



What Women Want (Their Men to Do): Housework and Satisfaction in Australian Households

Gigi Foster
University of New South Wales

Leslie S. Stratton
Virginia Commonwealth University & IZA

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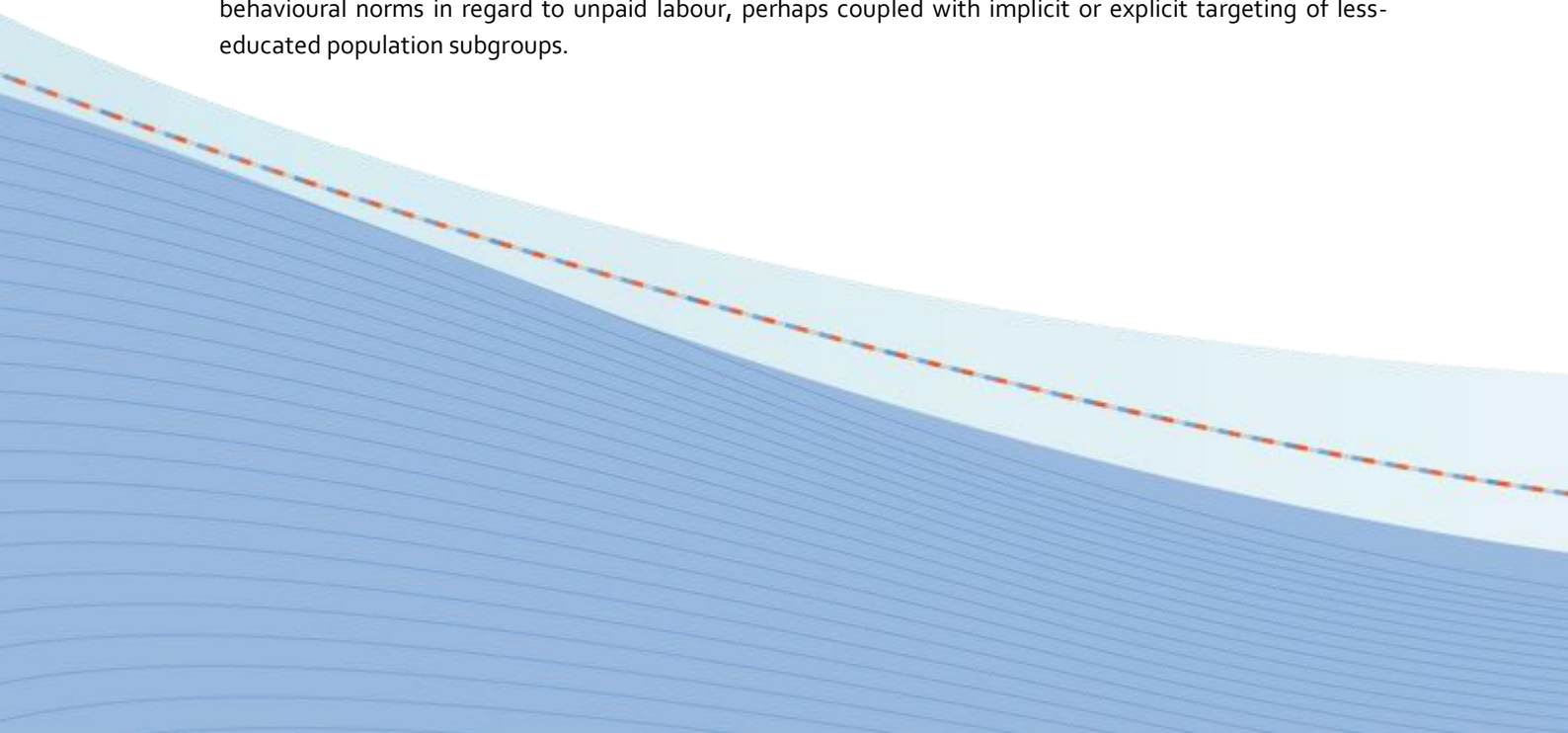
NON-TECHNICAL SUMMARY

Couples around the world spend a substantial amount of time on routine household chores that result in such important products as family meals, clean clothes, and comfortable living spaces. The burden of producing these goods around the world, and in Australia, has fallen disproportionately on women. However, most of the material objectives of housework can in principle be produced by anyone, regardless of gender; skill requirements are limited. Assuming that no one enjoys doing housework, the observed division of household labour is often portrayed by social scientists either as the result of a negotiation between the partners such that the more powerful partner is allocated less housework or as a function of gender role attitudes. Prior work using proxies for power and attitudes suggests that both of these explanations play a role.

Our contribution in this paper exploits rich longitudinal data from the Household, Income and Labour Dynamics in Australia (HILDA) survey that allow us to examine not how the time allocated to routine housework differs across couples, but how couples change their time allocation from year to year. We model these within-couple differences as a function of differences over time in household characteristics (including the number and ages of children; marital status; and the age, education, and disability status of each partner), residential characteristics, and survey year. Controlling for these factors, we focus on how couples' housework time allocations respond to major labor market events – in particular job promotions and terminations – which potentially alter the relative balance of economic power within the household, while also influencing household heads' time availability. The more (less) time an individual (partner) spends in paid employment, the less time he/she spends on housework, but there is also evidence that following a promotion, women report less time on housework and their partner reports more, indicating that gender power relations also play a role. The effect of promotions may actually be understated as we also find evidence that dual earner households are more likely to outsource household production to the market – by hiring maids and purchasing meals.

Power dynamics cannot, however, explain all the results. Further results indicate that households holding more liberal gender role attitudes are more likely to adjust their housework time allocations after female promotion events. Supporting the sociological theory that partners may 'do gender', we also find that in households with more traditional gender role attitudes, his housework time falls while hers rises when he is terminated.

These results suggest that female advancement in the formal labour market can go partway towards creating a more equal division of labour in the home, although the impact is modest and concentrated in more highly-educated households. Policy makers interested in promoting a more equal distribution of labour within the household may want to support programs that imply or support more gender-neutral behavioural norms in regard to unpaid labour, perhaps coupled with implicit or explicit targeting of less-educated population subgroups.



ABOUT THE AUTHORS

Gigi Foster is an Associate Professor with the School of Economics at the University of New South Wales, having received her BA from Yale University majoring in Ethics, Politics, and Economics, and her PhD in Economics from the University of Maryland. She works in many economic subfields, including education, social influence, behavioral economics, lab experiments, and time use. With support from the Australian Research Council and other bodies, she has published in a wide variety of outlets including *Journal of Public Economics*, *Quantitative Economics*, *Journal of Economic Behavior and Organization*, *Human Relations*, and *Journal of Economic Psychology*. Email: gigi.foster@unsw.edu.au

Leslie S. Stratton received her Ph.D. in Economics from the Massachusetts Institute of Technology in 1989 and is currently a professor at Virginia Commonwealth University in the US. She is an applied econometrician working primarily in the labor economics field. Her research has centered on the time allocation decisions of individuals and households. As such she has explored intra-household time allocation decisions, marital wage differentials, labor supply decisions, and post-secondary enrollment patterns. Her research has been published in such journals as the *Southern Economic Journal*, *Economic Inquiry*, *Industrial and Labor Relations Review*, *the Journal of Human Resources*, *the Journal of Population Economics*, and *Economics of Education Review*. Email: lsstratt@vcu.edu

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(ARC Centre of Excellence for Children and Families over the Life Course)
Institute for Social Science Research, The University of Queensland (administration node)
UQ Long Pocket Precinct, Indooroopilly, Qld 4068, Telephone: +61 7 334 67477
Email: lcc@uq.edu.au, Web: www.lifecoursecentre.org.au

Abstract

The time allocated to household chores is substantial, with the burden falling disproportionately upon women. Further, social norms about how much work men and women should contribute in the home are likely to influence couples' housework allocation decisions and evaluations of their lot. Using Australian data, we employ a two-stage estimation procedure to examine how deviations from housework norms relate to couples' satisfaction. In stage one, we model housework time to identify predicted (i.e., socially expected) and residual components. In support of this bifurcation, the residual housework time measures are strongly related to each partner's perceived fairness of the division of household tasks. In stage two, we predict satisfaction based on predicted and residual housework time. We find that women's satisfaction, but not men's, is robustly affected by their partners' residual housework time. When he exceeds housework norms, she is happier with housework allocations, but less happy in broader dimensions.

Keywords: satisfaction; social norms; housework; Australia

Introduction

"I generally find that comparison is the fast track to unhappiness." – Jack Canfield

People cannot help but compare their behaviors to the prevailing norms in their society. The results of social comparison have been conjectured to drive dimensions of psychological welfare, and ultimately to motivate economic behaviors including investment, search, and resource allocation (see Basit Zafar 2011 for a review). Social comparison effects have been seen in data from around the world (America, Europe, and Asia) in an array of prior studies in economics and social psychology (e.g., Leon Festinger 1954; Heather Smith, Thomas Pettigrew, Gina Pippin, and Silvana Bialosiewicz 2012; Gerben van Kleef, Florian Wanders, Eftychia Stamkou, and Astrid C. Homan 2015), and with respect to outcomes ranging from pro-social behavior (Bruno Frey and Stephan Meier 2004) to personal identity (Marilynn Brewer 1991) to satisfaction (Nynke Frieswijk, Bram P. Buunk, Nardi Steverink and Joris P. J. Slaets 2004; Abraham Buunk, Hinke Groothof, and Frans Siero 2007).

The social norms that form the basis of behavioral comparisons may be drawn from society "as a whole" (whether globally, as represented in the media, within a particular country or sub-group, or otherwise), and/or from groups closer at hand and known personally, such as close family members. In particular, behavioral norms are unavoidably established over time within households. One behavioral dimension of a household's circumstances that substantially impacts everyday life, and where significant variation across households exists, is the intra-household distribution of time spent on unpaid housework. Is this a dimension along which individuals might compare themselves, or their family members, to social norms (whether sourced from the broader society or from the household's own history)? If so, might satisfaction or welfare effects arise from such comparisons?

We approach this question by examining the relationship between individuals' satisfaction and the time they and their partners spend doing housework. In particular, we bifurcate the actual time spent on housework for male and female members of a household couple into predicted and residual housework time. We then separately test the associations of the predicted and residual portions of both his and her housework time with an array of measures of individual satisfaction.

The logic behind this approach is that the predicted portion of housework time should proxy for social norms about how much housework time is appropriate for oneself and for one's spouse, and that individuals' mental comparison of actual behavior to those norms may in turn drive satisfaction.

Our approach is motivated in part by existing evidence from the sociology literature (Janeen Baxter 2000; Mikael Nordenmark and Charlott Nyman 2003; Caroline Henchoz and Boris Wernli 2013; Marisa Young, Jean Wallace, and Alicia Polochek 2015; Daniel Carlson, Sarah Hanson, and Andrea Fitzroy 2016) relying on data from Australia, Canada, the US, Switzerland, and Sweden indicating broadly that the more couples share domestic labor, the happier they are.¹ While these results are intriguing, the level of "sharing" against which partners' judge each other's allocation of time to housework is not immediately obvious. We argue that using a bifurcation of actual housework time into predictable (expected) and unpredictable portions enables us to isolate a proxy for the ambient social expectation of the amount of housework that "should" be done by a particular person in a particular setting – i.e., the benchmark level against which that person, and that person's partner, may compare their actual performance. Our modelling approach allows us to examine whether changes in the unpredictable portion of actual housework time for men and women are in fact associated with changes in their partners' stated satisfaction, measured in a variety of ways.

Because women on average shoulder a disproportionate share of housework around the globe (OECD 2011), housework itself is arguably a more salient force in women's lives than in men's – driving more decisions on an everyday basis, taking up more conscious attention, and perhaps for these reasons creating more stress (as found in Rachel Connelly and Jean Kimmel 2015 and implied in Martha MacDonald, Shelley Phipps, and Lyn Lethbridge 2005). Consequently, one might expect that if the type of social comparison effects sketched above are present, they may be more evident

¹ For a review of the broader literature in sociology regarding household labour – its measurement, division within the household, and associations with economic and psychological outcomes – see Beth Shelton and Daphne John (1996).

for women than for men, whose stress levels appear to be more responsive than women's to aspects of the realm of paid work (Alison Booth and Jan Van Ours 2008). Specifically, relative to men, women may be more keenly aware of, and hence their satisfaction may be more responsive to, their spouses' housework behavior – and even their own housework behavior.

However, a related literature suggests that men who perform traditionally female unpaid tasks can suffer negative consequences in their relationships with the very females with whom they are sharing the burden. In the most famous recent example from this literature, Sabino Kornrich, Julie Brines, and Katrina Leupp (2012) find that both men and women in couples whose domestic chore allocation runs more strongly along traditional gender lines report higher sexual frequency than other couples. This implies that those with more egalitarian allocations have less sex. One interpretation of this finding is that women's satisfaction in at least some dimensions may decline when the amount of housework performed by the man is unusually large in comparison to social norms – norms which themselves reflect a strong degree of female-specificity in the performance of housework.²

Method

To test these ideas empirically, we use longitudinal data on couple households in Australia from the HILDA survey. We begin by presenting some basic descriptive information for our sample, including reported housework time as well as an array of satisfaction measures. These statistics are reported separately by gender and we highlight the noticeable gender differences. We also describe the simple associations between housework time and the array of satisfaction measures, for men and women separately.

We proceed to examine separately by gender how the time couples allocate to housework relates to satisfaction using a two-stage approach. In stage one, we model men's and women's housework

² If, as beautifully articulated by West and Zimmerman 1987 (p. 126), "...the 'doing' of gender is undertaken by women and men whose competence as members of society is hostage to its production," then by implication men who "do" more female-ness (for example, by allocating more time to housework) risk being perceived as being less competent members of society – even, presumably, by their partners.

time separately, saving measures of both the predicted and unpredicted (residual) portions of his and her housework time. In stage two, we use both of these components to model within-couple changes in satisfaction of various types, both specifically in relation to housework and more generally. We look primarily for evidence that a deviation from social norms by Partner A impacts the satisfaction of Partner B, motivated by the notion that if Partner A increases his/her contribution to housework time more than is the norm, Partner B may be more satisfied with the bargain she/he is getting in the partnership. Own effects may also arise if housework is considered unpleasant.

We first look for evidence that the residual housework measures derived from our first-stage models of housework time relate in the ways we would predict to the perceived fairness of housework duties. We find that when asked whether they do their fair share of work around the house, people of both genders who have higher first-stage residuals are more likely to report doing a greater share of housework. These patterns give us confidence that the residual housework measure constructed from our first stage is indicative of the deviation of an individual's housework time allocation from what would be considered socially appropriate ("fair").

We then investigate how satisfaction with the way in which housework is allocated within the partnership responds to these residuals. We find that a woman's satisfaction with housework allocation relates negatively to her own residual housework time, and positively to her spouse's residual housework time. Notably, men do not demonstrate the same sensitivity. We further show that women's satisfaction with their lives as a whole (and, in some specifications, with partner relationship) is negatively – not positively – related to their partners' residual housework time, whereas no such effect is seen for men. Hence, housework time allocations do seem to matter more for women's satisfaction than for men's and, depending on the satisfaction measure used, the direction of the effect changes. All standard errors are bootstrapped, where the bootstrapping procedure wraps around both steps in the analysis.

Data

We use household-level panel data taken from the 2001-2014 waves of the Household Income and Labour Dynamics in Australia, or “HILDA”, survey (see Nicole Watson and Mark Wooden 2012 for more details). Our sample is restricted to single-family, mixed-gender couple households (married or cohabiting) of working age.³ Observations in which either partner fails to complete the self-completed questionnaire on which housework time is reported, or fails to respond to a satisfaction question,⁴ are excluded,⁵ as are couples with only one year of data who are more likely than other couples to be in a very short-lived relationship, and who contribute no information in the context of panel analysis. We perform all analyses separately by gender.

Time spent on housework is recorded as the response to the question, “How much time would you spend on housework (preparing meals, washing dishes, cleaning house, washing clothes, ironing and sewing) in a typical week?”⁶ These activities are routine tasks that every household has to complete in some way, and for the vast majority of households the time spent on these activities constitutes more than 40 percent of total reported time spent on a broader class of unpaid labor that

³ Persons younger than age 20, men older than age 64, women older than age 61, and 20-to-23-year-olds enrolled full-time in higher education are excluded. The different age restrictions by gender approximately reflect the different ages at which men and women are eligible to receive pensions in Australia.

⁴ Satisfaction with the division of housework is only asked beginning in 2005, and hence our sample size is smaller when running the second-stage models that use this measure, but we do not globally restrict the sample on that basis.

⁵ Observations missing data on our explanatory variables are also dropped. The variables most likely to be missing data are non-labour income and gift income. Paid work time is missing for a small number of observations and is also top-coded at 80 hours for men and 65 hours for women, approximately the top decile in each case.

⁶ This question is answered to the nearest minute in all HILDA waves except the first; in 2001, it is answered to the nearest hour. In our models, any difference in average measured quantity of housework caused by this change in granularity across reporting years is captured by our year dummies.

additionally includes running errands and performing outdoor labor, such as yard work.⁷

Observations in which either partner fails to report housework time, or in which the couple jointly reports either no time or more than 70 hours (approximately the 99th percentile), are dropped. In about 85 percent of households in our sample, the woman contributes 50 percent or more of the hours devoted to housework in total by the couple. Most people, regardless of gender, report housework time in the range of one to twenty hours per week, with some degree of clustering at round figures (e.g., five hours, ten hours). The incidence of individuals replying ‘no time’ is sufficiently uncommon (less than 0.4 percent for women and less than 7 percent for men) to make nonlinear estimation unnecessary.

Motivated by prior literature highlighting the role of spouses’ assessment of “fairness” with the division of housework (e.g., Michelle Frisco and Kristi Williams 2003), we begin our second-stage analysis with an examination of individuals’ responses to the question, “Do you think you do your fair share around the house?”. Responses to this question range from “I do much more than my fair share” (coded 1) to “I do much less than my fair share” (coded 5). We think of this measure as capturing the individual’s appraisal of his or her housework performance relative to prevailing norms, and use it to support a similar interpretation of our first-stage residuals. We refer to this as a measure of “share fairness”, with lower numbers indicating that the individual is over-performing relative to norms and larger numbers indicating underperformance relative to norms.

The HILDA survey includes several measures of satisfaction, one of which captures respondents’ sentiments regarding the allocation of housework. Satisfaction with “The way household tasks are divided between you and your partner” was recorded on a scale of 0 to 10 in waves 2005 to 2014 of the HILDA survey, with higher measures indicating greater satisfaction. We use this as our measure of satisfaction with respect to housework. We also examine two broader measures of satisfaction

⁷ At both the individual and household levels, hours spent on housework are positively associated with hours spent on these other forms of unpaid labour.

that are available in the HILDA: specifically, satisfaction with the relationship with one's partner and satisfaction with life overall. These other satisfaction measures are available in every wave of the survey.

Table 1
Sample Characteristics at the Couple Level

Panel A	<u>Full</u> <u>Sample</u>	Sample reporting Satisfaction with <u>Division of HW</u>		
Number of Couples	5,180	4,240		
Number of Observations	31,929	22,322		
% Couple Spells with 2 Observations	18.07	18.37		
% Couple Spells with 3 Observations	13.98	15.17		
% Couple Spells with 4 Observations	15.08	16.11		
% Couple Spells with 5 Observations	7.76	9.29		
% Couple Spells with 6 Observations	6.49	7.57		
% Couple Spells with 7 Observations	6.06	7.92		
% Couple Spells with 8 Observations	5.02	7.29		
% Couple Spells with 9 Observations	4.31	8.66		
% Couple Spells with 10 Observations	4.44	9.62		
% Couple Spells with 11 Observations	4.65	0.00		
% Couple Spells with 12 Observations	4.88	0.00		
% Couple Spells with 13 Observations	4.96	0.00		
% Couple Spells with 14 Observations	4.31	0.00		
Panel B	<u>Mean</u>	<u>Std.</u> <u>Dev.</u>	<u>Mean</u>	<u>Std.</u> <u>Dev.</u>
His Average Housework Time	6.01	4.50	6.33	4.62
His Average Paid Labor Time	39.35	15.66	39.39	15.20
Her Average Housework Time	16.71	9.28	16.30	9.12
Her Average Paid Labor Time	23.20	15.72	23.75	15.59

Table 1 presents some sample statistics both for the full sample and for the sub-sample in which our housework satisfaction measure is available. Panel A of Table 1 shows that there are almost 32,000 observations on 5180 couples in the full sample, and more than 22,000 observations on 4240 couples in the sample for which satisfaction with the division of housework is reported. While there are on average 6.2 observations per couple in the full sample, Panel A shows that the distribution of couples' longevity in both samples is skewed towards shorter durations.

Panel B of Table 1 shows within-couple means for housework time and paid work time, separately by gender. On average in our full sample, men report spending over 10.5 hours per week (64 percent) less time on housework than women, and about 16 hours per week (41 percent) more on paid work. These numbers are extremely similar for the subsample of observations with non-missing data on our housework satisfaction measure. As reported in another recent paper (Gigi Foster and Leslie Stratton 2017), summary statistics calculated from the HILDA measures of time spent on housework are quite similar to those calculated using data from the most recent Australian Time Use Survey, run by the Australian Bureau of Statistics in 2006.

Table 2 shows the distribution of our measures of share fairness (in Panel A) and satisfaction (in Panel B), separately for men and women. The answer scale for the three satisfaction measures runs from 0 to 10, with 0 being "completely dissatisfied" and 10 being "completely satisfied". As noted previously, the answer scale for share fairness runs from 1, being "I do much more than my fair share", to 5, being "I do much less than my fair share".

Table 2

Panel A: Share Fairness Measures

By Gender

	His Perception of Share Fairness	Her Perception of Share Fairness
I do much more than my fair share	4.78	29.20
I do a bit more than my fair share	10.05	29.69
I do my fair share	57.13	36.01
I do a bit less than my fair share	24.11	4.11
I do much less than my fair share	3.93	0.98
Number of Observations	31,929	31,929

Panel B: Satisfaction Measures

By Gender

	Men			Women		
	Satisfied with the division of household tasks	Satisfied with partner relationship	Satisfied with your life overall	Satisfied with the division of household tasks	Satisfied with partner relationship	Satisfied with your life overall
Completely Dissatisfied (0)	0.30	0.34	0.05	1.08	0.37	0.04
1	0.33	0.34	0.08	1.45	0.63	0.05
2	0.89	0.82	0.26	3.37	1.04	0.18
3	1.47	1.14	0.53	4.85	1.50	0.33
4	2.36	1.20	0.90	5.24	1.68	0.70
5	7.11	2.93	2.86	9.29	3.85	2.85
6	6.10	3.67	5.29	8.64	4.61	4.88
7	14.44	9.83	21.43	14.84	11.09	19.09
8	24.72	21.24	38.23	18.92	20.24	36.77
9	20.36	26.29	22.16	15.29	25.67	24.39
Completely Satisfied (10)	21.92	32.20	8.20	17.05	29.33	10.73
Number of Observations	22,322	31,929	31,929	22,322	31,929	31,929

Fifty-nine percent of women, as compared with only 15 percent of men, report that they do “more than [their] fair share” of housework, while only 36 percent of women but 57 percent of men report that they do their fair share. The distribution of women’s satisfaction with the division of household tasks contains more density at the lower end of the scale, from 0 up to and including the value of 7, compared to the men’s distribution; only 51 percent of women, but 67 percent of men, report a high satisfaction level (8, 9, or 10) with the division of household tasks. A similar pattern, though far less pronounced, is also evident in the gender-specific distributions of reported satisfaction with the relationship with one’s partner. Hence, the raw data indicate that women in general feel they do more than their fair share of housework, are less satisfied with the division of household tasks, and are slightly less satisfied with their relationships with their partners, than men. This pattern is reversed, though only weakly, in the distributions of overall life satisfaction, with more women than men reporting a 9 or 10 on this scale.⁸

Raw Correlations

How does housework time relate to share fairness and our three measures of satisfaction? Raw correlations (available upon request) indicate that share fairness is positively related to partner’s housework time. Own satisfaction with the division of household tasks is also positively related to partner’s housework time, though only significantly so for women. Apart from this, the reported time spent on housework by both oneself and one’s partner is negatively correlated with satisfaction and share fairness, for both genders.

First stage estimates: Housework time

⁸ Christopher Ambrey, Jennifer Ulichny, and Christopher Fleming (2017) report evidence generated using the same data set that the satisfaction of both Australian men and Australian women has fallen over time (attributing this fall to a decline in social connectedness). We also find a decline over time for both genders in our broader satisfaction measures.

To examine these associations more thoroughly, we present in Table 3 the results of the first stage of our analysis, where we predict the time spent on housework by men and women separately. In all models we control for a range of individual-level characteristics (ethnicity, education, age/cohort); household structure variables (number and ages of household members); indicators for the presence of disabled people in the home, for partners engaged full-time in education, urbanicity (non-urban (base category), major city, and other urban), and type of housing (apartment (base category), house, or townhouse); reported non-labor income (the sum of interest, dividend, and royalty income) and gifts (the sum of inheritances, gifts and other irregular income) received by each partner; and state-of-residence by urbanicity and year dummies. In the second variant of our first-stage models for each gender, we add controls for the paid employment status, industry, occupation, and employment hours of both partners, and in the third variant we exclude this employment information but include couple- and gender-specific fixed effects, necessarily dropping time-invariant household and individual-level observables. Finally, we estimate a first-stage model of her share of housework (her time divided by the sum of his and her time) using all the covariates from our baseline model.⁹ The results of these three alternative housework models are reported in Appendix A.

⁹ The share of household housework time supplied by women in two households may be the same (say 70 percent) when the hours spent are quite different (say 7 hours in a household reporting 10 hours of housework, versus 21 hours in a household reporting 30 hours of housework). Spending 21 hours on housework constitutes a much greater burden than spending 7 hours on housework, which may have important implications for satisfaction. This is why in our baseline first-stage results we predict reported hours spent, rather than share.

Table 3
Baseline Estimates of the Time Spent on Housework

	By Men		By Women	
His Characteristics:				
Ethnicity: Base Case = non-aboriginal Australian				
Aboriginal	1.0995 (0.6142)		-1.7133 (1.2564)	
English Speaking Immigrant	0.3170 (0.2072)		-0.6860 (0.3925)	
Other Immigrant	0.0513 (0.2640)		0.9749 (0.5021)	
Education: Base Case = 12 Years				
Post-Bachelors	-0.0684 (0.2870)		0.6514 (0.5578)	
BA/Honors	-0.0398 (0.2721)		-0.3955 (0.5018)	
Diploma	0.1834 (0.2088)		-0.3814 (0.3754)	
Certificate III/IV	-0.1222 (0.2319)		-0.6819 (0.4428)	
11 Years	-0.0237 (0.2376)		-1.0563 (0.4029)	**
10 Years	-0.0962 (0.3328)		-0.1550 (0.6088)	
< 10 Years	-0.3006 (0.2254)		-0.4813 (0.3945)	
Age	0.0825 (0.0206)	***	0.0814 (0.0362)	*
Birth Cohort: Base Case Born 1960-1970				
Born before 1960	-0.5937 (0.2958)	*	-0.4466 (0.5330)	
Born after 1970	-0.2291 (0.2973)		0.6059 (0.5053)	
Disabled	0.9265 (0.2025)	***	-0.1530 (0.3351)	
Enrolled Full-Time in School	0.1836 (0.3633)		0.4737 (0.5468)	
Non-labor Income	-0.0325 (0.0124)	**	0.0327 (0.0240)	
Gift Income	-0.0019	*	-0.0010	

	(0.0010)		(0.0026)	
Her Characteristics:				
Ethnicity: Base Case = non-aboriginal Australian				
Aboriginal	0.9597		0.5147	
	(0.7112)		(1.0660)	
English Speaking Immigrant	0.3032		-0.6069	
	(0.2468)		(0.3999)	
Other Immigrant	-0.0009		0.7629	
	(0.2591)		(0.4877)	
Education: Base Case = 12 Years				
Post-Bachelors	1.2747	***	-2.3731	***
	(0.3681)		(0.5968)	
BA/Honors	0.8754	***	-1.6900	***
	(0.2938)		(0.5020)	
Diploma	0.3294		-1.0887	***
	(0.2209)		(0.3866)	
Certificate III/IV	0.1739		-0.7831	
	(0.2559)		(0.4520)	
11 Years	-0.6299	***	0.5179	
	(0.2195)		(0.4171)	
10 Years	-0.4275		0.4453	
	(0.2920)		(0.5375)	
< 10 Years	-0.7467	***	1.2104	***
	(0.2252)		(0.4094)	
Age	-0.0481	*	0.1466	***
	(0.0211)		(0.0378)	
Birth Cohort: Base Case Born 1960-1970				
Born before 1960	0.1884		0.0843	
	(0.3051)		(0.5397)	
Born after 1970	0.0225		0.2865	
	(0.2979)		(0.5059)	
Disabled	0.8198	***	1.6322	***
	(0.2079)		(0.3318)	
Enrolled Full-Time in School	0.4756		-1.2920	***
	(0.2849)		(0.4241)	
Non-labor Income	-0.0500	***	0.0481	
	(0.0148)		(0.0342)	
Gift Income	0.0007		0.0009	
	(0.0012)		(0.0028)	
Household Characteristics:				
Married	-0.5404	***	1.4340	***
	(0.1550)		(0.2607)	

# of Children Age 0-4	0.4879 *** (0.0870)	5.2701 *** (0.1705)
# of Children Age 5-9	0.4987 *** (0.0913)	3.2957 *** (0.1696)
# of Children Age 10-14	0.3684 *** (0.0885)	2.3228 *** (0.1662)
# of Other Dependents	0.0332 (0.1032)	1.3099 *** (0.1888)
# of Other Adults	0.0145 (0.1221)	0.8970 *** (0.2503)
Have a Disabled Child	0.2810 (0.2444)	0.0547 (0.4405)
Have another Disabled Resident	0.2977 (0.2587)	0.2698 (0.4874)
Urbanicity: Base Case Rural		
Lives in a Major City	0.7298 * (0.3302)	-1.2493 * (0.6226)
Lives in another Urban Area	1.3785 *** (0.4012)	0.0947 (0.7149)
Housing: Base Case Apartment		
Live in a House	-0.1432 (0.1888)	1.0042 *** (0.3194)
Live in a Townhouse	0.0644 (0.2305)	0.0356 (0.3925)
Moved in last year	0.0651 (0.1084)	-0.4171 * (0.1878)
Number of Observations	31,929	31,929
R-Squared	0.0375	0.1788
F-Statistic	6.07	35.09
P-Value	0.0000	0.0000

All specifications also include year and state dummies, as well as state/urbanicity interactions.

Standard errors in parentheses, adjusted for 5180 couple clusters.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

The estimated parameters from our baseline model of the time spent on housework are clearly jointly significant (p-value of 0.0000 for both men and women), but the model explains a larger fraction of the variation in women's housework time (r-squared=0.18) as compared to men's (r-squared=0.04). His age is significantly positively associated with his and her housework time,

disabled men report spending almost an hour longer on housework, and men with more non-labor income report spending less time on housework. His characteristics have little association otherwise with housework time. Her characteristics, by contrast, are more strongly associated with housework time. When she is more educated, he spends more time and she spends less time on housework. Older women report more time on housework, while their partners report less. When women are disabled, both they and their partners report more time on housework. When women report receiving more non-labor income, their partners report spending less time on housework. Household characteristics also have a significant association with housework time. Married men report spending on average 30 minutes less per week while their partners report spending about 85 minutes more per week than those in cohabiting relationships. The presence of children of all ages significantly increases the housework time of both men and women, though the magnitude of the effect is six to ten times greater for women.

Second-stage estimation results

We now position the models of his and her housework time shown in Table 3 above as the first stage in a two-stage procedure, where in the second stage we predict his and her assessment of housework share fairness and then three dimensions of satisfaction, based on estimation results from the first stage. Our key independent variables in the second-stage models, all of which include gender- and couple-specific fixed effects in order to control for unobservable differences across households in average share fairness responses or satisfaction levels, are the residuals and in some cases also the predicted portions of his and her housework time, as constructed from the output of the first-stage regressions shown in Table 3. The average of predicted housework time is, of course, equal to the average of actual housework time (6.2 hours for him and 17.2 hours for her); the standard deviations of predicted housework time are 1.1 hours for men and 5.0 hours for women. Residual housework time necessarily has a mean of zero. Its standard deviation is 10.6 hours for women and 5.8 hours for men. To ease interpretations, we normalize the fairness and satisfaction measures, the residuals, and the predicted housework times to have standard deviations of one so

that coefficients can be interpreted as the impact that a one-standard-deviation increase has on fairness/satisfaction responses, measured in standard deviations of within-person-couple fairness/satisfaction responses.

Fairness

Table 4 shows the results of our second-stage models predicting each partner's perception of the fairness with which household tasks are allocated, using the baseline variant of our first-stage model (results shown in Table 3) to generate the "predicted" and "residual" portions of housework time. Three specifications are reported: all include the residual portion of own and partner's housework time, the second also includes each partner's predicted housework time, and the third includes all the covariates incorporated in the first-stage model of housework time. A positive estimated coefficient for a regressor in these models indicates a positive conditional association of that variable with the sense that one is doing less than one's fair share of housework. All standard errors are fully bootstrapped across the entire two-step estimation procedure.

Table 4
Housework Share Fairness
OLS HW & FE Share Fairness

<u>His Results</u>	<u>Residuals</u>				<u>Predicted</u>		<u>Covariates</u>
	<u>His</u>		<u>Her</u>		<u>His</u>	<u>Her</u>	
Do you do your fair share around the house?							
	-0.2174	***	0.0699	***			No
	(0.0119)		(0.0091)				
	-0.2164	***	0.0704	***	0.0176	0.0220	No
	(0.0118)		(0.0091)		(0.0150)	(0.0147)	
	-0.2179	***	0.0695	***			Yes
	(0.0060)		(0.0046)				

Her Results

Do you do your fair share around the house?							
	0.1225	***	-0.1327	***			No
	(0.0109)		(0.0098)				
	0.1212	***	-0.1381	***	0.0479	*** -0.2562	*** No
	(0.0108)		(0.0097)		(0.0160)	(0.0141)	
	0.1192	***	-0.1371	***			Yes
	(0.0108)		(0.0097)				

The covariates include year and state dummies, all the covariates reported in Table 1, and state/urbanicity interactions.

Standard errors in parentheses.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

The results from these models are remarkably robust in sign, significance, and magnitude across all specifications in a manner that strongly supports our interpretation of the residuals as indicative of departures from the social norm. Given that these second-stage regressions include fixed effects, our estimates indicate that people of both genders whose residual housework time increases are predicted to report feeling as though they are doing a greater share of housework. Similarly, both men and women whose partners' residuals increase are predicted to report feeling as though they are doing a smaller share of housework. Men appear particularly sensitive to their own residual housework time, as a one-standard-deviation increase in their residual (small as it is) leads to a 0.22 standard deviation decrease in their share fairness report. Men are not nearly as sensitive to their

partner's residual housework time, as a one-standard-deviation increase in that residual leads to only a 0.07 standard deviation change in their share fairness report. Women, by contrast, are about equally sensitive to their own and their partner's deviations from the norm, and their level of sensitivity falls in the mid-range, with a one standard deviation change in either residual shifting their share fairness report by between 0.12 and 0.14 standard deviations. Furthermore, men's sense of housework share fairness is not significantly related to the predictable part of either his or his partner's housework time, whereas women's is. This indicates that women are more likely than men to respond to the fairness question in an unconditional sense, rather than conditional on characteristics included in the first stage (such as the presence of children) that relate to how much housework is done by each person.

Results from the specifications including residual and predicted values from our alternative first-stage housework models are reported in Appendix B. Residual housework time shows the same relation to reports of housework share fairness observed in Table 4, though the magnitude of the effect is about 30 percent smaller when controlling for person-couple-specific fixed effects. Perhaps not surprisingly, the results from the first-stage specification predicting her share of the couple's housework time, rather than his or her hours of housework time, provides a better fit in the second-stage model of share fairness. As expected, when her residual share increases, he perceives that he is doing a lesser share of housework, while she perceives she is doing a greater share.

Satisfaction

Table 5 shows analogous results using each of our three measures of satisfaction, rather than share fairness, as the dependent variable in the second stage. These results indicate no strong association of own or partner's residual housework time with men's satisfaction with the division of housework time, with their relationship with partner, or with life. Thus, while men appear to recognize deviations from social norms with respect to housework when asked to assess the fairness of their share of housework, these deviations do not appear to influence significantly their satisfaction -

even the dimension of satisfaction related to how housework is divided. For women, this is not the case. Women’s residual housework time is significantly negatively associated, while their partner’s residual housework time is significantly positively associated, with women’s satisfaction with the division of housework. The magnitude of these effects is modest: a one-standard-deviation change in either residual shifts satisfaction by between 0.04 and 0.07 of a standard deviation. These residual housework measures are not significantly associated with women’s satisfaction with their relationship with partner, but the residual portion of partner’s housework time is negatively and significantly associated, and her residual portion is weakly positively associated, with her satisfaction with life. Hence, when their men do more than is expected according to our first-stage housework models, women are more satisfied with regard to the intra-household division of household tasks, but they are less satisfied with their lives overall.

Table 5
Satisfaction as a Function of Housework Time
OLS HW & FE Satisfaction

<u>His Results</u>	<u>Residuals</u>		<u>Predicted</u>		<u>Covariates</u>
	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>	
Satisfaction with the Division of Housework Time (a)					
	-0.0038 (0.0107)	0.0016 (0.0100)			No
	-0.0055 (0.0108)	0.0015 (0.0100)	-0.0431 * (0.0193)	-0.0056 (0.0145)	No
	-0.0027 (0.0108)	0.0020 (0.0100)			Yes
Satisfaction with Relationship with Partner					
	-0.0082 (0.0087)	0.0204 (0.0113)			No
	-0.0163 (0.0088)	0.0185 (0.0111)	-0.1737 *** (0.0202)	-0.0587 ** (0.0216)	No
	-0.0084 (0.0089)	0.0201 (0.0107)			Yes
Satisfaction with Life					
	0.0059 (0.0099)	0.0119 (0.0098)			No

-0.0001	0.0115	-0.1464 ***	0.0056	No
(0.0098)	(0.0097)	(0.0157)	(0.0159)	
0.0012	0.0119			Yes
(0.0101)	(0.0098)			

<u>Her</u> <u>Results</u>	Residuals		Predicted		<u>Covariates</u>
	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>	
Satisfaction with the Division of Housework Time (a)					
	0.0654 ***	-0.0426 ***			No
	(0.0115)	(0.0098)			
	0.0639 ***	-0.0445 ***	-0.0469 *	-0.0873 ***	No
	(0.0113)	(0.0098)	(0.0196)	(0.0173)	
	0.0646 ***	-0.0452 ***			Yes
	(0.0115)	(0.0099)			
Satisfaction with Relationship with Partner					
	0.0024	-0.0045			No
	(0.0093)	(0.0093)			
	-0.0072	-0.0068	-0.2072 ***	-0.0751 ***	No
	(0.0092)	(0.0093)	(0.0237)	(0.0229)	
	0.0013	-0.0048			Yes
	(0.0090)	(0.0089)			
Satisfaction with Life					
	-0.0223 *	0.0200 *			No
	(0.0099)	(0.0095)			
	-0.0288 ***	0.0192 *	-0.1515 ***	-0.0128	No
	(0.0098)	(0.0094)	(0.0187)	(0.0130)	
	-0.0276 **	0.0172			Yes
	(0.0099)	(0.0094)			

(a) These results are based on a smaller sample of 4240 couples and 22,322 observations. All other estimates are based on the sample of 31,929 observations and 5180 couples used to model housework time.

The covariates include year and state dummies, all the covariates reported in Table 1, and state/urbanicity interactions.

Standard errors in parentheses.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

Both men and women are also significantly less satisfied in all dimensions represented here when he is predicted to spend more time on housework. Her predicted housework time also negatively influences some dimensions of both partners' satisfaction, though the effects are less robust and weaker than for men. These results suggest that gendered housework norms (cf. Candace West and

Don Zimmerman 1987) are important, such that both men and women lose utility when men in particular are expected by society to do more housework. However, the scattered negative effects on his and her satisfaction of women's predicted housework time suggests couples may be happier when each partner is expected to do less housework. Such an effect could reflect a social norm according to which spending more time on housework indicates lower social status, or it could simply reflect the added stresses imposed by busy schedules.

Comparable results obtained using the estimates from our alternative first-stage housework models are reported in Appendix C for the second-stage specification including both residual and predicted values. For men the results are very similar: neither his nor her residual housework time has a significant effect on any measure of satisfaction. Her residual share of couple housework time is positively but weakly (in terms of magnitude and significance) related to his satisfaction with his relationship with partner. These results are consistent with our findings above that men's satisfaction appears to be largely unresponsive to residual housework time measures.

Her results when adding controls for employment status in the models of housework time are also broadly the same. She is less satisfied with the division of housework time when she does more housework than expected and more satisfied when he does more than expected. However, she is less satisfied with life overall when his residual housework time is larger. When housework time is modelled with individual-couple-specific fixed effects, she is sensitive to his residual housework time when evaluating her satisfaction with her partner relationship and with life overall, but not when evaluating her satisfaction with the division of housework. When her residual share of the couple's housework is higher (and hence when his residual share is lower), she is less satisfied with the division of housework time; she is also more satisfied with life overall. These results are in broad accordance with our main findings and interpretations.

Sensitivity tests

We here document the numerous sensitivity tests we have run to assess the robustness of these results. First, we estimated the two-stage procedure using only dual-earner couples – i.e., couples in which each partner was always employed whenever observed in the sample. Second, we tested whether positive and negative deviations from the norms estimated in the first stage had symmetric effects on satisfaction. Third, we explored the possibility that social norms might be determined differently for different populations, checking for differences by running separate first-stage regressions by immigrant status, by education level, and by age cohort. Finally, we ran some tests for the possibility that reverse causality is driving our very robust results.

Time spent on housework is, of course, jointly determined with time spent in paid employment. As noted by the time availability theory posited in sociology research (e.g., R.O. Blood and D.M. Wolfe 1960), more time spent on paid employment likely means less time available for housework.

Available time is likely to be particularly constrained in dual-earner households. To see if our results also hold when we only consider such households, we restricted the sample to the 2188 couples (11,881 observations) who when observed were always both employed, and re-estimated both the first and the second stage models (full results available upon request). The relation between residual housework time and perceived share fairness for these dual-earner couples remains highly statistically significant, though the magnitude of the effect of his residual in terms of standard deviations from the mean is about 25 percent smaller from his perspective, and 40 percent smaller from hers. As before, his satisfaction with the division of household time is not sensitive to any residual, while compared to our full-sample results, hers is a bit more sensitive to her residual and less sensitive to his. As regards satisfaction in other dimensions, the key difference for dual-earner couples is that her satisfaction with life is not significantly related to either his or her residual housework time. This result may arise because working women are less focused than non-working women on home life when it comes to evaluating their overall life satisfaction.

To test whether the effects on fairness perceptions and satisfaction of deviations from the housework norm are symmetric for positive and negative deviations, we estimated our second-stage

models including separate measures of positive and negative standardized residuals from the baseline first-stage model of housework time. In the analysis of share fairness and of satisfaction with the division of household tasks, we find that negative residuals have a much larger effect than positive residuals. In predicting share fairness, negative residuals have over four times the effect of positive residuals for him, and between two and six times the effect of positive residuals for her. In predicting satisfaction with the division of housework time, no effect of either type of residual is seen for men, but women's satisfaction is affected between two and five times more strongly by negative as compared to positive residual housework time. Thus, perceptions of housework share fairness and (for women) satisfaction with the allocation of housework are much more sensitive to deviations below than to deviations above the social norm – a result reminiscent of findings in the behavioral economics literature that individuals are more sensitive to disadvantages than to advantages (see Amos Tversky and Daniel Kahneman 1991). We also find that when he spends less time on housework than is the social norm he is significantly more satisfied with his partner, but otherwise deviations in either direction have no significant effect. She reports being somewhat more satisfied with her partner when he does less housework than is the norm and less satisfied with life when he does more housework than is the norm – results in line with our findings that in terms of broader measures of satisfaction, she prefers her partner to do less housework.

To check for the possibility that the group whose social norm most informs a particular individual's expectations in regard to housework time allocation is that group most like him or herself, we re-ran the analysis separately for couples with and without an immigrant background, for younger and older (both born before 1965) cohorts, and for less and more educated couples (where a "less-educated couple" is one in which the woman has no more than twelve years of education and the man has no more than a vocational degree). Both the first- and second-stage models were estimated sequentially on these subsamples. In all cases, F-tests on the housework time models reject pooling – not a surprising result, given our sample size (results available upon request). However, as the second-stage analysis incorporates fixed effects, it is only the within-couple deviations from the

residual and predicted values that influence our final results, and these differences are likely to be less pronounced than differences in housework time across the couple types.

Table 6 presents the results for each of these subsamples of the second-stage model of the perceived fairness of the housework allocation, using the specification that includes both residual and predicted housework time. As compared to the full-sample results, there is little difference in the estimated relation between residual housework and perceived share fairness in terms of either statistical significance or magnitude. Younger men, and to a lesser extent more educated men, appear to be more sensitive to her predicted housework time, being significantly more likely to report doing less than their fair share when her predicted time is high. Older men are, on the contrary, somewhat more likely to report doing more than their fair share when her predicted time is high. Otherwise, as in the full-sample results, predicted housework time is not significantly related to his sense of fairness. While overall women whose partners are predicted to spend more time on housework are more likely to report doing less than their fair share around the house, it is women in the older cohort who are particularly sensitive. This result suggests that expectations regarding what is fair may be evolving over time/across generations, such that housework is becoming a less gendered activity.

Table 6
Fairness of Housework
OLS HW & FE Satisfaction: Heterogeneity Check

His Results: Do you do your fair share around the house?

Residuals				Predicted			
<u>His</u>		<u>Her</u>		<u>His</u>		<u>Her</u>	
Non-Immigrant (I = 3436; N = 21,714)							
-0.2132	***	0.0736	***	0.0011		0.0242	
(0.0139)		(0.0117)		(0.0199)		(0.0164)	
Younger (I = 3190; N = 18,771)							
-0.2098	***	0.0729	***	-0.0116		0.0714	***
(0.0155)		(0.0112)		(0.0226)		(0.0174)	
Less Educated (I = 2090; N = 12,883)							
-0.2010	***	0.0772	***	-0.0185		0.0083	
(0.0179)		(0.0157)		(0.0187)		(0.0250)	

Residuals				Predicted			
<u>His</u>		<u>Her</u>		<u>His</u>		<u>Her</u>	
Immigrant (I = 1744; N = 10,215)							
-0.2196	***	0.0646	***	0.0196		0.0296	
(0.0214)		(0.0161)		(0.0310)		(0.0271)	
Older (I = 1990; N = 13,158)							
-0.2251	***	0.0600	***	0.0328		-0.0697	*
(0.0165)		(0.0148)		(0.0266)		(0.0282)	
More Educated (I = 3090; N = 19,046)							
-0.2249	***	0.0643	***	0.0057		0.0394	*
(0.0132)		(0.0102)		(0.0205)		(0.0176)	

Her Results: Do you do your fair share around the house?

Residuals				Predicted			
<u>His</u>		<u>Her</u>		<u>His</u>		<u>Her</u>	
Non-Immigrant (I = 3436; N = 21,714)							
0.1264	***	-0.1366	***	0.0363	*	-0.2633	***
(0.0128)		(0.0120)		(0.0178)		(0.0175)	
Younger (I = 3190; N = 18,771)							
0.1314	***	-0.1459	***	-0.0246		-0.2412	***
(0.0137)		(0.0109)		(0.0247)		(0.0199)	
Less Educated (I = 2090; N = 12,883)							
0.1292	***	-0.1439	***	0.0312		-0.2438	***
(0.0171)		(0.0173)		(0.0206)		(0.0221)	

Residuals				Predicted			
<u>His</u>		<u>Her</u>		<u>His</u>		<u>Her</u>	
Immigrant (I = 1744; N = 10,215)							
0.1104	***	-0.1407	***	0.0587	*	-0.2272	***
(0.0161)		(0.0159)		(0.0283)		(0.0291)	
Older (I = 1990; N = 13,158)							
0.1011	***	-0.1225	***	0.1665	***	-0.2324	***
(0.0171)		(0.0158)		(0.0293)		(0.0270)	
More Educated (I = 3090; N = 19,046)							
0.1146	***	-0.1329	***	0.0548	**	-0.2524	***
(0.0141)		(0.0112)		(0.0198)		(0.0184)	

I = the number of couples. N = the number of observations.

The covariates include year and state dummies, state/urbanicity interactions, and all the covariates reported in Table 1.

Standard errors in parentheses.

Asterisks indicate significance using a 2-tailed test: *** 0.5%, ** 1%, * 5%.

Table 7 presents second-stage results for the broader satisfaction measures using these different subsamples of the population. These results are broadly consistent with the full-sample estimates. In particular, men's satisfaction with the division of housework time remains insensitive to both residual and predicted housework measures, while women's remains sensitive for all samples. However, younger individuals appear to be more likely to report lower satisfaction with their relationship than older individuals when either partner is predicted to spend more time on housework, and lower satisfaction with life when the man is predicted to spend more time on housework. These results may indicate that any signals of lesser social station embodied in higher predicted housework time, particularly for men, are felt more keenly by younger people. Meanwhile, her predicted housework time is positively associated with his satisfaction with the relationship when he is less educated, but negatively associated with that same dimension of his satisfaction when he is more educated. This contrasting pattern by education level also holds for women's own satisfaction with their relationship with their partner. These results are consistent with an impact of education on norms related to housework that then drive couples' relationship satisfaction, with more-educated people preferring (in terms of relationship satisfaction) the woman to be in a position in which less housework is expected, and less-educated people preferring the opposite.¹⁰ Importantly for our story, however, the comparisons implicit in the estimated effects of residual housework on broader measures of her satisfaction – whereby she is less satisfied with life overall when he does more housework than expected, and more satisfied when she herself does more housework than expected – hold across most sub-samples we analyze, though with varying degrees of statistical significance.

¹⁰ This story is consistent with the findings in Foster and Stratton (2017) that document different gendered norms by education when it comes to housework responsibilities.

Table 7
Satisfaction as a Function of Housework Time
OLS HW & FE Satisfaction: Heterogeneity Check

<u>His Results</u>	Residuals				Predicted			
	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>
	Non-Immigrant (I = 3436; N = 21,714)				Immigrant (I = 1744; N = 10,215)			
Satisfaction with the Division of Housework Time (a)	-0.0015 (0.0111)	0.0050 (0.0121)	-0.0419 (0.0242)	-0.0107 (0.0171)	-0.0127 (0.0216)	-0.0047 (0.0182)	-0.0577 (0.0321)	-0.0103 (0.0270)
Satisfaction with Relationship with Partner	-0.0194 (0.0119)	0.0172 (0.0120)	-0.1343 (0.0227)	*** -0.0719 (0.0227)	-0.0094 (0.0166)	0.0237 (0.0188)	-0.1995 (0.0359)	*** -0.0975 (0.0331)
Satisfaction with Life	0.0041 (0.0128)	0.0146 (0.0115)	-0.1624 (0.0201)	*** -0.0094 (0.0176)	-0.0089 (0.0164)	0.0059 (0.0195)	-0.0913 (0.0279)	*** 0.0196 (0.0249)
	Younger (I = 3190; N = 18,771)				Older (I = 1990; N = 13,158)			
Satisfaction with the Division of Housework Time (b)	-0.0124 (0.0133)	0.0037 (0.0125)	-0.0448 (0.0309)	-0.0050 (0.0199)	0.0099 (0.0164)	-0.0033 (0.0167)	-0.0313 (0.0311)	-0.0307 (0.0322)
Satisfaction with Relationship with Partner	-0.0162 (0.0115)	0.0374 (0.0144)	** -0.2184 (0.0365)	*** -0.0828 (0.0255)	-0.0149 (0.0135)	-0.0104 (0.0141)	-0.0713 (0.0281)	* 0.0570 (0.0353)
Satisfaction with Life	-0.0088	0.0198	-0.2134	*** 0.0245	0.0135	-0.0022	-0.0556	* -0.0033

	(0.0119)	(0.0141)	(0.0272)	(0.0200)	(0.0169)	(0.0144)	(0.0261)	(0.0255)
	<u>Less Educated (I = 2090; N = 12,883)</u>				<u>More Educated (I = 3090; N = 19,046)</u>			
Satisfaction with the Division of Housework Time (c)	-0.0055	-0.0032	-0.0475	0.0521	-0.0045	0.0042	-0.0419	-0.0333
	(0.0165)	(0.0156)	(0.0278)	(0.0266)	(0.0136)	(0.0120)	(0.0226)	(0.0201)
Satisfaction with Relationship with Partner	0.0002	0.0261	-0.1313 ***	0.0711 **	-0.0265 *	0.0135	-0.1724 ***	-0.1409 ***
	(0.0159)	(0.0155)	(0.0286)	(0.0273)	(0.0117)	(0.0128)	(0.0257)	(0.0233)
Satisfaction with Life	-0.0051	0.0120	-0.1301 ***	0.0327	0.0032	0.0101	-0.1176 ***	-0.0244
	(0.0146)	(0.0150)	(0.0241)	(0.0253)	(0.0144)	(0.0121)	(0.0214)	(0.0188)

<u>Her Results</u>	<u>Residuals</u>				<u>Predicted</u>			
	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>	<u>His</u>	<u>Her</u>
	<u>Non-Immigrant (I = 3436; N = 21,714)</u>				<u>Immigrant (I = 1744; N = 10,215)</u>			
Satisfaction with the Division of Housework Time (a)	0.0564 ***	-0.0423 ***	-0.0526 *	-0.0973 ***	0.0796 ***	-0.0485 ***	-0.0318	-0.0673 *
	(0.0138)	(0.0125)	(0.0213)	(0.0211)	(0.0223)	(0.0172)	(0.0422)	(0.0341)
Satisfaction with Relationship with Partner	-0.0016	-0.0035	-0.1773 ***	-0.1047 ***	-0.0185	-0.0122	-0.2126 ***	-0.0625
	(0.0109)	(0.0110)	(0.0257)	(0.0239)	(0.0165)	(0.0172)	(0.0378)	(0.0352)
Satisfaction with Life	-0.0300 *	0.0221	-0.1414 ***	-0.0404 *	-0.0276	0.0134	-0.1244 ***	0.0209
	(0.0125)	(0.0121)	(0.0232)	(0.0171)	(0.0165)	(0.0184)	(0.0295)	(0.0259)
	<u>Younger (I = 3190; N = 18,771)</u>				<u>Older (I = 1990; N = 13,158)</u>			

Satisfaction with the Division of Housework Time (b)															
0.0637	***	-0.0497	***	-0.0642	*	-0.0911	***	0.0628	***	-0.0330	*	-0.0012	-0.0655		
(0.0148)		(0.0127)		(0.0295)		(0.0210)		(0.0189)		(0.0166)		(0.0351)	(0.0388)		
Satisfaction with Relationship with Partner															
-0.0119		-0.0029		-0.2430	***	-0.1277	***	0.0019		-0.0090		-0.0665	*	0.1271	***
(0.0115)		(0.0128)		(0.0397)		(0.0248)		(0.0151)		(0.0154)		(0.0310)		(0.0344)	
Satisfaction with Life															
-0.0317	*	0.0245		-0.1808	***	-0.0199		-0.0246		0.0115		-0.1006	***	-0.0035	
(0.0126)		(0.0131)		(0.0305)		(0.0184)		(0.0155)		(0.0140)		(0.0261)		(0.0291)	
Less Educated (I = 2090; N = 12,883)						More Educated (I = 3090; N = 19,046)									
Satisfaction with the Division of Housework Time (c)															
0.0817	***	-0.0313		-0.0713	*	-0.0308		0.0511	***	-0.0537	***	-0.0185	-0.1141	***	
(0.0187)		(0.0171)		(0.0322)		(0.0296)		(0.0136)		(0.0134)		(0.0245)	(0.0225)		
Satisfaction with Relationship with Partner															
0.0117		0.0046		-0.1314	***	0.0548		-0.0203		-0.0152		-0.2067	***	-0.1575	***
(0.0159)		(0.0144)		(0.0291)		(0.0297)		(0.0117)		(0.0126)		(0.0275)		(0.0235)	
Satisfaction with Life															
-0.0224		0.0297	*	-0.1459	***	0.0212		-0.0342	**	0.0072		-0.1251	***	-0.0353	*
(0.0153)		(0.0145)		(0.0256)		(0.0260)		(0.0122)		(0.0137)		(0.0247)		(0.0165)	

I = the number of couples. N = the number of observations.

(a) For the Non-Immigrant sample, I = 2866 and N = 15,385. For the Immigrant sample, I = 1374 and N = 6,937.

(b) For the Younger sample, I = 2826 and N = 14,437. For the Older sample, I = 1414 and N = 7,885.

(c) For the Less Educated sample, I = 1587 and N = 8,354. For the More Educated sample, I = 2653 and N = 13,968.

The covariates include year and state dummies, state/urbanicity interactions, and all the covariates reported in Table 1.

Standard errors in parentheses.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

Finally, one might be concerned that women's satisfaction with life is generally negatively associated with their partner's residual housework time because of reverse causality in the relationship between the residual portion of men's housework time and their partner's broader satisfaction measures. Thus, when women become less satisfied over time, perhaps their partners respond by increasing their efforts in the household. It also may be that the additional stress (or whatever is causing the lowered satisfaction) causes the women themselves to spend more time on housework. To check for this possibility, we ask whether changes in women's satisfaction from one year to the next are predictive in a regression model of subsequent changes in the residual portion of housework time. We model changes in both his and her residuals as a function of past changes in both his and her satisfaction measures (see Appendix D). We run specifications including only the difference between his and her satisfaction measures one year ago and that of two years ago, plus a constant. The results are similar when we add to the regression year-over-year differences in the additional covariates.

Results indicate that his residual housework time rises when in the past he felt his share had fallen, and falls when in the past she felt her share had fallen. Her residual responds similarly though less significantly. Hence, couples appear to compensate through time for perceived imbalances relative to one another in housework share. These results further support our interpretation of these residuals as indicative of deviations from social norms – to which individuals seem to have an incentive to return. However, none of the measures of past changes in satisfaction are significantly associated with changes in the residuals. Reverse causality, from satisfaction to housework, does not appear to be a problem.

Discussion

We explore the way in which the time allocated to housework by oneself and one's partner affect own satisfaction in a number of dimensions. Our analysis of this question exploits panel data on mixed-gender couples from the Australian HILDA survey. We apply a two-stage modelling approach

in which we view the portion of an individual's housework time that is predictable in the first stage – based on a model that includes a large set of individual and household-specific time-varying observables as well as year/urbanicity and state effects – as a proxy for the amount of housework time society expects the individual in question to perform. In stage two, we predict individual satisfaction in a range of dimensions based on the residual and predicted portions of own and partner's housework time as estimated in stage one. Under the assumption that our model of housework time captures social norms related to housework, predicted housework time generated in our first-stage model can be interpreted as 'expected', while residual housework time reflects deviations from the norm.

We first document a strong and intuitive relationship between the residual housework time of both genders and the perceived fairness of the share of housework that each person reports. These results lend credibility to our interpretation that the residual housework measures from the first stage contain information about the degree to which individuals deviate from ambient expectations about how much housework they should do. Our subsequent analysis of satisfaction with the division of household tasks suggests that societal norms regarding housework time robustly influence women's satisfaction in this dimension. We find that her satisfaction with the division of household tasks falls as either her predicted or her residual housework time rises, and rises as her partner's residual housework time rises. These effects are in line with our original hypothesis that she would respond positively to extra help he offers around the house over and above what is expected of him. However, this result does not carry over to her satisfaction with her relationship with her partner: she is actually less satisfied with her life as a whole when her partner does more housework than expected. Of potentially equal interest, women's residual housework has no significant effect on either housework-related or broader measures of men's satisfaction, with this striking difference in sensitivity by gender perhaps due to the stronger salience of housework in women's lives.

We experiment with different specifications for the first stage, and we also run the entire analysis for separate subsamples of the data. Sensitivity testing indicates that our baseline results are robust, with some nuances in evidence when we split our sample by education level, age cohort, and whether both partners are employed. We also find some evidence of heightened responses of satisfaction to negative housework residuals as compared to positive housework residuals. Overall, our results are consistent with a gender difference in the mental saliency of housework that impacts upon the sensitivity of individual satisfaction levels to one's own, and one's partner's, allocation of time to housework.

We are the first to use models of housework time to generate measures of social norms related to housework that are then linked to satisfaction measures. We find strong evidence that social norms about housework are associated with female satisfaction with intra-household housework allocations, but that other measures of satisfaction do not respond positively (and sometimes respond negatively) when men do more housework than is predicted by our first-stage models. Our general conclusion is that in a more general sense, women want their men to conform somewhat to social stereotypes in regard to time spent on housework, even if in a more immediate or narrow sense they are more satisfied when their partners shoulder more of the housework burden than society expects.

Bibliography

- Ambrey, Christopher, Jennifer Ulichny, and Christopher Fleming. 2017. "The Social Connectedness and Life Satisfaction Nexus: A Panel Data Analysis of Women in Australia." *Feminist Economics* 23(2): 1-32.
- Baxter, Janeen. 2000. "The Joys and Justice of Housework." *Sociology* 34(4): 609-631.
- Blood, R. O. and D. M. Wolfe. 1960. *Husbands and wives*. New York: Free Press.
- Booth, Alison and Jan Van Ours. 2008. "Job Satisfaction and Family Happiness: The Part-Time Work Puzzle." *The Economic Journal* 118(526): F77–F99.
- Brewer, Marilyn B. 1991. "The Social Self: On Being the Same and Different at the Same Time." *Personality and Social Psychology Bulletin* 17(5): 475-482.
- Buunk, Abraham P., Hinke A. K. Groothof, and Frans W. Siero. 2007. "Social comparison and satisfaction with one's social life." *Journal of Social and Personal Relationships* 24(2): 197-205.
- Carlson, Daniel L., Sarah Hanson, and Andrea Fitzroy. 2016. "The Division of Child Care, Sexual Intimacy, and Relationship Quality in Couples." *Gender and Society* 30(3): 442–466, DOI 10.1177/0891243215626709
- Connelly, Rachel and Jean Kimmel. 2015. "If You're Happy and You Know It: How Do Mothers and Fathers in the U.S. Really Feel about Caring for Their Children?" *Feminist Economics* 21(1): 1-34.
- Ferrer-i-Carbonell, Ada and Paul Frijters. 2004. "How important is methodology for the estimates of the determinants of happiness?" *The Economic Journal* 114(497): 641-659.
- Festinger, Leon. 1954. "A theory of social comparison processes." *Human Relations* 7:117-40.
- Foster, Gigi and Charlene Kalenkoski. 2013. "Tobit or OLS? An empirical evaluation under different diary window lengths." *Applied Economics* 45(20): 2994-3010.
- Foster, Gigi and Leslie S. Stratton. 2017. "Do significant labor market events change who does the chores? Paid work, housework, and power in mixed-gender Australian households." LSS Working Paper Series 2017-09.

Frey, Bruno S. and Stephan Meier. 2004. "Social comparisons and pro-social behaviour: Testing "conditional cooperation" in a field experiment." *American Economic Review* 94(5): 1717-1722.

Frieswijk, Nynke, Bram P. Buunk, Nardi Steverink, and Joris P. J. Slaets. 2004. "The effect of social comparison information on the life satisfaction of frail older persons." *Psychology and Aging* 19(1): 183-190.

Frisco, Michelle L. and Kristi Williams. 2003. "Perceived housework equity, marital happiness, and divorce in dual-earner households." *Journal of Family Issues* 24: 51-73.

Henchoz, Caroline and Boris Wernli. 2013. "Satisfaction with the Division of Household Tasks in Switzerland: A Longitudinal Approach." *Population* 68(4): 533-556.

Kornrich, Sabino, Julie Brines, and Katrina Leupp. 2012. "Egalitarianism, Housework, and Sexual Frequency in Marriage." *American Sociological Review* 78(1): 26-50.

MacDonald, Martha, Shelley Phipps, and Lyn Lethbridge. 2005. "Taking Its Toll: The Influence of Paid and Unpaid Work on Women's Well-Being." *Feminist Economics* 11(1): 63-94.

Nordenmark, Mikael and Charlott Nyman. 2003. "Fair or Unfair? Perceived Fairness of Household Division of Labour and Gender Equality among Women and Men: The Swedish Case." *European Journal of Women's Studies* 10(2): 181-209.

OECD. 2011. "Cooking and Caring, Building and Repairing: Unpaid Work around the World", in *Society at a Glance 2011: OECD Social Indicators*, OECD Publishing.

Oshio, Takashi, Kayo Nazaki, and Miki Kobayashi. 2013. "Division of Household Labor and Marital Satisfaction in China, Japan, and Korea." *Journal of Family Economic Issues* 34:211–223.

Shelton, Beth Anne and Daphne John. 1996. "The Division of Household Labor." *Annual Review of Sociology* 22: 299-322.

Smith, Heather J., Thomas F. Pettigrew, Gina M. Pippin, and Silvana Bialosiewicz. 2012. "Relative deprivation: A theoretical and meta-analytic review." *Personality and Social Psychology Review* 16(3): 203-232.

- Tversky, Amos and Daniel Kahneman. 1991. "Loss aversion in riskless choice: A reference-dependent model." *Quarterly Journal of Economics* 106(4): 1039-1061.
- Van Kleef, Gerben A., Florian Wanders, Eftychia Stamkou, and Astrid C. Homan. 2015. "The social dynamics of breaking the rules: Antecedents and consequences of norm-violating behavior". *Current Opinion in Psychology* 6: 25-31.
- Watson, Nicole and Mark Wooden. 2012. "The HILDA Survey: A case study in the design and development of a successful household panel study." *Longitudinal and Life Course Studies* 3(3): 369-381.
- West, Candace and Don H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1(2): 125-151.
- Young, Marisa, Jean E. Wallace, and Alicia J. Polochek. 2015. "Gender Differences in Perceived Domestic Task Equity: A Study of Professionals." *Journal of Family Issues* 36(13): 1751-1781.
- Zafar, Basit. 2011. "An experimental investigation of why individuals conform." *European Economic Review* 55(6): 774-798.

Appendix A
Alternative First Stage Models

	OLS with Employment measures		FE Estimates		OLS Model of Her Housework Share
	By Men	By Women	By Men	By Women	
His Characteristics:					
Ethnicity: Base Case = non-aboriginal Australian					
Aboriginal	0.7758 (0.5697)	-1.1534 (1.1188)			-5.7480 * (2.3422)
English Speaking Immigrant	0.2574 (0.1964)	-0.3962 (0.3610)			-2.4263 *** (0.8146)
Other Immigrant	-0.0973 (0.2504)	0.9667 * (0.4745)			1.5620 (0.9376)
Education: Base Case = 12 Years					
Post-Bachelors	0.1828 (0.2865)	0.1625 (0.5460)			0.0138 (1.0430)
BA/Honors	0.0617 (0.2843)	-0.5658 (0.4793)			-0.7320 (1.0233)
Diploma	0.1768 (0.2148)	-0.4232 (0.3731)			-1.1854 (0.7564)
Certificate III/IV	-0.3166 (0.2228)	-0.4867 (0.4207)			-0.7749 (0.8862)
11 Years	-0.3228 (0.2330)	-0.5027 (0.3743)			-1.2096 (0.8260)
10 Years	-0.2009 (0.3251)	0.0473 (0.5462)			0.5528 (1.2263)
< 10 Years	-0.6363 *** (0.2141)	-0.2878 (0.3751)			0.8775 (0.8195)

Age	0.0490 *	0.0830 *				-0.1650 *
	(0.0193)	(0.0336)				(0.0765)
Birth Cohort: Base Case Born 1960-1970						
Born before 1960	-0.6438 *	-0.1421				1.8243
	(0.2848)	(0.4887)				(1.0511)
Born after 1970	-0.4487	0.6135				0.3603
	(0.2808)	(0.4602)				(1.0138)
Disabled	-0.4134 *	0.3372	0.1768	-0.0220		-2.2768 ***
	(0.1957)	(0.3076)	(0.1502)	(0.2496)		(0.6961)
Enrolled Full-Time in School	-1.4211 ***	1.1928 *	-0.0219	0.3572		-0.9496
	(0.3740)	(0.5597)	(0.3061)	(0.5353)		(1.2335)
Non-labor Income	-0.0342 **	0.0142	0.0138	0.0254		0.1237 **
	(0.0127)	(0.0223)	(0.0109)	(0.0274)		(0.0469)
Gift Income	-0.0017	-0.0008	-0.0003	0.0003		0.0016
	(0.0010)	(0.0022)	(0.0008)	(0.0019)		(0.0045)
Her Characteristics:						
Ethnicity: Base Case = non-aboriginal Australian						
Aboriginal	0.7881	0.0179				-1.2850
	(0.6311)	(0.9575)				(2.2299)
English Speaking Immigrant	0.2728	-0.7689 *				-0.9103
	(0.2391)	(0.3652)				(0.8902)
Other Immigrant	-0.0781	0.2570				0.9330
	(0.2505)	(0.4610)				(0.9307)
Education: Base Case = 12 Years						
Post-Bachelors	0.7608 *	-0.2777				-5.2051 ***
	(0.3571)	(0.5851)				(1.2085)
BA/Honors	0.4405	0.0896				-3.8863 ***
	(0.2979)	(0.4902)				(1.0918)

Diploma	0.0784		0.1619				-2.1305	**
	(0.2265)		(0.3730)				(0.8046)	
Certificate III/IV	0.1089		-0.2990				-0.7859	
	(0.2422)		(0.4051)				(0.9212)	
11 Years	-0.5766	**	0.4795				2.2812	**
	(0.2097)		(0.3840)				(0.8216)	
10 Years	-0.1067		-0.2556				1.6224	
	(0.2751)		(0.4849)				(1.1234)	
< 10 Years	-0.5128	*	-0.0098				3.3839	***
	(0.2155)		(0.3752)				(0.8365)	
Age	-0.0417	*	0.1165	***			0.3533	***
	(0.0200)		(0.0349)				(0.0796)	
Birth Cohort: Base Case Born 1960-1970								
Born before 1960	0.2717		-0.2066				-0.6599	
	(0.2916)		(0.4962)				(1.0748)	
Born after 1970	-0.0652		0.0641				0.5896	
	(0.2840)		(0.4594)				(1.0254)	
Disabled	0.9999	***	-0.0716		-0.0430	0.7881	***	-0.9733
	(0.1959)		(0.3154)		(0.1330)	(0.2558)		(0.6921)
Enrolled Full-Time in School	1.1368	***	-3.8251	***	0.6357	*	-0.8867	*
	(0.2760)		(0.4302)		(0.2496)	(0.3949)		(1.0133)
Non-labor Income	-0.0363	*	-0.0247		0.0030	-0.0102		0.1912
	(0.0151)		(0.0302)		(0.0122)	(0.0254)		(0.0596)
Gift Income	0.0010		0.0011		-0.0003	0.0014		-0.0002
	(0.0013)		(0.0023)		(0.0011)	(0.0019)		(0.0049)
Household Characteristics:								
Married	-0.1982		1.0079	***	-0.3541	*	1.1140	***
								4.0685

	(0.1469)		(0.2417)		(0.1630)		(0.2772)		(0.5749)
# of Children Age 0-4	1.0429 ***		3.1376 ***		0.3219 ***		5.0233 ***		4.9702 ***
	(0.0902)		(0.1715)		(0.0765)		(0.1737)		(0.2976)
# of Children Age 5-9	0.7351 ***		2.4899 ***		0.3229 ***		3.0615 ***		2.4622 ***
	(0.0869)		(0.1568)		(0.0885)		(0.1677)		(0.2986)
# of Children Age 10-14	0.5427 ***		1.8685 ***		0.2210 **		2.2530 ***		1.6397 ***
	(0.0833)		(0.1539)		(0.0817)		(0.1627)		(0.3046)
# of Other Dependents	0.2014 *		1.2462 ***		0.1320		1.2486 ***		1.8352 ***
	(0.0968)		(0.1741)		(0.0862)		(0.1645)		(0.3642)
# of Other Adults	0.0608		0.9329 ***		-0.0379		0.7302 ***		0.4237
	(0.1149)		(0.2309)		(0.0935)		(0.1896)		(0.4595)
Have a Disabled Child	0.3120		-0.0734		-0.1128		-0.1002		-0.3388
	(0.2212)		(0.4067)		(0.1659)		(0.3510)		(0.7665)
Have another Disabled Resident	0.2438		-0.0218		0.0698		0.5814		0.0064
	(0.2418)		(0.4710)		(0.1908)		(0.3530)		(0.9538)
Urbanicity: Base Case Rural									
Lives in a Major City	0.4724		-0.6736		-0.0139		-1.6627		-4.3368 ***
	(0.3118)		(0.5672)		(0.4594)		(0.9653)		(1.2412)
Lives in another Urban Area	0.9293 *		0.7474		0.4954		0.8676		-3.6496 **
	(0.3664)		(0.6465)		(0.4202)		(0.9150)		(1.4021)
Housing: Base Case Apartment									
Lives in a House	0.0586		0.9424 ***		0.0863		0.0529		3.0750 ***
	(0.1823)		(0.2892)		(0.1774)		(0.3058)		(0.7520)
Lives in a Townhouse	0.0654		0.2723		0.0386		-0.4404		0.9570
	(0.2279)		(0.3681)		(0.2330)		(0.3481)		(0.9309)
Moved in last year	0.0103		-0.5616 ***		-0.0217		-0.0821		-1.1422 ***
	(0.1053)		(0.1776)		(0.0839)		(0.1531)		(0.3934)
Characteristics of His Employment									
His Hours Paid Work	-0.0613 ***		0.0684 ***						
	(0.0051)		(0.0101)						

He is not employed	1.5221	***	0.0447
	(0.4135)		(0.7506)
He works part-time	0.3452		0.5436
	(0.2653)		(0.4402)
His Occupation (base case: Professional)			
Managers	-0.1969		0.0723
	(0.1590)		(0.2902)
Technical	-0.2292		0.1743
	(0.1960)		(0.3393)
Personal Service	0.3878		-0.0167
	(0.3032)		(0.4890)
Clerical	0.1706		-0.5645
	(0.2239)		(0.3640)
Sales	0.1487		0.3172
	(0.2618)		(0.5074)
Operators	-0.0448		-0.2219
	(0.2514)		(0.4280)
Laborers	-0.0141		-0.4655
	(0.2413)		(0.4464)
His Industry (base case: Unknown)			
Agric., Forestry, & Fishing	-0.2682		0.7290
	(0.3989)		(0.7047)
Mining & Construction	-0.2203		0.5408
	(0.2626)		(0.5464)
Nondurable Manufacturing	-0.1804		1.2006
	(0.3040)		(0.6622)
Durable Manufacturing	-0.0342		0.0779
	(0.2693)		(0.5583)
Trade	-0.1281		-0.1134
	(0.2655)		(0.5477)

Transport, Tele. & Utilities	-0.0542		0.3873	
	(0.2887)		(0.5625)	
Finance, Insu., Real Estate	-0.0819		0.4143	
	(0.3287)		(0.6419)	
Business Services	-0.2097		0.4450	
	(0.2670)		(0.5403)	
Public Admin (inc. defense)	0.1534		0.7382	
	(0.3093)		(0.5949)	
Education	-0.4105		0.1755	
	(0.3344)		(0.6608)	
Health	0.0420		0.0750	
	(0.3826)		(0.6808)	
Service (inc. restaurants & hotels)	0.5577		-0.0981	
	(0.3410)		(0.6318)	
Characteristics of Her Employment				
Her Hours Paid Work	0.0636	***	-0.1500	***
	(0.0075)		(0.0117)	
She is not employed	0.4228		3.2280	***
	(0.4194)		(0.7061)	
She works part-time	0.1046		1.0032	***
	(0.1908)		(0.3087)	
Her Occupation (base case: Professional)				
Managers	-0.2214		0.0737	
	(0.2071)		(0.3083)	
Technical & Operators	0.3253		0.7061	
	(0.2653)		(0.4896)	
Personal Service	-0.0268		0.7644	*
	(0.2217)		(0.3760)	

Clerical	-0.0781 (0.1859)	0.0186 (0.3086)	
Sales	-0.0960 (0.2523)	-0.1877 (0.4450)	
Laborers	0.1380 (0.3446)	1.3347 (0.5116)	**
Her Industry (base case: Unknown)			
Agric., Forestry, & Fishing	-0.2417 (0.5629)	3.2622 (0.8862)	***
Mining & Construction	-0.1195 (0.4002)	1.7049 (0.8193)	*
Nondurable Manufacturing	0.0146 (0.4426)	0.1271 (0.6781)	
Durable Manufacturing	0.0154 (0.4897)	1.5601 (0.7863)	*
Trade	0.1341 (0.2999)	1.3223 (0.5378)	*
Transport, Tele. & Utilities	0.2769 (0.3836)	0.6970 (0.6488)	
Finance, Insu., Real Estate	0.5521 (0.3634)	-0.5958 (0.6008)	
Business Services	0.3142 (0.3032)	0.8512 (0.5174)	
Public Admin (inc. defense)	0.5162 (0.3553)	0.3434 (0.5909)	
Education	0.1365 (0.3105)	0.2146 (0.5469)	
Health	0.3974 (0.2799)	0.0757 (0.5038)	

Service (inc. restaurants & hotels)	0.2601 (0.3135)	0.0098 (0.5560)			
Number of Observations	31,929	31,929	31,929	31,929	31,929
R-Squared	0.1101	0.2594			0.0963
F-Statistic	12.29	38.01	3.94	22.03	16.91
P-Value	0.0000	0.0000	0.0000	0.0000	0.0000

All specifications also include year and state dummies, as well as state/urbanicity interactions.

Standard errors in parentheses, adjusted for 5180 couple clusters.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

Appendix B
Housework Share Fairness
Alternative Housework Models, FE Share Fairness

	Residuals				Predicted			
	<u>His</u>	<u>Her</u>	<u>Her</u>	<u>Share</u>	<u>His</u>	<u>Her</u>	<u>Her</u>	<u>Share</u>
<u>His Results</u>								
OLS Housework with employment measures								
	-0.1962 ***	0.0549 ***			-0.1095 ***	0.0853 ***		
	(0.0117)	(0.0089)			(0.0142)	(0.0144)		
FE Housework								
	-0.1488 ***	0.0491 ***			0.0170	0.0105		
	(0.0081)	(0.0063)			(0.0090)	(0.0074)		
Her Share of Housework								
			0.2564 ***				0.0352 *	
			(0.0121)				(0.0167)	
<u>Her Results</u>								
OLS Housework with employment measures								
	0.1053 ***	-0.1300 ***			0.0464 ***	-0.2204 ***		
	(0.0109)	(0.0094)			(0.0134)	(0.0155)		
FE Housework								
	0.0809 ***	-0.0963 ***			0.0371 ***	-0.1248 ***		
	(0.0073)	(0.0068)			(0.0081)	(0.0073)		
Share of Housework								
			-0.2287 ***				-0.2699 ***	
			(0.0108)				(0.0162)	

The dependent variable is the answer to the question: "Do you do your fair share around the house?".
The covariates include year and state dummies, state and urbanicity interactions, and all the specification-specific covariates reported in Appendix Table A.

Standard errors in parentheses.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

Appendix C
Satisfaction as a Function of Housework Time
Alternative Housework Models, FE Satisfaction

		Residuals		Predicted		
<u>His Results</u>	<u>His</u>	<u>Her</u>	<u>Her Share</u>	<u>His</u>	<u>Her</u>	<u>Her Share</u>
OLS Housework with employment measures						
Satisfaction with the Division of Housework Time (a)						
	-0.0041	-0.0025		-0.0185	-0.0027	
	(0.0107)	(0.0095)		(0.0140)	(0.0141)	
Satisfaction with Relationship with Partner						
	-0.0097	0.0140		-0.1288 ***	-0.1014 ***	
	(0.0086)	(0.0103)		(0.0158)	(0.0164)	
Satisfaction with Life						
	0.0046	0.0086		-0.0842 ***	-0.0432 ***	
	(0.0100)	(0.0096)		(0.0128)	(0.0138)	
FE Housework						
Satisfaction with the Division of Housework Time (a)						
	-0.0027	0.0019		-0.0330 ***	-0.0029	
	(0.0074)	(0.0071)		(0.0086)	(0.0064)	
Satisfaction with Relationship with Partner						
	-0.0059	0.0142		-0.1044 ***	-0.0293 **	
	(0.0060)	(0.0075)		(0.0100)	(0.0105)	
Satisfaction with Life						
	0.0006	0.0085		-0.0529 ***	-0.0075	
	(0.0068)	(0.0069)		(0.0086)	(0.0079)	
Her Share of Housework						
Satisfaction with the Division of Housework Time (a)						
			0.0159			-0.0027
			(0.0088)			(0.0173)
Satisfaction with Relationship with Partner						
			0.0226 *			-0.0505 *
			(0.0095)			(0.0232)
Satisfaction with Life						
			-0.0013			0.0194
			(0.0105)			(0.0180)

		Residuals		Predicted		
<u>Her Results</u>	<u>His</u>	<u>Her</u>	<u>Her Share</u>	<u>His</u>	<u>Her</u>	<u>Her Share</u>
OLS Housework with employment measures						

Satisfaction with the Division of Housework Time (a)					
0.0624	***	-0.0535	***	-0.0155	-0.0517
(0.0110)		(0.0095)		(0.0144)	(0.0156)
Satisfaction with Relationship with Partner					
0.0040		-0.0140		-0.1666	*** -0.1224
(0.0088)		(0.0088)		(0.0157)	(0.0181)
Satisfaction with Life					
-0.0164	*	0.0042		-0.1272	*** -0.0176
(0.0093)		(0.0089)		(0.0146)	(0.0131)
FE Housework					
Satisfaction with the Division of Housework Time (a)					
0.0009		-0.0034		-0.1203	*** -0.0384
(0.0077)		(0.0069)		(0.0129)	(0.0086)
Satisfaction with Relationship with Partner					
-0.0189	***	0.0120		-0.0577	*** -0.0090
(0.0061)		(0.0063)		(0.0112)	(0.0121)
Satisfaction with Life					
-0.0157	*	0.0099		-0.1249	*** -0.0025
(0.0067)		(0.0066)		(0.0086)	(0.0064)
Her Share of Housework					
Satisfaction with the Division of Housework Time (a)					
		-0.0940	***		-0.0831
		(0.0132)			(0.0179)
Satisfaction with Relationship with Partner					
		-0.0087			-0.0650
		(0.0108)			(0.0260)
Satisfaction with Life					
		0.0374	***		0.0155
		(0.0100)			(0.0163)

(a) Based on a sample of 22,322 observations and 4240 couples. All other estimates are based on a sample of 31,929 observations and 5180 couples.

The covariates include year and state dummies, state and urbanicity interactions, and all the specification-specific covariates reported in Appendix Table A.

Standard errors in parentheses.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.

Appendix D
 Models of Residual Housework
 as a function of past changes in Fairness and Satisfaction

<u>Model</u>	<u>Change in His Residual Housework</u>		<u>Change in Her Residual Housework</u>	
Change in His Sense of the Fairness of His Housework Share between t-1 and t-2	0.2553 (0.0750)	***	-0.2365 (0.1324)	
Change in Her Sense of the Fairness of Her Housework Share between t-1 and t-2	-0.1479 (0.0630)	*	0.2907 (0.1249)	*
Change in His Satisfaction with the Division of Housework Time between t-1 and t-2	0.0307 (0.0327)		-0.0213 (0.0616)	
Change in Her Satisfaction with the Division of Housework Time between t-1 and t-2	-0.0574 (0.0318)		0.0153 (0.0590)	
Change in His Satisfaction with Partner between t-1 and t-2	0.0362 (0.0346)		0.0265 (0.0713)	
Change in Her Satisfaction with Partner between t-1 and t-2	-0.0151 (0.0314)		0.0718 (0.0666)	
Change in His Satisfaction with Life between t-1 and t-2	0.0558 (0.0474)		0.0626 (0.0871)	
Change in Her Satisfaction with Life between t-1 and t-2	0.0701 (0.0455)		0.1011 (0.0874)	

All models also contain an intercept.

Asterisks indicate significance using a 2-tailed test against a null of zero: *** 0.5%, ** 1%, * 5%.