Household Impacts of Child Health Shocks

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Abstract

[redacted] an exogenous shock that increases workload within the household impacts the burden of unpaid labor. [redacted] to parental workload and stress, life and relationship satisfaction, and [redacted] their life and relationship satisfaction, [redacted] households where the mother is less active in the labor market or less educated. [redacted]

household. Using this shock, I investigate the heterogeneous effects across the genders,

within the household.

The Household, Income and Labour Dynamics in Australia (HILDA), a longitudinal survey

-term disability or chronic illness. I

impact household dynamics. I utilize parent responses to questions about the division of parental and household duties between partners and a variety of questions regarding

panel

ve that parenting

by their parental responsibilities when

Second, there is also evidence that having a child with a negative health shock decreases [illegible] life satisfaction and relationship satisfaction for women. However, point estimates for men, though imprecise, indicate that fathers may not experience these same drops in satisfaction. [illegible]

wo

[illegible] parenting a share of the [illegible]

fair share. Child health shocks do not appear to change the inequality in the divisio[illegible] [illegible]

to parenting a[illegible]

the woman is less educated or less active in the labor market prior to the health shock [illegible]

health shock.

[illegible] ture in two distinct ways. First, it is the first paper to directly study how a severe child health shock imp[illegible]

[illegible] (Gould 2004; Kimmel 1998; Powers 2003; Burton et al. 2017) [illegible] (Gould 2004; Powers 2001, 2003; Burton et al. 2017 [illegible] [redacted] [illegible] tasks, with couples simply reverting to historical gender roles (Burton et al. 2017). Additionall[illegible] and socio-economic status [illegible] Breslau, Salkever, and Staruch 1982). [illegible] evidence that both partner's long-term earnings may be negatively impacted when they [illegible] (Gun [redacted]

Though researchers have investigated the impacts to formal labor supply [illegible] documented. On average, women perform more of the housework tasks even when limiting the sample to dual-earner households (Sevilla-[illegible] Sanz, [illegible] Nadal, and Fernández 2010; García-Mainar, [illegible] Since child health shocks have been shown to push mothers [illegible] consider how these changes in formal labor supply impact the division of work within the household. [illegible] time increases couples' ho [illegible] (Gough and Killewald 2011; Foster et al. 2018). Research [illegible] job termination [illegible]

[redacted]he gender disparity may change when parents voluntarily [illegible] their [illegible] to their children's health which may be simultaneously [illegible]

[illegible] In addition, the researchers were unable to observe [illegible] were not nationally representat[illegible] [illegible] ld health shock occurred, and their results rely on the[illegible] assumption that health shocks are completely exogenous.

3 [illegible]

3.1 Analysis Sample

[illegible] Household, Income and Labour Dynamics in Australia (HILDA) [illegible] survey data from the years 2001-2017. The HILDA survey is a large national probability [illegible] [illegible] each year, creating a balanced panel of initial respondents, with additional respondents added due to [illegible] the original sample[illegible] [redacted] ome, [illegible]

[illegible] when the female had her first child, have at least one child under 18 living in their household [illegible] is between the ages of 2[illegible] and [illegible]55[2]. Couples are included in the sample as long

[1] [illegible] as a child, the other parent of that child [illegible] were added to the HILDA sample to replace those who had fallen out of the sample or deceased. These individuals [illegible] in the analysis irrespective of whether they were part of the original HILDA sample.

[2] [illegible]

as the female is under the age of 55, they have at least one child under the age of 18 in their household or they are married and [illegible]

[illegible] four years or more. For two

with a disabled or chronically ill child it is [illegible] the mother who assumes custody (Cohen and Petrescu-Prahova 2006). Though it is possible to follow both parents [illegible] children living in their household answer the parental [illegible]

The independent [illegible] to whether the household has any child that [illegible] the household "has a long-[illegible] are [illegible] sted or is likely to last 6 months or more, restricts everyday activity, and cannot be corrected [illegible] [illegible] [illegible] harmful [illegible] that can be corrected with glasses[4]. Since this

[3] The exclusion of individuals who report living with foster or [illegible] removes [illegible] from the sample which includes 17 [illegible] removed from the [illegible]

[4] [illegible]

not list the particular ailment that the [illegible] indicate which child within

child's health status to change from year t

n." In

the main analysis, the health status will be treated as an indicator variable that only takes

be suffering from a long-term disability or chronic health condition.

[illegible] participation and child disability reporting, with women more likely to overstate the severity

decisions (Powers

However, like Burton

ver for this analysis ov

Figure 1 [illegible] 55% [illegible] experience that CHS for one year Figure 2

physical work; [illegible] of [illegible] term effects as a result of a head injury, stroke [illegible] term condition; [illegible] term condition such as arthritis, asthma, heart [illegible] disease, Alzheimer's disease, dementia, etc.

For households wh

young ages.

Table 1

ir first child and women in those coun

[illegible] born in Australia than their counterparts [illegible]

3.2 Outcome Variables

There are three main [illegible]

[illegible]

spent parenting, but it does ask about parents' perceptions of parenting work. The survey asks how s[illegible]

- [illegible]
- [illegible]
- I feel trapped by my responsibilities as a parent
- [illegible] my children is much more work than pleasure [illegible] find that taking care of

Parents must answer according to a seven-[illegible]

[illegible] the individual strongly agrees. Though [illegible]

perceptions on the current difficulty and stress of parenting.

[illegible] The HILDA [illegible]

survey asks participants [illegible]

the individual is with their overall life, how satisfied they are with their spouse/partner [illegible]

how satisfied they are with the relationship they have with [illegible]

satisfied [illegible]

Likert scale questions are based on a 0-[illegible]

[illegible] satisfaction.

The third group of outcome variables relate to the division of labor within the household. [illegible]

The first questi parenting work is within their household [illegible] ns asks whether the individual [illegible] [redacted] ey do their fair share of the housework and the second question asks if the [illegible]

[illegible] based on Likert scales where a value [illegible] [redacted] do much more than their fair share, a value of three indicates that they feel they do their fair share, and a value of five indicates that they feel they do much less than their fair share.

Table 2 summari on an individual's sex and their CHS zes the main outcome variables based status. The first two columns show [illegible] CHS status, and column 3 shows the statistical significance of the differences of these means.

3.3 Methods

To analyze the household impacts of a CHS on [illegible] without couple fixed effects. The models *without* couple fixed-effects compare across [illegible]

[illegible]

[illegible] fixed effects [illegible]couple changes when a CHS occurs.

3.3.1 [redacted] [illegible]

[illegible]

(1) $$y_{ict} = \beta_0 + \beta_1 \text{[redacted]} + \beta_2(CHS_{gt} X male_i) + male_i + X_{gt} + \varepsilon_{ict}$$

where outcome variables, [redacted] clude sat[redacted]sfaction with parenting outcomes, relationship [illegible] satisfaction outcomes, and share of parenting work and housework for [illegible], in couple, , in year, .

The coefficients of interest are β_1 and β_2. The variable CHS_{gt} is an indicator variable that takes a value of one if the individual has a child in their household that has a "long-term [illegible] $CHS_{gt} X male_i$ is the interaction of CHS_{gt} [illegible][5]

The vector X_{gt} [illegible]

[illegible]

[illegible] husband and the wife [illegible]

for [illegible] and duration of the spousal relationship are also included. [illegible]

[5] [illegible]agged effects on the outcome variables.

$$(2) \qquad y_{ict} = \beta_0 + \beta_1 CHS_{ct} + \beta_2\ CHS_{ct} X male_i\ + male_i + X_{ct} + \sum_c \theta_c * couple_c + \sum_c \varphi_c * couple_c * male_i\ + \varepsilon_{ict}$$

The coefficients of interest remain β_1 and β_2. The controls remain largely consistent with [illegible] ion (1), but time Equat[illegible] couple-level. This specification includes couple and couple-by-male fixed effects[10] ($\sum_c \theta_c * couple_c + \sum_c \varphi_c * couple_c * male_i$) [illegible]

[illegible]

3.3.2 [illegible]

It is almost certain that more severe health shocks would impact parents differently from more mild health shocks. While [illegible]

[illegible] a parent has a child with a CHS. [illegible] health shock duration [illegible] negative health shock to have differential [illegible]

$$y_{ict} = \beta_0 + \beta_1\ (CHS_{ShortDuration_{ct}}) + \beta_2(CHS_{LongDuration_{ct}}) + \beta_3\ (CHS_{ShortDuration_{ct}}\ X\ male_i) + \beta_4(CHS_{LongDuration_{ct}}\ X\ male_i) + \beta_5 male_i + X_{ct} + \sum_c \theta_c * couple_c + \sum_c \varphi_c * couple_c * male_i + \varepsilon_{ict}$$

---

9 [illegible] on income variables

10 [illegible]

[illegible] Table 3

present these results for the parenting outcomes. Interestingly, the point estimates across [illegible]

[illegible]

labor supply do not impact the de

to some extent with that statement than individuals without a CHS. These results remain [illegible] consistent across all four outcomes [illegible]

Table 4 [illegible] comparison of the coefficients is not possible, it is worth noting that the results are similar [illegible] statistical significance to the results found in Table 3. Panel A replicates the ordered logit from Panel A of Table 3 while Panel B presents the results from the OLS estimation. [illegible] the coefficient estimates cannot be compared between Panel A and Panel B, it is worth noting that the sign and significance of the estimates are very similar.

[illegible] difficult to put the magnitude of these results into context. When a household moves [illegible] from having one child to having [illegible] children [illegible] variables increase substantially for women when they go from one child to two children [illegible] For the first statement [illegible] increase is 0.218 [illegible] Using the OLS estimates [illegible] with a CHS in her household is 0.26 [illegible] This means that the increase [illegible] parenting is hard [illegible] is approximately 1.9% [illegible] increase that women [illegible] [illegible] three [illegible] children [illegible] 57% [illegible] 103% [illegible] when they go [illegible].[13]

[13] The average increase in response for "parenting leaves me feeling tired..." is 0.544 for mothers going from [illegible] children. [illegible] "[illegible]" [illegible] increase in response [illegible] 0.192 for mothers going from one to two children. The average increase in response [illegible] is 0.291 [illegible] children. Percentages were calculated by dividing the OLS coefficients by the average increase in response and multiplying by 100.

Inequitable division of household labor may also lead to decreased life and relationship satisfaction. Results in Table 5 indicate that CHS within a household does not decrease life satisfaction or relationship satisfaction for males, but it does for females. Specifically, it decreases her overall life satisfaction by [illegible] and her satisfaction with her relationship with her spouse, by [illegible] with all other variables held constant. Conversely, it does not appear that CHS affects men's life and relationship satisfaction levels. However, it is worth noting that the coefficients for the interaction term [illegible]

Figure 4 [illegible] of 5 or higher. For all four outcomes, it is less probable that individuals with a CHS report [illegible] and they are more likely [illegible] that face such a shock.

For those results [illegible] again focus on the [illegible]. The difference in average life satisfaction between those that are employed and not employed in the following year is [illegible] women in this sample of is approximately 0.57, which means the drop in life satisfaction [illegible]

[illegible] when doing analysis for within couple changes. It is reasonable that [illegible]itially suspect [illegible] or long-lasting, which c[illegible] nitially. This could potentially bias the couple fixed effects [illegible].

Yet, even [illegible] sectional results, [illegible] harder [illegible] Again, though the estimates are not statistically significant, the point estimates for the [illegible]action term are all [illegible]

Table 8 splits the variable [illegible] Table 7 with the [illegible]t to parenting attitudes while point [illegible]

point estimates for women [illegible] of the CHS is short, except for Column 3. This seems to indicate that women may adjust to their [illegible] with a longer [illegible] by their parental responsibilities.

Panel B of Table 8 [illegible]

t to have more negative views on parenting though the point estimates are only and statistically significant for the female subsample. Men in the multiracial couples indicating that they experience a less negative experience with point estimates on their parenting views than their female counterparts.

Results for the life and relationship satisfaction outcome variables are shown in Table 9.

Table 11 [illegible] equitable [illegible][14]. There is no evidence that having a child with a CHS sh[illegible] [illegible] both parents wi[illegible] likely to feel that [illegible] [illegible] work. Co[illegible]usework, finding the couples' feelings on the relative burden of housework remain unchanged when the household [illegible] -section results, these findings [illegible] only to the relative share of the burden. While the responses to these questions [illegible] [illegible] [illegible]

4.3 Heterogeneity of Responses

[illegible] individuals will have different responses to the shock [illegible] [illegible] the sample to only those individuals who I observe to switch from no CHS to a CHS at some point within the panel. This allows me to observe a baseline of education, labor force participation, and [illegible] [illegible] household is observed in the year before the [illegible] to have CHS. Table 12 compares the original analysis sample (Panel A) to this subsample (Panel B) for al[illegible] While point estimates vary [illegible]

[14] [illegible] transformed to indicator va[illegible] the statistical significance of the coefficients [illegible] the form of the outcome variables.

are not driven by a

Table 13

experiences a CHS. The magnitude of the change in responses for feeling trapped by

of women

experiences.

educated, also

14

26

supplies to the household.

observed to work 20 hours or less in the year prior to the CHS and couples where the wife

5 Conclusion

they are [illegible]

[illegible]

partnership satisfaction results indicate that [illegible] couples'

[illegible]

in the relationship.

Additionally, households where the women are less educated or less active in the labor force

[illegible]

[illegible] account by perhaps

providing more support to women without college educations or women who do not work

Figures

FIGURE 1: CONTINUOUS D CHS

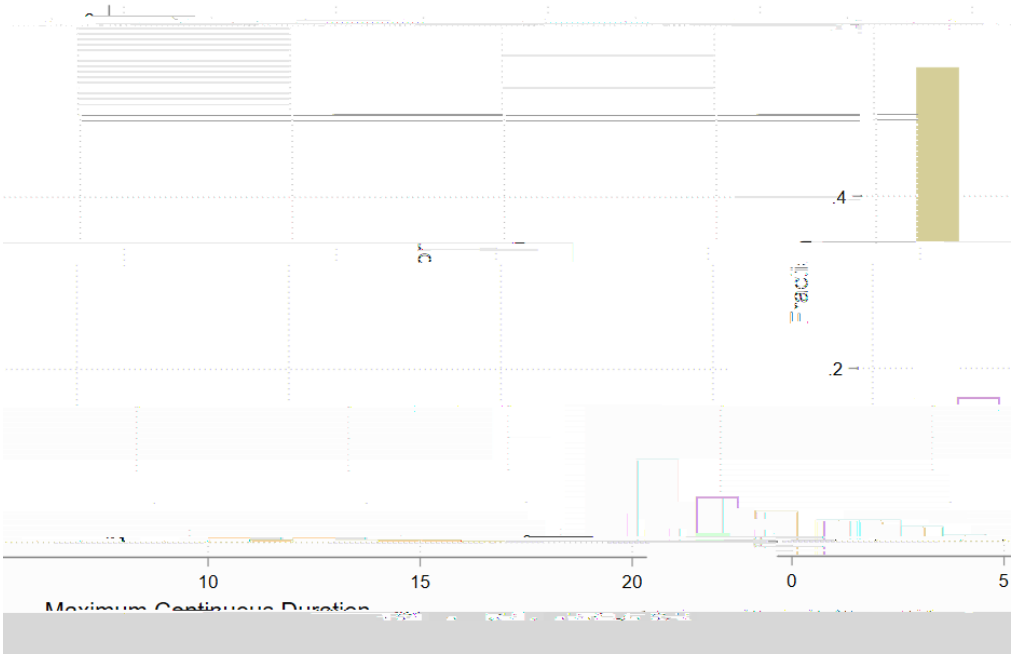


FIGURE 2: AGE OF CHILD AT FIRST DIAGNOSIS OF CHS

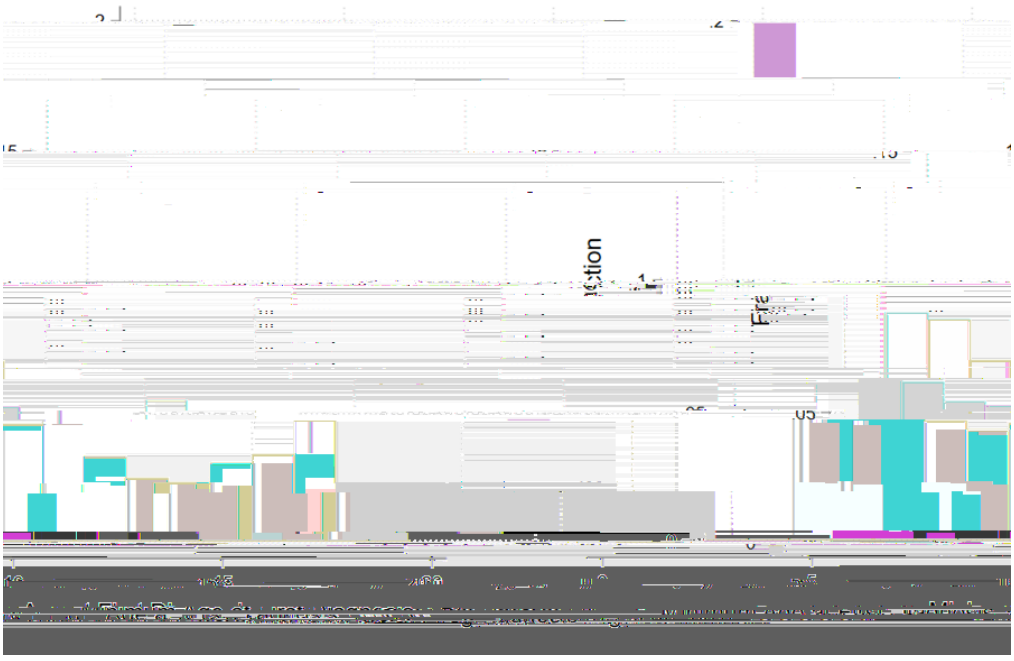


FIGURE 3: ORDERED LOGIT MARGINAL E PARENTING O[illegible] UTCOME

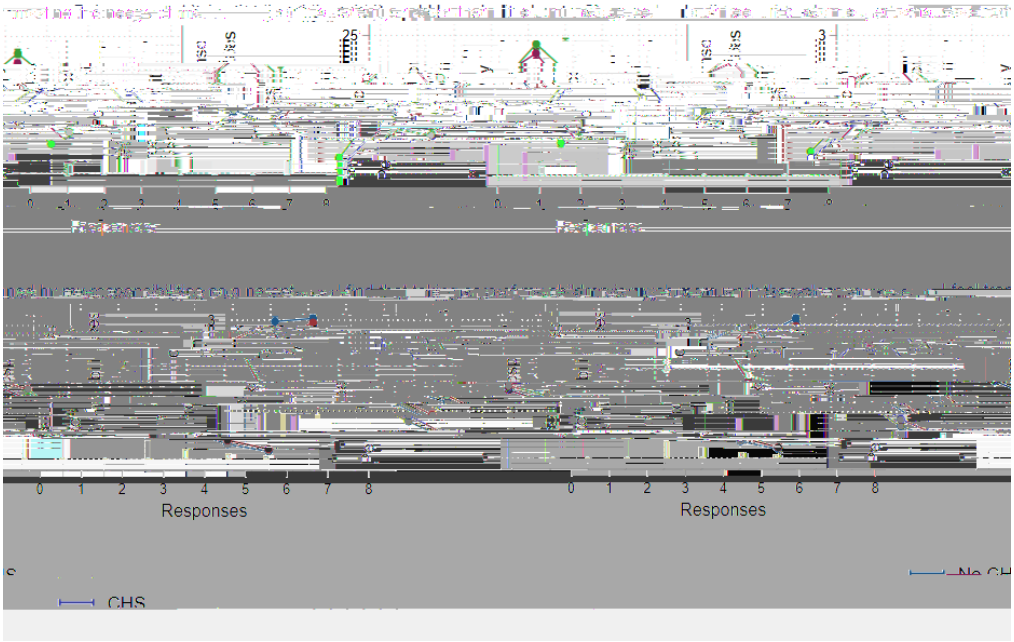
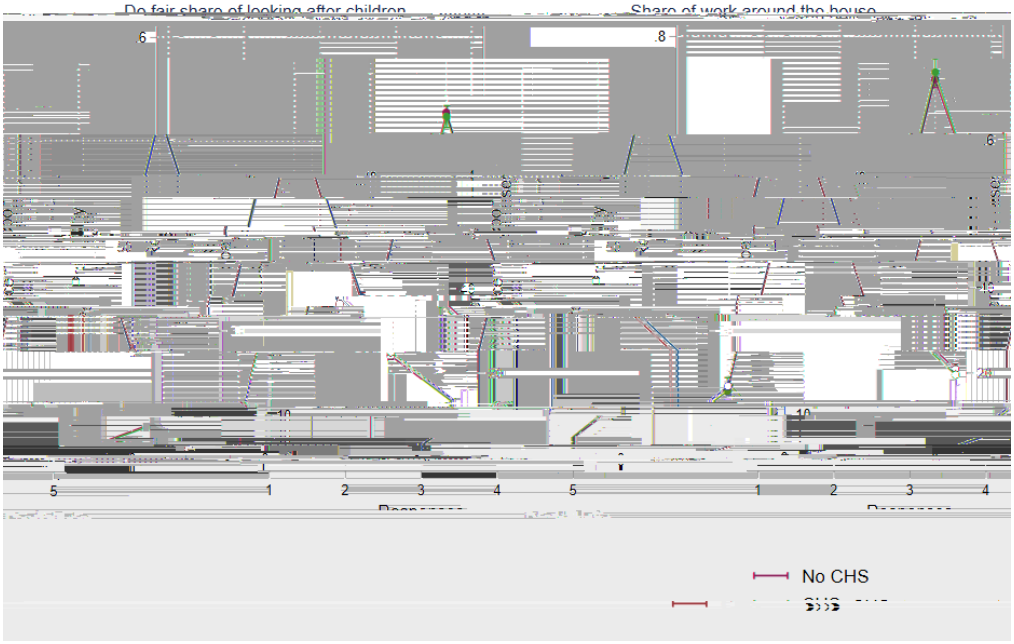


FIGURE 4: ORDERED LOGIT MARGINAL E L RELATIONSHIP SATISFACTION

FIGURE 5: ORDERED LOGIT MARGINAL E DIVISION OF LABOR



Tables

TABLE 1: SOCIOECONOMIC SUMMARY STATISTICS FOR COMPARISON SETS SAMPLE

	(1) CHS	(2) [illegible]	(3) Diff.
Married before birth of first child			0.0147
	(0.381)	(0.393)	
Wife's total fertility	2.651	2.206	0.445***
	(1.114)	(1.035)	
Wife's age at first birth	27.43	28.50	-1.068***
	(5.161)	(5.166)	
Wife completed year 12 of school		0.804	-0.0698***
	(0.442)		
Husband completed year 12 of school	0.802	0.831	-0.0291
	(0.398)	(0.375)	
Wife completed Bachelor degree	0.305	0.358	-0.0528**
	(0.461)	(0.479)	
Husband completed Bachelor degree	0.255	0.307	-0.0528**
	(0.436)		
Wife is indige	0.0307	0.0216	
	(0.173)	(0.145)	
Husband is indigenous	-0.0321	0.0188	0.00421
	(0.150)	(0.136)	
Wife born in Aus		0.759	0.0656***
	(0.381)	(0.428)	
Husband born in Australia	0.802	0.745	0.0578***
	(0.398)	(0.436)	
N	911	2869	3780

TABLE 2: OUTCOME VARIABLE SUMMARY STATISTICS

	Male

TABLE 4: POOLED CROSS-SECTION, PARENTING

TABLE 5: POOLED CROSS-S RESULTS FOR SATISFACTION OUTCOMES

VARIABLES	(1) Life satisfaction	(2) Relationship satisfaction with partner	(3) Satisfaction of relationship	(4) Satisfaction of partner's relationship with children
Panel A				

TABLE 7: PANEL RESULTS - PARENTING OUTCOMES (OLS)

VARIABLES	(1) anticipated	(2) Parenting leaves feeling tired or exhausted	(3) Trapped by parental	(4) more work than pleasure
PANEL A: Base Specification				
CHS	0.0878**	0.0753**	0.116***	[illegible]
	(0.0424)	(0.0374)	(0.0399)	[illegible]
CHS*Year	-0.0589	-0.0500	-0.111	-0.0244
	(0.0518)	(0.0485)	(0.0509)	[illegible]
Observations	39,680	39,680	39,680	39,680

TABLE 8: PANEL RESULTS - PARENTING SPLITTING CHS (OLS)

VARIABLES	(1) anticipated	(2) Parenting leaves feeling tired or exhausted	(3) Trapped by parental	(4) more work than pleasure
Panel A: Treatment split by duration				
Short Duration (1 year)				

TABLE 9: PANEL RESULTS - SATISFACTION (OLS)

VARIABLES	(1) Life satisfaction	(2) Relationship satisfaction with partner	(3) Satisfaction of relationship	(4) Satisfaction of partner's relationship with [illegible]
Base Specification				
CHS	-0.0714**	-0.0690	[illegible]	-0.0517
	[illegible]	(0.0449)	[illegible]	(0.0455)
CHS X Male	0.0505	0.0529	[illegible]	

TABLE 10: PANEL RESULTS - S[illegible] CHS (OLS)

VARIABLES	(1) Life satisfaction	(2) Relationship satisfaction with partner	(3) Satisfaction of relationship	(4) Satisfaction of partner's relationship with children
[illegible]				
Short Duration (1 year)	-[illegible]	-0.0847	1.61e-05	-0.0426
	(0.0424)	(0.0621)	(0.0423)	(0.0612)
Long Duration (>1 year)	-0.0995**	-[illegible]	-[illegible]	-0.0668
	(0.0456)	(0.0642)	(0.0466)	(0.0667)
Short Duration X Male	-0.0148	0.0244	[illegible]	0.0264
	[illegible]	[illegible]	(0.0587)	[illegible]
Long Duration X Male	0.101*	0.0812	0.0658	0.0700
	(0.0563)	(0.0660)	(0.0646)	[illegible]
Panel B: T[illegible]				
Diagnosed Younger (≤ 6 y.o.)	-0.0721*	-0.0816	-0.0710*	-[illegible]
	(0.0393)	(0.0581)	(0.0387)	(0.0560)
Diagnosed Older (> 6 y.o.)	-0.0675	-0.0516	0.0476	0.0347
	(0.0536)	(0.0708)	(0.0567)	(0.0796)
[illegible]	[illegible]	0.00518	0.0922*	[illegible]
	(0.0508)	[illegible]		

TABLE 12: COMPARISON OF SAMPLES (OLS)

VARIABLES	(1) Parenting is harder than anticipated	(2) Parenting leaves feeling tired or exhausted	(3) Thinks about parental responsibilities	(4) Parenting is more work than pleasure	(5) Life satisfaction	(6) Relationship satisfaction with partner	(7) Satisfaction of relationship with children	(8) Satisfaction of romantic relationship with children
Panel A: Full Sample								
CHS	0.0878**	0.0753**	0.116***		-0.0744**	-0.0690	-0.0258	-0.0517
	(0.0434)	(0.0374)	(0.0399)	(0.0419)	(0.0315)	(0.0449)	(0.0317)	(0.0455)
CHS X Male	-0.0589	-0.0500	-	-0.0244	0.0505	0.0529	0.0561	0.0462

TABLE 13: HETEROGENEITY OF PARENTING OUTCOME (OLS)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	[illegible] harder than	Parenting makes feeling tired or	Trapped by parental					
VARIABLES	anticipated							

TABLE 15: HETEROGENEITY OF SHARE OF PARENTING AND HOUSEWORK

VARIABLES	(1) Do fair share of looking after children	(2) Do fair share of housework	(3) Do fair share of looking after children	(4) Do fair share of housework
[redacted]				

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St J[illegible]ship." *The Journal of Craniofacial Surgery* 14 (5): 704–8.

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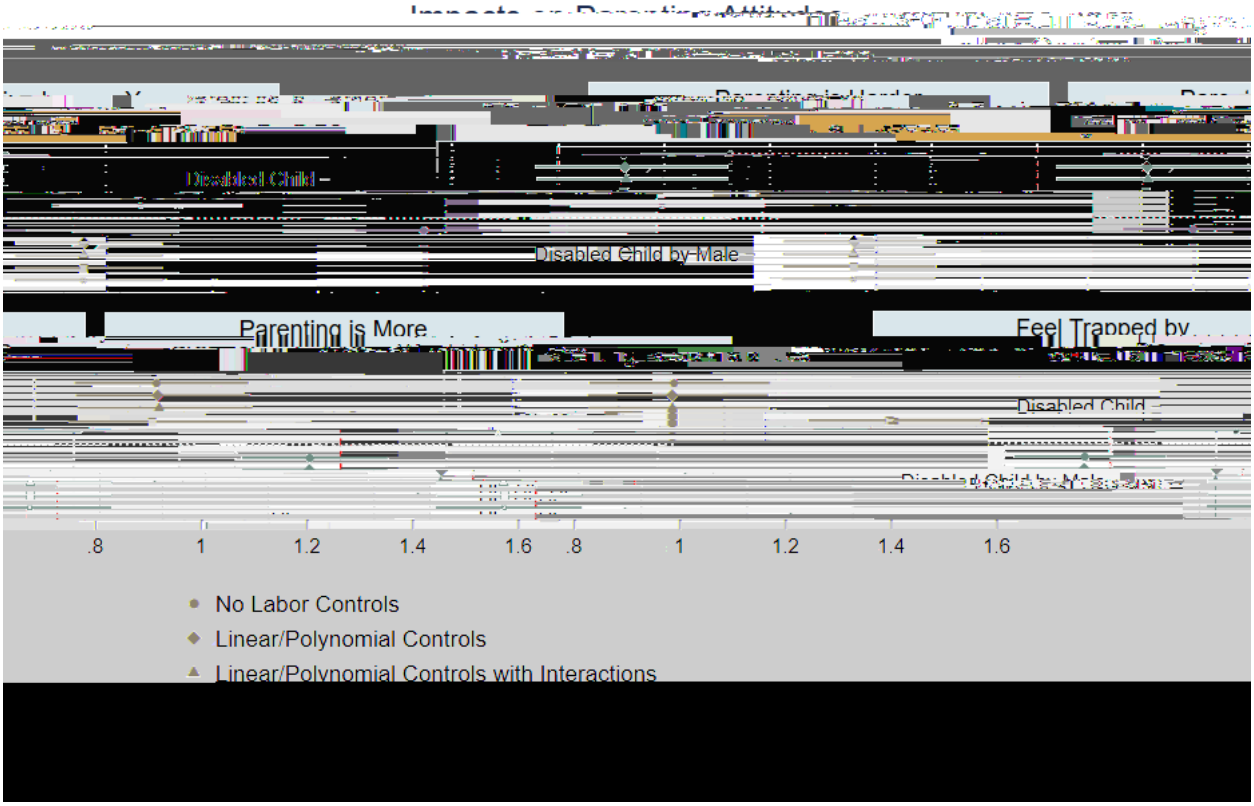
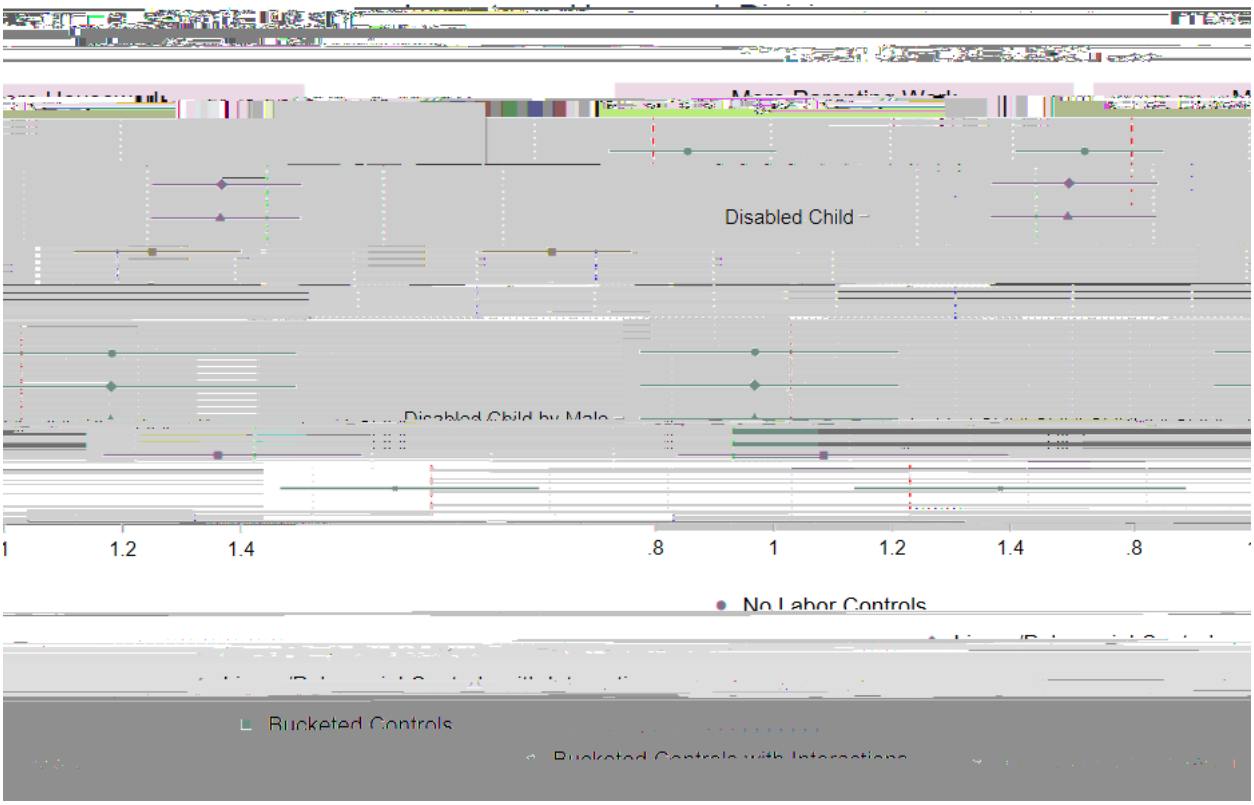
Appendix

Coefficient Plots for ordered logit, labor control robustness




Disabled Child
1
1.2
1.4
.8
1
1.2
1.4
.8
No Labor Controls
Bucketed Controls