

**Saving for Retirement:
Household Bargaining and Household Net Worth**

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Comments welcome

Abstract:

Traditional economic models of savings treat the household as a single individual, and do not allow for the separate preferences of and possible conflicts of interest between husbands and wives. Since wives are typically younger than their husbands and life expectancy for women exceeds that for men, wives may prefer to save more for retirement than do their husbands. This suggests that households in which wives have greater relative bargaining power may accumulate greater net worth as they approach retirement.

We explore the importance of bargaining in marriages of older couples by examining the empirical relationship between the net worth of couples in the first wave of the Health and Retirement Survey and factors that may affect the relative bargaining power of husbands and wives, such as control over income sources, relative age, and relative education. We find that measures of long-term relative bargaining power of wives have a positive effect on the household's wealth, even when controlling for other factors.

In general, the realized effects of reforms intended to increase private saving for retirement may depend on how these reforms affect household bargaining relationships, as well as how they affect individual incentives to save.

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I. Introduction

As the population ages, the welfare of older persons, the timing of retirement, and the costs of Social Security and other elderly support programs become increasingly important. The decline in the household savings rate in the United States during recent decades and the projected insolvency of the Social Security system have focused attention on the wealth accumulation of older couples and their ability to maintain consumption after retirement. If the savings and pension assets of married-couple households prove to be inadequate, the costs will be borne primarily by women, who are likely to outlive their older husbands.

Most studies of life-cycle household behavior have focused on individual-based models of retirement and/or saving. Bernheim et al.(1997), for example, attempt to explain the large variations in savings and wealth among households in terms of variations in time preference rates, risk tolerance, exposure to uncertainty, relative tastes for work and leisure, and other factors that can be incorporated into an individual life-cycle model, but find little support for such explanations. Although marital status has been taken into account in some of this work, interactions between spouses' incentives and potential conflicts in their objectives have not been explored as a potential explanation of variation in savings accumulation and retirement timing.¹

Husbands and wives may have different private interests in savings and wealth accumulation that must be resolved through some household decision process. Because wives tend to be younger than their husbands and also tend to have longer life expectancies, wives have a longer retirement period to finance. This suggests that wives should prefer a greater net worth at retirement and/or a lower level of household consumption, given fixed household lifetime resources. If married couples differ with respect to the relative bargaining power of husbands and

¹ One exception is Browning (1995), who uses the wife's share of the couple's income as a regressor predicting the household saving rate. However, Browning does not focus on households near retirement, and does not find the expected relationship after controlling for other household factors. The retirement behavior of married couples has been examined by Baker (1999), Blau (1997, 1998), Gustman and Steinmeier (1998), and Hurd (1990).

wives, due to either individual characteristics or environmental factors, this may be one source of variation in wealth accumulation between households with comparable total resources.

In this paper, we use data from the Health and Retirement Survey to examine the relationship between household net worth and factors that may affect the relative bargaining power of husbands and wives. We find that measures which may reflect the long-term relative bargaining power of wives do appear to have a positive effect on the household's wealth, even when controlling for other factors.

II. Marital Bargaining and Household Savings

Economic models of retirement and savings behavior typically examine the optimal behavior of a single individual who faces alternative streams of utility over the remainder of his or her life. In general, however, retirees are not isolated individuals; the labor supply and consumption decisions of elderly couples will be the outcome of some joint decision-making process that reflects the preferences and interests of both husband and wife. In recent years, game-theoretic models of family decision-making – including both cooperative and non-cooperative bargaining models – have been developed and have received considerable empirical support, but have had little influence on the study of retirement and savings.

Many of the important issues in the behavior of elderly couples involve circumstances in which there may be a conflict between the needs and objectives of married men and those of their wives. For example, the causes of extensive poverty among elderly widows cannot be analyzed without considering the consumption/savings decisions of married couples. Wives are typically younger than their husbands, and life expectancy for women exceeds that for men. Consequently, wives may prefer to save more for retirement than do their husbands. Recent discussions concerning individual control over Social Security assets and the fate of the spouse benefit bring into sharp relief the possible conflict of interest between elderly wives and husbands. An

appropriate framework for analyses of these and other issues must allow for the independent preferences of husbands and wives and for the dissolution of a marriage through death or divorce.

Lundberg (1999) suggests that bargaining models may help to explain some empirical puzzles, such as the failure of consumption profiles to correspond to the individual life-cycle model. If the husband loses bargaining power when he retires from a career job, then a discrete shift in the household's consumption/savings path may result. Banks, Blundell, and Tanner (1998) find that the drop in observed consumption after retirement cannot be fully explained by standard factors, and that it is not consistent with the life-cycle model. Bernheim, Skinner, and Weinberg (1997) also find a drop in consumption at retirement that is not consistent with life-cycle consumption smoothing. Lundberg, Startz, and Stillman (1999) find that the retirement consumption drop is characteristic only of married-couple and not single-person households in the Panel Study of Income Dynamics, providing support for an explanation based on shifts in relative bargaining power.

A growing empirical literature based on the bargaining (or collective) framework provides evidence that the share of household income controlled by the wife affects household behavior, including expenditures on various goods, individual labor supplies, and health outcomes for children. Individual control of income may also affect saving behavior and retirement timing if there is spousal disagreement over desired wealth at retirement. In general, bargaining models suggest that a variety of household and extra-household characteristics that are not usually included in savings and retirement models may affect relative bargaining power, and thus behavior.

In a simple multi-period model, a married couple chooses a vector for each time period t :

$$X_t = \{\lambda_{Ht}, \lambda_{Wt}, C_t, S_t\}$$

where λ_{it} is leisure time consumed by the husband ($i=H$) or wife ($i=W$), C_t is household

consumption, and S_t household income saved for future consumption.² In the standard intertemporal unitary model of the household, X_t is chosen for each period to maximize a single household objective function, $U = u(\lambda_{H1}, \lambda_{W1}, C_1, \dots, \lambda_{HT}, \lambda_{WT}, C_T)$. This objective function is assumed to be well behaved, and is optimized subject to the household's pooled resource constraint. It is straightforward to allow updating as shocks are realized in order to make the model dynamic.

An alternative to the unitary model allows the couple to “bargain” over values in X . Several household bargaining models have been proposed in the literature, including both cooperative (Manser and Brown 1980, McElroy and Horney 1981, Lundberg and Pollak 1993) and non-cooperative models (see Lundberg and Pollak 1994 for a survey), as well as general collective models (Chiappori 1988, 1992) which do not impose a bargaining scheme, but assume a Pareto efficient outcome.

The key distinction between unitary and collective models is that the latter allow for a separate utility function for husband and wife:

$$\begin{aligned} U_H &= u_H(\lambda_{H1}, \lambda_{W1}, C_1, \dots, \lambda_{HT}, \lambda_{WT}, C_T) \\ U_W &= u_W(\lambda_{H1}, \lambda_{W1}, C_1, \dots, \lambda_{HT}, \lambda_{WT}, C_T) \end{aligned}$$

One way of thinking about the household problem is to imagine some household objective function, which is a function of these utilities:

$$W = w(u_H, u_W, B)$$

where B is a measure of the wife's relative bargaining power, and can be thought of as a weight given her utility. Generally, B may be allowed to change over time, perhaps unexpectedly, and we can allow current and future values in X to be updated when a shift in bargaining power occurs. While the household budget constraint here is like that in the unitary model, components

² There are well-known inefficiencies in allocating among private and public goods in collective choice models. These inefficiencies and their implications for intertemporal allocation are beyond the scope of this paper. We will not examine consumption directly, and do not make any claims about its private versus public nature.

in that constraint (i.e., prices and income) may affect the household objective function through B . For instance, if the wife's relative wage rises, her relative bargaining power may rise, and thus her share of utility may increase in equilibrium.³

Because wives tend to be younger and to have longer life expectancies than their husbands, wives should prefer a greater net worth in periods near retirement. However, it may not be the case that wives prefer a higher rate of savings in every period. For example, if a wife prefers greater expenditure on certain children's goods relative to her husband, then her optimal saving rate may be lower than his in some periods.⁴ For this reason, we hypothesize that, in periods near retirement,

$$S_{Wt}^* > S_{Ht}^*$$

where S_{it}^* is spouse i 's optimal savings at time t . Consequently, we will examine household net worth rather than savings rates.

Most models of saving for retirement fail to take into account the household context in which savings decisions are made. One exception is Gustman and Steinmeier (1998) who examine the effects of pension wealth on saving using HRS data. They point out that pension coverage of the household, as opposed to pension coverage of the individual, is the relevant issue. They do not, however, focus on the effect of power over household decisions in their study. They do include the share of household earnings accruing to the male in the household as an explanatory variable, but do not report the "effect" of this ratio on household savings in their discussion of results.

Browning (1995) uses Canadian data to investigate the relationship between the intrahousehold distribution of income and household saving. While the distribution of earnings and other income in the household may be endogenous, it is nonetheless interesting that a

³ "Equilibrium" here refers to the solution to the model, which need not be unique, and depends on the bargaining structure or other criteria imposed.

⁴ Such expenditures on children may include clothing and food expenditures, educational expenditures, a lavish wedding, and assistance in buying a first home.

significant relationship between income distribution and savings is found. However, the relationship Browning finds is in the opposite direction of what we might expect – the household saving rate is lower when the female’s share of the couple’s income is higher – and this relationship disappears when household income is controlled for. Browning uses a sample of couples in which the husband is aged 30 to 59, so much of the sample is many years from retirement. As discussed above, we might not expect to see an unambiguous relationship between savings and bargaining power among these couples. $S_{Wt}^* > S_{Ht}^*$ for all t is not necessarily implied by the argument that wives prefer higher wealth at retirement.

We examine the relationship between the savings behavior of couples in the Health and Retirement Survey (HRS), and factors that may affect the relative bargaining power of husbands and wives. The HRS provides longitudinal data on a recent cohort of older people, and offers particularly good information about their assets. Reduced-form behavioral models based on a collective framework will be used to examine the bargaining relationship and how it affects these outcomes. We do not impose a particular bargaining structure. Rather, we use a simple reduced-form model that will allow us to test whether our measures of bargaining power appear to affect household net worth. Drawing on the theoretical model developed above, we hypothesize that

$$NetWorth_{Wt}^* > NetWorth_{Ht}^*$$

in time periods close to retirement. The magnitude of this difference may be affected by the difference in spouses’ ages, the couple’s permanent income, each spouse’s preferences for leaving bequests, and preference for consumption over time.

III. Data

The Health and Retirement Survey (HRS) is a national longitudinal survey of older Americans, with oversampling of blacks, Hispanics, and Florida residents. The baseline survey (wave 1), done in 1992, was a face-to-face interview of a sample of the 1931-41 birth cohort and their spouses or partners if married or cohabiting. Over 12,600 persons in 7,600 households were

included in this initial survey. Follow-up telephone surveys are done every 2 years, with additional cohorts added in 1998. For estimates in this draft, we rely only on data from wave 1 of the survey. We will later include data from subsequent waves.

We use a sample of married and cohabiting opposite-sex couples in which the male is aged 45 to 70 and the woman is aged 40 to 65.⁵ These age limitations result in our excluding 225 couples in which the spouse was substantially younger or older than the age-eligible respondent, but approximately preserves the mean age of men and women in the sample. Individuals chosen for inclusion in the HRS were aged 51 to 61 in 1991, or married to or cohabiting with a chosen respondent in that this age range. We limit the sample by age because we want to examine behavior of couples near retirement.

The HRS data provide detailed wealth information, including that in housing, other real estate, motor vehicles, businesses, financial instruments, and other assets. Detailed information on liabilities, including mortgages, home equity loans, business loans, and other debt, such as revolving account balances allows calculation of the couple's net worth.⁶ We have measures of the couple's income in 1991 and its composition. Earned income and pension income is attributed to the person who receives that income, allowing us to construct the wife's share (in earnings and pensions) of the couple's total income. We also use educational attainment of husband and wife, as well as of their parents when it is reported.

The HRS data also provide the labor market status, race, and self-reported ordinal health status of each spouse (five categories), and the couple's geographic region of residence.⁷ Table 1 gives means for variables used in our analyses, plus some components of income and net worth.

⁵ For ease of discussion, we will refer to the male as the husband and the female as the wife, although all couples in the sample are not married.

⁶ Our current net worth measure does not include the present value of future Social Security and pension benefits or the value of 401-K and similar plans. These values can be calculated using restricted use data from Social Security records and employer provided pension plan details, and will be used in a future draft.

⁷ State of residence is available in the restricted data, and will be used in a future draft.

IV. Estimation

We augment standard models of household net worth by incorporating variables suggested by the household bargaining framework. HRS data provide a number of variables which we believe may capture the relative bargaining power of each spouse. These include control over income; relative age and education; and characteristics of the family of origin (parents' education). One important determinant of relative bargaining power may be the well-being of each spouse relative to the other outside of marriage. Spousal earned income and pension income, for example, may affect individual well-being in the event of divorce.⁸ Current earnings and pension income are clearly endogenous to the household, but are important indicators of income control which we will want to examine. Current earnings may represent only transitory income control, while relative education may be a better measure of long-run income control.

Using year of birth, we calculate the husband's and wife's ages in 1991. We include the difference in the wife's and husband's age as one measure of bargaining power, since she may have more power over household decisions if she is older, given his age. As we discuss in the next section, this variable may also capture another effect for which the sign of the hypothesized effect on net worth would differ from a bargaining-power effect. We use 5-year piecewise linear splines to control for age of husband and wife in order to allow for household net worth to vary with age in a general way. We also use a linear spline representation of total income, dividing couples approximately into income quintiles.

IV. Results

Table 2 presents results of a "standard" model of net worth, which includes only characteristics of the husband. While there is no true standard model in the literature, those

⁸ Though it is not included in these analyses, claims to future Social Security and pension benefits are important determinants of welfare in cases of death or divorce which we will explore in a future draft.

which consider only husband's characteristics are surprisingly common. This model shows that relationships between household net worth and husband's health, education, and race are in directions that we would expect. Slopes of spline segments can be obtained by summing the linear slope and successive spline coefficients up to and including the segment of interest. Older men have higher net worth. Non-linearities in age allowed by the spline specification are small and generally not significant, but point to a flattening of the age-net worth relationship, particularly beyond 65 years of age. There are significant differences in net worth across geographic regions. Those in the south have significantly less and those in the west significantly more wealth than those in the northeast, which is the omitted region. These differences may be driven largely by differences in real estate values and perceived future costs of living. The couple's current income does not appear to be strongly related to net worth in general. A longer-run measure of income would likely perform better. We plan to include a permanent income measure from Social Security earnings records in analyses for a later draft of this paper.

Table 2 includes two specifications, one which includes the husband's current work status and one which does not.⁹ Timing of retirement, and therefore work status, may be jointly determined with net worth. We include the second specification to show that the data are consistent with this joint determination story: Those who are still working may not yet have attained the net worth they plan to have at retirement. Those who are retired have significantly higher wealth than those who are still working. This joint determination is being ignored in the present paper. We plan to incorporate retirement timing into a more complex simultaneous model in future work.

Table 3 shows results from a "unitary" model of household net worth, which assumes the household acts as a single economic agent. This model includes characteristics of both husband and wife which might influence decisions made by a single household decision-maker. We have

⁹ The six working status categories are not mutually exclusive. The majority of the sample answered "yes" to only one of the categories, while a few placed themselves in none, two, or three of the categories.

shown all control variables used in the table. Some of these will be omitted from later tables, as their effects are robust to various specifications.

Better health, for either husband or wife, is generally associated with higher net worth (good health is the omitted category).¹⁰ Wife's education, which has a strong positive effect on household net worth, may do so through her higher permanent income, allowing the couple to both consume and save more in all periods.

All non-white groups tend to have lower net worth than whites. Here, we show only race of the husband. We did run other models in which we included the wife's race as well. The husband and wife coefficients in those models approximately sum to the coefficients reported here for husband's race, indicating that his race is a good measure of the total effect of race for the household. This is not surprising as there are very few mixed-race couples in the data (about 200 in the sample of 4700).

Age, for both men and women, is positively associated with household net worth, with the slope of the spline function remaining positive throughout the age ranges included. This suggests that couples continue to accumulate wealth at these ages, but perhaps at a reduced rate as they age.

Table 4 presents estimates from two collective models. These introduce some husbands' and wives' relative values as measures of relative bargaining power, allowing these relative values to affect household net worth. Model 1 adds the age difference of husband and wife (her years less his years) and the difference in their educational attainment (her years less his years) as measures of bargaining power. Model 2 also includes the wife's share of current income.

The effect of the education difference, defined as wife's minus husband's years, is positive, implying that the greater the wife's influence over household decisions as measured by her greater relative level of education, the higher the household's net worth. Since we have

¹⁰ The causal direction of positive associations of health with income and net worth has not been resolved in the literature, and we will not attempt to sort it out here.

controlled for husband's and wife's educational attainment categories, which arguably proxy for permanent income of each spouse, the effect of the education difference is strong evidence in favor of a collective household framework as a basis for long-term savings behavior in multi-person households.

We also examined spousal differences in father's education and in mother's education as well as the wife's parents' education difference (her mother's years less her father's years) and did not find any of these to be significantly associated with household net worth, even if we excluded the wife's education and the husband-wife education difference.

The positive effect of the age difference on net worth is consistent with a bargaining power interpretation. As we argued earlier, being older relative to her husband may give a wife additional influence over household decisions. However, note that the age difference is perfectly collinear with the wife's linear age term, given that we have controlled for the husband's age. Thus, there are two alternative interpretations of this effect, with opposite predicted signs. Recall that the younger is the wife given her husband's age, the longer her expected retirement period after his death. This would imply a negative coefficient on the age difference variable as defined. The possibility that this effect may be partly offsetting the bargaining power effect of her age lends even greater significance to this result. Another possible interpretation of her greater age is that she may have had more years of earnings to contribute to household net worth. However, the magnitude of the effect we find seems implausibly large for this to be the only mechanism driving that effect.

We tried an alternative specification of relative age – the ratio of wife's to husband's age – which allows us to also include her linear age term. The marginal effect of an additional year from this specification is virtually identical to that shown in Table 4.

The sign of the coefficient on wife's share of current income is negative. This variable is similar to that used by Browning (1995), where the dependent variable was the savings rate rather than net worth. Similar to Browning, we find that the wife's share of income is negatively

associated with a measure of household saving. Current household income and the wife's share of that income is highly endogenous to the household. Her share of income may reflect largely transitory income components, or may be closely jointly determined with the household's chosen ultimate net worth value and retirement timing schedule.¹¹ Given other evidence we find, and the problematic nature of this variable, we do not interpret this as a refutation of the collective framework and its validity in modeling household savings behavior. We will use restricted data to construct a measure of the wife's share of permanent income in analyses for a future draft. We also note that relative years of education is likely a better measure of long-run income control than the share of current income.

Table 5 adds some relative health measures to the model. If declining health results in a decline in control over household resources (e.g., through reduced earnings), then relative health of husband and wife may also capture a bargaining power effect. Using a cardinalization of the ordinal self-reported health status (1=excellent, 5=poor), we try two measures of relative health – the ratio of husband's to wife's health and the linear difference in health (husband's less wife's cardinal measure). The latter requires that we compress the five categories for health status of each spouse into three each to avoid collinearity.¹² The two models presented do not find a significant relationship between relative health and household net worth, and indeed the signs of the coefficients contradict one another.

Disability insurance, claims on pensions accrued over the lifetime, and other factors may make the relationship between relative health and relative bargaining power less than straightforward. Permanent relative health may be more useful in a discussion of bargaining power, but how to construct a measure of it is not obvious. It is possible that in the longitudinal HRS, we may be able to disentangle permanent from transitory health with some effort.

¹¹ A measure of the wife's share of permanent income is much preferred for the purpose of indicating her relative bargaining power. We plan to use Social Security earnings records from HRS restricted data to construct measures of permanent income.

¹² Comparison of R-squares in a model with no relative values suggests we do not lose much by doing this.

V. Conclusion

We find evidence that the wife's long-run relative power over household decisions, proxied by spousal differences in age and education, does positively affect household net worth. We find that the wife's share of current income does not appear to increase household net worth as one might expect, but argue that this is a particularly poor measure of long-term relative bargaining power which is endogenous to the household's saving and retirement plans.

If husbands' and wives' preferences over saving and consumption do differ, and if relative bargaining power does impact household decisions, then policies which affect the balance of decision-making power in households have been overlooked as a potential means of increasing private household saving for retirement and perhaps age at retirement. In addition, existing estimates of the effects of certain policies may be misguided in that they do not account for the household bargaining relationship in household decision making. For example, reforms which encourage men to work longer may have two effects on savings: those caused by changes in the family's constraint set and those caused by changes in relative bargaining power (since the period in which the husband retains control of a large share of household income will be increased). Policy changes which would reduce the marginal tax for working women, such as separate taxation of husbands and wives or eliminating the dependency of IRA deduction status on spouse's pension status, may increase the bargaining power of women, and thus increase household savings more than unitary economic models would predict. On the other hand, policies that reduce the fraction of income controlled by wives, such as a reduction in Social Security spouse benefits, may have the opposite effect.¹³ In general, the realized effects of reforms designed to affect retirement timing or private saving for retirement will depend on how these reforms affect individual incentives, as well as how they affect household bargaining relationships.

¹³ This may be true only for women close to retirement age, and for younger women who will not change their lifetime labor supply in response to the change. Reducing the spouse benefit increases the return to

Our work on this topic is ongoing. We plan to expand our set of indicators of bargaining power, and to add a model of retirement timing. As mentioned in footnotes, we will add valuable information on permanent income and claims on future pension and Social Security benefits from restricted-use data which were not available for analyses in this draft.

As we incorporate additional measures of relative power over household decisions, we will use a factor model to construct a measure of that latent unobserved variable. This will enable us to isolate the common component of the multiple measures, avoiding problems of collinearity of these measures in estimates of net worth and retirement timing, and allowing some measures to affect wealth directly, as well as indirectly through bargaining power.

work for some married women, particularly those who are many years from retirement, and may increase their bargaining power indirectly through increased control over earned income.

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Table 1
Means of Key Variables

Variable	N	Mean	(Std Dev)
His age	4717	56.71762	(5.20891)
Her age	4717	52.82107	(5.08505)
Wife's age minus husband's age	4717	-3.89654	(4.77326)
His health, scale 1-5, 5=poor	4717	2.57558	(1.18159)
Her health, scale 1-5, 5=poor	4717	2.45855	(1.15021)
His educ in years	4717	12.06445	(3.49616)
Her educ in years	4717	12.12805	(2.88663)
His mother's educ	4229	9.21518	(3.61911)
Her mother's educ	4344	9.32366	(3.62224)
His father's educ	4131	8.80174	(3.99475)
Her father's educ	4198	9.13483	(3.93943)
His earned income	4717	28451.54	(37482.12)
Her earned income	4717	11827.73	(15432.87)
His pension income	4717	2097.08	(6409.02)
Her pension income	4717	242.37587	(1742.33)
Household disability benefits	4717	713.39983	(3123.33)
Total household income	4717	56172.32	(48967.61)
Couple's total income	4717	52162.12	(48108.07)
Wife's share of couple's income	4686	0.2365	(0.24561)
Household total net worth (thousands of \$)	4717	219.0853	(389.76676)
Net worth components (thousands of \$)			
Net worth of 1st home	4717	69.41256	(94.58655)
Net worth 2nd house	4717	12.85365	(91.43128)
Net worth of other real estate	4717	43.86553	(208.96676)
Net worth of business	4717	47.21871	(294.07081)
Total financial net worth (not business)	4717	80.19603	(205.08104)

Table 2
“Standard” Model of Household Net Worth

	Without work status		With work status	
Intercept	-506.379*	(285.575)	-377.736	(286.558)
Couple’s income	-0.001	(0.002)	-0.0005	(0.002)
Income spline: over \$21,000	0.004	(0.003)	0.004	(0.003)
Income spline: over \$32,000	-0.004	(0.003)	-0.004	(0.003)
Income spline: over \$50,000	0.004**	(0.002)	0.004**	(0.002)
Income spline: over \$72,000	-0.001	(0.001)	-0.001	(0.001)
Husband working			-51.44**	(24.623)
Husband unemployed			-66.464*	(35.389)
Husband temporarily laid off			-34.611	(45.172)
Husband disabled			-27.928	(27.292)
Husband retired			33.469	(22.469)
Husband: other work status			-26.704	(57.027)
Husband’s health excellent	47.17***	(14.566)	47.669***	(14.554)
Husband’s health very good	22.403*	(13.4)	23.96*	(13.389)
Husband’s health fair	5.728	(16.68)	2.743	(16.899)
Husband’s health poor	-35.849*	(21.093)	-42.987*	(23.741)
Husband’s education: 12 to 15 years	25.713**	(12.773)	19.598	(12.808)
Husband has Bachelor’s degree	59.475***	(19.759)	53.709***	(19.762)
Husband has Master’s degree	62.806***	(25.031)	53.017**	(25.081)
Husband has law, MD, or PhD degree	228.983***	(31.672)	227.892***	(31.621)
Husband’s age	10.168***	(4.113)	8.193**	(4.121)
Husband’s age spline: years beyond 50	-0.036	(0.458)	0.056	(0.458)
Husband’s age spline: years beyond 55	0.037	(0.393)	0.068	(0.392)
Husband’s age spline: years beyond 60	-0.142	(0.361)	-0.431	(0.364)
Husband’s age spline: years beyond 65	-0.956*	(0.466)	-1.042**	(0.466)
Husband’s age spline: years beyond 70	0.058	(0.704)	0.097	(0.702)
Husband’s race: black	-79.644***	(15.645)	-82.801***	(15.632)
Husband’s race: Asian	-105.631**	(49.183)	-102.0**	(49.067)
Husband’s race: Hispanic/Latino	-90.334***	(19.501)	-84.63***	(19.486)
Husband’s race: other non-white	-97.329*	(54.824)	-91.681*	(54.856)
Midwest	-14.06	(15.838)	-15.559	(15.829)
South	-32.911**	(14.533)	-33.756**	(14.524)
West	59.426***	(17.866)	56.432***	(17.84)
Model R ²		0.228		0.233

Standard errors in parentheses.

*, **, *** = statistically significant at 10%, 5%, and 1% respectively.

Table 3
Unitary Model of Household Net Worth

Intercept	-958.209**	(400.021)
Couple's income	-0.001	(0.002)
Income spline: over \$21,000	0.005	(0.003)
Income spline: over \$32,000	-0.004	(0.003)
Income spline: over \$50,000	0.004**	(0.002)
Income spline: over \$72,000	-0.001	(0.001)
Husband's health excellent	44.313***	(14.589)
Husband's health very good	20.129	(13.361)
Husband's health fair	9.689	(16.606)
Husband's health poor	-27.404	(21.125)
Wife's health excellent	39.415***	(14.496)
Wife's health very good	54.868***	(13.368)
Wife's health fair	13.045	(17.161)
Wife's health poor	-24.426	(23.743)
Husband's education: 12 to 15 years	13.691	(13.181)
Husband has Bachelor's degree	38.667*	(20.543)
Husband has Master's degree	29.613	(26.529)
Husband has law, MD, or PhD degree	196.255***	(32.916)
Wife's education: 12 to 15 years	27.113**	(13.894)
Wife has Bachelor's degree	32.186	(23.151)
Wife has Master's degree	78.573***	(28.97)
Wife has law, MD, or PhD degree	195.782***	(70.108)
Husband's age	6.977*	(4.167)
Husband's age spline: years beyond 50	-0.099	(0.459)
Husband's age spline: years beyond 55	-0.149	(0.394)
Husband's age spline: years beyond 60	-0.203	(0.365)
Husband's age spline: years beyond 65	-0.689	(0.469)
Husband's age spline: years beyond 70	0.238	(0.702)
Wife's age	9.743**	(4.384)
Wife's age spline: years beyond 50	-0.901	(0.65)
Wife's age spline: years beyond 55	0.303	(0.419)
Wife's age spline: years beyond 60	-0.456	(0.379)
Wife's age spline: years beyond 65	-1.036*	(0.589)
Wife's age spline: years beyond 70	-0.703	(1.238)
Midwest	-12.004	(15.786)
South	-28.387**	(14.489)
West	62.041***	(17.794)
Husband's race: black	-70.845***	(15.679)
Husband's race: Asian	-87.791*	(49.121)
Husband's race: Hispanic/Latino	-73.991***	(19.87)
Husband's race: other non-white	-80.564	(54.659)
Model R ²		0.239

Standard errors in parentheses.

*, **, *** = statistically significant at 10%, 5%, and 1% respectively.

Table 4
Collective Models of Household Net Worth

	Model 1		Model 2	
Wife's – husband's age	9.754**	(4.384)	9.28**	(4.391)
Wife's – husband's years of education	4.018	(2.766)	5.57**	(2.8)
Wife's share of couple's current income			-141.42***	(21.754)
Husband's health excellent	44.319***	(14.588)	39.576***	(14.62)
Husband's health very good	20.483	(13.362)	14.551	(13.399)
Husband's health fair	9.181	(16.608)	14.852	(16.704)
Husband's health poor	-28.85	(21.146)	-20.719	(21.317)
Wife's health excellent	39.829***	(14.497)	43.071***	(14.511)
Wife's health very good	54.832***	(13.367)	58.248***	(13.398)
Wife's health fair	13.462	(17.162)	7.49	(17.263)
Wife's health poor	-23.333	(23.752)	-40.316*	(24.073)
Husband's education: 12 to 15 years	28.915*	(16.837)	33.488**	(16.906)
Husband has Bachelor's degree	65.634**	(27.686)	70.72***	(27.805)
Husband has Master's degree	58.748*	(33.254)	61.629*	(33.353)
Husband has law, MD, or PhD degree	224.401***	(38.191)	216.866***	(38.259)
Wife's education: 12 to 15 years	16.242	(15.78)	17.209	(15.86)
Wife has Bachelor's degree	8.998	(28.118)	15.989	(28.24)
Wife has Master's degree	52.835	(33.955)	70.534**	(34.13)
Wife has law, MD, or PhD degree	168.978**	(72.487)	201.526***	(73.945)
Husband's age	16.616***	(5.952)	15.903***	(5.97)
Husband's age spline: years beyond 50	-0.091	(0.459)	-0.063	(0.459)
Husband's age spline: years beyond 55	-0.148	(0.394)	-0.152	(0.395)
Husband's age spline: years beyond 60	-0.193	(0.365)	-0.129	(0.367)
Husband's age spline: years beyond 65	-0.693	(0.469)	-0.705	(0.469)
Husband's age spline: years beyond 70	0.198	(0.702)	0.271	(0.702)
Wife's age spline: years beyond 45	-0.91	(0.65)	-0.963	(0.651)
Wife's age spline: years beyond 50	0.315	(0.419)	0.35	(0.42)
Wife's age spline: years beyond 55	-0.448	(0.379)	-0.481	(0.379)
Wife's age spline: years beyond 60	-1.046*	(0.589)	-1.055*	(0.594)
Wife's age spline: years beyond 65	-0.703	(1.238)	-0.683	(1.239)
Model R ²	0.239		0.246	

Standard errors in parentheses.

*, **, *** = statistically significant at 10%, 5%, and 1% respectively.

Models also include a constant term and control variables for region of residence, couple's income, and husband's race.

Table 5
Add Relative Health Measures to Collective Model of Net Worth

	Health ratio		Health difference	
Health ratio (husband's/wife's value)	0.289	(16.201)		
Health difference (husband's – wife's value)			-11.904	(7.84)
Wife's – husband's age	9.754**	(4.384)	9.769**	(4.383)
Wife's – husband's years of education	4.019	(2.766)	4.136	(2.764)
Husband's health excellent	44.653*	(23.727)		
Husband's health very good	20.633	(15.784)		
Husband's health fair	9.063	(17.895)		
Husband's health poor	-29.073	(24.567)		
Wife's health excellent	39.381	(28.999)		
Wife's health very good	54.701***	(15.26)		
Wife's health fair	13.547	(17.814)		
Wife's health poor	-23.195	(24.97)		
Husband's health very good or excellent			7.446	(16.921)
Husband's health poor			-12.28	(23.897)
Wife's health very good or excellent			64.918***	(16.988)
Wife's health poor			-47.221*	(26.241)
Husband's education: 12 to 15 years	28.916*	(16.839)	28.563*	(16.822)
Husband has Bachelor's degree	65.649**	(27.7)	65.905**	(27.659)
Husband has Master's degree	58.759*	(33.263)	59.395*	(33.208)
Husband has law, MD, or PhD degree	224.421***	(38.211)	225.273***	(38.147)
Wife's education: 12 to 15 years	16.234	(15.788)	15.864	(15.763)
Wife has Bachelor's degree	8.993	(28.123)	8.522	(28.112)
Wife has Master's degree	52.822	(33.966)	51.441	(33.932)
Wife has law, MD, or PhD degree	168.971**	(72.496)	165.954**	(72.446)
Husband's age	16.617***	(5.954)	16.719***	(5.949)
Husband's age spline: years beyond 50	-0.091	(0.459)	-0.093	(0.459)
Husband's age spline: years beyond 55	-0.149	(0.394)	-0.158	(0.394)
Husband's age spline: years beyond 60	-0.193	(0.366)	-0.196	(0.365)
Husband's age spline: years beyond 65	-0.694	(0.469)	-0.683	(0.469)
Husband's age spline: years beyond 70	0.198	(0.702)	0.185	(0.702)
Wife's age spline: years beyond 45	-0.91	(0.65)	-0.926	(0.65)
Wife's age spline: years beyond 50	0.315	(0.419)	0.32	(0.419)
Wife's age spline: years beyond 55	-0.448	(0.379)	-0.45	(0.379)
Wife's age spline: years beyond 60	-1.046*	(0.589)	-1.051*	(0.589)
Wife's age spline: years beyond 65	-0.703	(1.238)	-0.687	(1.237)
Model R ²		0.239		0.239

Standard errors in parentheses.

* **, *** = statistically significant at 10%, 5%, and 1% respectively.

Models also include a constant term and control variables for region of residence, couple's income, and husband's race.