The Effects of Family Structure on Child Wellbeing: An Assessment of Marriage Policy Assumptions

Dohoon Lee and Sara McLanahan
Center for Research on Child Wellbeing
Office of Population Research
Princeton University

EXTENDED ABSTRACT

Since the publication of the Moynihan report in 1965, the long term socioeconomic consequences of differences in family structure have been among the most researched areas in social demography (McLanahan and Sandefur 1994). Numerous studies have documented how income inequality produces diverging pathways of family structure for sociodemographic subgroups, and how family structures further rigidify the social stratification process (McLanahan and Percheski 2008). With increases in out-of-wedlock childbearing and growing instability in family structure, the consequences of family structure differences have become an even more pressing issue. In response to these changes, the federal government has funded programs designed to promote marriage and prevent divorce as a way of reducing poverty and improving children's life chances. These programs, in turn, are based on strong assumptions about the costs and benefits of particular family structures. This study aims to examine these assumptions and extend this body of research by investigating the effects of family structure and its changes on child wellbeing using an alternative causal framework.

PREVIOUS RESEARCH

Although prior research has contributed a great deal to our understanding of the role of family structure in generating socioeconomic inequality, several fundamental problems remain unsettled. First, despite the increasing availability of longitudinal data, researchers have yet to combine family type and family instability in a comprehensive way (Fomby and Cherlin 2007). For example, while marriage *per se* may benefit single mothers and their children, the transition into

marriage may also create stress, as mothers attempt to adjust to their new setting. Second, the influence of family structure and its changes on early child outcomes has been relatively understudied among sociologists and social demographers, despite a large literature in developmental psychology and a growing interest among economists in early child development (Heckman 2007).

Finally, there is little consensus about the causal relationships between family structure and child outcomes. Although the positive association between divorce and poor child outcomes is well documented, this association may be due in large part to differential selection into divorce/separation or marriage/cohabitation. Various analytic strategies, such as fixed-effects models, instrumental variables methods, and quasi-natural experiments, have been employed to deal with selection bias due to observed and unobserved covariates, but each of these approaches has its own caveats—difficulties in maximizing variations within individuals, finding good instrumental variables, and establishing random assignment (Moffitt 2005; Sigle-Rushton and McLanahan 2004).

THIS STUDY

In this study, we address these issues by 1) asking policy-driven questions; 2) using data from the Fragile Families and Child Wellbeing Study (FFCWS); 3) paying close attention to causal effect heterogeneity; and 4) employing a propensity score weighting method.

A Public Policy Perspective on the Role of Family Structure

Recent family policy debates focus on the costs, benefits, and effectiveness of the Healthy Marriage Initiative (HMI) (Amato 2007). The two main goals of HMI are: 1) to encourage married couples to stay together and 2) to encourage unmarried couples to form more lasting bonds. Implicit in these goals are two assumptions: 1) the children of divorced mothers would have been better off if their mothers had stably married; and 2) the children of unmarried

mothers would have been better off if their mothers had married. According to these assumptions, being stably married among married mothers and moving into marriage among unmarried mothers are the treatment effects of interest. Unfortunately, most attempts to evaluate the effects of family structure on child wellbeing do not address either of these assumptions directly. Rather, they rely on estimating either the average treatment effect for the entire sample (i.e., for both mothers who experienced the treatment and those who did not) or the average treatment effect for the treated (i.e., for the mothers who experienced the treatment). In this paper, we argue that the average treatment effect for the controls (i.e., for the mothers who did not experience the treatment) produces more credible estimates, because these are the mothers whose behaviors are targeted by family policy (see Mincy, Hill, and Sinkewicz (2009) for a similar view).

Data and Measures

In this light, the FFCWS provides a unique opportunity to examine the causal effects of family structure transitions on child wellbeing. The FFCWS is a longitudinal birth cohort study that follows approximately 4,900 children (1,200 marital and 3,700 nonmarital) and their parents (Reichman et al. 2001). All children were born in 75 hospitals in 20 large cities (population greater than 200,000) in the United States between 1998 and 2000. Follow-up interviews were conducted when the focal child was one, three, and five years of age. All covariates are measured at baseline, family structure transitions—the treatment variable—are constructed from all 4 waves of the survey, and child wellbeing measures—the outcome variables—come from the year 5 survey. To address the issue of missing data, we employ a multiple imputation procedure available in STATA (Royston 2004). The analytic sample size is 2,877.

The FFCWS data are particularly suitable for this study, given that the public policy concerns about family structure are concentrated on families having a nonmarital birth and experiencing socioeconomic instability, the group on which our data gather information. These data also contain a representative sample of married mothers. Furthermore, the FFCWS contains measures

of family structure history since the birth, a number of covariates, many of which are treated as unobservable in previous studies, and a variety of child outcomes. Figure 1 displays how we measure family structure transitions and construct the treatment and control groups. Note that among cohabiting mothers, a mother's family structure is considered unstable if the mother moved into marriage with the biological father but then dissolved her union, dissolved her union with the biological father and moved in with a new partner, or dissolved her union and remained single. Similarly, among single mothers, a mother's family structure is considered unstable if the mother moved in with the biological father but dissolved her union, moved in with a new partner, or moved in with a new partner but then dissolved her union. Although these groups may not be homogeneous, this classification reflects the view from the family policy discussions described above and the sample size of our data. We collapse single mothers who moved into marriage or cohabitation with the biological father into one group (stably coresiding mothers), because there are not enough observations in the data for each category. In Figure 1, groups at the end of each arrow are the treatment groups, while groups at the beginning are the control groups. For example, among married mothers, those who remained stably married to the biological father are the treatment group, while those who dissolved their marriage are the control group. We also estimate the effects of being stably single for mothers whose family structure is unstable, because some research has found this family structure has benefits for children (Coleman, Ganong, and Fine 2000; Furstenberg 1999). Overall, we use seven comparisons to examine the family structure effects.

As shown in Table 1, the outcome variables consist of child cognitive and behavioral domains, including verbal ability measured by Peabody Picture Vocabulary Test (PPVT), attention, externalizing, internalizing, and social problems. We standardize all outcome variables with the mean of 0 and the standard deviation of 1. We also measure rich sets of preexisting covariates, expanding standard demographic and socioeconomic characteristics. They include

mothers' cognitive ability, impulsivity, multipartnered fertility, attitudes toward marriage and gender distrust, family mental health problem, and fathers' characteristics.

Causal Effect Heterogeneity

Social scientific research on causal inference and public policy evaluation has increasingly devoted its attention to causal effect heterogeneity (Morgan and Winship 2007; Wu and Martinson 1993). This approach highlights the possibility that causal effects estimated for the whole population may be different from the effects for particular subpopulations, with the implication that observing causal effect heterogeneity leads to clarification of the causal mechanisms of interest. Since previous research has shown differing family structure effects by sociodemographic groups, we conduct our analysis not just with the full sample but also with race- and child gender-specific subsamples.

Analytic Strategy

Our analytic strategy takes full advantage of the richness of the FFCWS data and a propensity score weighting method in order to assess the causal effects of family structure transitions on child wellbeing. We expect that because all covariates measured in the FFCWS are likely to function as confounders for the family structure effects, adjusting for them should reduce selection bias on unobserved characteristics to a large extent. Next, under the assumption that the treatment effect is independent of the outcomes conditional on observed characteristics, the propensity score weighting approach allows us to estimate the average treatment effect for the controls (Imbens 2004; Robins 1999; Sato and Matsuyama 2003). This strategy implements the following procedure:

1) We first estimate propensity scores using logistic (or probit) regressions, each of which includes all covariates and restricts the sample to each of the 7 comparisons between family structure groups. For example, among the married sample, we calculate the predicted

probabilities of being stably married as the propensity scores from the logistic model. Rosenbaum and Rubin (1983) demonstrate that proper propensity scores are sufficient to account for selection bias on observed covariates.

2) Using the propensity scores, we implement inverse-probability-of-treatment weighting by which the control group (e.g., the mothers who dissolved their marriage) receives a weight of 1, while the treatment group (e.g., the mothers who remained stably married to the biological father) receives a weight equal to (1 — *Propensity Score*)/*Propensity Score*. By assigning those with high propensity scores less weight and those with low propensity scores more weight, we make the treatment group similar to the control group in terms of observed confounding variables. In this way, we can make inferences about what would have happened to children in the control group if they had been in the treatment group. For example, we can assess what would have happened to the children of divorced mothers if their parents had remained stably married. Similarly, we can examine what would have happened to the children of mothers who remained stably single if their mothers had formed a stable union. These are the questions that are most relevant to marriage policy.

3) We assess covariate balance between the treatment and control groups constructed by the weighting scheme above. Specifically, we use the Hotelling's T-squared test, a multivariate test of differences between the mean values of two groups, to examine if the weighted treatment group is similar to the control group in terms of preexisting covariates. Table 2 presents results from this test. The test from the unweighted samples generally rejects the null hypothesis that these two groups are statistically identical in covariate means, whereas the test from the weighted samples cannot reject that null hypothesis. Therefore, we achieve good covariate balance with our weighting scheme, although there is one exception where the two groups differ even in the weighted sample (stably married to the biological father vs. unstable among the male child sample). While a caution is needed to examining this sample due to selection bias on unobserved

covariates, we alleviate this concern by controlling for all covariates in the outcome equation models (see below).

4) As the final step, we assess the causal effects of family structure on child wellbeing using the weighted samples. Because several studies show that propensity score models combined with regression are more efficient in reducing bias than approaches that compute a simple difference in mean outcomes, we regress each of the child outcomes on both the family structure transition indicator and all covariates for each of the weighted samples (Ho et al. 2007). For comparison purposes, we also present outputs from standard regressions using the unweighted samples.

RESULTS

We briefly summarize results. In Table 3, we report estimates from the married sample in which the causal question is what would have happened to the children of divorced mothers if their parents had remained stably married to the biological father. The results suggest that a stable married union boosts verbal ability across all samples and decreases attention problem behavior among the full, nonblack, and male child samples.

Table 4 shows the results for the cohabiting sample. We address three causal questions for this group. First, we ask what would have happened to the children of unstable cohabiting mothers if their mothers had married the biological father? Second, what would have happened to the children of unstable cohabiting mothers if their mothers had remained in stable cohabiting unions with the biological father? We find that stable married or stable cohabiting unions boost verbal ability (only if mother married) and reduce attention and externalizing problem behaviors among the children of nonblack mothers. In contrast, a stable cohabiting union decreases verbal ability among boys. Third, what would have happened to the children of stably cohabiting mothers if their mothers had married the biological father? The results suggest that moving into marriage increases attention and externalizing problem behaviors among the children of black

mothers and externalizing problem behavior among boys, while decreasing internalizing problem behavior among girls.

Finally, in Table 5, we also examine three causal questions for the sample of single mothers. First, we ask what would have happened to the children of unstable single mothers if their mothers had moved in with biological father and remained in a stable union. The results show that moving in with the biological father boosts verbal ability but increases internalizing problem behavior among boys. Second, what would have happened to the children of unstable single mothers if their mothers had remained stably single? We find that staying single reduces social problem behavior among the children of nonblack mothers. Third, what would have happened to the children of stably single mothers if their mothers had moved into a stable union with the biological father? Table 5 shows that moving in with the biological father reduces externalizing problem behavior among the children of black mothers and girls, while increasing attention, externalizing, and internalizing problem behaviors among the children of nonblack mothers.

DISCUSSION

In this study, we set out to conduct a propensity score weighting analysis using the FFCWS data to address a class of the causal effects of family structure on child wellbeing, i.e., the average treatment effect for the controls, which is understudied but of theoretical and policy importance. This approach allows us to assess the effects of a specific policy intervention designed to prevent divorce among married mothers and to promote marriage among unmarried mothers. In general, our findings suggest that marriage policy interventions would be more effective, should they 1) be combined with other interventions aimed at improving disadvantaged families' conditions and 2) develop a clearer understanding of specific family structure contexts facing these families.

First, the results show that selection bias plays an important role in the relationship between family structure and child wellbeing. Inclusion of the preexisting covariates that are unobservable in prior research tends to drive many of the family structure effects into statistical

nonsignificance. Second, we also find that causal assessments of the effects of family structure and child wellbeing that focus solely on the whole population may mask the heterogeneous effects of family structure across demographic subpopulations. While there is not much evidence for family structure effects in the full sample, we find significant effects in the race- and gender-specific samples.

Third, the findings reveal that in some cases, family structure effects vary by race and gender and across the domains of child outcomes. In addition, promoting coresidence (marriage/cohabitation) or preventing non-coresidence (divorce/separation) does not always make positive contribution to children's wellbeing, which deviates from the theoretical and policy expectations. For instance, although moving in with the biological father may benefit the children of single mothers, this change *per se* may have costs that stem from reallocating family resources and reestablishing self-identity. Since our estimates capture the effects of both coresidence and the transition into it, they may underestimate the effect of coresidence. In our next steps, we will further investigate these issues with focuses on the quality of couple relationship and mothering as a potential explanation.

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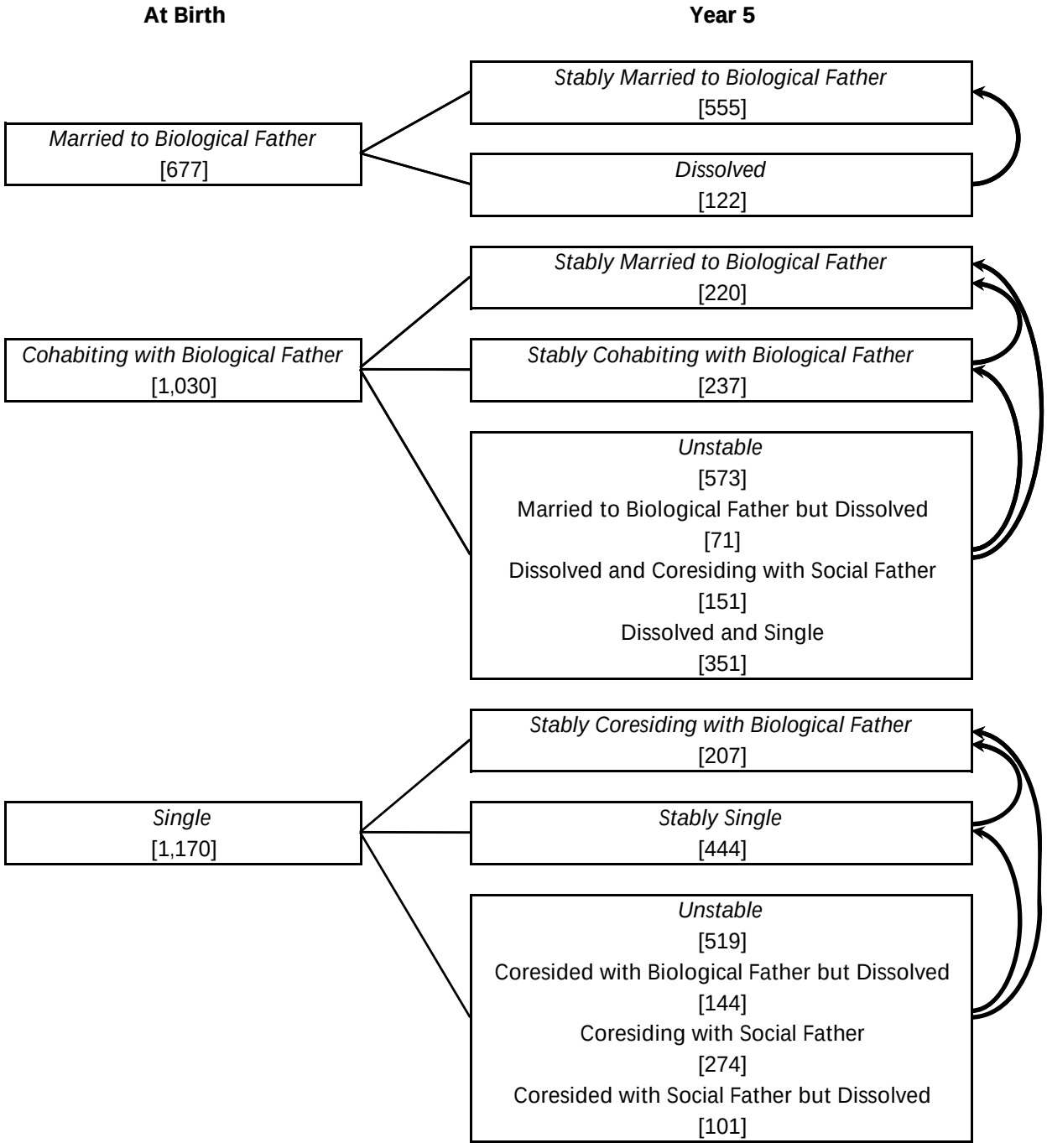
Figure 1. Construction of Treatment and Control Groups, FFCWS



Notes: Groups at the end of each arrow are the treatment groups, while groups at the beginning are the control groups. Number of observations in brackets.

Table 1. Sample Characteristics by Family Structure, FFCWS

	Full	Married		Cohabiting			Single		
		Stably Married	Dissolved	Married to BF	Stably Cohabiting	Unstable	Coresiding with BF	Stably Single	Unstable
N	2,877	555	122	220	237	573	207	444	519
Outcome Variables (Year 5)									
Verbal ability	0.00	0.51	0.00	0.07	-0.25	-0.10	-0.08	-0.13	-0.21
Attention problem	0.00	-0.16	0.11	-0.06	-0.07	0.02	0.04	0.06	0.12
Externalizing problem	0.00	-0.28	-0.06	-0.07	-0.09	0.07	0.03	0.12	0.19
Internalizing problem	0.00	-0.14	-0.04	0.06	0.13	0.00	0.10	-0.01	0.04
Control Variables (Baseline)									
Mother Characteristics									
Age: < 20	0.19	0.02	0.06	0.19	0.19	0.21	0.26	0.24	0.30
20-24	0.36	0.15	0.34	0.40	0.42	0.43	0.44	0.36	0.43
25-29	0.23	0.32	0.28	0.21	0.23	0.21	0.17	0.23	0.17
30-34	0.13	0.30	0.20	0.16	0.08	0.08	0.09	0.08	0.07
>= 35	0.09	0.21	0.11	0.04	0.08	0.06	0.04	0.09	0.04
Black	0.51	0.21	0.45	0.29	0.39	0.57	0.59	0.72	0.69
White	0.25	0.23	0.22	0.41	0.40	0.25	0.31	0.18	0.17
Hispanic	0.21	0.48	0.30	0.27	0.19	0.16	0.07	0.09	0.12
Other	0.03	0.07	0.03	0.03	0.02	0.02	0.02	0.01	0.02
Immigrant	0.13	0.24	0.14	0.25	0.24	0.08	0.13	0.07	0.04
Less than high school	0.33	0.13	0.20	0.30	0.41	0.39	0.45	0.36	0.40
High school	0.31	0.17	0.30	0.35	0.33	0.33	0.28	0.36	0.38
Some college	0.26	0.29	0.34	0.29	0.24	0.26	0.24	0.25	0.20
College or more	0.11	0.41	0.16	0.05	0.02	0.03	0.03	0.02	0.03
Not working	0.07	0.05	0.03	0.07	0.11	0.06	0.10	0.08	0.08
Part-time	0.30	0.28	0.27	0.30	0.25	0.29	0.30	0.35	0.32
Full-time	0.63	0.66	0.70	0.63	0.63	0.65	0.60	0.57	0.61
Poverty ratio: 0-99%	0.36	0.08	0.18	0.29	0.41	0.41	0.52	0.47	0.50
100-199%	0.25	0.17	0.25	0.25	0.31	0.26	0.28	0.27	0.29
>= 200%	0.39	0.75	0.57	0.46	0.29	0.33	0.20	0.26	0.21
Lived with parents at age 15	0.42	0.68	0.46	0.47	0.44	0.35	0.34	0.31	0.30
Lived with parent	0.27	0.07	0.15	0.16	0.15	0.19	0.46	0.47	0.47
Family support	0.85	0.89	0.87	0.84	0.79	0.83	0.85	0.84	0.86

(continued on the next page)

Table 1. *(continued)*

	Full	Married		Cohabiting			Single		
		Stably Married	Dissolved	Married to BF	Stably Cohabiting	Unstable	Coresiding with BF	Stably Single	Unstable
Cognitive ability	6.76	7.79	7.37	6.74	6.17	6.57	6.49	6.33	6.50
Impulsivity	6.09	5.13	5.97	5.98	6.01	6.29	6.31	6.47	6.58
Multipartnered fertility	0.35	0.14	0.25	0.36	0.39	0.42	0.34	0.42	0.46
Positive attitude toward marriage	2.89	3.71	3.25	2.96	2.76	2.84	2.71	2.47	2.46
Gender distrust	2.10	1.71	1.80	1.93	2.23	2.11	2.10	2.44	2.28
Considered abortion	0.27	0.09	0.16	0.16	0.30	0.27	0.36	0.39	0.41
Parent with mental health problem	0.37	0.38	0.35	0.40	0.37	0.39	0.42	0.29	0.36
Child Characteristics									
Male	0.52	0.56	0.48	0.50	0.49	0.48	0.48	0.54	0.57
First born	0.39	0.34	0.33	0.39	0.32	0.36	0.43	0.50	0.40
Low birthweight	0.10	0.06	0.10	0.07	0.11	0.12	0.13	0.14	0.10
Father Characteristics									
Age: < 20	0.09	0.00	0.01	0.07	0.06	0.12	0.10	0.13	0.17
20-24	0.31	0.09	0.24	0.35	0.40	0.38	0.39	0.32	0.40
25-29	0.26	0.25	0.32	0.25	0.24	0.24	0.31	0.26	0.25
30-34	0.17	0.33	0.20	0.18	0.16	0.14	0.11	0.13	0.08
>= 35	0.17	0.33	0.23	0.15	0.14	0.14	0.09	0.16	0.10
Black	0.53	0.22	0.52	0.33	0.42	0.57	0.64	0.73	0.73
White	0.25	0.23	0.16	0.41	0.38	0.28	0.29	0.18	0.17
Hispanic	0.19	0.50	0.29	0.22	0.16	0.12	0.05	0.06	0.08
Other	0.03	0.06	0.03	0.03	0.04	0.02	0.02	0.03	0.02
Immigrant	0.15	0.23	0.14	0.26	0.26	0.11	0.14	0.09	0.07
Less than high school	0.33	0.13	0.22	0.35	0.44	0.38	0.39	0.36	0.42
High school	0.35	0.22	0.41	0.31	0.34	0.39	0.39	0.42	0.39
Some college	0.21	0.29	0.26	0.25	0.21	0.20	0.20	0.20	0.15
College or more	0.10	0.37	0.11	0.08	0.01	0.03	0.02	0.02	0.04
Not working	0.02	0.00	0.01	0.00	0.01	0.02	0.02	0.03	0.05
Part-time	0.13	0.06	0.08	0.10	0.10	0.13	0.14	0.17	0.18
Full-time	0.85	0.94	0.91	0.89	0.89	0.85	0.84	0.80	0.77
Alcohol or drug problem	0.05	0.02	0.04	0.02	0.05	0.05	0.05	0.07	0.10
Ever incarcerated	0.27	0.07	0.17	0.18	0.26	0.33	0.27	0.38	0.41
Multipartnered fertility	0.41	0.18	0.42	0.29	0.33	0.49	0.40	0.56	0.52

Table 2. Covariate Balance Check

	Full	Black	Nonblack	Male	Female
Marriage					
Stably Married to Biological Father vs. Dissolved					
Unweighted	0.000 ***	0.006 **	0.000 ***	0.000 ***	0.000 ***
Propensity Score Weighted	1.000	0.994	0.999	0.998	1.000
Cohabitation					
Stably Married to Biological Father vs. Unstable					
Unweighted	0.000 ***	0.001 ***	0.001 ***	0.000 ***	0.002 **
Propensity Score Weighted	0.419	0.203	0.995	0.053 †	0.997
Stably Cohabiting with Biological Father vs. Unstable					
Unweighted	0.000 ***	0.502	0.002 **	0.002 **	0.005 **
Propensity Score Weighted	1.000	1.000	0.998	0.992	0.988
Stably Married to Biological Father vs. Stably Cohabiting with Biological Father					
Unweighted	0.002 **	0.178	0.014 *	0.305	0.196
Propensity Score Weighted	1.000	0.994	1.000	1.000	1.000
Single					
Stably Coresiding with Biological Father vs. Unstable					
Unweighted	0.000 ***	0.000 ***	0.074 †	0.029 *	0.001 **
Propensity Score Weighted	0.991	0.989	0.972	0.986	0.770
Stably Single vs. Unstable					
Unweighted	0.000 ***	0.001 ***	0.003 **	0.013 *	0.012 *
Propensity Score Weighted	1.000	1.000	1.000	1.000	1.000
Stably Coresiding with Biological Father vs. Stably Single					
Unweighted	0.000 ***	0.002 **	0.005 **	0.109	0.000 ***
Propensity Score Weighted	0.965	0.990	0.918	0.946	0.727

Note : Numbers are *p* -values from the Hotelling's T-squared test of equality of means between two groups.
† $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

Table 3. Parameter Estimates of the Effects of Family Structure on Child Wellbeing, FFCWS Married Mothers at Birth

	PPVT		Attention Problem		Externalizing Behavior		Internalizing Behavior		Social Problem	
	OLS	PSW	OLS	PSW	OLS	PSW	OLS	PSW	OLS	PSW
Dissolved → Stably Married to Biological Father										
Full [677]	0.204 †	0.281 **	-0.227 *	-0.272 **	-0.111	-0.146	-0.056	-0.111	-0.148	-0.165
Black [173]	0.326 †	0.392 *	-0.174	-0.181	-0.067	-0.128	0.006	0.062	-0.272	-0.193
Nonblack [504]	0.176	0.247 †	-0.307 *	-0.322 *	-0.163	-0.178	-0.123	-0.132	-0.181	-0.182
Male [367]	0.219	0.293 †	-0.420 *	-0.408 **	-0.181	-0.136	-0.177	-0.186	-0.256	-0.190
Female [310]	0.228 †	0.327 *	-0.100	-0.130	-0.085	-0.152	0.075	0.014	-0.025	-0.014

Notes: OLS are ordinary least squares estimates and PSW are propensity score weighted estimates. Robust standard errors are used to determine statistical significance levels. All control variables are included for both estimations. Robust standard errors and control variables are omitted in the interest of parsimonious presentation. Sample sizes in brackets.

† $p < .10$; * $p < .05$; ** $p < .01$ (two-tailed tests).

Table 4. Parameter Estimates of the Effects of Family Structure on Child Wellbeing, FFCWS Cohabiting Mothers at Birth

	PPVT		Attention Problem		Externalizing Behavior		Internalizing Behavior		Social Problem	
	OLS	PSW	OLS	PSW	OLS	PSW	OLS	PSW	OLS	PSW
Unstable → Stably Married to Biological Father										
Full [793]	0.074	0.046	-0.076	-0.013	-0.055	-0.009	-0.054	-0.063	-0.053	-0.019
Black [392]	-0.111	-0.188	0.128	0.125	0.116	0.179	-0.004	-0.171	0.050	0.034
Nonblack [401]	0.203 †	0.246 *	-0.217 †	-0.222 †	-0.172	-0.214 †	-0.074	-0.134	-0.072	-0.107
Male [386]	0.042	0.099	-0.164	-0.100	-0.128	-0.033	-0.076	0.014	-0.240 *	-0.140
Female [407]	0.080	0.024	0.023	0.094	0.014	0.034	-0.008	-0.072	0.118	0.130
Unstable → Stably Cohabiting with Biological Father										
Full [810]	-0.064	-0.072	-0.135	-0.090	-0.118	-0.097	-0.002	0.033	-0.034	-0.046
Black [419]	-0.111	-0.134	-0.006	0.011	0.041	0.121	0.039	0.082	-0.045	0.010
Nonblack [391]	0.003	-0.024	-0.227 †	-0.237 *	-0.219 *	-0.301 **	-0.051	-0.039	0.014	-0.053
Male [393]	-0.327 *	-0.354 *	-0.174	-0.044	-0.199	-0.115	-0.020	0.184	-0.127	-0.101
Female [417]	0.142	0.122	-0.115	-0.117	-0.009	-0.079	0.042	-0.035	0.106	-0.008
Stably Cohabiting with Biological Father → Stably Married to Biological Father										
Full [457]	0.157	0.155	0.076	0.034	0.125	0.092	-0.017	-0.100	-0.016	-0.031
Black [157]	-0.061	-0.125	0.271	0.353 †	0.209	0.312 †	0.007	-0.096	0.133	0.201
Nonblack [300]	0.233	0.212	0.015	-0.040	0.141	0.082	-0.030	-0.102	-0.065	-0.097
Male [225]	0.248	0.211	0.072	0.123	0.181	0.256 †	-0.029	-0.055	-0.118	-0.079
Female [232]	0.032	0.032	0.052	-0.016	0.035	-0.037	-0.087	-0.268 †	0.039	-0.080

Notes: OLS are ordinary least squares estimates and PSW are propensity score weighted estimates. Robust standard errors are used to determine statistical significance levels. All control variables are included for both estimations. Robust standard errors and control variables are omitted in the interest of parsimonious presentation. Sample sizes in brackets.

† $p < .10$; * $p < .05$; ** $p < .01$ (two-tailed tests).

Table 5. Parameter Estimates of the Effects of Family Structure on Child Wellbeing, FFCWS Single Mothers at Birth

	PPVT		Attention Problem		Externalizing Behavior		Internalizing Behavior		Social Problem	
	OLS	PSW	OLS	PSW	OLS	PSW	OLS	PSW	OLS	PSW
Unstable → Stably Coresiding with Biological Father										
Full [726]	0.128	0.104	-0.029	-0.045	-0.085	-0.034	0.038	0.048	-0.124	-0.050
Black [483]	0.125	0.076	-0.061	-0.132	-0.162	-0.089	-0.065	-0.057	-0.172 †	-0.079
Nonblack [243]	0.038	0.030	-0.011	0.004	0.050	0.136	0.123	0.100	-0.123	-0.063
Male [398]	0.169	0.180 †	0.036	0.094	0.044	0.092	0.150	0.240 †	-0.127	-0.051
Female [328]	0.091	0.104	-0.060	-0.132	-0.143	-0.166	-0.002	-0.052	-0.095	-0.097
Unstable → Stably Single										
Full [963]	0.086	0.064	0.004	-0.002	0.012	0.000	-0.017	-0.021	-0.048	-0.027
Black [678]	0.094	0.099	0.057	0.045	0.072	0.029	-0.032	-0.043	0.030	0.042
Nonblack [285]	0.108	-0.013	-0.192	-0.128	-0.152	-0.147	-0.052	-0.078	-0.335 *	-0.336 *
Male [539]	0.080	0.069	-0.029	-0.018	-0.049	-0.074	-0.048	-0.083	-0.041	-0.030
Female [424]	0.074	0.052	0.090	0.051	0.136	0.118	0.024	0.073	-0.051	-0.061
Stably Single → Stably Coresiding with Biological Father										
Full [651]	0.042	-0.013	-0.001	-0.050	-0.057	-0.106	0.059	0.053	-0.032	-0.048
Black [441]	0.029	-0.005	-0.146	-0.115	-0.186 †	-0.228 *	-0.038	-0.016	-0.124	-0.133
Nonblack [210]	0.021	-0.076	0.300 †	0.414 *	0.211	0.253 †	0.218	0.350 *	0.217	0.065
Male [341]	0.090	0.061	-0.028	0.085	0.046	0.065	0.106	0.129	-0.035	0.008
Female [310]	-0.001	0.011	0.030	-0.087	-0.225 †	-0.288 *	0.030	0.014	-0.030	-0.044

Notes: OLS are ordinary least squares estimates and PSW are propensity score weighted estimates. Robust standard errors are used to determine statistical significance levels. All control variables are included for both estimations. Robust standard errors and control variables are omitted in the interest of parsimonious presentation. Sample sizes in brackets.

† $p < .10$; * $p < .05$ (two-tailed tests).