

The Survey of Consumer Finances at Forty: Reflections from an Early User

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Abstract

Since it debuted in the 1980s, the Survey of Consumer Finances (SCF) has been vital to research on household behavior for two main reasons. First, its oversampling of high-income households makes it the only nationally representative survey that can meaningfully capture the skewness in the distribution of wealth. Second, the SCF pioneered the linking of detailed administrative data to national household surveys with the Pension Provider Survey. As a consequence, it influenced the design of subsequent surveys. In more recent years, however, other data sources have risen in prominence relative to the SCF in economic analyses of household behavior. I argue that the lack of an ongoing panel dimension, the absence of continued links to administrative data, and changes in the style of research conducted over the last 30 years are largely to blame. Further, without additional investments, these trends are likely to continue to limit the role that the SCF can play in the scholarly and policy-relevant literature.

Key Words: Saving, wealth, households, administrative data, credibility revolution, big data

1. Introduction

The timing of the first wave of the Survey of Consumer Finances (SCF) in 1983 was fortuitous. The trend toward wider inequality in income and wealth that has become a major focus of economic policy and discussion began with the macroeconomic expansion following the deep recessions of the early 1980s.¹ A comprehensive survey of household wealth had not been conducted in the United States since the 1962 Survey of the Financial Characteristics of Consumers and the 1963 Survey of Changes in Family Finances.² The ability to provide this snapshot of the distribution of household wealth at a point in time, both in its level and its components like stocks and business assets that are held disproportionately by the wealthiest households, remains the enduring contribution of the SCF to academic and policy-oriented research.³

My work with the SCF began during the summer of 1989, just prior to entering graduate school. My undergraduate thesis advisor, Martin Feldstein, hired me as a research assistant on a project to use the 1983 - 1986 panel to study household saving as the difference in wealth over an interval of time. My progress was slow that summer, and I do not think Marty published a paper using the SCF 1983 - 1986 panel until Feldstein (1995), after he had significantly upgraded his research assistance.

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¹See Cutler and Katz (1992) for an early discussion and Bricker et al. (2020) for a 30-year retrospective using the SCF.

²These surveys are available from the Federal Reserve Board. See Projector (1964, 1968) for overviews.

³For example, the presence of business assets in the SCF but not tax return data, which have only reported business income, makes the SCF essential to the debate on the growing wealth share at the top of the wealth distribution. See Saez and Zucman (2016), Smith et al. (2023), Bricker et al. (2016), and Gale et al. (2022b).

The lasting impact of spending that summer with the SCF was to realize, at a very impressionable age, how novel the dataset was. I continued to seek new applications for the SCF. That search was given a huge assist two years later, when I spent the summer working as a research assistant at the Federal Reserve Board. Though I was working for Chris Carroll in the Economic Activity section on the project that would eventually become Carroll and Samwick (1997, 1998), I made a point of getting to know Arthur Kennickell, who was spearheading the effort to develop the SCF. He introduced me to the Pension Provider Surveys, which matched SCF respondents to the Summary Plan Descriptions of their pension plans. These data on the pension formulas that determine respondents' future benefits subject to assumptions about earnings profiles and retirement dates were the basis for the chapters of my dissertation that eventually became Samwick (1998b) and Samwick and Skinner (2004), as well as Samwick and Skinner (1997).

As my central arguments focus on what's missing from the SCF or how it could be improved for the study of household behavior, I begin in Section 2 with a discussion of the topics for which the SCF remains indispensable. I then turn to three trends that have shaped applied microeconomic research over the last three decades and describe how they have disfavored use of the SCF – the “Credibility Revolution” in Section 3, the increasing importance of administrative data in Section 4, and the emergence of Big Data in Section 5. In Section 6, I conclude with some possible strategies to expand the impact of the SCF on economic research and policy discussions.

2. Dayenu

Every three years, the public release of the data for a new wave of the SCF is accompanied by two activities internal to the Federal Reserve Board. First, the team in the Microeconomic Surveys unit publishes an article in the *Federal Reserve Bulletin* with the title “Changes in U.S. Family Finances from T-3 to T: Evidence from the Survey of Consumer Finances.”⁴ The latest release of the SCF also generates an update in the Distributional Financial Accounts, which combine the distributional information from the SCF with traditional Flow of Funds data that measure aggregate stocks of assets and liabilities by sector.⁵ There are no better versions of these measurements from other sources. Careful measurement of wealth and its components is the unique contribution of the SCF. It will always be of value in analyses that require the full distribution of wealth at a point in time.

The SCF also serves as a benchmark for other household surveys that include wealth. Curtin et al. (1989) provided an early comparison of the SCF 1983 with contemporaneous waves of the Survey of Income and Program Participation (SIPP) and the Panel Study of Income Dynamics (PSID). When the SIPP wealth module was redesigned in 2014, the closest SCF wave was used as the benchmark for comparison in Eggleston and Hays (2021). As Fessler (2023) notes in this session, an important long-term use of the SCF, with its higher demands on both the survey sponsor and the survey respondent, will be this benchmarking role. Closely related to benchmarking is the imputation of SCF values in datasets like the IRS Statistics of Income (SOI) that do not contain wealth data. For example, the Urban-Brookings Tax Policy Model uses the SCF to impute assets, debts, unrealized capital gains, and pension balances to SOI tax returns.

⁴See Bhutta et al. (2020) for T = 2019.

⁵Efforts to reconcile the measures of wealth between the SCF and the Flow of Funds data extend back to the earliest SCFs. See Avery et al. (1988), Antoniewicz (2000), Henriques and Hsu (2014), and Dettling et al. (2015).

As I continued to work with the SCF beyond the initial papers on pensions, I used inferences from the full distribution of wealth and direct questions on saving motivations, saving and spending horizons, and expected retirement income adequacy in the SCF to argue for a rethinking of the standard life-cycle model. In that model, households save exclusively to shift resources from their working years, when income is high, to their retirement years, when income is predictably lower. However, as I note in Samwick (2006), the distribution of financial assets in the population shows two robust characteristics – a wide variance, even controlling for many observable determinants of saving, and a sizable percentage of households with surprisingly low levels of assets even as retirement is nearly upon them. Tabulations of data from the SCFs 1989 - 1998 show that households report saving for precautionary or liquidity reasons and saving for specific purchases with the same prominence as they do saving for retirement.

The observation that households are heterogeneous in their savings behavior should cause us to go beyond a single parameterization of the life cycle model in which retirement saving begins early in the working years. In so doing, we can take a more nuanced view of policy reforms that affect the intertemporal budget constraint principally through their focus on retirement income. I explored various aspects of Social Security reform in Samwick (1998a, 2004, 2010), focusing on voluntary participation, the implications for employer-provided pensions, and the welfare effects of delaying the onset of payroll taxes, respectively. In Samwick (1998c), I considered the implications of a switch to a broad-based consumption tax in which all forms of saving would enjoy the tax-preferred status reserved primarily for retirement saving vehicles under the current income tax system.

Finally, the SCF has been useful in testing the predictions of theoretical models regarding portfolio allocations. For example, the tax-adjusted Capital Asset Pricing Model of Brennan (1970) predicts that investors will depart from holding the market portfolio in ways that lessen their tax burdens. Poterba and Samwick (2003) demonstrate using multiple waves of the SCF that the probability that a household owns tax-advantaged assets, such as tax-exempt bonds or assets held in tax-deferred accounts, is positively related to its tax rate on ordinary income and that the portfolio share invested in corporate stock, which is taxed less heavily than interest bearing assets, is increasing in the household's ordinary income tax rate. Similarly, Bergstresser and Poterba (2004) use the SCF to examine the asset location decision – whether to efficiently allocate more heavily taxed assets to tax-deferred accounts. They show that about two thirds of households with financial assets in both taxable and tax-deferred accounts hold portfolios that are tax efficient and that most of the rest could reduce their taxes by relocating a small amount of fixed income assets to their tax-deferred account.

3. Overtaken by the Credibility Revolution

Over three decades after my summer at the Federal Reserve Board, it seems that the moment of my introduction to the SCF was also a turning point for it. I was able to use the SCF for my dissertation because it combined detail on wealth holdings with both a panel dimension and novel administrative data. Neither element was a feature of the SCF after 1989 (save the re-interview sample of the SCF 2007 respondents in 2009), although these features figured prominently in subsequent datasets whose designs were influenced by the SCF, most notably the Health and Retirement Study (HRS) launched the following year.

More importantly, these elements were central to the “Credibility Revolution” described by Angrist and Pischke (2010), the first seeds of which were planted in the early 1990s as well. While the initial papers in that revolution involved novel sources of explicitly random variation, the broader literature in that revolution came to rely significantly on

natural or quasi-experiments.⁶ As Angrist and Pischke note:

[A] hallmark of contemporary applied microeconometrics is a conceptual framework that highlights specific sources of variation. These studies can be said to be design based in that they give the research design underlying any sort of study the attention it would command in a real experiment. The econometric methods that feature most prominently in quasi-experimental studies are instrumental variables, regression discontinuity methods, and differences-in-differences-style policy analysis.

Focusing on the last of the three, Angrist and Pischke describe it as “probably the most widely applicable design-based estimator,” and note that, “The most compelling differences-in-differences-type studies report outcomes for treatment and control observations for a period long enough to show the underlying trends, with attention focused on how deviations from trend relate to changes in policy.”

Panel data are preferred for differences-in-differences estimators, to allow for individual fixed effects rather than just a separate intercept for the treated group. Even when repeated cross sections are used, they tend to have annual (rather than triennial) data and much larger sample sizes than the SCF, as in the Current Population Survey, to allow for greater precision. Additionally, with geographic identifiers not present in the publicly available SCF datasets, there is no scope for using state-level policy variation in the cross section to identify treatment and control groups that is frequently the basis of such analyses, following the model of Gruber (1994).⁷

A survey that includes sensitive asset and liability data for high net worth households needs to abide by strict standards of privacy protection. If public release of geography, month of birth, and occupation are too much of a threat to the confidentiality of the respondents, then that is the price that must be paid for conducting such a survey. The recent opportunity to access these data items through the Federal Statistical Research Data Centers (FSRDCs) is useful, though not without additional investments of researcher time and resources. Similarly, if the demands of reinterviewing households in such detail or if the complexity of the survey design to obtain an accurate cross section of household wealth precludes also setting up a panel, then that is another price that must be paid.

All surveys are conducted against a budget constraint, limiting size, scope, and coverage. My only point here is that whatever the prices of keeping key identifying variables off the public dataset and eliminating the panel dimension in 1989, the “Credibility Revolution” in the way applied microeconomics is conducted over the intervening years has raised these prices dramatically.

4. More Administrative Data, Please

Beyond the panel dimension of the first waves, the availability of administrative data in the form of the Pension Provider Surveys was a real enticement to use the SCF. Unlike the survey responses from the household members, administrative data are collected from employers or tax authorities or other agencies that can provide the information with less measurement error. This allows for the budget constraint of the household to be mapped with precision, providing stronger tests of hypotheses about behavior.

⁶See Meyer (1995) for a discussion of early natural or quasi-experiment research designs.

⁷The literature using the SCF for differences-in-differences estimation is not large. Sabelhaus and Ayotte (1998) and Pence (2006) examine the impact of tax-deferred savings programs on wealth accumulation using multiple years of the SCF. Price (2016) tests whether the relationship between student loan debt and housing changed after the Great Recession, using the 2004 and 2013 SCFs.

This was the focus of my work in Samwick (1998b), in which the defined benefit (DB) pension formulas collected from the plan sponsors of SCF respondents were obtained and, after much work by the SCF team (and by me), coded into formulas that could be used to calculate pension benefits under a variety of economic assumptions. Most importantly, the pension plan formulas allowed me to calculate pension benefits under varying choices of retirement date. This allowed me to estimate the effect of pension incentives on the timing of retirement. Whereas Stock and Wise (1990) applied their option value model of the timing of retirement to one firm at a time, using payroll records and summary plan descriptions obtained from that firm, I aspired to do so for all the plans in the PPS simultaneously. It almost worked.

In later work, we used the PPS from 1983 and 1989, along with household survey responses on pension coverage and plan types, to show that concerns about the trend from DB to defined contribution (DC) and 401(k) plans were overstated, particularly when the lack of portability of DB plans was considered, when pension coverage was measured comprehensively (Samwick and Skinner (1997)), and when earnings uncertainty was considered alongside investment return uncertainty (Samwick and Skinner (2004)). While no SCF since 1989 has been accompanied by a PPS, such surveys live on at 6-year intervals, with more user-friendly software, as restricted data products for the Health and Retirement Study. Perhaps it would be possible to reintroduce the PPS to the SCF, building on lessons learned and software developed for the HRS.

Another area in which administrative data have become essential is in the analysis of economic responses to taxation. At a point in time, there is variation in tax rates along several dimensions, including family composition, the level of income, and the types of income. Over time, policy makers change the tax code, sometimes in small ways and other times in major reforms. As noted above, Poterba and Samwick (2003), use the SCFs as repeated cross sections to study the relationship between marginal tax rates (MTRs) and asset allocations.⁸ More recently, Gale et al. (2022a) develop a careful integration of SCF datasets with TAXSIM, the National Bureau of Economic Research's (NBER) tax calculating algorithm.⁹ Of particular importance are the methods for identifying the tax-paying units within the household and using the IRS Statistics of Income (SOI) data to impute missing itemized deductions. They compare their simulated outcomes to published tax filings in the SOI, noting that tax liabilities are higher in the SCF largely due to higher business incomes that are concentrated at the top of the income distribution.

With an accurate tax calculator available, it might be possible to use bunching approaches to estimate behavioral elasticities, focusing on kinks and notches introduced into the household budget set by tax policy. However, as Kleven (2016) notes in his review, and consistent with the design-based approach of the "Credibility Revolution" discussed in Section 3, "[E]stimating bunching precisely requires large data sets with very little measurement error." He further notes that, "We rarely see any bunching in survey data due to small sample sizes and measurement error." Studies that use bunching approaches based on tax policy, like Saez (2010), typically use the SOI Individual Public Use Tax Files, which have about 100,000 or more observations per annual file.

Of course, it would be even better to have both the information from the SCF *and* the tax return data for the members of each SCF household. Even in the context of a restricted data protocol at a FSRDC, I acknowledge that this would be a stretch. However, perhaps there

⁸In Samwick (2000), I use the same algorithm and data to show that despite the explanatory power of MTRs for cross-sectional differences in portfolio allocations, the role of tax changes in determining the observed changes in household portfolios around major tax reforms is limited.

⁹See Feenberg and Coutts (1993) for an introduction to TAXSIM and the TAXSIM resources page on the NBER website for access.

is some element of a win-win scenario that could be introduced. At other federal statistical agencies, there are active discussions about using administrative data to lessen respondent burden. For example, Hughes et al. (2015) discuss options for reducing respondent burden for the American Community Survey, including substituting administrative data for direct survey response. Income data from tax returns could be a leading candidate for the SCF, and the access to the tax return could add breadth and depth to what we can learn about SCF respondents.

But some other sources of additional administrative data do not seem like they would be a stretch, if the Health and Retirement Study is any guide. In addition to periodic Pension Provider Surveys, HRS users have access to restricted data including Social Security earnings histories, health care data from Medicare, Medicaid, and the VA, and the 1940 Census.¹⁰ It is not clear why it would not be possible to establish similar linkages with the SCF to these rich sources of administrative data.

5. Another Revolution, This Time with Big Data

In their review essay on “Economics in the Age of Big Data,” Einav and Levin (2014) note that many fields in economics “have shifted from a reliance on relatively small-sample government surveys to administrative data with universal or near-universal population coverage.” As the examples cited below indicate, “near-universality” is not an advantage that I would have associated with the pivot toward big data, at least in the domain of the SCF. The virtue of “small-sample government surveys” like the SCF is that with careful attention to constructing appropriate sample weights, the survey is representative of the whole population. As I began doing empirical work and encountered the SCF, I understood this to be an essential element of good research. So, for example, when we wanted to explore portfolio allocations over the life cycle in Poterba and Samwick (2001), we turned to multiple waves of the SCF.

Around the same time, Odean (1998) wanted to study the disposition effect among investors, asking “Are they reluctant to realize their losses?” To do this, he analyzed trading records for 10,000 accounts at a large discount brokerage house and found support for his conjecture. There was no presumption that the sample was representative of the population of investors, but this study is one of the pioneering papers in behavioral finance. It is also the first one that made an impression on me that there were ways to obtain data in the style of what would come to be “Big Data.” With the benefit of hindsight, perhaps we could insist that if there were only to be one study on a given subject, then of course we would prioritize having a representative sample. But with the growth in computing power and the availability of a growing multitude of data sources, there will not be only one study. Other researchers are welcome to get different datasets of individual investors’ trades and confirm or contradict the findings of Odean (1998). With several such studies on a range of datasets, we can get a sense of how general the finding is.¹¹

In the decade since Einav and Levin (2014) wrote their review, the shift toward this style of research has become even more pronounced. At the time, they also noted:

Perhaps even more notable is the expansion of private sector data on economic activity. These data, sometimes available from public sources but other times obtained through data-sharing agreements with private firms, can help to create more granular and real-time measurement of aggregate economic statistics.

¹⁰See the HRS Restricted Data website for a complete list.

¹¹Twenty-five years later, there are several reviews of the literature on the disposition effect that do just this, such as Gutiérrez-Nieto et al. (2022).

The work of the JP Morgan Chase Institute is exemplary of this expansion in the domain of the SCF. Ganong and Noel (2019) and Ganong et al. (2022) are recent examples, with the latter focusing on “Spending and Job Search Impacts of Expanded Unemployment Benefits.” Their dataset consists of de-identified bank account transactions from the universe of JP Morgan Chase customers. With the bank account, they can see recurring deposits associated with employment, or with mortgage payments, or with credit card payments. For their immediate purposes, they observe the precise week that individual households begin receiving supplemental unemployment insurance benefits, along with subsequent transactions that shed light on their impact on consumption, assets, and job-finding.

No survey launched specifically for this purpose could hope to obtain this much detailed information on its respondents outside of having access to their bank accounts. But for the JP Morgan Chase Institute, the availability of the data for research purposes is a by-product of its collection for the parent company’s commercial activities. In evaluating the results of the study, we have to accept that we only see customers at one bank, albeit one of the world’s largest. Are these customers representative of the whole population? Not quite, but the population of which they are representative is still quite large. Nor can we be sure that the investigators see every transaction in which the household engages, but certainly they see a lot, and perhaps what they cannot see is not a source of bias. What characteristics are correlated with the amount of a household’s financial activities that pass through their main banking relationship? The Institute has research programs in household debt, financial markets, labor markets, and other areas, in addition to household income and spending.

6. Looking Forward

The Survey of Consumer Finances continues to serve as the gold standard for *measuring household wealth and its components* in the United States. Over the forty years since the SCF 1983, there have been three trends in the economics profession’s use of data that have made the SCF less prominent in studies of *individual behavior*. First, such studies typically look for the response of specific individuals to changes in their budget set over time, necessitating a panel dataset. Second, there is less of an emphasis on having a representative survey if it means more detail on a well defined subset of households. Third, the search for novel applications and greater precision has generated a substantial focus on high quality administrative data. For the SCF to become more relevant in the scholarly and policy-relevant literature, a greater investment in capturing any of these three trends would be needed.

As noted in Section 4, perhaps the most accessible of these investments would be to establish more administrative data linkages to the main survey. As the Department of the Treasury is already a partner, linkages with tax return data could be established. Following the lead of the Health and Retirement Study, administrative data related to pension formulas, earnings histories, medical utilization, and the decennial census could be gathered. The HRS also allows users the opportunity to propose experimental modules of 2-3 minutes of interview time, administered at the end of the main interview, a feature that SCF users might also find useful.¹²

Some of the data collected for the SCF but not made public would be a boon to researchers. The recent option of utilizing the non-public data via the FSRDCs should be more widely advertised. Again following the lead of the HRS, access could be provided through the Virtual Desktop Infrastructure system that allows users to remotely connect through a secure connection from their own desktop rather than having to work remotely at the FSRDC.

¹²See Hurwitz and Mitchell (2022) for an example on financial regret at older ages.

Establishing new links to administrative data and making confidential more widely available are investments in accessibility. As a general rule, the more user-friendly are the data, the more users will befriend the data. A large user community for a survey makes it easier for new users to adopt the survey, at the margin. This may be particularly true for young investigators looking to invest in expertise in a specific dataset. There have been some user contributions for the SCF, such as the code by Charlie Rafkin for the `scfses` command in Stata and the repository for making the data more friendly to R users at the *Analyze Survey Data for Free* website.

But a user community should be built on more, including not just code but conferences and calls for papers and special issues of journals. The IRS Research Conference is an annual event that highlights research on tax compliance and administration, including studies conducted with SOI data. The Retirement and Disability Research Consortium Annual Meetings are similarly sponsored by the Social Security Administration and often feature studies conducted with the HRS and its linked administrative data. A similar event for the SCF could promote more widespread use of the survey.

Another strategy is to simply acknowledge that the combination of trends identified in Sections 3 - 5 makes it very unlikely that an aspiring researcher will seek to explain the behavior (or, more specifically, changes in the behavior) of the households we observe in the SCF. However, that does not mean that the SCF should not inform studies of household behavior that use other datasets as their primary focus. For example, in her study of the impact of payday loans on financial distress, Morse (2011) uses the SCF 1998 to estimate the probability that an individual is financially constrained as a function of socioeconomic characteristics. She then projects the estimated relationship onto zip codes by applying the SCF coefficients to socioeconomic variables observed at the community level in the U.S. Census.

As a general framework, consider the possibility that the SCF is one of the samples used in the two-sample instrumental variables (TSIV) approach introduced by Angrist and Krueger (1992). In TSIV, one sample has the instrument and outcome variables, while the other sample has the instrument and exposure variables.¹³ This allows the effect of the exposure variable on the outcome variable to be estimated even though they are not observed in the same sample. Morse (2011) is essentially using the SCF for the first stage. There could be many applications of TSIV that would have wealth in the SCF as the outcome variable. The TSIV procedure would open up the explanatory variables to be any potential determinant of wealth, even if not included in the SCF, so long as appropriate instruments for that determinant were included in the SCF as well as the other dataset.

Whatever the framework, a task for the Microeconomic Surveys unit at the Federal Reserve Board would be to establish and market themselves as the experts on methods for analyzing repeated cross sections with complex weights and skewed data. Along with investments in data linkages and accessibility, doing so may be the key to the next four decades of the SCF.

¹³See Inoue and Solon (2010) for further discussion and examples.

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