

**Measuring Wealth Holdings of Older Households in the U.S.:  
A Comparison using the HRS, PSID and SCF**

Eva Sierminska  
(CEPS/INSTEAD and DIW Berlin)

Pierre-Carl Michaud  
(RAND, IZA and NETSPAR)

Susann Rohwedder  
(RAND and NETSPAR)

November 2008

**Abstract**

In this paper we compare the wealth measures from three surveys: the Health and Retirement Study (HRS), the Panel Study of Income Dynamics (PSID) and the Survey of Consumer Finances (SCF). We focus on the population age 55 or older since the HRS does not interview the younger population. We find that estimates from the PSID and HRS are quite similar, slightly more precise in the HRS because of larger sample size. For most of the distribution, comparisons with the SCF are also similar. Some differences exist at the bottom of the distribution potentially because the higher disaggregation in the SCF allows to better capture small asset holdings in such categories such as deposit accounts, other assets and non-housing debt. The largest differences exist at the top of the distribution. The top 1% in the SCF hold nearly a third of all wealth held by the elderly while this figure is only 17% in the HRS. Hence, this affects estimates of means and other measures sensitive to skewed distributions.

**Keywords:** savings, wealth measurement, survey methods

**JEL Codes:**

## **1. Introduction**

The measurement of wealth in household surveys and its quality is of paramount importance to researchers. Many studies of household behavior control for wealth to account for heterogeneity in socio-economic status across households. Other studies rely on measures of wealth as a “left-hand” variable in a regression or are interested in population estimates, such as the fraction of the population owning stocks (Hurd, 2001), or in studies of preparation for retirement (Scholz et al., 2006).

However, measuring wealth is a difficult task. Like income, reports of wealth holdings are prone to measurement error and the design of the questionnaire can lead to several biases. Bound, Brown and Mathiowetz (2001) survey the existing literature on measurement error in assets and report some evidence of underreporting when comparing aggregate survey responses and independent estimates as well as inaccuracy of reports on stocks, house value and savings accounts.

To our knowledge, there are few studies that compare wealth measures across surveys of the same population. Surveys differ in the amount of survey time they dedicate to eliciting information on wealth, as they are serving different purposes. A question of interest is whether there is an optimal level of detail that would produce the highest quality wealth measure. The answer may depend on the intended use. Juster, Smith and Stafford (1999) argue that the Panel Study of Income Dynamics (PSID) and the Survey of Consumer Finances (SCF) provide very similar measures of wealth for more than 90% of the distribution although the latter spends a much larger amount of time asking about wealth than does the PSID.

Improving our understanding of how aspects of survey design affect the quality of the resulting wealth measures also plays an important role in studies based on international comparisons. A recent strand of the literature aims at cross-country comparisons of wealth holdings using different surveys (e.g. Sierminska, Brandolini and Smeeding, 2006; Christelis, Georgarakos and Haliassos, 2008). The Luxembourg Wealth Study (LWS) Project is one example attempting to harmonize wealth surveys for cross-country comparisons. Needless to say, it is crucial to understand the impact of differences in survey methodology on such comparisons to draw reliable economic interpretation from the results.

Finally, researchers often use different datasets to study similar questions and few replication studies are attempted with other datasets. For example, the correlation between health and wealth, a subject of major debate in the economics and epidemiology literature (Smith, 1999), may vary across datasets as shown by Hurd (2006) for income measures.

In this paper we compare the wealth measures from three surveys: the Health and Retirement Study (HRS), the Panel Study of Income Dynamics (PSID) and the Survey of Consumer Finances (SCF). We focus on the population age 55 or older since the HRS does not interview the younger population. We find that estimates from the PSID and HRS are quite similar and slightly more precise in the HRS because of larger sample size. For most of the distribution, comparisons with the SCF are also similar. Some differences exist at the bottom of the distribution potentially because the higher disaggregation in the SCF allows to better capture small asset holdings in such categories such as deposit accounts, other assets and non-housing debt. The largest differences exist at the top of the

distribution. The top 1% in the SCF hold nearly a third of all wealth held by the elderly while this figure is only 17% in the HRS. Hence, this affects estimates of means and other measures sensitive to skewed distributions.

Section 2 provides a brief description of the datasets that we compare. In Section 3, we describe the survey methodology used in each survey to measure wealth. We also describe the choices we have made to make results comparable. In Section 4, we provide descriptive statistics on wealth holdings in all three surveys. Finally, section 6 concludes.

## **2. Overview of Data Sets Used**

### **2.1. Health and Retirement Study (HRS)**

The Health and Retirement Study is a biennial longitudinal survey of individuals over the age of 50 and their spouses (Juster and Suzman, 1995). The sample consists of over 22,000 individuals in about 11,000 households and is representative of the U.S. population, once the 2:1 oversampling of blacks, Hispanics and Floridians has been taken into account using sampling weights. Every six years a new cohort of 51 to 56 year olds is added. The questionnaire content covers a wide variety of topics relevant to describe the circumstances of the older population in the U.S. These include health, work and retirement, economic status, family characteristics and intergenerational transfers. In the comparisons with the SCF and PSID we use data from HRS 2002.

### **2.2. Survey of Consumer Finance (SCF)**

The SCF is a triennial cross-sectional survey created to provide detailed information on US families' balance sheets and their use of financial services as well as on their pensions and labor force participation (Aizcorbe, Kennickell and Moore, 2003). Because holdings of a number of financial instruments are highly concentrated among a small fraction of the population the SCF over-samples the wealthy. Weights are provided for the calculation of estimates for the U.S. population as a whole. We use the 2001 SCF survey that interviewed 4,449 families with 4,442 cases being in the public version of the dataset.<sup>1</sup>

### **2.3. Panel Study of Income Dynamics (PSID)**

The PSID is a panel survey that captures the dynamic aspects of economic and demographic behavior and dedicates substantial survey time to elicit details on income sources and amounts, employment, family composition changes, and residential location (Hill, 1991). Before 1999 the PSID collected information on household wealth every five years in special modules of the survey. Starting in 1999 this information has become part of the core survey and is collected every two years. The 2001 data we use was obtained via a special wealth module collected in the same year with 7,406 households interviewed.

## **3. Comparison of Survey Methodology**

---

<sup>1</sup> Data are stored as five successive replicates of each record that should not be used separately. The special sample of the wealthy includes 1,532 households.

We distinguish between differences that exist *ex ante*, i.e. by design, and differences that result from *ex post* manipulation of the data by each survey operation.

### **3.1. *Ex Ante* Differences**

#### **3.1.1. Sample Representative of Population?**

All surveys are based on a stratified sampling scheme. However, sampling differs in a number of dimensions which are relevant in our context. First, the HRS aims to be representative of households with at least one member aged 50 and above. On the other hand, the PSID and SCF target the entire adult population. Because the HRS focuses on the elderly population, its sample size is much larger, particularly at older ages. The PSID and SCF have more modest sample sizes in this age range but have the advantage of covering the entire population.

A second notable difference is that different groups are oversampled in the three surveys. The SCF oversamples households likely to have high wealth.<sup>2</sup> These households hold a substantial share of total national assets and are typically less likely to participate in surveys. The other two surveys (PSID and HRS) do not oversample specifically wealthy households. The HRS oversamples African Americans, Hispanics and Floridians with a 2:1 ratio. The PSID has also a supplemental low-income subsample that offers larger sample size among disadvantaged groups.

A third difference is that the SCF is a cross-sectional study while the PSID and HRS are longitudinal studies. Hence, although each survey might have been

---

<sup>2</sup> From the original sampling list, the SCF has access to income tax returns which allows creating a “wealth index” from which the oversample is drawn. The wealth index is created from grossed income flows as well as estimated relationships between wealth and observable characteristics from previous SCF rounds (Kennickell, 2005).

representative of a population at a particular point in time, they might not be all equally as representative of the U.S. population in any given year. Much attention has been given to the possibility of differential attrition in the PSID (Fitzgerald, Moffitt and Gottschalk, 1998) but also in the HRS (Kapteyn et al., 2006). We discuss below methods used to deal with this problem.

### **3.1.2. Who Reports on Wealth?**

Questions on wealth can be asked either to each respondent in a household or to just one person in the household. Each method has advantages and disadvantages depending on the composition of the household, who in the household owns certain assets and whether assets are managed separately. In a household with multiple persons having each member report on assets bears the risk of double-counting, that is, the same asset may be mentioned by two persons, especially when ownership is not clear-cut. This can be avoided by having only one person report on the household's assets. On the other hand if only one person reports on the household's entire assets there is increased risk of underreporting, because that person might forget about some assets, especially those owned by other household members. This risk can be reduced by choosing the person who is most knowledgeable about the household's finances as the financial respondent. If finances are managed at the household level, the financial respondent might be more knowledgeable about assets held by every member of the household. On the other hand, if assets are managed separately, then it is unclear whether this is better.

In the SCF the household unit is referred to as the “Primary economic unit,” which consists of an economically dominant single individual or couple in a household and all other individuals in the household who are financially dependent on that individual or couple. The head is taken to be either the male in a mixed-sex couple or the older individual in the case of a same-sex couple. No judgment about the internal organization of the households is implied by this organization of the data, but at the same time we have no indication on who is most knowledgeable about the household finances.

The PSID takes a similar approach, where information is collected on the “Family unit (FU).” A FU is defined as a group of people living together as a family. They are generally related by blood, marriage, or adoption, but unrelated persons can be part of a FU if they are permanently living together and share both income and expenses. The person reporting on wealth would be the person with the most financial responsibility for the FU. If this person is female and she has a husband in the FU, then he is designated as the Head. If she has a boyfriend with whom she has been living for at least one year, then he is the Head. However, if the husband or boyfriend is incapacitated and unable to fulfill the functions of Head, then the FU will have a female Head.

The HRS uses a financial respondent that is the person who is most knowledgeable about the household’s finances. The respondent and spouse are asked to determine among each other who they believe is most knowledgeable about the household’s finances.

### **3.1.3. Level of Detail/Aggregation**

The three surveys differ considerably in the level of detail they query about wealth items and the survey time dedicated to this task. **In Erreur ! Source du renvoi introuvable.** we list the categories asked in each survey. The SCF has by far the most extensive questionnaire with over 100 questions.<sup>3</sup> In comparison, the PSID asks 10 questions on wealth. The wealth module in the HRS is a little more extensive than that in the PSID but not as extensive as the SCF. Asking about more detailed categories of wealth reduces recall error (respondents forgetting to report a particular category). At the same time more detailed questions raise the risk of double-counting or omission of wealth items (see Rohwedder et al. 2006, for example).

Depending on the focus of a data collection effort, the survey time spent on eliciting details of wealth holdings varies and so does the level of detail queried. The resulting measures of total wealth would differ substantially both in their statistical properties and in their substantive content.

#### **3.1.4. Are there Categories Missing?**

Even though the HRS and the PSID elicit substantially less detail than the SCF about the different components of household assets, both surveys ask for the total net value of other assets not yet covered in any of the previous asset questions. In principle this catch-all category should close the gap in the HRS and the PSID to the measure of total assets in the SCF. For households with a relatively simple portfolio there will not be many assets falling into the catch-all “other” category. However, for households with more complex portfolios and for whom a larger number of assets would fall into the catch-all “other”

---

<sup>3</sup> It collects such detailed information as the current balance in your first, second, or third checking account.

category there is increased risk of underreporting, because it is cognitively more challenging to think of multiple categories and also to add up their values net of any money owed on them. One would therefore expect that at the population level there would be some underreporting in the HRS and the PSID compared to the SCF and that it would be somewhat more important in the PSID.

There is one substantive difference in the measure of financial assets in the HRS as it does not include the cash value of life insurance whereas this is included in the PSID and the SCF. The HRS does not ask directly about the cash value of life insurance policies and several assumptions would need to be used to back out this information based on the variables that are available in the HRS.<sup>4</sup>

### **3.1.5. Timing of Interview**

The vast majority of interviews of HRS 2002 were conducted between April and December 2002 and just over two percent were conducted in the first three months of 2003. As for the SCF, interviews are conducted between May and December 2001. Finally, interviews for the 2001 PSID wealth module were conducted between March and November 2001. This difference in the timing of the field periods, in particular with respect to the HRS, should not lead to substantial differences in the population estimates unless there are important macro shifts that affect the valuation of some or all assets. Examples for such macro events would be inflation or a large drop in the stock market. Inflation was fairly low between 2001 and 2002, but nevertheless we express all dollar

---

<sup>4</sup> The reason for not asking directly about the cash value of life insurance policies in the HRS is because those responsible for the survey design were concerned that many people would respond to this question by providing the face value which would be a substantial overestimate of the cash value.

amounts in 2001 dollars. However, there were sizeable revaluations of stocks between 2001 and 2002, approaching an overall drop of about 25 percent in the S&P500. In Section 3.3.4 we discuss how we adjust the HRS numbers to enhance comparability across the three surveys.

### **3.2. *Ex Post* Differences: Treatment of Item and Unit Non-Response**

Two types of missing data problems are relevant in our context. First, some respondents do not answer questions related to wealth. If their characteristics (observable and unobservable) are different from those of other respondents, inference will be biased. This is commonly referred to as *item non-response*. Second, there is the possibility that some subgroups of the population respond in lower numbers to the survey. In longitudinal surveys, *unit non-response* can occur at baseline (i.e. in the first wave) or in subsequent waves, in which case, it is commonly referred to as attrition.

Every survey recognizes the possibility of biases introduced by item and unit non-response. Although methods differ slightly in their implementation, they rely on the same general idea, i.e. that data is missing at random conditional on a set of observables (Little and Rubin, 1987). All surveys attempt to impute missing wealth components with slight deviations in the implementation. Furthermore, all surveys use for imputations some form of additional information provided by “bracket” or “range” responses. In the SCF, respondents who do not provide responses are presented a range. If they elicit a particular segment of the range, this information is used for imputation. In the HRS and the PSID, brackets are used rather than ranges (e.g. Juster and Smith, 1997). If a respondent does

not provide an answer, he is given the choice between successive brackets of the form “Would you say it is more than [X], less than [X] or about [X].”

Each survey deals with unit non-response in a similar way. First, baseline weights are constructed based on cell count comparisons, by age, race, gender, marital status and ethnicity, to the March Current Population Survey (CPS). It is difficult to establish whether baseline unit non-response is a problem for lack of a true benchmark. Census data are available every ten years and the CPS itself has only a response rate ranging from 80 to 90%. However, the distribution of basic characteristics tends to be similar across surveys (correcting only for sample design) such that biases will not generally affect comparisons across surveys. Furthermore, response rates do not differ significantly across these three surveys, and two of them are conducted by the same survey agency (ISR at Michigan conducts the PSID and HRS). Longitudinal weights for the PSID and HRS are constructed in the same way as baseline weights, adjusting weights to the corresponding March CPS of the relevant year. Overall, weights that correct for selective attrition along a number of dimensions, most notably gender, race and ethnicity appears to be “enough” in most instances (Fitzgerald et al., 1998; Kapteyn et al., 2006).

### **3.3. Methodology for Comparison**

#### **3.3.4. Sample and Timing**

The PSID and the SCF sample cover the entire age range whereas the HRS focuses on the older population (individuals over age 50 and their spouses). As a result we restrict the

comparisons across these three surveys to the population age 55 and older.<sup>5</sup> The overall sample sizes of the PSID and SCF for the entire age range are smaller than that of the HRS. Using only the sub-samples of the older population in the SCF and PSID results in a much smaller sample size compared to the HRS (by a factor of 5.5 for the SCF (8495/1553) and a factor of 6.4 (8495/1332) for the PSID).

Table 2 shows descriptive statistics of demographic characteristics. Average age of the head of household, the age composition of our comparison sample, average household size and education are closely comparable across surveys providing empirical support that – after applying weights – the surveys cover the same population.

As mentioned previously, the timing of interviews does not coincide across surveys. However, this should not be a problem for most wealth categories except two: stock holdings and real estate (primary and secondary). In Figure 1, one can see that the stock market was higher during the period of interview in the SCF (May-December 2001) than when HRS (April-December 2002) respondents were interviewed. We therefore adjust HRS values for stocks and mutual funds upwards by 23.7 percent.

### **3.3.5. Mapping of Wealth Categories Across Surveys**

In the appendix, we show how we aggregated wealth categories in Table 1 to construct comparable measures of wealth. For a number of categories the mapping is straightforward. However, there are some challenges that result from the different level of detail that is elicited in the three surveys. First, the PSID and the HRS, having much shorter wealth modules than the SCF, ask for net values of several asset categories rather

---

<sup>5</sup> Every six years the HRS adds a new refresher cohort of 51 to 56 year olds. The last time this happened before the survey year that we use in this study was 1998. By 2002 the youngest members of the population representative sample were 55 years old.

than distinguishing gross value and liabilities. This is the case for questions about vehicles, investment in real estate and business equity. Second, the PSID and the HRS use questions that ask about the combined value of multiple categories and the grouping differs between the two surveys rendering it impossible to fully harmonize, for example, sub-categories of financial assets. The HRS asks about the combined value of CDs, government saving bonds and T-bills in one single question. Our categorization for comparison purposes in the Appendix calls for allocating CDs to “Deposit Accounts” and “government saving bonds” to “Total Bonds.” Being unable to separate out the value of government saving bonds we allocate the entire values elicited in this HRS question to “Deposit Accounts.” As a result the sub-categories of financial assets are not completely comparable, however, the total amounts of financial assets are. Complications of the same kind arise with financial assets in the PSID. Finally, the catch-all categories in the surveys are supposed to pick up any asset values that have not been previously elicited in specific questions. Because of the different level of detail and substance covered in the different survey instruments on wealth this catch-all category is not comparable across surveys. For the PSID and to some extent also in the HRS the catch-all category also includes values that we would ideally separate out in our comparison scheme spelled out in the Appendix. However, this is, of course, not possible. In the definition of total net worth we use the most comprehensive measure of total wealth available in each respective survey.

### **3.3.6. Use of Imputation and Weighting**

We do not attempt to use a common imputation procedure across surveys. We take such imputations as given. Furthermore, we use weights provided with each survey.

#### **4. Differences in Wealth Holdings**

Based on our comparable measures, we report in Table 3 the mean and median total net worth along with their standard error in all three surveys. The mean and medians in the HRS and PSID are closely comparable. However, compared to the SCF the median in the PSID and the HRS is *larger* than in the SCF while the means are *smaller*. One reason for the difference in means is likely the oversampling of rich respondents in the SCF which increases the variance. However it is unclear from these figures why median wealth is lower in the SCF. Another interesting finding is the difference in the standard errors of both mean and medians. These are much larger in the PSID and SCF than in the HRS. This reflects in part differences in sample size in this age group.

[Insert Table 3]

One reason for differences in measured wealth could be due to differences in reported asset ownership rates. Table 4 shows that the differences in reporting vary across the wealth categories and that overall the SCF has higher ownership rates particularly in residual categories where amounts might be lower. This is likely to be because the SCF has a wider range of measures of financial assets captured at a lower level of aggregation. There are two important categories where differences exist: financial assets and non-

housing debt. For financial assets, the SCF has the highest ownership rate (94.2%) while the PSID has the lowest (86.7%). This is mostly due to differences in ownership of deposit accounts. Similarly, the SCF shows that 42.8% of respondents have non-housing debt, which includes credit cards, while the HRS only shows that only 23.3% do so. The SCF has a battery of questions on non-housing debt. Hence, this likely leads to a higher ownership rate.

[Insert Table 4]

In Table 5, we show that the higher ownership rates in the SCF for deposit accounts and non-housing debt leads to lower medians conditional on ownership. For financial assets, the SCF shows a median of \$20.6 thousand while the HRS and PSID show medians of \$27.7 thousand and \$27.4 thousand respectively. For non-housing debt, the median in the SCF is \$1.2 thousand while it is \$4 thousand in the HRS. One conclusion is that the SCF is better able to capture small amounts in these asset categories. For most other categories, measures are quite comparable.

[Insert Table 5]

In Table 6, we focus on means. Not surprisingly the SCF yields higher estimates of the mean, which is a direct consequence of better representation of wealthier households. On the other hand, the PSID and HRS give very similar measures. For example, mean non-financial assets are \$197.7K in the HRS while \$191.2K in the PSID. For financial assets, the means are virtually the same (\$126.9K in the HRS vs. \$126.4K in the PSID).

[Insert Table 6]

In Table 7, we compare inequality measurement in the SCF and HRS surveys. At the top of the distribution differences are larger. When the share of net worth held by top

population percentiles is considered. We find the richest 1 percent hold about 28 percent of the wealth of the elderly population and the next 6 percent hold another 35 percent according to the SCF and 17 percent and 35 percent respectively according to the HRS. This shows a systematic 11 point difference at the top of the distribution. In terms of wealth inequality, the HRS underestimates the Gini coefficient by only 1.1. This is because the Gini coefficient is not as sensitive to outliers as other measures of inequality.

[Insert Table 7]

## **5. Conclusion**

In this paper we compare the wealth measures from three surveys: the Health and Retirement Study (HRS), the Panel Study of Income Dynamics (PSID) and the Survey of Consumer Finances (SCF). We focus on the population age 55 or older since the HRS does not interview the younger population. We find that estimates from the PSID and HRS are quite similar, slightly more precise in the HRS because of larger sample sizes. For most of the distribution, comparisons with the SCF are also similar. Some differences exist at the bottom of the distribution potentially because the higher disaggregation in the SCF allows to better capture small asset holdings in such categories such as deposit accounts, other assets and non-housing debt. As was noted before, the largest differences exist at the top of the distribution. The top 1% in the SCF hold nearly a third of all wealth held by the elderly while this figure is only 17% in the HRS. Hence, this affects estimates of means and other measures sensitive to skewed distributions.

## References

- Aizcorbe, A.M., A. B. Kennickell, and K.B. Moore (2003): "Recent Changes in U.S. Family Finances: Results from the 2001 Survey of Consumer Finances," Federal Reserve Bulletin, January
- Bound, J., C. Brown, et al. (2001). Chapter 59 Measurement error in survey data. Handbook of Econometrics, Elsevier. Volume 5: 3705-3843.
- Christelis, D., D. Georgarakos and M. Haliassos (2008): "Economic Integration and Mature Portfolios", CSEF Working Paper 194, University of Salerno.
- Fitzgerald J., Gottschalk, P. and R. Moffitt (1998): "An Analysis of Sample Attrition in Panel Data: The Michigan Panel Study of Income Dynamics", Journal of Human Resources 33(2), 251-299.
- Hill, M. *The Panel Study of Income Dynamics*. Beverly Hills: Sage Publications.
- Hurd, M.D. (2001): "Portfolio Holdings of the Elderly, in *Household Portfolios*, ed. L. Guiso, M. Haliassos and T. Jappeli, pp. 431-472. Cambridge, MIT Press.
- Hurd, M.D. (2006): "Comment: How do the Better Educated Do it? Socioeconomic Status and the Ability to Cope with Underlying Impairment." Forthcoming in D. Wise, ed. *Developments in The Economics of Aging*. Chicago: University of Chicago Press.
- Juster, F.T., R. Suzman (1995): "The Health and Retirement Study: An Overview". HRS Working Papers Series #94-1001; Journal of Human Resources, Supplement (JHR 30-S).
- Juster, F.T. and J.P. Smith (1997): "Improving the Quality of Economic Data: Lessons from the HRS and AHEAD", Journal of American Statistical Association 92:440, pp. 1268-1278.
- Juster, F.T., J.P. Smith and F. Stafford (1999): "The Measurement and Structure of Household Wealth", *Labour Economics* 6, pp. 253-275.
- Kapteyn, A., P.-C. Michaud, J.P. Smith and A. van Soest (2006), "Effects of attrition and nonresponse in the Health and Retirement Study", RAND Labor and Population working paper WR-407, RAND, Santa Monica.

- Kennickell, A. (2005): "The Good Shepherd: Sample Design and Control for Wealth Measurement in the Survey of Consumer Finances" paper presented at the January 2005 meeting of the Luxembourg Wealth Study.
- Little, R.J. and D.B. Rubin (1987): *Statistical Analysis with Missing Data*, New York, Wiley.
- Rohwedder, Susann, Steven J. Haider, and Michael D. Hurd, 2006, "Increases in Wealth among the Elderly in the Early 1990s: How Much is due to Survey Design?" *Review of Income and Wealth*, Dec. 2006, 52(4), 509-524.
- Scholz, J. K., A. Seshadri, et al. (2006). "Are Americans Saving Optimally for Retirement?" *Journal of Political Economy* 114(4): 607-643.
- Sierminska, E., A. Brandolini and T. Smeeding (2006): "Cross National Comparison of Income and Wealth Status in Retirement: First Results from the Luxembourg Wealth Study", Luxembourg Wealth Study Working Paper Series #2.
- Smith, J. P. (1999). "Healthy Bodies and Thick Wallets: The Dual Relation between Health and Economic Status." *The Journal of Economic Perspectives* 13(2): 145-166.

## Appendix

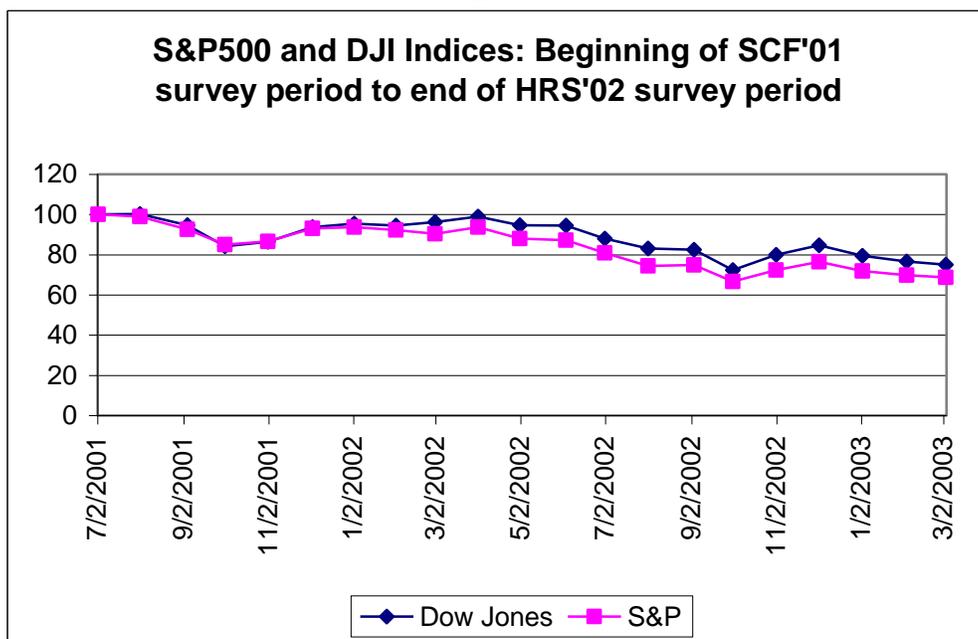
### Wealth classification according for the three surveys (HRS, PSID and SCF)

		HRS 2002	PSID 2001	SCF 2001
<b>FINANCIAL ASSETS</b>				
Total	TFA	Σ	Σ	Σ
Deposit accounts: transaction, savings and CDs	DA	Y	Y (1)	Y
Total bonds: savings and other bonds	TB	Y		Y
Stocks	ST	Y	Y	Y
Mutual funds and other investment funds	TM			Y
Life insurance	LI	Y(13)	Y (2)	Y
Other financial assets (exc. pension)	OFA	Y(14)		Y
Pension assets	PA	Y	Y	Y
<b>NON-FINANCIAL ASSETS</b>				
Total	TNF	Σ	Σ	Σ
Principal residence	PR	Y	Y	Y
Investment real estate	IR	Y (3)	Y (3)	Y
Business equity	BE	Y(15)	Y	Y
Vehicles	VH	Y (4)	Y (4)	Y
Durables and collectibles	DRCL	Y	-	Y
Other non-financial assets	ONF		-	Y
<b>LIABILITIES</b>				
Total	TD	Σ	Σ	Σ
Home secured debt	HSD	Σ	Σ	Σ
Principal residence mortgage	MG	Y	Y	Y
Secondary residence mortgage		Y		
Other property mortgage	OMG	Y (3)	Y (3)	Y
Other home secured debt (incl. line of credit)	OHSD	Y	-	Y
Non-housing debt	NHD	Σ	Σ	Σ
Vehicle loans	VL	Y (4)	Y (4)	Y
Installment debt (incl. credit card balance)	IL			Y
Educational loans	EL	Y	Y	Y
Other loans from financial institutions	OL			Y
Informal debt	ID			Y

Source: LWS database. "Y" denotes a recorded item; "-" denotes a not recorded item; "Σ" indicates

that the variable is obtained by aggregation of its components. (1) Excludes deposit accounts. (2) Includes cash value of life insurance, collectibles and some mutual funds not included in TB. (3) IR recorded net of OMG. (4) VH recorded net of VL. (5) OFA and ONF recorded together. (6) Business assets only. (8) As recorded in the 2003 wave. (10) HSD, VL and IL recorded together. (11) MG, OMG, VL and IL recorded together. (12) Includes also VL, which implies a double-counting. (13) Life insurance ownership is observed; also the distinction between whole and term life insurance. However, the cash value is not readily available and needs some assumptions and construction. (14) "other savings" is a residual category in HRS which asks for other assets, both financial and durable: 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 me about? [EXCLUDE THE CASH VALUE OF ANY LIFE INSURANCE POLICIES.] (15) Business assets are recorded net of any liabilities.

Figure 1



**Table 1 Wealth Categories in the 3 Surveys**

HRS	PSID	SCF
1. housing (primary residence)	1. housing (primary residence),	1. housing (primary residence)
2. mortgage on primary residence (1 <sup>st</sup> and 2 <sup>nd</sup> ),	2. net value of other real estate,	2. mortgage on primary residence,
3. home equity loan (primary residence),	3. net value of transportations,	3. home equity loan (primary residence),
4. secondary residence,	4. net value of farm or business,	4. secondary residence,
5. mortgage/secondary residence,	5. shares of stock ..., mutual funds, or investment trusts,	5. mortgage on secondary residence,
6. net value of other real estate,	6. IRAs,	6. other home equity loans,
7. net value of business or farm,	7. checking or savings accounts, money market funds, certificates of deposit,	7. value of other real estate,
8. IRAs,	8. government savings bonds, or treasury bills,	8. debt for other real estate
9. stocks or mutual funds,	9. 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,	9. value of business or farm,
10. corporate, municipal, government or foreign bonds, or bond funds	10. other debt (credit card charges, student loans, medical or legal bills, or loans from relatives)	10. debt of business or farm,
11. checking or savings accounts, or money market fund,		11. IRAs,
12. CDs, Government Savings Bonds, Treasury Bills,		12. other pensions accounts
13. net value of transportation,		13. stocks,
14. other savings; (assets of other household members),		14. stock, government other mutual funds,
15. trusts,		15. corporate, municipal, government or foreign bonds, or bond funds
16. other debt		16. checking/ savings accounts/ money market deposit accounts
		17. call accounts, CDs
		18. Government Savings Bonds/ Treasury Bills/ corporate bonds,
		19. cash value of life insurance
		20. other financial assets
		21. value of transportation,
		22. debt of transportation,
		23. other savings; (assets of other household members),
		24. trusts,
		25. educational loans
		26. other debt

Note: In SCF many of the categories can be further disaggregated.

**Table 2 Demographic Characteristics of Sample**

	HRS	PSID	SCF	Difference PSID-HRS	Difference SCF-HRS
<i>Head of Household</i>					
Mean age	69.2	68.7	69.2	-0.5	0.01
<i>Age composition (%)</i>					
55-59	19.9	21.4	20.6	1.5	0.7
60-64	17.0	16.5	16.4	-0.5	-0.6
65-69	15.5	16.9	15.8	1.4	0.3
70-74	15.1	18.1	15.6	3.0	0.5
75-79	13.8	12.9	16.2	-0.9	2.4
80-84	11.1	8.3	8.9	-2.9	-2.2
85 and over	7.6	5.9	6.6	-1.7	-1.0
All	100.0	100.0	100.0		
Average unit size	1.60	1.61	1.63	0.0	0.03
<i>Education</i>					
Less than high school	22.1	25.5	24.3	3.4	2.2
High school	35.8	32.2	30.8	-3.6	-5.0
Some college	19.2	17.1	18.7	-2.1	-0.5
College degree or more	22.9	25.2	26.2	2.3	3.3

**Table 3 Mean and median household net worth (thousands of 2002 USD)**

	HRS	PSID	SCF
Mean	423.1	448.4	586.2
<i>S.E. of mean</i>	<i>10.8</i>	<i>33.5</i>	<i>16.7</i>
Median	185.0	199.1	171.9
<i>S.E. of median</i>	<i>5.4</i>	<i>8.9</i>	<i>12.1</i>

**Table 4 Ownership of Assets Across Surveys (in percent)**

Wealth components	HRS	PSID	SCF	Difference with HRS	
				PSID	SCF
Net worth (>0)	95.4	91.8	92.9	-3.6	-2.5
Net worth (=0)	2.1	3.8	2.7	1.7	0.6
Net worth (<0)	2.5	4.4	4.4	1.9	1.9
Non-financial assets	81.8	80.7	81.8	0.0	0.0
Principal residence	79.9	79.3	80.9	-1.1	0.0
Investment real estate	24.1	25.9	20.9	-0.7	1.0
Financial assets	91.5	86.7	94.2	1.8	-3.2
Deposit accounts	90.5	85.5	94.2	-4.8	2.7
Risky Assets	37.4	na	40.4	-5.0	3.7
Bonds	9.0	na	17.0	na	3.0
Stocks and mutual funds	35.5	36.6	33.5	na	8.0
Other	89.1	89.0	86.4	1.1	-2.0
Pension Assets	47.7	43.1	44.9	-0.1	-2.8
Business Assets	10.5	10.1	10.4	-4.6	-0.1
Vehicles	86.5	83.6	82.4	-0.4	-0.1
Other Assets	15.0	28.1	14.5	-2.9	-4.1
Life Insurance	na	na	34.6	13.1	-0.5
Debt	42.5	48.8	53.7	na	11.2
Home secured debt	31.1	na	32.8	6.3	1.7
Principal Residence Mortgage	26.1	33.2	28.5	na	2.4
Other Mortgage	0.0	na	5.7	7.1	5.7
Other Home secured debt	7.4	na	4.2	na	-3.2
Non-housing debt	23.3	32.8	42.8	9.5	19.5
Sample size	8495	1332	1553		

**Table 5 Medians of household wealth components in HRS, SCF and PSID  
(thousands of 2002 USD), conditional on ownership**

	HRS	PSID	SCF	Ratio to HRS	
				PSID	SCF
Non-financial assets	135.0	137.1	133.7	102	99
	2.9	4.6	6.1		
Principal residence	120.0	121.9	126.6	102	105
	1.4	4.3	4.0		
Net investment real estate	88.0	77.4	89.4	88	102
	4.3	11.6	11.4		
0.0	0.0	0.0	0.0		
Financial assets	27.7	25.4	20.6	92	74
	1.4	2.9	1.5		
Deposit accounts	12.0	10.2	11.1	85	93
	0.6	0.8	0.8		
Stocks and mutual funds	61.9	71.1	71.1	115	115
	3.5	7.6	9.6		
	0.0	0.0	0.0		
Other	32.0	35.5	27.0	111	84
	1.4	3.5	1.9		
Pension Assets	57.0	66.0	56.5	116	99
	2.0	5.4	5.8		
Business Equity	160.0	127.0	97.5	79	61
	12.0	32.0	16.1		
Net Vehicle	10.0	11.2	11.0	112	110
	0.0	0.6	0.5		
Other Assets	20.0	15.2 <sup>5</sup>	17.0	76	85
	1.4	1.6	2.5		
	0.0	0.0	0.0		
Debt	33.0	30.5	18.3	92	55
	1.8	2.3	3.1		
Home secured debt	52.0	na	51.0	na	98
	1.5		3.4		
Principal Residence Mortgage	55.0	45.7	51.6	83	94
	2.4	3.5	3.3		
Other Mortgage	na	na	49.2	na	na
			6.2		
Other Home secured debt	20.0	na	9.3	na	47
	0.3		2.7		
Non-housing debt	4.0	3.0	1.2	76	29
	0.3	0.5	0.2		

Note: standard errors below medians.

**Table 6 Mean household wealth in HRS , PSID and SCF (thousands of 2002 USD).**

Wealth components				Ratio to HRS	
	HRS	PSID	SCF	PSID	SCF
<i>All</i>	423.1	448.4	586.2	106	139
	10.8	33.5	16.7		
Non-financial assets	197.7	191.2	225.7	97	114
	6.9	12.5	8.1		
Principal residence	134.0	130.7	151.3	98	113
	2.2	4.9	4.2		
Net investment real estate	63.6	60.5	74.3	95	117
	6.2	10.3	5.7		
Financial assets	126.9	126.4	183.2	100	144
	4.3	12.5	9.0		
Deposit accounts	40.8	44.8 <sup>2</sup>	49.8	110	122
	1.0	5.5	2.7		
Risky Assets	86.1	na	133.4	na	155
	4.0		8.0		
Bonds	10.2	na	18.9	na	186
	0.9		2.3		
Stocks and mutual funds	75.9	81.6	114.5	107	151
	3.7	10.8	7.4		
		0.0			
Other	123.4	156.2	204.2	127	166
	3.8	20.6	11.1		
Pension Assets	67.4	62.5 <sup>3</sup>	76.7	93	114
	2.0	4.5	5.0		
Business Equity	31.8	64.8	101.0	204	318
	2.6	19.1	9.0		
Net Vehicle <sup>1</sup>	14.4	14.9	13.8	103	96
	0.6	0.6	0.4		
Other Assets	9.8	14.0 <sup>5</sup>	12.7	143	130
	0.7	2.1	2.2		
Life Insurance <sup>2</sup>	na	na	9.8	na	na
			0.8		
Debt	24.8	25.4	35.8	102	144
	0.7	1.7	1.9		
Home secured debt	22.3	na	31.5	na	141
	0.6		1.8		
Principal Residence Mortgage	20.1	21.7	21.7	108	108
	0.6	1.6	1.3		
Other Mortgage	na	na	8.9	na	na
			1.1		
Other Home secured debt	2.2	na	1.0	na	43

	0.1		0.2		
Non-housing debt	2.5	3.6	4.3	146	173
	0.2	0.6	0.6		
Net worth w/o Business Eq <sup>3</sup>	299.7	292.2	381.9	97	127
	8.9	18.9	12.4		
Net worth w/ Business Eq <sup>4</sup>	331.5	357.0	483.0	108	146
	9.5	31.3	14.0		
<b>Sample Size</b>	<b>8,495</b>	<b>1332</b>	<b>1553</b>		

Note: standard errors below means. <sup>1</sup> Vehicle value net of debt. <sup>2</sup> Not included in totals. <sup>3</sup> Net worth=Financial Assets + Non-financial Assets -Total Debt (excluding vehicle loans) <sup>4</sup> Net worth=Financial Assets + Non-financial Assets + Business Equity - Total Debt (excluding vehicle loans)

**Table 7 Fraction of Net Worth Held by Top End of the Distribution**

	Net worth		
	SCF	HRS	Difference
Top 10%	63.5%	52.3%	11.2%
Top 5%	51.2%	37.8%	13.4%
Top 1%	28.3%	16.9%	11.4%
Gini	75.1	67.8	1.1