## British tax credit simplification, the intra-household distribution of income and family consumption

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Supplementary online material

## **Appendix 2: Additional Tables and Figures**

Appendix Table 2.1.1: Summary Statistics Pre and Post-reform

	Low 1	ncome T	reated <sup>2</sup>	High	Income (	Control <sup>3</sup>
Controls		2003-05			2003-05	
Age:						
Male Partner	37.33	37.69	0.35	37.95	38.74	0.79**
Female Partner	34.81	34.97	0.16	35.85	36.60	0.74**
Age Left Education:						
Male Partner	16.64	16.95	0.32**	17.28	17.48	0.21*
Female Partner	16.95	17.62	0.67**	17.41	17.63	0.22*
Number of Children:						
Total	1.93	1.92	-0.01	1.82	1.79	-0.03
Age 0-4	0.62	0.62	-0.00	0.62	0.58	-0.04
Age 5-15	1.31	1.31	-0.01	1.20	1.21	0.01
Housing and Marriage:						
Social Housing	0.29	0.26	-0.04	0.08	0.07	-0.01
Married	0.77	0.75	-0.02	0.86	0.87	0.00
Region:						
North East	0.06	0.05	-0.01	0.05	0.04	-0.01
North West	0.09	0.10	0.01	0.09	0.10	0.01
Merseyside	0.02	0.02	-0.00	0.02	0.02	0.00
Yorkshire and the Humber	0.08	0.10	0.02	0.08	0.08	0.01
East Midlands	0.06	0.07	0.00	0.07	0.08	0.01
West Midlands	0.11	0.09	-0.02	0.10	0.08	-0.01
Eastern	0.07	0.07	0.00	0.09	0.09	0.00
London	0.07	0.07	0.01	0.06	0.07	0.01
South East	0.09	0.09	0.00	0.14	0.14	-0.00
South West	0.06	0.09	0.03	0.09	0.08	-0.00
Wales	0.08	0.06	-0.02	0.05	0.06	0.01
Scotland	0.09	0.09	0.00	0.09	0.07	-0.03*
Northern Ireland	0.10	0.09	-0.01	0.08	0.09	0.01
Labour Market:						
Household Income <sup>4,5</sup>	420.18	446.24	26.06*	606.80	617.87	11.07
Employed (Male)	0.77	0.79	0.02	0.99	0.99	-0.00
Employed (Female)	0.63	0.64	0.01	0.81	0.80	-0.01
Work Hours (Male)	31.38	29.79	-1.59	40.42	39.91	-0.51
Work Hours (Female)	18.81	17.71	-1.10	21.56	20.76	-0.80
Number of Households:	527	725		1052	1453	

Notes:

<sup>1.</sup> Standard errors(robust) in parentheses. \* p<.10, \*\*\* p<.05, \*\*\* p<.01

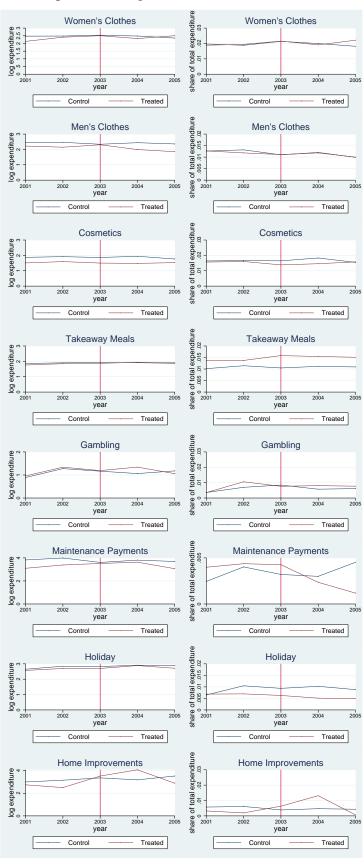
<sup>2.</sup> Treated group formed of households in the bottom quartile of the year specific net male income distribution

<sup>3.</sup> Control group formed of households in the inter-quartile range of the year specific net male income distribution

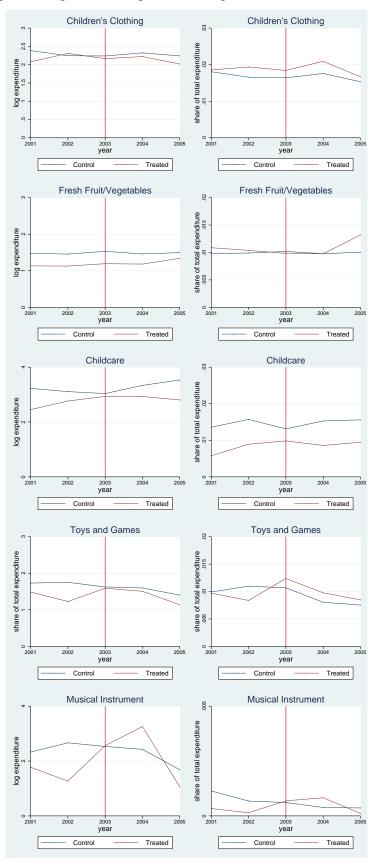
<sup>4. £</sup> per week (December 2005 prices)

 $<sup>5.\</sup> Wages+investment\ income+social\ security\ benefits\ \hbox{--}\ taxes$ 

Appendix Figure 2.1: Expenditure Lags and Leads: Adult and General Household Goods



Appendix Figure 2.2: Expenditure Lags and Leads: Child Goods



Appendix Table 2.1.2: Working Families Tax Credit maximum amounts (pre-reform)

	<u> </u>
Tax Credit	Weekly Amount
WFTC (Basic credit)	£61.02
30 hour credit	£11.85
Child credits:	
aged under 16	£26.90
aged 16 - 18	£27.66
Disabled Credits:	
Child	£36.10
Enhanced Child	£47.54
Parent/Couple	£16.53
Childcare tax credit	
1 child	(70%  of up to  £137.30)
2 children	(70% of up to £203.40)

Appendix Table 2.1.3: Working and Child Tax Credit maximum amounts (post-reform)

Tax Credit	Weekly Amount
Working Tax Credit (to main earner)	
WTC (Basic credit)	£29.33
Couple element	£28.85
Loan parent	£28.85
30 hour credit	£11.92
Disabled Credits:	
Disability	£39.23
Enhanced disability	£16.63
50 plus:	
Working 16-29 hours	£20.10
Working 30 hours or more	£30.10
Childcare tax credit (paid to carer of children)	
1 child	(70%  of up to  £135)
2 children	(70%  of up to  £200)
Child Tax Credit (to carer of children)	
Family element/Basic credit	£10.48
Baby element	£10.48
Child element	£27.79
Disabled Credits:	
Disability	£41.44
Enhanced disability	£16.63

**Source:** Based on: Welfare Benefits and Tax Credits Handbook, Child Poverty Action Group, London. **Notes:** The tables present 2002/03 WFTC rates uprated by the rpi to give hypothetical 2003/04 rates. The new tax credits are based on an annualised calculation. For ease of comparison, I show weekly equivalents.

#### **Appendix 3: Transitional Arrangements of the Reform**

The transitional arrangements of the reform should be considered in two parts: the transition for in-work families from WFTC to the new tax credits; and the transition for families receiving support in respect of children in out-of work benefits to receiving support in CTC. For the first group a relatively clear cut transition took place. Prior to April 2003, existing WFTC claimants received invitations to apply to the new tax credits, either online or by post. Existing awards of WFTC were appropriately shortened or lengthened to coincide with the reform in April 2003. In the lead up to implementation, payment through the employer was gradually phased out and replaced with a direct benefit payment from the inland revenue. Applicants to WFTC before 27th August 2002 continued to receive WFTC through the pay check for 26 weeks. Claimants after this date received their WFTC as a direct benefit payment. WTC payments through the employer began for all claimants in April 2003. For the second group of out-of-work claimants, families who made a new claim since April 2003 did not receive child additions in IS/JSA but should claim CTC. However, due to problems with the IT system operating tax credits, families claiming IS/JSA since before April 2003 continued to receive amounts in respect of children through these benefits, unless applying to CTC. At the end of the sample period (2005-06) approximately one third of out-of-work families still received support for children through out-of-work benefits and not CTC. However, as the estimation sample in this paper is largely made up of in-work families, the relative size of this group is small. Robustness check 3 (see appendix 1) further explores this issue by restricting the sample to the group of in-work claimants only.

In terms of the announcement of the reform, the UK budget of 2000 outlined the Government's plan to reform the existing benefits. A consultation document was published in July 2001 (Inland Revenue (2001)). Following the consultation detailed plans were set out in HM Treasury (2002) meaning there was limited scope for anticipation effects.

<sup>&</sup>lt;sup>1</sup>The value of the award was the same whether families claimed through out of work benefits or CTC. Families could not claim both.

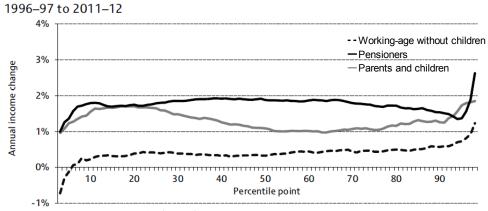
#### **Appendix 4: Unequal Income Growth and Other Reforms**

#### **Unequal Income Growth**

Cribb et al. (2013) document income growth for households with children in the UK over the period 1996-2012. Figure 4.1 replicates figure 5.2 of their paper to show income changes over the period at each percentile point of the income distribution for parents with children. While all families saw positive income growth, it is shown not to be equal across the distribution with the 2nd and 5th quintiles seeing the strongest growth of 1.8 percent and 1.9 percent, respectively. The lowest decile saw strong income growth of 1.4 percent, where as deciles 6-7 saw the weakest income growth of approximately 1 percent over the period. Could the relatively strong income growth of low income households over this period be responsible for the observed spending patterns recorded above? Indeed, the results of Gregg, Waldfogel and Washbrook (2006) indicate that spending by low income households on items used by children are particularly sensitive to income changes. We point to three pieces of evidence against the hypothesis. Firstly, we allow for household income changes to affect spending patterns in a limited way by including as a control in regressions a household income variable. The main results are insensitive to the inclusion of the household income control. Secondly, in robustness checks we restrict the control group to include households in percentiles 25-50 (robustness check 4 of appendix 1). Note from figure 4.1 that for percentiles 25-50, like the treated group, relatively strong income growth over the period was seen. The results from the robustness checks line up with the main findings of the paper, which we think is indicative that differences in income growth between the main treatment and control groups cannot explain the observed spending changes in this paper. Thirdly, we perform placebo reforms where the treated group is made up of households in the 2nd quartile of the income distribution and control group formed of the top half of the income distribution (robustness check 1 of appendix 1). In that the second quartile is made up of a relatively low income group that saw strong income growth over the period, the absence of significant effects from this placebo reform is interpreted as evidence against the hypothesis that unequal income growth across the treatment

and control groups is responsible for the observed child spending increases. See appendix 1 for a summary of robustness check results.

Appendix Figure 4.1: Real Income Growth by Percentile Point (Cribb, Hood, Joyce and Phillips (2013))



Note: The changes in income at the 1<sup>st</sup>, 2<sup>nd</sup> and 99<sup>th</sup> percentiles are not shown on this graph due to high levels of statistical uncertainty. Incomes have been measured before housing costs have been deducted. Since the distributions of household income in different family types are different, the same percentile points of each distribution do not correspond to the same absolute income levels.

Source: Authors' calculations using Family Expenditure Survey, 1978 to 1980, and Family Resources Survey, 1996–97 and 2011–12.

#### **Other Reforms**

Other reforms taking place in the estimation period are: the expansion of Free Nursery Education in April 2004; the Employment Act 2002 (EA); and Statutory Maternity Pay (SMP) reforms in April 2003. Since 1998 it was mandatory for all Local Education Authorities to provide free nursery places to 4 year olds for 12.5 hours per week. This was extended to all 3-4 year olds from April 2004. The EA conferred legal rights for employees with children under age 6 to request flexible working with employers being legally required to take requests seriously. SMP is the minimum amount an employer is required to pay by law during maternity. Prior to April 2003, the law required that SMP was paid for a minimum of 18 weeks at a rate of pay of 90 percent of earnings for the first 6 weeks and then the minimum of £75 or 90 percent of pay for the remaining period. For mothers giving birth since 1st April 2003, the minimum increased to 26 weeks and the minimum amount increased to £100 following the first 6 weeks. In the event that these reforms

changed household spending patterns, they would not pose a threat to identification, provided the treatment and control groups were influenced equally.

# Appendix 5: Benjamini, Krieger and Yekutieli (2006) Procedure

For the set of null hypothesis  $H_1, H_2, H_3, \ldots H_M$  and corresponding p-values  $P_1, P_2, P_3, \ldots P_M$  (ordered in terms of decreasing significance so that  $P_1 \leq P_2, \ldots \leq P_M$ ), M = 14, the Benjamini, Krieger and Yekutieli (2006) procedure is implemented to control the False Discovery Rate (FDR) at level  $\alpha = 0.2$  as follows:

1. For  $\alpha'=\alpha/(1+\alpha)$  find the largest  $\kappa$  such that:

$$P(\kappa) \le \frac{\kappa}{M} \alpha' \tag{1}$$

Then reject all  $H_{(i)}$  for  $i=1,2,3,...\kappa$ . Let c be the number of hypothesis rejected and  $\widehat{m}_0=M-c$ .

2. Repeat step one at level  $\alpha^* = \alpha' M/\widehat{m}_0$ .

## **Appendix 6: Tables of Robustness Checks**

In order to confirm the sensitivity of the main results to the important underlying assumptions of the dif-in-dif strategy, a number of sample restrictions and formulations of the treatment and control groups were implemented. This section contains results from the robustness checks described in appendix 1 of the main paper.

#### **Robustness Check 1: Placebo Reform**

Appendix Table 6.0.1: Estimates of the Reform Effect on Adult and General Household Public Goods (Placebo Reform)

		Full Sa	ample		Hig	h Treatment I	ntensity S	ample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
A. Danient Canada								
A. Parent Goods Women's Clothes	0.017	0.023	0.000	0.000	-0.007	-0.009	0.000	-0.000
women's Clothes								
	(0.126)	(0.126)	(0.002)	(0.002)	(0.138)	(0.138)	(0.002)	(0.002)
Men's Clothes	-0.021	-0.029	-0.001	-0.001	0.060	0.038	0.001	0.000
	(0.161)	(0.161)	(0.002)	(0.002)	(0.172)	(0.172)	(0.002)	(0.002)
Cosmetics and related	-0.026	-0.019	-0.001	-0.001	0.004	0.006	-0.000	-0.000
Cosmeties and related	(0.079)	(0.078)	(0.001)	(0.001)	(0.085)	(0.084)	(0.001)	(0.001)
	(0.07)	(0.070)	(0.001)	(0.001)	(0.005)	(0.001)	(0.001)	(0.001)
Takeaway Meals	0.106	0.098	0.001	0.001	0.099	0.084	0.001	0.000
	(0.088)	(0.086)	(0.001)	(0.001)	(0.095)	(0.092)	(0.001)	(0.001)
Gambling	-0.057	-0.306	-0.002	-0.002	0.104	-0.182	-0.001	-0.001
	(0.417)	(0.236)	(0.001)	(0.001)	(0.441)	(0.259)	(0.001)	(0.001)
Maintenance or Separation	-0.445	-0.566	-0.001	-0.001	-0.342	-0.494	-0.001	-0.001
Payment	(0.414)	(0.417)	(0.001)	(0.001)	(0.432)	(0.435)	(0.001)	(0.001)
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B. General Household Goods								
Holiday	0.194	0.254	0.001	0.001	0.111	0.180	0.000	0.001
•	(0.203)	(0.202)	(0.002)	(0.002)	(0.212)	(0.209)	(0.002)	(0.002)
Home Improvements	-1.240	-1.127	-0.003	-0.004	-1.336	-1.177	-0.004	-0.005
Tome improvements	(0.847)	(0.727)	(0.003)	(0.003)	(0.904)	(0.775)	(0.003)	(0.003)
Observations	3756	3756	3756	3756	3504	3504	3504	3504

Notes: see table 4 notes. \* p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

Appendix Table 6.0.2: Estimates of the Reform Effect on Child Expenditures (Placebo Reform)

		Full S	ample		High	Treatment 1	Intensity	Sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML -	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
Child Goods								
Children's Clothing	0.022	0.057	0.001	0.002	-0.015	0.011	0.001	0.001
	(0.105)	(0.103)	(0.002)	(0.002)	(0.114)	(0.111)	(0.002)	(0.002)
Fresh Fruit/Vegetables	-0.061	-0.042	-0.001	-0.000	-0.107*	-0.079	-0.001	-0.001
	(0.054)	(0.050)	(0.001)	(0.001)	(0.058)	(0.054)	(0.001)	(0.001)
Childcare	0.288	0.172	0.003	0.001	0.340	0.294	0.004	0.003
	(0.257)	(0.244)	(0.003)	(0.003)	(0.273)	(0.259)	(0.003)	(0.003)
Books, Newspapers, Magazines	-0.024	0.015	-0.000	-0.000	-0.010	0.026	0.000	0.000
,	(0.087)	(0.085)	(0.001)	(0.001)	(0.092)	(0.089)	(0.001)	(0.001)
Toys and Games etc.	-0.120	-0.147	-0.001	-0.002	-0.176	-0.184	-0.002	-0.002
· <b>,</b> · · · · · · · · · · · · · · · · · · ·	(0.156)	(0.156)	(0.001)	(0.001)	(0.175)	(0.175)	(0.002)	(0.002)
Musical Instruments	-0.089	-0.303	-0.000	-0.000	-0.038	-0.272	-0.000	-0.000
wide instruments	(0.797)	(0.867)	(0.000)	(0.000)	(0.824)	(0.923)	(0.001)	(0.001)
Observations	3756	3756	3756	3756	3504	3504	3504	3504

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

## **Robustness Check 2: Less Treated Control Group**

Appendix Table 6.2.1: Estimates of the Reform Effect on Adult and General Household Public Goods (Less Treated Control Group)

		Full Sa	ample		Higl	n Treatment I	ntensity S	ample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
A. Parent Goods								
Women's Clothes	0.121	0.155	0.001	0.002	0.081	0.110	0.001	0.002
	(0.132)	(0.130)	(0.002)	(0.002)	(0.138)	(0.137)	(0.002)	(0.002)
Men's Clothes	0.011	0.020	0.000	0.000	0.027	0.030	0.000	0.000
	(0.175)	(0.173)	(0.002)	(0.002)	(0.195)	(0.192)	(0.002)	(0.002)
Cosmetics and related	-0.076	-0.049	-0.002	-0.002	-0.063	-0.040	-0.002	-0.001
	(0.087)	(0.086)	(0.001)	(0.001)	(0.098)	(0.096)	(0.001)	(0.001)
Takeaway Meals	0.130	0.141	0.002	0.002*	0.151	0.158*	0.002	0.002*
	(0.090)	(0.088)	(0.001)	(0.001)	(0.095)	(0.094)	(0.001)	(0.001)
Gambling	-0.617**	-0.507***	-0.001	-0.001	-0.556*	-0.467**	-0.001	-0.001
	(0.292)	(0.190)	(0.001)	(0.001)	(0.305)	(0.200)	(0.001)	(0.001)
Maintenance or Separation	-0.613	-0.565	-0.002	-0.002	-0.969*	-0.892*	-0.003*	-0.003*
Payment	(0.430)	(0.420)	(0.001)	(0.001)	(0.498)	(0.479)	(0.002)	(0.002)
B. General Household Good	s							
Holiday	-0.252	-0.278	-0.002	-0.002	-0.514**	-0.511**	-0.003*	-0.003*
	(0.234)	(0.224)	(0.002)	(0.002)	(0.257)	(0.243)	(0.002)	(0.002)
Home Improvements	2.639***	2.488***	0.006**	0.006**	2.635***	2.434***	0.006**	0.006**
	(0.714)	(0.649)	(0.003)	(0.003)	(0.778)	(0.662)	(0.003)	(0.003)
Observations	3505	3505	3505	3505	3257	3257	3257	3257

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

Appendix Table 6.2.2: Estimates of the Reform Effect on Child Expenditures (Less Treated Control Group)

		Full S	Sample		High	Treatment	Intensity	Sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML -	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
Child Goods								
Children's Clothing	-0.050	-0.030	0.001	0.001	-0.032	-0.001	0.001	0.002
	(0.111)	(0.108)	(0.002)	(0.002)	(0.120)	(0.117)	(0.002)	(0.002)
Fresh Fruit/Vegetables	0.097	0.079	0.000	0.000	0.072	0.053	0.000	0.000
	(0.061)	(0.055)	(0.001)	(0.001)	(0.066)	(0.061)	(0.001)	(0.001)
Childcare	0.192	0.072	0.001	0.000	0.155	0.012	0.001	-0.001
Cinidedic	(0.304)	(0.298)	(0.003)	(0.003)	(0.350)	(0.350)	(0.003)	(0.003)
	0.042	0.021	0.001	0.001	0.046	0.020	0.001	0.001
Books, Newspapers, Magazines	-0.043	-0.031	-0.001	-0.001	-0.046	-0.030	-0.001	-0.001
	(0.089)	(0.087)	(0.001)	(0.001)	(0.098)	(0.095)	(0.001)	(0.001)
Toys and Games etc.	0.283*	0.260	0.003*	0.003*	0.322*	0.283	0.003*	0.003*
	(0.161)	(0.159)	(0.001)	(0.001)	(0.176)	(0.174)	(0.002)	(0.002)
Musical Instruments	1.795**	1.714**	0.001*	0.001*	1.775**	1.809**	0.001*	0.001**
	(0.869)	(0.767)	(0.000)	(0.000)	(0.882)	(0.769)	(0.000)	(0.000)
Observations	3505	3505	3505	3505	3257	3257	3257	3257

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

## **Robustness Check 3: Male Partner in at Least 16 Hour Employment**

Appendix Table 6.3.1: Estimates of the Reform Effect on Adult and General Household Public Goods (Male Partner in at Least 16 Hour Employment)

		Full Sa	ample		High	Treatment l	Intensity S	ample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
A. Parent Goods								
Women's Clothes	0.136	0.173	0.001	0.002	0.094	0.129	0.001	0.002
	(0.141)	(0.138)	(0.002)	(0.002)	(0.151)	(0.149)	(0.003)	(0.003)
Men's Clothes	-0.015	-0.019	0.001	0.000	-0.021	-0.031	0.001	0.001
	(0.188)	(0.185)	(0.002)	(0.002)	(0.219)	(0.216)	(0.002)	(0.002)
Cosmetics and related	-0.085	-0.063	-0.002	-0.001	-0.085	-0.066	-0.002	-0.002
	(0.093)	(0.092)	(0.001)	(0.001)	(0.109)	(0.107)	(0.002)	(0.002)
Takeaway Meals	0.056	0.060	0.001	0.001	0.059	0.056	0.000	0.001
Takeaway Meats	(0.094)	(0.092)	(0.001)	(0.001)	(0.101)	(0.100)	(0.002)	(0.001
	(0.054)	(0.032)	(0.001)	,	(0.101)	(0.100)	(0.002)	(0.002)
Gambling	-0.501*	-0.340*	-0.001	-0.001	-0.426	-0.268	-0.000	0.000
	(0.287)	(0.192)	(0.001)	(0.001)	(0.304)	(0.204)	(0.001)	(0.001)
Maintenance or Separation	-0.421	-0.405	-0.002	-0.002	-0.790	-0.784	-0.003*	-0.003*
Payment	(0.432)	(0.419)	(0.002)	(0.002)	(0.510)	(0.495)	(0.002)	(0.002)
B. General Household Goods	-							
Holiday	-0.351	-0.357	-0.002	-0.002	-0.757**	-0.714**	-0.004**	-0.004**
	(0.260)	(0.249)	(0.002)	(0.002)	(0.296)	(0.279)	(0.002)	(0.002)
Home Improvements	2.760***	2.740***	0.006**	0.007**	2.839***	2.769***	0.007**	0.007**
	(0.742)	(0.666)	(0.003)	(0.003)	(0.836)	(0.682)	(0.004)	(0.004)
Observations	3479	3479	3479	3479	3235	3235	3235	3235

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

Appendix Table 6.3.2: Estimates of the Reform Effect on Child Expenditures (Male Partner in at Least 16 Hour Employment)

		Full S	Sample		High	Treatment	Intensity	Sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
Child Goods								
Children's Clothing	-0.060	-0.046	0.001	0.001	-0.029	-0.004	0.001	0.001
	(0.115)	(0.113)	(0.002)	(0.002)	(0.126)	(0.125)	(0.002)	(0.002)
Fresh Fruit/Vegetables	0.120*	0.109*	0.001	0.001	0.109	0.099	0.001	0.001
	(0.064)	(0.058)	(0.001)	(0.001)	(0.071)	(0.064)	(0.001)	(0.001)
Childcare	0.138	0.015	0.002	0.002	0.040	-0.100	0.001	0.000
	(0.305)	(0.291)	(0.003)	(0.003)	(0.354)	(0.343)	(0.003)	(0.003)
Books, Newspapers, Magazines	-0.023	-0.007	-0.000	-0.000	-0.023	0.003	-0.000	0.000
books, Newspapers, Wagazines	(0.092)	(0.089)	(0.001)	(0.001)	(0.104)	(0.099)	(0.001)	(0.001)
	(0.072)	(0.00)	(0.001)	(0.001)	(0.104)	(0.077)	(0.001)	(0.001)
Toys and Games etc.	0.319*	0.301*	0.003**	0.003**	0.383**	0.335*	0.004**	0.004**
	(0.169)	(0.169)	(0.002)	(0.002)	(0.192)	(0.193)	(0.002)	(0.002)
Musical Instruments	1.693*	1.655**	0.001	0.001*	1.693*	1.735**	0.001	0.001*
	(0.919)	(0.814)	(0.000)	(0.000)	(0.945)	(0.802)	(0.001)	(0.001)
Observations	3479	3479	3479	3479	3235	3235	3235	3235

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

## **Robustness Check 4: Low Income Control Group**

Appendix Table 6.4.1: Estimates of the Reform Effect on Adult and General Household Public Goods (Low Income Control Group)

		Full S	ample		Hig	h Treatment	Intensity Sa	ample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
A. Parent Goods								
Women's Clothes	0.072	0.098	0.001	0.001	0.037	0.076	0.001	0.001
	(0.153)	(0.151)	(0.003)	(0.003)	(0.159)	(0.158)	(0.003)	(0.003)
Men's Clothes	-0.005	0.005	0.000	0.000	0.017	0.030	0.000	0.001
	(0.198)	(0.193)	(0.002)	(0.002)	(0.216)	(0.211)	(0.002)	(0.003)
Cosmetics and related	-0.032	-0.018	-0.001	-0.001	-0.025	-0.012	-0.001	-0.001
	(0.097)	(0.096)	(0.001)	(0.001)	(0.107)	(0.105)	(0.002)	(0.002)
Takeaway Meals	0.069	0.089	0.001	0.002	0.088	0.098	0.002	0.002
	(0.101)	(0.098)	(0.001)	(0.001)	(0.106)	(0.104)	(0.002)	(0.002)
Gambling	-0.394	-0.190	0.001	0.001	-0.334	-0.132	0.001	0.002
	(0.429)	(0.181)	(0.001)	(0.002)	(0.445)	(0.192)	(0.002)	(0.002)
Maintenance or Separation	0.043	0.206	-0.000	-0.000	-0.294	-0.121	-0.001	-0.001
Payment	(0.481)	(0.469)	(0.002)	(0.002)	(0.548)	(0.532)	(0.002)	(0.002)
D. Commel Household Cond	_							
B. General Household Good	_	0.466*	0 003**	-0.003**	-0.685**	0.721***	0 005**	0.005**
Holiday	-0.431 (0.263)	-0.466* (0.252)	<b>-0.003**</b> (0.002)	(0.002)	(0.280)	<b>-0.731***</b> (0.265)	-0.005** (0.002)	- <b>0.005</b> ** (0.002)
	(0.203)	(0.252)	(0.002)	(0.002)	(0.280)	(0.203)	(0.002)	(0.002)
Home Improvements	3.019***	2.751***	0.007**	0.007**	3.043***	2.914***	0.008**	0.007**
	(0.884)	(0.636)	(0.003)	(0.003)	(0.944)	(0.688)	(0.004)	(0.003)
Observations	2503	2503	2503	2503	2255	2255	2255	2255

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

Appendix Table 6.4.2: Estimates of the Reform Effect on Child Expenditures (Low Income Control Group)

		Full S	ample		High	Treatment 1	Intensity	Sample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
Child Goods								
Children's Clothing	-0.045	-0.028	0.000	0.001	-0.026	0.006	0.000	0.001
	(0.124)	(0.122)	(0.002)	(0.002)	(0.132)	(0.130)	(0.002)	(0.002)
Fresh Fruit/Vegetables	0.114*	0.057	0.001	0.000	0.087	0.030	0.000	-0.000
Tresh Train vegetables	(0.068)	(0.062)	(0.001)	(0.001)	(0.073)	(0.067)	(0.001)	(0.001)
	(01000)	(0100=)	(0100-)	(0.00-)	(0.0.0)	(01001)	(31332)	(0.00-)
Childcare	0.084	0.014	0.001	0.001	0.040	-0.036	-0.000	-0.001
	(0.342)	(0.325)	(0.003)	(0.003)	(0.382)	(0.374)	(0.003)	(0.003)
Books, Newspapers, Magazines	-0.005	-0.020	-0.000	-0.000	-0.010	-0.026	-0.000	-0.000
books, Newspapers, Magazines	(0.099)	(0.096)	(0.001)	(0.001)	(0.107)	(0.103)	(0.001)	(0.001)
	(0.099)	(0.090)	(0.001)	(0.001)	(0.107)	(0.103)	(0.001)	(0.001)
Toys and Games etc.	0.314*	0.350**	0.003*	0.003*	0.357*	0.381**	0.003*	0.004**
	(0.188)	(0.178)	(0.002)	(0.002)	(0.201)	(0.190)	(0.002)	(0.002)
	40=4			0.004	4046	4 0004	0.004:	0.0044
Musical Instruments	1.856**	1.232	0.001*	0.001	1.846**	1.332*	0.001*	0.001*
	(0.929)	(0.757)	(0.000)	(0.000)	(0.936)	(0.764)	(0.000)	(0.000)
Observations	2503	2503	2503	2503	2255	2255	2255	2255

Notes: see table 4 notes. \* p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

## Robustness Check 5: Excluding Observations Seven Months Prior to the Reform

Appendix Table 6.5.1: Estimates of the Reform Effect on Adult and General Household Public Goods (Excluding Observations Seven Months Prior to the Reform)

		Full S	ample		Higl	Treatment	Intensity Sa	ample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
A. Parent Goods								
Women's Clothes	0.115	0.151	0.002	0.002	0.118	0.150	0.001	0.002
	(0.154)	(0.153)	(0.003)	(0.003)	(0.161)	(0.161)	(0.003)	(0.003)
Men's Clothes	0.069	0.083	0.001	0.001	0.113	0.121	0.001	0.001
	(0.196)	(0.192)	(0.002)	(0.002)	(0.217)	(0.211)	(0.003)	(0.003)
Cosmetics and related	-0.093	-0.085	-0.002	-0.002	-0.090	-0.087	-0.002	-0.002
	(0.098)	(0.096)	(0.001)	(0.001)	(0.111)	(0.109)	(0.002)	(0.002)
Takeaway Meals	0.143	0.178*	0.002	0.003**	0.185*	0.213**	0.003*	0.003**
	(0.102)	(0.101)	(0.001)	(0.001)	(0.108)	(0.107)	(0.002)	(0.002)
Gambling	-0.402	-0.296	-0.000	0.000	-0.331	-0.255	0.001	0.001
	(0.292)	(0.217)	(0.001)	(0.001)	(0.312)	(0.238)	(0.001)	(0.001)
Maintenance or Separation	-0.470	-0.378	-0.002	-0.002	-0.812	-0.689	-0.002	-0.002
Payment	(0.494)	(0.478)	(0.002)	(0.002)	(0.557)	(0.536)	(0.002)	(0.002)
B. General Household Good	ls							
Holiday	-0.346	-0.384	-0.003*	-0.003*	-0.581**	-0.572**	-0.004**	-0.003*
•	(0.263)	(0.253)	(0.002)	(0.002)	(0.292)	(0.280)	(0.002)	(0.002)
Home Improvements	2.575***	2.440***	0.005*	0.005*	2.426***	2.338***	0.005*	0.005
	(0.776)	(0.672)	(0.003)	(0.003)	(0.836)	(0.689)	(0.003)	(0.003)
Observations	3247	3247	3247	3247	3033	3033	3033	3033

Notes: see table 4 notes. \* p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

Appendix Table 6.5.2: Estimates of the Reform Effect on Child Expenditures (Excluding Observations Seven Months Prior to the Reform)

	Full Sample				High Treatment Intensity Sample				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Dependent variable:	PPML -	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls	
Child Goods									
Children's Clothing	0.066	0.072	0.003	0.003	0.149	0.164	0.004	0.004*	
	(0.125)	(0.121)	(0.002)	(0.002)	(0.132)	(0.129)	(0.002)	(0.002)	
Fresh Fruit/Vegetables	0.110	0.070	0.000	0.000	0.071	0.038	0.000	-0.000	
110011 11011 , egetmenes	(0.067)	(0.061)	(0.001)	(0.001)	(0.073)	(0.067)	(0.001)	(0.001)	
Children	0.206	0.201	0.002	0.001	0.520	0.416	0.001	0.001	
Childcare	0.396	0.291	0.002	0.001	0.539	0.416	0.001	-0.001	
	(0.356)	(0.361)	(0.003)	(0.003)	(0.403)	(0.417)	(0.003)	(0.003)	
Books, Newspapers, Magazines	-0.074	-0.080	-0.001	-0.001	-0.112	-0.112	-0.001	-0.001	
11	(0.098)	(0.095)	(0.001)	(0.001)	(0.106)	(0.103)	(0.001)	(0.001)	
Toys and Games etc.	0.220	0.229	0.002	0.002	0.262	0.252	0.002	0.002	
Toys and Games etc.	(0.186)	(0.184)	(0.002)	(0.002)	(0.208)	(0.208)	(0.002)	(0.002)	
	(0.160)	(0.164)	(0.002)	(0.002)	(0.208)	(0.208)	(0.002)	(0.002)	
Musical Instruments	1.697*	1.649*	0.001	0.001*	1.637*	1.765**	0.001	0.001*	
	(0.940)	(0.851)	(0.000)	(0.000)	(0.956)	(0.871)	(0.000)	(0.000)	
Observations	3247	3247	3247	3247	3033	3033	3033	3033	

<sup>\*</sup> p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

#### **Robustness Check 6: Differential Linear Trends**

Appendix Table 6.6.1: Estimates of the Reform Effect on Adult and General Household Public Goods (Differential Linear Trends)

		Full Sample				High Treatment Intensity Sample				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls		
1 D (C 1										
A. Parent Goods										
Women's Clothes	0.157	0.240	0.000	0.001	-0.248	-0.162	-0.003	-0.003		
	(0.241)	(0.234)	(0.004)	(0.004)	(0.230)	(0.220)	(0.004)	(0.004)		
Men's Clothes	0.068	0.153	0.001	0.001	0.079	0.175	0.001	0.002		
	(0.321)	(0.321)	(0.003)	(0.003)	(0.379)	(0.376)	(0.003)	(0.003)		
Cosmetics and related	-0.209	-0.127	-0.003	-0.003	-0.239	-0.145	-0.003	-0.003		
	(0.148)	(0.143)	(0.002)	(0.002)	(0.171)	(0.164)	(0.002)	(0.002)		
Takeaway Meals	0.205	0.178	0.003	0.002	0.292*	0.268*	0.005*	0.004		
	(0.139)	(0.138)	(0.002)	(0.002)	(0.156)	(0.155)	(0.003)	(0.003)		
Gambling	-0.424	-0.328	-0.003	-0.002	-0.329	-0.218	-0.002	-0.001		
C	(0.272)	(0.292)	(0.002)	(0.002)	(0.312)	(0.334)	(0.003)	(0.003)		
Maintenance or Separation	0.274	0.431	0.001	0.001	-0.060	0.246	0.000	-0.000		
Payment	(0.829)	(0.812)	(0.003)	(0.003)	(1.077)	(1.026)	(0.003)	(0.003)		
B. General Household Good	c.									
Holiday	<u>s</u> -0.072	-0.000	-0.001	-0.001	-0.894*	-0.807*	-0.004	-0.004*		
Holiday				(0.001			(0.003)	(0.002)		
	(0.451)	(0.421)	(0.002)	(0.002)	(0.487)	(0.455)	(0.003)	(0.002)		
Home Improvements	2.314***	2.437**	0.010**	0.010**	1.547**	1.383*	0.008***	0.008**		
	(0.894)	(1.083)	(0.004)	(0.005)	(0.679)	(0.817)	(0.003)	(0.003)		
Observations	3757	3757	3757	3757	3509	3509	3509	3509		

Notes: see table 4 notes. \* p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

Appendix Table 6.6.2: Estimates of the Reform Effect on Child Expenditures (Differential Linear Trends)

	Full Sample				High Treatment Intensity Sample			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	PPML	+ controls	Shares	+ controls	PPML	+ controls	Shares	+ controls
Child Goods								
Children's Clothing	0.003	0.027	0.001	0.001	0.007	0.024	0.003	0.003
	(0.171)	(0.170)	(0.003)	(0.003)	(0.196)	(0.194)	(0.004)	(0.004)
Fresh Fruit/Vegetables	-0.099	-0.042	-0.002*	-0.002*	-0.151	-0.100	-0.003*	-0.002*
C	(0.112)	(0.098)	(0.001)	(0.001)	(0.131)	(0.114)	(0.001)	(0.001)
Childcare	-0.453	-0.446	-0.001	-0.002	-0.633	-0.623	-0.002	-0.004
	(0.637)	(0.590)	(0.004)	(0.004)	(0.730)	(0.703)	(0.004)	(0.004)
Books, Newspapers, Magazines	0.100	0.214	0.001	0.001	0.090	0.213	0.001	0.002
Books, Newspapers, Magazines	(0.158)	(0.146)	(0.001)	(0.001)	(0.180)	(0.165)	(0.001)	(0.001)
Toys and Games etc.	0.575**	0.482*	0.005**	0.005*	0.651**	0.528*	0.007**	0.006**
10,10 and Cames etc.	(0.270)	(0.263)	(0.003)	(0.003)	(0.287)	(0.280)	(0.003)	(0.003)
Musical Instruments	1.848*	1.844**	0.001	0.001	1.809*	2.040**	0.001	0.001
iviusical instruments	(0.943)	(0.923)	(0.001)	(0.001)	(0.932)	(0.903)	(0.001)	(0.001)
Observations	3757	3757	3757	3757	3509	3509	3509	3509

Notes: see table 4 notes. \* p<.10, \*\* p<.05, \*\*\* p<.01. Standard errors (robust) in parentheses.

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