Childhood Investments and the Gendered Division of Chores

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PRELIMINARY.
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Abstract

This paper examines how gendered exposure to household tasks in childhood contributes to the persistent gender gap in the division of household labor. Combining data from the American Time Use Survey and an original survey, we show that, in adulthood, individuals are more likely to do the chores that they were exposed to in childhood. In childhood, girls are more likely to be exposed to stereotypically "female" tasks—such as cooking and cleaning—while boys are more likely to be exposed to stereotypically "male" tasks regardless of the gender of the parent performing the task. This gendered childhood exposure is correlated with traditional attitudes about gender, but childhood exposure predicts adulthood specialization even conditional on contemporaneous attitudes, suggesting that learned comparative advantage can perpetuate past norms even as attitudes become more progressive.

1 Introduction

Despite large increases in female labor force participation, a narrowing of the gender pay gap, and more progressive stated gender attitudes, significant differences remain in the types and amount of household tasks performed by men and women. In fact, changes in labor demand and supply for women seem to do little to change the within-household division of chores (Ciasullo and Uccioli, 2024). One common explanation for this persistence is that women have a comparative advantage in household work (Becker, 1993). Yet many skills are taught and not innate.

This paper provides one explanation for the gendered persistence of household chores. We argue that parents teach their sons and daughters different household skills through the chores that they assign in childhood, and that these learned differences persist into adulthood. As a result, early patterns of learning help sustain gendered divisions of household labor over time. In particular, if parents teach their children skills that reflect the gender norms of their time, the division of chores will adjust only with a lag, as individuals rely on skills learned from the previous generation. Thus, even as one's views may change over time, the types of chores (and amount) one tends to perform persist across generations.

We begin by documenting the persistence of gender gaps in the division of household labor both across all tasks and within specific tasks. Using the American Time Use Survey (ATUS), we find that the time division of household tasks has remained constant over the past twenty years, with women spending 57-95% more time on tasks than men.[1] There is heterogeneity based on the type of task: Women spend more time on stereotypically female tasks, such as cleaning, cooking, and laundry, while men spend more time on stereotypically male tasks like car maintenance and yard work.

We then explore whether the gender gap in household chores is related to the types of chores individuals did in childhood, and specifically to gendered exposure to chores. We specifically make use of a question in the ATUS that asks respondents who is present during each time block. From this, we can measure whether boys or girls are more likely to be present when adults are doing various chores. We supplement this survey with (pilot) data from an original survey that we ran on Prolific. We

[1] This large gap is in line with existing work showing that women spend 33-88% more time on chores in the United States depending on whether they are the breadwinner (Hancock et al., 2025) and 58% more time in Australia (Ciasullo and Uccioli, 2024).

also plan to use data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) in a future draft of this project.

Using these datasets we establish four facts. First, we use our survey to document a correlation between exposure to chores in childhood and time spent on those chores in adulthood.

Second, we provide suggestive evidence that this correlation is due to exposure in childhood cultivating skills or ability in doing chores, broadly defined. Data from our survey shows that those who spent more time doing chores in childhood exhibit greater levels of conscientiousness related to household chores (e.g., report getting their chores done right away). Additionally, we show that individuals who report having helped with a task in childhood are more likely to report having specialized knowledge or skills that would make it difficult to transfer their task to their partner. This suggests that doing chores in childhood creates a comparative advantage in doing them in adulthood.

Third, we find a *gendered* exposure to chores in childhood. Adolescent girls spend more time on chores than boys. Leveraging the fact that ATUS allows us to observe whether children of any age are around while the survey respondent is doing the chore, we show that girls (boys) are more likely to be present when a parent of either sex is doing stereotypically female (male) chores. This difference in exposure begins early, around age five. The difference in exposure further does not depend on the sex composition of siblings. For example, a family that only has daughters is not more likely to expose their girls to "male" tasks and vice versa.

We conclude by exploring the role of gender norms in both childhood investments and couples' division of labor. We find that gender norms are correlated with gendered exposure to chores, in line with the notion that parents invest according to the norms of their time, thus slowing the extent to which specialization in household tasks can evolve across generations even as beliefs become more progressive. This result, however, highlights an alternative explanation for our findings: persistence in the gendered division of labor may simply reflect the persistence of norms, without any role for comparative advantage. In other words, parents may require that their children perform certain chores, and later in life those children may continue these patterns—not because they have developed a comparative advantage, but because they have internalized these gender beliefs. In our final analysis, we return to our analysis of persistence in chore participation from childhood to adulthood. We find

that respondents' own gender attitudes are only weakly predictive of their current participation in chores, whereas childhood experience remains a key predictor of their time use in adulthood.

Our paper relates to a literature seeking to understand the (unchanging) division of household labor. There is growing evidence that, regardless of work status, women take on the majority of household tasks. Hancock et al. (2025) use American Time Use Survey data to show that in heterosexual couples where the woman is the primary earner, female breadwinners still perform substantially more housework than their male partners, while men's housework time is strikingly inelastic to relative wages; by contrast, in same-sex couples the primary earner does less home production, consistent with gender-neutral specialization. They interpret this as evidence of a "gendered wedge" in the allocation of home production and show that such rigidities reduce relationship surplus when women out-earn men. This complements Bertrand et al. (2015), who find that couples avoid situations where wives earn more than husbands and that the gender gap in non-market work is larger when the wife's income share exceeds one-half, consistent with gender identity norms rather than pure efficiency. Related work further shows that women who work longer hours than their male partners do not proportionately reduce their housework and often experience lower life satisfaction (Fleche et al., 2018). Although these papers focus on gender norms as an explanation for this division, our paper provides an additional and complementary explanation: That the chores one is exposed to in childhood creates a lasting difference in skill.

The remainder of the paper proceeds as follows. We describe our two datasets in section 2. To motivate our empirical analysis, we present data on the time division of household tasks within couples in section 3. We present our empirical strategy and main results section 4. Section 5 concludes.

2 Data

We use two datasets to establish our results. Our main dataset is the American Time Use Survey, a nationally representative survey that collects detailed information on how individuals allocate their time across daily activities. We supplement this survey with an original survey that we conducted. We plan to incorporate data from the Add Health longitudinal study (which allows us to observe individuals' participation

in chores as teens and adults) in a future iteration of this project.

2.1 American Time Use Survey

Our primary dataset for establishing gendered exposure to chores is the American Time Use Survey (ATUS), which has been conducted annually by the U.S. Bureau of Labor Statistics since 2003. The ATUS provides nationally representative data on how individuals aged 15 and older allocate their time across various activities over a 24-hour period. Respondents recount all activities from 4 a.m. of the previous day to 4 a.m. on the day of the interview, detailing the duration, location, and presence of others for each activity. We make use of the variable capturing whether others are present to test for differences in whether boys or girls are more likely to be exposed to different tasks. We focus on years after 2004, when the activity coding became more consistent (Aguiar et al., 2021), and before 2019 to avoid conflating changes with the pandemic.

A respondent's activities are originally coded into 400 specific activities, which we aggregate to 15 categories. These are: laundry, indoor cleaning, other indoor tasks (e.g., changing light bulb, fixing leaks), food preparation, cleaning up after food/meals, car-related activities (e.g. changing the oil), outdoor tasks (e.g., mowing the lawn), tasks related to animal care, purchasing household goods (e.g., grocery shopping), purchasing household services (e.g. getting the car fixed), household finance, other household management activities (such as scheduling activities), and tasks related to children's recreation, education, and health/other needs. See Appendix Section A.4.1 for details.

2.2 Survey

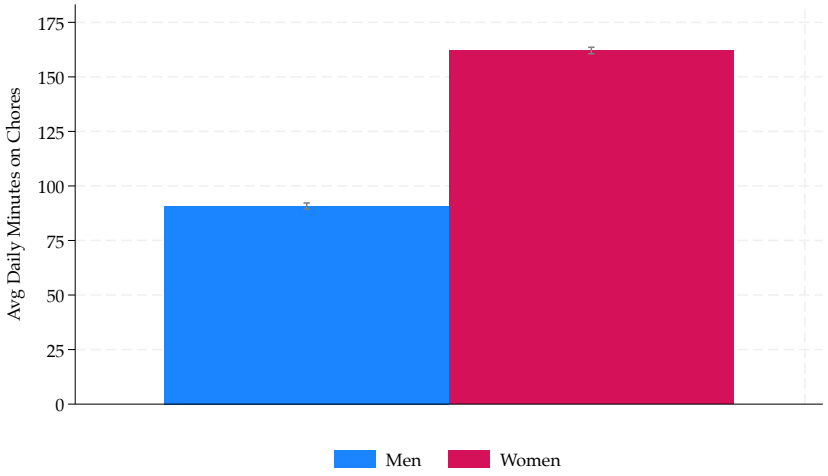
We also include results from a pilot survey conducted with 139 respondents on Prolific. The survey was designed to replicate and probe our findings from ATUS and to shed light on the mechanisms underlying differences in children's exposure to tasks. Respondents reported time use information across tasks on themselves, their partner, and their children. We then asked about the household tasks they were involved with as a child, allowing us to test whether childhood exposure to tasks and task division in adulthood are correlated. Finally, we ask a series of questions about gender attitudes, allowing us to test whether the correlation is an artifact of persistent

norms/attitudes across generations.

3 Motivating Facts

We begin by quantifying the division of household tasks among American couples. The American Time Use data shows a significant gap between the average number of minutes that men and women spend on household chores. Figure 1 shows the average minutes respondents spend on chores daily, split for men and women.

Figure 1: Time Married Individuals Spend on Household Tasks



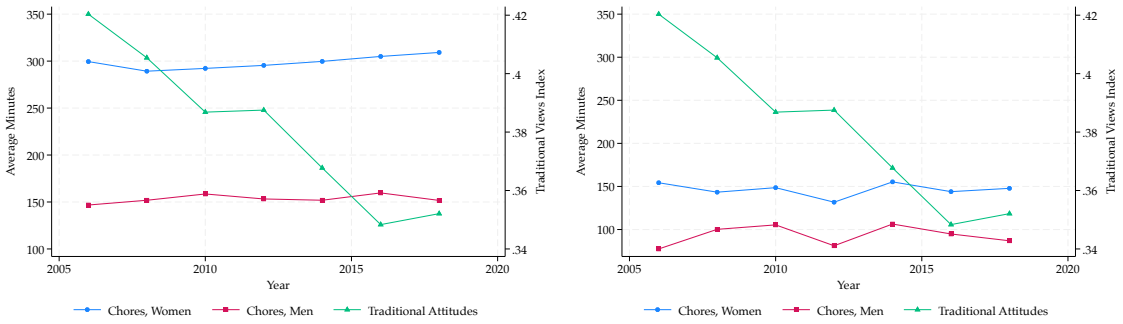
Note: This figure uses data from ATUS to plot the average number of minutes respondents spend on domestic work (including childcare) daily. The sample includes individuals ages 20-55 who are living with either a spouse or partner.

Figure 2 shows that this pattern has not changed over time, despite gender attitudes becoming more progressive and female labor force participation remaining high. The figure plots the average number of minutes that coupled men and women spend on chores daily over time. There is a persistent gap in the number of minutes that men and women spend on chores, with women spending significantly more, regardless of whether couples have children. Overlaid is a line showing average traditional gender attitudes, drawn from the General Social Survey.[2] The left-side y-axis

[2]The traditional gender attitudes index is constructed as the average of responses to the following statements, each rescaled to lie between 0 and 1: (1) It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family; (2) A

shows the fraction of respondents who hold traditional gender attitudes, and we see that this has fallen by 19% over the period. This suggests that although stated attitudes have become more progressive, actions have not changed.

Figure 2: Gender Attitudes and Tasks



(a) Coupled with Children (b) Coupled without Children

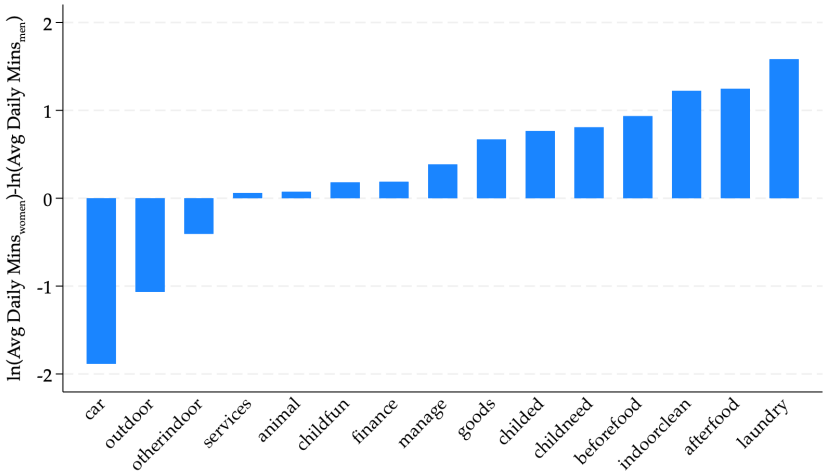
Note: This figure shows trends over time in traditional gender attitudes and in the average daily minutes women and men spend on domestic work (including childcare). Time-use data come from the ATUS and include individuals ages 20–55 who are living with a spouse or partner, split by whether they have kids in the left and right panel. Data on traditional attitudes come from the full GSS sample.

Finally, not only do women spend more time on household tasks overall, but there is a gendered division of specific types of chores. Figure 3 shows, for each task category, the relative time that women and men spend on the task. Specifically, the y-axis plots the average difference in the log of average daily minutes that women spend on chores in a given category minus the average for men. Men are more likely to spend time on stereotypically male tasks, such as car-related repairs, outdoor work (such as mowing the lawn), and indoor repair/maintenance tasks. Women spend more time on tasks related to childcare, managing the household, purchasing and cooking food, and cleaning.

Why does women's specialization in household work persist, and is it possible for this pattern change? We hypothesize that parents make investments in their children that generate task-specific human capital, which in turn influences the division of tasks when children become adults. Insofar as these investments are gendered,

preschool child is likely to suffer if his or her mother works; (3) A working mother can establish just as warm and secure a relationship with her children as a mother who does not work (reverse coded).

Figure 3: Relative Time Spent on Tasks by Gender



Note: This figure shows the relative time that men and women spend on household tasks as measured in the ATUS. To construct the y-axis, we take the log of the average daily minutes that women and men spend on each task and subtract the two. We include only respondents aged 18 or older who live with at least one of their own children under 18. We drop time spent on travel when counting minutes in each task.

parental investments will perpetuate a gendered division of labor across generations.

4 Empirical Results

We now turn to testing whether the persistent gendered division of chores in adulthood can be partially explained by gendered exposure to chores in childhood. We first document a correlation between the types of tasks children perform and the tasks they later take on as adults. We provide suggestive evidence that this relationship operates at least partly through comparative advantage: individuals who perform more chores in childhood are more conscientious related to household responsibilities and report having accumulated knowledge and skills about tasks that are difficult to transfer to their partner. Having provided evidence of a link between childhood and adulthood tasks, we then test whether boys and girls are exposed to chores in childhood at the same rates. Using the American Time Use Survey, we find that teen girls do more chores than teen boys. And, we find that girls are more likely to be present for traditionally female tasks than are boys, and vice versa. We

conclude by exploring the role of norms in childhood exposure and adulthood task division.

4.1 Correlation between Childhood Exposure and Adulthood Task Share

We begin by examining whether the tasks individuals perform in adulthood are shaped by the chores they were exposed to in childhood. Leveraging our survey data, we test for a correlation between chore participation during adolescence and chore participation later in life.

In our survey, we observe retrospective childhood experience across the 11 non-childcare chore groups displayed in Figure 3, the respondent's division of chores with their partner, as well as each partner's labor market outcomes. Table 1 shows the results from estimating the following equation:

$$ln(RelMins)_{i,j(i),k} = \beta_1 Childhood_{i,k} + \beta_2 ln(RelEarnings)_{i,j(i)} + X_i^{'}\gamma + \alpha_k + \epsilon_{i,k} \quad (1)$$

Our outcome of interest is the division of tasks within the household, measured as the log of minutes that respondent i spends on the task divided by the minutes their partner $j(i)$ spends on task k. We always control for respondent gender, respondent age fixed effects, and partner age fixed effects (X_i). We also control for task fixed effects (α_k).

In column 1 we test whether childhood task exposure is correlated with the chores one does in adulthood. We first regress the division of tasks in the household on an indicator for the respondent stating that they helped with task k in childhood. In column 2 we include the log ratio of earnings between a respondent and their partner. Intuitively, the higher the ratio, the fewer tasks the respondent does relative to their partner. These results are in line with a model of household specialization, as in Becker (1965). However, the coefficient on childhood chore exposure remains statistically significant and does not decrease in size. We return to discuss the result from column 3 in Section 4.4.

Table 1: Childhood experience and specialization in adulthood

	ln(Mins on Task by Self / Mins on Task by Partner)		
	(1)	(2)	(3)
Helped when child	0.373***	0.380***	0.372***
	(0.124)	(0.123)	(0.129)
ln(own earnings/partner earnings)		-0.133**	-0.156***
		(0.061)	(0.059)
Gender equality index			0.085
			(0.130)
Female × Gender equality index			-0.248
			(0.187)
Obs	726	726	726
R-sq	0.170	0.175	0.177

Notes: Observations are at the person-task level. There are 100 respondents and 11 possible household task categories (excluding childcare). The outcome is the log ratio of minutes spent on a task by the respondent and the minutes spent on a task by their partner. Column 1 regresses this outcome on an indicator for whether the respondent reported that they were either somewhat likely or very likely to help with those types of tasks around the house growing up. Column 2 additionally includes the log ratio of the respondent's annual earnings to their partner's earnings. Column 3 additionally includes a gender equality index interacted with a dummy indicating the respondent is female. In all regressions, fixed effects are included for the respondent's age, their partner's age, whether the respondent is female, and the task category. Standard errors are robust and clustered on person.

Table 2 repeats this exercise but uses a respondent and their partner's employment status as independent variables rather than the log ratio of earnings, which conditions on both partners working and reporting positive earnings. The results are unchanged: Being employed means that one spends less time on household tasks but this does not detract from the relationship between childhood exposure and the division of tasks in adulthood. In Appendix Table A.1, we use the share of the task that the respondent does as an outcome rather than the logged ratio, which exhibits fewer missing observations. The results are again unchanged.

Table 2: Childhood experience and specialization in adulthood

	ln(Mins on Task by Self / Mins on Task by Partner)		
	(1)	(2)	(3)
Helped when child	0.427***	0.440***	0.451***
	(0.120)	(0.120)	(0.123)
Employed (self)		-0.540**	-0.578***
		(0.216)	(0.211)
Employed (partner)		0.247	0.203
		(0.308)	(0.310)
Gender equality index			0.183
			(0.116)
Female × Gender equality index			-0.282*
			(0.168)
Obs	927	927	927
R-sq	0.150	0.156	0.160

Notes: Observations are at the person-task level. There are 127 respondents and 11 possible household task categories (excluding childcare). The outcome is the log ratio of minutes spent on a task by the respondent and the minutes spent on a task by their partner. Column 1 regresses this outcome on an indicator for whether the respondent reported that they were either somewhat likely or very likely to help with those types of tasks around the house growing up. Column 2 additionally includes dummies indicating employment of the respondent or their spouse. Column 3 additionally includes a gender equality index interacted with a dummy indicating the respondent is female. In all regressions, fixed effects are included for the respondent's age, their partner's age, whether the respondent is female, and the task category. Standard errors are robust and clustered on person.

Overall, the pilot survey provides additional evidence that exposure to tasks in childhood predicts task engagement in adulthood. This relationship persists even after controlling for relative earnings and employment. The findings also suggest that early specialization may limit couples' ability to reallocate household labor when their labor market opportunities shift. Consistent with this notion, other research suggests that improved labor market opportunities for women increases their work hours and reduces the size of the "child penalty", but does not affect women's time

spent on household tasks (Ciasullo and Uccioli, 2024).

4.2 Childhood Exposure Associated with Lower Cost of Doing Tasks in Adulthood

Given that current gender norms and labor market participation explain little of the persistence in chore behavior, we next examine whether childhood exposure to specific tasks carries into adulthood by cultivating skills or abilities related to chores. In our survey, we administered several questions that proxy for conscientiousness related to household responsibilities. Respondents evaluate their agreement with the following statements: (1) I get chores done right away; (2) I often forget to put things in their proper place; (3) I make a mess of things; and (4) I like order.[3] The first three items capture the respondent's perception of their own efficiency in doing chores or keeping things clean, while the last component captures preferences or standards for orderliness. We refer to these items generally as one's "cleanliness" and create a standardized index taking the average of these components.

Table 3 Column 1 shows that greater experience across chores in childhood predicts higher levels of cleanliness in adulthood, measured at the person level. Of course, an important caveat remains. Conscientiousness may be relatively stable from childhood into adulthood. If so, individuals who appear more conscientious as adults may simply have been more conscientious as children, which could itself explain why they performed more chores in the first place.

To investigate this possibility, we examine within-person, across-task variation in skills and standards. Specifically, we asked: "Suppose your partner had some extra time to do the tasks that you normally do around the house. For the typical task you perform in this category, how easily could you transfer ALL the necessary knowledge, skills, and resources to your partner to complete it to your usual standard?" The outcome in columns 2 and 3 are indicators for if the respondent answered that it would be hard or very hard to transfer the task to their partner. Experience with a specific task predicts a higher likelihood that the respondent considers their knowledge or skills difficult to transfer. Column 3 shows that this pattern holds when controlling for individual fixed effects, which capture characteristics that are constant

[3]These questions comprise the four items used to measure conscientiousness in the Mini-IPIP version of the Big Five personality test developed by Donnellan et al. (2006).

across tasks within person, such as a general level of conscientiousness. However, it could still be the case that task-specific ability constant over the life-cycle—e.g., cooking skills, knowledge about cars—drives this result.

Table 3: Childhood experience and adulthood cleanliness and knowledge/skills

	Cleanliness Index	Hard to transfer knowledge or skills	
	(1)	(2)	(3)
Helped when child	0.321***	0.096**	0.088**
	(0.077)	(0.037)	(0.038)
Obs	1218	1218	1218
R-sq	0.418	0.179	0.301
Controls	x	x	x
Task FE	x	x	x
Individual FE			x

Notes: Observations are at the person-task level. There are 128 respondents and 11 possible household task categories (excluding childcare). The outcome in column 1 is the conscientiousness/cleanliness index. The outcome in column 2 and 3 is an indicator for if the respondent reports the task would be somewhat or very hard to transfer to their partner such that the partner could complete it to the respondent's usual standard. Both columns regress the outcome on an indicator for whether the respondent reported that they were either somewhat likely or very likely to help with those types of tasks around the house growing up. Fixed effects are included for the respondent's age, their partner's age, whether the respondent is female, and the task category. Column 3 additionally includes individual FE. Tasks to which the respondent contributes no time are dropped. Standard errors are robust and clustered on person.

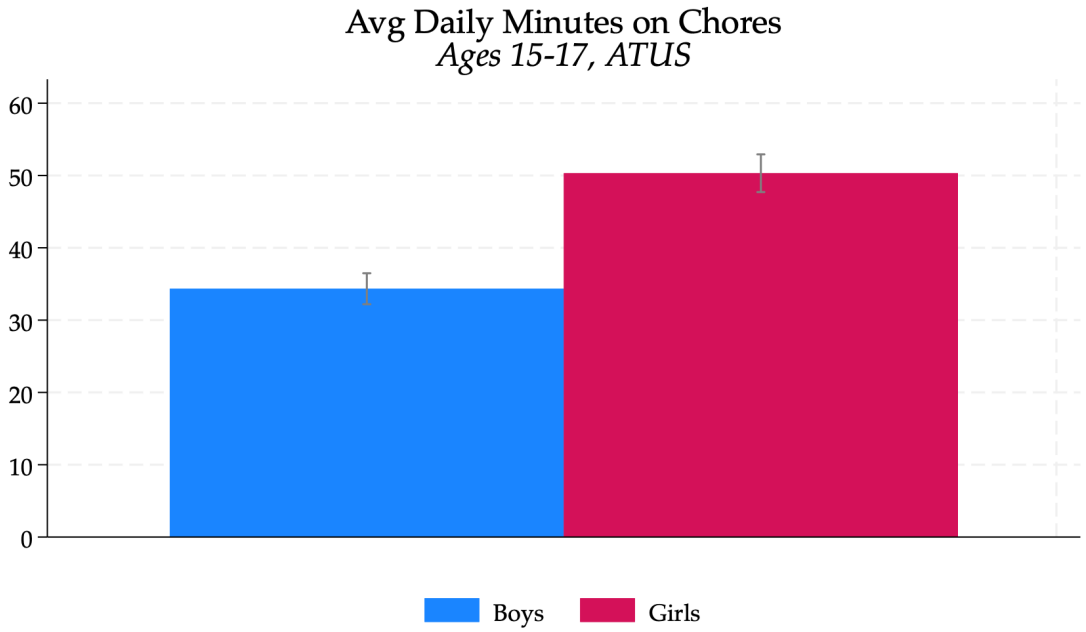
4.3 Gendered Patterns in Childhood

Given the persistence in chore behavior from childhood to adulthood, we next examine whether gendered patterns in childhood chore exposure help explain gender differences in household task division later in life.

Overall, girls are exposed to more chores than boys. Figure 4 leverages the

fact that ATUS collects time diary information for individuals as young as 15. On average, teen girls spend about 15 more minutes per day on chores than teen boys.

Figure 4: Girls' and boys' participation in housework



Note: This figure plots the average number of minutes girls and boys ages 15-17 spend daily on household chores.

Figure 3 revealed that not only do women spend more time on chores, but they also specialize in certain types of chores. And, Table 3 provided some evidence of task-specific skills or knowledge persisting over time. We therefore explore whether girls are exposed to female-intensive tasks more than boys.

We measure the *female intensity* of a task as the log difference in average daily minutes spent on a task k by married men and women (with children) in the sample.[4] Specifically, we calculate the female intensity of a task as:

$$FemIntensity_k = ln\left(\frac{\sum_{j\in f} Mins_{k,j} * w_j}{\sum_{j\in f} 1440 * w_j}\right) - ln\left(\frac{\sum_{j\in m} Mins_{k,j} * w_j}{\sum_{j\in m} 1440 * w_j}\right) \quad (2)$$

where w_j is the ATUS sampling weight for respondent j. 1440 represents the number

[4]This is the same measure used to construct Figure 3.

of total minutes in a day. The first term in parentheses therefore represents the share of all gender g's minutes in a given day that are devoted to task k.

We correlate the female intensity of the task with the difference in exposure between girls and boys, weighted by the average number of minutes the adult spends on the task. We define a boy or girl's task exposure in two ways. Our main definition for a child of gender g is constructed as

$$TaskExposure_{k,g} = ln\left(\frac{1}{\sum_{i\in g} W_i}\sum_{i\in g}\frac{Mins_{k,i}}{Mins_{k,ij_i}} * W_i\right) \tag{3}$$

where $Mins^k_{ij_i}$ is the number of minutes child i's parent j_i spends on task k, and $Mins^k_i$ is the number of minutes that the child is present. The ratio $\frac{Mins_{k,i}}{Mins_{k,ij_i}}$ represents the share of minutes a given parent exposes their child i to task k, conditional on the parent doing task k that day. $TaskExposure_{k,g}$ thus represents the log average share of minutes that a child of gender g is exposed to k, conditional on their parent contributing some time to k.

For robustness, we construct a second measure of task exposure, which is the share of girls' (boys') total time that they spend on task k:

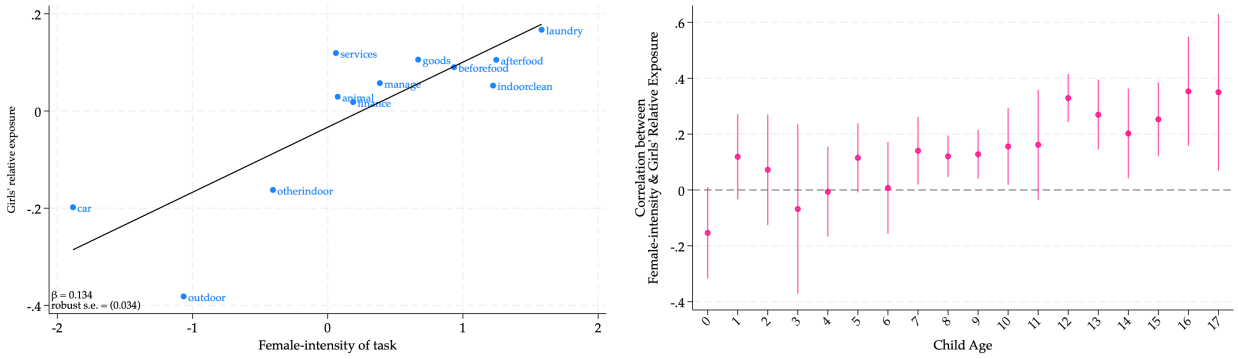
$$TaskExposure_{k,g} = ln\left(\frac{\sum_{i\in g} Mins_{k,i} * wgt_{j_i}}{\sum_{i\in g} 1440 * wgt_{j_i}}\right) \tag{4}$$

The results from using this measure are reported in appendix figures A.2-A.5.

The line of best fit from regressing our primary measure of task exposure on female task intensity is plotted in Panel (a) of Figure 5. Boys are more likely to be exposed to "male" tasks and girls to "female tasks". A 10% increase in the time that women spend on a task, relative to men, is correlated with a 1.34% increase in the likelihood that a girl is present. Appendix Figure A.1 shows that the results are robust to including "travel" tasks (driving to and from activities).

Panel (b) plots the correlation by average child age. Girls begin to be more exposed to female tasks around ages 5-7, the age at which children may be able to help more with chores. Of course, this is also the age at which children start school, meaning that external forces could be affecting which tasks children want to be present for.

Figure 5: Boys' and Girls' Relative Exposure to Tasks



(a) Girl's Relative Exposure to Tasks

(b) Relative Exposure by Age

Note: Panel (a) shows the relationship between the female-intensity of a task and girls' exposure to the task relative to boys. Panel (b) plots this relationship for each child age.

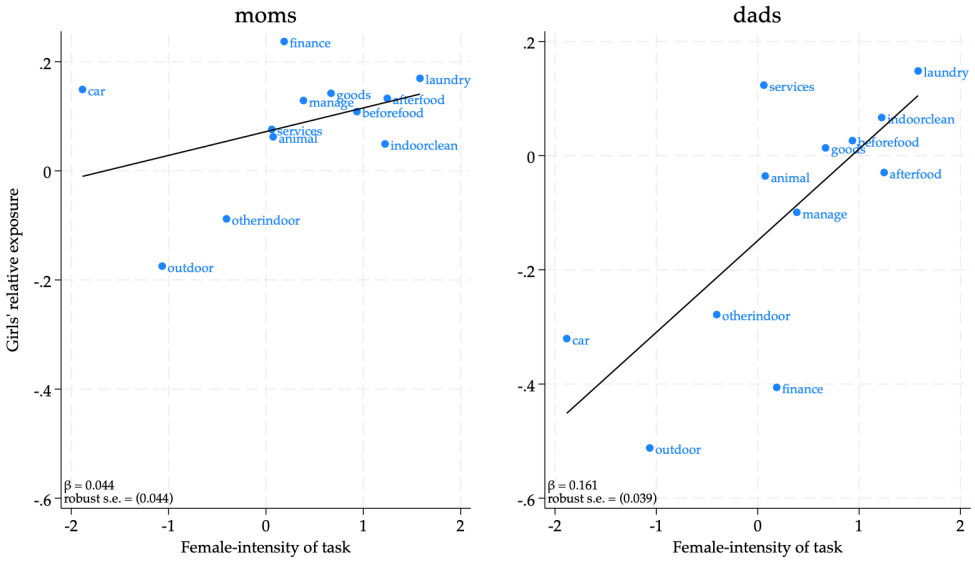
We do not find any evidence that the correlation is driven by the parent's gender (i.e. mothers spending more time with girls and fathers with boys). Figure 6 plots the results separately for male and female respondents. The correlation is weaker for mothers (Panel A), who are more likely to have girls around for car-related tasks. However, we still see a stark gender divide, with girls being more likely to be present for all female-intensive chores. The correlation between parents' relative time on chores and girls' exposure is strong among fathers (Panel B).

We further do not find variation by sibling sex composition. Figure 7 shows the results split by families who have children of a single sex (Panel A) or both sexes (Panel B). The correlation between female task intensity and girl's relative exposure to the task is actually stronger in single sex households.

4.4 The role of gender norms

In this section, we shed light on what might be driving the correlation between child and adult exposure to tasks. We specifically look at variation in children's exposure to chores based on gender norms. We then examine whether the correlation between childhood and adulthood tasks are due to unchanging gender norms.

Figure 6: Relative Exposure by Respondent Sex



Note: This figure replicates Figure 5 (a) but splits the sample by whether the mother or father is doing the task.

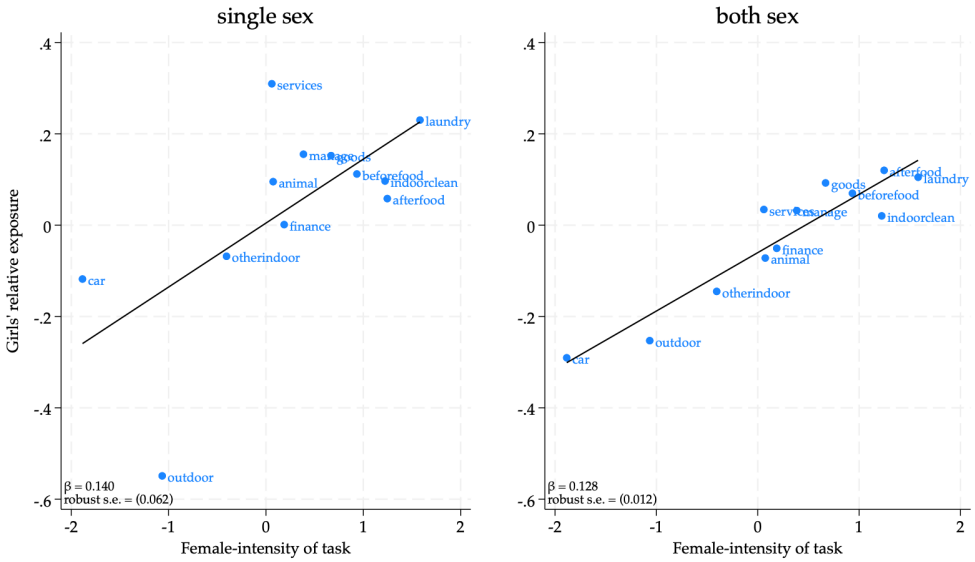
4.4.1 Norms in childhood

A growing literature suggests that gender norms perpetuate gender inequality within the household (Bertrand et al., 2015; Boelmann et al., 2025; Jayachandran et al., 2024; Kleven, 2022). It is possible that gender attitudes present when someone is a child shapes their exposure to tasks. For example, if society views cooking and cleaning as a "woman's task", parents may be more likely to teach their daughters to do these chores.

In Figure 8, we divide respondents based on whether they currently live in a state with conservative or liberal gender norms. We construct our measure of norms following Kleven (2022), who combines questions from the General Social Survey into a "gender progressivity index".[5] We then divide states that are the top and bottom quartile in terms of their gender progressivity.

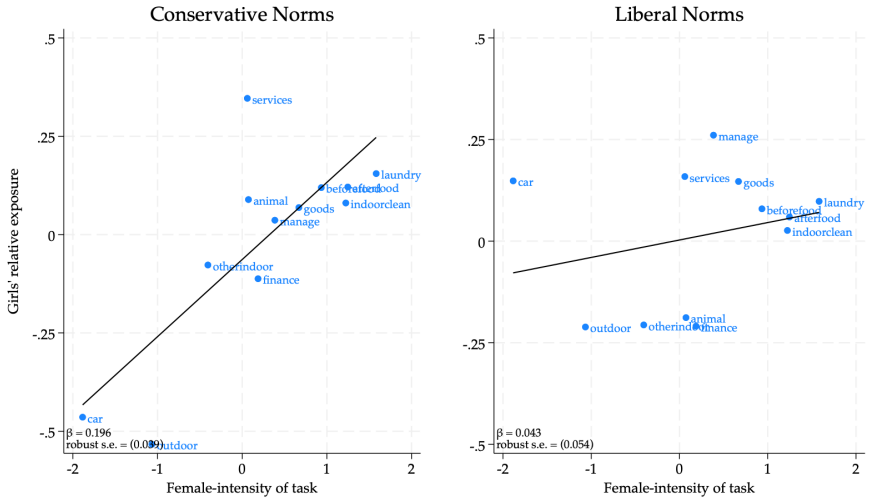
[5]The gender progressivity index includes responses to the following statements: (1) *It is much better for everyone if the man is the achiever outside the home and the woman takes care of the home and family*, (2) *A working mother can establish just as warm and secure a relationship with her children as a mother who does not work*, and (3) *A pre-school child is likely to suffer if his or her mother works.*

Figure 7: Exposure to Tasks and Sibling Gender Composition



Note: This figure replicates Figure 5 but splits the sample into families in which all children are of the same sex (all boys or all girls) or where there is at least one boy and at least one girl in the family.

Figure 8: Exposure to Tasks and Gender Attitudes



Note: This figure replicates Figure 5 but splits the sample into respondents living in states with Conservative and Liberal gender norms.

Female task intensity and girls' relative exposure to tasks are positively correlated in all states, but the relationship is much weaker and statistically insignificant in states that score above average in terms of progressivity. This is largely due to girls being more likely to be exposed to "male" tasks as opposed to boys being exposed to "female" tasks. States with conservative gender norms have a much stronger relationship between female task intensity and girls' exposure, with boys begin significantly more likely to be exposed to car-related, outdoor, and finance-related tasks.

4.4.2 Norms in adulthood

The analysis in the previous section highlights an alternative mechanism that could drive the correlation between childhood exposure and adulthood chore participation shown in Section 4.1. If parents invest in their kids' chores according to prevailing gender norms, perhaps these investments do not lead to skills but rather to an internalization of gender norms that then manifest as a gendered division of labor in adulthood. In other words, perhaps persistence operates through internalization of gender norms without any impact on children's human capital. To investigate the plausibility of this "pure norms" story, we revisit our analysis of persistence.

Columns 1-2 of Table 1 revealed that childhood experience explained couples' division of labor even conditional on their relative earnings. Column 3 of Table 1 additionally includes a gender equality index and its interaction with a female dummy. In the survey, we included three questions from the General Social Survey that concern women's role in the household and workplace.[6] To construct the index, we combine responses to these questions into an index such that a higher value indicates more progressive gender attitudes. The index is only weakly correlated with task division and does not detract from the correlation between childhood exposure and task division, suggesting that the couples' current views about the appropriate role of men and women in the household are not driving the results.

[6]These questions are: (1) It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family; (2) A working mother can establish just as warm and secure a relationship with her children as a mother who does not work; and (3) A pre-school child is likely to suffer if his or her mother works. Respondents can strongly agree, agree, disagree, strongly disagree, or state that they don't know or can't choose.

5 Conclusion

Inequality in the division of household chores is stubbornly persistent despite the large gains women have made in the labor market. This paper provides one mechanism through which an unequal division of chores may persist even as women face more labor market opportunities. We show that exposure to chores in childhood is correlated with doing said chores in adulthood. Girls are more likely to be exposed to "female" tasks and boys to "male" tasks regardless of the sex of the parent doing the chore. As such, children may develop a comparative advantage in tasks that are gender-stereotyped according to their parents' generation. The change in task division may therefore occur only with a lag as gender norms develop and women's labor market opportunities continue to improve.

References

Aguiar, M., M. Bils, K. K. Charles, and E. Hurst (2021). Leisure luxuries and the labor supply of young men. *Journal of Political Economy 129*(2), 337–382.

Aguiar, M. and E. Hurst (2007). Measuring trends in leisure: The allocation of time over five decades. *The quarterly journal of economics 122*(3), 969–1006.

Becker, G. S. (1965). A theory of the allocation of time. *The economic journal 75*(299), 493–517.

Becker, G. S. (1993). *A treatise on the family: Enlarged edition*. Harvard university press.

Bertrand, M., E. Kamenica, and J. Pan (2015). Gender identity and relative income within households. *The Quarterly Journal of Economics 130*(2), 571–614.

Boelmann, B., A. Raute, and U. Schönberg (2025). Wind of change? cultural determinants of maternal labor supply. *American Economic Journal: Applied Economics 17*(2), 41–74.

Ciasullo, L. and M. Uccioli (2024). What works for working couples? work arrangements, maternal labor supply, and the division of home production.

Donnellan, M. B., F. L. Oswald, B. M. Baird, and R. E. Lucas (2006). The mini-ipip scales: tiny-yet-effective measures of the big five factors of personality. *Psychological assessment 18*(2), 192.

Fleche, S., A. Lepinteur, and N. Powdthavee (2018). Gender norms and relative working hours: Why do women suffer more than men from working longer hours than their partners? In *AEA Papers and Proceedings*, Volume 108, pp. 163–168. American Economic Association 2014 Broadway, Suite 305, Nashville, TN 37203.

Hancock, K., J. Lafortune, and C. Low (2025). Winning the bread and baking it too: Gendered frictions in the allocation of home production. Technical report, National Bureau of Economic Research.

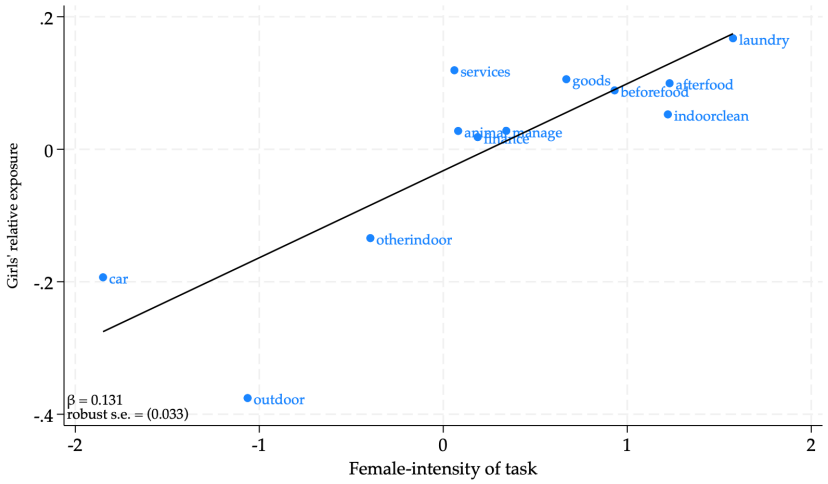
Jayachandran, S., L. Nassal, M. J. Notowidigdo, M. Paul, H. Sarsons, and E. Sundberg (2024). Moving to opportunity, together. Technical report, National Bureau of Economic Research.

Kleven, H. (2022). The geography of child penalties and gender norms: A pseudo-event study approach. Technical report, National Bureau of Economic Research.

A Appendix

A.1 Appendix Figures

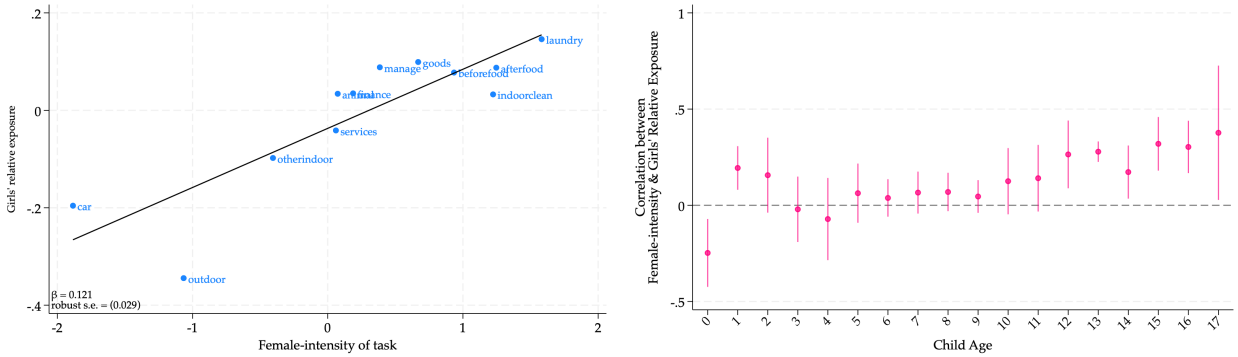
Figure A.1: Including Travel



Note: This figure replicates Figure 5 (a) but includes time spent on travel associated with each task.

A.2 Appendix figures: ATUS analysis using alternative measure of child exposure

Figure A.2: Boys' and Girls' Relative Exposure to Tasks

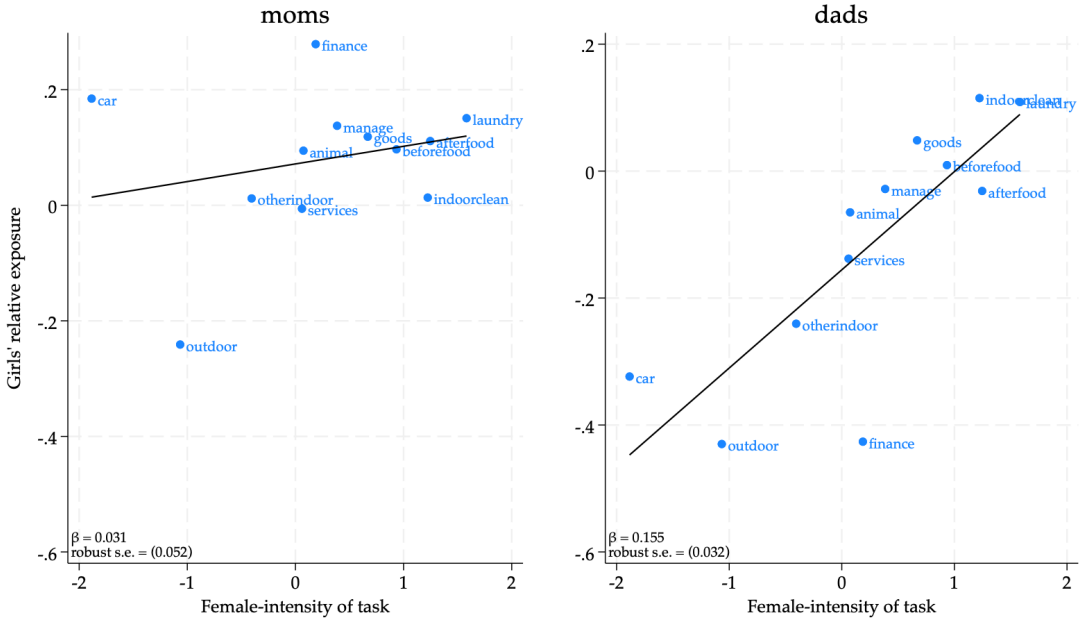


(a) Girl's Relative Exposure to Tasks

(b) Relative Exposure by Age

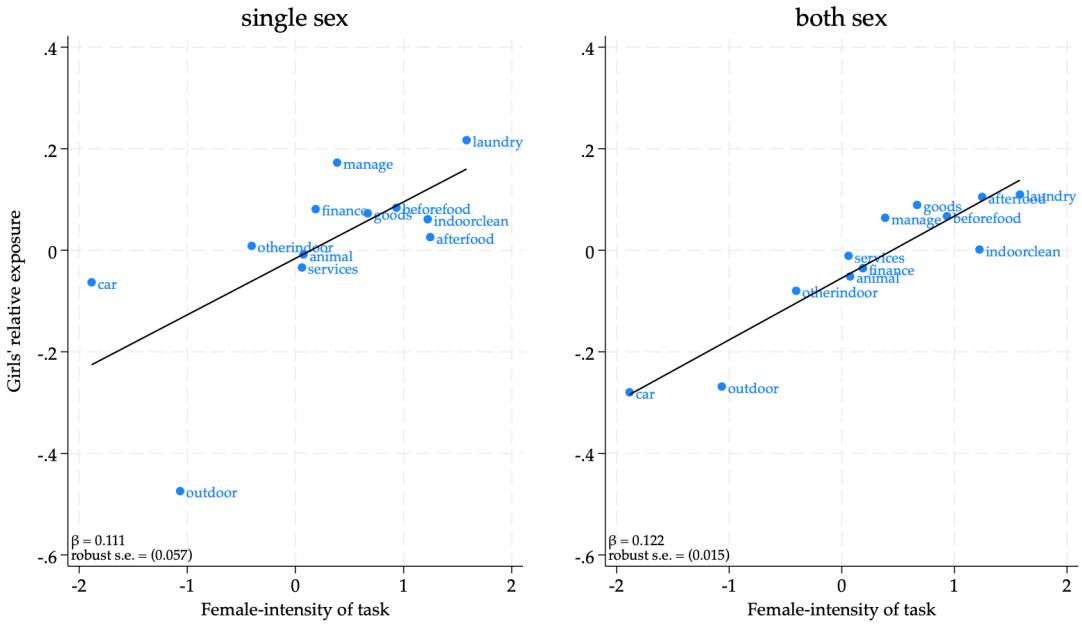
Note: This figure replicates Figure 5 using the alternative measure of child exposure.

Figure A.3: Relative Exposure by Respondent Sex



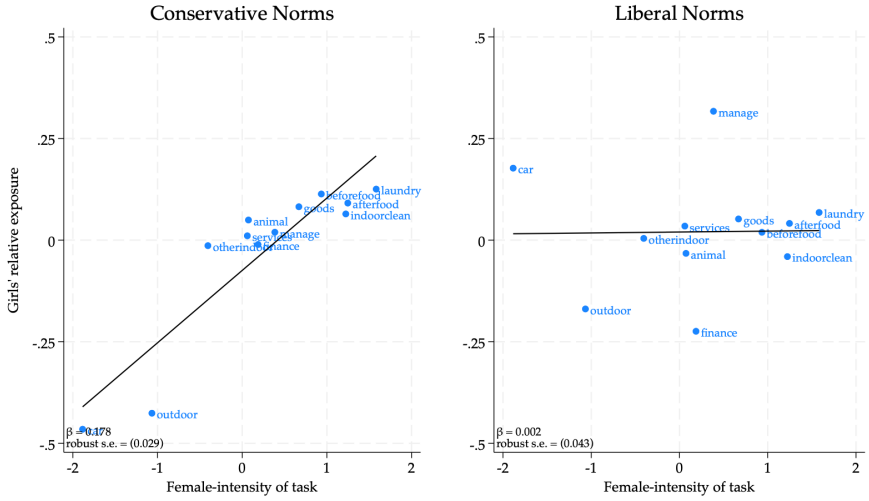
Note: This figure replicates Figure 6 using the alternative measure of child exposure.

Figure A.4: Exposure to Tasks and Sibling Gender Composition



Note: This figure replicates Figure 7 using the alternative measure of child exposure.

Figure A.5: Exposure to Tasks and Gender Attitudes



Note: This figure replicates Figure 8 using the alternative measure of child exposure.

A.3 Appendix Tables

Table A.1: Childhood experience and specialization in adulthood

	Share of Task Done by Self		
	(1)	(2)	(3)
Helped when child	0.115***	0.114***	0.115***
	(0.030)	(0.030)	(0.031)
ln(own earnings/partner earnings)		-0.024**	-0.027***
		(0.010)	(0.010)
Gender equality index			0.014
			(0.021)
Female × Gender equality index			-0.026
			(0.030)
Obs	1043	1043	1043
R-sq	0.136	0.139	0.139

Notes: Observations are at the person-task level. There are 101 respondents and 11 possible household task categories (excluding childcare). The outcome is the share of minutes spent on a task by the respondent (relative to all minutes spent by both the respondent and their partner). Column 1 regresses this outcome on an indicator for whether the respondent reported that they were either somewhat likely or very likely to help with those types of tasks around the house growing up. Column 2 additionally includes the log ratio of the respondent's annual earnings to their partner's earnings. Column 3 additionally includes a gender equality index interacted with a dummy indicating the respondent is female. In all regressions, fixed effects are included for the respondent's age, their partner's age, whether the respondent is female, and the task category. Standard errors are robust and clustered on person.

A.4 Data appendix

A.4.1 Aggregating ATUS activity codes to task groups

The raw ATUS data record the number of minutes spent on each activity during a 24-hour period. Activities are classified at a detailed six-digit level, containing activities such as "food and drink preparation" or "food presentation".[7] We crosswalk these activities into 15 broad household task categories. The broad task categories are similar to those developed by Aguiar and Hurst (2007), but we keep them slightly more disaggregated to allow for for more variation in gendered patterns. Our categories are listed below, along with several examples of the types of 6-digit activities to which they correspond.

[7] A list of all activities can be found here: https://www.atusdata.org/atus-action/variables/ACTIVITY#codes_section.

Our main analysis drops travel activities, such as "travel related to housework," but as a robustness check we also incorporate travel into the associated task group. Some ATUS 6-digit activities are not easily classified into a single one of our task categories. For example, "Food and drink preparation, presentation, and clean-up, n.e.c." could fit into either "before food" or "after food". In these cases, we probabilistically crosswalk the time spent on the activity into the relevant categories. For example, a respondent's minutes spent on "Food and drink preparation, presentation, and clean-up, n.e.c." would be split by half into "before food" and "after food."

- **Child education**: Engaging in education-related childcare for children living in your household. *Examples: Reading to or with household children; Talking with or listening to household children; Meetings and school conferences (household children)*
- **Child fun**: Engaging in recreational childcare with children living in your household. *Examples: Playing with household children, not sports; Arts and crafts with household children; Playing sports with household children*
- **Child needs/other**: Engaging in basic and physical childcare for children living in your household. *Examples: Physical care for household children; Organization and planning for household children; Picking up or dropping off household children; Attending household children's events*
- **Before food**: Food and drink preparation and presentation. *Examples: Food and drink preparation; Food presentation*
- **After food**: Kitchen and food clean-up.
- **Indoor cleaning**: Interior cleaning.
- **Laundry**: Laundry.
- **Other indoor**: Interior maintenance, repair, and decoration. *Examples: Sewing, repairing, and maintaining textiles; Interior arrangement, decoration, and repairs; Building and repairing furniture*
- **All outdoor**: Exterior cleaning, maintenance, repair, and decoration (including lawn/garden/plant care). *Examples: Exterior cleaning; Exterior repair, improvements, and decoration; Lawn, garden, and houseplant care*
- **Cars and appliances**: Vehicle, appliance, tool, and toy set-up, repair, and maintenance. *Examples: Vehicle repair and maintenance (by self); Appliance, tool, and toy set-up, repair, and maintenance (by self)*
- **Finances**: Financial management.
- **Animal care**: Animal and pet care. *Examples: Care for animals and pets (not veterinary care); Walking, exercising, playing with animals*

- **Purchasing goods**: Shopping for or purchasing items (including grocery shopping) *Examples: Storing interior household items, including food; Grocery shopping; Purchasing gas*
- **Purchasing services**: Obtaining and using professional, household, or government services. *Examples: Using paid childcare services; Using legal services; Using interior cleaning services*
- **Management**: household management tasks. *Examples: Household and personal organization and planning; Household and personal mail and messages (except e-mail); Household and personal e-mail and messages*

A.4.2 Constructing female intensity by task

Sample: In this analysis, we include only respondents aged 18 or older who live with at least one of their own children under 18. We drop time spent on travel when counting minutes in each task.

Measure: We take log female-male ratio of the share of minutes spent in each task k:

$$FemIntensity_k = ln\left(\frac{\sum_{j\in f} Mins_{k,j} * wgt_j}{\sum_{j\in f} 1440 * wgt_j}\right) - ln\left(\frac{\sum_{j\in m} Mins_{k,j} * wgt_j}{\sum_{j\in m} 1440 * wgt_j}\right) \quad (5)$$

where wgt_j is the ATUS sampling weight for respondent j. 1440 represents the number of total minutes in a day. Therefore, the term $ln\left(\frac{\sum_{j\in g} Mins_{k,j} * wgt_j}{\sum_{j\in g} 1440 * wgt_j}\right)$ represents the share of all gender g's minutes in a given day that are devoted to task k.

A.4.3 Constructing average child exposure by task

The ATUS asks who else from the household roster was present during each activity, excluding personal activities such as sleeping. We use this information to construct a measure representing the likelihood that a girl or boy is exposed to a given task.

Sample: In this analysis, we include only respondents aged 18 or older who live with at least one of their own children under 18. We drop time spent on travel when counting minutes in each task. We ignore child task groups (e.g., child needs, child fun, and child education) for this analysis.

We construct the following measure

$$RelativeGirlExposure_k = TaskExposure_{k,f} - TaskExposure_{k,m} \quad (6)$$

where we could specify $TaskExposure_{k,g}$ in a couple different ways, described below

Main measure: Our main measure is the following:

$$TaskExposure_{k,g} = ln\left(\frac{1}{\sum_{i\in g} W_i}\sum_{i\in g}\frac{Mins_{k,i}}{Mins_{k,ij_i}} * W_i\right) \tag{7}$$

where $Mins^k_{ij_i}$ is the number of minutes child i's parent j_i spends on task k, and $Mins^k_i$ is the number of minutes that the child is present. The ratio $\frac{Mins_{k,i}}{Mins_{k,ij_i}}$ represents the share of minutes a given parent exposes their child i to task k, conditional on the parent doing task k that day. We take the average of this share within each task k, weighting by the ATUS sampling weights wgt_{j_i} multiplied by the number of minutes the parent spends, $W_{k,i} = wgt_{j_i} * Mins_{k,ij_i}$. The resulting measure $TaskExposure_{k,g}$ represents the log average share of minutes that a child of gender g is exposed to k, conditional on their parent contributing some time to k.

Throughout the analysis, we sometimes take the average of this share within each task k separately by demographic groups, such as the parent's (respondent's) own gender.

Alternative measure: We construct an alternative measure representing the share of girls/boys minutes that are spent exposed to task k, regardless of whether the parent engages in the task:

$$TaskExposure_{k,g} = ln\left(\frac{\sum_{i\in g} Mins_{k,i} * wgt_{j_i}}{\sum_{i\in g} 1440 * wgt_{j_i}}\right) \tag{8}$$