

## **Child Fostering & Ideal Family Size: Evidence from Uganda**

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### **Abstract**

Women who have exceeded their ideal family size (IFS) may find themselves caring for more children than desired. In the absence of prenatal controls of family size, mothers may choose to foster out children to reduce the burden of childrearing, particularly in contexts where fostering is common. Using six rounds of Demographic and Health Surveys collected in Uganda between 1988 and 2016, I explore the relationship between exceeding IFS and child fostering, proposing that fostering may serve to manage excess fertility and that this relationship may change as actual and desired fertility declines. Results suggest that the probability of fostering children has always been significantly higher among women who have exceed IFS, mothers who have exceeded their gender-specific preferences for children, and those who desire not to have more children. Though women report a desire for smaller families over time, childbearing and childrearing behaviors including high fertility and child fostering remain consistent.

Fertility declines in sub-Saharan Africa have been occurring in recent decades, though somewhat slower than in other regions, suggesting the possibility of a stalled transition (Bongaarts & Casterline 2012; Shapiro & Gebreselassi 2008). Demographers have long argued that a decline in fertility must be preceded by a fall in desired or ideal family size (Casterline & Agyei-Mensah 2017; Caldwell & Caldwell 1987; Easterlin 1975). Previous research suggests that “[t]o implement these desires [for smaller families], parents rely on contraception or abortion” (Bongaarts & Casterline 2012: 153). But even as ideal family size has fallen in many parts of sub-Saharan Africa (Casterline & Agyei-Mensah 2017; Günther & Harttgen 2016; Behrman 2015; Bongaarts & Casterline 2012), actual fertility often continues to overshoot intent or desire (Upadhyay & Karasek 2012). This may be the result of high unmet need for contraception (Behrman et al. 2018; Cleland et al. 2014; Van Lith et al. 2013), lack of availability of safe and legal abortion (Singh et al. 2018; Singh et al. 2005), and the dynamic nature and flexibility of fertility desires over the reproductive life-course (Trinitapoli & Yeatman 2018; Yeatman et al. 2013; Sennott & Yeatman 2012; Kodzi et al. 2010).

Regardless of the reason, a substantial number of women in sub-Saharan Africa report exceeding their ideal number of children (Upadhyay & Karasek 2012; Kodzi et al. 2010) and for some women, these pregnancies are unwanted (Bawah et al. 2016). Children who are ‘unwanted’ due to exceeding desired family size or desired gender may be at increased risk of poor outcomes (Flato 2018; Bawah et al. 2016). What happens, then, when parents do not or cannot use contraception or abortion to limit their number of children and find themselves with a number of living children in excess of their desired family size? In this paper, I explore how women who have exceed their desired fertility manage the number of children in their household, focusing on the role of child fostering as a tool to manage family size that exceeds ideals. In countries like

Uganda, where fostering has long served as a social safety net for children (Cheney 2017, 2016; Oleke et al. 2005), fostering may serve as a socially accepted means of managing excess fertility.

### **The Ugandan Context**

Uganda, like other countries in sub-Saharan Africa, has experienced a slow decline in total fertility over time. In the late 1980s, the total fertility rate stood at 7.4 children per woman, and has declined to 5.4 children per woman by 2016 (ICF 2019). This remains above the average for sub-Saharan Africa as a whole, and well above neighboring East African countries, suggesting Uganda remains in a pre-transition phase of fertility decline (Kabagenyi et al. 2015; Ezeh et al. 2009). Desired fertility has fallen over time from an ideal family size of 6.5 children in 1988 to 4.8 children in 2016 (ICF 2019), though an ideal family size of more than 5 children remains common within certain communities, especially within rural areas (Matovu et al. 2017). The desire to limit fertility, particularly among higher-parity women, has increasingly been reported alongside changing norms of ideal family size (Westoff 2010). Unmet need for contraception, however, is high in Uganda and has increased over time (Bongaarts 2014; Khan et al. 2008), suggesting that many women who may wish to limit their fertility are unable to do so.

Child fostering, referring to children living apart from their biological parents, is common throughout sub-Saharan Africa, including Uganda (Beegle et al. 2010; McDaniel & Zulu 1996; Page 1989; Isiugo-Abanihe 1985). Due to the HIV/AIDS epidemic and resulting high adult mortality, much of the recent literature on fostering in the Ugandan context has focused on orphans and vulnerable children (Cheney 2017, 2016; Kasedde et al. 2014; Karimli et al. 2012; Oleke et al. 2005). These fostering practices for orphaned children are grounded in extended family and kin networks that have long provided a safety net for children in need of care, in Uganda and elsewhere (Cheney 2017; Beegle et al. 2010; Page 1989). Some research suggests

the extended family safety net may be weakened due to the HIV/AIDS (Foster 2001), while others indicate shifting forms of extended family care to compensate for the impact of AIDS mortality (Oleke et al. 2005; Madhavan 2004). Whether safety nets have been strained or not, the majority of children who do not live with their parents continue to be cared for within kin networks, suggesting that fostering remains an accepted childrearing arrangement (Beegle et al. 2010; Oleke et al. 2005).

In many sub-Saharan African countries, children are fostered not only for crisis reasons – such as parental death from AIDS – but also voluntarily by parents to expand educational opportunities, to provide domestic assistance to relatives, or to spread the costs and burden of childrearing throughout larger kin networks (Akresh 2009; Eloundou-Enyegue & Shapiro 2004; Page 1989). Children born outside their parents’ ideal family size may thus be sent to other kin to ease the burden of children that parents did not expect or plan to raise. Previous research in West Africa dating from the 1980s and 1990s suggests that women with high parity may be more likely to foster out children (Isiugo-Abanihe 1994; Bledsoe 1990). This idea has not, however, been tested in other parts of sub-Saharan Africa nor over the course of a fertility transition. In this paper, we explore the role of exceeding fertility ideals for women fostering out children in Uganda over time to examine whether women who exceed desired family size use child fostering to manage their excess fertility, and whether this has changed over the course of Uganda’s early fertility transition.

## **Data & Methods**

In this paper, I rely on data collected via the Demographic and Health Surveys (DHS) in Uganda between 1988 and 2016. The data were extracted from IPUMS-DHS, which harmonizes DHS samples (Boyle et al. 2019). These surveys collect detailed birth histories from a nationally

representative sample of women 15 to 49, including the number of sons and daughters who live away from the respondent, and a variety of measures of fertility intentions. I examine women's actual and desired number of children and their fostering behaviors in the available surveys for Uganda conducted in 1988, 1995, 2001, 2006, 2011, and 2016, at different periods in Uganda's fertility transition.

At the mother-level, I create an indicator of exceeding desired number of children, based on her total number of children ever born and her ideal number of children. Across all six rounds of the DHS, women are asked "*If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?*" Responses can be numerical beginning at zero, or non-numerical (including 'don't know' and/or fatalist responses such as "up to God"). I recode non-numerical and fatalist responses to missing and exclude them, as whether they have exceeded IFS cannot be ascertained.<sup>1</sup> Alternate models including these women by recoding non-numeric responses to the mean ideal number of children for each survey year (not shown) demonstrate substantively similar results.

As I am interested in those exceeding desired number of children and fostering behaviors, I restrict the sample to women who have ever given birth and who have any living children. Women whose total number of living children exceeds her ideal number of children are categorized as having exceeded ideal family size. I also use measures of ideal numbers of boys and of girls relative to the number of living boys and girls that mothers report to indicate whether women have exceeded their ideal number of each sex.<sup>2</sup> I further rely on two other measures of

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<sup>1</sup> Non-numeric and/or fatalistic responses make up a small proportion of total responses per survey year and have declined over time (Frye & Bachan 2017). Casewise deletion of these responses excludes: 6.7% (1988), 5.3% (1995), 4.7% (2001), 4.1% (2006), 2.8% (2011), and 2.7% (2016) of women.

<sup>2</sup> Measures of ideal number of boys and girls were not collected in 1988, thus these models exclude observations from this survey round.

desired family size included in each DHS. Firstly, I take a measure of wantedness of her last child born in the five years prior to the survey (wanted then, wanted later, wanted no more) and collapse into a dichotomous variable of “wanted” or “unwanted.” Secondly, I rely on a measure of desire for more children at time of survey, where women were asked “Would you like to have another child or would you prefer not to have any more children?” Women who report they want more children are coded as “wanting more” and those who report they do not want any more children are coded as “not wanting more.” I exclude women who are undecided, and those who are sterilized or infecund as their desire for more children cannot be determined.

I create an indicator of a mother having fostered out children by looking at the number of sons and of daughters that she reports do not live in her household. I then code women as having no children outside the household (no fostered children) or having any child outside the household (fostered children). I restrict the sample to women with children under 18 years of age, to ensure I do not over-estimate fostering by including adult children who live separately.

Other control variables include maternal age, mother’s highest level of education (none, primary, secondary or higher), mother’s marital status (currently, never, or formerly married), mother’s type of place of residence (urban, rural), and whether women are currently working. I do not include other potential predictors of fostering including mother’s migrant status and household wealth quintile as these measures are not available for all surveys.<sup>3</sup> Table 1 shows the descriptive characteristics of the sample by survey year, including total sample size.

To test the relationship between exceeding ideal family size and fostering children, I pool all survey years and run multivariate logistic regression controlling for year. I account for the complex survey design by including sample weights, strata, and primary sampling unit (Rutstein

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<sup>3</sup> Models including household wealth quintile, available from 2001 to 2016, show substantively similar results to the standard models.

& Rojas 2006) Results are presented as odds ratios for ease of interpretation. In Model 1, the sample includes all mothers and uses IFS status (exceeding or not exceeding) as a key predictor. In Model 2, the sample uses only mothers with any daughters and uses preference for girls as a key predictor; Model 3 does the same for mothers with any sons. Models 4 and 5 include all mothers and rely on wantedness of last child and desire for more children as key predictors, respectively.

To explore how the role of exceeding IFS may have changed over time, I interact the IFS dummy with survey year. The interaction results are presented as graphed predicted probabilities of having any children outside the household over time by IFS status, by wantedness of the last child, and by desire for more children. I also run separate models for mothers of girls and boys to test whether exceeding gender-specific preferences may influence likelihood of having children outside the household over time.

## **Results**

Ugandan women have, on average, experienced only small fluctuations in their average number of living children, ranging between 3.6 and 4.0 living children per woman between 1988 and 2016, suggesting that fertility remains steady. There was, however, a decline in the average ideal family size in the same time-frame, from a mean of 6.7 in the late 1980s to 5.1 children in 2016 (see Table 1). In 1988, women had, on average, nearly three fewer children than their ideal; by 2016, women's IFS was about 1.3 children greater than their average number of living children. The proportion of Ugandan women who have exceeded ideal family size has increased significantly between 1988 and 2016, from 11% in the earliest survey round to 19% in the most recent survey. Women's desire to have no more children increased over time, from about 60% in 1988 to more than 75% in 2016.

The proportion of women with at least one child living outside their household fluctuated across survey years, from 41% in 1988 to a low of 31.7% in 2001, and back to over 40% of mothers in 2016. Among women who had any children living elsewhere, the average number of fostered children was 1.9 in 1988, and 1.7 children in all later surveys.

The results of multivariate logistic regression models for the pooled sample of mothers are found in Table 2. When exploring the likelihood of any having child living elsewhere (Model 1), I find that older mothers, formerly married mothers, and women with primary education are more likely to have any fostered children relative to their younger, currently married, and uneducated counterparts. Mothers residing in rural areas are less likely to have any children elsewhere versus urban mothers. Mothers who have exceeded their IFS are 39% more likely to have fostered any children versus women who have not exceeded their ideals. The predicted probabilities of a mother having any child living elsewhere by year, holding other variables at their means, are plotted in Figure 1. Very similar patterns are shown for mothers who have only daughters (Model 2) or only sons (Model 3) with regard to control variables. Exceeding gender-specific preferences also shows higher odds of having a son (OR 1.35) or daughter living elsewhere (OR 1.44). When I examine the odds of having any children fostered by wantedness of the last child (Model 4), I find women who did not want to become pregnant at all are 30% more likely to have any child living elsewhere versus women who wanted to become pregnant. Similarly, women who do not want to have any more children at time of survey have higher odds of having any children elsewhere relative to mothers who want to have more children (see model 5).

As the focus of this paper is on the role of exceeding ideal family size and how this may change over time, I turn to Figure 2, which graphs the predicted probability of a woman having



at least one child living elsewhere by IFS status (generated from multivariate regression interacting year and the IFS dummy; full model results shown in Appendix A). Over all survey rounds, women who have exceeded their ideal family size have a higher probability of having at least one fostered child relative to women who have not exceeded their ideal family size. There are only small changes in the marginal effect of exceeding IFS over time; for example, while exceeding IFS results in a 13% increase in the probability of fostering in 1995, doing so after 2011 results in a 5% increase in the probability of children living elsewhere.

There may be a difference if mothers exceed their gender-specific preference rather than their overall desired family size, which is tested and displayed in Figure 3. On the left, the predicted probability of having any daughters elsewhere by exceeding preference for girls is shown; on the right, the same is shown for exceeding preference for boys. The pattern for mothers of girls is very similar to what is shown for exceeding overall IFS, with mothers who have more than their desired number of girls having a higher probability of having any girls away versus mothers who have not exceeded their preference for girls in each survey. There is no significant difference in the marginal effect of exceeding her desired number of girls on probability of fostering out any girls over time. Among mothers of boys, exceeding preference for sons results in a higher probability of having any boys elsewhere across all rounds. Having more than the ideal number of boys increases the probability of fostering out any boys by about 10% in 1988, but by just 5% after 2011.

Figure 4 shows the predicted probabilities of having any children fostered by wantedness of the youngest child (on the left) and by desire for more children (on the right). There is no clear pattern to the probability of fostering by wantedness of women's youngest child, as the probability of fostering is higher for women who did not want their last pregnancy versus women

who did in 1995, 2011, and 2016, but there is no significant difference in the other survey rounds. Women's desire for more children at the time of survey shows a more definitive relationship between a desire to have no more children and fostering. Across all rounds, women who report a desire to have no more children are significantly more likely to have at least one child living elsewhere versus women who say they wish to have more children.

## **Discussion**

Ugandan women's mean number of surviving children has remained fairly steady over time, with a mean of 3.8 surviving children in 1988 and 2016. Alongside the decline in children ever born, women's desired ideal family size has also fallen, from an average of 6.7 children in 1988 to 5.1 children by 2016. Over time, the proportion of women who report exceeding ideal family size has increased, from 11% in 1988 to 19% in 2016, as has the proportion of women who report that they wish to have no more children. A similar proportion of mothers report having fostered children across all surveys (between 32% and 40%), and the mean number of children who live apart from mothers has remained steady at 1.8 children in 1988 (among women who had any children away) to 1.7 children in later surveys. This suggests that while reported ideal family size and desire for children has changed over time in Uganda, behaviors and practices related to childbearing and childrearing remain relatively consistent.

It is clear that having more children than expected or desired plays a significant role in women seeking alternate living arrangements for their children. This is apparent when relying on a variety of measures of having exceeded ideal family size, including exceeding total IFS, exceeding a preference for number of girls or boys, wantedness of their most recent pregnancy, and a lack of desire for more children in the future. Across all measures, women who have exceeded their preferences or who do not want more children are significantly more likely to

have at least one child under 18 who lives outside their household compared to mothers who still desire more children to reach their ideal family size. There are not, with few exceptions, significant differences in the probability of fostering over time for women who report exceeding their preference or desiring to stop childbearing, suggesting that the practice of fostering children elsewhere remains a consistent – but largely not increasing or decreasing – practice to accommodate women’s preferences for smaller families. The availability of kin to take in children may help reduce the burden of caring for a larger than desired number of children by providing much of the day-to-day care as well as the expenses of feeding, housing, and educating children. Women may continue to have many children, even more than they report they want, if kin members are willing and able to assist in childrearing.

Several limitations of the study should be noted. Firstly, while we know the proportion of women who report any child under 18 years who lives outside their household, we lack detail on the context of these arrangements. For example, a child may live in another household, but that household may be in a neighboring compound close by or in a different region of Uganda. Mothers may continue to play a key role in childrearing even when a child resides elsewhere, depending on the circumstances of the arrangement and the distance involved. The DHS also does not collect information on the current or expected duration of these fostering arrangements nor on who the child resides with, meaning it is possible to overestimate the proportion of women who are truly fostering out children as some children may be sent to boarding school and older adolescents may be married or otherwise living independently. Secondly, while non-numeric responses to questions of ideal family size have declined over time (Frye & Bachan 2017), there remain a number of women whose ideal family size cannot be captured and thus they are excluded from these analyses. Future analyses may rely on imputed values based on

women's other characteristics to avoid exclusion. Finally, Uganda remains in a pre-transition phase of the fertility transition, where fertility rates remain steady and high. Though many countries in sub-Saharan Africa are at a similar phase, these findings should not be generalized to other settings where fostering may be less common or less socially-accepted, or where fertility has begun to decline significantly alongside changing reported ideal family size.

This study of women's ideal family size and fostering behaviors shines new light on both changing fertility desires and consistent childrearing practices in Uganda, a country in the earliest stages of a fertility transition. Recent research suggests an impending decline in fertility in Uganda (Kabagenyi et al. 2015), and in the future, fewer women may report exceeding their preferences for children, particularly as women's education increases (Behrman 2015). As fertility behaviors change, fostering arrangements may similarly decline in use and importance, as Ugandan families may move toward to a more nuclear family structure and social and kin networks may be strained.

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**Table 1. Descriptive Characteristics of Respondents by Survey Year (N=37,926 Mothers)**

	<b>1988</b>	<b>1995</b>	<b>2001</b>	<b>2006</b>	<b>2011</b>	<b>2016</b>
Living Children (Mean)	3.8	3.6	3.7	4.0	3.9	3.8
Ideal Family Size (Mean)	6.7	5.3	4.9	5.3	5.2	5.1
Proportion of Mothers who have Exceeded Ideal Family Size (%)	11.0	15.8	18.8	19.8	20.5	19.0
Proportion of Mothers who did not Want Last Child	4.6	10.2	17.6	16.3	13.2	11.3
Proportion of Mothers who do not Want More Children	59.7	75.5	78.9	79.1	77.6	75.4
Proportion of Mothers with Any Child Away (%)	41.0	37.0	31.7	35.2	35.8	40.2
Number of Children Away Among Mothers with Kids Away (Mean)	1.9	1.7	1.7	1.7	1.7	1.7
<i>Control Variables (Mother-Level)</i>						
Mother's Age (%)						
15-24	31.7	33.4	31.1	26.6	25.8	27.4
25-29	24.3	23.4	23.3	21.4	24.5	21.1
30-34	16.6	17.7	17.3	19.4	17.1	18.9
35-39	12.4	12.9	13.4	14.5	15.2	14.5
40-49	15.0	12.6	14.8	18.1	17.4	18.1
Mother's Place of Residence (%)						
Rural	81.1	67.9	69.2	85.2	73.3	78.3
Mother's Educational Attainment (%)						
None	37.2	26.7	22.3	23.9	18.3	13.6
Primary	51.7	56.4	58.3	59.7	57.2	60.3
Secondary+	11.1	16.9	19.4	16.5	24.5	26.1
Mother's Marital Status (%)						
Married	78.6	81.3	79.4	79.6	80.0	78.4
Never Married	5.2	4.0	4.4	4.3	4.3	5.4
Formerly Married	16.2	14.7	16.2	16.2	15.7	16.3
Mother is Working (%)	12.7	67.3	77.8	86.7	76.6	81.4
N (Mothers)	3,113	4,893	4,990	5,926	6,020	12,984

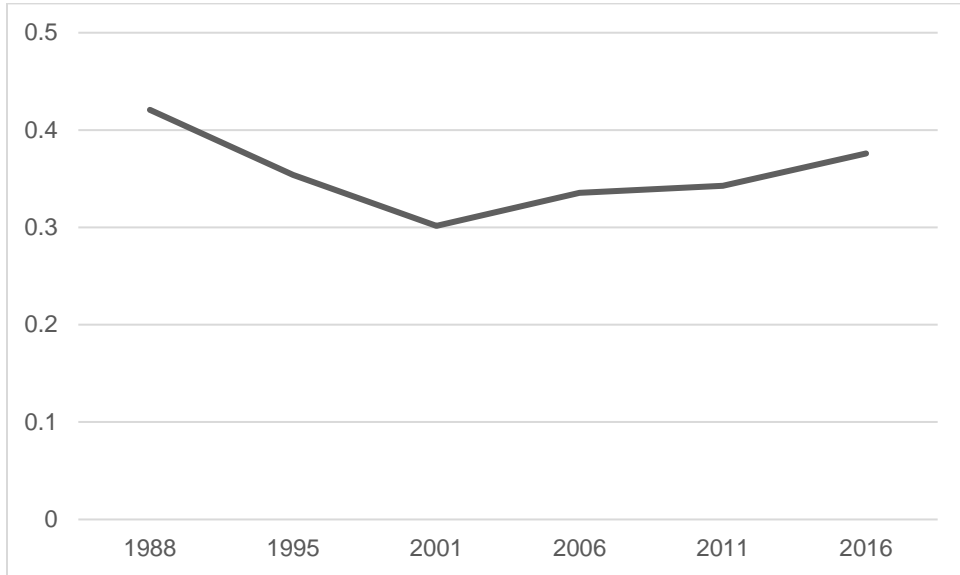


Table 2. Odds of Having At Least One Child Living Elsewhere

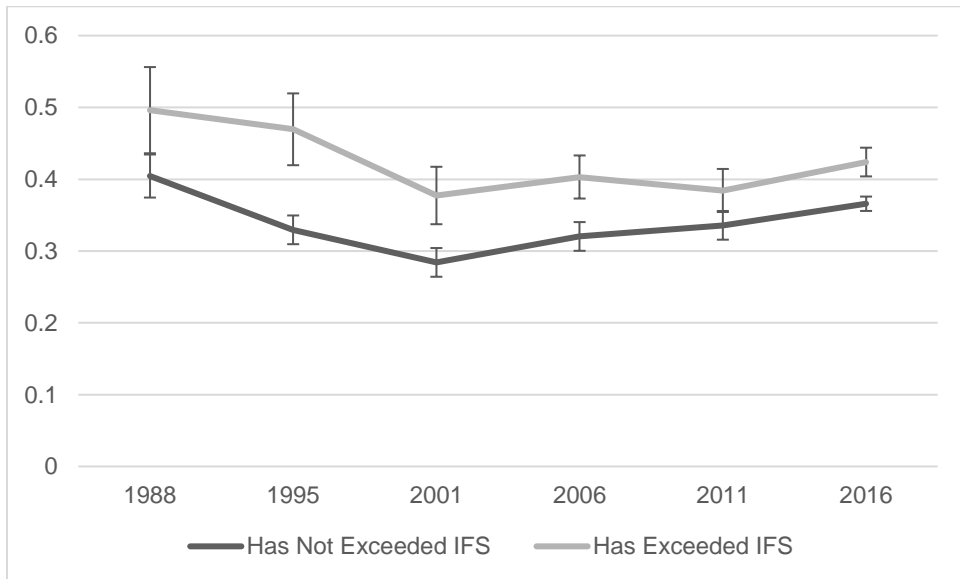
	Model 1			Model 2			Model 3			Model 4			Model 5		
	All Mothers			Mothers of Girls			Mothers of Boys			All Mothers			All Mothers		
	OR	S.E.	Sig.	OR	S.E.	Sig.	OR	S.E.	Sig.	OR	S.E.	Sig.	OR	S.E.	Sig.
Mother's Age															
15-24 (ref)															
25-29	2.18	0.08	***	1.88	0.09	***	1.71	0.08	***	2.13	0.09	***	2.08	0.08	***
30-34	3.27	0.14	***	2.64	0.13	***	2.22	0.11	***	3.43	0.16	***	3.13	0.14	***
35-39	3.89	0.18	***	3.26	0.17	***	2.32	0.12	***	4.38	0.22	***	3.80	0.18	***
40-49	3.22	0.15	***	2.89	0.15	***	1.88	0.10	***	4.04	0.24	***	3.04	0.15	***
Mother's Marital Status															
Married (ref)															
Never Married	1.07	0.07		1.34	0.12	**	1.33	0.11	**	0.91	0.07		1.09	0.08	
Formerly Married	1.88	0.08	***	1.97	0.09	***	2.24	0.09	***	1.99	0.10	***	1.77	0.08	***
Mother's Educational Attainment															
None (ref)															
Primary	1.20	0.04	***	1.14	0.05	**	1.23	0.05	***	1.29	0.05	***	1.25	0.05	***
Secondary+	1.07	0.05		1.07	0.06		1.20	0.07	**	1.09	0.06		1.10	0.05	
Mother Lives in Rural Area	0.74	0.03	***	0.71	0.03	***	0.68	0.03	***	0.76	0.04	***	0.75	0.03	***
Mother is Working	0.96	0.04		0.97	0.04		0.96	0.04		1.00	0.04		0.96	0.04	
Exceeded IFS	1.39	0.05	***												
Exceeded Gender-Specific Preference				1.44	0.05	***	1.35	0.05	***						
Did Not Want Last Child										1.30	0.06	***			
Wants No More Children													1.33	0.04	***
Survey Year															
1988 (ref)															
1995	0.75	0.05	***	0.73	0.05	***	0.65	0.05	***	0.72	0.05	***	0.70	0.05	***
2001	0.59	0.04	***	0.55	0.04	***	0.53	0.04	***	0.58	0.04	***	0.55	0.04	***
2006	0.69	0.04	***	0.59	0.04	***	0.62	0.05	***	0.69	0.05	***	0.66	0.05	***
2011	0.72	0.05	***	0.63	0.05	***	0.65	0.05	***	0.68	0.05	***	0.69	0.05	***
2016	0.83	0.05	**	0.75	0.05	***	0.73	0.05	***	0.79	0.05	***	0.79	0.05	***
Constant	0.33	0.02	***	0.29	0.02	***	0.30	0.02	***	0.30	0.02	***	0.33	0.02	***
N (Mothers)	37,926			30,597			30,635			30,833			35,704		

p < 0.05 \*, p < 0.01 \*\*, p < 0.001 \*\*\*

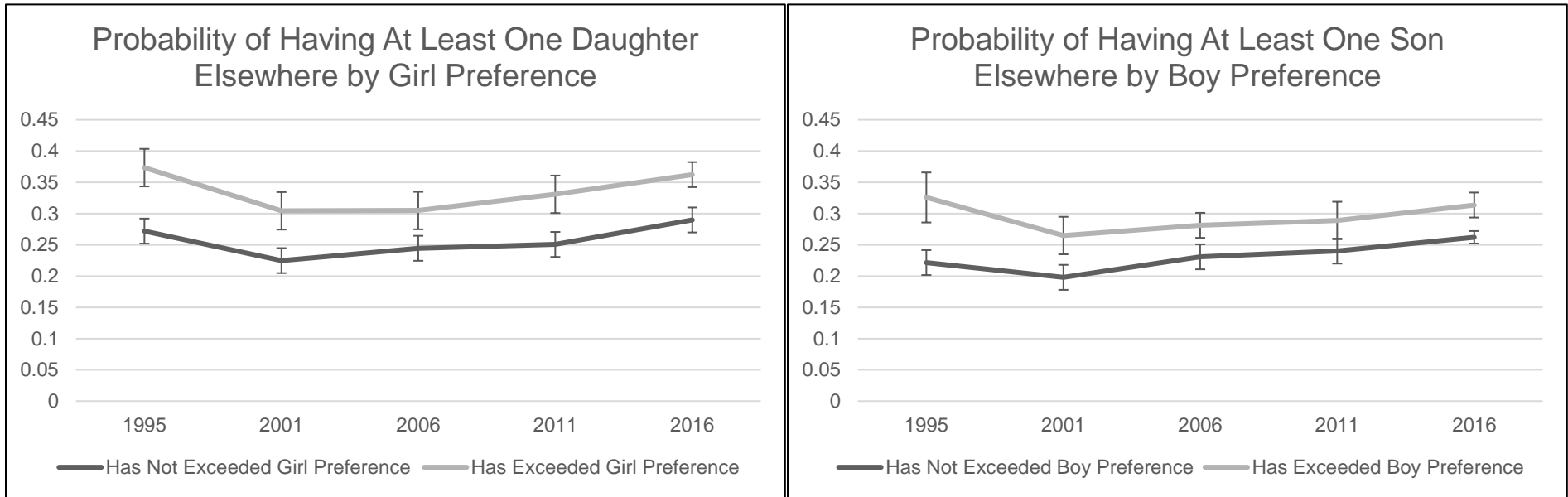
**Figure 1. Predicted Probability of Mother Having At Least One Child Living Elsewhere Over Time**



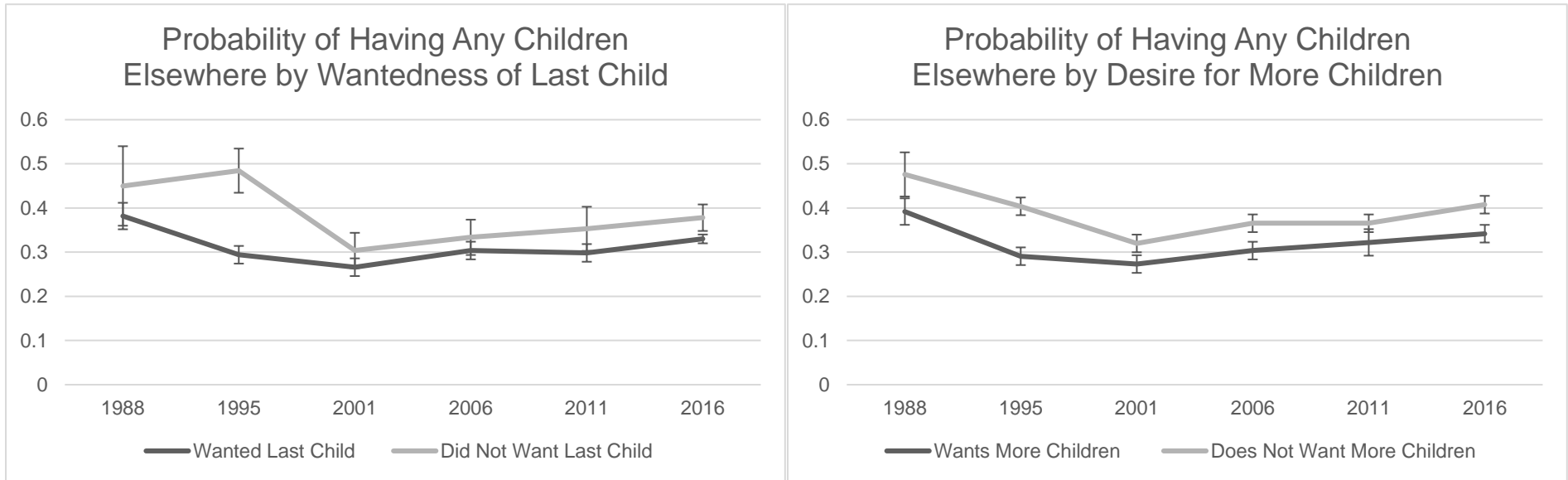
**Figure 2. Predicted Probability of Mother Having At Least One Child Living Elsewhere by IFS Status Over Time**



**Figure 3. Predicted Probability of Mother Having At Least One Daughter or Son Living Elsewhere by Gender-Specific Preference Over Time**



**Figure 4. Predicted Probability of Mother Having At Least One Child Living Elsewhere by Wantedness of Last Child & Desire For More Children Over Time**



Appendix A. Odds of Having At Least One Child Living Elsewhere, Interaction Models

	Model 1			Model 2			Model 3			Model 4			Model 5		
	All Mothers			Mothers of Girls			Mothers of Boys			All Mothers			All Mothers		
	OR	S.E.	Sig.	OR	S.E.	Sig.	OR	S.E.	Sig.	OR	S.E.	Sig.	OR	S.E.	Sig.
Mother's Age															
15-24 (ref)															
25-29	2.18	0.08	***	1.84	0.09	***	1.68	0.09	***	2.12	0.09	***	2.08	0.08	***
30-34	3.28	0.14	***	2.54	0.13	***	2.20	0.12	***	3.41	0.16	***	3.13	0.14	***
35-39	3.87	0.18	***	3.18	0.17	***	2.32	0.13	***	4.37	0.22	***	3.80	0.18	***
40-49	3.21	0.15	***	2.80	0.15	***	1.83	0.11	***	4.04	0.24	***	3.05	0.15	***
Mother's Marital Status															
Married (ref)															
Never Married	1.07	0.07		1.40	0.13	***	1.36	0.12	***	0.91	0.07		1.09	0.08	
Formerly Married	1.88	0.08	***	1.96	0.09	***	2.23	0.09	***	1.99	0.10	***	1.77	0.08	***
Mother's Educational Attainment															
None (ref)															
Primary	1.20	0.04	***	1.14	0.05	**	1.24	0.05	***	1.28	0.05	***	1.24	0.05	***
Secondary+	1.06	0.05		1.06	0.06		1.21	0.07	**	1.09	0.06		1.09	0.05	
Mother Lives in Rural Area	0.74	0.03	***	0.73	0.03	***	0.68	0.03	***	0.76	0.04	***	0.75	0.03	***
Mother is Working	0.96	0.04		0.94	0.04		0.94	0.04		1.00	0.04		0.96	0.04	
Exceeded IFS	1.45	0.21	**												
Exceeded Gender-Specific Preference				1.60	0.12	***	1.65	0.16	***						
Did Not Want Last Child										1.32	0.24				
Wants No More Children													1.41	0.15	**
Survey Year															
1988 (ref)															
1995	0.72	0.05	***	0.77	0.05	***	0.83	0.06	**	0.67	0.05	***	0.64	0.05	***
2001	0.58	0.04	***	0.87	0.06	*	1.02	0.07		0.59	0.04	***	0.58	0.05	***
2006	0.69	0.05	***	0.91	0.06		1.07	0.08		0.71	0.05	***	0.68	0.06	***
2011	0.74	0.06	***	1.10	0.06		1.21	0.07	**	0.69	0.05	***	0.74	0.07	**
2016	0.85	0.05	*							0.80	0.05	***	0.81	0.06	**

Interaction With Year<sup>1</sup>

1 1995	1.24	0.21								1.70	0.36	*	1.17	0.15	
1 2001	1.05	0.18		0.95	0.11		0.90	0.12		0.91	0.19		0.89	0.12	
1 2006	0.99	0.16		0.85	0.09		0.80	0.10		0.87	0.18		0.94	0.12	
1 2011	0.85	0.13		0.90	0.09		0.78	0.10	*	0.97	0.21		0.86	0.11	
1 2016	0.88	0.13		0.86	0.08		0.78	0.09	*	0.93	0.18		0.94	0.11	
Constant	0.33	0.02	***	0.21	0.02	***	0.19	0.02	***	0.30	0.02	***	0.32	0.03	***
N (Mothers)	37,926		29,251		29,254		30,833		35,704						

p < 0.05 \*, p < 0.01 \*\*, p < 0.001 \*\*\*

<sup>1</sup> Interactions of Year with IFS status (Model 1), gender-specific preferences (Models 2 & 3), wantedness of last child (Model 4), and desire for more children (Model 5).