

Early Roots of Inequality: Evidence of a Gender Income Gap Among Children*

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ABSTRACT

The gender pay gap among adults is well documented. This article uncovers an analogous gender income gap between girls and boys aged 6 to 15, where ‘income’ is defined as the amount of money children receive from their parents. Our analysis is based on large-scale, longitudinal data by a financial service provider that parents use to transfer money to their children. The data reveal that the gender income gap exists as early as age 6, when girls receive 6.36% less income than boys. The gap then grows throughout childhood (age 6 to 10), before diminishing and eventually reversing in adolescence (age 11 to 15). However, the data also show that (a) it takes almost a decade for girls to reach cumulative income parity with boys, despite girls completing more household tasks, and (b) the income gap in childhood means that girls never catch up with boys in terms of savings capacity, even after achieving income parity as teenagers. These early life disparities are notable because they indicate that girls have less opportunity to learn money management skills, and because they foreshadow many of the financial gender gaps that exist in adulthood.

Keywords: Gender pay gap; gender savings gap; income inequality; financial education

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Introduction

The existence of a gender pay gap in which women earn less than men is well documented (Blau & Kahn, 2017; OECD, 2023). This disparity is deeply concerning; it violates widely held gender equality norms, and corresponds with women having higher financial fragility (Hasler et al., 2018; Klapper & Lusardi, 2020) and lower retirement savings (Lusardi & Mitchell, 2008) than men. Moreover, the gender pay gap negatively impacts non-financial outcomes such as women's bargaining power and relative status within households (Bertrand et al., 2015).

In this paper, we examine the possible early roots of this inequality by studying the incomes of girls and boys during childhood, with 'income' being the amount of money children receive from their parents (Laferrère & Wolff, 2006). This is important because people's early life experiences with money influence myriad behaviors and outcomes later in life (Castillo et al., 2020; Heckman & Mosso, 2014). However, until now, observing how children and adolescents manage their money has not been possible at scale. In particular, young people's income is typically comprised of informal payments (e.g., allowances paid by parents), making it nearly impossible to track and include in official statistics. As a result, extant research in this area usually relies on relatively small samples of self-reported survey data. We overcome this challenge by using large-scale longitudinal data measuring young people's income, spending, and saving with high precision, and in doing so provide a deeper understanding of their financial lives than previously possible.

Data

The data used for our analysis are provided by a financial service provider in the UK. The firm offers a desktop and mobile application and a corresponding debit card for children. The firm allows parents ($N = 794,991$; 74.01% female) to transfer money to their children ($N = 1,154,275$; 50.51% female), who then use the debit card to make purchases. The data include: (a) each customer's gender and age, (b) a detailed overview of children's income, comprising ad hoc transfers, monetary

gifts, regular weekly allowances, and task payments for completing household chores, and (c) a detailed log of children’s purchases, including timestamps, merchant names, and amounts spent. Table 1 provides summary statistics by age and gender, and the mean monthly values for income, spending and saving. Income and spending are directly observable in the data, with savings capacity calculated as income minus spending. Following past research (European Union/OECD, 2023), we refer to ages 6 through 10 as ‘childhood’ and ages 11 through 15 as ‘adolescence.’ Prior to sharing, the firm anonymized the dataset to ensure no individual customers are identifiable.

Documenting the gender income gap

Table 2 summarizes the gender gap for monthly income (Columns 1–4) and cumulative annual income (Columns 5–8). Using a regression analysis measuring the monthly income gap for each age group while controlling for parent age and its square, parent gender, total number of children in a given household, and year-month fixed effects (see main regression model outlined in Methods), we find that throughout childhood girls receive between 6.36% and 10.97% less monthly income than boys (see Column 4). The monthly income gap diminishes at age 11, and reverses as adolescence progresses, such that between the ages of 12 and 15, girls receive between 4.41% and 8.05% more monthly income than boys. However, cumulative annual income remains significantly lower for girls than boys until age 15 (see Table 2, Columns 7–8, and Figure 1). In other words, it takes girls almost a decade during this formative stage of life to reach income parity with boys. Extended Data Table 1 shows that even among boy-girl twins, it takes years for a girl to reach cumulative income parity with her twin brother. Extended Data Table 2 shows that the income gap is not meaningfully affected by parent gender.

Examining the gender income gap by income stream

To gain a deeper understanding of the gender income gap, we next perform our main regression model (see Methods) for each of the four income categories in the data, shown in Table 3. Panel A summarizes the gender income gap for ad hoc transfers. This income stream is based on children receiving money on an as-needed basis, such as when wanting to buy a specific video game or clothing item. The monthly income gap for such transfers follows the same pattern as for total monthly income, increasing throughout childhood then diminishing and reversing in adolescence (see Columns 3–4). However, the monthly income gap for ad hoc transfers is so wide in childhood that cumulative annual income from these transfers is significantly lower for girls than boys at every age (see Columns 7–8). In other words, girls are never able to reach cumulative income parity with boys for ad hoc transfers, which is children’s largest income stream, constituting 45.96% of all income.

Panel B summarizes the gender income gap for monetary gifts, the second largest income stream. This income stream represents the money children receive through the platform for occasions such as birthdays. As with ad hoc transfers, the monthly income gap for gifts follows the same pattern as for total monthly income, increasing throughout childhood then diminishing and reversing in adolescence (see Columns 3–4 of Panel B). Cumulatively, girls receive significantly less gift money than boys until age 14, when the gap closes (see Columns 7–8). The gap then reverses at age 15, with girls receiving slightly more gift money than boys. However, girls’ relative advantage in terms of cumulative gift money at age 15 is substantially smaller than the relative advantage boys enjoy at earlier ages. Additionally, this income stream may not offer the same sense of financial independence as the others, because parents often encourage children to save their gift money (Furnham, 1999).

Panel C summarizes the gender income gap for allowances. Childhood allowances show no significant gender differences. However, in adolescence, girls earn slightly higher allowances than boys (see Columns 1–4). Weekly allowances may be paid partly to reward the completion of house-

hold chores (Warton & Goodnow, 1995), suggesting that a contributing factor in the overall gender income gap closing during adolescence may be that girls are doing more chores than boys (Bonke, 2010; Menta & Lepinteur, 2021), and therefore earning higher allowances. This possibility is further supported by the gender income gap observed for task payments in Panel D. Task payments are made by parents when their child completes a specific task, such as cleaning their room. Although task payments constitute a small amount of total income (see Columns 1–2), it is notable that from age eight onward girls receive significantly more task payment income than boys. However, the average payment per task does not differ by gender: on average, both genders receive £1.02 per task. Rather, girls receive more task payment income because they complete more tasks than boys: of the 15.64 million task payments that we observe in the data, girls receive 53.71% and boys 46.29% ($p < .001$).

Savings capacity

One potential consequence of the childhood gender income gap is that girls may accrue less savings capacity than boys. To examine this possibility, we use our main regression model (see Methods) with savings capacity as the dependent variable. Table 4 summarizes the results. We find that girls have persistently lower savings capacity than boys both per month (see Columns 3–4) and on a cumulative annual basis (see Columns 7–8). Indeed, even after achieving income parity at age 15, girls' cumulative savings capacity remains 6.46% lower than boys'.

Next, we turn to the proportion of income girls and boys save, shown in Panel B of Table 4. We find that (a) at every age, both genders save a similar proportion of their income, and (b) there is a substantial decline in savings rates over time for both genders. This means that in terms of savings capacity, during childhood, when boys have a significantly higher income than girls, boys save a large proportion of this higher income. However, in adolescence, when girls start to receive more monthly income than boys, both genders are now saving considerably less as a proportion of total income, and so girls do not make the same kind of gains in savings as the boys did during

childhood. The result is that girls cumulatively end up saving significantly less and never catch up with the boys. We illustrate the time trends in Figure 2. These findings indicate that in terms of savings capacity, the effects of the childhood gender income gap persist right through adolescence, with the additional income that girls receive during adolescence being too little, too late.

Possible explanations for the income gap

Consumption preferences

One plausible explanation for the gender differences in monthly income observed over time is gendered consumption norms. Girls and boys display different product preferences from a young age (Martin et al., 1995). Thus, it could be that parents give boys more money than girls during childhood because the things boys want to buy at this age are more expensive than the things girls want to buy, and that this reverses in adolescence. Preliminary support for this hypothesis comes from the fact that ad hoc transfers constitute the largest income stream for both genders and all age groups (see Table 3, Columns 1–2), because ad hoc transfers are given by parents to children for specific purchases (e.g., video games or clothing), and it is reasonable to assume that these purchases are largely things that children want. Empirically, the possibility that children’s income is based on consumption is supported by the fact that girls start spending more than boys at age 11 (see Extended Data Table 3, Columns 1–4) and subsequently start receiving more income than boys at age 12 (see Table 2, Columns 1–4).

To more rigorously examine the possibility that children’s income is partly a function of consumption preferences, we identify the stores/merchants at which girls and boys spend at each age, and map those stores/merchants to broader consumption categories. Figure 3 presents the most popular spending categories for girls and boys of each age, as well as the mean amount spent in each category per month. First, it is notable that girls’ and boys’ preferred consumption categories display considerable overlap. For example, at most ages both genders purchase food and beverage,

clothing and accessories, and digital goods and services. However, the amount of average monthly spending in each category differs markedly between girls and boys. This observation adds nuance to our understanding of children's consumption preferences by going beyond dichotomous choices (e.g., who is more likely to choose a pink or blue product) to reveal that girls and boys do actually have some similar interests, but prioritize them differently in terms of average spending.

Secondly, Figure 3 shows that girls' and boys' average monthly spending in the most popular consumption categories changes over time. For example, as children age: (a) girls' mean spending on food and beverage outpaces boys', (b) girls' mean spending on clothing and accessories grows faster than boys', and (c) boys' mean spending on digital goods and services—which is their most substantial expense—plateaus in adolescence. Thus, if parents provide children with income partly as a response to the goods and services that children want to purchase, gendered consumption preferences may explain the gender differences in monthly income over time, because boys prefer more expensive things in childhood (e.g., video games) and girls prefer more expensive things in adolescence (e.g., clothing and accessories).

Gender differences in asking

Could the gender income gap occur partly because girls are socialized to be less comfortable asking their parents for money than boys? This possibility is consistent with research showing that adult women are penalized for engaging in salary negotiations at work (Bowles et al., 2007), making them less likely than men to ask their employer for greater pay (Babcock & Laschever, 2021). It is also consistent with our finding that girls receive less ad hoc transfer income than boys during childhood, because it is reasonable to assume that such transfers are often made by parents in direct response to a child requesting money (e.g., to have lunch with friends, or to buy a specific product). A similar logic governs the related possibility that the income gap results from gender differences in psychological variables such as confidence or perceived self-efficacy, which are associated with the adult gender pay gap (Sterling et al., 2020). However, such explanations for the childhood gender

income gap are difficult to reconcile with the monthly gender income gap reversing in adolescence; it is unclear why these variables would drive the income gap in childhood (and again in adulthood), but not during adolescence.

Occupational segregation

A third potential explanation for the childhood gender income gap could be akin to the ‘occupational segregation’ explanation for the adult gender pay gap, which proposes that women earn less money than men largely because they are overrepresented in lower-paying jobs and/or industries (Bishu & Alkadry, 2017). To test this possibility, we examined the 15.64 million task payments that we are able to observe in the dataset. These tasks are labeled by parents (e.g., take out the trash, do the dishes, feed the dog), allowing us to measure the average payment per task, as well as how many girls and boys complete each type of task. As noted above, task payments constitute a small proportion of total income, and the average payment per task does not differ between genders. This suggests that the gender income gap in our data cannot be explained by occupational segregation. Having said that, while the major trends in our data are unlikely to be related to occupational segregation, our data do actually bear one strong resemblance to income disparities associated with occupational segregation: girls are doing more paid work than boys (see Panel D of Table 3), but overall receiving less income. This is similar to the effects of occupational segregation in adulthood: women in lower-paid jobs need to work a greater number of hours to receive the same income as men in higher-paid jobs.

Moreover, we do find strong evidence that household tasks are gendered, and this gender divide tends to grow with age. The gender gap in money received by girls as compared to boys is shown in Table 5. This is also illustrated in Figure 4, which shows the percentage of the most common tasks in the dataset completed by girls at each age. The two clearest examples are laundry and outdoor tasks, which begin with a roughly even gender split at age six, then diverge so that at age 15 approximately 62% of laundry tasks are completed by girls and 66% of outdoor tasks by boys.

Taken together, our finding that girls and boys complete different types of task, but that average payment per task does not differ by gender, offers support for occupational segregation occurring in adolescence, but no evidence that this is a factor driving the observed gender income gap.

Implications

Our findings indicate that the gender pay and savings gaps existing in adulthood emerge far earlier than previously thought. Ultimately, this means that girls have less opportunity to learn how to manage money than boys, which may help explain why women have lower financial confidence and knowledge than men (Bucher-Koenen et al., 2016). Of course, we do not observe other investments that parents make in their children, such as music lessons and other extracurriculars. So, for example, it could be the case that girls receive less income—and therefore accumulate less savings—than boys, but that girls receive more piano lessons. Future research is required to establish the veracity of this possibility, but even if true, should more piano lessons mean less income, lower savings, and fewer chances to manage and learn about money? We believe the answer is ‘no’, and that a more equitable outcome is to level the playing field in both areas, so that both genders have equal opportunity in terms of finances and extracurriculars.

Generalizability and extensions

Our data is provided by a financial service provider in the UK, so although the dataset contains millions of customers, it is worth considering whether our findings will generalize to customers from other firms and/or other countries. This is an empirical question for future research, but we believe it is very likely that the effects we document here are widely generalizable – and our estimates are likely conservative – for the following reasons. First, the financial technology firm providing the data represents a relatively new technology-based service, and early tech adopters tend to be politically progressive. Political progressives more strongly endorse gender equality

than conservatives, meaning the effects observed occur despite our sample being more likely to endorse gender equality than the general population. Second, the UK represents countries that endorse gender equality to a greater extent than the global norm. So, although the gaps observed may be smaller in a handful of more progressive countries, they are likely much larger in the many countries that still strongly endorse patriarchal cultural norms.

One important extension of our work is testing interventions that reduce the income and savings gaps among children. Our findings indicate that this may be accomplished by encouraging parents to provide a greater proportion of children's income through regular, fixed allowances rather than ad hoc transfers and gifts that vary based on what children want to buy and tend to favor boys in terms of cumulative income. In addition to potentially reducing the gender gaps, this approach would give both girls and boys the chance to engage in more financial planning, as compared to asking for an ad hoc transfer when they immediately want to spend it on something. This approach would also have the added advantage of making children's income easier for parents to track, which could make gender gaps more salient and therefore easier to correct.

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Figure 1

Gender income gap among children and teens

This figure shows the cumulative gender differences in total annual income children receive from age 6 to 15, defined as the accumulated income shortfall of girls relative to boys, expressed as percentages. Each point corresponds to the percentage difference in accumulated total annual income of girls relative to boys at a given age. Total income is comprised of four income sources: allowances, task payments, gifts, and transfers.

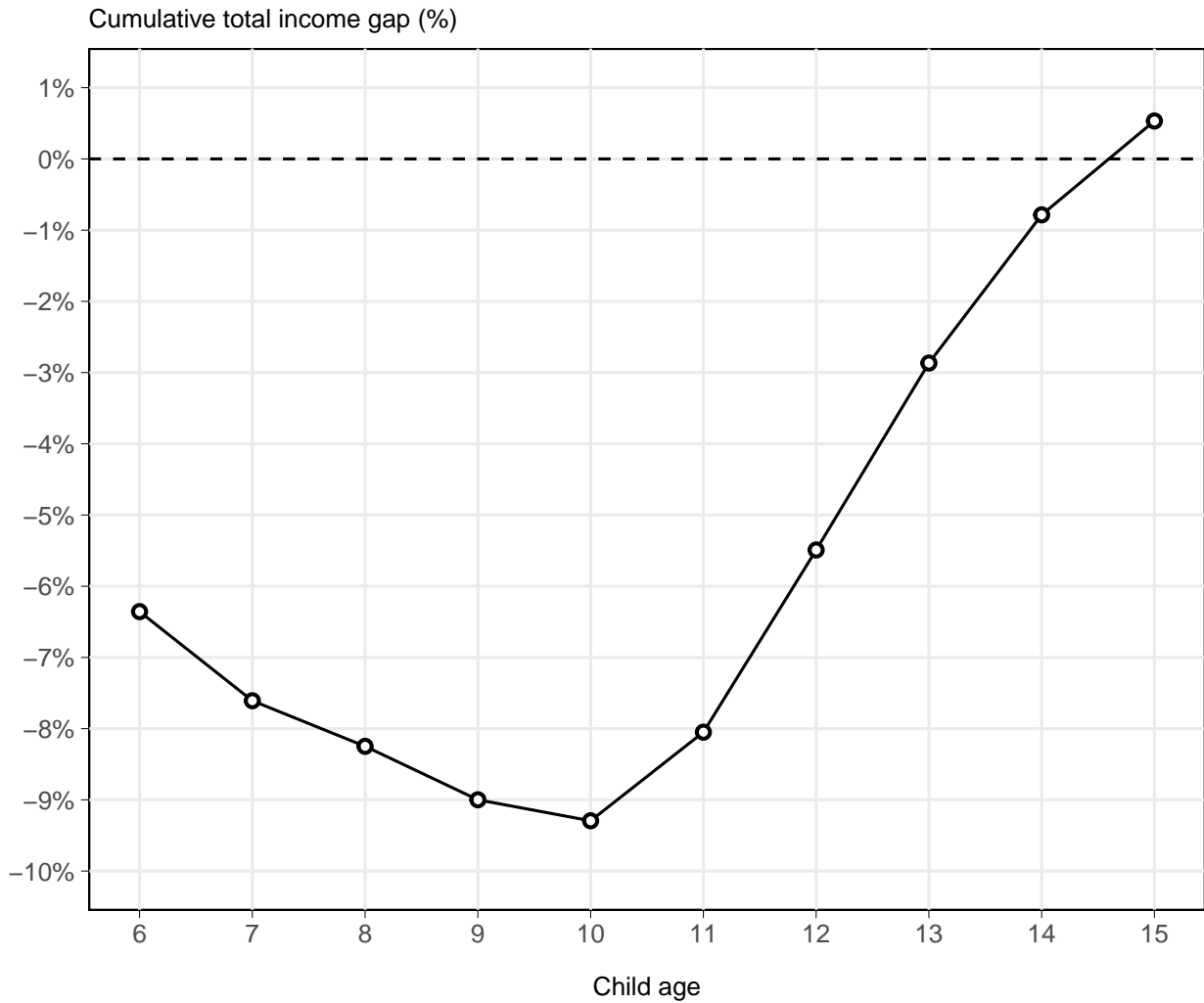


Figure 2

Gender differences in total income, total spending and savings capacity

This figure shows the cumulative gender differences in total annual income, total annual spending and total annual savings capacity for children from age 6 to 15, defined as the accumulated shortfall in the respective measure of girls relative to boys, expressed as percentages. Each point corresponds to the percentage difference in the accumulated total of girls relative to boys at a given age. Total income is comprised of four income sources: allowances, task payments, gifts and transfers. Total spending is defined as all spending done via the children’s card, including cash withdrawals. Savings capacity is defined as income minus spending.

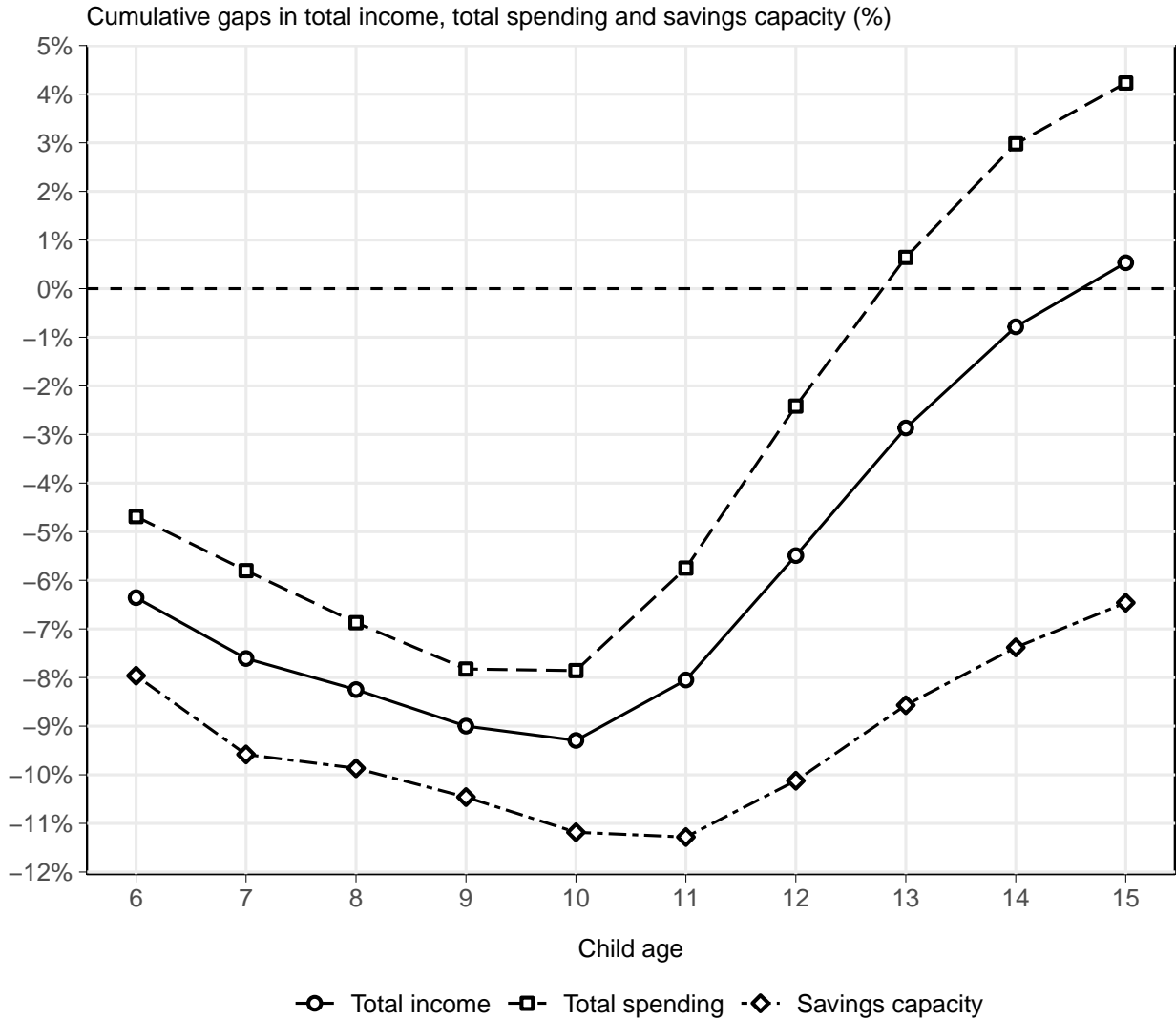


Figure 3

Gender differences in monthly average spending by category

This figure shows the monthly average amounts spent in pounds sterling by boys and girls in the top spending categories at different ages.

Monthly average spending by category

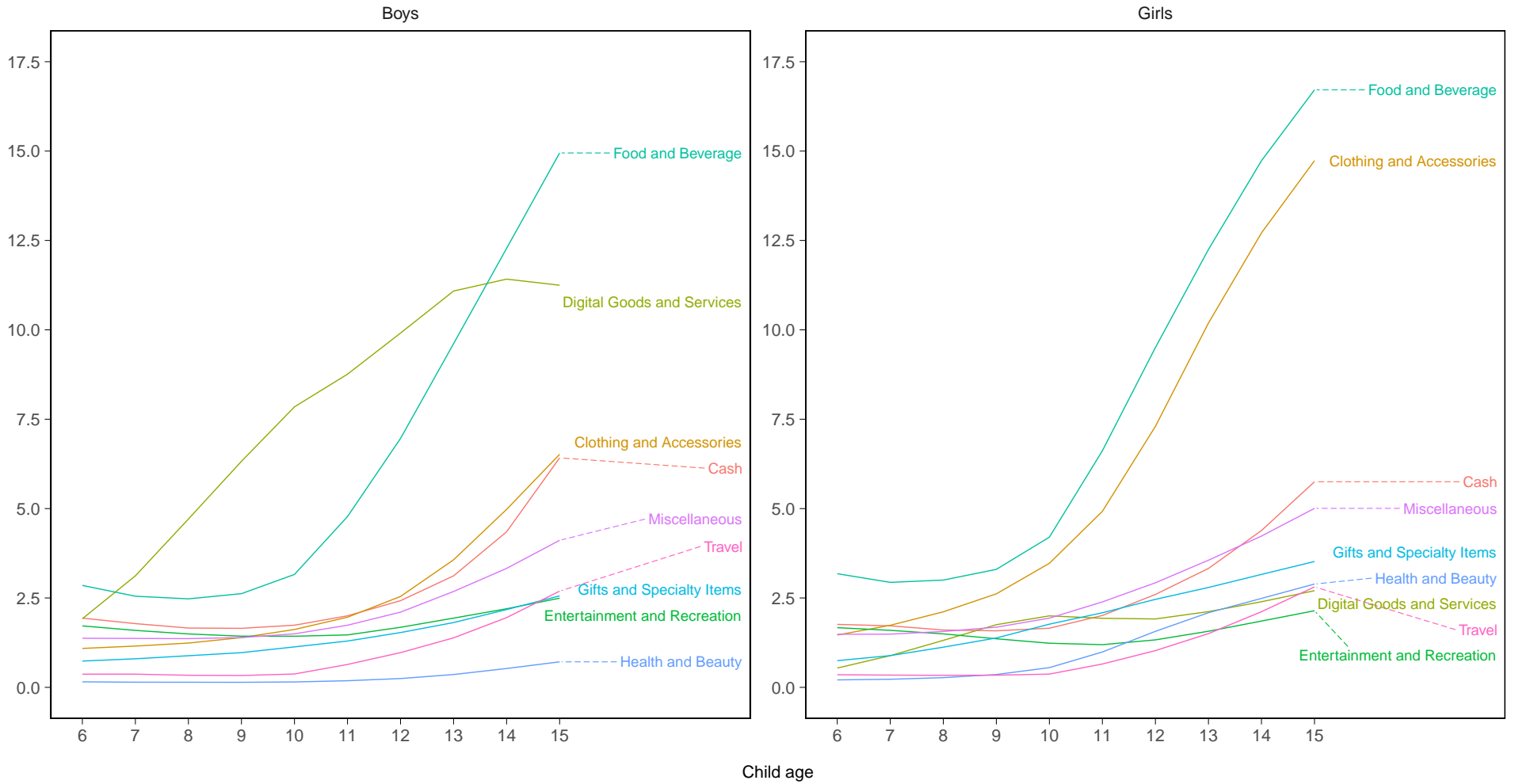


Figure 4
Girls' completion of household tasks by category (%)

This figure shows the proportion of paid tasks within a task category completed by girls in the sample at different ages. Task categories are identified from the free-text description entered for each task by the parents when making a task payment. Each line relates to a separate task category and is labeled within the figure.

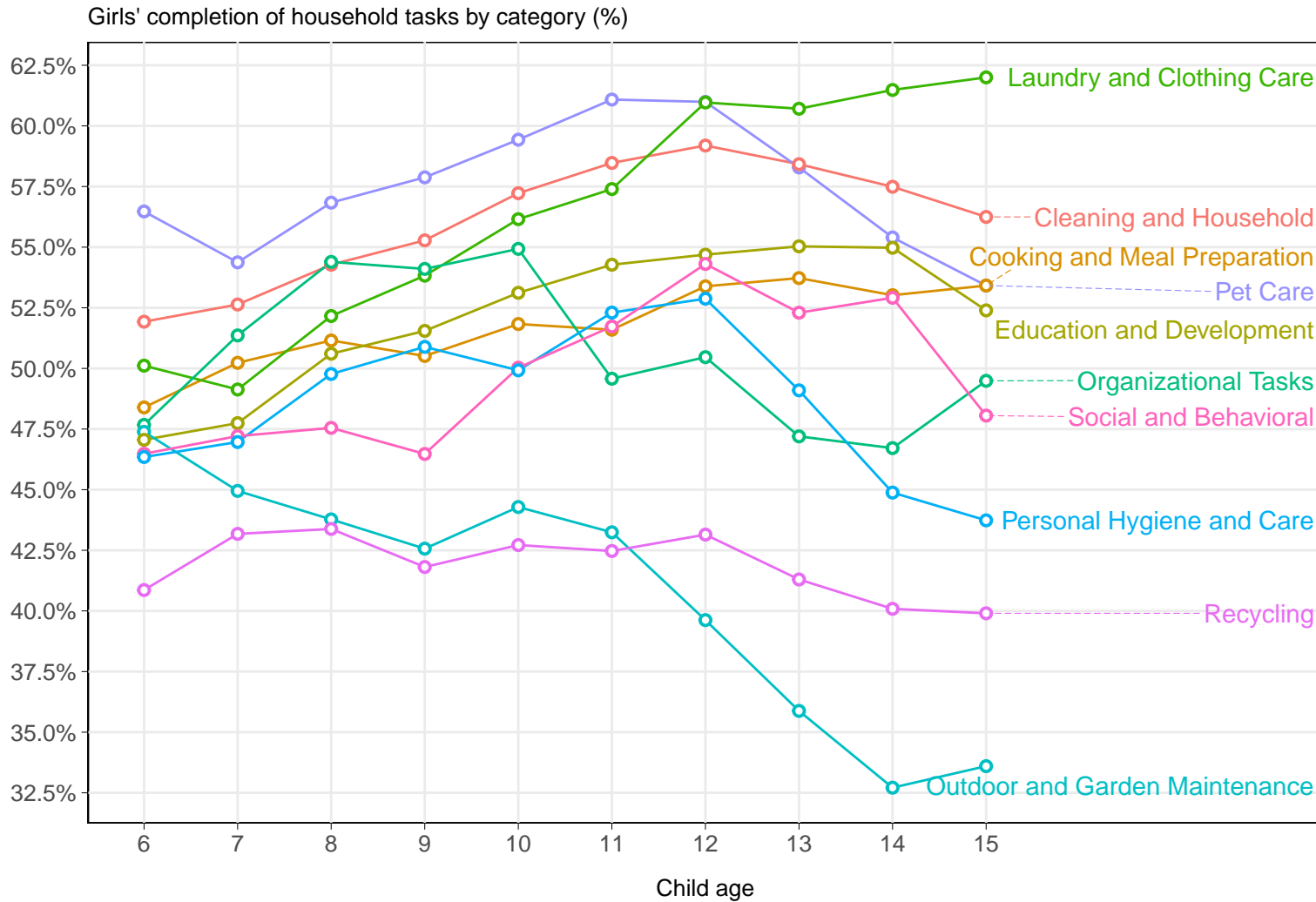


Table 1
Sample summary statistics

This table presents summary statistics for the study sample. Panel A shows the distribution of gender and age for children, and the distribution of gender for parents. Panel B provides summary statistics for children's monthly income in pounds sterling, disaggregated into ad hoc transfers, monetary gifts, regular weekly allowances, and task specific payments, as well as total monthly spending and savings capacity.

Panel A: Parents and children information					
		Female	%	Male	%
No. of children	1,154,275	583,013	50.51	571,262	49.49
<i>Childhood (6-10):</i>					
6	108,809	52,622	48.36	56,187	51.64
7	186,646	89,918	48.18	96,728	51.82
8	265,938	130,141	48.94	135,797	51.06
9	346,102	172,888	49.95	173,214	50.05
10	420,960	214,588	50.98	206,372	49.02
<i>Adolescence (11-15):</i>					
11	467,652	242,144	51.78	225,508	48.22
12	453,472	235,659	51.97	217,813	48.03
13	396,974	205,293	51.71	191,681	48.29
14	318,244	163,012	51.22	155,232	48.78
15	234,084	118,320	50.55	115,764	49.45
No. of parents	794,991	588,349	74.01	206,642	25.99
Panel B: Children's income, spending and savings					
	Observations	Mean	SD		
Total income	26,373,488	40.60	86.67		
<i>Ad hoc transfers</i>	26,373,488	18.66	50.76		
<i>Monetary gifts</i>	26,373,488	11.75	44.79		
<i>Allowances</i>	26,373,488	9.56	16.62		
<i>Task payments</i>	26,373,488	0.63	3.62		
Total spending	26,373,488	27.72	55.16		
Savings capacity	26,373,488	12.88	60.10		

Table 2
Income gap across age and gender

This table reports monthly total income estimates for girls and boys aged 6 to 15. Columns (1) and (2) report the estimated mean monthly income for girls and boys in pounds sterling, Column (3) reports the difference in monthly income between girls and boys in pounds sterling, and Column (4) reports the percentage difference. Columns (5) to (8) present the same information as Columns (1) to (4), but for cumulative annual income. ***, **, and * indicate statistical significance from coefficient difference tests at the 1, 5, and 10 percent levels, respectively.

Child age	Monthly total income				Cumulative annual total income			
	Girls	Boys	Difference	%	Girls	Boys	Difference	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Childhood (6-10):</i>								
6	22.47	24.00	-1.53***	-6.36***	269.68	287.99	-18.31***	-6.36***
7	20.52	22.53	-2.01***	-8.94***	515.87	558.35	-42.48***	-7.61***
8	21.95	24.25	-2.30***	-9.48***	779.32	849.38	-70.06***	-8.25***
9	23.98	26.94	-2.96***	-10.97***	1,067.11	1,172.64	-105.53***	-9.00***
10	27.23	30.33	-3.11***	-10.24***	1,393.83	1,536.65	-142.81***	-9.29***
<i>Adolescence (11-15):</i>								
11	33.78	35.01	-1.22***	-3.50***	1,799.21	1,956.72	-157.51***	-8.05***
12	43.99	42.13	1.86***	4.41***	2,327.04	2,462.26	-135.21***	-5.49***
13	54.97	51.05	3.92***	7.68***	2,986.67	3,074.81	-88.14***	-2.87***
14	65.22	60.36	4.86***	8.05***	3,769.35	3,799.18	-29.84***	-0.79***
15	74.75	70.21	4.55***	6.48***	4,666.40	4,641.66	24.74**	0.53**

Table 3

Gender income gap by source of income: ad hoc transfers, monetary gifts, allowances, and task payments

This table reports estimated monthly income from each income stream for girls and boys aged 6 to 15. Panel A summarizes income from ad hoc transfers, Panel B summarizes income from monetary gifts, Panel C summarizes income from regular allowances, and Panel D summarizes income from task-specific transfers. Columns (1) and (2) report estimated mean monthly income for girls and boys in pounds sterling, Column (3) reports the difference in monthly income between girls and boys in pounds sterling, and Column (4) reports the percentage difference. Columns (5) to (8) present the same information as Columns (1) to (4), but for cumulative annual income.

Child age	Monthly total amount				Cumulative annual total amount			
	Girls	Boys	Difference	%	Girls	Boys	Difference	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Ad hoc transfers (45.96% of total income)								
<i>Childhood (6-10):</i>								
6	9.62	10.72	-1.10***	-10.28***	115.40	128.62	-13.22***	-10.28***
7	8.43	9.63	-1.20***	-12.48***	216.53	244.18	-27.65***	-11.32***
8	8.93	10.40	-1.48***	-14.19***	323.66	369.02	-45.36***	-12.29***
9	9.75	11.60	-1.85***	-15.97***	440.60	508.18	-67.58***	-13.30***
10	11.20	13.28	-2.08***	-15.63***	575.05	667.54	-92.49***	-13.85***
<i>Adolescence (11-15):</i>								
11	14.47	15.51	-1.04***	-6.70***	748.66	853.62	-104.95***	-12.30***
12	19.81	19.24	0.57***	2.95***	986.33	1084.46	-98.13***	-9.05***
13	25.70	24.09	1.61***	6.68***	1294.75	1373.57	-78.82***	-5.74***
14	31.51	29.37	2.15***	7.31***	1672.90	1725.97	-53.07***	-3.07***
15	36.79	34.94	1.86***	5.31***	2114.40	2145.20	-30.80***	-1.44***
Panel B: Monetary gifts (28.94% of total income)								
<i>Childhood (6-10):</i>								
6	5.87	6.25	-0.38***	-6.14***	70.41	75.01	-4.61***	-6.14***
7	5.22	6.09	-0.87***	-14.34***	133.02	148.11	-15.09***	-10.19***
8	5.81	6.70	-0.89***	-13.32***	202.74	228.54	-25.80***	-11.29***
9	6.52	7.56	-1.05***	-13.83***	280.96	319.32	-38.36***	-12.01***
10	7.56	8.59	-1.04***	-12.05***	371.66	422.43	-50.78***	-12.02***
<i>Adolescence (11-15):</i>								
11	9.69	10.05	-0.35***	-3.52***	487.96	542.98	-55.02***	-10.13***
12	13.08	12.26	0.82***	6.73***	644.95	690.07	-45.12***	-6.54***
13	16.71	15.03	1.69***	11.23***	845.51	870.38	-24.87***	-2.86***
14	19.63	17.56	2.07***	11.81***	1081.06	1081.04	0.01	0.00
15	22.45	20.41	2.04***	9.99***	1350.47	1325.98	24.49***	1.85***

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Child age	Monthly total amount				Cumulative annual total amount			
	Girls (1)	Boys (2)	Difference (3)	% (4)	Girls (5)	Boys (6)	Difference (7)	% (8)
Panel C: Allowances (23.55% of total income)								
<i>Childhood (6-10):</i>								
6	6.43	6.47	-0.05	-0.72	77.14	77.70	-0.56	-0.72
7	6.37	6.32	0.05	0.80	153.59	153.54	0.05	0.03
8	6.67	6.61	0.06	0.85	233.62	232.89	0.73	0.31
9	7.13	7.20	-0.07	-1.03	319.16	319.32	-0.17	-0.05
10	7.82	7.86	-0.04	-0.54	412.98	413.65	-0.68	-0.16
<i>Adolescence (11-15):</i>								
11	8.92	8.82	0.11**	1.19**	520.06	519.47	0.59	0.11
12	10.33	9.95	0.38***	3.87***	644.02	638.82	5.20**	0.81**
13	11.75	11.21	0.53***	4.77***	785.00	773.39	11.62***	1.50***
14	13.28	12.73	0.55***	4.31***	944.39	926.19	18.20***	1.97***
15	14.76	14.18	0.59***	4.14***	1121.53	1096.29	25.24***	2.30***
Panel D: Task payments (1.55% of total income)								
<i>Childhood (6-10):</i>								
6	0.56	0.55	0.01	1.17	6.74	6.66	0.08	1.17
7	0.50	0.49	0.01	2.10	12.73	12.53	0.20	1.61
8	0.55	0.53	0.01*	2.70*	19.30	18.93	0.37	1.98
9	0.59	0.57	0.02**	2.93**	26.39	25.81	0.58*	2.23*
10	0.65	0.60	0.05***	7.62***	34.15	33.02	1.12***	3.41***
<i>Adolescence (11-15):</i>								
11	0.70	0.64	0.06***	9.84***	42.53	40.65	1.88***	4.61***
12	0.77	0.69	0.08***	11.71***	51.74	48.90	2.84***	5.81***
13	0.81	0.71	0.09***	12.71***	61.41	57.47	3.93***	6.84***
14	0.80	0.71	0.09***	12.76***	71.00	65.98	5.02***	7.60***
15	0.75	0.68	0.07***	9.58***	80.00	74.20	5.80***	7.82***

Table 4
Gender differences in savings capacity

This table reports monthly total savings capacity estimates for girls and boys aged 6 to 15. Columns (1) and (2) report estimated mean monthly savings capacity for girls and boys in pounds sterling, Column (3) reports the difference in monthly savings capacity between girls and boys in pounds sterling, and Column (4) reports the percentage difference. Columns (5) to (8) present the same information as Columns (1) to (4), but for cumulative annual savings capacity. Panel B calculates savings capacity as a percentage of income for girls and boys using the estimated mean fitted values reported in Tables 2 and 4, where the differences are not tested for significance. ***, **, and * indicate statistical significance from coefficient difference tests at the 1, 5, and 10 percent levels, respectively.

Panel A: Savings capacity								
Child age	Monthly total savings				Cumulative annual total savings			
	Girls (1)	Boys (2)	Difference (3)	% (4)	Girls (5)	Boys (6)	Difference (7)	% (8)
<i>Childhood (6-10):</i>								
6	11.26	12.23	-0.97***	-7.96***	135.08	146.76	-11.69***	-7.96***
7	8.85	10.00	-1.16***	-11.56***	241.24	266.80	-25.57***	-9.58***
8	9.23	10.31	-1.08***	-10.48***	351.94	390.47	-38.52***	-9.87***
9	9.68	11.03	-1.35***	-12.21***	468.16	522.85	-54.69***	-10.46***
10	10.11	11.74	-1.63***	-13.87***	589.49	663.72	-74.22***	-11.18***
<i>Adolescence (11-15):</i>								
11	11.05	12.51	-1.47***	-11.72***	722.05	813.86	-91.81***	-11.28***
12	13.42	14.06	-0.64***	-4.53***	883.13	982.59	-99.46***	-10.12***
13	15.67	15.74	-0.08	-0.49	1071.15	1171.52	-100.38***	-8.57***
14	17.27	17.40	-0.12	-0.71	1278.41	1380.28	-101.87***	-7.38***
15	18.58	18.73	-0.15	-0.82	1501.35	1605.06	-103.71***	-6.46***
Panel B: Savings capacity as a proportion of income								
Child age	Percentage of income saved (%)							
	Girls (1)	Boys (2)	Difference (3)					
<i>Childhood (6-10):</i>								
6	50.10	50.96	-0.86					
7	43.14	44.39	-1.25					
8	42.04	42.51	-0.47					
9	40.36	40.95	-0.58					
10	37.13	38.70	-1.57					
<i>Adolescence (11-15):</i>								
11	32.71	35.74	-3.03					
12	30.51	33.37	-2.86					
13	28.51	30.85	-2.35					
14	26.48	28.82	-2.35					
15	24.85	26.68	-1.82					

Table 5**Gender differences in money received for household tasks**

This table reports the gender difference in money received by children (girl minus boy income difference) for undertaking household tasks, expressed in percentage, ranging from ages 6 to 15. Each column shows the income differentials for the different types of household tasks being carried out. ***, **, and * indicate statistical significance of the underlying difference at the 1, 5, and 10 percent levels, respectively.

Child age	Tasks mapped to categories									
	Education and Development	Cooking and Meal Preparation	Pet Care	Recycling	Laundry and Clothing Care	Social and Behavioral	Personal Hygiene and Care	Outdoor and Garden Maintenance	Organizational Tasks	All tasks in categories
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
6	-0.9	0.1	-0.8	-1.4	1.5	-11.7**	-2.4	-8.3	-8.8*	-1.0
7	-0.7	-0.7	-4.0	-3.5	2.4	-6.5	-4.4	-19.9**	-7.1	-1.9*
8	-5.4***	-8.3**	-6.3***	-8.4***	3.7	-5.6	-12.4***	-19.1***	-4.3	-4.7***
9	-4.6***	-5.3***	-3.7*	-4.8**	-0.9	-0.4	-11.5***	-16.6***	-5.9	-2.5***
10	-2.8**	-1.5	-3.0	-6.2***	1.3	-8.1**	-8.8**	-10.6***	-3.7	-1.1
11	-3.5***	-0.1	-0.6	-6.6***	4.6*	-5.5	-9.2**	-18.2***	-8.1	-1.1*
12	-3.0*	0.2	-3.1	-10.8***	3.3	-5.3	0.5	-10.1***	6.1	-1.5**
13	-1.2	0.1	-7.3***	-10.9***	12.0***	0.6	0.6	-15.7***	-6.0	0.1
14	-1.3	5.8	-6.4*	-11.7***	13.3*	5.2	6.2	-15.7***	6.1	1.1
15	-8.6*	8.5	-5.2	-14.9***	24.4***	18.5*	15.6	-16.5**	15.9	2.4
Observations	1,494,070	719,282	554,238	500,766	319,522	215,701	143,079	87,515	33,605	8,920,925
% Girls	52.58	51.81	58.48	41.94	57.82	50.11	49.73	39.92	51.67	54.72

Methods

Main regression model estimating the gender income gap

To estimate the gender income gap shown in Figure 1 and Table 2, while controlling for children’s household characteristics and month-year fixed effects, we employ the following ordinary least-squares regression:

$$Income_{i,t} = \alpha + \sum_{\forall a, a \neq 6} \gamma_a^B Boy_{i,a} + \sum_{\forall a} \gamma_a^G Girl_{i,a} + \delta \mathbf{H}'_{i,t} + \theta \mathbf{T}'_t + \epsilon_{i,t}. \quad (1)$$

The dependent variable is the total income (in pounds sterling) for child i in month t . $Boy_{i,a}$ is an indicator for boys of age a , and $Girl_{i,a}$ denotes girls. $\mathbf{H}'_{i,t}$ is a vector of household characteristics, including whether the parent administering the pocket money is the child’s mother or father, parent age and its square, and the total number of children in the household. \mathbf{T}'_t is a vector of month-year fixed effects. $\epsilon_{i,t}$ denotes the regression error term, with standard errors clustered at the household level. The parameters γ_a^B and γ_a^G capture the income differences for boys and girls, respectively, relative to boys aged 6 (the omitted category). From this regression, we obtain the predicted means for total income at each age for boys and girls separately, setting all other variables to their respective sample means, and derive (non)linear combinations of these estimates, including the cumulative gender income gap.

Methodology to determine spending categories and gender differences in spending

To explore the spending differences between girls and boys depicted in Figure 3, we utilize the merchant identifier field (e.g., “Grocery Stores, Supermarkets”) provided with each transaction. First, employing a large language model, we identify distinct spending categories based on the 314 merchant identifiers and assign each transaction to the corresponding category. Next, for all

children in our main sample, we calculate their monthly spending in each category. Finally, for each identified spending category, we employ the same methodology as in Equation 1 to estimate the predicted mean spending of boys and girls at each age, controlling for household characteristics and month-year fixed effects.

Methodology to determine the types of tasks completed and gender differences in task payments

Sample. To analyze the differential compensation and completion of household tasks by boys and girls, presented in Table 5 and Figure 4, respectively, we utilize the 15.64 million task payments in our data. Each payment includes a free-text field describing the task (e.g., “Brushing teeth”), yielding 1.1 million unique task descriptions. We categorize the 5,000 most common task descriptions into ten different categories using a large language model. We then retain the clearly categorized task payments (i.e., excluding “Miscellaneous”), resulting in a sample of 8,920,925 task payments.

Methodology. To estimate gender differences in task payments by age group (shown in Table 5), we employ a regression model analogous to Equation 1. The regressions are conducted at the task payment level and are separately estimated for each task category:

$$TaskPayment_{j,i,t} = \alpha + \sum_{\forall a, a \neq 6} \gamma_a^B Boy_{i,a} + \sum_{\forall a} \gamma_a^G Girl_{i,a} + \delta \mathbf{H}'_{i,t} + \theta \mathbf{T}'_t + \epsilon_{j,i,t}. \quad (2)$$

The dependent variable is the payment amount for task j received by child i in month t . All other specification choices are unchanged relative to Equation 1. After estimation, we obtain the predicted mean payments at each age for both boys and girls, again setting all other variables to their respective sample means. Using the estimated means, we compute the relative differences in money received for task completion between genders for each age and task category.

Extended Data Table 1
Gender income gap for mixed-gender twins

This table reports monthly total income estimates for girls and boys aged 6 to 15. Panel A reports subsample estimates for children's income when mothers administer pocket money and Panel B reports the same when fathers administer pocket money. Columns (1) and (2) report estimated mean monthly income for girls and boys in pounds sterling, Column (3) reports the difference in monthly income between girls and boys in pounds sterling, and Column (4) reports the percentage difference. Columns (5) to (8) present the same information as Columns (1) to (4), but for cumulative annual income. Panel C reports the cumulative gap difference test between mothers and fathers as administrators of income. ***, **, and * indicate statistical significance from coefficient difference tests at the 1, 5, and 10 percent levels, respectively.

Child age	Monthly total income				Cumulative annual total income			
	Girls (1)	Boys (2)	Difference (3)	% (4)	Girls (5)	Boys (6)	Difference (7)	% (8)
<i>Childhood (6-10):</i>								
6	20.12	23.42	-3.30	-14.09	241.49	281.09	-39.60	-14.09
7	18.83	19.70	-0.87	-4.42	467.40	517.45	-50.05*	-9.67*
8	23.30	24.27	-0.97	-3.98	747.02	808.66	-61.64**	-7.62**
9	25.20	25.99	-0.79	-3.04	1,049.42	1,120.54	-71.12**	-6.35**
10	28.03	28.90	-0.87	-3.01	1,385.80	1,467.37	-81.57**	-5.56**
<i>Adolescence (11-15):</i>								
11	33.33	33.76	-0.43	-1.27	1,785.81	1,872.52	-86.71**	-4.63**
12	45.50	42.74	2.75***	6.44***	2,331.77	2,385.46	-53.69	-2.25
13	59.56	56.46	3.11**	5.50**	3,046.53	3,062.93	-16.40	-0.54
14	68.86	67.80	1.06	1.56	3,872.89	3,876.58	-3.69	-0.10
15	81.11	78.50	2.61	3.33	4,846.25	4,818.60	27.64	0.57

Extended Data Table 2
Gender income gap and the influence of parental gender

This table reports monthly total income estimates for girls and boys aged 6 to 15. Panel A reports subsample estimates for children's income when mothers administer pocket money and Panel B reports the same when fathers administer pocket money. Columns (1) and (2) report estimated mean monthly income for girls and boys in pounds sterling, Column (3) reports the difference in monthly income between girls and boys in pounds sterling, and Column (4) reports the percentage difference. Columns (5) to (8) present the same information as Columns (1) to (4), but for cumulative annual income. Panel C reports the cumulative gap difference test between mothers and fathers as administrators of income. ***, **, and * indicate statistical significance from coefficient difference tests at the 1, 5, and 10 percent levels, respectively.

Child age	Monthly total amount				Cumulative annual total amount			
	Girls (1)	Boys (2)	Difference (3)	% (4)	Girls (5)	Boys (6)	Difference (7)	% (8)
Panel A: When mothers administer pocket money								
<i>Childhood (6-10):</i>								
6	22.29	23.64	-1.34***	-5.68***	267.54	283.66	-16.12***	-5.68***
7	20.28	22.41	-2.14***	-9.54***	510.86	552.63	-41.77***	-7.56***
8	21.66	24.06	-2.40***	-9.98***	770.78	841.35	-70.57***	-8.39***
9	23.68	26.63	-2.94***	-11.06***	1054.99	1160.90	-105.91***	-9.12***
10	26.90	29.90	-3.00***	-10.03***	1377.81	1519.71	-141.90***	-9.34***
<i>Adolescence (11-15):</i>								
11	33.43	34.58	-1.15***	-3.32***	1778.96	1934.65	-155.69***	-8.05***
12	43.50	41.67	1.83***	4.40***	2300.97	2434.67	-133.70***	-5.49***
13	54.32	50.44	3.88***	7.69***	2952.76	3039.94	-87.17***	-2.87***
14	63.97	59.79	4.18***	6.99***	3720.45	3757.46	-37.01***	-0.98***
15	73.20	69.55	3.66***	5.26***	4598.91	4592.05	6.85	0.15
Panel B: When fathers administer pocket money								
<i>Childhood (6-10):</i>								
6	23.06	25.16	-2.10***	-8.36***	276.69	301.92	-25.23***	-8.36***
7	21.27	22.96	-1.69***	-7.34***	531.97	577.43	-45.45***	-7.87***
8	22.86	24.88	-2.02***	-8.12***	806.33	876.02	-69.69***	-7.96***
9	24.89	27.89	-3.00***	-10.75***	1105.01	1210.67	-105.65***	-8.73***
10	28.19	31.61	-3.42***	-10.81***	1443.30	1589.97	-146.67***	-9.22***
<i>Adolescence (11-15):</i>								
11	34.79	36.23	-1.44***	-3.97***	1860.79	2024.73	-163.93***	-8.10***
12	45.31	43.38	1.93***	4.44***	2404.49	2545.32	-140.83***	-5.53***
13	56.66	52.62	4.05***	7.69***	3084.46	3176.74	-92.27***	-2.90***
14	68.30	61.79	6.51***	10.53***	3904.01	3918.20	-14.19	-0.36
15	78.42	71.79	6.63***	9.24***	4845.08	4779.66	65.42***	1.37***
Panel C: Cumulative gap difference test between mothers and fathers as administrators of income								
<i>Childhood (6-10):</i>								
	6	7	8	9	10			
Difference in gap	2.67	0.31	-0.43	-0.4	-0.11			
<i>Adolescence (11-15):</i>								
	11	12	13	14	15			
Difference in gap	0.05	0.04	0.04	-0.62	-1.22**			

Extended Data Table 3
Gender differences in total spending

This table reports monthly total spending estimates for girls and boys aged 6 to 15. Columns (1) and (2) report mean monthly spending for girls and boys, Column (3) reports the difference in monthly spending between girls and boys in pounds sterling, and Column (4) reports the percentage difference. Columns (5) to (8) present the same information as Columns (1) to (4), but for cumulative annual spending. ***, **, and * indicate statistical significance from coefficient difference tests at the 1, 5, and 10 percent levels, respectively.

Child age	Monthly total spending				Cumulative annual total spending			
	Girls (1)	Boys (2)	Difference (3)	% (4)	Girls (5)	Boys (6)	Difference (7)	% (8)
<i>Childhood (6-10):</i>								
6	11.22	11.77	-0.55***	-4.69***	134.61	141.23	-6.62***	-4.69***
7	11.67	12.53	-0.86***	-6.85***	274.63	291.55	-16.91***	-5.80***
8	12.73	13.95	-1.22***	-8.74***	427.38	458.91	-31.54***	-6.87***
9	14.30	15.91	-1.61***	-10.11***	598.95	649.79	-50.84***	-7.82***
10	17.12	18.59	-1.48***	-7.95***	804.34	872.93	-68.59***	-7.86***
<i>Adolescence (11-15):</i>								
11	22.73	22.49	0.24**	1.07**	1077.16	1142.85	-65.70***	-5.75***
12	30.56	28.07	2.50***	8.89***	1443.91	1479.66	-35.76***	-2.42***
13	39.30	35.30	4.00***	11.33***	1915.52	1903.29	12.24**	0.64**
14	47.95	42.97	4.98***	11.60***	2490.94	2418.91	72.03***	2.98***
15	56.18	51.47	4.70***	9.13***	3165.05	3036.60	128.45***	4.23***