



# **Savings of Young Parents**

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#### Abstract

In this paper, we examine household savings using data from the National Longitudinal Survey, Cohort 1997 (NLSY97). This data set provides detailed information about assets and liabilities of parents with teen-age children and allows researchers to examine patterns of accumulation at early stages of the life cycle.

In our empirical work, we have first to deal with several problems in measuring wealth. While many respondents report owning assets and liabilities, they often do not report their values. This problem is severe, in particular among financial assets. It is also difficult to devise an appropriate measure of accumulation when examining young parents, since assets and liabilities display different degrees of liquidity.

To get around the non-response problem, we impute the missing values for assets and liabilities. This allows us to calculate household wealth for the whole sample. We examine household wealth holdings by considering several measures of accumulation: total (non-pension) net worth, financial net worth, and retirement savings. We study their distribution across different demographic groups and show that many households, in particular those headed by young parents (younger than 35), minorities, and individuals with low educational attainment, display very little accumulation. Many have no financial assets and their total net worth is also low. Housing equity is the main asset in many household portfolios and often the only asset families own. Overall, there is much heterogeneity in wealth holdings not only across but also within demographic groups. This suggests that many factors are at play in shaping the wealth accumulation of parents with young children.

JEL classification: D31, D91. Key Words: Wealth, Motives to save; Parents with teen-age children.

#### **1. Introduction**

In this paper, we examine household wealth holdings using data from the National Longitudinal Survey, Cohort 1997 (NLSY97). This survey provides detailed information about assets and liabilities of parents with teen-age children and allows researchers to investigate patterns of wealth accumulation at early stages of the life cycle. There are at least four motives to save that can be relevant for this demographic group. First and most importantly, parents may be saving for their children's education and, in particular, for sending children to college. Second, parents, particularly those at the beginning of their career, may be saving to insure against shocks to income, such as unemployment, job loss, and other unexpected events. Third, as the simple life-cycle model predicts, they may save for their retirement. Fourth, parents may save to buy a house or start a business.

Given the age range of children and their parents, the first two motives should feature prominently in the data. Children are only a few years away from college and, for many, the event is imminent. Additionally, a very large proportion of children have expressed high expectations of completing a college education.<sup>1</sup> Many of these parents do not have long tenures at their jobs and are likely to face much uncertainty about their earnings.<sup>2</sup> Thus, these data allow us to shed some light on how many resources parents have to buffer shocks to income as well as to meet future financial obligations, such as those involved in sending children to college.<sup>3</sup> We may also gain insights on the relevance of other motives to save. Even though there has been much development in financial markets and opportunities for borrowing, a down-payment is required to buy a house. Similarly, starting capital is often required to become an entrepreneur. Studies have shown that families overcome these potential liquidity constraints by saving more.<sup>4</sup> The analysis in this paper is simply descriptive and aims to highlight some of the major empirical facts about the patterns of accumulation of parents with teen-age children.

Even though the main objectives of the NLSY97 are not concerned with household savings, this information can be useful for many empirical studies. First, in

<sup>&</sup>lt;sup>1</sup> See Pemberton and Reynolds (2000).

<sup>&</sup>lt;sup>2</sup> Empirical studies show that precautionary savings are high among young workers. See the review of this work in Browning and Lusardi (1996).

<sup>&</sup>lt;sup>3</sup> For a detailed discussion of the motives to save and models of saving behavior, see the survey by Browning and Lusardi (1996).

many studies, it is often necessary to account for household economic status, and income alone is often not a good proxy for the economic resources available to a family. For example, current income can be temporarily low, while permanent income of the household may be high. In addition, families in the same income group may have rather different wealth holdings. Families with real assets, such as home equity, other real estates, cars, and other vehicles, may also be able to borrow in periods of low income or income shocks. This suggests that information on household wealth as well as composition of household portfolios can enhance empirical analyses using this data set.

Even for researchers interested in savings, there are several advantages in using the NLSY97. First, few data sets report extensive information on families with teen–age children, and it is important to study this group of the population. Second, this data set provides a richness of information on household characteristics (both on parents and on children), that can prove important in explaining the wide heterogeneity that we observe in saving behavior. Third, the information about savings is extensive (data is collected on more than ten asset components and five debt components) and follow-up brackets after each component of wealth allow researchers to measure wealth holdings with some accuracy.

Measurement issues are critically important when examining wealth and we devote extensive discussion to this issue. While many respondents report owning assets and liabilities, they often fail to report their values. Consequently, we have to deal with non-responses when constructing household total net worth. Another potential issue concerns the appropriate measure of accumulation to consider when examining young and middle-aged parents since assets and liabilities display different degrees of liquidity. In our empirical analysis, we consider several measures of accumulation: total (nonpension) net worth, financial net worth, and retirement savings. We examine the distribution of these different measures of wealth as well as of ownership of assets and liabilities across different demographic groups.

Our major findings are that households, in particular those headed by young parents (younger than 35), minorities, and individuals with low educational attainment display very little accumulation. Many families hold little or no financial wealth and also

<sup>&</sup>lt;sup>4</sup> See, among others, Engelhardt (1994, 1996) and Gentry and Hubbard (1998).

their total net worth is low. The most important asset in many portfolios is home equity and many own little in anything other than their home equity. Overall, there is a great deal of heterogeneity in wealth holdings and patterns of accumulation vary widely not just across but also within demographic groups. This suggests that many factors are at play in explaining the differences in wealth holdings among parents with teen-age children.

The paper is organized as follows: In section 2, we examine many of the issues associated with measuring wealth, and we compare data in the NLSY97 with other data sets. In section 3, we examine the distribution of wealth and the ownership of assets and liabilities, and we provide a discussion of the main empirical findings. In section 4, we provide a brief conclusion.

#### 2.1 The National Longitudinal Survey of Youth, 1997 Cohort

The NLSY97 is a nationally representative sample of the U.S. population aged 12 to 16 in 1997, and hence born during the years 1980 through 1984. The sample consists of 9,022 respondents from 75,291 pre-identified households in 147 non-overlapping primary sampling units containing residents age 12 through 16 as of December 31, 1996. Two samples were drawn. The first was a nationally representative sample of youths born between 1980 and 1984. Additionally, Black and Hispanic youths for that age group were oversampled. The sample also included those who usually reside at home, but were away at school or college and those in hospitals, correction facilities, or other types of institutions.

The survey is designed to document young adults' transition from school to work and to identify defining characteristics of that transition. Thus, it contains extensive information on respondents' labor market behavior, educational experiences, and the respondents' family and community. In addition to the youth interview, the NLSY97 contains a separate interview conducted with a responding parent. This interview is designed to provide information about the home environment and detailed parent characteristics. Potential responding parents were limited to those that lived in the

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household. They were selected according to a pre-ordered list.<sup>5</sup> The responding parent was asked extensive questions about personal background information and questions about the responding youth's life. The questions most relevant to our studies are those regarding parent's wealth.

#### 2.2 The Measurement of Wealth

In the NLSY97, the respondent's parent is asked to report information on a list of assets and liabilities aimed to measure household total net worth. Specifically, the respondent is asked to report information on the following asset components:

- 1) Housing (distinguished into ranch or farm, mobile home, and house or apartment);
- 2) Other real estate;
- 3) Business equity (business partnership or professional practice);
- Retirement savings (thrift/savings plans, 401(k)s, profit sharing or stock ownership plans, IRA or Keogh plans, and other types of plans);
- Educational IRA accounts or other pre-paid tuition savings accounts established to pay college costs;
- Checking and saving accounts, money market accounts or funds, accounts held in investment trusts;
- Certificates of deposit, government savings bonds, Treasury bills, corporate, municipal, government or other types of bonds and bills including any CD's, bonds or bills held in investment trusts (bonds hereafter);
- Shares in publicly held corporations or mutual funds, including any stocks or mutual funds held in investment trusts (stocks hereafter);
- 9) Cars, vans, trucks and other vehicles including boats or airplanes;
- 10) Other assets, such as money owed to you by others, the cash value of any whole or straight life insurance policies, future proceeds from a lawsuit or estate that is being

<sup>&</sup>lt;sup>5</sup> The order in which the responding youth's parent was chosen is as follows; Biological mother, biological father, adoptive mother, adoptive father, stepmother, stepfather, guardian (relative), foster parent (youth has lived with for 2 years or more), other non-relative (youth has lived with for 2 years of more), mother-figure (relative), mother-figure (non-relative youth has lived with for 2 years or more), father-figure (non-relative youth has lived with for 2 years or more).

settled, assets in a trust, annuity, or managed investment accounts, art work, precious metals, antiques, oil and gas leases, future contracts, royalties or something else;

 Household furnishings including furniture, major appliances, and home electronic items.

The respondent is also asked to report information on the following debt components:

- 1) Mortgage or land contracts on housing;
- Second mortgages, home equity loans, or any outstanding loans against a home equity line of credit;
- 3) Debt owed on vehicles;
- 4) Loans for children's educational expenses;
- 5) Any other debt currently owed, including store bills, credit cards (if respondent carries a balance), loans obtained through a bank or credit union, margin loans through a stock broker and other installment loans.

As the previous list shows, the information on assets and liabilities is extensive in the NLSY97 and it encompasses major components of household wealth. It is important to note that, with respect to previous NLSY waves, the information has become more detailed. For example, in the NLSY79 assets and liabilities were aggregated rather broadly,<sup>6</sup> and this could lead to less accurate reports.

To perform the analysis, we consider responses at the household level (a household can have multiple children interviewed in the survey). There are a total of 7,973 youth respondents in the NLSY97 for which information from a parent interview is available for a total of 6,113 families. Note that there were no parent interviews for 811 families. We examined the characteristics of these non-respondents and found that they concentrate among low education groups, Black or Hispanic families, young respondents and families in the West regions of the country. This suggests that some caution must be used in interpreting the values for wealth since the selected sample shows some evidence of selectivity.

The responding parent is first asked whether s/he owns the assets and liabilities listed above, then to provide a value. The latter refers to the market value, i.e., what the

<sup>&</sup>lt;sup>6</sup> See Engelhardt (1998) and Zagorsky (1999).

respondent would obtain if s/he were to liquidate the asset or liability. One important feature of these data is that many responding parents do not know the value of their assets and liabilities or refuse to report a value. While there are only few respondents who, when questioned about the ownership of assets and liabilities, answered with a 'refusal' or 'do not know,' a large fraction of respondents were not able or willing to report values for their assets and liabilities.

Table 1 reports the ownership of assets and liabilities and the fraction of respondents who refused to report a value or responded they 'do not know' the value.<sup>7</sup> Note that the majority of non-responses are due to an inability to report a value rather than a refusal. Additionally, non-responses vary substantially across assets and liabilities. Non-responses are particularly high for financial assets. For example, the proportion of 'do not knows' is high for stocks and for retirement savings. It is also relatively high for business equity, bonds, and educational IRAs. Undoubtedly, these questions are complex. In particular, reporting the market value of assets implies some knowledge of current market quotes. Accurate reports become further complicated when different assets have to be evaluated and added together. This raises concerns about the accuracy of reports even when respondents report values.

This is one of the major problems of collecting wealth data and one that is critical for the correct evaluation of household resources. This problem is common to other data sets on wealth and was present in previous waves of the NLSY that collected information about wealth. Smith (1995) compares non-responses about wealth across four different data sets: the Health and Retirement Study (HRS), the Panel Study on Income Dynamics (PSID), the Survey of Income and Program Participation (SIPP), and the Survey of Consumer Finances (SCF). Similar to our findings in the NLSY97, he finds that non-responses about ownership are very small, usually less than 1%. However, non-responses about the values of the items owned are pervasive. For example, more than 30% of respondents do not report the value of stocks or bonds in the HRS. Percentages of non-responses are high for these assets even in the SCF, a survey specifically designed to measure household wealth. Other assets as well are affected by non-responses. For

<sup>&</sup>lt;sup>7</sup>In our empirical work, we consider the cross-sectional sample as well as the supplemental sample (which oversamples Blacks and Hispanics) and always use household weights.

example, the proportion of respondents that do not report the value of their businesses range from 37% in the SCF to 24% in the PSID. The fraction of non-responses in retirement assets, such as IRAs and Keoghs, is approximately 27% in the HRS. Recent work by Gustman and Steinmeier (1999) shows that respondents are also poorly informed about their pensions; many do not know the type of pensions they have (a defined benefit or defined contribution plan) or the benefits associated with it.

Consistent with other surveys,<sup>8</sup> in the NLSY97 non-responses are less pervasive concerning home values (non-responses range from 2% to 7%). Usually, respondents are not only more willing to report the value of their home, but they also seem well informed about that value. Alessie, Lusardi and Aldershof (1997) compared self-reports of housing equity with other micro data sets that collect detailed information on housing and found that household reports compare well across different sources of data.<sup>9</sup> They also compare well with current market values. This is a useful feature of the data, since housing is one of the major assets in household portfolios and, as will be shown below, frequently the only asset people own.

Non-responses may be rather severe in the NLSY97 because these questions were not asked to the respondent most knowledgeable about the household's financial situation. Non-responses may also be affected by the degree of the aggregation of assets and liabilities. In previous NLSY waves, which collected information about wealth, there were many assets and liabilities that displayed high non-responses. Engelhardt (1998) reports that non-responses for stocks and bonds in the NLSY79 range from 16 to 23%. Non-responses were present, but more limited, on house values and mortgage debt.

Contrary to previous waves, respondents in the NLSY97 who do not report a value are asked a follow-up question where they have to indicate their best estimate of the value by picking among a range of values (brackets). Many of the non-respondents were able, and willing, to report information on the bracketed amounts. In fact, the percentage of non-responses drops dramatically when the information reported in brackets is used. This procedure represents an important innovation in the collection of wealth data and one that is worth emphasizing. A similar procedure had been

<sup>&</sup>lt;sup>8</sup> See also Juster and Smith (1997).

<sup>&</sup>lt;sup>9</sup> See, however, Goodman and Ittner (1992) for a description of the biases in home-owners reports.

implemented in the HRS<sup>10</sup> and to a different extent in the PSID and the SCF. Smith (1995) and Juster and Smith (1997) provide a careful and thorough evaluation of this procedure and show that it leads to major improvements in the collection and measurement of wealth data. As the authors report, non-responses are hardly random. More importantly, estimates of aggregate wealth change considerably when the value of assets and liabilities reported in brackets are included.<sup>11</sup>

We have used the information reported in the brackets to impute the value of assets and liabilities. After this imputation, the proportion of non-responses drops dramatically.<sup>12</sup> We also imputed the values for the remaining non-responses using the procedure reported in the data appendix. Since there are non-responses for ownership as well, we also impute ownership, even though it only affects a small percentage of respondents.

Before defining wealth, in Table 2, we report the conditional means and medians of all assets and liabilities reported in the NLSY97.<sup>13</sup> Many components of wealth, and in particular many asset components, show a distribution greatly skewed to the right. This is particularly the case for assets such as stocks, business equity, and retirement savings. Contrary to previous public releases of NLSY waves, asset and liability values were not truncated at the top and consequently, we do not have to worry about this problem.<sup>14</sup> Overall, there is wide heterogeneity in the holdings of assets and liabilities. It is important to look at medians in addition to means, since the former may be better representative of the typical household in the population.

<sup>&</sup>lt;sup>10</sup> In the HRS, there is a set of unfolding brackets. See Juster and Smith (1997) for detail.

<sup>&</sup>lt;sup>11</sup> See, also, Hurd et. al. (1997).

<sup>&</sup>lt;sup>12</sup> We are able to impute the value of housing for almost every respondent and 'non-responses' for other homes and mortgages are also reduced substantially. However, 'non-responses' are still sizable for stocks and retirement savings. Approximately 17% of stock-owners have not reported any value, either explicitly or in bracket amounts, and 13% of respondents reporting retirement savings have not indicated the amounts invested in these assets. Non-responses are also still present in bonds and business equity; 14.5% of business owners and 14% of bond-holders have not reported any values in brackets. Note, however, that percentages of bond and stock holders as well as entrepreneurs in this sample of young families is relatively small. See the data appendix for a detailed description of the procedure used in the imputation.

<sup>&</sup>lt;sup>13</sup> Figures differ between Table 1 and Table 2 since in the latter table we impute the missing data for assets and liabilities (ownership as well as values).

<sup>&</sup>lt;sup>14</sup> For example, in the NLSY79 the value of the house was top-coded at \$150,000; farms, businesses and other real estate assets at \$500,00, and stocks and bonds at \$100,000. See Engelhardt (1998) and Zagorsky (1999) for details.

It is clear that the house is one of the major assets in many household portfolios. The conditional median of house values is \$95,000 and the conditional mean is approximately \$125,000. However, the large majority of home-owners have a mortgage and the median and mean housing equity in this sample are \$45,000 and \$70,000 respectively. As reported in Table 1, in the NLSY97, it is possible to distinguish among those who own homes or apartments and those who own mobile homes, ranches or farms. However, only a small fraction of households own mobile homes or ranches; consequently, in our analysis we combined all these categories together (from Table 2 on) into the variable 'housing.' In addition to home equity, some households have other real estate, and the value of this asset is also sizable.

Even though a small fraction of the sample report owning business equity, the actual values reported in this asset are often huge. The conditional mean is more than \$487,000 and for a few households the reported value is above \$1,000,000. Consistent with the evidence in other data sets, we also find that business equity accounts for a disproportionate share of total wealth. It is not obvious, however, how to treat wealth invested in business equity, since in this case the enterprise motive is mixed with other savings motives. In addition, it is not obvious how easy it is to liquidate business equity in case one needs to have access to those resources, or how easy it is to borrow against business equity. Consequently, in our empirical analysis we examine different measures of accumulation that exclude and include business equity.

Another important wealth component is retirement savings. Many parents accumulate wealth in IRAs and 401(k)s. However, there are constraints and penalties in accessing these assets and, given these limitations, we examine them separately. We do not have information on pension wealth in the NLSY97 and we may end up treating respondents that have defined contributions versus defined benefits plans differently. In addition, as mentioned before, a large proportion of households were unable to report the values of retirement savings and we had to impute many of those values.

Other variables to consider in the analysis of wealth, given the age group in our sample, are educational IRA accounts and other pre-paid tuition saving accounts established to help pay college costs, as well as loans for children's educational expenses. Approximately 9% of the households report having educational IRAs (Table 1). The

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conditional median and means are approximately \$16,600 and \$27,000 respectively (Table 2). As discussed below, having educational IRAs is also strongly correlated with the education and race of the respondent. A small proportion of households also report having educational loans. The amount owed on these loans is on average \$6,600.

The amount invested in assets such as checking and saving accounts, bonds and stocks, varies widely across the sample. In particular, the distribution of stock is very skewed to the right. While the median stock-owner reports \$10,000 in stocks, the mean is more than \$52,000 and there is a small proportion of respondents who report very large amounts in stocks. Given the behavior of the stock market and the large appreciation in the value of stocks in the 1990s, this component of wealth is likely to play an important role both in explaining wealth accumulation and the wide disparity of wealth holdings across the population. As reported before, however, the values of financial assets, such as stocks and bonds, have frequently been imputed.

We examine household wealth holdings by considering several measures of accumulation. We consider financial net worth, total net worth, and retirement savings. In the first measure, we sum the values of checking and saving accounts, bonds, stocks, other assets, and the value of educational accounts, and we subtract short-term debt and debt on educational loans. In the second measure, we also add the value of homes, other real estate, cars and other vehicles, business equity and we subtract all mortgages and other debts on homes or cars.<sup>15</sup> The first measure represents an indicator of all liquid assets (or assets easy to liquidate). This could provide some measure of the ability of households to buffer short-term shocks and short-term expenses. Total net worth is a more comprehensive measure of accumulation even though it includes assets such as homes and cars that have consumption purposes in addition to investment purposes and may not be liquid or easy to liquidate. Note that the sample we have is only representative of the population of parents with teen-age children (children who are 12 to 16 years old), not simply of young parents with children.

<sup>&</sup>lt;sup>15</sup> In our measure of wealth we also do not include the value of furniture, which is reported in bracketed amounts only. First, even when using brackets, there are many non-responses. Second, there is not a well-developed second-hand market for this type of asset and it is not clear how households assess the value of their furniture.

#### 2.3 Comparisons with Other Data Sets.

To provide an evaluation of the quality of the data, we compare wealth holdings in the NLSY97 with other data sets that report data on household wealth. The SCF is one of the best and most thorough data sets concerning wealth. It is a triennial survey of U.S. families sponsored by the Board of Governors of the Federal Reserve System and is designed to provide detailed information on U.S. families' balance sheets and their use of financial services. To that effect, the data set is organized to collect information on assets and liabilities at a very detailed level. In addition, to accurately measure wealth accumulation, the SCF oversamples high income households. Data on assets and liabilities are much more disaggregated in the SCF with respect to the NLSY97. For our work, we consider the 1995 wave (SCF95 hereafter) which surveyed a total of 4,299 households.<sup>16</sup>

To make the data sets comparable, in the SCF95 we consider only the households that have teen-age children (12-16 years old). This restricts the sample to a total of 625 households.We always use the household weights to account for the fact that the SCF95 oversamples rich households, and we use data that have already been adjusted to take care of non-responses.

Comparisons across surveys suffer from several difficulties. First, it is not always possible to match the exact definition of assets and liabilities across data sets. Also, the years when the data are collected are different (1997 for the NLSY and 1995 for the SCF). Second, differences in methods of data collection are going to inevitably generate discrepancies across surveys. For example, while in the NSF97 there is only one question concerning the amount invested in stocks, the information about stocks in the SCF is collected by going through a long set of detailed questions concerning several categories of stocks. To gauge the importance of these differences, we compare the NLSY97 data

<sup>&</sup>lt;sup>16</sup> For a thorough description of the SCF95 and many descriptive statistics, see Kennickell and Starr McCluer (1997).

with another data set, the PSID, that collects wealth data in a similar fashion than the NLSY97.

The PSID is a panel data set reporting extensive information about household income. It started in 1968 and interviewed approximately 5,000 households. Similarly to the NLSY97 that oversamples Black and Hispanics, the PSID oversamples low income people. Starting in 1984, special supplemental surveys have been administered on assets and liabilities and these data are collected in 5-year intervals. In our work, we use the 1994 wave (PSID94 hereafter).

Unfortunately, we do not have very detailed information on the age of children in the PSID94, but by using data in previous waves we can identify families with children in the age range 8 to 19. Thus, we have taken the sample of all parents with those children in the PSID94 and also distinguished between married and non-married ones (which include those parents who were never married, separated, divorced or widowed). We make this distinction in the SCF95 sample as well. The total number of observations in the PSID sample is 2,327.

Note that even though the PSID was not designed to collect wealth data, its measures are rather accurate. Juster, Smith, and Stafford (1998) report an evaluation of wealth data across data sets and find that the PSID and the SCF compare very well in their estimates, up to the top 1% of the wealth distribution where estimates diverge. Similar findings regarding the accuracy of wealth data in the PSID were also reported in an earlier study by Curtin, Juster, and Morgan (1989).

Table 3a reports the value of assets and liabilities that can be compared between the NLSY97 and the SCF95. The amount in checking accounts and bonds, and the amount in stocks is much lower in the NLSY97 than in the SCF95, especially for married couples. This may be due to the high level of aggregation at which these assets are collected in the NLSY97 and to the difficulties respondents have in following closely the behavior of financial markets.

Business equity is also different, but there are very large values in the amount of business equity in the NLSY97 and they have an influence on the mean. Retirement assets are also somewhat different and again there are some influential observations in the NLSY97.

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Overall real assets in the NLSY97, such as housing equity and cars (net of debts), compare relatively well with data from the SCF95. As mentioned before, these assets also suffer relatively less from the problem of non-responses. This is an important finding since housing and cars are the major assets young families have. Financial net worth and total net worth (which is inclusive of retirement savings) are usually lower in the NLSY97 than in the SCF95.

In order to better understand what is driving these differences, we have also compared data on ownership and values conditional on ownership (Tables 3b and 3c). We find that the ownership of financial assets, such as checking accounts and bonds as well as stocks are under-reported in the NLSY97 compared with the SCF95. There is a tendency to under-report business equity as well. However, ownership of real assets, such as housing and vehicles, compare well across the two surveys. Conditional values compare well for real assets, but there are often under-reports for financial assets. The data reveal again the importance of some influential observations for retirement assets and business equity in the NLSY97.

As far as the PSID is concerned (Table 4a), real assets in the NLSY97, such as housing equity and cars (net of debts), compare relatively well with data from the PSID94. As mentioned before, these assets also suffer relatively little from the problem of non-responses. On the other hand, financial assets show some differences between the two surveys. The amounts in checking accounts and bonds and in stocks are lower in the NLSY97 than in the PSID94. While some of the differences may be due to differences in asset definitions (in the PSID94, IRAs are included in both bonds and stocks, while they are listed among retirement assets in the NLSY97), the amounts invested in these assets, and particularly in stocks, are rather different in the two samples. This led to lower values of total net worth in the NLSY97 as compared to the PSID94.

Comparisons of asset and liability ownership show similar findings as previously, i.e., the ownership of financial assets is under-reported in the NLSY97. Business ownership is under-reported as well. However, ownership of real assets compares well across the two data sets. Values, conditional on ownership, continue to be lower for financial assets and the presence of influential observations in the NLSY97 in business equity, retirement assets, as well as stocks persists.

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Note that these findings are similar to the results of Engelhardt (1998), who compares previous NLSY wealth data with data from SIPP. He finds that the largest discrepancies are concentrated among financial assets, while housing equity is reported rather well.

#### 3.1 The Distribution of Wealth Across Demographic Groups

In the following section, we examine the distribution of financial and total net worth across demographic groups.<sup>17</sup> We also examine retirement savings. Further, to complete the analysis we look at the ownership of assets and liabilities in addition to values. As mentioned before, data on ownership is useful per se and, in addition, it is less affected by measurement error. All characteristics refer to the mother (biological, stepmother, adopted or foster mother or mother figure) of the children interviewed in the NLSY97. This analysis serves to illustrate the main features of patterns of accumulation as well as shed some light on the determinants of household savings.

We first consider the distribution of wealth across age groups (Table 5a).<sup>18</sup>One important finding is that families with young mothers (younger than 35) hold very small amounts of wealth. These families have almost nothing in terms of financial net worth and their total net worth is very small. However, wealth increases strongly with age. For example, we find that families with parents in their late thirties or forties have sizable amounts of total net worth. While it is not possible to disentangle age and cohort effects in a single cross-section and it is clear that we are not following the same family overtime, this fact has been documented in other studies as well.

Families with an older mother are also more likely to be home-owners or have a business. In fact, home-ownership and business ownership are particularly low for young families (mother younger than 35). Older families are also 2 or 3 times more likely to hold stocks and bonds. They are also much more likely to hold educational IRAs (Table

<sup>&</sup>lt;sup>17</sup> For an analysis of the distribution of saving and wealth in other data sets, see the survey by Browning and Lusardi (1996).

<sup>&</sup>lt;sup>18</sup> There are, however, several pitfalls at simply looking at age of the mother. First, this may be a bad proxy for the age of the main earner of the family, which can be for example much older than the mother is. Additionally, in particular in the case of non-biological mothers, among the older age group we may have

7a), and to accumulate sizable amounts in these accounts. In Tables 7a-d, we also report the total number of assets and liabilities of households and the percentage of families with zero financial assets, which is defined as the percentage of families that do not have any checking and saving accounts, bonds, stocks, and educational IRAs. Overall, the majority of families hold their wealth in 2 or 3 assets, which are mainly their house and some liquid assets. A sizable proportion of families, however, do not have any financial assets. For example, more than 40 percent of young families have zero financial assets.

The simple life-cycle/permanent-income model predicts that parents facing an upward sloping age-earnings profile should borrow to smooth consumption over their life cycle. While it is not surprising to see low wealth holdings at young ages, it is an issue how early fertility affects family formation and performance in the labor market. Of equal importance is how young parents deal with the financial consequences of sending children to college and buffering shocks to income.

The lower panels of Table 5 report the distribution of wealth across race and ethnicity, education, and marital status. These characteristics can serve as proxies for permanent income and allow us to examine more closely the distribution of wealth across classes of income. Wealth varies widely across education groups. Families where the mother has a college education have approximately 4 times more total net worth (considering medians) than families where the mother has a high school education. Differences become particularly large when considering lower levels of education; families where the mother has a college education have approximately 30 times the total net worth of families with less than a high school education. Differences in wealth become particularly large when considering financial wealth. Many parents with low levels of education have almost nothing in financial wealth. Many other studies report huge differences in wealth holdings across education groups in the population.<sup>19</sup> Thus, these differences are present at the beginning of the life cycle of young parents and tend to persist at an older age.

Differences in wealth holdings are large not only *across* education, but also *within* education groups. Looking at both financial and total net worth, families differ

grand-parents that take care of children and this may also distort the statistics of wealth across age groups. These figures should therefore be examined with caution.

<sup>&</sup>lt;sup>19</sup> See, among others, Bernheim and Scholz (1993), and Hubbard, Skinner and Zeldes (1995).

substantially in their wealth holdings even in the same education group. This suggests that other factors, in addition to income, play a role in explaining wealth accumulation.

An examination of ownership rather than values provides additional information on patterns of accumulation (Table 7b). Families whose responding parent has less than a high school education are very unlikely to hold any bonds or stocks, as well as basic assets, such as saving and checking accounts. Less than 45% of families without a high school degree hold checking and saving accounts. Only 2% of families in this education group hold educational IRAs versus 20% of families where mother has a college degree. More than 50% of families with less than a high school education have zero financial assets. Overall, these households hold all of their wealth in one or two assets. A possible explanation for these findings is the lack of financial literacy among these households, which can provide obstacles to accumulation, in addition to low income. Given the behavior of the stock market and the housing market, as well as the booming of starts-ups and business opportunities, we can expect divergences of wealth across education groups to continue growing, given the small percentage of families with low education that hold those types of assets.<sup>20</sup>

Table 5c reports the distribution of wealth across race and ethnicity. Differences in wealth holdings are huge. Both Black and Hispanic parents report a very low amount of total net worth. The differences in wealth with respect to White households are large, perhaps more than differences in labor income can rationalize. White households report ten times more total net worth (in the median) than Blacks or Hispanics. Differences are particularly large in financial net worth where, again, Blacks and Hispanics hold very low amounts of financial wealth. This is due not only to the fact that the amount invested in financial assets is low, but also to the fact that 50% of Blacks and Hispanics hold no financial assets at all (Table 7c).

The distribution of assets and liabilities across race and ethnicity shows that less than 50% of Blacks and Hispanics hold a checking or saving account, and very few hold stocks or bonds.<sup>21</sup> A disproportionately low fraction of Black households have any

<sup>&</sup>lt;sup>20</sup> Wolff (1994) documents that the distribution of wealth has become more unequal. See also Bernheim (1996) for a discussion of financial literacy.

<sup>&</sup>lt;sup>21</sup> These findings are confirmed in the study by Caskey and Peterson (1994). These authors show that the percentage of households without checking and/or saving accounts is concentrated among racial and ethnic

business equity. This finding has been reported in many other studies, but there are no convincing explanations yet for why there are so few black entrepreneurs.<sup>22</sup> Whites are more than twice as likely to have educational IRAs. They are also substantially more likely to be home owners (77% of Whites own a home compared with 46% and 49% of Blacks and Hispanics respectively). Overall, with respect to White households, Blacks and Hispanics are less likely to own any assets and be in debt.

Other studies report similar findings for other age groups. Using data from the 1995 SCF, Kennickell and Starr-McCluer (1997) show that net worth of White, non-Hispanic households is more than 4 times larger (in the median) than net worth of non-Whites or Hispanics. Smith (1995), Lusardi (1999), and Venti and Wise (1998) report the distribution of total net worth in the HRS which considers households whose respondents were 51 to 61 years old in 1992. Wealth differences are large not only at the beginning of the life cycle, but they magnify at later stages of the life cycle. For every dollar of wealth a middle-aged White household has, a Black household has 21 cents and an Hispanic household has 26 cents (in medians). Additionally, at the median, a middle-aged Black or Hispanic household has no liquid assets. Thus, for some demographic groups, low accumulation of financial wealth persists over the life-cycle.

The last panel of Table 5 reports the distribution of wealth across marital status. Differences in total net worth are striking. Divorced or separated mothers report very low amounts of total net worth. Marital disruption has a strong effect on financial wealth too and in particular, separated parents have little or no financial assets.<sup>23</sup> Although there are difficulties in assessing the direction of causality, it is clear that family break-ups are strongly associated with the accumulation of wealth. Wealth holdings are also low for mothers who never got married. These findings become even more apparent when looking at asset and debt ownership. Only one third of mothers who never got married own a home and only 42% own checking and saving accounts.

These findings are relevant. A large proportion of children grow up with only one biological parent. McLanahan and Sandefur (1994) examine the role of single parenthood

minorities, and among families headed by an individual who is unmarried, female, or has not completed high-school.

<sup>&</sup>lt;sup>22</sup> See Meyer (1995) for a review.
<sup>23</sup> See also Smith (1994).

on children. They present evidence that suggests that children from two parent homes are more successful at transitioning in school, finding a job, and starting families. Children who grow up with only one parent face a higher risk, than those that have two biological parents, of dropping out of high school. Further, they present evidence that the disadvantages associated with family disruption persist beyond the high school years. It is useful to know whether some of these disadvantages were due to the lack of financial resources.

Tables 6a-d report the distribution of retirement savings across demographic groups. The heterogeneity in this type of assets is particularly high and, as before, differences are substantial not only across, but also within demographic groups.<sup>24</sup> The pattern of assets earmarked for retirement mirrors the pattern of accumulation of other components of total net worth. While these assets may be strongly correlated with earnings and the types of jobs held by parents, they also vary widely across households. As for financial and total net worth, some demographic groups simply have little or no retirement savings. In particular, a large share of parents with low educational attainment, and Black and Hispanic parents have no retirement savings. Retirement savings are also low for families that experienced a break-up (divorced or separated parents) and are even lower for the never married.

On the other hand, there is also a group of households that have already accumulated a great deal of retirement savings. Thus, at least for parents with a college degree, accumulation for retirement is present and relevant even at early stages of the life cycle. Even some young households (older than 35) invest high amounts in retirement savings and while, as expected, retirement savings are strongly correlated with age, they also vary widely within age groups.

#### **3.2 Discussion**

The patterns of accumulation highlighted in the previous sections raise several questions. As mentioned before, several demographic groups, and in particular young

<sup>&</sup>lt;sup>24</sup> There are few households that reported very large amounts in retirement assets. These observations have effects on both means and standard deviations reported in Tables 6. We were unable to determine, however, whether these potential outliers were due to measurement error and decided to keep them in our sample.

mothers, mothers with low educational attainment, and Blacks or Hispanics have basically no wealth. This raises concerns about how these families will be able to deal with potential shocks to income (periods of unemployment, illnesses, etc.) and the financial burden of sending children to college. It also raises the issue of whether periods of financial strain affect children's behavior; for example, affect children's expectation of going to school and entering the labor market in the future.

The composition of household portfolios shows that many young families do not invest in high return assets, such as stocks, bonds and real estate, and many do not even have basic assets, such as saving and checking accounts. Returns on portfolios and assets' allocation may be another important reason why wealth differs and continues to differ so much across households of similar characteristics and economic status. They may also explain why differences become larger at older ages. This factor may also play a bigger role in the current economy if the stock market continues to deliver returns different than other financial markets. The re-valuation in the housing market may also be at play to explain difference in wealth accumulation across households.

Also, note that wealth can be low because families have been hit by shocks that depleted their resources. While income shocks can be a cause of these low wealth holdings, family break-ups can also drain resources. The data reported in the previous tables indicate that families which are intact have much more wealth than families that experienced a break-up.

Are low wealth holdings, in particular among poor families, a puzzle? Unfortunately, there exist several tax incentives for poor families to hold low wealth, in particular, little or no financial assets. Many welfare programs are means-tested and they provide strong incentives against accumulation. As Hubbard, Skinner, and Zeldes (1995) document, these programs have a disproportionate impact on the saving behavior of lower income households. The implicit tax on wealth and saving for these families can be as high as 100%. Gruber and Yelowitz (1999) also find that the extension of social insurance programs over the period 1984-1993 had a sizeable and significant negative effect on the wealth holdings of poor families.

Similarly, college scholarship rules provide many disincentives to accumulate wealth. As Feldstein (1995) shows, families that are eligible for college scholarships face

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very steep "education tax rates;" scholarship rules implicitly levy taxes on capital income and on accumulated assets that range from 30 to 50%. Such taxes are a strong incentive not to save for college expenses and instead rely on financial assistance as well as on market borrowing. His calculations show that these taxes can reduce accumulation of financial assets by as much as 50%.<sup>25</sup> In addition, since any funds saved for retirement are also subject to education levies, scholarship rules discourage saving for other motives as well. This may explain why households that have little in total net worth have also little in retirement savings.

One has also to be cautious in making assessments about household wealth holdings by looking at private wealth only. Families accumulate wealth in pensions and Social Security as well. It is hard if not impossible to gauge household wealth and, in particular, savings for retirement without information on pension and Social Security wealth. Recent studies on the HRS show that many of the families that have little private wealth have a large accumulation in pension and Social Security. Additionally, the evaluation of total wealth rather than private wealth leads often to different results concerning the adequacy of savings for retirement.<sup>26</sup>

The previous analysis provides some insights into the reasons for the sharp differences in wealth holdings across race and ethnicity. A striking finding of previous tables is the low percentage of Black households that have any business equity. Given how much wealth entrepreneurs hold and the upward mobility associated with entrepreneurship,<sup>27</sup> the analysis of who becomes an entrepreneur and whether or not there exist financial constraints in starting a business can resolve some of the difficulties of explaining Black-White wealth differences.<sup>28</sup>

Another consistent finding throughout the analysis is that there is a wide amount of heterogeneity in household wealth holdings. Many studies have reported this finding across the U.S. population and among older households.<sup>29</sup> However, this is present even in earlier stages of the life cycle and even among similar demographic groups (such as

<sup>&</sup>lt;sup>25</sup> For further examination of the effects of implicit taxes from college financial aid on incentives to save, see Dick and Edlin (1997).

<sup>&</sup>lt;sup>26</sup> See Gustman and Steinmeier (1998).

<sup>&</sup>lt;sup>27</sup> See Quadrini (1999).

<sup>&</sup>lt;sup>28</sup> For a discussion see, among others, Blau and Graham (1990) and Meyer (1990).

<sup>&</sup>lt;sup>29</sup> See, in particular, Venti and Wise (1998).

parents with teen-age children). This suggests that, in addition to permanent income, shocks (such as family break-ups) as well as preferences can be important determinants of household accumulation.

#### 4. Concluding Remarks and Further Work

In this paper, we examine the wealth holdings of parents with teen-age children. We find that there is much heterogeneity in household wealth holdings, even among families in early stages of the life-cycle. In addition, we find that a sizable proportion of these families have little financial and total net worth. The major asset in their portfolios is home equity and the vast majority of these households hold no financial assets.

We plan to pursue this work in several directions. First, we plan to examine whether household resources, not just income but also savings, have any effects on household behavior. More importantly, we are interested in examining whether wealth affects children's expectations of completing a college education. In the NLSY97, children are asked to report their subjective expectations of completing a college education by the time they turn 30 and we can examine whether family resources, in addition to other variables that are predicted to affect children's behavior, play a role in shaping expectations about the future.

We also plan to use the richness of information provided in the NLSY97 on household characteristics to explain White/Black differences in household wealth holdings. In this respect, we plan to investigate the role and importance of entrepreneurial wealth and explore the factors that lead to becoming an entrepreneur.

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#### **Data Appendix**

#### Treatment of missing values for assets and liabilities

As described in the text, there are several cases where respondents reported owning a certain asset or liability but did not report its value. However, in most of these cases, they identified a bracket in which the asset or liability value would fall. This scheme of responses leads to two different types of missing observations for the values of each asset and liability, i.e., those not reporting the value but identifying a bracket, and those not reporting anything at all. In addition, some observations contained missing values for the variable indicating ownership of a certain asset or liability.

In order to fill in missing ownership indicators and missing values for each asset and liability, we used a hot-deck imputation method.<sup>30</sup> This method consists of replacing each missing value with a randomly picked observed value extracted from a pool of respondents that are similar to the non-respondents according to a set of observed characteristics. Ideally, one would like to use a large number of observed characteristics and use a fine grid for each characteristic in order to make the matching more precise. However, the number and diversity of reported values limits the feasible extent of such precision.

In order to determine what variables to use to do the matching when imputing ownership, we examined the results of probit regressions of asset (and liability) ownership on a set of variables indicating mother's age, race, and marital status, mother's and father's education, region of residence, family size, and income. For each asset and liability that required ownership imputation, we based the matching procedure of such imputation on those variables with higher predictive power to assess ownership (See table A1).

Once we had all observations either with reported or imputed ownership indicators, we proceeded to impute brackets to those cases with missing values and brackets. Finally, we imputed the values of assets and liabilities.

<sup>&</sup>lt;sup>30</sup> The procedure we followed is the one proposed by Juster and Smith (1997).

When imputing brackets and values for each asset and liability, we selected the variables used for the matching by examining results of OLS regressions of asset (and liability) values on a set of characteristics that included mother's age, race, and marital status, mother's and father's education, region of residence, and income. In each case, again, we picked the variables with the most predictive power. Table A2 shows the set of variables that, in addition to 'bracket', we used to do the matching for the imputation of missing values for each asset and liability.

In those observations where neither the value nor the bracket was reported, before imputing the asset or liability value, we first imputed the bracket. We used the same hot deck imputation method and matched the observations with missing brackets to those who identified a bracket for the value of their asset or liability but did not report a precise value. We did not include in this matching process those who reported exact values of their assets or liabilities since it is reasonable to expect that those who did not identify a bracket are more similar to those who only identified a bracket than to those who reported a precise value. For the imputation of brackets, we also differentiated missing values in brackets due to 'Do not know' from 'Refusals' and we required that the observation selected to fill in the imputation had to be of the same type in their reason for not reporting a value for the asset or liability. The variables used for this matching are the same reported in Table A2.

The discrete values that each of the matching variables (used either for the imputation of ownership, bracket or values) could assume are given in Table A3. To minimize the effect of imputation estimation error, we computed all hot-deck imputations for brackets and values across 25 independent trials.

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### Table A1

Asset/Liability	Variables used to do the matching when imputing ownership
Home or apartment	Income, marital status, race, mother's age
Other homes	Income, marital status, race, mother's age
Business equity	Income, Father's education, race, marital status
Educational IRA	Income, father's education, mother's education, family size
Retirement savings	Income, marital status, race, mother's education
Checking/savings accounts	Income, race, mother's education, marital status
Stocks	Income, race, father's education, marital status
Bonds	Income, race, marital status, mother's education
Other savings	Income, mother's education, race, region
Car/vehicles	Region, marital status, race, income
Mortgages	Income, marital status, race, mother's education
Other mortgages	Income, marital status, race, region
Educational loans	Region, race, mother's age
Loans on cars	Marital status, race, region, income
Other loans	Mother's education, marital status, race, mother's age

#### Table A2

Asset/Liability	Variables used to do the matching when imputing brackets (1)
	and values (2)
Ranch	Mother's education
Mobile home and site	Income
Home or apartment	Income, race
Other homes	Income, mother's education
Business equity	Father's education
Educational IRA	Income, father's education
Retirement savings	Income, father's education
Checking/savings accounts	Income, father's education
Stocks	Income, mother's age
Bonds	Income
Other savings	Income, race
Car/vehicles	Income, race
Mortgages	Income, race
Other mortgages	Income, race
Educational loans	Income
Loans on cars	Income, mother's education
Other loans	Income, father's education

Notes: (1) For the imputation of brackets, the reason of non-response (i.e. 'do not know' vs. 'refusal' was also considered.

(2) For the imputation of values, 'bracket' was also added to the list of matching variables.

### Table A3

Variable	Grid points	Grid values
Brackets	7	Brackets specified for each asset in the NLSY
		questionnaire
Income	5	First through fourth income quartile, and missing values
Father's education	5	High school dropout or less – High school graduate –
		College dropout – College graduate or more – Missing v.
Family Size	5	2-3 - 4-5 - 6-7 - 8+ – Missing values
Marital Status	5	Married – Divorced or separated – Widow – Never
		married – Missing values
Mother's age	3	Less than $35 - 35$ to $45 -$ More than $45$
Mother's education	5	High school dropout or less – High school graduate –
		College dropout – College graduate or more – Missing
		values
Race	4	White – Black – Hispanic – Other race
Region	4	East – Central – South – West

#### References

Alessie, Rob, Annamaria Lusardi and Trea Aldershof (1997), "Income and Wealth Over the Life Cycle: Evidence from Panel Data," <u>Review of Income and Wealth</u>, 43, pp. 1-32.

Blau, Francine and John Graham (1990), "Black-White Differences in Wealth and Asset Composition," <u>Quarterly Journal of Economics</u>, 105, pp. 321-339.

Bernheim, Douglas(1996), "Personal Saving, Information, and Economic Literacy: New Directions for Public Policy," in <u>Tax Policy for Economic Growth in the 1990s</u>, Washington, D.C.: American Council for Capital Formation, pp. 53-78.

Bernheim, Douglas and John Karl Scholz (1993), "Private Saving and Public Policy", in J. Poterba (ed.) <u>Tax Policy and the Economy</u>, MIT Press, pp. 73–110.

Browning, Martin and Annamaria Lusardi (1996), "Household Saving: Micro Theories and Micro Facts," Journal of Economic Literature, 34, pp. 1797-1855.

Caskey, John and Andrew Peterson (1994), "Who Has a Bank Account and Who Doesn't: 1977 and 1989," <u>Eastern Economic Journal</u>, 20, pp. 61-73.

Curtin, Richard, Thomas Juster and James Morgan (1989), "Survey Estimates of Wealth: An Assessment of Quality," in The Measurement of Saving, Investment, and Wealth, in Robert Lipsey and Helen Stone Tice (eds.), Chicago: The University of Chicago Press, pp. 473-548.

Dick, Andrew and Aaron Edlin (1997), "The Implicit Taxes from College Financial Aid," <u>Journal of Public Economics</u>, 65, pp. 295-322.

Engelhardt, Gary (1998), "Income and Wealth in the NLSY79," mimeo, Dartmouth College.

Engelhardt, Gary (1996), "Consumption, Down Payments, and Liquidity Constraints," Journal of Money, Credit and Banking, 29, pp. 255-271.

Engelhardt, Gary (1994), "House Prices and the Decision to Save for Down Payments," <u>Journal of Urban Economics</u>, 36, pp. 209-237.

Feldstein, Martin (1995), "College Scholarship Rules and Private saving," <u>American</u> <u>Economic Review</u>, 85, pp. 552-566.

Gentry, William and Glenn Hubbard (1998), "Entrepreneurship and Household Saving," mimeo, Columbia Business School.

Goodman, John and John Ittner (1992), "The Accuracy of Home Owners' Estimates of House Value," Journal of Housing Economics, 2, pp. 339-357.

Gruber, Jonathan and Aaron Yelowitz (1999), "Public Health Insurance and Private Savings," Journal of Political Economy, 107, pp. 1249-1274.

Gustman, Alan and Tom Steinmeier (1999), "What People Don't Know About Their Pensions and Social Security: An Analysis Using Linked Data from the Health and Retirement Study," mimeo, Dartmouth College.

Gustman, Alan and Tom Steinmeier (1998), "Effects of Pensions on Saving: Analysis with Data from the Health and Retirement Study," NBER Working Paper n. 6681.

Hubbard, Glenn, Jonathan Skinner and Steve Zeldes (1995), "Precautionary Saving and Social Insurance", Journal of Political Economy, 103, pp. 360 – 399.

Hurd, Michael, Daniel McFadden, Harish Chand, Li Gan, Angela Merrill and Michael Roberts (1997), "Consumption and Savings Balances of the Elderly: Experimental Evidence on Survey Response Bias," mimeo, RAND.

Juster, Thomas, James Smith and Frank Stafford (1998), "The Measurement and Structure of Household Wealth," mimeo, University of Michigan.

Juster, Thomas and James Smith (1997), "Improving the Quality of Economic Data: Lessons From the HRS and AHEAD," <u>Journal of the American Statistical Association</u>, 92, pp. 1268 – 1278.

Kennickell Arthur and Martha Starr-McCluer (1997), "Family Finances in the U.S.: Recent Evidence from the Survey of Consumer Finances," <u>Federal Reserve Bulletin</u>, January, pp. 1-24.

Lusardi, Annamaria (1999), "Information Expectation and Savings for Retirement," in H. Aaron (ed.) <u>Behavioral Dimensions of Retirement Economics</u>, Washington, D.C.: Brookings Institution and Russell Sage Foundation, pp. 81 – 115.

Meyer, Bruce (1990), "Why Are There So Few Black Entrepreneurs?" NBER Working Paper n. 3537.

Pemberton, Jennifer and John Reynolds (2000), "Rising College Expectations Among Youth in the U.S.: A Comparison of 15 and 16 Years Old in the 1979 and 1997 NLSY," mimeo, Florida State University.

Quadrini, Vincenzo (1999), "The Importance of Entrepreneurship for Wealth Concentration and Mobility," <u>Review of Income and Wealth</u>, 45, pp. 1-19.

Smith, James (1994), "Marriage, Assets, and Savings," mimeo, RAND.

Smith, James (1995), "Racial and Ethnic Differences in Wealth in the Health and Retirement Study," <u>Journal of Human Resources</u>, 30, Supplement, pp. 158-183.

Venti, Steven and David Wise (1998), "The Cause of Wealth Dispersion at Retirement: Choice or Chance?," <u>American Economic Review papers and Proceedings</u>, 88, pp. 185-191.

Zagorsky, Jay (1999), "Young Baby Boomers' Wealth", <u>Review of Income and Wealth</u>, 45, pp. 135 – 155.

Wolff, Edwards (1994), "Trends in Household Wealth in the United States: 1962-1983, and 1983-1989," <u>Review of Income and Wealth</u>, 40, 143-174.

### Table 1

### Non-Responses on Assets and Liabilities

Acceto	Proportion of Ownership	Proportion of Owners who Don't Know	Proportion of Owners who Refuse to Answer
Assets	07.04	44.00	F 00
Check. Acct.	67.21	14.63	5.98
Bonds	17.36 17.11	24.05 37.06	6.19 5.06
Stocks Edu, IRAs	9.04	23.55	3.79
Retirement Savings	9.04 54.66	35.45	3.41
Other Savings	13.73	24.57	2.53
Houses & Apts.	63.26	6.70	1.50
Ranches & Farms	0.02	19.38	4.02
Mobile Home	5.20	13.39	0.71
Other Real Estate	13.10	14.06	2.02
Business Equity	11.89	28.87	4.16
Cars	89.26	10.54	1.59
Liabilities			
Mortgages	56.42	11.77	3.42
Other Mortgages	11.95	10.30	1.48
Car Debt	47.32	9.98	3.53
Edu. Loans	4.50	5.48	1.72
Other Debt	56.28	9.02	1.83

Note: This table reports the proportion of NLSY97 respondents reporting ownership of assets and liabilities. The second and third columns report the proportion of those who refuse to report the value or report that they do not know the value of their assets and liabilities. All values are weighted using household weights. The total number of observations is 6,113.

Table 2The Distribution of Assets and Liabilities in the NLSY97

Assets	Ownership (% own)	First Quartile	Median	Third Quartile	Mean	Stand. Dev.	Max. Value
Check. Acct.	67.22	500	2,000	7,224	10,584	38,688	900,000
Bonds	17.49	1,000	5,000	19,840	21,529	63,237	1,000,000
Stocks	17.21	2,200	10,000	40,000	52,147	183,636	3,000,000
Edu. IRAs	9.14	5,168	16,600	30,000	26,951	41,276	400,000
Retirement Savings	54.67	8,000	25,000	66,336	78,308	978,789	50,000,000
Other Savings	13.74	5,000	15,000	53,570	61,838	197,374	4,000,000
Property	68.74	60,000	95,160	150,000	125,100	127,030	2,000,000
Other Real Estate	13.09	10,000	33,000	80,000	79,847	157,223	2,000,000
Business Equity	11.93	2,000	30,000	250,200	487,550	2,649,019	40,000,000
Cars	89.28	5,000	12,000	20,740	16,086	45,923	4,000,000
Liabilities							
Mortgages	56.37	32,000	57,000	90,000	69,723	59,601	600,000
Other Mortgages	12.04	7,200	14,000	21,880	18,305	19,179	170,000
Car Debt	47.31	4,000	8,000	14,832	10,396	11,589	370,000
Edu. Loans	4.50	600	4,000	7,567	6,653	12,380	150,000
Other Debt	56.28	1,800	4,300	10,000	8,550	19,316	500,000

Note: This table reports the conditional distribution of assets and liabilities. All values are weighted using household weights. The total number of observations is 6,113.

Table 3aComparison of Wealth between the NLSY97 and the SCF95

		Med	lians	Means		
Assets and Liabilities	Marital Status	NLSY 97	SCF95	NLSY 97	SCF95	
Checking and bonds	Married	1,464	3,465	13,593	28,186	
C C	Non-Married	45	682	4,573	6,624	
Stocks	Married	0	0	11,291	21,971	
	Non-Married	0	0	3,742	3,696	
Short-term debt	Married	1,000	1,564	5,522	6,053	
	Non-Married	550	966	4,213	3,242	
Business	Married	0	0	72,993	78,351	
	Non-Married	0	0	25,321	8,219	
Retirement Savings	Married	8,220	5,040	43,038	39,511	
	Non-Married	0	0	43,507	4,955	
Housing equity	Married	30,000	33,600	55,820	61,525	
	Non-Married	0	0	17,702	28,779	
Vehicles	Married	7,600	8,400	11,436	12,132	
	Non-Married	1,500	2,625	4,896	4,139	
Financial net worth	Married	500	4,042	32,452	65,923	
	Non-Married	0	105	10,309	26,638	
Total net worth incl.	Married	78,262	77,448	228,675	281,777	
retirement savings	Non-Married	6,256	12,022	105,320	81,402	

Note: This table reports a comparison of assets and liabilities in the NLSY97 and the SCF95 by marital status. All values are in 1997 dollars. The total number of observations is 6,113 and 625 in the NLSY97 and the SCF95 respectively.

### Table 3b

		Ownership of Assets and Liabilities				
Assets and Liabilities	Marital Status	NLSY 97	SCF95			
Checking and bonds	Married	0.74	0.94			
	Non-Married	0.54	0.77			
Stocks	Married	0.21	0.28			
	Non-Married	0.08	0.10			
Short-term debt	Married	0.57	0.74			
	Non-Married	0.56	0.68			
Business	Married	0.15	0.19			
	Non-Married	0.06	0.08			
Retirement Savings	Married	0.64	0.60			
-	Non-Married	0.32	0.27			
Housing equity	Married	0.80	0.83			
	Non-Married	0.44	0.50			
Vehicles	Married	0.95	0.93			
	Non-Married	0.75	0.74			
Financial net worth	Married	0.54	0.68			
	Non-Married	0.34	0.52			
Total net worth incl.	Married	0.92	0.95			
Retirement savings	Non-Married	0.70	0.80			

## **Comparison of Asset Ownership in the NLSY97 and the SCF95**

Note: This table reports a comparison of the ownership of assets and liabilities in the NLSY97 and the SCF95 by marital status. The values in the last two rows refer to the percentage of families that report strictly positive financial and total net worth (including retirement savings). The number of observations is 6,113 and 625 in

Table 3cComparison of Wealth between the NLSY97 and the SCF95<br/>conditional on Ownership

		Medians		Me	ans
Assets and Liabilities	Marital Status	NLSY 97	SCF95	NLSY 97	SCF95
Checking and bonds	Married	3,000	3675	18,416	29,955
	Non-Married	1,000	1,186	8,474	8,621
Stocks	Married	15,000	12,600	52,951	78,139
	Non-Married	4,000	5,250	48,642	35,459
Short-term debt	Married	5,000	3,150	9,588	8,194
	Non-Married	3,955	2,415	7,550	4,744
Business	Married	40,404	84,000	497,652	417,673
	Non-Married	10,000	5,250	436,336	101,364
Retirement Savings	Married	30,000	24,150	66,990	65,465
	Non-Married	10,000	4,200	133,714	18,338
Housing equity	Married	45,000	46,200	70,145	73,899
	Non-Married	25,000	32,550	40,566	58,800
Vehicles	Married	8,000	8,820	11,979	13,033
	Non-Married	3,000	3,832	6,519	5,590
Financial net worth	Married	16,700	16,170	65,842	100,260
	Non-Married	5,000	6,090	39,787	54,096
Total net worth	Married	91,415	81,931	250,397	294,547
	Non-Married	22,760	30,870	153,881	101,543

Note: This table reports a comparison of assets and liabilities conditional on ownership in the NLSY97 and the SCF95 by marital status. All values are in 1997 dollars. The values in the last two rows refer to strictly positive amounts of financial and total net worth (including retirement savings). The number of observations is 6,113 and 625 in the NLSY97 and the

Table 4aComparison of Wealth between the NLSY97 and the PSID94

A (		Med	Medians		ans
Assets and Liabilities	Marital Status	NLSY 97	PSID94	NLSY 97	PSID94
Checking and bonds	Married	1,464	3,240	13,593	16,473
	Non-Married	45	54	4,573	6,825
Stocks	Married	0	0	11,291	29,498
	Non-Married	0	0	3,742	5,167
Short-term debt	Married	1,000	1,620	5,522	7,977
	Non-Married	550	0	4,231	3,323
Business	Married	0	0	72,992	32,857
	Non-Married	0	0	25,321	4,778
Housing equity	Married	30,000	37,800	55,821	58,430
	Non-Married	0	0	17,702	45,180
Vehicles	Married	7,600	10,800	11,436	14,407
	Non-Married	1,500	3,240	4,896	6,818
Total net worth	Married	54,500	78,300	185,616	178,486
	Non-Married	4,000	9,180	61,788	49,257

Note: This table reports a comparison of assets and liabilities in the NLSY97 and the PSID94 by marital status. All values are in 1997 dollars. The number of observations is 6,113 and 2,327 in the NLSY97 and the PSID94 respectively.

Table 4bComparison of Asset Ownership between the NLSY97 and the<br/>PSID94

		Ownership of Assets and Liabilities				
Assets and Liabilities	Marital Status	NLSY 97	PSID94			
Checking and bonds	Married	0.74	0.83			
	Non-Married	0.53	0.54			
Stocks	Married	0.21	0.42			
	Non-Married	0.07	0.15			
Short-term debt	Married	0.57	0.60			
	Non-Married	0.56	0.46			
Business	Married	0.15	0.20			
	Non-Married	0.06	0.07			
Housing equity	Married	0.80	0.82			
	Non-Married	0.43	0.41			
Vehicles	Married	0.95	0.95			
	Non-Married	0.75	0.70			
Total net worth	Married	0.90	0.95			
	Non-Married	0.67	0.73			

Note: This table reports a comparison of assets and liabilities in the NLSY97 and the PSID94 by marital status. All values are in 1997 dollars. The last row refers to the percentage of families that report strictly positive total net worth. The number of observations is 6,113 and 2,327 in the NLSY97 and the PSID94 respectively.

# Table 4cComparison of Wealth between the NLSY97 and the PSID94conditional on Ownership

		Med	lians	Means		
Assets and Liabilities	Marital Status	NLSY 97	PSID94	NLSY 97	PSID94	
Checking and bonds	Married	3,000	5,400	18,416	20,287	
	Non-Married	1,000	3,240	8,474	12,707	
Stocks	Married	15,000	21,600	52,950	70,260	
	Non-Married	4,000	10,800	48,641	33,542	
Short-term debt	Married	5,000	5,400	9,588	11,729	
	Non-Married	3,955	3,240	7,550	7,272	
Business	Married	40,404	48,600	497,652	162,744	
	Non-Married	10,000	16,200	436,335	63,297	
Housing equity	Married	45,000	48,600	70,145	71,202	
	Non-Married	25,000	33,480	40,566	50,721	
Vehicles	Married	8,000	10,800	11,979	15,189	
	Non-Married	3,000	5,400	6,518	9,798	
Total net worth	Married	67,000	84,240	207,891	189,733	
	Non-Married	18,290	29,160	95,902	68,739	

Note: This table reports a comparison of assets and liabilities conditional on ownership in the NLSY97 and the PSID by marital status. All values are in 1997 dollars. The values in the last row refer to strictly positive amounts of total net worth. The number of observations is 6,113 and 2,327 in the NLSY97 and the PSID94 respectively.

# Table 5a Wealth Across Age

		Financial Net Worth				Ν	let Worth	
Age	N. Obs.	Median	Mean	St. Dev.	N. Obs.	Median	Mean	St. Dev.
Less 35	1,403	0	5,569	43,227	1,403	7,000	45,032	208,333
36-39	1,947	0	12,492	51,779	1,945	28,600	108,858	1,025,125
40-45	1,568	968	31,481	107,367	1,566	60,204	224,149	1,411,615
Over 45	1,186	887	60,763	247,235	1,186	72,880	216,732	507,833

Table 5bWealth Across Education

	Financial Net Worth					<u>N</u>	let Worth	
Education Level	N. Obs.	Median	Mean	St. Dev.	N. Obs.	Median	Mean	St. Dev.
Less HS	1,256	0	2,631	32,363	1,256	3,500	70,177	974,773
HS	2,135	0	12,147	78,997	2,134	26,000	89,520	292,222
Some College	1,426	100	28,725	175,234	1,425	40,500	196,852	1,653,001
College	692	9,000	64,068	192,170	690	99,674	257,949	633,191
More than College	392	16,264	67,913	137,662	392	135,260	252,802	386,959

Table 5cWealth Across Race and Ethnicity

		Financial Net Worth				<u>N</u>	let Worth	
Race	N. Obs.	Median	Mean	St. Dev.	N. Obs	Median	Mean	St. Dev.
White	3,277	576	32,656	148,466	3,275	50,562	189,505	1,159,847
Black	1,515	0	7,192	83,834	1,514	4,100	33,407	116,376
Hispanic	1,073	0	8,389	42,681	1,072	8,500	57,870	206,765
Other	148	500	36,151	92,684	148	27,500	149,883	319,838

Table 5dWealth Across Marital Status

	Financial Net Worth			Net Worth				
Marital Status	N. Obs.	Median	Mean	St. Dev.	N. Obs	Median	Mean	St. Dev.
Married	3,976	500	32,452	138,191	3,974	54,500	185,616	1,056,482
Divorced	929	0	12,249	117,221	928	7,300	85,935	1,013,990
Separated	355	0	3,189	75,129	355	1,800	22,847	90,547
Widowed	135	0	38,826	221,531	135	12,850	105,320	340,249
Never Married	618	54,500	185,616	1,056,482	617	528	22,955	92,770

Note: These tables report the distribution of financial net worth and total net worth across age, education, race and ethnicity, and marital status. All characteristics refer to the mother of the responding youth. All values are weighted using household weights.

		Retirement Savings						
Age	N. Obs.	Median	Mean	St. Dev				
Less 35	1,403	0	10,013	31,806				
36-39	1,947	1,800	55,905	1,267,538				
40-45	1,568	8,336	42,854	152,210				
Over 45	1,186	8,856	56,631	142,410				

# Table 6aRetirement Savings Across Age

# Table 6bRetirement Savings Across Education

	Retirement Savings					
Education Level	N. Obs.	Median	Mean	St. Dev.		
Less HS	1,256	0	7,169	31,200		
HS	2,135	800	54,014	1,218,261		
Some College	1,426	4,000	30,024	67,931		
College	692	20,000	58,820	102,985		
More than College	392	40,000	87,459	132,547		

# Table 6cRetirement Savings Across Race and Ethnicity

		Retirement Savings					
Race	N. Obs.	Median	Mean	St. Dev.			
White	3,277	7,500	55,865	872,481			
Black	1,515	0	11,980	40,765			
Hispanic	1,073	0	10,066	35,162			
Other	148	6,000	40,609	84,938			

# Table 6dRetirement Savings Across Marital Status

	Retirement Savings						
Marital Status	N. Obs.	Median	Mean	St. Dev.			
Married	3,976	8,220	43,038	134,782			
Divorced	929	0	76,852	1,829,361			
Separated	355	0	4,668	18,520			
Widowed	135	0	13,462	35,000			
Never Married	618	0	6,002	22,835			

Note: These tables report the distribution of retirement savings across age, education, race and ethnicity, and marital status. All characteristics refer to the mother of the responding youth. All values are weighted using household weights.

	Age	Age	Age	Age
	<35	35-39	40-45	>45
Assets	(% own)	(% own)	(% own)	(% own)
Check. Acct.	56.20	68.80	72.40	70.99
Bonds	9.09	15.56	23.97	20.72
Stocks	7.75	15.56	21.91	23.48
Edu. IRAs	3.73	8.36	12.53	11.54
Retirement Savings	37.43	55.70	62.74	60.38
Other Savings	10.11	13.08	16.19	15.32
Housing	50.55	68.13	77.68	76.93
Other Real Estate	6.13	9.97	17.18	19.98
Business Equity	6.80	10.3	15.15	15.05
Cars	84.35	90.10	91.34	90.41
% w/ zero Fin. Assets	40.74	28.55	22.15	23.62
N. of Assets	2.35	2.99	3.50	3.44
Liabilities				
Mortgages	39.57	59.05	64.32	59.07
Other Mortgages	6.21	10.16	15.75	16.24
Car Debt	46.92	50.00	49.92	43.80
Edu. Loans	2.00	2.80	5.88	8.25
Other Debt	54.70	59.12	55.99	54.65
N. of Debts	1.49	1.81	1.88	1.82
Num. Obs.	1403	1947	1568	1186

# Table 7aOwnership of Assets and Liabilities Across Age

Note: This table reports the ownership of assets and liabilities across the responding youth's mother's age. All values are weighted using household weights.

Table	7b
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	Less HS	High School	Some College	College	More Than College
Assets	(% own)	(% own)	(% own)	(% own)	(% own)
Check. Acct.	43.24	66.52	75.46	78.86	84.36
Bonds	4.54	14.07	20.30	28.66	35.84
Stocks	4.14	12.62	19.09	31.55	37.86
Edu. IRAs	2.38	5.41	10.17	20.25	19.80
Retirement Savings	25.00	51.98	60.16	77.12	83.07
Other Savings	6.27	11.96	17.58	16.72	23.85
Housing	46.77	68.70	71.35	83.43	87.41
Other Real Estate	4.62	10.32	15.09	21.28	26.37
Business Equity	5.34	9.94	12.49	19.43	21.99
Cars	77.22	89.35	93.03	95.47	95.32
% w/ zero Fin. Assets	54.78	30.21	20.16	14.68	8.58
N. of Assets	1.95	2.88	3.34	3.95	4.33
Liabilities					
Mortgages	32.60	55.78	61.16	70.46	76.92
Other Mortgages	4.91	11.26	14.24	18.33	15.91
Car Debt	35.50	48.96	52.11	50.30	47.93
Edu. Debt	1.47	4.71	5.37	6.34	4.15
Other Debt	42.10	58.17	65.41	55.29	55.59
N. of Debts	1.16	1.78	1.98	2.01	2.00
Num. Obs.	1256	2135	1426	692	392

Note: This table reports the ownership of assets and liabilities across the responding youth's mother's education level. All values are weighted using household weights.

Assets	White (% own)	Black (% own)	Hispanic (% own)	Other (% own)
Check. Acct.	75.38	49.69	46.71	66.66
Bonds	20.04	8.82	8.36	16.27
Stocks	21.38	7.11	6.63	16.21
Edu. IRAs	10.44	5.54	5.49	12.55
Retirement Savings	63.94	32.52	29.68	57.77
Other Savings	16.58	5.17	8.14	17.45
Housing	77.22	46.19	49.71	66.01
Other Real Estate	15.61	6.53	6.53	12.64
Business Equity	14.67	3.92	6.44	12.01
Cars	94.53	71.11	80.21	92.72
% w/ zero Fin. Assets	20.15	50.92	50.54	26.31
N. of Assets	3.47	2.01	2.18	3.12
Liabilities				
Mortgages	64.09	36.77	38.20	55.38
Other Mortgages	14.81	5.33	5.05	11.03
Car Debt	51.76	40.35	33.17	41.51
Edu. Loans	4.54	4.88	3.30	5.57
Other Debt	59.47	50.79	45.76	54.56
N. of Debts	1.95	1.38	1.25	1.68
Num. Obs.	3277	1515	1073	148

 Table 7c

 Ownership of Assets and Liabilities Across Race and Ethnicity

Note: This table reports the ownership of assets and liabilities across the responding mother's race or ethnicity. All values are weighted using household weights.

	Married (% own)	Divorced (% own)	Separated (% own)	Widow (% own)	Never Married
Assets					(% own)
Check. Acct.	72.73	62.68	49.48	56.84	41.46
Bonds	21.31	10.58	3.80	14.24	5.86
Stocks	21.32	10.18	3.89	9.12	4.42
Edu. IRAs	10.97	5.19	4.03	10.13	3.31
Retirement Savings	64.25	38.92	27.00	30.85	22.84
Other Savings	15.16	12.78	10.35	10.94	5.84
Housing	79.59	47.96	42.13	56.25	31.65
Other Real Estate	16.05	7.53	5.95	10.34	2.51
Business Equity	14.66	7.40	5.70	2.06	3.46
Cars	95.46	82.76	73.61	74.91	59.39
% w/ zero Fin. Assets	22.50	34.79	48.89	37.65	57.29
N. of Assets	3.47	2.47	1.98	2.44	1.58
Liabilities					
Mortgages	66.33	38.60	31.56	39.32	22.10
Other Mortgages	14.85	5.54	8.02	5.45	3.93
Car Debt	53.55	38.60	28.98	31.42	24.65
Edu. Loans	5.00	3.22	4.58	2.54	2.62
Other Debt	56.60	61.11	58.15	59.03	41.95
N. of Debts	1.96	1.47	1.31	1.37	0.95
Num. Obs.	3976	929	355	135	618

 Table 7d

 Ownership of Assets and Liabilities Across Marital Status

Note: This table reports the ownership of assets and liabilities across the responding youth's mother's marital status. All values are weighted using household weights.