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What Explains the Gender Gap in Financial Literacy? The Role of Household Decision Making

Using newly collected data from the RAND American Life Panel, we examine potential explanations for the gender gap in financial literacy, including the role of marriage and who within a couple makes the financial decisions. Blinder–Oaxaca decomposition reveals the majority of the gender gap in financial literacy is not explained by differences in the characteristics of men and women—but rather differences in coefficients, or how literacy is produced. We find that financial decision making of couples is not centralized in one spouse although it is sensitive to the relative education level of spouses.

Women tend to live longer than men, have shorter work tenures, lower earnings and levels of pension or survivors' benefits. These factors put women at higher risk than men of having financial problems (e.g., Weir and Willis 2000) and of approaching retirement with insufficient savings. Unmarried, particularly divorced, women near retirement age have substantially lower wealth levels than married couples and unmarried men, and the difference is only partially explained by lower levels of permanent earnings and labor force attachment (Levine, Michell, and Phillips 2002; Zissimopoulos, Karney, and Rauer 2008). Contributing to low wealth levels of divorced women compared to men near retirement may be a lack of adequate financial literacy.

There is a burgeoning literature documenting low levels of financial literacy population-wide and the relationship between literacy and savings behavior (e.g., Bernheim and Garrett 2003; Bernheim, Garret, and Maki 2001; Lusardi and Mitchell 2006 2007a). Lusardi and Mitchell (2008) document that financial illiteracy is even more prevalent among women than men. Zissimopoulos, Karney, and Rauer (2008) found that less than

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20% of middle-aged college-educated women were able to answer a basic compound interest question compared to about 35% of college-educated males of the same age. Chen and Volpe (2002) find similar gender differences at younger ages.

Understanding how and why men and women have different levels of financial literacy is crucial to developing policies aimed at reducing the gender gap and improving the saving and investing decisions of women. Changing demographic trends and changes in the types of financial decisions being made further increase the importance of understanding what accounts for the low levels of financial knowledge and literacy among women. Higher rates of divorce and lower remarriage rates have increased over time the percent of women who approach retirement age unmarried. Moreover, individuals are offered a large number of financial products (i.e., different retirement plans, investment products, etc.) and financial products are becoming more complex. For example, there are a growing number of financial instruments available for financing a home or extracting equity from an existing home. Individuals have greater responsibility for their retirement income security with the advent of defined contribution pension plans (e.g., 401k plans) and declines in employer-offered defined benefit pension plans. These trends imply that financial choices may require higher levels of financial knowledge.

Although there is general agreement in the empirical literature that women have lower levels of financial knowledge than men, less is understood about what factors contribute to these differences. In this article, we investigate the socioeconomic and demographic factors associated with the gender gap in financial literacy using multivariate regression analysis and Blinder–Oaxaca decomposition. Furthermore, we examine the division of labor in financial decision making within couples as an explanation for the gender gap in financial literacy. If, within couples, men tend to specialize in the handling of finances, then married, divorced and widowed women are less likely to develop their financial knowledge. In this respect, previous research by Smith, McArdle, and Willis (2010) found that within couples men are more likely to be chosen in surveys as the financial representative of the household, and that husband's education and cognitive scores (memory, numeracy and mental status) are bigger predictors of this choice than wife's education and cognition.

We use existing data on financial literacy combined with new data we collected on decision making within the household from RAND American Life Panel (ALP). Using Blinder–Oaxaca decomposition we find that the great majority of the gender gap is not explained by differences in *covariates*—characteristics of men and women—but rather differences in

coefficients, or how literacy is produced. There is no discernible pattern of financial decision making along gender lines and one's own financial responsibilities increase as his/her education level increases *relative* to his/her spouse's education level for *both* men and women. Finally, greater financial decision making responsibility within couples is correlated with higher financial literacy for men, but not women.

DATA

To conduct this research, we use data from the RAND ALP. The ALP consists of over 2,500 respondents aged 18 and over who are interviewed periodically over the Internet. Respondents do not need Internet access to participate; those without access (less than 17% of the sample) are provided RAND via WebTV and an Internet subscription, eliminating the bias found in many Internet surveys which include only computer users. Upon joining the panel, respondents complete an initial survey collecting individual sociodemographic information, work history and household composition information. They are also asked to update their background information each time they log in to respond to a module. Roughly once a month, respondents receive an e-mail with a request to fill out a questionnaire. Response rates average 70%–80%. Since 2003 researchers have fielded over 200 modules in the ALP and published papers using these data on a wide variety of topics (e.g., subjective probabilities and expectations (Delavande and Rohwedder 2008; Manski and Molinari 2010), life satisfaction (Kapteyn, Smith, and van Soest 2010) and financial literacy (Bruine de Bruin et al. 2010; Lusardi and Mitchell 2007b)).¹

We designed a module survey (MS73) that was administered in June 2009. The module included detailed questions regarding marital status and history. For those married or cohabiting with a partner, we also posed questions regarding how financial responsibilities are divided in the household. We then merged this survey with financial literacy measures collected in a previous module (MS64) designed by Hung, Parker, and Yoong (2009) and fielded in March 2009. Sampling weights are provided by the ALP to adjust for sample selection.

Definitions and measures of financial literacy vary considerably across researchers and studies, and have included specific knowledge, the ability or skills to apply that knowledge, perceived knowledge, good financial behavior, or even certain financial experiences. We use an index measure developed by Hung, Parker, and Yoong (2009) and Hung et al. (2009) that

1. The data collected in the ALP is publicly available at <https://mmicdata.rand.org/alp/index.php/Data>.

combines multiple dimensions of financial literacy. The index is based on answers to 23 questions on basic financial concepts, investing, life insurance and annuities, and includes the 13-item scale used by Lusardi and Mitchell (2006): five items measuring numeracy and understanding of compound interest and inflation and eight items measuring knowledge of the stock market, stocks, bonds, mutual funds and diversification. The index also includes six additional items measuring knowledge of stocks, bonds and mutual funds and four items measuring knowledge about life insurance and annuities based on different questionnaires (e.g., the FINRA Investor Survey, Survey of Financial literacy in WA State, etc.). Table 1 lists the variables used to construct the index.²

The index is constructed using estimates from a structural one-dimensional latent variable model of financial literacy. In particular, the model specifies the probability of answering each test item correctly as a function of the underlying true but unobserved financial literacy. Estimates of respondents' latent financial literacy (their scores on the index) are obtained by maximizing the log pseudo-likelihood function after assuming that the unobserved financial literacy trait is standard normally distributed. Hung et al. (2009) provide additional details on the index and sensitivity analysis.³ Using the financial literacy index allows us to avoid problems of multiple inferences, and simplifies considerably the interpretation of our results since we analyze gender differences of a financial literacy summary measure that is continuous and normally distributed. We normalize the financial literacy index so that it has mean 0 and standard deviation (SD) 1. This transformation simplifies the interpretation of the estimated coefficients as they will represent the effects in terms of SD increases in financial literacy.

Approximately 93% (1,547 out of 1,667 respondents in MS64) answered all 23 questions necessary to construct the index. Of these, 1,504 respondents provide complete information on demographic and socioeconomic characteristics, marital status and marital history. These respondents comprise the first analysis sample, which we use to examine what characteristics are correlated with financial literacy by gender.

Our second analysis sample is expanded to include individuals with missing financial literacy scores, but is restricted to married or cohabiting respondents who participated in our module on financial decision making within households. All coupled respondents in the first sample ($N = 1,009$; 519 females and 490 males) also responded to MS73, and

2. Full Questionnaires can be found at <https://mmicdata.rand.org/alp/index.php/Data>.

3. See Hung et al. (2009) for a detailed description of how the index is constructed.

TABLE 1
Variables Used in the Financial Literacy Index

Group 1: Basic Financial Concept

1. Numeracy question about savings and interest rates
2. Numeracy question about compound interest
3. Question about the effect of inflation
4. Question about the value of money over time
5. Question capturing understanding of money illusion

Group 2: Investment

6. Question about the main function of the stock market
7. Question measuring knowledge of mutual funds
8. Question about the relation between interest rates and bond prices
9. Question comparing the safety of the return of company stocks and mutual funds
10. Question comparing the risk level of stocks and bonds
11. Question identifying assets with longer period returns
12. Question identifying assets with highest fluctuations over time
13. Question about risk diversification
14. Question about what happens when someone buys company stocks
15. Question about what happens when someone buys company bonds
16. Question about withdrawing money from a stock mutual fund
17. Question to assess stock mutual funds knowledge
18. Question to assess stock mutual funds annual fees knowledge
19. Question to assess mutual fund rate of return knowledge

Group 3: Life insurance and Annuities

20. Question to assess knowledge of the saving feature of whole life insurance
 21. Question to assess understanding of the cash value of a life insurance policy
 22. Question to assess knowledge of the annuity payments structure (yearly payments)
 23. Question to assess the annuity payments structure (lump sum)
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an additional 517 new coupled respondents were recruited to join the ALP between the two waves. Combining these two groups gives us 1,526 respondents (827 females and 699 males) reporting information on financial decision making within the household. Of these, 91% are married and 9% are cohabiting. Note that in most cases only one member of the couple is an ALP respondent, who reports information (e.g., education) for both respondents. Our sample includes 1,318 unique couples. Of the 1,526 respondents 208 are the spouse of a respondent ($1,526 - 208 = 1,318$ unique couples). In order to maximize power, we use data from all respondents. Disagreement within couples on who bears responsibility for given tasks will affect the interpretation of our results as we discuss further below.

WHAT FACTORS MITIGATE GENDER DIFFERENCES IN FINANCIAL LITERACY?

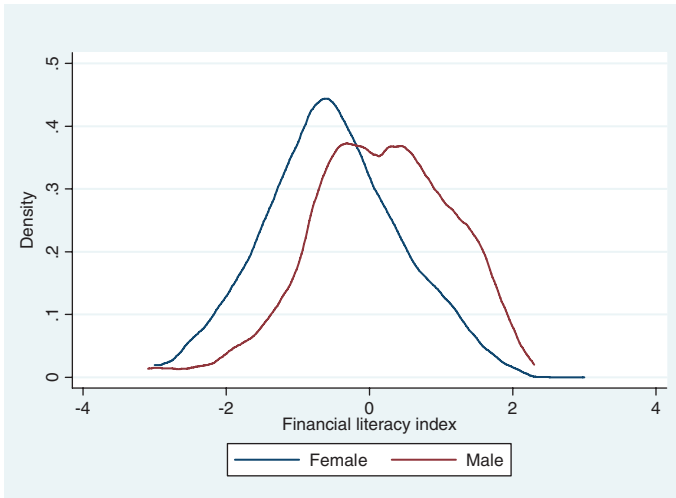
Table 2 shows weighted summary statistics, by gender, for the respondents with non-missing values of the financial literacy index. The

TABLE 2
Summary Statistics by Gender

	Female			Male			Diff.	<i>p</i> -value
	<i>N</i>	Mean	SD	<i>N</i>	Mean	SD		
Financial literacy index	844	−0.537	0.965	678	0.158	0.978	−0.695	<.001
Age								0.331
18–35	844	0.199	0.400	678	0.159	0.366	0.040	
36–50	844	0.355	0.479	678	0.338	0.473	0.017	
51–65	844	0.257	0.437	678	0.275	0.447	−0.018	
66+	844	0.189	0.391	678	0.228	0.420	−0.039	
Race								0.047
White	844	0.750	0.433	678	0.834	0.372	−0.08	
Black	844	0.137	0.344	678	0.088	0.284	0.048	
Other	844	0.114	0.318	678	0.078	0.268	0.036	
Education								0.168
High school dropout	844	0.050	0.219	678	0.040	0.197	0.010	
High school graduate	844	0.356	0.479	678	0.281	0.450	0.075	
Some college	844	0.250	0.433	678	0.262	0.440	−0.013	
College graduate	844	0.344	0.475	678	0.416	0.493	−0.073	
Income								0.049
<\$35K	844	0.273	0.446	678	0.211	0.408	0.063	
\$35K–\$60K	844	0.278	0.448	678	0.248	0.432	0.029	
\$60K–\$90K	844	0.272	0.445	678	0.305	0.461	−0.033	
>\$90K	844	0.177	0.382	678	0.236	0.425	−0.059	
In a couple	844	0.524	0.500	678	0.664	0.473	−0.140	<.001
Marital status								0.003
Married	832	0.481	0.500	674	0.628	0.484	−0.147	
Cohabiting	832	0.047	0.211	674	0.039	0.195	0.007	
Separated	832	0.013	0.112	674	0.013	0.113	0.000	
Divorced	832	0.156	0.363	674	0.115	0.319	0.041	
Widowed	832	0.076	0.265	674	0.035	0.183	0.041	
Never married	832	0.227	0.419	674	0.170	0.376	0.057	
Years in current relationship	519	20.930	14.485	490	23.277	15.637	−2.347	0.014
Years in last relationship	199	17.468	13.747	105	17.787	15.492	−0.319	0.853
Years since last relationship	201	14.707	10.448	105	11.412	10.424	3.295	0.009
No dependents	844	0.465	0.499	678	0.535	0.499	−0.070	0.007
Number of dependents (if >0)	402	2.178	1.333	290	2.142	1.120	0.036	0.705
Working for pay	820	0.642	0.480	651	0.693	0.461	−0.051	0.039
Education relative to partner								0.151
Partner has more	519	0.169	0.375	490	0.189	0.392	−0.020	
Both same	519	0.590	0.492	490	0.637	0.481	−0.047	
Partner has less	519	0.242	0.429	490	0.174	0.380	0.068	

Notes: Data are weighted. Financial literacy index is standardized. Summary statistics limited to those with non-missing financial literacy. *p*-values are for *t* tests for independent variables, χ^2 tests for categorical variables.

FIGURE 1
Kernel Density Plots of Financial Literacy by Gender



financial literacy index for women is about 0.7 standard deviations lower than that for men ($p < .001$). Figure 1 gives a more complete picture of the differences in financial literacy levels between men and women. The distribution of the financial literacy index for women is shifted to the left of that for men. While the range of financial literacy levels is similar across the two groups, for much of the distribution the gap between men and women is relatively fixed at around 0.7 and only becomes compressed in the tails.

Table 2 compares characteristics of men and women, and finds that more women in our sample belong to minority ethnic groups than men. Fewer women are currently married or cohabiting, and more women are divorced, widowed or never married, and they remain unmarried longer than men.⁴ While education status is not jointly significantly different across the two groups, fewer women advanced past high school than men ($p = .028$). Women in our sample have lower household income than men on average, and fewer women report working for pay. These differences in demographic characteristics alone may explain some of the difference in financial literacy, and we explore this explanation first.

Table 3A reports the results of multivariate regression analysis of a number of potential factors associated with financial literacy, overall

4. Men are more likely to die earlier, and to remarry after divorce or widowhood (Zissimopoulos, Karney, and Rauer 2008).

TABLE 3A
Financial Literacy Regressions, Overall and by Gender

	(1) Level			(2) Interactions with Years in Relationship			(3) Interactions with Years Since Relationship		
	All	Female	Male	All	Female	Male	All	Female	Male
Female	−0.538*** (0.043)								
Age									
36–50	0.324*** (0.065)	0.380*** (0.086)	0.312*** (0.100)						
51–65	0.563*** (0.075)	0.674*** (0.100)	0.463*** (0.100)						
66+	0.790*** (0.099)	0.946*** (0.140)	0.645*** (0.140)						
White	0.303*** (0.074)	0.271*** (0.095)	0.246** (0.120)						
Black	−0.0113 (0.094)	0.0486 (0.120)	−0.0845 (0.160)						
High school graduate	0.213 (0.110)	−0.0644 (0.140)	0.550*** (0.180)						
Some college	0.399*** (0.110)	0.158 (0.150)	0.710*** (0.180)						
College graduate	0.807*** (0.120)	0.589*** (0.150)	1.108*** (0.180)						
Income									
\$35–60K	0.287*** (0.063)	0.226*** (0.082)	0.315*** (0.099)						
\$60–90K	0.417*** (0.065)	0.363*** (0.086)	0.475*** (0.099)						
>\$60K	0.635*** (0.076)	0.521*** (0.100)	0.748*** (0.110)						
Married	0.119 (0.077)	0.237** (0.100)	−0.0832 (0.120)	−0.002 (0.003)	−0.000 (0.004)	−0.002 (0.003)			
Cohabiting	−0.135 (0.150)	−0.0467 (0.170)	−0.411 (0.290)	−0.008 (0.013)	−0.015 (0.016)	0.007 (0.026)			
Divorced	−0.302** (0.140)	−0.162 (0.180)	−0.467 (0.240)	0.001 (0.007)	0.005 (0.008)	−0.005 (0.011)	0.022*** (0.006)	0.019*** (0.007)	0.025*** (0.010)
Widowed	0.213 (0.310)	−0.129 (0.330)	2.638*** (0.980)	−0.003 (0.007)	−0.004 (0.007)	−0.043** (0.019)	−0.021 (0.012)	−0.000 (0.015)	−0.079*** (0.028)
Constant	−1.412*** (0.130)	−1.817*** (0.160)	−1.506*** (0.210)						
Observations	1,504	830	674						
R ²	0.40	0.34	0.36						

Notes: Standard errors in parentheses. Data are weighted. Dependent variable is standardized financial literacy index. We also control for being separated but do not report due to very small sample size. *p*-values for joint tests of significance for age, race, education and income groups were all less than 0.01 in all specifications. Marital status was jointly significant overall and for men only (*p* < .01), but not for women (*p* = .13). Interactions in (2) were jointly significant (*p* = .091) for men only and insignificant overall (*p* = .92) and for women only (*p* = .50). Interactions in (3) were jointly significant for all groups: *p* < .01 overall and for men only, and *p* = .05 for women only.

****p* < .01, ***p* < .05.

and separately by gender. The dependent variable in each case is the normalized index of financial literacy described above, so that the estimated coefficients represent the effects of covariates in terms of standard deviation increases in financial literacy. Column 1 presents estimated coefficients for demographic characteristics (age and race dummies), socioeconomic characteristics (education and family income) and marital status dummies. Since we are particularly interested in the role of the household in explaining financial literacy differences, columns 2 and 3 add interactions between current marital status and length of the most recent relationship and years since marital disruption, respectively. Within each column, results for regressions estimated using the entire sample, and for women and men, respectively, are presented in sub-columns.

When we focus on the combined regression specification (i.e., where covariates are not interacted with gender), we find that, even though most of the covariates are statistically significant, they do not have a large effect on the gender gap—0.54 standard deviations, compared to 0.7 standard deviations (the raw difference without any covariates, from Table 2). In alternative specifications that sequentially add covariates, we find that education and income has the biggest impact on the gender gap. Demographic and socioeconomic variables are correlated with financial literacy in the expected ways: older, more educated and wealthier individuals have higher levels of financial literacy, and Whites have higher literacy than racial/ethnic minorities.

When aggregating men and women together, married and cohabiting individuals do not have significantly higher levels of financial literacy than their never-married counterparts. Divorced individuals, however, are 0.3 standard deviations less financially literate than the never married and 0.4 standard deviations less financially literate than currently married respondents. Length of time in the most recent relationship does not appear to have any effect on financial literacy levels of current or formerly married respondents. However, divorced respondents *gain* 0.02 standard deviations in financial literacy for every year *since* their last relationship—making up for their initial deficit in roughly 13.7 years. These findings are consistent with selection out of marriage: individuals with lower “ability” are less likely to stay married. The findings are also consistent with “learning.” Divorced individuals gain financial knowledge over time as they learn to make financial plans without the help of a partner.

It may be the case that one spouse specializes in financial decision making and the other does not invest time or effort in making financial decisions. For example, if men tend to specialize in handling finances,

TABLE 3B
Blinder-Oaxaca Decomposition of Gender Gap

Total diff.	Endowments	Coefficients	Interaction
−0.694 (0.051)	−0.181 (0.033)	−0.602 (0.049)	0.088 (0.033)

then we might expect a positive relationship between years of marriage and financial literacy for men and zero or negative for women. More generally, men and women might have different production technologies for financial literacy, so allowing for differential effects may be important for other covariates as well. The last two sets of subcolumns present estimates of the first specification in Table 3 fully interacted with gender. Importantly, including the interaction terms reduces the estimated gender gap in financial literacy to −0.31 standard deviations (the difference between the two constant terms) and the gap is no longer statistically different from zero.

Some findings emerge from the model with gender interactions with all covariates. The effects of age, race and income on financial literacy are not statistically different between men and women. However, men benefit more from education than women; indeed, there is no discernible gain to women in terms of financial literacy from graduating high school or attending some college (compared with dropping out of high school). Only college-educated women are more financially literate than women without a high school degree, whereas any education increase is associated with higher financial literacy for men. Turning to marital status, married women are significantly more financially literate than unmarried women, which is not the case for men. Indeed, married women are financially more literate than married men. Divorcees are no less financially literate than never-married individuals, nor is there a significant difference between the financial literacy of divorced men and women. Similar to what we saw in the specification without interactions, years since divorce are associated with increased financial literacy for both men and women.

Table 3B presents the results of a Blinder–Oaxaca decomposition of the gender gap into variation due to endowments, coefficients and their interaction (Blinder 1973; Oaxaca 1973). Note that we estimated the following conditional expectation function (CEF) using ordinary least squares regression:

$$E[y|\mathbf{X}, d] = dX\beta^M + (1 - d)X\beta^F,$$

where y denotes financial literacy, \mathbf{X} is a vector of socioeconomic characteristics and d is a dummy variable for male. β^F and β^M correspond to the coefficients for females and males, respectively. Then we can decompose the gender gap as follows:

$$E[y|d = 0] - E[y|d = 1] = \Delta\mathbf{X}\beta^M - \Delta\beta E[\mathbf{X}|d = 1] + \Delta\mathbf{X}\Delta\beta,$$

where $\Delta\mathbf{X} = E[\mathbf{X}|d = 0] - E[\mathbf{X}|d = 1]$ and $\Delta\beta = \beta^M - \beta^F$.

The first term captures how much of the gender gap is due to differences in characteristics among men and women (e.g., average education) assuming the same “production technology” (here, that of men). This is often referred to as the “explained” part of the decomposition. The second term captures how much of the gender gap is due to differences in coefficients (production technology) assuming men and women tend to have the same characteristics (here again, that of men). The final term is the part of the gap arising from the interaction between endowments and coefficients. Often the last two terms are referred to as the “unexplained” part, but sometimes the interaction term is included within the “explained” part when the decomposition is viewed from the perspective of women serving as the baseline.

The decomposition suggests that the great majority of the gender gap is due to differences in *coefficients* rather than differences in characteristics between men and women. For whatever reason, men and women have very different production processes for financial literacy. The interaction effect is statistically significant and has the opposite sign, suggesting that the endowment and coefficient effects together account for more than the total effect. Intuitively, in the case of a scalar \mathbf{X} , this can happen when the CEF for females is steeper and well below the CEF for males over the support of \mathbf{X} . In a sensitivity analysis of the Blinder–Oaxaca decomposition (not shown and available upon request), we find that inclusion of the marital status and marital history variables account for this pattern. Next we explore one possible explanation for the production process difference between men and women: division of labor for financial decisions within couples.

HOW DO HOUSEHOLDS DIVIDE FINANCIAL DECISION MAKING?

A possible mechanism through which men and women “produce” different levels of financial literacy may arise through a process by which, within the household, men specialize in acquiring financial knowledge and women specialize in other household functions. If so, married women

will have lower levels of financial literacy than men all else equal because men are investing in this form of human capital. Previously married women may not have invested in understanding complex financial decisions while married if the husband, and not the wife, specialized in financial decision making. To shed some light on this hypothesis as a possible explanation, we examine how households make financial decisions and study the correlation between decision making and financial literacy. A finding of a positive correlation, however, does not indicate a causal mechanism: it may be the case that men have higher levels of financial literacy for other reasons and thus they are more likely to make the financial decisions.

We asked married and cohabiting respondents who in their household is responsible for the following activities: paying the bills, preparing taxes, tracking investments and insurance coverage, making short-term spending/saving plans (e.g., monthly budget) and making long-term spending/saving plans (e.g., planning for retirement). Response choices were: mostly me, both equally and mostly my partner/spouse. Table 4 presents self-reported division of labor for coupled men and women separately. Since both men and women were randomly sampled from the population, if both partners agree on who is responsible for a given task then an objective measure should reveal that the fraction of men reporting “mostly me” matches the fraction of women reporting “mostly my partner,” and vice versa. Yet both men and women are more likely to report “mostly me” than “mostly my partner.”

Beyond these differences, however, the patterns are generally consistent with agreement on who is responsible for what among couples. In an analysis of the subsample of matched spouses, we find that couples generally agree on the division of financial decision making within

TABLE 4
Percent of Women and Men Reporting Mostly Me, Equal, Mostly Partner for Financial Tasks

	Mostly	Female (%)			Male (%)		
		Me	Equal	Partner	Me	Equal	Partner
Paying bills		51.2	22.1	26.7	36.9	22.1	41.1
Paying taxes		36.5	29.0	34.5	48.6	24.6	26.8
Tracking investments/insurance		32.8	34.8	32.4	49.2	32.2	18.6
Making short-term spending/saving plans		43.2	44.2	12.6	24.6	47.5	27.8
Making long-term spending/saving plans		26.2	51.5	22.3	33.8	49.2	17.0

Notes: number of observations = 827 females, 699 males. Data are weighted and include those with missing financial literacy index.

the household. The proportion of respondents reporting that they share responsibilities equally with their partners is roughly the same for men and women. Moreover, both men and women report that women are more likely to be responsible for paying the bills. About half of the respondents say that they make short- and long-term spending/saving decisions together (with slightly more women saying they are primarily responsible for short-term spending, which may be hard to differentiate from paying bills). On the other hand, there are differences in reporting of responsibility for paying taxes and tracking investments; half of men say they are primarily responsible, but women report these responsibilities are more evenly distributed.

Table 5 presents estimates of average financial literacy of men and women by division of labor within the household for various activities. An immediately striking result is that the gender gap persists across categories. For example, among respondents who report primary responsibility for paying bills, men outperform women by almost three-quarters of a standard deviation on the financial literacy index. The gap tends to be smaller, and in some cases disappears, among those who report their partner is responsible for financial activities.

Table 5 also reports p -values for standard F -tests of equality within gender. If individuals sort into responsibility for financial activities based on financial literacy, then we would expect financial literacy to decrease moving from “mostly me” to “mostly my partner.” This is clearly the case for men, and the p -values for the F -tests are all less than .03 (and in all but one case less than .001). However, for women financial literacy does not appear to play a role in their perception of financial responsibilities. Only two p -values are less than .10—preparing taxes and making long-term plans—and the differences in financial literacy do not follow the expected pattern. If anything, *less* financially literate women are taking on responsibility for these activities.

A possibility is that assortative matching between men and women is confounding correlations between financial responsibility and literacy. That is, what really matters is *relative* differences in financial literacy within a couple. While we cannot observe relative differences in financial literacy among couples for the vast majority of couples in our data, we can examine the role of education—both in absolute and relative terms.

Table 6 displays the average number of financial responsibilities (out of the five activities) adopted mostly by respondents and their partners, respectively, by gender and education. Panel A presents mean values by absolute education, whereas Panel B presents mean values by education relative to the respondent’s partner (more, the same or less). For example,

TABLE 5

Mean Financial Literacy Index by Gender, Type of Financial Decision Making and Level of Responsibility

	Female	Male	Diff.
Paying the bills			
Mostly me	-0.366	0.380	-0.746***
Both equally	-0.512	0.129	-0.641***
Mostly my partner	-0.281	0.143	-0.423***
<i>F</i> test of equality (p-value)	0.144	0.025	
Preparing taxes			
Mostly me	-0.394	0.486	-0.880***
Both equally	-0.529	-0.048	-0.481***
Mostly my partner	-0.225	-0.099	-0.126
<i>F</i> test of equality (p-value)	0.014	0.000	
Tracking investments and insurance coverage			
Mostly me	-0.442	0.522	-0.964***
Both equally	-0.390	0.036	-0.426***
Mostly my partner	-0.270	-0.376	0.106
<i>F</i> test of equality (p-value)	0.217	0.000	
Making short-term spending/saving plans			
Mostly me	-0.396	0.422	-0.818***
Both equally	-0.341	0.277	-0.618***
Mostly my partner	-0.441	-0.071	-0.370**
<i>F</i> test of equality (p-value)	0.707	0.000	
Making long-term spending/saving plans			
Mostly me	-0.639	0.515	-1.154***
Both equally	-0.289	0.220	-0.509***
Mostly my partner	-0.247	-0.558	0.312
<i>F</i> test of equality (p-value)	0.000	0.000	

Notes: number of observations = 519 females, 490 males. Data are weighted. Financial literacy index is standardized.

*** $p < .01$, ** $p < .05$.

women who completed high school or less on average handle 1.86 financial activities, compared to 1.36 for men of similar education. This pattern is reversed for higher education categories; women who completed at least some college graduation are responsible for *fewer* activities on average than similarly educated men. Table 6 also reports p -values for standard F -tests of equality within gender. As before, on average men are responsible for more activities as their education increases, whereas no such pattern appears for women. However, if we consider *relative* education levels we find that women and men with education similar to their partners tend to take on the same number of financial responsibilities. Additionally, both men and women are responsible for more financial activities as their education increases relative to their spouse. These findings suggest that relative education

TABLE 6
Division of Labor by Gender and Education

	Female	Male	Diff.
(A) Absolute education			
Mean count "mostly me"			
Less than/equal to high school	1.861	1.363	0.498**
Some college	1.842	2.131	-0.289
College graduate	2.009	2.425	-0.416***
<i>F</i> test of equality (<i>p</i> -value)	0.574	0.000	
Mean count "mostly my partner"			
Less than/equal to high school	1.234	1.785	-0.551***
Some college	1.423	1.051	0.372***
College graduate	1.208	0.939	0.269**
<i>F</i> test of equality (<i>p</i> -value)	0.260	0.000	
(B) Relative education			
Mean count "mostly me"			
Partner has more education	1.357	1.393	-0.036
Partner has same education	1.822	1.936	-0.114
Partner has less education	2.881	2.518	0.363
<i>F</i> test of equality (<i>p</i> -value)	0.000	0.000	
Mean count "mostly my partner"			
Partner has more education	1.690	1.492	0.197
Partner has same education	1.319	1.391	-0.072
Partner has less education	0.592	0.781	-0.190
<i>F</i> test of equality (<i>p</i> -value)	0.000	0.001	

Notes: number of observations = 827 females, 699 males. Count is out of five items. Data are weighted and include those missing financial literacy index data.

****p* < .01, ***p* < .05.

differences may trump traditional gender roles when couples divide financial responsibilities.

CONCLUSION

We utilize newly collected data from the RAND ALP to examine potential explanations for the gender gap in financial literacy: differences in the characteristics of men and women and differences in how these characteristics "produce" financial literacy. We specifically examine a mechanism by which gender differences may be produced: within households, men more often than women specialize in financial decisions thereby acquiring more financial knowledge. Similar to past studies, we find gender differences in financial literacy utilizing a single comprehensive measure that is a combination of multiple measures of financial literacy. We find that women perform 0.7 standard deviations lower than men on our financial literacy index, and the difference is

statistically significant. Controlling for sociodemographic characteristics has only a limited effect on the gap. On the other hand, our estimated coefficient of the correlation between these characteristics and financial literacy reveals that men and women have different production processes for financial literacy. A possible mechanism through which gender differences are produced is household specialization: men specialize in making household financial decisions thereby acquiring financial knowledge and women specialize in other household functions.

We, however, find little support for financial decision specialization by gender within couples although we do find a positive correlation between decision making and financial literacy but only for males. We need a better understanding of *why* the intensity of decision making is related to financial literacy for men and not women. This may be in part explained by the limited set of financial decisions we study. Importantly, we find that decision making within couples depends on the relative education of spouses. Women and men with similar education relative to their partner on average take on the same number of financial responsibilities, and both men and women are responsible for more financial activities as their education increases relative to their spouse. In 2010, slightly more women than men over age 25 have achieved a bachelor's degree or higher (U.S. Census Bureau, Current Population Survey, 2010 Annual Social and Economic Supplement). Our results suggest that with approximately equal education achievement by gender, financial decision making should also be approximately equal by gender, although within an individual household it will depend upon the relative levels of the spouses. More research is needed to understand *how* the intensity of involvement in financial decisions increases financial knowledge and importantly, how this knowledge is used. As the number of financial products and their complexity continue to grow, so will the importance of acquiring financial knowledge and the ability to use it to achieve income security.

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