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# *The* **BUILDING STRONG FAMILIES PROJECT**

**The Long- Term  
Effects of Building  
Strong Families:  
A Relationship  
Skills Education  
Program for  
Unmarried Parents**



**TECHNICAL SUPPLEMENT**

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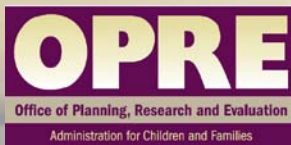
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**The Long- Term Effects of  
Building Strong Families: A  
Relationship Skills Education  
Program for Unmarried Parents**

**Technical Supplement**

November 2012

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## CONTENTS

I	RESEARCH DESIGN .....	1
	Overview of the Research Design .....	1
	BSF Sample Intake Procedures.....	2
	The Study Sample and Data Collection: 36-Month Follow-Up Survey .....	3
	The Study Sample and Data Collection: 36-Month Direct Assessment .....	12
	Approach to the 36-Month Impact Analysis .....	16
II	ANALYTIC METHODS.....	18
	Multivariate Estimation .....	18
	Treatment of Missing Data.....	21
	Multiple Comparison Analysis.....	22
	Sensitivity Tests.....	24
III	MEASURING AND ANALYZING THE COUPLE RELATIONSHIP.....	30
	Relationship Status .....	30
	Attitudes Toward Marriage.....	32
	Relationship Quality.....	33
	Intimate Partner Violence.....	42
IV	MEASURING AND ANALYZING PARENTING .....	44
	Co-Parenting Relationship.....	44
	Father’s Involvement and Parenting Behavior .....	44
	Mothers’ Parenting Behavior .....	50
	Parents’ Emotional Well-Being .....	52
V	MEASURING AND ANALYZING CHILD WELL-BEING .....	54
	Family Stability .....	54
	Economic Well-Being .....	55
	Household Routines.....	57

	Child Socio-Emotional Development.....	58
	Child Language and Cognitive Development .....	62
	Measures of the Child’s Physical Health .....	63
VI	SUBGROUP ANALYSIS .....	65
	Approach to Subgroups Used in the BSF Impact Analysis.....	65
	Results of Subgroup Analysis.....	67
VII	BSF’S EFFECTS ON THOSE WHO ATTENDED GROUP RELATIONSHIP SKILLS SESSIONS .....	69
	Methods for Estimating Effects for Couples Who Attended Group Sessions .....	69
	Creation of Comparison Groups.....	73
	Estimating TOT Impacts.....	74
	Impacts of BSF on Couples Who Attended Group Sessions.....	76
	REFERENCES .....	85
APPENDIX A.	SUPPLEMENTAL ESTIMATED IMPACTS FOR EACH PROGRAM AND POOLED ACROSS PROGRAMS .....	A1
APPENDIX B.	ESTIMATED IMPACTS FOR SUBGROUPS .....	B1
APPENDIX C.	BSF INTAKE FORMS .....	C1
APPENDIX D.	BSF 36-MONTH FOLLOW-UP SURVEY INSTRUMENT.....	D1
APPENDIX E.	BSF 36-MONTH DIRECT ASSESSMENT INSTRUMENT .....	E 1



**TABLES**

I.1. Sample Intake Period and Number of Couples Randomly Assigned, by BSF Program..... 4

I.2. Baseline Characteristics of All BSF and Control Group Couples ..... 5

I.3. BSF 36-Month Survey Response Rates, by Research Group and BSF Program ..... 6

I.4. Baseline Characteristics of BSF and Control Group Couples who Responded to the 36-Month Follow-up Survey..... 7

I.5. Results of Assessments of Risk of Attrition Bias for BSF Analysis Samples..... 10

I.6. Results of Assessments of Risk of Attrition Bias for Program-Level BSF Analysis Samples ..... 11

I.7. BSF 36-Month Direct Assessment Response Rates, by Research Group and BSF Program ..... 13

I.8. Baseline Characteristics of BSF and Control Group Couples in Which the Mother Responded to the 36-Month Direct Assessment ..... 14

I.9. Baseline Characteristics of BSF and Control Group Couples in Which the Father Responded to the 36-Month Direct Assessment..... 15

II.1. Control Variables Used in Regression Models to Estimate BSF’s Impacts ..... 19

II.2. Conventions for Describing Statistical Significance of Program Impact Estimates ..... 20

II.3. Primary Outcomes in Key Domains ..... 23

II.4. Impacts on Key Outcome Domains for the Eight Local BSF Programs at 15 and 36 Months ..... 25

II.5. Statistical Significance of Key Outcomes Using Standard *p*-Value Thresholds and Thresholds Adjusted for Multiple Comparisons ..... 26

II.6. Sign and Statistical Significance of Impacts on Key Outcome Domains, by Estimation Method..... 27

II.7. Sign and Statistical Significance of Impacts on Key Outcomes, by Estimation Method..... 29

III.1. Five Relationship Quality Measures and Their Corresponding Survey Items ..... 34

III.2. Correlations Between the Five Relationship Quality Measures ..... 35

III.3.	Attrition and Equivalence for Relationship Quality Measures in the Eight-Site Sample .....	38
III.4.	Results of Assessments of Risk of Attrition Bias for Truncated BSF Analysis Samples .....	39
IV.1.	Measures of Father Involvement and Father’s Parenting Behavior Analyzed in the BSF 36-Month Impact Analysis.....	45
IV.2.	Parenting and Relationship Items Coded from the Two-Bag Assessment .....	49
IV.3.	Parenting Outcomes in Additional Domains for the BSF 36-Month Impact Analysis .....	51
V.1.	Measures of Family Stability, Economic Well-Being, and Household Routines Examined in the BSF 36-Month Impact Analysis .....	55
V.2.	Child Development Outcomes Examined in the BSF 36-Month Impact Analysis .....	59
V.3.	Correlations Among Primary Socio-emotional Development Measures .....	59
VI.1.	Subgroups Examined in BSF Impact Analysis .....	66
VI.2.	Statistical Significance of Differences in Impacts on Key Outcome Domain Indices Across Subgroup Categories .....	67
VII.1.	Baseline Characteristics of BSF Couples Who Attended Group Sessions Compared with the Characteristics of All Control Group Couples (percentages unless otherwise indicated).....	70
VII.2.	Actual Attendance Rates of Program Group Couples, by Likely Attender Status (percentages).....	74
VII.3.	Key Baseline Characteristics of BSF and Control Group Couples Included in the TOT Analysis (percentages).....	75

**FIGURES**

I.1	Model of BSF and Its Expected Impacts .....	17
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## I. RESEARCH DESIGN

This report is a technical supplement to the 36-month impact report for the Building Strong Families (BSF) evaluation (Wood et al. 2012). It provides additional detail about the research design (Chapter I), analytic methods (Chapter II), and variable construction (Chapters III, IV and V) that were used for the 36-month analysis. Chapter VI of this report provides a discussion of the subgroup analysis that was conducted. Chapter VII discusses the treatment-on-the-treated (TOT) impact analysis, an analysis of BSF's effects on couples who actually attended BSF group sessions. The full set of impact results generated as part of the 36-month analysis is included in the appendices of this volume. An earlier report and technical supplement examined the impact of BSF on couples' outcomes about 15 months after they applied for the program and provided results generated as a part of the 15-month impact analysis (Wood, McConnell et al. 2010; Wood, Moore et al. 2010). Restricted use data files and documentation are available through the Inter-University Consortium of Political and Social Research.<sup>1</sup>

This chapter describes the research design for the Building Strong Families (BSF) 36-month impact analysis. It begins with an overview of the design. It then describes BSF sample intake procedures, including eligibility determination and the random assignment process. Next, it describes the study sample and the 36-month follow-up survey and direct assessment data collection. It ends with the basic analytic approach that guided the evaluation team in conducting the 36-month impact analysis.

### Overview of the Research Design

The BSF evaluation used a rigorous random assignment research design. Couples who applied to the program were assigned randomly to either the BSF group that was offered admission to the program or to a control group that was not. Program impacts were measured by comparing the average outcomes of the two research groups. When implemented rigorously, random assignment ensures that there are no systematic differences between the research groups other than access to the program. Therefore, any subsequent differences in the average outcomes of BSF and control group couples that are too large to be the result of chance can be attributed to BSF.

A distinctive feature of the BSF evaluation is that couples (rather than individuals) were randomly assigned. For the couple to be eligible for random assignment, both members of the couple had to agree to participate in the program and the research study. In addition, a couple could not be randomly assigned if either member of the couple had previously been randomly assigned—even if they went through random assignment with a different partner. This requirement ensured that no member of the control group could participate in BSF and that no member of the program group was subsequently assigned to the control group.

The impacts presented in the 36-month impact report represent what are often referred to as “intent-to-treat” estimates. They are calculated by comparing all couples assigned to the BSF group to all couples assigned to the control group regardless of whether or how frequently the couples attended BSF group sessions. Intent-to-treat estimates answer a policy-relevant question because

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<sup>1</sup> More details are available at <http://dx.doi.org/10.3886/ICPSR29781.v1>.

they incorporate the fact that not everyone who enrolls in a program participates in all available services. Quasi-experimental estimates of impacts for treatment group couples who actually received BSF services, often referred to as “treatment-on-the-treated” estimates, are shown in Chapter VII.

The 36-month impact analysis includes two kinds of impact estimates: (1) pooled estimates, which combine data from all eight BSF programs; and (2) program-specific estimates, which present the impacts of each program separately. In the pooled analysis, each program was weighted equally to obtain an overall effect across the eight BSF programs. The 36-month impact analysis also examines BSF’s effects for key subgroups. These subgroup analyses are conducted using pooled data for all BSF programs and each program is weighted equally when estimating subgroup effects. The subgroup results are discussed in Chapter VI of this report and are presented in detail in Appendix B.

## **BSF Sample Intake Procedures**

**Program eligibility.** The first step in the BSF intake procedures was to determine eligibility for the program.<sup>2</sup> Couples were eligible for BSF if they met five criteria:

1. Both members of the couple agreed to participate in the program
2. The couple was romantically involved
3. The couple was either expecting a baby together or had a baby that was younger than three months old
4. The couple was unmarried at the time their baby was conceived
5. Both members of the couple were 18 years of age or older

Couples also had to be able to speak one of the languages in which BSF was offered in their location. All programs offered BSF in English. The BSF programs in Atlanta, Houston, and Indiana also offered BSF in Spanish.<sup>3</sup> Couples were considered to be in a romantic relationship if during the intake process both members of the couple characterized their relationship as either being “romantically involved on a steady basis” or being “involved in an on-again and off-again relationship.”

As part of BSF eligibility determination, couples were screened for intimate partner violence. Each local BSF program in the evaluation developed an intimate partner violence screen in collaboration with its local or state domestic violence coalition. If the local BSF program found evidence of violence that could be aggravated by BSF participation, the couple was ineligible for BSF and was referred to other services. Each local program also had protocols for assessing intimate partner violence among couples participating in BSF and protocols for how to respond if violence was detected.

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<sup>2</sup> More details on the intake procedures are provided in the BSF implementation reports (Dion et al. 2008; Dion et al. 2010).

<sup>3</sup> All San Angelo group sessions were conducted in English. Although the San Angelo BSF program served primarily Hispanic couples, these couples were English speaking.

A BSF intake worker determined the eligibility of the couple, typically through a conversation with each member of the couple. If the parents were both present when eligibility was determined, the intake worker asked them to separate for the questions about their relationship and intimate partner violence. After this conversation, the intake worker completed the program eligibility checklist for each parent and entered the data from the checklist into the study management information system (MIS). This eligibility checklist is included in Appendix A.

**Study enrollment and baseline data collection.** In addition to satisfying all the program eligibility criteria, each member of the couple also had to give his or her consent to participate in the study. After determining eligibility, the BSF intake worker explained to each member of the couple that there was limited space in the BSF programs, and, as a result, there was a 50-50 chance that the couple would not get into the program. The intake worker also explained the BSF study and told them that they would be asked to participate in follow-up surveys. For the couple to be eligible for the study, both parents had to sign a consent form that indicated that they had been informed about random assignment and the plan for subsequent data collection. Each member of the couple was also asked to complete a form that gathered baseline information on the characteristics of the parent and the parents' relationship. An intake worker administered the baseline information form to each member of the couple. This form is included in Appendix A.

**Random assignment.** Random assignment took place after: (1) both parents had satisfied all the program and study eligibility criteria, (2) the information was entered into the program MIS, and (3) the MIS had checked that neither parent had previously been randomly assigned. If for any reason only one member of the couple satisfied the eligibility criteria, the couple could not participate in BSF and was not randomly assigned. Two checks for previous random assignment were conducted: The first used the Social Security number and the second used name, date of birth, and name of the local program. Mathematica alerted the program if either parent appeared to have been randomly assigned previously. If a potential enrollee was confirmed to already be in the research sample, the couple was ineligible for random assignment.

The study MIS randomly assigned couples to the BSF group or the control group. The probability of being assigned to each group was 50 percent. The MIS notified the local program of the assignment of each couple to the BSF or control group. The local program was responsible for notifying each couple of their group assignment. Most programs immediately assigned couples in the BSF group to a family coordinator and to a group session scheduled to start in the near future. Some local programs provided control group couples with a list of support services available in the community.

## **The Study Sample and Data Collection: 36- Month Follow- Up Survey**

The eight local BSF programs enrolled couples into the study sample from July 2005 to March 2008, with the specific sample intake period varying somewhat across the programs (Table I.1). Each of the local programs spent several months piloting their curricula, their recruitment and enrollment procedures, and other aspects of their programs before beginning enrollment of the research sample. Across the eight programs, 5,102 couples were randomly assigned, with 2,553 assigned to the BSF group and 2,549 assigned to the control group (Table I.1). Sample sizes for each program ranged from 342 couples in San Angelo, Texas to 1,010 couples in Oklahoma City.

**Table I.1. Sample Intake Period and Number of Couples Randomly Assigned, by BSF Program**

Program	Sample Intake Period	Number of Couples Randomly Assigned		
		BSF Group	Control Group	Total
Atlanta	January 2006 to February 2008	465	465	930
Baltimore	December 2005 to December 2007	302	300	602
Baton Rouge	January 2006 to March 2008	325	327	652
Florida Counties	July 2005 to November 2007	346	349	695
Houston	July 2005 to February 2008	203	202	405
Indiana Counties	January 2006 to March 2008	234	232	466
Oklahoma City	June 2006 to February 2008	503	507	1,010
San Angelo	July 2005 to November 2007	175	167	342
<b>All Programs</b>	<b>July 2005 to March 2008</b>	<b>2,553</b>	<b>2,549</b>	<b>5,102</b>

Source: BSF management information system data.

As illustrated in Table I.2, for the full sample, random assignment created research groups with very similar characteristics at baseline, with statistically significant differences on only 2 of 29 examined characteristics. As described in Chapter II, the full set of measures in Table I.2 were included as control variables in the multivariate models used to estimate program effects. Thus, all impacts that are reported adjust for any small differences in these baseline characteristics.

As in the 15-month impact analysis, telephone surveys were a key data source for the 36-month impact analysis. The follow-up surveys at 36 months covered many of the same domains as the 15-month survey, including the status and quality of couples’ relationships; measures of parenting, co-parenting, and father involvement; information about parents’ mental health, substance use, and other measures of their well-being; and measures of employment, earnings, and other economic outcomes. In addition, the 36-month survey also covered the health and socio-emotional development of the focal child, as well as household routines in the focal child’s family. The 36-month survey instrument is included in Appendix D of this report.

Because many of the items on the 36-month survey were specific to parenting and child development, the timing of the survey was based on the age of the focal child and not the date of random assignment. Couples could enroll in BSF if they were pregnant or if they had a baby who was less than three months old. Interviewers began attempting surveys 35 months after the birth date of the focal child (the child that made the couple eligible for BSF). This protocol for releasing cases for the 36-month survey ensured that focal children were all similar in age at the time of the follow-up and that they were old enough for certain child outcome measures used in the analysis to be valid. The release date for the 36-month survey ranged from 32 to 42 months after random assignment, depending on the timing of the child’s birth relative to random assignment.

Administration of the 36-month survey ended in early September 2011. To ensure that survey staff had at least three months to attempt to complete a survey with sample members, no additional cases were released for the 36-month survey after May 2011. Of the 5,102 couples who were randomly assigned, 116 (2 percent) had focal children who were not yet 35 months old at the end of May 2011. Therefore, no 36-month surveys were attempted for these 116 couples.

Among sample members for whom 36-month surveys were attempted, 3,981 mothers and 3,426 fathers responded (Table I.3). The response rate for the 36-month survey was 80 percent for mothers and 69 percent for fathers. At least one partner responded to the survey in 85 percent of

**Table I.2. Baseline Characteristics of All BSF and Control Group Couples**

	BSF Couples	Control Group Couples
<b>Socio- Economic and Demographic Measures</b>		
Race/Ethnicity (%)		
Both partners are Hispanic	25.7	25.4
Both partners are Black, non-Hispanic	47.5	46.8
Both partners are White, non-Hispanic	11.5	11.5
All other couples	15.4	16.2
High School Diploma Receipt (Excluding GEDs) (%)		
Both partners have diploma	36.4	37.8
One partner has diploma	36.9	36.3
Neither partner has diploma	26.8	25.9
Average Age (in Years)		
Mother's age	23.6	23.5
Father's age	26.0	25.8
Couples' Total Earnings in Past Year	\$20,651	\$19,866*
Either Partner Received SNAP or TANF in Past Year (%)	46.0	45.2
<b>Relationship Characteristics</b>		
Couple's Relationship Status (%)		
Married to each other	6.6	7.0
Unmarried, cohabiting full-time <sup>a</sup>	59.9	57.3*
Unmarried, not cohabiting full-time	33.5	35.7
Relationship Quality <sup>b</sup>		
Highest tercile (%)	31.6	32.8
Middle tercile (%)	35.6	33.4
Lowest tercile (%)	32.9	33.9
Average scale value (range 1 to 4 )	3.26	3.25
Both Partners Expect to Marry <sup>c</sup> (%)	59.5	57.8
Baby Born Prior to BSF Application (%)	43.9	43.8
Either Partner Has a Child from a Prior Relationship (%)	47.6	46.7
Pregnancy Intendedness <sup>d</sup> (%)		
Intended by both partners	25.0	24.2
Wanted by both partners, but considered mistimed	52.8	53.1
Unwanted by at least one partner	22.2	22.7
<b>Mental Health, Attitudes, and Religiosity</b>		
Either Partner Has Psychological Distress <sup>e</sup> (%)	38.0	38.3
Both Partners Agree "It Is Better for Children if Parents Are Married" (%)	61.2	59.9
Attendance at Religious Services (%)		
Both attend more than monthly	24.5	23.6
One attends more than monthly	28.5	28.9
Neither attends more than monthly	47.0	47.5
<b>Sample Size</b>	<b>2,553</b>	<b>2,549</b>

Source: BSF baseline information form and BSF eligibility form.

Note: The eight local BSF programs are weighted equally for these calculations.

<sup>a</sup> Couples are considered to be cohabiting full-time only if both partners report that they are.

<sup>b</sup> This scale is an average of nine items related to couple interaction and commitment. The items ask respondents to rate on a four-point "strongly disagree to strongly agree" scale, the extent to which their partner (1) shows love and affection, (2) gives encouragement, and (3) listens; (4) respondents' satisfaction with how the couple resolves conflict, (5) whether the couple enjoys doing things together, respondents' (6) marriage expectations, (7) confidence in partner's fidelity, (8) confidence in wanting to be with partner in the future, and (8) feeling that the relationship with their partner is the most important thing to them. The values of the scale for the two partners are then averaged to create a couple score.

<sup>c</sup> Among those married at baseline measure, based on a question in which the respondent is asked to rate the chance that the partners will marry, using five response categories: "Almost certain," "Pretty good chance," "50-50 chance," "Fair chance," and "Little chance." Couples are considered as expecting to marry if both answer "Almost certain" or "Pretty good chance" (the two categories representing a greater than 50-50 chance).

<sup>d</sup> A pregnancy is considered intended if the respondent (a) reports wanting to have a baby with their partner and (b) the pregnancy did not occur earlier than hoped.

<sup>e</sup> Psychological distress is assessed using the Kessler-6 scale, which sums six items rated on a 0 to 4 scale indicating the frequency of six symptoms of psychological distress. An individual is considered to have signs of psychological distress if the sum of those six items is greater than 8.

\*\*\*/\*\*/\* Difference between BSF and Control Group means are statistically significant at the .01/.05/.10 level.

**Table I.3. BSF 36- Month Survey Response Rates, by Research Group and BSF Program**

Program	Either Partner		Mother		Father	
	BSF Group	Control Group	BSF Group	Control Group	BSF Group	Control Group
<b>Number of Surveys Attempted</b>						
Atlanta	452	449	452	449	452	449
Baltimore	300	300	300	300	300	300
Baton Rouge	297	302	297	302	297	302
Florida Counties	346	349	346	349	346	349
Houston	201	201	201	201	201	201
Indiana Counties	233	232	233	232	233	232
Oklahoma City	484	497	484	497	484	497
San Angelo	175	167	175	167	175	167
<b>All Programs</b>	<b>2,488</b>	<b>2,497</b>	<b>2,488</b>	<b>2,497</b>	<b>2,488</b>	<b>2,497</b>
<b>Number of Surveys Completed</b>						
Atlanta	380	371	361	350	316	295
Baltimore	273	261	255	248	206	203
Baton Rouge	244	259	224	236	200	203
Florida Counties	296	301	275	282	223	253
Houston	174	156	166	147	145	127
Indiana Counties	201	197	191	184	177	173
Oklahoma City	420	432	397	411	339	343
San Angelo	141	141	128	126	113	110
<b>All Programs</b>	<b>2,129</b>	<b>2,118</b>	<b>1,997</b>	<b>1,984</b>	<b>1,719</b>	<b>1,707</b>
<b>Percentage of Attempted Surveys Completed</b>						
Atlanta	84.1	82.6	79.9	78.0	69.9	65.7
Baltimore	91.0	87.0	85.0	82.7	68.7	67.7
Baton Rouge	82.2	85.8	75.4	78.1	67.3	67.2
Florida Counties	85.3	86.2	79.3	80.8	64.3	72.5
Houston	86.6	77.6	82.6	73.1	72.1	63.2
Indiana Counties	86.3	84.9	82.0	79.3	76.0	74.6
Oklahoma City	86.8	86.9	82.0	82.7	70.0	69.0
San Angelo	80.6	84.4	73.1	75.4	64.6	65.9
<b>All Programs</b>	<b>85.5</b>	<b>84.8</b>	<b>80.2</b>	<b>79.5</b>	<b>69.1</b>	<b>68.4</b>

Source: BSF 36-month follow-up survey.

couples. These response rates are only slightly lower than at 15 months, when 83 percent of mothers and 72 percent of fathers responded, and when 87 percent of couples had at least one partner respond (Wood et al. 2010). Response rates were similar for BSF and control group couples and across the eight local BSF programs, with the exception of the Houston program (Table I.3). Couple-level response rates ranged from 82 to 89 percent across the eight programs. The implications of these response rates for risk of attrition bias are discussed later in the chapter.

In each couple, one parent who reported living with the focal child all or most of the time was designated to respond to questions concerning the child’s well-being. In 97 percent of couples, the responding parent is the mother. The average age of the child at the time the responding parent completed the 36-month survey was 37 months. Sixty-one percent of surveys were completed within 3 years of the child’s birth. Ninety-one percent were completed within 3.5 years.

Among respondents to the 36-month follow-up survey, the baseline characteristics of BSF and control group couples were very similar (Table I.4). On most measures, the characteristics of the



two research groups were almost identical, and the difference between the two groups was not statistically significant for any measure. All impact estimates for the 36-month analysis were generated using multivariate statistical models that adjust for these small differences in baseline characteristics between BSF and control group couples (see Chapter II).

**Table I.4. Baseline Characteristics of BSF and Control Group Couples who Responded to the 36- Month Follow- up Survey**

	BSF Couples	Control Group Couples
<b>Socio- Economic and Demographic Measures</b>		
Race/Ethnicity (%)		
Both partners are Hispanic	25.2	23.9
Both partners are Black, non-Hispanic	49.0	48.3
Both partners are White, non-Hispanic	10.9	11.4
All other couples	14.9	16.4
High School Diploma Receipt (Excluding GEDs) (%)		
Both partners have diploma	36.6	38.0
One partner has diploma	36.6	36.8
Neither partner has diploma	26.8	25.2
Average Age (in Years)		
Mother's age	23.6	23.4
Father's age	26.0	25.7
Couples' Total Earnings in Past Year	\$20,492	\$19,774
Either Partner Received SNAP or TANF in Past Year (%)	46.4	46.5
Focal Child is Male	49.4	48.6
<b>Relationship Characteristics</b>		
Couple's Relationship Status (%)		
Married to each other	6.6	6.8
Unmarried, cohabiting full-time <sup>a</sup>	58.3	56.2
Unmarried, not cohabiting full-time	35.1	37.0
Relationship Quality <sup>b</sup>		
Highest tercile (%)	32.1	31.2
Middle tercile (%)	35.0	34.3
Lowest tercile (%)	32.9	34.5
Average scale value (range 1 to 4 )	3.26	3.24
Both Partners Expect to Marry <sup>c</sup> (%)	59.1	57.5
Baby Born Prior to BSF Application (%)	43.9	44.4
Either Partner Has a Child from a Prior Relationship (%)	47.4	46.6
Pregnancy Intendedness <sup>d</sup> (%)		
Intended by both partners	25.0	23.1
Wanted by both partners, but considered mistimed	52.2	53.4
Unwanted by at least one partner	22.8	23.5
<b>Mental Health, Attitudes, and Religiosity</b>		
Either Partner Has Psychological Distress <sup>e</sup> (%)	38.2	38.7
Both Partners Agree "It Is Better for Children if Parents Are Married" (%)	61.0	59.4
Attendance at Religious Services (%)		
Both attend more than monthly	24.6	24.5
One attends more than monthly	28.5	28.8
Neither attends more than monthly	46.9	46.7
<b>Sample Size</b>	<b>2,129</b>	<b>2,118</b>

Source: BSF baseline information form and BSF eligibility form.

Note: The eight programs are weighted equally for these calculations. The sample included in this table represents couples where at least one of the partners completed the 36-month survey. Footnotes refer to those provided in Table I.2.

\*\*\*/\*\*/\* Difference between BSF and Control Group means are statistically significant at the .01/.05/.10 level.

## Assessing Risk of Attrition Bias

If sample attrition through survey non-response is severe or very different for the BSF and control groups, the resulting missing data can introduce bias to the impact estimates. Bias can result because the types of sample members for whom data are available might differ across research groups. In order to assess the risk of bias in the estimates of BSF's effectiveness, the evaluation team followed a two-step procedure developed for the U.S. Department of Education's What Works Clearinghouse (WWC) (U.S. Department of Education 2008). First, the evaluation team analyzed the level of sample attrition in both the BSF and control group samples.<sup>4</sup> The samples must meet an attrition standard based on a combination of overall sample attrition and differential attrition between research groups. If this standard is met, then the risk of serious bias due to attrition is deemed low by WWC evidence standards.

If a sample used for an impact analysis failed to meet the WWC attrition standard, then the evaluation team proceeded to the second step in the procedure and tested BSF and control groups in the analysis sample for equivalence on observable characteristics. Analyses that fail to meet the attrition standard but meet the equivalence standard are classified as meeting WWC evidence standards with reservations and determined to be at moderate risk of attrition bias. This risk is noted in tables that present these findings in both the main report and the technical supplement, and readers are cautioned to interpret these findings more carefully than other experimental impact estimates.

Analyses that failed to meet both the attrition and equivalence standards are determined to have substantial risk of bias. Such findings are not reported in the main impact report. Rather, they are presented only in Appendix A of this technical supplement with cautions alerting readers to the risk of attrition bias.

**Attrition testing.** The attrition standards developed by the WWC assess the severity of bias for different combinations of overall and differential attrition. The acceptable amount of one type of attrition depends on the amount of the other type. For instance, the WWC *Procedures and Standards Handbook* (U.S. Department of Education 2008) notes that "bias associated with an overall attrition rate of 10% and a differential attrition rate of 5% can be equal to the bias associated with an overall attrition rate of 30% and a differential attrition rate of 2%." The WWC sets "liberal" and "conservative" sample attrition thresholds, developed through validity testing on experimental data. The appropriate standard to use in a particular circumstance depends on whether outcomes are likely to be correlated with the propensity to be included in the analysis sample. The evaluation team used the conservative WWC attrition standard. Attrition was tested for all analysis samples used to measure impacts on the key outcomes, including samples that pool across local BSF programs and those that are separate by BSF program.

**Equivalence testing.** In cases in which the attrition standard was not met, equivalence was examined on the following baseline measures:

- ***Relationship Commitment.*** A four-item scale was created based on the following items from the baseline information form: (1) assessment of chance of marrying the

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<sup>4</sup> The evaluation team also examined attrition due to truncation (see Chapter III).

current partner (from no chance to an almost certain chance); (2) assessment of the chance that the current partner will be unfaithful; (3) level of agreement with the statement “You may not want to be with [PARTNER] in the future” (reverse coded); and (4) level of agreement with the statement “Your relationship with [PARTNER] is more important to you than almost anything else in your life.”<sup>5</sup> Responses of both partners are averaged to create this measure.

- **Relationship Interaction.** A five-item scale was created based on the level of agreement with the following statements on the baseline information form: “[PARTNER] shows love and affection”; “[PARTNER] encourages you to do things that are important to you”; “You and [PARTNER] enjoy doing ordinary, everyday things together”; “[PARTNER] listens to you when you need someone to talk to”; and “You are satisfied with the way you and [PARTNER] handle problems and disagreements.”<sup>6</sup> Responses of both partners are averaged to create this measure.
- **Relationship Status.** Three binary measures were created indicating whether, at the time of application to BSF, the couple was (1) unmarried and cohabiting full time, (2) unmarried and not cohabiting full time, or (3) married. (Married couples were eligible for BSF if they married after their baby was conceived.)
- **Race/Ethnicity.** Four binary measures were used indicating whether the members of the couple were (1) both non-Hispanic and African American; (2) both non-Hispanic and white; (3) both Hispanic; or (4) both from another racial or ethnic group or from different racial or ethnic groups from each other.

The evaluation team selected the baseline measures of relationship quality and status for these tests because measures in these domains represent the outcomes of most central importance for the impact analysis. Measures of race/ethnicity were included because of large differences in marriage, relationship dissolution, and relationship quality between racial and ethnic groups documented in prior literature (Brown 2003; Graefe and Lichter 2002; Tucker and Mitchell-Kernan 1996). In addition, race/ethnicity and initial relationship status and quality are the baseline measures that are among the most highly predictive of the relationship outcomes examined in the BSF impact analysis.

**Results of attrition bias risk assessments.** The evaluation team conducted attrition bias risk assessments for several samples. The most important sample assessed is the one comprised of couples in which at least one partner responded to the 36-month follow-up survey because this is the sample for which most outcomes are measures. This analysis was conducted for the overall sample, as well as for each local BSF program. Because some outcomes—such as father’s report of his engagement with the child or parent attitude toward marriage—are measured at the parent level rather than at the couple level, the evaluation team also conducted risk assessments for samples of couples in which the mother responded to the survey and in which the father responded to the survey.

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<sup>5</sup> These items were included on the BSF baseline information form as questions 28, 29d, 29e, and 29f, respectively. The baseline form is included in Appendix C of this report.

<sup>6</sup> These items were included on the BSF baseline information form as questions 29b, 29c, 29g, 29j and 29a, respectively. The baseline form is included in Appendix C of this report.

For the sample of couples in which at least one partner responded, attrition is sufficiently low to meet WWC evidence standards for the pooled analysis sample and for all local programs except Houston (Table I.5). These samples are thus determined to have low risk of attrition bias. For the Houston program, the response rate for BSF couples was eight percentage points higher than the response rate for control group couples (a differential response rate that was more than twice as high as in any other site). In addition, among the Houston couples who did respond, there were substantial differences in the initial characteristics of BSF and control group couples, so that the Houston analysis fails to meet WWC evidence standards. Therefore, findings related to the Houston program are determined to have substantial risk of bias. For this reason, impact results for Houston appear only in Appendix A of this technical supplement, and not in the main impact report.<sup>7</sup>

**Table I.5. Results of Assessments of Risk of Attrition Bias for BSF Analysis Samples**

	Low Attrition Standard Met?	Initial Equivalence Standard Met?	WWC Rating
<b>Samples Pooled Across Local Programs</b>			
Either Parent Responded	Yes	N/A	Meets Standards
Mother Responded to Survey	Yes	N/A	Meets Standards
Father Responded to Survey	Yes	N/A	Meets Standards
Mother Completed Direct Assessment	Yes	N/A	Meets Standards
Father Completed Direct Assessment	No	Yes	Meets Standards with Reservations
<b>Program- Level Samples of Couples for Whom Either Parent Responded</b>			
Atlanta	Yes	N/A	Meets Standards
Baltimore	Yes	N/A	Meets Standards
Baton Rouge	Yes	N/A	Meets Standards
Florida Counties	Yes	N/A	Meets Standards
Houston	No	No	Does Not Meet Standards
Indiana Counties	Yes	N/A	Meets Standards
Oklahoma City	Yes	N/A	Meets Standards
San Angelo	Yes	N/A	Meets Standards

Source: BSF 36-month follow-up surveys and 36-month direct assessments, conducted by Mathematica Policy Research.

Note: Analysis samples that meet WWC standards with reservations are determined to have moderate risk of attrition bias. Analysis samples that do not meet WWC standards are determined to have substantial risk of attrition bias. Findings related to these samples are presented only in appendices to the technical supplement, and not in the main report.

N/A = Not applicable. Do not conduct initial equivalence test if the attrition standard is met.

<sup>7</sup> To further address attrition bias risk related to the Houston program, the evaluation team conducted an analysis of baseline differences between BSF and control group couples in Houston. Pregnancy trimester at BSF application and the extent of each parents’ social support network emerged as baseline characteristics for which significant differences between the research groups existed and that previously had not been included in statistical models for estimating program impacts. The evaluation team added these measures to the statistical models used for impact estimation for all sites. These statistical models are discussed in more detail in Chapter II.

The pooled analysis sample for mothers who responded to the 36-month follow-up survey meets WWC evidence standards, as does the pooled father survey respondent sample (Table I.5). Therefore, analyses based on these samples are determined to have low risk of attrition bias. All program-level samples of mother survey respondents also meet WWC evidence standards, with the exception of the Houston sample (Table I.6). However, some program-level samples of father survey respondents meet WWC evidence standards with reservations (Table I.6). As noted earlier, the presentation of findings related to these samples in both the main report and technical supplement indicates that the analysis has a moderate risk of attrition bias and should be interpreted more cautiously than other experimental findings.

**Table I.6. Results of Assessments of Risk of Attrition Bias for Program- Level BSF Analysis Samples**

	Atlanta	Baltimore	Baton Rouge	Florida Counties	Houston	Indiana Counties	Oklahoma City	San Angelo
<b>Mother Responded</b>								
Low attrition	✓	✓	✓	✓	✗	✓	✓	✓
Equivalence	•	•	•	•	✗	•	•	•
Rating	M	M	M	M	DNM	M	M	M
<b>Father Responded</b>								
Low attrition	✗	✓	✓	✗	✗	✓	✓	✓
Equivalence	✓	•	•	✓	✓	•	•	•
Rating	MWR	M	M	MWR	MWR	M	M	M
<b>Mother Completed Direct Assessment</b>								
Low attrition	✗	✗	✓	n.a.	✗	✓	✓	n.a.
Equivalence	✗	✗	•	n.a.	✗	•	•	n.a.
Rating	DNM	DNM	M	n.a.	DNM	M	M	n.a.
<b>Father Completed Direct Assessment</b>								
Low attrition	✗	n.a.	✗	n.a.	✗	✗	✓	n.a.
Equivalence	✓	n.a.	✗	n.a.	✗	✗	•	n.a.
Rating	MWR	n.a.	DNM	n.a.	DNM	DNM	M	n.a.

Source: BSF 36-month follow-up surveys and 36-month direct assessments, conducted by Mathematica Policy Research.

Note: Analysis samples that meet WWC standards with reservations are determined to have moderate risk of attrition bias. Analysis samples that do not meet WWC standards are determined to have substantial risk of attrition bias. Findings related to these samples are presented only in appendices to the technical supplement, and not in the main report.

✓ = Satisfies criteria; ✗ = Does not satisfy criteria; • = Not applicable.

M = Meets WWC standards without reservations; MWR = Meets WWC standards with reservations; DNM = Does not meet WWC standards.

n.a. = Not available because direct assessments were not conducted in the site.

### Alternate Assessment of the Risk of Attrition Bias

The WWC attrition bias standards that were applied to the BSF impact analysis are well established; however other rigorous standards are available. For example, ACF has conducted evidence-based literature reviews of research on the effectiveness of programs serving low-income families as a part of the Strengthening Families Evidence Review (SFER) project. SFER evidence standards are very similar to WWC standards. These standards were developed after the BSF impact analysis had begun. Therefore, the BSF study relies on WWC standards rather than SFER standards as the primary assessment of attrition bias.

SFER assigns ratings of “high,” “moderate,” or “low” rigor using standards that are similar to those developed by WWC. Both SFER and WWC use two-step processes that (1) evaluate the levels of overall and differential attrition in an analysis sample, and (2) for samples that do not meet attrition standards, evaluate the baseline equivalence of the treatment and comparison groups. One difference in these standards is that WWC evaluates baseline equivalence based on the size of differences in treatment and comparison group baseline characteristics, whereas SFER evaluates baseline equivalence based on the statistical significance of these differences. Application of SFER standards to the BSF analysis yields similar results to the application of WWC standards described above. For analyses that combine data from all eight BSF programs, all the samples related to the 36-month follow-up survey receive the highest rating based on both SFER and WWC standards.

### **The Study Sample and Data Collection: 36- Month Direct Assessment**

The 36-month data collection effort also included direct assessments of parenting and child development. The quality of the parenting relationship was assessed for both mothers and fathers and was based on a semi-structured play activity, “the two-bag task.” This interaction was videotaped and later coded by trained assessors on multiple dimensions of parenting. During assessments with mothers, the focal child’s language development was also assessed using the Peabody Picture Vocabulary Test 4 (PPVT-4). Several other dimensions of parenting, the home environment, and child development were also assessed during these visits. The direct assessment instrument is included in Appendix E of this report.

The study’s resources precluded conducting direct assessments for all local BSF programs. Therefore, direct assessments were not conducted in the Florida or San Angelo programs, and were not conducted with fathers in Baltimore. In addition, direct assessments were not included for all sample members within the included sites. In general, couples who enrolled very early and very late in the sample enrollment period were not included in the direct assessment sample.

Mathematica attempted to conduct direct assessments with 3,547 mothers and 3,059 fathers; 1,976 mothers and 1,309 fathers responded (Table I.7). The response rate for the 36-month direct assessment was 56 percent for mothers and 43 percent for fathers. Response rates for the BSF and control groups were similar. Across the six BSF programs that conducted direct assessments with mothers, response rates ranged from 45 percent to 62 percent (Table I.7). In the five programs that conducted direct assessments with fathers, response rates ranged from 36 percent to 46 percent (Table I.7). In general, direct assessments were scheduled following the completion of the 36-month telephone survey. The average age of the child at the direct assessments was 42 months for mothers and 44 months for fathers.

Overall, the baseline characteristics of BSF and control group members who completed direct assessments were very similar (Tables I.8 and I.9). However, there were modest but statistically significant differences between the research groups on a few measures. As noted above, all impact estimates for the 36-month analysis were generated using multivariate statistical models that adjust for these small differences in baseline characteristics between BSF and control group couples.

**Table I.7. BSF 36- Month Direct Assessment Response Rates, by Research Group and BSF Program**

Program	Mother		Father	
	BSF Group	Control Group	BSF Group	Control Group
<b>Number of Assessments Attempted</b>				
Atlanta	376	380	376	380
Baltimore	216	242	n/a	n/a
Baton Rouge	274	276	274	276
Houston	185	174	185	174
Indiana counties	229	226	229	226
Oklahoma City	464	475	464	475
<b>All Programs</b>	<b>1,774</b>	<b>1,773</b>	<b>1,528</b>	<b>1,531</b>
<b>Number of Assessments Completed</b>				
Atlanta	241	229	175	156
Baltimore	103	121	n/a	n/a
Baton Rouge	148	150	114	99
Houston	91	72	74	57
Indiana counties	121	122	98	104
Oklahoma City	285	293	214	218
<b>All Programs</b>	<b>989</b>	<b>987</b>	<b>675</b>	<b>634</b>
<b>Percentage of Attempted Surveys Completed</b>				
Atlanta	64.1	60.3	46.5	41.1
Baltimore	47.7	50.0	n/a	n/a
Baton Rouge	54.0	54.3	41.6	35.9
Houston	49.2	41.4	40.0	32.8
Indiana counties	52.8	54.0	42.8	46.0
Oklahoma City	61.4	61.7	46.1	45.9
<b>All Programs</b>	<b>56.7</b>	<b>55.7</b>	<b>44.2</b>	<b>41.4</b>

Note: Direct assessments were not conducted in the Florida or San Angelo programs. In the Baltimore program, direct assessments were only conducted with mothers.

n/a=Not available.

**Table I.8. Baseline Characteristics of BSF and Control Group Couples in Which the Mother Responded to the 36- Month Direct Assessment**

	BSF Couples	Control Group Couples
<b>Socio- Economic and Demographic Measures</b>		
Race/Ethnicity (%)		
Both partners are Hispanic	19.4	18.8
Both partners are Black, non-Hispanic	57.1	55.2
Both partners are White, non-Hispanic	10.7	11.5
All other couples	12.8	14.5
High School Diploma Receipt (Excluding GEDs) (%)		
Both partners have diploma	34.1	36.0
One partner has diploma	37.8	37.3
Neither partner has diploma	28.2	26.8
Average Age (in Years)		
Mother's age	24.0	23.7
Father's age	26.2	25.9
Couples' Total Earnings in Past Year	\$21,033	\$20,382
Either Partner Received SNAP or TANF in Past Year (%)	46.9	47.7
Focal Child is Male	47.6	46.1
<b>Relationship Characteristics</b>		
Couple's Relationship Status (%)		
Married to each other	7.1	7.8
Unmarried, cohabiting full-time <sup>a</sup>	55.5	52.8
Unmarried, not cohabiting full-time	37.4	39.4
Relationship Quality <sup>b</sup>		
Highest tercile (%)	32.9	29.3
Middle tercile (%)	33.2	35.6
Lowest tercile (%)	33.9	35.1
Average scale value (range 1 to 4 )	3.24	3.22
Both partners expect to marry <sup>c</sup> (%)	56.6	53.3
Baby born prior to BSF application (%)	27.3	29.0
Either partner has a child from a prior relationship (%)	49.9	49.2
Pregnancy intendedness <sup>d</sup> (%)		
Intended by both partners	25.1	20.3**
Wanted by both partners, but considered mistimed	52.2	53.9
Unwanted by at least one partner	22.7	25.8
<b>Mental Health, Attitudes, and Religiosity</b>		
Either partner has psychological distress <sup>e</sup> (%)	38.5	38.3
Both partners agree with the statement, "It is better for children if parents are married" (%)	65.4	60.6**
Attendance at Religious Services (%)		
Both attend more than monthly	24.7	25.7
One attends more than monthly	30.0	31.0
Neither attends more than monthly	45.3	43.3
<b>Sample Size</b>	<b>989</b>	<b>987</b>

Source: BSF baseline information form and BSF eligibility form.

Note: The six programs are weighted equally for these calculations. The sample included in this table represents couples where the mother completed the 36-month direct assessment. Footnotes refer to those provided in Table I.2.

\*\*\*/\*\*/\* Difference between BSF and Control Group is statistically significant at the .01/.05/.10 level.



**Table I.9. Baseline Characteristics of BSF and Control Group Couples in Which the Father Responded to the 36- Month Direct Assessment**

	BSF Couples	Control Group Couples
<b>Socio- Economic and Demographic Measures</b>		
Race/Ethnicity (%)		
Both partners are Hispanic	24.4	22.8
Both partners are Black, non-Hispanic	47.7	45.2
Both partners are White, non-Hispanic	15.2	15.3
All other couples	12.7	16.7*
High School Diploma Receipt (Excluding GEDs) (%)		
Both partners have diploma	35.6	38.1
One partner has diploma	38.2	36.4
Neither partner has diploma	26.3	25.5
Average Age (in Years)		
Mother's age	24.1	23.7
Father's age	26.4	26.2
Couples' Total Earnings in Past Year	\$29,910	\$20,640
Either Partner Received SNAP or TANF in Past Year (%)	43.1	43.8
Focal Child is Male	45.8	46.1
<b>Relationship Characteristics</b>		
Couple's Relationship Status (%)		
Married to each other	8.6	9.4
Unmarried, cohabiting full-time <sup>a</sup>	59.5	56.9
Unmarried, not cohabiting full-time	31.8	33.8
Relationship Quality <sup>b</sup>		
Highest tercile (%)	37.4	33.0
Middle tercile (%)	34.4	37.7
Lowest tercile (%)	28.3	29.3
Average scale value (range 1 to 4 )	3.30	3.27
Both partners expect to marry <sup>c</sup> (%)	62.8	59.2
Baby born prior to BSF application (%)	26.7	29.8
Either partner has a child from a prior relationship (%)	46.3	47.6
Pregnancy intendedness <sup>d</sup> (%)		
Intended by both partners	25.3	20.2**
Wanted by both partners, but considered mistimed	53.8	53.1
Unwanted by at least one partner	20.9	26.7**
<b>Mental Health, Attitudes, and Religiosity</b>		
Either partner has psychological distress <sup>e</sup> (%)	40.7	40.4
Both partners agree with the statement, "It is better for children if parents are married" (%)	67.0	61.8*
Attendance at Religious Services (%)		
Both attend more than monthly	27.7	28.3
One attends more than monthly	28.6	30.9
Neither attends more than monthly	43.7	40.8
<b>Sample Size</b>	<b>675</b>	<b>634</b>

Source: BSF baseline information form and BSF eligibility form.

Note: The six programs are weighted equally for these calculations. The sample included in this table represents couples where the father completed the 36-month direct assessment. Footnotes refer to those provided in Table I.2.

\*\*\*/\*\*/\* Difference between BSF and Control Group is statistically significant at the .01/.05/.10 level.

## Assessing Risk of Attrition Bias

To assess the risk of bias in the estimates of BSF’s impacts on parenting, as measured through the direct assessment, the evaluation team followed the same two-step procedure described in the previous section. The measures included in the equivalence testing of the two-step procedure for the direct assessment differ from those used in the equivalence testing for the 36-month follow-up survey. These measures were selected to reflect the direct assessment’s focus on child development and parent interactions with the child and include (1) child gender, (2) respondent race/ethnicity, (3) respondent’s age, and (4) whether the respondent wanted the pregnancy and thought it was well timed.

The sample of mothers responding to the direct assessment pooled across local BSF programs meets the attrition standard based on a combination of overall attrition and differential attrition between research groups (Table I.5). This sample had an overall attrition rate of 45 percent. The sample’s differential attrition of 1.1 percent is below the 1.8 percent standard set by the WWC for the level of overall attrition. Therefore, analysis based on this sample is determined to have low risk of attrition bias.

The sample of fathers responding to the direct assessment pooled across local BSF programs did not meet the attrition standard based on a combination of overall attrition and differential attrition between research groups (Table I.5). However, the BSF and control group samples did satisfy standards for equivalence on observable characteristics. Therefore, analysis based on direct assessment fathers meets WWC evidence standards with reservations.<sup>8</sup> Tables in both the main report and technical supplement that present findings based on this sample note that the analysis has a moderate risk of attrition bias and should be interpreted more cautiously than other experimental findings.

Samples of direct assessment mothers do not meet WWC evidence standards for three of the six local programs for which direct assessments were conducted (Table I.6). Similarly, samples of direct assessment fathers do not meet WWC evidence standards for three of the five local programs for which direct assessments were conducted (Table I.6). Because numerous program-level analyses of direct assessment data are at substantial risk of attrition bias, the main report does not include program-level direct assessment findings. These findings are presented in Appendix A of this technical supplement along with notes indicating the relevant level of attrition bias risk.

## Approach to the 36- Month Impact Analysis

The BSF intervention has the potential to affect multiple aspects of the lives of participating couples and their children. For this reason, this analysis examines the program’s effects on a range of outcomes within three broad areas: (1) the couple relationship, (2) parenting, and (3) child well-being (Figure I.1). Examining a large number of outcomes in an impact analysis increases the risk of finding statistically significant impacts that do not reflect the true effect of the program (Schochet 2009). To address this multiple comparison concern, the analysis focuses on a relatively small set of

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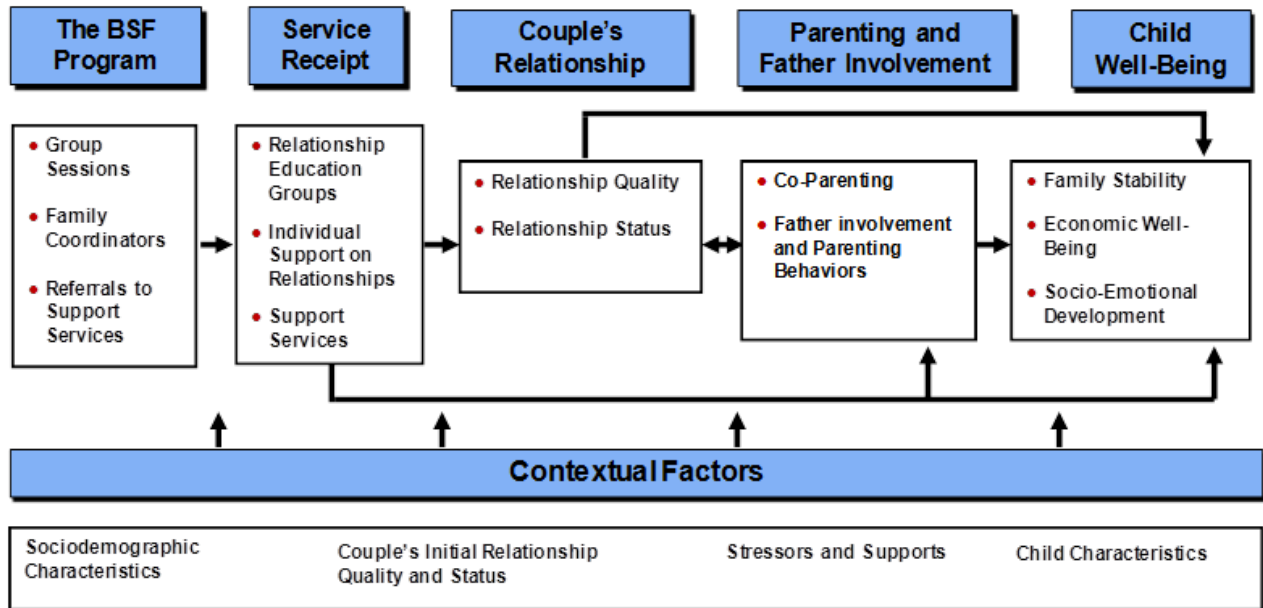
<sup>8</sup> This analysis receives a low SFER rating because there is high attrition and a statistically significant difference between BSF and control group couples for one baseline characteristic (whether the father considered the pregnancy intended). However, the size of this statistically significant difference is small enough that the analysis meets WWC standards for baseline equivalence (which are not based on statistical significance).

outcomes that were identified before the analysis began. They represent the primary outcomes that BSF aimed most directly to affect. The main report only includes findings related to these primary outcomes. Appendix A of this technical supplement includes findings for a broader set of outcomes but indicates which outcomes are primary measures of program effectiveness and which are part of secondary analysis.

The outcomes examined in this analysis can be grouped within seven key domains (Figure I.1). Two outcome domains measure the couple relationship: (1) relationship quality and (2) relationship status. Two are associated with parenting: (1) the quality of the co-parenting relationship and (2) fathers' involvement and parenting behavior. Three are associated with child well-being: (1) children's family stability, (2) their economic well-being, and (3) their socio-emotional development. The main focus of this analysis is whether BSF had impacts on the primary outcomes in these key domains. An examination of impacts on these outcomes serves as a test of whether the program succeeded in its primary objectives of improving couples' relationships, their parenting, and their children's well-being.

The analysis also examines BSF's effects on outcomes in several additional domains, such as attitudes toward marriage, mothers' parenting behavior, and children's language development. These analyses serve as a supplement to the central analysis of BSF's effects on the key outcome domains listed above. The presentation of findings in both the main report and in this technical supplement indicates whether each domain is key or additional.

**Figure I.1. Model of BSF and Its Expected Impacts**



## II. ANALYTIC METHODS

The BSF evaluation uses a random assignment research design in which program impacts are estimated based on differences in the BSF and control groups in the regression-adjusted mean values of primary outcomes. This chapter provides details on how this research design was implemented, including the multivariate estimation methods, treatment of missing data, multiple comparison analysis, and statistical sensitivity tests.

### Multivariate Estimation

The regression analysis used weighted least squares models and estimated impacts using data pooled across all eight BSF programs. The regression models estimated in the main analysis can be represented by the following equation:

$$Y_{it} = \sum_{p=1}^8 \gamma_p P_{pi} + \sum_{p=1}^8 \beta_p P_{pi} * BSF_i + \sum_{p=1}^8 \delta_p P_{pi} * X_{i0} + \varepsilon_{it}$$

where  $Y_{it}$  is an outcome variable for couple or person  $i$  at time  $t$ ;  $P_{pi}$  are indicators that equal 1 if the couple or person is in program  $p$  and 0 otherwise;  $BSF_i$  is an indicator that equals 1 if the couple or person was assigned to the BSF research group;  $X_{i0}$  is a vector of baseline characteristics, with no intercept;  $\gamma$ ,  $\beta$ , and  $\delta$  are coefficient estimates; and  $\varepsilon_{it}$  is a random disturbance term that is assumed to have a mean of 0, conditional on  $X$ ,  $P$ , and  $BSF$ .

As shown in this equation, each regression model included a series of binary variables indicating each of the eight BSF programs included in the study. Each model also included a set of binary interaction variables indicating whether the couple had applied to a given BSF program and had been assigned to the BSF research group. The program-specific impact estimates are the regression coefficients associated with these program-research status interaction variables, represented by  $\beta$  in the equation above. The pooled impact estimate for a given outcome is obtained from a simple mean of the eight program-specific impact estimates in which each program is weighted equally.

In addition to the program and program-research status interaction variables, the regression models include a large number of variables to control for characteristics measured in the baseline survey. These covariates include variables that reflect each couple's initial relationship status and quality, demographic and baseline characteristics, and various contextual factors (Table II.1). For the main analysis, all covariates are interacted with binary variables identifying each BSF program. Thus, the impact estimates are adjusted for any program-level differences in baseline characteristics between the BSF group and the control group that may have arisen by chance or survey nonresponse.<sup>9</sup> In addition, this approach allows the influence of each explanatory variable to differ for each program.

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<sup>9</sup> The set of covariates included in the 36-month analysis includes those used in the 15-month analysis, plus indicators for pregnancy trimester, and separate measures for each parent's social support network. These additional variables were included to account for differences in baseline characteristics that emerged for the Houston program due

**Table II.1. Control Variables Used in Regression Models to Estimate BSF’s Impacts**

Initial Relationship Status and Quality	Demographic and Baseline Characteristics	Contextual Factors
Cohabitation and marital status	Race and ethnicity	Whether either or both partners are a high school graduate
Perception of chance of marrying current partner	Whether either partner was younger than 21	Couple’s earnings and employment
Measures of relationship quality	Whether both partners speak English	Whether the couple attends religious services regularly
Whether pregnancy was intended	Couple’s average number of months between random assignment and follow-up	Whether either partner has moderate or high levels of psychological distress
Whether the couple has other children together		Whether both partners say that children are better off when parents are married
Whether either partner has a child with another partner		Whether each partner has family or friends who could provide emergency child care or loan
Whether the partners had known each other less than a year at time of BSF application		
Whether focal child was born before BSF application		
Trimester of pregnancy at the time of BSF application		

All regressions were estimated using weights to account for sample members who did not complete the data collection effort (the 36-month follow-up survey or the direct assessment, depending on the source of the outcome). Five sets of weights were created corresponding to the key analysis samples:

1. Cases where either partner responded to the 36-month survey
2. Cases where the mother responded to the 36-month survey
3. Cases where the father responded to the 36-month survey
4. Cases where the mother participated in the direct assessment
5. Cases where the father participated in the direct assessment

The set of weights used in analyzing outcomes based on survey data depended on whether that outcome was measured for couples, for mothers only, or for fathers only. For example, measures that are defined using responses from both partners, such as romantic involvement, use the weight for cases where either partner responded to the 36-month survey, whereas measures defined using

*(continued)*

to relatively high differences in the 36-month survey nonresponse between BSF and control group couples in that program. Other analytical implications of this survey nonresponse pattern are discussed in Chapter III.

responses from fathers only (such as father’s attitude towards marriage) use the weight for cases where the father responded to the 36-month survey. The set of weights used in analyzing an outcome based on direct assessment data depended on whether that outcome was measured for mothers or for fathers. The nonresponse weights were calculated using standard techniques to estimate the probability of nonresponse as a function of baseline characteristics. Standard errors from the regression models were calculated taking into account the variability associated with these weights.

Along with program-level results, the study examined impacts for several subgroups. Impacts were estimated separately for each subgroup, following methods similar to those used for the full sample. The regression models were estimated using data pooled across all programs for couples in a given subgroup. As in the main analysis, program-specific impact estimates are based on the regression coefficients associated with these program-research status interaction variables, and the pooled subgroup impact estimate is calculated from a simple mean of the eight program-specific impact estimates in which each program is weighted equally. However, because analysis of a subgroup within a single site would yield small sample sizes, only pooled subgroup impact estimates that combine all eight programs are presented. For these subgroup analyses, the additional explanatory terms shown in Table II.1 were not interacted with binary variables identifying each BSF program in order to accommodate the smaller sample sizes in the subgroup analysis. The subgroup analysis is discussed in greater detail in Chapter V. A full set of subgroup findings is provided in Appendix C.

For each impact estimate, a two-tailed *t*-statistic was used to test the null hypothesis that there is no difference between the regression-adjusted means for the BSF and control groups. The associated *p*-value, which reflects the probability of obtaining the observed impact estimate when the null hypothesis of no effect is true, is used to judge the likelihood that a program had a statistically significant impact. Impact estimates with *p*-values less than 0.10 on two-tailed *t*-tests are denoted in the report by asterisks and referred to in the text as statistically significant (Table II.2).

**Table II.2. Conventions for Describing Statistical Significance of Program Impact Estimates**

<i>p</i> -Value of Impact Estimate	Symbol Used to Denote <i>p</i> -Value	Impact Estimate Is Considered Statistically Significant
$p < 0.01$	***	Yes
$0.01 \leq p < 0.05$	**	Yes
$0.05 \leq p < 0.10$	*	Yes
$p \geq 0.10$	None	No

In addition to statistical significance, impact tables also report effect sizes. For continuous outcomes, the reported effect size is a standardized mean difference generated by dividing the impact estimate for an outcome measure by the standard deviation on that outcome measure for the control group. Because the values are standardized, the effect sizes of different outcomes can be compared, even if the outcomes are measured in different units. For binary outcomes, the preferred effect size measure is based on the logged odds ratio, which has statistical and practical advantages over alternative effect size measures appropriate for binary variables (Fleiss 1994; Lipsey and Wilson 2001). The effect size measure used for binary variables throughout the impact analysis is a logged odds ratio, adjusted to be comparable to the standardized mean difference used for continuous outcomes.

## Treatment of Missing Data

Implementing a strategy for dealing with missing information is important in the BSF analysis because the outcomes of greatest interest are measured at the couple level and based on information from both partners. In particular, all the main relationship status and quality outcomes incorporate what both partners say about the status and quality of the relationship. Therefore, without imputation, the analysis sample would have to be restricted only to couples in which both partners responded to the survey and both responded to the relevant survey items. About 20 percent of couples in the analysis sample had only one partner respond to the survey. Therefore, restricting the sample to couples for which both partners responded would lead to an appreciably smaller sample size and less statistical power to detect significant effects. Moreover, restricting the sample to dual respondents could affect its representativeness and potentially bias results.

To account for missing data, the impact analysis team implemented a multiple imputation strategy. Specifically, imputed values were generated using the multiple imputation by the chained equation method developed by Raghunathan et al. (2001). This approach uses an iterative process to estimate regression models for each outcome measure with missing data. These models included a large number of baseline covariates, survey responses from the sample member's BSF partner, and available nonmissing survey responses from the sample member. The set of variables used in each of these models was tailored to include the covariates most relevant to the variable being imputed. For example, the imputation of a father's report of whether the couple is romantically involved is based on a model that includes a large set of baseline covariates, the mother's responses to items related to relationship status and quality (including romantic involvement), and the father's responses to related items. The imputation process for survey data was completed only for couples for which at least one partner responded to the survey. Thus, all imputations are based on partial information from the follow-up survey in addition to baseline information. The imputation process for direct assessment data is also based on information from the follow-up survey and baseline data and was only completed for partners who participated in the direct assessment but for whom some information was missing. Couples who did not respond to data collection efforts are accounted for using nonresponse weights.

Imputed values for missing outcome data were based on predicted values from the relevant regression models plus random disturbance terms. Thus, imputed outcome values were randomly chosen from the estimated distribution of potential values, conditional on covariate values. After imputations were performed, all outcomes were available for the full set of couples for whom they are defined, with the number of couples included varying according to the outcome being considered. For example, relationship status outcomes are available for all couples with at least one respondent; outcomes such as the relationship happiness scale and support and affection scale were available only for those couples still romantically involved at follow-up.<sup>10</sup> The sample sizes available in the multiply-imputed data are considerably larger than those available with no imputation. For example, the relationship status measures are available for 4,247 couples with imputation and only about 3,500 couples with no imputation.

Using the imputation procedure just described, five plausible replacement values were imputed for each missing value. All analysis was conducted separately on each of the five imputed data sets

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<sup>10</sup> See Chapters III and IV for more information on the construction of these measures.

and then the results were combined using a standard approach first developed by Rubin (1987), which accounts for the uncertainty associated with missing data imputations. Accounting for imputation uncertainty is a key advantage of the multiple imputation approach; common single imputation methods, such as mean-replacement imputation or hot decking, do not account for this uncertainty. As a result, standard errors from data based on single imputation methods may be understated, affecting inferences drawn from the data.

## **Multiple Comparison Analysis**

Examining effects on numerous outcomes increases the chance of falsely identifying an impact as significant (Schochet 2009). The BSF research design included several elements meant to minimize this possibility. These elements include assessing program effectiveness using a small set of primary outcomes, determining which sets of findings are most important on the basis of domain composite indices, and conducting sensitivity tests that adjust for multiple comparisons.

The main focus of the BSF 36-month impact analysis is a small set of outcomes intended to be the primary measure of effectiveness in the seven key domains BSF was intended to influence: relationship status, relationship quality, co-parenting, father's involvement, family stability, economic well-being, and child socio-emotional development. These outcomes are listed in Table II.3 and are described in more detail in Chapters III, IV, and V. Using a small set of primary outcomes within each domain makes it less likely that statistically significant findings will emerge by chance. Selecting the primary outcomes before beginning analysis prevents focusing the assessment of program effectiveness on outcomes that happen to emerge as statistically significant (or the perception that this may have been the case).

In addition to primary outcomes in key domains, the impact analysis examines primary outcomes in additional domains that are less central to BSF's goals. These additional domains are attitudes toward marriage, intimate partner violence, mother's parenting, parent emotional well-being, household routines, child language development and child physical health. In both the main impact report and this technical supplement, the impact findings are grouped by domain and tables indicate whether the domain is considered to be key or additional.

The analysis also examines secondary outcomes in both key and additional domains. The main report only discusses impact estimates for primary outcomes, with an emphasis on the primary outcomes in key domains. Impact estimates for secondary outcomes are presented in Appendix A of this technical supplement for informational purposes.

The interpretation of findings on primary outcomes involved a careful assessment of whether statistically significant impact estimates were isolated or part of a stronger pattern within their domains. A recommended strategy in the presence of multiple outcomes is to conduct statistical tests for composite measures that represent all outcomes within a domain as a group (Schochet 2009). Consistent with this practice, the impact analysis team constructed indices that summarize the outcomes in each key domain. For domains that included continuous measures (relationship quality, father involvement, and child socio-emotional development), the composite index was constructed by normalizing each of the primary outcomes in the domain and then summing the normalized values. For domains that included only binary measures (relationship status and economic well-being), the index was generated by summing the primary outcomes in the domain. For domains that included a single measure (co-parenting and family stability), this measure was used as the domain index.



**Table II.3. Primary Outcomes in Key Domains**

Key Domain	Primary Outcome
<b>Couple Relationship Domains</b>	
Relationship Status	Still romantically involved Living together (married or unmarried) Married
Relationship Quality	Relationship happiness scale Support and affection abbreviated scale Use of constructive conflict behaviors scale Avoidance of destructive conflict behaviors scale Neither member of the couple was unfaithful since random assignment
<b>Parenting Domains</b>	
Co-Parenting	Quality of co-parenting relationship scale
Father's Involvement and Parenting Behavior	Father lives with child Father regularly spends time with child Father's engagement with child Mother reports that father provides substantial financial support for raising child Father's parental responsiveness (observed)
<b>Child Well-Being Domains</b>	
Family Stability	Both parents have lived with child since birth
Economic Well-Being	Family's monthly income below poverty threshold Family experienced difficulty meeting housing expenses during past year Family receiving SNAP or TANF
Child Socio-Emotional Development	Behavior problems index Emotional insecurity amid parental conflict

As shown in Table II.4, impact analysis related to these indices indicates that BSF had a negative impact on the father involvement domain and a positive impact on child socio-emotional development. Therefore, the evaluation team concluded that there is a strong pattern of impacts in these two domains, and developed the discussion of overall program impacts in the 36-month final report accordingly. The significant findings in the 36-month follow-up analysis contrasts to the 15-month follow-up analysis, in which there were no significant impacts on the domains considered key for the 36-month analysis.

The pattern of impacts on the domain indices at the program level guided the discussion of local BSF program impacts in both the 15-month and 36-month reports. At 15-month follow-up, most programs show no statistically significant impacts, with the exceptions of the positive impact on relationship quality in the Oklahoma City program and the negative impact on relationship status in the Baltimore program (Table II.4). At 36-month follow-up, these findings had faded, although a statistically significant positive impact on family stability emerged for the Oklahoma City program (Table II.4). In addition, negative impacts on relationship status and quality, co-parenting, father involvement, and family stability emerged for the Florida program.

The impact analysis team also assessed whether significant findings on the key relationship status and quality measures were robust to statistical adjustments for multiple comparisons. These tests were conducted using the Benjamini-Hochberg method, which adjusts the thresholds at which

$p$ -values are considered statistically significant on the basis of the number of comparisons made in a given domain and the relative strength of each impact within the domain. As shown in Table II.5, the statistically significant impacts on the behavioral problem index are robust to multiple comparison adjustments. However, the statistically significant impacts on relationship status and father involvement are not. When examining impacts at the local program level, the negative impacts on various outcomes for the Florida program are robust to multiple comparison adjustments, as is the positive impact on family stability for the Oklahoma City program.

## Sensitivity Tests

Additional analyses were conducted to examine the robustness of the impact estimates presented in the BSF 36-month impact report. These sensitivity tests involved estimating impacts with different treatment of weights, covariates, and imputation procedures.<sup>11</sup> These sensitivity tests were conducted for the summary indices for each key domain as well as for the primary measures within each of these domains. Table II.6 summarizes results from the sensitivity tests related to the key domain summary indices overall and for each local program. Table II.7 summarizes the sensitivity tests related to the primary outcomes in each key domain.

The general pattern found in all these alternative estimates is consistent with the findings presented in the main impact report. The negative effect on the father involvement index is present in three of the four alternate specifications examined, whereas the positive effect on the child development index is present in all specifications (Table II.6). This pattern is generally present when the primary outcomes in these domains are examined as well. The negative impact on fathers regularly spending time with the focal child is present in three alternate specifications, whereas the smaller impact on fathers providing financial support for raising the child is present in two specifications. The negative impact on the behavioral problems index is present in all specifications.

The strongest impacts on the key domain indices at the local program level are robust to alternate specifications. The negative impacts on relationship status and quality, co-parenting, father involvement, and family stability for the Florida program are present in all specifications, as is the positive impact on family stability for the Oklahoma City program (Table II.6).

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<sup>11</sup> In addition, the evaluation team examined whether impacts differed when relationship quality outcomes were constructed based only on the responses of either mothers or fathers rather than on the responses of both partners. Results from this analysis are presented in Table FS.2 of Appendix C. As with the couple-level analysis, there were no statistically significant impacts on relationship quality outcomes for either mothers or fathers.

**Table II.4. Impacts on Key Outcome Domains for the Eight Local BSF Programs at 15 and 36 Months**

	Overall	Atlanta	Baltimore	Baton Rouge	Florida Counties	Houston	Indiana Counties	Oklahoma City	San Angelo
<b>15- M nth Follow- Up</b>									
Relationship Status	o	o	—	o	o	o	o	o	o
Relationship Quality	o	o	o	o	o	o	o	+++	o
Co-Parenting	o	o	—	o	o	o	o	+	o
Father Involvement	o	o	— — —	o	o	o	o	+	o
Family Stability	o	o	o	o	o	o	o	o	o
Economic Well-Being	o	o	o	o	o	o	o	o	o
<b>36- M nth Follow- p</b>									
Relationship Status	o	o	o	o	— — —	o	o	o	o
Relationship Quality	o	o	o	o	—	o	o	o	o
Co-Parenting	o	o	o	o	—	o	o	o	o
Father Involvement	— —	o	o	o	— — —	o	o	o	o
Family Stability	o	o	o	o	— — —	o	o	++	o
Economic Well-Being	o	o	o	o	o	o	—	o	o
Child Socio-Emotional Development	++	o	o	o	o	+	o	o	o

Source: BSF 15- and 36-month follow-up surveys and 36-month direct assessments, conducted by Mathematica Policy Research.

Note: Child socio-emotional development was not measured at the 15-month follow-up.

+++ / +++ Statistically significant positive impact at the .01/.05/.10 level.

— — — / — — — Statistically significant negative impact at the .01/.05/.10 level.

o No statistically significant impact.

**Table II.5. Statistical Significance of Key Outcomes Using Standard  $p$ - Value Thresholds and Thresholds Adjusted for Multiple Comparisons**

	Pooled		Atlanta		Baltimore		Baton Rouge		Florida Counties		Houston		Indiana Counties		Oklahoma City		San Angelo	
	Std	Adj	Std	Adj	Std	Adj	Std	Adj	Std	Adj	Std	Adj	Std	Adj	Std	Adj	Std	Adj
<b>Relationship Status at Follow- Up</b>																		
Still romantically involved	-	o	o	o	o	o	o	o	---	---	o	o	o	o	o	o	o	o
Living together	-	o	o	o	o	o	o	o	---	---	o	o	o	o	o	o	o	o
Married	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
<b>Relationship Quality at Follow- Up</b>																		
Relationship happiness	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Support and affection	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Use of constructive conflict behaviors	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Avoidance of destructive conflict behaviors	o	o	--	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Fidelity	o	o	o	o	o	o	o	o	o	o	o	o	o	o	++	o	o	o
<b>Co- Parenting</b>																		
Quality of co-parenting	o	o	o	o	o	o	o	o	-	-	o	o	o	o	o	o	o	o
<b>Father's Involvement and Parenting Behavior</b>																		
Father lives with child	o	o	o	o	o	o	o	o	--	--	o	o	o	o	o	o	o	o
Father regularly spends time with child	--	o	o	o	-	o	o	o	--	--	o	o	o	o	o	o	o	o
Father's engagement with child	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Mother reports father provides substantial financial support	-	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
Father's parental responsiveness	o	o	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
<b>Family Stability</b>																		
Both parents have lived with child since birth	o	o	o	o	o	o	o	o	---	---	o	o	o	o	++	++	o	o
<b>Economic Well- Being</b>																		
Family's monthly income below poverty threshold	o	o	o	o	o	o	o	o	o	o	o	o	+	o	o	o	o	o
Family experienced difficulty meeting housing expenses during past year	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	+	o
Family receiving SNAP or TANF	o	o	o	o	o	o	o	o	o	o	o	o	++	++	o	o	o	o
<b>Child Socio- Emotional Development</b>																		
Behavior problems index	++	+	o	o	o	o	o	o	o	o	-	o	o	o	o	o	o	o
Emotional insecurity amid parental conflict	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: The adjustment for multiple comparisons used the Benjamini-Hochberg method, which adjusts the thresholds at which  $p$ -values are considered statistically significant on the basis of the number of comparisons made in a given domain and the relative strength of each impact within the domain.

Adj = adjusted thresholds for statistical significance. na = not applicable. Std = standard thresholds for statistical significance.

+++ / ++ / + Statistically significant positive impact at the .01 / .05 / .10 level.

--- / -- / - Statistically significant negative impact at the .01 / .05 / .10 level.

o No statistically significant impact.

**Table II.6. Sign and Statistical Significance of Impacts on Key Outcome Domains, by Estimation Method**

	Primary	No Weights	No Weights or Covariates	Single Imputation
<b>Pooled Across Programs</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	— —	—	○	—
Family stability	○	○	○	○
Economic well-being	○	○	○	○
Child development	+ +	+	+ +	+ + +
<b>Atlanta</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	○	○	○	○
Family stability	○	○	○	○
Economic well-being	○	○	○	○
Child development	○	○	○	○
<b>Baltimore</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	—
Co-parenting	○	○	○	○
Father involvement	○	○	○	—
Family stability	○	○	○	○
Economic well-being	○	○	○	○
Child development	○	○	○	○
<b>Baton Rouge</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	○	○	○	○
Family stability	○	○	○	○
Economic well-being	○	○	○	○
Child development	○	○	○	○
<b>Florida Counties</b>				
Relationship status	— — —	— — —	— — —	— — —
Relationship quality	—	—	—	—
Co-parenting	—	—	—	—
Father involvement	— — —	— — —	— — —	— — —
Family stability	—	— — —	— — —	— — —
Economic well-being	○	○	○	○
Child development	○	○	○	+
<b>Houston</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	○	○	○	○
Family stability	○	○	○	○
Economic well-being	○	○	○	○
Child development	+	○	○	+
<b>Indiana Counties</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	○	○	○	○
Family stability	○	○	○	○
Economic well-being	—	+	○	○
Child development	○	○	○	+ +

	Primary	No Weights	No Weights or Covariates	Single Imputation
<b>Oklahoma City</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	○	○	○	○
Family stability	++	++	++	+++
Economic well-being	○	○	○	○
Child development	○	○	○	○
<b>San Angelo</b>				
Relationship status	○	○	○	○
Relationship quality	○	○	○	○
Co-parenting	○	○	○	○
Father involvement	○	○	○	○
Family stability	○	○	○	○
Economic well-being	○	○	○	○
Child development	○	○	○	○

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

+++/++/+ Statistically significant positive impact at the .01/.05/.10 level.

---/--/- Statistically significant negative impact at the .01/.05/.10 level.

○ No statistically significant impact.

**Table II.7. Sign and Statistical Significance of Impacts on Key Outcomes, by Estimation Method**

	Standard	No Weights	No Weights or Covariates	Single Imputation
<b>Relationship Status at Follow- Up</b>				
Still romantically involved	—	—	○	○
Living together	—	○	○	○
Married	○	○	○	○
<b>Relationship Quality at Follow- Up</b>				
Relationship happiness	○	○	○	○
Support and affection	○	○	○	○
Use of constructive conflict behaviors	○	○	○	○
Avoidance of destructive conflict behaviors	○	○	○	— —
Fidelity	○	○	○	○
<b>Co- Parenting</b>				
Quality of co-parenting	○	○	○	○
<b>Father’s Involvement and Parenting Behavior</b>				
Father lives with child	○	○	○	○
Father regularly spends time with child	— —	— —	○	—
Father’s engagement with child	○	○	○	○
Mother reports father provides substantial financial support for raising child	—	— —	○	○
Father’s parental responsiveness	○	○	○	○
<b>Family Stability</b>				
Both parents have lived with child since birth	○	○	○	○
<b>Economic Well- Being</b>				
Family’s monthly income below poverty threshold	○	○	○	○
Family experienced difficulty meeting housing expenses during past year	○	○	○	○
Family receiving SNAP or TANF	○	○	○	○
<b>Child Socio- Emotional Development</b>				
Behavior problems index	— —	—	— —	— — —
Emotional insecurity amid parental conflict	○	○	○	○

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

+++ / ++ / + Statistically significant positive impact at the .01 / .05 / .10 level.

--- / -- / - Statistically significant negative impact at the .01 / .05 / .10 level.

○ No statistically significant impact.

### III. MEASURING AND ANALYZING THE COUPLE RELATIONSHIP

The direct aim of Building Strong Families (BSF) is to help couples build and maintain positive relationships so that they can realize their aspirations to remain together. As discussed in the main report, BSF had no effect on the quality of couples' relationships and did not make couples more likely to stay together or get married (Wood, Moore, et al. 2012). BSF had a small positive effect on attitudes toward marriage and no effect on how likely couples were to experience intimate partner violence. This chapter details measures used in the BSF 36-month evaluation of the following aspects of the couple relationship: (1) relationship status, (2) attitudes toward marriage, (3) relationship quality, and (4) intimate partner violence (IPV). Findings from the impact analysis of outcomes in these domains are presented in Appendix A, Tables FS.1, FS.2, and FS.3.

#### Relationship Status

Because a central aim of the BSF initiative was to improve the stability of the relationships of participating couples, measures of relationship stability and relationship status are among the most important outcomes examined in the 36-month impact analysis. This section discusses the relationship status measures analyzed by the study.

#### Primary Measures

The 36-month impact analysis examines three primary relationship status measures:

1. ***Romantic Involvement.*** This measure is based on sample members' responses to the question: "Which of the following statements describes your current relationship with [PARTNER]: (1) we are romantically involved on a steady basis; (2) we are involved in an on-again and off-again relationship; or (3) we are not in a romantic relationship?" (36-Month Survey Item FS26).<sup>12</sup> Couples were considered to be romantically involved if both partners gave either the first or second response.
2. ***Living Together (Married or Unmarried).*** This measure is based on sample members' response to the question: "Do you currently live with [PARTNER] in the same household all of the time, most of the time, some of the time, or none of the time?" Couples were considered to be living together if both members of the couple reported living with the other partner "all" or "most" of the time (36-Month Survey Item FS33). As this measure is defined independently of marital status, it is thus not a measure of cohabitation: co-residing married couples are included in this group.
3. ***Marriage.*** This measure is based on sample members' response to the question: "Are you and [PARTNER] married, divorced, separated, or have you never been married to each other?" (36-Month Survey Item FS25). Couples are considered to be married if both partners report that they are married to each other.

Relationship status measures were created using the responses of both the mother and the father. Taking this approach raises two issues: (1) what to do if only one partner responds and (2) what to do when mothers and fathers disagree on their relationship status. If only one partner

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<sup>12</sup> The survey item reference number for this survey question (as well as subsequently mentioned survey questions) is in parentheses. The 15-month follow-up survey instrument is included in Appendix B.



responded, the other partner's response was imputed, as described in Chapter II. This process ensures that impacts are estimated with as large and as representative a sample size as possible, and that outcome measures are comparable across couples regardless of whether one or both partners responded.

Fathers and mothers may disagree about their relationship status for two reasons. First, the two partners may be characterizing the same relationship status in different ways. This could happen because one partner is being dishonest—reporting, for example, that the couple is married when they are not. More commonly, perhaps, the two members of the couple may perceive the same situation differently; for example, one may think they are part of an on-again, off-again romantic relationship (and thus considered to be romantically involved by the definition used in this analysis), whereas the other member considers the relationship to be over. A second reason for discrepant responses is that the couple's relationship status may have changed between the partners' interviews. Mothers and fathers were usually interviewed within a few weeks of each other, but in some instances, interviews were conducted two or three months apart. The greater the gap between the two interviews, the more plausible it becomes that their relationship status may have changed.

There are different options for handling these two kinds of discrepancies. If the discrepancy arises because the two partners are simply describing the same status in two different ways, it seems logical to require that both partners to report the same status for the couple to be assigned that status for purposes of the impact analysis. However, if the relationship status changed between interviews, the later response may be viewed as more relevant, since it represents the most recent information on the couple's relationship status. Unfortunately, it is not usually possible to be certain which scenario is the cause of the discrepancy. If one partner reports that the couple is no longer together, but two weeks later the other reports that they are romantically involved, did the couple reconcile in the interim? Or are the two characterizing the same situation in two different ways?

Given the ambiguity of these discrepancies, the evaluation's relationship status measures were constructed using a simple rule: a couple was categorized as having a particular status only if both members of the couple reported that status.<sup>13</sup> When there was a discrepancy between the two statuses, the couple was assigned to the "no" category for that particular question (in other words, "not romantically involved," "not living together," or "not married").<sup>14</sup>

In the large majority of couples, the partners agreed on their relationship status; however, disagreements did occur. Partners gave conflicting responses on their romantic involvement and co-residence in 11 percent of couples and gave conflicting responses on their marital status in 2 percent of couples. Prior research has found similarly high rates of partner disagreement on co-residence among unmarried parents using nationally representative data from the Fragile Families and Child Well-Being Study (Knab and McLanahan 2007). For all these relationship status measures, rates of

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<sup>13</sup> Impact findings are qualitatively similar under an alternate rule that categorized couples as having a status if either partner reported that status.

<sup>14</sup> For the romantic involvement and co-residence measures, partners were not required to give identical survey responses to be considered romantically involved or living together. For example, if one member of the couple reported that they lived together most of the time and the other reported that they lived together all of the time, the couple was coded as living together. Similarly, if one member of the couple indicated that they were romantically involved on a steady basis and the other indicated that they were in an on-again-off-again relationship, the couple was coded as being romantically involved.

mother-father disagreement were within 1.1 percentage points of one another in the two research groups.

**Secondary measures.** To supplement the main analysis of BSF's effects on relationship status, the evaluation team also examined the following six secondary measures of relationship status:

1. ***Couple in Regular Contact.*** This measure includes couples in which both partners report living together most or all of the time (36-Month Survey Item FS33) or being in contact with each other at least a few times a month (36-Month Survey Item FS33.2).
2. ***Couple in Steady Romantic Relationship.*** This measure is created in a similar way to the romantic involvement measure described above except that in this case both partners had to respond that they were “romantically involved on a steady basis” (36-Month Survey Item FS26).
3. ***Couple Living Together and Not Married.*** This measure excludes couples who are married (36-Month Survey Item FS25) from the set of couples who are co-residing (36-Month Survey Item FS33).
4. ***Couple Living Together All the Time (Married or Unmarried).*** This measure excludes couples who report living with each other “most” of the time (36-Month Survey Item FS33) from the set of couples who report live together “all” of the time couples who.
5. ***Couple Married or Engaged with a Wedding Date.*** This measure combines couples in which both partners report being married to each other (36-Month Survey Item FS25) or engaged to each other (36-Month Survey Item FS28) with a wedding date set (36-Month Survey Item FS29).
6. ***Couple Married or Marriage Is Likely.*** This measure combines couples in which both partners report being married to each other with couples in which both partners report a “pretty good” or “almost certain” chance of marriage (36-Month Survey Item FS27).

With the exception of *couple lives together all of the time*, all these measures were examined at 15 months. That measure was added based on analyses of BSF baseline data and the 15-month follow-up that revealed that couples in which both partners report living together all of the time have distinctly higher relationship quality and future stability compared to all other couples, including those in which one partner reports that they live together all of the time and the other reports living together most of the time (Clarkwest, Knab, and Koball 2010). Couples with one or both partners reporting living together most of the time are more similar to couples reporting that they live together some of the time than to couples in which both report living together all of the time. In the BSF sample, in 38 percent of couples both partner reported that they lived together all the time at the 36-month follow-up, compared with 47 percent in which both report living together either all or most of the time. Impacts on these alternative measures can be found in Appendix A, Table FS.1.

## Attitudes Toward Marriage

One way the BSF program aimed to promote stable, positive couple relationships was by influencing participants' perceptions of marriage. Previous research using Fragile Families data found that individuals with more positive attitudes toward marriage were more likely to be married to their partner one year after a nonmarital birth (Carlson, McLanahan, and England 2004).

The marriage attitudes measure used in the 15-month impact analysis was based on sample members' level of agreement (measured on a four-point scale ranging from strongly disagree to strongly agree) with the following two statements: (1) It is better for a couple to be married than to just live together (36-Month Survey Item RR0.b) and (2) It is better for children if their parents are married (36-Month Survey Item RR0.e). As was the case at 15 months, in the 36-month data the two items are highly correlated ( $r = 0.57$ ) and the resulting two-item scale has a Cronbach's alpha reliability of 0.73. The attitudes of mothers and fathers were analyzed separately and were not combined into a single couple-level measure.

## Relationship Quality

BSF aims to help couples build and maintain positive relationships. This section details the measures of relationship quality used in the impact analyses and how the evaluation team approached impact analyses of those measures given that some are available only for intact couples.

Relationship quality is a multidimensional concept (Carrano et al. 2003; Fincham, Stanley, and Beach 2007). Therefore, the BSF impact analysis examined several relationship quality measures, each representing a different aspect of relationship quality. The BSF 36-month follow-up survey contains numerous items designed to measure multiple dimensions of relationship quality, derived from questions developed by a range of experts in the field. They are the same items that were included in the 15-month follow-up survey. For the 15-month impact report, the evaluation team analyzed five primary relationship quality measures created from those items, which corresponded to empirically distinct domains of relationship characteristics identified in the data. Those measures are as follows:

1. Support and Affection
2. Avoidance of Destructive Conflict Behaviors
3. Use of Constructive Conflict Behaviors
4. Fidelity
5. Relationship Happiness

Those measures were identified based on the result of a factor analysis of the 37 relationship quality items included in the survey. The technical supplement to the 15-month impact report (Wood, Moore, et al. 2010) details that analysis and its results. The analysis identified a four-factor solution. The first four items are composed of the items that loaded most strongly on each respective factor. The relationship happiness outcome is a one-item measure. Relationship happiness is likely to be conceptually linked to multiple aspects of relationship quality. And, empirically, it loaded moderately on each of the four factors. The measures were found to be internally consistent and to measure empirically distinct aspects of relationship quality.

With the 36-month data, the evaluation team found that the measures maintained the desirable properties found at 15 months. A factor analysis of the 36-month data found the same factor structure identified previously. And the three that are summative scales—*support and affection*, *avoidance of destructive conflict behaviors*, and *use of constructive conflict behaviors*—retained high internal consistency, with Cronbach's alphas between 0.88 and 0.94 for each (see Table III.1). That is nearly identical to the range at 15 months (0.87 to 0.94). And when analyzed separately, the alphas for treatment and control group couples are high (0.88 or above) and very similar to one another (always within at least 0.01 of each other).

**Table III.1. Five Relationship Quality Measures and Their Corresponding Survey Items**

Outcome Measure	Items
Support and Affection (12 items, $\alpha = 0.94$ )	<p>Does the respondent strongly agree, agree, disagree, or strongly disagree with the following statements:</p> <ul style="list-style-type: none"> <li>• Partner and I often talk about things that happen to each of us during the day (Item RR4.b)</li> <li>• Partner and I enjoy doing even ordinary, day-to-day things together (Item RR4.c)</li> <li>• Partner knows and understands me (Item RR4.q)*</li> <li>• Partner listens to me when I need someone to talk to (Item RR4.r)*</li> <li>• Partner respects me (Item RR4.t)*</li> <li>• Partner encourages or helps me to do things that are important to me (Item RR4.w)</li> <li>• Partner shows love and affection for me (Item RR4.x)</li> <li>• I am satisfied with my sexual relationship with partner (Item RR4.y)</li> <li>• Partner can be counted on to help me (Item RR4.n)*</li> <li>• Partner is honest and truthful with me (Item RR4.i)*</li> <li>• I can trust partner completely (Item RR4.j)*</li> <li>• I want this relationship to stay strong no matter what rough times we may have (Item RR4.v)</li> </ul>
Destructive Conflict Behaviors (Avoidance of) (9 items, $\alpha = 0.88$ )	<p>Do each of the following often happen, sometimes happen, rarely happen, or never happen when the couple is together:</p> <ul style="list-style-type: none"> <li>• Partner blames me for things that go wrong (Item RR2.b)</li> <li>• When we discuss something, partner acts as if I am totally wrong (Item RR2.m)</li> <li>• When we argue, one of us is going to say something we will regret (Item RR2.q)</li> <li>• When we argue, I feel personally attacked by partner (Item RR2.v)</li> <li>• When we argue, I get very upset (Item RR2.s)</li> <li>• Little arguments turn into ugly fights with accusations, criticisms, name-calling, or bringing up past hurts (Item RR2.aa)</li> <li>• Partner puts down my opinions, feelings, or desires (Item RR2.bb)</li> <li>• Partner seems to view my words or actions more negatively than I mean them to be (Item RR2.cc)</li> <li>• When we argue, one of us withdraws and refuses to talk about it anymore (Item RR2.dd)</li> </ul>
Constructive Conflict Behaviors (8 items, $\alpha = 0.89$ )	<p>Do each of the following often happen, sometimes happen, rarely happen, or never happen when the couple is together:</p> <ul style="list-style-type: none"> <li>• When I have problems, partner really understands what I'm going through (Item RR2.a)</li> <li>• I feel appreciated by partner (Item RR2.e)</li> <li>• I feel respected even when we disagree (Item RR2.j)</li> <li>• Even when arguing we can keep a sense of humor (Item RR2.x)</li> <li>• We are good at solving our differences (Item RR2.n)</li> <li>• During arguments, we are good at taking breaks when we need them (Item RR2.4w)</li> <li>• We are pretty good listeners, even when we have different positions on things (Item RR2.y)</li> <li>• Partner is good at calming me when I get upset (Item RR2.z)</li> </ul>
Fidelity	<ul style="list-style-type: none"> <li>• Has partner cheated on you since random assignment date? (Item RR8)</li> <li>• Have you cheated on partner since random assignment date? (Item RR9)</li> </ul>
Relationship Happiness	<ul style="list-style-type: none"> <li>• On a scale from 0 to 10, where 0 is not at all happy and 10 is completely happy, how happy would you say your relationship with partner is? (Item RR1)</li> </ul>

Note: The 36-month survey item reference numbers are included in parentheses. The 36-month follow-up survey instrument is included in Appendix C.

\* *Support and Affection* item that is asked of all couples, not just those still romantically involved. These six items are used in the alternate six-item *support and affection* scale that is defined for all couples.

Apart from internal consistency, it is important that the measures capture empirically distinguishable aspects of quality. If measures are nearly perfectly correlated, then the evaluation team cannot credibly describe them as measuring distinct phenomena, even if they seem intuitively distinct with respect to the items that compose them. To verify that the measures capture empirically distinct domains of relationship quality, the evaluation team examined correlations between them. Correlations for the couple-level measures used in the evaluation’s primary analyses are all in the anticipated direction and range from 0.32 to 0.69 (see Table III.2). The pattern and levels of correlation observed in the table are similar to those found with these measures in the 15-month data. The correlations show that when each of these five measures is paired with another, at least about one-third of each measure’s variation is unique, suggesting that these measures can be analyzed as empirically distinguishable measures of relationship quality.

**Table III.2. Correlations Between the Five Relationship Quality Measures**

	Relationship Happiness	Support and Affection	Destructive Conflict Behaviors	Constructive Conflict Behaviors	Fidelity
Relationship Happiness	1				
Support and Affection	0.67	1			
Destructive Conflict Behaviors (Avoidance of)	0.60	0.58	1		
Constructive Conflict Behaviors	0.65	0.69	0.67	1	
Fidelity	0.36	0.32	0.37	0.40	1

Source: BSF 36-month follow-up survey.

**Details on Construction of the Five Primary Measures**

The paragraphs below detail how each outcome measure is constructed at the individual level. The primary measures in the impact analyses measure couple-level measures of each. For all but the Fidelity measure, the couple-level measure is simply the average of both partners’ individual-level measures. The construction of the couple-level fidelity measure is described below.

**Support and affection.** The support and affection scale used in the BSF impact analysis is the average of 12 survey items measuring positive relationship traits such as support, intimacy, friendship, commitment, and trust. See Table III.1 for a full list of the items. Some researchers have argued that these types of positive aspects of relationships are the most important element of the success and longevity of romantic relationships (Fincham 2003; Hawkins et al. 2006).

**Destructive conflict behaviors (avoidance of).** This scale is constructed as the average of nine survey items capturing harmful conflict management approaches. These items measure the level of criticism or contempt the partners demonstrate toward each other, their tendency to escalate or withdraw from arguments or engage in personal attacks, and other harmful conflict management behaviors. A number of relationship quality experts have identified these behaviors as key danger signs of destructive conflict in couples. These kinds of hostile behaviors between romantic partners have been found to be highly predictive of relationship dissolution (Gottman 1994). For this reason, all BSF curricula discuss strategies to help couples avoid these patterns. The impact analyses use a reverse-coded version of the variable, with higher scores reflecting better outcomes—in this case, greater avoidance of destructive conflict behaviors.

**Constructive conflict behaviors.** This scale averages eight survey items measuring conflict management strategies that maintain positive relations and cooperation. These include taking breaks when arguing, using humor even when disagreeing, and trying to understand your partner’s perspective. These behaviors represent the set of techniques that relationship skills education programs such as BSF teach couples to use to resolve disagreements without harming the relationship.

**Fidelity.** This measure captures whether both partners were sexually faithful during the duration of the relationship since the date of random assignment. Prior research has indicated that fidelity is a particularly salient issue for low-income, unmarried couples and that infidelity concerns can be a substantial barrier to relationship success (Edin and Kefalas 2005; Smock and Manning 2004). For this reason, all BSF curricula devote considerable time to highlighting the importance of fidelity and trust in building a healthy relationship. The 36-month follow-up survey asked respondents whether they had been faithful since the time of random assignment and whether they believe that their partner had been faithful during this time. Responses related to partner’s fidelity were asked on a four-point scale in which responses are “definitely yes,” “probably yes,” “probably no,” and “definitely no.” The measure used in the impact analysis is constructed as a binary indicator of whether either partner had been unfaithful since random assignment. This measure takes a value of 1 if neither member of the couple indicated that he or she was unfaithful and neither reports that his or her partner was “definitely” unfaithful.

**Relationship happiness.** The relationship happiness outcome is a global measure of relationship quality, encompassing multiple aspects of relationship quality. The measure consists of respondents’ answers to the question: “On a scale from 0 to 10, where 0 is not at all happy and 10 is completely happy, how happy would you say your relationship with partner is?” Single item relationship happiness measures are the most common relationship quality outcomes in the literature (see the review by Bronte-Tinkew et al. undated). Therefore, including this measure in the impact analysis also facilitates comparisons of the BSF results with those from previous research.

### **Analyzing the Relationship Quality Measures and the Issue of Truncation**

Estimating program impacts on relationship quality raises some potential analytic challenges resulting from the fact that some relationship quality measures are available only for the subset of couples who are still romantically involved at the time of the follow-up. Random assignment is the most rigorous research method for evaluating the effectiveness of an intervention. Its greatest virtue is that it creates research groups that are very similar at baseline, so that differences that emerge between the groups can be attributed to the effect of the intervention with a known degree of statistical precision. However, if certain outcomes are available only for a subset of sample members—such as those who have remained romantically involved—and the likelihood of being in that subset is influenced by the intervention, then this strength of random assignment may be lost.

Researchers sometimes refer to this possibility as a truncation problem, because the outcome is unavailable or undefined for some sample members (McConnell, Stuart, and Devaney 2008). In the BSF evaluation, if a couple splits up, the quality of their romantic relationship is no longer defined. The truncation of relationship quality measures becomes problematic for the impact analysis if the initial characteristics of the couples who stay together differ for the treatment and control groups. The issue is more serious at 36 months than at 15 months because more couples have broken up.

This section of the chapter discusses the potential for truncation bias in the BSF impact analysis. In addition, it describes the approach used to assess the potential for truncation bias in the

various analysis samples examined in the study. Finally, it describes the approach used when truncation bias appears to be a concern for a particular analysis sample.

**The potential for truncation bias.** Four of the five key relationship quality measures examined in the BSF impact analysis are truncated; in other words, they are available for only a subset of couples in the research sample. The relationship happiness and support and affection measures are defined only for the 59 percent of couples who were still in a romantic relationship at the 36-month follow-up. The conflict behavior measures are available only for 81 percent of couples still in regular contact at follow-up.<sup>15</sup> If BSF affects the likelihood that couples remain in a romantic relationship or in regular contact with each other, then it also affects the probability of inclusion in the analysis samples for those outcomes. The truncation of these measures becomes problematic for the impact analysis if the initial characteristics of the couples who stay together differ for the BSF and control groups, because in this circumstance the truncation would bias the estimates.

If BSF has a positive impact on romantic involvement, then it has kept some couples together that would have otherwise split up. Conversely, if BSF has a negative impact on romantic involvement, then it has caused some couples to split up that would have otherwise stayed together. The latter could occur, for example, if after participating in BSF, a couple realized that they had an unhealthy relationship and decided they were better off apart. In either case, the background characteristics of intact couples in the two research groups can no longer be assumed to be comparable. If BSF has a positive impact on relationship status, the initial relationship quality of the two groups may differ because BSF prevented the breakups of some couples with poorer relationship quality. In this case, comparing the relationship quality of BSF and control group couples who remain together at follow-up will yield an impact estimate that is biased downward, because, on average, intact BSF couples had poorer relationship quality initially than intact control group couples did. Alternatively, BSF could lead some couples with low relationship quality to recognize more clearly the problems with their relationships and consequently to break up; this outcome would introduce an upward bias to the impact estimates for relationship quality. In general, the greater the impact BSF has on relationship status, the greater the likelihood that treatment-control differences in the characteristics of the couples who remain together will bias estimates of BSF's effect on relationship quality.

Although the concern over potential bias of the relationship quality impacts increases with the size of the impact on relationship status, the truncation problem may bias the estimates even if there is no such impact. BSF could make some kinds of couples more likely to stay together while making others less likely to do so. Thus, it is possible that BSF could change the mix of couples remaining together without changing the rate at which they remain romantically involved, and bias due to the truncation of the relationship quality measures remains at least somewhat of a concern even if there is no effect of BSF on relationship status.

### **Assessing Risk of Truncation Bias**

As described in Chapter II, the impact analyses included a wide range of baseline covariates, which help adjust for any differences between groups in observed characteristics that may emerge as a result of attrition, including attrition through truncation. However, sufficiently severe attrition due

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<sup>15</sup> The infidelity measure used in the analysis is defined for all couples. Therefore, truncation is not an issue for this measure.

to survey nonresponse or truncation would cause concern about nonequivalence on unobserved characteristics. To assess the risk of bias in the estimates of BSF’s effect on romantic relationship quality, the evaluation team followed the two-step procedure developed for the U.S. Department of Education’s What Works Clearinghouse (WWC) (U.S. Department of Education 2008) described in Chapter I. This procedure involves comparing overall and differential attrition in each analysis sample to WWC’s attrition standard. If this standard is met, then the risk of serious bias due to attrition is deemed low by WWC evidence standards.

If a sample fails to meet the attrition standard, then the evaluation team tested BSF and control group couples in the analysis sample for equivalence on observable characteristics. Analyses that do not meet the attrition standard but meet the equivalence standard are classified as meeting WWC evidence standards with reservations and determined to be at moderate risk of attrition bias. Analyses that fail to meet both the attrition and equivalence standards are determined to have substantial risk of bias. Such findings are reported only in Appendix A of this technical supplement and not in the main impact report. All findings that have moderate or substantial risk of attrition bias are noted and readers are cautioned to interpret these findings more carefully than other experimental impact estimates.

Table III.3 shows the attrition and equivalence results for the 36-month data for the pooled sample that combines all eight evaluation sites. The evaluation team examined attrition and equivalence for the following sets of couples:

- Couples still in frequent contact, whether or not they remain romantically involved (the sample used for the analysis of impacts on conflict management measures)
- Couples still in a romantic relationship (the sample used for the analysis of impacts on the *relationship happiness* and *support and affection* measures)

This analysis indicates that attrition is low for the first set of couples in the pooled sample and is high for the romantically involved sample; however, the treatment and control groups meet the equivalence standards on all baseline characteristics listed above. Thus, the risk of attrition-related bias is low for all the relevant samples for the pooled analysis of BSF’s effects on relationship quality.<sup>16</sup>

**Table III.3. Attrition and Equivalence for Relationship Quality Measures in the Eight- Site Sample**

Sample (Outcomes)	Overall Attrition (%)	Differential Attrition (%)	High/Low Attrition	Equivalent?
In Regular Contact ( <i>Conflict Behavior Scales</i> )	32.4	0.9	Low	n/a
Romantically Involved ( <i>Relationship Happiness / Support and Affection</i> )	51.3	0.9	High	Yes

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Note: Attrition is determined by a combination of the survey nonresponse and measure truncation. A couple is counted as responding if at least one partner completed a 36-month survey. For the *relationship happiness* and *support and affection* measures, the rate of truncation is the percentage of responding couples who are no longer in a romantic relationship at 36-month follow-up. For the two conflict behavior scales, the truncation rate is the

<sup>16</sup> Similarly, the analyses based on the sample of couples still in regular contact at the 36-month follow-up receives a “high” rating using Strengthening Families Evidence Review (SFER) standards, while the analyses based on the sample of couples who were still romantically involved at the 36-month follow-up receives a “moderate” SFER rating.



percentage of responding couples who are no longer in regular communication. “High” and “Low” attrition are based on the “conservative” standards established by WWC. Because attrition is likely to be nonrandom, the risk assessment used WWC’s conservative standard. “High” signals attrition that is likely to introduce bias. “Low” signals that the combination of overall and differential attrition is low enough that bias should be minor. The risk assessment includes a test for baseline equivalence in cases where attrition is high. To be considered equivalent, analysis sample couples in the treatment and control groups must differ by less than 0.25 standard deviations on the following baseline characteristics: relationship interaction, relation commitment, % married, % cohabiting full-time, % cohabiting part-time, % Hispanic, % White non-Hispanic, % Black non-Hispanic, and % other race/ethnicity.

Although the attrition/equivalence standards are met for the pooled sample, the same is not true for the romantically involved subset of couples in six of the eight individual sites, as seen in Table III.4. Attrition is high for the romantically involved sample in all sites except for Oklahoma City. One of the high attrition sites, Atlanta, meets the equivalence standards, but the other six do not.

One of those six sites, Houston, does not meet the equivalence standards for either the in-contact or romantically involved samples. However, the lack of equivalence between the research groups in Houston is not the result of the truncation of the relationship quality measures. As described in Chapter I, this pattern arises from differential response rates between treatment and control group members, a pattern not seen in any other sites.

**Table III.4. Results of Assessments of Risk of Attrition Bias for Truncated BSF Analysis Samples**

	Low Attrition Standard Met?	Initial Equivalence Standard Met?	WWC Rating
<b>Samples of Couples Who Were in Regular Contact at 36- Month Follow- Up</b>			
Pooled Across Programs	Yes	N/A	Meets Standards
Atlanta	No	Yes	Meets Standards with Reservations
Baltimore	Yes	N/A	Meets Standards
Baton Rouge	No	Yes	Meets Standards with Reservations
Florida Counties	No	Yes	Meets Standards with Reservations
Houston	No	No	Does Not Meet Standards
Indiana Counties	Yes	N/A	Meets Standards
Oklahoma City	Yes	N/A	Meets Standards
San Angelo	Yes	N/A	Meets Standards
<b>Samples of Couples Who Were in Romantically Involved at 36- Month Follow- Up</b>			
Pooled Across Programs	No	Yes	Meets Standards with Reservations
Atlanta	No	Yes	Meets Standards with Reservations
Baltimore	No	No	Does Not Meet Standards
Baton Rouge	No	No	Does Not Meet Standards
Florida Counties	No	No	Does Not Meet Standards
Houston	No	No	Does Not Meet Standards
Indiana Counties	No	No	Does Not Meet Standards
Oklahoma City	Yes	N/A	Meets Standards
San Angelo	No	No	Does Not Meet Standards

Source: BSF 36-month follow-up surveys and 36-month direct assessments, conducted by Mathematica Policy Research.

Note: Attrition is determined by both survey nonresponse and measure truncation. A couple is counted as responding if at least one partner completed a 36-month survey. For the relationship happiness and support and affection measures, the rate of truncation is the percentage of responding couples who are no longer in a romantic relationship at 36-month follow-up. For the two conflict behavior scales, the truncation rate is the percentage of responding couples who are no longer in regular communication. Analysis samples that meet WWC standards with reservations are determined to have moderate risk of attrition bias. Analysis samples that do not meet WWC standards are determined to have substantial risk of attrition bias. Findings related to these samples are presented only in appendices to the technical supplement, and not in the main report.

N/A = Not applicable. Do not conduct initial equivalence test if the attrition standard is met.

## Approach to Estimating Relationship Quality Impacts

Based on the attrition and equivalence results described above, the evaluation uses the following approach in the 36-month analyses of relationship quality impacts:

- **Impacts Averaged Across All Programs.** For the pooled analysis of the 36-month data, the evaluation follows the approach used at 15 months, which is to analyze the five primary relationship outcomes as described earlier: *relationship happiness*, *support and affection*, *use of constructive conflict behaviors*, *avoidance of destructive conflict behaviors*, and *fidelity*.
- **Impacts for Each Program Individually.** Six of the eight evaluation sites do not meet equivalence standards for the romantically involved sample. For clarity and consistency across all site-level analyses, the evaluation uses the same approach for all eight sites when analyzing site-level relationship quality impacts at 36 months. Using a consistent set of relationship quality measures for all site-level analysis makes cross-site comparisons of relationship quality impacts simpler and more straightforward. Therefore, the main impact report does not present site-level results using outcomes defined only for romantically involved couples, even in the two sites that met equivalence standards for this sample (Oklahoma City and Atlanta). As such, the main impact report presents no results for the *relationship happiness* measure at the program level (since it is defined only for romantically involved couples). In addition, the main report replaces the 12-item *support and affection* measure (defined only for romantically involved couples) with a 6-item version of the scale that uses only the subset of items from the scale that are asked of all couples.<sup>17</sup> For the program-level analyses, the main report presents the same conflict management and fidelity measures as in the pooled analysis described above.

## Secondary Relationship Quality Measures

In addition to the primary measures, the evaluation team analyzed program impacts on a set of additional relationship quality measures. Their selection is motivated largely by the 15-month findings and the response to them. They are intended to help provide context for the main findings. Impact estimates for secondary relationship quality measures are presented in Appendix A, Table FS.2.

## Partner-Specific Measures

The primary relationship quality measures are constructed as couple-level variables. Combining both partners' responses into a single variable provides a global representation of the nature of the couple's relationship that incorporates the perspectives and experiences of each member. Using couple-level measures of quality is also consistent with the relationship status measures, which are, necessarily, defined at the couple level. In addition, by focusing the primary analyses on couple-level (rather than individual-level) variables, the analysis includes a smaller number of variables, thus

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<sup>17</sup> The 6 items asked of all couples are marked with an asterisk in Table III.1. This shorter version of the scale has good internal consistency, with a Cronbach's alpha of 0.95, nearly identical to the alpha score for the full 12-item scale. The 6-item version of the scale is highly correlated with the 12-item version ( $r = 0.97$ ), suggesting that the shorter scale captures very nearly the same information contained in the longer scale. In the 15-month analysis, we used this alternate *support and affection* measure for Baltimore and Florida.

reducing concerns about multiple comparisons and increasing the statistical power of the primary analyses.

However, many researchers are quite understandably interested in how the program might affect male and female partners differently. As such, the analysis includes supplementary analyses of *relationship happiness, support and affection, destructive conflict behaviors, constructive conflict behaviors, and fidelity* separately for mothers and fathers. For all measures but *fidelity*, the mother-specific measures are created based on the responses of the mother and the father-specific measures are based on the responses of the father. For *fidelity*, the secondary analysis includes one measure indicating whether the father has been faithful and another indicating whether the mother has been faithful. Each measure is constructed based on reports from both partners about the partner in question. The measure takes a value of 1 if neither reports unfaithfulness on the part of the partner in question and a value of 0 if either respondent reports that the partner in question has been unfaithful.

### **Relationship Commitment**

Literature on low-income couples stresses the important role of commitment (Stanley and Markman 1992; Waite and Gallagher 2000). Relationship commitment is a factor that may determine partners' willingness to invest in their relationship, thus potentially forming the basis for a lasting, happy partnership. For this reason, the evaluation team created a measure of commitment.

The 36-month survey contains three items from Scott Stanley's commitment inventory (36-Month Survey Items RR4.o, RR4.p, and RR4.v). Although the internal consistency of the three-item scale is modest (Cronbach's  $\alpha \approx 0.65$ ), both in Stanley's data and in the BSF data, it is a known and recognized measure. The analysis includes two separate measures from the individual-level scales. The first is a simple average of the two partners' commitment levels. Second, because it only takes one partner to end a relationship, the analysis includes a measure that takes the value of the lowest level of commitment of either member of the couple.

### **Happiness of Relationship with New Romantic Partners**

Many BSF participants are in romantic relationships with new partners at 36 months. The BSF curriculum teaches skills that should be transferable to new relationships and that may also help participants make wiser partner selection decisions. Both these factors could make them more likely to be in happier subsequent relationships in the event that the relationship with their BSF partner breaks up. The 36-month survey asks respondents who are in a romantic relationship with a partner other than their original BSF partner to rate the happiness of that relationship on a 1 to 10 scale (36-Month Survey Items FS.41).

The measure is only defined for the relatively small subset of cases—specifically, the fewer than 20 percent of sample members who were in new relationships at the time of the 36-month follow-up survey. As such, it is not feasible, due to truncation reasons explained earlier, to examine impacts just on that subsample of couples. Consequently, to incorporate re-partnered couples, the analysis includes a measure of relationship happiness that includes all respondents, irrespective of whether their relationship is with their BSF partner or a new partner. This pooling is possible because the same relationship happiness question is asked of both intact and re-partnered respondents. The analysis includes this measure at the individual level, as well as for fathers and mothers separately.

## Intimate Partner Violence

To measure intimate partner violence (IPV), the follow-up survey included the physical assault subscale of the revised Conflict Tactics Scale (CTS2). The 12 items from this widely used subscale (listed in Box III.1) document the prevalence of physical violence in a relationship by asking about the occurrence of a series of specific violent acts (for example, hitting, slapping, pulling hair, kicking, or choking) during the previous year. Respondents were first asked whether this behavior happened in the past year; if they answered affirmatively, they were asked how often it happened (36-Month Survey Item RR14). As indicated in the text box, the 12 kinds of assaults covered by these items are categorized by the CTS2 developers as either minor or severe (Strauss et al. 1996). On BSF follow-up surveys, these questions covered assaults by any intimate partner, not just the BSF partner.<sup>18</sup> Both mothers and fathers were asked all IPV questions. Respondents were asked about themselves as victims (and not as perpetrators) of physical assaults. Impact estimates for all IPV measures are provided in Appendix A, Table FS.3.

**Key IPV measures.** The key IPV measures examined in the 36-month impact analysis are whether each BSF partner reported having experienced any severe physical assault. This measure indicates whether sample members were severely physically assaulted by an intimate partner during the previous year. The measure is based on the seven items from the CTS2 subscale categorized by the CTS2 developers as severe. The measure was analyzed separately for mothers and fathers.

**Additional IPV measures.** To ensure that the BSF impact analysis considered the potential effects of the program on other aspects of IPV, follow-up surveys also included questions concerning sexual coercion and physical injury by an intimate partner. These two questions were adapted from questions from the CTS2 sexual coercion and physical injury subscales.

Box III. 1. Items Included in the Physical Assault Subscale of the Revised Conflict Tactics Scale	
Minor Assaults	Severe Assaults
Throwing something that could hurt	Using a knife or gun
Twisting arm or hair	Punching or hitting with something that could hurt
Pushing or shoving	Choking
Grabbing	Slamming against the wall
Slapping	Kicking
	Beating up
	Burning or scalding on purpose

Source: Strauss et al. 1996.

The evaluation team examined impacts on the following additional IPV measures:

- **Any Physical Assault.** This measure indicates whether the sample member experienced any of the 12 types of physical assaults on the CTS2 subscale in the previous year.
- **Multiple Severe Physical Assaults.** This measure is based on the seven severe items from the CTS2 subscale and indicates that the sample member experienced more than one severe assault in the previous year.

<sup>18</sup> For all BSF programs except the program in Atlanta, respondents were also asked to indicate whether the perpetrator was the BSF partner, their current partner, or another partner. The institutional review board in Atlanta would not permit a survey question that identified the perpetrator of the violence.

- ***Any Physical Injury.*** This measure indicates whether the sample member reported needing medical care in the previous year because of a violent act by an intimate partner (36-Month Survey Item RR15). Respondents were asked to report injuries that required medical attention, even if they did not receive it.
- ***Any Sexual Coercion.*** This measure is based on a survey question that asked respondents whether during the previous year an intimate partner used “force or threats to make you have sex or do sexual things you didn’t want to do” (36-Month Survey Item RR14.m).
- ***Any Severe Physical Assault, Physical Injury, or Sexual Coercion.*** This measure is created by combining the severe assault, physical injury, and sexual coercion measures described above.

In addition, the evaluation team examined a couple-level measure meant to capture the interplay between relationship status and IPV. For this measure, serious IPV was defined as either partner having experienced a severe physical assault, physical injury, or sexual coercion by a romantic partner. For the impact analysis, this measure was interacted with a binary measure indicating whether the couple was still romantically involved to create four binary indicators: (1) the couple was still romantically involved and neither partner had experienced serious IPV in the previous year; (2) the couple was still romantically involved and either partner had experienced serious IPV in the previous year; (3) the couple was no longer romantically involved and neither partner had experienced serious IPV in the previous year; and (4) the couple was no longer romantically involved and either partner had experienced serious IPV in the previous year.

## **IV. MEASURING AND ANALYZING PARENTING**

The direct goal of BSF was to enhance couples' relationships. The intention of the program was that stronger couple relationships could strengthen couples' co-parenting, increase father involvement, improve fathering behavior, enhance mothers' parenting, and improve parents' emotional well-being. Co-parenting and father involvement are among the key outcome domains that BSF intended to influence. Mothers' parenting and parents' emotional well-being are also examined, but considered additional domains since they are less central to BSF's goals. As discussed in the main report, the impact analysis indicates that BSF had no effect on couples' co-parenting relationship and small negative effects on some aspects of father involvement. Additionally, BSF had limited effects on mothers' parenting behavior and parents' emotional well-being. This chapter describes the outcomes examined in the BSF 36-month analysis for each of these domains. Findings from the impact analysis of these outcomes are presented in Appendix A, Tables FS.4 and FS.5.

### **Co- Parenting Relationship**

The BSF intervention sought to enhance the ways parents share parenting responsibilities and work together to raise their children. The co-parenting measure examined in the 36-month impact analysis is a single summary index of 10 items drawn from the Parenting Alliance Inventory (36-Month Survey Items CO1a to CO1j). As shown in Table IV.1, this was the only measure examined in the co-parenting relationship domain; therefore, it is considered a primary outcome in a key domain. The Parenting Alliance Inventory, created by Abidin and Brunner (1995), is a well-established scale of the quality of the co-parenting relationship. These 10 items represent a subset of items from the inventory selected in close consultation with Dr. Abidin. These items indicate whether respondents think that they and their partner communicate well in their co-parenting roles and are a good co-parenting team. Items were asked of all mothers and fathers, regardless of whether the couple had remained romantically involved. Using a five-point scale (ranging from strongly disagree to strongly agree), sample members were asked to state their level of agreement with the 10 positive statements concerning the co-parenting relationship. The scale was created by averaging the responses to the 10 items. The measure has a high level of internal consistency; Cronbach's alpha for mothers and fathers is 0.97 and 0.95, respectively. The quality of the co-parenting relationship used in the impact analysis is defined in a manner parallel to couples' romantic relationship quality, averaging mothers' and fathers' responses to create a couple-level outcome. If only one member of the couple responded to the survey, the value for the missing survey response is imputed using the methods described in Chapter II.

### **Father's Involvement and Parenting Behavior**

BSF aimed to increase father involvement by increasing the likelihood of fathers being in committed romantic relationships with the mothers of their children and by emphasizing the importance of both parents in the child's life. Because of the centrality of father involvement to BSF's aims, it is considered a key outcome domain. The measures of father involvement and fathers' parenting behavior included in the 36-month follow-up analysis were drawn from both the follow-up survey and the direct assessment. Table IV.1 provides a summary of these measures and indicates which of these were primary outcomes. The rest of this section provides more detail on the construction of these measures. It begins by discussing the primary measures of father involvement

**Table IV.1. Measures of Father Involvement and Father’s Parenting Behavior Analyzed in the BSF 36-Month Impact Analysis**

Outcomes	Measures	Priority Level
<b>Co- Parenting (Key Domain)</b>		
Co-Parenting	Summary scale created by averaging both parents’ responses to questions that assess the quality of the co-parenting relationship (Items CO1a to CO1j)	Primary
<b>Father’s Involvement and Parenting Behavior (Key Domain)</b>		
Financial Support Provided by Father	Binary variable defined as whether the father covers at least half of the costs of raising the focal child; based on mothers’ reports (Item PA12)	Primary
Father Spends Time with Focal Child on a Daily Basis	Binary variable defined as whether, during the past month, the father spent one hour or more with the focal child on a daily basis; based on both mothers’ and fathers’ reports (Item CO2)	Primary
Father’s Engagement with Child	Summary scale created by averaging frequency of father’s engagement in caregiving, physical play, and cognitively stimulating activities(Items CO3.b to CO3.m)	Primary
Father Lives with Child	Binary variable defined as whether the mother and father report that the father lives with the focal child all or most of the time (Item FS42)	Primary
Father’s Parental Responsiveness (observed)	Summary scale created by averaging five items capturing father’s responsiveness to the child during the two-bag assessment—positive regard, quality of the relationship, sensitivity, cognitive stimulation, detachment (reverse); these items were coded from the two-bag assessment	Primary*
Father’s Engagement in Caregiving Activities	Summary scale created by averaging frequency of father’s engagement with the focal child in feeding, dressing, and changing diapers or helping with the toilet (Items CO3.f to CO3.h)	Secondary
Father’s Engagement in Physical Play	Summary scale created by averaging frequency of father’s engagement with the focal child in playing games with ball, taking child for ride on shoulders or back, turning child upside down or throwing in the air, playing chasing games, or playing outside (Items CO3.i to CO3.m)	Secondary
Father’s Engagement in Cognitive and Social Play	Summary scale created by averaging frequency of father’s engagement in five cognitive and social play activities with child (singing songs, playing with toys, playing games such as “peek-a-boo,” looking at books, and telling stories) (Items CO3.b to CO3.e)	Secondary
Father Sometimes Lives with Child	Binary variable defined as whether the father reports living with the focal child sometimes, most of the time, or all of the time(Item FS42)	Secondary
Paternal Warmth (self-reported)	Summary scale created by averaging father’s reported frequency of warm close times with child, father’s feelings that child likes him, and father showing love to child despite a bad mood (Items CO3.1.a to CO3.1.c)	Secondary
Father’s Use of Harsh Discipline	Binary variable defined as whether the father reports having sworn at the child, hit the child on the bottom with a belt or other object, or slapped the child in the face (Items CO5.d2.a, CO5.g2.a, and CO5.i2.a)	Secondary
Father’s Hostile Parenting (observed)	Summary scale created by averaging two items capturing father’s assertive negative behavior toward the child during the two-bag assessment (negative regard, intrusiveness) ; these items were coded from the two-bag assessment	Secondary*

\* Outcome is constructed using items collected during the 36-month direct assessment.

and fathers’ parenting behavior based on survey responses. Next, it describes secondary measures drawn from the survey responses. Finally, it discusses measures of fathers’ parenting behavior drawn from the direct assessment. Impact estimates for all father involvement and parenting behavior outcomes are provided in Appendix A, Table FS.4.

### Primary Measures Based on Survey Responses

Fathers may provide for their children and support their development through investments of both time and money. As shown in Table IV.1, four primary survey-based measures capture BSF’s potential impact on fathers’ involvement with their children.

- **Father Provides Substantial Financial Support for Child.** In the 36-month follow-up survey, mothers were asked, “How much of the cost of raising [CHILD] does

[FATHER] cover?” This question was asked of all mothers, regardless of the father’s residential status. The five possible responses were all or almost all, more than half, about half, less than half, or little or none. For the impact analysis, a binary measure indicating whether the father provides substantial financial support for the BSF child was created. A value of 1 indicates that the mother reported that the father covered at least half the cost of raising the child, and a value of 0 indicates that the mother reported that he provided less than half the costs of raising the child. Because child support paid by fathers is consistently associated with more-favorable child outcomes (Amato and Gilbreth 1999), fathers’ financial support of their children is considered a primary outcome.

- **Father Regularly Spends Time with Child.** In the survey, fathers and mothers were asked how often the father was in contact with the focal child for an hour or more during the previous month. The five possible responses were every day or almost every day, a few times a week, a few times in the past month, once or twice, and never. From this item, the evaluation team created a binary indicator of whether the father spent an hour or more with the focal child every day or almost every day during the previous month. Maternal and paternal reports were combined to define this measure. Fathers were coded as spending an hour or more with the focal child on a daily basis if both members of the couple reported that the father did so every day or almost every day. If only one or neither parent indicated that the father spent time with the child on a daily basis, this variable was coded as a no. If only one member of the couple responded, the nonresponding partner’s report was imputed. A father’s time with the focal child may be considered a measure of his *accessibility* to that child, a key component of father involvement (Lamb et al. 1987). Therefore, this outcome is considered primary.
- **Father’s Engagement with Child.** Fathers were asked to report on the frequency of their engagement with the focal child in 12 activities that span three domains: caregiving activities (such as feeding or diapering the child), physical play (such as rolling a ball or playing chasing games with the child), and cognitive and social play activities with the child (such as singing songs or reading stories). Responses were recorded on a six-point scale ranging from more than once a day to not at all. Father’s engagement in each of the three domains is treated as separate secondary outcomes. For the primary, composite measure of father engagement, fathers’ responses to each of the 12 items are averaged to form a single scale. In the 36-month follow-up data, Cronbach’s alpha for this group of items is 0.95, indicating a high degree of internal consistency. Because fathers’ engagement with children is considered a central component of father involvement (Lamb et al. 1987), father’s engagement with the focal child is considered a primary outcome.
- **Father Lives with Focal Child.** Information from both fathers’ and mothers’ surveys was used to define a measure of father’s residential status. A father is considered to have reported that he lives with the child if he indicated that he lives with the child all or most of the time. The mother is considered to have reported that the father lives with the child if either of two conditions is met: (1) she indicated that she lives with the child most or all of the time and that the father lives with her most or all of the time, or (2) she indicated that she lives with the child some or none of the time and that the child lives with the father when not with her. If only one or neither parent indicated that the father lived with the child, this variable was coded as a no. If only one parent responded to the survey, the nonresponding partner’s report was imputed. Because fathers’ co-residence with children is closely tied to their involvement in their children’s lives



(Carlson 2006; Seltzer 1994) and thus is a key mediator of father involvement, father's residential status is considered as a primary outcome.

## Secondary Measures of Father Involvement

The evaluation team also examined several secondary measures of father involvement that were based on information provided in the 36-month follow-up survey. Three of these measures subscales of the overall scale of paternal engagement that capture the father's engagement in caregiving activities, his physical play with the child, and his engagement in cognitive and social play with the child. For each subscale, responses were recorded on a six-point scale ranging from more than once a day to not at all, and a summary scale was created by averaging responses within the group.

- **Father's Engagement in Physical Play.** Fathers were asked to report the frequency with which they engaged in the following activities with the focal child during the past month: rolled, tossed, or played games with a ball; took the child for a ride on the father's shoulder or back; playfully turned the child upside down or tossed the child in the air; played chasing games; played outside in a yard, park, or playground. The composite scale is highly reliable (Cronbach's alpha was 0.89).
- **Father's Engagement in Caregiving Activities.** Fathers were asked to report the extent to which they engaged in three specific caregiving activities with the focal child: helping the child get dressed, changing the child's diapers or helping the child use a toilet, and feeding the child or giving the child something to eat. Responses were recorded on a six-point scale ranging from more than once a day to not at all. These items were drawn from well-validated scales that have been used in numerous large-scale studies and evaluations, such as the National Evaluation of Early Head Start. The summary scale demonstrates strong internal consistency (Cronbach's alpha was 0.90).
- **Father's Engagement in Cognitive and Social Play.** Fathers were asked to report the frequency with which they engaged in the following activities with the focal child during the past month: sang songs, read or looked at books, told stories, and played with games or toys. Similar summative scales measuring parents' engagement in cognitively stimulating activities has been used in prior large-scale studies and evaluations such as the National Evaluation of Early Head Start and the Fragile Families and Child Wellbeing Study. The composite scale is highly reliable (Cronbach's alpha was 0.91).

The evaluation team also examined a few other secondary measures of father involvement, described below.

- **Paternal Warmth (self-reported).** In addition to fathers' investments of time and money in their children's well-being, prior research has also examined the quality of the father-child relationship (Hofferth et al. 2002). In the 36-month survey, three questions were asked that assess the warmth of the parent-child relationship. Fathers were asked to respond to the following three statements, indicating how often in the last month they were true: (1) [CHILD] and you had warm close times together, (2) You felt that [CHILD] liked and wanted to be near you (3) When you were in a bad mood, you still showed [CHILD] love. Responses were coded on a four-point scale ranging from often to never. These questions have been used in several large-scale studies, including the New Chance evaluation and the Jobs Opportunity and Basic Skills programs evaluation

of the National Evaluation of Welfare-to-Work Strategies and have been shown to have good internal consistency. Fathers' responses to these three measures were averaged to create a single measure. Cronbach's alpha was 0.95 for these items for fathers, indicating that it was appropriate to treat them as a single scale.

- **Father Used Harsh Discipline in Past Month.** In the 36-month survey, fathers were asked to report whether in the previous month they had employed a variety of disciplinary tactics when the focal child did something wrong, such as putting the child in time-out, giving the child something else to do, spanking the child, threatening to spank the child, and shouting at the child. These items are drawn from the Conflict Tactics Scale: Parent-Child Version (Strauss et al. 1996). The impact analyses examine a binary indicator of whether or not the father used harsh discipline in the past month, defined as having sworn at the child, hit the child on the bottom with a belt or other object, or slapped the child in the face.
- **Sometimes Lives with Child.** When parents do not live together, children typically live primarily with the mother. Therefore, most fathers in non-intact couples do not satisfy the primary definition of co-residence with the child. To capture some variation in father involvement among fathers not living with the child's mother, a less restrictive measure of the father's residential status is considered as a secondary outcome: whether the father reports that he lives with the child at least some of the time. This measure is based only on fathers' reports.

### **Measures of Father Involvement Based on Direct Observation**

Respondents' self-reports of their parenting quality could be unreliable due to potentially biased self-perceptions and a desire to describe themselves positively to others. BSF's direct assessment visits permitted objective observation of parenting by trained observers in a relatively naturalistic setting. BSF observers recorded systematic information on parenting observed during the two-bag semistructured play sessions designed to elicit meaningful father-child interactions (described in Chapter I).<sup>19</sup> These sessions were videotaped. Trained coders later reviewed these recordings and rated the quality of the parent-child interaction on eight dimensions using a seven-point scale (from very low to very high).

As discussed in Chapter I, the response rates to the direct assessments were 56 percent for mothers and 43 percent for fathers—considerably lower than the response rates for the 36-month telephone surveys. The evaluation team assessed the risk of attrition bias for this sample and determined that analysis pooled across programs of mothers who participated in the direct assessment has low risk of attrition bias, while the same analysis for fathers has moderate risk of attrition bias. Therefore, tables presenting results from the pooled analysis of father direct assessments indicate that these results should be interpreted more cautiously than other experimental impact findings. Chapter I provides more details on how the attrition risk assessment was conducted and findings of this assessment. To determine how best to create measures from the parenting items coded from the two-bag assessment, the study team performed a factor analysis. Factor analysis searches for unobserved measures (factors) that can best account for the shared variance in the individual items. It also helps identify groups of items that are jointly related to each

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<sup>19</sup> Mother-child interactions were also observed, as discussed later in this chapter.

other. The analyses included the eight items listed in Table IV.2. The items include six direct measures of parenting and two measures of the relationship likely to reflect parenting.

**Table IV.2. Parenting and Relationship Items Coded from the Two- Bag Assessment**

Item Type	Item
Parent Items	Parental Positive Regard Parental Negative Regard Parental Stimulation of Cognitive Development Parental Sensitivity Parental Intrusiveness Parental Detachment
Relationship Items	Quality of Relationship Physical and/or Psychological Dissolution of Boundaries in the Parent-Child Relationship

The factor analyses identified two factors that explained a substantial proportion of the total variance in the items.<sup>20</sup> No other factors had a similarly high value, and no items loaded strongly (that is, were strongly correlated with) on any factors other than those two. Five items had factor loadings of at least .60 (in absolute value) on the first factor. Those items were parental positive regard ( $r = .76$ ), quality of the relationship ( $r = .70$ ), parental sensitivity ( $r = .69$ ), parental cognitive stimulation ( $r = .62$ ), and parental detachment ( $r = -.60$ ). Those items capture different aspects of the parent’s responsiveness, attentiveness, and/or closeness to the child—or in the case of parental detachment, the lack thereof. Two other items had factor loadings of at least .60 on the second factor: parental intrusiveness ( $r = .77$ ) and parental negative regard ( $r = .60$ ).

The evaluation team created two composite outcome measures for fathers—parental responsiveness and hostile parenting—by averaging the items identified as loading on each respective factor. The two measures of fathers’ parenting derived from the direct assessment are described in detail next:

1. **Parental Responsiveness.** This index is based on the first factor that emerged and captures positive, attentive parenting. It is constructed as the average of five coded items:
  - (1) parental positive regard, (2) quality of the relationship, (3) parental sensitivity, (4) parental cognitive stimulation, and (5) parental detachment (reversed). The scale has high internal consistency for fathers ( $\alpha = 0.84$ ). Because responsiveness is a key component of parenting behavior, this measure is considered primary.
2. **Hostile Parenting.** This index is based on the second factor that emerged from the factor analysis and captures actively negative behavior of the parent toward the child. It is constructed as the average of two items rated by the trained coders: (1) parental negative regard and (2) parental intrusiveness. The scale has reasonably high internal consistency ( $\alpha = 0.68$ ). Given the lower internal consistency and the fact that this measure is based on the second factor that emerged from the factor analysis, this measure is treated as secondary.

<sup>20</sup> They were the only factors with eigenvalues greater than 1.

## Mothers' Parenting Behavior

BSF may affect mothers' parenting as well as fathers'. It was theorized that by improving relationship quality, BSF could improve parenting, if better relationship quality enabled these new parents to be more patient and generous with their children. In addition, four of the eight BSF programs (those in Florida; Indiana; and Houston and San Angelo, Texas) provided home visits to families that focused on promoting positive parenting behaviors. Because changing parenting behavior was not a primary goal of BSF, mothers' parenting is treated as an additional domain. As shown in Table IV.3, three survey-based measures capture mothers' parenting, each of which is defined analogously to the measures for fathers previously discussed.

- **Mother's Engagement in Cognitive and Social Play.** Among the parental engagement questions asked of fathers (engagement in caregiving activities, physical play with the child, and his engagement in cognitive and social play with the child), the BSF 36-month survey asked mothers only questions related to cognitive and social play. The scale of mothers' engagement in these activities is created in an identical fashion to the scale for fathers. Cronbach's alpha is 0.83 for mothers, indicating that it is appropriate to combine these items into a single scale.
- **Mother Used Harsh Discipline in Past Month.** In the impact analysis, a single, binary measure is used for whether the mother reports having sworn at the child, hit the child on the bottom with a belt or other object, or slapped the child in the face. The measure is therefore constructed in an analogous way to the measure for fathers and, as for fathers, it is treated as secondary.
- **Maternal Warmth (self-reported).** Mothers and fathers responded to the same three questions about the warmth of their relationship with the focal child (described previously). As for fathers, a single scale is created by averaging mother's responses to these questions. Cronbach's alpha is 0.77 for these items for mothers, again indicating that a single summary scale is appropriate. As for fathers, self-reported maternal warmth is considered a secondary outcome.

### Mothers' Parenting Measures Based on Direct Observation

Just as for fathers, it is valuable to supplement mothers' self-reports of their parenting with objective observation of mothers' parenting during BSF's direct assessments. Using the same two-step process used for fathers to assess the risk of bias in the impact estimates, the sample of mothers responding to the direct assessment met the attrition standard based on a combination of overall attrition and differential attrition between research groups. As for fathers, the samples of mothers responding to the direct assessment within each local BSF program were generally too small to produce reliable impact estimates, so only pooled impact estimates are presented.

- **Parental Responsiveness.** This index is created for mothers analogously to the way it was constructed for fathers. The scale has high internal consistency for mothers ( $\alpha = 0.86$ ), and the measure is considered primary for mothers, as it was for fathers.
- **Hostile Parenting.** This index is created for mothers analogously to the way it was constructed for fathers. The internal consistency is again reasonably good ( $\alpha = 0.70$ ), and the measure is considered secondary for mothers, as it was for fathers.

**Table IV.3. Parenting Outcomes in Additional Domains for the BSF 36- Month Impact Analysis**

Outcomes	Measures	Priority Level
<b>Mother's Parenting (Additional Domain)</b>		
Mother's Engagement in Cognitive and Social Play	Summary scale created by averaging frequency of mother's engagement in five cognitive and social play activities with child (singing songs, playing with toys, playing games such as "peek-a-boo," looking at books, telling stories) (Items CO3.b to CO3.e)	Primary
Mother's Parental Responsiveness (observed)	Summary scale created by averaging five items capturing mother's responsiveness to the child during the two-bag assessment—positive regard, quality of the relationship, sensitivity, cognitive stimulation, detachment (reverse); these items were coded from the two-bag assessment	Primary*
Maternal Warmth (self-reported)	Summary scale created by averaging mother's reported frequency of warm, close times between mother and child, mother's feelings that child likes her, and mother showing love to child despite a bad mood (Items CO3.1.a to CO3.1.c)	Secondary
Observed Maternal Warmth	Sum of six binary items characterizing the mother's behavior toward the child during the direct assessment visit (conversed at least twice with child, answered child's requests verbally, usually responded verbally to child's talking, voice conveyed positive feeling when talking to child, spontaneously praised child at least twice, showed physical affection toward child at least once) (Direct Assessment Items J1, J2, J3, J6, J7, J8)	Secondary*
Mother's Use of Harsh Discipline	Binary variable defined as whether the mother reports having sworn at the child, hit the child on the bottom with a belt or other object, or slapped the child in the face (Items CO5.d2.a, CO5.g2.a, and CO5.i2.a)	Secondary
Mother's Hostile Parenting	Summary scale created by averaging two items capturing mother's assertive negative behavior toward the child during the two-bag assessment (negative regard, intrusiveness) ; these items were coded from the two-bag assessment	Secondary*
<b>Parents' Emotional Well- Being (Additional Domain)</b>		
Parental Depression	Separate summary scales for mothers and fathers based on the frequency with which each parent experienced 12 specific depressive symptoms during the past week, such as having a poor appetite; having difficulty concentrating or sleeping; and feeling fearful, sad, or lonely (Items from WB1.3)	Primary
Parenting Stress and Aggravation	Separate summary scales for mothers and fathers created by averaging frequency of each parent's feelings of stress and aggravation from their children and their parenting responsibilities (Items WB1.2a to WB1.2d )	Secondary
Moderate-to-Large Social Support Network	Separate binary measures for mothers and fathers based on the number of people each parent reports would be available to provide emergency child care, an emergency \$100 loan, or help or advice when they were feeling depressed or confused; the measure indicates whether these three items sum to at least seven (Items WW57 to WW59)	Secondary

\* Outcome is constructed using items collected during the 36-month direct assessment.

For mothers, a third measure based on the direct assessment characterizes the positive behavior of the mother toward the child throughout the direct assessment visit.

- Observed Maternal Warmth.** These measures are derived from the Home Observation for Measurement of the Environment battery. This instrument measures the quality of stimulation and support available to a child in the home environment. This measure sums six binary items recorded by the direct assessor immediately after the direct assessment observation. Specifically, the assessor indicated whether (1) the mother conversed with the child at least twice during the visit (not counting scolding and degrading comments); (2) the mother answered the child's questions or responses verbally; (3) the mother usually responded verbally to the child's talking; (4) the mother's voice conveyed positive feeling when speaking of or to the child; (5) the mother spontaneously praised the child's qualities or behavior twice during visit; and (6) the mother caressed, kissed, or cuddled the child at least once during visit. This measure of

maternal warmth is very similar to one recently used in the Baby FACES evaluation. The scale has a reasonably high Cronbach’s alpha of 0.76.

Each individual item has relatively low variance, with a mean value of at least 0.82 (82 percent responding yes) for each of the six items. In addition, the composite measure that combines the six items also has a highly skewed distribution, with 80 percent of observations having the maximum possible value. For this reason, this outcome is considered a secondary measure.

## **Parents’ Emotional Well- Being**

In addition to parents’ support for, engagement with, and warmth toward their children, BSF can affect parents’ emotional well-being. The evaluation team examined two primary and four secondary measures (a total of three measures each for mothers and fathers) that capture the effect of BSF on outcomes in this domain.

- **CES-D Scale of Depressive Symptoms.** The 36-month follow-up survey included the 12-item version of the Center for Epidemiologic Studies Depression Scale (CES-D), which measures the prevalence of depressive symptoms. The CES-D items assess whether respondents feel sad or lonely, experience restless sleep, have reduced appetite, and have difficulty concentrating. Respondents were asked how often they experienced these symptoms in the previous week. Separately for mothers and fathers, the evaluation team created a scale representing the prevalence of depressive symptoms by summing responses across all 12 CES-D items. The 12-item version has been found to have good reliability among a nationally representative sample of married couples (Ross et. al 1983). This scale also is highly reliable in the BSF sample (Cronbach’s alpha of 0.89 for mothers and 0.92 for fathers).

Research has shown that depressive symptoms can impair functioning even when their levels are below the diagnostic threshold for clinical depression (Angst and Merikangas 1997; Fergusson et al. 2005). Moreover, parental depression has been linked to adverse child outcomes (Downey and Coyne 1990; Gelfand and Teti 1990), making parental depressive symptoms of particular relevance for the BSF impact analysis. Therefore, this outcome is treated as primary.

- **Parenting Stress and Aggravation Scale.** The 36-month survey included the Aggravation in Parenting Scale, a four-item scale developed by Child Trends and used in the National Survey of America’s Families and other surveys. These items measure how often in the previous month respondents reported feeling that their children were harder to care for than most, their children did things that really bothered them, they were giving up more of their lives to meet their children’s needs than expected, and they were angry with their children. The items are measured on a four-point scale ranging from none of the time (scored as 1) to all of the time (scored as 4). Cronbach’s alpha for the composite scales was 0.58 and 0.53 for mothers and fathers, respectively. Composite scales of parenting stress and aggravation have also been found to have relatively low levels of internal consistency in other data sets. For example, in the National Survey of America’s Families, the reliability of the composite scale was 0.63. In the 1999–2000 Los Angeles County Health Survey, this scale had a Cronbach’s alpha of 0.50.
- **Has Moderate-to-Large Social Support Network.** The survey asked both mothers and fathers about the number of people who could provide emergency child care, loan

the respondent \$100, and provide help or advice. To create a social support measure for the impact analysis, the evaluation team created separate measures for mothers and fathers. First, for each respondent, responses to these three questions were combined.<sup>21</sup> Individuals were then categorized using this summary measure into three groups of roughly equivalent size, denoting small, medium, and large social support networks. The categories were defined as follows: small networks had 0 to 6 contacts, medium networks had 7 to 12 contacts, and large networks had 13 or more contacts). Past research has found these types of measures of social support to be correlated with outcomes such as decreased risk of poverty and food insecurity and better socio-emotional outcomes of children (Henly et al. 2005; Ryan et al. 2009; Wood et al. 2003). The impact analyses examine a binary indicator of whether a respondent had a medium-to-large network.

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<sup>21</sup> Combining across these types of social support measures is common practice in the literature. For instance, Turney and Kao (2009) summed across six items answered on a 0 to 2 scale of how often support was perceived to be available (never, sometimes, or always); Ryan et al. (2009) used five items answered on a 0 to 10 scale gauging how true it was that the respondent could count on support; and Meadows (2009) used three items answered yes or no.

## V. MEASURING AND ANALYZING CHILD WELL- BEING

BSF aimed to improve the relationship quality of participating couples and to increase the likelihood that these couples remain together in a healthy relationship. It was hoped that this would, in turn, enhance the well-being of the couples' children by increasing the likelihood that the children were raised in stable and healthy home environments. Thus, examining BSF's effects on measures of family stability, economic well-being, and child development is an important aspect of the 36-month impact analysis.

The first three sections of this chapter describe the measures of family stability, economic well-being, and household routines used in the impact analysis. Because improving family stability was an important goal of BSF and because it was hoped that improved family stability would improve the economic circumstances of children, economic well-being and family stability are considered key domains for the impact analysis. Household routines are less centrally related to the goals of the program, and this domain is therefore categorized as additional. As discussed in the main report, BSF had no effect on the family stability or economic well-being of children. Findings from the impact analysis of these outcomes are presented in Appendix A, Table FS.6.

The next three sections of this chapter describe the measures used in analyzing child socio-emotional development, language and cognitive development, and physical health. Because BSF was expected to have the greatest potential to affect the child's social and emotional development, this domain is categorized as key, whereas the other two child development domains are categorized as additional domains. As discussed in the main report, BSF led to modest reductions in behavior problems among children, although the program had no effect on other aspects of child well-being, such as general health or language development. Findings from the impact analysis of these outcomes are presented in Appendix A, Table FS.7.

### Family Stability

Instability in children's family structure and in their parents' romantic relationships is negatively associated with children's outcomes (Cavanagh and Huston 2006; Fomby and Cherlin 2007; Martinez and Forgatch 2002; Osborne and McLanahan 2007). BSF might therefore improve children's outcomes by increasing the likelihood that parents remain in a stable relationship with each other. The primary and additional outcomes in the family stability domain are listed in Table V.1 and are described in more detail in this section. Impact estimates related to these outcomes are presented in Appendix A, Table FS.6.

**Child has always lived with both parents.** The evaluation team constructed a binary measure that indicates whether both parents report that they have always lived with the other parent and the child since the child's birth. Because of the importance of family structure stability for children's positive outcomes, this measure is considered primary.

**Parent has new coresiding partner.** New coresidential relationships for parents could have implications for their children's well-being. Children might benefit from increased time and money made available by the new partner (Bzostek 2008; McLanahan and Sandefur 1994). At the same time, parental repartnering, especially by mothers, is associated with declines in fathers' involvement with their children (Tach et al. 2010), and repartnered mothers have also been found to spend less time with their children than either single mothers or mothers living with their children's father (McLanahan and Sandefur 1994). Furthermore, coresidence with social fathers—men either married



to or cohabiting with the child’s mother—might put children at greater risk for abuse (Radhakrishna et al. 2001).

The evaluation team constructed two measures—one for each parent—that capture whether BSF parents coreside with a new romantic partner. Individuals are considered to be coresiding with a new partner if they report living with that partner most or all of the time; this is analogous to the definition of coresidence for BSF couples. Because of the ambiguity in the effect of parents’ new partners on children’s well-being, these measures are treated as secondary.

**Table V.1. Measures of Family Stability, Economic Well- Being, and Household Routines Examined in the BSF 36- Month Impact Analysis**

Outcomes	Measures	Priority Level
<b>Family Stability (Key Domain)</b>		
Child Has Always Lived with Both Parents	A binary measure indicating whether the mother and the father both report that they have always lived with the other parent and the child since the child’s birth (Item FS43.1)	Primary
Mother Has New Coresiding Partner	A binary measure indicating whether the mother is living at follow-up with a romantic partner other than the father (Item FS40)	Secondary
Father Has New Coresiding Partner	A binary measure indicating whether the father is living at follow-up with a romantic partner other than the mother (Item FS40)	Secondary
<b>Family Economic Well- Being (Key Domain)</b>		
Poverty Status	A binary measure indicating whether the monthly income of the child’s family is below the poverty threshold (Based on items from survey sections FS and WW)	Primary
Material Hardship	A binary measure indicating whether the child’s family was unable to pay rent, had utilities cut off, or was evicted in the past year (Items WW53.a to WW53.c)	Primary
Reliance on Public Assistance	A binary measure indicating whether the child’s family received SNAP or in the past month (Items WW13a.1 and WW13b.1)	Primary
Health Insurance Coverage	A binary measure indicating whether the child has health insurance coverage (Items WW54 and WW55.1.1)	Secondary
Income Relative to Poverty	A continuous measure of the ratio of the monthly income of the child’s family to the poverty threshold (Based on items from survey sections FS and WW)	Secondary
Received SNAP	A binary measure indicating whether the child’s family received SNAP in the past month (Item WW13b.1)	Secondary
Received TANF	A binary measure indicating whether the child’s family received TANF in the past month (Item WW13a.1)	Secondary
<b>Household Routines (Additional Domain)</b>		
Child Consistently Goes to Bed on Time	A binary measure indicating whether the child has a regular bedtime and was put to bed on time at least four of the five weeknights in the past week (Item CH9)	Primary
Child Consistently Eats the Evening Meal with a Parent	A binary measure indicating whether the child eats the evening meal with a parent at least six nights in a typical week (Item CH7)	Primary

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance for Needy Families.

## Economic Well- Being

On average, two-parent households have significantly greater financial resources than single-parent households (Federal Interagency Forum on Child and Family Statistics 2008; Manning and Brown 2006). Therefore, it was hypothesized that BSF might improve the economic well-being of children’s families if it increased the likelihood that their parents lived together. Economic well-being might in turn help to explain any impact of BSF on children’s outcomes, because the

economic circumstances of children's families are associated with multiple aspects of child well-being (Brooks-Gunn and Duncan 1997; Mayer 1997).

With this framework in mind, the measures in this domain focus on family economic well-being from the child's perspective, using measures based on the child's family at the time of the survey. Throughout, the focal child's family is defined to include the child and any residential parent(s). If the child's residential parent has a new coresidential partner who is not the other BSF parent, then that partner is included in the child's family only if the BSF parent indicates that the two of them pool their money or share expenses.<sup>22</sup> The primary and additional outcomes in the family economic well-being domain are listed in Table V.1 and are described in more detail below. Impact estimates related to these outcomes are presented in Appendix A, Table FS.6.

**Poverty status.** Poverty status is captured with a binary measure indicating whether the monthly income of the child's household is below the poverty threshold. Monthly income in the child's household is determined by summing income from (1) the earnings in the past month of the residential parent(s); (2) the earnings of the residential parent's coresidential partner, if appropriate; (3) child support; (4) public assistance; and (5) unemployment insurance and disability benefits. If the child lives with one parent, the residential parent's responses are used for this measure. When children live with both parents and both parents respond to the survey, the responses of the two parents are averaged when calculating parents' total income.<sup>23</sup> Because people often do not know how much their spouse or partner earns, the measurement error associated with proxy responses of earnings is likely to be high. Therefore, parents' own reports of their earnings are used if they are available, rather than averaging responses across parents. If a parent's earnings amount is missing, however, the other parent's report of the partner's earnings is used. For those who live with a new partner, that partner's earnings are included in the household income measure only if the BSF parent indicates that the two of them pool their money or share expenses. To obtain a measure of the ratio of family income relative to the poverty threshold, the total monthly income of the child's family is divided by the poverty threshold for the appropriate family size.<sup>24</sup>

The family's poverty status is treated as a primary measure to examine for the BSF impact analysis, because it is a well-studied measure that is easily understandable and has been shown to be associated with poorer outcomes for children (Brooks-Gunn and Duncan 1997).

**Material hardship.** The 36-month follow-up survey includes three questions concerning material hardship: (1) inability to pay the full amount of rent or the mortgage, (2) having utilities shut off, and (3) eviction. Material hardship is captured with a binary measure that indicates whether the child's family experienced any of the three hardships, using the residential parent's report. If the child lives with both parents, the family is considered to have experienced material hardship if either parent reports experiencing any of the three hardships.

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<sup>22</sup> The definition of *family* followed here differs somewhat from that used by the federal government. The measure employed in this report does not include coresidential nonparent family members in either the measure of family income or the measure of family size.

<sup>23</sup> With the exception of earnings from paid employment, the BSF survey does not distinguish who in the family received the income. Therefore, for example, when a respondent reports income from Supplemental Security Income or Unemployment Insurance, it is unknown which family member was the beneficiary.

<sup>24</sup> In 2010, the poverty threshold was \$22,050 for a family of four, which translates to less than \$1,850 per month.

Measures of material hardship can capture the extent to which families are able to meet their basic needs more fully than measures of income and poverty, because the latter measures do not incorporate factors such as the family's wealth, debt, or access to credit (Ouellette et al. 2004). In addition, measures of material hardship can more accurately cover a longer period than income measures can, because respondents can more readily recall specific hardships they have experienced in the past year (eviction, loss of utilities) than detailed information about all their income sources over the past 12 months. Therefore, material hardship is considered a primary outcome.

**Reliance on public assistance.** BSF might reduce the use of public assistance by families either by improving their economic circumstances or by making it more likely that they live in two-parent families and, therefore, reducing the likelihood that they are eligible for public assistance. Reliance on public assistance is treated as a primary outcome and is measured with a binary variable that indicates whether the child's family received either Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF) in the past month. If the child lives with both parents, public assistance receipt is indicated if either residential parent reports receiving SNAP or TANF in the past month.

**Child's health insurance coverage.** Another aspect of children's economic well-being is whether they have health insurance coverage. To construct a binary measure of health insurance coverage, the residential parent's report of coverage is used, because that parent is likely to be a more knowledgeable and reliable reporter. In cases in which the child lives with both parents and their reports conflict, the mother's report of health insurance coverage is used. Health insurance coverage is reported for 95 percent of BSF focal children at 36 months. Given the high overall rates of insurance coverage among children in the BSF sample, there is little room for BSF to affect the measure. Therefore, this measure is treated as secondary.

**Income relative to poverty.** In addition to examining a binary measure for whether the focal child lives in poverty, the evaluation team considered a supplemental, secondary measure that is the ratio of the child's family's income to the poverty threshold for the family size.

**Receipt of SNAP; receipt of TANF.** In addition to measuring whether the child's family relied on either SNAP or TANF, two secondary measures are considered that decompose this outcome into its parts. The child's family is defined to have received SNAP if at least one residential parent reports that the family received SNAP. TANF receipt is defined in a similar fashion. SNAP receipt is much more common than TANF receipt among BSF families. At the time of the 36-month survey, about two-thirds of BSF children's families received SNAP, whereas less than 10 percent received TANF.

## **Household Routines**

If BSF improves the quality of parents' relationships and increases the likelihood that children live with both biological parents, this might improve parents' ability to maintain regular routines. Maintaining regular household routines and eating family meals together are in turn associated with favorable behavioral outcomes for young children (Fuller et al. 2002; Story and Neumark-Sztainer 2005). Information on household routines was collected as part of the 36-month survey. The evaluation team considered two measures of routines in the BSF focal child's household, both of which are treated as primary outcomes. Impact estimates related to these outcomes are presented in Appendix A, Table FS.6. Similar measures of children's household routines have been included in the Early Head Start Research and Evaluation Project (EHSREP) and the Head Start Family and Child Experiences Survey.

**Child consistently goes to bed on time.** The consistency of the child's bedtime routine is captured by a binary variable that indicates whether the child's parent reports that the child had a regular bedtime and was put to bed at that time at least four nights of the previous Monday through Friday. This measure is considered primary because enforcing a regular bedtime is associated with fewer behavior problems (Fuller et al. 2002).

**Child consistently eats the evening meal with a parent.** The evaluation team also constructed a binary measure of mealtime routines, which indicates whether the parent reports that the child eats the evening meal with at least one parent at least six days in a typical week. This measure is considered primary, because the frequency of family meals is favorably associated with a variety of children's outcomes (Story and Neumark-Sztainer 2005).

## **Child Socio- Emotional Development**

BSF aimed to improve parents' abilities to recognize and regulate their emotions as well as relate to others. It is possible that as parents acquired these skills, they would model the skills for their children (for example, through positive social interactions between the parents). This modeling might indirectly influence children's behavior. Further, parents might also apply some of these skills to their interactions with their child and directly elicit and foster these skills in their child. The specific focus in BSF on managing conflict might be especially important to children's social and emotional well-being.

Three measures captured BSF's impact on the key domain of socio-emotional development: (1) behavior problems; (2) emotional insecurity; and (3) empathy, as shown in Table V.2. Impact estimates related to these outcomes are presented in Appendix A, Table FS.7. Each of these measures is based on 36-month follow-up survey data, which collected information about the child from the parent who was most likely to be most knowledgeable about the child's behavior. In 97 percent of cases, the child items were asked of the child's mother, the exception being if the mother did not live with the child at the time of the interview and reported to have little contact with the child. A separate set of selection criteria within fathers' surveys determined if fathers were likely to be the best-informed respondent about their child's development. Fathers were asked the child development items when either the father reported that he lived with the child but the mother did not or the father reported that neither he nor the mother lived with the child but that he had contact with the child an hour or more a day at least a few times a week.

As represented in Table V.3, these three measures are correlated with one another; however, the correlations are modest enough to suggest that each outcome measures a distinct component of socio-emotional development. Each has enough unique variance to merit analyzing it as a distinct aspect of socio-emotional development. Next, each of these measures is described in more detail.

**Behavior problems.** The BSF curriculum sought to address conflict, intimacy, and supportiveness, which in turn might affect parenting and child behavior. Conflict in the parent relationship or low levels of intimacy and mutual supportiveness between parents might lead to suboptimal parenting, which is associated with problem behaviors among children (Downey and Coyne 1990; Goodman and Gotlib 1999; Pettit and Bates 1989). Similarly, a child's exposure to poorly managed parental conflict can have an effect on the child by creating emotional insecurity, manifesting as child behavior problems (Davies et al. 2002).

**Table V.2. Child Development Outcomes Examined in the BSF 36- Month Impact Analysis**

Outcomes	Measures	Priority Levels
<b>Child Socio- Emotional Development (Key Domain)</b>		
Behavior Problems	Summary scale created by averaging the frequency of child internalizing and externalizing behavior problem items as measured by the Behavior Problems Index (Peterson and Zill 1986); based on parent report (Items CH6.a to CH6.z)	Primary
Emotional Insecurity	Summary scale created by averaging the frequency of emotionally insecure behaviors a child exhibits during parental conflict measured by items from the Security in the Marital Subsystem-Parent Report Inventory (Davies et al. 2002); based on parent report (Items CH12.a to CH12.j)	Primary
Empathy	Summary scale created by averaging the frequency of empathetic behaviors a child exhibits as measured by a subset of items from the Social Interaction scale of the Preschool and Kindergarten Behavior Scales-Second Edition (Merrell 2002); based on parent report (Items CH5.a to CH5.i)	Secondary
Internalizing Behavior Problems	Summary scale created by averaging the frequency of child internalizing behavior problem items as measured by the Behavior Problems Index (Peterson and Zill 1986); based on parent report (Subset of items CH6.a to CH6.z)	Secondary
Externalizing Behavior problems	Summary scale created by averaging the frequency of child externalizing behavior problem items as measured by the Behavior Problems Index (Peterson and Zill 1986); based on parent report (Subset of items CH6.a to CH6.z)	Secondary
<b>Child Language/Cognitive Development (Additional Domain)</b>		
Receptive Language	Standard scores measured by English-speaking or bilingual children's performance on the Peabody Picture Vocabulary Test 4 (Dunn and Dunn 2006); based on direct child assessment (Direct Assessment items P1 to P192)	Primary
Sustained Attention with Objects	Score on a one-to-seven scale representing the child's focused attention during a semistructured play activity with the parent (Two Bags Task; ACF 2002); based on coding of video recordings collected during the direct child assessment	Secondary
<b>Child Physical Development (Additional Domain)</b>		
General Health	A binary item created from a single item about the quality of the child's health resulting in the categories very good to excellent health and less than very good; based on parent report (Item CH1)	Primary
Asthma Severity	A three-level categorical variable created by combining parent responses to whether the child was diagnosed with asthma and a subsequent item about if urgent care has been required for the asthma; this results in the categories no asthma, mild/moderate asthma, and severe asthma; based on parent report (Items CH3 and CH4)	Secondary

**Table V.3. Correlations Among Primary Socio- emotional Development Measures**

	Empathy	Emotional Insecurity amid Parental Conflict
Behavior Problems	-0.12*	0.29*
Empathy		0.03*

\*  $p < .0001$

One child socio-emotional development outcome that BSF was hypothesized to affect was problem behaviors. To assess problem behaviors, the BSF 36-month follow-up survey used 26 items from the version of the Behavior Problems Index (BPI; Zill 1985; Peterson and Zill 1986) included in the Panel Survey of Income Dynamics, Child Development Supplement (CDS II). The BPI administered in the CDS-II contained 30 items. Because one item—"clings to adults"—did not load

on key factors during confirmatory factor analysis, it was excluded from the BSF 36-month follow-up interview. Three other items were excluded because they were not viewed as age appropriate for children 36 months old.<sup>25</sup> Therefore, of the 30 items in the CDS-II, the BSF 36-month follow-up interview used 26.

The BPI is a widely used and well-established measure of behavior problems, which includes internalizing and externalizing behaviors. Internalizing or inward behaviors reflect the child's internal emotional state and are characterized by such things as withdrawal, depression, or anxiety (for example, worries too much). Externalizing or acting out is characterized by socially manifested behaviors, such as aggression, opposition, or defiance (for example, bullies or is cruel or mean to others). The parent was read 26 statements about his or her child's behavior and asked whether the statement was often true, sometimes true, or never true of the BSF focal child.

A summary behavior-problems score was created by averaging responses on all 26 items, with higher scores indicating a greater level of behavior problems, as a primary measure of socio-emotional development. Internal consistency (Cronbach's alpha) for the composite of all behavior problems was strong, at 0.90. The individual subscales of internalizing and externalizing behaviors are included as secondary measures within this domain in the 36-month follow-up impact analysis. Cronbach's alpha for the 13-item internalizing subscale was 0.83 and 0.86 for the 14-item externalizing subscale.

**Emotional insecurity amid parental conflict.** A child's exposure to poorly managed parental conflict can have an effect on the child by creating emotional insecurity (Davies et al. 2002). Child emotional insecurity has been shown to relate to both internalizing and externalizing problems in children (Cummings et al. 2006).

In the BSF 36-month follow-up survey, the impact on a child's emotional insecurity in the presence of parental conflict was measured using 10 developmentally appropriate items drawn from the Emotional Reactivity and Behavioral Dysregulation subscales of the Security in the Marital Subsystem-Parent Report Inventory (SIMS-PR) (Davies et al. 2002). These items were selected in consultation with Dr. Mark Cummings. To complete these items, parents were read the item that described each behavior and asked to rate how frequently each behavior occurred during the past month in response to the child seeing arguments or disagreement among the BSF couple, using one of four responses (often, sometimes, rarely, and never). In consultation with Dr. Cummings, the evaluation team decided to code responses of "not applicable" as never.

Because preliminary analysis showed that the items in the two subscales were highly correlated ( $r = 0.73$ ) and because the authors of the instrument have at times combined these into a single subscale to measure multiple, prolonged, and dysregulated distress (e.g., Davies et al. 2002), the 10 items were examined together to represent the construct of emotional insecurity. This outcome was included as a primary measure within the socio-emotional domain.

A summary score was created by averaging responses on all 10 items, with higher scores indicating a greater level of emotional insecurity in the presence of parental conflict. The internal consistency of the items when used in BSF was excellent, at 0.87 (Cronbach's alpha).

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<sup>25</sup> These three items were "feels others are out to get (him/her)," "hangs around with kids who get into trouble," and "is secretive, keeps things to (himself/herself)."

Attrition was higher for this measure than some of the other parent-report child development measures because administration of these items depended on regular contact between the BSF couple. The rate of attrition for this measure created by the combination of survey nonresponse and logical skips out of the question sequence because the parents were no longer in regular contact was 36 percent. However, the rate of attrition was similar in the two research groups (37 percent for the BSF group and 36 percent for the control group). Thus, analysis of this measure meets the attrition standard based on a combination of overall attrition and differential attrition between research groups established by the What Works Clearinghouse. For this reason, the risk of attrition bias for this analysis is determined to be low.

The SIMS measures the intersection of child characteristics and exposure to parental conflict in the environment. As found in other research (Cummings et al. 2006), scores on the SIMS within the BSF sample were significantly correlated with behavior problems and empathy behaviors, indicating that the SIMS relates to other child characteristics (see Table V.3). Further, scores on the SIMS were also significantly and negatively correlated with couples' avoidance of destructive conflict behaviors ( $r = -0.25$ ,  $p < .001$ ,  $N = 4,047$ ) and significantly and negatively correlated with couples' constructive conflict behaviors ( $r = -0.15$ ,  $p < .001$ ,  $N = 4,047$ ), indicating that the SIMS also relates to exposure to parental conflict in the environment.

**Empathy.** Empathy refers to the ability to understand another person's emotional state; this understanding can lead to the ability to respond in a supportive manner to that person's emotional state (Eisenberg 2000). The development of empathy in children is associated with (1) parents being empathetic, (2) parents allowing their children to express negative emotions, (3) low levels of hostility in the home, and (4) parenting practices that help children to focus on and understand the emotions of others (Eisenberg 2000). Because the relationship skills training that couples received in BSF might influence these factors, it was hypothesized that the intervention might influence the level of empathy among children of BSF couples.

The BSF 36-month follow-up survey used the Social Interaction scale of the Preschool and Kindergarten Behavior Scales–Second Edition (PKBS-2) (Merrell 2002) to assess empathy. Items from the PKBS-2 Social Interaction scale have been adapted for use in other large-scale surveys, including the Early Childhood Longitudinal Survey–Birth Cohort and the Universal Preschool Child Outcome Study. Two items from the PKBS-2 Social Interaction scale were regarded as inappropriate for this age group and were not included in the 36-month survey. In BSF, nine items from the PKBS-2 were included in the 36-month follow-up survey (CH5a-CH5i). Parents were read the item that described each behavior and asked to rate how frequently each behavior occurred during the past three months, using one of four responses (often, sometimes, rarely, and never).

The PKBS-2 is norm-referenced and designed for rating children ages 3 through 6 years. The authors reports good internal consistency (Cronbach's alpha = 0.84) for parent ratings on the 11-item Social Interaction scale (Merrell 2002). BSF, using 9 items from the Social Interaction subscale, also reported good internal consistency (Cronbach's alpha = 0.79). A summary score was created by averaging responses on all 9 items, with higher scores indicating a greater level of empathy.

The PKBS items provide a complementary set of positive behaviors, conceptually distinct from the problem behaviors and emotional insecurity. However, because empathy is indirectly related to the BSF intervention, empathy was a secondary measure in this key domain.

## Child Language and Cognitive Development

The evidence supporting the relationship between language exposure in the home and children's language development is very strong (Hart and Risley 1995). BSF might increase children's language exposure in the home. If both parents had more time and were more emotionally available and committed to child rearing as an extension of their relationship as a couple, language directed at the child might increase and, in turn, enhance cognitive development. In addition, if the parents talked to each other more, this would increase the child's indirect exposure to language. Two measures were examined to understand BSF's effects on the additional domain of children's language and cognitive development (Table V.2). Impact estimates related to these outcomes are presented in Appendix A, Table FS.7.

**Language development.** BSF might affect children's language development through multiple pathways. A stronger couple relationship could increase the child's indirect exposure to language in the home. Further, an intervention designed to improve communication among couples might also lead to greater sensitivity to a child's verbal expressions as the child's language emerges. These factors have been associated with improved language development in previous research (Lamb 1987; Maccoby 1999; Tamis-LeMonda et al. 2001).

BSF measured English-speaking and bilingual children's receptive language during the 36-month direct assessment with the Peabody Picture Vocabulary Test 4 (PPVT-4) (Dunn and Dunn 2006).<sup>26</sup> The PPVT-4 is a norm-referenced standardized test designed to directly assess children's knowledge of the meaning of words. An assessor presents a series of words, ranging from easy to difficult, each accompanied by a picture plate consisting of multiple drawings. The child indicates which drawing best represents the target word. When the level of difficulty becomes too great for the child (as indicated by a series of child errors), the assessor discontinues the administration.

The PPVT-4 was examined as a primary measure within this domain, because it is widely used and well established. The PPVT-4 demonstrates strong levels of reliability and validity, and versions have been used in many large-scale research projects, including assessing children at 36 months in the EHSREP and in the Fragile Families and Child Wellbeing Study. The PPVT-4 has established age norms based on a national sample of more than 3,000 children and adults tested across the United States. The authors report reliability of 0.97. Similar to the distribution in the norming sample (mean is 100, standard deviation is 15), the mean standard score for BSF children was 90 and the standard deviation was 14.

Spanish-speaking children's receptive language was measured with the Test de Vocabulario en Imagenes Peabody (TVIP) (Dunn et al 1986). Analysis of the TVIP data was not part of the BSF 36-month impact analysis. Researchers generally find that the TVIP scores of Spanish-speaking children are not comparable to the PPVT scores of English-speaking children; thus, PPVT and TVIP scores cannot be readily combined for analysis. In the BSF sample, only 216 cases received the TVIP, a sample that was too small to analyze separately for the impact analysis. Of these 216 children who received the TVIP, 86 were also administered the PPVT, because they spoke English well enough to be assessed in English. These children were included in the analysis of the PPVT.

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<sup>26</sup> Language routing questions asked of the parent at the beginning of the 36-month direct assessment were used to classify children as English speaking, Spanish speaking, or bilingual.



**Sustained attention.** Parent-child relationships characterized by supportive and engaged interactions are associated with children’s development of socio-emotional, linguistic, and cognitive competencies (Landry et al. 1997; Linver et al. 2002; Shonkoff and Philips 2000). The Two Bags task (ACF 2002), a semistructured free-play task to assess parent-child interaction, provided a measure of children’s cognitive competencies—in particular, sustained attention. This task was administered during the 36-month direct assessment. A coder trained to use a seven-point scale to evaluate the quality and frequency of a child’s focused attention when playing with objects later rated the child’s sustained attention using video recordings.

This measure focused on the child’s interaction with objects as opposed to interaction with a parent. Although parenting practices can influence cognitive abilities such as sustained attention with objects, sustained attention was not directly related to the BSF intervention. However, sustained attention was affected positively by participation in Early Head Start in the EHSREP (ACF 2002). Because this measure had demonstrated sensitivity to intervention in EHSREP, sustained attention was included as a secondary measure in this additional domain.

In some cases, sustained attention scores were available from separate interactions with the mother and the father. The 36-month impact analysis focuses on the child’s sustained attention with objects during the Two Bags tasks with the mother. This was because (1) more data were available from Two Bags with mothers, (2) the placement of the activity was uniform across visits with mothers, and (3) this is consistent with the approach in other situations when multiple data sources for the same child outcome were available.

## **Measures of the Child’s Physical Health**

Two-parent families generally have higher incomes than single-parent families, and an increase in family income might be a pathway through which BSF improves the child’s physical health outcomes. Furthermore, four BSF sites (Florida, Houston, Indiana, and San Angelo) added BSF services to their existing Healthy Families programs. A central aim of Healthy Families programs was to foster child health and development and prevent child abuse and neglect. Two measures were examined to understand BSF’s effects on the additional domain of children’s physical health (Table V.2). Impact estimates related to these outcomes are presented in Appendix A, Table FS.7.

**General health.** Child health has been shown to relate to family structure and household resources (Case and Paxson 2002; Case et al. 2002). Because the BSF intervention might have an impact on the financial resources available to the child, it was possible that the intervention might have effects on child health. This was a primary measure in the 36-month analysis.

General health questions about children are widely used in many surveys of low-income families, including the EHSREP, the Early Childhood Longitudinal Survey–Birth Cohort, and Fragile Families. In the BSF 36-month follow-up survey, parents were asked to rate their child’s health as excellent, very good, good, fair or poor. These responses were collapsed into a binary variable (very good to excellent health versus less than very good) when measuring impacts on this outcome, with 85 percent of the sample noting their child was in very good to excellent health.

**Child asthma.** Evidence from Fragile Families suggests that the presence and severity of asthma before age 3 is an important indicator of child health and that it is related to family composition (Harknett 2005; Liu and Heiland 2007). The BSF 36-month follow-up survey included two items about child asthma: (1) if a health professional diagnosed the child with asthma and (2) if urgent care had ever been required because of this asthma. As a secondary measure of child health,

responses across these two items were combined to construct three categories: (1) no asthma (81 percent of the sample), (2) mild/moderate asthma (7 percent of the sample), and (3) severe asthma (that is, required urgent care; 12 percent of the sample) and analyzing whether the treatment and control groups differ in their distribution of categories.

## **VI. SUBGROUP ANALYSIS**

As part of the BSF 36-month impact analysis, the evaluation team examined whether BSF was more effective for certain subgroups of couples. This chapter lists the subgroups examined as a part of this analysis, describes the process for evaluating BSF's effectiveness for these subgroups, and summarizes the results of the subgroup analysis. The evaluation design does not support definitive conclusions concerning why BSF might have been more effective for certain subgroups. It only allows for the identification of subgroups for which the program appears to have been more (or less) successful. A full set of subgroup findings is provided in Appendix B.

### **Approach to Subgroups Used in the BSF Impact Analysis**

Examining effects on a long list of outcomes for a large set of subgroups creates a risk of finding statistically significant differences between research groups that are due to chance rather than the effects of the program (Schochet 2009). To reduce this risk, the evaluation team used three strategies. First, the evaluation team limited the number of outcomes examined in the subgroup impact analysis. Second, the evaluation team examined a limited number of subgroups. Third, the team planned to feature subgroup findings in the main report only when there was a strong pattern of statistically significant impacts across multiple domains. This section provides details on each of these three strategies.

#### **Limiting the Number of Outcomes Examined**

To limit the number of outcomes used in subgroup analysis, impacts were examined only on primary measures within key domains. As discussed in Chapter II, there are seven key domains: relationship status, relationship quality, co-parenting, father involvement, family stability, economic well-being, and child socio-emotional development. Across these seven key domains, there are 20 primary outcomes. By comparison, in the 15-month subgroup analysis there were only 8 confirmatory outcomes across two key domains (relationship status and quality).

#### **Limiting the Number of Subgroups Examined**

The 15-month analysis considered 13 subgroups. Because of the larger number of outcomes of interest at 36 months, the 36-month subgroup analysis considers a shorter list of subgroups. This shorter list reduces the number of impacts examined and thus the likelihood of finding statistically significant impacts that are due to chance. Table VI.1 lists the 6 subgroups considered in the 36-month analysis. These subgroups identify primary measures of couples' relationships at baseline (relationship quality and multiple partner fertility) and key socio-demographic and human capital traits (race, ethnicity, age, and father's earnings). The list has substantial overlap with the set of subgroups for which there was evidence of effects in the 15-month analysis. These subgroups were race/ethnicity, age, education, initial relationship quality, and multiple partner fertility.

The list of subgroups examined in the 36-month analysis does not include education, one of the subgroups for which there was modest evidence of effects in the 15-month analysis. However, the list does include father's initial earnings, a subgroup related to human capital not included in the 15-month subgroup analysis but that might have a more direct theoretical relationship with program effectiveness. In particular, this subgroup could be important if BSF had different effects for couples in which the father had less ability to support the family financially than for couples in which the father was more able to provide financial support. Subgroup categories are defined based

on whether the father’s earnings in the year before baseline were \$10,000 or less (38 percent) or more than \$10,000 (62 percent).

**Table VI.1. Subgroups Examined in BSF Impact Analysis**

Subgroup Measure	Subgroup Categories
<b>Based on Couple’s Initial Relationship Characteristics</b>	
Initial Relationship Quality	<ul style="list-style-type: none"> <li>• Relationship quality index below the sample median</li> <li>• Relationship quality index above the sample median</li> </ul>
Multiple Partner Fertility	<ul style="list-style-type: none"> <li>• No children with other partners</li> <li>• One or more children with other partners</li> </ul>
<b>Based on Couple’s Socio- Demographic and Human Capital Characteristics</b>	
Father’s Initial Earnings	<ul style="list-style-type: none"> <li>• Father’s total annual earnings \$10,000 or less</li> <li>• Father’s total annual earnings greater than \$10,000</li> </ul>
Race/Ethnicity: African American	<ul style="list-style-type: none"> <li>• Both partners are non-Hispanic African American</li> <li>• All other couples</li> </ul>
Race/Ethnicity: Hispanic	<ul style="list-style-type: none"> <li>• Both partners are Hispanic</li> <li>• All other couples</li> </ul>
Young Age	<ul style="list-style-type: none"> <li>• Either partner younger than age 21 at baseline</li> <li>• Both partners age 21 or older at baseline</li> </ul>

Although there were no significant impacts for Hispanic couples at 15 months, Hispanic couples are considered as a subgroup at 36 months because of the practical significance of this result for policy efforts such as the Hispanic Healthy Marriage Initiative. Furthermore, this analysis complements the analysis of impacts for African American couples, the subgroup with the strongest pattern of impacts at 15 months.

### **Featuring Subgroup Findings Only When There Are Strong Patterns of Impacts**

Keeping the list of outcomes and subgroups examined relatively short reduces the likelihood of finding statistically significant results that are due to chance. However, even this reduced list of 20 outcomes and six subgroups yields 120 separate statistical tests and a very high risk of identifying a result as statistically significant when it was actually due to chance. To reduce this risk, the evaluation team planned to feature subgroup findings only when there was a strong pattern of impacts across multiple domains. The evaluation team assessed the strength of the subgroup findings in each domain using composite indices based on all primary outcome measures within each key domain; these indices are discussed in greater detail in Chapter II. Using composite indices both limits the potential for statistically significant results due to chance and makes it easier to identify and interpret strong subgroup patterns (Schochet 2009).

Examining seven composite measures and six subgroup categories yields a total of 42 separate statistical tests. With such a large number of tests, the risk of a statistically significant result arising due to chance is still high. To guard against presenting subgroup results that do not represent the true effect of BSF, the evaluation team planned to present subgroup results in the main report only when at least three of the seven composite measures show statistically significant variation in

impacts across subgroup categories. For example, subgroup results for African American couples would be reported in the main report if there were a statistically significant difference in impacts between African American couples and non-African American couples on at least three of the seven composite index measures.

### Results of Subgroup Analysis

None of the subgroups met the standard specified to be featured in the main report. For five of the six subgroup measures considered, there were no significant differences in impacts between categories on any of the composite indices (Table VI.2). The only subgroup measure with significant variation in impacts between categories was the couple’s relationship quality, as measured by a baseline index. BSF impacts were significantly different based on initial relationship quality in the domains of both family stability and father’s involvement and parenting behavior.

**Table VI.2. Statistical Significance of Differences in Impacts on Key Outcome Domain Indices Across Subgroup Categories**

	Initial Relationship Quality		Multiple Partner Fertility		Father’s Initial Earnings \$10,000 or Less		Both Members of Couple Are African American		Both Members of Couple Are Hispanic		Either Younger than 21	
	Low	High	None	More than One	Yes	No	Yes	No	Yes	No	Yes	No
Relationship Status	○	○	○	○	○	○	○	—	○	○	—	○
Relationship Quality	○	○	○	○	○	○	○	○	○	○	○	○
Co-Parenting	○	○	○	○	○	○	○	○	○	○	○	○
Father Involvement	○	◆	○	○	—	○	○	○	○	○	—	○
Family Stability	○	◆	○	○	○	○	○	○	○	○	○	○
Economic Well-Being	○	○	○	○	○	○	○	○	○	○	○	○
Child Socio-Emotional Development	○	○	+++	○	○	○	○	○	++	○	○	+
<b>Sample Size</b>	<b>2,027</b>	<b>2,368</b>	<b>2,241</b>	<b>2,015</b>	<b>1,966</b>	<b>2,574</b>	<b>2,254</b>	<b>1,381</b>	<b>789</b>	<b>2,421</b>	<b>2,456</b>	<b>1,791</b>

Sources: BSF 36-month follow-up surveys and 36-month direct assessments, conducted by Mathematica Policy Research.

◆ ◆ ◆/◆ ◆/◆ Statistically significant difference in the subgroup impact estimates for the domain composite measure at the .01/.05/.10 level.

++ +/+ +/+ Statistically significant positive impact at the .01/.05/.10 level.

— — —/— —/— Statistically significant negative impact at the .01/.05/.10 level.

○ No statistically significant impact.

For couples with initial relationship quality below the sample median, BSF had no statistically significant impacts on any primary outcomes in key domains (Appendix B, Tables SG.5A and SG.5B). For couples with higher initial relationship quality, BSF had significant negative impacts on multiple outcomes. BSF decreased the likelihood that these couples were romantically involved at the time of the 36-month analysis and that they lived together at that time. BSF also had an

unfavorable effect on the use of destructive conflict behaviors for these couples. For couples who initially had higher-quality relationships, BSF also had negative impacts on the likelihood that the father lives with the child, the likelihood that he regularly spends time with the child, and his engagement with the child. However, BSF had a significant and favorable effect on the behavior problems of children of these couples.

The pattern of findings for relationship status and quality by initial relationship quality subgroup found at the 36-month follow-up differs from that found at the 15-month follow-up. At the earlier follow-up, BSF had positive impacts on relationship quality only for couples with high initial relationship quality—those effects faded at 36-month follow-up—and had no effects on either relationship status or relationship quality for couples with lower initial relationship quality.

Other subgroup differences detected at 15 months also appeared to have faded by the 36-month follow-up. In the 15-month analysis, the strongest subgroup pattern of impacts was for African American couples. At 15 months, BSF had positive impacts for African Americans on four of the eight relationship quality and status measures (Wood et al. 2010). At 36 months, BSF did not have a significant positive impact on any of these eight measures for African American couples (Appendix B, Tables SG.1A and SG.1B). BSF also did not have significant effects on any primary measures of co-parenting, father involvement, family stability, or economic stability. BSF did have a favorable impact on the behavior of the children of African American couples, but this impact was not significantly different from the impact on the behavior of children of other couples.

At 15 months, BSF also had a negative impact on marriage and romantic involvement for couples in which at least one member had a child from a prior relationship and for couples in which both partners were 21 years of age or older at baseline (Wood et al. 2010). At 36 months, there was no significant impact of BSF on these outcomes for either subgroup, and there was no evidence that the impact of BSF on these outcomes differed according to the partners' ages or whether they had children from prior relationships (Appendix B, Tables SG.6A and SG.6B).

## **VII. BSF'S EFFECTS ON THOSE WHO ATTENDED GROUP RELATIONSHIP SKILLS SESSIONS**

The impacts presented in the main BSF 36-month impact report are calculated by comparing all couples assigned to the BSF group to all couples assigned to the control group regardless of whether or how frequently the couples attended BSF group sessions. Such “intent-to-treat” (ITT) impact estimates are widely used in large-scale evaluations, for two reasons. First, they preserve the key strength of a random assignment research design—specifically, that one can be confident that the program and control groups were similar at baseline, and that differences in outcomes that emerge (and that are large enough to be unlikely to be the result of chance) can be attributed to the program. If some sample members who were randomly assigned are excluded from the analysis, one can no longer be certain that the two research groups are similar and that differences in outcomes between them represent the effect of the program. Second, ITT estimates address a policy-relevant research question: What is the effect of offering a program in the “real world,” where one can anticipate that not everyone in the target population will participate in all program services? Nonparticipation may limit a program’s ability to affect outcomes in the target population the program seeks to help, despite extensive efforts to promote attendance, and it is appropriate to reflect this limitation in estimates of a program’s impact.

These results, however, leave us with an unanswered question of wide interest, because not all couples randomly assigned to receive BSF services actually participated. The core BSF service was group workshops on relationship skills, and across all evaluation sites about 45 percent of the couples assigned to the program group never attended even one workshop session. And only 29 percent attended enough sessions to complete half of the site’s curriculum. BSF was a voluntary program, and voluntary programs, particularly those serving low-income families, often have low participation rates (McCurdy and Daro 2001; Myers et al. 1992; Garvey et al. 2006).<sup>27</sup> Even so, it is natural to ask whether BSF had effects on the couples who did attend group sessions. Estimating the impact on participants who received particular program services, also known as “treatment-on-the-treated” (TOT) impacts, requires using quasi-experimental research techniques—in other words, techniques that do not rely solely on the study’s random assignment design.

An earlier report using data from the BSF 15-month follow-up examined BSF’s effects on couples who attended group sessions (Wood, Moore, and Clarkwest 2011). This chapter replicates that analysis using data from the 36-month follow-up. For a more detailed description of the methods used, see Wood, Moore, and Clarkwest (2011).

### **Methods for Estimating Effects for Couples Who Attended Group Sessions**

The central difficulty in estimating BSF impacts on participants is identifying a comparison group appropriate for obtaining an estimate of what the outcomes of BSF group couples who attended group sessions would have been if they had been assigned to the control group. This is challenging because attendance at group sessions was not determined randomly, but resulted from couples’ own choices and situations. Table VII.1 illustrates some of the important ways in which

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<sup>27</sup> See Dion, Avellar, and Clary (2010) for a detailed discussion of participation patterns in the BSF program and the challenges associated with achieving high rates of attendance at group sessions among low-income, unmarried couples.

**Table VII.1. Baseline Characteristics of BSF Couples Who Attended Group Sessions Compared with the Characteristics of All Control Group Couples (percentages unless otherwise indicated)**

	BSF Group Couples		
	Who Attended at Least One Group Session	Who Attended Half of Group Sessions	All Control Group Couples
<b>Relationship Characteristics</b>			
Couple's Relationship Status			
Married to each other	8.2	8.9	6.8
Unmarried, cohabiting full-time	60.8*	63.6**	57.4
Unmarried, not cohabiting full-time	31.0***	27.5***	35.8
Relationship Quality (average scale value; range = 1-4)			
Couple Interaction	3.35*	3.37*	3.33
Commitment	3.27**	3.31***	3.24
Both Partners Expect to Marry	63.0***	67.6***	57.7
Baby Born Before BSF Application	42.1	40.9	44.1
Either Partner Has a Child from a Prior Relationship	47.7	45.4	46.6
Pregnancy Intendedness			
Intended by both partners	26.2*	28.8**	23.4
Wanted by both partners, but considered mistimed	52.4	49.1	53.6
Unwanted by at least one partner	21.4	22.2	23.0
<b>Socio- Economic and Demographic Measures</b>			
Race/Ethnicity			
Both partners are Hispanic	27.0*	26.4	24.7
Both partners are Black, non-Hispanic	45.9	45.0	46.9
Both partners are White, non-Hispanic	11.8	12.3	11.9
All other couples	15.3	16.4	16.5
High School Diploma Receipt (excluding GEDs)			
Both partners have diploma	38.4	42.2	37.8
One partner has diploma	36.7	36.3	36.9
Neither partner has diploma	24.9	21.6	25.3
Average Age (in years)			
Mother's age	23.9**	24.3***	23.5
Father's age	26.5***	27.0***	25.7
Couples' Total Earnings in Past Year (\$)	20,995**	23,150***	19,825
Either Partner Received SNAP or TANF in Past Year	46.1	43.3	45.7
<b>Mental Health, Attitudes, and Religiosity</b>			
Either Partner Has Psychological Distress	39.6	37.4	38.6
Both Partners Agree with the Statement, "It is better for children if parents are married"	60.1	59.4	59.6
Attendance at Religious Services			
Both attend more than monthly	26.0	26.5	24.1
One attends more than monthly	29.3	28.8	28.9
Neither attends more than monthly	44.7	44.7	47.0
<b>Sample Size</b>	<b>1,243</b>	<b>646</b>	<b>2,118</b>

Sources: BSF baseline information form and BSF eligibility form.

Note: The sample for this table includes all BSF group sample member. The eight programs are weighted equally for these calculations.

\*\*\*/\*\*/\* Difference between BSF and control group means are statistically significant at the .01/.05/.10 levels.

GED = general equivalency diploma; SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance for Needy Families.



attendees in the BSF group differ from the full set of control group members. Prior to enrollment, couples who went on to attend at least one group session were more likely, on average, to be married or living together full-time, had higher levels of relationship commitment and stronger expectations of marriage, were older, and earned higher incomes. Those differences are even larger if all control group couples are compared to BSF group couples who attended at least half of group sessions. Based on their more favorable relationship and demographic characteristics, couples who attended group sessions would be expected to have better relationship outcomes than the control group as a whole, even in the absence of the group education intervention. Therefore, in a comparison of the outcomes of BSF group attenders to all control group couples, it would not be possible to distinguish differences due to program services from differences resulting from other preexisting traits. Calculating an accurate impact estimate requires comparing BSF couples who attended group sessions to couples in the control group who *would have* attended if they had been offered access to the program. The challenge, of course, is figuring out which control group couples these are.

This section provides an explanation of the methodology used in this TOT analysis. The first part of the section describes the basics of the propensity score-based approaches to TOT impact estimation used in this chapter. The next part discusses the Bloom adjustment, a commonly used TOT approach that is not appropriate in this context.

### Methods Used in This Analysis

This analysis uses the following two quasi-experimental research methods to address the challenge of estimating the impact of BSF on couples who attended:

1. *A traditional matching approach*, in which individual couples who attended BSF group sessions are matched to similar control couples and the outcomes of these two groups are compared to estimate program effects
2. *A “likely attender” approach*, in which a group of “likely attenders” is identified within each research group and the outcomes of these two groups are then compared to estimate impacts

Both of these methods involve estimating a predicted probability of attending group sessions, or a propensity score, based on couples’ characteristics at the time they applied for BSF. In our analyses, we use two separate measures of attendance: (1) attendance in any group session (“any attendance”) and (2) attendance in at least half of group sessions (“frequent attendance”).<sup>28</sup> A binary indicator is created for each of those. Those two indicators are used as the dependent variables in separate propensity score models. Thus each couple has distinct propensity scores for *any attendance* and for *frequent attendance*.

In the traditional approach to propensity score matching, program group couples who attended sessions are matched to individual couples in the control group who have similar propensity scores. This method should generate two research groups that are similar in their observed initial

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<sup>28</sup> As a robustness check, we performed TOT analyses using two alternative measures of frequent attendance: (1) attending 75 percent of sessions offered and (2) attending 18 hours (irrespective of the number of hours offered by the site’s curriculum). Estimated impacts of frequent attendance were qualitatively similar using any of the three cutoffs.

characteristics. However, it is possible that the groups still differ on unmeasured characteristics, such as their level of motivation to improve their relationships. In addition, attendance may be influenced by relationship developments after random assignment. For example, a couple who breaks up (for reasons unrelated to BSF) soon after assignment will almost certainly not attend sessions after the breakup. So attendance is contingent on the couple remaining together, and positive outcomes of attendees—especially *frequent attendees*—may thus be due to selection rather than program impacts.

The “likely attender” approach uses propensity scores to identify couples in both research groups who are *most likely* to attend group sessions if they are offered to them. Thus, these TOT estimates are based not on couples in the BSF program group who actually attended, but on couples whose baseline characteristics indicate that they would be likely to attend. This approach avoids the problems described in the last paragraph—preserving the BSF study’s experimental framework—because the predicted probability of participating is based entirely on observed initial characteristics and is not influenced unobserved preintervention traits or by couples’ later choices. Therefore, one can be confident that the likely attenders from the BSF group are similar to those from the control group on both measured and unmeasured characteristics. However, if the propensity score model cannot accurately predict who is a likely attender and the likely attenders in the program group are a substantially different set of couples from those who actually attended, then the results’ rigorous estimates of the impact on likely attenders will not yield an accurate estimate of the effects of BSF on those who actually attended group sessions.

Despite preserving the experimental framework, the likely attender method is referred to here as a quasi-experimental approach to estimating effects on couples who attended group sessions, because the research groups are based on those who are predicted to attend, not those who actually attended. Therefore, these results provide an accurate estimate of BSF’s impacts for those couples who appear likely to attend sessions, but not necessarily those who actually attended them.

Although these traditional and likely attender approaches differ, both rely on the extent to which the propensity models identify sample members who would choose to attend group sessions if offered the opportunity. When using the propensity scores in a traditional matching approach, models with greater predictive power provide more confidence that the treatment group attendees are truly comparable to the control group couples to whom they are matched. The likely attender approach also depends on a highly predictive propensity model; without one, a substantial proportion of couples identified as likely attenders may not be actual attenders and the estimated TOT impacts will be attenuated. Therefore, the credibility of the TOT estimates depends on how well the probability of participation can be estimated.

If the predictive power of the propensity model is high, then the two TOT approaches will yield similar results that are likely to reflect BSF’s effects on those who attended group sessions. Conversely, if the propensity model has little predictive power, these approaches tend to yield different results, neither of which is likely to represent the program’s effects for attenders (Schochet and Burghardt 2007). Therefore, an examination of the degree to which results from these two methods are similar can suggest how much confidence one can have in the estimates.

The propensity model estimates were estimated using a logistic regression model of data for BSF program group members in the analysis sample. These data included information on attendance at group sessions obtained from records from automated data systems kept by the local BSF programs, as well as characteristics of couples before random assignment, such as initial relationship characteristics, demographic characteristics, attitudes toward marriage, and study enrollment characteristics. The propensity models for the 36-month TOT analyses used the same set of

predictor variables as in the 15-month analyses. Additional information on the development and application of the propensity models is provided in the 15-month TOT impact report (Wood, Moore, and Clarkwest 2011).

### **An Alternative Approach to Estimating TOT Impacts**

A commonly used approach to estimating TOT impacts is the Bloom adjustment, which inflates the experimentally obtained IIT estimates by the inverse of the proportion of program group members who actually received the intervention (Bloom 1984). The adjustment is based on the assumption that the impact of the program on nonparticipants is zero. This assumption may not be appropriate in the context of BSF, because the program could have impacts on couples who did not receive any services by influencing their perceived or demonstrated commitment to improving the relationship (Clarkwest, Killewald, and Wood 2012; Stanley, Rhoades, and Whitton 2011). In addition, the Bloom adjustment is not well suited for this analysis, because it cannot be used to estimate the effects of different types or amounts of services. Although only 55 percent of couples attended group relationship-skills sessions (the core program service), more than 90 percent received at least some type of service from the program, including assistance from a family coordinator or referral to a support service. This high participation rate means that TOT estimates produced using the Bloom procedure that adjusts for the proportion of couples who received no service from BSF are almost identical to the IIT estimates presented in the main report.

One could calculate a Bloom-adjusted estimate of the effects of BSF on couples who attended group sessions based on the assumption that BSF had no effect on couples who did not attend group sessions but who received other help from the program (such as support from a family coordinator or referrals to support services). However, this stronger assumption is more likely to violate the Bloom requirement that the impact for nonparticipants is zero. Therefore, TOT impact estimates calculated in this way would be inappropriate.

### **Creation of Comparison Groups**

The traditional matching and likely attender approaches used the same propensity scores. The central difference between the approaches is the way those scores were used to construct research groups. For the traditional matching approach, each BSF group couple who met the given attendance threshold was matched to the comparison group couple from the same site that had the most similar propensity score. This matching was performed separately for the *any attendance* and *frequent attendance* analyses, using the propensity scores that were generated for that particular attendance level. Under this “nearest neighbor” matching approach, it is possible for the same comparison group couple to be matched to more than one treatment group couple. Among program group members in the analysis sample, 1,243 couples attended at least one session. A total of 1,113 control group couples were matched to one or more of the BSF couples who attended group sessions. The difference between the two counts resulted from control group couples who were matched to more than one program couple. When a control group couple was matched more than once, the couple received correspondingly greater weight in the analysis, so that the weighted total sample size was the same for the program and control groups. The corresponding sample sizes for the frequent attender analyses are 646 program group couples and 477 control group couples who were matched to them.

Although this matching approach can produce groups that are comparable on observed characteristics, it is not possible to guarantee that the groups are comparable on traits that are not

observed. Differences in unobservable traits can lead to bias in the TOT estimates generated using the traditional matching approach.

Whereas the traditional approach matched each attender couple from the BSF group to a single couple from the control group, the likely attender method created subgroups of couples with high propensity scores within both the BSF and control groups. This approach creates groups solely on the basis of preintervention characteristics, which avoids the threat of bias introduced by unobservable traits that is present in traditional matching approaches. The likely attender cutoff value was set such that the number of BSF group couples above the cutoff was the same as the actual number of attenders. The cutoff was set program by program, so the numbers of likely attenders and actual attenders were identical within each program.

Of course, predictive power of the propensity model was not perfect, and not all likely attenders were actual attenders. But, as shown in Table VII.2, rates of attendance among those identified as likely attenders were much higher than for all couples. Overall, 55 percent of couples attended at least one session. Among couples designated as likely attenders using the approach described above, that rate was 74 percent. Among couples not categorized as likely attenders, only about half as many (36 percent) attended at least one session. A similar pattern is observed for attending half or more of all sessions. Overall, 29 percent of couples had that level of attendance, but among likely attenders, the rate was twice that (60 percent). The results show that the model did have substantial predictive power, but that power is far from perfect, which would lead to the expectation that estimates generated using this method might underestimate the true impact of attendance at group sessions somewhat.

**Table VII.2. Actual Attendance Rates of Program Group Couples, by Likely Attender Status (percentages)**

Level of Attendance	All BSF Group Couples	BSF Couples Included in Likely Attender Analysis	BSF Couples Excluded from Likely Attender Analysis
Attended at Least One Session	55.1	73.8	36.3
Attended at Least Half of Sessions	28.9	59.6	17.4

Sources: BSF baseline information form, BSF eligibility form, BSF 36-month follow-up survey, BSF management information system records.

Note: Likely attenders consist of program group couples with the highest propensity scores. The cutoff value is set site by site such that the number of likely attenders in each site is equal to the number of actual attenders. The “All BSF Group Couples” attendance rates are for all randomized couples. The rates for likely attenders are calculated using the 36-month analysis sample, with nonresponse weights to make that sample representative of the full baseline sample.

The BSF and comparison group couples used in the traditional and likely attender TOT analyses are well matched on key observable baseline characteristics, as shown in Table VII.3. Across the four samples used in the TOT analysis, there are no statistically significant between-group differences and none that are larger than a quarter of a standard deviation.

## Estimating TOT Impacts

After using the propensity score models to create research samples for each set of analyses, TOT impact estimates were calculated using methods similar to those used to calculate 36-month IIT impact estimates. Specifically, impact estimates were calculated using weighted least squares

**Table VII.3. Key Baseline Characteristics of BSF and Control Group Couples Included in the TOT Analysis (percentages)**

	Traditional Matching Method		“Likely Attender” Method	
	BSF Group	Control Group	BSF Group	Control Group
<b>Attended at Least One Group Session</b>				
Couple’s Relationship Status				
Married to each other	8.2	8.7	9.4	9.6
Unmarried, cohabiting full-time	60.8	57.3	62.5	61.4
Unmarried, not cohabiting full-time	31.0	34.0	28.2	29.0
Relationship Quality (average scale value; range = 1-4)				
Couple Interaction	3.35	3.32	3.35	3.33
Commitment	2.83	2.83	2.85	2.84
Race/Ethnicity				
Both partners are Hispanic	27.0	24.8	26.9	26.4
Both partners are Black, non-Hispanic	45.9	47.2	44.2	43.2
Both partners are White, non-Hispanic	11.8	11.8	12.7	12.7
All other couples	15.3	16.1	16.2	17.7
<b>Sample Size</b>	<b>1,243</b>	<b>1,113</b>	<b>1,243</b>	<b>1,243</b>
<b>Attended at Least Half of Group Sessions</b>				
Couple’s Relationship Status				
Married to each other	8.9	7.8	12.9	12.4
Unmarried, cohabiting full-time	63.6	60.2	66.2	64.5
Unmarried, not cohabiting full-time	27.5	25.6	20.9	23.1
Relationship Quality (average scale value; range = 1-4)				
Couple Interaction	3.37	3.34	3.40	3.37
Commitment	2.87	2.85	2.93	2.91
Race/Ethnicity				
Both partners are Hispanic	26.4	25.6	25.5	25.4
Both partners are Black, non-Hispanic	45.0	48.0	42.0	44.5
Both partners are White, non-Hispanic	12.3	10.6	13.2	12.2
All other couples	16.3	15.8	19.3	18.0
<b>Sample Size</b>	<b>646</b>	<b>477</b>	<b>646</b>	<b>646</b>

Sources: BSF baseline information form and BSF eligibility form.

Note: BSF group means in the traditional matching method and likely attender method columns arise due to differences in the weights used in those analyses. The eight programs are weighted equally for these calculations.

\*\*\*/\*\*/\* Difference between BSF and control group means are statistically significant at the .01/.05/.10 levels.

regression models. For the likely attender method, the analysis sample includes couples from the BSF and control groups who were likely to have had a given level of group session attendance based on their baseline characteristics. The analysis weights used were assigned based on the couple’s probability of survey nonresponse, as in the ITT analysis. For the traditional propensity score matching method, these models were estimated on a sample that included BSF group couples who had attended a given level of group sessions and their matched comparison group counterparts. Because comparison group couples were only included in the analysis on the basis of their match to a BSF group couple who attended group sessions at a given level, they were assigned the analysis weight of the BSF group couple to whom they were matched. As noted earlier, comparison group couples who were matched to multiple BSF group attendees received the sum of the weights of the couples to whom they were matched.

All other aspects of the TOT impact estimation—including calculation of pooled impacts by weighting BSF programs equally, and choice of covariates to control for characteristics measured in the baseline survey—were the same as those used in estimating ITT impacts, as described in Chapter II. However, this technical supplement presents only TOT analyses pooled across local programs, because the small sample sizes at the program level generally preclude calculating meaningful and informative TOT impact estimates at the program level.

## **Impacts of BSF on Couples Who Attended Group Sessions**

This section presents TOT estimates of BSF program impacts using both the traditional and likely attender methods. Results are presented for key outcomes related to (1) relationship status and quality, (2) parenting and father involvement, and (3) child well-being and development.

### **Relationship Status and Quality**

As discussed in the 36-month impact report, results based on standard ITT impact estimation techniques indicate that BSF had no effect on primary measures of relationship quality or marriage 36 months after couples applied for the program (Wood et al. 2012). Among all couples offered BSF services, the program had a small negative impact on romantic involvement and co-residence at this point (Wood et al. 2012).

The TOT estimates reveal no strong evidence of effects of BSF on relationship outcomes at 36 months (either positive or negative) among couples who attended group sessions at all or attended them regularly. Among the 55 percent of couples who attended at least one group session, there were no overall effects on any key relationship outcomes. Analyses using both the traditional matching and likely attender methods show no statistically significant effects on relationship status or quality for couples who attended at least one group session (Table VII.4). In addition, effect sizes for these impact estimates are small (the largest is  $-0.07$ ).

When impacts are estimated for couples who attended at least half of the scheduled group sessions, the estimates show no impacts of BSF on most relationship quality and status outcomes (Table VII.5). However, there are two statistically significant effects—one negative (on avoidance of constructive conflict behaviors, using the likely attender method) and one positive (on co-residence, using the traditional matching method). Both these effects are only marginally statistically significant. In addition, in each case, statistically significant effects are found for only one of the two TOT estimation methods.

### **Parenting and Father Involvement**

As discussed in the 36-month impact report, standard ITT impact estimation techniques showed that BSF had no effect on the quality of couples' co-parenting relationship (Wood et al. 2012). In addition, BSF had modest negative impacts on the likelihood that fathers regularly spent time with their children or provided them with substantial financial support. The program had no effect, however, on other aspects of father involvement, such as father's engagement with the child, father's observed responsiveness to the child, or whether the father lives with the child.

As with the couple relationship outcomes described above, the TOT estimates reveal no strong evidence of effects of BSF on parenting and father involvement at 36 months (either positive or

**Table VII.4. Impact of BSF on Key Relationship Outcomes at 36- Month Follow- Up for Couples Who Attended at Least One Group Session**

Outcome	Using Traditional Matching Method					Using “Likely Attenders” in Both Research Groups				
	Program Group	Control Group	TOT Impact	p-Value	Effect Size	Program Group	Control Group	TOT Impact	p-Value	Effect Size
<b>Relationship Status</b>										
Romantically involved (%)	59.1	60.6	-1.4	0.639	-0.036	59.4	61.3	-2.0	0.353	-0.050
Living together (married or unmarried) (%)	48.9	49.0	-0.1	0.965	-0.003	50.3	50.8	-0.6	0.790	-0.013
Married (%)	22.9	22.1	0.8	0.759	0.029	24.4	23.5	0.9	0.639	0.029
<b>Relationship Quality</b>										
Relationship happiness scale (range: 0 to 10)	8.27	8.23	0.04	0.769	0.027	8.28	8.31	-0.03	0.686	-0.024
Support and affection scale (range: 1 to 4)	3.44	3.43	0.01	0.720	0.030	3.44	3.44	-0.01	0.778	-0.017
Use of constructive conflict behaviors scale (range: 1 to 4)	3.21	3.23	-0.02	0.501	-0.045	3.22	3.23	-0.01	0.622	-0.024
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.73	2.77	-0.04	0.380	-0.064	2.73	2.77	-0.05	0.141	-0.071
Neither member of the couple was unfaithful since random assignment (%)	59.4	58.9	0.5	0.885	0.012	58.6	61.0	-2.4	0.285	-0.060
<b>Sample Size</b>	<b>1,243</b>	<b>1,113</b>				<b>1,243</b>	<b>1,243</b>			

Source: BSF Baseline information form and 36-month follow-up surveys.

Notes: Impacts are adjusted using a pooled regression controlling for the couple’s baseline relationship and demographic characteristics. Impact estimates are calculated based on a weighted average of program-level impacts in which all programs are weighted equally. The difference between BSF and comparison group means may not equal the estimated impact due to rounding.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

TOT = treatment-on-the-treated.

**Table VII.5. Impact of BSF on Key Relationship Outcomes at 36- Month Follow- Up for Couples Who Attended at Least Half of Group Sessions**

Outcome	Using Traditional Matching Method					Using “Likely Attenders” in Both Research Groups				
	Program Group	Control Group	TOT Impact	p-Value	Effect Size	Program Group	Control Group	TOT Impact	p-Value	Effect Size
<b>Relationship Status</b>										
Romantically involved (%)	67.3	61.2	6.2	0.124	0.163	61.1	63.4	-2.2	0.528	-0.058
Living together (married or unmarried) (%)	58.0	50.6	7.4*	0.073	0.182	56.2	53.8	2.5	0.467	0.061
Married (%)	27.9	22.0	5.9	0.112	0.190	29.9	28.5	1.3	0.676	0.039
<b>Relationship Quality</b>										
Relationship happiness scale (range: 0 to 10)	8.27	8.33	-0.06	0.732	-0.051	8.25	8.40	-0.15	0.208	-0.113
Support and affection scale (range: 1 to 4)	3.44	3.44	0.00	0.986	-0.002	3.43	3.47	-0.04	0.259	-0.108
Use of constructive conflict behaviors scale (range: 1 to 4)	3.25	3.23	0.02	0.794	0.029	3.22	3.23	-0.01	0.87	-0.012
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.73	2.77	-0.04	0.593	-0.060	2.71	2.79	-0.08*	0.095	-0.119
Neither member of the couple was unfaithful since random assignment (%)	62.8	60.6	2.2	0.683	0.056	63.5	64.5	-1.0	0.789	-0.026
<b>Sample Size</b>	<b>646</b>	<b>477</b>				<b>646</b>	<b>646</b>			

Source: BSF 15- and 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: Impacts are adjusted using a pooled regression controlling for the couple’s baseline relationship and demographic characteristics. Impact estimates are calculated based on a weighted average of program-level impacts in which all programs are weighted equally. The difference between BSF and comparison group means may not equal the estimated impact due to rounding.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

TOT = treatment-on-the-treated.



negative) among couples who attended group sessions at all or attended them regularly. Among couples who attended at least one group session, the TOT impact estimates show no statically significant effects for any parenting and father involvement outcomes (Table VII.6). In addition, effect sizes of these impact estimates are small—no larger than .11 for any outcome with either approach. Similarly, there is no strong evidence of effects of BSF on parenting and father involvement among couples who attended at least half the group sessions. Only one marginally significant result emerges for this group, on whether the father lives with the focal child at follow-up (Table VII.7). However, the effect on this outcome is found only with one of the two TOT estimation techniques.

### **Child Well-Being**

ITT estimates indicate that BSF had no effect on two of the three key outcome domains related to child well-being, family stability and economic well-being (Wood et al. 2012). BSF did have a modest positive impact on children’s socio-emotional development, reducing the number of behavior problems reported by parents.

Similar to the other outcome domains discussed above, the TOT results suggest that BSF had little or no effect on most measures of child well-being. When the analysis is restricted to couples who attended at least one group session, the TOT estimates reveal no statistically significant effects for any child well-being measure (Table VII.8).

Similarly, almost all TOT impact estimates for child well-being measures are not statistically significant for couples who attended at least half of the group sessions. The one exception is a 10-percentage-point positive impact estimate on the likelihood that focal children have lived with both parents since birth using the traditional matching method (Table VII.9). However, the impact estimate for this outcome using the likely attender method is smaller and not statistically significant.

**Table VII.6. Impact of BSF on Key Parent and Parenting Outcomes at 36- Month Follow- Up for Couples Who Attended at Least One Group Session**

Outcome	Using Traditional Matching Method					Using “Likely Attenders” in Both Research Groups				
	Program Group	Control Group	TOT Impact	p-Value	Effect Size	Program Group	Control Group	TOT Impact	p-Value	Effect Size
<b>Co- Parenting</b>										
Quality of co-parenting relationship scale (range: 1 to 5)	4.19	4.20	0.00	0.945	-0.005	4.19	4.22	-0.03	0.470	-0.033
<b>Father’s Involvement and Parenting Behavior</b>										
Father lives with child (%)	52.7	51.5	1.2	0.686	0.028	53.6	53.4	0.2	0.914	0.006
Father regularly spends time with child (%)	53.8	54.8	-1.0	0.737	-0.024	53.8	56.8	-3.0	0.181	-0.075
Father’s engagement with child (range: 1 to 6)	4.22	4.26	-0.05	0.614	-0.040	4.23	4.30	-0.06	0.324	-0.052
Mother reports father provides substantial financial support for raising child (%)	63.1	62.9	0.2	0.958	0.005	63.6	65.2	-1.6	0.468	-0.042
Father’s parental responsiveness (observed) (range: 1 to 7)	4.62	4.52	0.11	0.721	0.107	4.61	4.56	0.05	0.499	0.056
<b>Sample Size</b>	<b>1,243</b>	<b>1,113</b>				<b>1,243</b>	<b>1,243</b>			

Source: BSF 15- and 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: Impacts are adjusted using a pooled regression controlling for the couple’s baseline relationship and demographic characteristics. Impact estimates are calculated based on a weighted average of program-level impacts in which all programs are weighted equally. The difference between BSF and comparison group means may not equal the estimated impact due to rounding.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

TOT = treatment-on-the-treated.

**Table VII.7. Impact of BSF on Key Parent and Parenting Outcomes at 36- Month Follow- Up for Couples Who Attended at Least Half of Group Sessions**

Outcome	Using Traditional Matching Method					Using “Likely Attenders” in Both Research Groups				
	Program Group	Control Group	TOT Impact	p-Value	Effect Size	Program Group	Control Group	TOT Impact	p-Value	Effect Size
<b>Co- Parenting</b>										
Quality of co-parenting relationship scale (range: 1 to 5)	4.28	4.21	0.07	0.396	0.086	4.22	4.26	-0.04	0.456	-0.052
<b>Father’s Involvement and Parenting Behavior</b>										
Father lives with child (%)	61.6	53.6	8.0*	0.054	0.198	58.5	56.6	1.8	0.586	0.045
Father regularly spends time with child (%)	62.5	58.5	3.9	0.392	0.100	57.9	60.2	-2.3	0.555	-0.057
Father’s engagement with child (range: 1 to 6)	4.39	4.27	0.12	0.466	0.092	4.23	4.38	-0.14	0.122	-0.129
Mother reports father provides substantial financial support for raising child (%)	70.3	65.8	4.5	0.321	0.125	65.7	68.9	-3.2	0.335	-0.089
Father’s parental responsiveness (observed) (range: 1 to 7)	4.76	4.64	0.12	0.738	0.157	4.65	4.63	0.02	0.897	0.018
<b>Sample Size</b>	<b>646</b>	<b>477</b>				<b>646</b>	<b>646</b>			

Source: BSF 15- and 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: Impacts are adjusted using a pooled regression controlling for the couple’s baseline relationship and demographic characteristics. Impact estimates are calculated based on a weighted average of program-level impacts in which all programs are weighted equally. The difference between BSF and comparison group means may not equal the estimated impact due to rounding.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

TOT = treatment-on-the-treated.

**Table VII.8. Impact of BSF on Key Child Well- Being Measures at 36- Month Follow- Up for Couples Who Attended at Least One Group Session**

Outcome	Using Traditional Matching Method					Using “Likely Attenders” in Both Research Groups				
	Program Group	Control Group	TOT Impact	p-Value	Effect Size	Program Group	Control Group	TOT Impact	p-Value	Effect Size
<b>Family Stability</b>										
Both parents have lived with child since birth (%)	44.1	43.3	0.8	0.759	0.020	45.2	45.4	-0.2	0.936	-0.004
<b>Economic Stability</b>										
Family’s monthly income below poverty threshold (%)	44.7	45.2	-0.5	0.880	-0.013	43.4	43.8	-0.5	0.838	-0.011
Family experienced difficulty meeting housing expenses during past year (%)	46.1	45.9	0.2	0.950	0.006	44.7	45.9	-1.2	0.614	-0.029
Family receiving SNAP or TANF (%)	65.1	65.0	0.1	0.975	0.002	63.8	63.7	0.1	0.959	0.003
<b>Child Socio- Emotional Development</b>										
Behavior problems index (range: 1 to 3)	1.39	1.40	-0.01	0.709	-0.032	1.39	1.41	-0.02	0.193	-0.069
Emotional insecurity amid parental conflict (range: 1 to 4)	1.41	1.43	-0.02	0.676	-0.034	1.41	1.44	-0.02	0.416	-0.047
<b>Sample Size</b>	<b>1,243</b>	<b>1,113</b>				<b>1,243</b>	<b>1,243</b>			

Source: BSF 15- and 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: Impacts are adjusted using a pooled regression controlling for the couple’s baseline relationship and demographic characteristics. Impact estimates are calculated based on a weighted average of program-level impacts in which all programs are weighted equally. The difference between BSF and comparison group means may not equal the estimated impact due to rounding.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

TOT = treatment-on-the-treated; TANF = Temporary Assistance for Needy Families.

**Table VII.9. Impact of BSF on Key Child Well- Being Measures at 36- Month Follow- Up for Couples Who Attended at Least Half of Group Sessions**

Outcome	Using Traditional Matching Method					Using “Likely Attenders” in Both Research Groups				
	Program Group	Control Group	TOT Impact	p-Value	Effect Size	Program Group	Control Group	TOT Impact	p-Value	Effect Size
<b>Family Stability</b>										
Both parents have lived with child since birth (%)	53.6	43.6	10.0**	0.017	0.242	51.6	46.5	5.1	0.135	0.122
<b>Economic Stability</b>										
Family’s monthly income below poverty threshold (%)	42.8	42.3	0.5	0.926	0.011	36.7	39.2	-2.4	0.479	-0.062
Family experienced difficulty meeting housing expenses during past year (%)	46.3	44.4	1.9	0.756	0.045	43.3	45.7	-2.4	0.518	-0.059
Family receiving SNAP or TANF (%)	66.6	66.1	0.6	0.887	0.016	59.9	61.4	-1.6	0.642	-0.040
<b>Child Socio- Emotional Development</b>										
Behavior problems index (range: 1 to 3)	1.38	1.41	-0.03	0.363	-0.093	1.39	1.40	-0.02	0.416	-0.060
Emotional insecurity amid parental conflict (range: 1 to 4)	1.40	1.44	-0.04	0.410	-0.081	1.41	1.41	0.00	0.991	0.001
<b>Sample Size</b>	<b>646</b>	<b>477</b>				<b>646</b>	<b>646</b>			

Source: BSF 15- and 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: Impacts are adjusted using a pooled regression controlling for the couple’s baseline relationship and demographic characteristics. Impact estimates are calculated based on a weighted average of program-level impacts in which all programs are weighted equally. The difference between BSF and comparison group means may not equal the estimated impact due to rounding.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

TOT = treatment on the treated; TANF = Temporary Assistance for Needy Families.



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**APPENDIX A**

**SUPPLEMENTAL ESTIMATED IMPACTS FOR EACH PROGRAM AND  
POOLED ACROSS PROGRAMS**



## TABLES

FS.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: All Sites Combined (percentages unless stated otherwise) .....	9
FS.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: All Sites Combined .....	10
FS.2b.	Impacts of Building Strong Families on Partner-Level Measure of Relationship Quality at 36-Month Follow-Up: All Sites Combined .....	11
FS.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: All Sites Combined (Percentages) .....	12
FS.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: All Sites Combined.....	13
FS.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: All Sites Combined .....	14
FS.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: All Sites Combined .....	15
FS.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: All Sites Combined.....	16
ATL.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Atlanta (percentages unless stated otherwise) .....	17
ATL.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Followup: Atlanta .....	18
ATL.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Followup: Atlanta .....	19
ATL.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Atlanta (Percentages) .....	20
ATL.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Atlanta.....	21
ATL.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Atlanta .....	22
ATL.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Atlanta .....	23

ATL.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Atlanta.....	24
BAL.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Baltimore (percentages unless stated otherwise) .....	25
BAL.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Baltimore .....	26
BAL.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Baltimore .....	27
BAL.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Baltimore (Percentages).....	28
BAL.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Baltimore .....	29
BAL.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Baltimore.....	30
BAL.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Baltimore.....	31
BAL.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Baltimore .....	32
BR.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Baton Rouge (percentages unless stated otherwise) .....	33
BR.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Baton Rouge.....	34
BR.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Baton Rouge.....	35
BR.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Baton Rouge (Percentages).....	36
BR.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Baton Rouge .....	37
BR.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Baton Rouge.....	38
BR.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Baton Rouge .....	39

BR.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Baton Rouge .....	40
FL.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Florida Counties (percentages unless stated otherwise) .....	41
FL.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Florida Counties .....	42
FL.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Florida Counties .....	43
FL.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Florida Counties (Percentages) .....	44
FL.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Florida Counties .....	45
FL.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Florida Counties .....	46
FL.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Florida Counties .....	47
FL.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Florida Counties.....	48
HOU.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Houston (percentages unless stated otherwise) .....	49
HOU.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Houston .....	50
HOU.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Houston .....	51
HOU.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Houston (Percentages) .....	52
HOU.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Houston.....	53
HOU.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Houston .....	54
HOU.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Houston .....	55

HOU.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Houston.....	56
IN.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Indiana Counties (percentages unless stated otherwise) .....	57
IN.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Indiana Counties .....	58
IN.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Indiana Counties .....	59
IN.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Indiana Counties (Percentages) .....	60
IN.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Indiana Counties.....	61
IN.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Indiana Counties .....	62
IN.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Indiana Counties .....	63
IN.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Indiana Counties.....	64
OKC.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Oklahoma City (percentages unless stated otherwise) .....	65
OKC.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Followup: Oklahoma City.....	66
OKC.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Followup: Oklahoma City.....	67
OKC.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Oklahoma City (Percentages).....	68
OKC.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Oklahoma City .....	69
OKC.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Oklahoma City.....	70
OKC.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Oklahoma City.....	71



OKC.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Oklahoma City .....	72
SA.1.	Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: San Angelo (percentages unless stated otherwise) .....	73
SA.2a.	Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: San Angelo.....	74
SA.2b.	Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: San Angelo.....	75
SA.3.	Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: San Angelo (Percentages).....	76
SA.4.	Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: San Angelo .....	77
SA.5.	Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: San Angelo .....	78
SA.6.	Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: San Angelo .....	79
SA.7.	Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: San Angelo .....	80



**Table FS.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: All Sites Combined (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved	57.4	60.5	-3.2*	0.053	-0.079
Living together (married or unmarried)	46.9	49.5	-2.6*	0.100	-0.064
Married	20.6	20.9	-0.3	0.817	-0.011
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	79.0	81.5	-2.5*	0.085	-0.095
Steady relationship	48.9	51.6	-2.7*	0.095	-0.066
Living together (unmarried)	28.2	30.6	-2.4	0.102	-0.071
Living together all the time (married or unmarried)	36.7	40.7	-3.9**	0.014	-0.101
Married or engaged with a wedding date	24.7	25.1	-0.5	0.733	-0.015
Married or both report likelihood of marriage is high <sup>a</sup>	41.4	43.7	-2.3	0.149	-0.058
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.06	3.00	0.06**	0.015	0.083
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.16	3.11	0.05**	0.044	0.076
<b>Sample Size</b>					
<b>Couples</b>	<b>2,129</b>	<b>2,118</b>			
<b>Mothers</b>	<b>1,997</b>	<b>1,984</b>			
<b>Fathers</b>	<b>1,719</b>	<b>1,707</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FS.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: All Sites Combined**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.29	8.30	-0.01	0.868	-0.008
Support and affection scale (range: 1 to 4)	3.43	3.43	0.00	0.989	0.001
Use of constructive conflict behaviors scale (range: 1 to 4)	3.22	3.22	-0.01	0.770	-0.011
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.75	2.78	-0.03	0.130	-0.054
Neither member of the couple was unfaithful since random assignment (%)	58.2	59.0	-0.8	0.628	-0.020
<b>Secondary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	3.01	3.02	-0.02	0.532	-0.022
Relationship commitment scale, minimum (range: 1 to 4)	1.39	1.41	0.02	0.253	-0.056
Relationship commitment scale, average (range: 1 to 4)	1.66	1.69	0.03	0.156	-0.062
<b>Sample Size</b>					
<b>Couples</b>	<b>2,129</b>	<b>2,118</b>			
<b>Couples in regular contact</b>	<b>1,717</b>	<b>1,742</b>			
<b>Romantically involved couples</b>	<b>1,233</b>	<b>1,253</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship happiness, the full support and affection scale, and the commitment measures are available for couples who were still romantically involved at follow-up. Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FS.2b. Impacts of Building Strong Families on Partner-Level Measure of Relationship Quality at 36-Month Follow-Up: All Sites Combined**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.16	8.21	-0.05	0.550	-0.029
Support and affection scale (range: 1 to 4)	3.38	3.40	-0.02	0.480	-0.033
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.76	2.79	-0.03	0.256	-0.042
Use of constructive conflict behaviors scale (range: 1 to 4)	3.17	3.18	-0.01	0.764	-0.011
Not unfaithful since random assignment (%)	67.3	69.0	-1.7	0.347	-0.047
Relationship happiness scale including new partners (range 0 to 10)	8.31	8.31	0.00	0.965	-0.002
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.47	8.42	0.04	0.562	0.028
Support and affection scale (range: 1 to 4)	3.49	3.47	0.02	0.395	0.042
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.72	2.76	-0.04	0.219	-0.050
Use of constructive conflict behaviors scale (range: 1 to 4)	3.28	3.28	0.01	0.828	0.009
Not unfaithful since random assignment (%)	78.1	78.7	-0.6	0.742	-0.021
Relationship happiness scale including new partners (range 0 to 10)	8.48	8.42	0.06	0.434	0.037
<b>Sample Size</b>					
<b>Couples</b>	<b>2,129</b>	<b>2,118</b>			
<b>Couples in regular contact</b>	<b>1,717</b>	<b>1,742</b>			
<b>Romantically involved couples</b>	<b>1,233</b>	<b>1,253</b>			
<b>Mothers</b>	<b>1,997</b>	<b>1,984</b>			
<b>Fathers</b>	<b>1,719</b>	<b>1,707</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship happiness, the full support and affection scale, and the commitment measures are available for couples who were still romantically involved at follow-up. Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FS.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: All Sites Combined (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	8.5	7.0	1.5	0.115	0.130
<b>Secondary Outcomes</b>					
Any physical assault	15.8	16.4	-0.6	0.670	-0.025
More than one severe physical assault	7.2	5.2	2.0**	0.018	0.207
Any physical injury	2.9	2.4	0.4	0.474	0.100
Any sexual coercion	1.7	1.8	-0.1	0.866	-0.029
Any severe physical assault, physical injury, or sexual coercion	9.3	7.8	1.5	0.147	0.115
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	9.3	7.8	1.5	0.147	0.115
<b>Secondary Outcomes</b>					
Any physical assault	19.6	20.9	-1.3	0.382	-0.050
More than one severe physical assault	5.8	6.2	-0.4	0.649	-0.044
Any physical injury	1.4	0.9	0.4	0.325	0.236
Any sexual coercion	0.7	0.7	0.0	0.906	-0.034
Any severe physical assault, physical injury, or sexual coercion	8.6	9.0	-0.4	0.711	-0.031
<b>Sample Size</b>					
<b>Mothers</b>	<b>1,997</b>	<b>1,984</b>			
<b>Fathers</b>	<b>1,719</b>	<b>1,707</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FS.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: All Sites Combined**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.19	4.21	-0.02	0.510	-0.022
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	50.1	51.8	-1.7	0.308	-0.040
Regularly spends time with child (%)	52.4	56.1	-3.6**	0.032	-0.089
Engagement with child (range: 1 to 6)	4.22	4.26	-0.04	0.429	-0.031
Provides substantial financial support for child (mother report) (%)	62.8	65.6	-2.8*	0.096	-0.073
Parental responsiveness (observed) (range: 1 to 7)	4.60	4.53	0.06	0.282	0.075
<b>Secondary Outcomes</b>					
Engagement in caregiving activities (range: 1 to 6)	4.64	4.73	-0.09	0.125	-0.059
Engagement in physical play (range: 1 to 6)	4.01	4.01	-0.01	0.897	-0.005
Engagement in cognitive and social play (range: 1 to 6)	4.18	4.22	-0.04	0.425	-0.031
Sometimes lives with child (%)	83.8	83.8	0.0	0.977	0.002
Self-reported parental warmth (range: 1 to 4)	3.65	3.68	-0.03	0.369	-0.035
Used harsh discipline in past month (%)	5.7	4.8	0.9	0.346	0.107
Hostile parenting behavior (observed) (range: 1 to 7)	2.59	2.58	0.01	0.884	0.010
<b>Sample Size</b>					
<b>Couples</b>	<b>2,129</b>	<b>2,118</b>			
<b>Mothers</b>	<b>1,997</b>	<b>1,984</b>			
<b>Fathers</b>	<b>1,719</b>	<b>1,707</b>			
<b>Fathers who participated in direct assessment</b>	<b>675</b>	<b>634</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. Measures of observed parental responsiveness and hostile parenting behavior are defined for fathers who participated in the direct assessment. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of direct assessment fathers does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FS.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: All Sites Combined**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.91	4.95	-0.04	0.281	-0.041
Parental responsiveness (observed) (range: 1 to 7)	4.58	4.48	0.10*	0.055	0.110
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.88	3.90	-0.02	0.170	-0.060
Observed parental warmth (range: 0 to 6)	5.64	5.52	0.12**	0.022	0.120
Used harsh discipline in past month (%)	6.2	5.1	1.0	0.237	0.116
Hostile parenting behavior (observed) (range: 1 to 7)	2.71	2.76	-0.04	0.430	-0.043
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.48	4.82	-0.34	0.116	-0.053
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.58	1.61	-0.03	0.116	-0.054
Has moderate-to-large social support network (%)	70.9	70.2	0.8	0.629	0.022
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.05	4.28	-0.23	0.284	-0.038
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.59	1.60	-0.01	0.780	-0.012
Has moderate-to-large social support network (%)	75.1	75.6	-0.5	0.797	-0.015
<b>Sample Size</b>					
<b>Mothers</b>	<b>1,997</b>	<b>1,984</b>			
<b>Fathers</b>	<b>1,719</b>	<b>1,707</b>			
<b>Mothers who participated in direct assessment</b>	<b>988</b>	<b>987</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Observed parental warmth and hostile parenting behavior are defined for mothers who participated in the direct assessment. Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table FS.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: All Sites Combined**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	42.3	42.7	-0.4	0.810	-0.010
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	10.1	7.6	2.5**	0.015	0.189
Father has new cohabiting partner (%)	8.7	6.5	2.2**	0.040	0.189
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	46.5	46.9	-0.4	0.824	-0.010
Family experienced difficulty meeting housing expenses during past year (%)	44.1	44.0	0.1	0.956	0.002
Family receiving SNAP or TANF (%)	66.4	65.4	0.9	0.564	0.025
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.2	1.2	0.0	0.666	-0.015
Family receiving TANF (%)	8.2	9.2	-1.1	0.289	-0.080
Family receiving food stamps (%)	66.0	65.1	0.9	0.590	0.023
Child has health insurance coverage (%)	95.2	95.2	0.1	0.936	0.008
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	85.5	86.3	-0.9	0.495	-0.042
Child regularly eats the evening meal with a parent (%)	75.0	73.7	1.3	0.420	0.040
<b>Sample Size</b>					
<b>Children</b>	<b>2,129</b>	<b>2,118</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>1,997</b>	<b>1,984</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>1,719</b>	<b>1,707</b>			
<b>Children living with at least one parent</b>	<b>2,116</b>	<b>2,096</b>			
<b>Children in regular contact with at least one parent</b>	<b>1,713</b>	<b>1,740</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FS.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: All Sites Combined**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.38	1.41	-0.02**	0.040	-0.078
Emotional insecurity amid parental conflict (range: 1 to 4)	1.40	1.42	-0.02	0.430	-0.032
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.39	3.39	0.00	0.988	-0.001
Internalizing behavior problems (range: 1 to 3)	1.21	1.22	-0.01	0.207	-0.048
Externalizing behavior problems (range: 1 to 3)	1.54	1.57	-0.03**	0.021	-0.086
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	89.46	89.18	0.28	0.774	0.020
<b>Secondary Outcomes</b>					
Sustained attention with objects	5.18	5.17	0.01	0.819	0.013
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	86.3	84.2	2.1	0.102	0.100
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	81.6	81.9	-0.3	0.857	-0.010
Mild/moderate asthma	7.2	6.7	0.5	0.569	0.049
Severe asthma	11.2	11.5	-0.3	0.825	-0.016
<b>Sample Size</b>					
Children in regular contact with at least one parent	2,122	2,112			
Children with parents still in regular contact	1,713	1,740			
Children whose mother participated in the direct assessment	988	987			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combine responses from mothers and fathers and are defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. The language and cognitive development measures are available for the subset of children whose mother completed an direct assessment. Details on the construction of these measures are provided in Chapter V.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Atlanta (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved	54.2	56.1	-1.9	0.601	-0.046
Living together (married or unmarried)	42.9	43.8	-0.9	0.792	-0.023
Married	19.1	15.4	3.7	0.179	0.158
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	78.8	76.2	2.6	0.416	0.091
Steady relationship	44.3	44.4	-0.1	0.980	-0.002
Living together (unmarried)	25.2	29.5	-4.3	0.181	-0.132
Living together all the time (married or unmarried)	30.5	32.7	-2.2	0.521	-0.062
Married or engaged with a wedding date	22.1	20.8	1.3	0.710	0.048
Married or both report likelihood of marriage is high <sup>a</sup>	37.3	37.6	-0.3	0.923	-0.009
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.14	3.17	-0.02	0.654	-0.033
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.12	3.21	-0.09	0.119	-0.129
<b>Sample Size</b>					
<b>Couples</b>	<b>380</b>	<b>371</b>			
<b>Mothers</b>	<b>361</b>	<b>350</b>			
<b>Fathers</b>	<b>316</b>	<b>295</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Followup: Atlanta**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	2.94	2.94	0.00	0.951	-0.004
Use of constructive conflict behaviors scale (range: 1 to 4)	3.19	3.18	0.01	0.901	0.010
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.67	2.79	-0.12**	0.021	-0.182
Neither member of the couple was unfaithful since random assignment (%)	51.0	47.7	3.3	0.365	0.080
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.09	8.24	-0.15	0.281	-0.111
Support and affection scale (range: 1 to 4)	3.35	3.40	-0.05	0.266	-0.121
Relationship commitment scale, minimum (range: 1 to 4)	1.47	1.47	-0.01	0.908	-0.013
Relationship commitment scale, average (range: 1 to 4)	1.76	1.76	0.00	0.942	0.007
<b>Sample Size</b>					
<b>Couples</b>	380	371			
<b>Couples in regular contact</b>	303	289			
<b>Romantically involved couples</b>	208	200			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship happiness, the full support and affection scale, and the commitment measures are available for couples who were still romantically involved at followup, a sample that, for this local program, met the standards for attrition and equivalence discussed in Chapter III. Conflict behavior measures available for couples still in regular contact. The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The samples of couples in regular contact and couples in romantic relationships do not meet the study's standards for low sample attrition. Although the BSF and control group members of these analysis samples meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Followup: Atlanta**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.05	8.03	0.01	0.945	0.007
Support and affection scale (range: 1 to 4)	3.33	3.31	0.02	0.755	0.033
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.71	2.81	-0.09	0.165	-0.115
Use of constructive conflict behaviors scale (range: 1 to 4)	3.16	3.12	0.04	0.475	0.060
Not unfaithful since random assignment (%)	59.4	58.4	1.0	0.803	0.024
Relationship happiness scale including new partners (range 0 to 10)	8.16	8.19	-0.02	0.893	-0.013
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.15	8.40	-0.25	0.151	-0.161
Support and affection scale (range: 1 to 4)	3.35	3.49	-0.14***	0.005	-0.300
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.62	2.78	-0.16**	0.018	-0.216
Use of constructive conflict behaviors scale (range: 1 to 4)	3.24	3.26	-0.01	0.835	-0.019
Not unfaithful since random assignment (%)	74.7	71.5	3.3	0.451	0.100
Relationship happiness scale including new partners (range 0 to 10)	8.26	8.37	-0.11	0.527	-0.069
<b>Sample Size</b>					
<b>Couples</b>	380	371			
<b>Couples in regular contact</b>	303	289			
<b>Romantically involved couples</b>	208	200			
<b>Mothers</b>	361	350			
<b>Fathers</b>	316	295			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship happiness, the full support and affection scale, and the commitment measures are available for couples who were still romantically involved at followup, a sample that, for this local program, met the standards for attrition and equivalence discussed in Chapter III. Conflict behavior measures available for couples still in regular contact. The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The samples of couples in regular contact, couples in romantic relationships, and father survey respondents do not meet the study's standards for low sample attrition. Although the BSF and control group members of these analysis samples meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Atlanta (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	8.6	11.0	-2.3	0.266	-0.161
<b>Secondary Outcomes</b>					
Any physical assault	17.8	19.7	-1.9	0.516	-0.074
More than one severe physical assault	0.0	0.5	-0.5	0.765	-0.024
Any physical injury	5.6	3.7	1.9	0.147	0.259
Any sexual coercion	2.5	2.0	0.4	0.684	0.117
Any severe physical assault, physical injury, or sexual coercion	9.8	12.0	-2.2	0.323	-0.136
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	12.3	15.7	-3.4	0.144	-0.171
<b>Secondary Outcomes</b>					
Any physical assault	26.1	25.1	1.0	0.770	0.031
More than one severe physical assault	0.7	2.0	-1.3	0.498	-0.656
Any physical injury	2.9	2.7	0.2	0.849	0.042
Any sexual coercion	0.9	0.6	0.4	0.597	0.307
Any severe physical assault, physical injury, or sexual coercion	13.3	17.2	-3.8	0.113	-0.180
<b>Sample Size</b>					
<b>Mothers</b>	<b>361</b>	<b>350</b>			
<b>Fathers</b>	<b>316</b>	<b>295</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Atlanta**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.20	4.18	-0.02	0.763	0.022
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	45.5	45.1	0.4	0.919	0.009
Regularly spends time with child (%)	50.7	47.5	3.2	0.379	0.078
Engagement with child (range: 1 to 6)	4.15	4.17	-0.02	0.845	-0.017
Provides substantial financial support for child (mother report) (%)	60.0	58.5	1.5	0.692	0.037
Parental responsiveness (observed) (range: 1 to 7)	4.48	4.51	-0.02	0.835	-0.029
<b>Secondary Outcomes</b>					
Engagement in caregiving activities (range: 1 to 6)	4.53	4.54	-0.01	0.943	--0.006
Engagement in physical play (range: 1 to 6)	3.94	4.01	-0.07	0.533	-0.055
Engagement in cognitive and social play (range: 1 to 6)	4.12	4.08	0.03	0.779	0.024
Sometimes lives with child (%)	81.6	79.1	2.5	0.459	0.097
Self-reported parental warmth (range: 1 to 4)	3.53	3.57	-0.04	0.571	-0.054
Used harsh discipline in past month (%)	10.0	9.8	0.2	0.945	0.010
Hostile parenting behavior (observed) (range: 1 to 7)	2.70	2.73	-0.03	0.832	-0.029
<b>Sample Size</b>					
<b>Couples</b>	<b>380</b>	<b>371</b>			
<b>Mothers</b>	<b>361</b>	<b>350</b>			
<b>Fathers</b>	<b>316</b>	<b>295</b>			
<b>Fathers who participated in direct assessment</b>	<b>175</b>	<b>156</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV. The samples of father survey respondents and direct assessment fathers do not meet the study's standards for low sample attrition. Although the BSF and control group members of these analysis samples meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Atlanta**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.97	4.94	0.03	0.650	0.038
Parental responsiveness (observed) (range: 1 to 7)	4.43	4.61	-0.18*	0.083	-0.203
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.89	3.88	0.01	0.785	0.026
Used harsh discipline in past month (%)	8.0	7.6	0.4	0.830	0.035
Hostile parenting behavior (observed) (range: 1 to 7)	3.08	2.81	0.27***	0.005	0.274
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	5.04	5.41	-0.36	0.433	-0.057
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.60	1.66	-0.06	0.115	-0.118
Has moderate-to-large social support network (%)	64.7	63.2	1.4	0.684	0.037
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	5.03	5.29	-0.25	0.593	-0.042
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.66	1.65	0.00	0.932	0.008
Has moderate-to-large social support network (%)	70.7	7.05	0.2	0.961	0.006
<b>Sample Size</b>					
<b>Mothers</b>	<b>361</b>	<b>350</b>			
<b>Fathers</b>	<b>316</b>	<b>295</b>			
<b>Mothers who participated in direct assessment</b>	<b>241</b>	<b>229</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition. The sample of direct assessment mothers does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table ATL6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Atlanta**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	39.4	39.1	0.3	0.932	0.008
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	9.5	9.5	0.0	0.991	0.002
Father has new cohabiting partner (%)	12.3	9.3	3.1	0.186	0.193
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	58.5	58.9	-0.3	0.935	-0.008
Family experienced difficulty meeting housing expenses during past year (%)	40.5	44.7	-4.2	0.260	-0.105
Family receiving SNAP or TANF (%)	80.1	77.2	3.0	0.366	0.107
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.1	1.0	0.0	0.527	0.046
Family receiving TANF (%)	6.9	7.2	-0.3	0.888	-0.030
Family receiving food stamps (%)	79.9	76.6	3.4	0.308	0.120
Child has health insurance coverage (%)	95.3	96.2	-0.9	0.582	-0.134
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	82.9	84.5	-1.7	0.611	-0.074
Child regularly eats the evening meal with a parent (%)	70.6	70.0	0.6	0.869	0.017
<b>Sample Size</b>					
<b>Children</b>	<b>380</b>	<b>371</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>361</b>	<b>350</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>316</b>	<b>295</b>			
<b>Children living with at least one parent</b>	<b>378</b>	<b>366</b>			
<b>Children in regular contact with at least one parent</b>	<b>303</b>	<b>289</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V. The sample of father survey respondents does not meet the study’s standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study’s standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table ATL.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Atlanta**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.38	1.40	-0.02	0.369	-0.071
Emotional insecurity amid parental conflict (range: 1 to 4)	1.40	1.35	0.05	0.334	0.093
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.38	3.37	0.01	0.750	0.024
Internalizing behavior problems (range: 1 to 3)	1.21	1.23	-0.01	0.472	-0.059
Externalizing behavior problems (range: 1 to 3)	1.53	1.55	-0.02	0.391	-0.068
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	90.05	88.76	1.30	0.442	0.090
<b>Secondary Outcomes</b>					
Sustained attention with objects	5.20	5.35	-0.16	0.137	-0.184
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	85.2	86.9	-1.7	0.550	-0.084
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	77.2	78.4	-1.2	0.714	-0.041
Mild/moderate asthma	7.1	7.1	0.0	0.997	-0.001
Severe asthma	15.7	14.6	1.2	0.656	0.056
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>380</b>	<b>370</b>			
<b>Children with parents still in regular contact</b>	<b>303</b>	<b>289</b>			
<b>Children whose mother participated in the direct assessment</b>	<b>241</b>	<b>229</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combines responses from mothers and fathers and is defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V. The sample of couples in regular contact does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition. The sample of mothers participating in the direct assessment does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Baltimore (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	41.6	48.2	-6.6	0.145	-0.162
Living together (married or unmarried)	30.0	35.1	-5.1	0.251	-0.142
Married	10.4	10.5	-0.1	0.977	-0.006
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	74.4	76.8	-2.4	0.553	-0.079
Steady relationship	32.9	36.9	-4.0	0.381	-0.106
Living together (unmarried)	21.9	25.5	-3.6	0.379	-0.122
Living together all the time (married or unmarried)	21.5	27.3	-5.8	0.182	-0.191
Married or engaged with a wedding date	14.2	14.5	-0.3	0.937	-0.016
Married or both report likelihood of marriage is high <sup>a</sup>	29.5	30.6	-1.1	0.804	-0.032
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.05	3.00	0.05	0.486	0.065
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.10	2.95	0.14**	0.047	0.207
<b>Sample Size</b>					
<b>Couples</b>	<b>273</b>	<b>261</b>			
<b>Mothers</b>	<b>255</b>	<b>248</b>			
<b>Fathers</b>	<b>206</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Baltimore**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	2.79	2.88	-0.09	0.177	-0.118
Use of constructive conflict behaviors scale (range: 1 to 4)	3.05	3.16	-0.10	0.133	-0.179
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.57	2.64	-0.07	0.287	-0.113
Neither member of the couple was unfaithful since random assignment (%)	42.3	42.4	-0.1	0.980	-0.003
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	7.82	8.18	-0.36*	0.077	-0.260
Support and affection scale (range: 1 to 4)	3.31	3.42	-0.11*	0.063	-0.270
Relationship commitment scale, minimum (range: 1 to 4)	1.50	1.51	-0.01	0.912	-0.018
Relationship commitment scale, average (range: 1 to 4)	1.81	1.80	0.00	0.978	-0.004
<b>Sample Size</b>					
<b>Couples</b>	<b>273</b>	<b>261</b>			
<b>Couples in regular contact</b>	<b>210</b>	<b>201</b>			
<b>Romantically involved couples</b>	<b>123</b>	<b>126</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Baltimore**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	7.60	8.22	-0.62**	0.045	-0.333
Support and affection scale (range: 1 to 4)	3.24	3.41	-0.17**	0.028	-0.329
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.64	2.67	-0.02	0.795	-0.028
Use of constructive conflict behaviors scale (range: 1 to 4)	3.01	3.13	-0.12	0.153	-0.159
Not unfaithful since random assignment (%)	51.8	52.7	-0.9	0.843	-0.023
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.16	8.22	-0.05	0.832	-0.034
Support and affection scale (range: 1 to 4)	3.37	3.42	-0.05	0.473	-0.112
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.45	2.58	-0.14	0.116	-0.184
Use of constructive conflict behaviors scale (range: 1 to 4)	3.11	3.20	-0.09	0.264	-0.135
Not unfaithful since random assignment (%)	64.1	73.0	-8.8**	0.045	-0.250
<b>Sample Size</b>					
<b>Couples</b>	<b>273</b>	<b>261</b>			
<b>Couples in regular contact</b>	<b>210</b>	<b>201</b>			
<b>Romantically involved couples</b>	<b>123</b>	<b>126</b>			
<b>Mothers</b>	<b>255</b>	<b>248</b>			
<b>Fathers</b>	<b>206</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Baltimore (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	9.5	7.3	2.1	0.423	0.169
<b>Secondary Outcomes</b>					
Any physical assault	21.0	17.8	3.2	0.382	0.125
More than one severe physical assault	9.1	6.9	2.2	0.332	0.185
Any physical injury	3.3	2.5	0.8	0.635	0.171
Any sexual coercion	0.8	2.5	-1.7	0.205	-0.700
Any severe physical assault, physical injury, or sexual coercion	9.8	7.8	2.0	0.473	0.153
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	12.3	10.8	1.5	0.615	0.088
<b>Secondary Outcomes</b>					
Any physical assault	29.1	29.0	0.1	0.986	0.002
More than one severe physical assault	11.6	10.0	1.6	0.505	0.103
Any physical injury	1.4	0.3	1.1	0.373	0.929
Any sexual coercion	0.9	2.7	-1.8**	0.047	-0.650
Any severe physical assault, physical injury, or sexual coercion	12.8	12.5	0.4	0.905	0.020
<b>Sample Size</b>					
<b>Mothers</b>	<b>255</b>	<b>248</b>			
<b>Fathers</b>	<b>206</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Baltimore**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.05	4.05	0.00	0.998	0.000
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	33.8	36.2	-2.4	0.606	-0.063
Regularly spends time with child (%)	39.4	47.2	-7.8*	0.090	-0.193
Engagement with child (range: 1 to 6)	4.05	4.11	-0.06	0.657	-0.049
Provides substantial financial support for child (mother report) (%)	46.7	50.7	-4.0	0.385	-0.098
<b>Secondary Outcomes</b>					
Engagement in care-giving activities (range: 1 to 6)	4.44	4.58	-0.14	0.392	-0.092
Engagement in physical play (range: 1 to 6)	3.87	3.86	0.01	0.942	0.008
Engagement in cognitive and social play (range: 1 to 6)	3.97	4.07	-0.09	0.516	-0.070
Sometimes lives with child (%)	75.3	74.5	0.7	0.858	0.023
Self-reported parental warmth (range: 1 to 4)	3.62	3.62	0.00	0.982	-0.003
Used harsh discipline in past month (%)	7.0	4.7	2.3	0.383	0.259
<b>Sample Size</b>					
<b>Couples</b>	<b>273</b>	<b>261</b>			
<b>Mothers</b>	<b>255</b>	<b>248</b>			
<b>Fathers</b>	<b>206</b>	<b>203</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Baltimore**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	5.02	5.01	0.00	0.968	0.004
Parental responsiveness (observed) (range: 1 to 7)	4.32	4.18	0.14	0.323	0.154
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.90	3.88	0.02	0.621	0.058
Used harsh discipline in past month (%)	8.3	6.1	2.2	0.353	0.201
Hostile parenting behavior (observed) (range: 1 to 7)	2.85	3.00	-0.15	0.324	-0.155
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	6.00	5.07	0.93	0.115	0.146
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.57	1.63	-0.06	0.236	-0.113
Has moderate-to-large social support network (%)	63.4	66.3	-2.8	0.528	-0.075
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	6.02	5.08	0.93	0.118	0.155
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.64	1.64	-0.01	0.939	-0.010
Has moderate-to-large social support network (%)	71.0	73.6	-2.6	0.622	-0.078
<b>Sample Size</b>					
<b>Mothers</b>	<b>255</b>	<b>248</b>			
<b>Fathers</b>	<b>206</b>	<b>203</b>			
<b>Mothers who participated in direct assessment</b>	<b>103</b>	<b>121</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of direct assessment mothers does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table BAL.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Baltimore**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	22.2	26.9	-4.8	0.276	-0.156
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	15.9	11.9	4.0	0.161	0.203
Father has new cohabiting partner (%)	13.3	6.6	6.7**	0.023	0.469
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	53.4	53.5	-0.1	0.980	-0.003
Family experienced difficulty meeting housing expenses during past year (%)	43.9	39.8	4.1	0.389	0.103
Family receiving SNAP or TANF (%)	80.3	80.1	0.2	0.967	0.007
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.1	1.1	0.0	0.787	0.028
Family receiving TANF (%)	20.3	26.5	-6.2**	0.027	-0.211
Family receiving food stamps (%)	80.1	79.4	0.7	0.881	0.026
Child has health insurance coverage (%)	99.0	97.8	1.2	0.539	0.480
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	82.5	87.7	-5.2	0.188	-0.251
Child regularly eats the evening meal with a parent (%)	67.5	69.3	-1.7	0.713	-0.049
<b>Sample Size</b>					
<b>Children</b>	<b>273</b>	<b>261</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>255</b>	<b>248</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>206</b>	<b>203</b>			
<b>Children living with at least one parent</b>	<b>272</b>	<b>258</b>			
<b>Children in regular contact with at least one parent</b>	<b>210</b>	<b>201</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BAL.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Baltimore**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.40	1.41	0.00	0.907	-0.012
Emotional insecurity amid parental conflict (range: 1 to 4)	1.40	1.49	-0.09	0.139	-0.170
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.47	3.46	0.01	0.914	0.010
Internalizing behavior problems (range: 1 to 3)	1.21	1.22	-0.01	0.698	-0.039
Externalizing behavior problems (range: 1 to 3)	1.57	1.57	0.00	0.910	0.012
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	88.44	89.73	-1.29	0.577	-0.089
<b>Secondary Outcomes</b>					
Sustained attention with objects	4.97	5.06	-0.09	0.477	-0.111
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	86.1	85.7	0.4	0.907	0.021
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	71.9	76.7	-4.8	0.213	-0.152
Mild/moderate asthma	7.5	6.5	1.0	0.729	0.092
Severe asthma	20.6	16.8	3.8	0.240	0.152
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>272</b>	<b>261</b>			
<b>Children with parents still in regular contact</b>	<b>210</b>	<b>201</b>			
<b>Children whose mother participated in the direct assessment</b>	<b>103</b>	<b>121</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combines responses from mothers and fathers and is defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V. The sample of mothers participating in the direct assessment does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Baton Rouge (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	51.5	52.9	-1.4	0.744	-0.034
Living together (married or unmarried)	40.0	44.1	-4.1	0.352	-0.102
Married	22.5	21.8	0.6	0.856	0.021
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	73.3	78.6	-5.3	0.157	-0.175
Steady relationship	44.5	46.8	-2.4	0.599	-0.058
Living together (unmarried)	19.5	25.8	-6.3	0.126	-0.218
Living together all the time (married or unmarried)	30.8	35.4	-4.6	0.269	-0.127
Married or engaged with a wedding date	29.8	28.0	1.8	0.636	0.053
Married or both report likelihood of marriage is high <sup>a</sup>	36.5	45.4	-8.9*	0.067	-0.223
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.19	3.21	-0.02	0.806	-0.023
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.29	3.25	0.04	0.583	0.055
<b>Sample Size</b>					
<b>Couples</b>	<b>244</b>	<b>259</b>			
<b>Mothers</b>	<b>224</b>	<b>236</b>			
<b>Fathers</b>	<b>200</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Baton Rouge**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	2.95	2.98	-0.03	0.580	-0.047
Use of constructive conflict behaviors scale (range: 1 to 4)	3.20	3.20	-0.01	0.912	-0.012
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.69	2.79	-0.10	0.153	-0.151
Neither member of the couple was unfaithful since random assignment (%)	50.5	53.4	-2.9	0.507	-0.070
Not unfaithful since random assignment (%)	76.6	76.9	-0.4	0.942	-0.013
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.14	8.38	-0.24	0.194	-0.177
Support and affection scale (range: 1 to 4)	3.41	3.50	-0.08	0.104	-0.204
Relationship commitment scale, minimum (range: 1 to 4)	1.36	1.36	0.00	1.000	0.000
Relationship commitment scale, average (range: 1 to 4)	1.66	1.65	0.02	0.731	0.043
<b>Sample Size</b>					
<b>Couples</b>	<b>244</b>	<b>259</b>			
<b>Couples in regular contact</b>	<b>186</b>	<b>208</b>			
<b>Romantically involved couples</b>	<b>133</b>	<b>136</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of couples in regular contact does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Baton Rouge**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	7.91	8.14	-0.22	0.369	-0.121
Support and affection scale (range: 1 to 4)	3.36	3.46	-0.11	0.116	-0.203
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.72	2.85	-0.14*	0.092	-0.171
Use of constructive conflict behaviors scale (range: 1 to 4)	3.15	3.17	-0.02	0.845	-0.021
Not unfaithful since random assignment (%)	58.7	61.0	-2.2	0.633	-0.056
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.31	8.77	-0.46**	0.034	-0.298
Support and affection scale (range: 1 to 4)	3.49	3.54	-0.05	0.436	-0.108
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.66	2.72	-0.06	0.450	-0.084
Use of constructive conflict behaviors scale (range: 1 to 4)	3.26	3.29	-0.03	0.710	-0.043
Not unfaithful since random assignment (%)	76.6	76.9	-0.4	0.942	-0.013
<b>Sample Size</b>					
<b>Couples</b>	<b>244</b>	<b>259</b>			
<b>Couples in regular contact</b>	<b>186</b>	<b>208</b>			
<b>Romantically involved couples</b>	<b>133</b>	<b>136</b>			
<b>Mothers</b>	<b>224</b>	<b>236</b>			
<b>Fathers</b>	<b>200</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of couples in regular contact does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Baton Rouge (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	9.6	7.2	2.4	0.353	0.188
<b>Secondary Outcomes</b>					
Any physical assault	17.4	16.9	0.5	0.888	0.021
More than one severe physical assault	9.3	7.1	2.2	0.321	0.178
Any physical injury	5.0	4.7	0.3	0.837	0.042
Any sexual coercion	1.4	2.3	-0.9	0.465	-0.321
Any severe physical assault, physical injury, or sexual coercion	10.4	8.7	1.7	0.530	0.118
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	9.3	5.8	3.5	0.211	0.312
<b>Secondary Outcomes</b>					
Any physical assault	20.6	22.1	-1.5	0.709	-0.055
More than one severe physical assault	8.2	5.2	3.0	0.192	0.300
Any physical injury	1.0	0.9	0.1	0.948	0.050
Any sexual coercion	0.0	0.6	-0.7	0.394	-0.084
Any severe physical assault, physical injury, or sexual coercion	9.6	6.4	3.2	0.267	0.270
<b>Sample Size</b>					
<b>Mothers</b>	<b>224</b>	<b>236</b>			
<b>Fathers</b>	<b>200</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Baton Rouge**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.17	4.17	0.00	0.950	-0.006
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	43.6	48.1	-4.5	0.290	-0.109
Regularly spends time with child (%)	47.2	51.2	-4.1	0.385	-0.099
Engagement with child (range: 1 to 6)	4.24	4.19	0.05	0.718	0.037
Provides substantial financial support for child (mother report) (%)	60.3	62.0	-1.7	0.706	-0.043
Parental responsiveness (observed) (range: 1 to 7)	4.59	4.56	0.03	0.819	0.038
<b>Secondary Outcomes</b>					
Engagement in caregiving activities (range: 1 to 6)	4.69	4.61	0.09	0.580	0.058
Engagement in physical play (range: 1 to 6)	4.05	3.97	0.09	0.511	0.069
Engagement in cognitive and social play (range: 1 to 6)	4.12	4.16	-0.04	0.784	-0.028
Sometimes lives with child (%)	83.7	83.5	0.1	0.972	0.006
Self-reported parental warmth (range: 1 to 4)	3.75	3.64	0.11	0.192	0.136
Used harsh discipline in past month (%)	8.9	7.1	1.8	0.471	0.150
Hostile parenting behavior (observed) (range: 1 to 7)	2.63	2.52	0.11	0.457	0.116
<b>Sample Size</b>					
<b>Couples</b>	<b>244</b>	<b>259</b>			
<b>Mothers</b>	<b>224</b>	<b>236</b>			
<b>Fathers</b>	<b>200</b>	<b>203</b>			
<b>Fathers who participated in direct assessment</b>	<b>114</b>	<b>99</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of fathers participating in the direct assessment does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Baton Rouge**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.94	5.02	-0.08	0.347	-0.095
Parental responsiveness (observed) (range: 1 to 7)	4.62	4.43	0.19	0.119	0.208
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.93	3.92	0.01	0.863	0.022
Used harsh discipline in past month (%)	8.2	4.5	3.6	0.124	0.382
Hostile parenting behavior (observed) (range: 1 to 7)	2.77	2.83	-0.06	0.620	-0.060
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.65	5.01	-0.37	0.513	-0.058
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.56	1.56	0.00	0.993	-0.001
Has moderate-to-large social support network (%)	77.2	78.8	-1.6	0.715	-0.056
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.29	4.76	-0.47	0.410	-0.078
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.61	1.65	-0.05	0.428	-0.093
Has moderate-to-large social support network (%)	81.0	78.3	2.8	0.589	0.103
<b>Sample Size</b>					
<b>Mothers</b>	<b>224</b>	<b>236</b>			
<b>Fathers</b>	<b>200</b>	<b>203</b>			
<b>Mothers who participated in direct assessment</b>	<b>147</b>	<b>150</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table BR.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Baton Rouge**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	37.4	34.8	2.6	0.538	0.068
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	11.9	7.0	5.0*	0.067	0.362
Father has new cohabiting partner (%)	11.8	9.1	2.7	0.339	0.174
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	37.2	44.6	-7.4	0.111	-0.187
Family experienced difficulty meeting housing expenses during past year (%)	41.6	42.7	-1.2	0.800	-0.029
Family receiving SNAP or TANF (%)	68.0	70.1	-2.1	0.612	-0.059
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.4	1.4	0.0	0.625	0.045
Family receiving TANF (%)	4.2	8.6	-4.4	0.113	-0.456
Family receiving food stamps (%)	68.0	70.0	-1.9	0.636	-0.055
Child has health insurance coverage (%)	98.5	99.2	-0.8	0.688	-0.417
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	85.7	85.4	0.3	0.933	0.013
Child regularly eats the evening meal with a parent (%)	70.5	73.2	-2.7	0.512	-0.080
<b>Sample Size</b>					
<b>Children</b>	<b>244</b>	<b>259</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>224</b>	<b>236</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>200</b>	<b>203</b>			
<b>Children living with at least one parent</b>	<b>244</b>	<b>258</b>			
<b>Children in regular contact with at least one parent</b>	<b>186</b>	<b>208</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table BR.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Baton Rouge**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.39	1.39	0.00	0.946	0.006
Emotional insecurity amid parental conflict (range: 1 to 4)	1.39	1.39	0.00	0.969	-0.005
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.49	3.47	0.02	0.674	0.039
Internalizing behavior problems (range: 1 to 3)	1.21	1.20	0.01	0.803	0.023
Externalizing behavior problems (range: 1 to 3)	1.55	1.56	0.00	0.951	-0.006
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	88.34	89.13	-0.79	0.679	-0.054
<b>Secondary Outcomes</b>					
Sustained attention with objects	5.30	5.10	0.20	0.121	0.233
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	88.3	86.6	1.7	0.599	0.093
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	84.3	81.2	3.0	0.424	0.130
Mild/moderate asthma	4.8	6.6	-1.8	0.496	-0.201
Severe asthma	10.9	12.2	-1.3	0.703	-0.076
<b>Sample Size</b>					
Children in regular contact with at least one parent	244	259			
Children with parents still in regular contact	186	208			
Children whose mother participated in the direct assessment	147	150			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combines responses from mothers and fathers and is defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V. The sample of couples in regular contact does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Florida Counties (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	54.8	67.4	-12.7***	0.002	-0.325
Living together (married or unmarried)	39.5	51.7	-12.2***	0.003	-0.300
Married	15.8	20.3	-4.5	0.163	-0.185
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	78.0	86.9	-8.9**	0.013	-0.378
Steady relationship	45.7	55.5	-9.9**	0.020	-0.240
Living together (unmarried)	26.0	33.9	-7.9**	0.038	-0.230
Living together all the time (married or unmarried)	32.5	42.3	-9.8**	0.015	-0.255
Married or engaged with a wedding date	18.3	22.2	-3.9	0.282	-0.147
Married or both report likelihood of marriage is high <sup>a</sup>	37.6	44.4	-6.8*	0.098	-0.171
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.04	2.95	0.09	0.176	0.118
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.12	3.12	0.00	0.989	0.001
<b>Sample Size</b>					
<b>Couples</b>	<b>296</b>	<b>301</b>			
<b>Mothers</b>	<b>275</b>	<b>282</b>			
<b>Fathers</b>	<b>223</b>	<b>253</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Florida Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	3.00	3.09	-0.10	0.129	-0.135
Use of constructive conflict behaviors scale (range: 1 to 4)	3.20	3.26	-0.06	0.318	-0.099
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.77	2.87	-0.09	0.119	-0.145
Neither member of the couple was unfaithful since random assignment (%)	61.8	65.9	-4.0	0.352	-0.105
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.30	8.10	0.20	0.189	0.146
Support and affection scale (range: 1 to 4)	3.46	3.37	0.08*	0.058	0.207
Relationship commitment scale, minimum (range: 1 to 4)	1.39	1.48	-0.09*	0.073	-0.213
Relationship commitment scale, average (range: 1 to 4)	1.69	1.77	-0.09*	0.084	-0.196
<b>Sample Size</b>					
<b>Couples</b>	<b>296</b>	<b>301</b>			
<b>Couples in regular contact</b>	<b>240</b>	<b>266</b>			
<b>Romantically involved couples</b>	<b>169</b>	<b>203</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of couples in regular contact does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Florida Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.18	7.92	0.27	0.231	0.144
Support and affection scale (range: 1 to 4)	3.38	3.31	0.07	0.249	0.132
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.81	2.84	-0.03	0.741	-0.032
Use of constructive conflict behaviors scale (range: 1 to 4)	3.17	3.18	-0.01	0.887	-0.014
Not unfaithful since random assignment (%)	70.8	73.9	-3.1	0.497	-0.094
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.65	8.30	0.34*	0.075	0.222
Support and affection scale (range: 1 to 4)	3.57	3.42	0.15**	0.013	0.316
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.73	2.88	-0.14*	0.062	-0.193
Use of constructive conflict behaviors scale (range: 1 to 4)	3.28	3.34	-0.06	0.404	-0.089
Not unfaithful since random assignment (%)	80.8	84.7	-3.9	0.454	-0.167
<b>Sample Size</b>					
<b>Couples</b>	<b>296</b>	<b>301</b>			
<b>Couples in regular contact</b>	<b>240</b>	<b>266</b>			
<b>Romantically involved couples</b>	<b>169</b>	<b>203</b>			
<b>Mothers</b>	<b>275</b>	<b>282</b>			
<b>Fathers</b>	<b>223</b>	<b>253</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The samples of father survey respondents and couples in regular contact do not meet the study's standards for low sample attrition. Although the BSF and control group members of these analysis samples meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Florida Counties (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	5.4	6.2	-0.7	0.764	-0.083
<b>Secondary Outcomes</b>					
Any physical assault	12.6	12.2	0.4	0.902	0.023
More than one severe physical assault	4.6	5.8	-1.1	0.592	-0.141
Any physical injury	1.6	2.1	-0.5	0.730	-0.176
Any sexual coercion	1.3	2.0	-0.8	0.531	-0.292
Any severe physical assault, physical injury, or sexual coercion	5.6	7.4	-1.8	0.496	-0.178
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	4.9	4.3	0.6	0.822	0.085
<b>Secondary Outcomes</b>					
Any physical assault	12.6	14.6	-2.0	0.620	-0.102
More than one severe physical assault	4.5	4.2	0.3	0.885	0.048
Any physical injury	1.2	0.3	0.9	0.460	0.812
Any sexual coercion	1.0	0.0	1.1	0.183	0.128
Any severe physical assault, physical injury, or sexual coercion	5.6	4.2	1.4	0.631	0.180
<b>Sample Size</b>					
<b>Mothers</b>	<b>275</b>	<b>282</b>			
<b>Fathers</b>	<b>223</b>	<b>253</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Florida Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.22	4.35	-0.12*	0.059	-0.159
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	43.4	53.3	-9.9**	0.017	-0.242
Regularly spends time with child (%)	50.0	60.9	-10.9***	0.009	-0.269
Engagement with child (range: 1 to 6)	4.28	4.47	-0.19	0.117	-0.158
Provides substantial financial support for child (mother report) (%)	61.5	67.7	-6.3	0.137	-0.166
<b>Secondary Outcomes</b>					
Engagement in care-giving activities (range: 1 to 6)	4.70	5.00	-0.30**	0.042	-0.203
Engagement in physical play (range: 1 to 6)	4.01	4.14	-0.14	0.289	-0.108
Engagement in cognitive and social play (range: 1 to 6)	4.30	4.49	-0.19	0.153	-0.142
Sometimes lives with child (%)	85.8	88.6	-2.9	0.438	-0.155
Self-reported parental warmth (range: 1 to 4)	3.70	3.74	-0.05	0.570	-0.057
Used harsh discipline in past month (%)	1.2	4.0	-2.8	0.238	-0.745
<b>Sample Size</b>					
<b>Couples</b>	<b>296</b>	<b>301</b>			
<b>Mothers</b>	<b>275</b>	<b>282</b>			
<b>Fathers</b>	<b>223</b>	<b>253</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Florida Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	5.02	4.97	0.06	0.496	0.065
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.91	3.92	-0.01	0.767	-0.035
Used harsh discipline in past month (%)	4.2	5.0	-0.8	0.723	-0.105
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.19	5.28	-1.09**	0.046	-0.173
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.56	1.57	-0.01	0.863	-0.015
Has moderate-to-large social support network (%)	74.0	69.0	5.0	0.220	0.147
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.03	3.98	0.06	0.919	0.009
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.61	1.52	0.09	0.150	0.165
Has moderate-to-large social support network (%)	76.1	73.9	2.2	0.652	0.071
<b>Sample Size</b>					
<b>Mothers</b>	<b>275</b>	<b>282</b>			
<b>Fathers</b>	<b>223</b>	<b>253</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of father survey respondents does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

CES-D = Center for Epidemiologic Studies Depression Scale.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table FL.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Florida Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	33.4	46.6	-13.2***	0.001	-0.336
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	10.7	5.8	4.9*	0.065	0.399
Father has new cohabiting partner (%)	5.7	4.0	1.7	0.526	0.230
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	45.3	42.5	2.8	0.533	0.069
Family experienced difficulty meeting housing expenses during past year (%)	49.2	50.8	-1.5	0.725	-0.037
Family receiving SNAP or TANF (%)	55.0	55.7	-0.7	0.876	-0.017
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.2	1.3	-0.1	0.465	-0.059
Family receiving TANF (%)	6.0	8.2	-2.1	0.399	-0.198
Family receiving food stamps (%)	54.9	55.6	-0.7	0.878	-0.016
Child has health insurance coverage (%)	92.5	91.1	1.4	0.432	0.116
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	82.8	83.3	-0.5	0.866	-0.022
Child regularly eats the evening meal with a parent (%)	76.3	77.8	-1.5	0.696	-0.052
<b>Sample Size</b>					
<b>Children</b>	<b>296</b>	<b>301</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>275</b>	<b>382</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>223</b>	<b>253</b>			
<b>Children living with at least one parent</b>	<b>295</b>	<b>301</b>			
<b>Children in regular contact with at least one parent</b>	<b>240</b>	<b>266</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V. The sample of father survey respondents does not meet the study’s standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study’s standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table FL.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Florida Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.33	1.37	-0.04	0.109	-0.147
Emotional insecurity amid parental conflict (range: 1 to 4)	1.37	1.37	0.00	0.994	0.001
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.48	3.46	0.02	0.649	0.038
Internalizing behavior problems (range: 1 to 3)	1.17	1.19	-0.02	0.313	-0.091
Externalizing behavior problems (range: 1 to 3)	1.47	1.53	-0.06*	0.082	-0.163
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	87.1	84.6	2.5	0.437	0.124
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	82.0	83.2	-1.2	0.734	-0.052
Mild/moderate asthma	6.6	5.6	1.0	0.684	0.106
Severe asthma	11.4	11.2	0.2	0.944	0.013
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>296</b>	<b>301</b>			
<b>Children with parents still in regular contact</b>	<b>240</b>	<b>266</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combines responses from mothers and fathers and is defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V. The sample of couples in regular contact does not meet the study's standards for low sample attrition. Although the BSF and control group members of this analysis sample meet the study's standards for equivalence on key baseline measures, these estimates should be interpreted more cautiously than other experimental impacts because of the high rate of sample attrition.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Houston (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	76.8	77.6	-0.8	0.887	-0.027
Living together (married or unmarried)	70.9	71.0	0.0	0.995	-0.001
Married	29.9	27.0	2.9	0.496	0.087
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	89.5	88.1	1.4	0.766	0.084
Steady relationship	69.3	69.3	0.0	0.995	-0.001
Living together (unmarried)	43.5	46.8	-3.3	0.512	-0.080
Living together all the time (married or unmarried)	47.7	55.0	-7.4	0.184	-0.179
Married or engaged with a wedding date	33.6	30.5	3.2	0.507	0.088
Married or both report likelihood of marriage is high <sup>a</sup>	51.2	52.1	-0.9	0.879	-0.021
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.19	3.08	0.11	0.203	0.146
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.25	3.14	0.11	0.215	0.160
<b>Sample Size</b>					
<b>Couples</b>	<b>174</b>	<b>156</b>			
<b>Mothers</b>	<b>166</b>	<b>147</b>			
<b>Fathers</b>	<b>145</b>	<b>127</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Houston**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	3.26	3.23	0.03	0.717	0.044
Use of constructive conflict behaviors scale (range: 1 to 4)	3.37	3.33	0.04	0.592	0.066
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.95	2.92	0.04	0.622	0.056
Neither member of the couple was unfaithful since random assignment (%)	79.8	79.5	0.3	0.956	0.012
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.80	8.75	0.05	0.783	0.036
Support and affection scale (range: 1 to 4)	3.47	3.43	0.05	0.398	0.114
Relationship commitment scale, minimum (range: 1 to 4)	1.42	1.39	0.04	0.524	0.085
Relationship commitment scale, average (range: 1 to 4)	1.63	1.67	-0.03	0.581	-0.072
<b>Sample Size</b>					
<b>Couples</b>	<b>174</b>	<b>156</b>			
<b>Couples in regular contact</b>	<b>159</b>	<b>141</b>			
<b>Romantically involved couples</b>	<b>138</b>	<b>122</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Houston**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.71	8.83	-0.12	0.635	-0.066
Support and affection scale (range: 1 to 4)	3.42	3.42	0.00	0.947	0.009
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.93	2.95	-0.02	0.855	-0.022
Use of constructive conflict behaviors scale (range: 1 to 4)	3.34	3.36	-0.02	0.786	-0.034
Not unfaithful since random assignment (%)	84.2	88.7	-4.5	0.439	-0.234
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.99	8.82	0.17	0.427	0.113
Support and affection scale (range: 1 to 4)	3.53	3.48	0.05	0.502	0.096
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.96	2.89	0.08	0.425	0.106
Use of constructive conflict behaviors scale (range: 1 to 4)	3.41	3.34	0.07	0.393	0.115
Not unfaithful since random assignment (%)	92.9	89.5	3.4	0.605	0.261
<b>Sample Size</b>					
<b>Couples</b>	<b>174</b>	<b>156</b>			
<b>Couples in regular contact</b>	<b>159</b>	<b>141</b>			
<b>Romantically involved couples</b>	<b>138</b>	<b>122</b>			
<b>Mothers</b>	<b>166</b>	<b>147</b>			
<b>Fathers</b>	<b>145</b>	<b>127</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Houston (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	7.1	1.9	5.2	0.112	0.833
<b>Secondary Outcomes</b>					
Any physical assault	11.8	11.9	-0.1	0.989	-0.004
More than one severe physical assault	7.1	1.9	5.2*	0.066	0.833
Any physical injury	0.1	0.5	-0.4	0.839	-0.904
Any sexual coercion	2.9	0.0	3.0*	0.070	0.217
Any severe physical assault, physical injury, or sexual coercion	8.3	2.0	6.3*	0.069	0.900
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	5.1	7.5	-2.5	0.493	-0.255
<b>Secondary Outcomes</b>					
Any physical assault	14.1	13.0	1.1	0.829	0.058
More than one severe physical assault	4.8	7.1	-2.3	0.442	-0.253
Any physical injury	1.4	0.1	1.3	0.390	1.781
Any sexual coercion	0.1	0.7	-0.6	0.582	-1.002
Any severe physical assault, physical injury, or sexual coercion	5.6	7.5	-2.0	0.602	-0.195
<b>Sample Size</b>					
<b>Mothers</b>	<b>166</b>	<b>147</b>			
<b>Fathers</b>	<b>145</b>	<b>127</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Houston**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.29	4.38	-0.09	0.305	-0.119
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	71.8	71.0	0.7	0.897	0.021
Regularly spends time with child (%)	67.5	67.6	-0.1	0.987	-0.003
Engagement with child (range: 1 to 6)	4.35	4.12	0.23	0.149	0.190
Provides substantial financial support for child (mother report) (%)	80.6	86.4	-5.8	0.302	-0.258
Parental responsiveness (observed) (range: 1 to 7)	4.41	4.43	-0.02	0.924	-0.021
<b>Secondary Outcomes</b>					
Engagement in caregiving activities (range: 1 to 6)	4.81	4.65	0.16	0.408	0.108
Engagement in physical play (range: 1 to 6)	4.12	3.87	0.24	0.151	0.191
Engagement in cognitive and social play (range: 1 to 6)	4.30	4.02	0.28	0.103	0.212
Sometimes lives with child (%)	92.3	90.4	1.9	0.691	0.147
Self-reported parental warmth (range: 1 to 4)	3.63	3.64	0.00	0.966	-0.006
Used harsh discipline in past month (%)	5.1	-0.1	5.2*	0.094	
Hostile parenting behavior (observed) (range: 1 to 7)	2.56	2.45	0.11	0.584	0.114
<b>Sample Size</b>					
<b>Couples</b>	<b>174</b>	<b>156</b>			
<b>Mothers</b>	<b>166</b>	<b>147</b>			
<b>Fathers</b>	<b>145</b>	<b>127</b>			
<b>Fathers who participated in direct assessment</b>	<b>74</b>	<b>57</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Houston**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.75	4.77	-0.02	0.832	-0.026
Parental responsiveness (observed) (range: 1 to 7)	4.71	4.28	0.43***	0.009	0.484
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.89	3.91	-0.01	0.754	-0.044
Used harsh discipline in past month (%)	3.3	5.5	-2.2	0.446	-0.323
Hostile parenting behavior (observed) (range: 1 to 7)	2.40	2.61	-0.21	0.231	-0.210
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	2.37	2.89	-0.53	0.465	-0.083
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.66	1.76	-0.10	0.122	-0.180
Has moderate-to-large social support network (%)	55.6	60.8	-5.2	0.337	-0.129
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	2.15	2.66	-0.51	0.482	-0.085
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.65	1.69	-0.05	0.543	-0.089
Has moderate-to-large social support network (%)	68.2	73.6	-5.4	0.380	-0.160
<b>Sample Size</b>					
<b>Mothers</b>	<b>166</b>	<b>147</b>			
<b>Fathers</b>	<b>145</b>	<b>127</b>			
<b>Mothers who participated in direct assessment</b>	<b>91</b>	<b>72</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table HOU.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Houston**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	70.4	63.6	6.8	0.210	0.186
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	4.9	3.9	1.1	0.763	0.154
Father has new cohabiting partner (%)	2.5	2.8	-0.3	0.942	-0.062
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	48.8	50.2	-1.3	0.811	-0.032
Family experienced difficulty meeting housing expenses during past year (%)	43.3	48.1	-4.8	0.413	-0.117
Family receiving SNAP or TANF (%)	60.4	59.2	1.2	0.820	0.030
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.1	1.1	0.0	0.965	-0.005
Family receiving TANF (%)	3.0	3.1	-0.1	0.982	-0.015
Family receiving food stamps (%)	59.5	58.6	0.9	0.865	0.022
Child has health insurance coverage (%)	92.9	91.2	1.6	0.496	0.137
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	82.1	82.1	0.0	0.991	-0.002
Child regularly eats the evening meal with a parent (%)	77.4	64.4	13.0**	0.015	0.387
<b>Sample Size</b>					
<b>Children</b>	<b>174</b>	<b>156</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>166</b>	<b>147</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>145</b>	<b>127</b>			
<b>Children living with at least one parent</b>	<b>174</b>	<b>155</b>			
<b>Children in regular contact with at least one parent</b>	<b>174</b>	<b>156</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V. The analysis sample for the Houston program does not meet the study’s standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table HOU.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Houston**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.38	1.44	-0.06*	0.070	-0.218
Emotional insecurity amid parental conflict (range: 1 to 4)	1.34	1.44	-0.10	0.131	-0.192
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.09	3.05	0.05	0.448	0.091
Internalizing behavior problems (range: 1 to 3)	1.24	1.29	-0.05	0.101	-0.195
Externalizing behavior problems (range: 1 to 3)	1.50	1.57	-0.07	0.104	-0.196
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	88.79	87.74	1.04	0.829	0.072
<b>Secondary Outcomes</b>					
Sustained attention with objects	5.05	4.82	0.24	0.153	0.282
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	78.5	80.9	-2.4	0.561	-0.092
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	83.3	89.5	-6.2	0.183	-0.323
Mild/moderate asthma	11.3	5.2	6.2**	0.048	0.517
Severe asthma	5.4	5.4	0.0	0.992	0.005
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>174</b>	<b>156</b>			
<b>Children with parents still in regular contact</b>	<b>159</b>	<b>141</b>			
<b>Children whose mother participated in the direct assessment</b>	<b>91</b>	<b>72</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combine responses from mothers and fathers and are defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V. The analysis sample for the Houston program does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Indiana Counties (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	58.3	62.5	-4.2	0.432	-0.105
Living together (married or unmarried)	48.5	50.4	-1.9	0.716	-0.046
Married	21.2	24.3	-3.1	0.449	-0.106
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	81.1	85.9	-4.8	0.284	-0.212
Steady relationship	49.4	53.7	-4.4	0.400	-0.106
Living together (unmarried)	29.3	28.2	1.1	0.816	0.033
Living together all the time (married or unmarried)	43.2	43.8	-0.6	0.903	-0.016
Married or engaged with a wedding date	25.2	28.5	-3.3	0.459	-0.102
Married or both report likelihood of marriage is high <sup>a</sup>	43.6	46.4	-2.8	0.586	-0.069
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	2.93	2.82	0.11	0.171	0.151
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.15	3.02	0.13	0.112	0.195
<b>Sample Size</b>					
<b>Couples</b>	<b>201</b>	<b>197</b>			
<b>Mothers</b>	<b>191</b>	<b>184</b>			
<b>Fathers</b>	<b>177</b>	<b>173</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: Indiana Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	3.01	3.03	-0.02	0.826	-0.023
Use of constructive conflict behaviors scale (range: 1 to 4)	3.19	3.21	-0.02	0.785	-0.032
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.70	2.73	-0.03	0.726	-0.039
Neither member of the couple was unfaithful since random assignment (%)	56.4	60.4	-4.0	0.441	-0.099
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.27	8.04	0.22	0.302	0.163
Support and affection scale (range: 1 to 4)	3.47	3.37	0.09	0.147	0.227
Relationship commitment scale, minimum (range: 1 to 4)	1.36	1.46	-0.10*	0.088	-0.244
Relationship commitment scale, average (range: 1 to 4)	1.61	1.74	-0.12**	0.048	-0.280
<b>Sample Size</b>					
<b>Couples</b>	<b>201</b>	<b>197</b>			
<b>Couples in regular contact</b>	<b>166</b>	<b>171</b>			
<b>Romantically involved couples</b>	<b>116</b>	<b>124</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: Indiana Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.12	7.89	0.24	0.440	0.128
Support and affection scale (range: 1 to 4)	3.41	3.35	0.06	0.436	0.122
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.66	2.74	-0.08	0.402	-0.100
Use of constructive conflict behaviors scale (range: 1 to 4)	3.14	3.16	-0.02	0.800	-0.030
Not unfaithful since random assignment (%)	68.6	73.5	-4.9	0.375	-0.145
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.44	8.21	0.24	0.321	0.153
Support and affection scale (range: 1 to 4)	3.53	3.41	0.12	0.108	0.259
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.73	2.70	0.03	0.779	0.036
Use of constructive conflict behaviors scale (range: 1 to 4)	3.23	3.27	-0.04	0.637	-0.062
Not unfaithful since random assignment (%)	73.3	78.2	-4.9	0.456	-0.163
<b>Sample Size</b>					
<b>Couples</b>	<b>201</b>	<b>197</b>			
<b>Couples in regular contact</b>	<b>166</b>	<b>171</b>			
<b>Romantically involved couples</b>	<b>116</b>	<b>124</b>			
<b>Mothers</b>	<b>191</b>	<b>184</b>			
<b>Fathers</b>	<b>177</b>	<b>173</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Indiana Counties (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	7.0	5.4	1.7	0.594	0.174
<b>Secondary Outcomes</b>					
Any physical assault	12.3	19.1	-6.8	0.110	-0.318
More than one severe physical assault	7.0	4.7	2.3	0.396	0.254
Any physical injury	0.9	1.0	-0.1	0.947	-0.080
Any sexual coercion	2.4	0.6	1.9	0.229	0.908
Any severe physical assault, physical injury, or sexual coercion	7.5	5.8	1.7	0.614	0.162
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	8.3	8.6	-0.2	0.948	-0.018
<b>Secondary Outcomes</b>					
Any physical assault	23.2	28.4	-5.3	0.294	-0.167
More than one severe physical assault	7.6	7.3	0.3	0.909	0.029
Any physical injury	1.6	1.0	0.7	0.651	0.321
Any sexual coercion	1.3	0.4	0.9	0.387	0.764
Any severe physical assault, physical injury, or sexual coercion	10.0	9.2	0.8	0.820	0.057
<b>Sample Size</b>					
<b>Mothers</b>	<b>191</b>	<b>184</b>			
<b>Fathers</b>	<b>177</b>	<b>173</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Indiana Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.19	4.22	-0.03	0.682	-0.043
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	53.3	52.7	0.6	0.918	0.013
Regularly spends time with child (%)	53.9	60.1	-6.3	0.250	-0.155
Engagement with child (range: 1 to 6)	4.22	4.31	-0.09	0.586	-0.070
Provides substantial financial support for child (mother report) (%)	59.8	68.7	-8.9	0.105	-0.235
Parental responsiveness (observed) (range: 1 to 7)	4.80	4.60	0.20	0.195	0.242
<b>Secondary Outcomes</b>					
Engagement in caregiving activities (range: 1 to 6)	4.61	4.83	-0.22	0.231	-0.151
Engagement in physical play (range: 1 to 6)	3.96	3.98	-0.03	0.872	-0.021
Engagement in cognitive and social play (range: 1 to 6)	4.27	4.32	-0.06	0.731	-0.044
Sometimes lives with child (%)	78.3	84.4	-6.1	0.192	-0.244
Self-reported parental warmth (range: 1 to 4)	3.61	3.70	-0.09	0.352	-0.119
Used harsh discipline in past month (%)	4.0	5.9	-1.8	0.543	-0.240
Hostile parenting behavior (observed) (range: 1 to 7)	2.61	2.57	0.04	0.836	0.038
<b>Sample Size</b>					
<b>Couples</b>	<b>201</b>	<b>197</b>			
<b>Mothers</b>	<b>191</b>	<b>184</b>			
<b>Fathers</b>	<b>177</b>	<b>173</b>			
<b>Fathers who participated in direct assessment</b>	<b>98</b>	<b>104</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV. The sample of direct assessment fathers does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Indiana Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.92	5.03	-0.12	0.271	-0.131
Parental responsiveness (observed) (range: 1 to 7)	4.65	4.68	-0.03	0.848	-0.033
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.85	3.89	-0.05	0.269	-0.150
Used harsh discipline in past month (%)	6.0	6.5	-0.5	0.872	-0.047
Hostile parenting behavior (observed) (range: 1 to 7)	2.63	2.68	-0.05	0.742	-0.050
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	5.08	5.15	-0.07	0.919	-0.011
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.60	1.56	0.04	0.489	0.077
Has moderate-to-large social support network (%)	77.1	73.6	3.6	0.491	0.116
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.19	4.73	-0.54	0.446	-0.089
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.51	1.52	-0.01	0.919	-0.014
Has moderate-to-large social support network (%)	78.5	81.3	-2.8	0.627	-0.107
<b>Sample Size</b>					
<b>Mothers</b>	<b>191</b>	<b>184</b>			
<b>Fathers</b>	<b>177</b>	<b>173</b>			
<b>Mothers who participated in direct assessment</b>	<b>121</b>	<b>122</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table IN.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Indiana Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	43.2	45.9	-2.8	0.601	-0.068
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	7.6	6.6	1.0	0.773	0.089
Father has new cohabiting partner (%)	10.0	7.1	2.9	0.399	0.229
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	49.1	38.0	11.1*	0.068	0.274
Family experienced difficulty meeting housing expenses during past year (%)	42.2	47.4	-5.2	0.358	-0.127
Family receiving SNAP or TANF (%)	72.6	60.9	11.7**	0.016	0.321
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.2	1.3	-0.1	0.236	-0.121
Family receiving TANF (%)	14.2	12.8	1.4	0.656	0.071
Family receiving food stamps (%)	72.3	61.0	11.3**	0.021	0.311
Child has health insurance coverage (%)	97.0	97.1	-0.1	0.955	-0.028
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	87.8	85.9	1.9	0.640	0.101
Child regularly eats the evening meal with a parent (%)	78.4	74.8	3.7	0.464	0.124
<b>Sample Size</b>					
<b>Children</b>	<b>201</b>	<b>197</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>191</b>	<b>184</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>177</b>	<b>173</b>			
<b>Children living with at least one parent</b>	<b>199</b>	<b>197</b>			
<b>Children in regular contact with at least one parent</b>	<b>165</b>	<b>171</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table IN.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Indiana Counties**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.40	1.43	-0.03	0.319	-0.109
Emotional insecurity amid parental conflict (range: 1 to 4)	1.48	1.50	-0.02	0.820	-0.030
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.44	3.45	-0.01	0.842	-0.026
Internalizing behavior problems (range: 1 to 3)	1.22	1.23	-0.01	0.725	-0.038
Externalizing behavior problems (range: 1 to 3)	1.56	1.61	-0.05	0.193	-0.146
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	89.97	87.56	2.41	0.313	0.166
<b>Secondary Outcomes</b>					
Sustained attention with objects	5.25	5.36	-0.11	0.419	-0.130
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	85.5	85.4	0.1	0.977	0.006
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	81.6	80.0	1.7	0.703	0.065
Mild/moderate asthma	7.2	6.5	0.7	0.810	0.064
Severe asthma	11.2	13.5	-2.3	0.520	-0.131
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>199</b>	<b>197</b>			
<b>Children with parents still in regular contact</b>	<b>165</b>	<b>171</b>			
<b>Children whose mother participated in the direct assessment</b>	<b>121</b>	<b>122</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combines responses from mothers and fathers and is defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: Oklahoma City (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	59.2	58.3	0.9	0.802	0.021
Living together (married or unmarried)	51.4	48.3	3.1	0.347	0.076
Married	25.4	26.5	-1.1	0.675	-0.035
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	78.9	80.2	-1.4	0.638	-0.050
Steady relationship	51.4	50.4	1.0	0.768	0.024
Living together (unmarried)	27.1	23.6	3.5	0.249	0.113
Living together all the time (married or unmarried)	44.5	40.6	3.9	0.235	0.097
Married or engaged with a wedding date	30.6	30.6	0.0	0.990	-0.001
Married or both report likelihood of marriage is high <sup>a</sup>	47.6	44.7	2.9	0.386	0.070
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	3.05	2.95	0.10*	0.065	0.130
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.17	3.15	0.02	0.703	0.030
<b>Sample Size</b>					
<b>Couples</b>	<b>420</b>	<b>432</b>			
<b>Mothers</b>	<b>397</b>	<b>411</b>			
<b>Fathers</b>	<b>339</b>	<b>343</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Followup: Oklahoma City**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	3.01	2.97	0.04	0.478	0.053
Use of constructive conflict behaviors scale (range: 1 to 4)	3.21	3.20	0.01	0.824	0.018
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.76	2.74	0.02	0.741	0.026
Neither member of the couple was unfaithful since random assignment (%)	67.1	59.6	7.5**	0.027	0.196
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.30	8.24	0.06	0.650	0.043
Support and affection scale (range: 1 to 4)	3.46	3.43	0.03	0.416	0.075
Relationship commitment scale, minimum (range: 1 to 4)	1.32	1.37	-0.05	0.202	-0.119
Relationship commitment scale, average (range: 1 to 4)	1.60	1.63	-0.03	0.496	-0.063
<b>Sample Size</b>					
<b>Couples</b>	<b>420</b>	<b>432</b>			
<b>Couples in regular contact</b>	<b>337</b>	<b>353</b>			
<b>Romantically involved couples</b>	<b>253</b>	<b>257</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship happiness, the full support and affection scale, and the commitment measures are available for couples who were still romantically involved at followup. Conflict behavior measures available for couples still in regular contact. The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Followup: Oklahoma City**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.13	8.05	0.07	0.690	0.040
Support and affection scale (range: 1 to 4)	3.40	3.36	0.03	0.485	0.066
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.72	2.70	0.02	0.767	0.023
Use of constructive conflict behaviors scale (range: 1 to 4)	3.15	3.12	0.02	0.715	0.029
Not unfaithful since random assignment (%)	75.6	71.1	4.5	0.209	0.139
Relationship happiness scale including new partners (range 0 to 10)	8.26	8.16	0.11	0.502	0.059
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.50	8.42	0.08	0.607	0.055
Support and affection scale (range: 1 to 4)	3.51	3.50	0.02	0.761	0.032
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.78	2.76	0.02	0.801	0.022
Use of constructive conflict behaviors scale (range: 1 to 4)	3.29	3.28	0.01	0.827	0.019
Not unfaithful since random assignment (%)	84.3	78.7	5.6*	0.092	0.226
Relationship happiness scale including new partners (range 0 to 10)	8.55	8.33	0.23	0.118	0.140
<b>Sample Size</b>					
<b>Couples</b>	<b>420</b>	<b>432</b>			
<b>Couples in regular contact</b>	<b>337</b>	<b>353</b>			
<b>Romantically involved couples</b>	<b>253</b>	<b>257</b>			
<b>Mothers</b>	<b>397</b>	<b>411</b>			
<b>Fathers</b>	<b>339</b>	<b>343</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship happiness, the full support and affection scale, and the commitment measures are available for couples who were still romantically involved at followup. Conflict behavior measures available for couples still in regular contact. The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: Oklahoma City (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	9.3	8.4	0.8	0.676	0.063
<b>Secondary Outcomes</b>					
Any physical assault	17.9	19.5	-1.6	0.560	-0.064
More than one severe physical assault	9.0	7.4	1.6	0.340	0.133
Any physical injury	2.1	2.5	-0.4	0.726	-0.117
Any sexual coercion	1.7	2.2	-0.6	0.550	-0.189
Any severe physical assault, physical injury, or sexual coercion	10.2	9.6	0.6	0.791	0.038
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	5.8	6.1	-0.3	0.886	-0.035
<b>Secondary Outcomes</b>					
Any physical assault	18.5	16.5	2.0	0.538	0.083
More than one severe physical assault	4.7	6.1	-1.4	0.444	-0.170
Any physical injury	1.7	1.1	0.6	0.524	0.259
Any sexual coercion	0.3	0.6	-0.3	0.630	-0.481
Any severe physical assault, physical injury, or sexual coercion	6.7	7.1	-0.5	0.842	-0.044
<b>Sample Size</b>					
<b>Mothers</b>	<b>397</b>	<b>411</b>			
<b>Fathers</b>	<b>339</b>	<b>343</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: Oklahoma City**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.16	4.11	0.05	0.375	0.061
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	55.3	51.9	3.4	0.317	0.084
Regularly spends time with child (%)	54.1	55.6	-1.4	0.684	-0.035
Engagement with child (range: 1 to 6)	4.15	4.30	-0.15	0.138	-0.122
Provides substantial financial support for child (mother report) (%)	63.8	62.0	1.8	0.600	0.047
Parental responsiveness (observed) (range: 1 to 7)	4.70	4.58	0.12	0.177	0.138
<b>Secondary Outcomes</b>					
Engagement in caregiving activities (range: 1 to 6)	4.60	4.74	-0.14	0.233	-0.098
Engagement in physical play (range: 1 to 6)	3.89	4.05	-0.16	0.124	-0.128
Engagement in cognitive and social play (range: 1 to 6)	4.13	4.27	-0.14	0.190	-0.106
Sometimes lives with child (%)	85.9	85.2	0.7	0.805	0.036
Self-reported parental warmth (range: 1 to 4)	3.57	3.71	-0.14**	0.035	-0.173
Used harsh discipline in past month (%)	5.8	6.4	-0.6	0.770	-0.062
Hostile parenting behavior (observed) (range: 1 to 7)	2.45	2.63	-0.18	0.106	-0.189
<b>Sample Size</b>					
<b>Couples</b>	<b>420</b>	<b>432</b>			
<b>Mothers</b>	<b>397</b>	<b>411</b>			
<b>Fathers</b>	<b>339</b>	<b>343</b>			
<b>Fathers who participated in direct assessment</b>	<b>214</b>	<b>218</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. Measures of observed parental responsiveness and hostile parenting behavior are defined for fathers who participated in the direct assessment. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: Oklahoma City**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.82	4.84	-0.03	0.686	-0.031
Parental responsiveness (observed) (range: 1 to 7)	4.74	4.70	0.04	0.625	0.050
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.83	3.89	-0.06**	0.026	-0.192
Observed parental warmth (range: 0 to 6)	5.89	5.88	0.00	0.970	0.004
Used harsh discipline in past month (%)	5.1	4.4	0.6	0.720	0.084
Hostile parenting behavior (observed) (range: 1 to 7)	2.55	2.61	-0.06	0.506	-0.059
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.49	5.18	-0.69	0.117	-0.109
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.54	1.57	-0.03	0.497	-0.048
Has moderate-to-large social support network (%)	77.6	74.9	2.7	0.414	0.089
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	3.99	4.10	-0.11	0.809	-0.018
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.57	1.53	0.03	0.492	0.063
Has moderate-to-large social support network (%)	76.2	75.5	0.7	0.847	0.025
<b>Sample Size</b>					
<b>Mothers</b>	<b>397</b>	<b>411</b>			
<b>Fathers</b>	<b>339</b>	<b>343</b>			
<b>Mothers who participated in direct assessment</b>	<b>285</b>	<b>293</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Observed parental warmth and hostile parenting behavior are defined for mothers who participated in the direct assessment. Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV.

CES-D = Center for Epidemiologic Studies Depression Scale

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table OKC.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: Oklahoma City**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	48.9	41.4	7.5**	0.025	0.185
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	11.3	10.0	1.4	0.524	0.086
Father has new cohabiting partner (%)	7.4	8.5	-1.2	0.598	-0.097
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	42.5	42.1	0.5	0.909	0.012
Family experienced difficulty meeting housing expenses during past year (%)	44.2	41.8	2.4	0.509	0.059
Family receiving SNAP or TANF (%)	55.8	59.2	-3.3	0.292	-0.083
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.3	1.4	0.0	0.526	-0.044
Family receiving TANF (%)	6.2	6.1	0.1	0.960	0.012
Family receiving food stamps (%)	55.1	58.9	-3.8	0.238	-0.093
Child has health insurance coverage (%)	96.3	95.8	0.6	0.706	0.089
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	89.3	90.8	-1.4	0.573	-0.097
Child regularly eats the evening meal with a parent (%)	82.5	78.4	4.0	0.216	0.155
<b>Sample Size</b>					
<b>Children</b>	<b>420</b>	<b>432</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>397</b>	<b>411</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>339</b>	<b>343</b>			
<b>Children living with at least one parent</b>	<b>414</b>	<b>421</b>			
<b>Children in regular contact with at least one parent</b>	<b>334</b>	<b>351</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table OKC.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: Oklahoma City**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.40	1.40	0.00	0.950	0.005
Emotional insecurity amid parental conflict (range: 1 to 4)	1.39	1.40	-0.01	0.825	-0.020
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.38	3.39	-0.01	0.741	-0.025
Internalizing behavior problems (range: 1 to 3)	1.21	1.20	0.01	0.669	0.032
Externalizing behavior problems (range: 1 to 3)	1.58	1.58	-0.01	0.812	-0.018
<b>Language and Cognitive Development (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Receptive language	91.19	92.15	-0.97	0.567	-0.067
<b>Secondary Outcomes</b>					
Sustained attention with objects	5.31	5.29	0.02	0.863	0.019
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	86.7	82.4	4.4*	0.091	0.203
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	83.2	79.8	3.4	0.242	0.136
Mild/moderate asthma	6.4	7.8	-1.4	0.457	-0.128
Severe asthma	10.4	12.4	-2.0	0.397	-0.120
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>416</b>	<b>427</b>			
<b>Children with parents still in regular contact</b>	<b>334</b>	<b>351</b>			
<b>Children whose mother participated in the direct assessment</b>	<b>285</b>	<b>293</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combines responses from mothers and fathers and is defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. The language and cognitive development measures are available for the subset of children whose mother completed an direct assessment. Details on the construction of these measures are provided in Chapter V.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.1. Impacts of Building Strong Families on Relationship Status and Marriage Attitudes at 36-Month Follow-Up: San Angelo (percentages unless stated otherwise)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Status (Key Domain)</b>					
<b>Primary Outcomes</b>					
Romantically involved (%)	62.6	61.2	1.5	0.810	0.037
Living together (married or unmarried)	52.0	51.9	0.1	0.989	0.002
Married	20.3	21.1	-0.8	0.863	-0.029
<b>Secondary Outcomes</b>					
In regular contact <sup>b</sup>	78.1	79.2	-1.1	0.827	-0.040
Steady relationship	53.9	55.9	-2.0	0.736	-0.049
Living together (unmarried)	33.1	31.6	1.5	0.788	0.040
Living together all the time (married or unmarried)	43.2	48.2	-5.0	0.394	-0.122
Married or engaged with a wedding date	23.4	26.0	-2.6	0.608	-0.083
Married or both report likelihood of marriage is high <sup>a</sup>	47.6	48.4	-0.8	0.898	-0.019
<b>Attitudes Toward Marriage (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Mothers' attitudes toward marriage scale (range: 1 to 4)	2.89	2.81	0.08	0.384	0.110
Fathers' attitudes toward marriage scale (range: 1 to 4)	3.12	3.06	0.06	0.536	0.087
<b>Sample Size</b>					
<b>Couples</b>	<b>141</b>	<b>141</b>			
<b>Mothers</b>	<b>128</b>	<b>126</b>			
<b>Fathers</b>	<b>113</b>	<b>110</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Relationship status measures combine responses from mothers and fathers and are available for all couples responding to the survey. The mothers' marriage attitudes measure is based on mother reports and is available for mothers who responded. The fathers' marriage attitudes measure is based on father reports and is available for fathers who responded. Details on the construction of these measures are provided in Chapter III.

<sup>a</sup>High likelihood of marriage defined as reporting a "pretty good" or "almost certain" chance.

<sup>b</sup>Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.2a. Impacts of Building Strong Families on Couple-Level Measures of Relationship Quality at 36-Month Follow-Up: San Angelo**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Couple's Relationship Quality (Key Domain)</b>					
<b>Primary Outcomes</b>					
Support and affection abbreviated scale (range: 1 to 4)	3.09	3.05	0.04	0.655	0.056
Use of constructive conflict behaviors scale (range: 1 to 4)	3.32	3.24	0.08	0.329	0.139
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.84	2.77	0.07	0.398	0.115
Neither member of the couple was unfaithful since random assignment (%)	56.2	62.9	-6.7	0.269	-0.168
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.61	8.47	0.14	0.594	0.098
Support and affection scale (range: 1 to 4)	3.54	3.55	-0.01	0.887	-0.023
Relationship commitment scale, minimum (range: 1 to 4)	1.31	1.28	0.03	0.643	0.077
Relationship commitment scale, average (range: 1 to 4)	1.53	1.50	0.03	0.683	0.066
<b>Sample Size</b>					
<b>Couples</b>	<b>141</b>	<b>141</b>			
<b>Couples in regular contact</b>	<b>116</b>	<b>113</b>			
<b>Romantically involved couples</b>	<b>93</b>	<b>85</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.2b. Impacts of Building Strong Families on Partner-Level Measures of Relationship Quality at 36-Month Follow-Up: San Angelo**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Relationship Quality from Mother's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.55	8.61	-0.06	0.853	-0.031
Support and affection scale (range: 1 to 4)	3.53	3.57	-0.05	0.590	-0.091
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.85	2.77	0.08	0.445	0.106
Use of constructive conflict behaviors scale (range: 1 to 4)	3.27	3.21	0.06	0.592	0.077
Not unfaithful since random assignment (%)	69.6	73.0	-3.4	0.606	-0.100
<b>Relationship Quality from Father's Perspective (Additional Domain)</b>					
<b>Secondary Outcomes</b>					
Relationship happiness scale (range: 0 to 10)	8.81	8.44	0.37	0.196	0.240
Support and affection scale (range: 1 to 4)	3.56	3.48	0.07	0.408	0.152
Avoidance of destructive conflict behaviors scale (range: 1 to 4)	2.84	2.76	0.08	0.478	0.113
Use of constructive conflict behaviors scale (range: 1 to 4)	3.43	3.25	0.18*	0.069	0.286
Not unfaithful since random assignment (%)	78.2	77.2	1.1	0.882	0.038
<b>Sample Size</b>					
<b>Couples</b>	<b>141</b>	<b>141</b>			
<b>Couples in regular contact</b>	<b>116</b>	<b>113</b>			
<b>Romantically involved couples</b>	<b>93</b>	<b>85</b>			
<b>Mothers</b>	<b>128</b>	<b>126</b>			
<b>Fathers</b>	<b>113</b>	<b>110</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Conflict behavior measures are available for couples still in regular contact (communicating at least a few times a month). The fidelity measure and the support and affection abbreviated scale are available for all couples. Relationship quality measures are described in Chapter III. The sample of romantically involved couples does not meet the study's standards for low sample attrition or baseline equivalence of research groups. Therefore, this analysis has substantial risk of attrition bias.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.3. Impacts of Building Strong Families on Intimate Partner Violence at 36-Month Follow-Up: San Angelo (Percentages)**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mothers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	11.4	8.3	3.1	0.396	0.212
<b>Secondary Outcomes</b>					
Any physical assault	15.8	14.1	1.7	0.729	0.082
More than one severe physical assault	11.4	7.5	3.9	0.210	0.282
Any physical injury	4.3	2.4	1.9	0.386	0.371
Any sexual coercion	0.5	2.4	-1.9	0.285	-0.947
Any severe physical assault, physical injury, or sexual coercion	12.5	9.0	3.5	0.352	0.225
<b>Fathers' Reports of IPV During Prior Year (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Any severe physical assault	4.0	7.5	-3.5	0.370	-0.408
<b>Secondary Outcomes</b>					
Any physical assault	12.3	18.5	-6.2	0.285	-0.289
More than one severe physical assault	4.0	7.5	-3.5	0.281	-0.408
Any physical injury	0.0	1.1	-1.3	0.447	0.124
Any sexual coercion	0.8	0.1	0.7	0.545	1.152
Any severe physical assault, physical injury, or sexual coercion	4.8	7.7	-2.8	0.492	-0.298
<b>Sample Size</b>					
<b>Mothers</b>	<b>128</b>	<b>126</b>			
<b>Fathers</b>	<b>113</b>	<b>110</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: All measures refer to IPV by any romantic partner. Details on the construction of these measures are provided in Chapter III.

IPV = Intimate Partner Violence.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.4. Impacts of Building Strong Families on Key Parenting Domains at 36-Month Follow-Up: San Angelo**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Co-Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Quality of co-parenting relationship scale (range: 1 to 5)	4.24	4.19	0.05	0.644	0.065
<b>Father's Involvement and Parenting (Key Domain)</b>					
<b>Primary Outcomes</b>					
Lives with child (%)	54.4	55.9	-1.5	0.814	-0.036
Regularly spends time with child (%)	56.5	58.3	-1.8	0.774	-0.044
Engagement with child (range: 1 to 6)	4.37	4.44	-0.07	0.684	-0.059
Provides substantial financial support for child (mother report) (%)	70.2	69.0	1.2	0.851	0.033
<b>Secondary Outcomes</b>					
Engagement in care-giving activities (range: 1 to 6)	4.78	4.91	-0.13	0.531	-0.090
Engagement in physical play (range: 1 to 6)	4.21	4.20	0.00	0.991	0.002
Engagement in cognitive and social play (range: 1 to 6)	4.27	4.39	-0.12	0.521	-0.092
Sometimes lives with child (%)	87.6	84.3	3.2	0.542	0.162
Self-reported parental warmth (range: 1 to 4)	3.80	3.81	-0.01	0.958	-0.008
Hostile parenting behavior (observed) (range: 1 to 7)	2.45	2.63	-0.18	0.106	-0.189
<b>Sample Size</b>					
<b>Couples</b>	<b>141</b>	<b>141</b>			
<b>Mothers</b>	<b>128</b>	<b>126</b>			
<b>Fathers</b>	<b>113</b>	<b>110</b>			

Source: BSF 36-month follow-up surveys, conducted by Mathematica Policy Research.

Notes: The measures of co-parenting quality, whether the father lives with child, and whether he regularly spends time with the child combine responses from mothers and fathers and are defined for all couples responding to follow-up surveys. The measure of whether the father provides substantial financial support is based on the mother's report and is defined for couples where the mother responded to the survey. All other measures are based on father reports and are defined for couples in which the father responded to the survey. Details on the construction of these measures are provided in Chapter IV.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.5. Impacts of Building Strong Families on Additional Parenting Domains at 36-Month Follow-Up: San Angelo**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Mother's Parenting (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Engagement in cognitive and social play (range: 1 to 6)	4.84	4.97	-0.14	0.263	-0.152
<b>Secondary Outcomes</b>					
Self-reported parental warmth (range: 1 to 4)	3.87	3.92	-0.05	0.281	-0.168
Used harsh discipline in past month (%)	6.3	1.6	4.7	0.136	0.854
<b>Mother's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	4.07	4.58	-0.50	0.527	-0.079
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.53	1.55	-0.02	0.796	-0.033
Has moderate-to-large social support network (%)	77.9	74.7	3.2	0.592	0.106
<b>Father's Emotional Well-Being (Additional Domain)</b>					
<b>Primary Outcomes</b>					
CES-D scale of depressive symptoms (range: 0 to 36)	2.70	3.65	-0.96	0.235	-0.158
<b>Secondary Outcomes</b>					
Parenting stress and aggravation scale (range: 1 to 4)	1.51	1.57	-0.07	0.457	-0.127
Has moderate-to-large social support network (%)	79.3	78.1	1.2	0.867	0.044
<b>Sample Size</b>					
<b>Mothers</b>	<b>128</b>	<b>126</b>			
<b>Fathers</b>	<b>113</b>	<b>110</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Measures of father's emotional well-being are based on father reports and are defined for couples in which the father responded to the survey. All other measures are based on mother reports and are defined for couples in which the mother responded to the survey. Details on the construction of these measures are provided in Chapter IV.

CES-D = Center for Epidemiologic Studies Depression Scale; n/a = Not available.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table SA.6. Impacts of Building Strong Families on Child’s Family Stability, Economic Well-Being, and Household Routines at 36-Month Follow-Up: San Angelo**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Family Stability (Key Domain)</b>					
<b>Primary Outcomes</b>					
Both parents have lived with child since birth (%)	43.9	43.5	0.4	0.945	0.010
<b>Secondary Outcomes</b>					
Mother has new cohabiting partner (%)	9.2	6.4	2.8	0.468	0.238
Father has new cohabiting partner (%)	6.5	4.7	1.8	0.647	0.208
<b>Economic Well-Being (Key Domain)</b>					
<b>Primary Outcomes</b>					
Family’s monthly income below poverty threshold (%)	36.9	45.2	-8.3	0.183	-0.209
Family experienced difficulty meeting housing expenses during past year (%)	48.1	36.9	11.1*	0.080	0.277
Family receiving SNAP or TANF (%)	58.5	61.0	-2.4	0.666	-0.061
<b>Secondary Outcomes</b>					
Family’s monthly income relative to the poverty threshold (ratio)	1.4	1.4	0.0	0.960	-0.006
Family receiving TANF (%)	4.6	1.4	3.2	0.362	0.747
Family receiving food stamps (%)	57.8	60.7	-2.9	0.606	-0.073
Child has health insurance coverage (%)	90.4	93.0	-2.6	0.320	-0.206
<b>Household Routines (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Child regularly goes to bed on time (%)	90.7	90.8	-0.1	0.983	-0.007
Child regularly eats the evening meal with a parent (%)	76.6	81.9	-5.3	0.366	-0.197
<b>Sample Size</b>					
<b>Children</b>	<b>141</b>	<b>141</b>			
<b>Children whose mother responded to the 36-month follow-up survey</b>	<b>128</b>	<b>126</b>			
<b>Children whose father responded to the 36-month follow-up survey</b>	<b>113</b>	<b>110</b>			
<b>Children living with at least one parent</b>	<b>128</b>	<b>126</b>			
<b>Children in regular contact with at least one parent</b>	<b>113</b>	<b>110</b>			

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: Whether both parents have lived with the child since birth is defined for if either parent responded to the 36-month survey. The measure of mother having a new cohabiting partner is defined if the mother responded to the 36-month survey. The measure of father having a new cohabiting partner is defined if the father responded to the 36-month survey. The measures of economic well-being combine responses from residential mothers and fathers and are defined for children living with at least one parent. The measures of household routines are defined for children in regular contact with at least one parent. Details on the construction of these measures are provided in Chapter V.

SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Aid for Needy Families.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SA.7. Impacts of Building Strong Families on Child Development at 36-Month Follow-Up: San Angelo**

Outcome	Program Group	Control Group	Estimated Impact	p-Value	Effect Size
<b>Socio-Emotional Development (Key Domain)</b>					
<b>Primary Outcomes</b>					
Behavior problems index (range: 1 to 3)	1.38	1.40	-0.02	0.531	-0.078
Emotional insecurity amid parental conflict (range: 1 to 4)	1.46	1.43	0.03	0.680	0.065
<b>Secondary Outcomes</b>					
Empathy (range: 1 to 4)	3.40	3.48	-0.08	0.209	-0.156
Internalizing behavior problems (range: 1 to 3)	1.20	1.20	0.00	0.903	-0.015
Externalizing behavior problems (range: 1 to 3)	1.55	1.58	-0.04	0.418	-0.102
<b>Physical Health (Additional Domain)</b>					
<b>Primary Outcomes</b>					
Parent rates child's health as "very good" or "excellent" (%)	93.0	81.3	11.7**	0.017	0.675
<b>Secondary Outcomes</b>					
Child asthma (%)					
No asthma	89.6	86.3	3.3	0.522	0.187
Mild/moderate asthma	6.6	8.1	-1.5	0.661	-0.132
Severe asthma	3.8	5.6	-1.8	0.685	-0.244
<b>Sample Size</b>					
<b>Children in regular contact with at least one parent</b>	<b>141</b>	<b>141</b>			
<b>Children with parents still in regular contact</b>	<b>116</b>	<b>113</b>			

Source: BSF 36-month follow-up surveys and direct assessments conducted by Mathematica Policy Research.

Notes: The measure of emotional insecurity amid parental conflict combine responses from mothers and fathers and are defined for couples who were still in regular contact at the 36-month survey. Other measures of socio-emotional development and measures of physical health outcomes also combine responses from mothers and fathers and are defined for all couples. Details on the construction of these measures are provided in Chapter V.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**APPENDIX B**  
**ESTIMATED IMPACTS FOR SUBGROUPS**



**Table SG.1A. Impact of BSF on Relationship and Parenting Outcomes at 36-Month Follow-Up, by Race/Ethnicity: African American**

Outcome	Both Partners are Non-Hispanic African American			All Other Couples		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Relationship Status</b>						
Romantically involved (%) <sup>a</sup>	50.1	51.5	-1.4	57.7	64.9	-7.2**
Living together (married or unmarried) (%) <sup>a</sup>	35.6	36.8	-1.3	53.0	56.7	-3.8
Married (%) <sup>a</sup>	15.8	14.3	1.5	24.3	28.2	-3.9
<b>Relationship Quality</b>						
Relationship happiness scale (range: 0 to 10) <sup>b</sup>	8.01	8.04	-0.04	8.33	8.31	0.02
Support and affection scale (range: 1 to 4) <sup>b</sup>	3.38	3.37	0.01	3.44	3.45	-0.01
Use of constructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	3.16	3.13	0.04	3.22	3.28	-0.06
Avoidance of destructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	2.69	2.70	-0.01	2.71	2.81	-0.10
Neither member of the couple was unfaithful since random assignment (%) <sup>a</sup>	47.8	46.7	1.1	66.7	65.0	1.7
<b>Co-Parenting</b>						
Quality of co-parenting relationship scale (range: 1 to 5) <sup>a</sup>	4.17	4.17	0.00	4.15	4.19	-0.04
<b>Father's Involvement and Parenting Behavior</b>						
Father lives with child (%) <sup>a</sup>	38.8	39.4	-0.6	56.6	58.2	-1.6
Father regularly spends time with child (%) <sup>a</sup>	46.4	48.5	-2.1	52.7	58.0	-5.3
Father's engagement with child (range: 1 to 6) <sup>a</sup>	4.16	4.18	-0.02	4.17	4.26	-0.09
Mother reports father provides substantial financial support for raising child (%) <sup>d</sup>	54.2	56.8	-2.6	63.8	67.3	-3.5
Father's parental responsiveness (observed) (range: 1 to 7) <sup>e</sup>	4.60	4.55	0.06	4.64	4.68	-0.04
<b>Sample Size</b>						
<b>All couples</b>	<b>1,138</b>	<b>1,116</b>		<b>676</b>	<b>705</b>	
<b>Couples in regular contact</b>	<b>891</b>	<b>888</b>		<b>551</b>	<b>600</b>	
<b>Romantically involved couples</b>	<b>587</b>	<b>581</b>		<b>407</b>	<b>456</b>	
<b>Mothers</b>	<b>1,075</b>	<b>1,054</b>		<b>628</b>	<b>657</b>	
<b>Fathers</b>	<b>899</b>	<b>888</b>		<b>562</b>	<b>582</b>	
<b>In-home assessment fathers</b>	<b>340</b>	<b>303</b>		<b>261</b>	<b>274</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: These figures do not include the Houston and San Angelo programs, because these programs served a very small number of African American couples. More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all couples.

<sup>b</sup>Among couples who are romantically involved at the 36-month follow-up.

<sup>c</sup>Among couples who are in regular contact at the 36-month follow-up. Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

<sup>d</sup>Among couples in which the mother responded to the 36-month follow-up.

<sup>e</sup>Among couples in which the father participated in the in-home assessment.

‡ ‡ ‡ ‡ ‡ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

◆ ◆ ◆ ◆ ◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/†††/† Subgroup impact estimates are statistically at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.1B. Impact of BSF on Child Outcomes at 36-Month Follow-Up, by Race/Ethnicity: African American**

Outcome	Both Partners are Non-Hispanic African American			All Other Couples		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Family Stability</b>						
Both parents have lived with child since birth (%) <sup>a</sup>	30.6	31.7	-1.1	45.4	47.5	-2.1
<b>Economic Well-Being</b>						
Family's monthly income below poverty threshold (%) <sup>b</sup>	50.6	49.0	1.6	46.4	43.7	2.7
Family experienced difficulty meeting housing expenses during past year (%) <sup>b</sup>	43.0	44.4	-1.4	45.6	44.3	1.3
Family receiving TANF or food stamps (%) <sup>b</sup>	76.8	74.4	2.3	54.6	54.5	0.0
<b>Child Socio-Emotional Development</b>						
Behavior problems index (range: 1 to 3) <sup>a</sup>	1.37	1.40	-0.03*	1.41	1.43	-0.02
Emotional insecurity amid parental conflict (range: 1 to 4) <sup>c</sup>	1.38	1.42	-0.04	1.38	1.42	-0.04
<b>Sample Size</b>						
<b>All children</b>	<b>1,138</b>	<b>1,116</b>		<b>676</b>	<b>705</b>	
<b>Children living with at least one BSF partner</b>	<b>1,131</b>	<b>1,108</b>		<b>671</b>	<b>693</b>	
<b>Children with parents still in regular contact</b>	<b>890</b>	<b>888</b>		<b>548</b>	<b>598</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: These figures do not include the Houston and San Angelo programs, because these programs served a very small number of African American couples. More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all children.

<sup>b</sup>Among children living with at least one BSF partner.

<sup>c</sup>Among children with parents still in regular contact.

◆ ◆ ◆/◆ ◆/◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.2A. Impact of BSF on Relationship and Parenting Outcomes at 36-Month Follow-Up, by Race/Ethnicity: Hispanic**

Outcome	Both Partners are Hispanic			All Other Couples		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Relationship Status</b>						
Romantically involved (%) <sup>a</sup>	78.1	80.1	-2.0	54.4	56.7	-2.2
Living together (married or unmarried) (%) <sup>a</sup>	71.0	74.4	-3.4	43.3	43.5	-0.3
Married (%) <sup>a</sup>	26.1	25.6	0.5	20.6	20.7	-0.1
<b>Relationship Quality</b>						
Relationship happiness scale (range: 0 to 10) <sup>b</sup>	8.76	8.83	-0.07	8.22	8.08	0.14
Support and affection scale (range: 1 to 4) <sup>b</sup>	3.47	3.46	0.01	3.45	3.41	0.04
Use of constructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	3.42	3.43	-0.01	3.18	3.16	0.02
Avoidance of destructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	2.94	3.02	-0.09	2.74	2.73	0.01
Neither member of the couple was unfaithful since random assignment (%) <sup>a</sup>	80.5	83.7	-3.2	56.5	55.2	1.2
<b>Co-Parenting</b>						
Quality of co-parenting relationship scale (range: 1 to 5) <sup>a</sup>	4.37	4.39	-0.01	4.18	4.17	0.00
<b>Father's Involvement and Parenting Behavior</b>						
Father lives with child (%) <sup>a</sup>	71.4	74.8	-3.4	47.4	46.5	0.9
Father regularly spends time with child (%) <sup>a</sup>	70.9	73.4	-2.6	51.1	51.7	-0.6
Father's engagement with child (range: 1 to 6) <sup>a</sup>	4.38	4.37	0.01	4.22	4.29	-0.07
Mother reports father provides substantial financial support for raising child (%) <sup>d</sup>	84.1	83.1	1.0	59.9	61.2	-1.3
Father's parental responsiveness (observed) (range: 1 to 7) <sup>e</sup>	4.40	4.42	-0.01	4.66	4.59	0.07
<b>Sample Size</b>						
<b>All couples</b>	<b>414</b>	<b>375</b>		<b>1,198</b>	<b>1,223</b>	
<b>Couples in regular contact</b>	<b>370</b>	<b>337</b>		<b>951</b>	<b>996</b>	
<b>Romantically involved couples</b>	<b>324</b>	<b>294</b>		<b>653</b>	<b>697</b>	
<b>Mothers</b>	<b>389</b>	<b>350</b>		<b>1,129</b>	<b>1,150</b>	
<b>Fathers</b>	<b>341</b>	<b>308</b>		<b>972</b>	<b>993</b>	
<b>In-home assessment fathers</b>	<b>120</b>	<b>93</b>		<b>435</b>	<b>426</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: These figures do not include the Baltimore and Baton Rouge programs, because these programs served a very small number of Hispanic couples. More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all couples.

<sup>b</sup>Among couples who are romantically involved at the 36-month follow-up.

<sup>c</sup>Among couples who are in regular contact at the 36-month follow-up. Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

<sup>d</sup>Among couples in which the mother responded to the 36-month follow-up.

<sup>e</sup>Among couples in which the father participated in the in-home assessment.

◆ ◆ ◆/◆ ◆/◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.2B. Impact of BSF on Child Outcomes at 36-Month Follow-Up, by Race/Ethnicity: Hispanic**

Outcome	Both Partners are Hispanic			All Other Couples		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Family Stability</b>						
Both parents have lived with child since birth (%) <sup>a</sup>	66.2	72.6	-6.4	38.3	38.0	0.3
<b>Economic Well-Being</b>						
Family's monthly income below poverty threshold (%) <sup>b</sup>	52.8	46.1	6.6	45.7	44.4	1.3
Family experienced difficulty meeting housing expenses during past year (%) <sup>b</sup>	38.5	44.8	-6.2	45.0	45.5	-0.5
Family receiving TANF or food stamps (%) <sup>b</sup>	54.0	51.5	2.5	64.9	65.0	-0.1
<b>Child Socio-Emotional Development</b>						
Behavior problems index (range: 1 to 3) <sup>a</sup>	1.40	1.45	-0.04	1.38	1.39	-0.02
Emotional insecurity amid parental conflict (range: 1 to 4) <sup>c</sup>	1.39	1.32	0.07	1.40	1.44	-0.04
<b>Sample Size</b>						
<b>All children</b>	<b>414</b>	<b>375</b>		<b>1,198</b>	<b>1,223</b>	
<b>Children living with at least one BSF partner</b>	<b>414</b>	<b>374</b>		<b>1,186</b>	<b>1,206</b>	
<b>Children with parents still in regular contact</b>	<b>370</b>	<b>337</b>		<b>947</b>	<b>994</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: These figures do not include the Baltimore and Baton Rouge programs, because these programs served a very small number of Hispanic couples. More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all children.

<sup>b</sup>Among children living with at least one BSF partner.

<sup>c</sup>Among children with parents still in regular contact.

◆ ◆ ◆/◆ ◆/◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**Table SG.3A. Impact of BSF on Relationship and Parenting Outcomes at 36-Month Follow-Up, by Father's Earnings**

Outcome	Father's Earnings \$10,000 or Less			Father's Earnings Greater than \$10,000		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Relationship Status</b>						
Romantically involved (%) <sup>a</sup>	53.6	54.6	-1.0	60.1	64.2	-4.0**
Living together (married or unmarried) (%) <sup>a</sup>	40.5	41.6	-1.1	51.6	54.0	-2.4
Married (%) <sup>a</sup>	15.0	17.2	-2.2	24.0	23.9	0.2
<b>Relationship Quality</b>						
Relationship happiness scale (range: 0 to 10) <sup>b</sup>	8.34	8.31	0.04	8.24	8.31	-0.07
Support and affection scale (range: 1 to 4) <sup>b</sup>	3.43	3.45	-0.02	3.43	3.43	0.00
Use of constructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	3.20	3.20	0.00	3.22	3.23	-0.02
Avoidance of destructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	2.77	2.77	0.01	2.72	2.78	-0.05*
Neither member of the couple was unfaithful since random assignment (%) <sup>a</sup>	51.7	51.9	-0.2	62.1	62.9	-0.8
<b>Co-Parenting</b>						
Quality of co-parenting relationship scale (range: 1 to 5) <sup>a</sup>	4.14	4.14	0.01	4.22	4.25	-0.04
<b>Father's Involvement and Parenting Behavior</b>						
Father lives with child (%) <sup>a</sup>	43.5	44.0	-0.6	54.9	56.1	-1.2
Father regularly spends time with child (%) <sup>a</sup>	48.7	48.0	0.7	55.7	59.7	-4.0*
Father's engagement with child (range: 1 to 6) <sup>a</sup>	4.19	4.11	0.08	4.26	4.34	-0.08
Mother reports father provides substantial financial support for raising child (%) <sup>d</sup>	56.7	59.1	-2.4	67.3	70.0	-2.7
Father's parental responsiveness (observed) (range: 1 to 7) <sup>e</sup>	4.50	4.52	-0.02	4.68	4.59	0.09
<b>Sample Size</b>						
<b>All couples</b>	<b>948</b>	<b>1,018</b>		<b>1,319</b>	<b>1,255</b>	
<b>Couples in regular contact</b>	<b>722</b>	<b>793</b>		<b>1,105</b>	<b>1,074</b>	
<b>Romantically involved couples</b>	<b>513</b>	<b>541</b>		<b>805</b>	<b>800</b>	
<b>Mothers</b>	<b>895</b>	<b>955</b>		<b>1,231</b>	<b>1,175</b>	
<b>Fathers</b>	<b>745</b>	<b>812</b>		<b>1,084</b>	<b>1,012</b>	
<b>In-home assessment fathers</b>	<b>283</b>	<b>291</b>		<b>430</b>	<b>388</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: These figures do not include the Baltimore and Baton Rouge programs, because these programs served a very small number of Hispanic couples. More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all couples.

<sup>b</sup>Among couples who are romantically involved at the 36-month follow-up.

<sup>c</sup>Among couples who are in regular contact at the 36-month follow-up. Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

<sup>d</sup>Among couples in which the mother responded to the 36-month follow-up.

<sup>e</sup>Among couples in which the father participated in the in-home assessment.

◆ ◆ ◆/◆ ◆/◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/†††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.3B. Impact of BSF on Child Outcomes at 36-Month Follow-Up, by Father’s Earnings**

Outcome	Father’s Earnings \$10,000 or Less			Father’s Earnings Greater than \$10,000		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Family Stability</b>						
Both parents have lived with child since birth (%) <sup>a</sup>	35.2	33.9	1.3	47.5	47.7	-0.2
<b>Economic Well-Being</b>						
Family’s monthly income below poverty threshold (%) <sup>b</sup>	55.9	57.2	-1.3	39.7	40.2	-0.5
Family experienced difficulty meeting housing expenses during past year (%) <sup>b</sup>	42.2	44.7	-2.6	45.5	44.0	1.5
Family receiving TANF or food stamps (%) <sup>b</sup>	75.0	74.5	0.6	60.6	59.7	0.9
<b>Child Socio-Emotional Development</b>						
Behavior problems index (range: 1 to 3) <sup>a</sup>	1.40	1.41	-0.01	1.38	1.40	-0.02*
Emotional insecurity amid parental conflict (range: 1 to 4) <sup>c</sup>	1.40	1.43	-0.03	1.41	1.41	-0.01
<b>Sample Size</b>						
<b>All children</b>	<b>948</b>	<b>1,018</b>		<b>1,319</b>	<b>1,255</b>	
<b>Children living with at least one BSF partner</b>	<b>940</b>	<b>1,006</b>		<b>1,314</b>	<b>1,242</b>	
<b>Children with parents still in regular contact</b>	<b>719</b>	<b>792</b>		<b>1,104</b>	<b>1,073</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all children.

<sup>b</sup>Among children living with at least one BSF partner.

<sup>c</sup>Among children with parents still in regular contact.

◆ ◆ ◆/◆ ◆/◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.4A. Impact of BSF on Relationship and Parenting Outcomes at 36-Month Follow-Up, by Young Age**

Outcome	Either Partner Under Age 21 at Baseline			Both Partners Age 21 or Older at Baseline		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Relationship Status</b>						
Romantically involved (%) <sup>a</sup>	61.0	65.7	-4.7**	52.4	53.0	-0.6
Living together (married or unmarried) (%) <sup>a</sup>	51.4	54.6	-3.2	40.9	41.8	-0.9
Married (%) <sup>a</sup>	22.3	23.4	-1.1	17.5	17.1	0.5
<b>Relationship Quality</b>						
Relationship happiness scale (range: 0 to 10) <sup>b</sup>	8.29	8.30	-0.01	8.28	8.30	-0.01
Support and affection scale (range: 1 to 4) <sup>b</sup>	3.43	3.43	-0.01	3.43	3.43	0.00
Use of constructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	3.23	3.24	-0.02	3.20	3.20	0.00
Avoidance of destructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	2.74	2.78	-0.03	2.75	2.78	-0.03
Neither member of the couple was unfaithful since random assignment (%) <sup>a</sup>	61.9	62.4	-0.5	53.0	53.4	-0.4
<b>Co-Parenting</b>						
Quality of co-parenting relationship scale (range: 1 to 5) <sup>a</sup>	4.22	4.25	-0.04	4.15	4.15	0.00
<b>Father's Involvement and Parenting Behavior</b>						
Father lives with child (%) <sup>a</sup>	54.3	56.7	-2.4	44.5	44.4	0.1
Father regularly spends time with child (%) <sup>a</sup>	55.6	59.7	-4.1*	48.3	50.0	-1.8
Father's engagement with child (range: 1 to 6) <sup>a</sup>	4.24	4.26	-0.02	4.21	4.26	-0.04
Mother reports father provides substantial financial support for raising child (%) <sup>d</sup>	64.7	68.4	-3.6*	59.9	61.1	-1.2
Father's parental responsiveness (observed) (range: 1 to 7) <sup>e</sup>	4.64	4.57	0.07	4.55	4.48	0.07
<b>Sample Size</b>						
<b>All couples</b>	<b>1,242</b>	<b>1,214</b>		<b>887</b>	<b>904</b>	
<b>Couples in regular contact</b>	<b>1,027</b>	<b>1,035</b>		<b>690</b>	<b>707</b>	
<b>Romantically involved couples</b>	<b>771</b>	<b>792</b>		<b>462</b>	<b>461</b>	
<b>Mothers</b>	<b>1,168</b>	<b>1,135</b>		<b>829</b>	<b>849</b>	
<b>Fathers</b>	<b>1,013</b>	<b>1,001</b>		<b>706</b>	<b>706</b>	
<b>In-home assessment fathers</b>	<b>407</b>	<b>380</b>		<b>268</b>	<b>254</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all couples.

<sup>b</sup>Among couples who are romantically involved at the 36-month follow-up.

<sup>c</sup>Among couples who are in regular contact at the 36-month follow-up. Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

<sup>d</sup>Among couples in which the mother responded to the 36-month follow-up.

<sup>e</sup>Among couples in which the father participated in the in-home assessment.

◆ ◆ ◆◆ ◆◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.4B. Impact of BSF on Child Outcomes at 36-Month Follow-Up, by Young Age**

Outcome	Either Partner Under Age 21 at Baseline			Both Partners Age 21 or Older at Baseline		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Family Stability</b>						
Both parents have lived with child since birth (%) <sup>a</sup>	46.6	47.6	-1.0	35.8	35.6	0.1
<b>Economic Well-Being</b>						
Family's monthly income below poverty threshold (%) <sup>b</sup>	44.4	42.8	1.6	49.1	53.1	-4.0
Family experienced difficulty meeting housing expenses during past year (%) <sup>b</sup>	44.4	44.9	-0.5	44.5	42.5	2.0
Family receiving TANF or food stamps (%) <sup>b</sup>	65.8	64.6	1.2	67.3	67.4	0.0
<b>Child Socio-Emotional Development</b>						
Behavior problems index (range: 1 to 3) <sup>a</sup>	1.39	1.40	-0.01	1.37	1.40	-0.03*
Emotional insecurity amid parental conflict (range: 1 to 4) <sup>c</sup>	1.39	1.40	-0.01	1.42	1.45	-0.03
<b>Sample Size</b>						
<b>All children</b>	<b>1,242</b>	<b>1,214</b>		<b>887</b>	<b>904</b>	
<b>Children living with at least one BSF partner</b>	<b>1,235</b>	<b>1,199</b>		<b>881</b>	<b>897</b>	
<b>Children with parents still in regular contact</b>	<b>1,025</b>	<b>1,033</b>		<b>688</b>	<b>707</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all children.

<sup>b</sup>Among children living with at least one BSF partner.

<sup>c</sup>Among children with parents still in regular contact.

◆◆◆◆◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.5A. Impact of BSF on Relationship and Parenting Outcomes at 36-Month Follow-Up, by Initial Relationship Quality**

Outcome		Relationship Quality Index Below the Sample Median			Relationship Quality Index Above the Sample Median		
		Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Relationship Status</b>							
Romantically involved (%) <sup>a</sup>	†	53.2	52.2	1.0	62.0	66.9	-4.9**
Living together (married or unmarried) (%) <sup>a</sup>		41.5	40.8	0.6	52.4	56.3	-3.9*
Married (%) <sup>a</sup>		11.3	12.5	-1.2	28.0	27.7	0.3
<b>Relationship Quality</b>							
Relationship happiness scale (range: 0 to 10) <sup>b</sup>		7.93	7.94	-0.01	8.53	8.55	-0.02
Support and affection scale (range: 1 to 4) <sup>b</sup>		3.32	3.31	0.02	3.50	3.52	-0.02
Use of constructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>		3.10	3.08	0.02	3.31	3.34	-0.02
Avoidance of destructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>		2.63	2.64	-0.01	2.83	2.89	-0.06*
Neither member of the couple was unfaithful since random assignment (%) <sup>a</sup>		51.4	50.3	1.1	64.0	66.1	-2.1
<b>Co-Parenting</b>							
Quality of co-parenting relationship scale (range: 1 to 5) <sup>a</sup>		4.05	4.05	0.00	4.31	4.34	-0.03
<b>Father's Involvement and Parenting Behavior ♦</b>							
Father lives with child (%) <sup>a</sup>	†	45.3	42.8	2.5	55.0	58.7	-3.6*
Father regularly spends time with child (%) <sup>a</sup>		46.0	47.4	-1.4	58.9	62.8	-4.0*
Father's engagement with child (range: 1 to 6) <sup>a</sup>	††	4.15	4.06	0.09	4.31	4.43	-0.12**
Mother reports father provides substantial financial support for raising child (%) <sup>d</sup>		34.6	37.8	-3.2	46.3	49.9	-3.6
Father's parental responsiveness (observed) (range: 1 to 7) <sup>e</sup>		4.58	4.51	0.07	4.58	4.58	0.00
<b>Sample Size</b>							
<b>All couples</b>		<b>999</b>	<b>1,028</b>		<b>1,212</b>	<b>1,156</b>	
<b>Couples in regular contact</b>		<b>776</b>	<b>815</b>		<b>1,008</b>	<b>980</b>	
<b>Romantically involved couples</b>		<b>516</b>	<b>527</b>		<b>765</b>	<b>765</b>	
<b>Mothers</b>		<b>938</b>	<b>956</b>		<b>1,135</b>	<b>1,090</b>	
<b>Fathers</b>		<b>785</b>	<b>816</b>		<b>996</b>	<b>943</b>	
<b>In-home assessment fathers</b>		<b>286</b>	<b>276</b>		<b>410</b>	<b>370</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all couples.

<sup>b</sup>Among couples who are romantically involved at the 36-month follow-up.

<sup>c</sup>Among couples who are in regular contact at the 36-month follow-up. Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

<sup>d</sup>Among couples in which the mother responded to the 36-month follow-up.

<sup>e</sup>Among couples in which the father participated in the in-home assessment.

♦ ♦ ♦ ♦ ♦ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/†††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.5B. Impact of BSF on Child Outcomes at 36-Month Follow-Up, by Initial Relationship Quality**

Outcome	Relationship Quality Index Below the Sample Median			Relationship Quality Index Above the Sample Median		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Family Stability ♦</b>						
Both parents have lived with child since birth (%) <sup>a</sup>	† 36.8	33.0	2.8	47.7	50.9	-3.2
<b>Economic Well-Being</b>						
Family's monthly income below poverty threshold (%) <sup>b</sup>	49.7	51.4	-1.7	43.4	43.2	0.3
Family experienced difficulty meeting housing expenses during past year (%) <sup>b</sup>	44.8	42.4	2.4	44.3	45.7	-1.4
Family receiving TANF or food stamps (%) <sup>b</sup>	69.1	68.9	0.2	64.2	63.1	1.1
<b>Child Socio-Emotional Development</b>						
Behavior problems index (range: 1 to 3) <sup>a</sup>	1.40	1.42	-0.02	1.37	1.39	-0.02*
Emotional insecurity amid parental conflict (range: 1 to 4) <sup>c</sup>	1.43	1.46	-0.03	1.38	1.39	-0.01
<b>Sample Size</b>						
All children	999	1,028		1,212	1,156	
Children living with at least one BSF partner	990	1,011		1,208	1,151	
Children with parents still in regular contact	774	814		1,006	979	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all children.

<sup>b</sup>Among children living with at least one BSF partner.

<sup>c</sup>Among children with parents still in regular contact.

♦ ♦ ♦/♦ ♦/♦ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.6A. Impact of BSF on Relationship and Parenting Outcomes at 36-Month Follow-Up, by Multiple Partner Fertility**

Outcome	No Children with Other Partners			One or More Children with Other Partners		
	Program Group	Control Group	Impact	Program Group	Control Group	Impact
<b>Relationship Status</b>						
Romantically involved (%) <sup>a</sup>	58.3	59.8	-1.5	57.2	60.3	-3.0
Living together (married or unmarried) (%) <sup>a</sup>	48.2	48.8	-0.6	46.4	48.9	-2.6
Married (%) <sup>a</sup>	23.1	21.6	1.4	17.5	20.0	-2.6
<b>Relationship Quality</b>						
Relationship happiness scale (range: 0 to 10) <sup>b</sup>	8.28	8.36	-0.08	8.32	8.25	0.06
Support and affection scale (range: 1 to 4) <sup>b</sup>	3.43	3.45	-0.02	3.43	3.42	0.01
Use of constructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	3.21	3.24	-0.03	3.23	3.21	0.02
Avoidance of destructive conflict behaviors scale (range: 1 to 4) <sup>c</sup>	2.75	2.81	-0.06*	2.75	2.75	0.00
Neither member of the couple was unfaithful since random assignment (%) <sup>a</sup>	59.8	61.9	-2.1	56.6	55.6	1.1
<b>Co-Parenting</b>						
Quality of co-parenting relationship scale (range: 1 to 5) <sup>a</sup>	4.20	4.20	0.00	4.18	4.21	-0.03
<b>Father's Involvement and Parenting Behavior</b>						
Father lives with child (%) <sup>a</sup>	51.8	51.0	0.8	49.2	51.4	-2.2
Father regularly spends time with child (%) <sup>a</sup>	54.5	55.7	-1.2	50.9	55.3	-4.3*
Father's engagement with child (range: 1 to 6) <sup>a</sup>	4.29	4.37	-0.08	4.16	4.15	0.01
Mother reports father provides substantial financial support for raising child (%) <sup>d</sup>	64.9	66.8	-1.9	61.5	63.4	-2.0
Father's parental responsiveness (observed) (range: 1 to 7) <sup>e</sup>	4.67	4.53	0.14*	4.51	4.56	-0.05
<b>Sample Size</b>						
<b>All couples</b>	<b>1,116</b>	<b>1,125</b>		<b>1,018</b>	<b>997</b>	
<b>Couples in regular contact</b>	<b>924</b>	<b>935</b>		<b>796</b>	<b>811</b>	
<b>Romantically involved couples</b>	<b>657</b>	<b>666</b>		<b>579</b>	<b>588</b>	
<b>Mothers</b>	<b>1,044</b>	<b>1,058</b>		<b>957</b>	<b>930</b>	
<b>Fathers</b>	<b>907</b>	<b>908</b>		<b>817</b>	<b>802</b>	
<b>In-home assessment fathers</b>	<b>360</b>	<b>329</b>		<b>316</b>	<b>305</b>	

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all couples.

<sup>b</sup>Among couples who are romantically involved at the 36-month follow-up.

<sup>c</sup>Among couples who are in regular contact at the 36-month follow-up. Couples are considered to be in regular contact with each other if both report seeing or talking to each other at least a few times a month.

<sup>d</sup>Among couples in which the mother responded to the 36-month follow-up.

<sup>e</sup>Among couples in which the father participated in the in-home assessment.

◆ ◆ ◆/◆ ◆/◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/†††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.

**Table SG.6B. Impact of BSF on Child Outcomes at 36-Month Follow-Up, by Multiple Partner Fertility**

Outcome	No Children with Other Partners			One or More Children with Other Partners			
	Program Group	Control Group	Impact	Program Group	Control Group	Impact	
<b>Family Stability</b>							
Both parents have lived with child since birth (%) <sup>a</sup>	42.5	42.7	-0.3	42.3	42.4	-0.1	
<b>Economic Well-Being</b>							
Family's monthly income below poverty threshold (%) <sup>b</sup>	44.5	45.0	-0.5	48.6	49.5	-0.9	
Family experienced difficulty meeting housing expenses during past year (%) <sup>b</sup>	41.9	42.0	-0.1	46.9	46.3	0.5	
Family receiving TANF or food stamps (%) <sup>b</sup>	59.2	59.0	0.2	74.0	72.9	1.0	
<b>Child Socio-Emotional Development</b>							
Behavior problems index (range: 1 to 3) <sup>a</sup>	1.37	1.40	-0.03*	1.39	1.41	-0.02	
Emotional insecurity amid parental conflict (range: 1 to 4) <sup>c</sup>	††	1.38	1.45	-0.06**	1.42	1.39	0.03
<b>Sample Size</b>							
<b>All children</b>	<b>1,116</b>	<b>1,125</b>		<b>1,018</b>	<b>997</b>		
<b>Children living with at least one BSF partner</b>	<b>1,107</b>	<b>1,121</b>		<b>1,014</b>	<b>979</b>		
<b>Children with parents still in regular contact</b>	<b>921</b>	<b>934</b>		<b>795</b>	<b>810</b>		

Source: BSF 36-month follow-up survey, conducted by Mathematica Policy Research.

Notes: More information about subgroup definitions is provided in Chapter V. Details on the construction of the outcome measures are provided in Chapters III and IV.

<sup>a</sup>Among all children.

<sup>b</sup>Among children living with at least one BSF partner.

<sup>c</sup>Among children with parents still in regular contact.

◆◆◆◆◆ Subgroup impact estimates for the domain index are statistically significant at the .01/.05/.10 level.

†††/††/† Statistically significant differences among the subgroup impact estimates at the .01/.05/.10 level.

\*\*\*/\*\*/\* Impact estimates are statistically significant at the .01/.05/.10 level, two-tailed test.



**APPENDIX C**  
**BSF INTAKE FORMS**



Agency Family ID \_\_\_\_\_

MPR ID: | | | | | | | | | |

Date: \_\_/\_\_/\_\_

**BUILDING STRONG FAMILIES**

OMB Control No: 0970-0273

FATHER ELIGIBILITY CHECK LIST

Expiration Date: 03/31/2008

**INSTRUCTIONS: THE SCREENING ITEMS HAVE TO BE COMPLETED IN ORDER. DISCONTINUE AT THE FIRST ITEM WITH AN INELIGIBLE RESPONSE. THE FATHER IS ELIGIBLE WHEN NONE OF THE ITEMS THAT NEED TO BE COMPLETED HAS AN "INELIGIBLE" RESPONSE.**

**FATHER'S NAME:**

\_\_\_\_\_

FIRST LAST

**1. IS FATHER 18 YEARS OF AGE OR OLDER?**

- 1  Yes
- 0  No [INELIGIBLE]

2. [NOT INCLUDED]

**3A. IS FATHER CURRENTLY MARRIED?**

- 1  Yes, MARRIED TO MOTHER OF BABY → GO TO 3B
- 2  Yes, MARRIED TO SOMEONE ELSE [INELIGIBLE]
- 0  No → GO TO 4

**3B. DID FATHER MARRY MOTHER AFTER SHE BECAME PREGNANT?**

- 1  Yes
- 0  No [INELIGIBLE]

**4. IS BSF PROGRAM OFFERED IN LANGUAGE FATHER CAN SPEAK AND UNDERSTAND?**

- 1  Yes
- 0  No [INELIGIBLE]

**5. IS FATHER LIKELY TO BE IN PROGRAM AREA DURING NEXT SIX MONTHS?**

- 1  Yes
- 0  No, (*specify reason*) \_\_\_\_\_ [INELIGIBLE]

6. [NOT INCLUDED]

7. [NOT INCLUDED]

**8. COUPLE'S CURRENT RELATIONSHIP APPROPRIATE FOR BSF ACCORDING TO IPV ASSESSMENT.**

- 1  Yes
- 0  No [INELIGIBLE]

**9. (ASK VERBATIM) In general, which of the following statements best describes your relationship with the mother of your baby?**

- 1  We are romantically involved on a steady basis [FATHER IS ELIGIBLE FOR STUDY]
- 2  We are involved in an on-again and off-again relationship
- 3  We are just friends [INELIGIBLE]
- 4  We hardly ever are in contact with each other [INELIGIBLE]
- 5  We never are in contact with each other [INELIGIBLE]

**10. (ASK VERBATIM) Do you think you will probably be together a year from now?**

- 1  Yes [FATHER IS ELIGIBLE FOR STUDY]
- 0  No [FATHER IS ELIGIBLE FOR STUDY]

Agency Family ID \_\_\_\_\_

MPR ID: | | | | | | | | | |

Date: \_\_\_/\_\_\_/\_\_\_

**BUILDING STRONG FAMILIES**

OMB Control No: 0970-0273

MOTHER ELIGIBILITY CHECK LIST

Expiration Date: 03/31/2008

**INSTRUCTIONS: THE SCREENING ITEMS HAVE TO BE COMPLETED IN ORDER. DISCONTINUE AT THE FIRST ITEM WITH AN INELIGIBLE RESPONSE. THE MOTHER IS ELIGIBLE WHEN NONE OF THE ITEMS THAT NEED TO BE COMPLETED HAS AN "INELIGIBLE" RESPONSE. ITEMS IN BOX (6-7) ARE ONLY COMPLETED IF THE FATHER IS NOT PRESENT.**

MOTHER'S NAME:

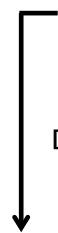
\_\_\_\_\_

FIRST LAST

1. **IS MOTHER 18 YEARS OF AGE OR OLDER?**  
 1  Yes  
 0  No [INELIGIBLE]
  
2. **IS MOTHER PREGNANT OR HAD A BABY IN LAST THREE MONTHS?**  
 1  Yes  
 0  No [INELIGIBLE]
  
- 3A. **IS MOTHER CURRENTLY MARRIED?**  
 1  Yes, MARRIED TO FATHER OF BABY → **GO TO 3B**  
 2  Yes, MARRIED TO SOMEONE ELSE [INELIGIBLE]  
 0  No → **GO TO 4**
  
- 3B. **DID MOTHER MARRY FATHER AFTER SHE BECAME PREGNANT?**  
 1  Yes  
 0  No [INELIGIBLE]
  
4. **IS BSF PROGRAM OFFERED IN LANGUAGE MOTHER CAN SPEAK AND UNDERSTAND?**  
 1  Yes  
 0  No [INELIGIBLE]
  
5. **IS MOTHER LIKELY TO BE IN PROGRAM AREA DURING NEXT SIX MONTHS?**  
 1  Yes  
 0  No, (specify reason) \_\_\_\_\_ [INELIGIBLE]

6. **IS MOTHER CURRENTLY INVOLVED WITH OR IN CONTACT WITH BIOLOGICAL FATHER OF THE BABY?**  
 1  Yes  
 0  No [INELIGIBLE]
  
7. **IS FATHER 18 YEARS OR OLDER?**  
 1  Yes  
 0  No [INELIGIBLE]

8. **COUPLE'S CURRENT RELATIONSHIP APPROPRIATE FOR BSF ACCORDING TO IPV ASSESSMENT.**  
 1  Yes  
 0  No [INELIGIBLE]
  
9. **(ASK VERBATIM) In general, which of the following statements best describes your relationship with the father of your baby?**  
 1  We are romantically involved on a steady basis [MOTHER IS ELIGIBLE FOR STUDY]  
 2  We are involved in an on-again and off-again relationship  
 3  We are just friends [INELIGIBLE]  
 4  We hardly ever are in contact with each other [INELIGIBLE]  
 5  We never are in contact with each other [INELIGIBLE]
  
10. **(ASK VERBATIM) Do you think you will probably be together a year from now?**  
 1  Yes [MOTHER IS ELIGIBLE FOR STUDY]  
 0  No [MOTHER IS ELIGIBLE FOR STUDY]





15. When was your baby born?

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Month Day Year

- Don't know
- Refused

15a. What is the name of your baby?

Name: \_\_\_\_

16. Right before the pregnancy, did you want to have a baby with (NAME OF MOTHER/FATHER)? Is that . . .

NSFG EG-12a

- definitely yes,
- probably yes,
- probably no, or
- definitely no? → GO TO Q.18
- Don't know
- Refused

17. Would you say this pregnancy came sooner than you wanted, at about the right time, or later than you wanted?

NSFG EG-17

- Sooner
- Right time
- Later
- Didn't care
- Don't know
- Refused

18. How long did you know (NAME OF MOTHER/FATHER) before this pregnancy?

FF B1

\_\_\_\_ # OF UNITS

- Months
- Years
- Weeks (IF LESS THAN ONE WEEK, ENTER 1 WEEK)
- Don't know
- Refused

Family Structure

19. Do you currently live with (NAME OF MOTHER/FATHER) . . .

FF A7A

- all of the time,
- most of the time,
- some of the time, or
- never?
- Don't know
- Refused

20. How many children do you have with (NAME OF MOTHER/FATHER)? Please include all of your biological children, even if they are not born yet.

\_\_\_\_ # OF CHILDREN

- Don't know
- Refused

21. How many children do you have with other partners? Please include all of your biological children, even if they are not currently living with you or are not born yet.

\_\_\_\_ # OF CHILDREN WITH OTHER PARTNER(S)

- Don't know
- Refused

Employment and Income

22. Are you currently . . . →

- working at a job for pay, → GO TO Q.23
- on paid maternity/paternity leave, or
- not working?
- Don't know
- Refused

22a. What is the date you last worked?

\_\_\_\_/\_\_\_\_/\_\_\_\_  
Month Day Year

- Never worked

23. In the last 12 months, what were your total earnings from all your jobs before taxes and deductions? Please do not include earnings from anyone else.

- None
- \$1-\$4,999
- \$5,000-\$9,999
- \$10,000-\$14,999
- \$15,000-\$19,999
- \$20,000-\$24,999
- \$25,000-\$34,999
- \$35,000 or above
- Don't know
- Refused

24. In the last 12 months, have you received any of the following for yourself or your child:

- |                          |  |
|--------------------------|--|
| YES                      | NO   |
| <input type="checkbox"/> | <input type="checkbox"/> Cash Welfare/TANF         |
| <input type="checkbox"/> | <input type="checkbox"/> Food Stamps               |
| <input type="checkbox"/> | <input type="checkbox"/> Medicaid/SCHIP            |
| <input type="checkbox"/> | <input type="checkbox"/> SSI or SSDI               |
| <input type="checkbox"/> | <input type="checkbox"/> WIC                       |
| <input type="checkbox"/> | <input type="checkbox"/> Unemployment Compensation |

## Feelings and Opinions

25. Now I am going to ask you some questions about feelings you may have experienced over the PAST 30 DAYS.

NHIS  
ACN.471

During the PAST 30 DAYS, how often did you feel . . .

	ALL OF THE TIME	MOST OF THE TIME	SOME OF THE TIME	A LITTLE OF THE TIME	NONE OF THE TIME	DON'T KNOW	REFUSED
... so sad that nothing could cheer you up?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
... nervous?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
... restless or fidgety?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
... hopeless?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
... that everything was an effort?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
... worthless?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>

26a. If you had an emergency, would you be able to count on someone besides (NAME OF MOTHER/FATHER) to take care of your baby?

- 1  Yes  
 0  No  
 d  Don't know  
 r  Refused

26b. Is there someone you could turn to other than (NAME OF MOTHER/FATHER) if you suddenly needed to borrow \$100 dollars?

- 1  Yes  
 0  No  
 d  Don't know  
 r  Refused

26c. In the past 12 months, about how often have you attended a religious service? Was it . . .

- 1  never,  
 2  a few times a year,  
 3  a few times a month, or  
 4  once a week or more?  
 d  Don't know  
 r  Refused

27. INTERVIEWER: IS RESPONDENT CURRENTLY MARRIED TO (NAME OF MOTHER/FATHER)?

- 1  Yes → **GO TO Q.29**
- 0  No

28. What do you think the chances are that you will marry (NAME OF MOTHER/FATHER) in the future?

FF  
B14

- 0  No chance
- 1  A little chance
- 2  A 50-50 chance
- 3  A pretty good chance, or
- 4  An almost certain chance
- d  Don't know
- r  Refused

29. Tell me whether you strongly agree, agree, disagree or strongly disagree with the following statements.

FF  
B1

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	DON'T KNOW	REFUSED
k. A single parent can bring up a child just as well as a married couple.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
b. (NAME OF MOTHER/FATHER) shows love and affection toward you.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
c. (NAME OF MOTHER/FATHER) encourages you to do things that are important to you.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
d. (NAME OF MOTHER/FATHER) will not cheat on you.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
e. You may not want to be with (NAME OF MOTHER/FATHER) a few years from now.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
f. Your relationship with (NAME OF MOTHER /FATHER) is more important to you than almost anything else in your life.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
g. You and (NAME OF MOTHER/FATHER) enjoy doing ordinary, everyday things together.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
j. (NAME OF MOTHER/FATHER) listens to you when you need someone to talk to.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
l. It is better for children if their parents are married.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>
a. You are satisfied with the way you and (NAME OF MOTHER/FATHER) handle problems and disagreements.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	d <input type="checkbox"/>	r <input type="checkbox"/>

This form has been completed by: \_\_\_\_\_  
 Signature of Staff Person and Date



Expiration Date: 03/31/2008

## BUILDING STRONG FAMILIES STUDY

### **THE BUILDING STRONG FAMILIES PROGRAM**

Building Strong Families helps unmarried couples with a new baby learn how to get along better with each other and be better parents for their children. Couples will learn about marriage, communication, trust, affection, dealing with stress, and relating to their baby. They also can get referrals to employment assistance, health care and mental health services, and other needed services.

### **WHAT IS THE STUDY ABOUT?**

Building Strong Families is part of a national study being conducted by a research team from Mathematica Policy Research, Inc. based in Princeton, New Jersey. The study is sponsored by the U.S. Department of Health and Human Services. The study is being done to learn more about which services help couples build better relationships and healthy marriages.

If you participate in this study, we will ask you some questions about yourself, the baby you are expecting or have just had, your living arrangements, your employment, how you are feeling about yourself, and how you are feeling about your relationship with the other parent of your child. Later, the research team will interview both of you two or three times. The researchers may also ask you for permission to do some activities with your child to see how your child is growing up. The interviews will be about how things have gone for you as a couple and as parents. Your answers could help in providing services in the future to other parents like you, who want to learn more about relationships, marriage, and being parents.

If you agree to be part of the study, it means you are giving permission for the Building Strong Families program to share information with the research team about services you received, and for state and local agencies to release information to the research team about earnings and benefits you might get from government programs.

The Building Strong Families program will not have room for all couples who might be eligible. If you want to be in the program and agree to be in the study, a lottery will decide whether you can be in the program. You can go through this lottery and have a chance to be in the program only if both parents agree. Whether you are selected or not, you will still be part of the study. If you are not selected for Building Strong Families, you can still receive other services in your community.

### **YOUR ANSWERS WILL BE KEPT PRIVATE**

Everything you tell the research team will be kept strictly confidential and will not be shared with any agency. Only the researchers will be able to see information you give them and nothing will ever be said about you as an individual. Instead, information about you will be combined with information about everybody else in the study, so the researchers can say things like "30 percent of couples in the program have two children."

### **YOUR PARTICIPATION IS VOLUNTARY**

We hope that you will want to be in the Building Strong Families study, but you only have to be in the study if you want to. However, if you do not want to participate in the study, you and the other parent of your baby cannot receive Building Strong Families services.

# Consent to Participate in Building Strong Families Study

***I have read the information on the reverse side.***

- *I understand that the Building Strong Families program will not have space for all couples, and I agree to participate in a lottery to determine whether we can receive services. I understand that if we cannot receive Building Strong Families services, we can still get other program services in my community.*
- *I agree to complete an information form now, and to participate in later interviews. I understand that I may be asked some questions about personal things, but I will not have to answer any questions that make me feel uncomfortable. I understand that later I may be asked permission for researchers to include my child in the study as well.*
- *I give permission for the study team to collect information on Building Strong Families services I receive. I give permission for state and local agencies to release information to the study team about earnings and benefits I may receive from government programs*
- ***I understand that all information will be kept strictly confidential, except as required by law or I request otherwise in writing. Only the research team will be able to look at the information I give. The information will be used only for the study. However, I do understand that if a person on the study team observes child abuse, it must be reported.***
- *I can call Jacey Sebastian collect at 609-945-3338 at Mathematica Policy Research, Inc. to get an answer about any questions I may have.*

\_\_\_\_\_  
Name of Participant (*Printed*)

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Person Administering this Form (*Printed*)

\_\_\_\_\_  
Signature of Person Administering this Form

\_\_\_\_\_  
Date

**APPENDIX D**

**BSF 36- MONTH FOLLOW- UP SURVEY INSTRUMENT**



OMB No.: 0970-0344  
Expiration Date: 07/31/2011  
Contract No.: 233-02-0056  
MPR Reference No.: 8935-144

**MATHEMATICA**  
**Policy Research**

**Building Strong Families:  
36 Month Follow-Up  
Survey**

*August 26, 2008*

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Robert Wood  
Sheena McConnell  
Shawn Marsh*

Submitted to:

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Administration for Children and Families  
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# The Building Strong Families Evaluation

## Thirty-Six Month Follow-Up Survey

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## CONTENTS

<b>Section</b>		<b>Page</b>
IN	INTRODUCTION.....	1
FS	FAMILY STRUCTURE .....	6
CO	INVOLVEMENT WITH CHILD.....	35
CH	CHILD OUTCOMES.....	41
RR	RELATIONSHIP .....	49
WB	PARENTAL WELL BEING (I) .....	61
SE	RECEIPT OF SERVICES.....	66
PA	PATERNITY AND CHILD SUPPORT.....	67
WW	FAMILY SELF-SUFFICIENCY .....	73
WB	PARENTAL WELL BEING (II).....	91
BP	COUNTRY OF ORIGIN AND BIOLOGICAL PARENTS.....	98
LO	LOCATING INFORMATION.....	105

## QUESTIONNAIRE FORMAT EXPLANATION

The purpose of this page is to illustrate the layout of questions in this instrument and help the reader to interpret the formatting and instructions, so they can follow the flow of the questions. This format was designed for ease of use by those who will be programming the computer-aided telephone interviewing (CATI) survey instrument. If this questionnaire was administered in a paper and pencil version, the formatting would be changed; however, the skip logic would remain the same.

**Line 2:** This box indicates if a previously answered question affects whether this question is asked or which part of the question is asked, and if so, the specific responses to the earlier question that trigger this question or a specific part of it.

Question number is displayed in the shaded area.

FS42.2
IF FS42=most of the time (2), some of the time (3), OR none of the time (4)
he if CMALE; she if CFEMALE

Indicates that the question stem should only be asked if question FS42 was answered 2 or 3.

(IF FS42 =2 or 3) When [he/she] is not living with you,

This code tells the programmer or interviewer to insert the name of the focal child.

(W/w)ho does [CHILD] live with?

Question Text

Answer Categories

FATHER/MOTHER	1	FS42.3 OR FS43
GRANDPARENT(S)	2	
OTHER RELATIVES(S)	3	
ADOPTIVE PARENTS	4	
FOSTER PARENTS	5	
FRIEND(S)	6	
SOMEONE ELSE	7	FS42.2.1
DK	d	FS42.3
REF	r	OR FS43

These are skip instructions to the next question asked. You should follow the lowest number skip to the next question, to see if that question is appropriate. Instructions at those questions will tell you how to proceed.

**Line 3:** Indicates wording changes, pronouns to be used, or variations in the question, based on a known variable about the respondent, such as gender or relationship status.



## SECTION IN: INTRODUCTION

IN1
ALL

May I please speak with [SAMPLE MEMBER]? My name is [NAME] and I'm calling from Mathematica Policy Research, a research company in Princeton, New Jersey.

SAMPLE MEMBER AVAILABLE	1	IN3a if 15 MO = 0, IN3b if 15 MO = 1
SAMPLE MEMBER NOT AVAILABLE	2	IN2
SAMPLE MEMBER DECEASED	3	IN8

IN2
IN1=2

(When would be a good time to reach [SAMPLE MEMBER]? / When would be a good time to do the interview?)

INSTRUCTION: RECORD DATE AND TIME FOR CALL BACK.

INSTRUCTION: MAKE AN APPOINTMENT USING THE PARALLEL BLOCK.

INSTRUCTION: USE THE 'APPOINTMENT' TAB OR PRESS <CTRL-S> TO INVOKE THE APPOINTMENT MAKING DIALOG.

CALL BACK INFO	STRING OF 20	END
----------------	--------------	-----

IN3a
------

IN1=1 and 15 Mo = 0
---------------------

(Hello, my name is [NAME] and I'm calling from Mathematica Policy Research, a research company in Princeton, New Jersey.) I'm calling you about the Building Strong Families study you joined about three years ago. You may have received a letter recently to let you know that we would be calling you.

The interview will take about 50 minutes and you will receive \$25 for completing the interview. Your participation in the survey is voluntary. You do not have to answer any questions that make you uncomfortable.

Because we want to get your opinion, it is important that you answer the questions without help from anyone else. Of course, you can share what you said with others after we have completed the interview.

This interview may be recorded so my supervisor can monitor the interview and make sure that the questions are asked correctly. These recordings will be destroyed when the study is completed.

Is now a good time to start?

OK TO CONTINUE	1	IN5
NOT A GOOD TIME	2	IN4

FOR THOSE **WITH** 15MONTH (PRELOADED)

IN3b
IN1=1 and 15 Mo=1

(Hello, my name is [NAME] and I'm calling from Mathematica Policy Research, a research company in Princeton, New Jersey.) I'm calling you about the Building Strong Families study you joined about three years ago. You may have received a letter recently to let you know that we would be calling you to see how you are doing.

The interview will take about 50 minutes and you will receive \$25 for completing the interview. Your participation in the survey is voluntary. You do not have to answer any questions that make you uncomfortable.

Because we want to get your opinion, it is important that you answer the questions without help from anyone else. Of course, you can share what you said with others after we have completed the interview.

This interview may be recorded so my supervisor can monitor the interview and make sure that the questions are asked correctly. These recordings will be destroyed when the study is completed.

Is now a good time to start?

OK TO CONTINUE	1	IN5
NOT A GOOD TIME	2	IN4

IN4
IN3a=2 or IN3b=2

When would be a good time to do the interview?

INSTRUCTION: RECORD DATE AND TIME FOR CALL BACK.  
INSTRUCTION: MAKE AN APPOINTMENT USING THE PARALLEL BLOCK.  
INSTRUCTION: USE THE 'APPOINTMENT' TAB OR PRESS <CTRL-S> TO INVOKE THE APPOINTMENT MAKING DIALOG.

CALL BACK INFO	STRING OF 20	END
----------------	--------------	-----

IN5
IN3a=1 or IN3b=1

I just need to verify that I am speaking with the correct person. What is your date of birth?

RESP. BIRTHDAY	MM/DD/YYYY	IF AT LEAST 2 DATA ELEMENTS MATCH THEN FS0
DK	d	IN6
REF	r	IN6
BIRTHDAY INCORRECT= LESS THAN 2 DATA ELEMENTS MATCH	MM/DD/YYYY	IN6

PROGRAMMER: NOTE AT LEAST TWO PIECES OF BIRTHDAY INFORMATION MUST MATCH FOR VERIFICATION (FOR EXAMPLE, MONTH AND YEAR)

IN6
IN5=BIRTHDATE INCORRECT, d OR r

And what are the last 4-digits of your Social Security Number?

RESP. 4-DIGIT SSN	FF	FS0
DK	d	IN7
REF	r	IN7
SSN INCORRECT	FF	IN7

IN7
IN6a = 0, d OR r

I'm sorry. I need to check my records before I can interview you. Is this the best time to reach you in the future?

INSTRUCTION: RECORD DATE AND TIME FOR CALL BACK.

YES	1	END
NO, CALL BACK INFO	STRING OF 20	END

IN8
IN1 = 3

Thank you for taking time to speak with me. Good-bye.

		END
--	--	-----

## SECTION FS: FAMILY STRUCTURE

FS0
ALL

To help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. With this Certificate, the researchers cannot be forced to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained in a moment. You should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If an insurer, employer, or other person obtains your written consent to receive research information, then the researchers may not use the Certificate to withhold that information.

The Certificate of Confidentiality does not prevent the researchers from disclosing voluntarily, without your consent, information that would identify you as a participant in the research project under the following circumstances: if you tell the interviewers anything that suggests you are very likely to harm yourself, that you are planning to hurt another person or child, or that someone is likely to harm you.

FS1
ALL

Before we get started I would like to make sure we have your name recorded correctly.

What is your first name?

PROBE: Can you spell that for me please?

FIRST NAME OF RESPONDENT	STRING OF 20	FS2
-----------------------------	--------------	-----

FS2
ALL

And a middle name please?

PROBE: Can you spell that for me please?

MIDDLE NAME OF RESPONDENT	STRING OF 20	FS3
---------------------------	--------------	-----

FS3
ALL

And a last name please?

PROBE: Can you spell that for me please?

LAST NAME OF RESPONDENT	STRING OF 20	FS4
-------------------------	--------------	-----

FS4
ALL

Are you usually called [RESP FIRST NAME] or do you go by another name?

INSTRUCTION: IF SAME JUST HIT ENTER.

INSTRUCTION: IF DIFFERENT NAME, CHANGE TO USUAL NAME WHICH WILL BE USED AS FILL IN THE REMAINDER OF SURVEY.

PROBE: Can you spell that for me please?

FATHER/MOTHER USUAL FIRST NAME	STRING OF 20	FS5a (if 15 Mo=0 and NOTPREG) FS7 (if 15 Mo=0 and PREG) FS5b (if 15 Mo=1 and 15MO_FS5=1 or 3) BOX 1 (if 15 Mo=1 and 15MO_FS5=2 or 4)
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FS5a
If not pregnant at baseline (NOTPREG) and 15 Mo = 0 OR if 15m=1 and FS5b=4
<b>FATHER NAME IF FEMALE/MOTHER NAME IF MALE</b>

Our records indicate that you and [FATHER NAME/MOTHER NAME] had a baby on [BASELINE CHILD BDATE]. Is that correct?

INSTRUCTION: IF RESPONDENT REPORTS MULTIPLE BIRTHS, ENTER "YES."

YES	1	FS6.1
YES, BUT BABY DIED	2	BOX 1
NO, OTHER DATE	3	FS6
NO, BABY DIED	4	BOX 1
DENY BABY EXISTS	5	BOX 1

FS5b
15 Mo=1 and Baby Died = 0 or 15 Mo_FS5=1, OR 15 Mo_FS7=1 OR 15 Mo_FS8=1
<b>FATHER NAME IF FEMALE/MOTHER NAME IF MALE</b>

When we interviewed you on [15MO SURVDATE], we asked you some questions about your child, [CHILD]. [CHILD] is around 3 years old now. Is that correct?

INSTRUCTION: IF RESPONDENT REPORTS MULTIPLE BIRTHS, ENTER "YES."  
 INSTRUCTION: ENTER 'YES' IF THE R CONFIRMS THAT WE ARE SPEAKING ABOUT THE CORRECT CHILD.

YES	1	FS19
NO, CHILD DIED	2	BOX 1
NO, DENY CHILD EXISTS	3	BOX 1
NO, WRONG AGE	4	FS5a or FS7
DK	d	BOX 1
REF	r	BOX 1



FS6
IF 15 MO=0 AND NOTPREG AND FS5a=NO, OTHER DATE

When did you and [FATHER NAME/MOTHER NAME] have the baby?

CHILD BIRTHDAY	MM/DD/YYYY	FS6.1
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FS6.1
IF 15 MO=0 AND NOTPREG AND FS5a=1
<b>FATHER NAME IF MALE/MOTHER NAME IF FEMALE</b>

INSTRUCTION: ENTER WITHOUT ASKING IF ALREADY KNOWN.

And you and [FATHER NAME/MOTHER NAME] had just one baby on [CHILD BDATE]?

INSTRUCTION: IF "NO" PROBE FOR NUMBER OF BABIES.

INSTRUCTION: IF "YES" ENTER ONE.

NUMBER OF BABIES	FF	FS10
DK	d	
REF	r	

FS7
If 15 Mo=0 AND pregnant at baseline (PREG) OR if 15m=1 and FS5b=4
<b>FATHER NAME IF FEMALE/MOTHER NAME IF MALE</b>

Our records indicate that you and [FATHER NAME/MOTHER NAME] were expecting a baby around [BASELINE CHILD EXPECTED DELIVERY DATE].

Did you have a baby around that time?

INSTRUCTION: IF RESPONDENT REPORTS DATE OF BIRTH, ANSWER "YES" AND ENTER DATE OF BIRTH ON NEXT SCREEN.

INSTRUCTION: IF RESPONDENT REPORTS MULTIPLE BIRTHS, ENTER "YES." YOU WILL ENTER NUMBER OF BABIES ON ANOTHER SCREEN.

IF RESPONDENT ANSWERS NO, PROBE: I'm sorry. What happened?

YES	1	FS8
YES, BUT BABY DIED	2	BOX 1
NO, MISCARRIAGE	3	
NO, ABORTION	4	
NO, BABY DIED	5	
NO, DENY PREGNANCY	6	
DK	d	
REF	r	

FS8
IF 15 MO=0 AND PREG AND FS7=1
<b>FATHER NAME IF MALE/MOTHER NAME IF FEMALE</b>

On what date was the baby born?

INSTRUCTION: ENTER RESPONSE WITHOUT ASKING IF KNOWN.

BIRTHDAY	MM/DD/YYYY	FS9
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CHECK: If answer is 5 months before or 9 months after RA DATE, say, "We are interested in speaking to you about a child who would be about 3 years old. The child you mentioned is a different age." IF UNABLE TO IDENTIFY A CHILD WHO IS THE CORRECT AGE, DISCONTINUE THE INTERVIEW AND SPEAK WITH A SUPERVISOR.

<b>BOX 1: IF FS5a=2, 4, 5 OR FS5b=2, 3 OR FS7=2,3,4,5, OR Baby_Died = 1</b>
<b>DO NOT ASK UNLESS OTHERWISE INDICATED</b>
FS8 to FS17.6 AND FS42 TO FS46.1
CO1 TO CO5
WB1.2 (IF NO OTHER CHILDREN)
CHI-CH12 (SKIPPING ENTIRE CH SECTION)
PA1 TO PA12
WW54, WW55.1.1, WW57.1, and WW57

FS9
IF 15 MO=0 AND PREG AND FS7=1
<b>FATHER NAME IF FEMALE/MOTHER NAME IF MALE</b>

INSTRUCTION: ENTER WITHOUT ASKING IF ALREADY KNOWN.

And you and [FATHER NAME/MOTHER NAME] had just one baby on [CHILD BDATE]?

INSTRUCTION: IF "NO" PROBE FOR NUMBER OF BABIES.

INSTRUCTION: IF "YES" ENTER ONE.

NUMBER OF BABIES	FF	FS10
DK	d	
REF	r	

FS10
ALL
<b>oldest or first born</b> IF FS9>1 or FS6.1>1

What is the first name of this baby?

FIRST NAME OF CHILD	STRING OF 20	FS12
BABY DIED	b	Box 1

FS12
ALL

And a middle name please?

PROBE: Can you spell that for me please?

MIDDLE NAME OF CHILD	STRING OF 20	FS13
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FS13
ALL

And a last name please?

PROBE: Can you spell that for me please?

LAST NAME OF CHILD	STRING OF 20	FS17
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FS17
ALL

INSTRUCTION: DO NOT ASK IF ALREADY KNOWN.

Is [CHILD] male or female?

MALE	1	FS17.1
FEMALE	2	

FS17.1
ALL
him IF FS17=CMALE; her IF FS17=CFEMALE

I want to make sure that we use [CHILD]'s correct first name. Do you call [him/her] [CHILD] or do you usually call [him/her] by a different name?

INSTRUCTION: IF DIFFERENT NAME, CHANGE TO USUAL NAME WHICH WILL BE USED AS FILL IN THE REMAINDER OF SURVEY.

USUAL FIRST NAME OF [CHILD]	STRING OF 20	FS17.3
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FS17.3
IF FEMALE
he if CMALE; she if CFEMALE

At the time [he/she] was born, how much did [CHILD] weigh?

PROBE: You can tell me in pounds and ounces or in kilograms.

INSTRUCTION: FIRST ENTER IF ANSWER IS IN POUNDS AND OUNCES OR KILOGRAMS. YOU WILL ENTER THE WEIGHT ON THE NEXT SCREEN.

POUNDS AND OUNCES	1	FS17.4
KILOGRAMS	2	FS17.6
DK	d	FS19
REF	r	

FS17.4
IF FS17.3=1 (pounds and ounces)

INSTRUCTION: ENTER NUMBER OF POUNDS.

POUNDS	FF	FS17.5
--------	----	--------

FS17.5
IF FS17.3=1 (pounds and ounces)

INSTRUCTION: ENTER NUMBER OF OUNCES.

OUNCES	FF	FS19
--------	----	------

FS17.6
IF FS17.3=2 (kilograms)

INSTRUCTION: ENTER NUMBER OF KILOGRAMS.

KILOGRAMS	FF	FS19
-----------	----	------

FS19
ALL (IF BSF_PARTNER=DECEASED FROM 15 MO, THEN BOX 2)
<b>he</b> IF FEMALE; <b>she</b> IF MALE
<b>father's</b> IF FEMALE; <b>mother's</b> IF MALE

(IF FS5a=2 or 4 OR FS5b=2 OR FS7=2, 3 or 5) I am very sorry to hear that. Our condolences for your loss. If you don't mind...

I'd like to ask you a few questions about [FIRST NAME OF FATHER/MOTHER].

I also want to make sure that I use [FIRST NAME OF FATHER NAME/MOTHER NAME]'s correct first name. Is [he/she] usually called [FIRST NAME OF FATHER NAME/MOTHER NAME] or does [he/she] go by a different first name?

INSTRUCTION: IF DIFFERENT NAME, CHANGE TO USUAL NAME WHICH WILL BE USED AS FILL IN THE REMAINDER OF SURVEY.

INSTRUCTION: IF RESPONDENT REPORTS THAT FATHER DIED CODE '3'

YES, CORRECT NAME	1	FS25
NO, IS NOT CORRECT NAME	0	FS19.Fn
NO, DIED	3	BOX 2
DK	d	FS25
REF	r	

FS19.Fn
if FS19=NO

What name does [he/she] usually go by?

ENTER USUAL FIRST NAME

USUAL FIRST NAME OF [FATHER/MOTHER]	STRING OF 20	FS25 (IF '98' BOX 2)
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FS25
IF FS19<>3 OR BSF_PARTNER NOT DECEASED FROM 15 MO
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

The next questions are about you and [FATHER/MOTHER].

Are you and [FATHER/MOTHER]...

Married,	1	FS33
Divorced,	2	FS26
Separated, or	3	FS26
Have you never been married to each other?	4	FS26
MARRIAGE ANNULLED	5	FS26
WIDOWED	6	BOX 2
PARTNER DIED (NEVER MARRIED)	7	
DK	d	FS26
REF	r	

<b>BOX 2: IF FS19=3 OR FS19.Fn = 98 OR FS25=6 OR FS25=7 (FATHER/MOTHER died) OR Partner_Died=1</b>
<b>DO NOT ASK UNLESS OTHERWISE INDICATED</b>
FS26 TO FS33.2.3
FS43.1 TO FS46.1
RR1 TO RR11
PA11.2 TO PA12
WB30
SE1

FS26
if FS25<>1
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Which of the following statements best describes your current relationship with [FATHER/MOTHER]?

We are romantically involved on a steady basis,	1	FS27
We are involved in an on-again and off-again relationship, or	2	
We are not in a romantic relationship.	3	FS26.1
DK	d	FS27
REF	r	

FS26.1
IF FS26=3 (no relationship) <b>AND</b> 15MO_FS26=3 then Go to FS27
<b>FATHER IF MALE/MOTHER IF FEMALE</b>

When did your romantic relationship with [FATHER/MOTHER] end?

PROBE: Just the month and year is fine.

INTERVIEWER: CODE 13 IF RESPONDENT ANSWERS THAT THEY WERE NEVER IN A RELATIONSHIP.

DATE END RELATIONSHIP	MM/YYYY	FS26.2
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FS26.2
IF FS26=3 (no relationship) <b>AND</b> 15MO_FS26=3 then Go to FS27
<b>him</b> IF FEMALE; <b>her</b> IF MALE

I am going to read you a list of reasons that people give for why their relationships ended. For each reason, tell me if this is why your relationship with [FATHER/MOTHER] ended.

(For a thru f) Was it because you, [FATHER/MOTHER], or both of you...

(For g through i) Was it because...

				(IF YES FOR A THRU F)	
				Was that you, [FATHER/MOTHER] or both of you?	
a	Cheated or were unfaithful?	YES	1	YOU	1
				[FATHER/MOTHER]	2
				BOTH OF YOU	3
		NO	0		
b	Went to jail or prison?	YES	1	YOU	1
				[FATHER/MOTHER]	2
				BOTH OF YOU	3
		NO	0		
c	Were abusive or violent?	YES	1	YOU	1
				[FATHER/MOTHER]	2
				BOTH OF YOU	3
		NO	0		
d	Used drugs or alcohol?	YES	1	YOU	1
				[FATHER/MOTHER]	2
				BOTH OF YOU	3
		NO	0		
e	Could not keep a job or contribute enough financially to the family?	YES	1	YOU	1
				[FATHER/MOTHER]	2
				BOTH OF YOU	3
		NO	0		
f	Were not a good parent or role model?	YES	1	YOU	1
				[FATHER/MOTHER]	2
				BOTH OF YOU	3
		NO	0		
g	The two of you were not communicating well or were arguing too much?	YES	1		
		NO	0		
h	Of lack of support from family members?	YES	1		
		NO	0		
i	You and [FATHER/MOTHER] were living too far apart?	YES	1		
		NO	0		
j	Were there any other reasons why your romantic relationship ended?	YES	1	FS26.3	
		NO	0	FS27 OR FS33	

FS26.3
IF FS26.2J=1 <b>AND</b> 15MO_FS26=3 then Go to FS27

What were those other reasons?

INSTRUCTION: RECORD RESPONSE VERBATIM

REASONS RELATIONSHIP ENDED	STRING OF 100	FS27 OR FS33
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FS27
IF FS25=4 (never been married to each other)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

What do you think the chances are you will marry [FATHER/MOTHER] in the future...

No chance,	0	FS33
A little chance,	1	FS28
A 50-50 chance,	2	
A pretty good chance, or	3	
An almost certain chance?	4	
DK	d	
REF	r	

FS28
IF FS27<>0
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

Are you and [FATHER/MOTHER] engaged to be married?

YES	1	FS29
NO	0	FS33
DK	d	
REF	r	

FS29
IF FS28=YES

When are you planning to get married?

INSTRUCTION: ENTER 13 IF NO DATE HAS BEEN SET

DATE OF PLANNED WEDDING	MM/YYYY	FS33
DK/NO DATE YET	d	
REF	r	

FS33
ALL
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Do you currently live with [FATHER/MOTHER] in the same household...

All of the time,	1	FS42
Most of the time,	2	
Some of the time, or	3	FS33.2
None of the time?	4	
DK	d	
REF	r	

FS33.2
IF FS33>2
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

How often do you and [FATHER/MOTHER] see or talk to each other?  
Is it...

Every day or almost every day,	1	FS42 OR FS37
A few times a week,	2	
A few times a month,	3	
About once a month,	4	FS33.2.1 OR FS37
Only a few times in the past year, or	5	
Hardly ever or never?	6	
DK	d	
REF	r	

FS33.2.1
OPTION 1: FS33=4 (not living together at all) AND FS25=1 (married)
OPTION 2: IF FS26=1,2 (romantically involved) AND FS33.2=4,5,6 (seeing each less than a few times)
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

IF OPTION 1: Are you and [FATHER/MOTHER] not living together because you are not getting along or is there another reason?

IF OPTION 2: Are you and [FATHER/MOTHER] not seeing each other very much because you are not getting along or is there another reason?

NOT GETTING ALONG	1	FS37
ANOTHER REASON	2	FS33.2.2
DK	d	FS42
REF	r	

<b>FS33.2.2</b>
FS33.2.1=2 AND
OPTION 1: FS33=4 (not living together at all) AND FS25=1 (married)
OPTION 2: IF FS26=1,2 (romantically involved) AND FS33.2=4,5,6 (seeing each less than a few times)
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

IF OPTION 1: Why are you and [FATHER/MOTHER] not living together now?

IF OPTION 2: Why are you and [FATHER/MOTHER] not seeing each other very much?

INSTRUCTION: PROBE FOR MORE THAN ONE ANSWER.

1	PARTNER IS INCARCERATED	YES	NO	FS42
2	RESPONDENT INCARCERATED	YES	NO	
3	PARTNER IN MILITARY	YES	NO	
4	RESPONDENT IN MILITARY	YES	NO	
5	PARTNER'S WORK	YES	NO	
6	RESPONDENT'S WORK	YES	NO	
7	OTHER REASON	YES	NO	FS33.2.3
	DK	d		FS42
	REF	r		

<b>FS33.2.3</b>
IF FS33.2.2=7

INSTRUCTION:	SPECIFY OTHER REASON	FS42
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FS37
IF FS25<>(1) (not married) and FS26<>(1,2) (not romantically involved) OR (IF FS33.2.1=1) OR IF FS19=3
<b>someone other than [FATHER/MOTHER] IF FS25&lt;&gt;6,7; with someone else</b> IF FS25=6,7 OR IF FS19=3
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

(IF FS19=3 or FS25=6 or 7) I am very sorry to hear that. If you don't mind, I have a few more questions to ask.

Are you currently involved in a romantic relationship with [someone other than [FATHER/MOTHER]/someone else]?

YES	1	FS38
NO	0	FS42
DK	d	
REF	r	

FS38
IF FS37=YES

Just to be able to refer to your current partner by name in this interview, what is your current partner's first name?

INSTRUCTION: IF RESPONDENT INDICATES MORE THAN ONE CURRENT PARTNER, PROBE FOR NAME OF MAIN OR PRIMARY CURRENT PARTNER.

FIRST NAME OF PARTNER	STRING OF 20	FS38.1
-----------------------	--------------	--------

FS38.1
IF FS37=YES AND FS25<>1,3 (if not married or not separated)

Are you currently married to [CURRENT PARTNER]?

YES	1	FS40
NO	0	
DK	d	
REF	r	

FS40
IF FS37=YES

Do you currently live with [CURRENT PARTNER] in the same household...

All of the time,	1	FS41
Most of the time,	2	
Some of the time, or	3	
None of the time?	4	
DK	d	
REF	r	

FS41
IF FS37=1

Taking all things together, on a scale from 0 to 10, where 0 is not at all happy and 10 is completely happy, how happy would you say your relationship with [CURRENT PARTNER] is? You can pick any number from 0 to 10.

COMPLETELY HAPPY	10	FS42
	9	
	8	
	7	
	6	
	5	
	4	
	3	
	2	
	1	
NOT AT ALL HAPPY	0	
DK	d	
REF	r	

FS42
ALL

Next, I have some questions about [CHILD].

Do you currently live with [CHILD] in the same household...

All of the time,	1	FS43
Most of the time,	2	FS42.2
Some of the time, or	3	
None of the time?	4	
DK	d	
REF	r	

FS42.2
IF FS42=most of the time (2), some of the time (3), OR none of the time (4)
<b>he</b> if CMALE; <b>she</b> if CFEMALE

(IF FS42=2 or 3) When [he/she] is not living with you,

(W/w)ho does [CHILD] live with?

FATHER/MOTHER	1	FS42.3 OR FS43
GRANDPARENT(S)	2	
OTHER RELATIVES(S)	3	
ADOPTIVE PARENTS	4	
FOSTER PARENTS	5	
FRIEND(S)	6	
SOMEONE ELSE	7	FS42.2.1
DK	d	FS42.2
REF	r	OR FS43

FS42.2.1
IF FS42.2=7

INSTRUCTION: PROBE FOR RELATIONSHIP OF THIS PERSON TO CHILD.

DESCRIBE OTHER PERSON	STRING OF 501	FS42.3 OR FS43
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FS42.3
FS42=None of the time (4)

Did you and [CHILD] ever live together in the same household?

YES	1	FS43
NO	0	FS45
DK	d	
REF	r	

FS43
If FS42=all, most, some of the time (1,2,3) OR IF FS42.3=YES
<b>him</b> IF FS17=MALE; <b>her</b> if FS17=FEMALE

Since [CHILD] was born, did you live with [him/her] in the same household...

All the time,	1	FS43.1
Most of the time	2	
Some of the time, or	3	
None of the time?	4	
DK	d	
REF	r	

PROGRAMMER: IF FS42<>4 THEN FS43<>5

FS43.1
If FS42=all, most, some of the time (1,2,3) OR IF FS42.3=YES
<b>him</b> IF FS17=MALE; <b>her</b> if FS17=FEMALE

Since [CHILD] was born, did you live in the same household with both [him/her] and [FATHER/MOTHER]...

All the time,	1	FS45 OR FS46.1 OR FS50
Most of the time	2	
Some of the time, or	3	
None of the time?	4	
DK	d	
REF	r	

FS45
IFS42=3, 4 (living with child some or none of the time)

Have you seen [CHILD] in the past month?

YES	1	FS46.1 OR FS50
NO	0	
DK	d	
REF	r	

FS46.1
FS42.2<>1 OR NOT (FS33=1 AND FS42=1) (skip if respondent lives with mother/father and also child)

Has [FATHER/MOTHER] seen [CHILD] in the past month?

YES	1	FS50
NO	0	
DK	d	
REF	r	

FS50
ALL
<b>had</b> IF FEMALE; <b>fathered</b> IF MALE

(If Baby\_Died=1) Since [15MO\_SURVDATE], have you [had/fathered] another baby or are you expecting a baby now?

(IF FS5a=2 OR FS5b=2 OR FS7=2) Since the baby that died, have you [had/fathered] another baby or are you expecting another baby?

(IF FS5a=4 OR FS5b=4 OR FS7=5) Since your baby died, have you [had/fathered] another baby or are you expecting a baby now?

(IF FS7=4) Since the abortion, have you [had/fathered] a baby or are you expecting a baby now?

(IF FS7=3) Since the miscarriage, have you [had/fathered] another baby or are you expecting a baby now?

(IF FS7=6) Since [RA DATE], have you [had/fathered] a baby or are you expecting a baby now?

(ELSE) Since [CHILD] was born, have you [had/fathered] another baby or are you expecting a baby now?

(ALL) This can be a baby you had or are expecting with [FATHER/MOTHER] or someone else.

(IF FS6.1>1 OR FS9>1) Don't count the other babies born at the same time as [CHILD].

YES, HAD ANOTHER BABY/HAD OTHER BABIES	1	FS51
YES, EXPECTING A BABY NOW	2	FS51.1
YES, HAD ANOTHER BABY AND IS EXPECTING A BABY	3	FS51
NO	4	FS53
MISCARRIAGE/STILL BIRTH/ABORTION/VOLUNTEERED	5	
DK	d	
REF	r	

FS51
IF FS50=YES (1,3)
<b>have</b> IF FEMALE; <b>father</b> IF MALE

How many babies have you [had/fathered] since then?

NUMBER OF BABIES	FF	FS52 OR FS51.1
DK	d	
REF	r	

FS51.1
IF FS50=(2,3)

Are you expecting just one baby now?

YES	1	FS52
NO	0	FS51.2
DK	d	FS52
REF	r	

FS51.2
IF FS51.1=NO

How many babies are you expecting?

NUMBER OF BABIES	FF	FS52
DK	d	
REF	r	

FS52
IF FS50=1, 2, or 3
<b>this baby</b> IF FS51=1 OR FS51.1=YES AND FS50<>3; <b>of these babies</b> IF FS51>1 OR FS51.1=NO OR FS50<>3
<b>FATHER IF FEMALE; MOTHER IF MALE</b>
<b>mother</b> IF MALE; <b>father</b> IF FEMALE

Is [FATHER/MOTHER] the [father/mother] of [this baby/of these babies]?

PROBE: We are interested in babies you are expecting or were born since [CHILD].

YES	1	FS53
YES, BUT NOT OF ALL BABIES	2	
NO	0	
DK	d	
REF	r	

FS53
ALL

Now I have some questions about people in your household.

Altogether, how many children under 18 live with you all or most of the time? Include all children, even if they are not your own.

(IF FS42=1 or 2 AND FS5a=1 OR FS5b=1 OR FS7=1) Please include [CHILD] in your answer.

PROBE: All or most of the time should include anyone who sleeps in your house more than 4 nights a week.

NUMBER OF CHILDREN	FF	FS54
DK	d	FS55 54_1
REF	r	FS55 54_1

PROGRAMMER CHECK: FS53 CAN'T=0 IF FS42=1 OR 2

FS54
IF FS53>0
(or [FATHER/MOTHER/CURRENT PARTNER]) IF FS33=1,2 OR FS 40=1,2
FATHER/MOTHER IF FS33=1,2; CURRENT PARTNER IF FS40=1,2
FATHER IF FEMALE; MOTHER IF MALE

(IF FS53>1) How many of these [ANSWER IN FS53] children are you [or [FATHER/MOTHER/CURRENT PARTNER] primarily responsible for?

(IF FS53=1) Are you [or [FATHER/MOTHER/CURRENT PARTNER] the adult(s) who (is/are) primarily responsible for this child?

(IF FS53=1) INSTRUCTION: IF 'YES' ENTER 1 AND IF NO ENTER '0'.

NUMBER OF CHILDREN	FF	FS54.1
DK	d	
REF	r	

FS54.1
IF FS42=1 or 2 (respondent living with child all or most of the time)
Besides FATHER/MOTHER are, IF FS33=1,2
Besides CURRENT PARTNER are, IF FS40=1,2
Are IF FS33<>1,2 OR FS40<>1,2

[Besides [FATHER/MOTHER/CURRENT PARTNER are,] [Are] other adults living with you who are related to [CHILD]?

YES	1	FS54.2
NO	0	FS55
DK	d	
REF	r	

FS54.2
IF FS54.1=YES

Are any of these other adults employed?

YES	1	FS55
NO	0	
DK	d	
REF	r	

FS55
IF FS25<>7

Next, I have some questions about marriage.

CONTINUE	FS56 OR FS66
----------	--------------

SKIP IF FS25=4

FS56
IF FS25=1,2,3,5,6 (married, separated, divorced, annulled, widowed)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

You previously told me that you [are/had been] married to [FATHER/MOTHER].

When did you get married to [FATHER/MOTHER]?

INTERVIEWER INSTRUCTION: RECORD ONLY MONTH AND YEAR.

DATE OF MARRIAGE	MM//YYYY	FS59, FS56.1 OR FS66
DK	d	
REF	r	

FS56.1
IF FS25=3 (separated)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

When did you get separated from [FATHER/MOTHER]?

INTERVIEWER INSTRUCTION: RECORD ONLY MONTH AND YEAR.

DATE OF SEPARATION	MM//YYYY	FS59 OR FS66
DK	d	
REF	r	

FS59
IF FS25=divorced (2) OR FS25=annulled (5) OR FS25=6 (widowed) OR FS25=7 (partner died) OR FS19=3
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

(IF FS25=2) When did the divorce from [FATHER/MOTHER] become final?

(IF FS25=5) When did the annulment of your marriage to [FATHER/MOTHER] take place?

(IF FS25=6 or 7 OR FS19=3) When did [FATHER/MOTHER] pass away?

INTERVIEWER INSTRUCTION: RECORD ONLY MONTH AND YEAR.

DATE OF END OF MARRIAGE	MM/YYYY	FS66 OR FS60
DK	d	
REF	r	

FS60
IF FS38.1=YES

You previously told me that you are married to [CURRENT PARTNER].

When did you get married to [CURRENT PARTNER]?

INTERVIEWER INSTRUCTION: RECORD ONLY MONTH AND YEAR.

DATE OF MARRIAGE	MM//YYYY	FS66
DK	d	
REF	r	



FS66
ALL
<b>to someone else besides [FATHER/MOTHER] IF FS25=1,2,3,5,6 or FS38.1=YES</b>
<b>FATHER IF FEMALE</b>
<b>MOTHER IF MALE</b>
<b>and IF FS25=1,2,3,5,6 AND FS38.1=YES</b>
<b>Your current partner, [CURRENT PARTNER] IF FS38.1=YES</b>

IF DID NOT HAVE A 15MO INTERVIEW: Have you ever been married [to someone else besides [FATHER/MOTHER] [and] [your current partner, [CURRENT PARTNER]?

IF DID HAVE A 15MO INTERVIEW: Since [15MO SURVDATE] have you been married [to someone else besides [FATHER/MOTHER] [and] [your current partner, [CURRENT PARTNER]?

YES	1	FS67 NEXT SECTION
NO	0	
DK	d	
REF	r	

FS67
IF FS66=YES
<b>to someone else besides [FATHER/MOTHER] IF FS25=1,2,3,5,6 or FS38.1=YES</b>
<b>FATHER IF FEMALE</b>
<b>MOTHER IF MALE</b>
<b>and IF FS25=1,2,3 AND FS38.1=YES</b>
<b>your current partner, [CURRENT PARTNER] IF FS38.1=YES</b>

IF DID NOT HAVE A 15MO INTERVIEW: How many times have you been married [to someone else besides [FATHER/MOTHER] [and] [your current partner, [CURRENT PARTNER]?

IF DID HAVE A 15MO INTERVIEW: Since [15MO SURVDATE] how many times have you been married [to someone else besides [FATHER/MOTHER] [and] [your current partner, [CURRENT PARTNER]?

NUMBER OF MARRIAGES	FF	FS68
DK	d	
REF	r	

[RANGE 2<SOFT CHECK]

LOOP FOR EACH MARRIAGE IN FS67

FS68
IF FS66=YES
<b>(to someone else)</b> IF FS25=1,2,3,5,6 OR FS38.1=YES
COUNTER=NUMBER IN LOOP ( <b>first, second, third, etc.</b> ) IF FS67>1
<b>Thinking about the [COUNTER] marriage</b> IF FS67>1

a	Thinking about the [COUNTER] marriage (to someone else), when did you get married?	DATE OF MARRIAGE	MM/YYYY	FS68-b OR FS68-c
		DK	d	
		REF	r	
b	(IF FS25<>1,3 OR FS38.1=NO**) Are you still married to this person?	YES	1	NEXT IN LOOP OR NEXT SECTION
		NO	0	FS68-c
c	Did this marriage end through divorce or annulment, or did your spouse pass away?	DIVORCE	1	FS68-d
		ANNULMENT	2	
		SPOUSE DIED	3	
		DK	d	
		REF	r	
d	(IF FS68c=1) When did the divorce become final? (IF FS68c=2) When did the annulment take place? (IF FS68c=3) When did your spouse pass away? (IF FS68c=DK or R) When did this marriage end?	DATE MARRIAGE ENDED	MM/YYYY	NEXT IN LOOP OR NEXT SECTION

\*\*Questions should also be skipped if previous answer in b=yes

END LOOP FOR EACH MARRIAGE

## SECTION CO: INVOLVEMENT WITH CHILD

CO1
IF FS19<>3 OR FS25<>6,7 (father/mother alive)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE
<b>father</b> IF FEMALE; <b>mother</b> IF MALE
<b>he</b> if CMALE; <b>she</b> IF CFEMALE

Now, I would like to talk about you and [FATHER/MOTHER] as parents.

The following statements are about [FATHER/MOTHER]'s and your involvement in the care of [CHILD].

For each statement, please answer if you strongly agree, agree, are not sure, disagree, or strongly disagree.

[STATEMENT a to o] Do you strongly agree, agree, are not sure, disagree, or strongly disagree with this statement?

		STRONGLY AGREE	AGREE	NOT SURE	DISAGREE	STRONGLY DISAGREE	DK	REF
a	PAM 13*	1	2	3	4	5	d	r
b	PAM 4	1	2	3	4	5	d	r
c	PAM 18	1	2	3	4	5	d	r
d	PAM 14	1	2	3	4	5	d	r
e	PAM 11	1	2	3	4	5	d	r
f	PAM 10	1	2	3	4	5	d	r
g	PAM 3	1	2	3	4	5	d	r
h	PAM 5	1	2	3	4	5	d	r
i	PAM 6	1	2	3	4	5	d	r
j	PAM 7	1	2	3	4	5	d	r
k	I am satisfied with the responsibility [FATHER/MOTHER] takes for raising [CHILD].	1	2	3	4	5	d	r
l	[FATHER/MOTHER] is committed to being there for [CHILD].	1	2	3	4	5	d	r
m	[CHILD] needs [FATHER/MOTHER] just as much as [he/she] needs me.	1	2	3	4	5	d	r
n	No matter what might happen between [FATHER/MOTHER] and me, when I think of [CHILD]'s future, it includes [FATHER/MOTHER].	1	2	3	4	5	d	r
o	[FATHER/MOTHER] is the type of [father/mother] I want for [CHILD].	1	2	3	4	5	d	r

\* The Parenting Alliance Measure (PAM) items used in this questionnaire are copyrighted. For the complete text of these items, please contact **Psychological Assessment Resources, Inc.**

LOOP FOR CO2

- RESPONDENT ABOUT THEMSELVES IF FS45<>NO (contact with child in past month).
- FEMALE RESPONDENT ABOUT FATHER IF FS45<>NO AND IF FS46.1<>NO (contact of father with child in past month) AND IF FS19<>3 OR FS25<>6,7 (father alive).

**you** IF RESPONDENT; **FATHER** FEMALE ABOUT MALE;

**have** IF RESPONDENT; **has** IF FEMALE ABOUT MALE

(IF COUNTER=1) The next question is about time spent with [CHILD].

In the past month, how often [have/has] [you/FATHER] spent one or more hours a day with [CHILD]? Was it...

Everyday or almost every day,	1	CO3
A few times a week,	2	
A few times in the past month,	3	
Only once or twice in the past month, or	4	
Never?	5	
DK	d	
REF	r	

END LOOP CO2

CO3
FS45<> NO (contact with child in past month) IF FEMALE ONLY, ASK b THRU e.
<b>him</b> If CMALE; <b>her</b> IF CFEMALE

The next questions are about things you may have done with [CHILD] in the past month.

In the past month, how often have you [STATEMENT a to l]? Was it more than once a day, about once a day, a few times a week, a few times a month, rarely, or not at all?

		MORE THAN ONCE A DAY	ABOUT ONCE A DAY	A FEW TIMES A WEEK	A FEW TIMES A MONTH	RARELY	NOT AT ALL	DK	REF
b	Sung songs with [CHILD].	1	2	3	4	5	6	d	r
c	Read or looked at books with [CHILD].	1	2	3	4	5	6	d	r
d	Told stories to [CHILD].	1	2	3	4	5	6	d	r
e	Played with games or toys with [CHILD].	1	2	3	4	5	6	d	r
f	Helped [CHILD] to get dressed.	1	2	3	4	5	6	d	r
g	Changed [CHILD]'s diapers or helped [him/her] use the toilet.	1	2	3	4	5	6	d	r
h	Fed [CHILD] or gave [him/her] something to eat.	1	2	3	4	5	6	d	r
i	Rolled a ball, tossed a ball, or played games with a ball with [CHILD].	1	2	3	4	5	6	d	r
j	Taken [CHILD] for a ride on your shoulders or back.	1	2	3	4	5	6	d	r
k	Playfully, turned [CHILD] upside down or tossed (her or him) up in the air	1	2	3	4	5	6	d	r
l	Played chasing games with [CHILD].	1	2	3	4	5	6	d	r
m	Played outside in the yard, a park, or a playground with [CHILD].	1	2	3	4	5	6	d	r
CO3.1									

CO3.1

FS45<> NO (contact with child in past month)

The next questions are about times you have spent with [CHILD] in the past month.

In the past month, how often would you say that [STATEMENT a to c]? Is that often, sometimes, rarely, or never?

		OFTEN	SOMETIMES	RARELY	NEVER	DK	REF
a	[CHILD] and you had warm close times together	1	2	3	4	d	r
b	You felt that [CHILD] liked you and wanted to be near you	1	2	3	4	d	r
c	When you were in a bad mood, you still showed [CHILD] love	1	2	3	4	d	r

CO5
Do not ask about IF FS19=3 OR FS19.Fn = 98 OR FS25=6 OR FS25=7 (FATHER/MOTHER died) OR Partner_Died=1
<b>FATHER IF FEMALE AND IF FS46.1&lt;&gt;0 (contact with child in the past month) AND IF FS45 &lt;&gt; 0 (have you seen child in the past month)/MOTHER IF MALE AND IF FS46.1&lt;&gt;0 (contact with child in the past month) AND IF FS45 &lt;&gt; 0 (have you seen child in the past month)</b>
<b>CURRENT PARTNER IF FS37=YES (respondent has current partner)</b>
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

**Children often do things that are wrong, disobey, or make their parents angry. We would like to know what you (or [FATHER/MOTHER] or [CURRENT PARTNER]) have done when [CHILD] did something wrong or made you upset or angry.**

*In the past month, did you (or [FATHER/MOTHER (or [CURRENT PARTNER])) [STATEMENT a to j)?*

		YES	NO	(IF YES AND IF HAVE A CURRENT PARTNER OR BSF PARTNER IS LIVING) Was that you, [or FATHER/MOTHER] [or CURRENT PARTNER]?	YES	NO	DK	RE F
a	CTSPC 23* (time-out)	1	0	ME (respondent)	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
b	CTSPC 24 (shout)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
c	CTSPC 25 (spank with hand)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
d	CTSPC 4 (hit with belt)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
e	CTSPC 14 (threaten to spank)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
f	CTSPC 5 (give something instead)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
g	CTSPC 10 (swear)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r

		YES	NO	(IF YES <b>AND</b> IF HAVE A CURRENT PARTNER OR BSF PARTNER IS LIVING) <i>Was that you, [or FATHER/MOTHER] [or CURRENT PARTNER]?</i>			DK	RE F
h	CTSPC 26 (slap hand)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
i	CTSPC 22 (slap face)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r
j	CTSPC 1 (explain why wrong)	1	0	ME	YES	NO	d	r
				[FATHER/MOTHER],	YES	NO	d	r
				[CURRENT PARTNER],	YES	NO	d	r

\* The Conflict Tactic Scale: Parent Child Version (CTSPC) items used in this questionnaire are copyrighted. For the complete text of these items, please contact Western Psychological Services.



## SECTION CH: CHILD OUTCOMES

FOR THIS ENTIRE SECTION - ASK QUESTION OF

- RESPONDENT: IF FEMALE AND FS42=1 OR 2 (mother lives with child all or most of the time)
- RESPONDENT: IF FEMALE AND CO2=1 OR 2 (mother spends an hour or more a day with child at least a few times a week)
- RESPONDENT: IF MALE AND (FS42=1 OR FS42=2) AND (FS33=3 OR FS33=4 OR PARTNER\_DIED = 1 OR FS19=3 OR FS25=6,7) (father lives with child all or most of the time AND father and mother live together only some of the time or not at all)
- RESPONDENT: IF MALE AND (FS42=3 OR FS42=4) AND (FS42.2<> 1 OR PARTNER\_DIED = 1 OR FS19=3 OR FS25=6,7) AND (CO2=1 OR CO2=2) (father lives with child only some or none of the time AND child does not live with mother either AND father spends an hour or more a day with child at least a few times a week)

Now, I'd like to ask you some questions about [CHILD].

We will start with questions about [CHILD]'s health.

CH1
ALL

In general, would you say [CHILD]'s health is...

Excellent,	1	CH2
Very good,	2	
Good,	3	
Fair, or	4	
Poor?	5	
DK	d	
REF	r	

CH2
ALL

In the past month did [CHILD] have a cold, flu or fever that limited [his/her] ability to participate in [his/her] usual activities?

YES	1	CH3
NO	0	
DK	d	
REF	r	

CH3
ALL

Has a doctor or other health professional ever told you that [CHILD] has asthma?

YES	1	CH4
NO	0	CH5
DK	d	
REF	r	

CH4
IF CH3=YES

Since [CHILD] was born, did [CHILD] have to visit an emergency room or urgent care center because of asthma?

YES	1	CH5
NO	0	
DK	d	
REF	r	

CH5
ALL

Next, I have some questions about [CHILD]’s behavior. For each behavior I read to you, I’d like you to tell me how often you saw [CHILD] behave in this way in the last three months: often, sometimes, rarely or never.

During the last three months, how often was this like [CHILD]... [CHILD] [STATEMENT A to I]? Was that often, sometimes, rarely or never?

		often	sometimes	rarely	never	DK	REF
A	Tried to understand another child’s behavior (for example, [CHILD] asked “Why are you crying?”)	1	2	3	4	d	r
B	Participated in family or classroom discussions	1	2	3	4	d	r
C	Asked for help from adults when needed	1	2	3	4	d	r
D	Comforted other children who were upset	1	2	3	4	d	r
E	Invited other children to play	1	2	3	4	d	r
F	Sought comfort from an adult when hurt	1	2	3	4	d	r
G	Apologized for accidental behavior that may upset others	1	2	3	4	d	r
H	Was sensitive to adult problems (for example, [CHILD] asked “Are you sad?”)	1	2	3	4	d	r
I	Showed affection for other children	1	2	3	4	d	r

CH6
ALL

For each statement that I read, please answer if the statement is often true, sometimes true, or never true of [CHILD]'s behavior.

[CHILD] [STATEMENT A to Z]? Is that often true, sometimes true or never true of [CHILD]'s behavior?

		often true	sometimes true	never true	DK	REF
A	Has sudden changes in mood or feeling.	1	2	3	d	r
B	Feels or complains that no one loves (him/her).	1	2	3	d	r
C	Is rather high strung, tense and nervous	1	2	3	d	r
D	Cheats or tells lies.	1	2	3	d	r
E	Is too fearful or anxious.	1	2	3	d	r
F	Argues too much.	1	2	3	d	r
G	Has difficulty concentrating or cannot pay attention for long.	1	2	3	d	r
H	Is easily confused or seems to be in a fog.	1	2	3	d	r
I	Bullies or is cruel or mean to others.	1	2	3	d	r
J	Is disobedient.	1	2	3	d	r
K	Does not seem to feel sorry after [he/she] misbehaves.	1	2	3	d	r
L	Has trouble getting along with children [his/her] age.	1	2	3	d	r

		often true	sometimes true	never true	DK	REF
M	Is impulsive, or acts without thinking.	1	2	3	d	r
N	Feels worthless or inferior.	1	2	3	d	r
O	Is not liked by other children [his/her] age.	1	2	3	d	r
P	Has a lot of difficulty getting [his/her] mind off certain thoughts.	1	2	3	d	r
Q	Is restless or overly active or cannot sit still	1	2	3	d	r
R	Is stubborn, sullen, or irritable.	1	2	3	d	r
S	Has a very strong temper and loses it easily.	1	2	3	d	r
T	Is unhappy, sad or depressed.	1	2	3	d	r
U	Is withdrawn or does not get involved with others.	1	2	3	d	r
V	Breaks things on purpose or deliberately destroys [his/her] own or another's things.	1	2	3	d	r
W	Cries too much.	1	2	3	d	r
X	Demands a lot of attention.	1	2	3	d	r
Y	Is too dependent on others.	1	2	3	d	r
Z	Worries too much.	1	2	3	d	r

CH7
ALL

My next questions are about some of the usual routines in your household.

(IF FS42.2=1 OR FS43.1=1 OR FS46.1=1) In a typical week, please tell me the total number of days [CHILD] eats the evening meal with either you or [MOTHER/FATHER].

(EVERYONE ELSE GETS THIS VERSION: IF FS42.2<>1 AND FS43.1<>1 AND FS46.1<>1) In a typical week, please tell me the number of days [CHILD] eats the evening meal with you.

PROBE: IF VARIES, 'On average, how many days'?

NUMBER OF DAYS	FF	CH8
DK	d	
REF	r	

CH8
ALL

When is [CHILD]'s regular bedtime? We are interested in what time (he/she) goes to bed, not what time [he/she] actually falls asleep.

PROBE: 'On average?'

|\_|\_|:|\_|\_| P.M. **GOTO CH9**

|\_|\_|:|\_|\_| A.M. **GOTO CH9**

NO USUAL TIME ..... 0 **GOTO CH10**

DON'T KNOW ..... d **GOTO CH10**

REFUSED ..... r **GOTO CH10**

CH9
ALL

How many times in the last week, Monday through Friday, was [CHILD] put to bed at that time?

NUMBER OF DAYS	FF	CH10
DK	d	
REF	r	

NOTE: NUMBER OF DAYS MUST BE IN THE RANGE 0-5.

CH10
ALL

Some families have a routine of things they do when it is time to put a child to bed. Is there a regular routine of things done with [CHILD] to put [him/her] to bed?

YES	1	CH11
NO	0	CH12
DK	d	
REF	r	

CH11
IF CH10=1

How many times in the last week, Monday through Friday, was this bedtime routine for [CHILD] able to be followed?

NUMBER OF DAYS	FF	CH12
DK	d	
REF	r	

NOTE: NUMBER OF DAYS MUST BE IN THE RANGE 0-5.

CH12-SIMS

IF FS25=married (1) OR FS26=romantically involved (1) or on-again-off-again relationship (2) OR FS33=1 or 2 (live together all or most of the time) OR FS33.2=1, 2, or 3 (see each other at least a few times a month)

Next, I am going to ask you to describe [CHILD]'s reactions to seeing arguments and disagreements between you and [MOTHER/FATHER] during the past month. Tell me if [CHILD] reacts to seeing arguments and disagreements in this way often, sometimes, rarely, or never.

In the past month, when seeing arguments or disagreements, [CHILD] [STATEMENT a to j]

		<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>	<b>Not Applicable</b>	DK	REF
a	Yelled at family members.	1	2	3	4	5	d	r
b	Started hitting, kicking, slapping, or throwing things at family members.	1	2	3	4	5	d	r
c	Appeared angry.	1	2	3	4	5	d	r
d	Appeared frightened.	1	2	3	4	5	d	r
e	Appeared sad.	1	2	3	4	5	d	r
f	Caused trouble.	1	2	3	4	5	d	r
g	Appeared upset.	1	2	3	4	5	d	r
h	Still seemed upset <u>after</u> you argued.	1	2	3	4	5	d	r
i	Couldn't seem to calm down <u>after</u> you argued.	1	2	3	4	5	d	r
j	Took a while after the argument to act like (him/her) self again.	1	2	3	4	5	d	r

End section



## SECTION RR: RELATIONSHIP

RR0
R=ALL

Next, I would like to have your opinion on a few statements about marriage. Tell me if you strongly agree, agree, disagree, or strongly disagree with the following statements...

		STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	DK	REF
A	A single parent can bring up a child just as well as a married couple.	1	2	3	4	d	r
B	It is better for a couple to be married than to just live together.	1	2	3	4	d	r
C	There are very few people who have good and happy marriages.	1	2	3	4	d	r
D	When a couple is committed to each other, it makes no difference whether they are married or living together.	1	2	3	4	d	r
E	It is better for children if their parents are married.	1	2	3	4	d	r
RR0.1							

RR0.1
ALL

Now I would like to ask you about your friends.

Do you strongly agree, agree, disagree, or strongly disagree with the following statement:

Most of my friends are not ready to settle down.

STRONGLY AGREE	1	RR1 or RR2 or RR4
AGREE	2	
DISAGREE	3	
STRONGLY DISAGREE	4	
DK	d	
REF	r	

RR1
IF FS25=married (1) OR FS26=romantically involved (1) or on-again-off-again relationship (2)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

Now I would like to ask about your relationship with [FATHER/MOTHER]. Taking all things together, on a scale from 0 to 10, where 0 is not at all happy and 10 is completely happy, how happy would you say your relationship with [FATHER/MOTHER] is? You can pick any number from 0 to 10.

COMPLETELY HAPPY	10	RR1.1
	9	
	8	
	7	
	6	
	5	
	4	
	3	
	2	
	1	
NOT AT ALL HAPPY	0	
DK	d	
REF	r	

RR1.1
IF FS25=married (1) OR FS26=romantically involved (1) or on-again-off-again relationship (2)
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

In the past month, about how many times did you and [FATHER/MOTHER] go out together—just the two of you—to do something fun?

NUMBER OF TIMES	XX	RR2
DK	d	
REF	r	

RR2
IF FS25=1 (married) OR FS26=1 (romantically involved) OR 2 (on-again-off-again relationship) OR FS33=1 OR 2 (live together all or most of the time) OR FS33.2=1,2,3 (see each other at least a few times a month)
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Now, I am going to read you some statements about things couples may experience when they are together. Tell me if this often happens, sometimes happens, rarely happens or never happens.

[STATEMENT a-dd] Does this happen often, sometimes, rarely, or never?

		OFTEN	SOMETIMES	RARELY	NEVER	DK	REF
a	When I have problems, [FATHER/MOTHER] really understands what I'm going through.	1	2	3	4	d	r
b	[FATHER/MOTHER] blames me for things that go wrong.	1	2	3	4	d	r
e	I feel appreciated by [FATHER/MOTHER].	1	2	3	4	d	r
j	I feel respected even when we disagree.	1	2	3	4	d	r
x	Even when arguing we can keep a sense of humor.	1	2	3	4	d	r
m	When we discuss something, [FATHER/MOTHER] acts as if I am totally wrong.	1	2	3	4	d	r

		OFTEN	SOMETIMES	RARELY	NEVER	DK	REF
n	We are good at solving our differences.	1	2	3	4	d	r
q	When we argue, one of us is going to say something we will regret.	1	2	3	4	d	r
v	When we argue, I feel personally attacked by [FATHER/MOTHER].	1	2	3	4	d	r
4w	During arguments, we are good at taking breaks when we need them.	1	2	3	4	d	r
s	When we argue, I get very upset.	1	2	3	4	d	r
y	We are pretty good listeners, even when we have different positions on things.	1	2	3	4	d	r
z	[FATHER/MOTHER] is good at calming me when I get upset.	1	2	3	4	d	r
aa	Little arguments turn into ugly fights with accusations, criticisms, name calling or bringing up past hurts.	1	2	3	4	d	r
bb	[FATHER/MOTHER] puts down my opinions, feelings or desires.	1	2	3	4	d	r
cc	[FATHER/MOTHER] seems to view my words or actions more negatively than I mean them to be.	1	2	3	4	d	r
dd	When we argue, one of us withdraws and refuses to talk about it anymore.	1	2	3	4	d	r
RR4							

RR4
IF FS25=1 (married) OR FS26=1 (romantically involved) OR FS26=2 (on-again-off-again relationship) ASK: ALL ITEMS
<b>IF FS25&lt;&gt;1 OR FS26&lt;&gt;1,2, ONLY ASK: RRI, RRj, RRn, RRq, RRr, RRt</b>
<b>FATHER IF FEMALE; MOTHER IF MALE</b>
<b>him IF FEMALE; her IF MALE</b>
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Tell me whether you strongly agree, agree, disagree, or strongly disagree with the following statements.

[STATEMENT B-Z] Do you strongly agree, agree, disagree, or strongly disagree?

		STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	DK	REF
B	<b>[FATHER/MOTHER] and I often talk about things that happen to each of us during the day.</b>	1	2	3	4	d	r
C	<b>[FATHER/MOTHER] and I enjoy doing even ordinary, day-to-day things together.</b>	1	2	3	4	d	r
I	<b>[FATHER/MOTHER] is honest and truthful with me.</b>	1	2	3	4	d	r
J	<b>I can trust [FATHER/MOTHER] completely.</b>	1	2	3	4	d	r
N	<b>[FATHER/MOTHER] can be counted on to help me.</b>	1	2	3	4	d	r
O	<b>I may not want to be with [FATHER/MOTHER] a few years from now.</b>	1	2	3	4	d	r
P	<b>My relationship with [FATHER/MOTHER] is more important to me than almost anything else in my life.</b>	1	2	3	4	d	r

		STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	DK	REF
Q	[FATHER/MOTHER] knows and understands me.	1	2	3	4	d	r
R	[FATHER/MOTHER] listens to me when I need someone to talk to.	1	2	3	4	d	r
T	[FATHER/MOTHER] respects me.	1	2	3	4	d	r
V	I want this relationship to stay strong no matter what rough times we may have.	1	2	3	4	d	r
W	[FATHER/MOTHER] encourages or helps me to do things that are important to me.	1	2	3	4	d	r
X	[FATHER/MOTHER] shows love and affection for me.	1	2	3	4	d	r
Y	I am satisfied with my sexual relationship with [FATHER/MOTHER].	1	2	3	4	d	r
Z	My friends and relatives support my relationship with [FATHER/MOTHER]	1	2	3	4	d	r
RR8							

RR8
ALL
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

**IF STILL TOGETHER:** (IF FS25=1 OR IF FS26 = 1 OR 2) Sometimes couples are not always faithful to each other. Since [RA DATE] has [FATHER/MOTHER] cheated on you with someone else? Is that...

**IF NOT STILL TOGETHER:** (IF FS25<>1 OR IF FS26<>1 OR 2) Sometimes couples are not always faithful to each other. Please think only about the time after [RA DATE] and before your romantic relationship with [FATHER/MOTHER] ended. Did [FATHER/MOTHER] cheat on you with someone else? Is that...

INSTRUCTION: IF RESPONDENT ANSWERS 'DK' DO NOT PROBE.

Definitely yes,	1	RR9
Probably yes,	2	
Probably no, or	3	
Definitely no?	4	
DK	d	
REF	r	

RR9
ALL
<b>FATHER IF FEMALE; MOTHER IF MALE</b>
<b>man IF FEMALE; woman IF MALE</b>

**IF STILL TOGETHER:** (IF FS25=1 OR FS26 = 1, 2, d or r) Since [RA DATE], have you cheated on [FATHER/MOTHER] with someone else?

**IF NOT STILL TOGETHER:** (FS25 IS NOT EQUAL TO 1 AND IF FS26 NOT EQUAL TO 1, 2, d or r) Did you cheat on [FATHER/MOTHER] with someone else? Please think only about the time after [RA DATE] and before your romantic relationship with [FATHER/MOTHER] ended.

YES	1	RR10 or RR14
NO	0	
DK	d	
REF	r	

RR10
IF FS25=1 (married) OR FS26=1 (romantically involved) OR 2 (on-again-off-again relationship)
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Do you think [FATHER/MOTHER] will cheat on you in the future? Is that...

Definitely yes,	1	RR11
Probably yes,	2	
Probably no, or	3	
Definitely no?	4	
DK	d	
REF	r	

RR11
IF FS25=1 (married) OR FS26=1 (romantically involved) OR 2 (on-again-off-again relationship)
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Do you think you will cheat on [FATHER/MOTHER] in the future? Would you say...

Definitely yes,	1	RR14
Probably yes,	2	
Probably no, or	3	
Definitely no?	4	
DK	d	
REF	r	



RR14
ALL
<b>FATHER</b> IF FEMALE IF FS19<>3 OR FS25<>6,7 AND Partner-DIED <>1/ <b>MOTHER IF MALE AND</b> IF FS19<>3 OR FS25<>6,7 AND Partner-DIED <>1
<b>CURRENT PARTNER</b> IF FS37=YES (respondent has current partner)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

Next I'm going to read a list of things that might have happened to you in the past year. In the past year, did [FATHER/MOTHER/CURRENT PARTNER] or another partner you were involved with...

				(IF YES and SITENAME <> ATLANTA) Was it [FATHER/MOTHER], [CURRENT PARTNER], or another partner who did that to you?			(IF YES and SITENAME <> ATLANTA) How often did [FATHER/MOTHER], [CURRENT PARTNER], [this other partner] do this in the past year? Was it... (IF YES AND SITENAME = ATLANTA) How often did this happen to you in the past year?							
		YES	NO			Once	twice	3-5 times	6-10 times	11-20 times	More than 20 times	DK	REF	
a	CTS2.8* (Throw)	1	0	[FATHER/MOTHER],	YES	NO	1	2	3	4	5	6	d	r
				[CURRENT PARTNER],	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
b	CTS2.10 (Twist)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
c	CTS2.18 (Push)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
d	CTS2.46 (Grab)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r

(IF YES and SITENAME <> ATLANTA) How often did [FATHER/MOTHER], [CURRENT PARTNER], [this other partner] do this in the past year? Was it...  
 (IF YES AND SITENAME = ATLANTA) How often did this happen to you in the past year?

		YES	NO	(IF YES and SITENAME <> ATLANTA) Was it [FATHER/MOTHER], [CURRENT PARTNER], or another partner who did that to you?			Once	twice	3-5 times	6-10 times	11-20 times	More than 20 times	DK	REF
				Other partner	YES	NO	1	2	3	4	5	6	d	r
e	CTS2.54 (Slap)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
f	CTS2.22 (Knife/Gun)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
g	CTS2.28 (Punch)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
h	CTS2.34 (Choke)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Some other partner	YES	NO	1	2	3	4	5	6	d	r
i	CTS2.38 (Slam)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
j	CTS2.74 (Kick)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r

		(IF YES and SITENAME <> ATLANTA) How often did [FATHER/MOTHER], [CURRENT PARTNER], [this other partner] do this in the past year? Was it... (IF YES AND SITENAME = ATLANTA) How often did this happen to you in the past year?												
		YES	NO	(IF YES and SITENAME <> ATLANTA) Was it [FATHER/MOTHER], [CURRENT PARTNER], or another partner who did that to you?			Once	twice	3-5 times	6-10 times	11-20 times	More than 20 times	DK	REF
k	CTS2.44 (Beat)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
l	CTS2.62 (Burn)	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
m	Use threats or force to make you have sex or do sexual things you didn't want to do?	1	0	[FATHER/MOTHER]	YES	NO	1	2	3	4	5	6	d	r
				CURRENT PARTNER	YES	NO	1	2	3	4	5	6	d	r
				Other partner	YES	NO	1	2	3	4	5	6	d	r
RR15														

\* The Revised Conflict Tactics Scale (CTS2) items used in this questionnaire are copyrighted. For the complete text of these items, please contact **Western Psychological Services**.

RR15
ALL
<b>FATHER</b> IF FEMALE IF FS19<>3 OR FS25<>6,7 OR PARTNER_DIED <> 1; <b>MOTHER</b> IF MALE IF FS19<>3 OR FS25<>6,7 OR PARTNER_DIED <> 1
<b>CURRENT PARTNER</b> IF FS37=YES (respondent has current partner)

In the past year, did you need to see a doctor because of a fight with ([MOTHER/FATHER] or) ([CURRENT PARTNER] or) another partner you were involved with? Please include times when you needed to see a doctor, even if you didn't go.

YES	1	RR15.1
NO	0	NEXT SECTION
DK	d	
REF	r	

RR15.1
IF RR15=YES AND SITENAME <> ATLANTA
<b>FATHER</b> IF FEMALE AND IF FS19<>3 AND FS25<>6,7 OR PARTNER_DIED <> 1; <b>MOTHER</b> IF MALE IF FS19<>3 AND FS25<>6,7 OR PARTNER_DIED <> 1
<b>CURRENT PARTNER</b> IF FS37=YES (respondent has current partner)

Was that because of a fight with ([FATHER/MOTHER] or), ([CURRENT PARTNER] or), another partner?

FATHER/MOTHER	YES	NO	WB1.1
CURRENT PARTNER	YES	NO	
OTHER PARTNER	YES	NO	
DK	d		
REF	r		

## SECTION WB: PARENTAL WELL BEING (I)

WB1.1
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ALL
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The next questions are mostly about you.

In the past year, about how often have you attended a religious service?  
Was it...

Never	1	WB1.2
A few times a year,	2	
A few times a month, or	3	
Once a week or more?	4	
DK	d	
REF	r	

WB1.2
IF BASELINE Q20 PLUS BASELINE Q21 PLUS (FS9 minus 1) PLUS (FS6.1 minus 1) PLUS 1 (IF FS50=1 OR 3) MINUS 1 (IF FS5a=2, 4, 5 OR FS5b=2, 3 OR FS7=2,3,4,5, OR Baby_Died = 1) >0
children IF BASELINE Q20 PLUS BASELINE Q21 PLUS (FS9 minus 1) PLUS (FS6.1 minus 1) PLUS 1 (IF FS50=1 OR 3) MINUS 1 (IF FS5a=2, 4, 5 OR FS5b=2, 3 OR FS7=2,3,4,5, OR Baby_Died = 1) >1; child IF BASELINE Q20 PLUS BASELINE Q21 PLUS (FS9 minus 1) PLUS (FS6.1 minus 1) PLUS 1 (IF FS50=1 OR 3) MINUS 1 (IF FS5a=2, 4, 5 OR FS5b=2, 3 OR FS7=2,3,4,5, OR Baby_Died = 1)=1

Now, I am going to read you a list of ways you might have felt in the past month about being a parent.

During the past month, how often have you...

[STATEMENT a to d] Was it all of the time, most of the time, some of the time, or none of the time?

		ALL OF THE TIME	MOST OF THE TIME	SOME OF THE TIME	NONE OF THE TIME	DK	REF
a	Felt your (child/children) [is/are] much harder to care for than most?	1	2	3	4	d	r
b	Felt your (child does/children do) things that really bother you?	1	2	3	4	d	r
c	Felt you are giving up more of your life to meet your (child's/children's) needs than you ever expected?	1	2	3	4	d	r
d	Felt angry with your (child/children)?	1	2	3	4	d	r
		WB1.3					

WB1.3

ALL

Now, I am going to read you a list of ways you might have felt or behaved during the past week. For each item on the list I will ask you how often you felt this way.

During the past week... [STATEMENT A-T] Would you say that happened rarely or none of the time; some of the time; a moderate amount of time; or most or all of the time?

PROBE: Rarely or none of the time” would mean less than 1 day in the past week; “some of the time” would mean 1 or 2 days in the past week; “a moderate amount of time” would mean 3 or 4 days in the past week; and “most of or all of the time” would mean 5 to 7 days in the past week.

STATEMENT		RARELY OR NONE OF THE TIME	SOME OF THE TIME	A MODERATE AMOUNT OF TIME	MOST OR ALL OF THE TIME	DK	REF
A	I was bothered by things that usually don't bother me.	1	2	3	4	d	r
B	I did not feel like eating; my appetite was poor.	1	2	3	4	d	r
C	I felt that I could not shake off the blues even with help from my family or friends.	1	2	3	4	d	r
E	I had trouble keeping my mind on what I was doing.	1	2	3	4	d	r
F	I felt depressed.	1	2	3	4	d	r
G	Everything I did felt like an effort.	1	2	3	4	d	r
J	I felt fearful.	1	2	3	4	d	r
K	My sleep was restless.	1	2	3	4	d	r
M	I talked less than usual.	1	2	3	4	d	r
N	I felt lonely.	1	2	3	4	d	r
R	I felt sad.	1	2	3	4	d	r
T	I could not get "going."	1	2	3	4	d	r
		IF 2 OR MORE ANSWERS IN A THRU T >1 WB2 ELSE WB4					

WB2
IF 2 OR MORE ANSWERS IN A THRU T >1 IN WB1

In the past week, how difficult did these feelings or problems make it for you to do your work or take care of things at home? Has it been...

Not at all difficult,	1	WB3
Somewhat difficult,	2	
Very difficult, or	3	
Extremely difficult?	4	
DK	d	
REF	r	

WB3
IF 2 OR MORE ANSWERS IN A THRU T >1 IN WB1

And in the past week, how difficult have these feelings or problems made it for you to get along with other people? Has it been...

Not at all difficult,	1	WB4
Somewhat difficult,	2	
Very difficult, or	3	
Extremely difficult?	4	
DK	d	
REF	r	

WB4
ALL
4 = AMOUNT IF FEMALE; 5 = AMOUNT IF MALE

The next question is about drinking alcoholic beverages. By a “drink” we mean either a bottle of beer, a wine cooler, a glass of wine, a shot of liquor, or a mixed drink.

In the past year, how many times have you had [AMOUNT] or more drinks of alcohol in one day?

NUMBER OF TIMES	FF	WB5
DK	d	
REF	r	



WB5
ALL

In the past year, did you have any problems keeping a job or getting along with family or friends because of your alcohol or drug use?

YES	1	WB6 OR NEXT SECTION
NO	0	
DK	d	
REF	r	

WB6
IF FS19<>3 OR FS25<>6,7
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE
<b>his</b> IF FEMALE; <b>her</b> IF MALE

And what about [FATHER/MOTHER]? In the past year, did [FATHER/MOTHER] have any problems keeping a job or getting along with family or friends because of [his/her] alcohol or drug use?

YES	1	NEXT SECTION
NO	0	
DK	d	
REF	r	

## SECTION SE: RECEIPT OF SERVICES

SE1
ALL
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

(IF 15MO=1) Next I am going to ask you about programs you may have participated in since [15MO SURVEY DATE]; that is about [NUMBER OF MONTHS SINCE 15MO SURVEY DATE] months ago. Since [15MO SURVEY DATE] did you and [FATHER/MOTHER] attend any classes, workshops, or group sessions to help your relationship? These sessions would have included other couples, not just you and [FATHER/MOTHER].

(IF 15MO=0) Next I am going to ask you about programs you may have participated in since [RA DATE]; that is about three years ago. Since [RA DATE] did you and [FATHER/MOTHER] attend any classes, workshops, or group sessions to help your relationship? These sessions would have included other couples, not just you and [FATHER/MOTHER].

YES	1	SE1.1 NEXT SECTION
NO	0	
DK	d	
REF	r	

SE1.1
SE1=1 AND 15MO=0
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Have you participated in any of these classes since [RA DATE + 15 MONTHS]?

PROBE: That's about 2 years ago.

YES	1	NEXT SECTION
NO	0	
DK	d	
REF	r	

## SECTION PA: PATERNITY AND CHILD SUPPORT

PA1
NOT MARRIED AT BIRTH AND (15MO=0 OR 15MO_PA1=0, dk)
you IF MALE; FATHER IF FEMALE
are IF MALE; is IF FEMALE

My next questions are about the legal arrangements you and [MOTHER/FATHER] have regarding [CHILD].

Did you and [MOTHER/FATHER] ever sign a birth certificate or document that identifies [you/FATHER] as the legal father of [CHILD]? Or, has a court ruled that [you/FATHER] [are/is] [CHILD]'s father?

PROBE: You usually sign a birth certificate in the hospital shortly after the baby is born or sometimes a little bit later.

YES	1	PA1.1
NO	0	PA2 OR PA11.2 OR PA12
DK	d	PA1.1
REF	r	PA1.1

PA1.1
IF PA1=1
you IF MALE; <b>FATHER</b> IF FEMALE

Did you and [MOTHER/FATHER] voluntarily sign a document establishing [you/FATHER] as [CHILD]'s legal father? Or did this get handled through the courts?

VOLUNTARILY SIGNED DOCUMENT	1	PA2 OR PA11.2 OR PA12
HANDLED THROUGH THE COURT	2	
DK	d	
REF	r	

PA2
FS42<>1,2 (not live with child all or most of the time)

Next I have some questions about the financial contribution you might make to support [CHILD].

Do you have a legal agreement or child support order that requires you to provide financial support for [CHILD]?

YES	1	PA7
NO	0	PA9
DK	d	
REF	r	

PA7
IF PA2=YES

In the past month, how much were you supposed to pay in child support for [CHILD] under this order?

PROBE: If your support order covers more than one child, tell me the total amount you were supposed to pay last month.

PROBE: Your best estimate is fine.

AMOUNT IN DOLLARS	FF	PA8 OR PA9
DK	d	
REF	r	

PA8
IF PA7<>0

And in the past month, how much of that amount did you actually pay in child support?

PROBE: Your best estimate is fine.

AMOUNT IN DOLLARS	FF	PA9 OR PA12
DK	d	
REF	r	

PA9
IF FS42<> 1,2 (not live with child all or most of the time)
<b>extra</b> IF PA8>0

(IF PA8>0) Not counting the child support you already told me about,

[In/in] the past month, did you give extra money to help out with the cost of raising [CHILD]?

YES	1	PA10
NO	0	PA11
DK	d	
REF	r	

PA10
IF PA9=YES
<b>extra</b> IF PA8>0

How much extra money did you provide in the past month to help support [CHILD]?

PROBE: Your best estimate is fine.

AMOUNT IN DOLLARS	FF	PA11
DK	d	
REF	r	

PA11
IF FS42<>1,2 (not live with child all or most of the time)
<b>his</b> IF CMALE; <b>her</b> IF CFEMALE

In the past month, did you buy things for [CHILD] that [he/she] needed like clothes, diapers, or medicine?

YES	1	PA11.2 OR PA12
NO	0	
DK	d	
REF	r	

PA11.2
IF FS33<>1,2 (not live together with other parent all or most of the time) AND FS42=1,2 (live with child all or most of the time)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

Do you have a legal agreement or child support order that requires [FATHER/MOTHER] to provide financial support for [CHILD]?

YES	1	PA11.7
NO	0	PA11.9
DK	d	
REF	r	

PA11.7
IF PA11.2=YES
<b>FATHER</b> IF FEMALE; <b>MOTHER</b>

In the past month, how much was [FATHER/MOTHER] supposed to pay in child support for [CHILD] under that order?

PROBE: If the support order covers more than one child, tell me the total amount [he/she] was supposed to pay last month for all your children.

AMOUNT IN DOLLARS	FF	PA11.8 OR PA11.9
DK	d	
REF	r	

PA11.8
IF PA11.7<>0
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE

And in the past month, how much did [FATHER/MOTHER] actually pay in child support?

AMOUNT IN DOLLARS	FF	PA11.9
DK	d	
REF	r	

PA11.9
IF FS33<>1,2 (not live together with other parent all of the time) AND FS42=1,2 (live with child all or most of the time)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE
<b>extra</b> IF PA11.8>0

(IF PA11.8>0) Not counting the child support you already told me about, in the past month, did [FATHER/MOTHER] give you [extra] money to help out with the cost of raising [CHILD]?

YES	1	PA11.10
NO	0	PA11.11
DK	d	
REF	r	

PA11.10
IF PA11.9=YES
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE
<b>extra</b> IF PA8>0

How much extra money did [FATHER/MOTHER] pay you in the past month to help support [CHILD]?

AMOUNT IN DOLLARS	FF	PA11.11
DK	d	
REF	r	

PA11.11
IF FS33<>1,2 (not live with other parent together all or most of the time) AND FS42=1,2 (live with child all or most of the time)
<b>FATHER</b> IF FEMALE; <b>MOTHER</b> IF MALE
<b>he</b> IF CMALE; <b>she</b> IF CFEMALE

In the past month, did [FATHER/MOTHER] buy things for [CHILD] that [he/she] needed like clothes, diapers, or medicine?

YES	1	PA12
NO	0	
DK	d	
REF	r	

PA12
ONLY ASK IF FEMALE IS RESPONDENT
<b>his</b> IF CMALE; <b>her</b> IF CFEMALE
<b>him</b> IF CMALE; <b>her</b> IF CFEMALE

Parents deal with meeting the expenses of raising a child in different ways. When answering the next question, I'd like you to think about all the expenses associated with raising [CHILD] such as [his/her] food, clothing, medical expenses, diapers, and any other costs of raising [him/her].

How much of the cost of raising [CHILD] does [FATHER] cover? Would you say its...

All or almost all,	1	END OF SECTION
More than half,	2	
About half,	3	
Less than half, or	4	
Little or none?	5	
DK	d	
REF	r	



## SECTION WW: FAMILY SELF-SUFFICIENCY

WW1
ALL

The next questions are about your work.

Have you worked for pay at any time during the past 12 months? Please include odd jobs and temporary jobs.

PROBE: You can include odd jobs, temporary jobs, self-employment, military service, or any other type of paid work.

YES	1	WW2
NO	0	WW13 OR
DK	d	WW8
REF	r	

WW2
IF WW1=YES

How many months did you work for pay in the past 12 months?

INSTRUCTION: IF LESS THAN 1 MONTH, ENTER 1 MONTH.

NUMBER OF MONTHS	FF (1 TO 12)	1 to 11=WW3
DK	d	
REF	r	12=WW4

WW3
IF WW2<>12

Did you work for pay in the past month?

PROBE: You can include odd jobs, temporary jobs, self-employment, military service, or any other type of paid work.

YES	1	WW4
NO	0	WW7
DK	d	
REF	r	

WW4
IF WW3=1 OR WW2=12

What were your total earnings in the past month before taxes and other deductions? Please include tips, commissions, and overtime pay.

PROBE: If you held more than one job, include your total earnings from all your jobs during the past month.

PROBE: I can help you add it up if you want to think out loud.

INSTRUCTION: IF RESPONDENT CAN ONLY REPORT EARNINGS AFTER TAXES, ENTER THAT AMOUNT.

AMOUNT	FFF,FFF.FF	WW5.2
DK	d	WW5.1
REF	r	WW5.1

WW5.1
IF WW4=DK, r

I just need to know a range. Can you tell me if it was...

INSTRUCTION: YOU CAN STOP READING WHEN RESPONDENT PROVIDES RANGE.

Less than \$500,	1	WW5.2
Between \$500 and \$750,	2	
Between \$750 and \$1000,	3	
Between \$1000 and \$1250,	4	
Between \$1250 and \$1500,	5	
Between \$1500 and \$1750,	6	
Between \$1750 and \$2000,	7	
Between \$2000 and \$2500,	8	
Between \$2500 and \$3000,	9	
Between \$3000 and \$3500,	10	
Between \$3500 and \$4000,	11	
Between \$4000 and \$4500,	12	
Between \$4500 and \$5000,	13	
Between \$5500 and \$6000,	14	
\$6000 or more?	15	
DK	d	WW6
REF	r	

WW5.2
IF WW4>0 OF IF WW5.1<>DK OR REF

PLEASE ENTER IF RESPONDENT PROVIDED THE AMOUNT...

BEFORE TAXES WITHOUT PROBING	1	WW6
BEFORE TAXES AFTER PROBING	2	
AFTER TAXES	3	
NOT SURE	4	

WW6
IF WW3=1 OR WW2=12

How many hours per week did you typically work last month?

AMOUNT OF HOURS	FFF	WW13
DK	d	OR WW8
REF	r	

WW7
IF WW3=NO

Thinking about the last month that you did work, what were your total earnings during that month before taxes and other deductions? Please include tips, commissions, and overtime pay.

PROBE: If you held more than one job during that month, include your total earnings from all your jobs you held that month.

PROBE: I can help you add it up if you want to think out loud.

INSTRUCTION: IF RESPONDENT CAN ONLY REPORT EARNINGS AFTER TAXES, ENTER THAT AMOUNT.

AMOUNT	FFF,FFF.FF	WW7.2
DK	d	WW7.1
REF	r	WW7.1

WW7.1
IF WW7=DK, r

I just need to know a range. Can you tell me if it was...

INSTRUCTION: YOU CAN STOP READING WHEN RESPONDENT PROVIDES RANGE.

Less than \$500,	1	WW7.2
Between \$500 and \$750,	2	
Between \$750 and \$1000,	3	
Between \$1000 and \$1250,	4	
Between \$1250 and \$1500,	5	
Between \$1500 and \$1750,	6	
Between \$1750 and \$2000,	7	
Between \$2000 and \$2500,	8	
Between \$2500 and \$3000,	9	
Between \$3000 and \$3500,	10	
Between \$3500 and \$4000,	11	
Between \$4000 and \$4500,	12	
Between \$4500 and \$5000,	13	
Between \$5500 and \$6000,	14	
\$6000 or more?	15	
DK	d	WW8 OR WW13
REF	r	

WW7.2
IF WW7>0 OR WW7.1 <>DK, REF

PLEASE ENTER IF RESPONDENT PROVIDED THE AMOUNT...

BEFORE TAXES WITHOUT PROBING	1	WW13 OR WW8
BEFORE TAXES AFTER PROBING	2	
AFTER TAXES	3	
NOT SURE	4	

WW8
IF FS25=1 OR FS33<3 OR FS40<3
<b>he</b> IF FEMALE; <b>she</b> IF MALE
<b>FATHER</b> IF FEMALE and FS33<3; <b>MOTHER</b> IF MALE and FS33<3; <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1
<b>he</b> IF FEMALE; <b>she</b> IF MALE

The next questions are about jobs [FATHER/MOTHER/CURRENT PARTNER] had in the past month. Has [he/she] worked for pay in the past month?

PROBE: You can include odd jobs, temporary jobs, self-employment, military service, or any other type of paid work.

YES	1	WW8.1
NO	0	WW13
DK	d	
REF	r	

WW8.1
IF WW8=1
<b>her</b> IF FEMALE; <b>his</b> IF MALE
<b>he</b> IF FEMALE; <b>she</b> IF MALE

What were [his/her] total earnings in the past month before taxes and other deductions? Please include tips, commissions, and overtime pay.

PROBE: If [he/she] held more than one job, include total earnings from all [his/her] jobs during the past month.

PROBE: I can help you add it up if you want to think out loud.

INSTRUCTION: IF RESPONDENT CAN ONLY REPORT EARNINGS AFTER TAXES, ENTER THAT AMOUNT

AMOUNT	FFF,FFF.FF	WW8.3
DK	d	WW8.2
REF	r	WW13

WW8.2
IF WW8.1=DK

I just need to know a range. Can you tell me if it was...

INSTRUCTION: YOU CAN STOP READING WHEN RESPONDENT PROVIDES RANGE.

Less than \$500,	1	WW8.3
Between \$500 and \$750,	2	
Between \$750 and \$1000,	3	
Between \$1000 and \$1250,	4	
Between \$1250 and \$1500,	5	
Between \$1500 and \$1750,	6	
Between \$1750 and \$2000,	7	
Between \$2000 and \$2500,	8	
Between \$2500 and \$3000,	9	
Between \$3000 and \$3500,	10	
Between \$3500 and \$4000,	11	
Between \$4000 and \$4500,	12	
Between \$4500 and \$5000,	13	
Between \$5500 and \$6000,	14	
\$6000 or more?	15	
DK	d	WW13
REF	r	

WW8.3
IF WW8.1>0 OR WW8.2<> DK, REF

PLEASE ENTER IF RESPONDENT PROVIDED THE AMOUNT...

BEFORE TAXES WITHOUT PROBING	1	WW13
BEFORE TAXES AFTER PROBING	2	
AFTER TAXES	3	
NOT SURE	4	



WW13
ALL
<b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1
<b>LOCAL NAME FOR TANF: NEEDS SITE SPECIFIC FILL</b>

Now I'm going to read a list of income sources. For each, tell me whether you, [FATHER/MOTHER/CURRENT PARTNER], or the children who live with you received income from this source in the past month:

PROBE: Did you, [FATHER/MOTHER/CURRENT PARTNER], or the children who live with you receive income from this source in the past month?

			(IF YES) How much did you receive in [FILL INCOME SOURCE] in the past month?
<b>Cash welfare</b> which is also known as TANF, or [LOCAL NAME OF TANF]?	YES	1	FF,FFF.FF DK REF
	NO	0	
<b>Food stamp benefits</b>	YES	1	FF,FFF.FF DK REF
	NO	0	
<b>Disability insurance</b> such as Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI)?	YES	1	FF,FFF.FF DK REF
	NO	0	
<b>Unemployment Insurance Benefits or UI</b>	YES	1	FF,FFF.FF DK REF
	NO	0	
<b>Child support?</b>	YES	1	FF,FFF.FF DK REF
	NO	0	
<b>Money from friends or relatives?</b>	YES	1	FF,FFF.FF DK REF
	NO	0	
			WW28

WW28
ALL
or <b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; or <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; or <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1

In the past month did you (or [FATHER/MOTHER/CURRENT PARTNER]) receive money from any other source, such as rent from boarders, other government benefits, or any other income we have not already talked about?

YES	1	WW30
NO	0	WW32
DK	d	
REF	r	

WW30
IF WW28=YES
or <b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; or <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; or <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1

How much money from these other sources did you (or [FATHER/MOTHER/CURRENT PARTNER]) receive in the past month?

AMOUNT	FFF,FFF.FF	WW32
DK	d	
REF	r	

WW32
ALL
and <b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; and <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; and <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1
or <b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; or <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; or <b>CURRENT PARTNER</b> IF FS40<3

The next questions are about bank accounts.

Do you (or [FATHER/MOTHER/CURRENT PARTNER]) have any bank accounts?

YES	1	WW33
NO	0	WW36
DK	d	
REF	r	

WW33
IF WW32=YES AND ((IF FS25=1) OR (IF FS33<3) OR (IF FS40<3 OR FS38.1=1))
<b>his</b> IF FEMALE; <b>her</b> IF MALE

Are any of these accounts in...

a	Both your names?	YES	NO	WW36
b	[His/Her] name only?	YES	NO	
c	Your name only?	YES	NO	
	DK	d		
	REF	r		

WW36
(IF FS25=1) OR (IF FS33<3) OR (IF FS40<3 OR FS38.1=1)
<b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; <b>and CURRENT PARTNER</b> IF FS40<3

People handle money differently. Which of the following best describes how you and [FATHER/MOTHER/CURRENT PARTNER] handle your money?

We put all our money together.	1	WW37
We put some of our money together but keep the rest separate, or	2	
We keep all our money separate.	3	
DK	d	
REF	r	

WW37
(IF FS25=1) OR (IF FS33<3) OR (IF FS40<3 OR FS38.1=1)
<b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; <b>CURRENT PARTNER</b> IF FS40<3

People also make different arrangements for handling household expenses, such as paying for rent, food, or utilities. Which of the following best describes how you and [FATHER/MOTHER/CURRENT PARTNER] pay for household expenses?

We usually both contribute to household expenses.	1	WW38
I usually cover household expenses.	2	
[FATHER/MOTHER/CURRENT PARTNER] usually covers household expenses.	3	WW37.1
Someone else covers most of our household expenses, or	4	
We have some other kind of arrangement.	5	WW37.2
DK	d	WW38
REF	r	

WW37.1
IFWW37=4

Who covers these household expenses?

INSTRUCTION: PROBE FOR RELATIONSHIP TO RESPONDENT.

DESCRIBE PERSON	STRING OF 50	WW38
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WW37.2
IF WW37=5

What kind of arrangement do you have?

INSTRUCTION: DESCRIBE THE ARRANGEMENT.

DESCRIBE ARRANGEMENT	STRING OF 50	WW38
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WW38
ALL
or <b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; or <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; and/or <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1

Do you (or [FATHER/MOTHER/CURRENT PARTNER]) own a car, truck or van?

YES	1	WW40
NO	0	
DK	d	
REF	r	

WW40
ALL
FATHER/MOTHER/CURRENT PARTNER
or <b>FATHER</b> (IF FS25=1 OR IF FS33<3) AND FEMALE; or <b>MOTHER</b> (IF FS25=1 OR IF FS33<3) AND MALE; or <b>CURRENT PARTNER</b> IF FS40<3 OR FS38.1=1

Do you (and/or [FATHER/MOTHER/CURRENT PARTNER]) own the home you live in?

YES	1	WW53
NO	0	
DK	d	
REF	r	

WW53
ALL

Now, I have some questions about financial difficulties you may have experienced in the past 12 months.

Please tell me if there has been a time during the past 12 months when...

		YES	NO	DK	REF
a	You could not pay the full amount of the rent or mortgage that you were supposed to pay?	1	0	d	r
b	You had service turned off by the water, gas or electric company, or the oil company would not deliver oil because you could not afford to pay the bill?	1	0	d	r
c	You were evicted from your home or apartment because you could not pay the rent or mortgage?	1	0	d	r
		WW54			

WW54
IF FS5<>2 OR 4 OR FS7<>2,3,4,5 (child alive)
NOTE: NEED STATE/LOCAL FILL FOR MEDICAID

The next questions are about health insurance coverage.

Is [CHILD] currently covered by Medicaid, [STATE/LOCAL FILL], or any other government program that pays for medical care?

YES	1	WW55.1.1
NO	0	
DK	d	
REF	r	

WW55.1.1
IF FS5<>2,4 OR FS7<>2,3,4,5 (child alive)

Is [CHILD] currently covered by health insurance through your or someone else's employer, or insurance purchased directly from a private insurance company?

YES	1	WW55.2
NO	0	
DK	d	
REF	r	

WW55.2
ALL
NOTE: NEED STATE/LOCAL FILL FOR MEDICAID.

Are you currently covered by Medicaid, [STATE/LOCAL FILL], or any other government program that pays for medical care?

YES	1	WW55.2.1
NO	0	
DK	d	
REF	r	

WW55.2.1
ALL

Are you currently covered by health insurance through your or someone else's employer, or insurance purchased directly from a private insurance company?

YES	1	WW55.3
NO	0	
DK	d	
REF	r	

WW55.3
ALL

In general would you say your health is...

Excellent,	1	WW57.1
Very good,	2	
Good,	3	
Fair, or	4	
Poor?	5	
DK	d	
REF	r	

WW57.1
IF FS19<>3 AND FS25<>6,7 and FS5a<>2, 4, 5 AND FS5b<>2, 3 AND FS7<>2,3,4,or 5, AND Baby_Died <> 1
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Next I have some questions about people who are available to help you in an emergency

Would you be able to count on [FATHER/MOTHER] to take care of [CHILD] in an emergency?

YES	1	WW57
NO	0	
DK	d	
REF	r	



WW57
IF FS5a<>2, 4, 5 AND FS5b<>2, 3 AND FS7<>2,3,4,or 5, AND Baby_Died <> 1

Besides [FATHER/MOTHER], how many other people would you be able to count on to take care of [CHILD] in an emergency?

PROBE: Your best estimate is fine.

INSTRUCTION: IF MORE THAN 25 ENTER 25.

NUMBER OF PEOPLE	FF	WW57.1
DK	d	
REF	r	

WW58.1
IF FS19<>3 AND FS25<>6,7 AND Partner_Died =0
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Could you turn to [FATHER/MOTHER] if you suddenly needed to borrow \$100?

YES	1	WW58
NO	0	
DK	d	
REF	r	

WW58
ALL

Besides [FATHER/MOTHER] how many other people could you turn to if you suddenly needed to borrow \$100 in an emergency?

PROBE: Your best estimate is fine.

INSTRUCTION: IF MORE THAN 25 ENTER 25.

NUMBER OF PEOPLE	FF	WW60
DK	d	
REF	r	

WW60
IF FS19<>3 AND FS25<>6,7 AND Partner_Died =0
<b>FATHER IF FEMALE; MOTHER IF MALE</b>

Suppose you had a problem, and you were feeling depressed or confused about what to do.

Could you turn to [FATHER/MOTHER] for help or advice if you had a problem and felt like that?

YES	1	WW59
NO	0	
DK	d	
REF	r	

WW59

"Besides [FATHER/MOTHER], how many other people would you be able to turn to for help or advice if you had a problem and you were feeling depressed or confused about what to do?"

PROBE: Your best estimate is fine.

INSTRUCTION: IF MORE THAN 25 ENTER 25.

NUMBER OF PEOPLE	FF	END OF SECTION
DK	d	
REF	r	

## SECTION WB: PARENTAL WELL BEING (II)

WB9
ALL

INSTRUCTION: IS RESPONDENT CURRENTLY IN PRISON OR JAIL?

YES	1	WB11.1
NO	0	WB11

WB11
IF WB9=NO

The next questions are about involvement you may have had with the police or the criminal justice system.

Have you ever been arrested? Please include all arrests whether you were guilty or not.

YES	1	WB11.1
NO	0	END OF SECTION OR WB25.1 IF RESPONDENT IS FEMALE
DK	d	
REF	r	

WB11.1
IF WB11=YES OR IF WB9=YES
IF 15MO=0 THEN [RA DATE], IF 15MO=1 THEN [15MO_SURV DATE]

(IF WB9=YES) The next questions are about involvement you may have had with the police and/or the criminal justice system.

(ALL) Have you been arrested since [RA DATE/15MO\_SURVDATE]?

YES	1	WB11.2
NO	0	WB15
DK	d	
REF	r	

WB11.2
IF WB11.1=YES
IF 15MO=0 THEN [RA DATE], IF 15MO=1 THEN [15MO_SURV DATE]

How many times have you been arrested since [RA DATE/ 15MO\_SURVDATE]?

NUMBER OF ARRESTS	FF	WB15 IF DID A 15MO INTERVIEW THEN SKIP TO WB25.1
DK	d	
REF	r	

WB15
IF WB11.1<> NO or r, AND 15MO=0; IF 15MO=1 – <b>GOTO WB26</b>

Now, I would like to ask you about the time before [RA DATE].

Before [RA DATE], were you ever in jail or prison?

YES	1	WB23
NO	0	
DK	d	
REF	r	

WB23
15MO=0

I would also like to ask you about any convictions or sentences you may have received.

Before [RA DATE], were you ever convicted and sentenced to go to jail or prison? Please include any sentence you received, even if you did not serve any time.

YES	1	WB24
NO	0	WB25.1 IF
DK	d	FEMALE, WB31
REF	r	IF MALE

WB24
If WB23=YES AND 15MO=0

Please think about the longest sentence you received before [RA DATE]. How long was that sentence? Please tell me the total length of the prison sentence, even if you did not serve all of it.

INSTRUCTION: IF LESS THAN 1 WEEK, ENTER 1 WEEK.

INSTRUCTION: FIRST ENTER IF RESPONSE IS WEEKS, MONTHS AND/OR YEARS. YOU WILL ENTER THE NUMBER OF YEARS AND/OR MONTH ON NEXT TWO SCREENS.

INSTRUCTION: ENTER ALL THAT APPLY

b	WEEKS	YES		
		NO		
c	MONTHS	YES		
		NO		
d	YEARS	YES		
		NO		
	DK	d		WB25.1
	REF	r		

WB24.1
IF WW24b=YES AND 15MO=0

INSTRUCTION: ENTER NUMBER OF WEEKS

WEEKS	FF	WB24.2 OR WB24.3
-------	----	---------------------

WB24.2
IF WB24c=YES AND 15MO=0

INSTRUCTION: ENTER NUMBER OF MONTHS

MONTHS	FF	WB24.3
--------	----	--------

WB24.3
IF WB24d=YES AND 15MO=0

INSTRUCTION: ENTER NUMBER OF YEARS

YEARS	FF	WB25.1 OR WB31
-------	----	-------------------

WB25.1
<b>IF FEMALE IS RESPONDENT</b>

The next questions are about involvement [FATHER] may have had with the police or the criminal justice system.

Has [FATHER] ever been arrested? Please include all arrests whether he was guilty or not.

YES	1	WB26 END OF SECTION
NO	0	
DK	d	
REF	r	

WB26
IF WB25.1=YES
IF 15MO=0 THEN [RA DATE] IF 15MO=1 THEN [15MO-SURVDATE]

Has [FATHER] been arrested since [RA DATE/15MO\_SURVDATE]?

YES	1	WB27
NO	0	WB30
DK	d	
REF	r	

WB27
IF WB26=YES
IF 15MO=0 THEN [RA DATE] IF 15MO=1 THEN [15MO-SURVDATE]

How many times since [RA DATE/15MO\_SURVDATE] has [FATHER] been arrested?

NUMBER OF ARRESTS	FF	WB30
DK	d	
REF	r	

WB30
IF WB27<>0 AND FS19<>3 OR FS25 <>6 OR 7, <b>OR</b> FS19.Fn <> 98 <b>OR</b> Partner_Died<>1

Is [FATHER] currently in prison or jail?

YES	1	CC1
NO	0	
DK	d	
REF	r	

WB31
<b>IF MALE IS RESPONDENT</b>
IF 15MO=0 THEN [RATE DATE], IF 15MO=1 THEN [15MO_SURV DATE]

Since [RA DATE/15MO\_SURVDATE], have you been in jail or prison?

YES	1	WB32
NO	0	
DK	d	
REF	r	

WB32
<b>IF MALE IS RESPONDENT</b>
IF 15MO=0 THEN [RATE DATE], IF 15MO=1 THEN [15MO_SURV DATE]

Since [RA DATE/15MO\_SURVDATE], have you been convicted and sentenced to go to jail or prison? Please include any sentence you received, even if you did not serve any time.

YES	1	WB33
NO	0	WB34
DK	d	
REF	r	

WB33
IF WB32=1
IF 15MO=0 THEN [RATE DATE], IF 15MO=1 THEN [15MO_SURV DATE]

Please think about the longest sentence you received since [RA DATE/15MO\_SURVDATE]. How long was that sentence? Please tell me the total length of the prison sentence, even if you did not serve all of it.

INSTRUCTION: IF LESS THAN 1 WEEK, ENTER 1 WEEK.

INSTRUCTION: FIRST ENTER IF RESPONSE IS WEEKS, MONTHS AND/OR YEARS. YOU WILL ENTER THE NUMBER OF YEARS AND/OR MONTH ON NEXT TWO SCREENS.

INSTRUCTION: ENTER ALL THAT APPLY

a	WEEKS	YES	END OF SECTION
		NO	
b	MONTHS	YES	
		NO	
c	YEARS	YES	
		NO	
	DK	d	
	REF	r	



WB33.1
IF WB33a=YES

INSTRUCTION: ENTER NUMBER OF WEEKS

WEEKS	FF	WB33.2 OR WB33.3
-------	----	---------------------

WB33.2
IF WB33b=YES

INSTRUCTION: ENTER NUMBER OF MONTHS

MONTHS	FF	WB33.3
--------	----	--------

WB33.3
IF WB23c=YES

INSTRUCTION: ENTER NUMBER OF YEARS

YEARS	FF	WB34
-------	----	------

WB34
IF MALE IS RESPONDENT AND WB11=1

Are you currently on probation or parole?

YES	1	END OF SECTION
NO	0	
DK	d	
REF	r	

## SECTION BP: COUNTRY OF ORIGIN AND BIOLOGICAL PARENTS

CC1
IF 15MO=1, GO TO BP10

Next, I would like to ask you some questions about where you were born and about your childhood.

What country were you born in?

UNITED STATES	1	BP1
PUERTO RICO	2	
CANADA	3	CC2
MEXICO	4	
CUBA	5	
DOMINICAN REPUBLIC	6	
EL SALVADOR	7	
HAITI	8	
JAMAICA	9	
GUATEMALA	10	
NICARAGUA	11	
OTHER COUNTRY	12	
DK	d	CC2
REFUSED	r	

CC1.1
CC1=12

INSTRUCTION:	SPECIFY OTHER COUNTRY	CC2
--------------	-----------------------------	-----

CC2
IF CC1>2

When did you first come to live in the United States?

INSTRUCTION: FIRST CODE IF ANSWER IS, 'SPECIFIC YEAR' OR 'NUMBER OF YEARS AGO'...

INSTRUCTION: YOU WILL BE ABLE TO ENTER SPECIFIC YEAR OR NUMBER OF YEARS ON THE NEXT SCREEN.

SPECIFIC YEAR	1	CC2.1
NUMBER OF YEARS AGO	2	CC2.2
DK	d	BP1
REF	r	

CC2.1
IF CC2=1

INSTRUCTION:	ENTER SPECIFIC YEAR	BP1
--------------	---------------------------	-----

CI2.2
IF CC2=2

INSTRUCTION:	ENTER NUMBER OF YEARS AGO	BP1
--------------	---------------------------------	-----

BP1
ALL

When you were growing up—that is before you turned 18—did you live most of the time with...

PROBE: In which of these living situations did you spend most of your time before you turned 18?

Both your biological mother and your biological father,	1	BP2
Your biological mother only,	2	
Your biological father only, or	3	
Neither of your biological parents?	4	
DK	d	
REF	r	

BP2
If BP1=1

Did you usually live with both your parents at the same time?

YES	1	BP3
NO	0	
DK	d	
REF	r	

BP3
-----

Were your biological parents ever married to each other?

INTERVIEWER: IF RESPONDENT ANSWERS DON'T KNOW DO NOT REPEAT THE QUESTION.

YES	1	BP7
NO	0	
DK	d	
REF	r	

BP7

Before you turned 18, did anyone—a stranger, friend, date, relative, or someone else you knew—ever do or try to do something sexual to you or make you do something sexual to them against your wishes?

YES	1	BP8
NO	0	
DK	d	
REF	r	

BP8

Before you turned 18, were you ever beaten up, burned, assaulted with a weapon, or had your life threatened by an adult in your family or household?

YES	1	BP9
NO	0	
DK	d	
REF	r	

BP9

**man** IF FEMALE; **woman** IF MALE

I have a few more questions about your sexual relationships.

How old were you the first time you had sexual intercourse with a [man/woman]?

PROBE: By sexual intercourse I mean that you made love, had sex, or went all the way with a [man/woman].

AGE OF FIRST INTERCOURSE	FF	BP10
DK	d	
REF	r	

BP10
ALL
man IF FEMALE; woman IF MALE
male IF FEMALE; female IF MALE

In the past three years, how many [men/women] have you had sexual intercourse with? Please count every [male/female] sexual partner in the past three years even if you had sex only once.

PROBE: And that is in the last three years?

NUMBER OF TIMES	FFF	END OF SECTION
DK	d	
REF	r	

BP11
FEMALE ONLY
IF SITENAME = 178 (Orange), THEN <b>ORANGE COUNTY</b>
IF SITENAME = 185 (Allen), THEN <b>ALLEN COUNTY</b>
IF SITENAME = 186 (Broward), THEN <b>BROWARD COUNTY</b>
IF SITENAME = 189 (Houston), THEN <b>HOUSTON</b>
IF SITENAME = 191 (San Angelo), THEN <b>SAN ANGELO</b>
IF SITENAME = 193 (Marion), THEN <b>MARION COUNTY</b>
IF SITENAME = 194(Oklahoma), THEN <b>OKLAHOMA CITY</b>
IF SITENAME = 195 (Lake), THEN <b>LAKE COUNTY</b>
IF SITENAME = 196 (Baltimore), THEN <b>BALTIMORE</b>
IF SITENAME = 198 (Baton Rouge), THEN <b>BATON ROUGE</b>
IF SITENAME = 200 (LAA), THEN <b>ATLANTA</b>
IF SITENAME = 204 (GSU), THEN <b>ATLANTA</b>

When you enrolled in the study, you were in [SITENAME]. Are you still in the [SITENAME] area?

Yes	1	BP12
No	2	BP13
DK	d	
REF	r	

BP12
IF FEMALE AND BP11=1
IF SITENAME = 178 (Orange), THEN AGENCY = <b>HARBOR HOUSE</b> , AND LOCAL PHONE NUMBER = <b>(407) 886-2856</b>
IF SITENAME = 185 (Allen), THEN AGENCY = <b>THE YWCA DOMESTIC VIOLENCE OUTREACH &amp;SHELTER</b> , AND LOCAL PHONE NUMBER =
IF SITENAME = 186 (Broward), THEN AGENCY = <b>WOMEN IN DISTRESS</b> , AND LOCAL PHONE NUMBER = <b>954-761-1133 / 954-760-9800</b>
IF SITENAME = 189 (Houston), THEN AGENCY = <b>THE HOUSTON AREA WOMEN’S CENTER</b> , AND LOCAL PHONE NUMBER = <b>713-528-2121</b>
IF SITENAME = 191 (San Angelo), THEN AGENCY = <b>SAMARITAN COUNSELING</b> , AND LOCAL PHONE NUMBER = <b>(325) 944-2561</b>
IF SITENAME = 193 (Marion), THEN AGENCY = <b>THE JULIAN CENTER</b> , AND LOCAL PHONE NUMBER = <b>(317) 920-9320</b>
IF SITENAME = 194(Oklahoma), THEN AGENCY = <b>THE YWCA DOMESTIC VIOLENCE HOTLINE</b> , AND LOCAL PHONE NUMBER = <b>(405) 917-9922</b>
IF SITENAME = 195 (Lake), THEN AGENCY = <b>THE CARING PLACE</b> , AND LOCAL PHONE NUMBER = <b>(219) 464-2128</b>
IF SITENAME = 196 (Baltimore), THEN AGENCY <b>THE HOUSE OF RUTH</b> = , AND LOCAL PHONE NUMBER = <b>(410) 889-7884</b>
IF SITENAME = 198 (Baton Rouge), THEN AGENCY = <b>THE CAPITAL AREA FAMILY VIOLENCE INTERVENTION CENTER</b> AND LOCAL PHONE NUMBER = <b>(225) 389-3001</b>
IF SITENAME = 200 (LAA), THEN AGENCY <b>THE LAA OUTREACH CENTER</b> = , AND LOCAL PHONE NUMBER = <b>(404) 471-1889 / (678) 205-1018</b>
IF SITENAME = 204 (GSU), THEN AGENCY <b>THE WOMEN’S RESOURCE CENTER TO END DOMESTIC VIOLENCE</b> = , AND LOCAL PHONE NUMBER = <b>(404) 688-9436</b>

Because this study is about relationships, we are telling people about services that help people who are dealing with domestic violence or conflicts with their partners. If you or anyone you know wants to talk about that kind of problem, or needs help, the number for [AGENCY] in your area is [LOCAL PHONE NUMBER]. That number again is [LOCAL PHONE NUMBER]. I can repeat the number again if you need me to.

BP13
IF FEMALE AND (BP11 = 2, OR BP11 = DK, OR BP11 = RF)

Because this study is about relationships, we are telling people about services that help people who are dealing with domestic violence or conflicts with their partners. If anyone you know wants to talk about that kind of problem, or needs help, the toll free number is 1-800-799-SAFE. They can call this number free of charge and help is available 24 hours a day, seven days a week, in English and Spanish and many other languages. That number again is 1-800-799-7233. I can repeat the number again if you need me to.



## SECTION LO: LOCATING INFORMATION

(NTL DV info Added to CATI November 2009 and removed spring of 2010)

LO1
ALL
HIDE REFERENCE TO MONEY IF CELL PHONE COMP

We are almost done. We will be sending you a (check) for \$25 within the next four weeks. We need to make sure we have your correct address.

What is your full address?

PROBE: Can you spell the street name for me please?

PROBE: Is there an apartment number?

PROBE: Besides the P.O. Box, do you have a street address?

ADDR LINE 1	STRING OF 20	LO1.1
-------------	--------------	-------

LO1.1

INSTRUCTION:	ENTER ADDR LINE 2	LO1.2
--------------	----------------------	-------

LO1.2

INSTRUCTION:	ENTER CITY	LO1.3
--------------	------------	-------

LO1.3

INSTRUCTION:	ENTER STATE	LO1.3.1
--------------	-------------	---------

LO1.3.1

INSTRUCTION:	ENTER ZIP CODE	LO2
--------------	----------------	-----

LO2
ALL

What is your home phone number?

HOME PHONE NUMBER	FFF-FFF-FFFF	LO2.1
DOES NOT HAVE PHONE	1	LO3
DK	d	LO3
REF	r	

LO2.1
LO2=phone number

Whose name is that phone number listed in?

ENTER NAME LISTED IN SAMPLE MEMBER'S NAME	STRING OF 20	LO3
DK	0	
DK	d	
REF	r	

LO3
ALL

Do you (also) have a cell-phone or pager number?

CELL-PHONE/PAGER NUMBER	FFF-FFF-FFFF	LO4
DOES NOT HAVE PHONE	1	
DK	d	
REF	r	

LO4
ALL

Is there (a/another) phone number where you can be reached?

HOME PHONE NUMBER	FFF-FFF-FFFF	LO4.1
NO OTHER PHONE	0	LO17
DK	d	
REF	r	

LO4.1
LO4=phone number

Whose name is that phone number listed in?

ENTER NAME	STRING OF 20	LO4.2
LISTED IN SAMPLE MEMBER'S NAME	0	LO17
DK	d	
REF	r	

LO4.2
LO4=NAME

What is their relationship to you?

RELATIONSHIP	STRING OF 20	LO17
DK	d	LO17
REF	r	

PROGRAMMER PLEASE INSERT THE SCREENER SEQUENCE HERE.  
NOTE THAT IF CHILD'S AGE IN MONTHS (CALCULATE BASED ON DOB AND DATE OF INTERVIEW) IS EQUAL TO OR GREATER THAN 42 MONTHS, SKIP THE SCREENING SEQUENCE AND GO TO LO17

LO17
COMPLETES FROM SOC

Thank you very much for your time. Those are all the questions I have right now.

Is [FATHER/MOTHER] available? I'd like to interview [him/her] too, if (he/she) is around.

INSTRUCTION: IF [FATHER/MOTHER] IS AVAILABLE, ASK TO SPEAK TO [HIM/HER]. CLOSE THE CURRENT CASE AFTER LEAVING A NOTE ABOUT THIS CASE AND OPEN [FATHER/MOTHER]'S CASE.

INSTRUCTION: IF [FATHER/MOTHER] ISN'T AVAILABLE, ASK FOR THE BEST TIME TO REACH [HIM/HER] AND RECORD ON [FATHER/MOTHER]'S CONTACT SHEET.

LO18

COMPLETES WITH FIELD LOCATOR

Thank you very much for your time. Those are all the questions I have right now.

Is [FATHER/MOTHER] available? I'd like to interview [him/her] too, if [he/she] is around.

INSTRUCTION: IF [FATHER/MOTHER] IS AVAILABLE, ASK TO SPEAK TO [HIM/HER]. CLOSE THE CURRENT CASE AFTER LEAVING A NOTE ABOUT THIS CASE AND OPEN [FATHER/MOTHER]'s CASE.

INSTRUCTION: IF [FATHER/MOTHER] ISN'T AVAILABLE, ASK FOR THE BEST TIME TO REACH [HIM/HER] AND RECORD ON [FATHER/MOTHER]'s CONTACT SHEET.

Please hand the phone back to our field locator.

INTERVIEWER: CONFIRM WITH FIELD LOCATOR THAT SM HAS BEEN PAID.

YES	1	END
NO	0	
DK	d	
REF	r	



**APPENDIX E**

**BSF 36- MONTH DIRECT ASSESSMENT INSTRUMENT**







# The Building Strong Families Evaluation

## Thirty-Six Month Mother-Child In-Home Assessment

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Items BTrial 1 – BTrial 3 are adapted from the Walk The Line assessment.

Items H5-H9, J1-J11: Source: Caldwell and Bradley 2003. Items H5-H9 and Items J1-J11 are adapted from the The Home Observation for Measurement of the Environment (HOME).

Items L2-L9: Source: Leventhal, et al. 2004. Items L2-L9 are adapted from the Neighborhood Environment Ratings.

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According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0970-0344. The time required to complete this information collection is estimated to average 60 minutes per respondent, including the time to review instructions, gather the data needed, and complete and review the information collected.

BSF  
Home Assessment

<u>Section</u>	<u>Page</u>
i. GENERAL PROCEDURES.....	i
ii. INTRODUCTION WITH PARENT .....	iii
iii. INTRODUCTION/ESTABLISH RAPPORT WITH CHILD .....	v
A. PPVT – PEABODY PICTURE VOCABULARY TEST 4.....	1
B. WALK THE LINE.....	6
C. MOTHER-CHILD TWO-BAGS .....	10
D. PUZZLE TEACHING TASK.....	14
E. CHILD-ALONE PARADIGM.....	15
F. FATHER-CHILD TWO BAGS - TASK .....	16
G. THANK YOU AND CHILD GIFT .....	20
H. MOTHER QUESTIONS .....	21
I. INTERVIEWER RATINGS .....	25
J. OBSERVATIONAL HOME ITEMS (INTERVIEWER RATING) .....	29
K. TAS-45 (INTERVIEWER RATING) .....	32
L. NEIGHBORHOOD ENVIRONMENT (INTERVIEWER RATING).....	33

## i. GENERAL PROCEDURES

### 1. Setup:

Before entering the home, review *Tuning into Toddler Attachment and Exploration Behavior*. Have all your materials set up and ready before beginning the direct assessments. This includes:

- PPVT easel;
- Pens;
- Stop watch;
- Painters Tape;
- Measuring tape;
- Stickers and paper for stickers

- Folder with: this protocol
- In-Home Assessment Contact Sheet
- Information Sheet
- Payment Receipt Form
- Signboard For Labeling Video

Do not take the materials for the Two-Bags out until the direct assessments are complete.

### 2. Typefaces:

**Instructions and questions that you read aloud to the child are printed in this “bold” typeface. Be sure to read all questions completely and verbatim.**

INSTRUCTIONS FOR YOU THAT ARE NOT READ ALOUD ARE PRINTED IN THIS “ALL CAPITALS” TYPEFACE. THESE INSTRUCTIONS ARE JUST FOR YOU.

Written questions just for you to fill out and answer on your own without reading aloud are printed in this standard lower case typeface and are in boxes.

3. Observation boxes are included throughout the assessment. These boxes contain items from the TAS-45 in lower case print and interactions for you to be aware of in CAPS. These boxes are intended to remind you to observe how the mother and child react to you and each other at particular points throughout your visit. These boxes are meant to help you remember key incidents throughout the visit so that later you can complete the TAS-45 accurately. It is not necessary for you to make notes in the boxes, however, you can if you'd like. While the boxes appear at key points in the session when you might observe a particular behavior, it is important to remember that these behaviors could occur at any point during the visit and when you complete the TAS-45 you will need to think about *the entire visit*.

4. Encouragement:

Throughout the assessment, give frequent neutral praise, such as:

**You're working hard!**

**Thank you for working so hard!**

**Thanks for being such a good listener!**

You can also give the child stickers on a piece of paper with his/her name on it. Do not have the child put stickers on anything other than paper.

Do not give the child hints, read questions in a leading manner, or make facial expressions that may indicate the right or wrong answer. And you should also remind parents of this as needed.

You should make three attempts at each activity before moving on. You can come back to the activity for a fourth and final attempt later in the session.

5. Breaks:

If the child appears fidgety or tired after any section, take a short break. Place a sticker on a piece of paper with the child's name on it, or allow him/her to play briefly with a toy.

6. Double-check:

Be sure that everything is filled out completely from the beginning to the end of this booklet including times and ratings.

## ii. INTRODUCTION WITH PARENT

WHEN FIRST GREETING THE PARENT, ALSO SAY 'HELLO' TO THE CHILD BY GETTING TO HIS/HER EYE LEVEL.

OB1 – TAS-45\*△

ARRIVAL: OBSERVE HOW THE CHILD REACTS WHEN YOU ENTER THE HOME AND TALK WITH THE MOTHER.

NOTICE THE FOLLOWING:

- HOW THE CHILD RESPONDS TO YOU
- DISTANCE OR PROXIMITY TO MOTHER
- HOW MOTHER AND CHILD COMMUNICATE
- IF MOTHER IS READING, WATCH TO SEE WHAT THE CHILD DOES DURING THE TIME THE MOTHER'S ATTENTION IS DIVIDED.

\* The Toddler Attachment Sort (TAS) -45 items used in this questionnaire are copyrighted. For the complete text of these items, please contact **NCAST Programs** <http://www.ncast.org/index.cfm?category=33>

NOTE TO INTERVIEWER: CONFIRM UPON ARRIVAL WHETHER THE FATHER IS PRESENT. IF SO ASK HIM TO JOIN YOU FOR THE INTRODUCTION.

**The purpose of this visit is to learn more about your family as part of the Building Strong Families study. Today, I will do some activities with [CHILD] to understand more about [CHILD]'s development. These activities are like games, and children usually find them fun.**

**Later, I will ask you and [CHILD] to play together with some toys that I have brought and then I will ask that [CHILD] play alone. (IF FATHER OBSERVATION IS ALSO OCCURRING THAT SESSION: Then [FATHER] and [CHILD] will play together.) I will record these play activities with a video camera. And at the end, I will have a few quick questions for you. Altogether, this visit will probably take (less than/about) an hour.**

**Throughout this visit, you or [CHILD] can stop the activities at any time, and if at any time anyone needs to take a break, please just let me know.**

**You should know that participation is completely voluntary, and all the information that I collect is confidential. All of the results of this study will be reported for groups of families. No results will be analyzed or reported for individuals and names will not be used in our reports.**

**When we finish, I will give you \$25 to thank you for your help (IF FATHER OBSERVATION IS ALSO OCCURRING THAT SESSION: I will also give \$25 to [FATHER],) and I have a small gift for [CHILD].**

**Before we start, here is some more information for you [GIVE PARENT IN-HOME INFORMATION LETTER. NOTE: YOU MAY NEED TO READ THIS TO THE PARENT.] Please let me know if you have any questions.**

**I just need a few minutes to set-up. The first activity works best if [CHILD] and I sit at a table. FIND A QUIET AREA TO CONDUCT THE PPVT ASSESSMENT PREFERABLY AT A TABLE WHERE THE CHILD CAN REACH THE EASEL WITHOUT DIFFICULTY. SET-UP YOUR EASEL, STICKERS, PAPER, AND PEN.**

**For the second activity I need to make a “balance beam” on the floor. This is just painters tape so it won’t leave a mark. Where do you think is the best place for me to set up the tape?**

USING THE MEASURING TAPE, PLACE 6 FEET OF PAINTERS TAPE ON THE FLOOR IN A STRAIGHT LINE. PLACE A LARGE STICKER AT ONE END OF THE TAPE TO MARK WHERE THE CHILD WILL START. BE SURE THAT THE END OF THE TAPE WITHOUT THE STICKER HAS PLENTY OF ROOM FOR THE CHILD TO CONTINUE WALKING PAST THE LINE (I.E., DO NOT HAVE THIS ENDING AT A TABLE OR WALL).

**Do you have any questions before we begin? ANSWER ANY QUESTIONS**

### iii. INTRODUCTION/ESTABLISH RAPPORT WITH CHILD

GO TO CHILD AND AT HIS/HER EYE LEVEL, SAY:

**My name is [INTERVIEWER NAME], and I am going to play some games with you.**

**How old are you, [CHILD]?**

**Can you show me one of your favorite toys?**

WAIT FOR CHILD TO BRING TOY TO YOU. THEN ASK:

**Can I hold it for a minute?**

OB2– TAS-45△

- ALSO LISTEN AND WATCH TO SEE IF/HOW MOTHER AND CHILD INTERACT AROUND THIS REQUEST

IF CHILD LET'S YOU HOLD THE TOY, LOOK AT THE TOY FOR A MOMENT THEN SAY:  
**Thanks for sharing this with me. It looks great... I need you to go give the toy to your mom now, because we have some games to play.**

IF CHILD DOES NOT LET YOU HOLD THE TOY: **That's okay, thanks for showing it to me. I need you to go give the toy to your mom now, because we have some games to play.**

SAY TO THE PARENT: **Before I start these games with [CHILD], I have to explain a few things to you. It is very important that [CHILD] completes these activities on his/her own without any help. You may be in the room, but you should be out of [CHILD]'s sight. I know that it can be tempting to make comments or try to help [CHILD], but it is important for me to record how [CHILD] answers all by him/herself so please do not say anything that can influence his/her response. Also, you should know that these activities are challenging, and that [CHILD] is not expected to get them all correct. Do you have any questions? ANSWER ANY QUESTIONS.**

SIT AT THE TABLE WITH THE CHILD TO CONDUCT THE PPVT.

SAY TO THE CHILD: **Now, I have some pictures to show you and some things I will ask you to do. Please listen carefully and do the best you can. Some of the things I will ask you are hard even for older kids, so don't worry if you are not sure about them. Just give it your best try.**



**SECTION A: PPVT – PEABODY PICTURE VOCABULARY TEST 4**

Materials: PPVT IV Easel

GENERAL PROCEDURES

PPVT TRAINING\*

ITEM	INSTRUCTIONS	SAY
SET UP TENT	PLACE SET UP PPVT TENT BEFORE CHILD	
PPVT TRAINING PLATE A*		<input type="checkbox"/> CHECK BOX IF CHILD REFUSES

\* The Peabody Picture Vocabulary Test, Fourth Edition (PPVT-IV) items used in this questionnaire are copyrighted. For the complete text of these items, please contact **NCS Pearson, Inc.**

PPVT\*

<b>SET 1</b>		<b>CIRCLE ONE</b>			
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P1.			_____	1	0
P2.			_____	1	0
P3.			_____	1	0
P4.			_____	1	0
P5.			_____	1	0
P6.			_____	1	0
P7.			_____	1	0
P8.			_____	1	0
P9.			_____	1	0
P10.			_____	1	0
P11.			_____	1	0
P12.			_____	1	0
			No. of Errors	_____	
<b>SET 3</b>		<b>CIRCLE ONE</b>			
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P25.			_____	1	0
P26.			_____	1	0
P27.			_____	1	0
P28.			_____	1	0
P29.			_____	1	0
P30.			_____	1	0
P31.			_____	1	0
P32.			_____	1	0
P33.			_____	1	0
P34.			_____	1	0
P35.			_____	1	0
P36.			_____	1	0
			No. of Errors	_____	

<b>SET 2</b>		<b>CIRCLE ONE</b>			
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P13.			_____	1	0
P14.			_____	1	0
P15.			_____	1	0
P16.			_____	1	0
P17.			_____	1	0
P18.			_____	1	0
P19.			_____	1	0
P20.			_____	1	0
P21.			_____	1	0
P22.			_____	1	0
P23.			_____	1	0
P24.			_____	1	0
			No. of Errors	_____	
<b>SET 4</b>		<b>CIRCLE ONE</b>			
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P37.			_____	1	0
P38.			_____	1	0
P39.			_____	1	0
P40.			_____	1	0
P41.			_____	1	0
P42.			_____	1	0
P43.			_____	1	0
P44.			_____	1	0
P45.			_____	1	0
P46.			_____	1	0
P47.			_____	1	0
P48.			_____	1	0
			No. of Errors	_____	

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<b>SET 5</b>			<b>CIRCLE ONE</b>		
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P49.			_____	1	0
P50.			_____	1	0
P51.			_____	1	0
P52.			_____	1	0
P53.			_____	1	0
P54.			_____	1	0
P55.			_____	1	0
P56.			_____	1	0
P57.			_____	1	0
P58.			_____	1	0
P59.			_____	1	0
P60.			_____	1	0
			No. of Errors	_____	
<b>SET 7</b>			<b>CIRCLE ONE</b>		
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P73.			_____	1	0
P74.			_____	1	0
P75.			_____	1	0
P76.			_____	1	0
P77.			_____	1	0
P78.			_____	1	0
P79.			_____	1	0
P80.			_____	1	0
P81.			_____	1	0
P82.			_____	1	0
P83.			_____	1	0
P84.			_____	1	0
			No. of Errors	_____	

<b>SET 6</b>			<b>CIRCLE ONE</b>		
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P61.			_____	1	0
P62.			_____	1	0
P63.			_____	1	0
P64.			_____	1	0
P65.			_____	1	0
P66.			_____	1	0
P67.			_____	1	0
P68.			_____	1	0
P69.			_____	1	0
P70.			_____	1	0
P71.			_____	1	0
P72.			_____	1	0
			No. of Errors	_____	
<b>SET 8</b>			<b>CIRCLE ONE</b>		
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>
P85.			_____	1	0
P86.			_____	1	0
P87.			_____	1	0
P88.			_____	1	0
P89.			_____	1	0
P90.			_____	1	0
P91.			_____	1	0
P92.			_____	1	0
P93.			_____	1	0
P94.			_____	1	0
P95.			_____	1	0
P96.			_____	1	0
			No. of Errors	_____	

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SET 9		CIRCLE ONE			
Item	Word	Key	Response	Correct	Error
P97.			_____	1	0
P98.			_____	1	0
P99.			_____	1	0
P100.			_____	1	0
P101.			_____	1	0
P102.			_____	1	0
P103.			_____	1	0
P104.			_____	1	0
P105.			_____	1	0
P106.			_____	1	0
P107.			_____	1	0
P108.			_____	1	0
			No. of Errors	_____	

SET 10		CIRCLE ONE			
Item	Word	Key	Response	Correct	Error
P109.			_____	1	0
P110.			_____	1	0
P111.			_____	1	0
P112.			_____	1	0
P113.			_____	1	0
P114.			_____	1	0
P115.			_____	1	0
P116.			_____	1	0
P117.			_____	1	0
P118.			_____	1	0
P119.			_____	1	0
P120.			_____	1	0
			No. of Errors	_____	

SET 11		CIRCLE ONE			
Item	Word	Key	Response	Correct	Error
P121.			_____	1	0
P122.			_____	1	0
P123.			_____	1	0
P124.			_____	1	0
P125.			_____	1	0
P126.			_____	1	0
P127.			_____	1	0
P128.			_____	1	0
P129.			_____	1	0
P130.			_____	1	0
P131.			_____	1	0
P132.			_____	1	0
			No. of Errors	_____	

SET 12		CIRCLE ONE			
Item	Word	Key	Response	Correct	Error
P133.			_____	1	0
P134.			_____	1	0
P135.			_____	1	0
P136.			_____	1	0
P137.			_____	1	0
P138.			_____	1	0
P139.			_____	1	0
P140.			_____	1	0
P141.			_____	1	0
P142.			_____	1	0
P143.			_____	1	0
P144.			_____	1	0
			No. of Errors	_____	

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<b>SET 13</b>						<b>CIRCLE ONE</b>					
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>						
P145.			_____	1	0						
P146.			_____	1	0						
P147.			_____	1	0						
P148.			_____	1	0						
P149.			_____	1	0						
P150.			_____	1	0						
P151.			_____	1	0						
P152.			_____	1	0						
P153.			_____	1	0						
P154.			_____	1	0						
P155.			_____	1	0						
P156.			_____	1	0						
			No. of Errors		_____						
<b>SET 15</b>						<b>CIRCLE ONE</b>					
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>						
P169.			_____	1	0						
P170.			_____	1	0						
P171.			_____	1	0						
P172.			_____	1	0						
P173.			_____	1	0						
P174.			_____	1	0						
P175.			_____	1	0						
P176.			_____	1	0						
P177.			_____	1	0						
P178.			_____	1	0						
P179.			_____	1	0						
P180.			_____	1	0						
			No. of Errors		_____						

<b>SET 14</b>						<b>CIRCLE ONE</b>					
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>						
P157.			_____	1	0						
P158.			_____	1	0						
P159.			_____	1	0						
P160.			_____	1	0						
P161.			_____	1	0						
P162.			_____	1	0						
P163.			_____	1	0						
P164.			_____	1	0						
P165.			_____	1	0						
P166.			_____	1	0						
P167.			_____	1	0						
P168.			_____	1	0						
			No. of Errors		_____						
<b>SET 16</b>						<b>CIRCLE ONE</b>					
<i>Item</i>	<i>Word</i>	<i>Key</i>	<i>Response</i>	<i>Correct</i>	<i>Error</i>						
P181.			_____	1	0						
P182.			_____	1	0						
P183.			_____	1	0						
P184.			_____	1	0						
P185.			_____	1	0						
P186.			_____	1	0						
P187.			_____	1	0						
P188.			_____	1	0						
P189.			_____	1	0						
P190.			_____	1	0						
P191.			_____	1	0						
P192.			_____	1	0						
			No. of Errors		_____						

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## SECTION B: WALK THE LINE

STAND UP AND SAY TO CHILD: **That was hard work. Let's have a big stretch. STRETCH HIGH.**

OB3 – TAS-45△

MATERIALS: 6 FOOT 'BALANCE BEAM', STOPWATCH

**INTRODUCTION:** **Thanks for playing that game with me. Now, I have another game for us to play.** GO TO THE 'BALANCE BEAM' WITH THE CHILD. DEMONSTRATE WALKING ON THE LINE AT A REGULAR PACE AND SAY: **You will walk on the line like this.**

**Can you stand on the sticker right here? I'd like you to walk on the blue line, but don't start until I say 'go'.**

INTERVIEWER: ONCE THE CHILD IS IN POSITION, SAY:  
SAY:

**Ready?  
Go.**

START THE WATCH AS SOON AS THE CHILD BEGINS TO MOVE

WHEN THE CHILD STEPS OFF THE FAR END OF THE TAPE WITH BOTH FEET,  
SAY:

**Okay.**

STOP THE WATCH AS YOU SAY "OKAY".

(NOTE: IF CHILD STARTS WALKING BEFORE YOU ARE READY, SAY: **Hold on. Wait until I say go.**)

NOTE: IF CHILD RUNS, SKIPS, OR HOPS ON THE LINE, DO NOT CORRECT THE CHILD.

TRIAL1. RECORD CHILD'S TIME HERE: |\_\_| MINUTES |\_\_|\_\_|. |\_\_|\_\_| SECONDS

TRIAL1a. Was child able to stay on the line....

- 1  ALMOST ALL OF THE TIME
- 2  MOST OF THE TIME
- 3  A LITTLE OF THE TIME
- 4  HARDLY AT ALL
- 5  UNABLE
- r  REFUSED

TRIAL2. **Okay, let's try that again. Let's see how slow you can walk on the blue line.**

INTERVIEWER: ONCE THE CHILD IS IN POSITION, SAY:  
SAY:

**Ready?  
Go.**

START THE WATCH AS SOON AS THE CHILD BEGINS TO MOVE

WHEN THE CHILD STEPS OFF THE FAR END OF THE TAPE WITH BOTH FEET,  
SAY: **Okay.**

STOP THE WATCH AS YOU SAY "OKAY".

(NOTE: IF CHILD STARTS WALKING BEFORE YOU ARE READY, SAY: **Hold on. Wait until I say go.**)

NOTE: IF CHILD RUNS, SKIPS, OR HOPS ON THE LINE, DO NOT CORRECT THE CHILD.

TRIAL2. RECORD CHILD'S TIME HERE: |\_\_| MINUTES |\_\_|\_\_|. |\_\_|\_\_| SECONDS

TRIAL2a. Was child able to stay on the line....

- 1  ALMOST ALL OF THE TIME
- 2  MOST OF THE TIME
- 3  A LITTLE OF THE TIME
- 4  HARDLY AT ALL
- 5  UNABLE
- r  REFUSED

TRIAL3. **Okay, I want you to do it one more time, as sloooow as you can.**

INTERVIEWER: ONCE THE CHILD IS IN POSITION, SAY:  
SAY:

**Ready?  
Go.**

START THE WATCH AS SOON AS THE CHILD BEGINS TO MOVE

WHEN THE CHILD STEPS OFF THE FAR END OF THE TAPE WITH BOTH FEET,  
SAY: **Okay.**

STOP THE WATCH AS YOU SAY "OKAY".

NOTE: IF CHILD STARTS WALKING BEFORE YOU ARE READY, SAY: **Hold on. Wait until I say go.**

NOTE: IF CHILD RUNS, SKIPS, OR HOPS ON THE LINE, DO NOT CORRECT THE CHILD.

TRIAL3. RECORD CHILD'S TIME HERE: |\_\_| MINUTES |\_\_|\_\_|.|\_\_|\_\_| SECONDS

TRIAL3a. Was child able to stay on the line....

- 1  ALMOST ALL OF THE TIME
- 2  MOST OF THE TIME
- 3  A LITTLE OF THE TIME
- 4  HARDLY AT ALL
- 5  UNABLE
- r  REFUSED

Note if anything unusual occurred during 'Walk The Line':

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**SAY: All right! Great job! Give me a high five!**

OB4 – TAS-45△

HIGH FIVE: CHILD GIVES YOU A HIGH FIVE BY PHYSICALLY TOUCHING YOUR HAND.

- NOTICE IF THE CHILD DRAWS NEAR TO YOU OR KEEPS DISTANCE OR A BARRIER BETWEEN YOU

**SAY: You're working so hard. START CLAPPING. Can you clap with me?**

IF CHILD DOESN'T CLAP SAY: **Can you clap like this?**

OB5 – TAS-45△

OB6 – TAS-45△

INTERACTION WITH YOU: DURING THESE TWO ASSESSMENTS

NOTICE:

- DOES CHILD LOOK TO PARENT FOR HELP OR REASSURANCE?
- DOES CHILD SHOW OFF?

## SECTION C: MOTHER-CHILD TWO-BAGS

I. GENERAL INTRODUCTION. READ SLOWLY--AS WORDED.

INTERVIEWER: SAY TO MOTHER

**Next, I am going to record you and [CHILD] playing with some materials. Just so you know, all the materials have been cleaned before this visit.**

**Altogether, the activities where you play together will take about 15 minutes. After you finish the activities, I will ask you to leave [CHILD] alone in the room for a minute, but if s/he begins to cry I will ask you to come right back.**

**Once we start, I'd like to complete each activity without interruptions. If you or (CHILD) need to use the bathroom, now would be a good time. Also, if the phone rings or someone comes to the door, I would appreciate if someone else took care of it, or, if you wouldn't mind, I could answer it. Is that OK?**

INTERVIEWER: IF OTHER FAMILY MEMBERS ARE PRESENT, ADD:

**Could you please let the other people in the (house/apartment) know that you'll need some time now without interruptions? If you wouldn't mind, if any family members forget and come into this area while we are recording, I will ask them to leave so that you are not interrupted.**

OB7 – TAS-45△

NOTICE:

- WHEN YOU INVITE MOTHER BACK INTO THE INTERACTION WITH HER CHILD, NOTICE HOW THEY REUNITE
- DOES CHILD COMPETE FOR ATTENTION?
- HOW PARENT AND CHILD POSITION THEMSELVES IN RELATION TO EACH OTHER
- MOODS
- HOW CHILD RESPONDS IF THE MOTHER GIVES ATTENTION OR AFFECTION TO OTHERS

INTERVIEWER: IF THERE ARE OTHER CHILDREN, BE SURE TO WORK OUT A STRATEGY WITH THE PARENT FOR OCCUPYING THEM AND KEEPING THEM OUT OF [CHILD]'s VIEW. THIS MAY REQUIRE THAT YOU WATCH THE CHILDREN.

## II. SET-UP PREPARATION

### MATERIALS:

CAMERA

DVD

TRIPOD

MOTHER SIGNBOARD

PINK BAG #1: BOOK

PINK BAG #2: PRETEND PLAY TOYS

(NOTE: TOYS FOR MOTHER-CHILD ACTIVITY ARE IN PINK BAGS, TOYS FOR FATHER-CHILD ACTIVITY ARE IN BLUE BAGS)

PUZZLE

MAT

STOPWATCH

INTERVIEWER: SELECT LOCATION FOR RECORDING-- SELECT A GOOD FLOOR PLAY SPACE. THIS SHOULD BE OUT OF THE HOUSEHOLD TRAFFIC AS MUCH AS POSSIBLE.

SET-UP THE CAMERA AND TRIPOD. ADJUST THE LIGHTING-- AVOID BACK LIGHTING

PLACE MAT ON THE FLOOR.

MAKE SURE TRIPOD IS AT CORRECT LEVEL. MAKE SURE YOU POSITION THE CAMERA SO YOU CAN FRAME THE PARENT, CHILD, AND THE ACTIVITY.

## III. START THE CAMERA

## IV. RECORD SIGNBOARD

**First, I need to record your ID number on the DVD.**

INTERVIEWER: RECORD THE MOTHER SIGNBOARD READ THE SIGNBOARD AND RECORD IT FOR 15 SECONDS, THEN CONTINUE.

CONTINUE RECORDING.

V: TWO BAGS TASK GENERAL INSTRUCTIONS:

ASK THE MOTHER AND CHILD TO SIT DOWN ON THE MAT.

**SAY: This first activity will take about 10 minutes. We would like you and [CHILD] to spend this time with the activities in these two bags. During this activity, you may play with [CHILD] if you like.**

**After you play, I am going to give you both a puzzle to work on together.**

INTERVIEWER: PLACE THE TWO PINK BAGS IN FRONT OF THE CHILD AND MOTHER WITH BAG #1 TO MOTHER'S LEFT AND BAG #2 TO MOTHER S RIGHT.

**SAY: I am video-recording so please face the camera and try to stay on the mat. Please start with Bag #1 first and move on to Bag #2 whenever you want. There are no rules about this. You can divide the time as you like, and I will let you know when the play time is over. Do you have any questions?**

POSSIBLE QUESTIONS AND ANSWERS

Q: How long should I spend on each toy?

A: **You can divide the time as you like.**

Q: Should I open bag #1 first?

A: **We would like you to start with the bag with #1 on it first.**

Q: Can I play with [CHILD] during this time?

A: **That's completely up to you.**

Q: Can [CHILD] and I play with all the toys in the bags?

A: **Yes, if you like.**

Q: Should we try to play with both bags?

A: **That's up to you.**

START THE STOPWATCH.

SAY TO THE PARENT: **You can begin now.**

THROUGHOUT THE ACTIVITY: CHECK FRAMING

OB8 – TAS-45△

MOTHER-CHILD INTERACTION: DURING THE TWO BAG TASK...

NOTICE:

- HOW PARENT AND CHILD POSITION THEMSELVES IN RELATIONSHIP TO ONE ANOTHER
- MOODS
- HOW PARENT AND CHILD REACT TO OTHER'S PRESENCE

INTERVIEWER RECORD THE FOLLOWING INFORMATION:

MTB1. Are other family members present in the room during the Mother-Child Two-Bags?

YES.....1

(If yes, who? \_\_\_\_\_)

NO.....0

MTB2. What languages do the mother and child use during the Two-Bag?

MARK ALL THAT APPLY

ENGLISH.....1

SPANISH.....2

OTHER.....3

IF OTHER, PLEASE SPECIFY \_\_\_\_\_

CHECK THE STOPWATCH. AT THE END OF 10 MINUTES, SAY: **That's the end of these activities.**

## SECTION D: PUZZLE TEACHING TASK

ENTER THE PLAY AREA WITH YOUR PUZZLE. PLACE THE TWO BAGS TOYS OFF TO THE SIDE. PLACE THE PUZZLE DOWN ON THE MAT AND SAY:

**Now I have a puzzle for [CHILD] to do. The puzzle is tricky and s/he may ask for your help. I am interested in seeing how he/she works on something that is difficult, and how he/she asks for help. And as I said before, at the end of the activity, I will ask you to leave the room for a minute.**

START THE STOP WATCH

THROUGHOUT THE ACTIVITY: CHECK FRAMING

OB9 – TAS-45△

PUZZLE TEACHING TASK & CLEAN UP: DURING THE PUZZLE TEACHING TASK AND CLEAN UP, THE CHILD...

THE ACTIVITY IS OVER WHEN THE **PUZZLE IS COMPLETE OR 3 MINUTES HAVE ELAPSED**.

STOP THE CAMERA

SAY TO THE CHILD: **That is the end of this activity, could you clean up the toys with your mom while I start putting my equipment away?**

IF YOU ARE NOT DOING A FATHER TWO BAGS, START PACKING UP SUPPLIES. IF YOU ARE DOING A FATHER TWO BAGS, CHANGE THE DVD TO THE FATHER DVD.

## SECTION E: CHILD-ALONE PARADIGM

WHEN THE MOTHER AND CHILD HAVE PUT THE TOYS BACK IN BAGS AND THE PUZZLE IS BACK IN THE EGG, SAY TO THE MOTHER AND ANYONE ELSE IN THE ROOM:

**Would you mind going into the other room for a minute? I am interested in seeing how children are in the company of someone new, and how they respond when the parent returns. Please let [CHILD] know that you will be back in a minute, and I'll come get you in a moment.**

AS MOTHER LEAVES SAY TO CHILD:

**Your mom will be right back.**

START STOPWATCH

OB10 – TAS-45△

CHILD ALONE:

NOTICE:

- DOES CHILD FOCUS ON INANIMATE OBJECTS OR PEOPLE
- CHILD'S MOOD
- HOW CHILD RESPONDS TO YOU DURING THIS SEPARATION
- WATCH THE REUNION CLOSELY

INTERVIEWER: CONTINUE PACKING YOUR BAG WITH THE PINK BAGS AND PUZZLE. AFTER 1 MINUTE CALL TO MOM TO COME BACK AND STOP STOPWATCH. IF CHILD IS UPSET OR DISTRESSED BY MOTHER'S ABSENCE, CALL MOTHER BACK SOONER. IF CHILD CHASES OR FOLLOWS MOM, DO NOT STOP CHILD.

WHEN MOTHER COMES BACK, WITHOUT MAKING EYE CONTACT WITH THE MOTHER AND WITHOUT GETTING IN THE PATH OF THE REUNION, SAY: **If you could play with [CHILD] for just a minute, I just need to organize some things.**

FINISH PACKING BAG AND USE CHECKLIST TO VERIFY YOU HAVE EVERYTHING. IF YOU ARE DOING A FATHER OBSERVATION NEXT, START SETTING THAT UP.

**SECTION F: FATHER-CHILD TWO-BAGS - TASK**

CK1: INTERVIEWER CHECK: IS THE FATHER IN THE HOME AND AVAILABLE TO DO THE TWO BAG TASK?

YES..... 1 → CONTINUE SECTION F  
NO ..... 0 → GO TO SECTION G

CLEAN UP THE PINK BAGS, TOYS, AND PUZZLE

I. GENERAL INTRODUCTION. READ SLOWLY--AS WORDED.

INTERVIEWER: SAY TO PARENTS: **Okay, now it is time for [FATHER] and [CHILD] to play on the mat.**

SAY TO FATHER: **I am going to record you and [CHILD] playing with some different materials. Just so you know, all the materials have been cleaned before this visit.**

**Altogether, this activity will take about 10 minutes.**

**As before, once we start, I'd like to complete each activity without interruptions. If you or (CHILD) need to use the bathroom, now would be a good time. Also, if the phone rings or someone comes to the door, I would appreciate if someone else took care of it, or, if you wouldn't mind, I could answer it.**

INTERVIEWER: IF OTHER FAMILY MEMBERS ARE PRESENT, ADD:  
**Could you please let the other people in the (house/apartment) know that you'll need some time now without interruptions? If you wouldn't mind, if any family members forget and come into this area while we are recording, I will ask them to leave so that you are not interrupted.**

INTERVIEWER: IF THERE ARE OTHER CHILDREN, BE SURE TO WORK OUT A STRATEGY WITH THE PARENT FOR OCCUPYING THEM AND KEEPING THEM OUT OF [CHILD]'s VIEW. YOU MAY HAVE TO WATCH THE CHILDREN.



## II. SET-UP PREPARATION

### MATERIALS:

CAMERA

DVD

TRIPOD

FATHER SIGNBOARD

BLUE BAG #1: BOOK

BLUE BAG #2: PRETEND PLAY TOYS

MAT

STOPWATCH

CHECK THE CAMERA AND TRIPOD SET-UP. MAKE SURE TRIPOD IS AT CORRECT LEVEL. MAKE SURE YOU POSITION THE CAMERA SO YOU CAN FRAME THE PARENT, CHILD, AND THE ACTIVITY

ADJUST THE LIGHTING AS NECESSARY

## III. START THE CAMERA

## IV. RECORD FATHER SIGNBOARD

**First, I need to record your ID number on the DVD.**

INTERVIEWER: RECORD THE FATHER SIGNBOARD READ THE SIGNBOARD AND RECORD IT FOR 15 SECONDS, THEN CONTINUE.

CONTINUE RECORDING.

## VI: TWO BAGS TASK GENERAL INSTRUCTIONS:

ASK THE FATHER AND CHILD TO SIT DOWN ON THE MAT.

**SAY: This activity will take about 10 minutes. We would like you and [CHILD] to spend this time with the activities in these two bags. During this activity, you may play with [CHILD] if you like.**

INTERVIEWER: PLACE THE TWO BLUE BAGS IN FRONT OF THE CHILD AND FATHER WITH BAG #1 TO FATHER'S LEFT AND BAG #2 TO FATHER'S RIGHT.

SAY: **I am video-recording so please face the camera and try to stay on the mat. Please start with Bag #1 first and move on to Bag #2 whenever you want. There are no rules about this. You can divide the time as you like, and I will let you know when the play time is over. Do you have any questions?**

#### POSSIBLE QUESTIONS AND ANSWERS

Q: How long should I spend on each toy?

A: **You can divide the time as you like.**

Q: Should I open bag #1 first?

A: **We would like you to start with the bag with #1 on it first.**

Q: Can I play with [CHILD] during this time?

A: **That's completely up to you.**

Q: Can [CHILD] and I play with all the toys in the bags?

A: **Yes, if you like.**

Q: Should we try to play with both bags?

A: **That's up to you.**

START THE STOPWATCH.

INTERVIEWER: SAY TO THE PARENT: **You can begin now.**

THROUGHOUT THE ACTIVITY: CHECK FRAMING AND DO NOT REACT TO THE PARENT-CHILD INTERACTION.

INTERVIEWER RECORD THE FOLLOWING INFORMATION:

FTB1. Are other family members present in the room during the Father-Child Two-Bags?

YES..... 1  
(If yes, who? \_\_\_\_\_)  
NO ..... 0

FTB2. What languages do the father and child use during the Two-Bag?

MARK ALL THAT APPLY

ENGLISH ..... 1  
SPANISH ..... 2  
OTHER ..... 3  
If other, please Specify \_\_\_\_\_

CHECK THE STOPWATCH. AT THE END OF 10 MINUTES, SAY: **That's the end of this activity.**

PUT AWAY TOYS AND EQUIPMENT: PUT AWAY ALL MATERIAL AND RECORDING EQUIPMENT. USE YOUR CHECKLIST TO VERIFY YOU HAVE EVERYTHING.

## SECTION G: THANK YOU AND CHILD GIFT

NOTE THAT IF THE CHILD DID THE TWO-BAGS WITH BOTH MOTHER AND FATHER THEN THE CHILD GETS TWO GIFTS. IF THE CHILD DID THE TWO-BAGS WITH ONLY MOM THEN THE CHILD GETS ONE GIFT.

INTERVIEWER: SAY TO PARENT: **Thank you so much! [CHILD] can have this/these [ITEMS] as a gift. PUT GIFT DOWN IN FRONT OF CHILD (DO NOT HAND TO CHILD) Those were all of the activities that I needed to do with [CHILD]. I just have a few questions to ask [MOTHER].**

OB11 – TAS-45△

**SECTION H: MOTHER QUESTIONS**

INTERVIEWER: SIT NEAR MOTHER (ON A LEVEL ACCESSIBLE TO THE CHILD) AND SAY TO MOTHER: **Thanks again for letting me spend some time with you and your child. I just have a few questions for you before I leave.**

**H1. Can you tell me about a time in the past two weeks when [CHILD] was really happy? DESCRIBE BRIEFLY**

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DON'T KNOW..... d

REFUSED..... r

**H2. Can you tell me about a time in the past two weeks when [CHILD] was really upset?... Did [CHILD] cry?... Does he/she normally cry when he/she is upset?... When he/she cries, how easy is it to console him/her?**

PAUSE FOR AN ANSWER BETWEEN EACH QUESTION AND DESCRIBE RESPONSE BRIEFLY

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DON'T KNOW..... d

REFUSED..... r

OB12 – TAS-45△  
CHILD CRYING: USE THE ANSWERS FROM H2 TO HELP YOU FRAME YOUR IMPRESSIONS FOR TAS-45 ITEMS RELATED TO CRYING.

I just have a couple of questions about activities for [CHILD]

H5. In the past month, how often did you read stories to [CHILD]? Was it . . .

- 5  more than once a day,
- 4  about once a day,
- 3  a few times a week,
- 2  a few times a month,
- 1  rarely, or
- 0  not at all in the past month?
- d  DON'T KNOW
- r  REFUSED

H6. About how many books do you have in the house? Is it . . .

- 0  None,
- 1  1-9,
- 2  10-20, or
- 3  More than 20?
- d  DON'T KNOW
- r  REFUSED

H7. How many children's books does your child have of (his/her) own? Is it . . .

- 0  None,
- 1  1-2,
- 2  3-9, or
- 3  More than 10?
- d  DON'T KNOW
- r  REFUSED

**H8. Does [CHILD] have the use of a CD player, record player, tape recorder, or iPod here at home and at least 5 children's albums?**

- YES
- NO
- DON'T KNOW
- REFUSED

**H9. Parents with young children sometimes help their children learn different skills. Please tell me which of these things you (or another adult or older child) are helping or have helped [CHILD] to learn here at home. Have you or anyone else in the household helped [CHILD] learn . . .**

MARK ONLY ONE FOR EACH ROW

	YES	NO	DON'T KNOW	REFUSED
a. <b>numbers?</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. <b>the alphabet?</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. <b>colors?</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. <b>shapes and sizes?</b> .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OBS13 – TAS-45 $\Delta$

MOTHER Qs: OBSERVE HOW THE CHILD REACTS WHEN YOU TALK WITH THE MOTHER.

NOTICE THE FOLLOWING:

- HOW CHILD BEHAVES WHILE S/HE IS THE TOPIC OF CONVERSATION
- HOW THE CHILD RESPONDS TO YOU
- DISTANCE OR PROXIMITY TO MOTHER
- HOW MOTHER AND CHILD COMMUNICATE
- WHAT THE CHILD DOES DURING THE TIME THE MOTHER'S ATTENTION IS DIVIDED

INTERVIEWER: SAY TO PARENT(S): **We are very grateful for your time and cooperation in this study. Do you have any questions about anything we've done or talked about?**

**Here is a check for \$25.00 to thank you for your time. I will need you to sign that you received this check.**

INTERVIEWER: DELIVER CHECK AND HAVE (EACH) PARENT SIGN FOR CHECK.

WHEN LEAVING SAY: **Goodbye and thanks again!**

OBS14 - TAS-45 $\Delta$

- PAY ATTENTION TO CHILD'S BEHAVIOR WHEN SAYING GOODBYE TO YOU

**End Time:** |\_|\_|:|\_|\_| AM ..... 1  
PM ..... 2



## SECTION I: INTERVIEWER RATINGS

INTERVIEWER: FILL IN THE FOLLOWING CHILD DEMOGRAPHICS AND INTERVIEW RATINGS IMMEDIATELY AFTER YOU HAVE LEFT THE HOME.

ON COMPLETION OF THE ENTIRE SESSION, THINK ABOUT THE CHILD'S BEHAVIOR AND ATTITUDE OVERALL DURING THE PPVT AND 'WALK THE LINE' PORTIONS OF THE ASSESSMENT. MARK A SCORE FOR EACH OF THE FOLLOWING ITEMS.

(DO NOT READ THESE ALOUD!)

11. Task persistence

**MARK ONLY ONE RESPONSE**

- 1  refuses
- 2  attempts task after much encouragement
- 3  attempts task briefly/loses interest easily
- 4  persists with task

12. Attention span

**MARK ONLY ONE RESPONSE**

- 1  easily distracted
- 2  some distraction with noise or movement of others
- 3  attends with assessor direction
- 4  focuses attention voluntarily

13. Body movement

**MARK ONLY ONE RESPONSE**

- 1  body constantly in motion
- 2  much movement
- 3  some squirming
- 4  sits quietly

14. Attention to directions

**MARK ONLY ONE RESPONSE**

- 1  does not appear to listen to directions
- 2  attends only to brief directions
- 3  listens to a majority, but not all, of the direction
- 4  listens carefully to entire direction

15. Verbalization

**MARK ONLY ONE RESPONSE**

- 1  many inappropriate, unrelated comments, or extreme reluctance to speak
- 2  reluctant to speak, verbalizes only with encouragement or not at all, or some unrelated comments
- 3  few extraneous comments or somewhat reluctant to speak
- 4  verbalizes appropriately

16. Mood

**MARK ONLY ONE RESPONSE**

- 1  sad/melancholy
- 2  generally negative
- 3  happy, but has occasional negative attitude towards tasks
- 4  generally happy throughout

17. Anxiety

**MARK ONLY ONE RESPONSE**

- 1  very anxious, worried or apprehensive
- 2  somewhat anxious, worried or apprehensive
- 3  initial anxiety, overall calm and at ease
- 4  not anxious, calm and at ease throughout

18. Confidence

**MARK ONLY ONE RESPONSE**

- 1  very uncertain; needs much encouragement
- 2  reluctant to give unknown answers
- 3  confident with things known; attempts unknown or new things with encouragement
- 4  very sure of self

19. Ease of relationship (rapport)

**MARK ONLY ONE RESPONSE**

- 1  very reluctant and/or fearful
- 2  shy
- 3  friendly but reserved
- 4  friendly and outgoing

110. Special Concerns

	MARK ONLY ONE			
	Not At All	Somewhat	Often	Unknown
a. Child responded nonverbally .....	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b. Child had difficulty hearing the examiner .....	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c. Child had difficulty seeing the testing materials .....	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Child's speech was difficult to understand .....	0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

111. Language(s) of assessment:

**MARK ALL THAT APPLY**

- 1  English
- 2  Spanish
- 3  Other (SPECIFY) \_\_\_\_\_

112. Was the language of assessment the child's primary language?

- 1  Yes
- 0  No
- d  Don't know

113. Notes/Comments

FOR EXAMPLE: IF YOU RE-ARRANGE THE ORDER OF ADMINISTRATION OR IF THE CHILD STRUGGLES THROUGHOUT, PLEASE PROVIDE COMMENTS ON SITUATION.

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## SECTION J: OBSERVATIONAL HOME ITEMS (INTERVIEWER RATING)

INTERVIEWER: COMPLETE THIS SECTION AS SOON AS POSSIBLE BY YOURSELF AND AFTER YOU LEAVE THE HOME. BASE YOUR RESPONSES ON ALL THAT YOU SAW THROUGHOUT YOUR VISIT.

- J1. MOTHER CONVERSES WITH CHILD AT LEAST TWICE DURING VISIT (SCOLDING AND DEGRADING COMMENTS ARE NOT COUNTED). This item involves maternal conversation, not just vocalization which can be any sounds or words exchanged with the child. The mother must make an effort to converse with the child and ask questions, to talk about things, or to engage in verbal interchange other than scolding or degrading comments.
- 1 Converses
- 0 Did not converse
- J2. MOTHER ANSWERS CHILD'S QUESTIONS OR REQUESTS VERBALLY. In order to receive credit for this item the mother must make an effort to answer the question for the child. If the mother is unable to answer it at the moment, she may tell the child she doesn't know but that they will look up the answer later. Responses such as "Mother's busy, go away" or "Don't bother me now" do not receive credit.
- 1 Answers
- 0 Did not answer
- J3. MOTHER USUALLY RESPONDS VERBALLY TO CHILD'S TALKING. The key here is that the mother recognizes and acknowledges the child's vocalizations and does not ignore them. For a score of "1" the response may be a word or series of words or sounds such as, "Uh huh," "Um" or "Sure." If the child does not vocalize in any way during the interview, thereby giving no opportunity for response, the score would be "0."
- 1 Responds verbally
- 0 Does not respond verbally
- J4. MOTHER USES COMPLEX SENTENCE STRUCTURE AND SOME LONG WORDS IN CONVERSING. If the mother makes an attempt at carrying on a regular conversation instead of just finding a way to answer all of the questions with "Yes" or "No" or "I don't know" and not giving any explanation, this should be scored "1."
- 1 Complex
- 0 Not complex

- J5. CHILD-FRIENDLY HOME: HOW CHILD-FRIENDLY IS THE HOME ENVIRONMENT? CAPTURE THE DEGREE OF STIMULATION AVAILABLE TO CHILD BASED ON THE PRESENCE OF MATERIALS FOR PLAY AND LEISURE AND THE ACCESSIBILITY OF THESE MATERIALS TO A YOUNG CHILD.
- <sub>1</sub> Absence of toys, games and books appropriate for use by a preschooler
  - <sub>2</sub> Presence of some toys, games and books for preschool age child; toys may be broken or inappropriately dirty; toys and games are generally not within easy reach of the preschool age child
  - <sub>3</sub> Many toys, games and books for preschool age child are in view and could be easily accessed by a child
- J6. WHEN SPEAKING OF OR TO CHILD, MOTHER'S VOICE CONVEYS POSITIVE FEELING. Is the mother pleased with her child? Does she enjoy (him/her) and talk about (him/her) in a pleasant, joyful manner rather than talk in a flat tone which communicates, She's here, so I'll put up with her?
- <sub>1</sub> Positive
  - <sub>2</sub> Not positive
- J7. MOTHER SPONTANEOUSLY PRAISES CHILD'S QUALITIES OR BEHAVIOR TWICE DURING VISIT. The key word here is 'spontaneous'. Frequently a mother will tell you how well her child throws a ball or runs and will brag - how well he/she dresses himself/herself or can get his/her own drink. Each of these would be considered praise.
- <sub>1</sub> Spontaneous praise
  - <sub>0</sub> No spontaneous praise
- J8. MOTHER CARESSES, KISSES OR CUDDLES CHILD AT LEAST ONCE DURING VISIT. This need not be a wild burst of showy affection. Simple signs of concern such as a mother gently tucking the child's shirt in, holding him/her on her lap, holding a hand, or a gentle pat on the shoulder would all receive a "1."
- <sub>1</sub> Affectionate
  - <sub>0</sub> Not affectionate

J9. HOME DECOR: ATTEMPTS TO CREATE A 'HOMEY' ENVIRONMENT. RATERS SHOULD BE CAREFUL TO AVOID MAKING JUDGMENTS ABOUT THE ATTRACTIVENESS OR STYLE OF DECOR (E.G., DO NOT INCLUDE PERSONAL BIASES ABOUT 'TASTEFUL' OR 'TACKY' DECOR).

- 1  Home is devoid of decoration (e.g., dark rooms, drapes drawn or no window treatments, no pictures, knick-knacks or plants; no or insufficient furniture in significant living areas such as living room or dining room)
- 2  Minimal decoration (e.g., bare walls, but one or two table knick-knacks or pictures, bare minimum furniture present such as one couch or one table in the living room)
- 3  Reasonable amount of furniture and room decorations such as knick-knacks, pictures, wall hangings; curtains or window treatments allow light to enter rooms

J10. OVERALL PHYSICAL ORGANIZATION OF THE HOUSE

- 1  Home is cluttered making it difficult to walk around objects, unable to find a clear space to do assessment activities
- 2  Home is moderately cluttered with clothes and other items out and not put away, (e.g., vacuum cleaner out, children's schoolwork scattered in living room area, several pairs of shoes and boots scattered throughout home, objects and clothes line staircases)
- 3  Home is neat and generally organized

J11. CLEANLINESS

- 1  Home is strewn with trash; kitchen area has dirty dishes from several meals; floors are markedly dirty
- 2  Home is generally clean though floors may need to be vacuumed or washed, noticeable dust on furniture
- 3  Home is clean and appears to have been cleaned recently or on a regular basis

**Section K: TAS-45\* (INTERVIEWER RATING)**

**INTERVIEWER: COMPLETE THIS SECTION AS SOON AS POSSIBLE BY YOURSELF AND AFTER YOU LEAVE THE HOME. BASE YOUR RESPONSES ON ALL THAT YOU SAW THROUGHOUT YOUR VISIT. REMEMBER THAT YOU ARE RATING THE PARENT-CHILD RELATIONSHIP AND NOT RATING HOW THE CHILD INTERACTED WITH YOU. INSTEAD YOU SHOULD CONSIDER ‘HOW DOES THIS PARENT-CHILD RELATIONSHIP RESPOND WHEN A NEW PERSON ENTERS THIS ENVIRONMENT?’**

**INDICATE WHICH OF THE 3 STATEMENTS IN EACH SET IS “MOST TRUE” AND “LEAST TRUE” OF THE BEHAVIOR OF THE CHILD OBSERVED. FOR EACH SET, SELECT ONE BEHAVIOR THAT IS “MOST TRUE” OF THE CHILD BY WRITING THE NUMBER IN THE CORRESPONDING BOX AND SELECT ONE BEHAVIOR THAT IS “LEAST TRUE” OF THE CHILD BY WRITING THE NUMBER IN THE CORRESPONDING BOX.**

\* The Toddler Attachment Sort (TAS) -45 items used in this questionnaire are copyrighted. For the complete text of these items, please contact **NCAST Programs** <http://www.ncast.org/index.cfm?category=33>

		MOST TRUE	LEAST TRUE
K1.*	△		
K2.	△		
K3.	△		
K4.	△		
K5.	△		
K6.	△		
K7.	△		
K8.	△		
K9.	△		
K10.	△		
K11.	△		
K12.	△		
K13.	△		
K14.	△		
K15.	△		
K16.	△		
K17.	△		
K18.	△		
K19.	△		
K20.	△		
K21.	△		
K22.	△		
K23.	△		
K24.	△		
K25.	△		
K26.	△		
K27.	△		
K28.	△		
K29.	△		
K30.	△		



## SECTION L. NEIGHBORHOOD ENVIRONMENT (INTERVIEWER RATING)

INTERVIEWER: COMPLETE THIS SECTION AS SOON AS POSSIBLE BY YOURSELF AND AFTER YOU LEAVE THE HOME.

(DO NOT READ THESE ALOUD!)

L1. Was your visit to the home a planned appointment or was this a drop-by?

**MARK ONLY ONE RESPONSE**

- <sub>1</sub> Planned appointment
- <sub>2</sub> Dropped-by

External Environment

L2. How would you rate the general condition of most of the housing units or other buildings in the face-block?

**MARK ONLY ONE RESPONSE**

- <sub>1</sub> Well kept, good repair
- <sub>2</sub> Fair condition
- <sub>3</sub> Poor condition
- <sub>4</sub> Badly deteriorated

L3. How would you rate the condition of the street in the face-block?

**MARK ONLY ONE RESPONSE**

- <sub>1</sub> Very good—recent resurfacing, smooth
- <sub>2</sub> Moderate—evidence kept in good repair
- <sub>3</sub> Fair—minor repairs needed, but not rough surface
- <sub>4</sub> Poor—potholes and other evidence of neglect

L4. Is there garbage, litter, or broken glass (not including beer/liquor bottles) in the street or on the sidewalk (including around the dwelling unit and neighboring houses)?

**MARK ONLY ONE RESPONSE**

- <sub>1</sub> None, or almost none
- <sub>2</sub> Yes, but not a lot
- <sub>3</sub> Yes, quite a bit
- <sub>4</sub> Yes, just about everywhere

L5. Are there drug-related paraphernalia, condoms, beer or liquor containers or packaging, cigarette butts or discarded cigarette packages in the street or on the sidewalk?

**MARK ONLY ONE RESPONSE**

- 1  None, or almost none
- 2  Yes, but not a lot
- 3  Yes, quite a bit
- 4  Yes, just about everywhere

L6. How would you rate the volume of traffic on the face-block?

**MARK ONLY ONE RESPONSE**

- 1  No traffic permitted
- 2  Very light
- 3  Light
- 4  Moderate
- 5  Heavy
- 6  Very heavy

L7. Are there children playing on the sidewalks or in the street of the face-block?

**MARK ONLY ONE RESPONSE**

- 1  No children visible or all in yards
- 2  Yes, one or two children
- 3  Yes, three or more children

L8. Are there any adults or teenagers in the street or on the sidewalk arguing, fighting, drinking, or behaving in any kind of hostile or threatening way?

**MARK ONLY ONE RESPONSE**

- 1  No persons observed in the street or sidewalk
- 2  Persons present but none observed behaving in hostile way
- 3  Yes, one or two behaving in a hostile manner
- 4  Yes, three or more behaving in a hostile manner

L9. How did you feel parking, walking or waiting at the door in the face-block?

**MARK ONLY ONE RESPONSE**

- 1  Very comfortable
- 2  Comfortable: it seems to be a safe friendly place
- 3  Fairly safe and comfortable
- 4  Uncomfortable
- 5  I felt afraid for my personal safety

AFFIX LABEL(S) HERE





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