THE DETERMINANTS AND SOME CONSEQUENCESS OF BARGAINING POWER IN HOUSEHOLDS

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February 2006

ABSTRACT

A growing literature offers indirect evidence that the distribution of bargaining power within a household influences decisions made by the household. These results undermine the notion that a household can be treated as a "unitary" decision maker. The indirect evidence links household outcomes to variables that are assumed to influence the distribution of bargaining power within the household.

In this paper, we have data on whether a husband or wife "has the final say" when making major decisions in a household. We use this variable to analyze determinants and some consequences of decision-making power. Our analysis overcomes endogeneity problems arising in many earlier studies and constitutes the missing link confirming the importance of household bargaining models. We show that having the final say depends on the distribution of earnings in the household, with higher earnings significantly raising the likelihood of having the final say, and on cultural factors like religion. We find, further, that decision-making power affects important household decisions. When husbands have more decision-making power, a greater share of household assets is invested in the stock market. Also, household wealth rises specifically with the age of the spouse who has more decision-making power.

The results show that the welfare of household members depends on the distribution of bargaining power. This may help explain the relatively high poverty rate among widows and thus has implications for the design of dependent and survivor benefits available through Social Security and private pensions.

JEL Codes: D13, D14, G11, J12, J22

We would like to thank Federico Ciliberto, Maxim Engers, John Pepper, Steven Stern, and participants of workshops at the University of Virginia, the Society of Labor Economics, and Harvard University for their extremely helpful comments, and Jonathan King for excellent research assistance. Any remaining errors are our own. Friedberg (corresponding author): Department of Economics, University of Virginia, P.O. Box 400182, Charlottesville, VA 22903-4182, lfriedberg@virginia.edu. Webb: Center for Retirement Research, Boston College, Fulton Hall 550, 140 Commonwealth Avenue, Chestnut Hill, MA 02467-3808, webbaa@bc.edu.

I. INTRODUCTION

A growing literature offers indirect evidence that the distribution of bargaining power within a household influences decisions made by the household. Yet, earlier papers were not able to measure actual bargaining power. We use information from a unique question in the Health and Retirement Study to analyze the determinants and some consequences of bargaining power.

Models of household bargaining have two important implications for understanding individual outcomes. First, the welfare of household members depends on the distribution of bargaining power. Second, household decisions are not the outcome of a single individual maximizing utility. Indirect evidence against "unitary" decision-making links household outcomes to variables that are assumed to influence the distribution of bargaining power within the household. Such outcomes include the amount and allocation of leisure time, spending (on women's and children's clothes versus men's clothes, on alcohol and tobacco, on food) and domestic violence (including female suicide rates).

However, none of the recent studies show how households actually make decisions. In this paper, we analyze data from the HRS reporting whether a husband or wife has "the final say" when making major decisions in a household. Our analysis overcomes endogeneity problems arising in many of the earlier studies and constitutes the missing link that confirms the importance of household bargaining. We find that the seat of power depends on variables that are plausibly related to the distribution of decision-making power within the household and influences important household outcomes.

In our main set of results, we analyze determinants of whether the husband or wife has more decision-making power. We find that decision-making power depends significantly on relative household earnings, and more so on average lifetime earnings than on current earnings. We would characterize the overall effects as substantial but not huge – perhaps because our data covers a relatively old and hence traditional cohort. The estimates control for human capital variables that might be correlated with both labor supply and a comparative advantage in making important decisions. We also find that cultural factors like race, religion, and immigrant status affect both decision-making power and disagreements about who has more power.

Next, we use the data to investigate outcomes that are both novel in the household bargaining literature and important. We find that the greater the decision-making power of the husband, the more the household invests in equities, controlling for important factors like household wealth, stated risk preferences, and age. We also find that when husbands have the final say, household wealth rises with the husband's age but not the wife's age, and when wives have the final say, household wealth rises with the wife's age. These effects are quite substantial in magnitude.

Our results may help explain some differences in important outcomes between men and women. The relatively high rate of poverty among widows may result not only from aggregate longevity shocks, insurance market failures, and/or poor planning, but also from the nature of household bargaining earlier in life.[1] This, in turn, has implications for the design of dependent and

[1] 18.0% of widows aged 65 and over lived in poverty in 1997, compared to 13.1% of all elderly women and 13.3% of the total population (National Economic Council 1998).

survivor benefits available through Social Security. It also suggests that the shift from in private pension structure from defined benefit pensions, which offer annuities that often include survivor benefits, to defined contribution pensions, which offer a lump-sum at retirement, might increase widow poverty.

II. PAST EVIDENCE ON HOUSEHOLD BARGAINING

A. Past empirical literature

While a great deal of consumption and wealth data is collected at the household level, many studies have raised doubts that households can be treated as unitary decision makers.[2] In theoretical work that began with McElroy and Horney (1981) and Manser and Brown (1981), it has been assumed instead that spouses engage in cooperative bargaining. The resulting Nash-bargained equilibrium allocates marital surplus according to each spouse's decision-making power. Decision-making power depends in turn on spouses' threat points, assumed most often to be their utility from divorce.

While plausible, direct tests of such models are hampered by the unobservability of bargaining, threat points, and the allocation of marital surplus. Consequently, the empirical literature has employed indirect tests of implications of unitary decision-making models. Many of these tests rely on a similar identification strategy which we will discuss in the next section.

Much of the literature tests the "income pooling" hypothesis. Under unitary models, the distribution of resources within the family should not influence outcomes like expenditures. Empirical papers have shown, to the contrary, that variation which is plausibly influenced by threat points alters household outcomes, and in particular some over which spouses might have different preferences. Many papers show that the distribution of wages, earnings, or unearned income between spouses affects outcomes like time spent by spouses on leisure and chores (Friedberg and Webb 2005); spending on men's, women's, and children's clothing (Phipps and Burton 1998; Lundberg, Pollak and Wales 1997; Ward-Batts 2003), on alcohol and tobacco (Phipps and Burton; Hoddinot and Haddad 1995; Ward-Batts), and on food (Lundberg, Starz, and Stillman 2003; Duflo and Udry 2004; Ward-Batts); and child outcomes like health and education (Schultz 1990; Thomas 1990, 1994; Haddad and Hoddinott 1994; Rose 1999; Duflo 2003; Duflo and Udry).

Researchers have occasionally focused on additional empirical implications of unitary models. Household bargaining is one explanation for rejections of standard implications of individual preference axioms using household-level data (McElroy 1981).[3] Proceeding from that point, Browning et al (1994) and Browning and Chiappori (1999) found that testable analogs of non-unitary models that assume Pareto efficient allocations within the household were not rejected.

B. Comparison to our empirical strategy

[2] See recent surveys by Bergstrom (1995), Behrman (1995), Bergstrom (1996), and Lundberg and Pollack (1996).
[3] Examples include estimates of negative price elasticities and violations of Slutsky symmetry, but such tests are hampered by numerous other econometric problems that may cause such rejections.

Our approach offers three related advantages over recent studies. First, we have actual measures of the distribution of bargaining power. As we noted above, earlier studies lacked such measures and had to assume that the variables they had access to influenced the distribution of bargaining power and were influenced by it. We do not have to assume any indirect relationships. Thus, our results constitute strong new evidence in favor of household bargaining models and about the specific nature of bargaining.

Second, because we have a measure of bargaining power, we are not constrained as earlier studies were in choosing outcomes to analyze. The studies mentioned in the previous section jointly test not only income pooling but also that spouses' differ in their preferences over the outcomes being studied. This is the main reason to study spending on men's and women's clothing.[4] It is less obvious, though, that men and women have different preferences for alcohol and tobacco, food at home versus away, and children's well-being. In contrast, we can directly test which outcomes depend on our measure of bargaining power. While we lack data on many potentially interesting outcomes, and we need to be able to condition on the right set of additional variables just as any other study does, we can examine outcomes like financial behavior which less obviously reflect the preferences of a particular spouse.

Third, many of the variables which earlier studies used to explain the distribution of bargaining power were arguably endogenous. To give an extreme but relevant example, it would be difficult to conclude that omitted factors played no role in explaining a statistical relationship between religion and spending, unless we can show (as we do later) that religion directly influences bargaining power. Similarly, the earnings variation used in many tests of income pooling is not plausibly separable from the outcomes being explained. If spouses earn more because they work more, that reduces time that is available for home production and may alter spending on clothing, food, children, etc. Variation in unearned income is similarly problematic for reasons described by Lundberg and Pollak (1996). The cleanest evidence, then, comes from studies with data on wages rather than earnings (as in Friedberg and Webb) and especially on quasi-experiments, but those are limited to particular settings and mostly involve poor populations (Lundberg, Pollak, and Wales; Duflo; Duflo and Udry).

III. DATA

A. The HRS

We use data from the Health and Retirement Study (HRS), a longitudinal survey of over 7,600 households with a member aged 50-60 in 1991. The HRS began in 1992 and collected new data every two years. The HRS reports unprecedented detail about household characteristics, labor supply, finances, health, and so on. We use data from the first wave in 1992.[5]

[4] This statement ignores possible public good aspects of a spouse's clothing choices!

[5] The question about decision-making was asked again in 1994, and we find that 2/3 of respondents gave the same answer. After that, it was only asked of new entrants to the HRS, which are a considerably smaller group. Analyzing changes in bargaining power would require not only a theory of dynamic bargaining with considerations of renegotiation, but also an approach to distinguishing measurement error from true shifts in either bargaining power or reporting bias.

Each spouse was asked the following question about decision-making power:

> *"When it comes to making major family decisions, who has the final say – you or your (husband/ wife/ partner)? By 'major family decisions' we mean things like when to retire, where to live, or how much money to spend on a major purchase."*

Individuals could answer that they themselves had the final say, that their spouses did, or that the division of responsibility between them was "about equal".[6]

The limited age range in the HRS means that the results are not representative of all households. In particular, since they are older and some unhappy marriages will already have ended, the households that we are observing are more harmonious than average.[7] On the other hand, the greater marital stability of the sample offers an advantage. We can view the observed outcomes as the steady state of a repeated game, and cooperative bargaining is more likely to be sustained than in a one-shot game.

B. The distribution of the "final say" in the sample

We took the following steps in selecting our sample from the HRS:

- the HRS interviewed 7,607 households in 1992
- we selected couples, yielding a sample of 5,090
- we eliminated couples with no financial information, yielding a sample of 5,036
- we eliminated couples who were cohabiting, yielding a sample of 4,815 [8]
- we eliminated couples in which at least one spouse did not answer the bargaining question, yielding a final sample of 4,237.

Table 1 shows the distribution of decision making power in our sample, and Table 2 shows other sample statistics. In Table 1, both spouses report that husbands have more decision-making power, on average. When husbands answered the first question above (as shown across the bottom of the upper panel), 30.6% reported having the final say, 57.6% said it was about equal, and 11.8% reported that the wife had the final say. When the 30.6% of husbands with the final say answered the second question above (as shown in the lower panel), roughly one-quarter reported having a lot more say, and the rest reported having somewhat or a little more say.

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[6] They were asked a follow-up question if the answer was not "about equal": either, "Do you have a lot more say than your (husband/ wife/ partner), somewhat more, or only a little more?", or, "Does (he/ she) have a lot more say than you, …?" The answers to this second question did not provide us with additional significant information. In ordered probits, the estimated cut points are not significantly different from each other when we try to explain answers to the second question, but they are when we try to explain answers to the first question in the estimates we report later.

[7] The propensity to divorce declines sharply with age. While the value of observed marriages in the HRS should be higher than the value of a representative marriage and disagreement should be less likely, this does not have clear-cut implications about the observed distribution of bargaining power relative to the underlying distribution for all couples. We find that controlling for the duration of marriage has no impact on the other coefficient estimates. Interestingly, we find smaller estimated effects of earnings on bargaining power in second marriages compared to first marriages, perhaps because, being older and more settled, people enter a second marriage with more information about the likely distribution of bargaining power. This points to the possibility of using this data to model bargaining in a dynamic setting.

[8] While cohabiting couples have surplus to bargain over, that surplus is expected to be lower on average (Brien, Lillard, and Stern 2004). We do not to try to capture this heterogeneity as the sample of cohabiters is small.

The marginal distribution of wives' answers to the first question is similar to husbands'. 16.0% of wives reporting that they themselves have the final say, 52.7% answering that it was about equal, and 31.3% reporting that their husbands have the final say.

Disagreements are apparent in the off-diagonal cells in the upper panel of Table 1. Spouses agreed on the answer 63.3% of the time. 84.2% of the disagreements occurred in adjacent cells, while the rest involved one spouse answering the wife and the other answering the husband. About 2/3 of these adjacent disagreements leaned toward the husband, with one spouse attributing more power to the husband and the other reporting equal power. It was also a little more common for disagreeing spouses to attribute extra power to themselves relative to the other spouse's opinion (adding together cells in the lower left) than it was for them to attribute extra power to the other spouse (cells in the upper right).

IV. EMPIRICAL APPROACH

Because we find significant effects of these answers later on, we believe that they are informative.[9] However, we treat them as noisy measures of true decision-making power because of the disagreements revealed in Table 1 and because they are discrete. Moreover, disagreements are correlated with some of our important explanatory variables in the results we present later. We offer the following econometric framework to disentangle these features. First, we review the implications of observing a noisy but continuous measure of decision-making power, and then we deal with discreteness.

A. Estimating the determinants of noisy measures of true decision-making power

In this subsection and the next, we assume that spouses report continuous measures of decision-making power (denoted with an asterisk). We will focus on determining first how decision-making power depends on household characteristics and then how it influences household outcomes. Suppose true decision-making power y_i^* in household i indicates the continuous bargaining weight of the husband relative to the wife. We will write true decision-making power as a function of observables X and an uncorrelated homoscedastic error term:

$$(1) \qquad y_i^* = X_i\alpha + u_i \, .$$

We do not observe y_i^* but rather the belief y_{ji}^* about true decision-making power that each spouse $j = \{h,w\}$ in household i reports. We write these beliefs as

$$(2a) \qquad y_{wi}^* = y_i^* + X_i\beta_w + u_{wi}$$
$$(2b) \qquad y_{hi}^* = y_i^* + X_i\beta_h + u_{hi} \, ,$$

so j's report about the husband's relative decision-making power depends on his true decision-making power but also on some reporting bias $X_i\beta_j$ and another uncorrelated homoscedastic error term. While we can rewrite each spouse's report of decision-making power as

[9] Thus, it seems unlikely that one spouse has more power but delegates decision making to the other spouse, knowing that the decisions will reflect their own preferences.

$$y_{wi}^* = X_i\,(\alpha+\beta_w) + u_i + u_{wi}$$
$$y_{hi}^* = X_i\,(\alpha+\beta_h) + u_i + u_{hi}\ ,$$

we can only estimate the empirical analogs

(3a) $y_{wi}^* = X_i\,b_w + \tilde{u}_{wi}$

(3b) $y_{hi}^* = X_i\,b_h + \tilde{u}_{hi}$.

The crucial point is that $b_j = \alpha + \beta_j$. Thus, we have an identification problem in distinguishing the true effect α of X on y^* from the reporting bias β_j also engendered by X.

In order to identify the true effect α, we propose the following restriction:

(4) $\beta_h + \beta_w = 0$.

This condition requires that any disagreements between spouses about true decision-making power be equal and opposite in sign, so that they balance out on average across the sample.

This restriction is an intuitive extension of the assumption that respondents provide unbiased information. As an example, consider our result later that wives' (W's) earnings reduces husbands' (H's) decision-making power but by amounts that are disagreed on. Suppose that higher W's earnings reduce true y_i by an average of 0.5. A symmetric disagreement arises if higher W's earnings lead Ws to claim a greater drop and Hs to claim a smaller drop. If instead they disagreed in the same direction (e.g., Hs and Ws report average reductions of 0.6 and 0.7, respectively), then we could not identify the true effect on decision-making power (which we would infer lies between 0.6 and 0.7) from this systematic reporting bias. Instead, we infer that anything that moves both spouses' reports in the same direction is the truth. Similarly, if the disagreement were opposite in direction but not symmetric (e.g., Hs and Ws report average reductions of 0.4 and 0.7), then we would correctly infer that the truth lies in between 0.4 and 0.7, but we would incorrectly infer where.[10] This assumption makes sense as long as both spouses interpret the question in the same way, on average.[11]

Once we estimate (3a) and (3b) and then impose (4), we can recover the underlying parameters of interest. Since $b_h = \alpha + \beta_h$ and $b_w = \alpha + \beta_w$, it can be shown that

(5a) $\alpha = (b_h + b_w)/2$

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[10] We could generalize (4) by incorporating asymmetric effects of X on disagreement, such that $\beta_h + \beta_w = \beta$, $\forall |\beta_j| \geq |\beta|$. This allows β_h and β_w to differ in magnitude as long as they also differ in sign, and we would no longer have point identification of α and β_j. If we suspected that an element of X had a greater effect on one spouse's reporting bias than on the other's, then $\beta > 0$ and we would know that the estimate of $\hat{\alpha}$ obtained from (4) was an upper bound on the true α. Also, we could determine how large β (the asymmetry of disagreement) would have to be in order to undermine inference about the true sign of α.

[11] The HRS reported whether the other spouse was present and intervened much during someone's interview. We find that a spouse's presence is not systematically related to either spouse's reported bargaining power, and that wives are much more likely to be present for their husband's interviews. The theoretical implication is ambiguous – a spouse with more bargaining power may directly exercise control over the less powerful spouse's answers or may be confident of indirect control that makes intervention unnecessary. When we try controlling later for the presence of the other spouse, there is little qualitative impact on the estimated effect of earnings, which is our primary interest. It alters the estimated effect of some demographic and cultural variables (i.e., race, religion, children).

(5b) $\beta_j = b_j - \alpha = b_j - (b_h + b_w)/2$.

Thus, our estimate of the true effect $\hat{\alpha}$ equals the average of $\hat{b}_h$ and $\hat{b}_w$, and our estimate of the reporting bias $\hat{\beta}_j$ equals $\hat{b}_j$ minus $\hat{\alpha}$. In cases where there is little disagreement, $\hat{b}_w \approx \hat{b}_h$, so $\hat{b}_j \approx \hat{\alpha}$ and $\hat{\beta}_j \approx 0$.

Another issue is whether the errors in the reporting equations (2a) and (2b) are correlated.[12] We test this hypothesis by joint estimation of (3a) and (3b), and we find a large and statistically significant correlation. However, we find almost no change in the coefficient estimates, compared to those obtained from separate estimation.

B. Estimating the consequences of noisy measures of true decision-making power

Using noisy measures of decision-making power also affects how we interpret estimates of the consequences of decision-making power on household outcomes. Suppose some outcome z_i depends on true continuous but unobserved decision-making power y_i*, as defined in (1), and on X (variables which affect true and reported decision-making power as well), W (variables which do not affect decision-making power but which affect z), and an uncorrelated homoscedastic error term, so that

(6) $z_i = \gamma y_i^* + X_i\delta + W_i\phi + v_i$.

We can substitute (2a) and (2b) to obtain

$$z_i = \gamma y_{wi}^* + X_i (\delta - \gamma\beta_w) + W_i\phi + v_i - \gamma u_{wi}$$
$$z_i = \gamma y_{hi}^* + X_i (\delta - \gamma\beta_h) + W_i\phi + v_i - \gamma u_{hi}$$

and then add these together to arrive at

(7) $$z_i = \gamma\left(\frac{y_{hi}^* + y_{wi}^*}{2} \right) + X_i \left(\delta - \frac{\gamma}{2} (\beta_w + \beta_h)\right) + W_i\phi + v_i - \frac{\gamma}{2}(u_{wi} + u_{hi}) .$$

The empirical analog of (7) is

(8) $z_i = c(y_{hi}^* + y_{wi}^*) + X_i d + W_i\phi + \tilde{v}$.

We can estimate (8) and recover the true parameters simply as $\gamma = c$ and $\delta = d$, where we obtain the latter by invoking the assumption in (4) that $\beta_h + \beta_w = 0$. The key is that summing y_{hi}* and y_{wi}* in the estimation cancels out the disagreement effects β_j. Note also that we can obtain consistent estimates of the effect of other variables W on z from estimating (8).

A second approach unites the possibilities outlined in this and the previous subsections through a joint estimation strategy that treats y_{hi}*, y_{wi}*, and z_i as simultaneously determined endogenous variables. This would yield a single set of efficient estimates of β_j, α, γ, δ, ϕ. On the other hand, this approach would get rapidly more complicated as we analyze additional household outcomes Z_i, so we have not tried it.

[12] Note that we cannot identify a correlation between the disturbance in the true equation (1) and the reporting equations without making a further assumption, analogous to (4) or (4′), about the sign of any possible correlation.

C. Estimating the causes and consequences of discrete measures of decision-making power

At this point, we incorporate the fact that our observed reports of decision-making power y_{ji} are discrete variables rather than continuous variables y_{ji}*. We observe a report

(9) y_{ji} = {husband has final say, about equal, wife has final say} = {*1, 0, -1*}

by each spouse j. We assume that these answers are related monotonically to the continuous variables y_{ji}*.

In order to estimate the "input" relationship that determines decision-making power, we continue to assume that y_{ji}* are related to y_i* according to (2a) and (2b). Assuming further that $\tilde{u}_{ji} \sim N(0,\sigma^2)$ yields an ordered probit framework that is the discrete choice analog to (3a) and (3b), where the contribution of each possible outcome of y_{ji} to the sample log likelihood function is

$$P(y_{ji} = -1) = \Phi(\mu_0 - X_i b_j)$$
$$P(y_{ji} = 0) = \Phi(\mu_1 - X_i b_j) - \Phi(\mu_0 - X_i b_j)$$
$$P(y_{ji} = 1) = 1 - \Phi(\mu_1 - X_i b_j),$$

and μ_0 and μ_1 are parameters to be estimated. Note that the same relationship $b_j = \alpha + \beta_j$ continues to hold, so after imposing (4) we have the same conditions in (5a) and (5b) governing identification.[13]

When we consider the "output" relationships between the noisy, discrete measure of decision-making power and household outcomes, the single equation estimation strategy outlined in (8) is now more complicated since we do not observe the continuous variables y_{ji}*. We can deal with this through a two-stage procedure in which we estimate the ordered probits on decision-making power in the first step, predict values of $\hat{y}_{ji}^* = X_i \hat{b}_j$, and substitute those into (8) in order to estimate the outcomes in the second step (Maddala 1982). Alternately, we can estimate the reduced form while restricting the coefficients on common X variables to be proportional to the "first-stage" estimates. Once again, we can use the estimates to recover the true parameters γ and δ.

We face an additional constraint, though, because the predictor of $\hat{y}_{ji}^*$ is a linear function of the explanatory variables X. Therefore, we must exclude one or more elements of X for the purposes of identification.[14] In our empirical analysis later, we will argue that variables like total earnings in the household should affect outcomes z that we analyze, but that the split between husband's and wife's earnings should not, except through their influence on decision-making power.

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[13] While it may seem counterintuitive, we cannot identify the true effect α by limiting the sample to couples who report the same values for y. It is not the case that such couples have no reporting bias, but rather that their reporting errors u_{ji} happen to offset their reporting bias $X_i\beta_j$. The resulting estimates of b_j would be biased and moreover identical for both spouses, yielding nothing to distinguish α and β.

[14] If we observed the continuous values y_{ji}*, then the variation in reported bargaining power that is uncorrelated with X would identify the impact of y* on z.

V. WHAT INFLUENCES THE DISTRIBUTION OF DECISION-MAKING POWER?

In this section, we analyze the empirical determinants of decision-making power. We estimate ordered probits on each spouse's answer y_{ji} about decision-making power, which was coded in (9) as {1,0,-1} = {husband has final say, about equal, wife has final say}. We hypothesize that earnings of each spouse affects threat points and in turn decision-making power. We explore the impact of current earnings, past earnings, and other labor market variables.

The HRS offers a great deal of information that we can use as to control for other factors that may affect both threat points and decision making,. For example, a spouse who is "savvier" than the other may be more likely to work *and* make major decisions, inducing a spurious correlation. To deal with this, we control for each spouse's human capital as reflected by education, cognition, and health.[15] Cultural background and social norms may be correlated with both threat points and decision-making power, so we control for numerous background variables – race, hispanic ethnicity, immigrant status, religious background, and father and mother's education. We find that many of these variables have statistically significant effects on decision-making power, although ethnic variables also have the strongest effects on disagreements.

A. The impact of husband's and wife's earnings

We show estimation results for various specifications of labor market variables (including current earnings, earnings histories, and others) in bivariate ordered probits estimated jointly on both spouses' responses.[16] After reviewing various specifications, we will discuss the decomposition of the parameter estimates into the "true" and "disagreement" effects that we obtain by imposing the identification assumption in (4). In the meantime, recall that the estimated true effect $\hat{\alpha}$ of a particular variable on decision-making power equals the average of its estimated effects $\hat{b}_h$ and $\hat{b}_w$ on husbands' and wives' reports. Lastly, note that throughout these specifications, we obtain a positive, significant correlation coefficient between the answers of around 0.45. Thus, conditioning on observables, both spouses agree on average about who has decision-making power.

Current earnings *(Table 3-A).* In general, we find that earnings have a significant effect on decision-making power. In our first set of results, a wife's earnings significantly lower her

[15] We use two of three measures of cognition reported in the HRS. The first, V5105, began, "Next, I'll read a set of 20 words and ask you to recall as many as you can. We have purposely made the list long so that it will be difficult for anyone to recall all the words – most people recall just a few." We use the number that was answered correctly. We also used V5113, which adds together the number of fully or partially correct answers to a series of seven questions from the Wechsler Adult Intelligence Scale that elicit analogies. For example, the first question asks, "Now I'd like you to tell me how some things are alike. In what way are an orange and a banana alike?" The answer is fully correct if the individual responded that they are both fruit and partially correct if the individual "gives a correct, but concrete answer, like 'You eat them both.' " We did not use a third variable, V5126, which had little explanatory power in our estimates. For missing observations on cognition, we used hot-deck imputation with income and education as explanatory variables.

[16] In all cases, we used the coefficient estimates from the univariate specification as starting values for the bivariate estimation. We checked that many alternative starting values did not yield a higher maximum of the log likelihood function.

husband's reported decision-making power y_{hi}* in column (1) and her own report of his power y_{wi}* in (2), while a husband's earnings significantly raise his wife's report y_{wi}*. Interestingly, a wife's earnings matter significantly more than a husband's in explaining both reports, while earnings of both spouses affect the wife's report by considerably more.

We can also attribute pension income to each spouse. Though the estimates are not statistically significant, each spouse's pension income from earlier jobs and pension participation in a current job affect reported decision-making power with the same signs as earnings in almost all cases. Once again a wife's pension has a much greater effect than a husband's.

Other human capital variables *(Table 3-A).* It may also be important to consider the effects of other work and human capital variables which are correlated with earnings. The effect of skill on decision-making power, as measured by occupation and education, is sometimes statistically significant and generally monotonic, raising one's own and reducing one's spouse's decision-making power. The differential effect of being in the highest versus the lowest skilled occupation is similar in magnitude to the differential effect of having attended college versus not having completed high school.

Being self-employed also has strong effects on one's reported decision-making power. If the husband is self-employed, it raises his reported power by than the difference between low and high skill does. It also raises his wife's report of his power, but by a third less. A wife's self-employment reduces the husband's power, but the effects are smaller and less significant. Male self-employment may capture both an effect on the value of the threat point that is not reflected in current earnings, and also a strong preference to maintain control that is revealed by self-employed husbands.

Other human capital variables – cognition, health, parents' education – have minor effects on decision-making power. There are two possible interpretations of the effects of these skill- and work-related variables. First, they may capture information about threat points that is not reflected in current earnings. In fact, when we control for average past earnings instead of current earnings in our next specification, occupation effects become less positive or more negative. Second, these variables may reflect a comparative advantage in both working and making important decisions. With the first interpretation, we should consider the effects of these variables alongside that of earnings. With the second, it is important to control for them in order to isolate the effect of earnings.

Earnings histories *(Table 3-B).* The HRS provides information on a restricted basis about earnings histories reported by the Social Security Administration. We computed the average present value of past annual earnings (expressed in the same magnitude as current earnings) back to the beginning of the marriage and substituted it in place of current earnings on the right-hand side. We have this data for 77% of the couples in our original estimation sample.[17]

[17] Some respondents refused to provide their Social Security numbers, and some provided numbers that could not be matched. We imputed earnings that were topcoded at the Social Security payroll tax limit. If we run the earlier specifications from Table 3-A on the limited sample from Table 3-B, the estimated effects of current earnings are very similar.

We find that average past earnings in column (2) have a substantially greater impact on decision-making power than current earnings in (1) do. The estimated effect of husbands' earnings roughly doubles, though it is statistically insignificant, while the effect of wives' earnings more than triples and is highly significant. In column (3), more recent wives' earnings (over the previous 10 years) have a significant effect on husbands' reported decision-making power, while more distant earnings do not. Both recent and earlier earnings affect wives' reports similarly.

Additional labor market variables *(Table 3-C).* We explored additional specifications with different combinations of earnings and other work variables. These estimates reinforce our major results about the impact of earnings on decision-making power.

By including controls for weekly hours of work in column (1), the coefficients on earnings can be thought of as isolating the effect of wages on decision-making power.[18] The estimated effects of a wife's labor market activities are now split between hours of work and earnings (which is, on net, wages), and both are statistically significant. Finding an effect of hours of work indicates that wives may "exercise" their threat to some extent by working, which raises their decision-making power.

Another concern is how to interpret the occupation and self-employment variables in the main specification – as we mentioned earlier, it is difficult to know whether significant estimated effects reflect decision-making power or omitted characteristics correlated with decision-making power. Including simple work dummies in (2) instead of occupation and self-employment had little effect on the earnings estimates. If we exclude all human capital and cultural variables and control only for work-related variables in (3), the estimated effects of earnings are a little smaller. This reduces concerns that wives' earnings are correlated with cultural variables in ways that undermines conclusions about the effect of earnings.

The last two specifications use transformations of the earnings variables, since we do not know exactly how earnings affects threat points. If we include the log instead of level of earnings and pension income in (4), the magnitudes of the predicted effects of earnings are smaller. The specification in (5) indicates that relative as well as absolute earnings influence threat points. The ratio of earnings is now significant, while the level of earnings remains statistically significant for the wife's reported decision-making power. These results show that shifting a wife from having 25% to 75% of total earnings reduces husband's reported decision-making power by as much as increasing the wife's earnings by $25,000.

B. Understanding the estimated effect of earnings

In this subsection, we discuss the magnitude of the estimated impact of earnings and other work variables. First, in Table 4 we present estimates and standard errors (based on the delta method) of the true effects of all of the covariates on decision-making power, as well as the reporting bias induced by each covariates, based on our identifying assumption in (4).

For example, the estimated coefficient of wives' current earnings/10,000 was -0.0356 (0.0149) for husbands' reports and -0.0753 (0.0149) for wives' reports. The resulting estimate of the true

[18] Measuring the marginal wage accurately for this age group is particularly difficult, as salaried jobs are the norm.

effect is the average, -0.0555 (0.0126), while the reporting bias is 0.0198 (0.0160) on husbands' reports (and -0.0198 on wives' reports). Similarly, the true effect of wives' average past earnings (at the bottom of Table 4) is -0.0997 (0.0236) and the reporting bias is 0.0434 (0.0306) on husbands' reports.

Next, we analyze the magnitude of the estimated effect of earnings. We do this by predicting decision-making power using the estimated coefficients and then again after altering husbands' and wives' earnings and work status. Because the interpretation of the occupation and self-employment variables is ambiguous – it is unclear whether they reflect threat points or individual characteristics – we use the estimates that substitute a simple work dummy instead of occupation and self-employment (in column (2) of Table 3-C) for this purpose. We also ran a similar specification using earnings histories instead of current earnings.

The results of various simulated changes in spouses' earnings are shown in Table 5. As a benchmark, we report both the actual distribution of decision-making power and the predicted values, based on the coefficient estimates.[19] We do these base predictions both with everyone's actual earnings and with average earnings by gender, which parallels what we do in the other simulations. For example, if we switch average current earnings of men and women, then the probability of husbands having the final say falls from 31.0 to 28.2%, according to husbands' reports, and from 32.3 to 26.6%, according to wives' reports.[20] If we do the same but switch average past earnings, then the declines are roughly double in magnitude -- 31.1% to 21.6%, according to wives' reports. If, based on this specification, we compare all husbands and no wives working to all wives and no husbands working (with the working spouse earning the gender conditional average), then the probability of husbands having the final say, as reported by wives, swings from 37.1% to 25.6%. Overall, we characterize these effects as substantial but not huge – perhaps because our data covers a relatively old and hence traditional cohort.

C. The impact of other control variables

We included a large set of variables reflecting ethnic and cultural background. Coefficient estimates are reported in Table 3-A, and the coefficients transformed into the true effect and reporting bias are reported in Table 4. Some of these have significant effects on decision-making power, which is interesting for three reasons. First, these background factors may be correlated with the labor supply of each spouse. Second, cultural factors may affect threat points. For example, cultural norms may influence the willingness of a spouse to consider divorce by reducing utility outside of marriage. Alternatively, they may reflect the degree to which the community favors one spouse over the other in the event of conflict. Third, some of the background variables lead to considerable disagreement between the spouses' reports about decision-making power.

Race, national origin, and ethnicity have some significant effects on reported decision-making power in Table 3, in roughly descending order in terms of magnitude. However, the true effects are not statistically significant, while some of the bias effects are. If the husband is black, it

[19] We use the estimated coefficients rather than the estimated "true effects", which would lie approximately between the husband's and wife's answers, to give a complete sense of the data that does not rely on our identification assumption.

[20] Average earnings of husbands and wives in our sample are $38,348 and $11,897, including nonworkers.

raises his reported decision-making power, while if the wife is, it reduces his and raises hers. The only statistically significant effect in Table 4, however, is that the wife being black reduces the husband's true decision-making power. Very similar results are found for the wife being foreign born.

Religion also has strong effects on reported decision-making power, with much less disagreement over these effects. In Protestant and especially fundamentalist or evangelical Protestant couples husbands have significantly more decision-making power. In Catholic and non-religious couples the effects are the reverse, though smaller, while couples reporting different religions have a significant disagreement.[21] Moreover, regular church attendance by either spouse significantly raises husbands' decision-making power.

Other variables. It is interesting to find that having kids reduces husbands' reported decision-making power; they do not raise wives' reports, though, and neither the true nor bias effects of kids are statistically significant.[22] Age has somewhat small effects on decision-making power, with our data set only identifying these effects for a relatively narrow older age range. Age of both spouses reduces a husband's reported decision-making power. Lastly, we find little effect of controls for information about individuals' time horizon and risk preferences, which we include because they should affect some of the household decisions which we investigate later.

VI. WHAT IS INFLUENCED BY THE DISTRIBUTION OF DECISION-MAKING POWER?

[preliminary results]

We have analyzed a sample of outcomes that are influenced by decision-making power. At this point, we are most interested in some significant effects of decision-making power on saving behavior. We find that, when husbands are in charge, then the household invests more of the household portfolio in equities. Also, when husbands are in charge, household assets rise with the husband's age but not the wife's age, while when wives are in charge, household assets rise with the wife's age. The estimated effects are important in magnitude.

In these results, we compute predicted decision-making power using our estimates from Table 3-A. We include the average of husbands' and wives' predicted reports, as dictated by the specification in (7), but we have not yet adjusted the standard errors to account for this two-stage procedure.

The riskiness of the household portfolio. Results in other literatures suggest that men are more willing to take risks than women. Men in the HRS report somewhat risk tolerance (Barsky et al 1997), while single men invest more in the stock market than single women (Jianakoplos and

[21] We consider differences in religion that occur across these broad categories, which are aggregated over many reported denominations.

[22] In theory, the effect of kids might go in either direction and should depend on the nature of divorce, child custody, and child support laws. For example, if the wife has disproportionate influence over the kids and their attitudes towards their father, that would increase her bargaining power. On the other hand, if divorce would leave the wife and kids destitute, and perhaps worsen here opportunities in the remarriage market, then that might increase the husbands' bargaining power.

Bernasek 1996) and men purchase auto insurance policies that provide less coverage (Cohen and Einav 2004).[23] Other results show that men trade excessively when they invest in the stock market, compared to women, which may be interpreted as a sign of overconfidence (We find that, when men are in charge, households invest significantly more in the stock market. These results have implications for the literature that seeks to explain why households seem to invest suboptimally in equities.

In Table 6, we find that as the husband's decision-making power rises, the household is significantly more likely to invest in the stock market. [analyze magnitudes]

Household wealth. In Table 7, we find interesting results when we interact decision-making power with the age of each spouse. Each spouse's age has a significant direct effect in raising household wealth, while the husband's decision-making power does not have a significant direct effect. In addition, household wealth increases significantly more with the husband's age when the husband has more decision-making power (a value greater than 0) and similarly household wealth increases significantly with the wife's age when the wife has more decision-making power (a value less than 0). [analyze magnitudes]

Note that these effects are not driven by the earlier results on stock market investment. If households invest more in the stock market when the husband is in charge, that will raise expected household wealth increasingly as husbands age – but that does not explain the significant negative coefficient on the interaction of decision-making power with wife's age.

VII. CONCLUSIONS

[to be completed …]

[23] Additional studies show gender differences in the riskiness of financial investments in pension plans, but in those studies we do not observe the rest of the household portfolio, so the evidence is not as clean.

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TABLE 1
Distribution of decision making power in the sample

"When it comes to making major family decisions, who has the final say?"

	Husband reports … has more say: husband	about equal	wife	Total [N]
Wife reports … has more say:				
husband	18.1%	11.5	2.3	31.9 [1350]
about equal	8.8	40.1	3.9	52.8 [2235]
wife	3.3	6.5	5.5	15.3 [652]
Total [N]	30.2 [1278]	58.1 [2460]	11.7 [499]	100% [4237]

"Does … have a lot more say, somewhat more, or only a little more?"

	Husband reports … has … say: husband – a lot more	husband – somewhat /a little more	about equal	wife – somewhat / a little more	wife – a lot more	Total
Wife reports … has … say						
husband – a lot more	2.3	3.3	2.4	0.3	0.3	8.6
husband – somewhat/a little more	2.0	10.4	9.0	1.1	0.5	23.0
about equal	1.7	7.1	40.2	2.8	1.1	52.9
wife – somewhat/a little more	0.3	1.9	3.9	2.0	0.8	8.9
wife – a lot more	0.3	0.9	2.7	1.5	1.2	6.6
Total	6.6	23.6	58.2	7.7	3.9	100%

Data: Health and Retirement Study, Wave 1, 1992.
Sample: N = 4237. See text for more details.

TABLE 2
Characteristics of the sample, based on who has more say

	Who has more say?			
	Husband	Wife	About equal	Disagree
Labor supply variables:				
both spouses work	42.1	39.4	46.4	43.9
only husband works	29.1	22.0	24.6	25.7
only wife works	9.1	22.0	13.3	15.4
neither spouse works	19.7	16.6	15.9	15.0
husband's weekly hours	44.0	44.0	44.2	45.0
wife's weekly hours	34.2	39.4	37.3	36.8
husband's earnings	31,100	25,000	32,000	30,000
wife's earnings	12,000	19,000	17,000	15,000
Other variables:				
income	45,700	41,216	49,200	46,360
net worth	121,700	65,700	132,000	117,500
financial assets (median/mean)	8,000/ 43,500	3,000/ 22,676	10,500/ 50,451	8,900/ 49.850
% of financial assets invested in equity (median/mean)	0.0/17.9	0.0/10.4	0.0/18.3	0.0/17.2
home equity	55,000	43,000	64,000	56,000

Data: Health and Retirement Study, Wave 1, 1992.
Sample: N = 4237. See text for more details.

TABLE 3-A

Determinants of decision making power
Estimation results from bivariate ordered probits

Dependent variable: ***Respondent*** reports *husband* has final say ($Y_i = 1$), it's about equal ($Y_i = 0$), *wife* has final say ($Y_i = -1$)

	Husband is respondent		***Wife*** is respondent	
Log likelihood (LL/N)	- 1.801			
Rho	0.4545*** (0.0257)			
Cut point #1	-1.2745***	(0.1864)	-1.1504***	(0.1929)
Cut point #2	0.4921***	(0.1887)	0.3966**	(0.1924)
Income variables				
husband's earnings/10,000	0.0072	(0.0053)	0.0150***	(0.0054)
wife's earnings/10,000	-0.0356**	(0.0149)	-0.0753***	(0.0149)
husband's pension income/10,000	0.0360	(0.0312)	0.0435	(0.0289)
wife's pension income/10,000	-0.1072	(0.1118)	-0.1212	(0.0986)
husband has pension in current job	0.0123	(0.0511)	0.0196	(0.0518)
wife has pension in current job	-0.0595	(0.0526)	0.0365	(0.0538)
	Characteristics of:		Characteristics of:	
Other work variables	husband	wife	husband	wife
occupation: professional, tech	0.1352*	-0.0641	0.1039	-0.0693
	(0.0726)	(0.0726)	(0.0728)	(0.0723)
sales, clerical	0.0998	-0.0228	0.0067	0.0306
	(0.0816)	(0.0613)	(0.0821)	(0.062)
services	0.0357	-0.0241	-0.1288	-0.0727
	(0.0877)	(0.0674)	(0.0922)	(0.0716)
skilled blue collar	-0.0982	0.1744	-0.1333*	-0.0448
	(0.0714)	(0.1658)	(0.0731)	(0.1658)
unskilled blue collar	-0.1085	0.0547	-0.1519**	-0.0740
	(0.0707)	(0.0897)	(0.0727)	(0.0947)
self-employed	0.3442***	-0.1153*	0.2133***	-0.0425
	(0.0603)	(0.0683)	(0.0627)	(0.0716)
Human capital variables				
cognition: score #1	0.0032	-0.0025	0.0120	-0.0077
	(0.0079)	(0.0073)	(0.008)	(0.0075)
score #2	0.0159**	-0.0115	0.0015	0.0016
	(0.0073)	(0.0076)	(0.0074)	(0.0077)
education: no high school diploma	-0.1529***	0.0740	-0.1466***	0.1374**
	(0.0503)	(0.051)	(0.0524)	(0.0542)
at least some college	0.0806*	-0.0780	0.0074	-0.0571
	(0.0487)	(0.0481)	(0.0491)	(0.0494)
health is fair or poor	0.0087	-0.0197	0.0228	0.0167
	(0.0475)	(0.0507)	(0.0507)	(0.0525)
both parents: no high school dipl	-0.0114	0.0121	0.0402	0.0294
	(0.0373)	(0.0386)	(0.0383)	(0.0394)
at least some college	-0.1646*	-0.1454*	-0.0679	-0.1065

	(0.0909)	(0.0837)	(0.0948)	(0.0814)
	Characteristics of:		Characteristics of:	
Cultural background variables	husband	wife	husband	wife
national origin: born outside U.S.	0.1896**	-0.2288***	0.0157	-0.1025
	(0.0891)	(0.0817)	(0.0902)	(0.0854)
race: black	0.4748**	-0.3932*	0.0404	-0.3176
	(0.2)	(0.2017)	(0.228)	(0.2308)
ethnicity: hispanic	0.1077	0.1617	-0.0517	0.0685
	(0.1193)	(0.1169)	(0.125)	(0.1228)
religion: attend church ≥ twice/mth	0.0804*	0.0918**	0.0873*	0.0529
	(0.0454)	(0.0452)	(0.0469)	(0.0468)
both are Protestant	0.2295***	(0.074)	0.2060***	(0.0807)
both are Evangelical	0.3746**	(0.1535)	0.5177***	(0.1583)
both are Catholic	-0.1126**	(0.0499)	-0.1722***	(0.0501)
both are Jewish	0.1874	(0.1331)	-0.0454	(0.1353)
both report no religion	-0.2177	(0.1746)	-0.0974	(0.1634)
religion differs	0.0515	(0.0487)	-0.1220***	(0.05)
Other variables				
risk averse	0.0279*	0.0014	-0.0099	-0.0010
	(0.0165)	(0.017)	(0.017)	(0.0175)
long time horizon	-0.0247	0.0305	-0.0157	0.0411
	(0.037)	(0.0378)	(0.0378)	(0.039)
age-50	-0.0079**	-0.0081**	-0.0013	-0.0015
	(0.004)	(0.0039)	(0.0042)	(0.0041)
has kids: over age 18 only	-0.1109	(0.1033)	-0.0010	(0.1035)
age 18 & under only	-0.2466	(0.1601)	-0.1616	(0.1615)
over and under age 18	-0.1878*	(0.1131)	0.0548	(0.1133)

Data: Health and Retirement Study, 1992.
Sample: N = 4237. See text for more details.

TABLE 3-B
Determinants of decision making power
Variations on specification of earnings variable

Dependent variable: ***Respondent*** reports *husband* has final say ($Y_i = 1$), it's about equal ($Y_i = 0$), *wife* has final say ($Y_i = -1$)

	(1) current earnings (from Table 3-A)	(2) average past earnings	(3) average recent, earlier past earnings
Log likelihood/N	-1.801	-1.783	-1.781
		Husband is respondent	
Cut point #1	-1.2745 (0.1864)	-1.0836 (0.2307)	-1.0930 (0.2297)
Cut point #2	0.4921 (0.1887)	0.7033 (0.2407)	0.6955 (0.239)
Earnings variables			
husband's earnings/10,000	0.0072 (0.0053)	0.0163 (0.0178)	-
wife's earnings/10,000	-0.0356** (0.0149)	-0.0563*** (0.0279)	-
earnings/10,000			
husband, 1981-1992	-	-	0.0166 (0.0161)
husband, pre-1981	-	-	-0.0114 (0.0217)
wife, 1981-1992	-	-	-0.0686** (0.0268)
wife, pre-1981	-	-	0.0144 (0.0404)
		Wife is respondent	
Cut point #1	-1.1504 (0.1929)	-1.062 (0.2454)	-1.0600 (02443)
Cut point #2	0.3966 (0.1924)	0.5194 (0.2469)	0.5245 (0.2458)
Earnings variables			
husband's earnings	0.0150*** (0.0054)	0.0238 (0.0181)	-
wife's earnings	-0.0753*** (0.0149)	-0.1431*** (0.0283)	-
earnings/10,000			
husband, 1981-1992	-	-	0.0176 (0.0166)
husband, pre-1981	-	-	0.0027 (0.0224)
wife, 1981-1992	-	-	-0.1005*** (0.0276)
wife, pre-1981	-	-	-0.0795** (0.0418)
Also includes:			
other variables from 3-A	yes	yes	yes

Data: Health and Retirement Study, Wave 1, 1992.
Sample: N = 4237. See text for more details.

TABLE 3-C: Determinants of decision making power
Variations on specification of work variables

Dependent variable: ***Respondent*** reports *husband* has final say ($Y_i = 1$), it's about equal ($Y_i = 0$), *wife* has final say ($Y_i = -1$)

	(1) weekly work hours	(2) work (no occ dummies)	(3) only work variables	(4) log of earnings	(5) ratio of earnings
Log likelihood (LL/N)	-1.799	-1.810	-1.830	-1.803	-1.799
Selected work variables			***Husband*** is respondent		
husband's earnings/10,000	0.0064	0.0116**	0.0111	0.0094	0.0036
	(0.0054)	(0.0052)	(0.0051)	(0.0060)	(0.0058)
wife's earnings/10,000	-0.0256*	-0.0364***	-0.0342**	-0.0205***	-0.0133
	(0.0153)	(0.0145)	(0.0145)	(0.0063)	(0.0169)
wife's earnings	-	-	-	-	-0.2402***
husband's+wife's earnings					(0.0923)
husband's + wife's	-	-	-	-	0.0358
earnings = 0					(0.0776)
husband works	-	0.1388***	-	-	-
		(0.0498)			
wife works	-	-0.0365	-	-	-
		(0.0461)			
husband's weekly hours	-0.0007	-	-	-	-
	(0.0014)				
wife's weekly hours	-0.0042***	-	-	-	-
	(0.0016)				
			Wife is respondent		
husband's earnings	-0.0136	-0.0204***	-0.0129	-0.0275	0.0117
	(0.0054)	(0.0053)	(0.0052)	(0.0369)	(0.0058)
wife's earnings	0.0613*	-0.0762***	-0.0856**	0.0340***	-0.0526
	(0.0155)	(0.0146)	(0.0148)	(0.0377)	(0.0168)
wife's earnings	-	-	-	-	-0.2412***
husband's+wife's earnings					(0.0945)
husband's + wife's	-	-	-	-	0.0450
earnings = 0					(0.0785)
husband works	-	-0.0455	-	-	-
		(0.0515)			
wife works	-	-0.0299	-	-	-
		(0.0476)			
husband's weekly hours	0.0001	-	-	-	-
	(0.0015)				
wife's weekly hours	0.0065***	-	-	-	-
	(0.0018)				
Also includes:occ,self-empl	yes	no	yes	yes	yes
other control variables	yes	yes	no	yes	yes

Data: Health and Retirement Study, Wave 1, 1992. Sample: N = 4237. See text for more details.

TABLE 4
Decomposition of estimated determinants of decision making power
Estimation results from Table 3-A

Dependent variable: ***Respondent*** reports *husband* has final say ($Y_i = 1$), it's about equal ($Y_i = 0$), *wife* has final say ($Y_i = -1$)

	True effect		*Husband's* reporting bias	
Income variables	***Current earnings*** specification			
husband's earnings/10,000	0.0111***	(0.0044)	-0.0039	(0.0060)
wife's earnings/10,000	-0.0555***	(0.0126)	0.0198	(0.0160)
husband's pension income/10,000	0.0397	(0.0246)	-0.0038	(0.0345)
wife's pension income/10,000	-0.1142	(0.0866)	0.0070	(0.1201)
husband has pension in current job	0.0160	(0.0430)	-0.0037	(0.0565)
wife has pension in current job	-0.0115	(0.0447)	-0.0480	(0.0577)
Other work variables	Characteristics of husband:		Characteristics of wife:	
	true	bias	true	bias
occupation: professional, technical	0.1196**	0.0156	-0.0667	0.0026
sales, clerical	0.0532	0.0466	0.0039	-0.0267
services	-0.0465	0.0756	-0.0484	0.0243
skilled blue collar	-0.1158**	0.0176	0.0648	0.1096**
unskilled blue collar	-0.1302**	0.0217	-0.0096	0.0644
self-employed	0.2788***	0.0654	-0.0789	-0.0364
Human capital: cognition score #1	0.0076	-0.0044	-0.0051	0.0026
score #2	0.0087	0.0072	-0.0049	-0.0066
education: no high school diploma	-0.1497***	-0.0032	0.1057***	-0.0317
at least some college	0.0440	0.0366	-0.0676*	-0.0104
health is fair or poor	0.0157	-0.0071	-0.0015	-0.0182
both parents: no high sch diploma	0.0144	-0.0258	0.0207	-0.0087
at least some college	-0.1163	-0.0483	-0.1259*	-0.0195
Cultural: born outside U.S.	0.1027	0.0869	-0.1656***	-0.0631
race: black	0.2576	0.2172	-0.3554*	-0.0378
ethnicity: hispanic	0.0280	0.0797	0.1151	0.0466
religion: attend church ≥ twice/mth	0.0839**	-0.0034	0.0724*	0.0195
both are Protestant	0.2178***		0.0117	
both are Evang'l/Fundamentalist	0.4462**		-0.0716	
both are Catholic	-0.1424***		0.0298	
both are Jewish	0.0710		0.1164	
both report no religion	-0.1576		-0.0601	
religion differs	-0.0353		0.0868*	
Other variables: risk averse	0.0090	0.0189	0.0002	0.0012
long time horizon	-0.0202	-0.0045	0.0358	-0.0053
age-50	-0.0046	-0.0033	-0.0049	-0.0033
has kids: over age 18 only	-0.0560		-0.0549	
age 18 & under only	-0.2041		-0.0425	
over and under age 18	-0.0665		-0.1213	

Selected results	***Average past earnings*** specification			
husband's earnings/10,000	0.0200**	(0.0097)	-0.0037	(0.0194)
wife's earnings/10,000	-0.0997***	(0.0236)	0.0434	(0.0306)

Data: Health and Retirement Study, Wave 1, 1992.
Sample: N = 4237. See text for more details.

TABLE 5
Simulations of predicted decision making power

	Husband reports … has more say			Wife reports … has more say		
	husband	about equal	wife	husband	about equal	wife
	Based on specifications that control for current earnings, work status (as in Table 3-C 2)					
Actual values	0.302	0.580	0.118	0.319	0.527	0.154
Base predictions						
using own values of earnings, work status	0.311	0.576	0.113	0.325	0.525	0.150
using average values of earnings, work status	0.310	0.579	0.111	0.323	0.530	0.147
Predictions if …						
switch earnings	0.282	0.590	0.128	0.266	0.545	0.189
switch earnings, work	0.275	0.593	0.132	0.263	0.546	0.191
husbands work, wives don't	0.350	0.558	0.092	0.372	0.509	0.117
wives work, husbands don't	0.253	0.600	0.147	0.270	0.545	0.185
	Based on specifications that control for lifetime earnings, work status (adapted from those in Table 3-B 2)					
Base predictions						
using own values of earnings, work status	0.299	0.583	0.118	0.316	0.533	0.151
using average values of earnings, work status	0.284	0.590	0.126	0.311	0.539	0.150
Predictions if …						
switch earnings	0.243	0.603	0.154	0.216	0.555	0.229
switch earnings, work	0.236	0.605	0.158	0.211	0.556	0.233
husbands work, wives don't	0.320	0.575	0.105	0.371	0.514	0.115
wives work, husbands don't	0.234	0.606	0.160	0.256	0.553	0.191

Predicted probabilities, averaged over the estimation sample, based on the bivariate ordered probit estimates reported in Table 3.

TABLE 6
Consequences of decision making power
Impact on stock market investments

Dependent variable: Household investment in equities

	Probit Invests in equities (1, 0)	*Tobit* Share of financial assets invested in equities
Selected results		
Husband's decision-making power	0.6483** (0.2564)	0.3338** (0.1404)
log(household earnings)	0.1472*** (0.0308)	0.0800*** (0.0175)
husband's age	0.0118 (0.0080)	0.0049 (0.0047)
wife's age	0.0297*** (0.0086)	0.0148*** (0.0050)
husband's time horizon	0.1371*** (0.0461)	0.0677** (0.0266)
wife's time horizon	0.1167** (0.0472)	0.0475* (0.0272)
husband is risk averse	-0.0292 (0.0211)	-0.0114 (0.0122)
wife is risk averse	0.0089 (0.0219)	0.0028 (0.0126)

Data: Health and Retirement Study, 1992.
Sample: N = 4237. See text for more details.

TABLE 7
Consequences of decision making power
Impact on wealth

Dependent variable: Log household wealth

Selected results	
Husband's decision-making power	0.2413 (0.2462)
	Characteristics of husband: Characteristics of wife:
Age	0.0388*** (0.0068) 0.0393*** (0.0069)
Husband's power*age	0.0462*** (0.0167) -0.0399*** (0.0146)
log(household earnings)	0.2916*** (0.0262)
time horizon	0.1129*** (0.0401) 0.1295*** (0.0416)
risk averse	0.0279 (0.0183) -0.0084 (0.0185)

Data: Health and Retirement Study, 1992.
Sample: N = 4077. See text for more details.