner-occupied housing, checking/savings accounts, motor vehicles, cash value of life insurance, and other non-retirement assets.

here are only able to reduce the SIPP-SCF gap in total assets by three-fifths (Table V.10, Figures V.15 and V.16). The remaining gap appears to be due to systematic differences in the characteristics of families in the respective surveys, and in particular to the substantially better representation of high-wealth families in the SCF.

How well does a combined reweighting and recoding strategy work for reducing SIPP-SCF differences in aggregate liabilities instead of aggregate assets (graphed in Figures V.15 and V.16)? While the SIPP-SCF gap in aggregate liabilities is only about 11 percent (Table V.11), and is not especially noticeable when graphed (Figures V.17 and V.18), reweighting the database reduces the SIPP-SCF gap by over half, and recoding reduces the gap an additional 30 percent. Thus, while the combination of reweighting and recoding reduces the SIPP-SCF gap in aggregate assets by 61 percent (Table V.10), reweighting and recoding reduce the SIPP-SCF gap in aggregate liabilities by 84 percent (Table V.11).

In general, a combination of reweighting and econometric modeling can address gaps in both assets and liabilities that arise from differences in survey content and administration, but *not* gaps due to fundamental differences in the families contained in the respective databases. This is because the reweighting and recoding methodologies rely on matching the characteristics of respondents in the two databases to adjust the asset and liability values in the non-SCF database.

VI. RECOMMENDATIONS REGARDING SIPP WEALTH DATA

In this chapter we provide ORES with a set of recommendations regarding the use of wealth data from the SIPP, and we outline a number of improvements and enhancements that ORES should encourage the Census Bureau to pursue, whether as an active sponsor or simply a prominent user. We begin in Section A with a review of key findings presented throughout the previous chapters, focusing on those aspects with which the users in ORES will need to be familiar. In Section B we discuss a number of strategies for making the most effective use of SIPP wealth data in their present form, including a number of potential refinements to enhance the quality of the data. Lastly, in Section C we propose several areas of improvement that only the Census Bureau is positioned to undertake. These encompass a review of the processing of the 1996 panel wealth data to determine why the quality of the data declined in certain respects, minor modifications to the topical module in which the asset data are collected, specific changes in Census Bureau processing of SIPP wealth data, methodological research to develop a more effective approach to measuring selected components of wealth, and the establishment of a version control system for public releases of SIPP data.

A. WEALTH IN THE SIPP AND OTHER SURVEYS

For the population as a whole, the SIPP's wealth questions capture only half of the aggregate and mean net worth and two-thirds of the median net worth that the Federal Reserve Board's SCF measures. The PSID captures significantly greater shares of mean and median net worth than the SIPP while the HRS captures two-thirds more wealth for the specialized population that it represents—persons born before 1948. The shortfall in the SIPP's estimates of net worth can be attributed to a number of factors. Most of the shortfall is due to the SIPP's under-representation of wealthy families and its limited success in measuring certain types of

assets that are concentrated among the wealthiest families. This much was documented in a few key studies over the past 15 years, but we have updated these earlier findings. Other factors contribute to the SIPP's limitations across the whole wealth distribution. The SIPP does not capture all of the components of wealth that the SCF does, although it seems to have achieved considerable success in expanding its collection of wealth data to include key sources of retirement assets. And while the SIPP's difficulties with particular types of assets have been noted, the SIPP still lags behind the SCF on most assets among nonwealthy families. At the same time, however, the SIPP measures liabilities nearly as well as the SCF. But because the SIPP measures liabilities much more effectively than it measures assets, its estimates of net worth are depressed. That is, the SIPP understates net worth by more than it understates assets.

A puzzling and disconcerting development is an apparent deterioration in certain aspects of the quality of SIPP wealth data between the 1992/1993 panels and the 1996 panel. This fall-off in quality is manifested in these key findings:

- Median SIPP assets from the 1992 panel were equal to the 1992 SCF median assets after non-SIPP assets were excluded; but median assets from the 1996 panel, wave 9, were 11 percent lower than the 1998 SCF median after a comparable adjustment
- For families at or below the 60th percentile of net worth, the 1996 SIPP reversed the upward trend in wealth that is evident in the 1992 and 1993 panels
- The correlation between assets and liabilities dropped from .49 in the 1992 and 1993 SIPP panels and became very unstable over the four waves of the 1996 panel, with values ranging from .06 to .19

If the reduction in data quality suggested by these findings can be attributed to changes or glitches in data processing rather than data collection, then it may be possible for the Census Bureau to design and implement corrections, as it has done in re-releasing the early waves of wealth data from the 1996 panel. But it is more important that the Census Bureau determine what may have caused these problems and take steps to prevent their recurrence in future panels.

The evident deterioration in the quality of SIPP wealth data with the 1996 panel seems to have been more pronounced through the lower and middle regions of the wealth distribution than in the higher reaches. The flat trend in median net worth that we reported in Chapter I is symptomatic of the impact in the middle of the distribution. Nevertheless, we also find evidence that the SIPP can still provide reasonably good estimates of net worth for subpopulations that are of particular interest to ORES. And when we take into account the components of wealth that are simply not measured in the SIPP—and for which the users who know this can make some allowance—the estimates for policy-relevant subpopulations and for families in the bottom 85 percent of the income distribution look quite good.

The wealth data collected in the SIPP remain one of the survey's more valuable resources because these data complement other data that the SIPP collects. The SIPP also offers a much larger sample size—outside of the wealthiest families—than the SCF and the PSID. The SIPP affords users the opportunity to produce estimates for detailed subpopulations that carry important policy relevance, including persons and families simulated to be eligible for entitlement programs. These are important strengths and ones that will continue to give the SIPP wealth data broader use than their merits as wealth data alone might appear to warrant.

B. MAKING EFFECTIVE USE OF SIPP WEALTH DATA

To make the most effective use of SIPP wealth data, users need to be aware of the limitations of these data, at the very least, and be willing to consider some adjustments to the data values. We review, briefly, some tactics that users might employ to enhance the quality of the 1996 SIPP panel wealth data.

The Census Bureau has made significant revisions to a number of the SIPP 1996 panel core and topical module files and may continue to do so. In fact, the Census Bureau released significantly revised versions of the wealth modules from the 1992 and 1993 panels in mid-July

of this year, and we were able to incorporate these data into our analyses (and substantially alter some of our preliminary conclusions). It is important, therefore, that users who wish to work with the SIPP wealth data make certain that they have the latest releases. Unfortunately, as we discuss below, this is not easy to do because new releases are not always identified as such, and the changes are not always documented. Table VI.1 lists the 1996 panel files that we used in preparing this report, along with their date stamps. Users should make certain that their 1996 panel files are at least as current as these (and that any 1992 or 1993 panel asset modules have date stamps no earlier than mid-July 2003).

One way in which users can actively recognize the limitations of the SIPP wealth data is to exclude wealthy families from their analyses. Our research indicates that there is a considerable fall-off in the SIPP's representativeness and in the quality of the wealth data beyond a net worth of $2 million. We recommend that families with a net worth of $2 million or greater be excluded from all analyses, and individual users may want to set even lower thresholds. By excluding such families, users will avoid making estimates that rely in any way on the SIPP's weakest wealth data. If the user wishes to produce population counts after excluding these families, we would recommend that the SIPP weights be adjusted, at least crudely, to compensate for the survey's over-representation of families under $2 million in net worth. For example, Table II.7 shows that the SIPP estimate of the proportion of families with net worth of $2 million or more in wave 9 was only .338 percent whereas the SCF estimated this proportion (using net worth that excluded non-SIPP items) as 1.785 percent. The SIPP weights could be adjusted downwards so that they sum to (100-1.785) percent of their original total rather than (100-.338) percent, which they would do with no adjustment.

Users can improve the SIPP sample's representativeness by reweighting the sample to correct for explicit deficiencies in its representation of the population. We illustrated a simple

reweighting based on annual family income, but users might want to consider a more elaborate income-based reweighting or one based on the wealth data themselves.[60] We elected to use income because of its lower measurement error, but the distribution of net worth presented in Table II.7 invites a reweighting based on net worth that could directly address the excess SIPP families with negative and zero net worth. Because of the low correlation between assets and liabilities in the 1996 SIPP panel, we would recommend a reweighting based on a cross-tabulation of assets by liabilities, using Table IV.8 as a model, rather than net worth.

Users can directly address some of the key limitations of SIPP wealth data by imputing the missing components—generally with the SCF as the data source for estimating the imputation equations. Life insurance can be imputed very well, we would imagine, using the face values and demographic variables that the SIPP collects. Defined contribution pensions can be obtained from wave 7 for most families and imputed from these same data for the rest. Our findings on the wave 7 data in Chapter IV suggest that the resulting estimates should compare very well to the SCF. Annuities and trusts are the major additional missing component. Here the SCF could support the imputation equations. For older families, the HRS provides an alternate source.

Topcoding is another source of error that could be addressed through modeling. We have given topcoding very little attention in this report because we have chosen to exclude from many of our analyses the sample families that would be most affected by it. But topcoding extends below families with a net worth of $2 million, and users might wish to address it directly. One

[60] While our reweighting of SIPP families in Chapters IV and V was designed to match the SCF income distribution over its entire range, there is reason to doubt that the SCF is more accurate than the SIPP at the low end of the income distribution. Consequently, users might want to aggregate over a sufficiently broad range of incomes at the low end to eliminate the upward adjustment of very low-income families and the downward adjustment of moderately low-income families. For example, an adjustment category that included all incomes below $24,000 would yield an adjustment factor close to 1 and, thus, would not alter the SIPP income distribution at the low end.

way to do so is to use a Pareto distribution to estimate the upper tail of each variable that was subjected to topcoding. The mean value of the interval above the topcoded value can be derived in this way, and a distribution of data values with this mean can be generated by a stochastic process. Alternatively, a distribution can be imported from the SCF, but it would have to be adjusted to reflect the SIPP underreporting and the under-representation of wealthy families.

We have also shown that it is also possible to adjust the data values themselves, by applying econometric models that make it possible to borrow strength from surveys such as the SCF and, by extension, the PSID and HRS as well. These adjustments combine imputation of wealth components that the SIPP does not collect with corrections for underreporting, under- or over-imputation, and topcoding. Although time consuming and subject to modeling assumptions, the adjustment models can align the SIPP data with the stronger wealth data collected in these other surveys. As an alternative to the direct production of such estimates, the adjusted estimates of retirement wealth, non-retirement wealth, and liabilities discussed in Chapter V are available from the authors.

None of these techniques can substitute for improvement of the underlying data themselves. In the remaining section of this chapter we review a number of enhancements to SIPP data collection and processing that we recommend that ORES pursue with the Census Bureau.

C. SIPP DATA COLLECTION AND PROCESSING

The SIPP was never intended to be a wealth survey. It is not designed to compete with the SCF as a comprehensive survey of the wealth of American families. Yet wealth is an important component of many analyses that SIPP users undertake. We find that the SIPP does *very* well in measuring liabilities, and the experience of the smaller scale, multi-purpose panel surveys examined here—specifically, the PSID and the HRS—suggests that it may be possible to capture a significantly greater amount of assets in the SIPP with relatively minor revisions to the

instrument. A number of changes in the Census Bureau's processing of wealth data could be very helpful as well, including the establishment of a version control system for public releases of SIPP data. Lastly, there are areas that we would target for methodological research that the Census Bureau could work into its SIPP methods panel or other ongoing survey methodological research programs.

1. What Happened to the Wealth Data in the 1996 Panel?

In Chapters II and IV we presented substantial evidence that the 1996 SIPP panel wealth data contain weaknesses that were not evident in the immediately preceding panels. The correlation between assets and liabilities declined abruptly, families with negative net worth grew, and upward trends in quantile values of net worth in the lower half of the distribution suddenly reversed. We inferred that one or more components of the processing of the wealth data must have changed to produce so dramatic a result. Imputation does appear to have played a role but, seemingly, cannot account for the bulk of the problem.

Only the Census Bureau can determine what was responsible. We recommend that ORES engage the Census Bureau in a discussion of these problems with the 1996 panel wealth data and encourage the Bureau to re-examine its processing of these data, to the extent that this is still possible. With wealth data from the 2001 panel nearing release, it would be unfortunate if any processing errors that contributed to the decline in data quality between the 1993 and 1996 panels were repeated with these new data. If it turns out that the underlying causes of the problems with the 1996 panel wealth data can be corrected retroactively, the Bureau should weigh the feasibility of revising and reissuing the wealth data from the four waves.

2. Modifications to the Instrument

We recommend that several, relatively minor changes to the SIPP wealth module be proposed to the Census Bureau. These changes include collecting data on the cash value of life

insurance as well as annuities and trusts, revising many of the brackets used to collect partial amounts when respondents cannot or will not provide dollar amounts, moving the pension module to the same wave as the wealth module, and integrating the pension questions with the questions on 401(k) and thrift plans.

Cash Value of Life Insurance. According to the SCF, cash value in a life insurance policy is an asset held by 30 percent of families, with a median of $6,500 among those who have it. The SIPP wealth module collects information on the face value of life insurance policies, but it does not ask their cash value. As a result, the asset value of life insurance policies cannot be determined. Furthermore, while the SIPP identifies life insurance policies as either whole life (which accumulate cash value) or term (which do not), separate face values are not requested from respondents who own both types of policies. While cash values can be imputed from the face values and other characteristics, as discussed earlier, the imputations are weakened by not having the face values of whole life policies in all instances.

Collecting the cash value of life insurance in the SIPP wealth module would entail only small changes to the existing questions. A single question on cash value could follow the question on face value for whole life policies. For respondents with both types of policies, it would be desirable to obtain separate face values for whole life and term policies. The question on cash value could then refer to the whole life policies.

Annuities and Trusts. Our findings for subpopulations make a strong case for expanding the SIPP wealth data collection to include the components that are currently excluded. We saw that these components can account for nontrivial sums of wealth holdings although their importance clearly varies. Life insurance cash value was the largest of these components for the moderate-income and next higher income group and for families with a prime working age head.

But the residual other non-SIPP assets, consisting primarily of annuities and trusts, were the largest among six of the 10 subpopulations.

We recommend that data on annuities and trusts be collected in questions that focus specifically on those assets—rather than in broader questions that attempt to capture all remaining assets (such as jewelry, collections, and other types of property assets that appear to account for little aggregate wealth). Material presented in the earlier chapters suggests that "catch-all" questions tend to catch too little unless they are accompanied by extensive probing designed to ensure that respondents consider a full menu of additional assets or liabilities. The SCF and HRS instruments utilize just a few questions to capture annuities and trusts, so the additional interview time required to close this gap in SIPP wealth is very small.

Brackets. For many asset types, if a respondent is unable or unwilling to provide an amount, the interviewer asks the respondent if he or she can place the amount within a specified range or "bracket." This information can then be used in imputation, and there is ample research documenting its value.

For maximum benefit, the brackets offered to the respondent should provide a choice of categories that reflect the distribution of values in the population. There is a science to the specification of response brackets, and the SCF, the PSID, and the HRS draw on this science to tailor their brackets to what is known about the distributions of individual variables. The SIPP appears to be much less systematic, and the brackets for a number of items yield less useful data than they could. We noted in Chapter IV, for example, that the PSID often had three ranges above the median whereas the SIPP frequently had only one. The Census Bureau should consult with staff from these other surveys to learn how their brackets are set and should then make use of this information in specifying the brackets for the SIPP. Unlike additions to the questionnaire, the length of the interview would not be affected.

The PSID and the HRS have had considerable success with "unfolding brackets," which were introduced into the PSID in 1984. With unfolding brackets, the upper and lower bounds are established through a brief series of questions asking if the amount is above or below (or about equal to) a particular amount. This approach can generate useful information from respondents who might be unable or unwilling to choose among narrowly defined ranges. Unfolding brackets are particularly well suited to telephone interviews, where range cards cannot be shown, and if respondents are willing to cooperate they yield information quickly. The interviewer asks only enough questions to establish an upper and/or lower bound, and the protocol specifies a quick exit if the respondent indicates a reluctance or inability to provide any additional information. With most SIPP interviews being conducted by telephone, unfolding brackets would appear to be a more logical choice than fixed brackets, and we believe that their use in the SIPP would enhance the quality of the data collected from respondents who do not provide exact amounts.

Pension Data. To enable users to make the fullest possible use of the pension module as a source of data on pension wealth, this module should be moved to one of the modules used to collect asset data, and the questions that deal with pension wealth should be integrated with the related asset questions. This would allow the ownership and value of 401(k) and related accounts to be collected in just one place. Our findings suggest that there is considerable ambiguity with respect to whether respondents are reporting on the same 401(k) and related plans in the two waves. This would seem to indicate that a more direct approach to identifying these plans is required. Moving the pension module to the same topical module as the asset questions could allow a fuller integration of these questions and make possible a more complete capture of pension and retirement income data. It would also eliminate some redundancy that exists, currently, between the questions asked in the separate modules.

3. Changes to Census Bureau Processing of Wealth Data

We focus on three areas where changes to the processing of wealth data would be beneficial. These are imputation, the valuation of vehicles, and topcoding.

Imputation. Because of the high nonresponse rate to many of the asset and liability items, a large proportion of aggregate net worth is imputed. Consequently, the quality of the imputations plays a much bigger role for estimates of wealth than for most other types of data collected in the SIPP. While direct evidence that asset and liability amounts are under-imputed in the SIPP is weak (and for some types of assets our analysis in Chapter V finds evidence of over-imputation), there is stronger evidence that the low correlation between assets and liabilities in the 1996 panel can be attributed in part to imputation. Debts are imputed without reference to associated assets—or even assets in general—and vice versa. This contrasts with the multivariate, model-based imputations performed in the SCF, the PSID and the HRS (Kennickell 1998; Heeringa, Little, and Raghunathan 2002). The Bureau should reassess its use of the hot deck approach to impute wealth data in the SIPP and give serious consideration to a model-based approach. At a minimum, the Bureau should find a way to incorporate a reported asset value into the imputation of the corresponding debt and vice versa.

One of the recognized weaknesses of the hot deck method of imputation is that it understates variability. But the hot deck method can also propagate outliers out of proportion to their frequency in the population. Topcoding provides some protection against this but should not substitute for a careful review of imputed values. In the 1996 panel a particularly extreme outlying value for stocks and mutual funds, which is not topcoded, was imputed to three families in wave 9 and two families in wave 12, generating more than a trillion dollars in assets in wave 9 alone. That this value was imputed at all is highly questionable. That it was imputed multiple times in both of the waves in which it appeared is indicative of inattention to the review of

imputed values and a change from the earlier panels, when reported values in excess of a million dollars were imputed to other cases only once at most. Longitudinal editing, which was scaled back to speed the release of the long overdue 1996 longitudinal files, will help to prevent such occurrences in future panels. Nevertheless, some vigilance in this area will remain necessary. We recommend that the Bureau institute a review of its wealth imputations before the data are released. Furthermore, because evidence of abrupt change over time can help to identify processing errors, we recommend that the Bureau prepare tabulations of aggregate assets and liabilities, ownership rates, and conditional medians for each wave as part of the review process and, as a service to users, publish the final versions of these tabulations available as benchmarks.

Vehicles. Vehicles represent an important component of the net worth of low income households. Some entitlement programs even have special provisions to deal with vehicle assets in determining program eligibility. Simulations of program eligibility for the Food Stamp Program, which rely on SIPP data, find that about a quarter of the families that are income-eligible for food stamps but asset-ineligible are ineligible because of countable vehicle assets that exceed the limit (Fowler et al. 2001). The quality of the vehicle asset data collected in the SIPP is critical to findings such as these—and to the policy changes that may be developed in response.

We recommend four enhancements to the current system of processing vehicle asset data. First, the Bureau should acquire blue books that cover vehicles more than seven years old and use these to assign values to older vehicles. Second, the mean value imputation used within model year for vehicles without a reported make and model and used across model years for cars without reported model years should be replaced with an alternative that will at least introduce greater variability into the imputed values. This should include making use of reported make and model when the model year is missing. Unlike many other types of assets, vehicles are extensive

and varied and would support better imputation procedures. Third, the imputation procedures should link the imputation of vehicle value to the amount of any reported, outstanding loan balance and should link the imputation of vehicle debt to reported vehicle values. Fourth, rather than determining vehicle topcodes by model year, which yields topcodes for older vehicles that are lower than the reported values for many newer vehicles, the Bureau should consider suppressing the model year as an alternative to topcoding except when vehicle values are high enough that they would be topcoded if they were late model vehicles.

Topcoding. The topcoding used in the SIPP may be having a much broader impact than SIPP users imagine, but users are unable to assess this impact. The Census Bureau could provide users a great service by calculating and publishing asset totals without topcodes. Even better, the Bureau could implement for assets the procedures that it employs in topcoding the earnings data in the SIPP and the CPS. Here the Census Bureau calculates the mean value of the topcoded amounts within a dozen subgroups and assigns the group means rather than the threshold values to the topcoded records. This allows users to reconstruct the subgroup aggregates and calculate unbiased means for these groups.

4. Methodological Research

We recognize that any improvements to the collection of wealth data must be limited to small scale modifications of the existing instrument. Improvements in processing, however, might have a spillover to other applications, so the possibilities may not be as limited.

As a source of ideas in designing research to improve the SIPP instrument, the Bureau should look to the PSID and the HRS because the methods and scale of their wealth data collection are more similar to the SIPP than is the SCF. The SIPP could achieve the greatest enhancement in the quality of its wealth data by improving the capture of business equity, other real estate, and stocks and mutual funds. Improvements to the capture of assets held at financial

institutions and in IRA and Keogh accounts would produce lesser but still important enhancements.

The PSID has proven to be very successful with its collection of data on wealth despite a very brief instrument. Granted, some and maybe even much of this success may be due to intangibles that cannot be transported easily, such as the rapport that PSID interviewers have developed with their respondents over decades of interviewing. Nevertheless, the PSID questions on these topics would appear to be the best starting point for research to improve the data collection in this area. For example, consider business equity. The PSID captures nearly as much aggregate business equity as the SCF but does so with just two questions: "Do you own part or all of a farm or business," and, if so, "If you sold all that and paid off any debts on it, how much would you realize on it?" Could the SIPP achieve the same success—at least among the nonwealthy—with these same two questions? If so, is this because these questions capture extensive business assets from people who are not self-employed, and whose businesses are not included in SIPP business equity currently, or do they generate higher responses from the self-employed as well?

Another major area for research that we have identified involves the apparent, severe under-representation of higher income families in the SIPP. We have shown that this is not true of the March CPS, and we have cited Census Bureau research giving evidence of a persistent pattern of SIPP under-representation of high earned income relative to the CPS. Nor does the problem appear to stem from attrition. But if the problem does not arise from attrition, then what can account for it? Does the SIPP really scare away high-income families before they have completed the first interview? If so, then who else is scared away, creating what other biases? At the same time, can we truly rule out reporting error as a cause? Lastly, can anything be done

to improve the nonresponse adjustments that appear to have been inadequate to address this problem? For example, can any use be made of CPS income data?

5. Version Control of Public Use Files

The Census Bureau does not currently employ any form of version control numbering to differentiate SIPP public use files released at different times with successive revisions. As a result, a user cannot be certain that he or she has the most current or most correct version of any SIPP file. The files contain date stamps, but users must download the files to read the date stamps, and the date stamps themselves communicate nothing about the file contents. For instance, when the Census Bureau re-posted the 1992 and 1993 SIPP panel files in the middle of July, it did so with no explanation for why they were there nor what, if anything, was different about them. We discovered the files by accident when we used the Census Bureau's interactive data access mode to check the results of a calculation and obtained a very different outcome. We then downloaded the asset modules, observed their dates, and discovered that they were dramatically different from the files we had been using for years. But we had to use a file-compare procedure to determine that the re-released core files did not differ from those that had been released as long as a decade earlier.

It would be enormously helpful to the users of SIPP files if the Census Bureau could implement a version control system so that users could readily determine whether the files currently available were the same as or different from the ones in their possession. It would be even more helpful if all re-releases were accompanied with documentation of what was changed so that users could determine whether or not they needed to rerun earlier work. We recommend that the Bureau develop and implement a version control system with these features.

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TABLES

TABLE I.1

ESTIMATES OF MEDIAN HOUSEHOLD OR FAMILY NET WORTH:
THREE SURVEYS, 1983 TO 2001
(1999 Dollars)

Survey Year	SIPP Without 401(k)s	SIPP With 401(k)s	SCF	PSID
1983			59,155	
1984	48,654			50,200
1985				
1986				
1987				
1988	48,502			
1989			59,977	51,100
1990				
1991	43,395			
1992			56,762	
1993	42,375			
1994				54,500
1995	43,359		61,183	
1996				
1997	42,664	47,828		
1998	42,500	48,566	71,933	
1999	42,149	49,155		52,000[a]
2000	45,464	53,496		
2001			79,364	

SOURCE: SIPP estimates are from U.S. Census Bureau (1995, 2001, and 2003) plus MPR tabulations of the 1996 panel, wave 3, 6, 9 and 12 topical modules. SCF estimates are from Kennickell (2000, 2003). PSID estimates for 1984 through 1994 are from Lupton and Stafford (2000). The 1999 value was tabulated by MPR.

[a] The 1999 PSID estimate reflects a 1997 sample expansion that added a representative sample of immigrants who would not have been eligible for the initial, 1968 PSID sample. The expansion depressed median wealth by an unknown amount. If 401(k) and additional pension accounts, first measured in 1999, are included, the median is raised to $58,000.

TABLE II.1

SIPP ESTIMATES OF THE NET WORTH OF HOUSEHOLDS VERSUS FAMILIES, EARLY 1999

Estimate	Number of Households or Families (1,000s)	Aggregate Net Worth ($Billions)	Mean Net Worth ($)	Median Net Worth ($)
Households	102,468	14,736	143,811	50,000
SCF Family Concepts				
SCF-like families	102,468	14,371	140,245	48,041
All other families	19,605	365	18,637	75
Total families	122,073	14,736	120,715	30,250
Census Family Concepts				
Primary families and individuals	102,468	14,540	141,900	48,600
Sub- and secondary families and individuals	11,875	196	16,489	0
Total census families and individuals	114,343	14,736	128,876	36,500

SOURCE: MPR analysis of the 1996 SIPP Panel, wave 9.

NOTE: Estimates exclude group quarters. "Families" include individuals living alone or with no relatives. See text for further discussion.

TABLE II.2

CHARACTERISTICS OF SURVEY FAMILIES

Characteristic	Number of Families (1,000s)			Percent of All Families		
	SCF	SIPP[a]	PSID[b]	SCF	SIPP[a]	PSID[b]
Total Families	102,549	102,468	103,874	100.0	100.0	100.0
Age of Head						
<30	14,307	11,728	14,418	14.0	11.4	13.9
30-<40	21,313	21,983	21,563	20.8	21.5	20.8
40-<50	22,554	23,341	23,402	22.0	22.8	22.5
50-<65	22,399	23,256	22,766	21.8	22.7	21.9
65-<75	11,509	11,669	12,233	11.2	11.4	11.8
>=75	10,466	10,491	9,444	10.2	10.2	9.1
Race of Head						
White	79,717	78,145	c	77.7	76.3	--
Black	12,160	11,899	c	11.9	11.6	--
Hispanic	7,377	8,914	c	7.2	8.7	--
Asian or other	3,294	3,510	c	3.2	3.4	--
Gender of Head						
Male	73,874	72,405	74,360	72.0	70.7	71.6
Female	28,675	30,064	29,514	28.0	29.3	28.4
Family Size						
1	31,285	34,369	27,364	30.5	33.5	26.3
2	33,826	30,648	35,404	33.0	29.9	34.1
3	14,605	14,116	15,899	14.2	13.8	15.3
4	14,021	14,482	15,787	13.7	14.1	15.2
5	6,142	6,127	6,289	6.0	6.0	6.1
6+	2,670	2,726	3,128	2.6	2.7	3.0
Annual Income/Poverty						
<100% poverty	15107	12812	10,346	14.7	12.5	10.0
100% - <200%	19,681	21,678	17,747	19.2	21.2	17.1
200% - <400%	32,459	35,525	33,698	31.7	34.7	32.4
400% - <600%	17,721	18,614	19,839	17.3	18.2	19.1
600% - <800%	8,243	7,445	10,092	8.0	7.3	9.7
800% - <1000%	3,623	3,079	5,591	3.5	3.0	5.4
1000% - <2000%	4,083	2,756	5,531	4.0	2.7	5.3
2000% - <5000%	1,289	553	861	1.3	0.5	0.8
>5000%	343	6	168	0.3	0.0	0.2
Own Primary Residence	67,945	68,288	70,203	66.3	66.6	67.6

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

[a] SCF-like families; see text and Table II.1.

[b] Quasi-householder families: the subset of PSID families that include or are likely to include the householder.

c The 1997 and later PSID surveys did not identify Hispanic family heads except where the respondents volunteered this information in response to a question on race. Consequently, the race and Hispanic origin of the family head cannot be identified in a manner consistent with the other surveys.

TABLE II.3

ESTIMATES OF NET WORTH, 1998/1999: SIPP, PSID, AND SCF

Description	Survey Estimate			SIPP as % of	
	SIPP	PSID	SCF	PSID	SCF
Number of Families (1,000s)	102,468	103,874	102,549	--	--
Total Net Worth					
Aggregate ($Billions)	14,371	23,939	29,057	60.0	49.5
Mean ($)	140,245	230,460	283,345	60.9	49.5
Median ($)	48,041	65,000	71,780	73.9	66.9
Net Worth Excluding 401(k), Thrift, and Defined Contribution Pension Accounts					
Aggregate ($Billions)	13,116	22,699	27,341	57.8	48.0
Mean ($)	128,002	218,522	266,615	58.6	48.0
Median ($)	41,355	58,500	61,180	70.7	67.6
Net Worth Also Excluding IRA and Keogh Accounts					
Aggregate ($Billions)	11,980	20,279	25,269	59.1	47.4
Mean ($)	116,915	195,229	246,405	59.9	47.4
Median ($)	38,800	51,700	57,970	75.0	66.9

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

NOTE: SIPP estimates in this and subsequent tables, unless otherwise noted, refer to SCF-like families as defined in the text. SIPP estimates of total net worth do not include DC pension accounts. PSID families refer to quasi-householder families as defined in the text. The PSID estimates in the middle panel also exclude Keogh accounts, and the estimates in the bottom panel also exclude annuities, which are combined with IRAs.

TABLE II.4

ESTIMATES OF ASSETS AND LIABILITIES, 1998/1999: SIPP AND SCF

	Estimate		Percent
	SIPP	SCF	of SCF
Number of Families (1,000s)	102,468	102,549	--
Total Assets			
Aggregate ($Billions)	18,845	34,058	55.3
Mean ($)	183,907	332,113	55.4
Median ($)	96,750	116,510	83.0
Assets Excluding 401(k), Thrift, and DC Pension Accounts			
Aggregate ($Billions)	17,590	32,342	54.4
Mean ($)	171,664	315,383	54.4
Median ($)	92,013	109,700	83.9
Assets Also Excluding IRA and Keogh Accounts			
Aggregate ($Billions)	16,454	30,270	54.4
Mean ($)	160,577	295,173	54.4
Median ($)	89,675	105,699	84.8
Total Liabilities			
Aggregate ($Billions)	4,474	5,001	89.5
Mean ($)	43,662	48,768	89.5
Median ($)	11,500	11,900	96.6

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE II.5

PERCENTILES OF NET WORTH: SIPP, PSID AND SCF

				SIPP as Percent of:	
Percentile	SIPP	PSID	SCF	PSID	SCF
1	-40,822	-35,421	-22,850	115.2	178.7
2	-22,290	-20,000	-13,600	111.5	163.9
3	-15,780	-13,300	-8,320	118.6	189.7
4	-11,097	-8,800	-5,700	126.1	194.7
5	-7,850	-5,953	-3,080	131.9	254.9
6	-5,507	-4,000	-1,630	137.7	337.9
7	-3,973	-2,000	-600	198.7	662.2
8	-2,575	-600	0	429.2	--
9	-1,500	0	0	--	--
10	-700	0	0	--	--
11	-90	0	100	--	-90.0
12	0	77	320	--	0.0
13	0	500	600	0.0	0.0
14	0	1,000	1,090	0.0	0.0
15	0	1,350	1,550	0.0	0.0
16	100	2,000	2,130	5.0	4.7
17	450	2,300	2,800	19.6	16.1
18	506	3,000	3,550	16.9	14.3
19	875	3,500	4,160	25.0	21.0
20	1,240	4,500	4,930	27.6	25.2
21	1,700	5,000	5,600	34.0	30.4
22	2,285	6,000	6,380	38.1	35.8
23	2,800	6,600	7,500	42.4	37.3
24	3,475	8,000	8,650	43.4	40.2
25	4,150	9,000	9,920	46.1	41.8
26	5,000	10,000	11,130	50.0	44.9
27	5,685	11,000	12,700	51.7	44.8
28	6,150	12,000	14,220	51.3	43.2
29	7,200	13,500	15,660	53.3	46.0
30	8,350	15,500	17,850	53.9	46.8
31	9,500	17,600	19,850	54.0	47.9
32	10,677	19,200	21,800	55.6	49.0
33	11,859	21,000	23,990	56.5	49.4
34	13,347	23,000	25,870	58.0	51.6
35	14,875	25,000	27,340	59.5	54.4
36	16,475	27,200	29,300	60.6	56.2
37	18,220	29,400	31,340	62.0	58.1
38	20,128	30,900	34,240	65.1	58.8
39	21,905	32,600	37,150	67.2	59.0
40	24,350	34,500	39,810	70.6	61.2
41	26,370	38,000	42,500	69.4	62.0
42	28,800	40,500	45,480	71.1	63.3
43	30,850	42,700	48,900	72.2	63.1
44	32,825	45,500	51,300	72.1	64.0
45	35,500	48,500	53,950	73.2	65.8
46	37,700	50,450	58,100	74.7	64.9
47	40,000	54,000	61,400	74.1	65.1
48	42,696	56,700	65,020	75.3	65.7
49	45,465	60,500	68,500	75.1	66.4

Continued

Table II.5 continued

Percentile	SIPP	PSID	SCF	SIPP as Percent of: PSID	SIPP as Percent of: SCF
50	48,041	65,000	71,780	73.9	66.9
51	50,620	69,126	75,600	73.2	67.0
52	53,350	72,400	79,250	73.7	67.3
53	56,150	75,000	83,500	74.9	67.2
54	59,235	79,000	87,000	75.0	68.1
55	62,400	82,000	90,320	76.1	69.1
56	65,728	86,000	93,950	76.4	70.0
57	69,200	90,000	97,301	76.9	71.1
58	72,500	95,782	101,150	75.7	71.7
59	75,827	99,630	106,120	76.1	71.5
60	79,390	104,500	110,660	76.0	71.7
61	82,800	109,500	114,700	75.6	72.2
62	86,775	115,900	119,470	74.9	72.6
63	91,335	122,000	123,750	74.9	73.8
64	95,630	128,041	128,420	74.7	74.5
65	99,950	133,000	134,900	75.2	74.1
66	104,000	139,000	141,700	74.8	73.4
67	108,625	146,000	148,400	74.4	73.2
68	113,625	152,000	155,480	74.8	73.1
69	118,683	160,359	162,200	74.0	73.2
70	124,055	166,600	168,400	74.5	73.7
71	129,978	171,500	176,800	75.8	73.5
72	135,575	182,500	184,700	74.3	73.4
73	141,438	189,000	192,500	74.8	73.5
74	147,785	197,000	200,620	75.0	73.7
75	154,700	206,000	209,000	75.1	74.0
76	161,677	215,000	218,500	75.2	74.0
77	169,065	225,100	229,000	75.1	73.8
78	177,446	237,000	243,900	74.9	72.8
79	186,850	246,000	260,000	76.0	71.9
80	196,750	261,700	273,700	75.2	71.9
81	206,443	272,300	283,900	75.8	72.7
82	216,463	286,800	302,100	75.5	71.7
83	229,250	306,500	319,650	74.8	71.7
84	242,388	328,000	338,600	73.9	71.6
85	256,188	345,000	355,620	74.3	72.0
86	271,126	368,000	375,800	73.7	72.1
87	289,528	396,300	400,200	73.1	72.3
88	308,900	421,000	426,300	73.4	72.5
89	330,682	457,500	455,350	72.3	72.6
90	357,703	497,000	493,500	72.0	72.5
91	384,941	539,000	540,400	71.4	71.2
92	418,000	591,000	586,500	70.7	71.3
93	455,449	650,500	660,400	70.0	69.0
94	504,426	740,000	753,500	68.2	66.9
95	561,164	828,000	900,300	67.8	62.3
96	631,058	960,000	1,078,010	65.7	58.5
97	727,100	1,161,000	1,332,800	62.6	54.6
98	900,375	1,432,000	2,011,800	62.9	44.8
99	1,229,163	2,218,000	3,801,800	55.4	32.3

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

TABLE II.6

PERCENTILES OF ASSETS AND LIABILITIES: SIPP AND SCF

	Assets			Liabilities		
Percentile	SIPP	SCF	SIPP as Percentage of SCF	SIPP	SCF	SIPP as Percentage of SCF
1	0	0	--	0	0	--
2	0	0	--	0	0	--
3	0	0	--	0	0	--
4	0	100	0.0	0	0	--
5	0	430	0.0	0	0	--
6	166	670	24.8	0	0	--
7	500	1,150	43.5	0	0	--
8	530	1,710	31.0	0	0	--
9	915	2,250	40.7	0	0	--
10	1,200	3,000	40.0	0	0	--
11	1,636	3,850	42.5	0	0	--
12	2,500	4,400	56.8	0	0	--
13	3,013	5,000	60.3	0	0	--
14	3,750	5,880	63.8	0	0	--
15	4,831	6,800	71.0	0	0	--
16	5,499	7,900	69.6	0	0	--
17	5,685	8,930	63.7	0	0	--
18	6,235	10,000	62.4	0	0	--
19	7,350	11,400	64.5	0	0	--
20	8,500	12,400	68.5	0	0	--
21	9,598	13,690	70.1	0	0	--
22	10,816	15,200	71.2	0	0	--
23	11,617	17,800	65.3	0	0	--
24	13,000	19,870	65.4	0	0	--
25	14,640	22,300	65.7	0	0	--
26	16,420	24,700	66.5	0	5	0.0
27	18,000	26,920	66.9	0	100	0.0
28	20,100	29,261	68.7	40	200	20.0
29	22,570	31,710	71.2	200	350	57.1
30	25,500	34,840	73.2	302	480	62.9
31	28,500	38,651	73.7	500	610	82.0
32	31,400	43,370	72.4	700	800	87.5
33	35,500	47,900	74.1	1,000	1,030	97.1
34	39,125	51,810	75.5	1,100	1,300	84.6
35	42,500	56,690	75.0	1,500	1,640	91.5
36	46,500	61,500	75.6	2,000	2,000	100.0
37	50,350	65,100	77.3	2,200	2,300	95.7
38	53,850	69,400	77.6	2,800	2,800	100.0
39	57,598	74,700	77.1	3,000	3,300	90.9
40	61,370	78,600	78.1	4,000	4,000	100.0
41	65,370	83,400	78.4	4,400	4,500	97.8
42	69,000	87,420	78.9	5,000	5,100	98.0
43	72,500	90,300	80.3	5,800	6,000	96.7
44	76,200	94,900	80.3	6,400	6,730	95.1
45	80,000	98,990	80.8	7,000	7,570	92.5
46	83,250	102,761	81.0	8,000	8,100	98.8
47	86,670	105,500	82.2	9,000	9,160	98.3
48	90,377	109,400	82.6	10,000	10,000	100.0
49	93,450	113,300	82.5	10,500	10,760	97.6

Continued

Table II.6 continued

Percentile	Assets			Liabilities		
	SIPP	SCF	SIPP as Percentage of SCF	SIPP	SCF	SIPP as Percentage of SCF
50	96,750	116,510	83.0	11,500	11,900	96.6
51	100,255	120,900	82.9	12,800	13,000	98.5
52	103,500	124,551	83.1	14,000	14,000	100.0
53	106,685	128,600	83.0	15,000	15,200	98.7
54	110,266	131,680	83.7	16,000	16,500	97.0
55	113,800	137,000	83.1	17,500	18,000	97.2
56	117,463	142,000	82.7	19,000	19,310	98.4
57	121,250	147,275	82.3	20,050	21,200	94.6
58	125,500	152,500	82.3	22,000	23,500	93.6
59	130,465	157,770	82.7	23,700	25,000	94.8
60	134,375	162,940	82.5	25,100	26,800	93.7
61	138,155	168,300	82.1	27,400	28,680	95.5
62	142,275	174,320	81.6	30,000	30,180	99.4
63	147,075	179,500	81.9	32,000	32,200	99.4
64	151,958	185,780	81.8	34,500	35,000	98.6
65	156,629	192,210	81.5	37,000	38,000	97.4
66	161,105	198,501	81.2	40,000	40,000	100.0
67	165,825	203,300	81.6	42,000	43,000	97.7
68	170,685	208,600	81.8	45,000	46,000	97.8
69	176,445	215,800	81.8	48,200	48,800	98.8
70	182,550	223,650	81.6	51,000	51,150	99.7
71	188,250	230,520	81.7	54,300	54,000	100.6
72	194,928	239,010	81.6	57,400	57,700	99.5
73	201,600	248,080	81.3	60,000	60,600	99.0
74	208,688	258,100	80.9	63,000	64,000	98.4
75	215,685	270,200	79.8	66,400	67,400	98.5
76	224,204	280,900	79.8	70,000	70,300	99.6
77	233,350	290,200	80.4	73,000	73,200	99.7
78	242,855	302,500	80.3	76,500	77,200	99.1
79	252,950	316,800	79.8	80,000	80,230	99.7
80	263,150	329,050	80.0	82,700	84,000	98.5
81	274,644	345,600	79.5	86,000	87,000	98.9
82	287,108	362,000	79.3	90,000	91,540	98.3
83	299,558	379,020	79.0	94,000	95,000	98.9
84	312,748	409,600	76.4	98,000	98,400	99.6
85	327,975	429,700	76.3	101,800	102,000	99.8
86	343,400	459,400	74.7	106,500	106,500	100.0
87	362,590	480,700	75.4	111,500	112,000	99.6
88	383,452	511,300	75.0	117,000	118,400	98.8
89	405,370	550,471	73.6	122,308	125,000	97.8
90	432,050	584,000	74.0	128,000	129,180	99.1
91	460,659	626,200	73.6	133,950	136,000	98.5
92	491,240	672,900	73.0	140,100	142,160	98.6
93	535,185	739,700	72.4	148,000	150,900	98.1
94	587,055	879,300	66.8	158,000	161,400	97.9
95	639,641	991,800	64.5	171,200	175,300	97.7
96	715,150	1,191,700	60.0	187,500	199,000	94.2
97	824,527	1,458,300	56.5	207,000	221,700	93.4
98	996,500	2,239,000	44.5	243,600	268,800	90.6
99	1,328,825	4,122,950	32.2	293,000	387,000	75.7

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE II.7

DISTRIBUTION OF NET WORTH IN THE SIPP AND THE SCF
BASED ON COMMON ASSETS AND LIABILITIES

Net Worth (Dollars)			Population Estimate SIPP	Population Estimate SCF	Ratio of SIPP to SCF	Cumulative Percentage Distribution SIPP	Cumulative Percentage Distribution SCF
	<	-10,000	4,340,139	3,308,770	1.31	100.000	100.000
-10,000	to <	-5,000	2,098,574	1,710,849	1.23	95.764	96.773
-5,000	to <	-2,000	2,220,131	1,399,421	1.59	93.716	95.105
-2,000	to <	0	2,711,323	2,814,322	0.96	91.550	93.741
0			4,468,815	2,813,374	1.59	88.904	90.996
1	to <	2,000	6,075,974	5,660,549	1.07	84.543	88.253
2,000	to <	5,000	4,694,386	4,851,930	0.97	78.613	82.733
5,000	to <	10,000	5,529,454	5,494,879	1.01	74.032	78.001
10,000	to <	20,000	6,661,511	5,997,334	1.11	68.635	72.643
20,000	to <	30,000	4,734,039	5,227,829	0.91	62.134	66.795
30,000	to <	40,000	4,571,373	3,974,823	1.15	57.514	61.697
40,000	to <	50,000	3,802,161	3,541,453	1.07	53.053	57.821
50,000	to <	60,000	3,651,773	2,894,446	1.26	49.342	54.368
60,000	to <	70,000	3,075,534	3,371,421	0.91	45.779	51.545
70,000	to <	80,000	3,036,499	3,171,026	0.96	42.777	48.257
80,000	to <	90,000	2,561,642	2,688,821	0.95	39.814	45.165
90,000	to <	100,000	2,379,514	2,915,004	0.82	37.314	42.543
100,000	to <	120,000	4,331,540	4,233,346	1.02	34.992	39.701
120,000	to <	140,000	3,578,887	3,767,538	0.95	30.764	35.573
140,000	to <	160,000	3,093,344	3,189,237	0.97	27.272	31.899
160,000	to <	180,000	2,586,794	2,776,336	0.93	24.253	28.789
180,000	to <	200,000	2,150,692	2,257,426	0.95	21.728	26.081
200,000	to <	250,000	4,286,094	4,453,082	0.96	19.629	23.880
250,000	to <	300,000	3,059,881	3,343,906	0.92	15.447	19.538
300,000	to <	400,000	4,015,410	5,001,556	0.80	12.460	16.277
400,000	to <	500,000	2,560,168	2,702,799	0.95	8.542	11.400
500,000	to <	600,000	1,613,274	2,063,298	0.78	6.043	8.764
600,000	to <	700,000	1,242,888	881,949	1.41	4.469	6.752
700,000	to <	800,000	795,238	846,506	0.94	3.256	5.892
800,000	to <	900,000	489,030	704,197	0.69	2.480	5.066
900,000	to <	1,000,000	431,720	447,380	0.96	2.003	4.380
1,000,000	to <	2,000,000	1,273,999	2,213,409	0.58	1.581	3.944
2,000,000	to <	5,000,000	320,541	1,252,367	0.26	0.338	1.785
5,000,000	to <	10,000,000	15,077	399,689	0.04	0.025	0.564
10,000,000	to <	25,000,000	3,594	136,326	0.03	0.010	0.174
25,000,000	to <	50,000,000	0	28,338	0.00	0.007	0.041
50,000,000	to <	100,000,000	3,821	10,335	0.37	0.007	0.014
100,000,000	to <	200,000,000	3,230	2,414	1.34	0.003	0.003
200,000,000	or more		0	1,157	0.00	0.000	0.001

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: Estimated net worth in the SCF excludes assets and liabilities not measured in the SIPP.

TABLE II.8

ESTIMATES OF ASSETS, LIABILITIES, AND NET WORTH BY QUINTILE OF NET WORTH, 1998/1999: SIPP, PSID AND SCF

Quintile of Net Worth	Estimate			SIPP as Percent of:	
	SIPP	PSID	SCF	PSID	SCF
	Aggregate Net Worth ($Billions)				
Bottom quintile	-215	-144	-82	149.4	263.1
2nd quintile	201	356	393	56.5	51.2
3rd quintile	1,009	1,371	1,492	73.6	67.6
4th quintile	2,631	3,563	3,598	73.9	73.1
Top quintile	10,744	18,792	23,654	57.2	45.4
Top quintile up to $2 million	9,196	11,799	11,695	77.9	78.6
$2 million and up	1,548	6,993	11,959	22.1	12.9
Total up to $2 million	12,823	16,945	17,098	75.7	75.0
	Aggregate Assets ($Billions)				
Bottom quintile	373	--	275	--	135.7
2nd quintile	726	--	942	--	77.1
3rd quintile	2,015	--	2,450	--	82.3
4th quintile	3,665	--	4,587	--	79.9
Top quintile	12,065	--	25,805	--	46.8
Top quintile up to $2 million	10,486	--	13,249	--	79.1
$2 million and up	1,580	--	12,556	--	12.6
Total up to $2 million	17,265	--	21,502	--	80.3
	Aggregate Liabilities ($Billions)				
Bottom quintile	588	--	356	--	164.9
2nd quintile	525	--	548	--	95.8
3rd quintile	1,006	--	958	--	105.1
4th quintile	1,033	--	988	--	104.6
Top quintile	1,321	--	2,151	--	61.4
Top quintile up to $2 million	1,289	--	1,553	--	83.0
$2 million and up	32	--	597	--	5.4
Total up to $2 million	4,442	--	4,404	--	100.9

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

NOTE: The estimates of aggregate net worth, assets, and liabilities and the assignment to quintiles of net worth are based on all assets and liabilities measured in each survey. For the SCF, however, the division of the top quintile into families above and below a net worth of $2 million is based on just those assets and liabilities measured in the SIPP. Non-SIPP components could not be removed from PSID net worth, so the division of the top quintile is based on all assets and liabilities captured in that survey. As a result, more PSID families are classified as $2 million and up than if the non-SIPP items could be excluded.

TABLE II.9

CLASSIFICATION OF ASSETS AND LIABILITIES

MPR Asset Code	Description of Component
100	**Assets**
110	Financial Assets
111	Assets held at financial institutions
112	Other interest earning assets
113	Stocks and mutual funds
114	US Savings Bonds
115	Other financial assets
116	IRA and Keogh accounts
117	401(k) and thrift accounts
118	Other quasi-liquid retirement accounts
119	Life insurance (cash value)
120	Property
121	Own home
123	All other real estate
124	Motor vehicles
125	Business equity
130	Other non-SIPP Assets
131	SIPP pension assets
200	**Liabilities**
210	Secured Liabilities
211	Margin and broker accounts
212	Mortgages on own home
213	Mortgages on rental property
214	Personal business debt
215	Vehicle loans
216	Other secured debt
220	Unsecured Liabilities
221	Credit card and store debt
222	Loans from financial institutions
223	Other unsecured liabilities
300	**Net Worth**

TABLE II.10

DECOMPOSITION OF DIFFERENCE BETWEEN SIPP AND SCF ESTIMATES OF AGGREGATE ASSETS

MPR Asset Code	Asset Type	Aggregate Estimate ($Billions) SIPP	SCF	Difference	SIPP As Percent of SCF	Percent of Total Difference
100	Total Assets	18,844	34,058	15,214	55.3	100.0
110	Financial Assets	6,924	12,600	5,676	55.0	37.3
111	Assets held at financial institutions	1,065	1,695	630	62.8	4.1
112	Other interest earning assets	299	910	611	32.9	4.0
113	Stocks and mutual funds	2,920	4,979	2,059	58.6	13.5
114	U.S. Savings Bonds	64	93	29	68.8	0.2
115	Other financial assets	185	262	77	70.6	0.5
116	IRA and Keogh accounts	1,136	2,072	936	54.8	6.2
117	401(k) and thrift accounts	1,255	1,272	17	98.7	0.1
118	Other quasi-liquid pensions	0	443	443	0.0	2.9
119	Life insurance (cash value)	0	873	873	0.0	5.7
120	Property	11,920	19,910	7,990	59.9	52.5
121	Own home	8,549	9,416	867	90.8	5.7
123	All other real estate	1,389	3,379	1,990	41.1	13.1
124	Motor vehicles	985	1,293	308	76.2	2.0
125	Business equity	997	5,822	4,825	17.1	31.7
130	Other non-SIPP Assets	0	1,548	1,548	0.0	10.2

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE II.11

DECOMPOSITION OF DIFFERENCE BETWEEN SIPP AND SCF ESTIMATES OF AGGREGATE ASSETS: EXCLUDING FAMILIES WITH NET WORTH OF TWO MILLION DOLLARS OR MORE

MPR Asset Code	Asset Type	Aggregate Estimate ($Billions) SIPP	SCF	Difference	SIPP As Percent of SCF	Percent of Total Difference
100	Total Assets	17,265	21,502	4,237	80.3	100.0
110	Financial Assets	5,774	7,824	2,050	73.8	48.4
111	Assets held at financial institutions	1,047	1,403	356	74.6	8.4
112	Other interest earning assets	276	367	91	75.2	2.1
113	Stocks and mutual funds	1,903	2,212	309	86.0	7.3
114	U.S. Savings Bonds	64	84	20	76.2	0.5
115	Other financial assets	145	142	-3	102.1	-0.1
116	IRA and Keogh accounts	1,101	1,401	300	78.6	7.1
117	401(k) and thrift accounts	1,238	1,143	-95	108.3	-2.2
118	Other quasi-liquid pensions	0	317	317	0.0	7.5
119	Life insurance (cash value)	0	755	755	0.0	17.8
120	Property	11,491	12,817	1,326	89.7	31.3
121	Own home	8,440	8,326	-114	101.4	-2.7
123	All other real estate	1,283	1,722	439	74.5	10.4
124	Motor vehicles	978	1,186	208	82.5	4.9
125	Business equity	790	1,583	793	49.9	18.7
130	Other non-SIPP Assets	0	861	861	0.0	20.3

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: The net worth of the excluded families is based upon assets and liabilities measured in both surveys.

TABLE II.12

DECOMPOSITION OF DIFFERENCE BETWEEN SIPP AND SCF ESTIMATES OF AGGREGATE LIABILITIES

MPR Asset Code	Liability Type	Aggregate Estimate ($Billions) SIPP	SCF	Difference	SIPP As Percent of SCF	Percent of Total Difference
200	Total Liabilities	4,474	5,001	527	89.5	100.0
210	Secured Liabilities	3,924	4,473	549	87.7	104.2
212	Mortgages on own home	3,326	3,495	169	95.2	32.1
213	Mortgages on rental property	196	464	268	42.2	50.9
215	Vehicle loans	377	364	-13	103.6	-2.5
214	Personal business debt	0	24	24	0.0	4.6
211	Margin and broker accounts	26	88	62	29.5	11.8
216	Other secured debt	0	37	37	0.0	7.0
220	Unsecured Liabilities	550	528	-22	104.2	-4.2
221	Credit card and store debt	271	186	-85	145.7	-16.1
222	Loans from financial institutions	181	247	66	73.3	12.5
223	Other unsecured liabilities	98	95	-3	103.2	-0.6

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE II.13

DECOMPOSITION OF DIFFERENCE BETWEEN SIPP AND SCF ESTIMATES OF AGGREGATE LIABILITIES: EXCLUDING FAMILIES WITH NET WORTH OF TWO MILLION DOLLARS OR MORE

MPR Asset Code	Liability Type	Aggregate Estimate ($Billions) SIPP	SCF	Difference	SIPP As Percent of SCF	Percent of Total Difference
200	Total Liabilities	4,442	4,404	-38	100.9	100.0
210	Secured Liabilities	3,894	3,904	10	99.7	-26.3
212	Mortgages on own home	3,305	3,219	-86	102.7	226.3
213	Mortgages on rental property	192	248	56	77.4	-147.4
215	Vehicle loans	376	353	-23	106.5	60.5
214	Personal business debt	0	10	10	0.0	-26.3
211	Margin and broker accounts	22	41	19	53.7	-50.0
216	Other secured debt	0	34	34	0.0	-89.5
220	Unsecured Liabilities	548	499	-49	109.8	128.9
221	Credit card and store debt	271	184	-87	147.3	228.9
222	Loans from financial institutions	180	233	53	77.3	-139.5
223	Other unsecured liabilities	97	83	-14	116.9	36.8

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: The net worth of the excluded families is based upon assets and liabilities measured in both surveys.

TABLE II.14

DECOMPOSITION OF DIFFERENCE BETWEEN SIPP AND SCF ESTIMATES
OF TOTAL ASSETS AND TOTAL LIABILITIES, 1998/1999

Component of Difference	Amount ($Billions)	Percentage of Total
Total Difference in Aggregate Assets	**15,213**	**100.0**
1. Underestimation of the assets of the wealthy	10,976	72.1
Difference in assets among the nonwealthy		
2. Assets not measured in the SIPP	1,933	12.7
3. Underestimation of business equity	793	5.2
4. Underestimation of the remaining assets	1,511	9.9
Total Difference in Aggregate Liabilities	**527**	**100.0**
1. Underestimation of the liabilities of the wealthy	565	107.2
Difference in liabilities among the nonwealthy		
2. Liabilities not measured in the SIPP	44	8.3
3. Underestimation of margin and broker accounts	19	3.6
4. Underestimation of the remaining liabilities	-101	-19.2

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE II.15

AGGREGATE ESTIMATES OF COMPONENTS OF NET WORTH: SIPP, PSID, AND SCF

Component of Net Worth	Aggregate Estimate ($Billions)			SIPP as % of	
	SIPP	PSID	SCF	PSID	SCF
Assets					
Financial Assets					
Checking and savings accounts (111+112+114)	1,429	1,808	2,699	79.0	52.9
IRA and Keogh accounts	1,136	2,419 [a]	2,072	47.0	54.8
401(k) and thrift accounts	1,255	608 [b,c]	1,272	206.4	98.7
Other quasi-liquid pensions	0	632 [c]	443	0.0	0.0
Property					
Own home value	8,549	9,142 [c]	9,416	93.5	90.8
Liabilities					
Secured Liabilities					
Mortgages on own home	3,326	3,424 [c]	3,495	97.1	95.2
Unsecured Liabilities	550	578	528	95.2	104.2
Equity (assets not separated from liabilities)					
Financial Assets					
Equity in stocks and mutual funds	2,894	4,029	4,890	71.8	59.2
Other financial assets, life insurance, non-SIPP assets less business debt, other secured liabilities (115+119+130-214-216)	185	880	2,622	21.0	7.1
Property					
Vacation homes, rental property and other real estate equity (123-213)	1,193	2,618	2,915	45.6	40.9
Motor vehicle equity (124-215)	609	1,352	929	45.0	65.6
Business equity	997	4,453	5,822	22.4	17.1
Net Worth = Assets - Liabilities + Equity	14,371	23,939	29,057	60.0	49.5

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

[a] Includes annuities and IRAs; does not include Keogh plans.

[b] The PSID does not explicitly request 401(k) and thrift plan balances; we have interpreted current pension questions as yielding such information under some circumstances (see the main text). Some Keogh plans may be included.

[c] Missing data have not been imputed.

TABLE II.16

AGGREGATE ESTIMATES OF COMPONENTS OF NET WORTH, EXCLUDING FAMILIES WITH NET WORTH OF TWO MILLION DOLLARS OR MORE

Component of Net Worth	Aggregate Estimate ($Billions) SIPP	PSID	SCF	SIPP as % of PSID	SCF
Assets					
Financial Assets					
Checking and savings accounts (111+112+114)	1,387	1,584	1,854	87.6	74.8
IRA and Keogh accounts	1,101	2,057 [a]	1,401	53.5	78.6
401(k) and thrift accounts	1,238	528 [b,c]	1,143	234.5	108.3
Other quasi-liquid pensions	0	378 [c]	317	0.0	0.0
Property					
Own home value	8,440	8,606 [c]	8,326	98.1	101.4
Liabilities					
Secured Liabilities					
Mortgages on own home	3,305	3,329 [c]	3,219	99.3	102.7
Unsecured Liabilities	548	570	499	96.1	109.8
Equity (assets not separated from liabilities)					
Financial Assets					
Equity in stocks and mutual funds	1,881	2,522	2,172	74.6	86.6
Other financial assets, life insurance, non-SIPP assets less business debt, other secured liabilities (115+119+130-214-216)	145	762	1,713	19.0	8.5
Property					
Vacation homes, rental property and other real estate equity (123-213)	1,091	1,711	1,474	63.8	74.0
Motor vehicle equity (124-215)	603	1,295	833	46.6	72.4
Business equity	790	1,403	1,583	56.3	49.9
Net Worth = Assets - Liabilities + Equity	12,823	16,945	17,098	75.7	75.0

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

[a] Includes annuities and IRAs; does not include Keogh plans.

[b] The PSID does not explicitly request 401(k) and thrift plan balances; we have interpreted current pension questions as yielding such information under some circumstances (see the main text). Some Keogh plans may be included.

[c] Missing data have not been imputed.

TABLE II.17

OWNERSHIP AND CONDITIONAL MEDIAN VALUE OF ASSETS AND LIABILITIES: SIPP, PSID, AND SCF

MPR Asset Code	Asset or Liability	Percentage Owning Specified Asset or Liability			Median Value ($) among Owners of Asset of Liability		
		SIPP	PSID	SCF	SIPP	PSID	SCF
100	**Assets**	94.8	--	96.8	105,335	--	122,700
110	Financial Assets	80.1	--	92.9	14,000	--	21,550
111	Assets held at financial institutions	77.1	--	90.5	3,000	--	3,600
112	Other interest earning assets	3.7	--	8.4	30,000	--	15,000
113	Stocks and mutual funds	23.4	--	28.7	21,000	--	25,000
114	US Savings Bonds	15.1	--	19.3	1,000	--	1,000
115	Other financial assets	2.2	--	9.8	24,000	--	3,000
116	IRA and Keogh accounts	21.6	31.0 [a]	28.3	20,000	25,000 [a]	20,000
117	401(k) and thrift accounts	27.0	12.1 [b,c]	28.3	19,258	15,900 [b,c]	14,700
118	Other quasi-liquid pensions	--	6.2 [c]	7.7	--	20,000 [c]	11,000
119	Life insurance (cash value)	--	--	29.6	--	--	7,300
	Checking and savings accounts (111 + 112 + 114)	77.7	83.2	90.8	3,200	4,000	4,230
120	Property	90.8	--	89.6	89,555	--	96,600
121	Home ownership	66.6	66.2 [c]	66.3	100,000	100,000 [c]	100,000
123	All other real estate	12.0	--	18.4	55,000	--	55,500
124	Motor vehicles	84.3	--	82.8	9,275	--	11,000
125	Business equity	7.7	10.3	11.5	25,000	60,000	85,000
130	Other Non-SIPP Assets	--	--	13.1	--	--	17,000
200	**Liabilities**	72.2	--	74.0	34,000	--	32,200
210	Secured Liabilities	56.4	--	58.6	50,000	--	46,000
211	Margin and broker accounts	0.6	--	0.8	7,500	--	20,000
212	Mortgages on own home	41.7	41.3 [c]	43.1	65,000	64,000 [c]	62,000
213	Mortgages on rental property	2.4	--	3.3	60,000	--	59,500
214	Personal business debt	--	--	0.6	--	--	10,000
215	Vehicle loans	33.5	--	33.2	9,000	--	8,200
216	Other secured debt	--	--	5.3	--	--	3,000
220	Unsecured Liabilities	54.8	47.5	53.7	3,500	5,000	3,000
221	Credit card and store debt	50.6	--	44.1	2,400	--	1,700
222	Loans from financial institutions	12.9	--	19.5	4,000	--	3,800
223	Other unsecured liabilities	10.5	--	5.8	2,250	--	2,800
	PSID Equity Categories						
	Equity in stocks and mututal funds (113 - 211)	23.4	26.8	28.7	21,000	25,000	30,000
	Other assets (115 + 119 + 130 - 214 - 216)	2.2	19.0	42.2	24,000	10,000	10,000
	Other real estate (123 - 213)	12.0	16.0	18.3	45,000	60,000	50,000
	Vehicle equity (124 - 215)	75.9	86.8	77.7	5,685	9,000	7,600

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

[a] Includes annuities and IRAs; does not include Keogh plans.

[b] The PSID does not explicitly request 401(k) and thrift plan balances; we have interpreted current pension questions as yielding such information under some circumstances (see the main text). Some Keogh plans may be included.

[c] Missing data have not been imputed.

TABLE II.18

CHANGE IN SELECTED PERCENTILE VALUES OF SCF AND SIPP ASSETS: 1992/1993 TO 1998/1999

	Late 1992/Early 1993			Late 1998/Early 1999			% Growth In Constant $	
Percentile	SCF	SIPP	SIPP as % of SCF	SCF	SIPP	SIPP as % of SCF	SCF	SIPP
10	1,400	849	60.6	2,250	1,050	46.7	41.4	9.7
20	6,800	5,718	84.1	9,600	7,550	78.6	24.2	17.1
30	19,400	17,083	88.1	27,470	22,075	80.4	24.6	14.6
40	44,000	43,250	98.3	68,890	58,989	85.6	37.7	21.0
50	70,101	70,600	100.7	104,000	92,658	89.1	30.5	16.4
60	104,900	99,919	95.3	139,100	126,745	91.1	16.6	12.5
70	142,700	135,375	94.9	191,300	170,075	88.9	17.9	11.4
80	201,800	190,800	94.5	284,500	242,030	85.1	24.0	12.5
90	375,500	297,758	79.3	500,400	396,335	79.2	17.2	18.1
95	660,900	412,853	62.5	866,310	600,763	69.3	15.3	29.1
98	1,412,000	600,499	42.5	1,943,209	952,885	49.0	21.1	40.8
99	2,478,100	787,250	31.8	3,640,000	1,268,800	34.9	29.2	43.0
First + %-ile	5	6		4	6			

SOURCE: MPR analysis of the 1992 (wave 4) and 1996 (wave 9) panels of the SIPP and the 1992 and 1998 SCF.

NOTE: Assets are defined consistently over time and between surveys. The 1999 SIPP estimates exclude 401(k) and thrift accounts, which were not obtained in the earlier panels. The SCF estimates exclude additional assets not measured in the SIPP.

TABLE II.19

CHANGE IN SELECTED PERCENTILE VALUES OF SCF AND SIPP LIABILITIES: 1992/1993 TO 1998/1999

	Late 1992/Early 1993			Late 1998/Early 1999			% Growth In Constant $	
Percentile	SCF	SIPP	SIPP as % of SCF	SCF	SIPP	SIPP as % of SCF	SCF	SIPP
10	0	0	--	0	0	--	--	--
20	0	0	--	0	0	--	--	--
30	210	200	95.2	400	400	100.0	67.6	77.4
40	1,610	2,000	124.2	3,700	4,000	108.1	102.2	77.4
50	6,000	6,600	110.0	11,800	12,000	101.7	73.0	61.3
60	13,500	14,500	107.4	26,300	25,600	97.3	71.4	56.6
70	27,300	30,900	113.2	51,000	51,500	101.0	64.3	47.8
80	53,030	55,304	104.3	83,170	82,700	99.4	38.0	32.6
90	90,000	93,384	103.8	128,160	128,000	99.9	25.3	21.6
95	131,000	133,906	102.2	173,400	172,000	99.2	16.4	13.9
98	206,250	181,500	88.0	266,900	243,319	91.2	13.8	18.9
99	288,000	202,690	70.4	385,200	293,000	76.1	17.7	28.2
First + %-ile	28	29		27	28			

SOURCE: MPR analysis of the 1992 (wave 4) and 1996 (wave 9) panels of the SIPP and the 1992 and 1998 SCF.

NOTE: Liabilities are defined consistently over time and between surveys. Liabilities not measured in the SIPP are excluded from the SCF estimates.

TABLE II.20

CHANGE IN SELECTED PERCENTILE VALUES OF SCF AND SIPP NET WORTH: 1992/1993 TO 1998/1999

	Late 1992/Early 1993			Late 1998/Early 1999			% Growth In Constant $	
Percentile	SCF	SIPP	SIPP as % of SCF	SCF	SIPP	SIPP as % of SCF	SCF	SIPP
10	0	0	--	0	-1,623	--	--	--
20	2,200	1,573	71.5	2,850	725	25.4	14.0	-59.1
30	9,700	6,971	71.9	11,060	6,220	56.2	0.3	-20.9
40	22,590	18,550	82.1	28,330	20,000	70.6	10.3	-4.4
50	42,400	37,053	87.4	55,000	41,915	76.2	14.1	0.3
60	68,430	60,706	88.7	87,900	70,520	80.2	13.0	3.0
70	104,850	93,513	89.2	136,180	109,912	80.7	14.3	4.3
80	164,400	142,355	86.6	219,650	174,750	79.6	17.5	8.9
90	308,080	237,484	77.1	414,090	322,950	78.0	18.2	20.6
95	595,841	350,688	58.9	774,500	522,063	67.4	14.3	32.0
98	1,252,550	528,429	42.2	1,732,110	848,900	49.0	21.6	42.5
99	2,175,100	713,425	32.8	3,421,500	1,192,448	34.9	38.4	48.3
First + %-ile	13	13		13	17			

SOURCE: MPR analysis of the 1992 (wave 4) and 1996 (wave 9) panels of the SIPP and the 1992 and 1998 SCF.

NOTE: Net worth is defined consistently over time and between surveys. The 1999 SIPP estimates exclude 401(k) and thrift accounts, which were not obtained in the earlier panels. The SCF estimates exclude additional assets and liabilities not measured in the SIPP.

TABLE II.21

SELECTED PERCENTILE VALUES OF THE DISTRIBUTION OF NET WORTH, BY YEAR: SIPP
(1999 dollars)

Percentile	1993	1995	1997	1998	1999	2000
10	0	0	-515	-761	-1,623	-1,362
20	1,773	3,199	1,030	909	725	940
30	7,859	9,570	7,207	6,694	6,220	7,247
40	20,913	22,532	20,366	20,284	20,000	22,445
50	41,774	43,251	41,728	42,215	41,915	45,060
60	68,440	70,642	69,112	70,085	70,520	74,898
70	105,427	106,715	106,054	107,858	109,912	116,724
80	160,491	163,185	166,161	173,232	174,750	189,433
90	267,739	272,887	306,096	317,118	322,950	351,890
95	395,366	405,014	492,152	522,820	522,063	551,720
98	595,751	628,391	782,262	896,000	848,900	920,758
99	804,315	843,249	1,098,735	1,322,421	1,192,448	1,300,965
First + %-ile	13	11	16	17	17	17

SOURCE: MPR analysis of the 1992 (wave 4), 1993 (wave 7), and 1996 panels (waves 3, 6, 9, and 12) of the SIPP.

NOTE: Net worth is defined consistently over time. The 1997 through 2000 estimates exclude 401(k) and thrift accounts, which were not collected in the earlier panels.

TABLE II.22

SELECTED PERCENTILE VALUES OF THE DISTRIBUTION OF ASSETS, BY YEAR: SIPP
(1999 dollars)

Percentile	1993	1995	1997	1998	1999	2000
10	957	1,623	1,030	1,014	1,050	1,196
20	6,446	7,917	7,996	7,417	7,550	8,292
30	19,259	21,168	21,105	20,704	22,075	24,318
40	48,760	51,773	53,458	54,840	58,989	61,904
50	79,594	83,329	86,941	88,768	92,658	95,475
60	112,649	115,081	119,273	121,653	126,745	130,658
70	152,622	157,422	161,681	165,667	170,075	177,938
80	215,108	216,421	226,928	235,218	242,030	256,258
90	335,692	334,289	373,400	391,234	396,335	427,682
95	465,450	473,556	574,564	605,534	600,763	634,030
98	677,003	714,006	886,322	1,002,437	952,885	1,004,799
99	887,546	951,540	1,210,846	1,423,983	1,268,800	1,402,616
First + %-ile	6	4	6	6	6	5

SOURCE: MPR analysis of the 1992 (wave 4), 1993 (wave 7), and 1996 panels (waves 3, 6, 9, and 12) of the SIPP.

NOTE: Assets are defined consistently over time. The 1997 through 2000 estimates exclude 401(k) and thrift accounts, which were not collected in the earlier panels.

TABLE II.23

SELECTED PERCENTILE VALUES OF THE DISTRIBUTION OF LIABILITIES, BY YEAR: SIPP
(1999 dollars)

Percentile	1993	1995	1997	1998	1999	2000
10	0	0	0	0	0	0
20	0	0	0	0	0	0
30	225	160	206	203	400	486
40	2,255	2,157	3,089	3,043	4,000	4,377
50	7,441	7,227	10,295	10,243	12,000	12,159
60	16,347	16,469	21,877	23,124	25,600	26,749
70	34,837	36,863	45,298	47,667	51,500	52,526
80	62,350	65,653	76,389	79,006	82,700	84,236
90	105,281	108,678	120,452	121,907	128,000	130,342
95	150,966	151,880	163,691	165,822	172,000	174,600
98	204,623	205,432	226,610	234,280	243,319	241,327
99	228,513	228,066	278,686	274,848	293,000	285,001
First + %-ile	29	28	29	29	28	28

SOURCE: MPR analysis of the 1992 (wave 4), 1993 (wave 7), and 1996 panels (waves 3, 6, 9, and 12) of the SIPP.

NOTE: Liabilities are defined consistently over time.

TABLE II.24

CORRELATION BETWEEN ASSETS AND LIABILITIES:
ESTIMATES FROM SCF AND THREE SIPP PANELS

		Correlation between Liabilities and:	
Year	Source	Assets Excluding 401(k)s	Assets Including 401(k)s
1992	**1992 SCF**	**0.501**	**0.501**
1993	1992 Panel, wave 4	0.488	--
1995	1993 Panel, wave 7	0.492	--
1997	1996 Panel, wave 3	0.191	0.200
1998	1996 Panel, wave 6	0.061	0.066
1998	**1998 SCF**	**0.398**	**0.401**
1999	1996 Panel, wave 9	0.110	0.118
2000	1996 Panel, wave 12	0.157	0.168

SOURCE: MPR analysis of the indicated SCF and SIPP panel data.

NOTE: The SCF assets in the first column also exclude quasi-liquid pensions and the cash value of life insurance.

TABLE II.25

CONSTANT DOLLAR GROWTH IN ESTIMATES OF AGGREGATE ASSETS BY TYPE, 1992/1993 TO 1998/1999 SIPP AND SCF

MPR Asset Code	Asset Type	SIPP		SCF		Growth	
		1993	1999	1992	1998	SIPP	SCF
100	Total Assets	12,666	17,589	23,831	34,058	1.39	1.43
110	Financial Assets	3,139	5,669	7,076	12,600	1.81	1.78
111	Assets held at financial institutions	974	1,065	1,526	1,695	1.09	1.11
112	Other interest earning assets	374	299	897	910	0.80	1.01
113	Stocks and mutual funds	963	2,920	1,892	4,979	3.03	2.63
114	U.S. Savings Bonds	55	64	85	93	1.16	1.09
115	Other financial assets	185	185	310	262	1.00	0.85
116	IRA and Keogh accounts	585	1,136	1,035	2,072	1.94	2.00
117	401(k) and thrift accounts	0	0	507	1,272	n.a.	2.51
118	Other quasi-liquid retirement accounts	0	0	368	443	n.a.	1.20
119	Life insurance (cash value)	0	0	455	873	n.a.	1.92
120	Property	9,527	11,920	16,111	19,910	1.25	1.24
121	Own home	6,976	8,549	7,591	9,416	1.23	1.24
123	All other real estate	1,431	1,389	3,292	3,379	0.97	1.03
124	Motor vehicles	908	985	921	1,293	1.08	1.40
125	Business equity	451	997	4,307	5,822	2.21	1.35
130	Other non-SIPP Assets	0	0	644	1,548	n.a.	2.40

SOURCE: MPR analysis of the 1992 SIPP panel wave 4, the 1992 SCF, the 1996 SIPP panel wave 9, and the 1998 SCF.

NOTE: The 1993 SIPP estimates are adjusted to the reference period of the 1999 SIPP data, and the 1992 SCF estimates are adjusted to the reference period of the 1998 SCF.

TABLE III.1

DISTRIBUTION OF NET WORTH BY DEMOGRAPHIC CHARACTERISTICS: SIPP AND SCF
($1,000s)

Demographic Characteristic	Mean		Median		SIPP as Percent of SCF	
	SIPP	SCF	SIPP	SCF	Mean	Median
Total Families	140.2	283.3	48.0	71.8	49.5	66.9
Age of Head						
<30	15.3	30.5	2.7	5.2	50.2	51.9
30-<40	69.5	132.7	20.6	35.2	52.4	58.5
40-<50	132.8	274.7	54.5	87.9	48.3	62.0
50-<65	199.6	490.0	92.1	125.8	40.7	73.2
65-<75	238.3	466.7	110.3	146.5	51.1	75.3
>=75	204.2	310.4	96.0	125.8	65.8	76.3
Race of Head						
White	168.8	335.6	70.4	94.9	50.3	74.2
Black	32.6	64.2	6.1	15.5	50.8	39.4
Hispanic	41.4	86.9	5.8	9.8	47.6	59.2
Asian or Other	119.3	267.7	30.6	44.2	44.6	69.2
Gender of Head						
Male	166.8	343.6	62.9	91.9	48.5	68.4
Female	76.4	128.0	18.5	30.1	59.7	61.5
Income:						
<100% poverty	29.5	44.0	1.5	3.6	67.0	41.7
100%-<200%	64.1	73.6	15.1	22.4	87.1	67.4
200%-<400%	126.7	134.6	47.9	64.0	94.1	74.8
400%-<600 %	175.8	226.4	92.9	124.5	77.7	74.6
600%-<800%	262.0	353.0	151.7	209.4	74.2	72.4
800%-<1000%	342.3	577.7	226.4	343.3	59.3	65.9
1000%-<2000%	491.8	1,167.0	331.7	530.1	42.1	62.6
2000%-<5000%	831.5	3,330.3	574.1	1,918.0	25.0	29.9
>5000%	1,926.0	13,133.8	2,531.4	7,464.0	14.7	33.9
Own Primary Residence						
Own	197.0	405.6	99.8	132.2	48.6	75.5
Non-Owner	26.8	43.3	1.3	4.2	61.9	31.0
Family Size						
1	95.6	161.0	29.0	41.0	59.4	70.7
2	212.1	419.2	87.7	119.3	50.6	73.5
3	108.3	270.4	35.7	63.7	40.1	56.0
4	140.5	272.7	50.0	79.5	51.5	62.9
5	127.0	256.4	46.0	54.5	49.5	84.4
6 or more	90.0	183.3	26.8	26.4	49.1	101.5

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: Asian and "other" race are combined in the SCF.

TABLE III.2

DISTRIBUTION OF ASSETS BY DEMOGRAPHIC CHARACTERISTICS: SIPP AND SCF
($1,000s)

Demographic Characteristic	Mean		Median		SIPP as Percent of SCF	
	SIPP	SCF	SIPP	SCF	Mean	Median
Total Families	183.9	332.1	96.8	116.5	55.4	83.1
Age of Head						
<30	44.2	57.2	11.5	14.8	77.3	77.7
30-<40	129.1	190.6	75.9	94.9	67.7	80.0
40-<50	195.4	345.7	118.6	146.4	56.5	81.0
50-<65	248.8	553.5	141.2	183.0	45.0	77.2
65-<75	252.3	491.4	124.4	162.9	51.3	76.4
>=75	209.3	317.8	100.0	128.6	65.9	77.8
Race of Head						
White	215.6	389.2	120.0	141.5	55.4	84.8
Black	58.1	89.1	18.3	25.0	65.2	73.2
Hispanic	78.3	113.8	19.1	26.3	68.8	72.6
Asian or Other	172.3	335.7	77.0	81.0	51.3	95.1
Gender of Head						
Male	220.3	403.7	122.6	150.7	54.6	81.4
Female	96.2	147.6	38.0	49.8	65.2	76.3
Income:						
<100% Poverty	39.6	51.9	5.0	7.0	76.3	71.4
100%-<200% Poverty	81.7	92.4	35.9	42.6	88.4	84.3
200%-<400% Poverty	165.6	173.1	100.3	114.0	95.7	88.0
400%-<600 % Poverty	240.6	292.7	165.9	200.9	82.2	82.6
600%-<800%	346.9	438.6	246.0	287.3	79.1	85.6
800%-<1000%	443.8	664.8	333.8	426.5	66.8	78.3
1000%-<2000%	616.9	1,311.2	460.8	639.5	47.0	72.1
2000%-<5000%	983.2	3,569.9	766.5	2,193.0	27.5	35.0
>5000%	2,034.0	13,626.9	2,531.4	7,609.5	14.9	33.3
Own Primary Residence						
Own	258.6	475.0	159.1	192.7	54.4	82.6
Non-Owner	34.6	51.6	5.7	9.5	67.1	60.0
Family Size						
1	116.0	183.5	48.4	60.4	63.2	80.1
2	253.9	467.2	136.0	168.4	54.3	80.8
3	167.2	327.9	101.4	121.5	51.0	83.5
4	211.7	352.3	129.7	155.9	60.1	83.2
5	202.5	346.3	121.8	139.5	58.5	87.3
6 or more	150.4	246.8	83.9	77.0	60.9	109.0

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: Asian and "other" race are combined in the SCF.

TABLE III.3

DISTRIBUTION OF LIABILITIES BY DEMOGRAPHIC CHARACTERISTICS: SIPP AND SCF
($1,000s)

Demographic Characteristic	Mean		Median		SIPP as Percent of SCF	
	SIPP	SCF	SIPP	SCF	Mean	Median
All Families	43.7	48.8	11.5	11.9	89.5	96.6
Age of Head						
<30	28.9	26.7	8.5	7.8	108.2	109.0
30-<40	59.7	57.9	32.0	28.3	103.1	113.1
40-<50	62.6	71.0	37.5	38.6	88.2	97.2
50-<65	49.3	63.5	18.4	24.7	77.6	74.5
65-<75	14.0	24.7	0.0	0.1	56.7	0.0
>=75	5.1	7.4	0.0	0.0	68.9	
Race of Head						
White	46.8	53.6	15.0	15.9	87.3	94.3
Black	25.5	24.9	3.8	2.7	102.4	140.7
Hispanic	36.8	26.9	5.0	3.6	136.8	138.9
Asian or Other	52.9	68.0	11.1	11.1	77.8	100.0
Gender of Head						
Male	53.6	60.1	21.5	24.0	89.2	89.6
Female	19.8	19.6	0.8	1.0	101.0	80.0
Income:						
<100% poverty	10.2	7.9	0.0	0.0	129.1	
100%-<200%	17.6	18.8	1.2	2.0	93.6	60.0
200%-<400%	38.9	38.5	14.6	15.2	101.0	96.1
400%-<600 %	64.8	66.3	42.6	47.5	97.7	89.7
600%-<800%	85.0	85.6	68.0	59.0	99.3	115.3
800%-<1000%	101.5	87.1	83.0	52.0	116.5	159.6
1000%-<2000%	125.1	144.2	98.4	90.0	86.8	109.3
2000%-<5000%	151.7	239.6	120.2	144.0	63.3	83.5
>5000%	108.0	493.1	0.0	154.0	21.9	0.0
Own Primary Residence						
Own	61.6	69.4	38.7	38.9	88.8	99.5
Non-Owner	7.9	8.3	0.9	1.0	95.2	90.0
Family Size						
1	20.4	22.5	0.3	1.1	90.7	27.3
2	41.8	48.0	12.0	10.3	87.1	116.5
3	58.9	57.4	32.0	28.6	102.6	111.9
4	71.2	79.6	52.0	62.2	89.4	83.6
5	75.5	89.9	53.6	60.3	84.0	88.9
6 or more	60.4	63.5	33.5	16.5	95.1	203.0

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: Asian and "other" race are combined in the SCF.

TABLE III.4

OPERATIONAL DEFINITIONS OF SUBPOPULATIONS

Subpopulation	Operational Definition
Low-income families	Family income is below 200 percent of poverty.
Moderate-income families	Family income is at or above 200 percent and below 400 percent of poverty.
Upper-income level one families	Family income is at or above 400 percent and below 600 percent of poverty.
Upper-income level two families	Family income is at or above 600 percent and below 800 percent of poverty.
Families with an elderly head or spouse/partner	Family head or spouse/partner is 65 or older.
Families with head nearing retirement	Family head is employed and at least 55 years old but less than 65.
Families with a prime working age head	Family head is at least 30 years old but less than 60.
Families receiving Social Security benefits for an aged head or spouse/partner	Family head or spouse/partner is 65 or older and receiving social security benefits.
Families receiving Social Security benefits for a nonaged head or spouse/partner	Family head or spouse/partner is under 65 and receiving social security benefits.
Families with a nonaged disabled head or spouse/partner	Family head or spouse/partner is under 65 and has a work-preventing disability.

TABLE III.5

ESTIMATED NUMBER AND SAMPLE COUNT OF FAMILIES IN EACH SUBPOPULATION

Subpopulation Characteristic	SIPP	SCF	PSID[a]	SIPP	SCF[b]	PSID
	Population Size (1,000s)			Sample Size		
Total families	102,468	102,549	103,874	28,969	4,305	6,656
Low-income	34,490	34,788	28,093	10,249	1,110	2,146
Moderate-income	35,525	32,459	33,698	9,883	1,018	2,102
Upper-income level one	18,614	17,721	19,839	5,074	603	1,188
Upper-income level two	7,445	8,243	10,092	2,039	333	584
Elderly head or spouse/partner	22,575	22,330	21,890	6,887	915	978
Head nearing retirement	9,216	8,163	8,203	2,547	476	371
Prime working age head	62,330	60,980	62,089	17,171	2,598	4,340
Receiving Social Security benefits (aged)	21,180	20,512	20,402	6,462	787	907
Receiving Social Security benefits (nonaged)	6,241	5,439	6,088	1,809	196	403
Nonaged disabled head or spouse/partner	6,909	6,112	5,761	2,019	194	368

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

[a] The PSID estimates in all tables refer to quasi-householder families, and the weights have been rescaled. See Chapter II.

[b] To incorporate multiple imputation of missing items, the SCF contains five replicates (called "implicates") of every record. We have divided the SCF sample counts by five to obtain the correct sample sizes. Beause of multiple imputation, however, the five implicates may have different characteristics, so the sample count in a given subpopulation may not be divisable by five. We have rounded the SCF sample counts to integers.

TABLE III.6

ESTIMATES OF MEAN AND MEDIAN NET WORTH, 1998/1999: SIPP, PSID, AND SCF

Subpopulation Characteristic	Survey Estimate			SIPP as % of	
	SIPP	PSID	SCF	PSID	SCF
	Mean Net Worth ($1,000s)				
Low-income	49.5	58.0	55.3	85.3	89.5
Moderate-income	106.4	116.1	123.9	91.7	85.9
Upper-income level one	169.1	185.6	206.6	91.1	81.8
Upper-income level two	241.8	269.1	319.3	89.8	75.7
Elderly head or spouse/partner	186.0	269.0	232.6	69.1	80.0
Head nearing retirement	223.4	256.1	278.4	87.2	80.2
Prime working age head	118.1	152.5	171.7	77.4	68.8
Receiving Social Security benefits (aged)	186.7	273.2	227.5	68.3	82.1
Receiving Social Security benefits (nonaged)	126.4	125.3	135.1	100.9	93.6
Nonaged disabled head or spouse/partner	54.0	97.1	58.6	55.7	92.2
	Median Net Worth ($1,000s)				
Low-income	7.2	8.2	10.0	87.2	71.4
Moderate-income	47.7	47.0	63.4	101.5	75.3
Upper-income level one	92.1	110.8	124.1	83.1	74.2
Upper-income level two	150.1	166.0	208.5	90.4	72.0
Elderly head or spouse/partner	101.1	152.0	130.8	66.5	77.3
Head nearing retirement	121.6	166.9	148.1	72.8	82.1
Prime working age head	45.8	63.2	73.0	72.4	62.7
Receiving Social Security benefits (aged)	102.5	153.2	132.1	66.9	77.6
Receiving Social Security benefits (nonaged)	47.0	50.6	37.0	92.9	127.2
Nonaged disabled head or spouse/partner	6.8	23.7	14.5	28.6	46.7

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

NOTE: Estimates exclude families with net worth of two million dollars or more.

TABLE III.7

EXCLUSION OF NON-SIPP ASSETS FROM SCF NET WORTH: IMPACT ON RATIO OF SIPP TO SCF NET WORTH

	SCF Means ($)						SIPP as % of:	
Subpopulation Characteristic	Total Net Worth	Quasi-Liquid Pension	Life Insurance	Other Non-SIPP Assets	Adjusted Net Worth	SIPP Net Worth	Total Net Worth	Adjusted Net Worth
Low-income	55,257	598	2,219	3,101	49,339	49,461	89.5	100.2
Moderate-income	123,863	1,846	5,575	3,245	113,197	106,431	85.9	94.0
Upper-income level one	206,600	3,220	13,983	7,467	181,930	169,085	81.8	92.9
Upper-income level two	319,297	9,441	12,754	18,829	278,273	241,761	75.7	86.9
Elderly head or spouse/partner	232,590	817	5,887	14,738	211,148	185,996	80.0	88.1
Head nearing retirement	278,398	5,784	6,080	10,145	256,389	223,362	80.2	87.1
Prime working age head	171,662	4,445	9,475	6,468	151,274	118,051	68.8	78.0
Receiving Social Security benefits (aged)	227,470	294	5,410	11,450	210,316	186,733	82.1	88.8
Receiving Social Security benefits (nonaged)	135,080	2,718	4,135	5,195	123,032	126,439	93.6	102.8
Nonaged disabled head or spouse/partner	58,579	2,772	1,908	1,080	52,819	54,033	92.2	102.3

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: Estimates exclude families with net worth of two million dollars or more.

TABLE III.8

ESTIMATES OF NET WORTH, 1998/1999: SIPP AND HRS

	Estimate		Percent of HRS
	SIPP	HRS	
Number of Families (1,000s)	48,660	46,148	--
Total Net Worth			
Aggregate ($Billions)	9,624	17,294	55.6
Mean ($)	197,773	374,747	52.8
Median ($)	85,050	132,750	64.1
Net Worth Excluding Trusts (not measured in the SIPP)			
Aggregate ($Billions)	9,624	14,816	65.0
Mean ($)	197,773	321,051	61.6
Median ($)	85,050	130,446	65.2
Non-retirement Wealth Excluding Trusts[a]			
Aggregate ($Billions)	8,260	12,111	68.2
Mean ($)	169,748	262,445	64.7
Median ($)	74,500	108,000	69.0

SOURCE: MPR tabulations of the 1996 SIPP panel wave 9 and the 1998 HRS.

[a] Non-retirement wealth excludes 401(k) and thrift plans, other account-type pensions, IRAs, and Keogh plans.

TABLE III.9

AGGREGATE AND MEAN ESTIMATES OF COMPONENTS OF NET WORTH: SIPP AND HRS

Component of Net Worth	Aggregate ($Billions) SIPP	Aggregate ($Billions) HRS	Percent of HRS	Mean ($1,000s) SIPP	Mean ($1,000s) HRS	Percent of HRS
Assets						
Financial Assets						
Checking and savings accounts	1,037	1,688	61.4	21.3	36.6	58.3
Other financial assets	150	0 [a]		3.1	0.0	
IRA and Keogh accounts	819	1,547	52.9	16.8	33.5	50.2
401(k) and thrift accounts and other quasi-liquid retirement accounts (HRS)	545	1,157	47.1	11.2	25.1	44.6
Property						
Own home	4,302	5,297	81.2	88.4	114.8	77.0
Non-SIPP Assets						
Trusts	0	2,478	0.0	0.0	53.7	0.0
Other non-financial assets	0	403 [a]	0.0	0.0	8.7	0.0
Liabilities						
Secured Liabilities						
Mortgages on own home	929	1,061	87.6	19.1	23.0	83.0
Unsecured Liabilities	180	196	92.2	3.7	4.2	87.4
Equity (assets not separated from liabilities)						
Financial Assets						
Equity in stocks and mutual funds	2,266	2,501	90.6	46.6	54.2	85.9
Property						
Vacation homes, rental property and other real estate equity	850	1,594	53.3	17.5	34.6	50.5
Motor vehicle equity	303	551	54.9	6.2	11.9	52.1
Business equity	462	1,334	34.6	9.5	28.9	32.9
Net Worth = Assets - Liabilities + Equity	9,624	17,294	55.6	197.8	374.7	52.8

SOURCE: MPR tabulations of the 1996 SIPP panel wave 9 and the 1998 HRS.

[a] Other financial assets and other non-financial assets are measured as a single item in the HRS and are reported here as non-financial assets.

TABLE III.10

OWNERSHIP AND CONDITIONAL MEDIAN VALUE OF ASSETS AND LIABILITIES: SIPP AND HRS

Component of Net Worth	Percentage Owning Asset or Liability		Median Value ($1,000s) Among Owners	
	SIPP	HRS	SIPP	HRS
Assets				
Financial Assets				
Checking and savings accounts	77.2	83.7	6.3	10.0
Other financial assets	2.8	0.0 [a]	35.0	0.0 [a]
IRA and Keogh accounts	25.3	35.5	30.0	38.0
401(k) and thrift accounts and other quasi-liquid retirement accounts (HRS)	16.7	17.2	30.0	35.0
Property				
Own home	72.5	81.7	95.0	100.0
Non-SIPP Assets				
Trusts	0.0	6.5	0.0	350.0
Other non-financial assets	0.0	14.2 [a]	0.0	18.0 [a]
Liabilities				
Secured Liabilities				
Mortgages on own home	29.8	34.4	50.0	47.0
Unsecured Liabilities	39.5	26.9	2.5	4.0
Equity (assets not separated from liabilities)				
Financial Assets				
Equity in stocks and mutual funds	25.0	31.7	41.0	42.0
Property				
Vacation homes, rental property and other real estate equity	15.2	17.3	50.0	70.0
Motor vehicle equity	72.2	80.9	6.0	10.0
Business equity	6.3	8.8	30.4	100.0

SOURCE: MPR tabulations of the 1996 SIPP panel wave 9 and the 1998 HRS.

[a] Other financial assets and other non-financial assets are measured as a single item in the HRS and are reported here as non-financial assets.

TABLE IV.1

DISTRIBUTION OF FAMILY ANNUAL INCOME IN THE SCF AND SIPP

Income (Dollars)			Population Estimate SCF	Population Estimate SIPP	Ratio of SIPP to SCF	Cumulative Percentage Distribution SCF	Cumulative Percentage Distribution SIPP
Negative or zero			1,335,197	464,300	0.35	100.00	100.00
1	to <	1,000	447,662	332,093	0.74	98.70	99.55
1,000	to <	2,000	403,722	356,919	0.88	98.26	99.22
2,000	to <	3,000	659,623	427,618	0.65	97.87	98.87
3,000	to <	4,000	725,133	519,168	0.72	97.22	98.46
4,000	to <	5,000	966,101	789,742	0.82	96.52	97.95
5,000	to <	6,000	1,466,765	1,042,667	0.71	95.58	97.18
6,000	to <	7,000	1,881,178	1,887,171	1.00	94.15	96.16
7,000	to <	8,000	1,863,600	1,959,272	1.05	92.31	94.32
8,000	to <	9,000	1,774,485	1,998,214	1.13	90.49	92.41
9,000	to <	10,000	1,467,053	1,678,655	1.14	88.76	90.46
10,000	to <	11,000	1,501,236	1,828,821	1.22	87.33	88.82
11,000	to <	12,000	1,670,600	1,837,005	1.10	85.87	87.04
12,000	to <	13,000	2,220,569	1,776,958	0.80	84.24	85.24
13,000	to <	14,000	1,771,598	1,862,134	1.05	82.07	83.51
14,000	to <	15,000	1,664,784	1,968,992	1.18	80.35	81.69
15,000	to <	16,000	2,105,431	1,793,024	0.85	78.72	79.77
16,000	to <	17,000	1,637,190	1,893,322	1.16	76.67	78.02
17,000	to <	18,000	1,424,068	1,901,299	1.34	75.07	76.17
18,000	to <	19,000	1,399,238	1,919,704	1.37	73.68	74.32
19,000	to <	20,000	1,462,727	1,870,208	1.28	72.32	72.44
20,000	to <	21,000	1,853,417	1,610,545	0.87	70.89	70.62
21,000	to <	22,000	1,359,230	1,744,611	1.28	69.09	69.05
22,000	to <	23,000	2,080,527	1,749,209	0.84	67.76	67.34
23,000	to <	24,000	1,671,132	1,611,101	0.96	65.73	65.64
24,000	to <	25,000	1,507,267	1,756,513	1.17	64.10	64.06
25,000	to <	26,000	1,907,882	1,663,601	0.87	62.63	62.35
26,000	to <	27,000	1,472,311	1,592,453	1.08	60.77	60.73
27,000	to <	28,000	1,638,556	1,577,481	0.96	59.34	59.17
28,000	to <	29,000	1,386,050	1,480,035	1.07	57.74	57.63
29,000	to <	30,000	993,331	1,484,338	1.49	56.39	56.19
30,000	to <	31,000	1,956,660	1,602,845	0.82	55.42	54.74
31,000	to <	32,000	1,171,043	1,576,320	1.35	53.51	53.18
32,000	to <	33,000	1,663,289	1,551,689	0.93	52.37	51.64
33,000	to <	34,000	1,089,647	1,324,557	1.22	50.75	50.12
34,000	to <	35,000	950,144	1,285,537	1.35	49.68	48.83
35,000	to <	36,000	1,834,273	1,336,967	0.73	48.76	47.58
36,000	to <	37,000	1,109,891	1,296,053	1.17	46.97	46.27
37,000	to <	38,000	831,685	1,296,644	1.56	45.89	45.01
38,000	to <	39,000	1,452,441	1,285,087	0.88	45.08	43.74
39,000	to <	40,000	871,697	1,181,048	1.35	43.66	42.49
40,000	to <	41,000	1,857,252	1,210,511	0.65	42.81	41.33
41,000	to <	42,000	701,912	1,267,333	1.81	41.00	40.15

Continued

Table IV.1 Continued

Income (Dollars)			Population Estimate SCF	Population Estimate SIPP	Ratio of SIPP to SCF	Cumulative Percentage Distribution SCF	Cumulative Percentage Distribution SIPP
42,000	to <	43,000	963,515	1,190,073	1.24	40.31	38.92
43,000	to <	44,000	845,724	1,092,206	1.29	39.37	37.75
44,000	to <	45,000	859,944	1,119,441	1.30	38.55	36.69
45,000	to <	46,000	1,016,645	1,257,833	1.24	37.71	35.60
46,000	to <	47,000	666,327	1,086,113	1.63	36.72	34.37
47,000	to <	48,000	797,454	997,523	1.25	36.07	33.31
48,000	to <	49,000	1,003,410	1,013,894	1.01	35.29	32.34
49,000	to <	50,000	690,587	1,006,191	1.46	34.31	31.35
50,000	to <	52,000	2,641,902	1,829,191	0.69	33.64	30.36
52,000	to <	54,000	1,769,554	1,712,681	0.97	31.06	28.58
54,000	to <	56,000	1,652,792	1,653,698	1.00	29.34	26.91
56,000	to <	58,000	1,375,899	1,689,710	1.23	27.73	25.29
58,000	to <	60,000	1,118,285	1,449,583	1.30	26.38	23.64
60,000	to <	62,000	1,816,014	1,490,325	0.82	25.29	22.23
62,000	to <	64,000	1,206,654	1,130,376	0.94	23.52	20.78
64,000	to <	66,000	1,347,194	1,357,847	1.01	22.35	19.67
66,000	to <	68,000	1,160,253	1,151,450	0.99	21.03	18.35
68,000	to <	70,000	864,367	998,524	1.16	19.90	17.22
70,000	to <	72,000	1,753,337	1,047,687	0.60	19.06	16.25
72,000	to <	74,000	943,469	949,088	1.01	17.35	15.23
74,000	to <	76,000	232,166	883,631	3.81	16.43	14.30
76,000	to <	78,000	974,416	881,746	0.90	16.20	13.44
78,000	to <	80,000	771,276	813,902	1.06	15.25	12.58
80,000	to <	85,000	1,403,211	1,775,232	1.27	14.50	11.78
85,000	to <	90,000	1,563,401	1,465,610	0.94	13.13	10.05
90,000	to <	95,000	1,876,150	1,226,070	0.65	11.61	8.62
95,000	to <	100,000	1,150,926	945,343	0.82	9.78	7.42
100,000	to <	110,000	1,764,129	1,634,427	0.93	8.66	6.50
110,000	to <	120,000	1,027,274	1,243,450	1.21	6.94	4.91
120,000	to <	130,000	941,762	808,226	0.86	5.93	3.69
130,000	to <	140,000	614,412	558,483	0.91	5.02	2.90
140,000	to <	150,000	441,654	447,263	1.01	4.42	2.36
150,000	to <	175,000	1,021,384	599,853	0.59	3.99	1.92
175,000	to <	200,000	624,640	395,740	0.63	2.99	1.34
200,000	to <	250,000	767,995	322,754	0.42	2.38	0.95
250,000	to <	300,000	401,779	237,023	0.59	1.63	0.64
300,000	to <	350,000	239,068	110,922	0.46	1.24	0.40
350,000	to <	400,000	176,126	181,099	1.03	1.01	0.30
400,000	to <	450,000	169,230	75,780	0.45	0.83	0.12
450,000	to <	500,000	117,280	20,091	0.17	0.67	0.05
500,000	to <	750,000	195,031	26,222	0.13	0.56	0.03
750,000	to <	1,000,000	147,469	0	0.00	0.37	0.00
1,000,000	to <	1,500,000	124,868	0	0.00	0.22	0.00
1,500,000	to <	2,000,000	42,534	0	0.00	0.10	0.00
2,000,000	to <	5,000,000	49,886	0	0.00	0.06	0.00
5,000,000	and up		9,851	0	0.00	0.01	0.00

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE IV.2

SAMPLE COUNTS AND AVERAGE WEIGHT BY ANNUAL INCOME: SCF AND SIPP

Income (Dollars)			Sample Count SCF	Sample Count SIPP	Ratio of SIPP to SCF	Average Weight SCF	Average Weight SIPP	Ratio of SCF to SIPP
Negative or zero			48	124	2.58	27,817	3,744	7.43
1	to <	1,000	18	89	4.94	24,870	3,731	6.67
1,000	to <	2,000	14	97	6.83	28,431	3,680	7.73
2,000	to <	3,000	24	117	4.80	27,034	3,655	7.40
3,000	to <	4,000	25	155	6.30	29,477	3,349	8.80
4,000	to <	5,000	33	243	7.32	29,099	3,250	8.95
5,000	to <	6,000	43	345	7.99	33,953	3,022	11.24
6,000	to <	7,000	62	626	10.16	30,539	3,015	10.13
7,000	to <	8,000	55	607	10.96	33,639	3,228	10.42
8,000	to <	9,000	55	613	11.19	32,381	3,260	9.93
9,000	to <	10,000	49	514	10.58	30,186	3,266	9.24
10,000	to <	11,000	48	546	11.42	31,407	3,349	9.38
11,000	to <	12,000	53	537	10.13	31,521	3,421	9.21
12,000	to <	13,000	72	521	7.26	30,927	3,411	9.07
13,000	to <	14,000	55	552	10.11	32,447	3,373	9.62
14,000	to <	15,000	48	561	11.59	34,396	3,510	9.80
15,000	to <	16,000	63	526	8.30	33,209	3,409	9.74
16,000	to <	17,000	50	543	10.77	32,484	3,487	9.32
17,000	to <	18,000	45	549	12.25	31,787	3,463	9.18
18,000	to <	19,000	44	566	12.86	31,801	3,392	9.38
19,000	to <	20,000	45	529	11.86	32,797	3,535	9.28
20,000	to <	21,000	59	457	7.80	31,628	3,524	8.98
21,000	to <	22,000	44	490	11.04	30,613	3,560	8.60
22,000	to <	23,000	63	495	7.86	33,024	3,534	9.34
23,000	to <	24,000	53	465	8.81	31,650	3,465	9.13
24,000	to <	25,000	47	492	10.56	32,345	3,570	9.06
25,000	to <	26,000	60	478	8.02	32,011	3,480	9.20
26,000	to <	27,000	50	457	9.18	29,564	3,485	8.48
27,000	to <	28,000	49	434	8.86	33,440	3,635	9.20
28,000	to <	29,000	42	418	9.91	32,845	3,541	9.28
29,000	to <	30,000	32	423	13.39	31,435	3,509	8.96
30,000	to <	31,000	62	451	7.32	31,764	3,554	8.94
31,000	to <	32,000	37	437	11.75	31,480	3,607	8.73
32,000	to <	33,000	52	414	7.96	31,986	3,748	8.53
33,000	to <	34,000	35	371	10.66	31,312	3,570	8.77
34,000	to <	35,000	32	361	11.42	30,068	3,561	8.44
35,000	to <	36,000	58	374	6.47	31,735	3,575	8.88
36,000	to <	37,000	37	351	9.39	29,676	3,692	8.04
37,000	to <	38,000	27	357	13.22	30,803	3,632	8.48
38,000	to <	39,000	45	354	7.80	31,992	3,630	8.81
39,000	to <	40,000	28	317	11.49	31,583	3,726	8.48
40,000	to <	41,000	62	335	5.42	30,053	3,613	8.32
41,000	to <	42,000	22	348	15.54	31,335	3,642	8.60
42,000	to <	43,000	29	331	11.49	33,455	3,595	9.31
43,000	to <	44,000	26	303	11.74	32,780	3,605	9.09

Continued

Table IV.2 Continued

Income (Dollars)			Sample Count SCF	Sample Count SIPP	Ratio of SIPP to SCF	Average Weight SCF	Average Weight SIPP	Ratio of SCF to SIPP
44,000	to <	45,000	28	296	10.57	30,712	3,782	8.12
45,000	to <	46,000	33	339	10.21	30,622	3,710	8.25
46,000	to <	47,000	23	305	13.03	28,476	3,561	8.00
47,000	to <	48,000	28	266	9.37	28,079	3,750	7.49
48,000	to <	49,000	34	276	8.12	29,512	3,674	8.03
49,000	to <	50,000	22	270	12.39	31,678	3,727	8.50
50,000	to <	52,000	87	511	5.86	30,297	3,580	8.46
52,000	to <	54,000	52	471	9.02	33,900	3,636	9.32
54,000	to <	56,000	59	453	7.70	28,109	3,651	7.70
56,000	to <	58,000	48	465	9.73	28,784	3,634	7.92
58,000	to <	60,000	38	404	10.69	29,584	3,588	8.25
60,000	to <	62,000	59	407	6.88	30,676	3,662	8.38
62,000	to <	64,000	39	311	7.93	30,782	3,635	8.47
64,000	to <	66,000	44	367	8.34	30,618	3,700	8.28
66,000	to <	68,000	39	315	8.04	29,598	3,655	8.10
68,000	to <	70,000	31	276	9.02	28,247	3,618	7.81
70,000	to <	72,000	58	286	4.93	30,230	3,663	8.25
72,000	to <	74,000	36	265	7.40	26,354	3,581	7.36
74,000	to <	76,000	8	240	30.00	29,021	3,682	7.88
76,000	to <	78,000	38	247	6.47	25,508	3,570	7.15
78,000	to <	80,000	27	228	8.32	28,149	3,570	7.88
80,000	to <	85,000	64	490	7.70	22,063	3,623	6.09
85,000	to <	90,000	62	405	6.49	25,054	3,619	6.92
90,000	to <	95,000	66	334	5.05	28,341	3,671	7.72
95,000	to <	100,000	46	258	5.61	25,020	3,664	6.83
100,000	to <	110,000	85	455	5.37	20,803	3,592	5.79
110,000	to <	120,000	57	332	5.85	18,086	3,745	4.83
120,000	to <	130,000	52	219	4.18	17,973	3,691	4.87
130,000	to <	140,000	39	158	4.07	15,835	3,535	4.48
140,000	to <	150,000	34	121	3.54	12,914	3,696	3.49
150,000	to <	175,000	86	160	1.87	11,932	3,749	3.18
175,000	to <	200,000	70	107	1.54	8,975	3,699	2.43
200,000	to <	250,000	101	85	0.84	7,589	3,797	2.00
250,000	to <	300,000	78	62	0.79	5,151	3,823	1.35
300,000	to <	350,000	56	31	0.56	4,284	3,578	1.20
350,000	to <	400,000	40	50	1.25	4,403	3,622	1.22
400,000	to <	450,000	39	19	0.48	4,317	3,988	1.08
450,000	to <	500,000	31	5	0.16	3,833	4,018	0.95
500,000	to <	750,000	106	7	0.07	1,836	3,746	0.49
750,000	to <	1,000,000	54	0	0.00	2,721	--	--
1,000,000	to <	1,500,000	99	0	0.00	1,261	--	--
1,500,000	to <	2,000,000	43	0	0.00	989	--	--
2,000,000	to <	5,000,000	115	0	0.00	432	--	--
5,000,000	and up		52	0	0.00	189	--	--
			4,305	28,969	6.73			

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: The SCF sample counts have been divided by five and rounded to integers. See Table III.5.

TABLE IV.3

DISTRIBUTION OF 1998 SCF, 1996 SIPP PANEL WAVE 9, AND MARCH 1999 CPS FAMILIES BY ANNUAL INCOME

Primary Family Income Range	SCF Population Estimate	SIPP Population Estimate	CPS Population Estimate	Ratio of SCF to SIPP	Ratio of SCF to CPS	Ratio of CPS to SIPP	SIPP Weight Adjustment Factor
Less than 6,000	6,004,203	3,932,506	5,345,191	1.527	1.123	1.359	1.52561
6,000 to < 16,000	17,920,534	18,590,245	17,100,197	0.964	1.048	0.920	0.96322
16,000 to < 28,000	19,413,546	20,890,049	18,063,755	0.929	1.075	0.865	0.92859
28,000 to < 40,000	15,310,151	16,701,118	15,317,316	0.917	1.000	0.917	0.91599
40,000 to < 52,000	12,044,672	13,070,309	12,439,881	0.922	0.968	0.952	0.92080
52,000 to < 90,000	19,952,288	20,451,089	22,242,736	0.976	0.897	1.088	0.97484
90,000 to < 150,000	7,816,307	6,863,262	9,945,693	1.139	0.786	1.449	1.13796
150,000 to < 300,000	2,815,798	1,555,370	2,293,700	1.810	1.228	1.475	1.80895
300,000 and up	1,271,343	414,114	1,243,820	3.070	1.022	3.004	3.06761
Total	102,548,842	102,468,062	103,992,289				

SOURCE: MPR analysis of the 1998 SCF, the 1996 SIPP panel wave 9, and the March 1999 CPS.

NOTE: The adjustment factor has been scaled so that the reweighted observations sum to the SIPP population estimate.

TABLE IV.4

SELECTED PERCENTILES AND AGGREGATE NET WORTH: SIPP, REWEIGHTED SIPP, PSID, AND SCF

		Reweighted			Percent of PSID		Percent of SCF	
Percentile	SIPP	SIPP-r	PSID	SCF	SIPP	SIPP-r	SIPP	SIPP-r
10	-700	-497	0	0	-	-	-	-
20	1,240	1,275	4,500	4,930	27.6	28.3	25.2	25.9
30	8,350	8,702	15,500	17,850	53.9	56.1	46.8	48.8
40	24,350	25,650	34,500	39,810	70.6	74.3	61.2	64.4
50	48,041	50,500	65,000	71,780	73.9	77.7	66.9	70.4
60	79,390	83,400	104,500	110,660	76.0	79.8	71.7	75.4
70	124,055	132,100	166,600	168,400	74.5	79.3	73.7	78.4
80	196,750	210,513	261,700	273,700	75.2	80.4	71.9	76.9
90	357,703	390,850	497,000	493,500	72.0	78.6	72.5	79.2
91	384,941	423,945	539,000	540,400	71.4	78.7	71.2	78.5
92	418,000	460,956	591,000	586,500	70.7	78.0	71.3	78.6
93	455,449	507,370	650,500	660,400	70.0	78.0	69.0	76.8
94	504,426	559,217	740,000	753,500	68.2	75.6	66.9	74.2
95	561,164	624,913	828,000	900,300	67.8	75.5	62.3	69.4
96	631,058	701,434	960,000	1,078,010	65.7	73.1	58.5	65.1
97	727,100	820,675	1,161,000	1,332,800	62.6	70.7	54.6	61.6
98	900,375	1,001,753	1,432,000	2,011,800	62.9	70.0	44.8	49.8
99	1,229,163	1,387,190	2,218,000	3,801,800	55.4	62.5	32.3	36.5
Aggregate ($Billions)	14,370.7	15,719.5	23,330.8	29,056.7	61.6	67.4	49.5	54.1

SOURCE: MPR analysis of the 1996 SIPP panel wave 9, the 1998 SCF, and the 1999 PSID.

TABLE IV.5

SELECTED PERCENTILES AND AGGREGATE NET WORTH, WITH EXCLUSIONS: SIPP AND SCF

	Excluding Non-SIPP Items			Also Excluding Weak SIPP Items		
Percentile	SIPP	SCF-A	SIPP/ SCF-A	SIPP-B	SCF-B	SIPP/ SIPP-B
10	-700	0	--	-1,100	0	--
20	1,240	3,700	33.5	978	2,920	33.5
30	8,350	13,900	60.1	7,000	11,200	62.5
40	24,350	33,610	72.4	21,000	28,239	74.4
50	48,041	64,600	74.4	43,000	51,900	82.9
60	79,390	98,940	80.2	71,000	84,580	83.9
70	124,055	153,000	81.1	109,550	126,000	86.9
80	196,750	243,700	80.7	169,500	191,870	88.3
90	357,703	446,850	80.0	295,050	338,600	87.1
91	384,941	490,400	78.5	316,634	370,000	85.6
92	418,000	535,300	78.1	340,350	397,500	85.6
93	455,449	582,800	78.1	369,900	429,850	86.1
94	504,426	684,500	73.7	405,200	472,000	85.8
95	561,164	819,000	68.5	447,300	545,300	82.0
96	631,058	985,000	64.1	498,050	634,770	78.5
97	727,100	1,184,600	61.4	582,500	787,180	74.0
98	900,375	1,793,600	50.2	684,000	1,048,860	65.2
99	1,229,163	3,432,500	35.8	906,400	1,724,200	52.6
Aggregate ($Billions)	14,370.7	26,201.5	54.8	11,881.4	16,554.9	71.8

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE IV.6

COMPARISON OF SIPP AND SCF MEAN AND MEDIAN NET WORTH WITH ALTERNATIVE COMPONENTS EXCLUDED AND SIPP REWEIGHTED

Description of Survey Estimates	Mean Net Worth			Median Net Worth		
	SIPP	SCF	% of SCF	SIPP	SCF	% of SCF
Estimates with original weights						
No components excluded from either survey	140,245	283,345	49.5	48,041	71,780	66.9
Excluding non-SIPP components from the SCF	140,245	255,502	54.9	48,041	64,600	74.4
Also excluding weak SIPP components from both surveys	115,952	161,434	71.8	43,000	51,900	82.9
Estimates with SIPP reweighted						
No components excluded from either survey	153,409	283,345	54.1	50,500	71,780	70.4
Excluding non-SIPP components from the SCF	153,409	255,502	60.0	50,500	64,600	78.2
Also excluding weak SIPP components from both surveys	125,074	161,434	77.5	45,428	51,900	87.5

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE IV.7

SIPP WAVE 7 PENSION VARIABLES

Plan Description and Variable Names	Number of Accounts (1,000s)	Aggregate Account Balance ($Billions)
Pension plans from current jobs		
Tax-deferred savings plans		
For persons who reported participating in an employee thrift plan in 1997 T3TOTAMT if ITHRFTYN=1	24,818	803.6
For persons who did not report participating in an employee thrift plan T3TOTAMT if ITHRFTYN NE 1	16,689	494.3
Pension plans other than tax-deferred savings plans		
Primary plans (T1TOTAMT)	3,660	122.8
Secondary plans (T2TOTAMT)		
Primary plan is a tax-deferred savings plan (if T1TOTAMT=0)	1,524	42.9
Primary plan is not a tax-deferred savings plan (if T1TOTAMT>0)	151	3.2
Pension plans from previous employment TPREVAMT	3,802	144.0
Wave 7 Total, All Plans	50,644	1,610.8
Plans not measured in wave 9		
Upper bound	25,826	807.2
Lower bound	9,137	312.9

SOURCE: MPR analysis of the 1996 SIPP panel wave 7.

TABLE IV.8

PERCENTAGE DISTRIBUTION OF ASSETS BY LIABILITIES: SIPP AND SCF

	Liabilities													
Assets	0	1 to < 1,000	1,000 to < 5,000	5,000 to < 10,000	10,000 to < 25,000	25,000 to < 50,000	50,000 to < 100,000	100,000 to < 150,000	150,000 to < 200,000	200,000 to < 300,000	300,000 to < 500,000	500,000 to < 1,000,000	1,000,000 and up	Asset Class Total
0	4.258	0.333	0.332	0.101	0.102	0.026	0.008	0.000	0.000	0.000	0.000	0.000	0.000	5.160
	2.426	**0.358**	**0.255**	**0.089**	**0.011**	**0.013**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3.152**
1 to < 1,000	2.354	0.471	0.581	0.158	0.224	0.076	0.023	0.000	0.000	0.000	0.005	0.000	0.000	3.892
	2.139	**0.513**	**0.336**	**0.262**	**0.196**	**0.026**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3.472**
1,000 to < 5,000	2.717	0.744	1.270	0.562	0.536	0.189	0.056	0.013	0.008	0.000	0.000	0.001	0.000	6.096
	2.812	**0.870**	**1.200**	**0.707**	**0.491**	**0.127**	**0.005**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**6.212**
5,000 to < 10,000	1.900	0.448	1.277	0.985	1.162	0.228	0.074	0.000	0.006	0.000	0.000	0.000	0.000	6.080
	1.226	**0.895**	**1.201**	**0.808**	**0.707**	**0.157**	**0.044**	**0.005**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**5.043**
10,000 to < 25,000	1.954	0.497	1.270	1.311	2.461	0.809	0.191	0.037	0.006	0.000	0.000	0.000	0.000	8.536
	1.908	**0.756**	**1.544**	**1.283**	**1.919**	**0.707**	**0.130**	**0.001**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**8.248**
25,000 to < 50,000	1.903	0.454	0.703	0.689	1.576	1.324	0.315	0.051	0.010	0.004	0.000	0.000	0.000	7.029
	1.425	**0.745**	**1.300**	**0.664**	**1.815**	**0.999**	**0.269**	**0.046**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**7.263**
50,000 to < 100,000	3.319	0.598	0.869	0.703	1.853	2.821	3.532	0.285	0.032	0.008	0.000	0.000	0.000	14.020
	2.474	**0.978**	**1.157**	**0.732**	**1.693**	**2.487**	**2.089**	**0.272**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**11.882**
100,000 to < 150,000	2.300	0.444	0.598	0.521	1.168	1.484	4.135	1.865	0.133	0.070	0.023	0.000	0.003	12.744
	2.543	**0.411**	**0.498**	**0.515**	**1.283**	**1.872**	**3.889**	**1.054**	**0.050**	**0.021**	**0.000**	**0.021**	**0.000**	**12.157**
150,000 to < 200,000	1.634	0.274	0.420	0.386	0.674	0.857	2.186	2.059	0.545	0.114	0.012	0.000	0.004	9.165
	1.863	**0.115**	**0.466**	**0.488**	**0.538**	**0.901**	**2.498**	**1.650**	**0.239**	**0.075**	**0.000**	**0.000**	**0.000**	**8.833**
200,000 to < 300,000	1.950	0.293	0.399	0.337	0.845	0.906	1.870	2.107	1.136	0.440	0.013	0.000	0.004	10.300
	2.404	**0.363**	**0.408**	**0.126**	**0.850**	**1.442**	**2.459**	**2.497**	**0.820**	**0.155**	**0.000**	**0.000**	**0.000**	**11.524**
300,000 to < 500,000	1.719	0.307	0.464	0.311	0.631	0.692	1.565	1.463	0.982	0.894	0.180	0.000	0.001	9.209
	2.362	**0.269**	**0.266**	**0.254**	**0.547**	**1.011**	**2.054**	**1.594**	**0.837**	**0.540**	**0.022**	**0.000**	**0.000**	**9.756**
500,000 to < 1,000,000	1.247	0.258	0.291	0.170	0.378	0.348	0.817	0.653	0.524	0.757	0.324	0.020	0.006	5.793
	1.350	**0.138**	**0.321**	**0.165**	**0.566**	**0.594**	**1.068**	**0.940**	**0.843**	**1.018**	**0.441**	**0.063**	**0.000**	**7.507**
1,000,000 and up	0.521	0.061	0.105	0.052	0.152	0.080	0.210	0.213	0.088	0.242	0.204	0.035	0.010	1.973
	1.043	**0.076**	**0.191**	**0.134**	**0.195**	**0.259**	**0.589**	**0.422**	**0.479**	**0.450**	**0.549**	**0.402**	**0.155**	**4.944**
SIPP	27.776	5.182	8.579	6.286	11.762	9.840	14.982	8.746	3.470	2.529	0.761	0.056	0.028	100.000
SCF	**25.975**	**6.487**	**9.143**	**6.227**	**10.811**	**10.595**	**15.094**	**8.481**	**3.268**	**2.259**	**1.012**	**0.486**	**0.155**	**100.000**

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE IV.9

PERCENTAGE DISTRIBUTION OF ASSETS BY LIABILITIES: SIPP AND SCF FAMILIES WITH ZERO OR NEGATIVE NET WORTH

	Liabilities													
Assets	0	1 to < 1,000	1,000 to < 5,000	5,000 to < 10,000	10,000 to < 25,000	25,000 to < 50,000	50,000 to < 100,000	100,000 to < 150,000	150,000 to < 200,000	200,000 to < 300,000	300,000 to < 500,000	500,000 to < 1,000,000	1,000,000 and up	Asset Class Total
0	4.258	0.333	0.332	0.101	0.102	0.026	0.008	0.000	0.000	0.000	0.000	0.000	0.000	5.160
	2.426	**0.358**	**0.255**	**0.089**	**0.011**	**0.013**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**3.152**
1 to < 1,000	0.000	0.238	0.581	0.158	0.224	0.076	0.023	0.000	0.000	0.000	0.005	0.000	0.000	1.305
	0.000	**0.254**	**0.336**	**0.262**	**0.196**	**0.026**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1.074**
1,000 to < 5,000	0.000	0.000	0.510	0.562	0.536	0.189	0.056	0.013	0.008	0.000	0.000	0.001	0.000	1.875
	0.000	**0.000**	**0.377**	**0.707**	**0.491**	**0.127**	**0.005**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1.707**
5,000 to < 10,000	0.000	0.000	0.000	0.476	1.162	0.228	0.074	0.000	0.006	0.000	0.000	0.000	0.000	1.946
	0.000	**0.000**	**0.000**	**0.412**	**0.707**	**0.157**	**0.044**	**0.005**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1.325**
10,000 to < 25,000	0.000	0.000	0.000	0.000	1.161	0.809	0.191	0.037	0.006	0.000	0.000	0.000	0.000	2.204
	0.000	**0.000**	**0.000**	**0.000**	**0.750**	**0.707**	**0.130**	**0.001**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**1.588**
25,000 to < 50,000	0.000	0.000	0.000	0.000	0.000	0.451	0.315	0.051	0.010	0.004	0.000	0.000	0.000	0.831
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.237**	**0.269**	**0.046**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.552**
50,000 to < 100,000	0.000	0.000	0.000	0.000	0.000	0.000	0.631	0.285	0.032	0.008	0.000	0.000	0.000	0.956
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.219**	**0.272**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.491**
100,000 to < 150,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.538	0.133	0.070	0.023	0.000	0.003	0.767
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.319**	**0.050**	**0.021**	**0.000**	**0.021**	**0.000**	**0.411**
150,000 to < 200,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.157	0.114	0.012	0.000	0.004	0.287
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.065**	**0.075**	**0.000**	**0.000**	**0.000**	**0.140**
200,000 to < 300,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.081	0.013	0.000	0.004	0.098
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
300,000 to < 500,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.000	0.001	0.012
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
500,000 to < 1,000,000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.006	0.010
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
1,000,000 and up	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.007
	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.001**	**0.001**
SIPP	4.258	0.571	1.423	1.297	3.185	1.779	1.298	0.924	0.352	0.277	0.064	0.005	0.025	15.458
SCF	**2.426**	**0.612**	**0.968**	**1.470**	**2.155**	**1.267**	**0.667**	**0.643**	**0.115**	**0.096**	**0.000**	**0.021**	**0.001**	**10.441**

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE IV.10

NET WORTH OF SIPP FAMILIES IN WAVE 9 BY NET WORTH IN WAVE 12
BY PRESENCE OF NET WORTH DATA IN EARLIER WAVES

	Wave 12 Net Worth				
Wave 9 Net Worth	No Data	Negative	Zero	$1 to $5,999	$6,000 or more
Families with Data in Wave 3 or Wave 6					
Negative	22.5	29.4	3.6	18.2	26.2
Zero	24.1	8.5	49.9	14.1	3.4
$1 to $5,999	22.1	12.7	3.8	37.8	23.7
$6,000 and up	11.0	2.1	0.1	3.1	83.6
Families with No Data in Wave 3 or 6					
Negative	43.8	28.3	1.5	15.1	11.2
Zero	49.8	6.9	27.1	14.9	1.3
$1 to $5,999	43.8	12.1	3.0	27.1	14.0
$6,000 and up	26.8	4.3	0.4	5.9	62.5
All Families					
Negative	29.0	29.0	3.0	17.3	21.7
Zero	30.2	8.2	44.5	14.3	2.9
$1 to $5,999	27.8	12.5	3.6	35.0	21.1
$6,000 and up	12.4	2.3	0.1	3.4	81.8

SOURCE: MPR analysis of the 1996 SIPP panel waves 3, 6, 9, and 12.

TABLE IV.11

ASSET AND LIABILITY ITEMS AND PERCENTAGE OF VALUES IMPUTED: 1996 SIPP PANEL

Item	Description	Percent of Nonzero Amounts Imputed[a]
Assets		
TIAJTA	Interest-bearing account held at a financial institution (joint)	38.1
TIAITA	Interest-bearing account held at a financial institution (individual)	55.3
TIMJA	Other interest-earning assets (joint)	55.4
TIMIA	Other interest-earning assets (individual)	68.1
ESMJV	Stocks and mutual funds (joint)	52.9
ESMIV	Stocks and mutual funds (individual)	54.7
TALJCHA	Non-interest-bearing checking account (joint)	30.0
TALICHA	Non-interest-bearing checking account (individual)	34.0
TALSBV	U.S. savings bonds	44.6
TALRB	Individual retirement account (IRA)	43.5
TALKB	Keogh account	61.5
EOAEQ	Equity in other financial assets	39.9
TALTB	401(k) or thrift plan	44.9
TALLIV	Life insurance (face value)	34.8
TPROPVAL	Principal residence (excluding mobile home)	26.0
TMHVAL	Mobile home	20.9
TRJMV	Rental property (joint)	36.4
TRIMV	Rental property (individual)	41.4
TRTSHA	Equity of rental property held with others	53.2
TOTHREVA	Equity of vacation homes and other real estate	24.7
TCARVAL1	First vehicle (auto, van or truck)	28.3
TCARVAL2	Second vehicle	21.8
TCARVAL3	Third vehicle	18.5
TOV1VAL	First motorcycle, recreational vehicle (RV), or boat	21.3
TOV2VAL	Second motorcycle, RV, or boat	19.8
TVBVA1	First business (value of own share)	44.6
TVBVA2	Second business (value of own share)	50.8
EALOWA	Amount owed respondent for sale of business	29.4
Liabilities		
ESMIMAV	Margin and broker account (individual)	56.6
ESMJMAV	Margin and broker account (joint)	55.1
TMOR1PR	Debt on principal residence, including home equity loans (individual)	31.7
TMHPR	Debt on mobile home (joint)	21.0
TRJPRI	Debt on rental property (joint)	36.8
TRIPRI	Debt on rental property (individual)	39.1
TVBDE1	Debt on first business (own share)	64.8
TVBDE2	Debt on second business (own share)	68.4
TA1AMT	Debt on first vehicle	28.3
TA2AMT	Debt on second vehicle	29.4
TA3AMT	Debt on third vehicle	34.6
TOV1AMT	Debt on first motorcycle, RV, or boat	20.7
TOV2AMT	Debt on second motorcycle, RV, or boat	12.1
EALIDAB	Credit card and store debt (joint)	28.5
EALJDAB	Credit card and store debt (individual)	45.2
EALIDAL	Other loans from financial institutions (joint)	28.7
EALJDAL	Other loans from financial institutions (individual)	47.2
EALIDAO	Other unsecured liabilities (individual)	26.3
EALJDAO	Other unsecured liabilities (joint)	45.1

SOURCE: MPR analysis of the SIPP 1996 panel wave 9.

[a] Of those 15+ who either reported or were imputed ownership of a given asset or liability, this is the percentage (weighted) whose holdings were imputed.

TABLE IV.12

COMPARISON OF SIPP AND SCF NONRESPONSE RATES FOR SELECTED ASSETS AND LIABILITIES

Description of SCF Variable	Variable Name		Percent of Nonzero Amounts Imputed	
	SIPP	SCF	SIPP	SCF
Publicly traded stock, held directly		X3915		38.4
Stock mutual funds	ESMJV	X3822	52.9	36.9
Savings bonds	TALSBV	X3902	44.6	27.6
IRA and Keogh accounts, family head	TALRB	X3610	43.5	29.8
IRA and Keogh accounts, spouse	TALKB	X3620	61.5	28.2
IRA and Keogh accounts, partner		X3630		22.6
401(k), thrift, or other account, family head	TALTB	X4226	44.9	39.3
Principal residence (excluding mobile home, farm)	TPROPVAL	X716	26.0	13.7
Newest auto, van or truck	TCARVAL1	X8166	28.3	1.5
Next newest auto, van or truck	TCARVAL2	X8167	21.8	4.2
Third auto, van or truck	TCARVAL3	X8168	18.5	11.0
Newest other type of vehicle	TOV1VAL	X2506	21.3	14.0
Next other type of vehicle	TOV2VAL	X2606	19.8	17.0
Loan balance on newest auto, van or truck	TA1AMT	X2218	28.3	28.2
Loan balance on next auto, van or truck	TA2AMT	X2318	29.4	33.3
Loan balance on third auto, van or truck	TA3AMT	X2418	34.6	47.2
Balance on first credit card after last payment	EALIDAB	X413	28.5	14.2
Balance on second credit card after last payment	EALJDAB	X421	45.2	12.9
Balance on third credit card after last payment		X424		14.6

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

TABLE IV.13

COMPARISON OF REPORTED AND IMPUTED ASSETS AND LIABILITIES IN THE SIPP: PERSONS 15 AND OLDER WITH NONZERO AMOUNTS

Item	Mean Nonzero Reported Amount	Mean Nonzero Imputed Amount	Ratio of Imputed to Reported Mean	Median Nonzero Reported Amount	Median Nonzero Imputed Amount	Ratio of Imputed to Reported Median
TIAJTA	6,868	8,119	1.18	1,500	2,500	1.67
TIAITA	9,284	9,885	1.06	1,500	1,800	1.20
TIMJA	37,010	27,084	0.73	15,000	15,000	1.00
TIMIA	81,771	71,703	0.88	30,000	13,694	0.46
ESMJV	92,676	128,904	1.39	14,350	10,000	0.70
ESMIV	79,360	73,582	0.93	14,500	10,000	0.69
TALJCHA	649	604	0.93	350	350	1.00
TALICHA	905	928	1.03	400	400	1.00
TALSBV	2,954	3,187	1.08	500	575	1.15
TALRB	36,685	38,268	1.04	15,000	15,500	1.03
TALKB	60,144	31,791	0.53	36,000	4,000	0.11
EOAEQ	73,915	74,995	1.01	23,000	20,000	0.87
TALTB	39,161	34,587	0.88	17,000	13,000	0.76
TALLIV	94,192	86,059	0.91	50,000	40,000	0.80
TPROPVAL	82,166	75,151	0.91	65,000	60,000	0.92
TMHVAL	28,744	26,846	0.93	20,000	19,000	0.95
TRJMV	76,775	61,508	0.80	50,000	42,000	0.84
TRIMV	167,498	139,878	0.84	92,500	65,000	0.70
TRTSHA	129,464	110,623	0.85	40,000	16,000	0.40
TOTHREVA	43,404	50,134	1.16	20,000	25,000	1.25
TCARVAL1	5,842	7,166	1.23	4,788	5,685	1.19
TCARVAL2	2,925	5,805	1.98	1,500	5,685	3.79
TCARVAL3	1,601	5,586	3.49	500	5,685	11.37
TOV1VAL	4,765	5,790	1.22	2,500	2,850	1.14
TOV2VAL	4,394	5,148	1.17	3,000	4,000	1.33
TVBVA1	109,900	133,004	1.21	20,000	30,000	1.50
TVBVA2	126,385	106,494	0.84	25,000	15,000	0.60
EALOWA	37,865	56,613	1.50	6,000	21,000	3.50
ESMIMAV	69,399	9,459	0.14	8,000	6,000	0.75
ESMJMAV	33,346	17,080	0.51	12,500	2,000	0.16
TMOR1PR	48,589	44,495	0.92	41,000	36,000	0.88
TMHPR	25,103	21,118	0.84	21,000	15,000	0.71
TRJPRI	41,074	31,687	0.77	30,000	20,000	0.67
TRIPRI	82,088	77,573	0.94	62,000	51,000	0.82
TVBDE1	45,212	31,390	0.69	15,000	6,500	0.43
TVBDE2	65,549	28,162	0.43	26,000	5,000	0.19
TA1AMT	7,165	8,172	1.14	6,000	7,000	1.17
TA2AMT	5,020	5,786	1.15	3,750	4,000	1.07
TA3AMT	4,332	4,929	1.14	3,000	3,000	1.00
TOV1AMT	6,908	10,754	1.56	4,950	8,000	1.62
TOV2AMT	5,871	7,249	1.23	5,500	6,000	1.09
EALIDAB	4,079	6,009	1.47	1,500	1,600	1.07
EALJDAB	2,303	2,216	0.96	1,000	1,000	1.00
EALIDAL	10,370	8,984	0.87	3,800	3,800	1.00
EALJDAL	7,386	8,248	1.12	2,000	2,000	1.00
EALIDAO	8,881	9,809	1.10	3,000	2,700	0.90
EALJDAO	3,567	3,674	1.03	750	500	0.67

SOURCE: MPR analysis of the SIPP 1996 panel wave 9.

NOTE: See Table IV.11 for descriptions of the variables.

TABLE IV.14

DISTRIBUTION OF FAMILIES AND MEAN NONZERO AMOUNTS BY IMPUTATION STATUS: SELECTED ITEMS IN THE SCF

Item	Percentage Distribution of Families with Nonzero Amounts			Mean Amount		
	Amount Reported	Bracket Reported; Amount Imputed	No Information Reported; Amount Imputed	Amount Reported	Bracket Reported; Amount Imputed	No Information Reported; Amount Imputed
Publicly traded stock, held directly	61.5	23.7	14.8	108,611	300,735	141,220
Stock mutual funds	63.1	18.7	18.2	65,190	123,434	66,173
Savings bonds	72.4	16.9	10.7	4,074	7,555	4,514
IRA and Keogh accounts, family head	70.2	17.7	12.2	60,865	95,361	56,175
IRA and Keogh accounts, spouse	71.8	15.6	12.6	27,742	37,537	25,164
IRA and Keogh accounts, partner	77.4	5.1	17.5	16,141	2,160	9,394
401(k), thrift, or other account, family head	60.7	23.3	16.0	51,915	43,973	42,057
Principal residence (excluding mobile home, farm)	86.3	11.6	2.1	146,105	151,941	144,427
Newest auto, van or truck	98.5	0.0	1.5	8,573	--	7,645
Next newest auto, van or truck	97.5	1.2	3.0	5,880	6,877	5,978
Third auto, van or truck	89.0	6.2	4.9	4,532	7,848	5,945
Newest other type of vehicle	86.0	8.9	5.0	9,116	22,002	5,559
Next other type of vehicle	83.0	7.3	9.7	4,787	20,677	5,589
Loan balance on newest auto, van or truck	71.8	2.5	25.7	8,919	9,451	8,496
Loan balance on next auto, van or truck	66.7	6.0	27.4	6,954	5,973	7,210
Loan balance on third auto, van or truck	52.8	5.3	41.9	6,097	7,061	5,171
Balance on first credit card after last payment	85.8	12.0	2.2	3,967	5,038	2,967
Balance on second credit card after last payment	87.1	11.3	1.6	1,034	975	1,000
Balance on third credit card after last payment	85.4	13.1	1.5	333	143	779

SOURCE: MPR analysis of the 1998 SCF.

TABLE IV.15

SELECTED RESPONSE BRACKETS EMPLOYED IN THE SIPP AND THE PSID

MPR Asset Code	Asset or Liability Included in Bracket	Survey	Boundaries of Response Brackets										Median Positive Value
			500	1,000	5,000	10,000	25,000	50,000	75,000	100,000	150,000	200,000	
111	Assets held at financial institutions	SIPP	X	X	X								3,822
	Checking and savings accounts	PSID		X	X	X		X					4,000
112	Other interest-earning assets	SIPP		X	X	X							30,000
113	Stocks and mutual funds	SIPP		X		X	X						21,000
113	Stocks and mutual funds	PSID			X		X	X		X			25,000
116	IRAs (Keoghs collected separately)	SIPP			X		X	X					20,000
116	IRAs and annuities	PSID			X		X	X		X			25,000
117	401(k) and thrift accounts	SIPP			X		X	X					19,258
123	All rental property	SIPP					X		X	X			60,000
123	Equity in all other real estate	PSID			X			X			X		60,000
125	Business value	SIPP		X		X				X			25,000
125	Business equity	PSID				X		X				X	60,000
213	Mortgages on rental property	SIPP					X	X		X			60,000

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

NOTE: Bottom and top brackets are open-ended.

TABLE IV.16

WEIGHTED CORRELATION BETWEEN ASSETS AND LIABILITIES BY IMPUTATION OF SELECTED VARIABLES, 1993 AND 1996

Imputed Variables[a]	Year	Correlation between Assets and Liabilities: Subgroup with Imputed Variables	Correlation between Assets and Liabilities: All Other Families	Percentage of Sample Families in Subgroup
Vehicle	1993	0.515	0.486	11.1
Vehicle	1999	0.073	0.160	22.4
Vehicle or home	1999	0.060	0.188	31.1
Vehicle or home or stocks	1999	0.068	0.179	37.4
Home value or debt or both, or stocks	1997	0.192	0.178	28.1
Home value or debt or both, or stocks	1998	0.091	0.051	29.0
Home value or debt or both, or stocks	1999	0.136	0.110	28.3
Home value or debt or both, or stocks	2000	0.242	0.140	28.2

SOURCE: MPR analysis of the 1992 SIPP panel wave 4 and the 1996 panel waves 3, 6, 9 and 12.

NOTE: Assets excludes 401(k) and thrift plans, which were not measured in 1992.

[a] "Vehicle" indicates that the value or debt owed on the first vehicle, but not both, was imputed.
"Home" indicates that the value or debt owed on the home, but not both, was imputed.
"Stocks" indicates that the value of stocks or mutual funds was imputed.

TABLE IV.17

VALUE OF THE FIRST VEHICLE, BY YEAR, IN THE 1996 SIPP PANEL WAVE 9 PUBLIC USE FILE

	Vehicle 1, Reported Values Only				Vehicle 1, Both Reported and Imputed Values			
Model Year	Weighted Observations (1,000s)	Mean ($)	Standard Deviation ($)	Median ($)	Weighted Observations (1,000s)	Mean ($)	Standard Deviation ($)	Median ($)
1985	7,039	500	0	500	7,039	500	0	500
1986	2,247	750	0	750	2,247	750	0	750
1987	2,728	1,000	0	1,000	2,728	1,000	0	1,000
1988	3,115	1,500	0	1,500	3,115	1,500	0	1,500
1989	3,922	2,500	0	2,500	3,922	2,500	0	2,500
1990	3,947	3,350	0	3,350	3,947	3,350	0	3,350
1991	4,333	5,000	0	5,000	4,333	5,000	0	5,000
1992	3,234	5,855	2,025	5,525	4,606	5,887	1,698	5,963
1993	3,998	6,800	2,229	6,500	5,379	6,848	1,924	6,990
1994	4,684	8,303	2,755	7,750	6,371	8,349	2,363	8,478
1995	5,720	10,498	3,606	9,450	7,526	10,541	3,145	10,677
1996	5,441	12,554	3,719	12,155	7,222	12,597	3,229	12,728
1997	5,237	14,540	4,730	13,850	7,231	14,581	4,026	14,688
1998	5,195	16,609	5,136	16,450	6,850	16,717	4,477	17,058
1999	1,223	18,806	6,138	18,245	1,745	18,973	5,143	19,365
Missing year					12,941	5,685	0	5,685
Total	62,063				87,202			

SOURCE: MPR analysis of the 1996 SIPP panel wave 9.

NOTE: Vehicle data are measured once per household.

TABLE IV.18

MEAN VALUE OF FIRST THREE VEHICLES BY YEAR:
FAMILIES WITH ONE OR MORE VEHICLES, SIPP AND SCF

	Mean Value of SCF Vehicles			Mean Value of SIPP Vehicles			Ratio of SIPP to SCF Mean Value		
Year	1st[a]	2nd	3rd	1st[a]	2nd	3rd	1st	2nd	3rd
1978 or earlier	6,663	3,624	2,641						
1979	3,753	2,038	2,291						
1980	1,861	1,705	2,159						
1981	1,721	1,586	2,026						
1982	2,189	1,974	1,723						
1983	1,915	2,502	1,862						
1984	2,278	2,468	2,082						
1985	2,445	2,662	2,758						
1985 or earlier	4,014	2,807	2,377	500	500	500	0.12	0.18	0.21
1986	3,184	2,925	2,782	750	750	750	0.24	0.26	0.27
1987	3,445	2,983	2,725	1,000	1,000	1,000	0.29	0.34	0.37
1988	3,873	3,429	3,077	1,500	1,500	1,500	0.39	0.44	0.49
1989	4,437	4,300	4,283	2,500	2,500	2,500	0.56	0.58	0.58
1990	5,180	5,047	4,095	3,350	3,350	3,350	0.65	0.66	0.82
1991	6,474	5,736	5,516	5,000	5,000	5,000	0.77	0.87	0.91
1992	7,167	6,222	5,722	6,055	5,809	5,565	0.84	0.93	0.97
1993	8,124	7,472	7,069	7,060	6,717	6,728	0.87	0.90	0.95
1994	9,681	8,972	8,980	8,646	8,067	7,242	0.89	0.90	0.81
1995	12,469	10,643	11,308	10,881	9,801	8,890	0.87	0.92	0.79
1996	14,944	13,294	13,957	12,895	11,666	10,716	0.86	0.88	0.77
1997	16,950	14,556	14,516	14,936	13,131	11,992	0.88	0.90	0.83
1998	19,456	17,681	17,072	17,094	13,969	12,624	0.88	0.79	0.74
1999	23,955	0	0	19,339	15,995	14,212	0.81	--	--
Mean	9,204	5,471	4,028	8,230	4,191	2,152	0.89	0.77	0.53
Missing year[b]				5,685	5,685	5,685			
Grand Mean	9,204	5,471	4,028	7,847	4,432	2,710	0.85	0.81	0.67

SOURCE: MPR analysis of the 1996 SIPP panel wave 9 and the 1998 SCF.

[a] Vehicles are ordered from most valuable (1st) to least.

[b] Model year is not reported and not imputed.

TABLE V.1

FACTORS FOR REWEIGHTING MODEL DATABASE
ACCORDING TO TOTAL ANNUAL INCOME

Primary Family Income Range	SCF Population Count	SIPP Population Count	Ratio SCF / SIPP
Less than 6,000	6,004,203.0	3,932,506.0	1.52681
6,000 to < 16,000	17,920,535.2	18,590,245.0	0.96398
16,000 to < 28,000	19,413,545.6	20,890,048.6	0.92932
28,000 to < 40,000	15,310,151.2	16,701,118.1	0.91671
40,000 to < 52,000	12,044,671.5	13,070,308.5	0.92153
52,000 to < 90,000	19,952,288.1	20,451,088.8	0.97561
90,000 to < 150,000	7,816,307.0	6,863,262.0	1.13886
150,000 to < 300,000	2,815,799.0	1,555,371.0	1.81037
300,000 and up	1,271,342.0	414,114.4	3.07003
Total	102,548,842.0	102,468,062.0	

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

NOTE: Ratios are not rescaled as in Table IV.3; the reweighted SIPP sample sums to the SCF population total.

TABLE V.2

MEANS OF INDEPENDENT VARIABLES USED IN ECONOMETRIC MODELS

Variable	Definition	(1) SCF Mean	(2) Reported SIPP Mean	(3) Reweighted SIPP Mean	% Difference (2) – (1)	% Difference (3) – (1)
own_home	Head is homeowner	0.663	0.666	0.669	0.6%	1.0%
white_head	Head is white * non-Hispanic	0.777	0.763	0.764	-1.9%	-1.7%
wh_hs	white_head * hs_head	0.678	0.656	0.659	-3.2%	-2.7%
wh_sc	white_head * sc_head	0.428	0.424	0.434	-0.9%	1.4%
wh_ma	white_head * married	0.426	0.424	0.430	-0.6%	0.9%
wh_nm	white_head * nevmar	0.105	0.093	0.092	-11.5%	-12.2%
wh_fh	white_head * fem_head	0.200	0.205	0.202	2.8%	1.3%
wh_kf	white_head * kids_in_fam	0.263	0.243	0.247	-7.4%	-6.0%
black_head	Head is black * non-Hispanic	0.119	0.116	0.116	-2.1%	-2.2%
bl_hs	black_head * hs_head	0.090	0.088	0.087	-2.6%	-3.7%
bl_sc	black_head * sc_head	0.046	0.050	0.048	7.2%	5.0%
bl_ma	black_head * married	0.033	0.038	0.036	13.4%	9.8%
bl_nm	black_head * nevmar	0.031	0.030	0.031	-1.8%	0.4%
bl_fh	black_head * fem_head	0.057	0.056	0.057	-2.0%	-0.7%
bl_kf	black_head * kids_in_fam	0.054	0.051	0.051	-5.4%	-6.6%
hisp_head	Head is Hispanic	0.072	0.087	0.085	20.9%	18.6%
hs_head	Head has H.S. diploma/GED	0.835	0.821	0.822	-1.7%	-1.6%
hs_ma	hs_head * married	0.448	0.449	0.457	0.4%	2.0%
hs_nm	hs_head * nevmar	0.129	0.121	0.120	-6.5%	-7.3%
hs_fh	hs_head * fem_head	0.224	0.228	0.223	1.7%	-0.3%
hs_kf	hs_head * kids_in_fam	0.318	0.307	0.309	-3.6%	-2.8%
sc_head	Head has attended college	0.517	0.523	0.532	1.2%	2.9%
sc_ma	sc_head * married	0.284	0.293	0.306	3.2%	7.8%
sc_nm	sc_head * nevmar	0.089	0.085	0.084	-4.5%	-5.9%
sc_fh	sc_head * fem_head	0.133	0.139	0.135	4.3%	1.6%
sc_kf	sc_head * kids_in_fam	0.189	0.195	0.201	2.7%	6.2%
bd_head	Head has bachelor's degree	0.267	0.244	0.258	-8.3%	-3.1%
married	Head is married	0.521	0.530	0.533	1.8%	2.4%
nevmar	Never married, no partner	0.149	0.140	0.140	-6.2%	-5.9%
partner	Head is living with partner	0.064	0.026	0.025	-59.3%	-60.4%

TABLE V.2 (continued)

MEANS OF INDEPENDENT VARIABLES USED IN ECONOMETRIC MODELS

Variable	Definition	(1) SCF Mean	(2) Reported SIPP Mean	(3) Reweighted SIPP Mean	% Difference (2) – (1)	% Difference (3) – (1)
fem_head	Head is female	0.280	0.293	0.292	4.9%	4.3%
disab_in_fam	Disabled members in family	0.058	0.130	0.130	124.6%	124.5%
pure_elderly	Pure elderly family	0.180	0.188	0.183	4.3%	1.8%
kids_in_fam	Child under age 18 in family#	0.374	0.359	0.361	-3.9%	-3.5%
youth_in_fam	Youth age 18 to 24 in family#	0.070	0.115	0.118	63.5%	67.8%
age_h_25pl	Head is age 25 or older	0.949	0.962	0.961	1.3%	1.2%
age_h_30pl	Head is age 30 or older	0.860	0.886	0.887	2.9%	3.1%
age_h_40pl	Head is age 40 or older	0.653	0.671	0.675	2.8%	3.5%
age_h_50pl	Head is age 50 or older	0.433	0.443	0.443	2.4%	2.4%
age_h_65pl	Head is age 65 or older	0.214	0.216	0.211	0.9%	-1.6%
age_h_80pl	Head is age 80 or older	0.057	0.054	0.053	-4.3%	-5.8%
totalinc_log	ln(total annual income + 1)	10.229	10.280	10.271	0.5%	0.4%
totalinc_lsq	Square of totalinc_log	107.018	106.987	107.282	0.0%	0.2%
totalinc_lcu	Cube of totalinc_log	1,129.408	1,121.099	1,130.139	-0.7%	0.1%
totalinc_lqu	Quartic of totalinc_log	12,018.45	11,823.00	11,999.70	-1.6%	-0.2%
oh_wh	own_home * white_head	0.558	0.554	0.559	-0.8%	0.0%
oh_bl	own_home * black_head	0.055	0.054	0.053	-1.4%	-2.8%
oh_hs	own_home * hs_head	0.573	0.565	0.570	-1.3%	-0.4%
oh_sc	own_home * sc_head	0.362	0.366	0.377	1.3%	4.4%
oh_ma	own_home * married	0.430	0.431	0.437	0.1%	1.7%
oh_nm	own_home * nevmar	0.047	0.046	0.046	-2.3%	-3.3%
oh_fh	own_home * fem_head	0.144	0.151	0.148	5.3%	3.4%
oh_kf	own_home * kids_in_fam	0.250	0.238	0.242	-4.9%	-3.2%
ma_kf	married * kids_in_fam	0.255	0.259	0.262	1.5%	2.7%

TABLE V.2 (continued)

MEANS OF INDEPENDENT VARIABLES USED IN ECONOMETRIC MODELS

Variable	Definition	(1) SCF Mean	(2) Reported SIPP Mean	(3) Reweighted SIPP Mean	% Difference (2) – (1)	% Difference (3) – (1)
nm_kf	nevmar * kids_in_fam	0.028	0.025	0.025	-11.6%	-10.2%
fh_kf	fem_head * kids_in_fam	0.078	0.081	0.080	4.0%	2.6%
facelife_v1	Face value of life insurance	114,927	98,980	108,553	-13.9%	-5.5%
facelife_v2	Square of facelife_v1	1.49E+11	4.39E+10	5.33E+10	-70.5%	-64.2%
facelife_v3	Cube of facelife_v1	1.35E+18	3.36E+16	4.41E+16	-97.5%	-96.7%
facelife_v4	Quartic of facelife_v1	3.13E+25	3.47E+22	4.81E+22	-99.9%	-99.8%
totsipp_v1	Total assets measured in both SIPP/SCF	308,508	183,907	199,818	-40.4%	-35.2%
totsipp_v2	Square of totsipp_v1	3.29E+12	5.37E+11	5.34E+11	-83.7%	-83.8%
totsipp_v3	Cube of totsipp_v1	5.41E+20	3.71E+19	3.41E+19	-93.1%	-93.7%
totsipp_v4	Quartic of totsipp_v1	1.72E+29	3.47E+27	3.18E+27	-98.0%	-98.2%
	Sum of weights	102,548,842	102,468,062	102,548,839	-0.1%	0.0%
	Unweighted sample size	21,525	28,969	28,969	34.6%	34.6%

= not counting head or spouse/partner

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.3

LEVEL AND DISTRIBUTION OF TOTAL RETIREMENT ASSETS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	3,788	2,814	49.2%	36,940	0	22,000	15,850	45,333
SIPP reported	2,391	2,339	39.5%	23,331	0	13,500	12,251	26,600
% difference from SCF	-36.9%	-16.9%	-19.6%	-36.8%	---	-38.6%	-22.7%	-41.3%
SIPP reweighted	2,706	2,615	40.4%	26,386	0	15,500	13,335	31,880
% difference from SCF	-28.6%	-7.1%	-17.8%	-28.6%	---	-29.5%	-15.9%	-29.7%
SIPP with topcoded values recoded	2,958	2,722	40.4%	28,842	0	15,500	13,390	32,635
% difference from SCF	-21.9%	-3.3%	-17.8%	-21.9%	---	-29.5%	-15.5%	-28.0%
SIPP with imputed, topcoded values recoded	2,947	2,712	40.4%	28,736	0	15,000	13,219	32,445
% difference from SCF	-22.2%	-3.6%	-17.8%	-22.2%	---	-31.8%	-16.6%	-28.4%
SIPP with all values recoded	3,754	3,233	48.1%	36,605	0	20,383	14,810	40,149
% difference from SCF	-0.9%	14.9%	-2.1%	-0.9%	---	-7.4%	-6.6%	-11.4%
% reduction in SIPP-SCF gap…								
from reweighting	22.6%	58.2%	9.0%	22.4%				
from recoding topcoded values	18.0%	22.3%	0.0%	18.1%				
from recoding imputed values	-0.8%	-2.1%	0.2%	-0.8%				
from recoding remaining values	57.7%	109.8%	79.9%	57.8%				
% of gap remaining after reweighting/coding	2.5%	-88.2%	10.8%	2.5%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.4

LEVEL AND DISTRIBUTION OF OWN HOUSING ASSETS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	9,416	8,308	66.3%	91,821	65,000	125,000	73,257	109,244
SIPP reported	8,549	8,440	66.6%	83,433	63,000	125,000	69,155	107,823
% difference from SCF	-9.2%	1.6%	0.6%	-9.1%	-3.1%	0.0%	-5.6%	-1.3%
SIPP reweighted	9,036	8,859	66.9%	88,113	65,000	130,000	70,399	112,600
% difference from SCF	-4.0%	6.6%	1.0%	-4.0%	0.0%	4.0%	-3.9%	3.1%
SIPP with topcoded values recoded	9,055	8,779	66.9%	88,303	65,000	130,000	70,404	112,600
% difference from SCF	-3.8%	5.7%	1.0%	-3.8%	0.0%	4.0%	-3.9%	3.1%
SIPP with imputed, topcoded values recoded	8,887	8,609	66.3%	86,660	64,000	130,000	69,082	110,740
% difference from SCF	-5.6%	3.6%	0.1%	-5.6%	-1.5%	4.0%	-5.7%	1.4%
SIPP with all values recoded	8,628	8,185	66.4%	84,139	62,698	126,942	67,151	108,475
% difference from SCF	-8.4%	-1.5%	0.2%	-8.4%	-3.5%	1.6%	-8.3%	-0.7%
% reduction in SIPP-SCF gap…								
from reweighting	56.1%	-318.4%	-79.0%	55.8%				
from recoding topcoded values	2.2%	60.7%	0.0%	2.3%				
from recoding imputed values	-19.4%	128.7%	164.5%	-19.6%				
from recoding remaining values	-29.8%	322.5%	-26.6%	-30.1%				
% of gap remaining after reweighting/coding	90.9%	-93.5%	41.1%	91.6%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.5

LEVEL AND DISTRIBUTION OF CHECKING/SAVINGS ACCOUNTS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	1,695	1,399	90.5%	16,532	2,780	11,000	13,173	23,008
SIPP reported	1,065	1,047	77.1%	10,398	1,200	7,060	8,234	12,101
% difference from SCF	-37.2%	-25.2%	-14.9%	-37.1%	-56.8%	-35.8%	-37.5%	-47.4%
SIPP reweighted	1,127	1,098	76.9%	10,991	1,250	7,700	9,886	12,745
% difference from SCF	-33.5%	-21.5%	-15.1%	-33.5%	-55.0%	-30.0%	-24.9%	-44.6%
SIPP with topcoded values recoded	1,142	1,094	76.9%	11,132	1,250	8,000	9,918	12,789
% difference from SCF	-32.7%	-21.9%	-15.1%	-32.7%	-55.0%	-27.3%	-24.7%	-44.4%
SIPP with imputed, topcoded values recoded	1,127	1,079	77.7%	10,992	1,339	8,000	9,711	12,534
% difference from SCF	-33.5%	-22.9%	-14.2%	-33.5%	-51.8%	-27.3%	-26.3%	-45.5%
SIPP with all values recoded	1,271	1,179	90.4%	12,391	2,760	10,884	10,522	14,421
% difference from SCF	-25.1%	-15.8%	-0.1%	-25.1%	-0.7%	-1.1%	-20.1%	-37.3%
% reduction in SIPP-SCF gap…								
from reweighting	9.8%	14.5%	-1.3%	9.7%				
from recoding topcoded values	2.3%	-1.3%	0.0%	2.3%				
from recoding imputed values	-2.3%	-4.2%	5.9%	-2.3%				
from recoding remaining values	22.8%	28.3%	94.5%	22.8%				
% of gap remaining after reweighting/coding		62.7%	0.9%	67.5%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.6

LEVEL AND DISTRIBUTION OF MOTOR VEHICLE ASSETS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	1,293	1,185	82.8%	12,611	8,200	17,000	12,300	14,613
SIPP reported	985	978	84.3%	9,616	6,675	14,400	9,597	13,029
% difference from SCF	-23.8%	-17.4%	1.8%	-23.7%	-18.6%	-15.3%	-22.0%	-10.8%
SIPP reweighted	1,012	1,001	83.9%	9,870	6,825	14,688	9,589	14,142
% difference from SCF	-21.7%	-15.5%	1.2%	-21.7%	-16.8%	-13.6%	-22.0%	-3.2%
SIPP with topcoded values recoded	1,025	1,005	83.9%	9,993	6,825	14,688	9,596	14,184
% difference from SCF	-20.8%	-15.2%	1.2%	-20.8%	-16.8%	-13.6%	-22.0%	-2.9%
SIPP with imputed, topcoded values recoded	1,051	1,031	83.7%	10,247	7,420	15,301	9,722	14,447
% difference from SCF	-18.7%	-13.0%	1.0%	-18.7%	-9.5%	-10.0%	-21.0%	-1.1%
SIPP with all values recoded	1,186	1,146	81.9%	11,565	8,908	17,106	10,716	15,788
% difference from SCF	-8.3%	-3.3%	-1.2%	-8.3%	8.6%	0.6%	-12.9%	8.0%
% reduction in SIPP-SCF gap…								
from reweighting	8.7%	11.0%	31.0%	8.5%				
from recoding topcoded values	4.1%	2.1%	0.0%	4.1%				
from recoding imputed values	8.5%	12.5%	12.6%	8.5%				
from recoding remaining values	43.9%	55.3%	122.0%	44.0%				
% of gap remaining after reweighting/coding	34.8%	19.0%	-65.5%	34.9%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.7

LEVEL AND DISTRIBUTION OF LIFE INSURANCE IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported face value	11,786	10,234	69.2%	114,927	20,000	100,000	89,896	110,680
SIPP reported face value	10,142	10,019	68.8%	98,980	20,000	112,000	86,016	134,307
% difference from SCF	-13.9%	-2.1%	-0.5%	-13.9%	0.0%	12.0%	-4.3%	21.3%
SCF reported cash value	873	754	29.6%	8,510	0	1,000	3,512	8,891
SIPP simulated cash value after reweighting/recoding data	755	455	29.8%	7,364	0	1,738	4,085	4,596
% difference from SCF	-13.5%	-39.7%	0.6%	-13.5%	---	73.8%	16.3%	-48.3%

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.8

LEVEL AND DISTRIBUTION OF OTHER NON-RETIREMENT ASSETS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	16,992	6,903	57.4%	165,699	1,000	47,250	85,462	105,089
SIPP reported	5,854	4,461	41.3%	57,129	0	13,000	25,946	63,745
% difference from SCF	-65.5%	-35.4%	-28.1%	-65.5%	-100.0%	-72.5%	-69.6%	-39.3%
SIPP reweighted	6,610	4,916	42.2%	64,458	0	16,150	32,285	72,526
% difference from SCF	-61.1%	-28.8%	-26.4%	-61.1%	-100.0%	-65.8%	-62.2%	-31.0%
SIPP with topcoded values recoded	7,498	4,839	42.2%	73,117	0	16,150	32,368	76,618
% difference from SCF	-55.9%	-29.9%	-26.4%	-55.9%	-100.0%	-65.8%	-62.1%	-27.1%
SIPP with imputed, topcoded values recoded	7,548	4,897	44.4%	73,599	0	16,430	31,901	77,087
% difference from SCF	-55.6%	-29.1%	-22.6%	-55.6%	-100.0%	-65.2%	-62.7%	-26.6%
SIPP with all values recoded	12,476	6,869	56.3%	121,663	936	38,019	55,720	132,700
% difference from SCF	-26.6%	-0.5%	-1.8%	-26.6%	-6.4%	-19.5%	-34.8%	26.3%
% reduction in SIPP-SCF gap…								
from reweighting	6.8%	18.6%	6.0%	6.8%				
from recoding topcoded values	8.0%	-3.1%	0.0%	8.0%				
from recoding imputed values	0.4%	2.4%	13.6%	0.4%				
from recoding remaining values	44.3%	80.8%	73.9%	44.3%				
% of gap remaining after reweighting/coding	40.5%	1.4%	6.6%	40.6%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.9

LEVEL AND DISTRIBUTION OF TOTAL NON-RETIREMENT ASSETS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	30,270	18,550	96.7%	295,173	105,600	226,000	187,704	260,846
SIPP reported	16,454	14,926	94.7%	160,577	89,675	187,320	112,933	196,698
% difference from SCF	-45.6%	-19.5%	-2.1%	-45.6%	-15.1%	-17.1%	-39.8%	-24.6%
SIPP reweighted	17,785	15,874	94.4%	173,432	92,055	197,100	122,160	212,012
% difference from SCF	-41.2%	-14.4%	-2.4%	-41.2%	-12.8%	-12.8%	-34.9%	-18.7%
SIPP with topcoded values recoded	18,720	15,717	94.4%	182,546	92,075	197,405	122,286	216,190
% difference from SCF	-38.2%	-15.3%	-2.4%	-38.2%	-12.8%	-12.7%	-34.9%	-17.1%
SIPP with imputed, topcoded values recoded	18,613	15,616	94.4%	181,499	90,803	196,150	120,416	214,808
% difference from SCF	-38.5%	-15.8%	-2.4%	-38.5%	-14.0%	-13.2%	-35.8%	-17.6%
SIPP with all values recoded	24,317	17,852	96.1%	237,123	102,579	220,335	148,195	275,980
% difference from SCF	-19.7%	-3.8%	-0.6%	-19.7%	-2.9%	-2.5%	-21.0%	5.8%
% reduction in SIPP-SCF gap…								
from reweighting	9.6%	26.1%	-16.5%	9.6%				
from recoding topcoded values	6.8%	-4.3%	0.0%	6.8%				
from recoding imputed values	-0.8%	-2.8%	-1.8%	-0.8%				
from recoding remaining values	41.3%	61.7%	88.2%	41.3%				
% of gap remaining after reweighting/coding	43.1%	19.2%	30.1%	43.1%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.10

LEVEL AND DISTRIBUTION OF TOTAL ASSETS IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	34,058	21,363	96.8%	332,113	116,510	270,200	203,554	306,179
SIPP reported	18,845	17,265	94.8%	183,907	96,480	215,685	125,184	223,298
% difference from SCF	-44.7%	-19.2%	-2.1%	-44.6%	-17.2%	-20.2%	-38.5%	-27.1%
SIPP reweighted	20,491	18,489	94.5%	199,818	100,000	230,590	135,495	243,891
% difference from SCF	-39.8%	-13.5%	-2.4%	-39.8%	-14.2%	-14.7%	-33.4%	-20.3%
SIPP with topcoded values recoded	21,678	18,489	94.5%	211,388	100,008	231,098	135,676	248,825
% difference from SCF	-36.4%	-13.5%	-2.4%	-36.4%	-14.2%	-14.5%	-33.3%	-18.7%
SIPP with imputed, topcoded values recoded	21,559	18,328	94.5%	210,235	98,176	229,408	133,635	247,252
% difference from SCF	-36.7%	-14.2%	-2.5%	-36.7%	-15.7%	-15.1%	-34.3%	-19.2%
SIPP with all values recoded	28,070	21,090	96.2%	273,728	113,568	261,694	163,005	316,130
% difference from SCF	-17.6%	-1.3%	-0.7%	-17.6%	-2.5%	-3.1%	-19.9%	3.3%
% reduction in SIPP-SCF gap…								
from reweighting	10.8%	29.9%	-16.7%	10.7%				
from recoding topcoded values	7.8%	0.0%	0.0%	7.8%				
from recoding imputed values	-0.8%	-3.9%	-1.7%	-0.8%				
from recoding remaining values	42.8%	67.4%	85.4%	42.8%				
% of gap remaining after reweighting/coding	39.4%	6.7%	33.0%	39.4%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE V.11

LEVEL AND DISTRIBUTION OF TOTAL LIABILITIES IN THE SCF, SIPP, AND ADJUSTED VERSIONS OF THE SIPP

Dataset and Difference	Total Amount ($Billion)	Total ($Billion) for Families with Net Worth under $2 Million	Percent with Positive Value	Mean Asset Value ($)	Median Asset Value ($)	Value ($) at 75th Percentile of Asset Distribution	Asset Value ($) at Median Income	Asset value ($) at 75th Percentile of Income / Poverty Distribution
SCF reported	5,001	4,397	74.0%	48,768	11,900	67,400	40,343	60,361
SIPP reported	4,474	4,442	72.2%	43,662	11,500	66,400	37,962	62,436
% difference from SCF	-10.5%	1.0%	-2.4%	-10.5%	-3.4%	-1.5%	-5.9%	3.4%
SIPP reweighted	4,759	4,707	72.1%	46,409	12,000	70,000	36,889	66,413
% difference from SCF	-4.8%	7.1%	-2.6%	-4.8%	0.8%	3.9%	-8.6%	10.0%
SIPP with all values recoded	4,919	4,633	73.6%	47,964	11,159	68,877	36,016	68,403
% difference from SCF	-1.6%	5.4%	-0.6%	-1.6%	-6.2%	2.2%	-10.7%	13.3%
% reduction in cash value gap…								
from reweighting	54.1%	-585.1%	-8.4%	53.8%				
from recoding remaining values	30.2%	163.1%	84.0%	30.4%				
% of gap remaining after reweighting/coding	15.7%	522.0%	24.4%	15.8%				

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

TABLE VI.1

SIPP 1996 PANEL FILES USED IN THIS REPORT

Wave and File	Census Bureau Release Date
Wave 3	
Core Longitudinal	July 16, 2002[a]
Topical Module	October 5, 2000
Wave 6	
Core Longitudinal	August 3, 2002[a]
Topical Module	May 9, 2001
Wave 7	
Core Longitudinal	August 3, 2002[a]
Topical Module	May 1, 2002
Wave 9	
Core Longitudinal	August 4, 2002[a]
Topical Module	September 17, 2002
Wave 12	
Core Longitudinal	January 20, 2003[a]
Topical Module	July 21, 2002[a]

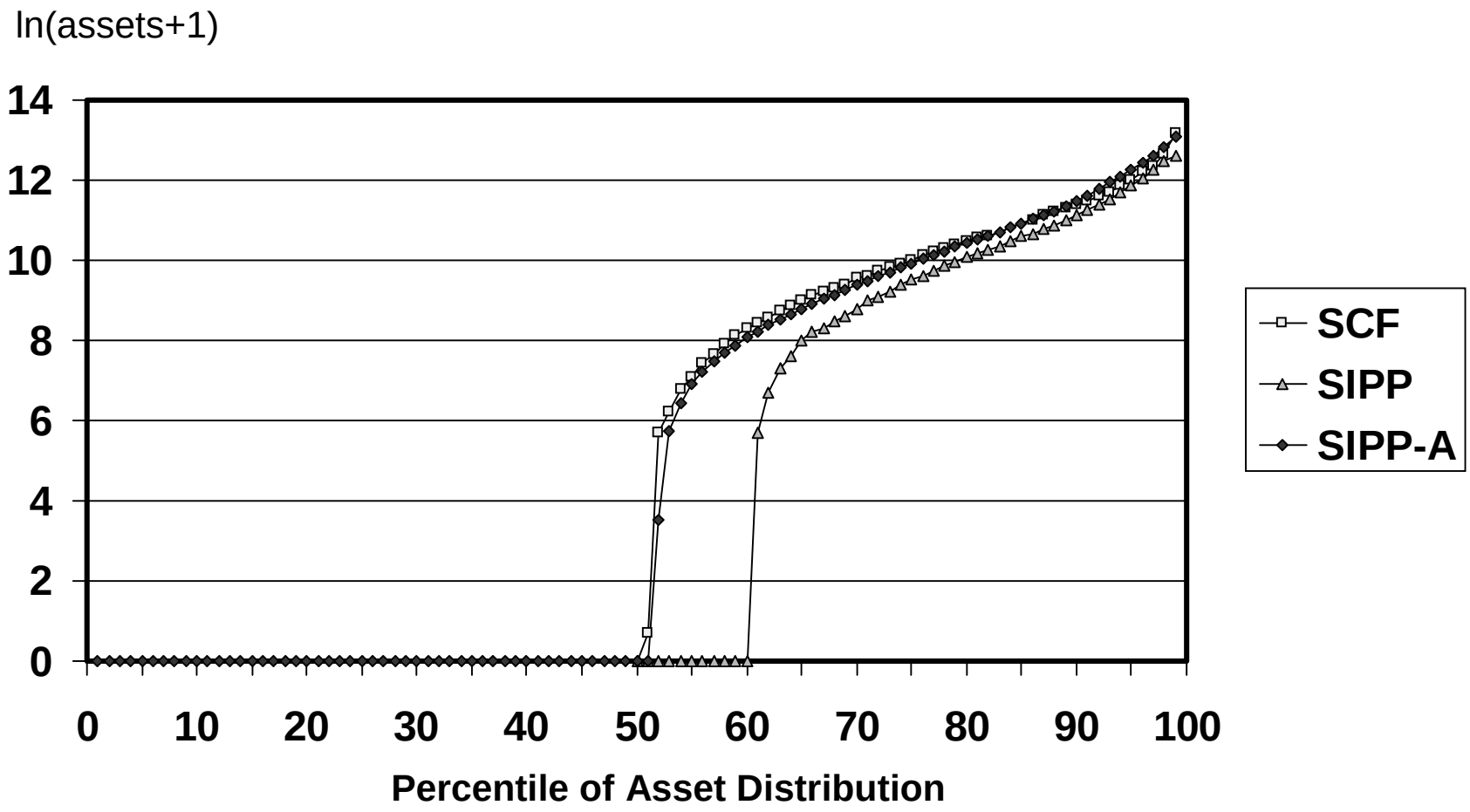
NOTE: The core longitudinal files were used for this report because they include edits and revised weights that make these files superior to the core wave files.

[a] This is the initial release. The Census Bureau does not provide a date stamp with the initial release of a SIPP file, so these dates reflect MPR's acquisition of the file. However, any re-release will be identifiable by the presence of a date stamp.

FIGURES

FIGURE V.1

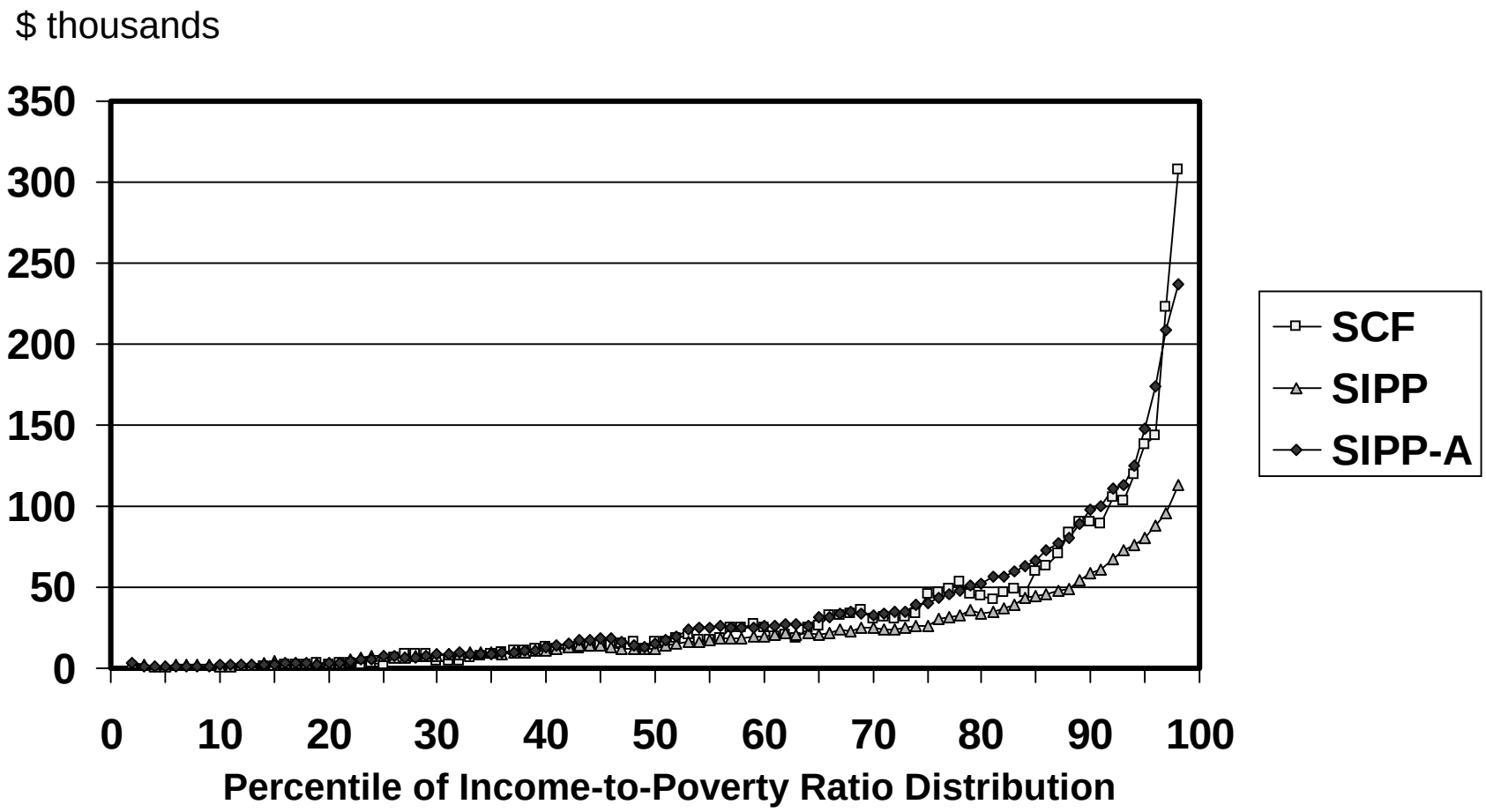
DISTRIBUTION OF TOTAL RETIREMENT ASSETS



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.2

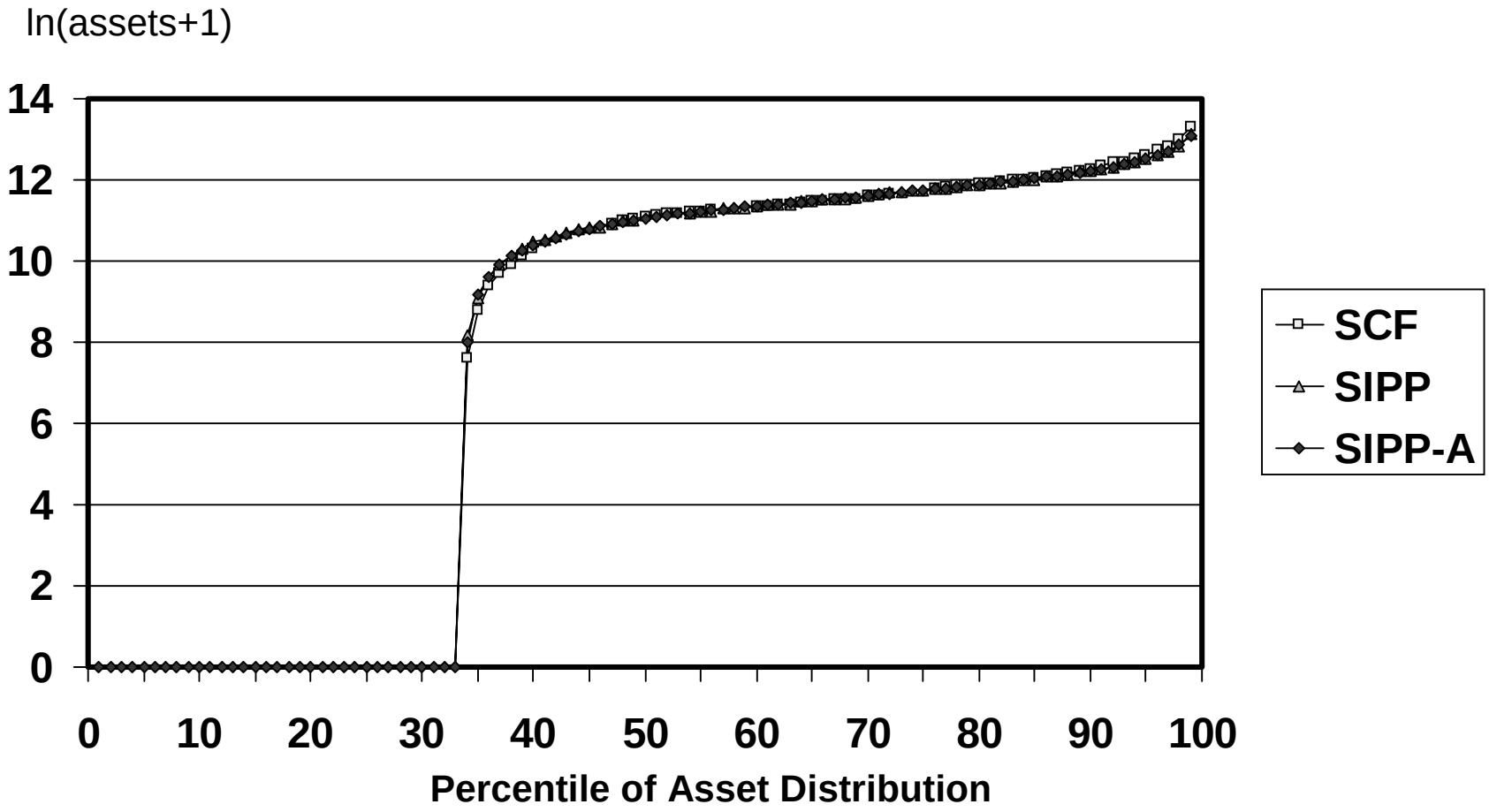
DISTRIBUTION OF TOTAL RETIREMENT ASSETS, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.3

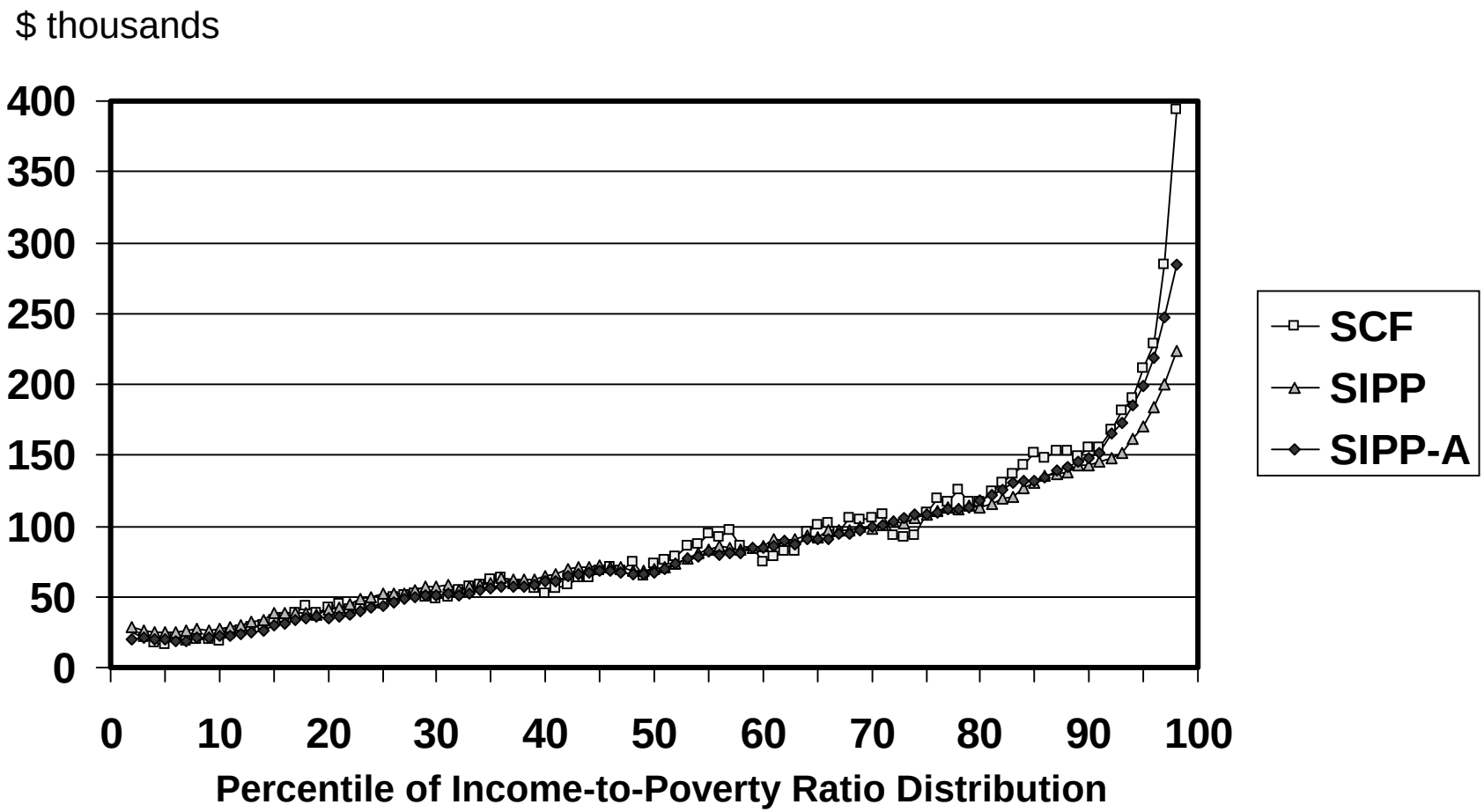
DISTRIBUTION OF OWN HOUSING VALUES



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.4

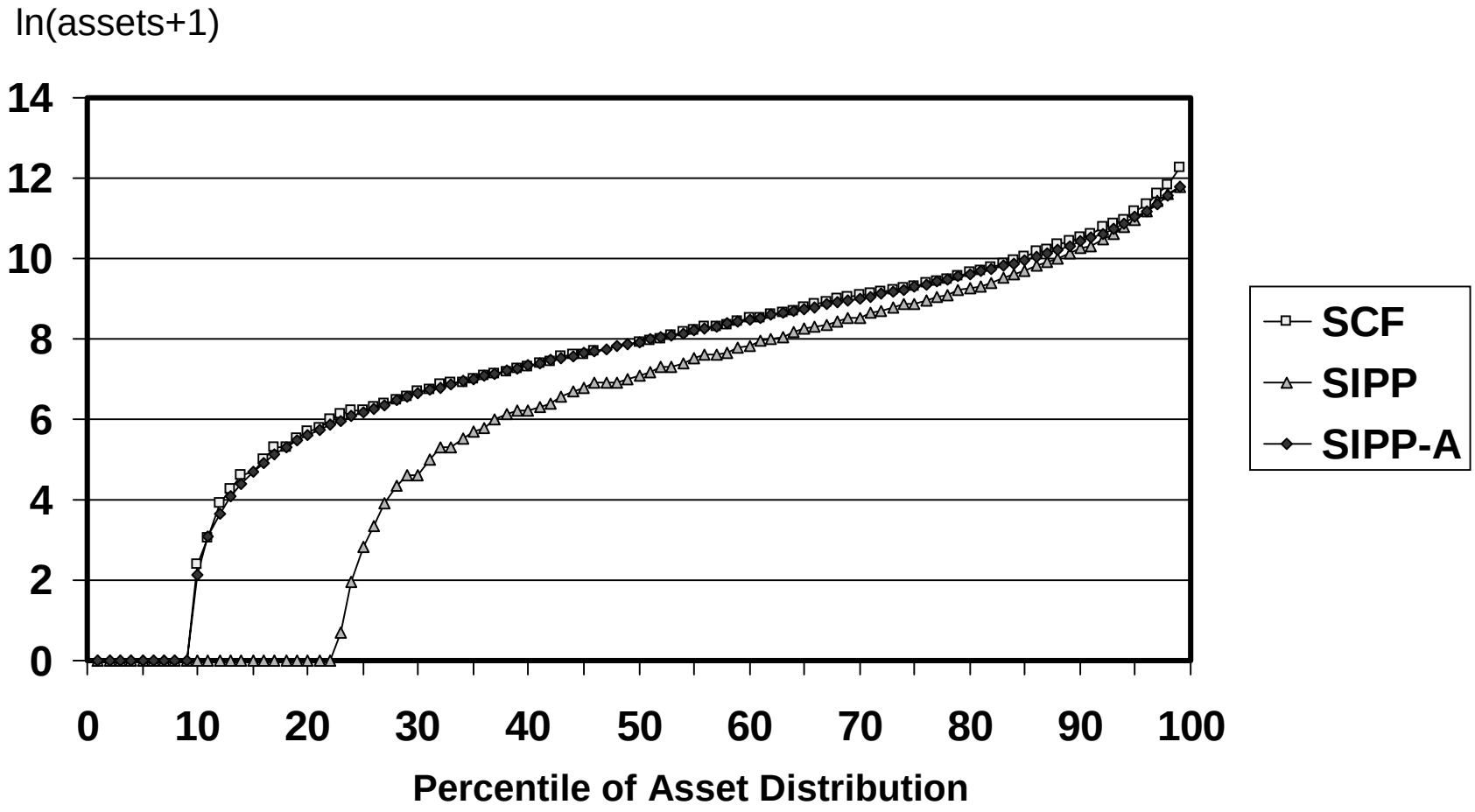
DISTRIBUTION OF OWN HOUSING VALUES, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.5

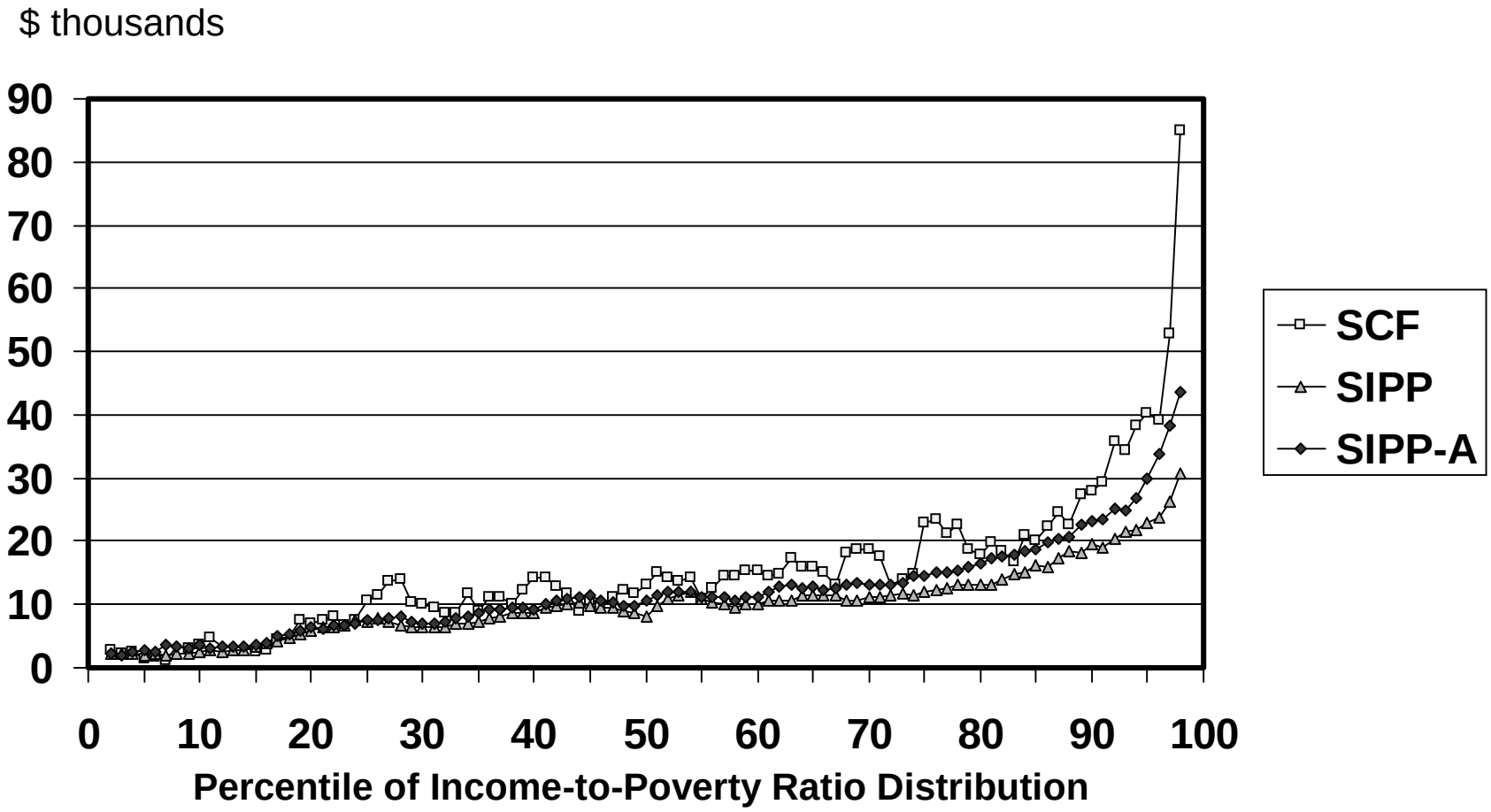
DISTRIBUTION OF CHECKING/SAVINGS ACCOUNTS



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.6

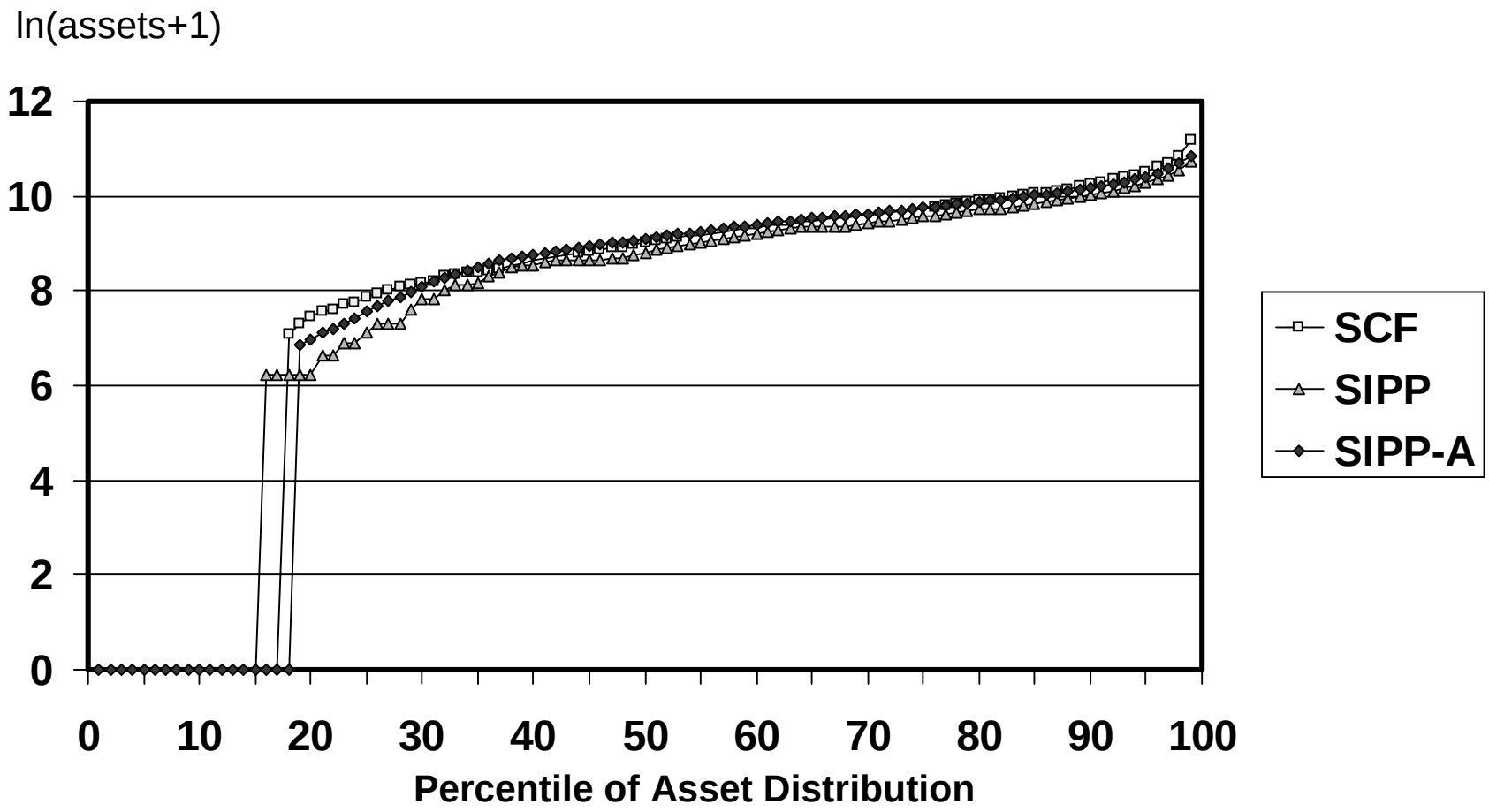
DISTRIBUTION OF CHECKING/SAVINGS ACCOUNTS, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.7

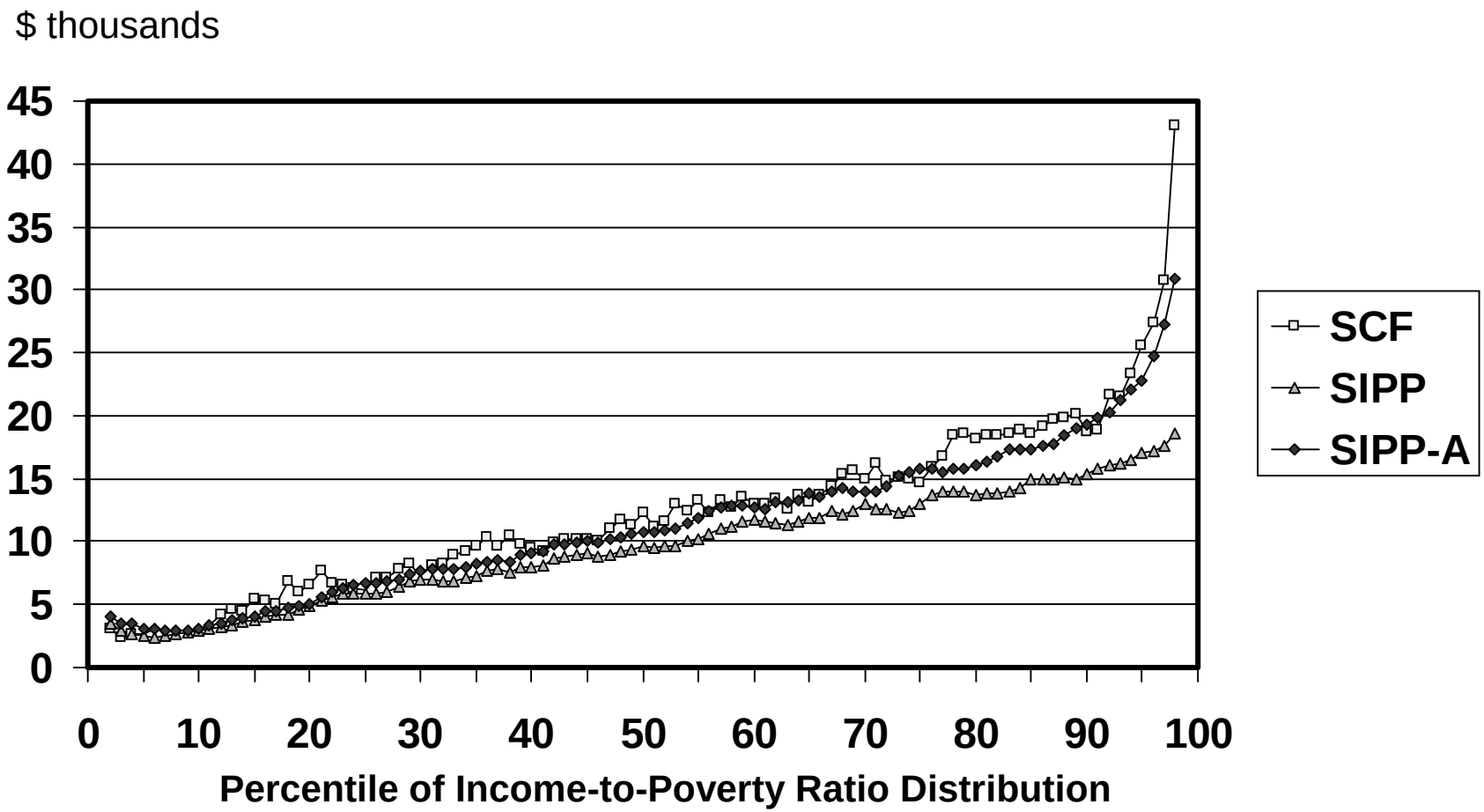
DISTRIBUTION OF MOTOR VEHICLE ASSETS



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.8

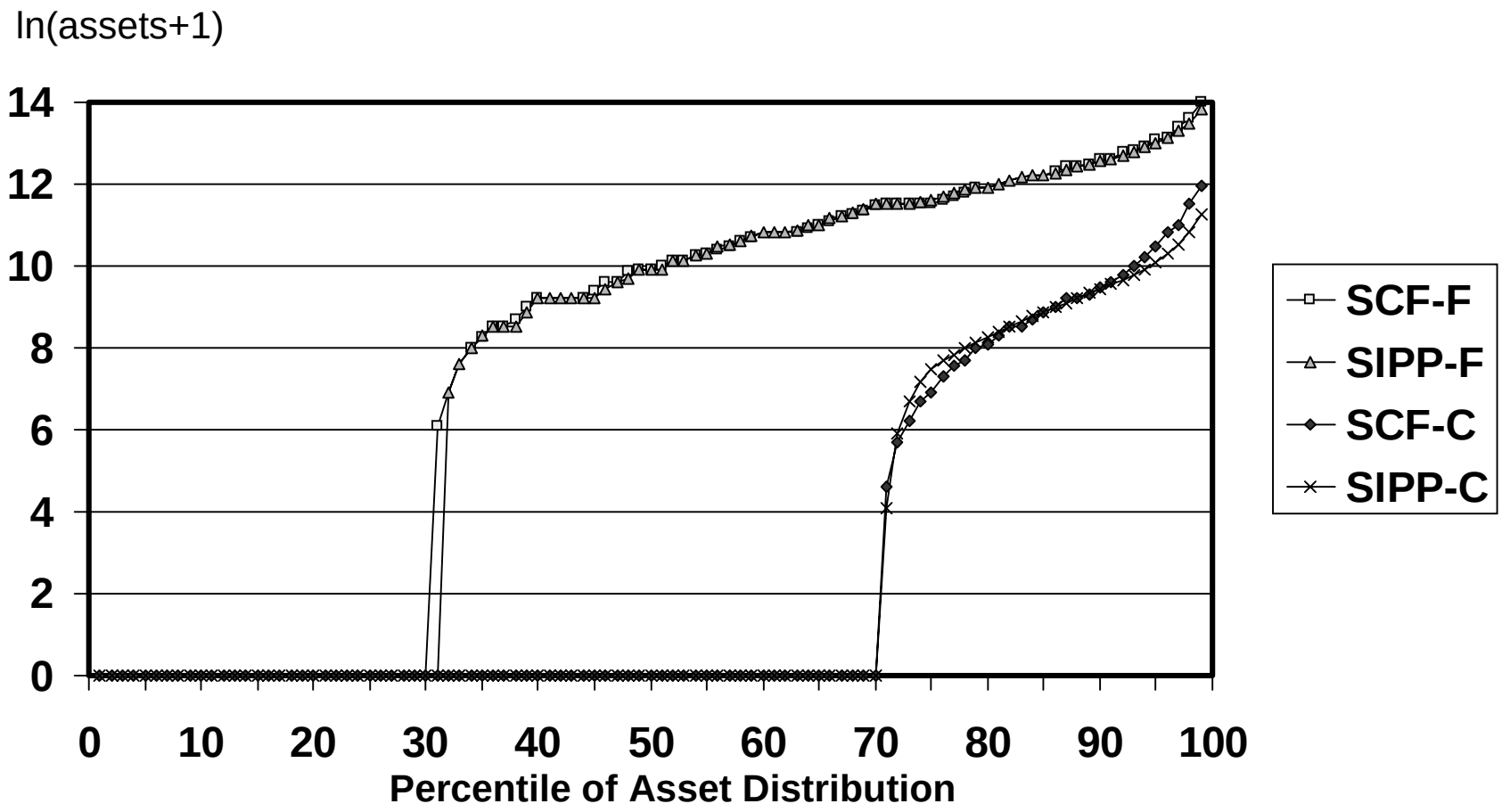
DISTRIBUTION OF MOTOR VEHICLE ASSETS, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.9

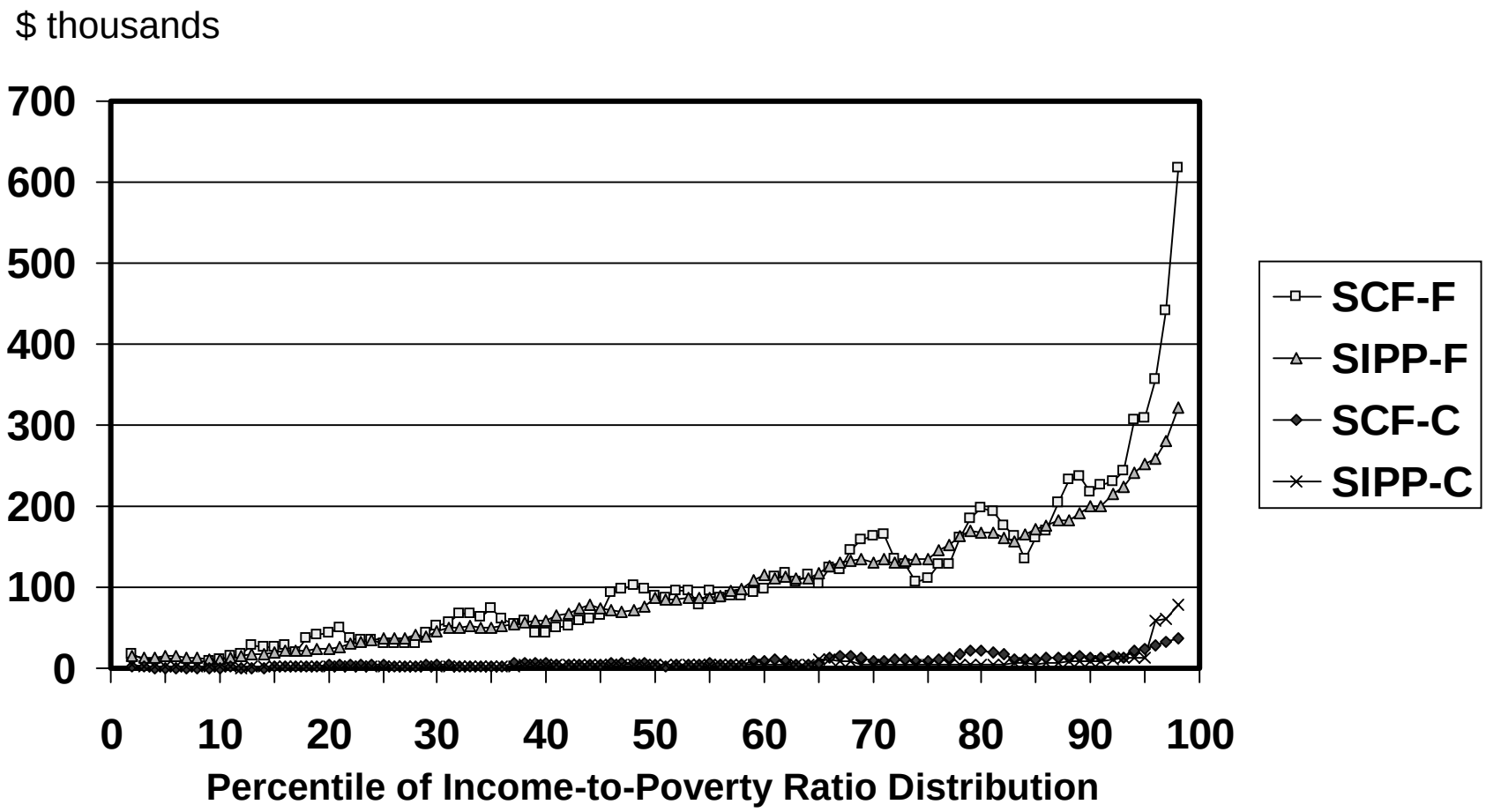
DISTRIBUTION OF LIFE INSURANCE (F=FACE, C=CASH VALUE)



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.10

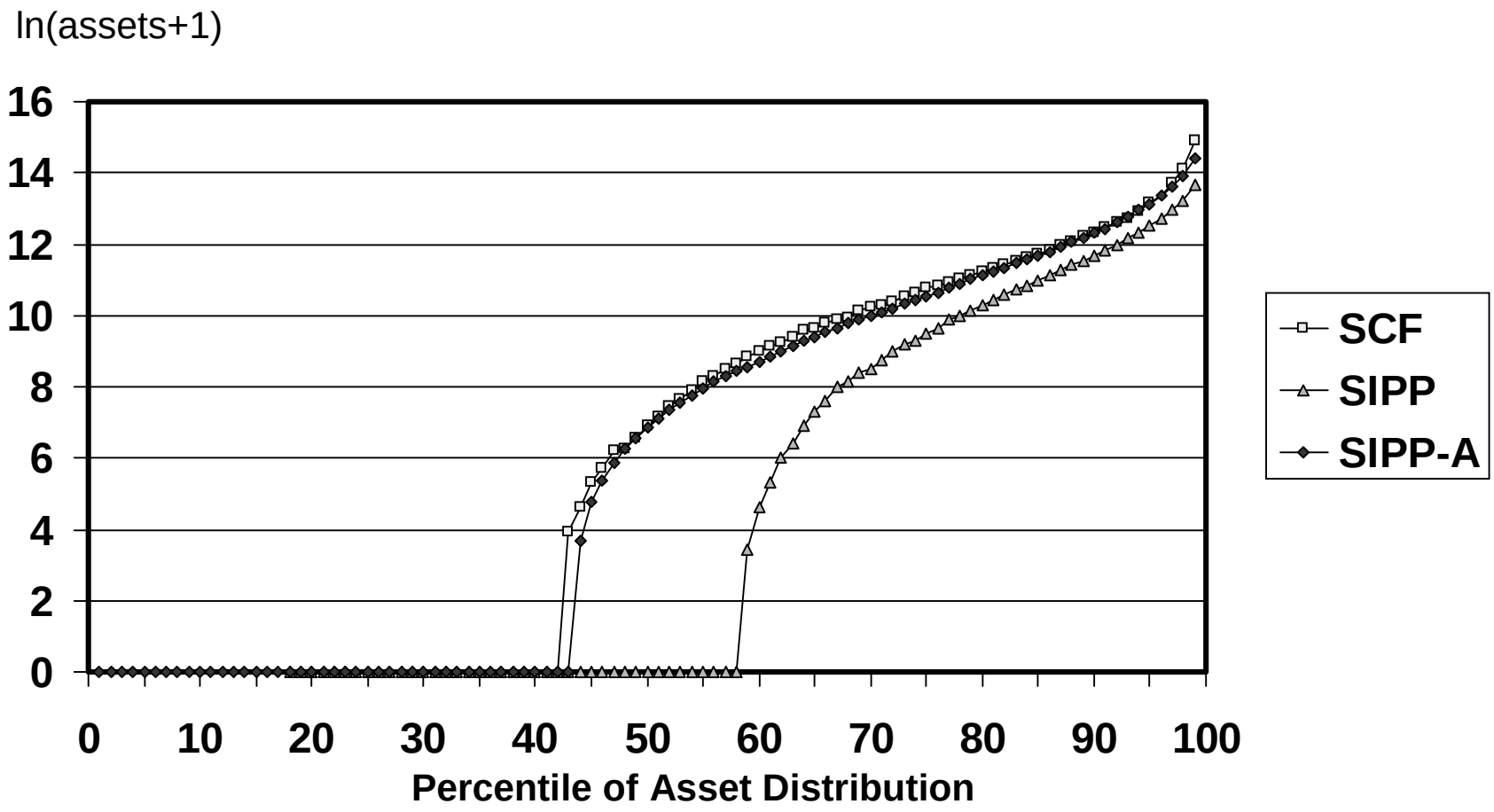
DISTRIBUTION OF LIFE INSURANCE (F=FACE, C=CASH VALUE) , BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.11

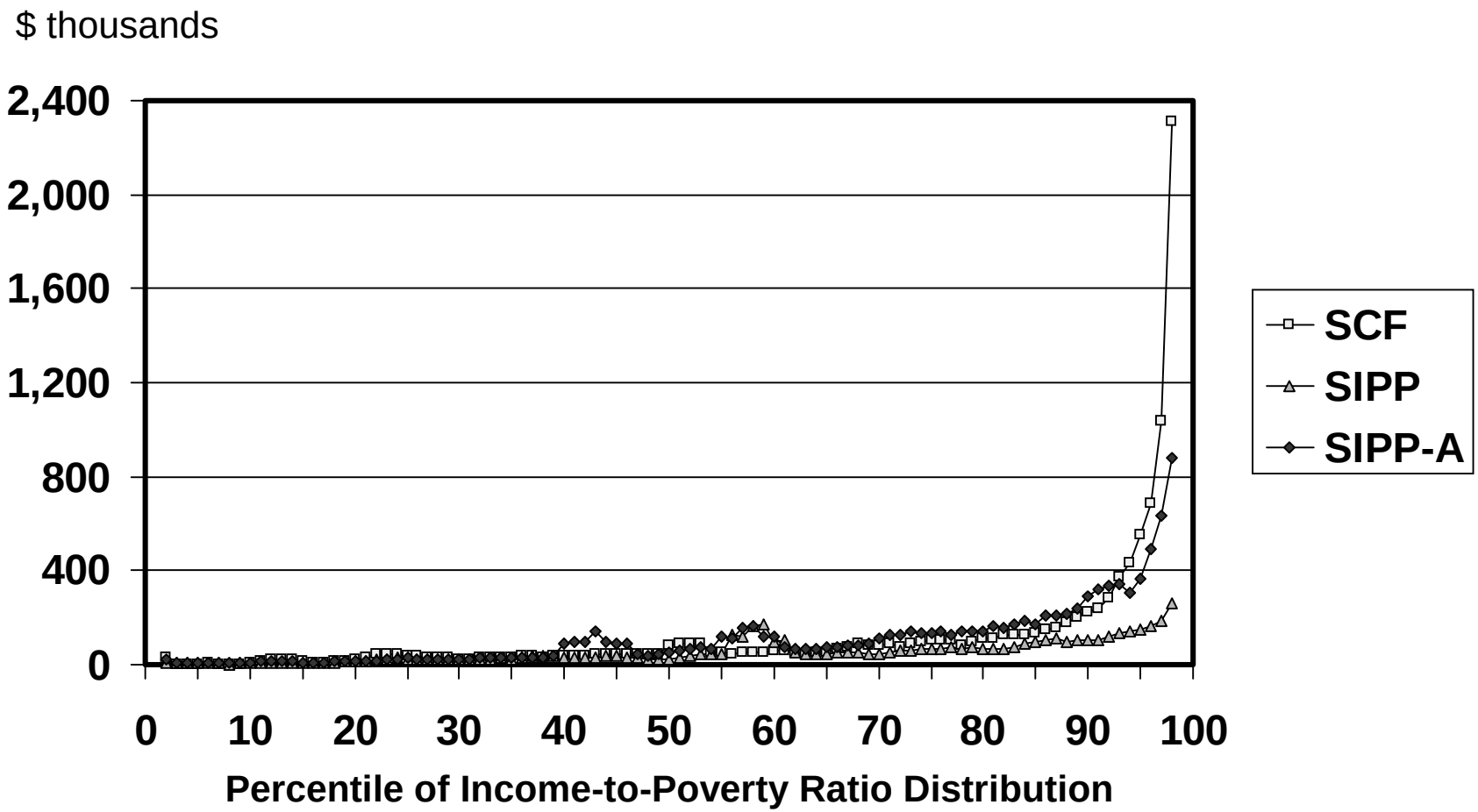
DISTRIBUTION OF OTHER NON-RETIREMENT ASSETS



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.12

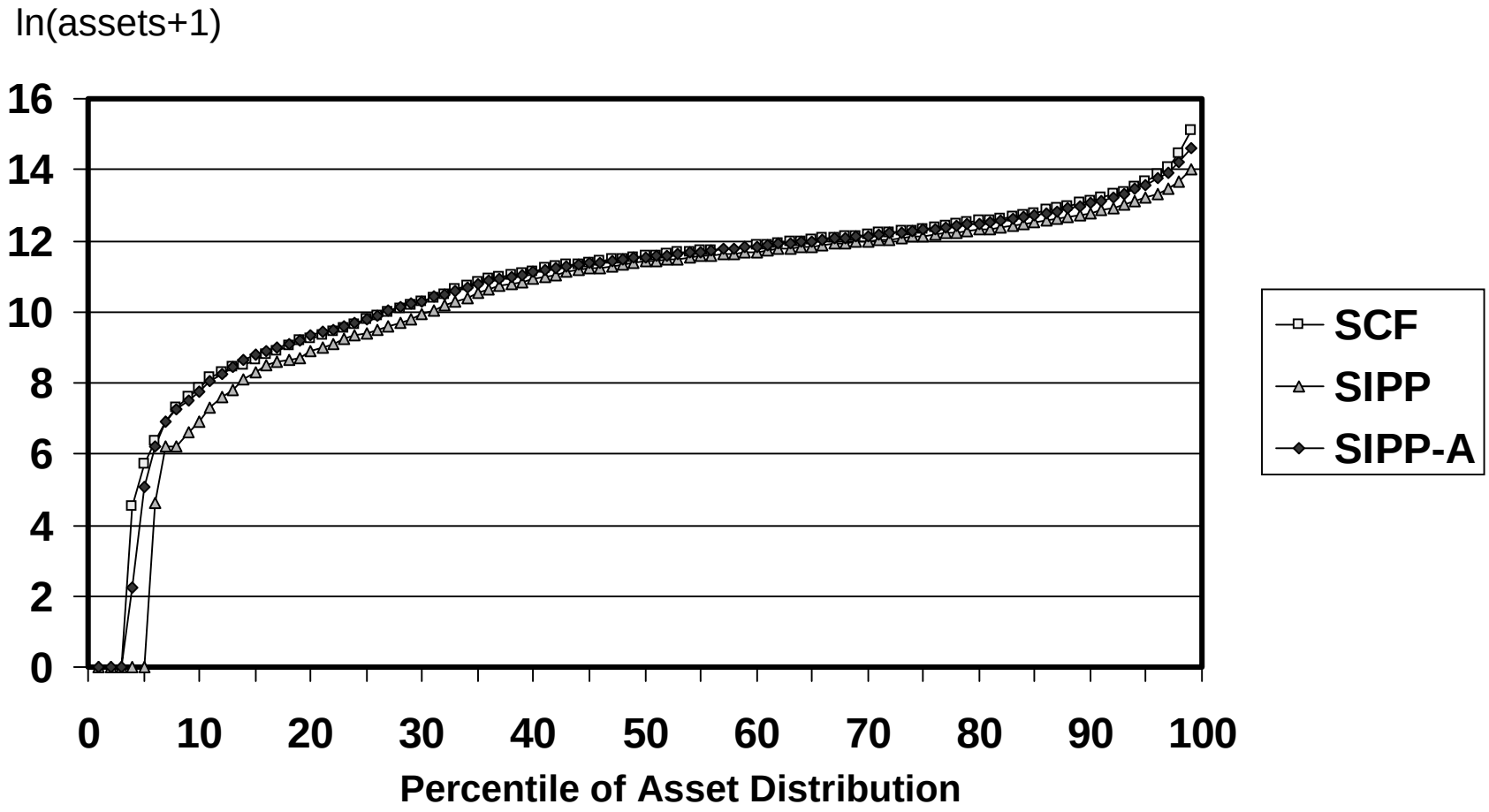
DISTRIBUTION OF OTHER NON-RETIREMENT ASSETS, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.13

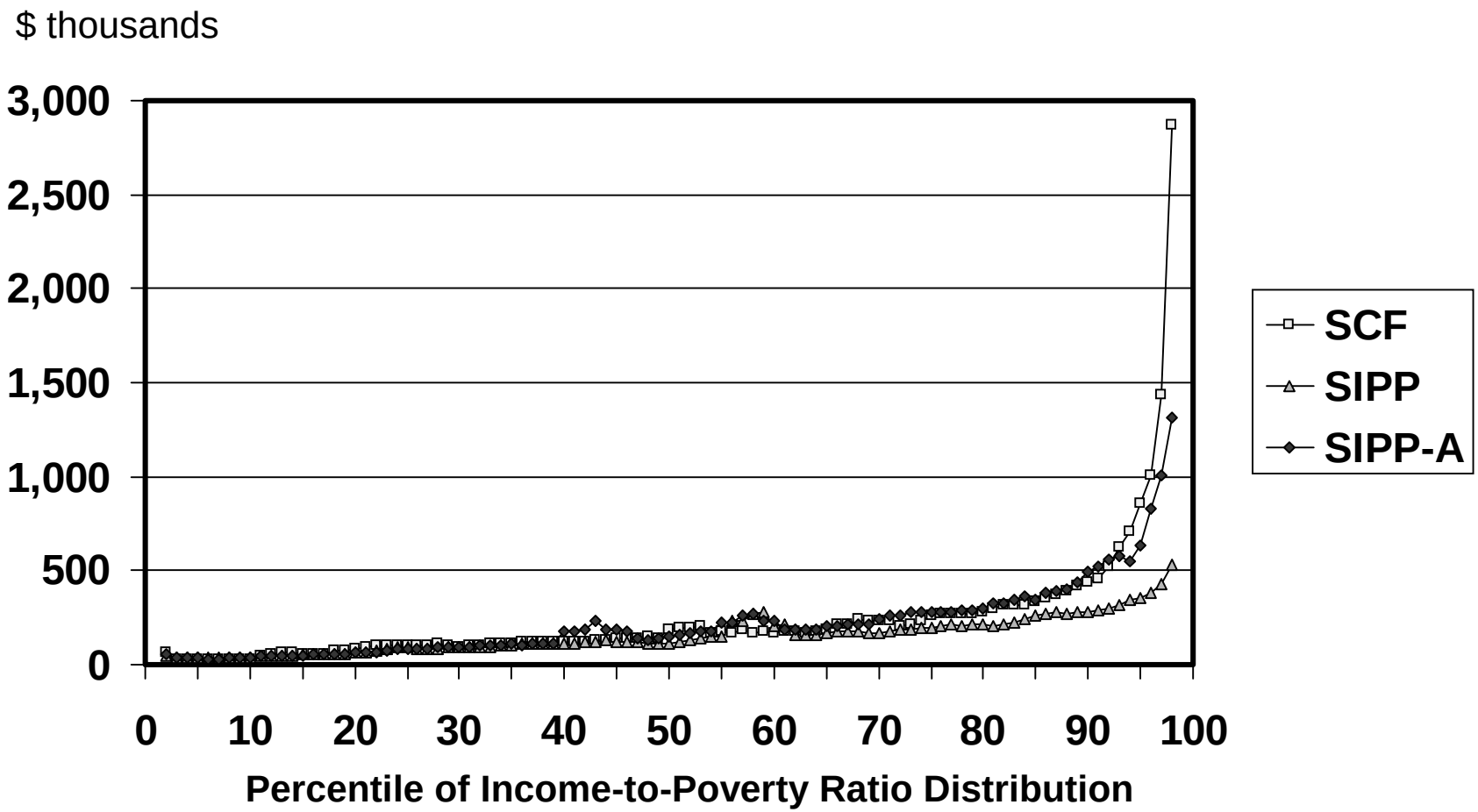
DISTRIBUTION OF TOTAL NON-RETIREMENT ASSETS



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.14

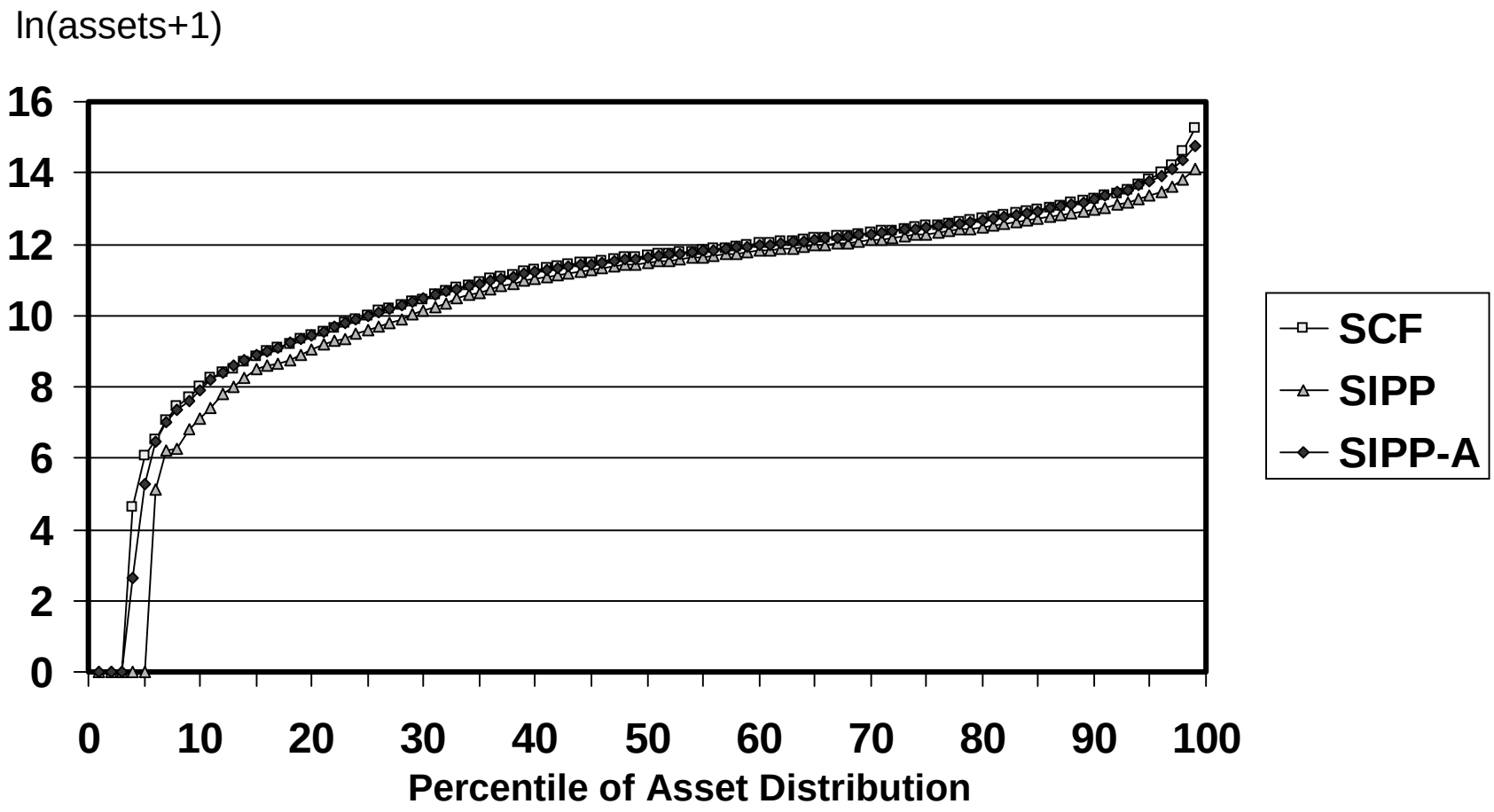
DISTRIBUTION OF TOTAL NON-RETIREMENT ASSETS, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.15

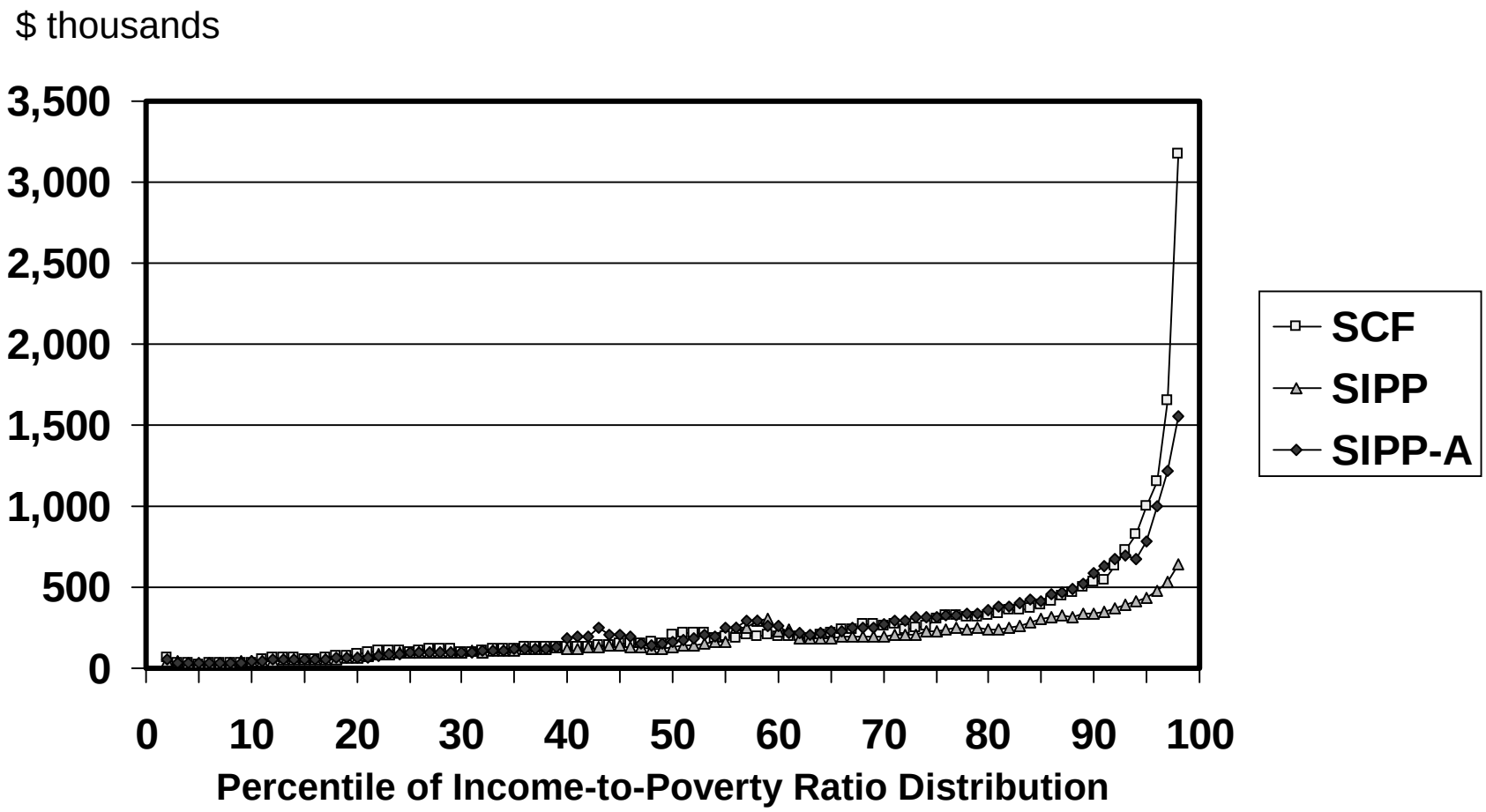
DISTRIBUTION OF TOTAL ASSETS



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.16

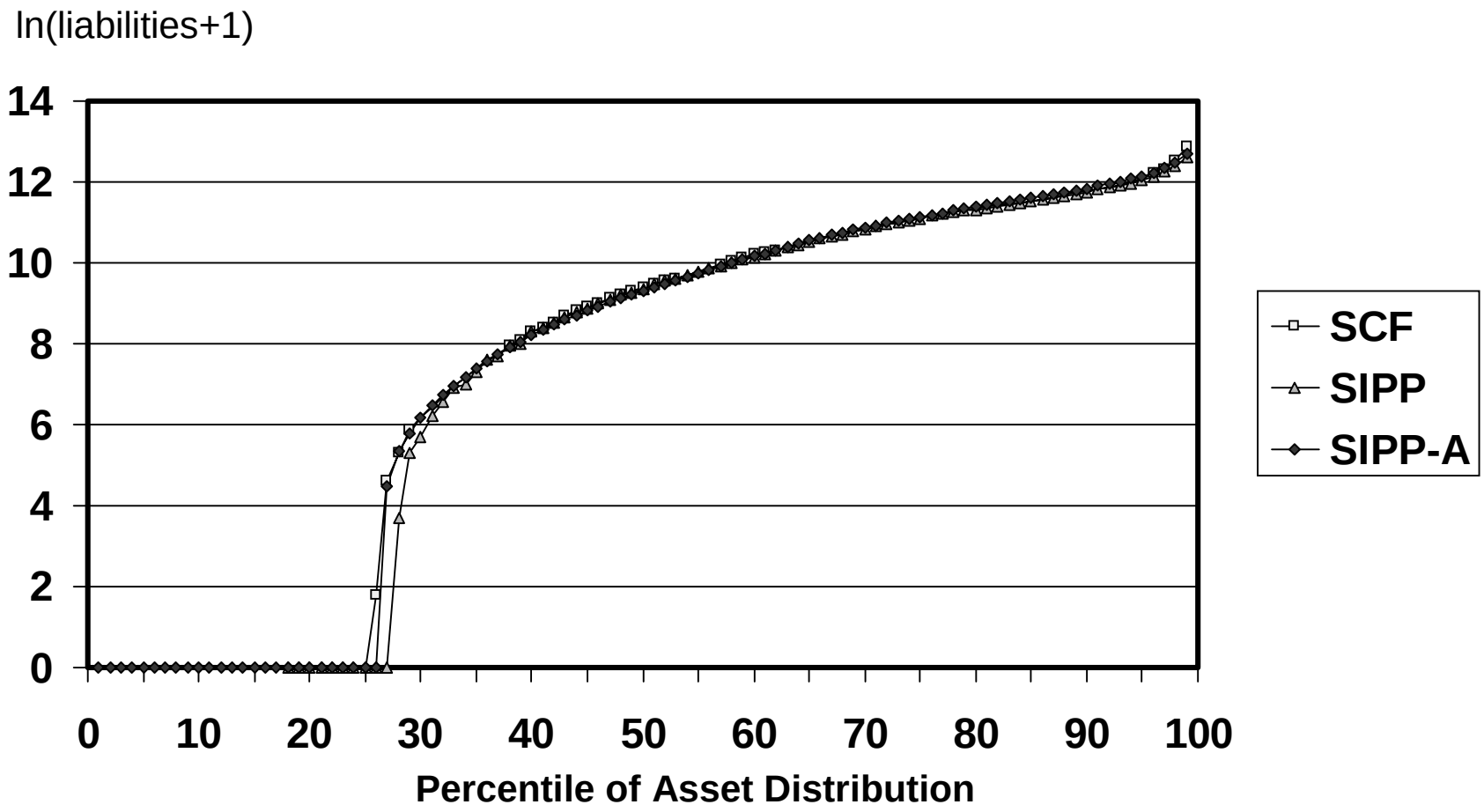
DISTRIBUTION OF TOTAL ASSETS, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.17

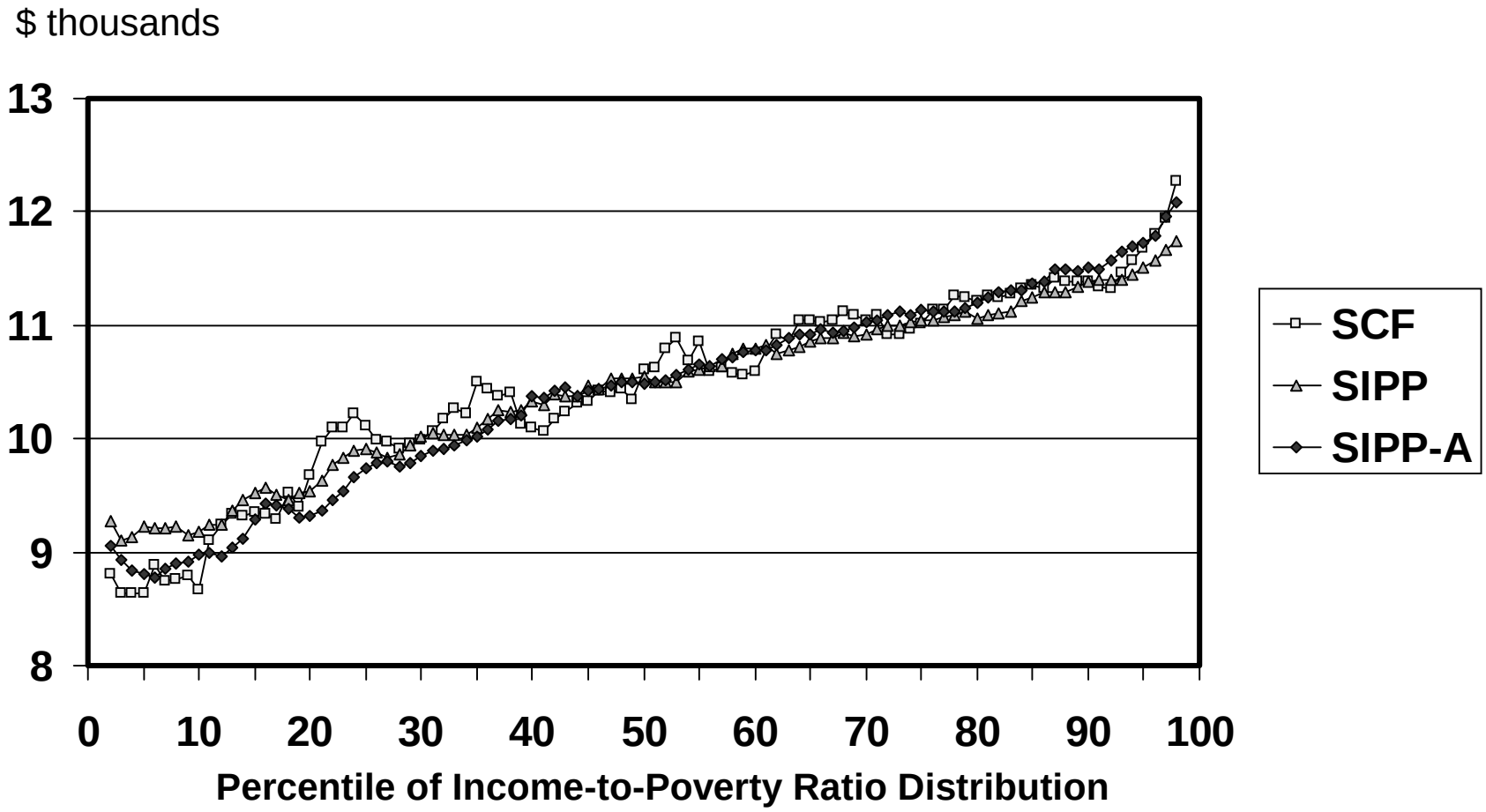
DISTRIBUTION OF TOTAL LIABILITIES



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

FIGURE V.18

DISTRIBUTION OF TOTAL LIABILITIES, BY PERCENTILE OF INCOME/POVERTY DISTRIBUTION



SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF.

APPENDIX A

SURVEY QUESTIONS BY ASSET CLASSIFICATION

CLASSIFICATION OF ASSETS AND LIABILITIES

MPR Asset Code	Description of Component
100	**Assets**
110	Financial Assets
111	Assets held at financial institutions
112	Other interest earning assets
113	Stocks and mutual funds
114	US Savings Bonds
115	Other financial assets
116	IRA and Keogh accounts
117	401(k) and thrift accounts
118	Other quasi-liquid retirement accounts
119	Life insurance (cash value)
120	Property
121	Own home
123	All other real estate
124	Motor vehicles
125	Business equity
130	Other non-SIPP Assets
131	SIPP Pension Assets
200	**Liabilities**
210	Secured Liabilities
211	Margin and broker accounts
212	Mortgages on own home
213	Mortgages on rental property
214	Personal business debt
215	Vehicle loans
216	Other secured debt
220	Unsecured Liabilities
221	Credit card and store debt
222	Loans from financial institutions
223	Other unsecured liabilities
300	**Net Worth**

111: ASSETS HELD AT FINANCIAL INSTITUTIONS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Passbook savings accounts, money market deposit accounts, CDs, Interest-earning checking accounts, Non-interest checking accounts	Checking account other than money market	Checking or savings accounts, money market funds, CDs, savings bonds, T-Bills	Checking/Savings/Money Market Account; CDs/govt savings bonds
Questions	I recorded earlier that ... owned these assets jointly with ... spouse: Interest bearing checking accounts Savings accounts Money Market deposit accounts Certificate of deposit (CD) As of last day of the reference period what was the total amount that ... and spouse had in these jointly held accounts? Was it - 1) Less than $500 (2) $500 to $1,000 (3) $1,001 to $5,000 4) More than $5,000 *(answers to ranges not disclosed to public)* *Same questions repeated for individually-held assets.* As of the last day of the reference period, did ... own jointly with ...'s spouse any checking accounts which did not earn interest? (Do not include any jointly owned interest earning checking accounts reported earlier.) What is your best estimate of the amount of money ... and ... spouse had in those checking accounts as of the last day of the reference period? (Besides any non-interest earning checking accounts owned jointly with your spouse), As of the last day of the reference period, did ... own any checking accounts which did NOT earn interest? Do not include any interest earning checking accounts reported earlier. What is your best estimate of the amount of money ... had in those checking accounts as of the last day of the reference period?	Do you or anyone in your family living here have any savings accounts? These could be passbook accounts, share accounts, Christmas Club accounts, or any other type of savings account. How many such accounts do you have? Please look at the Institutions Card. Is this account with any of the institutions on the Institutions Card, or from someplace else? (Recode: type of institution) How much is in this account? How much is in all your remaining savings accounts? *MMDAs:* Do you or anyone in your family living here have any checking accounts at any type of institution? IF YES: Please do not include any money market accounts unless you use them regularly as checking accounts. How many checking accounts do you and your family living here have? Please look at the Institutions Card. Is this account with any of the institutions on the Institutions Card, or from someplace else? (Recode: type of institution) How much is in this account? (What was the average over the last month?) Is this a money market-type account? *CDs:* Not including CDs that are part of IRAs or Keoghs, do you or anyone in your family here have any CDs or certificates of deposit at financial institutions?	Do [you/you or anyone in your family] have any money in checking or savings accounts, money market funds, certificates of deposit, government savings bonds, or treasury bills -- not including assets held in employer-based bensions or IRAs? If you added up all such accounts, about how much would they amount to right now? Would it amount to $5,000 or more? $10,000 or more? $50,000 or more? $1,000 or more	Do you (or your husband/or your wife/or your partner/...) have any checking or savings accounts or money market funds? If you added up all such accounts, about how much would they amount to right now? Would it amount to) less than $5,000, more than $5,000, or what? Would it amount to less than $50,000, more than $50,000 or what? (Would it amount to) less than $150,000, more than $150,000, or what? (Would it amount to) less than $300,000, more than $300,000, or what? Do these accounts or money market funds pay any dividends or interest? *CDs/govt saving bonds:* Do you (or your husband/or your wife/or your partner/...) have any money in CDs, Government Savings Bonds, or Treasury Bills? If you added up all such accounts, about how much would they amount to right now? Would it amount to less than $2,500, more than $2,500, or what? Does it amount to less than $25,000, more than $25,000, or what? (Does it amount to) less than $125,000, more than $125,000, or what? (Does it amount to) less than $250,000, more than $250,000, or what? Do these CDs, government bonds, or treasury bills pay any dividends or interest?

111: ASSETS HELD AT FINANCIAL INSTITUTIONS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		Altogether, how many such CDs do you have? What is the total dollar value of all these CDs? *Interest Earning Checking:* Do you or anyone in your family living here have any checking accounts at any type of institution? IF YES: Please do not include any money market accounts unless you use them regularly as checking accounts. How many checking accounts do you and your family living here have? How much is in this account? (What was the average over the last month?) Is this a money market-type account? *(Variable CHECKING limited to non money market type accounts).*		
Key Variables	TIAJTA , TIAITA, EALJCH, TALJCHA, EALICH, TALICHA Note, file includes THHINTBK -- a summary variable for "interest earning assets held at financial institutions". Calculation of THHINTBK is not documented	Aggregate: SAVING, MMDA, CDS, CHECKING Disaggregate: (X3804, X3807, X3810, X3813, X3816, X3818), (X3506, X3510, X3614, X3518, X3522, X3526, X3529), (X3507, X3511, X3515, X3519, X3523, X3527), (X9113, X9114, X9115, X9116, X9117, X9118),X3721, (X3506, X3510, X3614, X3518, X3522, X3526, X3529), (X3507, X3511, X3515, X3519, X3523, X3527)	W28, W29, W30, W31, W32	F5186X, F5225X

112: OTHER INTEREST EARNING ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Money market funds, US Govt. securities, muni or corporate bonds, other	Money Market Mutual Funds, Bonds (except funds and savings bonds)	Captured in 111	Equity value of Corporate, municipal, government, foreign bonds (MMF and US Savings bonds are captured in 111)
Questions	I recorded earlier that you and your spouse jointly owned: Municipal or Corporate Bonds and/or U.S. Government Securities As of the last day of the reference period, what was the total amount that ... and spouse had in their jointly held accounts? Was it - 1) Less than $1,000 2) $1,000 to $5,000 3) $5,001 to $10,000 4) More than $10,000 (answers to ranges not disclosed to public) *Same questions repeated for individually-held assets.*	*MMMF (note: same questions as MMDA,he difference is in the type of instutution counted):* Do you or anyone in your family living here have any checking accounts at any type of institution? IF YES: Please do not include any money market accounts unless you use them regularly as checking accounts. How many checking accounts do you and your family living here have? Please look at the Institutions Card. Thinking about your checking account, is this accountwith any of the institutions on the Institutions Card, or from someplace else? (Recode: type of institution How much is in this account? (What was the average over the last month?) Is this a money market-type account? Not including any accounts I have already recorded, do you or anyone in your family here have any money market accounts? How much is in this account? *BOND:* I need to know what types of bonds or bills you have. Do you have Mortgage-backed bonds such as those from "Ginnie-Mae", Fannie-Mae or "Freddie-Mac"? What is the face value of all of the Mortgage-backed bonds that you have? Do you have U.S. Government bonds or Treasury bills? What is the face value of all of the U.S. Government bonds or Treasury bills that you		(Aside from anything you have already told me about,) Do you (or your husband/or your wife/or your partner/...) have any corporate, municipal, government or foreign bonds, or bond funds? (DO NOT COUNT GOVERNMENT SAVINGS BONDS OR TREASURY BILLS.) If you sold all those bonds or bond funds, and paid off anything you owed on them, about how much would you have? Does it amount to less than $2,500, more than $2,500, or what? (Would it amount to) less than $10,000, more than $10,000, or what? (Would it amount to) less than $100,000, more than $100,000, or what? (Would it amount to) less than $400,000, more than $400,000, or what?

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		have? Do you have State or municipal bonds, or other taxfree bonds? What is the face value of all of the State or municipal bonds, or other taxfree bonds that you have?		
Key Variables	TIMJA, TIMIA Note, File includes THHINTOT -- a summary variable for "interest earning assets held at other institutions". Calculation of THHINTOT is not documented	Aggregate: MMMF, BOND Disaggregate: X3506, X3510, X3614, X3518, X3522, X3526, X3529, X3706, X3711, X3716, X3718, X3507, X3511, X3515, X3519, X3523, X3527, X9113, X9114, X9115, X9116, X9117, X9118, X9131, X9132, X9133, X3910, X3906, X3908		F5143X

113: STOCKS AND MUTUAL FUNDS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Stocks, Mutual funds	Call Accounts, Stocks, Mutual Funds	Equity in stocks and mutual funds.	Equity in stocks and mutual funds.
Questions	Did ... own any mutual funds jointly with ...'s spouse as of the last day of reference period? Did ... own any stocks jointly with ...'s spouse as of the last day of the reference period? As of the last day of reference period, what was the market value of the mutual funds and/or stocks held jointly by ... and ...'s spouse. (Exclude stock in own corporation if value of that corporation was already obtained.) Was it - 1) Less than $1,000 2) $1,000 to $10,000 3) $10,001 to $25,000 4) More then $25,000 *(answers to ranges not disclosed to public)* *Same questions repeated for individually-held* *stocks and mutual funds*	*CALL:* Not including any accounts you've told me about do you or anyone in your family living here have a "cash" or "call money" account at a stock brokerage? What is the total dollar value of all the cash or call money accounts that you and your family living here have? In how many different companies do you own stock? What is the total market value of this stock? *NMMF:* Do you (or anyone in your family living here) have any mutual funds? IF YES: Please do not include any pension or 401k accounts, funds held as a part of a trust or annuity, or assets you have already told me about. I need to know what types of mutual funds you have. Do you have… Stock Funds? What is the total market value of all of the Stock Funds that you and your family living here have? Do you have Tax-Free Bond Funds? What is the total market value of all of the Tax Free Bond Funds that you and your family living here have? Do you have Government or Government backed Bond Funds? What is the total market value of all of the Government or Government backed bond funds that you and your family living here have? Do you have other bond funds?	Do [you/you or anyone in your family] have any shares off stock in publicly held corporations mutual funds or investments trusts -- not including stocks in employer-based pensions or IRA'S? If you sold all that and paid off anything you owed on it, how much would you realized on it? Would it amount to $25,000 or more? $50.000 or more? $100,000 or more? $5,000 or more?	Aside from anything you have already told me about, Do you (or your husband/or your wife/or your partner/...) have any shares of stock or mutual funds? If you sold all those and paid off anything you owed on them, about how much would you have? Would it amount to less than $2,500, Does it amount to less than $25,000, Does it amount to less than $125,000, more than $125.000. or what? Does it amount to less than $400,000, more than $400,000, or what?

113: STOCKS AND MUTUAL FUNDS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		What is the total market value of all of the other Bond Funds that you and your family living here have? Do you have Combination funds or any other mutual funds? What is the total market value of all of the combination or other mutual funds that you and your family living here have?		
Key Variables	ESMJV, ESMIV Note, File includes RHHSTK -- a summary variable for "Equity in stocks and mutual fund shares ". Calculation of RHHSTK is not documented	Aggregate: CALL, STOCKS, NMMF Disaggregate: X3930, X3915, X3821, X3822, X3823, X3824, X3825, X3826, X3827, X3828, X3829, X3830	W15, W16, W17, W18, W19, W20	F5100X

114: US SAVINGS BONDS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	US Savings Bonds	US Savings Bonds	Captured in 111	Captured in 111
Questions	(I recorded earlier that...owned Series E, or EE U.S. Savings Bonds.) Did ... own them as of the last day of the reference period? What was the face value of the U.S. Savings Bonds that ... owned? (If ownership was shared, count only ...'s share.)	Do you or anyone in your family here have any U.S. government savings bonds? (THESE MAY BE CALLED SERIES EE OR HH. ONE WAY THEY CAN BE PURCHASED IS BY PAYROLL DEDUCTION.) What is the total face value of all the savings bonds that you and your family have?		
Key Variables	EALSB, TALSBV	Aggregate: SAVBND Disaggregate: X3902		

115: OTHER FINANCIAL ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Equity in Other Financial Investments	Other financial assets (includes Loans from household, future proceeds, royalties, futures, nonpublic stock, deferred compensation, oil/gas/mineral investment, cash n.e.c.)	Equity in bond funds, cash value in life insurance, valuable collections, trusts	Equity in other assets; trusts
Questions	Earlier ... reported owning other financial investments. What was ...'s equity in these other financial investments? By equity, we mean the total market value less any debts held against it. If the investments are jointly owned, count only ...'s share of equity. What was the equity in other financial investments? Was it- 1) Less than $1,000 2) $1,000 to $10,000 3) $10,001 to $25,000 4) More than $25,000 *Note, questions come after other financial topical modules, despite variable position on file*	We have talked about various types of savings, investments, and loans. Other than what I have already recorded, are you or anyone in your family living here owed any money by friends, relatives outside the immediate family, businesses, or others? (WE DO NOT WANT TO INCLUDE LOANS BETWEEN FINANCIALLY DEPENDENT FAMILY MEMBERS.) Altogether, how much are you owed? Other than pension assets, do you or anyone in your family living here have any other substantial assets that I haven't already recorded -- for example, artwork, precious metals, antiques, oil and gas leases, futures contracts, future proceeds from a lawsuit or estate that is being settled, royalties, or something else? (DO NOT INCLUDE PENSION-TYPE OR EMPLOYER PROFIT-SHARING ACCOUNTS HERE). *(Note: this question also used for non-financial assets).* About the most valuable of these .. What kind of asset is it? What is the total dollar value that you have in this asset? *The last two questions are asked of the 3 most valuable other assets. The variable OTHFIN only includes the value if the asset is* *Loans to friends/relatives* *Other loans/debts owed to R* *Cash, n.e.c.* *Future proceeds from a lawsuit* *Future proceeds from an estate* *Deferred compensation, except pensions* *Oil/gas/mineral leases or investments* *Futures contracts, stock options* *Royalties* *Non-publicly traded stock* *Future lottery/prize receipts*	Do [you/you or anyone in your family] have any other savings or assets, such as bond funds, cash value in a life insurance policy, a valuable collection for investment purposes, or rights in a trust or estate that you haven't already told us about? If you sold that and paid off any debts on it, how much would you have? Would it amount to $10,000 or more? $25,000 or more? $2,000 or more?	*Other assets:* Do you (or your husband/or your wife/or your partner/...) have any other savings or assets, such as jewelry, money owed to you by others, a collection for investment purposes, rights in a trust or estate where you are the beneficiary, or an annuity that you haven't already told us about? (exclude cash value of life insurance policies) If you sold all that and then paid off any debts on it, about how much would you have? Would it amount to les than $5,000, more than $5,000. or what? $50,000 or more? $100,000 or more? Trusts: *(asked before the other assets question above)* Have you (and your husband/and your wife/ and your partner/...) put any of your assets into a trust? Do you, or does someone else, receive the benefits of the assets youhave put into a trust? What is their relationship to you? What about the value of (that/those) trusts? If you sold (could sell) all the assets you have Would it amount to less than $500,000, more than $500,000. or what? (Would it amount to) less than $1,500,000, more than $1.500.000. or what? (Would it amount to) less than $50,000, more than $50.000. or what? Have you already told me about all of the investments and other assets that are included What is the value of the assets in the trust that you have NOT already told me about?

115: OTHER FINANCIAL ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
				Would it amount to less than $500,000, more than $500,000, or what? (Would it amount to) less than $1,500,000, more than $1,500,000, or what? (Would it amount to) less than $50,000, more than $50,000, or what?
Key Variables	EOAEQ Note, File includes THHOTAST -- a summary variable for "Other Financial Assets". Calculation of THHOTAST is not documented	Aggregate: OTHFIN Disaggregate: X4018, X4022, X4026, X4030, X4020, X4024, X4028	W33, W34, W35, W36, W37	F5274x + F5480Z

116: IRA AND KEOGH ACCOUNTS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Value of IRA/Keogh	Value of IRA/Keogh	Value of private annuities or IRAs.	Value of IRAs/KEOGH
Questions	*IRA:* I recorded earlier that ... owned an IRA or KEOGH account. As of the last day of the reference period did ... have any Individual Retirement Accounts - any IRAs - in ...'s OWN name? How many years have you contributed to your IRA accounts? As of the last day of the reference period, what was the total balance or market value (including interest earned) of the IRA accounts in ...'s own name? Was the total - 1) Less than $5,000 2) $5,000 to $25,000 3) $25,001 to $50,000 4) More than $50,000 *(answers to ranges not disclosed to public)* As of the last day of the reference period, which kinds of assets did ... hold in ... IRA accounts? Was the IRA invested in - 1) Certificates of deposit or other saving certificates 2) Money market funds 3) U.S. Government securities 4) Municipal or corporate bonds 5) U.S. Savings Bonds 6) Stocks or mutual fund shares 7) Other assets *(Repeated for 4 separate accounts)* *KEOGH* As of the last day of the reference period, did ... have a KEOGH account in his/her own name? For how many years has/have ... As of the last day of the reference period, what was the total balance or market value of assets in ...'s KEOGH account(s) in own name? Was the total	Do you or anyone in your family here have any Individual Retirement Accounts, that is, IRA or Keogh accounts? Including any rollovers from past pensions, how many IRA and Keogh accounts (do you/does your [spouse/partner/other family member]) have? How much in total is in your/spouse/partner [IRA(s)/Keogh account(s)/IRA and Keogh accounts]?	Do [you/you or anyone in your family] have any money in private annuities or Individual Retirement Accounts (IRAs)? Are they mostly in stocks, mostly in interest earning assets, split between the two, or what? How much would they be worth?? Would it amount to $25,000 or more? $50,000 or more? $100,000 or more? $5,000 or more?	Do you (or your husband/or your wife/or your partner/...) currently have any money or assets that are held in an Individual Retirement Account, that is, in an IRA or KEOGH account? How many IRA or KEOGH accounts do you (and your husband/and your wife/and your partner/...) have? Let's talk about the largest IRA or KEOGH account. About how much is in this account at the present time? (Does it amount to) less than $10,000, more than $10,000, or what? Does it amount to less than $25,000, more than $25,000, or what? or what? Let's talk about the next largest IRA or KEOGH account. About how much is in this account at the present time? (Does it amount to) less than $10,000, more than $10,000, or what? Does it amount to less than $25,000, more than $25,000, or what? or what? Let's talk about all the other IRA or KEOGH accounts. About how much is in this account at the present time? (Does it amount to) less than $10,000, more than $10,000, or what? Does it amount to less than $25,000, more than $25,000, or what?

116: IRA AND KEOGH ACCOUNTS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
	- 1) Less than $5,000 2) $5,000 to $25,000 3) $25,001 to $50,000 4) More than $50,000 *(answers to ranges not disclosed to public)* As of the last day of the reference period, which kinds of assets did ... hold in ...'s KEOGH account(s)? Was it invested in - 1) Certificates of deposit or other savings certificates 2) Money market funds 3) U.S. Government securities 4) Municipal or corporate bonds 5) U.S. Savings Bonds 6) Stocks or mutual fund shares 7) Other assets *(Repeated for 4 separate accounts)*			
Key Variables	EALR, EALK, TALRB, TALKB Note, File includes THHIRA -- a summary variable for "Equity in IRA and KEOGH accounts". Calculation of THHIRA is not documented	Aggregate: IRAKH Disaggregate: X3610, X3620, X3630	W21, W22, W23, W24, W25, W26	F4887X + F4909X +F4930X

117: 401(k) AND THRIFT ACCOUNTS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	401(k) or Thrift Plan	Thrift Pension Accounts	Head and spouse pension accounts	DC plans: Amount in 401-K, 403-B, ESOP, SRA, thrift/savings, stock/profit sharing, money purchase plans
Questions	I recorded earlier that ... owned a 401K or thrift plan. As of the last day of the reference period, did ... have any 401K or thrift plans in his/her own name? For how many years has ... contributed to ... 401K or thrift plan(s)? As of the last day of the reference period, what was the total balance or market value (including interest earned) of any 401K or thrift plans held in ...'s own name? Was the total - 1) Less than $ 5,000 2) $5,000 to $25,000 3) $25,001 to $50,000 4) More than $50,000 As of the last day of the reference period, which kinds of assets did ... hold in ...'s 401K or thrift plans? Was your 401k/thrift plan invested in - 1) Certificates of deposit or other saving certificates 2) Money market funds 3) U.S. Government securities 4) Municipal or corporate bonds 5) U.S. Savings Bonds 6) Stocks or mutual fund shares 7) Other assets *(Repeated for 4 separate accounts)*	*THRIFT:* Aside from IRA or KEOGH plans, (are you/is [he/she]) included in any pension plans or tax-deferred savings plans through (your/her/his) work/the business? Many employers have pension plans, and some provide tax-deferred plans such as thrift, savings, 401Ks, profit sharing, or stock ownership plans. Some plans span multiple jobs, for example TIAA-CREF, union plans, etc. (Are you/Is [he/she]) included in any pension or retirement plans, or in any tax-deferred savings plans connected with the job you just told me about? (DO NOT INCLUDE SOCIAL SECURITY.) INTERVIEWER: IF R MENTIONS IRA OR KEOGH PLANS, MAKE A NOTE AND SAY: "We covered those earlier in thhe interview. Here, I just want to find out about other plans operated through your (spouse's/partner's) employer." (NOT SELF-EMPLOYED) What kinds of plans are these? How many such plans (do you/does your [spouse/partner]) have? Can you tell me a little more about this plan? Is it a thrift or savings plan, a 401K, Supplemental Retirement Annuity (SRA), a profit-sharing plan, or what? If (you/your spouse/partner) needed money in an emergency, could (you/he/she) withdraw some of the funds in the account? (CODE "YES" EVEN IF WITHDRAWAL INVOLVES PENALTY.) Can (you/he/she) borrow against the account? How much money is in your (spouse's/ partner's) account at present? *Note: THRIFT includes thrift, savings, 401(k), 403(b) and SRA accounts. It also includes other types of pension and*	*Head's pension, current employer* Next, I need to get some information about any pensions or retirement plans you may be eligible for at your place of work. Not including Social Security or Railroad Retirement, are you covered by a pension or retirement plan on your present job? Are you making any contributions to your pensions such as having money deducted from your pay? Are you required to contribute? Some pension plans have a definite formula based on years of service or salary, often called defined benefits plans. Some plans based benefits on how much money has accumulated in a person's retirement account. Other plans use both ways of setting benefits. How are the benefits for your pension determined -- by a benefit formula based on years of service or salary, by the amount of money in your account or in both ways? *Questions for DC accounts:* Does your employer make contributions to your account? What is the approximate dollar amount in your account now? How much could you take out today if you were to leave your employer? *Questions for DB plans:* Some people can estimate what their pension will be in dollars per month or year, but others find it easier to estimate it as a fraction of their final pay. Can you estiamte what your pension from this plan will be, either way? How much will that be? In addition to the pension plan you already mentioned, do you have any tax-deferred compensation or savings plans on this job such as a "thrift," profit-sharing or Keogh plan?	*no longer at job:* Aside from IRAs or KEOGH plans, were you included in a pension or retirement plan, or in any tax deferred savings plan, through your work? I would like to know what type of plan this was. In some retirement plans, Type A benefits are usually based on a formula involving age, years of service, and salary. In other plans, Type B, money is accumulated in an account for you. Was your plan Type A or Type B? 401-K, 403-B, ESOP, SRA, THRIFT/SAVINGS, STOCK/PROFIT SHARING, MONEY PURCHASE PLANS ARE ALL TYPE B RETIREMENT PLANS. TYPE A PLANS ARE OFTEN CALLED "DEFINED BENEFIT" PLANS; TYPE B PLANS ARE OFTEN CALLED DEFINED CONTRIBUTION. How much is in your account now? (F3206) How much is in your account now? (F3238) *currently at job:* In how many different pension plans are you included on this job? (loop up to 3 times): I would like to know what type of plan this is (same description as above) For that part of your plan where money is accumulated in an account, how much is in the account at present? [F3365_1-F3365_3] How much money is in your account at present? [F3383_1-F3383_3] Now I'd like to ask about pension or retirement plans on your job. Aside from IRA or KEOGH plans, are you included in any pension plans or tax-deferred savings plans through your work? In how many different plans of this sort are you included on this job? [F3398] I would like to know what type of plan this is. *[F3403_1-F3403_3]for those that answer both DC and DB:* For that part of your plan where money is accumulated in an account, how much is in the

117: 401(k) AND THRIFT ACCOUNTS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		tax-deferred savings plans that can be borrowed against or from which withdrawls can be made Asset group 117 includes the former while asset group 118 includes the latter.	Does your employer make contributions to any such plan for you? *Head's pension, previous employer:* Aside from IRA or Keogh plans, were you included in a pension or retirement plan, or in any tax-deferred savings plan through a former employer? I would like to know what type of plan this was. In some retirement plans, Type A, benefits are usually based on a formula involving age, years of service, and salary. In other plans, Type B, money is accumulated in an account for you. Was that a Type A or Type B plan? *For DC plans:* How much is in your account now? *For DB plans:* Now, about the part of your pension where benefits are based on a formula. Do you expect to receive benefits from this plan in the future, are you receiving benefits now, did you get a cash settlement when you left, did you lose your benefits, or what? *If expect future benefits:* Can you estimate what you expect these benefits to be? Either in dollars per month or year, or as a percent of your pay when you left that job? When you left that employer, did you transfer your account to a new employer, roll it over into an IRA, leave it to accumulate in your old plan, convert it to annuity, or what? How much is in your account now? Do you have any other pensions from a employer (that you haven't already told me amout)? *Questions repeated for spouse.*	account at present? *[fF3404_1-F3404_3] for those that answer DC* (Could you tell me a little more about this plan?) Is it a thrift or savings plan, a 401K, a 403B, a Supplemental Retirement Account, a profit-sharing plan, a stock purchase plan, a money purchase plan, or what? F4357_1-F3457_3 How much money is in your account at present? F3470_1 - F3470_3 Altogether how much do you have in your account balance(s) for any other pension plans or savings plan(s) from this job? F3482 *other people no longer at job:* Were you included in a pension or retirement plan, or in any tax deferred savings plan, when you worked for (that employer/yourself/...)? I would like to know what type of plan this was. How much is in your account now? F3677 How much is in your account now? F3703 Aside from IRA or Keogh Plans, were you included in a pension orretirement plan, or in any tax-deferred savings plan, through I would like to know what type of plan this was? How much is in your account now? F3858 How much is in your account now? F3885 *other former employement:* Besides the jobs you have already told me about, have you worked for any other employer where you were included in a pension or retirement plan, or in a tax-deferred savings plan of some sort? [UP TO 2] I would like to know what type of pension or retirement plan you had. F3908_1-F3908_2 How much is in your account now? F3911_1 - F3911_2 How much is in your account now? F3938_1 - F3938_2
Key Variables	EALT, TALTB	Aggregate: THRIFT	P1, P11, P12, P16, P17, P20, P20a, P21, P33, P34, P42, P43, P45, P46, P49, P52, P62, P64,	F3206, F3238, F3365_1-F3365_3, F3383_1-F3383_3, F3404_1-F3404_3,

117: 401(k) AND THRIFT ACCOUNTS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		Disaggregate: (X4216 X4316 X4416 X4816 X4916 X5016), (X4226 X4326 X4426 X4826 X4926 X5026), (X4227 X4327 X4427 X4827 X4927 X5027), (X4231 X4331 X4431 X4831 X4931 X5031), (X5604, X5512, X5620, X5628, X5636, X5644)	P65, P71, P81, P82, P86, P90, P90a, P103, P104, P112, P116, P118, P119, P122, P132, P134, P135, P139	F3470_1-F3470_3, F3482, F3677, F3703, F3858, F3885, F3911_1-F3911_2, F3938_1-F3938_2 (from employment section, resp lvl) F4982_1-F4982_2, F5005_1-F5005_2 (from wealth section, at hh level)

118: OTHER, QUASI-LIQUID PENSION ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	None.	Thrift Pension Accounts, Future Pensions	Head and spouse pension accounts	DC plans: Amount in 401-K, 403-B, ESOP, SRA, thrift/savings, stock/profit sharing, money purchase plans
Questions		*THRIFT:* Aside from IRA or KEOGH plans, (are you/is [he/she]) included in any pension plans or tax-deferred savings plans through (your/her/his) work/the business? Many employers have pension plans, and some provide tax-deferred plans such as thrift, savings, 401Ks, profit sharing, or stock ownership plans. Some plans span multiple jobs, for example TIAA-CREF, union plans, etc. (Are you/Is [he/she]) included in any pension or retirement plans, or in any tax-deferred savings plans connected with the job you just told me about? (DO NOT INCLUDE SOCIAL SECURITY.) INTERVIEWER: IF R MENTIONS IRA OR KEOGH PLANS, MAKE A NOTE AND SAY: "We covered those earlier in thhe interview. Here, I just want to find out about other plans operated through your (spouse's/partner's) employer." (NOT SELF-EMPLOYED) What kinds of plans are these? How many such plans (do you/does your [spouse/partner]) have? Can you tell me a little more about this plan? Is it a thrift or savings plan, a 401K, Supplemental Retirement Annuity (SRA), a profit-sharing plan, or what? If (you/your spouse/partner) needed money in an emergency, could (you/he/she) withdraw some of the funds in the account? (CODE "YES" EVEN IF WITHDRAWAL INVOLVES PENALTY.) Can (you/he/she) borrow against the account? How much money is in your (spouse's/ partner's) account at present? *Note: THRIFT includes thrift, savings, 401(k), 403(b) and SRA accounts. It also includes other types of pension and*	*Head's pension, current employer* Next, I need to get some information about any pensions or retirement plans you may be eligible for at your place of work. Not including Social Security or Railroad Retirement, are you covered by a pension or retirement plan on your present job? Are you making any contributions to your pensions such as having money deducted from your pay? Are you required to contribute? Some pension plans have a definite formula based on years of service or salary, often called defined benefits plans. Some plans based benefits on how much money has accumulated in a person's retirement account. Other plans use both ways of setting benefits. How are the benefits for your pension determined -- by a benefit formula based on years of service or salary, by the amount of money in your account or in both ways? *Questions for DC accounts:* Does your employer make contributions to your account? What is the approximate dollar amount in your account now? How much could you take out today if you were to leave your employer? *Questions for DB plans:* Some people can estimate what their pension will be in dollars per month or year, but others find it easier to estimate it as a fraction of their final pay. Can you estiamte what your pension from this plan will be, either way? How much will that be? In addition to the pension plan you already mentioned, do you have any tax-deferred compensation or savings plans on this job such as a "thrift," profit-sharing or Keogh plan?	*no longer at job:* Aside from IRAs or KEOGH plans, were you included in a pension or retirement plan, or in any tax deferred savings plan, through your work? I would like to know what type of plan this was. In some retirement plans, Type A benefits are usually based on a formula involving age, years of service, and salary. In other plans, Type B, money is accumulated in an account for you. Was your plan Type A or Type B? 401-K, 403-B, ESOP, SRA, THRIFT/SAVINGS, STOCK/PROFIT SHARING, MONEY PURCHASE PLANS ARE ALL TYPE B RETIREMENT PLANS. TYPE A PLANS ARE OFTEN CALLED "DEFINED BENEFIT" PLANS; TYPE B PLANS ARE OFTEN CALLED DEFINED CONTRIBUTION. How much is in your account now? (F3206) How much is in your account now? (F3238) *currently at job:* In how many different pension plans are you included on this job? (loop up to 3 times): I would like to know what type of plan this is (same description as above) For that part of your plan where money is accumulated in an account, how much is in the account at present? [F3365_1-F3365_3] How much money is in your account at present? [F3383_1-F3383_3] Now I'd like to ask about pension or retirement plans on your job. Aside from IRA or KEOGH plans, are you included in any pension plans or tax-deferred savings plans through your work? In how many different plans of this sort are you included on this job? [F3398] I would like to know what type of plan this is. *[F3403_1-F3403_3]for those that answer both DC and DB:* For that part of your plan where money is accumulated in an account, how much is in the

118: OTHER, QUASI-LIQUID PENSION ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		tax-deferred savings plans that can be borrowed against or from which withdrawls can be made Asset group 117 includes the former while asset group 118 includes the latter. *FUTPEN:* Now I want to ask about future pension benefits that you (and your [spouse/ partner]) will receive in the future. Aside from Social Security and other pensions you have already told me about, do you (and your [spouse/partner]) expect to receive any (other) pensions in the future? About this benefit, is this from a pension plan where a certain amount of money is accumulated in an account for you, a formula plan that will give you a specific amount of income each month or year when you retire, or what? How much is in the account now?	Does your employer make contributions to any such plan for you? *Head's pension, previous employer:* Aside from IRA or Keogh plans, were you included in a pension or retirement plan, or in any tax-deferred savings plan through a former employer? I would like to know what type of plan this was. In some retirement plans, Type A, benefits are usually based on a formula involving age, years of service, and salary. In other plans, Type B, money is accumulated in an account for you. Was that a Type A or Type B plan? *For DC plans:* How much is in your account now? *For DB plans:* Now, about the part of your pension where benefits are based on a formula. Do you expect to receive benefits from this plan in the future, are you receiving benefits now, did you get a cash settlement when you left, did you lose your benefits, or what? *If expect future benefits:* Can you estimate what you expect these benefits to be? Either in dollars per month or year, or as a percent of your pay when you left that job? When you left that employer, did you transfer your account to a new employer, roll it over into an IRA, leave it to accumulate in your old plan, convert it to annuity, or what? How much is in your account now? Do you have any other pensions from a employer (that you haven't already told me amout)? *Questions repeated for spouse.*	account at present? *[fF3404 1-F3404 3] for those that answer DC* (Could you tell me a little more about this plan?) Is it a thrift or savings plan, a 401K, a 403B, a Supplemental Retirement Account, a profit-sharing plan, a stock purchase plan, a money purchase plan, or what? F4357 1-F3457 3 How much money is in your account at present? F3470_1 - F3470_3 Altogether how much do you have in your account balance(s) for any other pension plans or savings plan(s) from this job? F3482 *other people no longer at job:* Were you included in a pension or retirement plan, or in any tax deferred savings plan, when you worked for (that employer/yourself/...)? I would like to know what type of plan this was. How much is in your account now? F3677 How much is in your account now? F3703 Aside from IRA or Keogh Plans, were you included in a pension orretirement plan, or in any tax-deferred savings plan, through I would like to know what type of plan this was? How much is in your account now? F3858 How much is in your account now? F3885 *other former employement:* Besides the jobs you have already told me about, have you worked for any other employer where you were included in a pension or retirement plan, or in a tax-deferred savings plan of some sort? [UP TO 2] I would like to know what type of pension or retirement plan you had. F3908_1-F3908_2 How much is in your account now? F3911_1 - F3911_2 How much is in your account now? F3938_1 - F3938_2

118: OTHER, QUASI-LIQUID PENSION ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Key Variables		Aggregate: THRIFT, FUTPEN Disaggregate: (X4216 X4316 X4416 X4816 X4916 X5016), (X4226 X4326 X4426 X4826 X4926 X5026), (X4227 X4327 X4427 X4827 X4927 X5027), (X4231 X4331 X4431 X4831 X4931 X5031), (X5604, X5512, X5620, X5628, X5636, X5644)	P1, P11, P12, P16, P17, P20, P20a, P21, P33, P34, P42, P43, P45, P46, P49, P52, P62, P64, P65, P71, P81, P82, P86, P90, P90a, P103, P104, P112, P116, P118, P119, P122, P132, P134, P135, P139	F3206, F3238, F3365_1-F3365_3, F3383_1-F3383_3, F3404_1-F3404_3, F3470_1-F3470_3, F3482, F3677, F3703, F3858, F3885, F3911_1-F3911_2, F3938_1-F3938_2 (from employment section, resp lvl) F4982_1-F4982_2, F5005_1-F5005_2 (from wealth section, at hh level)

119: LIFE INSURANCE

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Current face value of all life ensurance	Cash value of "whole life" insurance	Captured in 115	Current face value of life insurance
Questions	As of the last day of the reference period, did ... have any life insurance? (Include group policies provided by employers.) What is the CURRENT FACE VALUE of ALL life insurance policies that ... has? What types of life insurance does ... have - is it "term insurance," "whole life," or does ... have both of these types? *Note: SIPP Life Insurance data can not be used for assets. First, they don't collect cash value -- only face value. Second, for anyone with both term and whole life insurance, you can not identify separate values for whole.*	Do you have any life insurance? Please include individual and group policies, but not accident insurance. The two major types of life insurance are term and cash-value policies. Term policies pay a benefit if the insured person dies, but otherwise have no value. They are often provided through an employer or union, but may also be bought by individuals. Cash-value policies also pay a death benefit, but differ in that they build up a value as premimums are paid. Other names for types of cash value policies are "whole life" and "universal life." Are any of your policies individual term insurance? Do you have any policies that build up a cash value or that you can borrow on? (IF R ASKS: THESE ARE SOMETIMES CALLED WHOLE LIFE OR "STRAIGHT LIFE".) What is the total cash value of these policies? (THE CASH VALUE OF A POLICY IS WHAT THE INSURANCE COMPANY WOULD PAY IF THE POLICY WERE SURRENDERED BEFORE DEATH.)		*asked and imputed at individual level* Do you currently have any life insurance? Altogether, how many different life insurance policies do you have? Altogether, what is the total face value of (this policy/these policies), that is, the amount of money the beneficiaries would get if you were to die? (Does it amount to) less than $2,500, more than $2,500, or what? Does it amount to less than $20,000, more than $20.000. or what? (Does it amount to) less than $50,000, more than $50,000, or what? (Does it amount to) less than $250,000, more than $250,000, or what?
Key Variables	TALLIV , EALLIT	Aggregate: CASHLI Disaggregate: X4006		F6018X

121: HOME OWNERSHIP

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Current value of home (includes rental properties attached to residence and mobile homes)	Value of primary residence, excluding property for ranching (includes rental properties attached to residence and mobile homes)	Value of home	Value of 1st home, 2nd home, mobile home
Questions	Is residence a mobile home? What is the current value of this property; that is, how much do you think it would sell for on today's market if it were for sale? (Include rental properties attached to or located in this residence.) (question for non mobile homes) How much do you think this mobile home (and site) would sell for today if it were for sale?	Now I have some questions about your home. Do you or your family living here own both this mobile home and site or lot, do you own only the mobile home, do you own only the site, do you rent both the home and site, or what?) Could you tell me the current value of the [mobile home/site/mobile home and site]? I mean, about what would it bring if it were sold today? *if lives on a farm/ranch:* Do you or anyone in your family living here operate a farming or ranching business on this property?) (IF R CLAIMS THE FARM ON HIS INCOME TAX, THEN THE FARM IS A BUSINESS FOR OUR PURPOSES.) *if not on a farm/ranch, or not a farm/ranch business:* What is the current value of this (home and land/apartment/property)? I mean, about what would it bring if it were sold today? INTERVIEWER: PROPERTY REFERS TO WHATEVER PART R OWNS OF THEIR HOUSE AND LOT, APARTMENT, BUILDING, FARM OR RANCH. INCLUDE THE PART OF THE PROPERTY THAT R OWNS; FOR FARMS/RANCHES, INCLUDE ALL OWNED LAND AND STRUCTURES. *if farm/ranch business:* What part of this property is used for (farm/ranch)ing? Could you tell me the current value of all the land and buildings (you own) - that is, what would it bring if it were sold today? Do not include any farm animals, implements or crops.	Do you [/or anyone else in your family living there] own the [home/apartment], pay rent, or what? THIS QUESTION REFERS TO MEMBERS OF THIS FU ONLY Could you tell me what the present value of your [house/apartment] is -- I mean, how much would it bring if it sold today? IWER: PROBE QUALIFIED ANSWER, RANGE OR DK: What's your best estimate?	Do you (and your husband/and your wife/and your partner/...) own your home, rent it, or what? What is its present value? I mean, about what would it bring if it were sold today? (Would it amount to) less than $15,000, more than $15,000 or what? Would it amount to less than $50,000, more than $50,000, or what? (Would it amount to) less than $150,000, more than $150,000, or what? (Would it amount to) less than $500,000, more than $500,00 or what? Do you (or your husband/or your wife/or your partner/...) own both the mobile home and site, do you own only the home, do you rent both the home and site, or what? What is its present value? I mean, what would it bring if it were sold today? Would it amount to less than $10,000, more than $10,000, or what? (Would it amount to) less than $20,000, more than $20,000, or what? (Would it amount to) less than $100,000, more than $100,000, or what? (Would it amount to) less than $5,000, more than $5,000, or what? Not including investment property, do you (or your husband/or your wife/or your partner/...) own a second home or condo? What is its present value? Does it amount to less than $50,000, more than $50,000, or what? (Does it amount to) less than $150,000, more than $150,000, or what? (Does it amount to) less than $500,000, more than $500,000, or what? (Does it amount to) less than $15,000, more than $15,000, or what?

121: HOME OWNERSHIP

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Key Variables	EHREUNV, EREMOBHO, TMHVAL, TPROPVAL	Aggregate: HOUSES Disaggregate: X604, X614, X623, X716, X507, X513, X523	A19, A21	F2760X + F2753X + F2950X (HRS has computed variables FHOME1 and FHOME2, but these subtract mortgages)

123: ALL OTHER REAL ESTATE

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Value of rental property not on residence (total value of property owned 100 percent, equity of property owned jointly with someone other than spouse), equity of vacation homes and other real estate	Value of land contracts/notes household has made, residential properties other than principal residence that include time shares and vacation homes, value of nonresidential property	Equity in other real estate	Equity value of vacation homes, rental property, other real estate equity
Questions	Did ... and ...'s spouse own rental property as of the last day of the reference period? How many rental properties did ... own jointly with ...'s spouse as of the last day of the reference period? What type of rental property(s) were owned jointly with spouse? *(repeated 6 times for 6 properties)* Were any of these rental properties attached to or located on the same land as ...own residence? Were all of these rental properties attached to or located on the same land as... own residence? [Excluding rental properties attached to or located on ... own residence], what was the total market value of the rental property as of the last day of the reference period? Was it - 1 Less than $25,000 2 $25,000 to $75,000 3 $75,001 to $100,000 4 More than $100,000 *(answers to ranges not disclosed to public)* *Note: questions repeated for individually-owned rental properties and rental properties jointly owned with someone other than spouse. For the latter, the relevant value question is:* Excluding rental properties attached to or located on ...'s own residence, what was the total value of property owned jointly with other than spouse as of the last day of the reference period. ("Equity" is the total market value less any debts held against it).	*Residential and Nonresidential:* Have you or anyone in your family living here ever sold any real estate for which you loaned money to the buyer? Please include accepting a note, land contract, or mortgage from the buyer. Does the buyer still owe your family money on any of these notes, land contracts, or mortgages? How much is still owed on this [note/loan]? *(individual amounts up to 3 contracts/loans)* About how much in total is owed to your family on the remaining notes, land contracts, or mortgages? Do you or anyone in your family living here own any (other) real estate such as a lot, vacation home, timeshare, apartment building, commercial property, or other investment property, including properties owned in partnership with other people? What type of property is this? *(up to 3)* 10. Farm/Ranch -- any mention 11. Land only: Lot, tract, acreage; building lots; "farmland" 12. Land and (seasonal) residence (exc. 14); "house + 50 acres" 13. Land and some other type of structure 14. Land and trailer/mobile home 21. Seasonal/vacation house (winter/summer home; cottage; etc.) 22. Trailer/Mobile Home 24. Mobile home park 25. Time-share ownership -- any 40. One single family house 41. Multiple single family houses 42. Duplex 2 unit residence 43. Triplex - 3 unit residence 44. Fourplex - 4 unit residence 45. 5 or more unit residence	Do [you/you or your family] have any real estate other than your main home, such as a second home, land, rental real estate, or money owed to you on a land contract? Does that include a second home? If you sold all that and paid off any debts on it, how much would you realize on it? Would it amount to $50,000 or more? $150,000 or more? $5,000 or more?	Do you (or your husband/or your wife/or your partner/...) have any real estate other than your main home or second home,such as land, rental real estate, a partnership, or money owed toyou on a land contract or mortgage? If you sold all that and then paid off any debts on it, about how much would you get? Would it amount to less than $2,500, more than $2,500, or what? Would it amount to less than $125,000, more than $125,000, or what? (Would it amount to) less than $500,000, more than $500,000, or what? (Would it amount to) less than $1,000,000, more than $1,000,000, or what?

123: ALL OTHER REAL ESTATE

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
	Does anyone in this household own any other real estate such as a vacation home or undeveloped lot? Exclude rental property previously reported or rental property attached to or located on the same land as your own residence. Which household members own this real estate? What is the total value of the equity in this real estate? *Money owed to respondent* I recorded earlier that you jointly owned a mortgage(s) with your spouse. As of the last day of reference period, how much principal was owed to you and your spouse on this mortgage or these mortgages? As of the last day of the reference period, how much principal was owed on the mortgage/mortgages held in ...'s own name? As of the last day of the reference period, did anyone outside of this household owe money to... as the result of the sale of a business or property? (Exclude mortgages owed to ... which have already been reported.) How much was owed to ... ? (If shared, count only yours, if self response, ...'s share.)	46. "Apartment house" -- NA # of units; "rental" units or property NFS 47. Other business/commercial property 48. Business/commercial and residential 49. Condominium 50. Residential, n.e.c. 51. Garage 52. Burial lot Is this property owned by you and your family living here, is it owned jointly with others, owned by a partnership, is it a timeshare, or what? What percentage of the property do you and your family living here own? How much in total is this property worth? About the remaining properties that you and your family living here own, are any of these vacation homes or land you use for recreational purposes? How much in total is your family's share of these vacation homes or recreational property worth? For the remaining properties that you own, about how much in total is your share worth? Did you receive any income from this property in 1997? *Debt on property* Are there any outstanding loans or mortgages on this property? In total, how much is still owed? Do you still owe any money on loans for this property? How much do you still owe? *Note: aggregate variable NNRESRE is <u>equity</u>* in nonresidential RE.		

123: ALL OTHER REAL ESTATE

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Key Variables	ERJOWN, ERIOWN, ERTOWN, TRJMV, TRIMV,TRTSHA, TOTHREVA, EOTHRE, EMJP, EMIP, EALOW, EALOWA Note: file contains, THHORE -- a summary variable for equity in other real estate inculding vacation homes.	Aggregate: ORESRE, NONRESRE Disaggregate: X1401, X1402, X1405, X1409, X1417, X1505, X1509, X1517, X1605, X1609, X1617, X1619, X1621, X1703, X1706, X1705, X1803, X1806, X1805, X1903, X1906, X1905, X2002, X1715, X1815, X1915, X1729, X1829, X1929, X2006, X2012, X2016	W1, W1, W3, W4, W5	F4831X

124: MOTOR VEHICLES

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Value of 5 vehicles (3 car/van/truck, 2 motorcycle, RV, boat)	Value of all vehicles (includes autos, motor homes, RVs, airplanes, boats)	Equity in vehicles	Equity in vehicles
Questions	Does anyone in this household own a car, van, or truck, excluding recreational vehicles (RV's) and motorcycles? How many cars, trucks, or vans are owned by members of this household? *For 3 vehicles* What is the make of this vehicle? What is the model of this vehilce? What is the model year of this vehicle? *SIPP computes retail bluebook value.* Does anyone in this household own any other type of vehicle, not used for business, such as a motorcycle, boat, or recreational vehicle (RV)? Does anyone own a motorcycle? Does anyone own a boat? Does anyone own a recreational vehicle (RV)? Does anyone own another type of vehicle other than motorcycle, boat or rv? If this vehicle were sold, what would it sell for in its present condition? *(Question for up to two vehichls in motorcycle, boat, RV, other category)*	Now I'd like to get some information on your vehicles. Some people have cars or other vehicles provided to them by a business for personal and business use. Do you have any such business vehicles? Other than any vehicles provided by a business, are you or anyone in your family living here currently leasing any cars or other vehicles? Do you or anyone in your family here own any cars, or any kind of truck, van or jeep-type vehicle? Do not include motorcyles, tractors, snow blowers, etc., or any vehicles owned by a business. Altogether, how many such cars or vehicles do you own? *(for up to 4 vehicles starting with the newest):* What type of vehicle is it? What make and model is it? What model year is it? *SCF computes prevailing retail VALUE OF VEHICLE as of fall 1998 according to industry guidebook* *(remaining vehicles):* How much are all the other such vehicles that you and others in your family living here own worth in today's prices? Do you or anyone in your family living here own any other vehicles such as a motorhome, RV, motorcycle, boat, or airplane? Altogether, how many of these other vehicles do you or someone in your family living here own? *(for up to 2 vehicles starting with the newest):*	What is the value of what [you/you or anyone in your family] own on wheels? Including personal vehicles you may have already told me about and any cars, trucks, a motor home, a trailer, or a boat -- what are they worth all together, minus anything you still owe on them? Would it amount to $10,000 or more? $25,000 or more? $2,000 or more?	Do you (or your husband/or your wife/or your partner/...) own anything for transportation, like cars, trucks, a trailer, a motor home, a boat, or an airplane? What are they worth altogether, minus anything you still owe on them? Would it amount to $5,000 or more? $25,000 or more? $200,000 or more?

124: MOTOR VEHICLES

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		What type of vehicle is it? About how much is this vehicle worth? *(remaining vehicles):* How much are all the other such vehicles that you and others in your family living here own worth?		
Key Variables	EAUTOOWN, EAUTONUM, TCARVAL1, TCARVAL2, TCARVAL3, EOTHVEH, EOVMTRCY, EOVBOAT, EOVRV, EOVOTHRV, TOV1VAL, TOV2VAL	Aggregate: VEHIC Disaggregate: X8166, X8167, X8168, X2422, X2506, X2606, X2623	W6, W7, W8, W9	F5261X

125: BUSINESS EQUITY

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Value of money owed as result of sale of business, value of up to two businesses in HH	Net worth of business, plus loans from HH to business, plus value of personal assets used as collateral	Equity in a farm or a business.	Equity in a farm or a business.
Questions	*Questions for two separate businesses in HH:* As of the last day of reference period, what percent of ...'s business did ... own? *(person-level, can have multiple owners in HH)* As of the last day of the reference period, what was the total value of the business before figuring in any debts that might be owed against it? Was the value- 1) Less than $1 2) Between $1 and $1,000 3) Between $1,001 to $10,000 4) Between $10,001 to $100,000 5) More than $100,000 *(answers to ranges not disclosed to public)* *Questions for two separate businesses in HH:* As of the last day of reference period, what percent of ...'s business did ... own? *(person-level, can have multiple owners in HH)* As of the last day of the reference period, what was the total debt owed against the business? Was the debt: 1) Less than $1 2) Between $1 to $1,000 3) Between $1,001 to $10,000 4) Between $10,001 to $100,000 5) More than $100,000	Now I would like to ask you about businesses you may own. Do you and your family living here own or share ownership in any privately-held businesses, farms, professional practices, limited or any other types of partnerships? Do not include corporations with publicly-traded stock or any property partnerships that have already been recorded earlier. Including your (farm/ranch) business here, in how many (farms/ranches), privately-held businesses, professional practices, limited partnerships, or any other types of partnership do you or your family living here own or share ownership in and have an active management role? Do not include corporations with publicly-traded stock or any property partnerships that have already been recorded earlier. In how many businesses do you or anyone in your family living here have an active management role? *Questions for 3 largest businesses:* What kind of business is it/the largest business/the next business/that is, what does the business make or do? Are you or your family living here using personal assets as collateral or did you have to cosign or guarantee any loans for this business? How much is guaranteed or collateralized? Other than guarantees, does the business owe you or your family living here any money? How much is owed? What is the net worth of your share of this business? What could you sell it for? *Other businesses:* For the remaining business you and your family living here own and actively manage, what could you sell your share for? (What is your share worth?) *Share of farm/ranch for business*	Do [you/you or anyone in your familiy] own part or all of a farm or business? If you sold all that and paid off any debts on it, how much would you realized on it? Would it amount to $50,000 or more? $200,000 or more? $10,000 or more?	Do you (or your husband/or your wife/or your partner/...) own part or all of a business or farm? If you sold all that and then paid off any debts on it, about how much would you get? (Would it amount to) less than $5,000, more than $5,000, or what? Would it amount to less than $10,000, more than $10,000, or what? (Would it amount to) less than $100,000, more than $100,000, or what? (Would it amount to) less than $1,000,000, more than $1,000,000, or what?

125: BUSINESS EQUITY

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		What part of this property is used for (farm/ranch)ing? Could you tell me the current value of all the land and buildings - that is, what would it bring if it were sold today? Do not include any farm animals, implements or crops. *Businesses without active management* Do you or anyone in your family living here own or have an interest in any other businesses or any type of partnership where you do not have an active management role? Is it a sole-proprietorship, a limited partnership, another type of partnership, a Subchapter S corporation, another type of corporation, or what? What could you sell your family's share for? (What is it worth?)		
Key Variables	EVBUNV1, EVBUNV2, EVBOW1, EVBOW2, EVBVAES1, EVBVAES2, TVBDE1, TVBDE2 Note, File includes THHBEQ -- a summary variable for "business equity". Calculation of THHBEQ is not documented	Aggregate: none (variable BUS is net of loans from business to household) Disaggregate: X3129, X3124, X3121, X3122, X3229, X3224, X3221, X3222, X3329, X3324, X3321, X3322, X3335, X507, X513, X3408, X3412, X3416, X3420, X3424, X3428	W10, W11, W12, W13, W14	F4857X

130: OTHER NON-SIPP ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	n.a.	Other Nonfinancial Assets, Other Managed Assets	None.	None.
Questions		Other than pension assets, do you or anyone in your family living here have any other substantial assets that I haven't already recorded -- for example, artwork, precious metals, antiques, oil and gas leases, futures contracts, future proceeds from a lawsuit or estate that is being settled, royalties, or something else? (DO NOT INCLUDE PENSION-TYPE OR EMPLOYER PROFIT-SHARING ACCOUNTS HERE). About the most valuable of these .. What kind of asset is it? What is the total dollar value that you have in this asset? *These two questions are asked of the 3 most valuable other assets. The variable OTHNFIN only includes the value for:* *Gold* *Silver (incl. silverware)* *Other metals or metals NA type* *Jewelry; gem stones (incl. antique)* *Cars (antique or classic)* *Antiques; furniture* *Art objects; paintings, sculpture, textile art, ceramic art, photographs* *(Rare) books* *Coin collections* *Stamp collections* *Guns* *Misc. real estate (exc. cemetery)* *Cemetery plots* *China; figurines; crystal/glassware* *Musical instruments* *Livestock; horses; crops* *Oriental rugs* *Furs* *Other collections, incl. baseball cards, records, wine* *Computer* *Equipment/tools, NEC* *Association or exchange membership* *Other obligations to R; tax credits* *Other Managed Assets (OTHMA):*		

130: OTHER NON-SIPP ASSETS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		Do you (or anyone in your family living here) receive income from or have assets in an annuity? IF YES: Please do not include job pensions, or any assets that I have already recorded. Do you (or your family living here) also have annuities in which you have an equity interest? What is the total dollar value of these annuities? *(for equity annuities only)* Do you (or anyone in your family here) have income from or have assets in a trust or managed investment account? IF YES: Please do not include job pensions, or any assets that I have already recorded. Are any of these set up so that you (or your family living here) are legally entitled only to the income and do not have an equity interest? What is the total dollar value of these assets? *(for equity assets only)*		
Key Variables		Aggregate: OTHNFIN, OTHMA Disaggregate: X4022, X4026, X4030, X6820, X6835		

131: SIPP PENSION ASSETS

	1996 SIPP, Wave 7	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Pension Plans, Measured in Wave 7	None.	None.	None.
Questions	**Wave 7 TM Questions:** *For people with job on last day of reference pd:* Now I'd like to ask about retirement plans offered on this job, not Social Security, but plans that are sponsored by your (job/business). This includes regular pension plans as well as other kinds of retirement plans like thrift and savings plans, 401(k) or 403(b) plans, and deferred profit-sharing and stock plans. Does your (job/business) have any kind of pension or retirement plans for anyone in your company or organization? Are you included in such a plan? Some workers participate in more than one retirement plan. For example, they might have a regular pension plan and also have some kind of retirement savings plan. How many different pension or retirement plans do you have on this job? The following question is about the plan you would consider to be your most important retirement plan on this job. There are two basic types of retirement plans. In the first type of plan, your benefit is defined by a formula usually involving your earnings and years on the job. In the second type of plan, contributions made by you and/or your employer go into an individual account for you. What type of plan are you in? What [type] is your second most important plan on this job? *Questions asked separately of first and second most important plans:* Do you contribute any money to this plan, for example, through payroll deductions? In some plans like 401(k) plans the money you contribute is tax-deferred.			

	1996 SIPP, Wave 7	1998 SCF	1999 PSID	1998 HRS
	Are your contributions to this plan tax-deferred? If you were to leave your job now or within the next few months, could you eventually receive some benefits from this plan when you reach retirement age? Will your benefits from this plan be either increased or decreased because you participate in the Social Security Program? As of the end of (last month of reference period), what was the total amount of money in your account? *[Asked of plans that are individual accounts where employee contributions are not tax deferred.]* *If plan 1 and 2 not tax deferred contributions:* I'd like to make sure about a particular type of retirement plan that allows workers to make tax-deferred contributions. For example, you might choose to have your employer put part of your salary into a retirement savings account and you do not have to pay taxes on this money until you take it out or retire. These plans are called by different names, including 401(k) plans, pre-tax plans, salary reduction plans and 403(b) plans. Does your (job/business) offer a plan like this to anyone in your company or organization? Are you participating in this plan? *Questions for Tax-Deferred Plans:* As of the end of the last month of the reference period, what was the total amount of money in your account? Does your plan permit you to take out a loan? Have you ever taken out any money from your plan in the form of a loan? What is the current outstanding balance due from that loan? *Questions about other pensions:* Are you participating in any pension or retirement plans offered on any other jobs or businesses you currently have? Other than Social Security or the plans we have already talked about, have you ever been covered			

	1996 SIPP, Wave 7	1998 SCF	1999 PSID	1998 HRS
	by a pension or retirement plan on any previous jobs or businesses? Are there any previous plans from which you ave not yet received any benefits, but expect to receive them in the future? Will the amount of your retirement benefits from that plan be determined by a formula such as one based on your earnings and years of service or will your benefits be based on the total amount of money held in an individual account for you? As of the end of (last month of the reference period), what was the total amount of money in your account?			
Key Variables	EPENSNYN, EINCPENS, EMULTPEN, E1PENTYP, E2PENTYP, E1RECBEN, E2RECBEN, T1TOTAMT, T2TOTAMT, T3TOTAMT, TPREVAMT			

211: MARGIN AND BROKER ACCOUNTS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Debt on stocks/mutual funds	Margin loans	None. Captured in 113 as equity.	None. Captured in 113 as equity.
Questions	Did ... own any mutual funds jointly with ...'s spouse as of the last day of reference period? Did ... own any stocks jointly with ...'s spouse as of the last day of the reference period? Was any debt or margin account held against these jointly held mutual funds and stocks as of last day of reference period? (Exclude stock in own corporation if value of that corporation was already *obtained.)* As of last day of reference period, what was the amount of the debt or margin account? *Same questions repeated for individually-held stocks and mutual funds*	Not including any accounts you've told me about do you or anyone in your family living here have a "cash" or "call money" account at a stock brokerage? Do you (or anyone in your family living here) currently have any margin loans at a stock brokerage? IF YES, SAY: Please do not include any loans I have already recorded. Altogether, what is the current balance on these margin loans?		
Key Variables	ESMIMA, ESMIMAV, ESMJMA, ESMJMAV	Aggregate: OUTMARG Disaggregate: X3932		

212: MORTGAGES ON OWN HOME

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Mortgage, Home Equity Loan, or Other Debt on Own Home	Mortgages, home equity loans, home equity lines of credit	Value of mortgages and loans on the main residence.	Value of mortgages and loans on the main residence and 2nd home
Questions	*For non-mobile homes:* Is there a mortgage, home equity loan, or other debt on this home? Altogether, how many mortgages, home equity loans, or other debts are there on this home? How much principal is currently owed on the first, second, and all other mortgages or loans? *For mobile homes:* Is there a mortgage, installment loan, contract to purchase, or other debt on this mobile home or site? Is this mortgage, contract, or other debt for just the site, or does it also apply to this mobile home? How much principal is currently owed on all mortgages?	Is there a mortgage or land contract on this (home/home and land/apartment/property)? IF YES, SAY: Please do not include home equity loans or lines of credit. Do you have a second mortgage or a land contract on this property? IF YES, SAY: Please do not include home equity lines of credit. INTERVIEWER: A HOME EQUITY LINE OF CREDIT IS AN AGREEMENT WHERE THE R CAN BORROW AT ANY TIME USING THE HOUSE AS COLLATERAL, UP TO SOME LIMIT. A HOME EQUITY LOAN IS A FIXED LENGTH, FIXED MONTHLY PAYMENT LOAN. Do you have any loans that use this property as collateral? IF YES, SAY: Please do not include any home equity lines of credit. How much is still owed on this loan/land contract? *(Separate questions for first mortgage, second mortgage and HE loans other than HELOC)* Do you have a home equity line of credit or any other lines of credit, not counting credit cards or business lines of credit? Please include such lines of credit even if you are not currently drawing against them. How many lines of credit do you have? *(for up to 3 lines of credit, in order of largest):* Is this line of credit secured by the equity in your home? Do you currently owe any money on this line? How much is currently owed? *Remaining lines:* What is the total amount that you currently owe on all other remaining lines of credit? *(Note: these remaining lines are allocated between MRTHEL and OTHLOC)*	Do you have a mortgage or loan on this property? DEFINITION: ANY LOAN OF MONEY AGAINST THE EQUITY OF THE HOME. THAT IS, THE HOME ITSELF IS USED AS COLLATERAL. INCLUDE ONLY MORTGAGE/LOAN ON THIS MAIN RESEDENCE Is that a mortgage, a land contract, a home equity loan, or what? About how much is the remaining principal on this loan/mortgage? IWER: PROBE QUALIFIED ANSWER, RANGE OR DK: What's your best estimate? Do you also have a second mortgage?	Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. About how much do you still owe on the (mortgage)/(land contract)? Does it amount to less than $20,000, more than $20,000 or what? (Does it amount to) less than $100,000, more than $100,000, or what? (Does it amount to) less than $5,000, more than $5,000 or what? About how much do you still owe on that second mortgage? Does it amount to less than $20,000, more than $20,000 or what? (Does it amount to) less than $100,000, more than $100,000, or what? (Does it amount to) less than $5,000, more than $5,000 or what? About how much do you still owe on that loan? Does it amount to less than $20,000, more than $20,000 or what? (Does it amount to) less than $100,000, more than $100,000, or what? (Does it amount to) less than $5,000, more than $5,000 or what? Do you have a mortgage, land contract, second mortgage, or any other loan that uses the property as collateral? Please do not include home equity lines of credit. (Taking all mortgages and loans together,) about how much do you owe on your second home? Does it amount to less than $20,000, more than $20,000 or what? (Does it amount to) less than $100,000, more than $100,000, or what? (Does it amount to) less than $5,000, more than $5,000 or what?

212: MORTGAGES ON OWN HOME

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Key Variables	EHMORT, ENUMMORT, TMOR1PR, EMHLOAN, EMHTYPE, TMHPR *Note: SIPP has two variables -- EMJP and EMIP -- that reflect the total mortgages. I presume these should equal the sum of mortgages on home, rental property and other RE, but that may not be the case since they are reported separately*	Aggregate: MRTHEL Disaggregate: X805, X905, X1005, X1136	A23, A23a, A24, A28	F2773X + F2780X + F2787X + F2957X

213: MORTGAGES ON RENTAL PROPERTY

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Mortgages on rental property only	Debt for other property (residential and nonresidential): includes residential property other than the principal residence, misc vacation and installment debt reported for cottage/vacation home	None. Captured in 123 as equity	None. Captured in 123 as equity
Questions	*Rental Property* Excluding rental properties attached to or located on ... own residence, was there a mortgage, deed of trust, or other debt on the rental property as of the last day of the reference period? As of the last day of the reference period, how much principal was owed on the rental property owned jointly with spouse? Was it - 1 Less than $25,000 2 $25,000 to $50,000 3 $50,001 to $100,000 4 More than $100,000 *(answers to ranges not disclosed to public)* *Note: questions repeated for individually-owned rental properties and rental properties jointly owned with someone other than spouse. Debt questions for properties jointly owned with other-than-spouse can be ignored since asset questions for those properties refer to equity* *Vacation Homes and Other RE:* *None. Liabilities captured in asset side (123: Vacation homes and other RE) since questions refer to equity*	*For residential and non residential property* *For up to 3 properties:* What percentage of the property do you own? Are there any outstanding loans or mortgages on this property? In total, how much is still owed? *Consumer loans used for cottage, vacation property, mobile homes -- seasonal residence "motorhome", investment real estate (incl. cemetery plots and additions and repairs to investment property); some farmland* Do you (or anyone in your family living here) have any other loans for any reason listed on this card? IF YES, SAY: Please do not include credit cards or loans I have already recorded in detail. DO NOT INCLUDE GIFTS/LOANS R IS NOT EXPECTED TO REPAY *(for up to 6 loans):* What was the loan for? Is this loan one that you told me about when we talked aboutyour business? How much is still owed on this loan?		
Key Variables	ERJDEB, ERIDEB, TRJPRI, TRIPRI,	Aggregate: ORESDBT, non residential prop debt not aggregated, *[Note, we isolate the mortgages for property from which rent is collected]* Disaggregate: X1417, X1517, X1617, X1621, X1703, X1715, X1705, X1803, X1815, X1805, X1903, X1915, X1905, X2006, X2016, *[note, NNRESRE code says non res debt also covered in X2723 thru X2940 series for code 78, but those loans are also captured in RESDBT aggregate variable].*		

214: PERSONAL BUSINESS DEBT

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	None.	Debt owed to business owned, debt owed on property sold with loan to buyer.	None. Captuerd in 125 as equity.	None. Captuerd in 125 as equity.
Questions		*Land Contracts* Have you or anyone in you rfamily living here ever sold any real estate fow which you loaned money to the buyer? Please include accepting a note, land contract, or mortgage from the buyer. Do you still owe any money on loans for this property? How much do you still owe? *Businesses* Now I would like to ask you about businesses you may own. Do you and your family living here own share ownership in any privately-held businesses, farms, professional practices, limited partnerships or any other types of partnerships? Do not include corporations with publicly-traded stock or any property partnerships that have already been recorded earlier. Including your (farm/ranch) business here, in how many (farms/ranches), privately-held businesses, professional practices, limited partnerships, or any other types of partnership do you or your family living here own or share ownership in and have an active management role? Do not include corporations with publicly-traded stock or any property partnerships that have already been recorded earlier. In how many businesses do you or anyone in your family living here have an active management role? *Questions for 3 largest businesses:* Do you owe the business any money? How much do you owe? Did I record this earlier?		
Key Variables		Aggregate: none, must be constructed from components of BUS Disaggregate: 3126, X3127, X3226, X3227, X3326, X3327		

215: VEHICLE LOANS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Vehicle loans on cars, vans, trucks, motercycles, boats, RVs and other vehicles	Outstanding loan balances for all vehicles (includes autos, motor homes, RVs, airplanes, boats)	None. Catputed in 124 as equity.	None. Catputed in 124 as equity.
Questions	Is this vehicle owned free and clear, or is there still money owed on it? How much is currently owed for this vehicle? *(Questions repeated for up to three vehicles in cars/vans/trucks category and for up to two vehichls in motorcycle, boat, RV, other category)*	*For up to 4 cars/trucks/vans/jeeps:* Not counting any loans I've already recorded, is any money still owed on loans for this (make and model)? How much is still owed on this loan? *For remaining cars/trucks/vans/jeeps:* Not counting loans I have already recorded, is any money still owed on loans for these vehicles? Altogether, about how much is still owed on these loans? *For up to two motorhomes, RVs, motorcycles, boats, or airplanes:* Not counting any loans that I have already recorded, is any money still owed on loans for this (vehicle type)? How much is still owed on this loan? *All remaining motorhomes, RVs, motorcycles, boats, or airplanes:* Not counting loans I have already recorded, is any money still owed on loans for these vehicles? Altogether, about how much is still owed on these loans? *Other vehicle loans captured in miscellaneous cousumer loans:* Do you (or anyone in your family living here) have any other loans for any reason listed on this card? (These are loans for household appliances, furniture, hobby or recreational equipment, medical bills, loans from friends or relatives, loans for a business or investment, or other loans.) *(if loan used for car):* Is this loan one that you told me about when we		

215: VEHICLE LOANS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		talked about your business? How much is still owed on this loan? *(Note, consumer loans can also be used for boats, airplanes, motorcycles and RVs (61, 63, 65) We assume those loans used for equipment (which is also covered by category), not for vehicle.)*		
Key Variables	TA1AMT, TOV2AMT, TOV1AMT, TA2AMT, TA3AMT, EOV2OWE, EA1OWED, EOV1OWE, EA3OWED, EA2OWED	Aggregate: none (these debts included as part of INSTALL summary variable) Disaggregate: X2218, X2318, X2418, X7169, X2424, X2519, X2619, X2625, and [(X2723, X2740, X2823, X2840, X2923, X2940,) when (X2710, X2727, X2810, X2827, X2910, X2927) in (10, 24)]		

216: OTHER SECURED DEBT

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	None.	Loans against pensions and life insurance	None.	None.
Questions		*For "account" type pensions (DC) of head and spouse:* Can (you/he/she) borrow against the account? (Do you/Does [he/she]) currently have a loan against the account? What is the amount of the loan balance? Did you tell me about this loan earlier? *For all "whole life" insurance policies:* Are you borrowing against these policies? Is the cash value you just gave me the net cash value, that is the total cash value minus the loan, or is it the gross cash value? Did I record these loans earlier in the interview? How much is currently borrowed?		
Key Variables		Aggregate: OUTPEN1-OUTPEN6, X4010 Disaggregate: X4229, X4230, X4329, X4330, X4429, X4430, X4829, X4830, X4929, X4930, X5029, X5030, X4010		

221: CREDIT CARD OR STORE DEBT

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Credit Card and Store Debt	Credit card balances	None. Captured in 223.	None. Captured in 223.
Questions	As of the last day of the reference period, did ... and...'s spouse together owe any money for store bills or credit card bills? How much was owed as of the last day of the reference period for store bills or credit card bills? *(Questions repeated for individuals)*	Now I have some questions about credit cards and Charge cards. Do you or anyone in your family living here have any credit cards or charge cards?) (Please do not include debit cards.) *(Note: includes store charge cards)* (After the last payments were made on these accounts, roughly what was the balance still owed on these accounts?		
Key Variables	EALIDAB, EALJDAB, EALJDB, EALIDB	Aggregate: CCBAL Disaggregate: X427, X413, X421, X430, X424		

222: LOANS FROM FINANCIAL INSTITUTIONS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Joint and individual loans obtained through a bank or credit union, otherthan car loans or home equit	Installment Loans Not Classified Elsewhere, including loans for education and home improvement	None. Captured in 223.	None. Captured in 223.
Questions	*Joint Loans:* As of the last day of the reference period, did ... and ...'s spouse together owe any money for loans obtained through a bank or credit union, other than car loans or home equity loans? How much was owed as of the last day of the reference period for loans obtained through a bank or credit union, other than car loans or home equity loans? *Individual Loans* As of the last day of the reference period, did ... owe any money in their own name for loans from financial institution? How much was owed as of the last day of the reference period for loans obtained through a bank or credit union, other than car loans or home equity loans? *(Note: it's unclear where educational loans fall -- either here or in other unsecured debt. Question EALIL, a screener question for both the financial institution loans and other loans, references education loans, but it is not clear which category individuals would place educational loans).*	*Consumer Loans* Do you (or anyone in your family living here) have any other loans for any reason listed on this card? (These are loans for household appliances,furniture, hobby or recreational equipment, medical bills, loans from friends or relatives, loans for a business or investment, or other loans.) What was the loan for? *(Loans captured in this category include loans for: home repair, appliances, education, furniture, wedding, moving expenses, boating or airplane equipment, travel, etc.)* Is this loan one that you told me about when we talked about your business? How much is still owed on this loan? *Education Loans* Not counting credit cards or loans you may have told me about in detail, do you and your family living here owe any money or have any loans for educational expenses? How many such loans are there? *For up to 6 ed. loans:* How much is still owed on this loan? *Remaining ed. loans* How much in total is owed on all the remaining loans? *Remodeling:* Have you and your family living here ever made any major additions or done extensive remodeling to this property? Other than what I have already recorded, do you owe any money on loans taken out for these projects? How much is still owed on this loan?		

222: LOANS FROM FINANCIAL INSTITUTIONS

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
		Do you owe money on more than one loan for home additions or improvements to this property? Altogether, how much is still owed on all other loans fo additions or improvements to this property?		
Key Variables	EALIDAL, EALJDAL, EALJDL, EALIDL	Aggregate: none (INSTALL includes vehicle loans) Disaggregate: [(X2723, X2740, X2823, X2840, X2923, X2940,) when (X2710, X2727, X2810, X2827, X2910, X2927) not in (10, 24, 67, 78)], X7824, X7847, X7870, X7924, X7947, X7970, X7179, X1215, 1219		

223: OTHER UNSECURED LIABILITIES

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Assets Explicitly Covered	Unsecured liabilities, including medical bills not covered by insurance, money owed to private individuals, and any other debt	Non-home equity lines of credit,	Credit card debt, student loans, medical or legal bills, loans from relatives	Credit card debt, student loans, medical or legal bills, loans from relatives
Questions	*Joint liabilities:* As of the last day of the reference period, did ... and ...'s spouse together owe any money for any other debt we have not yet mentioned (include medical bills not covered by insurance, money owed to private individuals, and any other debt not covered; exclude mortgages, home equity loans, and car loans)? How much was owed as of the last day of the reference period for other debt we have not yet mentioned? *Individual Liabilities* As of the last day of the reference period, did ... owe any money in his/her own name for any other debt have not yet mentioned (include medical bills not covered by insurance, money owed to private individuals, and any other debt not covered; exclude mortgages, home equity loans, and car loans? How much was owed as of the last day of the reference period for any other debt we have not yet mentioned (include medical bills not covered by insurance, money owed to private individuals, and any other debt not covered; exclude mortgages, home equity loans, and car loans)? *(Note: it's unclear where educational loans fall--either here or in loans from financial institutions. Question EALIL, a screener question for both the financial institution loans and other loans,* *which category individuals would place educational loans).*	*Do you or anyone in your family living here* have a home equity line of credit or any other lines of credit, not counting credit cards or business lines of credit? Please include such lines of credit even if you are not currently drawing against them. How many lines of credit do you have? *For up to 3 lines of credit:* Is this line of credit secured by the equity in your home? *Category only counts LOC not secured by home:* Do you currently owe any money on this line? How much is currently owed? *Remaining LOC:* What is the total amount that you currently owe on all other remaining lines of credit? *(Amout for remaing lines allocated between mortgage debt and unsecured liabilities based on proportion of first 3 loans secured by home eq.)* *Other Debt:* Do you and your family living here owe money on any other loans used for the purchase of this property, such as loans from relatives or the seller? Do you or anyone in your family living here owe any other money not recorded earlier? (WE *DO NOT WANT TO INCLUDE LOANS BETWEEN* FINANCIALLY DEPENDENT FAMILY MEMBERS.)	Aside from the debts we have already talked about, like any mortgages on your main home or vehicle loans -- do [you/you or anyone in your family] currently have any other debts such as credit card charges, student loans, medical or legal bills, or loans from relatives? If you added up all these debts, about how much would they amount to right now? Would it amount to $2,000 or more? $5,000 or more? $1,000 or more?	And do you (or your husband/or your wife/or your partner/...) have any debts that we haven't asked about, such as credit card balances, medical debts, life insurance policy loans, loans from relatives, and so forth? Altogether, about how much would that amount to? Would it amount to less than $500, Would it amount to less than $5,000, (Would it amount to) less than $50,000,

223: OTHER UNSECURED LIABILITIES

	1996 SIPP, Wave 9	1998 SCF	1999 PSID	1998 HRS
Key Variables	EALIDAO, EALJDAO, EALIDO, EALJDO	Aggregate: OTHLOC, X4032, X1044 Disaggregate: X1108, X1109, X1130, X1119, X1114, X1125, X1136, X4032, X1044	W38, W39, W40, W41, W42	F5487X

APPENDIX B

SAS CODE FOR CONSTRUCTING MPR ASSET AND LIABILITY CATEGORIES

A. CODE FOR 1998 SCF

*This program uses the SAS Export file **SCF98X** and the asset summary variables constructed through the program **bulletinmacro.txt,** both of which are available from the Federal Reserve;

```
  /*Assets*/
  /*Financial Assets*/
  LABEL CODE111 = 'Assets Held at Financial Institutions';
  CODE111 = SUM(SAVING,MMDA,CDS,CHECKING);

  LABEL CODE112 = 'Other interest earning assets';
  CODE112 = SUM(MMMF,BOND);

  LABEL CODE113 = 'Stocks and mutual funds';
  CODE113 = SUM(CALL,STOCKS,NMMF);

  LABEL CODE114 = 'US Savings Bonds';
  CODE114 = SAVBND;

  LABEL CODE115 = 'Other Financial Assets';
  CODE115 = OTHFIN;

  LABEL CODE116 = 'IRA and Keogh Accounts';
  CODE116 = IRAKH;


  ARRAY PTYPE{*} X4216 X4316 X4416 X4816 X4916 X5016;
  ARRAY PAMT {*} X4226 X4326 X4426 X4826 X4926 X5026;
  KTHRIFT = 0;
  OTHCPEN = 0;
  DO I = 1 TO DIM(PTYPE);
    KTHRIFT = KTHRIFT + PAMT{I} * (PTYPE{I}=1 | PTYPE{I}=2);
  END;
  OTHCPEN = THRIFT - KTHRIFT;

  LABEL CODE117 = '401(k) and Thrift Accounts';
  IF KTHRIFT < 0 THEN CODE117 = 0;
  ELSE CODE117 = KTHRIFT;

  LABEL CODE118 = 'Other Quasi-Liquid Pensions';
  CODE118 = OTHCPEN + FUTPEN;

  LABEL CODE119 = 'Life Insurance';
  CODE119 = CASHLI;

  LABEL CODE110 = 'Financial Assets';
  CODE110 = SUM(OF CODE111-CODE119);

  /*Property*/
  LABEL CODE121 = 'Home ownership';
  CODE121 = HOUSES;

*   LABEL CODE122 = '';
  CODE122 = 0; /*none*/
```

```
/** Preparing for Code 123 **/
/*Calculate the family's share of the value and */
/*debt owed on property jointly-owned with others */
VAL1 = MAX(0,X1706) * (X1705/10000);
VAL2 = MAX(0,X1806) * (X1805/10000);
VAL3 = MAX(0,X1906) * (X1905/10000);

DEBT1 = MAX(0,X1715) * (X1705/10000);
DEBT2 = MAX(0,X1815) * (X1805/10000);
DEBT3 = MAX(0,X1915) * (X1905/10000);

/*Initiate Nonrental and Rental Debt*/
NRDEBT = MAX(0,X2006);
NRDEBT = MIN(NRDEBT,MAX(0,X2002));
RENTDEBT = 0;

/*Property 1*/

IF (X1703 IN (21,999)) OR (X1729 NE 1) THEN NRDEBT = NRDEBT + MIN(DEBT1,VAL1);
ELSE RENTDEBT = DEBT1;

/*Property 2*/
IF (X1803 IN (21,999)) OR (X1829 NE 1) THEN NRDEBT = NRDEBT + MIN(DEBT2,VAL2);
ELSE RENTDEBT = RENTDEBT + DEBT2;

/*Property 3*/
IF (X1903 IN (21,999)) OR (X1929 NE 1) THEN NRDEBT = NRDEBT + MIN(DEBT3,VAL3);
ELSE RENTDEBT = RENTDEBT + DEBT3;

/*Remaining Property*/
IF (X2019 NE 1) THEN NRDEBT = NRDEBT + MAX(0,X2016);
ELSE RENTDEBT = RENTDEBT + MAX(0,X2016);

/*Next, calculate the value of loans owed to the family for property it sold. */
/*This is part of CODE123 for SCF but not for SIPP, but it turns out that we do */
/*have a SIPP measure of this. */
        LOANVAL = MAX(X1405,X1409) + MAX(X1505,X1509) + MAX(X1605,X1609) + X1619;
        LOANDEBT = X1417 + X1517 + X1617 + X1621;

/** End of Preparing for Code 123 **/

LABEL CODE123 = 'All Other Real Estate';
CODE123 = VAL1 + VAL2 + VAL3 + LOANVAL + Max(0,X2002) + Max(0,X2012) - NRDEBT;

LABEL CODE124 = 'Motor Vehicles';
CODE124 = VEHIC;

LABEL CODE125 = 'Business Equity';
CODE125 = MAX(0,X3129) + MAX(0,X3124)
+ MAX(0,X3121) * (X3122 IN (1,6)) + MAX(0,X3229) + MAX(0,X3224)
+ MAX(0,X3221) * (X3222 IN (1,6)) + MAX(0,X3329) + MAX(0,X3324)
+ MAX(0,X3321) * (X3322 IN (1,6)) + MAX(0,X3335)
+ (X507/10000) * (X513 + X526)
+ MAX(0,X3408) + MAX(0,X3412) + MAX(0,X3416)
+ MAX(0,X3420) + MAX(0,X3424) + MAX(0,X3428);
```

```
/*[note, this is the value side of the equity variable BUS]*/

LABEL CODE120 = 'Property';
CODE120 = SUM(OF CODE121-CODE125);

/*Non-SIPP Assets*/
LABEL CODE130 = 'Non-SIPP Assets';
CODE130 = SUM(OTHNFIN,OTHMA);

LABEL CODE100 = 'Assets';
CODE100 = SUM(CODE110,CODE120,CODE130);

/*Liabilities*/
/*Secured Liabilities*/
LABEL CODE211 = 'Margin and broker accounts';
CODE211 = OUTMARG;

LABEL CODE212 = 'Mortgages on Own Home';
CODE212 = MRTHEL;

LABEL CODE213 = 'Mortgages on Rental Property';
CODE213 = RENTDEBT;

LABEL CODE214 = 'Personal Business Debt';
CODE214 = MAX(0,X3126) * (X3127=5)
+ MAX(0,X3226) * (X3227=5)
+ MAX(0,X3326) * (X3327=5)
+ LOANDEBT;

LABEL CODE215 = 'Vehicle Loans';
CODE215 = X2218 + X2318 + X2418 + X7169 + X2424 + X2519 + X2619 + X2625
+ X2723 * (X2710 IN (10,24)) + X2740 * (X2727 IN (10,24))
+ X2823 * (X2810 IN (10,24)) + X2840 * (X2827 IN (10,24))
+ X2923 * (X2910 IN (10,24)) + X2940 * (X2927 IN (10,24));

LABEL CODE216 = 'Other Secured Debt';
CODE216 = SUM(OUTPEN1,OUTPEN2,OUTPEN3,OUTPEN4,OUTPEN5,OUTPEN6,X4010);

LABEL CODE210 = 'Secured Liabilities';
CODE210 = SUM(OF CODE211-CODE216);

/*Unsecured Liabilities*/
LABEL CODE221 = 'Credit Card and Store Debt';
CODE221 = CCBAL;

LABEL CODE222 = 'Loans from Financial Institutions';
CODE222 = X2723 * NOT(X2710 IN (10,24)) + X2740 * NOT(X2727 IN (10,24))
+ X2823 * NOT(X2810 IN (10,24)) + X2840 * NOT(X2827 IN (10,24))
+ X2923 * NOT(X2910 IN (10,24)) + X2940 * NOT(X2927 IN (10,24))
+ X7824 + X7847 + X7870 + X7924 + X7947 + X7970 + X7179 + X1215 + X1219
+ MAX(0,X7183);

LABEL CODE223 = 'Other Unsecured Liabilities';
CODE223 = SUM(OTHLOC,X4032,X1044);

LABEL CODE220 = 'Unsecured Liabilities';
```

```
  CODE220 = SUM(OF CODE221-CODE223);

  LABEL CODE200 = 'Liabilities';
  CODE200 = SUM(CODE210,CODE220);

  LABEL CODE300 = 'Net Worth';
  CODE300 = CODE100 - CODE200;

RUN;
```

B. CODE FOR 1996 SIPP WAVES 3, 6, 9 AND 12

```
DATA EXTRACT;
  SET TOPMOD;
  BY SSUID SHHADID RFID ERRP EPPPNUM;

  /*!!! WAVE 3 TOPMOD DID NOT HAVE THESE VARIABLES !!! */
  IF SPANEL = 1996 AND SWAVE = 3 THEN DO;
    EOTHREO3 = -1;
    EA3OWN1  = -1;
    EA3OWN2  = -1;
  END;

  MPR111   = TIAJTA + TIAITA + TALJCHA + TALICHA;
  MPR114   = TALSBV;
  MPR115   = EOAEQ;
  MPR117   = TALTB;
  MPR118   = 0;

  MPR112   = TIMJA + TIMIA;

  MPR113   = ESMJV + ESMIV;

  MPR116   = TALRB + TALKB;

  MPR119   = TALLIV;

  /* distribute home value to owners, assign mobile home value to 1st person in hhld */

  MPR121      = 0; /* need to distribute hhld amt to each owner */
  MPR212      = 0; /* need to distribute hhld amt to each owner */
  NHMOWNERS    = 0;
  HMSHARE      = 0.0;
  IF EHOWNER1  > 0 THEN NHMOWNERS = NHMOWNERS + 1;
  IF EHOWNER2  > 0 THEN NHMOWNERS = NHMOWNERS + 1;
  IF EHOWNER3  > 0 THEN NHMOWNERS = NHMOWNERS + 1;
  IF NHMOWNERS > 0 THEN HMSHARE   = 1 / NHMOWNERS;

  IF EHOWNER1 = EPPPNUM THEN DO;
    MPR121 = MPR121 + HMSHARE * TPROPVAL;
    MPR212 = MPR212 + HMSHARE * TMOR1PR;
  END;
  IF EHOWNER2 = EPPPNUM THEN DO;
    MPR121 = MPR121 + HMSHARE * TPROPVAL;
    MPR212 = MPR212 + HMSHARE * TMOR1PR;
  END;
```

```
IF EHOWNER3 = EPPPNUM THEN DO;
  MPR121 = MPR121 + HMSHARE * TPROPVAL;
  MPR212 = MPR212 + HMSHARE * TMOR1PR;
END;

IF FIRST.SHHADID THEN DO;
  IF HMSHARE = 0 AND TPROPVAL > 0 THEN MPR121 = MPR121 + TPROPVAL;
       /* if no owners are identified, assign to 1st person in hhld */
  IF HMSHARE = 0 AND TMOR1PR  > 0 THEN MPR212 = MPR212 + TMOR1PR;
       /* if no owners are identified, assign to 1st person in hhld */

  MPR121 = MPR121 + TMHVAL;  /* mobile home */
  MPR212 = MPR212 + TMHPR;   /* mobile home */

  /* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!!! */
  /* PROBLEM:                                        */
  /* There are 2 cases  in 1996 SIPP WAVE  3 TOPMOD  */
  /* There are 2 cases  in 1996 SIPP WAVE  6 TOPMOD  */
  /* There are 2 cases  in 1996 SIPP WAVE  9 TOPMOD  */
  /* There are 2 cases  in 1996 SIPP WAVE 12 TOPMOD  */
  /* where the home owner is not in the hhld.        */
  /* ACTION:                                         */
  /* Assign home value to 1st person in the hhld     */
  /* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!!! */

  IF SPANEL = 1996 AND SWAVE = 03 THEN DO;
    IF (SSUID = 495138228613 AND SHHADID = 11)
    OR (SSUID = 830238754482 AND SHHADID = 21) THEN DO;
      MPR121 = TPROPVAL;
      MPR212 = TMOR1PR;
    END;
  END;
  IF SPANEL = 1996 AND SWAVE = 06 THEN DO;
    IF (SSUID = 385379038003 AND SHHADID = 51)
    OR (SSUID = 624925879494 AND SHHADID = 11) THEN DO;
      MPR121 = TPROPVAL;
      MPR212 = TMOR1PR;
    END;
  END;
  IF SPANEL = 1996 AND SWAVE = 09 THEN DO;
    IF (SSUID = 203925392360 AND SHHADID = 11)
    OR (SSUID = 315925257369 AND SHHADID = 11) THEN DO;
      MPR121 = TPROPVAL;
      MPR212 = TMOR1PR;
    END;
  END;
END;

/* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!!! */
/* PROBLEM:                                        */
/* There are 2 cases  in 1996 SIPP WAVE 12 TOPMOD  */
/* where the home owner is not in the hhld but     */
/* the co-owner is the second person listed in the */
/* hhld roster, not the 1st person.                */
/* ACTION:                                         */
/* Assign home value to 2nd person in the hhld     */
```

```
  /* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!! */

  IF SPANEL = 1996 AND SWAVE = 12 AND EPPPNUM = 102 THEN DO;
          /* assign to second owner who is one of the co-owners */
    IF (SSUID = 283925879705 AND SHHADID = 11)
    OR (SSUID = 730925370379 AND SHHADID = 11) THEN DO;
      MPR121 = TPROPVAL;
      MPR212 = TMOR1PR;
    END;
  END;

  /* distribute rental/vacation home value to owners */

  MPR123        = 0; /* need to distribute hhld amt to each owner */
  NREVAOWNERS   = 0;
  REVASHARE     = 0.0;
  IF EOTHREO1   > 0 THEN NREVAOWNERS = NREVAOWNERS + 1;
  IF EOTHREO2   > 0 THEN NREVAOWNERS = NREVAOWNERS + 1;
  IF EOTHREO3   > 0 THEN NREVAOWNERS = NREVAOWNERS + 1;
  IF NREVAOWNERS > 0 THEN REVASHARE   = 1 / NREVAOWNERS;

  IF EOTHREO1 = EPPPNUM THEN MPR123 = MPR123 + REVASHARE * TOTHREVA;
  IF EOTHREO2 = EPPPNUM THEN MPR123 = MPR123 + REVASHARE * TOTHREVA;
  IF EOTHREO3 = EPPPNUM THEN MPR123 = MPR123 + REVASHARE * TOTHREVA;

  MPR123 = MPR123 + TRJMV + TRIMV + TRTSHA
             + EMJP + EMIP
             + EALOWA                          ;

  MPR125 = MAX(0, ((EVBOW1 / 100.) * (TVBVA1 - TVBDE1)))           + MAX(0, ((EVBOW2 / 100.)
* (TVBVA2 - TVBDE2)));

  MPR214 = 0;

  IF FIRST.SHHADID THEN DO;
    IF REVASHARE = 0 AND TOTHREVA > 0 THEN MPR123 = MPR123 + TOTHREVA;
          /* if no owners are identified, assign to 1st person in hhld */

    /* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!! */
    /* PROBLEM:                                        */
    /* There is  1 case   in 1996 SIPP WAVE  3 TOPMOD  */
    /* There are 2 cases  in 1996 SIPP WAVE  6 TOPMOD  */
    /* There is  1 case   in 1996 SIPP WAVE  9 TOPMOD  */
    /* where rental/vacation property owner not in hh. */
    /* ACTION:                                         */
    /* Assign REVA value to 1st person in the hhld     */
    /* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!! */

    IF SPANEL = 1996 AND SWAVE = 3 THEN DO;
      IF SSUID = 784359651720 AND SHHADID = 11 THEN MPR123 = TOTHREVA;
          /* hmowner not in hhld in this month, assign to 1st person in hhld */
    END;
    IF SPANEL = 1996 AND SWAVE = 6 THEN DO;
      IF SSUID = 19359451097 AND SHHADID = 62 THEN MPR123 = TOTHREVA;
          /* hmowner not in hhld in this month, assign to 1st person in hhld */
      IF SSUID =404756651724 AND SHHADID = 51 THEN MPR123 = TOTHREVA;
```

```
        /* hmowner not in hhld in this month, assign to 1st person in hhld */
  END;
  IF SPANEL = 1996 AND SWAVE = 9 THEN DO;
    IF SSUID = 315925257369 AND SHHADID = 11 THEN MPR123 = TOTHREVA;
        /* hmowner not in hhld in this month, assign to 1st person in hhld */
  END;
END;

/* distribute vehicle value/debt to owners */

MPR124     = 0; /* need to distribute hhld amt to each owner */
MPR215     = 0; /* need to distribute hhld amt to each owner */
NCAR1OWNERS = 0;
NCAR2OWNERS = 0;
NCAR3OWNERS = 0;
NOCAR1OWNERS= 0; /* owners of other types of vehicles */
NOCAR2OWNERS= 0;
CAR1SHARE   = 0.0;
CAR2SHARE   = 0.0;
CAR3SHARE   = 0.0;
OCAR1SHARE  = 0.0;
OCAR2SHARE  = 0.0;


IF EA1OWN1    > 0 THEN NCAR1OWNERS  = NCAR1OWNERS  + 1;
IF EA1OWN2    > 0 THEN NCAR1OWNERS  = NCAR1OWNERS  + 1;
IF NCAR1OWNERS > 0 THEN CAR1SHARE    = 1 / NCAR1OWNERS;

IF EA2OWN1    > 0 THEN NCAR2OWNERS  = NCAR2OWNERS  + 1;
IF EA2OWN2    > 0 THEN NCAR2OWNERS  = NCAR2OWNERS  + 1;
IF NCAR2OWNERS > 0 THEN CAR2SHARE    = 1 / NCAR2OWNERS;

IF EA3OWN1    > 0 THEN NCAR3OWNERS  = NCAR3OWNERS  + 1;
IF EA3OWN2    > 0 THEN NCAR3OWNERS  = NCAR3OWNERS  + 1;
IF NCAR3OWNERS > 0 THEN CAR3SHARE    = 1 / NCAR3OWNERS;

IF EOV1OWN1    > 0 THEN NOCAR1OWNERS = NOCAR1OWNERS + 1;
IF EOV1OWN2    > 0 THEN NOCAR1OWNERS = NOCAR1OWNERS + 1;
IF NOCAR1OWNERS > 0 THEN OCAR1SHARE   = 1 / NOCAR1OWNERS;

IF EOV2OWN1    > 0 THEN NOCAR2OWNERS = NOCAR2OWNERS + 1;
IF EOV2OWN2    > 0 THEN NOCAR2OWNERS = NOCAR2OWNERS + 1;
IF NOCAR2OWNERS > 0 THEN OCAR2SHARE   = 1 / NOCAR2OWNERS;

IF EA1OWN1 = EPPPNUM
OR EA1OWN2 = EPPPNUM THEN DO;
  MPR124 = MPR124 + CAR1SHARE * TCARVAL1;
  MPR215 = MPR215 + CAR1SHARE * TA1AMT;
END;
IF EA2OWN1 = EPPPNUM
OR EA2OWN2 = EPPPNUM THEN DO;
  MPR124 = MPR124 + CAR2SHARE * TCARVAL2;
  MPR215 = MPR215 + CAR2SHARE * TA2AMT;
END;
IF EA3OWN1 = EPPPNUM
OR EA3OWN2 = EPPPNUM THEN DO;
```

```
  MPR124 = MPR124 + CAR3SHARE * TCARVAL3;
  MPR215 = MPR215 + CAR3SHARE * TA3AMT;
END;
IF EOV1OWN1 = EPPPNUM
OR EOV1OWN2 = EPPPNUM THEN DO;
  MPR124 = MPR124 + OCAR1SHARE * TOV1VAL;
  MPR215 = MPR215 + OCAR1SHARE * TOV1AMT;
END;
IF EOV2OWN1 = EPPPNUM
OR EOV2OWN2 = EPPPNUM THEN DO;
  MPR124 = MPR124 + OCAR2SHARE * TOV2VAL;
  MPR215 = MPR215 + OCAR2SHARE * TOV2AMT;
END;

/* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!!!! */
/* PROBLEM:                                          */
/* Bad vehicular data in 1996 SIPP WAVE 3 TOPMOD   */
/* The number of vehicles in the household does    */
/* not match the number of values listed           */
/* There are non-zero car values with no owners    */
/* ACTION:                                           */
/* Do NOT assign a vehicle value if there is no    */
/* owner                                           */
/* !!!!!!!!!!!!!  IMPORTANT  !!!!!!!!!!!!!!!!!!!!!! */
IF FIRST.SHHADID THEN DO;
  IF SPANEL = 1996 AND SWAVE ^= 3 THEN DO;
    IF CAR1SHARE = 0 AND TCARVAL1 > 0 THEN MPR124 = MPR124 + TCARVAL1;
       /* if no owners are identified, assign to 1st person in hhld */
    IF CAR2SHARE = 0 AND TCARVAL2 > 0 THEN MPR124 = MPR124 + TCARVAL2;
       /* if no owners are identified, assign to 1st person in hhld */
    IF CAR3SHARE = 0 AND TCARVAL3 > 0 THEN MPR124 = MPR124 + TCARVAL3;
       /* if no owners are identified, assign to 1st person in hhld */
    IF OCAR1SHARE= 0 AND TOV1VAL  > 0 THEN MPR124 = MPR124 + TOV1VAL;
       /* if no owners are identified, assign to 1st person in hhld */
    IF OCAR2SHARE= 0 AND TOV2VAL  > 0 THEN MPR124 = MPR124 + TOV2VAL;
       /* if no owners are identified, assign to 1st person in hhld */

    IF CAR1SHARE = 0 AND TA1AMT   > 0 THEN MPR215 = MPR215 + TA1AMT;
       /* if no owners are identified, assign to 1st person in hhld */
    IF CAR2SHARE = 0 AND TA2AMT   > 0 THEN MPR215 = MPR215 + TA2AMT;
       /* if no owners are identified, assign to 1st person in hhld */
    IF CAR3SHARE = 0 AND TA3AMT   > 0 THEN MPR215 = MPR215 + TA3AMT;
       /* if no owners are identified, assign to 1st person in hhld */
    IF OCAR1SHARE= 0 AND TOV1AMT  > 0 THEN MPR215 = MPR215 + TOV1AMT;
       /* if no owners are identified, assign to 1st person in hhld */
    IF OCAR2SHARE= 0 AND TOV2AMT  > 0 THEN MPR215 = MPR215 + TOV2AMT;
       /* if no owners are identified, assign to 1st person in hhld */
  END;
END;


MPR110   = MPR111 + MPR112 + MPR113 + MPR114 + MPR115
      + MPR116 + MPR117 + MPR118;

MPR120   = MPR121 + MPR123 + MPR124 + MPR125;
```

```
MPR100   = MPR110 + MPR120;     /* MPR130 is not relevant in SIPP data */

MPR211   = ESMIMAV + ESMJMAV;

MPR213   = TRJPRI + TRIPRI;


MPR216   = 0;  /* none in SIPP */

MPR221   = EALIDAB + EALJDAB;

MPR222   = EALIDAL + EALJDAL;

MPR223   = EALIDAO + EALJDAO;

MPR210   = MPR211 + MPR212 + MPR213 + MPR214 + MPR215
       + MPR216;

MPR220   = MPR221 + MPR222 + MPR223;

MPR200   = MPR210 + MPR220;

MPR300   = MPR100 - MPR200;

LABEL
  MPR100   = "Assets"
  MPR110   = "Financial Assets"
  MPR111   = "Assets Held at Financial Institutions"
  MPR112   = "Other Interest Earning Assets"
  MPR113   = "Stocks and Mutual Funds"
  MPR114   = "US Savings Bonds"
  MPR115   = "Other Financial Assets"
  MPR116   = "IRA and Keogh Accounts"
  MPR117   = "401(k) and Thrift Accounts"
  MPR118   = "Other Quasi-Liquid Pensions"
  MPR119   = "Life Insurance"
  MPR120   = "Property"
  MPR121   = "Home Ownership"
  MPR123   = "All Other Real Estate"
  MPR124   = "Motor Vehicles"
  MPR125   = "Business Equity"
  MPR200   = "Liabilities"
  MPR210   = "Secured Liabilities"
  MPR211   = "Margin and Broker Accounts"
  MPR212   = "Mortgages on Own Home"
  MPR213   = "Mortgages on Rental Property"
  MPR214   = "Personal Business Debt"
  MPR215   = "Vehicle Loans"
  MPR216   = "Other Secured Debt"
  MPR220   = "Unsecured Liabilities"
  MPR221   = "Credit Card and Store Debt"
  MPR222   = "Loans from Financial Institutions"
  MPR223   = "Other Secured Liabilities"
  MPR300   = "Net Worth"
  ;
```

C. CODE FOR 1999 PSID

```
/*** changes to certain wealth variables based on wealth supp file ***/

ER15002 = ER403;
ER15020 = ER405;
ER15031 = ER407;
ER14993 = ER409;
ER15007 = ER411;
ER14997 = ER413;
ER15026 = ER415;
ER15014 = ER419;


/*** 111 112 114 115 ***/
INTEREST =ER15020;

/*** 116 ***/
IRA =ER15014;

K401  = 0;
QUASI = 0;
IF ER15166 = 1 THEN DO;       /* P11 */
   IF ER15181 > 0 THEN  K401 = K401 + ER15181;     /* P20 */
END;
ELSE DO;
   IF ER15181 > 0 THEN QUASI = QUASI + ER15181;   /* P20 */
END;

IF ER15312 = 1 THEN DO;       /* P81 */
   IF ER15327 > 0 THEN K401 = K401 + ER15327;     /* P90 */
END;
ELSE DO;
   IF ER15327 > 0 THEN QUASI = QUASI + ER15327;   /* P90 */
END;

IF ER15222 = 3 AND ER15223 > 0 THEN QUASI = QUASI + ER15223;  /* P48  and P49  */
IF ER15368 = 3 AND ER15369 > 0 THEN QUASI = QUASI + ER15369;  /* P118 and P119 */
IF ER15254 = 3 AND ER15255 > 0 THEN QUASI = QUASI + ER15255;  /* P64  and P65  */
IF ER15400 = 3 AND ER15401 > 0 THEN QUASI = QUASI + ER15401;  /* P134 and 135  */

 IF ER15166 = 1 THEN DO;
   IF ER15181 = . THEN K401 = .;
 END;
 ELSE DO;
   IF ER15181 = . THEN QUASI = .;
 END;

 IF ER15312 = 1 THEN DO;
   IF ER15327 = . THEN K401 = .;
 END;
 ELSE DO;
   IF ER15327 = . THEN QUASI = .;
 END;
```

```
 IF ER15222 = 3 AND ER15223 = . THEN QUASI = .;
 IF ER15368 = 3 AND ER15369 = . THEN QUASI = .;
 IF ER15254 = 3 AND ER15255 = . THEN QUASI = .;
 IF ER15400 = 3 AND ER15401 = . THEN QUASI = .;

/*** 118 ***/

/*** 121 ***/
HOMEVAL = ER13041;

/*** 212 ***/
 IF ER13047 = . THEN MORTGAGE = .;
 ELSE              MORTGAGE = SUM(ER13047, ER13056);

/*** 221 222 223 ***/
OTHERLIAB = ER15031;

/*** 113 211 ***/
EQUITYSTOCK = ER15007;

/*** 117 119 130 ***/
OTHERASSETS = ER15026;

/*** 122 123  ***/
PROPERTY = ER14993;

/*** 124 ***/
VEHEQUITY =  ER14997;

/*** 125 ***/
BUSEQUITY = ER15002;

ASSETS = SUM(INTEREST,IRA,K401,QUASI,HOMEVAL);
LIABILITIES = SUM(MORTGAGE,OTHERLIAB);
EQUITY = SUM(EQUITYSTOCK,OTHERASSETS,PROPERTY,VEHEQUITY,BUSEQUITY);

NETWORTH = SUM(ASSETS,EQUITY,-LIABILITIES);
```

D. CODE FOR 1998 HRS

```
* ASSETS;

MPR111_114_115 = F5225X + F5186X;
MPR111_112_114_115 = F5225X + F5186X + F5143X;
MPR116 = F4887X + F4909X + F4930X;
MPR118 = PENSION;
MPR121 = F2760X + F2753X + F2950X;

LABEL
 MPR111_114_115 = "MPR 111/114/115: CHECK, SAV, CD, MMA, GOVT BOND"
 MPR111_112_114_115 = "MPR 111/112/114/115:CHCK/SAV,CD,MMA,G-BND,OTH"
 MPR116 = "MPR 116: IRA AND KEOGH"
 MPR118 = "MPR 118: OTHER QUASI-LIQUID PENSIONS"
 MPR121 = "MPR 121: HOME OWNERSHIP VALUE"
 ;
```

```
* LIABILITIES;

  MPR212 = F2773X + F2780X + F2787X + F2794X + F2957X;

  MPR220= F5487X;

  LABEL
   MPR212 = "MPR 212: HOME MORTGAGES"
   MPR220 = "MPR 220: OTHER UNSECURED DEBT"
  ;

* EQUITY;

  MPR112 = F5143X;

  MPR113_211 = F5100X;

  MPR117 = F5274X + F5480Z + F5473X;

  MPR119 = SUMHHLIF;

  MPR122_123_213 = F4831X;

  MPR124_215 = F5261X;

  MPR125_214 = F4857X;

  MPR117_119 = MPR117 + MPR119;

 LABEL
  MPR112 = "MPR 112: EQUITY OTHER INT EARNING ASSETS"
  MPR113_211 = "MPR 113/211: STOCK EQUITY"
  MPR117 = "MPR 117: EQUITY OTHER FINANCIAL ASSETS"
  MPR119 = "MPR119: LIFE INSURANCE EQUITY"
  MPR122_123_213 = "MPR 122/123/213: EQUITY OTHER REAL ESTATE"
  MPR124_215 = "MPR 124/215: MOTOR VEHICLE EQUITY"
  MPR125_214 = "MPR 125/214: BUSINESS EQUITY"
  MPR117_119 = "MPR 117+119: OTHER FIN ASSETS"
  ;
```

APPENDIX C

EQUATION COEFFICIENTS FOR CHAPTER V

APPENDIX TABLE C.1

COEFFICIENTS OF ECONOMETRIC MODELS OF TOTAL RETIREMENT ASSETS

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
own_home	Head is homeowner	0.11806	0.13248	1.00073	0.23699
white_head	Head is white * non-Hispanic	0.53512	0.19535	0.82350	-0.00227
wh_hs	white_head * hs_head	-0.33471	-0.14608	-0.12337	0.27959
wh_sc	white_head * sc_head	0.14329	-0.08107	-0.20553	-0.38762
wh_ma	white_head * married	-0.37350	0.11581	-0.38004	0.23918
wh_nm	white_head * nevmar	0.04558	0.21089	0.11397	0.28908
wh_fh	white_head * fem_head	-0.67385	0.09584	-0.53764	-0.07218
wh_kf	white_head * kids_in_fam	0.17950	0.05581	-0.76001	-0.27195
black_head	Head is black * non-Hispanic	-0.29780	0.07774	0.67204	-0.62479
bl_hs	black_head * hs_head	-0.14313	-0.19262	-0.22506	0.42757
bl_sc	black_head * sc_head	0.48294	-0.04680	-0.58599	-0.38865
bl_ma	black_head * married	-0.03739	-0.12228	-0.06408	0.16635
bl_nm	black_head * nevmar	0.11671	0.07245	0.48553	0.31508
bl_fh	black_head * fem_head	-0.41287	-0.02963	0.04824	0.03162
bl_kf	black_head * kids_in_fam	0.55325	0.10544	-0.44071	0.05693
hisp_head	Head is Hispanic	-0.36305	-0.12722	-0.10120	-0.11590
hs_head	Head has H.S. diploma/GED	0.51685	0.47037	0.88572	0.04791
hs_ma	hs_head * married	0.02171	-0.06994	0.10971	-0.08450
hs_nm	hs_head * nevmar	-0.49267	0.06327	-0.09907	-0.28822
hs_fh	hs_head * fem_head	-0.00741	0.21534	-0.44879	0.09729
hs_kf	hs_head * kids_in_fam	0.11655	0.10606	0.40466	0.28649
sc_head	Head has attended college	0.04711	0.25849	0.18550	0.34956
sc_ma	sc_head * married	-0.01983	0.03539	-0.45293	0.16013
sc_nm	sc_head * nevmar	0.26374	-0.01851	-0.04687	0.02136
sc_fh	sc_head * fem_head	0.09742	-0.02267	-0.18574	0.07414
sc_kf	sc_head * kids_in_fam	-0.02500	0.01216	0.04965	0.01818
bd_head	Head has bachelor's degree	0.09426	0.14381	0.31812	0.41427
married	Head is married	0.08857	-0.07031	-0.07573	-0.13551
nevmar	Never married, no partner	0.24812	-0.11556	0.01165	0.26407
partner	Head is living with partner	0.06533	-0.13059	-0.38850	-0.02728
fem_head	Head is female	0.63269	-0.11888	0.62133	-0.22977
disab_in_fam	Disabled members in family	-0.48445	-0.22150	0.48787	-0.18656
pure_elderly	Pure elderly family	-0.25340	0.00447	0.20061	-0.00049
kids_in_fam	Child under age 18 in family*	-0.25010	-0.34195	-0.82640	-0.11125
youth_in_fam	Youth age 18 to 24 in family*	0.02394	-0.25043	-0.28611	-0.26184
age_h_25pl	Head is age 25 or older	0.18773	0.41593	-0.17194	0.55110
age_h_30pl	Head is age 30 or older	0.18313	0.21225	1.00985	0.81763
age_h_40pl	Head is age 40 or older	-0.03253	-0.01298	0.59601	0.51286
age_h_50pl	Head is age 50 or older	0.04389	0.03219	0.22378	0.46011
age_h_65pl	Head is age 65 or older	-0.13021	-0.17763	0.18213	0.25010
age_h_80pl	Head is age 80 or older	-0.74209	-0.80175	-0.23239	-0.36621
totalinc_log	ln(total annual income + 1)	1.00106	3.16545	2.41286	3.59641
totalinc_lsq	Square of totalinc_log	-0.44967	-0.94170	-0.90863	-0.85753
totalinc_lcu	Cube of totalinc_log	0.05514	0.09824	0.09628	0.07370
totalinc_lqu	Quartic of totalinc_log	-0.00195	-0.00327	-0.00305	-0.00204
oh_wh	own_home * white_head	0.28918	0.14736	-0.19105	0.02605
oh_bl	own_home * black_head	0.37062	-0.06437	-0.53942	-0.30998
oh_hs	own_home * hs_head	-0.14072	-0.04655	-0.56700	0.17741
oh_sc	own_home * sc_head	-0.12081	0.03344	0.24176	0.03513
oh_ma	own_home * married	0.26983	0.14671	0.12491	-0.01434
oh_nm	own_home * nevmar	0.10219	-0.01237	0.09357	-0.23560
oh_fh	own_home * fem_head	-0.04188	0.10789	0.02170	0.00916
oh_kf	own_home * kids_in_fam	-0.05332	0.08599	0.04230	0.13836
ma_kf	married * kids_in_fam	-0.02241	-0.03350	0.86180	-0.15438
nm_kf	nevmar * kids_in_fam	-0.15450	-0.15121	0.41009	0.27607
fh_kf	fem_head * kids_in_fam	-0.17731	-0.22458	1.21096	-0.33648
	Constant term	-2.01681	-4.87148	7.11171	3.30003
	Std. deviation of error term	1.00000	1.00000	1.53470	1.40540
	Corr. of presence, log errors	0.01630	-0.00090	0.01630	-0.00090
	Pseudo R-squared / R-squared	0.2776	0.2764	0.3745	0.3086
	Unweighted sample size	21,525	28,969	12,256	11,061

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

APPENDIX TABLE C.2

COEFFICIENTS OF ECONOMETRIC MODELS OF OWN HOUSING

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
white_head	Head is white * non-Hispanic	0.59620	0.60284	-0.23052	-0.40206
wh_hs	white_head * hs_head	0.52868	-0.06125	0.19553	0.02136
wh_sc	white_head * sc_head	-0.31212	0.01046	-0.18158	0.10384
wh_ma	white_head * married	-0.13987	0.05271	0.00299	0.14145
wh_nm	white_head * nevmar	-0.17419	-0.19543	-0.77138	0.01315
wh_fh	white_head * fem_head	-0.44757	-0.04924	0.36974	0.19292
wh_kf	white_head * kids_in_fam	-0.26096	0.01254	-0.02190	-0.00145
black_head	Head is black * non-Hispanic	0.30168	0.15409	-0.28313	-0.55057
bl_hs	black_head * hs_head	0.63247	-0.17196	-0.09709	-0.02010
bl_sc	black_head * sc_head	0.01420	0.13702	-0.08760	0.11649
bl_ma	black_head * married	-0.59646	0.16123	-0.02357	0.06750
bl_nm	black_head * nevmar	-0.44860	-0.28627	-0.95472	0.04240
bl_fh	black_head * fem_head	-0.48776	0.21067	0.32527	0.14135
bl_kf	black_head * kids_in_fam	-0.23509	-0.06420	0.14790	-0.06342
hisp_head	Head is Hispanic	-0.00051	0.06528	-0.04215	-0.11930
hs_head	Head has H.S. diploma/GED	-0.45357	0.20987	0.03545	0.14643
hs_ma	hs_head * married	0.03341	0.01942	-0.06535	0.00441
hs_nm	hs_head * nevmar	-0.14165	0.10719	0.75331	-0.07869
hs_fh	hs_head * fem_head	0.18970	0.05238	0.12823	0.08955
hs_kf	hs_head * kids_in_fam	0.21909	0.03523	0.02273	0.06880
sc_head	Head has attended college	0.03440	-0.18766	0.47537	0.08508
sc_ma	sc_head * married	0.07029	0.05250	-0.12595	-0.06772
sc_nm	sc_head * nevmar	0.09653	-0.02685	-0.51187	-0.00020
sc_fh	sc_head * fem_head	0.15396	0.11572	-0.06476	-0.07116
sc_kf	sc_head * kids_in_fam	0.17180	0.16238	0.10139	0.08476
bd_head	Head has bachelor's degree	-0.08490	-0.00233	0.11105	0.21741
married	Head is married	0.80946	0.52795	0.35653	0.01517
nevmar	Never married, no partner	0.11069	0.01239	0.40519	0.08312
partner	Head is living with partner	0.00031	-0.02287	0.24916	-0.14722
fem_head	Head is female	0.40439	0.02662	-0.19522	-0.06328
disab_in_fam	Disabled members in family	-0.22649	-0.22455	-0.10778	-0.12771
pure_elderly	Pure elderly family	-0.24471	0.00387	0.04291	0.02668
kids_in_fam	Child under age 18 in family*	0.27939	0.21187	-0.10141	-0.04003
youth_in_fam	Youth age 18 to 24 in family*	0.01644	0.03178	-0.04252	-0.07005
age_h_25pl	Head is age 25 or older	0.34506	0.40283	-0.10824	0.09907
age_h_30pl	Head is age 30 or older	0.30918	0.42419	0.27111	0.18272
age_h_40pl	Head is age 40 or older	0.36237	0.33695	0.04771	0.06036
age_h_50pl	Head is age 50 or older	0.29958	0.32416	0.18913	0.10540
age_h_65pl	Head is age 65 or older	0.50332	0.36839	0.08990	0.11785
age_h_80pl	Head is age 80 or older	0.04596	-0.09295	-0.02544	0.02757
totalinc_log	ln(total annual income + 1)	0.64416	1.55783	0.38572	1.59722
totalinc_lsq	Square of totalinc_log	-0.25796	-0.50386	-0.18210	-0.53125
totalinc_lcu	Cube of totalinc_log	0.02872	0.05192	0.02078	0.05438
totalinc_lqu	Quartic of totalinc_log	-0.00091	-0.00166	-0.00064	-0.00172
ma_kf	married * kids_in_fam	-0.17895	-0.19192	0.08612	-0.03726
nm_kf	nevmar * kids_in_fam	0.12991	-0.22694	-0.56839	-0.09361
fh_kf	fem_head * kids_in_fam	-0.49997	-0.31828	-0.15523	-0.13824
	Constant term	-1.84941	-2.22289	10.45649	10.69387
	Std. deviation of error term	1.00000	1.00000	0.74304	0.84572
	Corr. of presence, log errors	0.00680	-0.00580	0.00680	-0.00580
	Pseudo R-squared / R-squared	0.2814	0.2523	0.3761	0.2655
	Unweighted sample size	21,525	28,969	15,070	19,222

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

APPENDIX TABLE C.3

COEFFICIENTS OF ECONOMETRIC MODELS OF CHECKING / SAVINGS ACCOUNTS

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
own_home	Head is homeowner	0.85507	0.31575	1.06788	0.31419
white_head	Head is white * non-Hispanic	0.87381	0.24510	-0.14552	-0.20893
wh_hs	white_head * hs_head	-0.12852	-0.01685	0.38106	0.20923
wh_sc	white_head * sc_head	0.10804	-0.02316	-0.46715	0.06658
wh_ma	white_head * married	0.23420	-0.03213	0.01894	-0.07214
wh_nm	white_head * nevmar	-0.21155	0.05707	-0.22164	-0.20320
wh_fh	white_head * fem_head	-0.21416	0.01734	-0.29522	0.01292
wh_kf	white_head * kids_in_fam	-0.73758	-0.08279	-0.18331	-0.35208
black_head	Head is black * non-Hispanic	0.31750	-0.23922	-1.23087	-0.79321
bl_hs	black_head * hs_head	-0.42078	0.05447	1.31047	0.02417
bl_sc	black_head * sc_head	-0.01336	-0.01601	-0.28422	0.14055
bl_ma	black_head * married	0.33063	-0.12650	0.07872	0.06988
bl_nm	black_head * nevmar	-0.05736	0.10870	0.52266	0.13240
bl_fh	black_head * fem_head	-0.12730	-0.17671	-0.50539	-0.02658
bl_kf	black_head * kids_in_fam	-0.13742	0.09403	-0.02496	-0.03693
hisp_head	Head is Hispanic	-0.06580	-0.13943	-0.34493	-0.24931
hs_head	Head has H.S. diploma/GED	0.89219	0.23908	0.01585	0.30191
hs_ma	hs_head * married	-0.70553	0.10318	-0.00636	-0.19426
hs_nm	hs_head * nevmar	-0.05882	0.05757	-0.81999	0.09142
hs_fh	hs_head * fem_head	-0.15754	0.14624	0.19733	0.08503
hs_kf	hs_head * kids_in_fam	0.47486	0.05999	-0.05977	0.07819
sc_head	Head has attended college	0.53709	0.27108	0.88212	-0.05001
sc_ma	sc_head * married	0.59927	-0.05018	-0.03582	0.12865
sc_nm	sc_head * nevmar	0.17795	0.13020	0.21939	-0.01816
sc_fh	sc_head * fem_head	0.22397	-0.10574	-0.28823	0.08658
sc_kf	sc_head * kids_in_fam	-0.58011	0.11374	0.26221	0.16816
bd_head	Head has bachelor's degree	-0.00688	0.19126	0.18862	0.44607
married	Head is married	0.26371	0.24481	-0.05074	0.45451
nevmar	Never married, no partner	0.26609	0.04436	1.04622	0.59853
partner	Head is living with partner	0.19309	0.05808	0.10960	0.15271
fem_head	Head is female	0.17016	0.13639	0.35051	-0.32647
disab_in_fam	Disabled members in family	-0.38702	-0.11117	-0.52969	-0.45042
pure_elderly	Pure elderly family	0.49927	0.20768	0.38299	0.66093
kids_in_fam	Child under age 18 in family*	0.20661	-0.06505	-0.25049	-0.06035
youth_in_fam	Youth age 18 to 24 in family*	0.08684	-0.05114	-0.33093	-0.18037
age_h_25pl	Head is age 25 or older	-0.49602	0.05730	-0.12429	-0.17793
age_h_30pl	Head is age 30 or older	0.21585	-0.01460	-0.02479	0.20033
age_h_40pl	Head is age 40 or older	-0.11894	0.02010	0.39098	0.29087
age_h_50pl	Head is age 50 or older	0.57918	0.10192	0.26533	0.39246
age_h_65pl	Head is age 65 or older	-0.33768	0.15684	0.49605	0.56349
age_h_80pl	Head is age 80 or older	-0.00562	0.17359	0.76079	0.60181
totalinc_log	ln(total annual income + 1)	1.76816	2.25768	0.52242	2.59470
totalinc_lsq	Square of totalinc_log	-0.63582	-0.74921	-0.36060	-0.83792
totalinc_lcu	Cube of totalinc_log	0.07070	0.08171	0.04729	0.08716
totalinc_lqu	Quartic of totalinc_log	-0.00239	-0.00281	-0.00165	-0.00279
oh_wh	own_home * white_head	-0.54721	-0.00089	-0.02214	0.21189
oh_bl	own_home * black_head	-0.78606	-0.08914	-0.62190	0.00633
oh_hs	own_home * hs_head	0.08685	-0.03364	-0.02032	0.06324
oh_sc	own_home * sc_head	-0.59268	-0.09477	-0.34066	-0.08101
oh_ma	own_home * married	0.05080	0.02431	-0.10886	0.01021
oh_nm	own_home * nevmar	-0.05994	-0.13511	-0.26239	-0.32468
oh_fh	own_home * fem_head	0.42097	0.03004	-0.15348	0.14737
oh_kf	own_home * kids_in_fam	0.17582	0.15456	-0.10671	-0.00592
ma_kf	married * kids_in_fam	-0.19271	-0.20717	0.18087	-0.08842
nm_kf	nevmar * kids_in_fam	-0.30617	-0.35511	-0.85023	-0.41753
fh_kf	fem_head * kids_in_fam	0.13844	-0.23212	0.12323	-0.20863
	Constant term	-0.94120	-1.55171	6.37870	4.54177
	Std. Deviation of error term	1.00000	1.00000	1.61430	1.85280
	Corr. of presence, log errors	-0.00590	-0.00820	-0.00590	-0.00820
	Pseudo R-squared / R-squared	0.3917	0.2309	0.3718	0.2936
	Unweighted sample size	21,525	28,969	19,843	22,134

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

APPENDIX TABLE C.4

COEFFICIENTS OF ECONOMETRIC MODELS OF MOTOR VEHICLE ASSETS

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
own_home	Head is homeowner	1.10089	0.85132	0.35734	0.45723
white_head	Head is white * non-Hispanic	0.63565	0.44493	0.22952	0.03654
wh_hs	white_head * hs_head	-0.27000	0.05042	-0.15033	-0.03154
wh_sc	white_head * sc_head	-0.23421	-0.14745	-0.08176	-0.13454
wh_ma	white_head * married	0.04075	0.04297	0.19514	0.12553
wh_nm	white_head * nevmar	-0.01622	-0.07853	-0.09822	0.09188
wh_fh	white_head * fem_head	-0.30506	0.17216	0.15321	0.04785
wh_kf	white_head * kids_in_fam	0.17944	-0.08432	-0.11667	-0.02610
black_head	Head is black * non-Hispanic	-0.27096	-0.10946	0.28795	-0.08968
bl_hs	black_head * hs_head	-0.04805	0.23327	-0.29488	-0.05050
bl_sc	black_head * sc_head	-0.10584	-0.16757	-0.08490	-0.07449
bl_ma	black_head * married	-0.10105	0.04349	0.15635	0.03570
bl_nm	black_head * nevmar	0.07353	0.01943	-0.01513	0.26752
bl_fh	black_head * fem_head	-0.18864	0.01077	0.31897	0.09261
bl_kf	black_head * kids_in_fam	0.21058	-0.18084	-0.09987	0.03870
hisp_head	Head is Hispanic	-0.23635	-0.04544	0.03496	-0.17333
hs_head	Head has H.S. diploma/GED	0.02970	0.14536	0.34196	0.31741
hs_ma	hs_head * married	0.15238	-0.00801	-0.14334	-0.01080
hs_nm	hs_head * nevmar	0.27564	0.18100	-0.29642	-0.12523
hs_fh	hs_head * fem_head	0.56569	0.20976	-0.01162	-0.03243
hs_kf	hs_head * kids_in_fam	0.26933	-0.15284	0.10893	0.02043
sc_head	Head has attended college	0.37514	0.09754	0.25921	0.20893
sc_ma	sc_head * married	-0.05441	0.12168	0.07681	-0.03459
sc_nm	sc_head * nevmar	0.02491	0.05785	-0.14546	0.04806
sc_fh	sc_head * fem_head	0.15303	0.26204	0.08390	-0.00838
sc_kf	sc_head * kids_in_fam	-0.40754	-0.03181	-0.15242	0.04618
bd_head	Head has bachelor's degree	-0.18717	-0.08623	-0.07039	0.02008
married	Head is married	-0.06930	0.31048	0.04930	0.32955
nevmar	Never married, no partner	-0.55852	-0.23394	0.40747	-0.01301
partner	Head is living with partner	-0.09735	0.23152	0.10520	0.16499
fem_head	Head is female	-0.56228	-0.61677	-0.39068	0.15447
disab_in_fam	Disabled members in family	-0.35187	-0.18963	-0.07765	-0.20974
pure_elderly	Pure elderly family	-0.13827	-0.00910	-0.14430	-0.08803
kids_in_fam	Child under age 18 in family*	0.05620	0.32931	-0.02621	-0.09729
youth_in_fam	Youth age 18 to 24 in family*	-0.03242	0.02363	0.01277	0.12090
age_h_25pl	Head is age 25 or older	-0.05159	-0.04221	-0.17112	-0.12042
age_h_30pl	Head is age 30 or older	-0.15625	-0.01036	-0.03876	-0.15129
age_h_40pl	Head is age 40 or older	0.17789	-0.01522	0.01768	-0.02726
age_h_50pl	Head is age 50 or older	-0.00549	-0.03722	-0.03744	0.03584
age_h_65pl	Head is age 65 or older	-0.19338	-0.19227	0.04766	0.00070
age_h_80pl	Head is age 80 or older	-0.50954	-0.46263	-0.15711	-0.36604
totalinc_log	ln(total annual income + 1)	-0.84990	0.70488	0.66801	1.85638
totalinc_lsq	Square of totalinc_log	0.16416	-0.32316	-0.28851	-0.65589
totalinc_lcu	Cube of totalinc_log	-0.00780	0.04308	0.03249	0.07106
totalinc_lqu	Quartic of totalinc_log	0.00003	-0.00171	-0.00105	-0.00240
oh_wh	own_home * white_head	-0.06032	-0.17783	0.00266	0.03040
oh_bl	own_home * black_head	0.04477	0.00970	-0.09484	0.03048
oh_hs	own_home * hs_head	-0.25761	-0.11454	-0.04167	-0.04068
oh_sc	own_home * sc_head	-0.26031	-0.04903	-0.11518	-0.08127
oh_ma	own_home * married	0.07122	-0.13774	0.17237	0.00409
oh_nm	own_home * nevmar	-0.01653	-0.08810	-0.02262	-0.11326
oh_fh	own_home * fem_head	-0.12544	-0.02261	-0.06824	-0.19608
oh_kf	own_home * kids_in_fam	-0.42707	-0.21977	0.02722	0.05134
ma_kf	married * kids_in_fam	0.21004	0.00394	-0.09968	-0.03360
nm_kf	nevmar * kids_in_fam	-0.04979	-0.11893	-0.12772	-0.18405
fh_kf	fem_head * kids_in_fam	-0.11462	0.04246	0.10406	0.03170
	Constant term	0.24804	-0.25008	8.69433	8.02099
	Std. Deviation of error term	1.00000	1.00000	0.73498	0.95704
	Corr. of presence, log errors	-0.00120	0.00260	-0.00120	0.00260
	Pseudo R-squared / R-squared	0.2345	0.2298	0.3914	0.3069
	Unweighted sample size	21,525	28,969	18,046	24,154

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

APPENDIX TABLE C.5

COEFFICIENTS OF ECONOMETRIC MODELS OF VALUE OF LIFE INSURANCE (cash in SCF, face in SIPP)

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
own_home	Head is homeowner	0.38880	0.30402	-0.23024	0.02399
white_head	Head is white * non-Hispanic	1.11738	0.59280	1.50287	0.05547
wh_hs	white_head * hs_head	-0.58659	-0.15196	0.19210	0.00394
wh_sc	white_head * sc_head	-0.26576	-0.20577	-1.10775	0.01128
wh_ma	white_head * married	0.37973	0.07865	-0.71292	-0.07924
wh_nm	white_head * nevmar	-0.43846	-0.04792	-0.68701	-0.06175
wh_fh	white_head * fem_head	-0.03764	-0.07664	-1.80320	-0.14642
wh_kf	white_head * kids_in_fam	-0.00319	0.14924	-0.67980	0.02564
black_head	Head is black * non-Hispanic	1.32038	0.82310	1.57959	0.04866
bl_hs	black_head * hs_head	-0.60197	-0.38309	-0.03421	0.10116
bl_sc	black_head * sc_head	-0.35469	-0.05491	-0.82915	-0.01028
bl_ma	black_head * married	0.02692	-0.05757	-0.69229	-0.11863
bl_nm	black_head * nevmar	-0.19048	0.09850	-0.20972	-0.04552
bl_fh	black_head * fem_head	-0.27967	-0.02410	-1.72205	-0.09593
bl_kf	black_head * kids_in_fam	0.40662	0.07985	-0.22220	-0.02962
hisp_head	Head is Hispanic	0.18289	-0.03786	0.02310	0.02549
hs_head	Head has H.S. diploma/GED	0.58475	0.33508	0.45962	0.18260
hs_ma	hs_head * married	0.47550	-0.09693	0.19241	-0.13032
hs_nm	hs_head * nevmar	0.01375	0.13280	0.26171	-0.01347
hs_fh	hs_head * fem_head	0.16301	-0.11760	0.66669	0.06653
hs_kf	hs_head * kids_in_fam	0.06295	0.22794	-0.09168	-0.07864
sc_head	Head has attended college	0.32388	0.13051	1.58445	0.01695
sc_ma	sc_head * married	-0.32094	0.14702	-0.26569	-0.04099
sc_nm	sc_head * nevmar	0.00163	0.11386	0.29113	0.05042
sc_fh	sc_head * fem_head	-0.44469	-0.04170	-0.36908	0.13625
sc_kf	sc_head * kids_in_fam	0.09493	0.21151	-0.41798	-0.01391
bd_head	Head has bachelor's degree	-0.01495	-0.00662	0.27632	0.00573
married	Head is married	-0.52940	0.19409	0.62150	0.32010
nevmar	Never married, no partner	0.07553	-0.23158	0.00921	0.06860
partner	Head is living with partner	0.19187	-0.05557	0.25550	0.04557
fem_head	Head is female	0.00057	0.35278	0.98638	-0.18038
disab_in_fam	Disabled members in family	0.21925	-0.16893	-0.36516	0.01656
pure_elderly	Pure elderly family	0.02194	-0.03744	0.35773	-0.23501
kids_in_fam	Child under age 18 in family*	-0.10192	-0.55673	1.56576	0.16358
youth_in_fam	Youth age 18 to 24 in family*	-0.01827	-0.00583	-0.23564	-0.00563
age_h_25pl	Head is age 25 or older	-0.20408	0.10087	0.05671	-0.02764
age_h_30pl	Head is age 30 or older	0.10571	0.12084	0.63593	-0.01783
age_h_40pl	Head is age 40 or older	0.03652	0.04514	0.70885	0.00890
age_h_50pl	Head is age 50 or older	0.05720	0.11778	0.11107	-0.02194
age_h_65pl	Head is age 65 or older	0.26194	-0.07893	-0.11944	-0.07366
age_h_80pl	Head is age 80 or older	-0.16342	-0.09345	-0.70833	-0.35097
totalinc_log	ln(total annual income + 1)	0.37143	1.28300	1.39105	0.08609
totalinc_lsq	Square of totalinc_log	-0.17367	-0.51057	-0.45775	-0.06345
totalinc_lcu	Cube of totalinc_log	0.02006	0.06208	0.04614	0.01036
totalinc_lqu	Quartic of totalinc_log	-0.00067	-0.00227	-0.00145	-0.00045
oh_wh	own_home * white_head	-0.16415	-0.05233	0.49215	0.04494
oh_bl	own_home * black_head	-0.09451	0.00989	0.30499	0.06253
oh_hs	own_home * hs_head	-0.19909	0.03699	-0.80313	-0.02805
oh_sc	own_home * sc_head	0.26620	-0.02328	-0.00259	-0.01538
oh_ma	own_home * married	0.35924	0.06579	0.54055	-0.03257
oh_nm	own_home * nevmar	0.50160	0.00810	0.54957	-0.02131
oh_fh	own_home * fem_head	0.05799	-0.09322	0.61859	-0.00043
oh_kf	own_home * kids_in_fam	-0.13457	0.13933	0.02680	-0.04209
ma_kf	married * kids_in_fam	-0.09494	0.01471	-0.70982	-0.15790
nm_kf	nevmar * kids_in_fam	-0.22177	0.01369	0.04162	-0.03508
fh_kf	fem_head * kids_in_fam	0.26182	-0.16366	0.13652	0.07587
facelife_v1	Face value of life insurance	---	---	9.81E-07	2.34E-05
facelife_v2	Square of facelife_v1	---	---	-1.54E-13	-4.75E-11
facelife_v3	Cube of facelife_v1	---	---	9.69E-21	3.79E-17
facelife_v4	Quartic of facelife_v1	---	---	-1.98E-28	-9.76E-24

APPENDIX TABLE C.5 (continued)

COEFFICIENTS OF ECONOMETRIC MODELS OF VALUE OF LIFE INSURANCE (cash in SCF, face in SIPP)

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
	Constant term	-1.79738	-1.93760	4.91920	8.67645
	Std. Deviation of error term	1.00000	1.00000	1.69390	0.60462
	Corr. of presence, log errors	0.00190	-0.00780	0.00190	-0.00780
	Pseudo R-squared / R-squared	0.1103	0.2302	0.1894	0.8675
	Unweighted sample size	21,525	28,969	7,869	19,757

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

APPENDIX TABLE C.6

COEFFICIENTS OF ECONOMETRIC MODELS OF OTHER NON-RETIREMENT ASSETS

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(assets + 1)	SIPP Model of ln(assets + 1)
own_home	Head is homeowner	0.08579	0.46684	2.15873	0.78426
white_head	Head is white * non-Hispanic	0.35204	0.08257	0.66710	0.14040
wh_hs	white_head * hs_head	-0.39404	0.11546	-0.70014	-0.12894
wh_sc	white_head * sc_head	0.05360	-0.03768	0.82267	0.10444
wh_ma	white_head * married	0.07732	0.17416	0.28639	0.06589
wh_nm	white_head * nevmar	-0.47876	0.20743	-2.28454	-0.43908
wh_fh	white_head * fem_head	0.06650	0.14552	1.13136	-0.17176
wh_kf	white_head * kids_in_fam	0.16533	-0.08827	-0.27382	-0.31193
black_head	Head is black * non-Hispanic	-0.04744	-0.39511	0.37077	0.12977
bl_hs	black_head * hs_head	0.02179	0.26267	-1.86691	-0.60054
bl_sc	black_head * sc_head	-0.17717	0.09852	1.47753	0.14323
bl_ma	black_head * married	-0.12086	-0.06046	1.33346	0.03889
bl_nm	black_head * nevmar	-0.44231	0.10362	-2.16449	0.08384
bl_fh	black_head * fem_head	-0.12074	-0.07005	1.36096	-0.70075
bl_kf	black_head * kids_in_fam	0.40747	-0.09468	-0.10538	-0.22112
hisp_head	Head is Hispanic	-0.46129	-0.14849	-0.19556	-0.10108
hs_head	Head has H.S. diploma/GED	0.73464	0.35092	1.66355	0.51875
hs_ma	hs_head * married	-0.35554	-0.02965	-0.63845	0.42465
hs_nm	hs_head * nevmar	-0.33660	0.13533	0.94120	0.70836
hs_fh	hs_head * fem_head	-0.04122	-0.03216	-0.25897	0.43665
hs_kf	hs_head * kids_in_fam	-0.21942	0.01765	-0.59798	-0.58355
sc_head	Head has attended college	0.31352	0.18041	-0.40422	0.07066
sc_ma	sc_head * married	-0.17223	0.06855	-0.21804	-0.12294
sc_nm	sc_head * nevmar	0.13629	-0.02852	-0.51846	-0.39710
sc_fh	sc_head * fem_head	-0.03949	0.14833	0.13148	0.14427
sc_kf	sc_head * kids_in_fam	-0.01791	0.05327	0.11067	-0.07335
bd_head	Head has bachelor's degree	0.05766	0.26196	0.38813	0.40546
married	Head is married	0.28779	-0.04188	0.37152	-0.36822
nevmar	Never married, no partner	0.70334	-0.15042	1.43025	-0.02530
partner	Head is living with partner	-0.01540	0.19668	0.12445	-0.00813
fem_head	Head is female	-0.13120	-0.22783	-0.88426	-0.85500
disab_in_fam	Disabled members in family	-0.26209	-0.16056	-0.22725	-0.21560
pure_elderly	Pure elderly family	-0.39382	0.00615	0.13221	0.19994
kids_in_fam	Child under age 18 in family*	0.06786	-0.06129	0.35515	0.48997
youth_in_fam	Youth age 18 to 24 in family*	-0.34483	-0.17073	-0.25949	-0.40404
age_h_25pl	Head is age 25 or older	-0.15143	0.01223	-0.16176	0.21047
age_h_30pl	Head is age 30 or older	0.09824	0.18183	0.33834	0.67100
age_h_40pl	Head is age 40 or older	0.11268	0.11122	0.62137	0.54714
age_h_50pl	Head is age 50 or older	-0.04306	0.15645	0.44732	0.56749
age_h_65pl	Head is age 65 or older	0.46149	0.20151	0.64828	0.52232
age_h_80pl	Head is age 80 or older	0.10758	0.06832	-0.30766	0.14529
totalinc_log	ln(total annual income + 1)	-1.03691	1.56952	3.17519	-0.65156
totalinc_lsq	Square of totalinc_log	0.23123	-0.43634	-1.06034	0.19482
totalinc_lcu	Cube of totalinc_log	-0.02042	0.04101	0.10107	-0.02592
totalinc_lqu	Quartic of totalinc_log	0.00075	-0.00118	-0.00285	0.00122
oh_wh	own_home * white_head	-0.01187	-0.04805	-0.78578	-0.12935
oh_bl	own_home * black_head	-0.24353	-0.03855	-1.03333	-0.70133
oh_hs	own_home * hs_head	0.24587	-0.03968	-0.51294	-0.14869
oh_sc	own_home * sc_head	0.07976	-0.04968	-0.18602	-0.03390
oh_ma	own_home * married	0.14943	0.07784	-0.57634	-0.11832
oh_nm	own_home * nevmar	-0.08206	-0.04702	-0.07369	-0.05588
oh_fh	own_home * fem_head	0.09449	0.09495	-0.58430	0.14825
oh_kf	own_home * kids_in_fam	-0.12150	0.01650	-0.00780	0.02046
ma_kf	married * kids_in_fam	0.03487	0.11116	0.05269	0.22677
nm_kf	nevmar * kids_in_fam	-0.10049	-0.08979	-0.25913	-0.27385
fh_kf	fem_head * kids_in_fam	-0.09810	-0.07839	0.34286	0.03233
	Constant term	-0.76291	-2.97677	8.00961	7.58501
	Std. deviation of error term	1.00000	1.00000	2.05910	2.15210
	Corr. of presence, log errors	-0.00100	-0.00310	-0.00410	-0.00310
	Pseudo R-squared / R-squared	0.2213	0.2341	0.3348	0.2087
	Unweighted sample size	21,525	28,969	14,714	11,647

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.

APPENDIX TABLE C.7

COEFFICIENTS OF ECONOMETRIC MODELS OF TOTAL LIABILITIES

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(liabilities + 1)	SIPP Model of ln(liabilities + 1)
		1.41310	1.10073	2.33946	2.10662
own_home	Head is homeowner				
white_head	Head is white * non-Hispanic	0.77590	0.27970	0.43497	0.27303
wh_hs	white_head * hs_head	-0.31292	-0.01837	0.00372	-0.19124
wh_sc	white_head * sc_head	0.32095	0.05025	0.11542	0.09531
wh_ma	white_head * married	0.02221	-0.19464	-0.07698	-0.11273
wh_nm	white_head * nevmar	-0.69963	-0.05982	-1.21522	0.20333
wh_fh	white_head * fem_head	-0.13394	0.09114	0.76372	0.00328
wh_kf	white_head * kids_in_fam	-0.43521	0.21110	0.21463	0.17341
black_head	Head is black * non-Hispanic	0.89367	0.04108	0.44372	0.24396
bl_hs	black_head * hs_head	-0.64695	-0.10217	-0.34310	-0.32610
bl_sc	black_head * sc_head	-0.02065	0.12140	0.24735	0.21202
bl_ma	black_head * married	0.49435	-0.06894	-0.18648	-0.01032
bl_nm	black_head * nevmar	-0.54126	0.15461	-1.37976	-0.02010
bl_fh	black_head * fem_head	0.31331	0.12794	1.01136	0.08056
bl_kf	black_head * kids_in_fam	-0.73151	-0.13237	0.01495	0.05641
hisp_head	Head is Hispanic	-0.08530	0.01995	-0.10108	0.04756
hs_head	Head has H.S. diploma/GED	0.67198	0.15323	-0.04518	0.10361
hs_ma	hs_head * married	-0.45999	0.03362	-0.04623	0.09554
hs_nm	hs_head * nevmar	0.31374	0.15552	0.08134	0.16084
hs_fh	hs_head * fem_head	-0.37431	0.02094	0.24279	0.18862
hs_kf	hs_head * kids_in_fam	0.20304	0.12873	0.23374	0.14841
sc_head	Head has attended college	0.08901	0.12242	0.17168	0.05415
sc_ma	sc_head * married	-0.09084	-0.15046	0.08576	-0.05912
sc_nm	sc_head * nevmar	0.39626	0.21392	-0.14200	0.13817
sc_fh	sc_head * fem_head	0.05007	0.03261	0.09854	-0.10690
sc_kf	sc_head * kids_in_fam	0.06658	0.05089	0.06548	0.01926
bd_head	Head has bachelor's degree	-0.13508	0.03579	0.14861	0.14103
married	Head is married	0.51257	0.79540	-0.00835	0.33451
nevmar	Never married, no partner	-0.28969	-0.46825	1.13128	-0.54030
partner	Head is living with partner	0.12322	-0.00414	0.10801	0.03815
fem_head	Head is female	0.41081	0.09408	-0.89620	-0.01087
disab_in_fam	Disabled members in family	-0.37100	0.01642	0.22625	0.04001
pure_elderly	Pure elderly family	-0.54049	-0.36690	-0.60832	-0.64551
kids_in_fam	Child under age 18 in family*	0.20969	-0.27701	-0.44618	-0.50001
youth_in_fam	Youth age 18 to 24 in family*	0.45045	0.11983	0.02835	-0.01355
age_h_25pl	Head is age 25 or older	0.00214	0.08446	0.04999	0.20287
age_h_30pl	Head is age 30 or older	-0.16678	-0.17378	-0.10538	-0.14380
age_h_40pl	Head is age 40 or older	-0.09960	-0.18598	-0.27573	-0.27433
age_h_50pl	Head is age 50 or older	-0.21660	-0.18560	-0.16226	-0.36987
age_h_65pl	Head is age 65 or older	-0.49934	-0.54472	-0.40554	-0.49291
age_h_80pl	Head is age 80 or older	-0.62290	-0.50271	-0.19198	-0.40102
totalinc_log	ln(total annual income + 1)	-0.30389	0.70405	1.52571	1.26783
totalinc_lsq	Square of totalinc_log	0.02290	-0.28733	-0.58388	-0.49207
totalinc_lcu	Cube of totalinc_log	0.00403	0.03586	0.06586	0.05608
totalinc_lqu	Quartic of totalinc_log	-0.00028	-0.00134	-0.00224	-0.00195
oh_wh	own_home * white_head	-0.89453	-0.44142	-0.66717	-0.42613
oh_bl	own_home * black_head	-0.80070	0.10065	-0.34875	-0.21944
oh_hs	own_home * hs_head	-0.04043	-0.04841	0.30405	-0.05551
oh_sc	own_home * sc_head	-0.02237	-0.01786	-0.17680	0.04430
oh_ma	own_home * married	-0.20722	-0.24914	-0.01263	-0.48068
oh_nm	own_home * nevmar	0.08239	0.18249	-0.09913	0.15068
oh_fh	own_home * fem_head	-0.16421	-0.03691	-0.27685	-0.23306
oh_kf	own_home * kids_in_fam	0.68080	0.36120	0.04997	0.34856
ma_kf	married * kids_in_fam	-0.08089	-0.02238	0.14211	0.08275
nm_kf	nevmar * kids_in_fam	-0.10610	-0.05001	-0.15161	0.07942
fh_kf	fem_head * kids_in_fam	-0.11787	-0.11341	-0.13517	0.03816
totsipp_v1	Total assets measured in both SIPP/SCF	-8.51E-08	-3.80E-07	1.84E-07	2.26E-06
totsipp_v2	Square of totsipp_v1	2.24E-15	3.84E-14	-2.41E-15	-1.58E-12
totsipp_v3	Cube of totsipp_v1	-1.57E-23	-9.26E-22	9.30E-24	3.33E-19
totsipp_v4	Quartic of totsipp_v1	3.19E-32	5.75E-30	-1.05E-32	-1.85E-26
	Constant term	-0.64280	-0.71676	7.71342	8.18944

APPENDIX TABLE C.7 (continued)

COEFFICIENTS OF ECONOMETRIC MODELS OF TOTAL LIABILITIES

Variable	Definition	SCF Model of Presence	SIPP Model of Presence	SCF Model of ln(liabilities + 1)	SIPP Model of ln(liabilities + 1)
	Std. deviation of error term	1.00000	1.00000	1.40120	1.40310
	Corr. of presence, log errors	-0.00910	-0.00740	-0.00910	-0.00740
	Pseudo R-squared / R-squared	0.3151	0.3177	0.4780	0.4294
	Unweighted sample size	21,525	28,969	15,817	20,698

SOURCE: MPR analyses of 1996 SIPP panel wave 9 and 1998 SCF data.