The Effect of an Unintended Birth on Parenting

A Proposal for a Presentation to the 2011 annual Meeting of the Population Association of America

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Introduction

Of the 4 million births annually in the United States, 1.4 million were unintended (Finer and Henshaw 2006). The very high level of unintended births in the U.S. is considered a major public health problem because some research indicates that developmental outcomes for *children* whose birth was unintended are worse than for others (Barber and East 2009). There is surprisingly little research on consequences for *parents* of having children they did not intend to have. The possibility that unintended births play an important role in family processes—particularly parenting---has not been directly explored from the parents' perspective. The research that exists on intention status and parenting is focused on parenting among young children and generally these authors hold that parents are less likely to exhibit optimal parenting practices with their unintended children than for those who were planned (Bronte-Tinkew, Scott and Horowitz 2009a; Bronte-Tinkew et al. 2009b; Bronte-Tinkew et al. 2007; Gipson, Koenig and Hindin 2008).

In the paper we propose for the 2011 annual meeting of the Population Association of America (PAA) we will examine the impact of the intention status of a child on the mother's and the father's parenting experience. In one set of analyses the focus will be on *within-parent* comparisons; we will test to see if parents report lower educational aspirations for, lower quality relationships with, or lower levels of exchange with children who are reported as unintended than those reported as intended. We are also interested in whether or not parents who have *any* unwanted births have lower evaluations of their *parental role performance* and s*atisfaction with parenting* than parents with no unintended children.

Our paper will focus on the following general research questions:

1) Is there a negative association between having an unintended child and various indicators of parenting?
2) If so, is there evidence that this association is causal?
3) Does this association vary for men and women, parental age at birth, parents' marital status at birth, or by children's age?

To answer these questions we use data from the National Survey of Families and Households (NSFH) and instrumental variable models to tighten our causal inferences. In what follows, we illustrate the approach we take, using women's and men's evaluation of their performance as parents as the outcome.

Data and Methods

The NSFH is a longitudinal survey of non-institutionalized American adults 19 and over in 1987, 13,007 individuals were selected for participation by means of a multi-stage probability sample of American households; one primary respondent was selected at random from the roster of a household eligible for inclusion in the survey. Other respondents from the household were included under certain circumstances (e.g. spouses, partners or children of the main respondent). Certain household types were over-sampled, namely: African Americans, Mexican Americans, Puerto Ricans, one-parent families, and families with step-children, families with children who do not have a parent living in the household, cohabiters, and recently married people. There have been two follow-up surveys. The first was conducted in 1992-1994 and in this wave, 10,007 personal interviews were conducted among the 13,007 main respondents from the 1987 sample. The second follow-up sample was restricted for financial reasons to 1987 respondents who had a child who was interviewed in

1992-1994 and those who were 45 years or older. A total of 8,990 such respondents were interviewed in 2001-2003 for Wave 3. The NSFH staff obtained complete birth histories from every respondent in Wave I and these were updated in Wave 2 and 3. For each birth in each wave, interviewers asked respondents to report whether the birth was mistimed or unwanted.

Traditionally, unintended births have been defined as births that a person declared to have occurred after he or she wanted no more children (unwanted) or to have occurred sooner than the person wanted (mistimed) (Maximova and Quesnel-Vallee 2009). There have been a number of critiques of this definition (Miller 1995; Miller and Pasta 1995; Santelli et al. 2003; Sassler and Cunningham 2008; Sassler, Miller and Favinger 2009; Zabin, Astone and Emerson 1993) and it does not always work as a good basis for aggregate measures (Casterline and El-Zeini 2007). Despite the criticism, these traditional measures have been judged broadly valid and reliable for most purposes, even when reported retrospectively (Joyce, Kaestner and Korenman 2002).

For some analyses in our proposed paper, including the preliminary analyses contained in this abstract, our major predictor is defined as "ever an unintended parent." And in others, the within parent analyses, the predictor is defined as whether or not a particular child is unintended.

A major goal of our project is to examine whether the occurrence of an unintended birth has an independent effect on parenting, net of unobserved differences between people who have and unintended child and those parents who do not.. One group of techniques used to reduce the influence of unobserved heterogeneity introduces and defends an *exclusion restriction* when estimating the model using *instrumental variables* (IVs). IV methods require the analyst to identify a variable, or group of variables, that is causally associated with the predictor (in our case unintended parenthood), but not associated with the outcome. As Moffitt (2005) explains, much ink has been spilled over exactly how to do this. All the different methods work by identifying some group for whom the causal effect of the predictor *can* be estimated unambiguously (or less ambiguously), and extrapolating the results from this group to all. The critical point is to identify an exclusion assumption of some kind that does not define the group for whom the effect is being estimated so narrowly that the generalization from the group where causality is less ambiguous to a larger policy relevant population is a problem. We intend to use exclusion restriction approaches. In NSFH, we have a substantial number of respondents whose births occurred before the liberalization of abortion laws in 1973.

Illustrative Results

To illustrate our proposed analysis we first present Table 1. This table contains the results of a *within parent* analysis (random effects as well as a fixed effects or difference-in-difference) that predicts whether or not a parent reported that a given child's birth was unintended. We ran this model twice, once for all parents in the NSFH and again for parents with children under age 19 in 1987, since some of our analyses will be confined to the latter group, which is both smaller absolutely and has a smaller percentage of children born before 1974.

According to Table 1, within-parents (and thus net of whatever propensity the parent has to either have or to report that a birth was unintended), and net of a set of child characteristics (age and birth order), being born before Roe vs. Wade *increases* the odds of a child being reported as unintended by at least a third and more in some models. The possibility that this is due to some secular trend in either the occurrence of unintended births of reporting them is unlikely. This is partly because the effects are estimated within parents, as well as the fact we controlled for both child's age and parent's age. Thus, being born before Roe vs. Wade is an effective instrument.

As a further illustration of the procedures we enact for the proposed paper, we ran some simple, cross-sectional models using being born before Roe vs. Wade as an instrument to identify the effects of having had an unintended birth on a scale evaluating role performance as a parent. A high score on this scale is indicative that the respondent rates himself or herself positively on performing the parental role. We coded this variable both as a continuous measure and also as a dichotomy where a score of 1 indicates a person who rates himself or herself highly on performance of the parental role. We regressed the outcomes on both the number of unintended births (continuous) and ever had an unintended birth (dichotomy) in a naïve model, not taking into account the endogeneity of the intention status of the child and then again in an instrumental variable model (two stage least squares or bivariate probit). All models are net of a rudimentary set of social origins characteristics.

According to Table 2 both the number of unintended births as well as a variable indicating whether or not the respondent had any unintended births is associated with a lower evaluation of parental role performance, whether measured continuously or as a dichotomy. In instrumental variable models, this effect actually increases in magnitude substantially.

These results suggest that, referring back to our research questions, having an unintended child is associated with a lower rating of one's performance as a parent, and the instrumental variable models suggest that this association appears to be causal.

In the proposed paper, we shall expand the analyses we presented here to include more outcomes. In addition, we shall test hypotheses regarding differences in how an unintended birth (or being unintended in the case of the within parent analyses) has different effects for different groups. We are particular interested in whether or not the effects are stronger for people who become parents at an early age or for people who become parents outside marriage. In addition we are interested in gender differences in these effects or whether or not the effects vary by the age of the unintended child.

The proposed paper is a substantial expansion of the literature on the consequences of unintended childbearing and we hope to have the opportunity to present it to the annual meeting of the PAA.

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Table 1. Random and Fixed Effects Models of Whether or Not a Respondent has any unintended Children.

	NSFH			
	Children Under 18		All Children	
Variables	*Random Effects*	*Fixed Effects*	*Random Effects*	*Fixed Effects*
Parent's Birth Cohort	1.09***		1.08***	
Parent is Male	0.71***		0.62***	
Parent's Ethnicity				
European American	0.81*		0.80**	
African American	1		1	
Latino	0.39***		0.34***	
Parent's Education				
Less than BA	1		1	
BA Plus	0.64***		0.71***	
Number of Kids	1.66***		1.48***	
Age of Child	1.03***	0.94***	1.02**	0.93***
Birth Order				
Oldest/Only	2.23***	3.43***	2.11***	3.34***
Middle	1	1	1	1
Youngest	3.85***	2.44***	3.05***	1.89***
Child is Male				
Born Before Roe vs Wade	**1.30***	**1.38***	**1.59*****	**1.38****
Number of Children	10347	3457	23692	8430
Number of Parents	5020	1197	8502	2402
Rho	.48		.57	
Difference in Model Chi-Square from Model without Roe vs Wade	5.31	6.01	43.82	10.82
df	1	1	1	1

Table 2. Coefficients for number of unintended births and any unintended birth on parental role NSFH Naïve and Instrumental Variable Models.

	Predictor Variable	
Data and Outcome Variable	*Number of Unintended Births*	*Any Unintended Birth*
NSFH		
Parental Role Performance Scale (continuous)		
Naïve Model [ab]	-0.54***	-0.94***
Instrumental Variable Model [bc]	-4.84***	-5.06***
High Parental Role Performance (dichotomy)		
Naïve Model [bd]		-0.44***
Instrumental Variable Model [be]		-0.64***

[a] estimated with OLS regression
[b] net of ethnicity, birth cohort, sex, education and number of children
[c] estimated with two stage least squares
[d] estimated with logistic regression
[e] estimated with a bivariate probit
[f] net of ethnicity, birth cohort, education, number of children and poverty in childhood