



Husbands' and wives' view of the family finances

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Abstract

Do husbands and wives have the same view of the family's financial situation? This research shows that when couples are asked separately about finances, very different views emerge of income and wealth. Quantifying the gap between husbands' and wives' financial statements shows half of all couples provide family income values that differ by more than 10% and net worth values that differ by more than 30%. The typical husband states the family receives more income each year and holds more gross assets than his wife states. The typical wife reports the family owes more debts than her husband. © 2003 Elsevier Science Inc. All rights reserved.

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1. Introduction

Do husbands and wives have the same view of the family's financial situation? The simple answer is no. When spouses are interviewed separately they report very different views of the family's income and wealth. By showing where and why couples disagree, this research provides new information for researchers and practitioners in fields ranging from economics to marital counseling.

Research into perceptions of the family's finances is limited because the only US data set with detailed financial data taken separately from each spouse is the National Longitudinal Surveys (NLS). Nowhere in the NLS specifications is a criteria to survey husbands and wives independently. Husbands and wives are interviewed separately because the NLS

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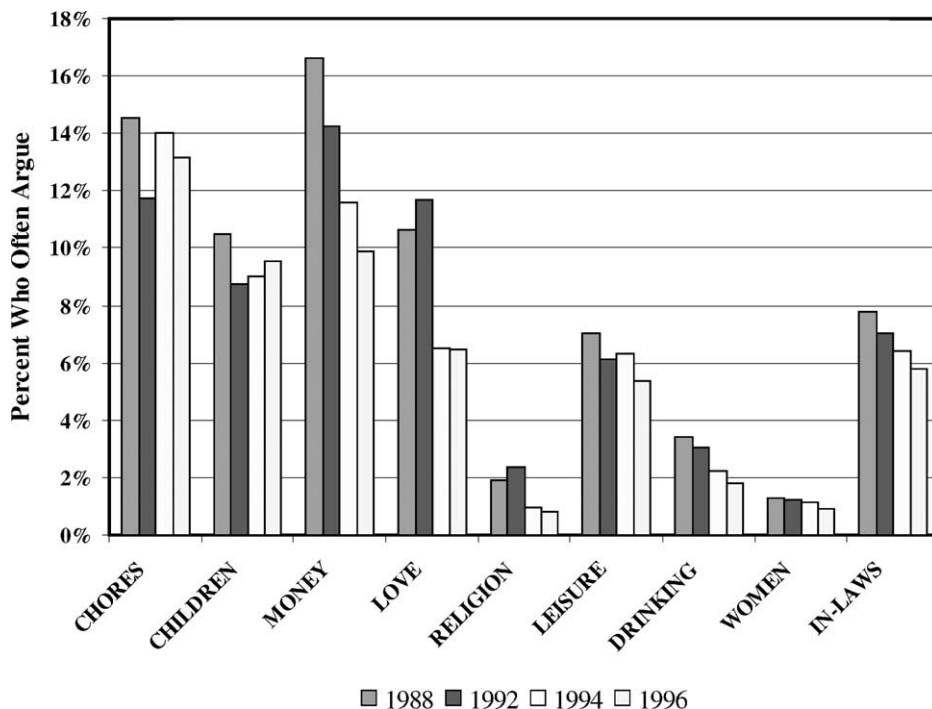


Fig. 1. Topics young baby boomer couples often argue about. Notes: Data from female respondents of the NLSY79. Respondents are adjusted using the baseline survey's (1979) weights.

randomly selects households and asks all members matching the age criteria to participate individually. If both husband and wife match they participate as separate respondents. This research relinks these separate respondents back into married couples and compares their financial responses from the 1960s to 1990s.

Results show that few couples agree on the family's financial situation. However, there is more agreement over the family's income than their wealth. Men on average report higher income and higher values for the family's assets, such as cars and homes. Women on average report the family owe more debts.

Understanding differences in couple's financial views is important for many fields. For example, the rapid rise in US divorce rates since World War II has boosted the importance of marital counseling. One reason couples divorce is arguments over money. Fig. 1 shows that among young baby boomer couples money issues rank either first or second as their most often argued-about topic.

In addition to marital counselors, researchers studying income and wealth currently assume that financial information reported in micro-data sets accurately represent an asset's value or debt's amount. While researchers commonly impute missing financial values, modification of specifically stated values is almost never done. This research shows that even values stated with certainty change depending on whether the husband or wife provides the answer.

This research is also useful in understanding financial behavior. Previous studies have found very different risk tolerance and investing patterns for men and women. For example, Powell and Ansic's (1997) research finds that females are less risk-seeking than males.¹ These results might be driven by men and women valuing identical sums of wealth and income differently.

Researchers interested in survey methodology need to know if men and women answer household surveys differently. Many surveys ask only one adult to provide details about everyone else in the family. Women are chosen to provide information more often than men. For example, in the March 1998 Current Population Survey (CPS), a key source of US socio-economic data, almost two-thirds (62.3%) of all interviews were completed by women even though they comprise half the sample.

Even though the topic is important in many research areas, there are only a few papers examining this issue. Mott (1998) compares the answers for couples participating in the first NLSY79 and finds respondents over stated their spouse's educational attainment by about 1 year and husbands provided larger income estimates than their wives. Steckel and Krishnan (1997) compare couples' wealth answers from the 1971 NLS Mature Men² and Women surveys and find that "the majority of married women underreported assets relative to their husbands." Smith (1985) examines data in the General Social Survey (GSS) and concludes that spouses agree on basic demographic data such as religion, education and occupation but that "men report significantly higher income than wives." Plug and Van Praag (1998), using the German Socio-Economic Panel, compared couples' views about the minimum income needed by the family to make ends meet and found that in two-earner households the individual with the lower income (typically the wife) believed the family needed less to live on than the higher income partner.

This research extends the previous work by dramatically expanding the questions, time frame and number of respondents investigated. Section 2 overviews the NLS data sets used and the sample selection criteria. Section 3 examines the couples' demographics while Section 4 provides details on constructing the income and wealth series. Section 5 compares the couple's perceptions and shows little financial agreement. Sections 6 and 7 explain why the financial gaps exist and the accuracy of these findings. A conclusion summarizes the paper and suggests future research.

2. General data description

This research uses five cohorts of National Longitudinal Surveys (NLS): the *Mature Men*, who were age 45–59 in 1966; the *Mature Women*, who were age 30–44 in 1967; the *Young Men*, who were age 14–24 in 1966; the *Young Women*, who were age 14–24 in 1968; and the *1979 Youth (NLSY79)*, who were age 14–21 in 1979. Each survey is a nationally representative panel survey that follows thousands of individuals in a particular age range

¹ Interestingly, a later paper by Schubert et al. (1999) finds the exact opposite: "When identical decisions are presented as investment and insurance choices, no gender differences in risk attitudes are found."

² The Mature Men are called in the official NLS documentation the "Older Men."

over many years. The surveys track labor market behavior, health, education, training and finances to name only a few topics.

Together these five cohorts provide very detailed information on over 33,000 individuals, recorded in 82 separate surveys that were fielded over almost 40 years.³ The logistical problems of analyzing this massive amount of data have discouraged many researchers from attempting husband–wife comparisons. To reduce logistical problems previous research comparing NLS husbands and wives (Mott, 1998; Steckel and Krishnan, 1997) focus on a single year for one cohort. Given improvements in computer technology, this research expands the time frame and number of cohorts to overcome the drawbacks inherent in focusing on a single survey.

Husband–wife pairs are found in each NLS cohort because of the sample design. In each NLS survey a random set of US addresses was selected. All occupants matching the relevant age criteria were asked to participate separately in the survey. Selecting all individuals at each address meeting the age criteria not only captures a large number of siblings and cousins but also many married couples.

The survey design committees specifically instructed interviewers to ask each husband–wife pair to complete their own survey because both are considered separate respondents. Interviewers also are instructed to do surveys without any one else present since some surveys contain questions about abortions, substance abuse or criminal activity that may not be answered truthfully when others are present (Aquilino, 1993; Pollner and Adams, 1997).⁴

3. Demographics

What are the characteristics of NLS husband–wife pairs? Table 1, which contains key demographic information, shows NLS couples are not a random sample of US couples.⁵ The top line of the table, under the heading *Race*, shows that almost 90% of all couples analyzed are white. The US population in 1970 was 87.7% white and projections for 2000 are 82.1% white,⁶ indicating that this research under-represents the experiences of black and Hispanic couples.

The next portion examines education and reveals wives are more educated than their husbands. Many more wives in the Mature and Young Women cohorts finished high school than their husbands. While NLS79 graduation rates are similar, almost 8% more NLSY79 wives attended college. These differences do not match the US experience since 1960,⁷ suggesting wives in this sample are more educated than the average woman.

³ The number of surveys is as of 1998.

⁴ Not all interviews are done alone. Only in the NLSY79 did interviewers record the relationship of other individuals present during questioning. Removing all NLSY79 couples that contrary to instructions did the survey together does not qualitatively affect the results.

⁵ Each NLS survey over-samples at least one racial, ethnic or economic group. To eliminate this over sampling bias, all graphs and tables are reported after being adjusted by the husband's first NLS survey round's weight.

⁶ Table 12, US Bureau of the Census (1998).

⁷ Table 261, US Bureau of the Census (1998).

Table 1
Demographics of couples by cohort in first year of research period

	NLSY79 Men—husbands (in 1985)	NLSY79 Women—wives (in 1985)	Young Men—husbands (in 1968)	Young Women—wives (in 1968)	Mature Men—husbands (in 1967)	Mature Women—wives (in 1967)
Race						
White (%)	87.7	88.1	90.4	90.5	89.2	87.8
Black (%)	6.0	5.3	9.6	9.5	10.8	12.2
Hispanic (%)	6.3	6.6	na	na	na	na
Education						
No degree (%)	37.9	31.5	23.4	28.3	52.8	39.1
High school degree (%)	44.5	43.2	44.4	52.5	25.5	42.9
Attended college (%)	17.6	25.3	32.2	19.2	21.7	18.0
Other						
Age	26.4	25.4	23.6	21.7	48.2	40.2
Years married	7.9	7.9	3.7	3.4	18.7	18.7
Children	2.2	2.3	2.2	2.5	3.3	3.2
Marriage dissolve (%)	25.9	25.9	31.8	31.8	22.6	22.6
Number interviewed	119	119	584	584	492	492

Notes: Information on educational attainment and children is as of the 1996 interview for the NLSY79, 1976 and 1978 interviews for the Young Men and Women and 1967 interview for the Mature Men and Women. Hispanic ancestry is only available for the NLSY79 cohort. Marriage dissolved comprises those divorced, separated and widowed. Marriage dissolution percentages are over the period 1985–1998 for the NLSY79, 1967–1982 for the Mature Men/Women and 1968–1982 for the Young Men/Women.

The third section provides details on characteristics taken from the first interview. The *Age* line shows husbands are older than their wives. The gap is smallest among the NLSY79 (1 year) and largest among the Mature Men and Women (8 years), which matches national data showing husbands are about 2 years older than their spouses.⁸

The *Years married* line shows most couples in this research are engaged in long-term relationships. The typical NLSY79 couple had been married almost 8 years,⁹ which falls midway between the 3.5 years for Young Men and Women couples and the 19 years for Mature Men and Women. Since years married is based just on the first interview, the amount of time these couples stay together is much longer. Given that the duration of the average US marriage is 7.2 years in the early 1990s,¹⁰ these couples represent marriages that are steadier and longer lasting than is typical.

The next line shows the number of children belonging to these couples. On average Mature Men and Women couples have more than three children, and couples in the other cohorts have more than two children. This decrease matches the overall pattern of falling US fertility rates.¹¹

Couples are removed from this analysis after they separate, divorce, or become widowed. The line labeled *Marriage dissolve* shows that over a roughly 15-year time frame more than one-quarter of all NLSY79 couples dissolve, almost one-third of Young Men and Women dissolve but less than one quarter of the Mature couples dissolve. Given most of dissolutions are caused by divorce, these trends mirror the pattern of marital separation seen in US society.¹²

The bottom line shows responses from 1195 couples, or more than 2000 individuals, are examined in this study. In general the demographic table shows the results are biased toward white, more educated couples living in long-term relationships. These factors suggest couples in this sample have financial views are more closely aligned than couples in the general population. If so, the following results understate the extent of financial disagreement.

4. General income and wealth description

Income and wealth questions are core components of the NLS. Respondents provide income information in almost every survey and wealth information more than half the time. Together these questions provide researchers with a detailed view of each respondent's financial situation. This section reviews the NLS income and wealth questions, shows how summary variables were created and describes the overall financial position of the typical man and woman. Unfortunately, while the NLS paints a complete income picture, there are relatively few expenditure questions, making it difficult to determine if differing financial beliefs affect overall spending.

⁸ Table 159, US Bureau of the Census (1998).

⁹ The research period for the NLSY79 begins in 1985, when the first wealth questions were fielded.

¹⁰ Table 149, US Bureau of the Census (1998).

¹¹ Table 97, US Bureau of the Census (1998). There are small disagreements between the husband and wife averages since couples inconsistently report foster, adopted and stepchildren.

¹² Table 161, US Bureau of the Census (1998).

4.1. Income

The first financial variable created for each respondent is total family income. The typical NLS income section contains four types of questions. The first part asks respondents questions that determine income from wages, salaries and tips, and self-employment. The second part asks for details about government transfers and welfare payments. The third section asks about other transfers such as child support, alimony and gifts. Finally, respondents list income from other sources such as scholarships, interest, dividends and rent. For the most important items, such as wages, the questions are repeated a second time to capture spouse or partner earnings. For less important items, such as interest or dividends, a single question ask how much money both the respondent and spouse received.

The respondent's view of total family income was created from each survey by summing these various components. Eq. (1) shows the formula used for the NLSY79. The Young Men and Women's equations are shorter than Eq. (1) since their typical income section contained relatively few questions. The Mature Men and Women's equations are longer than (1) since they answered questions about pension and other retirement income.

$$\begin{aligned} \text{Family income} = & \text{military pay} + \text{wages} + \text{net business profits} + \text{alimony} \\ & + \text{child support} + \text{education grants} + \text{other income} + \text{gifts} \\ & + \text{welfare} + \text{food stamps} + \text{UI} + \text{worker compensation.} \end{aligned} \quad (1)$$

Total family income was then adjusted for inflation using the CPI-W to transform all values into 1998 dollars. After this adjustment a number of values were eliminated. First, values were eliminated starting in the year in which a couple divorced, separated or one partner died. Values were also eliminated in any year in which both the husband and wife did not have a valid total family income response. Since space considerations prevent publishing results for every survey year, all valid values were averaged for each respondent to create a long run all-years average. A previous version of this paper (Zagorsky, 2000) replicates the tests, tables and graphs for individual surveys and finds that the averaging does not change the results.

Summary income statistics, which do *not* use any of the relationship variables, shows the typical (median) family's income is between US\$ 37,000 to US\$ 47,000 per year (1998 dollars) depending on the cohort. The typical (mean) male response is about US\$ 2000 more than the female response for all three cohorts, which is strikingly similar to the answer found when comparing husbands' and wives' values.

4.2. Wealth

To provide a more complete picture of their financial situation, NLS respondents periodically report details about their assets and liabilities. Unlike income, which is recorded in every survey, wealth questions are usually asked only during surveys designated for face-to-face interviewing and omitted in mail or telephone survey years. While the exact number of questions varies, respondents usually provide information on their home's value; outstanding mortgage amount; cash savings; farm, business and real estate holdings;

vehicles; possessions; stock and bond holdings; estates and trusts; certificates of deposits; retirement accounts; and major debts.

Each wealth module follows the same simple pattern. Respondents are first asked if they currently own an asset or have a debt. If they answer yes, the interviewer asks them to report the current market value. The older the respondent, the more complex the NLS wealth module. While the module's size changes over time, in most years husbands and wives answer a similar number and style of wealth questions. Summing all the asset questions and subtracting all debts created total family net worth. The formula used for the NLSY79 is shown in Eq. (2). The other cohorts use similar equations, but with slightly different components to account for survey differences.

$$\begin{aligned} \text{Net worth} = & \text{home value} - \text{mortgage} - \text{property debt} + \text{cash saving} \\ & + \text{stock/bond/mutual funds} + \text{trust} + \text{business/farm/re equity} \\ & - \text{business/farm/re debt} + \text{car value} - \text{car debt} + \text{possessions} \\ & - \text{other debt} + \text{IRA} + \text{401K} + \text{CD}. \end{aligned} \quad (2)$$

Like income, all results are converted into 1998 dollars to enable comparisons over time and values are eliminated to account for divorce, death and partner non-response.¹³ Finally, an average is computed to provide a long-run net worth value.

Summary statistics, which do *not* use any of the relationship variables, show the typical (median) NLSY79 respondent's net worth is about US\$ 34,000, the typical Young Man or Woman worth is about US\$ 20,000 and the typical Mature Man/Woman couple holds more than US\$ 70,000 in 1998 dollars. Like the income data, the male mean is much higher than the female mean (NLSY79 US\$ 12,255 greater; Young US\$ 3019 greater; Mature US\$ 36,326 greater) which previews the next section's findings that shows husbands believe they have more income and wealth than their wives.

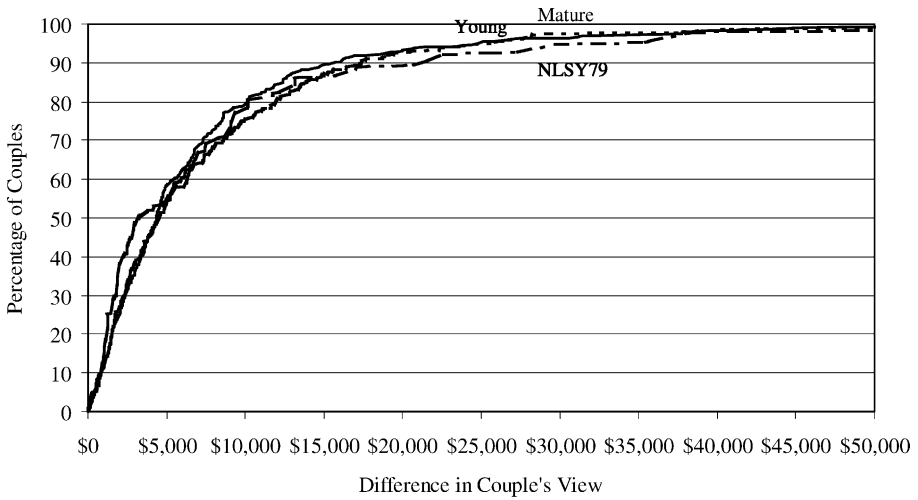
5. Couple comparisons

How different are couple's perceptions? Figs. 2 and 3 show the difference by plotting the results from Eq. (3), which determines the discrepancy between a wife's financial values and her husband's. The choice of which sex is first in the equation is arbitrary and has no effect on results.

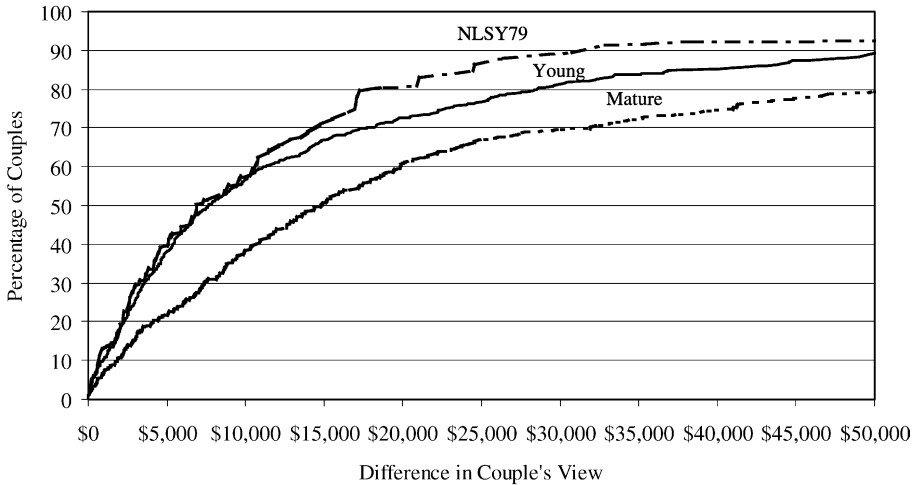
$$\text{Couple difference} = \text{financial value}_{\text{husband}} - \text{financial value}_{\text{wife}}. \quad (3)$$

Fig. 2A and B graph the absolute values of this equation when total income and net worth are used as input values. Each point in Fig. 2 shows by how much money (x -axis) a given percentage of couples (y -axis) differ in their reports. As an example of how to translate the graph, the point located at US\$ 10,000 and 70% in Fig. 2A means that 70% of all couples reported total family income values that differed by US\$ 10,000 or less and that 30% of all couples reported income values that differed by more than US\$ 10,000. Since only a few

¹³ Zagorsky (1999) provides more details on how the NLSY79 wealth series is created. Details on the wealth questions for the other cohorts are found in the relevant NLS User's Guides.



(A) --- NLSY79 Mature Men/Women — Young Men/Women

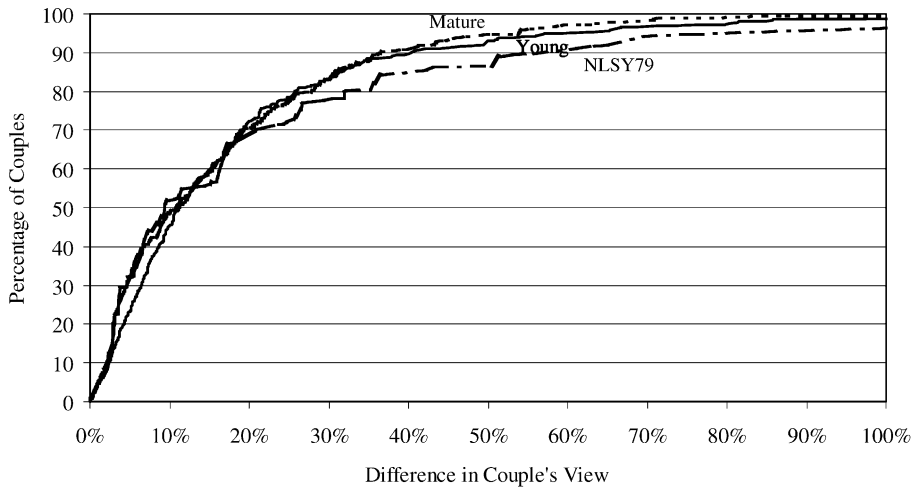


(B) --- NLSY79 Mature Men/Women — Young Men/Women

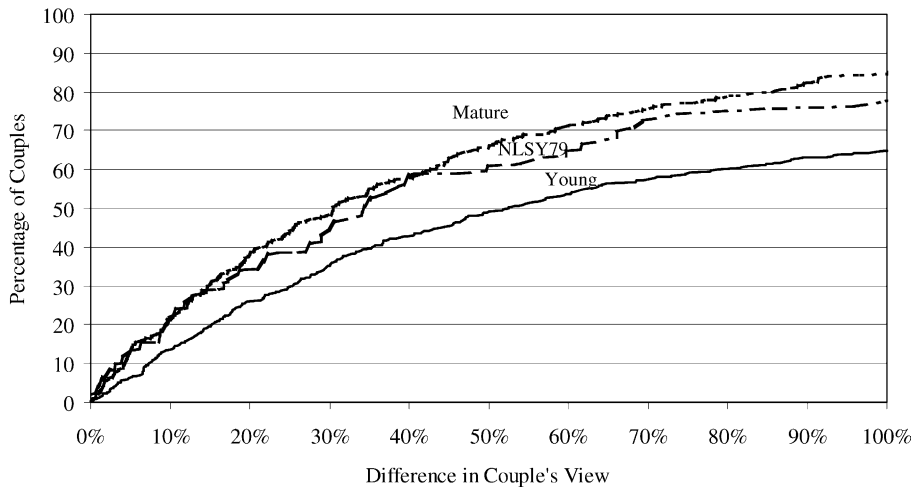
Fig. 2. Difference between husbands' and wives' reports of their income (A) and net worth (B) in dollars.

couples have extreme differences, both figures are truncated at US\$ 50,000 to ensure the graph's key portions are clearly shown.

The graphs show many couples have large disagreements about the family's finances. In Fig. 2A half of all couples stated income values differing by more than US\$ 5000 and 10% of all couples income figures differ by more than US\$ 15,000 per year. The net worth picture shown in Fig. 2B reveals couples have more divergent opinions about wealth than income. Half of all NLSY79 and Young Men/Women couples stated net worth values that



(A) --- NLSY79 Mature Men/Women — Young Men/Women



(B) --- NLSY79 Mature Men/Women — Young Men/Women

Fig. 3. Difference between husbands' and wives' reports of their income (A) and net worth (B) as a percentage.

differ by more than US\$ 7000 while half of all Mature couples differ by more than US\$ 14,700. Among the top 10% NLSY79 couples differed by more than US\$ 31,000, Young Men/Women differed by more than US\$ 52,000 and couples in the Mature cohort differed by more than US\$ 113,000. No matter which cohort is examined, Fig. 2A and B show that couples agree more about their income than their wealth.

The problem with an absolute scale is that a US\$ 1000 or US\$ 5000 difference is very large for poor families, but meaningless for the rich. Fig. 3A and B account for this problem

by looking at the difference as a percentage of family income or net worth.¹⁴ Like Fig. 2, Fig. 3 is truncated—this time at 100% difference. In Fig. 3A, half of all couples stated income figures that differ by more than 10%. Among the top 10% of Mature and Young couples income figures differ by 36% while among the NLSY79 the difference is almost 60%. Fig. 3B, which examines net worth shows, half of all couples stated wealth figures that differ by more than 10%. The top 10% of all couples have differences well beyond the graph's 100% truncation point, with the Young Men and Women (not shown) differing by two-and-half times (243%).

Overall, Figs. 2 and 3 show the majority of couples have dramatically different perceptions about their income and especially their assets. Half of all couples disagree on the family's income by more than 10% and half of all couples disagree on the family's net worth by more than 30%.

5.1. Changes over time

Do differences in a couple's financial views grow or shrink over time? Since the NLS follows couples over multiple years a data series was computed, using Eq. (4), which tracked how a couple's differences changed over time. Eq. (4), which is a first difference equation, calculates the change over time by subtracting the absolute value of the gap between the couple's perception in the earlier period (time T) from the later period ($T + 1$).¹⁵

$$\text{Change} = |(\text{value}_{\text{husband } T+1} - \text{value}_{\text{wife } T+1})| - |(\text{value}_{\text{husband } T} - \text{value}_{\text{wife } T})|. \quad (4)$$

Regressing the first difference series computed in Eq. (4) on a time trend will show a positive time trend coefficient if the couple's views are diverging and a negative coefficient if views are converging. Income and net worth regressions using both absolute dollar and percentage amounts show the same result. Time trend coefficients are qualitatively and statistically indistinguishably from zero. This means the typical couple's differences neither diverges nor converges over time. The next part shows which sex provides higher financial estimates.

5.2. Detailed breakdown

While the above sections quantified the differences in husbands' and wives' views of the family's income and wealth, no details were provided on whether men or women state higher financial estimates. Table 2 breaks down income and net worth differences by sex and reveals two key points. First, in the typical couple, husbands provide higher financial figures than their wives. Second, these higher husband estimates are relatively large amounts, ranging in the thousands of dollars.

The top sections of the table contain estimates for all couples, while the middle and bottom sections divide the couples into groups based on which spouse provides higher financial

¹⁴ Percentages are computed by dividing the difference calculated in Eq. (3) by the average of the husband's and wife's values. Families whose average net worth is less than US\$ 100 were not included in the calculations since small dollar differences produce very large percentage differences.

¹⁵ Because the four other cohorts did not always field surveys to husbands and wives at the same time only the NLSY79 is analyzed.

Table 2
Details of income and net worth differences between husbands and wives

	Income			Net worth		
	NLSY79 Men and Women (1)	Young Men and Women (2)	Mature Men and Women (3)	NLSY79 Men and Women (4)	Young Men and Women (5)	Mature Men and Women (6)
All couples						
Number of couples	113	512	445	117	582	489
Median dollar difference (US\$)	1015	2591	1338	2052	930	1478
Mean dollar difference (US\$)	2319	4072	1494	12109	3145	36130
Median difference (%)	3.1	6.9	2.9	9.7	11.3	2.3
Mean difference (%)	10.6	9.6	2.5	33.0	19.4	11.9
Couples where husband > wife						
Number of couples	64	353	268	65	312	265
Median dollar difference (US\$)	6545	4755	3913	6865	9884	16214
Mean dollar difference (US\$)	9991	8134	7504	35345	29896	90887
Couples where wife > husband						
Number of couples	47	158	176	48	266	218
Median dollar difference (US\$)	1857	3093	5123	8658	8567	13099
Mean dollar difference (US\$)	7448	5024	8265	22906	27433	29017
Couples where wife = husband						
Number of couples	2	1	1	4	4	6

Notes: Financial differences are created by subtracting the wife's value from her husbands. Positive values mean the husband's reported income is larger than his wife while negative values mean the converse. Percentage difference is calculated by dividing the couple's financial difference by their average income or net worth. The number of "all couples" is smaller than the "number interviewed" in Table 1 since the demographic table includes couples with valid wealth values but missing income values.

answers. Overall, the table contains only positive numbers in the top section labeled *All couples*, showing that husbands state bigger financial values than their wives.

Columns (1)–(3), which examine income, shows that the typical (median) husband's income answer is between US\$ 1000 and US\$ 2500 more than his wife's. In percentage terms the typical (median) man stated a family income 3% (NLSY79 and Mature Men) to 7% (Young Men) higher than his wife. Columns (4)–(6) shows that the typical (median) husband's wealth answer is between US\$ 1000 and US\$ 2000 more than his wife, while in percentage terms the typical (median) difference is 9.7% for the NLSY79, 11.3% for the Young Men and 2.3% for the Mature Men.

Another method of checking which spouse's view is larger is to take the ratio of the row marked *Number of couples* under the heading *All couples* to the row marked *Number of couples* under the heading *Couples where wife > husband*. Taking the ratio of these two lines shows that wives provided higher financial figures only 37% of the time for income and 44% of the time for wealth.

Even when a wife states higher financial figures, the difference is usually much less than when husbands state higher figures. Compare the lines labeled *Median dollar difference* in the middle section of *Couples where husband > wife* with the *Median dollar difference* in the bottom section. In column (1), NLSY79 husbands whose beliefs are larger than their wives on average (median) stated an income US\$ 6545 higher per year. Moving down a few lines shows, however, that the average (median) NLSY79 wife whose answer is bigger than her husband stated an income only US\$ 1857 a year larger, only one-third as large.

Overall, the table shows husbands provide larger financial values than their wives. Moreover, these differences are not trivial, since the husband's median financial values are typically US\$ 1000 to US\$ 2500 more than his wife's. When measured in percentage terms, the typical husband's income statements are around 5% larger than his wife's and his wealth estimates are around 10% greater. The tables much higher mean values show many couples differ by even more than these figures.

5.3. Regressions

Regression analysis provides another method of analyzing couple differences. Unlike summary statistics, which show the total difference in a typical couple's perceptions, regression results estimate how responses differ for small income and wealth changes.¹⁶ Overall, the income and wealth regression results shown in Table 3 match the summary statistics and again show that men provide larger financial estimates than women.

In each regression the left-hand side, or dependent variable, is the husband's income or wealth while the right-hand side contains the independent variables, which are the wife's income or wealth and the wife's values squared. Placing the husband's value as the dependent variable does not imply the wife's financial reports cause or change her husband's view, since it is an arbitrary choice which sex is used on which side. The regressions do

¹⁶ Unlike all previous graphs and tables, regression results are not adjusted by the survey weights.

Table 3
Regression results comparing husband's and wife's report of family finances (*t*-statistics in parenthesis)

Income all years average		
NLSY79	Husband = US\$ 1.22 Wife – US\$ 0.000003 Wife ² (31.2) (3.1)	$R^2 = 0.71$, Observations = 113
Young Men/Women	Husband = US\$ 1.25 Wife – US\$ 0.000004 Wife ² (37.9) (5.8)	$R^2 = 0.63$, Observations = 584
Mature Men/Women	Husband = US\$ 1.08 Wife – US\$ 0.000001 Wife ² (38.4) (3.3)	$R^2 = 0.74$, Observations = 445
Wealth all years average		
NLSY79	Husband = US\$ 1.54 Wife – US\$ 0.0000006 Wife ² (10.1) (4.1)	$R^2 = 0.68$, Observations = 117
Young Men/Women	Husband = US\$ 1.35 Wife – US\$ 0.0000009 Wife ² (27.1) (14.7)	$R^2 = 0.52$, Observations = 582
Mature Men/Women	Husband = US\$ 1.32 Wife – US\$ 0.0000001 Wife ² (14.7) (1.3)	$R^2 = 0.36$, Observations = 489
Income multiple years		
NLSY79	Husband = US\$ 1.03 Wife – US\$ 0.000001 Wife ² + US\$ 710 Year (31.2) (3.1) (3.2)	$R^2 = 0.46$, Observations = 687
Young Men/Women	Husband = US\$ 1.23 Wife – US\$ 0.000003 Wife ² – US\$ 17 Year (69.6) (22.4) (0.1)	$R^2 = 0.49$, Observations = 1536
Mature Men/Women	Husband = US\$ 1.07 Wife – US\$ 0.0000001 Wife ² + US\$ 361 Year (61.1) (8.3) (1.5)	$R^2 = 0.78$, Observations = 894
Wealth multiple years		
NLSY79	Husband = US\$ 1.07 Wife – US\$ 0.000001 Wife ² + US\$ 2363 Year (12.7) (3.4) (2.2)	$R^2 = 0.46$, Observations = 726
Young Men/Women	Husband = US\$ 1.05 Wife – US\$ 0.0000004 Wife ² + US\$ 2376 Year (17.7) (8.5) (2.4)	$R^2 = 0.36$, Observations = 952
Mature Men/Women	Husband = US\$ 1.05 Wife – US\$ 0.0000003 Wife ² + US\$ 2383 Year (17.6) (6.4) (2.7)	$R^2 = 0.22$, Observations = 1392

Notes: All years average equations are estimated using ordinary least squares (OLS), while multiple years equations are estimated using OLS in a pooled fixed effect framework. Survey years are pooled as follows: NLSY79 income and wealth are pooled across all surveys from 1985 to 1998. For the Young Men and Women income is pooled for 1967–1970 and wealth for 1971–1983. Both income and wealth for the Mature Men and Women are pooled from 1966 to 1982.

not contain an intercept to ensure that at zero dollars husbands and wives agree.¹⁷ The regressions do not imply causality, but solely measure the relationship's size.

Table 3 contains four sets of regressions—two sets of income estimates and two sets of wealth estimates. The regressions labeled *All years average* are done using the average value data that produced the previous tables and graphs. The regressions labeled *Multiple years* estimate the equations using individual data from every possible year in a pooled fixed effect framework, where the fixed effect is labeled *year*.

The key regression coefficient is in front of the first *Wife* term. This coefficient represents how much money the husband reports for every US\$ 1.00 the wife reports. For example, on the top line labeled *NLSY79*, the coefficient on *Wife* is US\$ 1.22. This means that *NLSY79* husbands are reporting US\$ 1.22 for each dollar of income their wives are reporting. The typical husband believes the family is better off financially than their wife since the term in front of *Wife* is greater than 1.0 in every regression. The second coefficient, appearing in front of *Wife*² allows a nonlinear relationship. While all terms have a small magnitude, squaring the financial values (i.e. US\$ 250,000) of rich individuals and multiplying by these small coefficients noticeably reduces the gap between rich husbands and wives.

The income coefficients in the top set of regressions labeled *Income all years average*, show that husbands in the Mature cohorts report US\$ 1.08 of income for every US\$ 1.00 their wives report, while husbands in the Young Men cohorts report US\$ 1.25 of income for every US\$ 1.00 their wives in the Young Women surveys report. The next section, labeled *Wealth all years average*, shows wealth reports have even bigger husband–wife differences. In this set of regressions, husbands in the Mature and Young Men cohorts report US\$ 1.32 and US\$ 1.35 in wealth, respectively, for every US\$ 1.00 their wives report, while husbands in the *NLSY79* cohort report US\$ 1.54 of wealth for every US\$ 1.00 their wives report.

The last two sets of regressions pool income and wealth information for couples across multiple years. In general *Wife* coefficients are smaller than those in the matching regressions in the *All years average* set, but every coefficient is both statistically and numerically above 1.0. For example, the pooled *NLSY79* income coefficient is US\$ 1.03, which means husbands report on average three cents more per dollar of income than their wives.

Why are the *Wife* coefficients smaller in the pooled regressions than in the all-years average? Couples who consistently appear in the survey are given more weight in the *Multiple years* framework than in the *All years average* because they have more observations. The lower coefficients show that couples who do not divorce report smaller financial differences than couples who do.

6. Why do couples differ?

Why do husbands and wives disagree on the financial status of the family? Income differences arise because each sex reports higher income for itself and lower income for

¹⁷ Adding an intercept reduces the coefficient's values and uniformly produces a statistically significant and large (\approx US\$ 10,000 coefficient). Interpreting this equation is problematic since it means that even when the family has no income or wealth, men state that the family has money. Removing the intercept eliminates this issue.

Table 4
Median couple differences in husband's and wife's earnings

Cohort	Dollar difference husband's earnings (US\$) (1)	Percent difference husband's earnings (%) (2)	Dollar difference wife's earnings (US\$) (3)	Percent difference wife's earnings (%) (4)
NLSY79	1699	6.3	−1228	−21.4
Young Men/Women	2381	7.6	−61	−2.4
Mature Men/Women	231	1.2	−225	−3.9

Note: Percentage difference is calculated by dividing the difference in each couple's earnings report by their average reported earnings for a partner.

the spouse. Couples' wealth disagreements arise because men report higher values for the family's assets while women report larger values for the family's debts.

6.1. Income

Why do couples disagree about the family's income? The two largest portions of total family income are the husband's wages or salary and the wife's wages or salary. NLS income sections ask respondents to separately report wage and salary information for themselves and their spouse. This information shows how respondents perceive their spouse's earnings. Both men and women state higher wages for themselves than their spouse reports. Ignoring specific couples for the moment, averaging (mean) all NLSY79 woman's wage reports shows they believed they were paid US\$ 6532 per year. The average from the NLSY79 Men, however, is only US\$ 3352 per year, a difference of more than US\$ 3000. Comparing men's earning shows the typical (mean) male in the Young Men's cohort believes he earns US\$ 34,580. The average response from all the women in this cohort is only US\$ 31,045 a difference of almost US\$ 3500.

Table 4, which examines within-couple differences, shows the same point. Each sex reports higher income for itself and lower income for the spouse. For example, the top line of Table 4 in column (1) NLSY79 husbands state an income US\$ 1699 per year more than their wives for the husband's income. Column (3) shows that NLSY79 husbands underestimate their wives' income by US\$ 1228. This table shows that the reason many couples are reporting dramatically different total family income is that each partner overstates their own income and understates their partner's.

One potential reason for the difference is that respondents might be reporting their own income before taxes and their spouse's after taxes. Every major NLS income question explicitly asks for pre-tax amounts. For example, the Mature Women are first asked "How much did you receive from wages, salary commissions, or tips from all jobs *before deductions for taxes or anything else?*" The next question repeats almost the same words to determine her view of her husband's wages. Since all cohorts are explicitly asked to report pre-tax income this reason is probably not causing the difference.

6.2. Wealth

Why do husbands state a higher net wealth amount than their wives? To answer this question, Eq. (2) is rewritten in simpler form. Net worth, instead of being the sum of many

Table 5
Median difference in couple's view of gross assets and total debts

Cohort	Dollar difference (US\$)	Percent difference (%)
Gross assets		
NLSY79	+887	+1.3
Young Men/Women	+1140	+2.6
Mature Men/Women	+4714	+7.6
Total debts		
NLSY79 total	−548	−3.7
Young Men/Women	−84	−0.3
Mature Men/Women	−493	−4.0

Notes: Positive figures mean a husband's reports are greater than his wife's. Negative figures mean the wife's report is greater than her husband's.

individual terms, is calculated by summing the family's gross assets and subtracting total debts.

$$\text{Net worth} = \text{gross assets} - \text{total debts} \quad (5)$$

Plugging Eq. (5) into Eq. (3), the difference formula, means there are only three cases to consider when husbands consistently state a higher net wealth figure than their wives:

- (a) Husbands provide higher values for gross assets, such as the home, car and stocks, than their wives.
- (b) Wives provide higher values for total debts, such as mortgages, than their husbands.
- (c) Husbands provide higher values for both gross assets and total debts than their wives.

The simplest method of determining which case matches NLS data is to examine couple differences for gross assets and total debts. Table 5 shows median differences in asset and debt reports using both absolute and percentage terms. Positive figures in all of the *Gross asset* cells of Table 5 show that the first case, in which husbands state the couple's assets and possessions are more valuable than their wives state, is true for the typical couple in all three cohorts. For example, the top line's US\$ 887 means the median NLSY79 husband states the family's gross assets are almost 900 dollars higher than his wife's statements.

Negative figures in all the *Total debt* cells of Table 5 show that the second case is also true. This means that wives report the family owes more debt than their husbands. For example, the negative US\$ 548 halfway down the table shows that the median NLSY79 wife states the family's debts are more than 500 dollars higher than her husband.

7. Accuracy of the results

While the above sections clearly document that husbands and wives do not agree on the financial status of the family, an unresolved question is whose reports are more accurate assessments of the family's finances. The only way to precisely answer this question is to compare an audit of the family's finances with each respondent's answers. Unfortunately,

since audits were not done, the methods explored in this section only indicate, but cannot completely determine, accuracy.

One potential reason for a gap in family finances is that men could be handling all the financial chores, leaving women in the dark about money issues. While this question cannot be answered for every cohort, data about who handles the family's finances are available for NLSY79 Men and Women. During the 1981 interview, a time-use section asked how often the respondent took care of the household paperwork, such as paying bills.¹⁸ Comparing responses shows that husbands and wives believed they paid the bills about 41.3 and 61.3% of the time, respectively. While these data reveal only one dimension of the family's financial life, the fact that NLSY79 wives take care of the household's financial paperwork more often than their husbands suggests that the gap is not due to a lack of knowledge among women.

Lying either to protect private financial matters or to impress the interviewer is another potential reason for the gap between husbands' and wives' values. For example, if men inflate their wealth and income values and brag more than their wives during the interview then husbands' financial values will exceed their wives'. At the end of each NLSY79 survey interviewers flag all respondents whom the interviewer thinks lied or provided mistaken answers because of confusion.

Out of the over 1000 NLSY79 interviews analyzed in this research, 25 male and 22 female interviews were marked as lying somewhere during questioning. Most of the lying is concentrated among two couples¹⁹ who comprise one-third of the problem interviews. Removing lying interviews for these couples lowers financial values for wives more than for husbands. This suggests that the gap is not caused by males lying about their finances since eliminating overt lying primarily reduces wives already low values, not their higher husband values.

In general it is impossible to determine whose values are more accurate. However, the gap does not arise because wives are excluded from knowing details about the family's finances, nor does it seem to stem from lying among respondents.

8. Conclusions

This research asked if husbands and wives have similar views of the family's financial situation. The results are clear—husbands and wives do not report the same values for income and wealth. Wives on average state lower income and net worth figures than their husband. Moreover, these differences are not trivial; since the average husband's financial values are typically US\$ 1000 to US\$ 2500 more than his wife's. When measured in percentage terms, the typical husband's income statements are around 5% larger than his wife's and his wealth estimates are around 10% greater.

This gap is not only statistically but also economically significant. The Consumer Expenditure Survey (CEX), which tracks spending by US households, shows families spent

¹⁸ Since the time use answers are in word form, such as "always" and "never," they were converted into a numerical scale and averaged.

¹⁹ Male public id 1843 and his wife #1844 each were marked as lying five times while male public id #888 and his wife #889 were each marked as lying two and four times, respectively.

on average US\$ 5135 on discretionary purchases during 1998.²⁰ Hence, husband's higher beliefs represent between one-fifth to one-half of all discretionary spending. The CEX also calculates savings by tracking the change in each family's assets and liabilities. From 1984, when the measure began, until 1998 the average couple saved US\$ 202 per year, confirming the low levels of savings in the US economy. This means husband's increased wealth perceptions represent many years of savings for the typical family.

The gap is also socially significant since the regression section showed that couples who do not divorce report smaller financial differences than couples who divorce or drop out of the survey. While it is doubtful that financial misperceptions are the sole reason for divorce, this issue is clearly another cause. Helping couples understand that most husbands and wives do not share similar views of the family's finances is a first step in reducing conflicts surrounding money issues.

Given that roughly two-thirds of all March CPS respondents are women, this research also shows that CPS yearly household income estimates are too small. CPS estimates for 1998 show that married couples earned US\$ 3.7 trillion of income (US Bureau of the Census, 1999, Table 2). Adjusting the respondent pool so that only half of the respondents are women and assuming men's income estimates are US\$ 2000 larger than their wives adds approximately US\$ 13 billion to this total. Getting the numbers right is extremely important since the March CPS is used by the government to track the extent of poverty in the US and determine policy responses to combat this problem.

Future research needs to see if the difference in husbands' and wives' perceptions directly affects purchasing decisions. Qualls (1987) overviews households' purchasing decisions and finds that wives either have input or control over most purchase decisions. If females believe the family has fewer financial resources than their husbands, then the total amount the family spends will change by improving household communication about the family's finances.

One recent popular book stated that men are from Mars and women from Venus. While most couples' financial perceptions are not this far apart, there is still quite a gap between husbands' and wives' reports of the family's financial status.

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²⁰ Discretionary spending is the total of alcoholic beverages, entertainment, reading, education, tobacco, and cash contributions done by all husband and wife consumer units. Consumer Expenditure data were taken from <ftp://ftp.bls.gov/pub/special.requests/ce/standard/1998/cucomp.txt>.

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